Operation Manual

040-0267-01 Rev. A

> ➤ **Read this manual before use.**
> ➤ **Keep this manual with the machine at all times.**

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Preface

Safety

Please read this page before preparing your arcade cabinet for game play.

The following safety instructions apply to all game operators and service personnel. Specific warnings and cautions will be included throughout this manual.

Use the following safety guidelines to help protect the system from potential damage and to ensure your personal safety:

- Electronic components in the game cabinet run on 115 VAC. The voltage switch on the back of the computer must be set to 115. If you power up the computer outside of the cabinet, set the switch to match the local AC voltage:
    - 115 volts / 60Hz in most of North and South America and some Far Eastern countries such as Japan, South Korea and Taiwan
    - 230 volts / 50Hz in most of Europe, the Middle East and the Far East

- To help prevent electric shock, plug the system into a properly grounded power source. These cables are equipped with 3-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.

- To help protect your system from sudden increases and decreases in electrical power, use a surge suppressor, line conditioner or Uninterruptible Power Supply (UPS).

- Be sure nothing rests on the system's cables and that the cables are not located where they can be stepped on or tripped over.

- Keep your system far away from radiators and other heat sources.

- Do not block cooling vents.

- Do not place the game in an area where a water jet would be used or use a water jet to clean the game.

Precautions for Game Operation

GLOBAL VR® assumes no liability for injuries incurred while playing our games.

Operators should be aware that certain health and physical conditions may make people susceptible to injury when playing video games, particularly when the game moves or creates a sense of motion.

Warnings

To avoid electrical shock, unplug the cabinet before performing installation or service procedures.

If the power cord is damaged, it must be replaced by the equivalent power cord available from GLOBAL VR or your distributor.

GLOBAL VR assumes no liability for any damages or injuries incurred while setting up or servicing the cabinet. Only qualified service personnel should perform installation or service procedures!

Environmental Conditions

Cabinet is intended for indoor use only. Be sure to keep the cabinet dry and maintain operating temperatures of 59°-86° F (15°-30° C).

FCC Notices (United States)

Electromagnetic Interference (EMI) is any signal or emission radiated in free space or conducted along power or signal leads, that endangers the functioning of radio navigation or other safety service, or that seriously degrades, obstructs, or repeatedly interrupts a licensed radio communications service. Radio communications services include, but are not limited to, AM/FM commercial broadcast, television, cellular services, radar, air-traffic control, pager, and Personal Communication Services (PCS). These licensed services, along with unintentional radiators such as digital devices (including computer systems) contribute to the electromagnetic environment.

Electromagnetic Compatibility (EMC) is the ability of items of electronic equipment to function properly together in the electronic environment. While this computer system has been designed and determined to be compliant with regulatory agency limits for EMI, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference with radio communications services, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.

- Relocate the cabinet relative to the receiver.

- Plug the game into a different outlet so that the computer and the receiver are on different branch circuits.

If necessary, consult a Regulatory EMC representative of GLOBAL VR® or an experienced radio/television technician for additional suggestions. You may find the FCC Interference Handbook, to be helpful. It is available from the U.S. Government Print Office, Washington, DC 20402.

This device has been tested and complies with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instruction manual, it may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

Operation is subject to the following conditions:

- This device may not cause harmful interference.

- This device must accept any interference received, including interference that may cause undesired operation.

Chapter 1 — Introduction

This section describes how to set up and link your Redline Rampage games, and provides general information for optimal game operation.

Linking Cabinets

You can link up to four cabinets for head-to-head competition. Once the cabinets are linked in hardware and software, the Attract Movies will synchronize, and players can choose to play individually or race against other players.

Two cabinets can be linked directly; you do not need a cross-over coupler. If you use a coupler to link two cabinets, it must be Gigabit compliant. To link three or four cabinets, connect the Ethernet cable from each cabinet to a Gigabit-compliant Ethernet hub or switch (not included).

Figure 1. Linking Cabinets

Follow the steps below to link your cabinets:

1. **Before connecting the Ethernet cables** open the Operator Menu **Machine Settings: Settings** menu on each cabinet and set the Link ID number. Cabinets should be numbered in sequence from left to right, and each cabinet must have a unique number: 1, 2, 3, or 4. Exit from the Operator Menu to reset the number in the software.

   Important: All linked cabinets must run the same **Software Comm Version**, displayed in the Operator Menu **Machine Info** screen.

   - **To link two cabinets:** Connect one Ethernet cable to the Ethernet port on the power plate of both cabinets.

   - **To link three or four cabinets:** Connect an Ethernet cable from the Ethernet port on the power plate of each cabinet to an Ethernet hub or switch (not included). The hub or switch must support 10/100/1000 Mbps (Gigabit) connection speed. Connect the Hub or Switch to AC power. **DO NOT use a cross-over coupler with a hub or switch**.

Linking Errors

Each cabinet must have a unique Cabinet Link ID number. If the software detects a duplicate Link ID number, the *Select A Link ID* screen, shown below, will automatically appear and prompt you to change the number. Numbers shown in a gray cabinet image are available. Turn the wheel to select a number and then press the **START** button.

Cabinet Mismatch Errors

Make sure the Game Settings and Coin Settings are the same for all linked cabinets. You will have unhappy customers if a setting such as *Winner Gets Free Game* is enabled on some cabinets and disabled on others. If the settings listed below are mismatched on linked cabinets, a Blue Dot will appear in the Attract Mode, and you will see an explanation of the problem in the **Machine Settings: Errors** screen.

- Software Comm Version
- Free Game Min Players
- Winner gets Free Game
- Disabled Tracks

Cabinet Linking Troubleshooting

The issues below can prevent cabinets from linking properly.

Cause	Possible Solution
Faulty wiring	Verify that a CAT-5 (8-wire) Ethernet cable is connected between the Ethernet port on the AC Power Plate and the computer. While the cabinet is powered on and connected to another cabinet, verify the green LED on the Ethernet card is lit. If you are using an Ethernet hub or switch, verify green LEDs on the hub or switch light for each Ethernet port that is connected.
Cross-over coupler not used or used improperly	To link two cabinets, connect an Ethernet cable to the Ethernet port on the power plate of each cabinet. If you use a cross-over coupler make sure it is Gigabit compliant. **Do not** use a cross-over coupler with a hub or switch.
Cross-over coupler is not Gigabit compliant	All components used to link cabinets must be Gigabit (10/100/1000 Mbps) compliant. Couplers shipped with older cabinets are not Gigabit compliant.
Faulty Ethernet hub or switch	Verify the LEDs on the Ethernet hub or switch are lit for each port used. If possible, verify the hub or switch is working by connecting it to a known working computer network or set of linked cabinets.
Hub or switch is not 10/100/1000 Mbps	A 10/100/1000 Mbps (Gigabit) hub or switch is required to link three or four cabinets.

Cause	Possible Solution
Duplicate Link ID numbers	A cabinet with a duplicate Link ID number will display the *Select A Link ID* menu. You can also check or change the Link ID from the Operator menu **Machine Settings: Settings** screen. Each cabinet in a linked group must have a unique Link ID number.
Mixed Software Comm Versions	Verify that all cabinets are running the same Comm Version, shown in **Machine Settings: Info** screen. If Comm Versions are different, re-install software as needed (see page 28) so that all games are running the same software version.

Setting the Date and Time

The date and time are not seen on any gameplay screens, but are displayed in the Operator menus, including the collections screens.

You can change the date and time in the Computer BIOS (CMOS) Setup Utility. Refer to the separate document titled *Setting the Computer BIOS (CMOS)* for the motherboard in your system computer. This document is included with your game and is also available from the Hardware Reference Page at **http://service.globalvr.com/reference**.

Checking the Game Dongle

The cabinet uses a Game Dongle to activate the game software. If the dongle is missing, the game will not run. When a USB Game Dongle is installed and working properly, a **red** LED will illuminate inside the dongle.

For a Game Dongle to be recognized correctly, it should be connected before the cabinet is powered ON. If the software does not recognize the Game Dongle, the **Dongle Missing or Invalid** screen will appear. Make sure the Dongle is connected properly, and then power cycle the cabinet.

Note: The dongle supplied with the cabinet is specific to the game software version. Future software upgrades may require a new dongle. If the dongle does not match the software, the **Dongle Missing or Invalid** screen will appear.

Important: Some of your cabinet information is stored in the dongle, so if you replace your computer, **remove the dongle and keep it with the cabinet**.

Figure 2.   USB Game Dongle

Maintenance Restart Feature

To keep the software running optimally, the cabinet will restart itself every 24 hours. The automatic restart will not occur if the operator turns the cabinet off every day. The maintenance restart occurs according to the following conditions:

1. If the game has been running continuously for at least 24 hours,
   and the game has been in Attract Mode (not played) for at least 15 minutes,
   then the following screen will be displayed:

2. The screen will count down for 30 seconds.

   If a user presses the **START** button, the screen will not appear again until the next time the Attract Mode has been running for 15 minutes.

   If nobody presses the **START** button, the game will shut down and restart, which will take about 3 minutes.

3. After the cabinet completes the Restart, the next Restart will be scheduled for 24 hours later. If the initial Restart happens to be scheduled during a busy time for your location, the action of players pressing **START** to postpone will move the restart to a time that is not busy.

Hint: To force the restart to happen at a certain time (such as after closing time), power cycle the cabinet at that time. The next restart will be scheduled for 24 hours later.

To see how much time is left before the next maintenance restart, check the **Machine Settings: Info** screen in the Operator Menu (see Chapter 3 for detailed information on using the Operator Menus). This screen also tells you how much time has passed since the last power cycle and the last maintenance restart.

Chapter 2 — Driving a Race

1. Insert coins and press the **START** button.

2. The **Select Track** screen will appear first. Turn the wheel to highlight a track. Tracks are rated *Normal*, *Medium*, or *Hard*. Press the gas pedal to select the highlighted track.

3. The **Select Car** screen will appear next. Turn the wheel to highlight a car, and press the gas pedal to select.

4. The **Select Weapon** screen will appear next unless the game is set to Green Label mode. Turn the wheel to highlight a weapon, and press the gas pedal to select.

5. If you are on a linked cabinet, the Waiting for Drivers Lobby screen will appear. Otherwise, the game will start to load. Hint screens will appear while the game loads.

    Linked Racing: Once you coin up and press **START**, all other linked cabinets in Attract Mode will display the **Join Now** screen. Players who coin up and press **START** will automatically join the race (skipping the Select Track screen). To race solo on another cabinet, wait for the Join Now screen to disappear before pressing **START**.

Driving & Weapons Controls

*   As in any driving game, use the Steering Wheel, Gas, and Brake to control the car. If you get turned around or stuck, press the **START** button to get back on the road.

*   Pick up hazards, shields, boosts, ammo, and other bonuses by driving through the icons that appear onscreen. You can carry only one hazard at a time, so what you pick up replaces what you are carrying. A Shield will absorb a set amount of damage and then disappear. Double Damage doubles the power of your weapons for a set time.

*   Press the **LOOKBACK** button to look behind your car.

*   Press the **VIEW** button to toggle the view between inside and outside the car.

*   Press the **DROP HAZARDS** button to drop the hazards you pick up during the game (landmine, oil slick, or smoke screen).

*   Press the **BOOST** button for an extra burst of speed (pick up boosts during the game).

*   Press the **Fire** buttons on the steering wheel to fire weapons (pick up more ammo during the game). **Fire** buttons can be used to drop hazards in Green Label mode.

*   The Leader Light comes on when a driver is leading the race. In linked racing, the Leader Light comes on if the driver is ahead of all other human drivers (not counting AI cars).

*   At the end of the race, each driver's time and position is displayed. The winner can enter a name for the leaderboard. The winner will also see a bonus screen with the control combination to unlock a bonus track, car, or weapon for their next race. (These Bonuses are only displayed to the winner, but are available to any driver. Use the control combination during the appropriate *Select* screen at the start of a new game.)

    – Bonus Track Unlock: **VIEW** + **DROP HAZARDS** + Wheel Right
    – Bonus Weapon Unlock: **LOOKBACK** + Brake + Wheel Left
    – Bonus Car Unlock: **VIEW** + **BOOST** + Brake

The Race Screen

During the race, useful information is displayed onscreen. Additional hint screens may appear during the race to tell you about controls you have not used.

The list below describes the onscreen features, referring to the numbers in Figure 3.

1. Time left to reach the checkpoint. Symbols will appear below the number to indicate upcoming turns and hills.

2. Current lap number and total laps in the race.

3. Track map showing position of all cars; small triangle shows your position and driving direction.

4. Weapons, hazards, boosts, shields, and other bonuses you can pick up show in red circles. Drive through them to pick up the bonus.

5. Odometer/speedometer showing your engine speed in thousand RPMs and your speed in either km/h or MPH (as set in the Game Operator menu).

6. Relative positions of the cars behind you; larger dots are closer cars.

7. Lists all cars and their time behind the leader; your car is shown in white with a bullet.

8. Hazard you are carrying (smokescreen shown).

9. The amount of Boost you have available

10. The amount of ammunition you have available.

Notes: A glow around the car indicates a Shield is active.

Figure 3. Race Screen

Chapter 3 — Operator Menu and Game Setup

This chapter describes how to use the Game Operator menu to set up the game, diagnose problems, and view gameplay and earnings statistics.

Navigating the Operator Menu

1. With the game running in Attract Mode, open the coin door to locate the Operator Button Panel. Press the **TEST/BACK** button to open the menus.

2. Once you enter the Operator Menu, use the **VIEW** and **DROP HAZARDS** buttons to move up and down through the main menu list on the left side of the screen. Pause over a menu item to open the submenu below it, and then use the **VIEW** and **DROP HAZARDS** buttons to move through the submenu items.

3. When you move over a submenu item, a blue highlight will appear around the item. Press the **START** button to open the associated menu or screen.

4. Once you open a menu, use the **VIEW** and **DROP HAZARDS** buttons to navigate through the menu items. Press **START** to select an item and change its setting

5. Some menu items use sliders to set numeric values. A slider, as shown below, will appear when you highlight the item and press **START**. To set the slider, press the **VIEW** and **DROP HAZARDS** buttons to increase or decrease the value, and then press **START** again to save the selected value.

6. Some items use popup menus to select settings, as shown below. The popup menu will appear when you highlight the item and press **START**. Press the **VIEW** and **DROP HAZARDS** buttons to select from the popup menu, and then press **START** again to save the selected value.

7. When you finish with a menu, press the **LOOKBACK** button to return to the main menu list on the left side of the screen.

8. To exit from the Operator Menu, highlight **Resume Game** at the bottom of the menu list (press **LOOKBACK** to instantly highlight **Resume Game**) and press **START**.
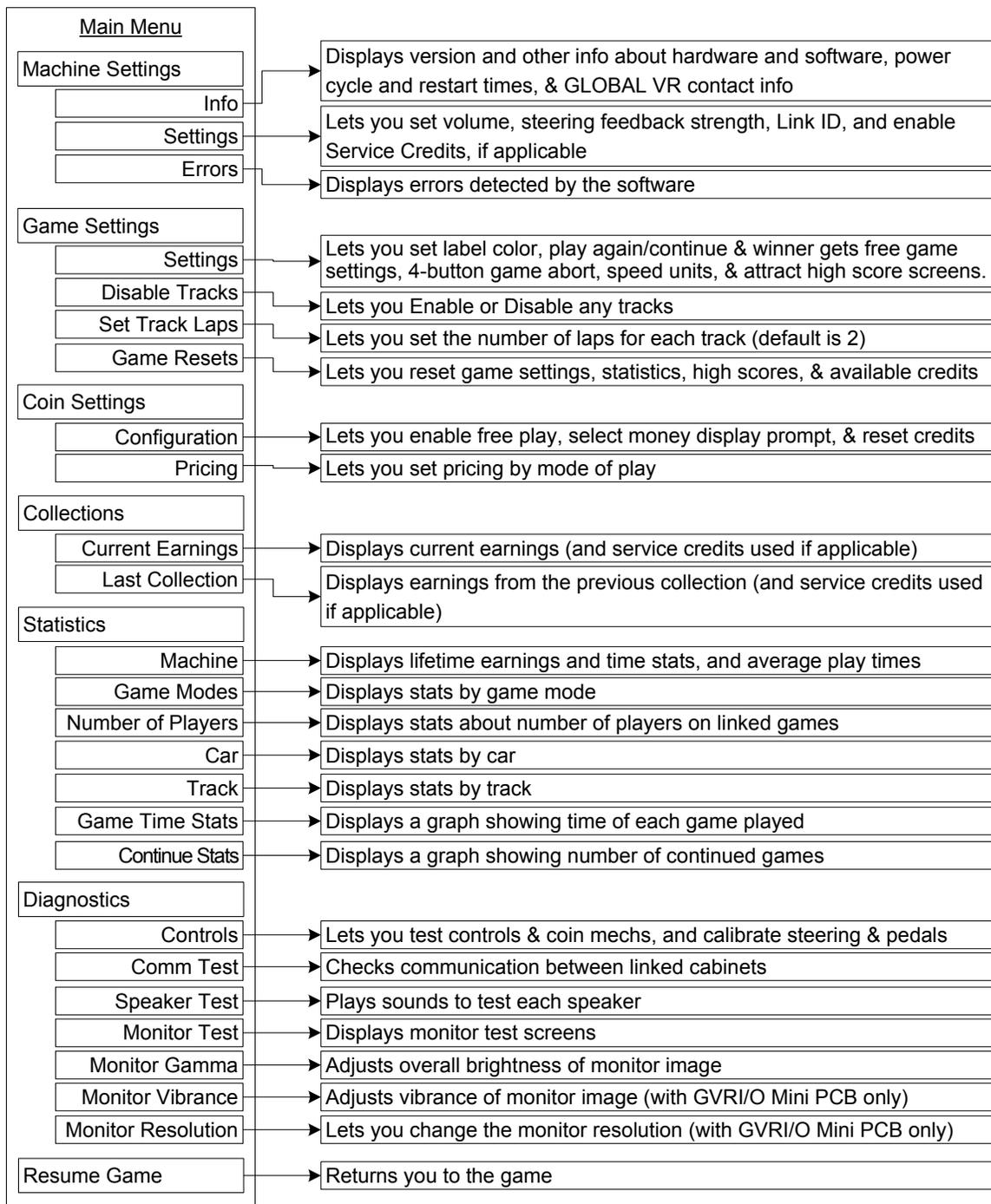
Main Menu	
Machine Settings	
Info	Displays version and other info about hardware and software, power cycle and restart times, & GLOBAL VR contact info
Settings	Lets you set volume, steering feedback strength, Link ID, and enable Service Credits, if applicable
Errors	Displays errors detected by the software
Game Settings	
Settings	Lets you set label color, play again/continue & winner gets free game settings, 4-button game abort, speed units, & attract high score screens.
Disable Tracks	Lets you Enable or Disable any tracks
Set Track Laps	Lets you set the number of laps for each track (default is 2)
Game Resets	Lets you reset game settings, statistics, high scores, & available credits
Coin Settings	
Configuration	Lets you enable free play, select money display prompt, & reset credits
Pricing	Lets you set pricing by mode of play
Collections	
Current Earnings	Displays current earnings (and service credits used if applicable)
Last Collection	Displays earnings from the previous collection (and service credits used if applicable)
Statistics	
Machine	Displays lifetime earnings and time stats, and average play times
Game Modes	Displays stats by game mode
Number of Players	Displays stats about number of players on linked games
Car	Displays stats by car
Track	Displays stats by track
Game Time Stats	Displays a graph showing time of each game played
Continue Stats	Displays a graph showing number of continued games
Diagnostics	
Controls	Lets you test controls & coin mechs, and calibrate steering & pedals
Comm Test	Checks communication between linked cabinets
Speaker Test	Plays sounds to test each speaker
Monitor Test	Displays monitor test screens
Monitor Gamma	Adjusts overall brightness of monitor image
Monitor Vibrance	Adjusts vibrance of monitor image (with GVRI/O Mini PCB only)
Monitor Resolution	Lets you change the monitor resolution (with GVRI/O Mini PCB only)
Resume Game	Returns you to the game

Figure 4.   Operator Menu Flowchart

Notes: The **current date and time** are displayed on each menu screen. You can change the date and time in the BIOS Settings (see page 29). The date and time only appear on Operator Menu screens and do not affect gameplay.

Machine Settings: Info Screen

This screen is displayed first when you press the **TEST/BACK** Button. It displays important information about the cabinet, and contact information for GLOBAL VR.
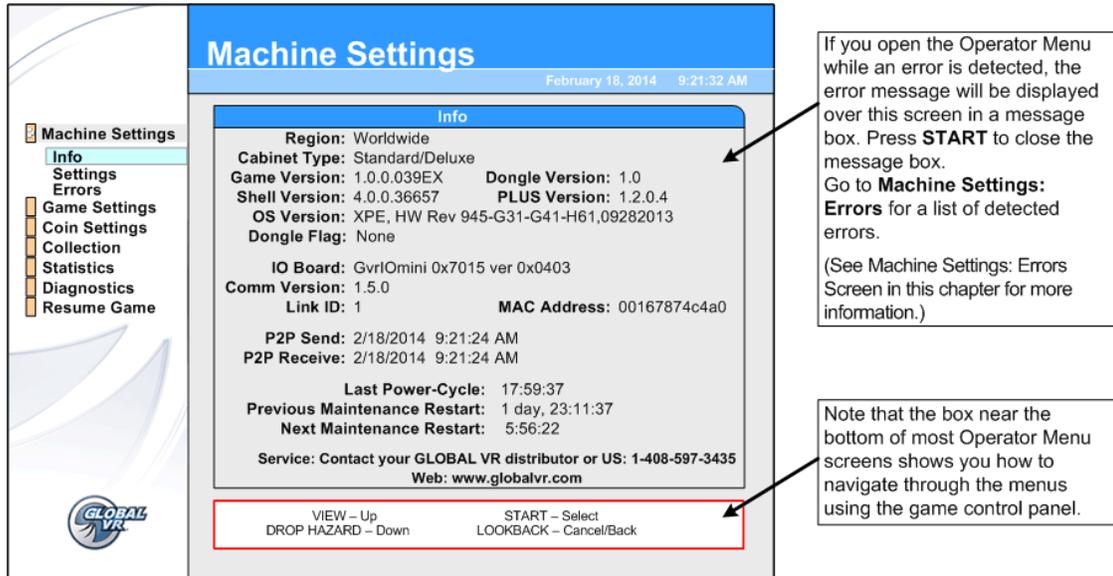

Figure 5. Machine Info Screen

Menu Item	Description
Region	Displays the region or country of operation.
Cabinet Type	Displays the cabinet type as set by the Game Dongle.
Game Version	Displays the installed software game version.
Shell Version	Displays the software shell version.
OS Version	Displays the operating system version.
Dongle Flag	This may be used for specific regional settings
IO Board	Displays the version of the GVRI/O Mini PCB Installed.
Comm Version	Displays the communication software version. (Linked cabinets must run the same version.)
Link ID	Displays the Cabinet Link ID number.
P2P Send	Displays the last time player data was sent to other linked cabinets.
P2P Receive	Displays the last time player data was received from other linked cabinets.
Last Power-Cycle	Displays the amount of time since the cabinet was last powered on.
Previous Maintenance Restart	Displays the amount of time since the cabinet did an automatic maintenance restart.
Next Maintenance Restart	Displays the amount of time until the cabinet does an automatic maintenance restart.
Dongle Version	Displays the localized version of the software, as read from the Game Dongle.
PLUS Version	Displays the PLUS data engine version.
MAC Address	Displays the MAC address of the system computer. This number may be useful to Tech Support for troubleshooting certain cabinet linking problems.

Machine Settings: Settings Menu

This menu lets you set up audio, Service Credits Switch, steering feedback strength, and Link IDs. It also displays available Service and Paid Credits.
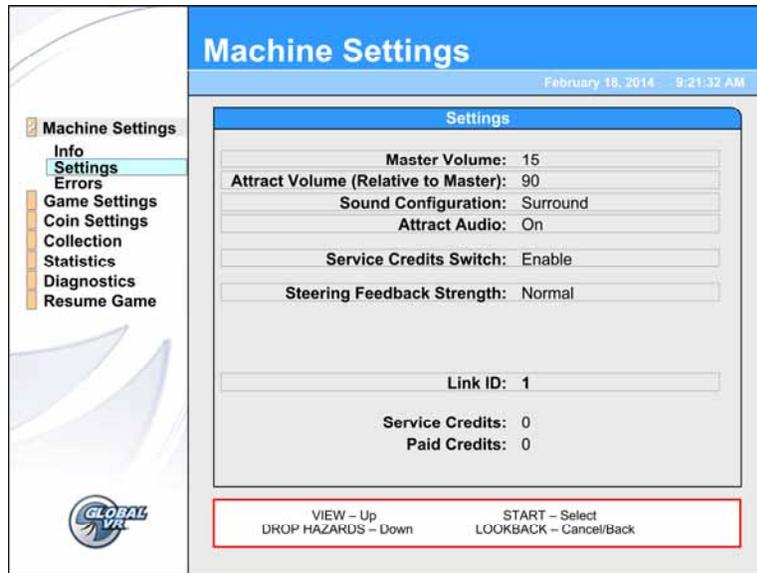

Figure 6.   Machine Settings Menu

Menu Item	Description
Master Volume	Sets the overall cabinet volume from 0—100.
Attract Volume (Relative to Master)	Sets the Attract Mode volume from 0%—100% of Master Volume.
Sound Configuration	Sets sound configuration to Surround (for sit-down cabinets) or Stereo (for upright cabinets with no seat or rear speakers).
Attract Audio	Sets how often the Attract Mode sound plays. Options are *On, Sometimes (1/3)*, or *Off*. The *Sometimes 1/3* setting plays Attract Audio 1/3 of the time.
Service Credits Switch	If set to *Enable*, lets you add Service Credits by pressing the **SERVICE** button on the Operator Button Panel during Attract Mode. Service Credits can be used for testing gameplay, and are counted separately from Paid Credits in the collection statistics screens.
Steering Feedback Strength	Sets how strong the Steering Force Feedback feels. Options are *Normal* or *Light*.
Link ID	Select this item and press **START** to open the *Select a Link ID* screen. (See page 5 for details on setting Link IDs).
Service Credits	Shows how many Service Credits are currently available. *Service Credits Switch* must be set to *Enable* in this menu to add Service Credits with the Operator **SERVICE** button.
Paid Credits	Shows how many Paid Credits are currently available on the cabinet.

Machine Settings: Errors Screen

The Errors screen displays errors detected by the software. Some errors also display a message at boot. Non-critical boot error messages such as *There is a CD in the Drive* will time-out after 30 seconds. Critical errors, such as *Dongle Missing or Invalid*, will prevent the game from booting.

If you open the Operator Menu while an error is detected, a message box will overlay the menu, as show below. Press **START** to close the message box. Open the Errors Screen for a list of errors.

Error Messages

This table lists error messages that you may see at boot or on the Errors screen.

Error Message	Explanation and Solution
No Dongle	Make sure the USB Game Dongle is firmly connected. Try a different USB port if the dongle is not detected after a reboot.
Invalid Dongle: Incorrect Game Version	Dongle does not match game version. If you upgrade the software, be sure to connect the corresponding Game Dongle.
There is a CD in the Drive	Eject the disk from the drive. Press the **START** button to continue to boot the game if you see this message at boot.
Error Detected with GVRIO Board	The GVRI/O Mini PCB is either disconnected or malfunctioning. Check all connections to the PCB. Replace the PCB if faulty.
Incorrect GVRIO Board	The screen will display the revision numbers of the GVRI/O Mini PCB installed, and the one required. Contact your distributor to order the correct GVRI/O Mini PCB.
Select a Link ID (Duplicate Link ID detected)	The cabinet has the same Link ID as another cabinet. Turn the wheel to select a different Link ID from the screen and press **START**. Number the cabinets in sequence from left to right.
Steering Auto Calibration failed. Please turn the wheel all he way to the left and all the way to the right	The software detected a problem with steering. Once you turn the wheel, the software will determine whether the problem is with the steering pot or the force-feedback. If the problem is with the force feedback, you will be given the option to start the system without force feedback. If the steering pot is not working, the game cannot be started. (See the Operation & Service manual for your original game for service procedures.)
Attract Mode Error Messages	**Explanation and Solution**
A **Red Dot** appears in the lower right corner of the Attract Screen	Indicates a hardware error, usually with a button, gas or brake pot, or steering. An explanation is displayed in the Errors screen.
A **Blue Dot** appears in the lower right corner of the Attract Screen	Indicates a Cabinet Mismatch in linked cabinets. An explanation is displayed in the Errors screen. The following conditions will cause a Blue Dot error message: • *Winner Gets Free Game* not set the same on all cabinets • *Free Game Min Players* not set the same on all cabinets • Different Software Comm Version on one or more cabinets • Different Tracks Disabled on one or more cabinets

Game Settings: Settings Menu
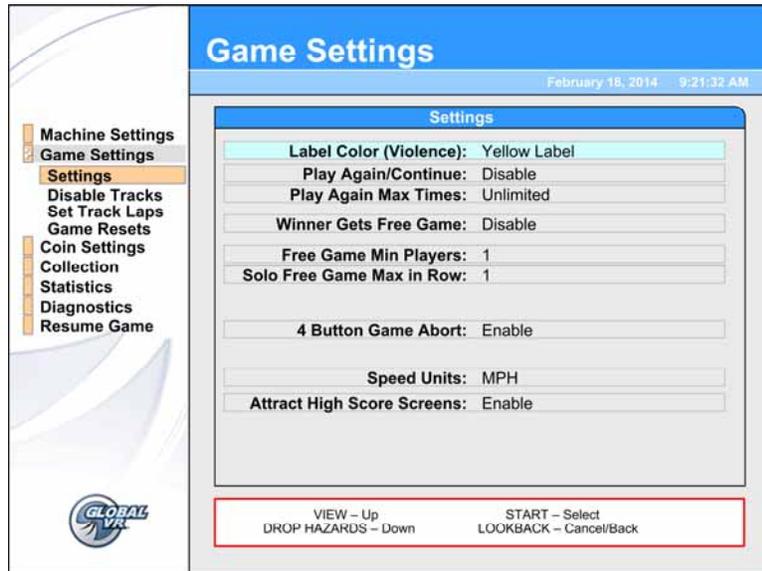
This menu lets you set up game-play options.

Figure 7.   Game Settings Menu

Menu Item	Description
Label Color (Violence)	If set to *Green Label*, weapons are disabled and are not shown in the Attract movie or menus. The **Fire** buttons have no function in this mode.
Play Again/Continue	If set to *Enable*, allows you to set different pricing to start playing or continue (play again). Set the pricing from **Coin Settings: Pricing**.
Play Again Max Times	Lets you set the maximum number of times a player can use *Continue*. Options are *1*, *2*, or *Unlimited*.
Winner Gets Free Game	If set to *Enable*, the winner of a race gets a free game.
Free Game Min Players	If Winner Gets Free Game is enabled, this sets the minimum number of players required for the free game to be awarded. Options are *1—4*.
Solo Free Game Max in Row	If Winner Gets Free Game is enabled, and Free Game Min Players is set to *1*, this sets the maximum number of times in a row the free game can be awarded. Options are *1—3*.
4 Button Game Abort	If set to *Enable*, a solo race can be aborted by pressing the **VIEW**, **DROP HAZARDS**, **LOOKBACK** and **START** buttons at the same time.
Speed Units	Sets speed units to display in *MPH* or *km/h*.
Attract High Score Screens	Sets whether to display high scores during Attract Mode.

Game Settings: Disable Tracks Menu

This screen allows you to disable or enable any tracks. Disabled tracks do not show up in the Select Track screen.

Note: If linked cabinets do not have the same tracks available, a blue dot will appear in the lower right corner of the Attract screen on each cabinet to indicate a Cabinet Mismatch.
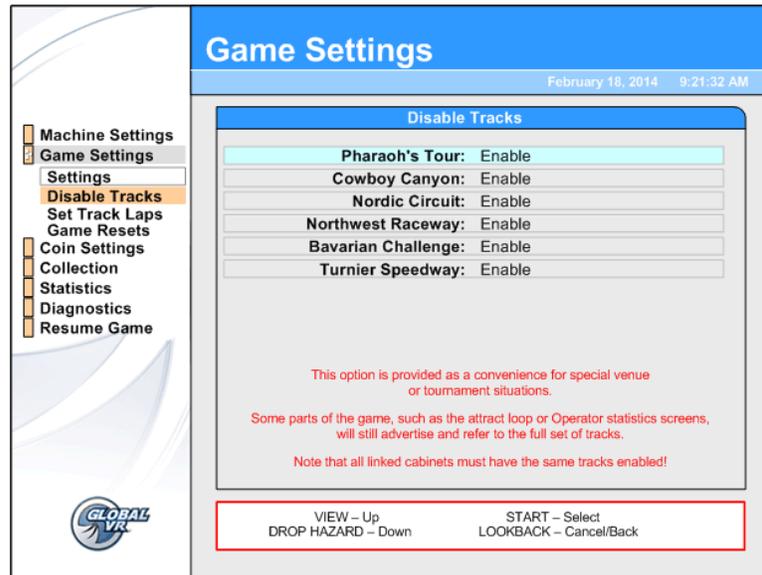
Game Settings: Set Track Laps Menu

This menu lets you set the number of laps for each track (the default number is 2).

Note: If you change the number of laps for any track(s), go to the **Game Settings: Game Resets** menu and select **Reset Highscore Data** to avoid displaying scores from games of different lengths on the same screen.

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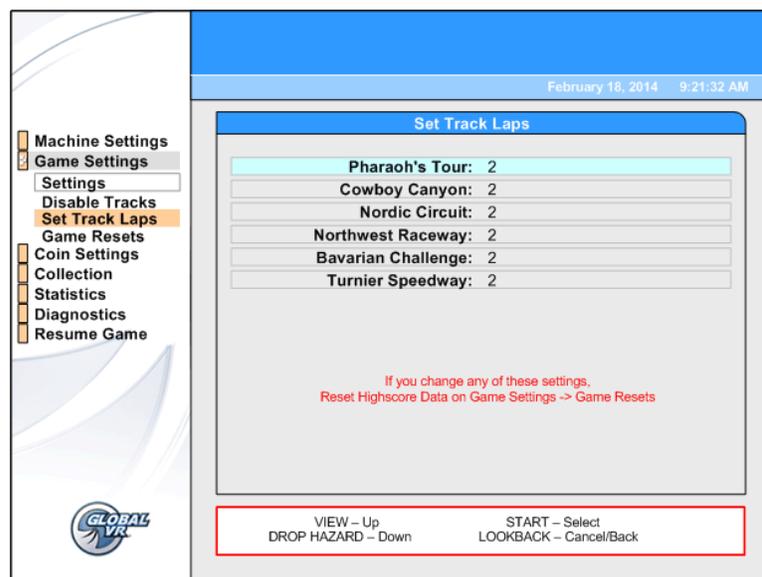
Game Settings: Game Resets Menu

This menu lets you restore factory default settings, or reset cabinet statistics, standings, or available credits. When you select any reset button except Reset Credits, a confirmation box will appear, allowing you to accept or cancel your reset selection.
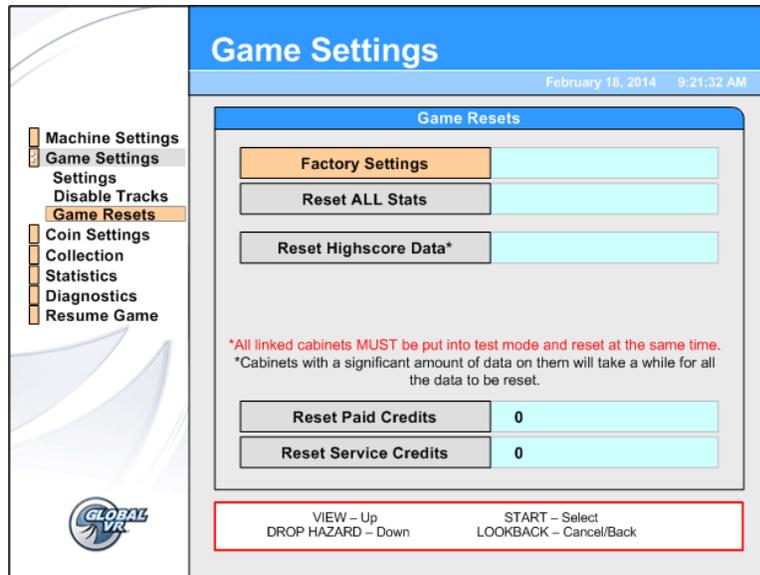

Figure 8.   Game Resets Menu

Menu Item	Description
Factory Settings	Returns all the Game settings to the default factory settings. Does not affect records and statistics.
Reset ALL Stats	Resets all gameplay Statistics. Does not affect the Lifetime Totals.
Reset Highscore Data	Clears High Score data stored in the computer. A confirmation prompt will appear after you select **Important:** To reset data on linked cabinets you **must** either disconnect the Ethernet cables or enter the Operator menu on *all* of the cabinets and then reset them all. If you reset data on a single linked cabinet, the data will almost instantly be repopulated from the other cabinets once you return to Attract Mode.
Reset Paid Credits	Resets available Paid Credits to 0. Does not affect Service Credits. The number shows available Paid Credits. Any Paid Credits displayed when you reset are counted as Unspent Monies in the **Collections** screens.
Reset Service Credits	Resets available Service Credits to 0. Does not affect Paid Credits. The number shows available Service Credits.

Coin Settings: Configuration Menu

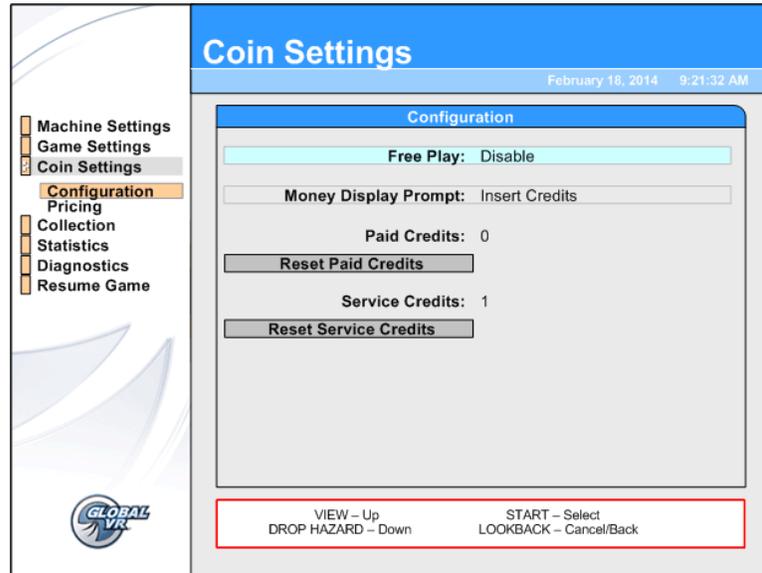This menu lets you turn free play on or off, select the Money Display Prompt, and reset credits.

Figure 9. Coin Settings: Configuration Menu

Menu Item	Description
Free Play	Sets Free Play to *Enable* or *Disable*.
Money Display Prompt	Sets the Money Display Prompt to *Insert Coins*, *Insert Credits*, *Insert Bills*, *Insert Tokens*, *Insert Money*, or *Swipe Card*.
Paid Credits	Displays the number of paid credits currently available.
Reset Paid Credits	Resets available Paid Credits To 0. Does not affect Service Credits. Any Paid Credits displayed when you reset are counted as Unspent Monies in the **Collections** screens. (There is no confirmation prompt.)
Service Credits	Displays the number of Service Credits currently available.
Reset Service Credits	Resets available Service Credits to 0. (There is no confirmation prompt.)

Coin Settings: Pricing Menu

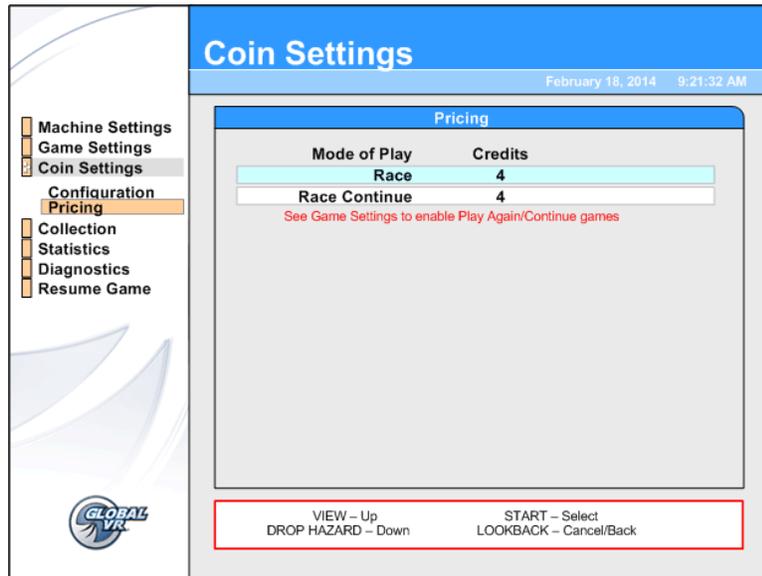This menu lets you set the number of credits required to start or continue a game.

Figure 10. Coin Settings: Pricing Menu

Menu Item	Default	Description
Race	4	Lets you set the number of credits required to start a new game. Options are *1—50*.
Race Continue	4	Lets you set the number of credits required to continue a game (play again). Options are *1—50*. *Play Again/Continue* must be set to *Enable* in the **Game Settings: Settings** menu to use this feature.

Collections Screens

The **Current Earnings** screen displays Earnings and Service Credits for the current period. Earnings are displayed in Credits only.

When you select **Reset Bookkeeping**, and then confirm in the confirmation box that appears, all amounts are reset to zero (0) in the Current Earnings screen, and the data is moved to the **Last Collection** screen.

Lifetime Earnings and Lifetime Average Weekly Earnings are displayed on the **Statistics: Machine** screen described on page 22.
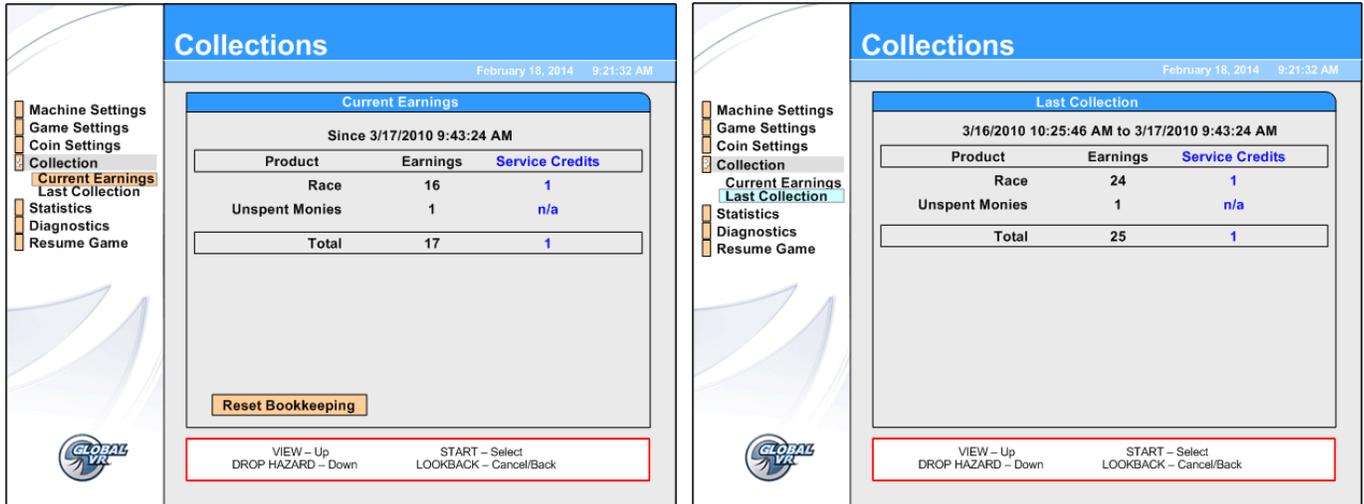

Figure 11. Collections Screens

Statistics Screens

The Statistics screens allow the operator to view the gameplay statistics collected by the cabinet. The lifetime totals are never reset unless the operating system is restored using the System Recovery Disk. To reset the current Total for any screen, use the **Game Settings: Game Resets** menu described on page 17.

Important: All statistics are reset if you re-install the software.
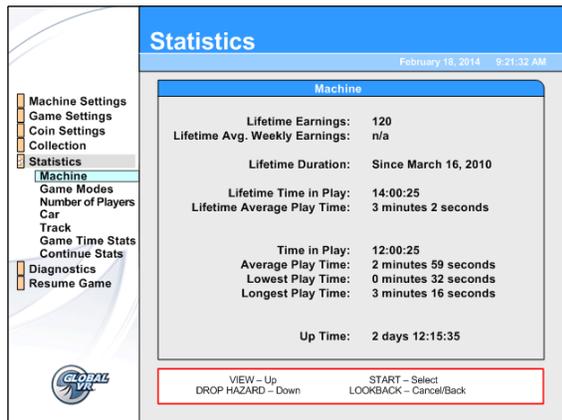
Statistics: Machine displays general statistics about the cabinet.

Lifetime Earnings — total earnings for cabinet.

Lifetime Avg. Weekly Earnings — earnings per week averaged over cabinet lifetime.

Lifetime Duration — the date the operating system was installed from the System Recovery Disk.

Lifetime Time in Play — total time the cabinet has spent being played.

**Lifetime Average Play Time** — lifetime average length of a game.

Time in Play — total time the cabinet has spent being played since the last reset.

Average Play Time — average length of a game since the last reset.

Lowest Play Time — shortest game played since the last reset.

Longest Play Time — longest game played since the last reset.

Up Time — total time the cabinet has been turned on since the last reset.
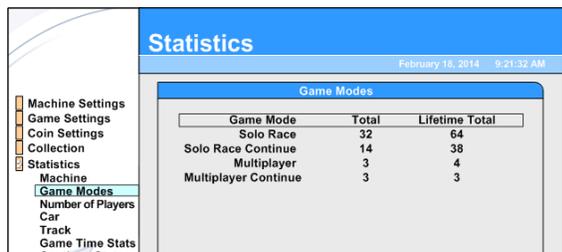
Statistics: Game Modes displays the total number of Solo and Multiplayer (linked cabinet) games played and continued. Shows Total for the current period, and Lifetime Total.
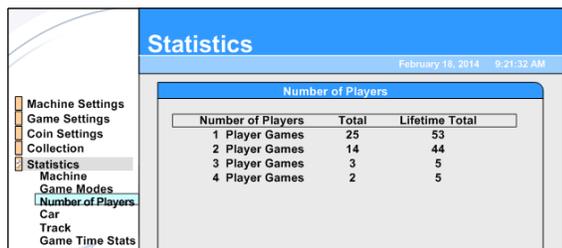
Statistics: Number of Players displays the number of multi-player games played on linked cabinets by the number of players per game. Shows Total for the current period, and Lifetime Total.
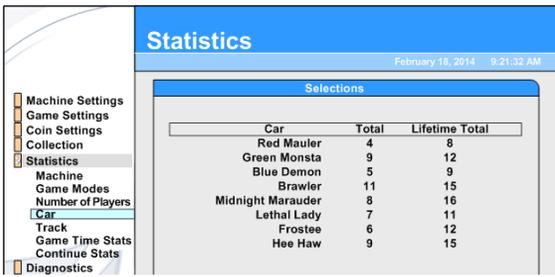
Statistics: Car displays the number of games played using each car for the current period, and Lifetime Total.
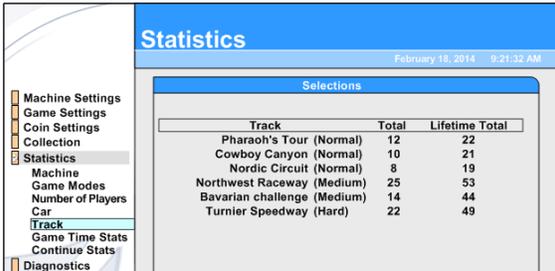
Statistics: Track displays the number of games played using each track for the current period, and Lifetime Total.

.
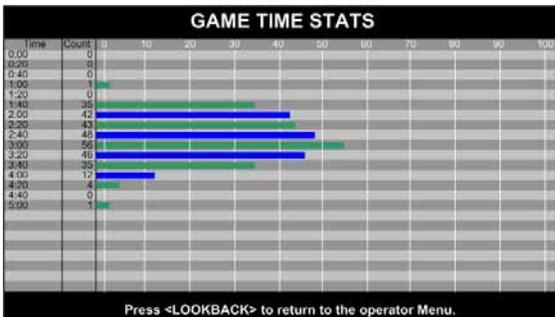
Statistics: Game Time Stats displays a graph showing how long the games last. For example, in the graph at the left, 42 games lasted over 2 minutes, but less than 2 minutes and 20 seconds. Only 1 game lasted less than 1 minute and 20 seconds.

Press the **LOOKBACK** button to exit this screen.
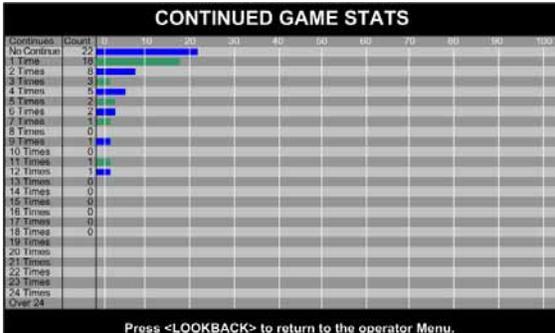
Statistics: Continued Game Stats displays a graph showing how many times players Continued after a game ended. For example, in the graph at the left, 18 players continued once, and 8 players continued twice.

Press the **LOOKBACK** button to exit this screen.

Diagnostics: Play Control Test

The Play Control Test menu lets you test driving controls, operator buttons, and coin mechs, as described below. To exit from this menu, press the **START** and **VIEW** buttons together.

If you see a ⊘ symbol displayed over a pedal or the wheel, it was not detected by the software and may be disconnected. Try turning the wheel full left and right, or pressing the pedal full down and releasing. See the Operation & Service manual for your original game for steering and pedal service procedures. Manuals can be found online at **http://service.globalvr.com**.

Buttons: When you press a control panel or Operator button, its picture should highlight on the screen. The dot next to each button should be yellow until the button is pressed, and stay green after it is pressed. A red dot means the button is stuck in the ON position.

Steering Wheel: When you turn the steering wheel, the graphic should rotate, and the number next to the graphic should change to indicate the steering wheel position. Full left position should be about *-127* and full right position should be about *127*. As you turn the wheel, the changing numbers should be smooth and linear. A sudden jump in the number, or a different range of numbers, can indicate a bad pot or a loose steering column set screw. The dot under the number should change from yellow to green when you turn the wheel.

Gas & Brake Pedal: The numbers displayed next to the pedals show the pot value when the pedal is full up, full down, and the current value. If the number on top is 0 or the number on the bottom is 255, there may be a problem with the pot or wiring (see the Operation & Service manual for your original game for repair procedures). When you step on the pedals, the number shown for the current position should change. The difference between the full up and full down values should be about 80 (±5). As you press and release the pedals, the changing numbers should be smooth and linear. A sudden jump in the numbers can indicate a bad pot or a loose set screw on the pedal assembly. The dot above the pedal should change from yellow to green when you press the pedal.

Calibrating the Steering and Pedals: To calibrate the steering wheel and pedals, press the **START** and **DROP HAZARDS** buttons together to reset the pots to **0**. A ⊘ symbol will appear

over the pictures of the pedals and wheel. Turn the steering wheel all the way to the left and the right to set the pot limits. Press each pedal all the way down to set the pot limits.

Coin Mechs: When you activate a coin mech, its name (Coin 1 or Coin 2) should turn from white to green, and the number should increment to indicate the number of credits inserted. If the name of the mech stays green, this indicates it is stuck in the ON position. (**Note:** Typically, Coin 1 is both coin mechs, and Coin 2 is the optional bill validator.)

START Button and Leader Light: The **START** button and Leader Light should blink while the Play Control Test menu is open. If either one fails to blink, check the bulb and wiring.

Diagnostics: Comm Test

This screen shows the status of all linked cabinets, as well as their Comm version and region. Comm version and region should be the same for all linked games.

The number under the region indicates data transfer. If a cabinet is communicating properly, this number will increment continuously while the screen is open.

See *Linking Cabinets* on page 5 for details on setting up communication between games. Also check *Cabinet Linking Troubleshooting* on page 34 for help resolving problems.

Press **LOOKBACK** to exit from this screen.

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Diagnostics: Speaker Test

This screen tests the speakers and subwoofer.

Once you enter the sound test, each speaker will play a sound while the graphic indicates the speaker that should be playing, and the onscreen text displays the name of the speaker.

Note: For upright cabinets with no seat speakers, set Sound Configuration to Stereo in the Machine Settings: Settings menu. The Speaker Test screen will show a stereo graphic with no rear speakers and will test only the front speakers.

Press the **DROP HAZARDS** button at any time to pause or resume the test. The test will repeat until you press the **LOOKBACK** button to exit.

If any sound comes from the wrong speaker, or any speakers are not working, check the connections to the speakers, audio amp, and PC. Please see the Operation & Service manual for your original game for more information on fixing audio problems.

Diagnostics: Monitor Test Screens

The game has various screens to assist you with fine tuning the monitor.
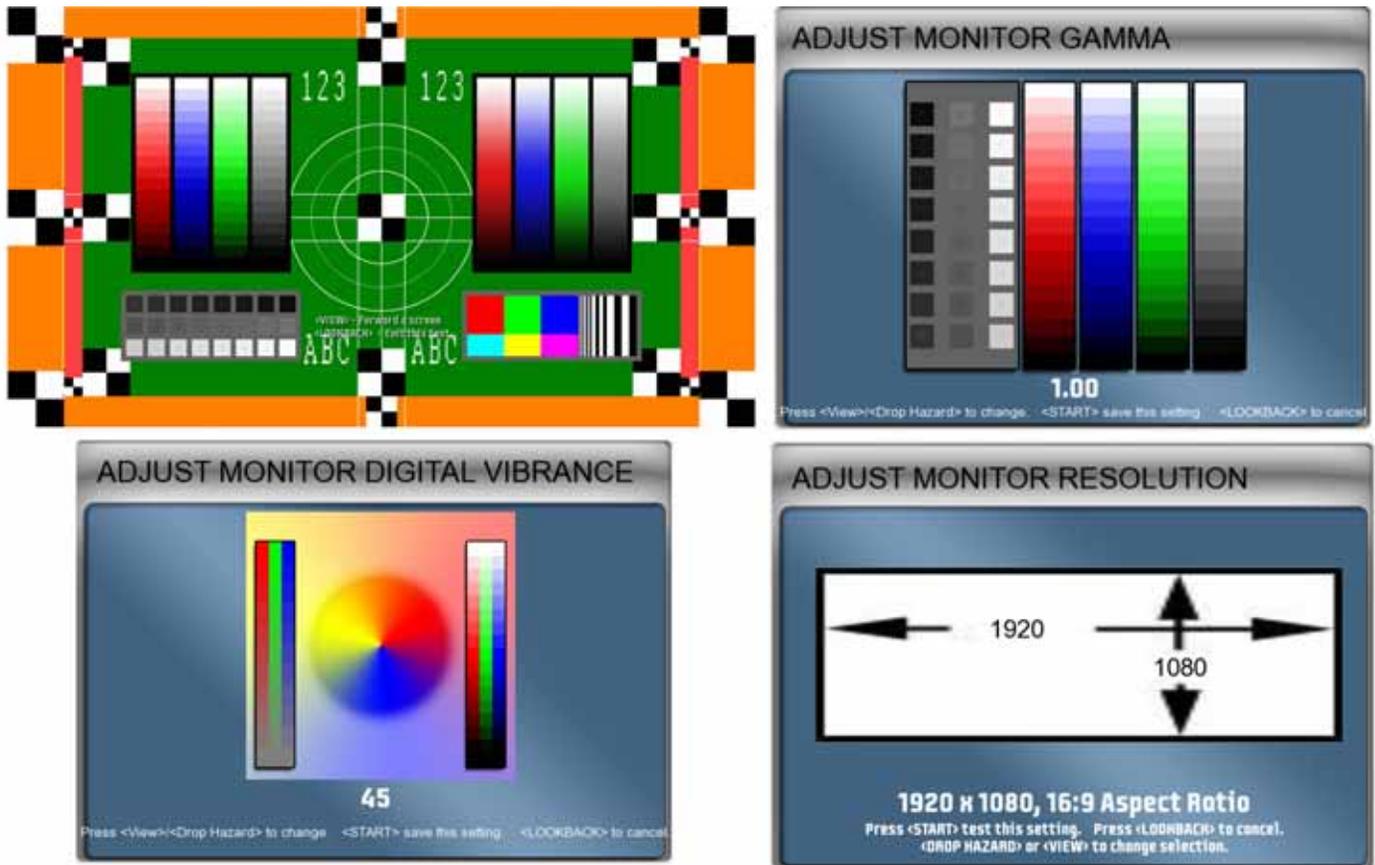
Monitor Test: When you select this menu item, it opens a series of screens designed to help you check monitor performance. Press the **VIEW** button to cycle through a series of screens to test color and geometric alignment. Press the **LOOKBACK** button to exit.

Monitor Gamma: This screen lets you adjust the overall screen brightness. Press **VIEW** or **DROP HAZARDS** to raise or lower the gamma value. To exit without making changes, press **LOOKBACK**. To exit and keep the new setting, press **START**.

Monitor Vibrance: This screen lets you adjust the overall vividness, or saturation, of the colors. Press **VIEW** or **DROP HAZARDS** to raise or lower the vibrance level. To exit without making changes, press **LOOKBACK**. To exit and keep the new setting, press **START**.

Monitor Resolution: This screen lets you change the monitor resolution. This feature is provided to enhance compatibility with a variety of monitors. In most cases, the software detects and sets up the optimal monitor resolution automatically. (Setting a different resolution may adversely affect performance.)

To change the resolution, press **DROP HAZARDS** or **VIEW** to cycle through the available options, and then press **START** to test the selected resolution. You will be prompted to press **START** again to keep the setting. Press **LOOKBACK** to exit without making any changes.

Chapter 4 — Software Restoration

Important: When you run the System Recovery Disk, you will erase all game settings and audits. Open the Operator Menu and write down anything that you want to remember.

For best results, open the DVD-ROM Drive and inspect the tray. If it is dirty, gently wipe it with a clean, soft cloth or use a CD/DVD Laser Lens Cleaner, available at electronics and music stores, and even drugstores, to clean the lens in the drive to help ensure it reads the software disks properly. If you have continued problems with a drive, you can replace it with a plug-and-play compliant SATA DVD-ROM drive.

Important: All linked cabinets must run the same software Comm version displayed in the Machine Info screen of the Operator Menu. (For best results, install the same software version on all linked cabinets.)

Software Restoration takes about 20 minutes.

Run the System Recovery Disk

1. Insert the System Recovery Disk in the DVD-ROM drive and power the cabinet OFF and then ON. When the computer reboots, the disk should run automatically (wait about a minute). You will see messages onscreen as files are copied to the hard drive.

2. After about 4—5 minutes, the computer will eject the disk and prompt you to remove the Disk and reboot the computer. Do not insert the Game Install Disk yet! The software will setup the drivers and then reboot after about 5 minutes. After another 3 minutes, you will be prompted to "Please insert Game Disk number 1." Proceed to Run the Game Install Disk.

Run the Game Install Disk

1. With the cabinet powered ON, insert the DVD labeled **Game Install Disk 1 of 1**. The DVD will automatically run. You will see a series of onscreen messages as the software copies components and files to the hard drive. After about 5 minutes the game will automatically reboot and then finalize the software installation.

2. About 8 minutes after you inserted the Game Install Disk a screen will appear saying "There is a Disk in the drive." Remove the DVD and press the **START** button. Keep the disks in a safe place in case you need them in the future.

Test and Set Up

1. After you remove the disk and press the **START** button, you will be prompted to calibrate the accelerator and brake. Press each pedal firmly to the floor to set the calibration limits. Next, the steering will self-calibrate; do not touch the wheel while it is calibrating.

2. If the software detects another cabinet with the same Link ID Number, the Select a Link ID screen will appear and prompt you to change the ID. Turn the wheel to select an available Link ID and press the **START** button.

    Note: If you install software on linked cabinets simultaneously, the first one finished will automatically be assigned Link ID #1, so you may need to change it in the Operator Menu.

3. Once the attract movie begins, play one game to finalize hardware calibration and verify proper operation.

4. Press the Operator button and set the sound volume levels and any other desired cabinet settings from the Operator Menus.

Setting the Computer BIOS (CMOS)

Refer to the separate document titled *Setting the Computer BIOS (CMOS)* for the motherboard in your system computer. This document is included with your game and is also available from the Hardware Reference Page at **http://service.globalvr.com/reference**.

Chapter 5 — Troubleshooting

Video Troubleshooting

Problem	Cause	Possible Solution
No picture or Corrupted picture on monitor You hear the audio	Power problem	Check the Power On LED on the monitor (or the monitor power supply if applicable). Make sure the power cord is connected to the power strip and the power strip is on.
	Loose or faulty DVI video cable	Verify that the video cable is firmly connected from the monitor to the video card in the computer. While the monitor is powered ON, disconnect the video cable. You should briefly see a message on-screen saying *No Input Signal* if the monitor is working. Check the video cable and make sure it is not pinched or frayed (also, cables can go bad over time). Connect the cable to a different monitor to verify video output.
	Loose or faulty connections between LCD Panel and Control PCB	If the monitor has a separate Control PCB, make sure that all harnesses between the PCB and LCD panel are connected properly. Also check the video cable and power connection. If you hear Alert beeps from the System PC, contact Technical Support for assistance.
	Loose or faulty video card	When the computer boots up, it performs a PC self-diagnostic test. If you hear 3 beeps from the computer, this indicates a problem with the video card. If the video card is faulty, contact Technical Support. If instructed by Technical Support, open the computer and check the following: • Make sure the video card is seated properly in the motherboard. Reseat the video card. • Check the power connector to the video card inside the computer. Make sure it is connected properly and is not connected backwards. • Power on the computer and make sure the fan on the video card is spinning fast.
Picture is dim or faded	Gamma and/or Vibrance needs adjustment	Adjust the monitor Gamma and/or Vibrance setting from the Operator Menu **Diagnostics** screens (see page 27). If this does not give adequate results, increase brightness using the monitor remote control board mounted to the back of the monitor.
Red or green horizontal lines on screen	Faulty LCD control PCB	Contact Technical Support for assistance.
Green or magenta pixels on screen	Loose or faulty DVI cable	Check the DVI cable between Monitor and System Computer.
No video and no audio **Note:** It takes about 3 minutes to boot and start the game.	PC power switch is off	If the computer does not power on, make sure the On/Off switch on the back of the computer is in the **On** (**I**) position.
	BIOS setting has changed	Check the BIOS settings (see page 29). Make sure *After Power Failure* is set to *Power On*.

Problem	Cause	Possible Solution
	No power to computer	Verify the computer is ON by the LED on the front of the computer. Verify the line voltage switch on the back of the computer is set to 115V. Make sure the AC power cord is firmly connected to the computer and the power strip, and the power strip LED is on. Turn off the power strip, wait 20 seconds, and then turn it back on to reboot the computer. If you have checked all power connections, and the fan in the computer power supply does not come on, the computer power supply may be bad.
	Corrupted software or Faulty hard drive	Restore the software (see page 28). If you continue to have problems, you may have a faulty hard drive. Contact Technical Support.

Audio Troubleshooting

Problem	Cause	Possible Solution
No audio	Volume set too low	Use the **VOL UP** button on the Operator Button Panel to raise the volume. Check audio settings in the Operator Menu **Machine Settings: Settings** menu, and verify that the Master Volume is set high enough. Verify the volume pots are not turned all the way down on the Audio Amp PCB. (See the Operation & Service manual for your original game for service procedures.)
	Faulty wiring	Turn off the game. Verify that all the wires are firmly connected to the speakers and Audio Amp PCB. Verify that each wire is connected to the correct port. Verify that no wires are frayed or improperly shorting to ground. (See the Operation & Service manual for your original game for service procedures.)
	Blown speakers	Remove the grills and inspect each speaker for visible damage. Run **Diagnostics: Sound Test** from the Operator Menu to verify each speaker is working.
	Faulty audio amp PCB	To verify audio is working at the computer, connect stereo headphones to each computer audio port. Test the Audio Amp PCB in another cabinet.
Audio hum	Fault in AC Wiring	A constant low hum in the speakers can be caused by a ground loop, or reversed AC line and neutral wires to a component such as a power supply.

Problem	Cause	Possible Solution
Poor sound from one or more speakers	Blown speakers	Remove the grills and inspect each speaker for visible damage. Run **Diagnostics: Sound Test** from the Operator Menu to verify each speaker is working.
	Reversed wires	A weak or low muffled sound is a sign of reversed speaker wires. Check for reversed wires on each speaker. (See the Operation & Service manual for your original game for service procedures.)
	Faulty audio amp PCB	To verify audio is working at the computer, connect stereo headphones to each computer audio port. Test the Audio Amp PCB in another working cabinet.
	Faulty wiring	Turn off the game. Verify that all the wires are firmly connected to the speakers and Audio Amp PCB. Verify that each wire is connected to the correct port. Verify that no wires are frayed or improperly shorting to ground. (See the Operation & Service manual for your original game for service procedures.)

Control Troubleshooting

Problem	Cause	Possible Solution
Buttons and coin mechs do not work	Faulty micro switch	Replace the micro switch on the button and re-test.
	Faulty wiring	Disconnect the cabinet from AC power. Verify that all wires are firmly connected to each button and the GVRI/O Mini PCB. Verify that the wires are connected to the correct spades on the button micro switch. Verify that no wires are frayed or improperly shorting to ground. Check for broken wires at cable-tie points.
	Faulty GVRI/O Mini PCB	Make sure that all connections to the PCB are firm. Replace PCB if faulty. (See the Operation & Service manual for your original game for service procedures.)
Steering pulls to one side	Faulty Force-Feedback PCB	Verify that the force-feedback PCB is getting +24 VDC power. Test the PCB in a working cabinet.
	Faulty motor	Test the steering motor in a working cabinet.
	Faulty 24 VDC power supply	Use a volt meter to verify that the force-feedback power supply is putting out +24 VDC.
	Pot wires reversed	Check the wires between the steering pot and Force Feedback PCB.
Sloppy or poor steering	Poor calibration	Calibrate the steering from **Diagnostics: Play Control Test** in the Operator Menu (see page 24).
	Faulty 5 KΩ steering pot	Test calibration from **Diagnostics: Play Control Test** in the Operator Menu. Replace pot if faulty (see page 24).
	Loose set screw	Check the set screws in the steering assembly.
	Loose drive belt	Adjust belt tension. (See the Operation & Service manual for your original game for service procedures.)

Problem	Cause	Possible Solution
	Loose or worn drive belt or motor gear	Turn off the cabinet. Open the driving control panel and inspect the belt and gears on the steering motor. (See the Operation & Service manual for your original game for service procedures.)
	Faulty Force-Feedback PCB	Verify that the PCB is getting +24 VDC power. Test the PCB in a working cabinet. Calibrate the steering from **Diagnostics: Play Control Test** in the Operator Menu.
Steering does not auto-calibrate	Faulty USB cable or PCI USB card	Test by connecting to a motherboard USB port. You may need to reboot twice for Windows to find the device. Also try a new USB cable. After testing, re-connect to a PCI USB port to minimize the risk of intermittent steering loss due to static shock (again, reboot twice).
	Faulty Force-Feedback PCB	Verify that the PCB is getting +24 VDC power. Test the PCB in a working cabinet.
Steering wheel shakes	Faulty 5 KΩ steering pot	Test pot for smooth resistance. If you replace the pot, be sure to calibrate it from **Diagnostics: Play Control Test** in the Operator Menu (see page 24).
Steering stops working (Intermittent)	Force-Feedback PCB connected to wrong USB port	To minimize the risk static shock, the force-feedback PCB should be connected to a PCI USB port, **not** to a motherboard USB port. Static shock can cause intermittent steering feedback failure.
No force-feedback in the steering	Belt is broken	Replace belt. (See the Operation & Service manual for your original game for service procedures.)
	Motor gear is worn	Inspect the motor gear and replace if worn.
	Faulty motor	Test the steering motor in a working cabinet.
	Faulty 24 VDC power supply	Use a voltmeter to verify that the power supply is putting out +24 VDC.
	Steering motor not properly grounded	Make sure the steering motor frame is properly grounded to help minimize the risk of static shock.
	Faulty Force-Feedback PCB	Verify that the PCB is getting +24 VDC power. Test the PCB in a working cabinet.
	Force-Feedback PCB connected to wrong USB port	To minimize the risk static shock, the force-feedback PCB should be connected to a PCI USB port, **not** to a motherboard USB port. Static shock can cause intermittent steering feedback failure.
Gas or brake does not work properly **Note:** Low value of 0 or high value of 255 on **Diagnostics: Play Control Test** indicates problem with pot wiring.	Pot is out of calibration	Calibrate the pedals from **Diagnostics: Play Control Test** in the Operator Menu (see page 24). If you replace a pot or the computer, always recalibrate the pedals. (Pedals **do not** auto-calibrate when you reboot the game.)
	Faulty 5 KΩ pot	Test the pot for smooth resistance. If you replace the pot, be sure to calibrate the pedals from **Diagnostics: Play Control Test** in the Operator Menu (see page 24).
	Loose set screw	A loose set screw can cause the pedal to work only on a partial range of its motion. Tighten the set screw.

Problem	Cause	Possible Solution
Feels like brake is on during game	Dead spot in the brake pot	Test the brake pot and replace if bad. (See the Operation & Service manual for your original game for service procedures.)

Cabinet Linking Troubleshooting

The following issues can prevent the cabinets from linking:

Cause	Possible Solution
Faulty wiring	Verify that a CAT-5 or better Ethernet cable is connected between the Ethernet port on the AC Power Plate and the computer. (CAT-5 cables have 8 wires.) While the cabinet is powered on and connected to another cabinet, verify the green LED on the Ethernet card is lit. If you are using an Ethernet hub or switch, verify green LEDs on the hub or switch light for each Ethernet port that is connected.
Cross-over coupler not used or used improperly	To link two cabinets, connect an Ethernet cable to the Ethernet port on the power plate of each cabinet. If you use a cross-over coupler make sure it is Gigabit compliant. **Do not** use a cross-over coupler with a hub or switch.
Cross-over coupler is not Gigabit compliant	All components used to link cabinets must be Gigabit (10/100/1000 Mbps) compliant. Couplers shipped with older cabinets are not Gigabit compliant.
Faulty Ethernet hub or switch	Verify the LEDs on the Ethernet hub or switch are lit for each port used. If possible, verify the hub or switch is working by connecting it to a known working computer network or set of linked cabinets.
Hub or switch is not 10/100/1000 Mbps	Use a 10/100/1000 Mbps (Gigabit) hub or switch to link three or four cabinets.
Duplicate Link ID numbers	A cabinet with a duplicate Link ID number will display the *Select A Link ID* menu. You can also check or change the Link ID from the Operator menu **Machine Settings: Settings** screen. Each cabinet in a linked group must have a unique Link ID number.
Mixed Software Comm Versions	Verify that all cabinets are running the same Comm Version, shown in **Machine Settings: Info** screen. Install software as needed so all games have the same software version.

Miscellaneous Troubleshooting

Problem	Cause	Possible Solution
No power	Power strip not plugged in or turned off	Make sure the power strip ON/OFF switch is ON, and the light on the power strip is on. If the light is off, make sure the connections to the AC power plate and power transformer terminals are secure.
	Cabinet not connected or turned off	Make sure the AC power cord is firmly connected to the power plate and an active AC outlet, and the cabinet ON/OFF switch is ON.
Game Dongle not found by system computer	Game Dongle not connected	Make sure the Game Dongle is securely connected. Power the cabinet off and then on.
	Faulty Game Dongle	Make sure the dongle is connected properly. It will light-up red when recognized by the computer.) Contact Tech Support to exchange a faulty dongle.
	Faulty USB port	Test the dongle in a different USB port.

Problem	Cause	Possible Solution
Cabinet gets very warm	Faulty ventilation fan	Verify that the ventilation fan is working. It is located above the monitor access door on the back of the cabinet. Replace the fan if it is worn or spinning slowly.
	Cabinet ventilation holes are blocked	Make sure you have proper clearance between the cabinet rear and the wall. Make sure the vent holes are clear of dust and debris and that air is freely blowing out of the cabinet.
Marquee lamp does not light or is intermittent	Faulty florescent tube	Check the florescent tube for darkened or cracked end. Replace the florescent tube if it looks worn.
	Faulty florescent fixture	Verify the florescent tube pins make a good connection with the lamp fixture. Check the ballast for proper operation. Replace fixture if faulty.
	Faulty wiring	Check the AC power connection to the fixture.
Wrong Date or Time in Menus	Date or time needs to be set	Refer to *Setting the Date and Time* on page 7.
Game will not accept coins	Faulty coin mech	Verify the coin mech is not jammed and is properly aligned and latched to the coin door.
	Faulty ground wire	Check the ground wire to the coin door.
	Faulty GVRI/O Mini PCB	Check the connection to the J8 on the PCB, and the USB cable. Test with known good PCB. Replace PCB if faulty. (See the Operation & Service manual for your original game for service procedures.)
	Faulty wiring	Disconnect cabinet power cord. Check all coin mech wiring. Verify no wires are frayed or shorting to ground.
Wrong number of credits shown	Incorrect setting	Adjust settings from the Operator Menu.
	Faulty wiring	Disconnect cabinet power cord. Check all coin mech wiring. Verify no wires are frayed or shorting to ground.
Optional DBA not working	Incorrect dipswitch setting	Set dipswitches for Long Pulse or Gaming (***not*** Short Pulse or Vending).
Very long wait before System Recovery Disk runs	Diskette Controller is enabled in the BIOS Settings	Check the BIOS settings (see page 29). Select Floppy Configuration from the Advanced menu and set Diskette Controller to Disable.

Error Message Screens

The messages below may appear at boot if the software detects a hardware problem.

Boot Error Message	Explanation and Solution
Dongle Missing or Invalid	Make sure the USB Game Dongle is firmly connected.
Invalid Dongle: Incorrect Game Version	Dongle does not match game version. If you upgrade the software, be sure you connect the corresponding Game Dongle.
There is a CD in the Drive	Eject the disk from the drive. Press the **START** button to continue to boot the game.
Error Detected with GVRIO Board	The GVRI/O Mini PCB is either disconnected or malfunctioning, or the USB port or cable is faulty. Check all connections to the PCB. Test in a different USB port and with a different USB cable. Replace the PCB if faulty.
Incorrect GVRIO Board	The screen will display the revision numbers of the GVRI/O Mini PCB installed, and the one required. Contact your distributor to

Boot Error Message	Explanation and Solution
	order the correct GVRI/O Mini PCB.
Select a Link ID (Screen appears if a duplicate Link ID is detected)	The cabinet has the same Link ID as another cabinet. Turn the wheel to select a different Link ID from the screen and press **START**. Number the cabinets in sequence from left to right.
Steering Auto Calibration failed. Please turn the wheel all the way left and all the way right	The software detected a problem with steering. Once you turn the wheel, the software will determine whether the problem is with the steering pot or the force-feedback. If the problem is with the force feedback, you will be given the option to start the system without force feedback. If the steering pot is not working, the game cannot be started. (See the Operation & Service manual for your original game for service procedures.)
Attract Mode Error Messages	**Explanation and Solution**
A **Red Dot** appears in the lower right corner of the Attract Screen	Indicates hardware error, usually with a button, gas or brake pot, or steering. Explanation is displayed on **Machine Settings: Info** screen in Operator Menu.
A **Blue Dot** appears in the lower right corner of the Attract Screen	Indicates Cabinet Mismatch error in linked cabinets. Explanation is displayed on **Machine Settings: Info** screen. The following conditions will cause a Blue Dot error message: • **Winner Gets Free Game** not set the same on all cabinets • **Free Game Min Players** not set the same on all cabinets • **Race Length** not set the same on all cabinets • Duplicate Cabinet Link ID • Different Software Comm Version on one or more cabinets • Different Tracks Disabled • Different Region (Set by Game Dongle)

Artwork Identification

The figure below shows artwork placement on a NASCAR® Racing Standard Conversion Cabinet. Placement is generally the same on other cabinets. Many of the pieces must be trimmed to fit the various cabinet styles.

See the document *Redline Rampage Conversion Kit Instructions* (Part #: 040-0266-01) for detailed information on trimming the artwork. (Documents can be found online at **http://service.globalvr.com**.)

RR-AW-04
Right Side Monitor Decal
On Other Side (Not Shown)

RR-AW-03
Left Side Monitor Decal

RR-AW-01
Left Side Panel Decal

RR-AW-05
Left Side Seat Base Decal

RR-AW-06
Right Side Seat Base Decal
On Other Side (Not Shown)

RR-AW-02
Right Side Panel Decal
On Other Side (Not Shown)

RRK-AW-01
Backlit Marquee

RR-AW-09
Seat Back Decal

RR-AW-07
Upper Rear Seat Base Decal

RR-AW-08
Lower Rear Seat Base Decal

Note: Many decals must be trimmed to fit.

Figure 12. Artwork Identification

Warranty Service

If you should require warranty service, please contact your authorized GLOBAL VR® distributor.

LIMITED WARRANTY

LIMITED WARRANTY for **Redline Rampage** (North America Only)

GLOBAL VR® warrants that its Major Electronic Components are free from defects in materials and workmanship under normal use and service for a period of one (1) year from the date of sale.

All software and accompanying documentation furnished with, or as part of the Product, is supplied "AS IS" with no warranty of any kind except where expressly provided otherwise in any documentation or license agreement furnished with the Product.

During the warranty period, GLOBAL VR® will, at no charge, repair the Product, provided:

- Purchaser believes that the Product is defective in material or workmanship and promptly notifies GLOBAL VR® in writing with an explanation of the claim;

- All claims for warranty service are made within the warranty period;

- Products are returned adequately packed and freight prepaid to GLOBAL VR®'s designated service center;

- GLOBAL VR®'s inspection or test of the Product verifies to GLOBAL VR®'s satisfaction that the alleged defect(s) existed and were not caused by accident, misuse, neglect, unauthorized or attempted repair or testing, unauthorized modification, incorrect installation, vandalism, failure to follow the maintenance schedule or procedures; or operation in out-of-specification environmental conditions.

GLOBAL VR® will return the repaired Product freight prepaid to the Purchaser. All freight costs associated with replacement of warranty parts after expiration of the original warranty period are the responsibility of the Purchaser. GLOBAL VR® is not obligated to provide the Purchaser with a substitute unit or on-site service during the warranty period or at any time. If after investigation GLOBAL VR® determines that the reported problem was not covered by the warranty, Purchaser shall pay GLOBAL VR® for the cost of investigating the problem at its then prevailing per incident billing rate. No repair or replacement of any Product or part therein shall extend the warranty period as to the entire Product. The warranty on the repaired part shall be in effect for the remainder of the original warranty period, but will not exceed the original warranty period.

Purchaser's exclusive remedy and GLOBAL VR®'s sole obligation is to supply or pay for all labor necessary to repair any Product found to be defective within the warranty period and to supply, at no extra charge, new or rebuilt replacements for defective parts. If repair or replacement fails to remedy the defect, then, and only in such event, shall GLOBAL VR® refund to Purchaser the purchase price for said Product. Purchaser's failure to make a claim as provided above or continued use of the Product shall constitute an unqualified acceptance of said Product and a waiver by Purchaser of all claims thereto.

IN NO EVENT SHALL GLOBAL VR® BE LIABLE FOR LOSS OF PROFITS, LOSS OF USE, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM OPERATION OF THE GAME IN ANY CONDITION. GLOBAL VR® SHALL NOT BE RESPONSIBLE FOR THE SUITABILITY, PERFORMANCE, OR SAFETY OF ANY NON- GLOBAL VR® PART OR ANY MODIFICATION PERFORMED BY ANY PRODUCT DISTRIBUTOR UNLESS SUCH WORK IS EXPRESSLY AUTHORIZED IN ADVANCE BY GLOBAL VR®.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED OR IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER OBLIGATIONS OR LIABILITIES ON GLOBAL VR®'S PART, EXCEPT FOR ANY EXPRESS WARRANTY SET FORTH IN A WRITTEN CONTRACT BETWEEN GLOBAL VR® AND PURCHASER CONTAINING SPECIFIC TERMS WHICH SUPERSEDE THE TERMS HEREIN. THIS WARRANTY DOES NOT AUTHORIZE ANY OTHER PERSON TO ASSUME OTHER LIABILITIES, IF ANY, CONNECTED WITH THE SALE OF PRODUCTS BY GLOBAL VR®.

Technical Support

Service & Parts

Hours: 7:00ᴀᴍ–5:00ᴘᴍ Pacific Time, Monday–Friday

Phone: 408.597.3435

Fax: 408.597.3437

E-mail: techsupport@globalvr.com

Parts E-mail: servicesupport@globalvr.com

Website: http://service.globalvr.com

Purchase selected parts online at http://parts.globalvr.com.

Free telephone, e-mail, and online support are provided for systems during the warranty period. GLOBAL VR® Technical Support can help you troubleshoot problems and diagnose defective parts. We can also answer questions about the operation of your game.

When you contact Technical Support, please provide the information listed below to assist the Technical Support representative in solving your problem quickly. For your convenience, space is provided to write important numbers.

- Cabinet Serial Number: _____

- Game Version (from Operator Menu): _____

- OS Version (from Operator Menu): _____

- Dongle Version (from Operator Menu): _____

- IO Board Version (From Operator Menu): _____

- Your mailing address and telephone number.

- A summary of the question or a detailed description of the problem with your cabinet.

The additional information listed below, as applicable, may assist Technical Support in solving your problem quickly.

- Specific error message
- Any changes made to the system

- Date of latest install or upgrade
- For game-play issues, the game mode and number of players

To comment on this manual, please e-mail: **techpubs@globalvr.com**