UltraCade Multi-Game System
Operator Manual

040-UCOPERA-UCT Rev A Version 3.91

> ➢ **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:

- Make sure that the switch on the back of the computer is set to match the AC power in use at your location:
  - 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.

Precautions for Game Operation

- The avoid injury and accidents, people who fall under the following categories should not play the game:
  - Those who need assistance when walking.
  - Those who have high blood pressure or a heart problem.
  - Those who have experienced muscle convulsions or loss of consciousness when playing a video game or similar activities.
  - Those who have trouble in the neck or spinal cord.
  - Intoxicated persons.
  - Pregnant women.
  - Persons susceptible to motion sickness.
  - Persons who do not abide by the warning labels on the game.
- A player who has never been adversely affected by light stimulus might experience dizziness or headache when playing the game. Small children can be especially susceptible to these conditions. Caution guardians of small children to keep watch over their children during play.
- Instruct those who feel sick during play to see a doctor.
- To avoid injury from falling objects, and electric shock due to spilled drinks, instruct players not to place heavy items, food, or drinks on the product.
- To avoid electric shock or short circuit, do not allow customers to put hands and fingers or extraneous matter in the openings of the product.
- To avoid risk of injury from falling, immediately stop customers from leaning against or climbing on the product.

Warnings

⚠ **WARNING**	To avoid electrical shock, **unplug the cabinet before performing installation or service procedures.**
STOP	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 10°-40°C (50°-104°F).

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

1.1 UltraCade Multi-Game System Features

Congratulations on choosing the UltraCade Multi-Game System. The UltraCade Multi-Game engine can securely store and support hundreds of classic arcade games to allow for future growth. The UltraCade Multi-Game System comes with a pre-installed Base Pack of eighty-six classic games, licensed for the UltraCade Multi-Game System. Additional Game Packs are also available, each with a collection of popular, classic games licensed from the original manufacturers.

The Multi-Game System provides the following benefits to operators:

- Consistent earnings from proven, licensed games for all generations and both men and women
- Multi-game system comes loaded with 86 games with low-cost Game Pack add-ons available
- Intelli-Earn™ features help fine-tune the games on your cabinet for the best cabinet earnings
- Easy-to-use operator interface
- Each game has a player attract mode with instructions displayed automatically as the player selects a game
- New Operator Menu Features in UltraCade Multi-Game System OS 3.84 or greater:
  - o USB Game Packs allow the operator to install a new Game Pack with a USB Key. These USB Game Packs do not require an UN-Lock code to install, because the USB key holds the UN-Lock code for the system.
  - o Game Genre allows the player to press the Exit button during the attract mode to sort the game titles by genre. You can choose between Sports, Shooters, Platform, Puzzle, Fighter, and more.
  - o Intelli-Tune™ allows the operator to set an average play time for all the games installed on the cabinet. Intelli-Tune will then automatically adjust the difficulty of game play so that the player's average play time meets the operator's desired settings.
  - o Intelli-Sort™ allows the operator to choose how many games are displayed on the Game Wheel, and how often and when the cabinet should swap out the low earning games for games that are not listed on the wheel.
  - o Intelli-Earn will automatically place the best earning games in the center of the wheel so they are most visible to players when they walk up to the cabinet.

1.2 Cabinet Models

The UltraCade Multi-Game System is available in three models: 27" VGA Cabinet, 19" VGA Cabinet, and a 25" CGA Cocktail cabinet. It is also available as a Universal Kit for installation on any cabinet with a CGA, EGA, or VGA monitor that can be brought back to life. Unless otherwise noted, the information in this manual applies to all models.

27-Inch Cabinet
Weight = 250 lbs

27-Inch Cabinet
Weight = 250 lbs

Cocktail Cabinet
Weight = 200 lbs

19-Inch Cabinet
Weight = 175 lbs

Chapter 2 — Basic Cabinet Setup

Use the following steps to set up a new cabinet at your location:

1. Carefully remove the cabinet from the shipping container, giving yourself plenty of space around the cabinet. Inspect the exterior of the cabinet for any damage. Move the cabinet to the location were it will be operated. To protect the game from rising internal temperatures, avoid installing it in damp or dusty locations, or where the cabinet will receive excessive sunlight or heat.

2. Remove the keys from the coin return slot. Open the coin door to locate the second set of keys, as shown below.

3. Open the cash-box door and remove the loose parts inside the cash box. You will find the following items (may vary with cabinet style):

   - UltraCade Multi-Game System Operator Manual (this document)
   - System Installation CD
   - 86 Game Base Pack CD
   - AC power cord
   - Monitor Service Manual

4. Remove the back door from the cabinet and inspect the computer system. Verify that all cables and wires are securely connected to the computer. See page 25 for computer cable connections. Verify all major assemblies are securely mounted and that there are no loose objects inside the cabinet that could cause any damage.

5. Connect the power cord to a grounded (3-terminal) AC wall outlet.

6. Power ON the cabinet using the On/Off switch located on the lower rear of the cabinet and verify proper operation.

7. After you power the cabinet ON, the picture on the monitor may be temporarily distorted; this is caused by the change in the earth's magnetic field as you move the cabinet from one location to another. You can fix this problem by using the degaussing feature built into the monitor. If the monitor does not have a degaussing feature you can use a degaussing coil to restore the color variations on your monitor.

8. Once the game is powered ON, and you see the attract mode running, open the coin door and press the Service button to enter the Operator Menus. Use the Operator Menus to adjust the number of coins needed to start a game, what games are listed on the cabinet, and set the sound volume levels.

See *Chapter 3 — Operator Menu* for detailed information on setting up the software on your cabinet.

Chapter 3 — Operator Menu

3.1 Using the Operator Menus

This chapter describes how to use the Operator Menus to set up and adjust the settings on your UltraCade Multi-Game System.

All game settings, including Language, Cabinet Setup, Game Configuration, Accounting, and Diagnostics, are set through the Operator Menus. Press the Service button behind the coin mech door, as shown in the figure below, to display the Operator Menu on the monitor.

Once in the Operator Menu, use the **Player-1 joystick** to move through the menu screens, and **Player-1 Button-1** to select the menu items. Use the **EXIT** button on the control panel at any time to exit from a menu screen or to exit from the Operator menu.

The picture and steps below show an example of how to change a setting in the Operator Menu:

1. Press the Service button to enter the Operator Menu.

2. Use the **Player-1 joystick** to move the selection arrow up and down through the list of menus. Press **Player-1 Button-1** to select a menu as shown in part 1 and 2 in the picture above.

3. An adjustable game setting shows up in the operator menu as yellow text. Place the arrow next to the game setting and use the **Player-1 joystick** to scroll left or right to see the available options for the game setting, as shown by the arrows in part 3 and 4 in the picture above.

4. When you have the correct setting for the game option, use the **Player-1 joystick** to move up or down to another game setting. You do not need to press a button to confirm the change for the game option.

    Some menu items, when selected, will open another sub-menu with additional options.

5. When you finish changing settings, press the **EXIT** button to exit back to the attract mode.

3.2 Operator Main Menu

The Operator Main Menu is the default menu shown when you press the Service button. Each item listed here, except Language, opens a sub-menu with configuration settings.

- **Language** – This option defines what language the software will use for the Operator Menus. Use the **Player-1 joystick** to scroll left and right to choose a language used for the cabinet. The options are English, French, German, Dutch, Italian, or Spanish.
- **Cabinet Setup** – Enter this sub-menu to adjust the Cabinet type, Display, Sound, Credit/Coin, Tournament, and Timer settings, or to restore the factory default settings. (See page 11.)
- **Game Configuration** – Enter this sub-menu to install new Game Packs, or to adjust the Intelli Settings and the individual settings available for each game installed on the system. (See page 14.)
- **Accounting Information** – Enter this sub-menu to view earnings reports, and adjust how the accounting information is sorted in the report. (See page 19.)
- **Diagnostics** – Enter this sub-menu to troubleshoot and test the Display, Sound, Player Controls, and JAMMA hardware on your cabinet. (See page 21.)

3.3 Cabinet Setup

The Cabinet Setup menu lets you adjust settings for the cabinet hardware devices. Below is a detailed description of each menu item listed under the Cabinet Setup menu.

3.3.1 Cabinet Type

Each Cabinet Type option, Upright, Cocktail, Single, and UP-2Ball, defines the setup of the joystick, optional trackball or dial (spinner), and monitor. When the Cocktail option is set, the games are designed to flip 180-degrees in a two-player game, so that each player can view the game correctly, just like on the original cocktail cabinets.

Use the **Player-1 joystick** to scroll left and right to choose your cabinet type.

- **Upright** - Standard upright cabinet with two joysticks, and one optional trackball or dial (spinner). This is the default setting.
- **Cocktail** - Cocktail cabinet with two players on opposite sides, and separate controls for each player.
- **Single** - Standard Upright or Counter-Top cabinet, with only one joystick.
- **Up-2Ball** – Upright cabinet with two joysticks and two trackballs and/or dials (spinners).

3.3.2 Display Settings

The Display Settings menu is used to adjust the orientation or picture quality of the monitor. The picture can be displayed at any 90-degree angle. If the picture is not displayed right-side up, use this setting to rotate the picture so it is displayed correctly on your monitor.

For cabinets with a CGA or low-resolution monitor, CGA Interlace Tuning will fine-tune the video signal if the picture is fuzzy or jumpy.
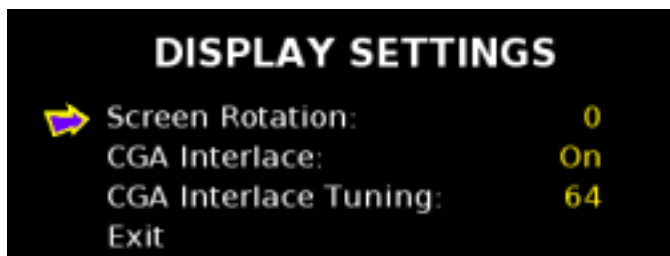
3.3.3 Sound Settings

This Sound Settings menu allows you to set the Sound Volume level between **0** and ten **10,** turn the Attract Mode sound **On** or **Off**, and set sound output to **Stereo** or **Mono**. When the sound level is set to **0**, you should hear no sound from the speakers. The Attract Mode volume plays at the same level as the Sound Volume. (See section *3.6.4 Sound Test* on page 23 for help diagnosing sound problems.)
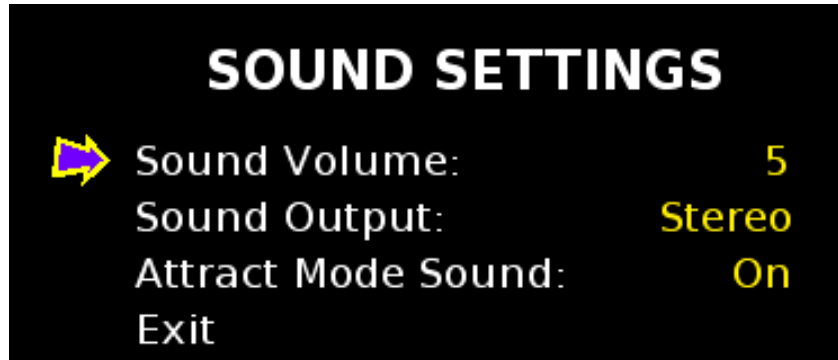
3.3.4 Credit/Coin Settings

The Credit/Coin Settings menu allows you to set how many credits a coin drop is worth. The default setting is 1 coin drop is worth 1 credit.
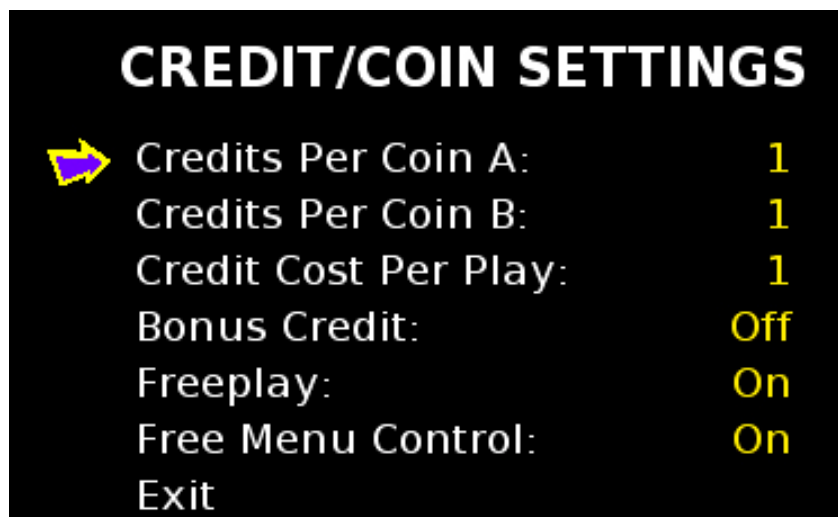
- **Credits Per Coin A, and B** - sets how many credits are given for each coin drop. **Coin Drop A** and **Coin Drop B** can be set to the same value, or independently.
- **Credit Cost Per Play** - defines how many credits are needed to start a single player game, the default setting is 1.
- **Bonus Credit** - gives an extra Bonus Credit if the player inputs 4 credits at one time.
- **Freeplay** - allows players to play the cabinet for free.
- **Free Menu Control** - allows players to exit games without losing their credits.

3.3.5 Tournament Settings

The Tournament Settings menu allows you to enter a Location Entry name to uniquely identify the cabinet.

The High Score menu allows you to delete high scores from the cabinet. Systems with a floppy-disk drive allow you to copy high scores to a floppy disk, or copy high scores from a floppy disk to the system.

3.3.6 Timer Settings

The Timer Settings menu is used to set the amount of time the system will stay in a single game or on the Exit menu screen without any input from the player controls.
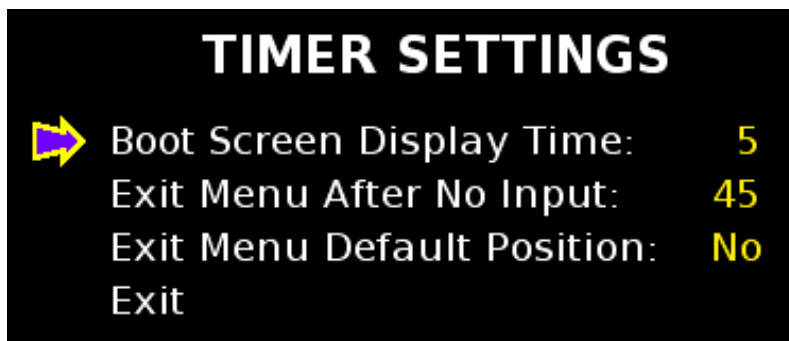
- **Boot Screen Display Time** - defines how long the Boot Screen is displayed when the cabinet is powered ON.
- **Exit Menu After No Input** – defines how long the software will wait before showing the Exit Menu screen if there is no input from a player during a game.
- **Exit Menu Default Position** - defines whether the arrow is on YES or NO in the Exit Menu displayed when a player exits from a game. (The Exit Menu lets players select NO to return to the game, or YES to exit to the default attract mode.)

3.3.7 Reset Factory Defaults

Select this to restore the Operator Menu settings to the factory default settings. Please be aware that restoring the factory default settings may cause the system to rotate the display screen, reset any games that have been disabled, and change the coin settings. This function does not affect the lifetime coin-drop totals.

3.4 Game Configuration Menu

The Game Configuration menu allows you to fine-tune the individual games on the system, and install more games. Intelli Settings help the cabinet earn more money by automatically showing the Attract Mode game screens for the games played more often at your location, and by adjusting the game play difficulty for the people that play in your location. Below is a detailed description of each item in the Game Configuration menu.

3.4.1 Intelli Settings

The UltraCade Multi-Game System supports a lot of games, and the Intelli Settings help the operator by sorting and displaying the games that are most played in the main attract mode, to help drive up earnings. Intelli-Earn™ must first be set to ON to activate both the Intelli-Sort™ and Intelli-Tune™ settings. Once Intelli-Earn has been set to ON, you can go into each menu and fine-tune how the Intelli Settings work for your cabinet.

3.4.1.1 Intelli-Earn™

The Intelli-Earn option, when turned on, will cause the Attract Mode to show games with higher current ($Curr) or lifetime ($Life) coin-drop totals more frequently then those with lower coin-drop totals. When turned off, the Attract Mode will cycle through games randomly. To set the Intelli-Earn options, move the **Player-1 joystick** either left or right.

3.4.1.2 Intelli-Sort™

Intelli-Sort manages how games are displayed on the Game Wheel. You can define how many games will be displayed, and how often to cycle out games that are not earning well for your cabinet. You can define certain games to always be displayed on the Game Wheel by locking the game.
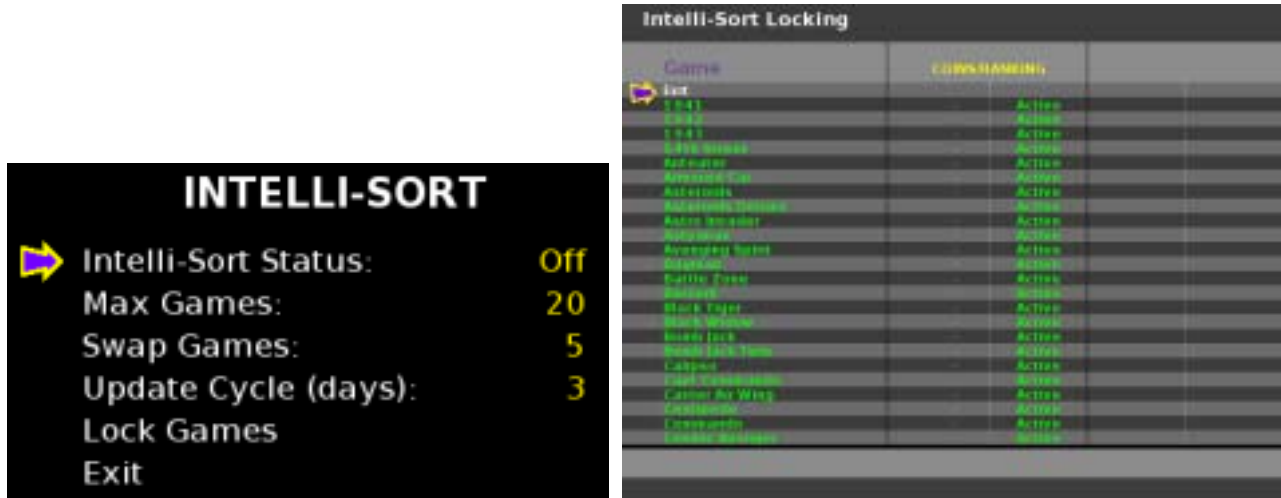
- **Intelli-Sort Status** – Use this setting to turn Intelli-Sort On or Off.

- **Max Games** – This number define how many games are displayed on the Game Wheel when Intelli-Sort is turned on. The options are 20–100.

- **Swap Games** – This number defines how many of the low earning game titles will be swapped out of the Game Wheel for game titles that are not currently being displayed. This allows the Game Wheel to be refreshed with new game titles, and helps fine-tune the earnings for your cabinet.

- **Update Cycle (days)** – This number defines how often games will be cycled or swapped out of the Game Wheel. The shorter the Update Cycle, the more often games will be swapped. The options are 3–10.

- **Lock Games** – This setting allows you to select games that will always be displayed on the Game Wheel. This is very useful if you have just bought an add-on Game Pack and you want to make sure that the new games are available to play from the Game Wheel. When you select Lock Games, you will go to a different screen that shows each game title, as shown above.

3.4.1.3 Intelli-Tune™

Intelli-Tune allows the operator to set an average min and max play time for all the games installed on the cabinet. Intelli-Tune will then automatically adjust the difficulty of game play for each game title so that a player's average play time meets the operator's desired settings. Intelli-Tune works so that no game is too difficult for a beginning player to learn, or easy enough for an experienced player to be able to play through the entire game.

- **Intelli-Tune Status** - Use this setting to turn Intelli-Tune ON or OFF

- **Min Time/Credit** – This defines the minimum amount of play time a player should receive per credit played. Intelli-Tune then adjusts the game play difficulty so that each player should receive at least the set amount of game play time.

- **Max Time/Credit** – This defines the maximum amount of play time a player should receive per credit. Intelli-Tune then adjusts the game play difficulty so that each player should receive no more than the set amount of game play time.

- **Update Cycle (plays)** – This defines how many played games Intelli-Tune will average before adjusting the game difficulty. The shorter the cycle, the more often the game difficulty is adjusted.

3.4.2 Individual Game Settings

The Individual Game Settings menu allows you to choose which games are displayed on the Game Wheel without using the Intelli-Tune settings. You can also change the order of the games list, set the DIP switch settings for each game, or uninstall games from the cabinet. The left column of the screen displays the Game List, and the right displays the AAMA ratings system.

Use the **Player-1** controls to navigate the Individual Game Settings menu, as described below:

- **Joystick Up/down -** moves left column cursor up or down
- **Joystick Left/right -** pages left column cursor up or down
- **Button-1 -** executes choice or disables/enables a game
- **Button-2 -** advances AAMA ratings cursor
- **Button-3 -** disables/enables all games with the currently selected AAMA rating
- **Button-6 -** enters DIP switch menu for highlighted game
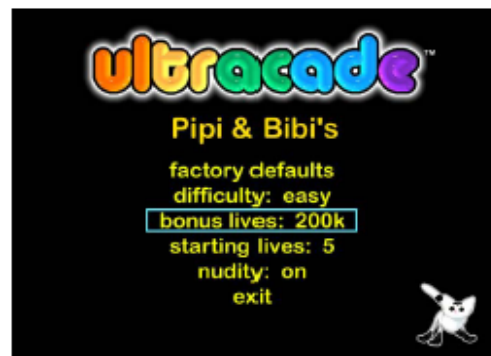
3.4.2.1 The Game List

The Game List is color-coded by the AAMA rating. To check a game's exact AAMA rating, highlight the chosen game and a Title Rating icon will appear on the right side over the correct rating sticker. To enable or disable a game, simply highlight it with the cursor and press **Player-1 Button-1**. A game becomes grayed out when it is disabled.

3.4.2.2 AAMA Ratings System

The AAMA ratings system can be used to disable or enable all games with the same AAMA rating. Use **Player-1 Button-2** to cycle the AAMA cursor until it is over the desired rating. Press **Player-1 Button-3** to disable or enable all installed games with that rating. A disabled icon will appear over the rating when it is currently disabled.

3.4.2.3 DIP Switch Settings

Each installed game comes set to its original factory default DIP switch settings. To change a game's DIP switch settings, highlight the game in the Game List and press **Player-1 Button-6**. This will enter that game's unique DIP Switch menu. An example of a DIP switch menu is shown above.

To change a DIP switch setting, highlight it in the DIP switch menu and move the **Player-1 joystick** either left or right to adjust the setting. To restore the settings to factory defaults, highlight Factory Defaults and press **Player-1 Button-1**.

3.4.2.4 Uninstalling a Game

Uninstalling a game from the system will remove it permanently. The only way to recover the game is to re-install the Game Pack that includes the game. To uninstall a game, highlight it in the Game List, and press and hold the **Player-1** and **Player-2 START** buttons. While holding the two buttons, press **Player-1 Button-1**, and the game will be removed from the list. That game has now been uninstalled.

3.4.3 Add New Games

Important: Use this screen ONLY to re-install the 86 Game Base Pack CD. To install USB Game Pack Key upgrades, follow the instructions provided with the Game Pack.

The Add New Games menu allows you to re-install games from the **86 Game Base Pack CD**. The system requires an Unlock Code to install games from the 86 Game Base Pack CD. An Unlock Code will work only with one cabinet and one CD. Follow the steps below to get an Unlock Code and install games:

1. If you already have an Unlock Code for the cabinet from re-installing games in the past, skip to step 4.

    To get an Unlock Code, you will need the following numbers:

    - **Machine ID (MCID) number** displayed in the center of the Add Game menu
    - **Cabinet serial number** from the label on the back of the cabinet or the computer
    - **86 Game Base Pack CD serial number** found on the CD case

2. Go to http://service.globalvr.com and select UltraCade Support. Select Need an Unlock Code and fill in the form. The unlock code will be automatically generated and displayed on the screen. Write down the number.

    If you do not have access to the Internet, call, fax, or e-mail GLOBAL VR® Technical Support (see the back cover of this manual for contact information) with the information listed above.

3. Write down the unlock code and keep it with your 86 Game Base Pack CD. If your Game Pack ever needs to be re-installed, you can use this number again.

4. Insert the **86 Game Base Pack CD** in the CD drive.

5. Enter the Unlock Code by highlighting each letter and number on the screen and pressing **Player-1 Button-1**. When finished, highlight "Use" and press **Player-1 Button-1**. The Game Pack will now install.

6. When the install is completed, you may exit the Add Game menu. The new games will automatically appear in the Game Wheel.

7. Remove the CD from the drive and keep it in a safe place in case you need it in the future.

3.5 Accounting Information Menu

The Accounting Information menu allows you to access current and lifetime coin totals for each game installed on your system.

3.5.1 Sort Reports By

You can select from several options for listing the games on the earnings and time reports. Highlight Sort Reports By and move the **Player-1 joystick** left or right to cycle through the options shown below:

- **Name -** sort by name
- **Mnfr** - sort by game manufacturer
- **$Curr** - sort by ascending current coin drop
- **$Life** - sort by ascending lifetime coin drop
- **FCurr** - sort by ascending current freeplays
- **FLife** - sort by ascending lifetime freeplays

3.5.2 View Earnings Report

View Earnings Report displays current and lifetime coin-drop and freeplay records for each game. The last reset date is shown at the top of the current records column. Totals are shown at the bottom of each column. This screen also gives you access to the DIP switch settings menu.

Use the **Player-1 joystick** to scroll the window up or down if the game list is too long to display on the screen. Moving the joystick up and down will scroll one game at a time, while left and right will scroll one page at a time.

Press **Player-1 Button-6** to enter the DIP switch settings menu (see section *3.4.2.3 DIP Switch Settings* on page 17 for more information).

3.5.3 View Time Report

View Time Report displays the current and lifetime play time for each game. The last reset date is shown at the top of the current records column. The "Average" column shows the average amount of time it takes to play one game, in minutes and seconds. The "Total" column displays the total amount of time that each game has been played, in hours and minutes. This screen also gives you access to the DIP switch settings menu.

Use the **Player-1 joystick** to scroll the window up or down if the game list is too long to display on the screen. Moving the joystick up and down will scroll one game at a time, while left and right will scroll one page at a time.

Press **Player-1 Button-6** to enter the DIP switch settings menu (see section *3.4.2.3 DIP Switch Settings* on page 17 for more information).

3.5.4 Reset Report Data

To reset current accounting data, coin bookkeeping table records, and current time reporting data, highlight Reset Report Data and press **Player-1 Button-1**. This will reset current game play counters and time reporting to zero (lifetime totals will remain). When this action has been successfully completed, "OK" will appear in the output window to the right.

3.5.5 Copy Current/Lifetime Report

Note: This feature is available only for systems with a floppy-disk drive installed.

This feature allows you to copy either the current or lifetime accounting information of each game to a floppy disk. To copy accounting information to a disk, insert a formatted 3.5-inch floppy disk into the

floppy-disk drive. Highlight the desired copy option and press **Player-1 Button-1**. If the copy is successful, "OK" will appear on the screen. If the copy is not successful, "FAIL" will appear on the screen. "FAIL" indicates a bad disk or a drive failure. Try again with a new disk. When completed, all current or lifetime accounting information will be transferred to your disk. The accounting information text can be displayed in any text editor and easily imported into a spreadsheet application.

Note: This function **does not** copy the current day's totals; it copies only previous days.

3.6 Diagnostics

The Diagnostics sub-menu displays the different diagnostics you can run on the system.

3.6.2 Control Test

This test allows you to check the functionality of the player controls. When you press a button or move a joystick, the screen will indicate the button pressed or the joystick direction. If any controls are not functioning, you can use the JAMMA Test, described in the next section, to determine if the control signal is reaching the JAMMA harness.

To exit the Control Test, press the **Player-1 and Player-2 Start buttons** together. The Control Test screen will automatically timeout in fifteen seconds if no control is used.

3.6.1 Trackball & Dial Test

This test allows you to check the functionality of the trackball and dial (spinner) if installed. When you operate a trackball, an arrow indicates the direction. If the arrow doesn't appear, or indicates the wrong direction, troubleshoot your trackball wiring and sensors.

To exit the Test, press the **Player-1 and Player-2 Start buttons** together. The test screen will automatically timeout in fifteen seconds if no control is used.

3.6.3 JAMMA Test

The JAMMA Test screen lets you test each JAMMA connection for the player controls, coin mechs, and Service button. When you operate a control or coin mech, you will see an on-screen indicator next to the JAMMA pin that was activated. This test helps you pinpoint the problem when a device is not working.

To exit the JAMMA Test, press the **Player-1 and Player-2 Start buttons** together. The JAMMA Test screen will automatically timeout in fifteen seconds if no control is used.

3.6.4 Sound Test

The Sound Test menu lets you test the stereo sound. When you press **Player-1 Button-1** to select a test from the menu, you will hear the sounds described below, and see a graphic indicating which speaker(s) should be playing the sound:


- **Left Channel Test**: You will hear a voice from the left speaker.
- **Right Channel Test**: You will hear a voice from the right speaker.
- **Stereo Test**: You will hear a voice from both speakers.
- **High Frequency Test**: You will hear a high-pitched sound from both speakers.
- **Low Frequency Test**: You will hear a low-pitched sound from both speakers.

3.6.5 Video Test

The Video Test displays screens that can be useful when making adjustments to the monitor. After selecting Video Test, press **Player-1 Button-1** to cycle through the following screens:

• **Red** • **Green** • **Blue** • **Color Bars** • **Pin Cushion**
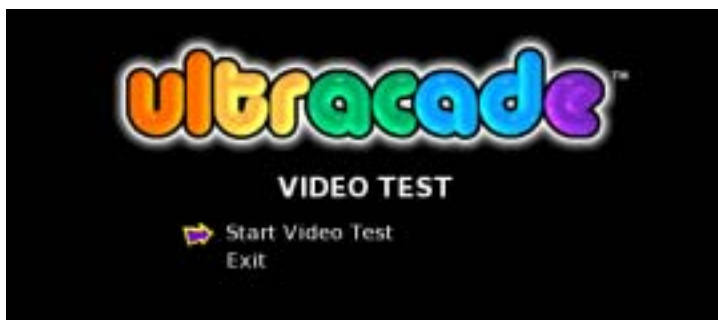
Chapter 4 — Operating System (OS) Re-Installation

The UltraCade Multi-Game System Operating System is pre-installed on the system computer. If you should need to re-install your operating system due to software problems, follow these steps:
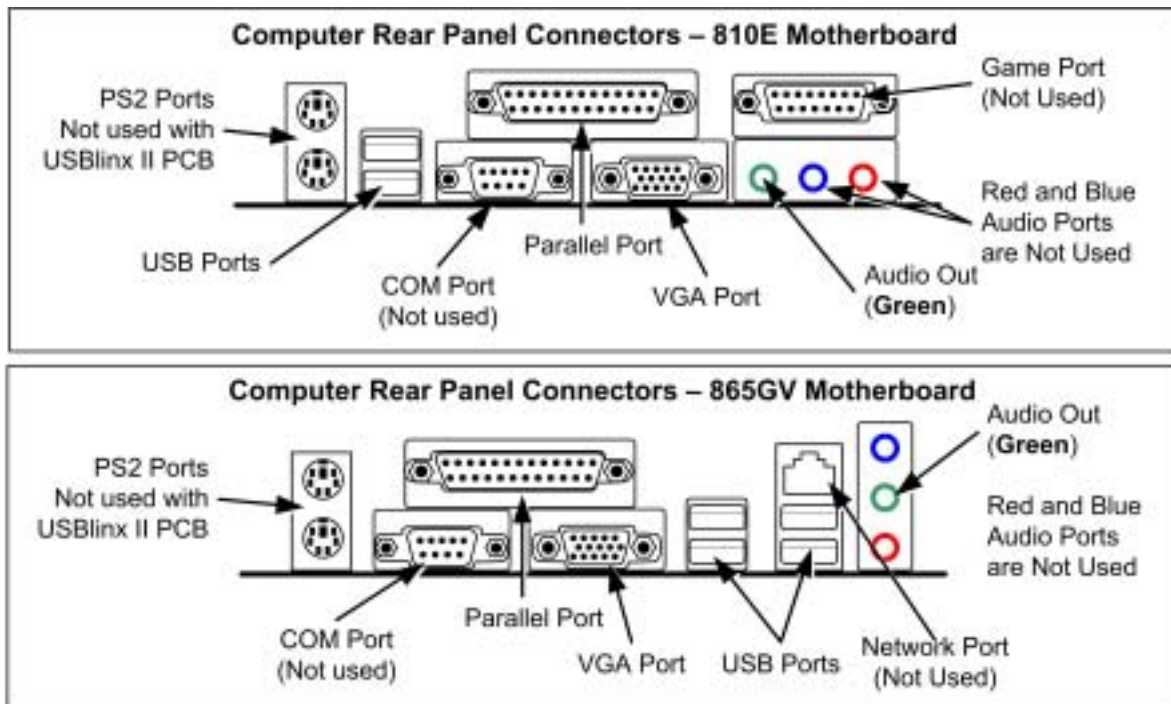
1. Power the cabinet on.

2. Insert the System Installation CD in the CD drive.

3. Cycle the power (turn the cabinet off and then on again).

4. On reboot, you will see the installation menu.

5. Highlight **Format and Install** and press **Player-1 Button-1**.

    Note: Do not select Update Only. This option is only used to update the software from a previous version.

6. When the install is complete, remove the CD.

7. After the OS has been re-installed, all games must be re-installed. Refer to section *3.4.3 Add New Games* for details on Game Pack installation.
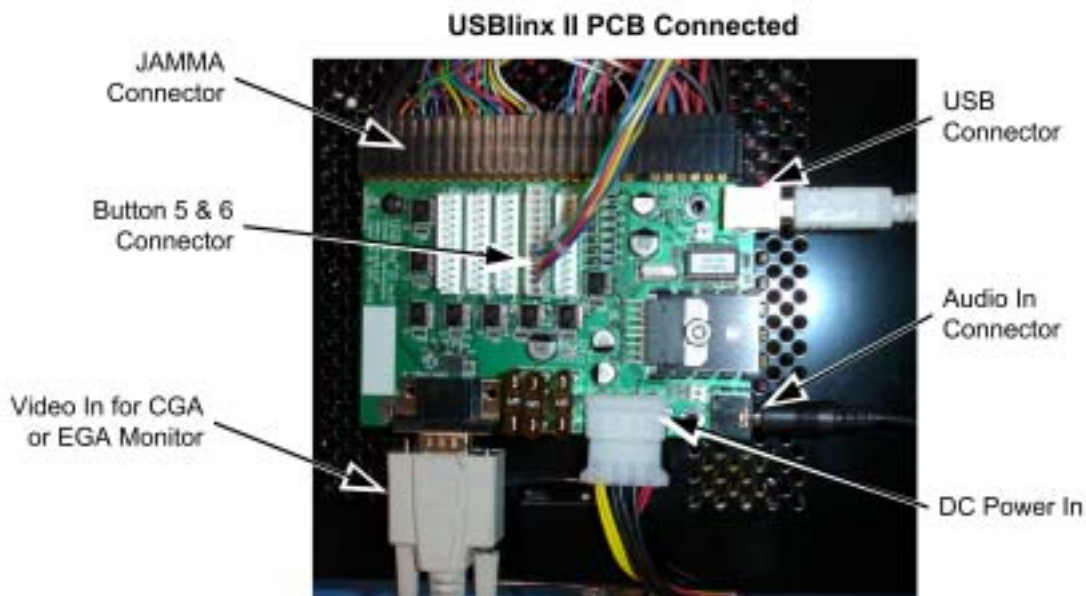
Appendix A – Computer Connections

Computer Rear Panel Connectors – 810E Motherboard

PS2 Ports
Not used with
USBlinx II PCB

Game Port
(Not Used)

Red and Blue
Audio Ports
are Not Used

USB Ports

COM Port
(Not used)

Parallel Port

VGA Port

Audio Out
(**Green**)

Computer Rear Panel Connectors – 865GV Motherboard

Audio Out
(**Green**)

PS2 Ports
Not used with
USBlinx II PCB

Red and Blue
Audio Ports
are Not Used

COM Port
(Not used)

Parallel Port

VGA Port   USB Ports

Network Port
(Not Used)

Computer Connections

- Connect the USB A-B cable from a **USB Port** to USB port on USBlinx II PCB.
- Connect the 3.5mm audio cable from **Audio Out** to Audio In port on USBlinx II PCB.
- Connect VGA monitor to **VGA Port**.
- For conversion cabinet with CGA or EGA monitor only, connect VGA pass through cable from **VGA Port** to video port on USBlinx II PCB, and connect CGA or EGA dongle to **Parallel Port**.

USBlinx II PCB Connected

JAMMA
Connector

USB
Connector

Button 5 & 6
Connector

Audio In
Connector

Video In for CGA
or EGA Monitor

DC Power In

Appendix B – License and Warranty Information

License Information

Joshua Operating System

The JoshuaOS™ is used under license from Joshua Technology, Inc. Joshua Technology, Inc. retains all rights to the code, trademarks, and copyrights. By accepting and operating an UltraCade Multi-Game System, the owner/operator agrees to abide by all copyrights and trademarks, and not to attempt to decompile or modify the operating system in any way. Questions regarding this operating system should be directed GLOBAL VR® Technical Support. JoshuaOS is © 2001-2002 by Joshua Technology, Inc.

AMIJEN Properties

AMIJEN™ and the AMIJEN properties are used under license from Gregory J Lima. Gregory J Lima retains all the rights to all properties, trademarks and copyrights. AMIJEN is © 1997-2002 by Gregory J Lima.

Warranty Information

The UltraCade Multi-Game System cabinet is guaranteed from manufacturing defects. Parts are guaranteed for 90 days.

Warranty Service

If you require warranty service, contact your distributor. If you purchased direct, contact GLOBAL VR® Technical Support (see the back page of this manual for contact information). If the Technical Support staff determines that your game is defective, a Return Merchandize Authorization (RMA) number will be issued.

UPGRADE GAME PACKS AVAILABLE

## Expand Library - Increase Earnings - Extend Life of Machine

ultracade MULTI-GAME SYSTEM

MIDWAY ARCADE TREASURES 1

An awesome combination of the greatest arcade titles ever—Defender, Joust, Robotron 2084 plus 20 others.

SPORTS PACK VOLUME ONE

28 classic sports titles including, Golden Tee Golf, Super Strike Bowling and US Championship V-Ball.

DRAGON'S LAIR 20th Anniversary Edition

Includes the all-time greatest laser disc games: Dragon's Lair, Space Ace and Dragon's Lair II: Time Warp.

TRACKBALL CLASSICS
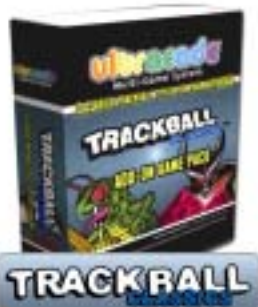
The GREATEST trackball games ever made, including Centipede, Millipede and Rampart.

CASINO LEGENDS

With Casino Legends, enjoy some of your casino favorites such as Blackjack, Showdown and UltraSlot.™

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Technical Support

Service & Parts

Hours: 7:00AM–5:00PM Pacific Time, Monday–Friday

Phone: 408.597.3435

Fax: 408.597.3437

E-mail: techsupport@globalvr.com

Website: http://service.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, as applicable, to assist the Technical Support representative in solving your problem quickly. For your convenience, space is provided to write important numbers.

- Cabinet Serial Number: _____

- Software Version Number (from Operator Main Menu): _____

- MCID Number (from Operator Main Menu): _____

- 86 Game Base Pack CD Serial Number: _____

- Proof of Purchase information

- Your mailing address and telephone number

- A summary of the question or a detailed description of the problem

- Specific error message

- Date of latest install or upgrade

- Any changes made to the system

- For game-play issues, the game and number of players

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