



**GVR SX and PUP Multi-Game
System Documentation**
040-1002-01 Rev .05

- Read this manual before use.
- Keep this manual with the machine at all times.

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Safety

- The following safety instructions apply to all game operators and service personnel. Specific warnings and cautions will be found throughout this manual where they apply. We recommend that you read this page before preparing your arcade cabinet for game play.
- Use the following safety guidelines to help protect the system from potential damage and to ensure your personal safety.
- To help avoid damage to the computer, the power supply on the computer automatically detects the voltage to match the AC power available at the 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 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, transient 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.
- Do not spill food or liquid on the cabinet.
- Do not push any objects into the openings of the system. Doing so can cause fire or electric shock by shorting out interior components.
- Keep your computer far away from radiator and heat sources.
- Always return the cabinets leg levelers to the extreme upright position, before attempting to move the game
- Do not block cooling vents.

Warnings

 CAUTION	<p align="center">WARNING</p> <p>To avoid electrical shock, unplug the cabinet before performing the installation procedures.</p>
 STOP	<p>GLOBAL VR assumes no liability for any damages or injuries incurred while setting up the PUP cabinet. As such, only qualified service personnel should perform this installation!</p>



Environmental Conditions

The PUP cabinet is intended for indoor use only. Be sure to keep the cabinet dry and maintain operating temperatures of 10-40 Celsius.

Regulatory Notices

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 a radio navigation or other safety service or 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, include 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:

- Reorient the receiving antenna
- Relocate the computer with respect to the receiver
- Move the computer away from the receiver
- Plug the computer 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, 1986, to be helpful. It is available from the U.S. Government Print Office, Washington, DC 20402, Stock No. 004-000-00450-7 or on the word wide web at

<http://www.fcc.gov/bureaus/compliance/www/tvibookt.html>.

This device has been tested and found to comply 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, and if not installed and used in accordance with the instruction manual, may cause harmful interference with radio communications. Operation of this equipment in an 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.



GVR SX and PUP Multi-Game Description

GLOBAL VR's PUP and SX product line allows operators to experience the same game play as the Vortek cabinet in a smaller and more affordable footprint. The PUP and SX cabinet is designed for ease of use for both the operator and the game player, and will fit into most any Coin Operated location.

The GLOBAL VR design showcases the following features:

- Superior graphics with 640x480 resolution
- Easily upgradeable with exciting new game software
- Four real motion axes: **yaw** (turn) left/right rotation, and **pitch** (tilt) up/down

GLOBAL VR PUP utilizes a state-of-the-art PC-based interactive visual computing system. The GLOBAL VR PUP's Multi-Game software shell allows multiple games to be installed and played on one cabinet at any time. This PC-based configuration provides the advantage of follow-on periodic new game releases for the PUP cabinet, and the ability to accommodate virtually any new future 3D PC game that would be enhanced by the addition of motion control for the Arcade Industry.

PUP provides the following benefits to operators:

- Consistent earnings from proven game operators for all generations
- Multi-Game Shell. Upgrade and install new games for the PUP platform at any time. People can choose to play multiple games on one cabinet
- 2 Games on one cabinet: Beach Head 2000, 2002 with more games in development
- GLOBAL VR's superior reliability

Installation & Inspection

Carefully remove the cabinet from the shipping container. Give yourself plenty of space around the cabinet as you remove it from the shipping container. Inspect the exterior of the cabinet for any damage.

The 1st set of keys will be located in the coin return slot shown by the arrow. The 2nd set will be hanging on the inside of the coin mech door shown by the circle in the picture below.



Remove the back door from the cabinet and inspect the computer system. Verify that all cables and major assemblies are securely connected to the computer and mounted to the side of the cabinet.



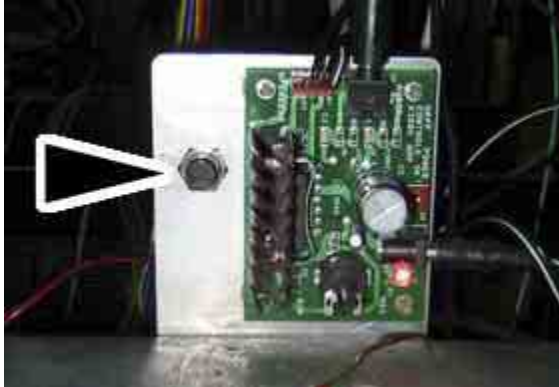
Connect the wall cord to a grounded (3-terminal) AC wall outlet.

Power on the game using the On/Off switch located on the lower rear of the cabinet to verify proper operation.



Game Operators Menu

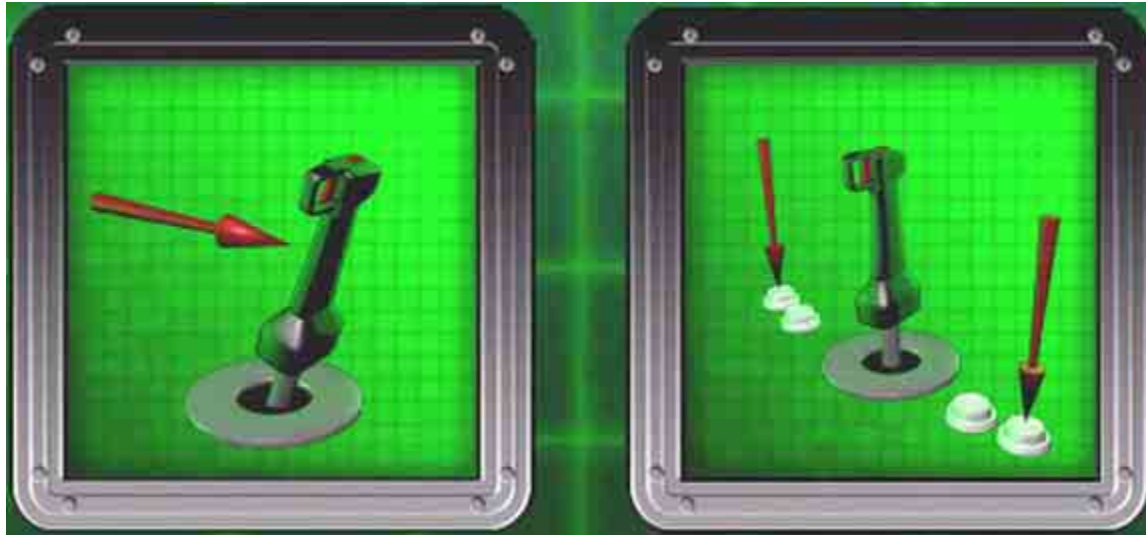
All of PUPs game audits, game adjustments, and control diagnostics are options of the Game Operator Menu. Press the Operator Button behind the coin mech door in the cabinet to activate the Game Operator Menu shown by the arrow in the picture below:



After you press the Operator Button, the following screen shot will appear. The game's options menu is displayed on the left side of the screen and the settings for those options are displayed in the menu on the right. There is no mouse pointer seen when using the joystick or trackball to navigate the Game Operators Menu; instead each option or menu button will highlight in yellow when it is ready to be selected.

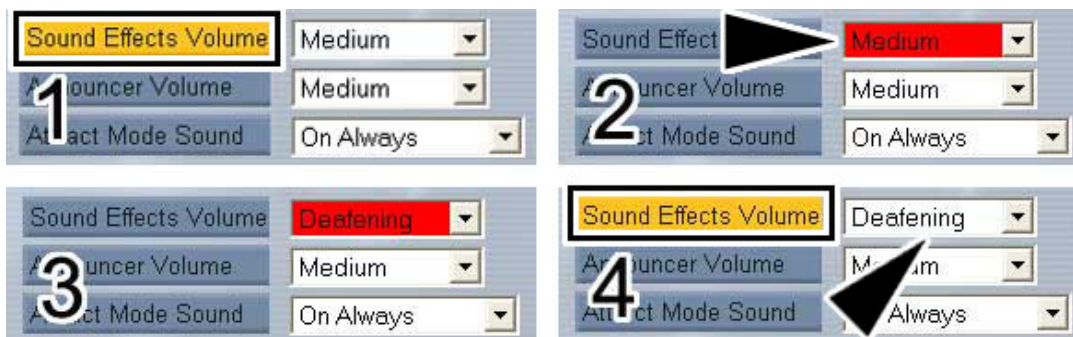


Setting Game Options and Resets



Once in the Operator's Menu you will use the Joystick and Trigger and Buttons to navigate and set the game software. Most of the game options are set by using the Joystick to scroll up and down through the game settings. The Trigger Button is then used to select and confirm game settings.

Example 1 Setting Game Options



1. Use the Joystick to navigate and highlight a game option.
2. Press the Trigger Button to select the game option. The game option window should now turn to red shown by the arrow in step 2 of the picture above.
3. Use the Joystick to scroll up and down through the available game settings
4. When you have the correct game setting highlighted in the game option window press the Trigger Button again to set the new game option. The game option window will turn back to white shown by the arrow in step 4 of the picture above.



Machine Menu



The Machine menu is the default screen displayed when you press the Operator Button to enter into the Operators Menu.

Serial #	Reserved for future use of Multi-Player or Tournament Enabled Games
Machine Type	Reserved for future use of Multi-Player or Tournament Enabled Games
Hardware Version	Reserved for future use of Multi-Player or Tournament Enabled Games
Inserted Credits	This tells the number of Credits and Coins that have been inserted on this cabinet.
Reset Credit Button	This button is used to reset or zero out the Inserted Credits number on this screen.
Attract Mode Sound	This sets up the Attract Mode to be with sound or without. The available options are: OFF, Occasionally ON, and Always ON.
Attract Volume	This will adjust the volume for the game play. The options to choose from are: OFF, Low, Medium Low, Medium, Medium High, High, and Deafening.

Game Mode Menu



The Game Mode menu is used to setup the type of money used at your location, the amount of coins that are needed to start a game, and game play timeout.

Credit Display	Defines whether Money or Arcade Credits are used to play this cabinet. The options to choose from are: Money, or Credits.
International Settings	Defines what type of money that will be used in this cabinet. The options to choose from are: U.S.A, or U.K.
Coins Per \$	This sets how many coin drops it takes to reach a dollar. In the USA you would set this to 4, because 4 quarters equal a dollar. In the UK this would be set to 10, because 10 pence equal a pound. The options to choose from are 1- 20.
Play Mode	This will turn free play ON or OFF. The options to choose from are: Coin/Money Mode, or Free Play.
Credits Per Game	This number defines how many coins or credits it will take to start a Game.
Credits Per Continue	This number defines how many coins or credits it will take to continue a current Game.
Starting Game Time	This number defines how long a player's game will last in seconds before the Continue Game Message appears.
Continue Time	This number defines how many seconds a continued game will last before the next Continue Game Message appears.



Game Resets Menu



Restore Factory Settings	Sets the Game Mode optional settings to the Factory Settings listed below
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U.S.A. Factory Settings

U.K. Factory Settings

U.S.A. Factory Settings		U.K. Factory Settings	
Credit Display	Money	Credit Display	Money
International Setting	U.S.A.	International Setting	U.K.
Coins Per \$	4	Coins Per \$	10
Play Mode	Coin/Money Mode	Play Mode	Coin/Money Mode
Credits Per Game	4	Credits Per Game	4
Credits Per Continue	4	Credits Per Continue	4
Starting Game Time	160 Sec	Starting Game Time	160 Sec
Continue Time	140 Sec	Continue Time	140 Sec

All Audit Coin Stats	Resets the Coin Audits menu for the cabinet. This reset does not affect the Lifetime records held by the game.
All Audit Game Stats	Resets the Game Purchases Audits menu for the cabinet. This reset does not affect the Lifetime records held by the game.
All High Score Stats	Resets the Player High Scores for the cabinet. This reset does not affect the Lifetime records held by the game.

Coin Audits



Name	Value
Total Coins Count	8
Total Buy In Coins	8
Stats Last Cleared	01/01/2002 00:00
Lifetime Coin Count	8
Lifetime Coin Buy In	8
Last Time Updated	04/29/2003 15:14

The Coin Audit menu shows the total number of coins collected for each game, and for the total cabinet, as well as the last date and time the stats were reset. The Lifetime Stats are never reset and show the total number of Games Played for each game, and for the total cabinet.

Game Purchase Audit



Name	Value
Games Played	2
Stats Last Cleared	01/01/2002 00:00
Lifetime Games Played	2

The Game Purchase Audit menu shows the total number of Games Played for each game, and for the total cabinet, as well as the last date and time the stats were reset. The Lifetime Stats are never reset and show the total number of Games Played for each game, and for the total cabinet.



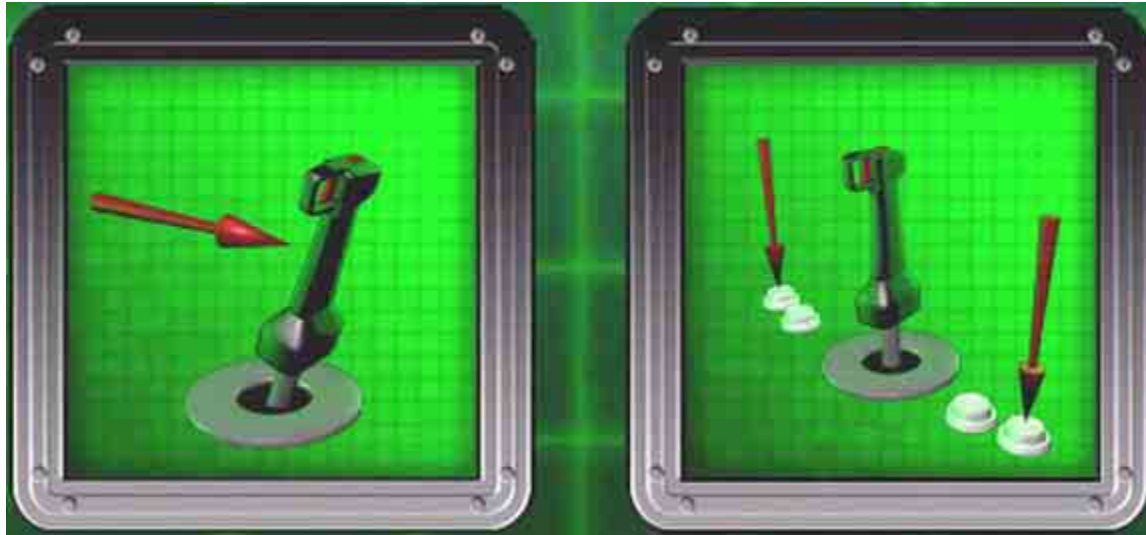
Game Selection



The Game Selection window allows you to disable games that are currently installed so that they are not available to play in the multi-game selection window. Place an “X” next to the game that you want disabled and when you exit the Operator Menu the game will be unavailable for play in the Multi-Game Selection, but not deleted. You can re-enable the game at any time by removing the “X” in the Game Selection Menu. Only the games installed on your cabinet will be displayed in this menu.

If you have installed a game and it does not appear in the Multi-Game Selection window during the attract mode, or in the Game Selection Menu check to make sure the USB Dongle is inserted correctly. When the USB dongle is inserted correctly and recognized by the Game Software it should light up with a red LED.

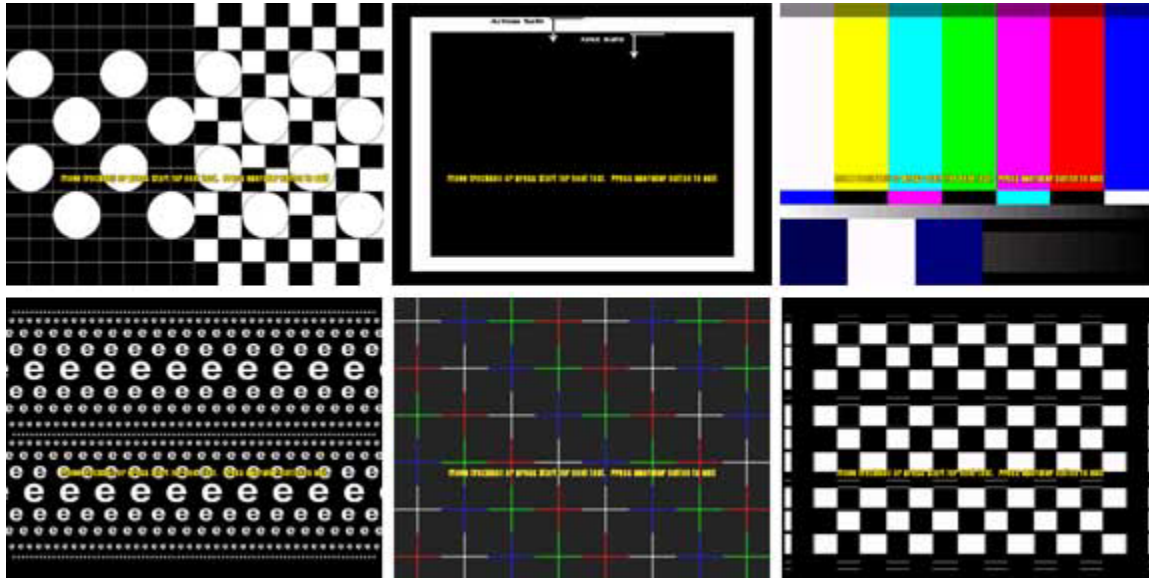
Player Control Test



The Player Control Test will validate that the controls are setup correctly and working on the cabinet. When you press a button a red arrow will appear on the test screen when it is operating correctly as shown in the picture above. When you move the Joystick in any direction a red arrow will appear in the direction that the Joystick is moving when it is operating correctly. When you are finished testing the player controls press the Operator Button to exit back to the main operators menu.



Monitor Calibration Test



When you begin the Monitor Calibration Test; use the trackball or Start Button to scroll through each monitor screen test. To exit the Monitor Calibration Test, press the operator button behind the coin mech door. Use each monitor calibration screen test separately to adjust and fine tune the picture on your monitor. Each screen is designed to either align the horizontal and vertical sync, or adjust the white balance, and color hues. If you notice a color distortion on the monitor; press the degausser button on the Monitor Control Panel may be necessary to fix the color distortion.

Use the Monitor Control Panel to adjust and fine tune the picture quality on your monitor. The Monitor Adjustment Options display on screen, use the buttons on the Monitor Control Panel to select, adjust, and set the available options. The Monitor Control Panel is located under the front control panel.





Starting a Game

With the proper amount of credits inserted use the Headset to scroll up and down to choose the game you want to play and press the Fire Button to confirm. If only a single game is installed on your PUP cabinet you will not choose a game, but go directly to the next screen.



At the next screen choose the difficulty of play: Easy, Medium, or Hard. Each Degree in difficulty will add more enemy squadrons to the game and weaken your shield against the enemy. Use the Joystick to scroll up or down through the available options and press the Trigger Button to confirm





Playing a BeachHead 2000, 2002 Game



The outer edge of the screen is filled with information bars that help explain where the enemy is coming and how many there are to help you get a better score on your game. Each information bar is described below. The goal of the game is to defend your post and destroy as much of the enemy as possible.

- A. This Information bar tells you how much of your shield you have left.
- B. This Information bar tells you what level you have achieved in the game.
- C. The Blue Information Bar tells you how many Enemy Aircraft you have left to shot down for this level. The Red Information Bar tells you how many Enemy Land Vehicles or Soldiers left to shot
- D. The Blue and Red Arrow tells you in which direction the Enemy is coming from. When the enemy comes into view on your monitor the arrows will disappear.
- E. This shows your total score for the game. The more Enemy you strike down the more points you earn.

Left Thumb Button: This button is used to Change Weapons between Machine Gun Fire used mostly for soldiers and Cannon Fire used to destroy Tanks and Troop carriers

Right Thumb Button: This button is used to fire Missiles. Aim Carefully the Missiles fire in groups of two and it takes a moment to reload them.

Trigger Buttons: These buttons are used to Fire the Machine Gun or Cannon depending on which one you have selected

USB Game Dongles



USB Game Dongle Activated



USB Game Dongle Not Activated

The New PUP Multi-Game shell supports the ability to install and play multiple games on one cabinet; allowing the operator to customize and install games that suite their location. Each Game installed on the PUP cabinet comes with a USB Game Dongle. If more than one game is installed a USB HUB is used to accommodate the extra USB Ports needed for multiple USB Game Dongles. When the USB Dongle is installed and working properly a Red LED light will illuminate inside the Dongle. In order for a USB Game Dongle to be recognized correctly it must be inserted into the USB port before the cabinet is powered. If for some reason the USB Dongle is not recognized power the cabinet OFF then ON to see if this resolves the problem.



In the event that 2 USB HUB's are needed to create enough USB ports for all the game dongles you can daisy chain the USB HUBs together as shown above. Do not plug the USB cable coming from the HAPP GCI Controller card in the USB HUB's as this will cause the card to not work.



System Restore CD's



In the event the software running on the computer becomes corrupt, or you run into software problems GLOBAL VR provides a way of restoring the software running on your PUP computer. The System Restore CD's will load the Operating System on 1 CD first; then the game software is on separate CD's that will be installed second. Please be aware when you use the System Restore CD's you will erase all history for the coin and game audits held in the game software.

Operating System Restore CD

1. Power ON the computer and open the CD drive to INSERT the CD labeled Disk 1. The CD should automatically start up (wait about 60 seconds) and on the screen you should see the Hard-Drive Image process starting.
2. When the Hard-Drive Image process has finished remove the CD and reboot the computer

Version Game Software CD's

1. While the cabinet is powered ON and the computer has finished booting up; open the CD drive and INSERT one of the Game CDs. The CD should automatically start up (wait about 60 seconds) and on the screen the Install shield Wizard windows is displayed. During the installation which will take approximately 10 minutes, you will see several windows pop up copying various components and files to the hard drive.
2. The system will automatically begin copying files from the Game CD. When the CD is complete, the system will automatically reboot. Once the game has restarted, you may now remove the CD. Keep these CD's in a safe place in case they are needed for future use.
3. When the game loads up for the first time, it is important to synchronize the new game software with the cabinet's hardware. This is done by coining up the machine (insert 3 credits), then verify that the three credits are shown (i.e., \$1.00) on the monitor. Finally, power the system Off and On to complete the synchronization process.
4. To Install more Game Titles repeat steps 1 through 3. Insert the CD during the attract mode and the install will begin automatically as described above. Do not perform a Game Install or upgrade while in the middle of a playing game.



Hardware Features:

- **Pentium 3 Computer**
- **32 bit Color**
- **Joystick Controls**
- **640 x 480 Super VGA Monitor**



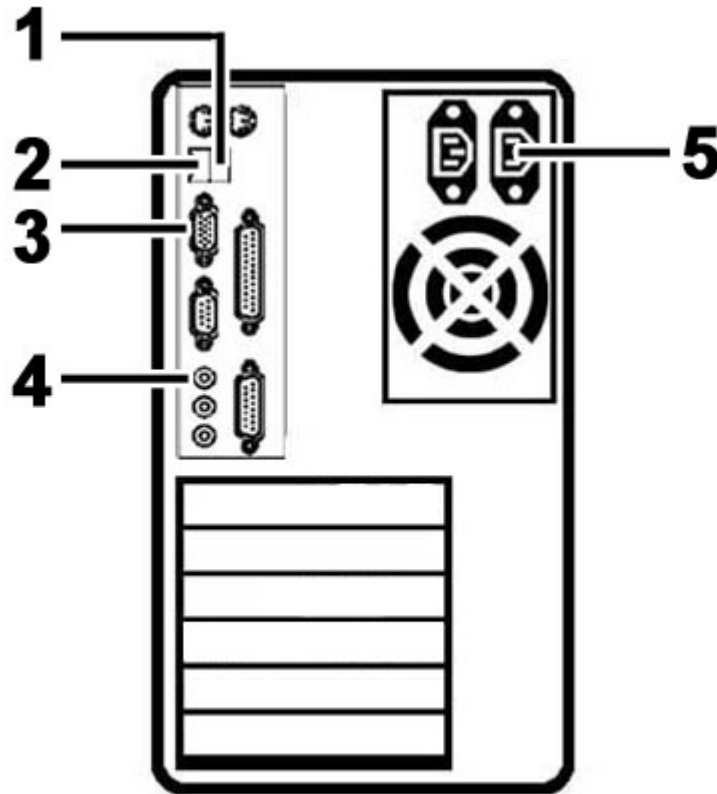
PUP Cabinet Features



Hardware Features:

- Pentium 3 Computer
- 32 bit Color
- Trackball Controls
- 640 x 480 Super VGA Monitor

Computer Rear Panel Diagram



Port	Computer Ports Description or Use	
1	USB 0	USB Port 0 on the computer connects to the HAPP GCI Controller
2	USB 1	USB Port 1 connects to the USB HUB used for each USB Game Dongle on the computer
3	Video Out	The 15-pin video port connects to the Super VGA Monitor cable inside the cabinet
4	Audio Out	The Green Audio Out Port on the computer connect to the speakers
5	AC Power	AC Power input must use a IEC 14 connector



Trouble Shooting

Problem	Possible Solution
No Picture or Distorted Picture.	Check for bad video cable or faulty video board or monitor. Check for loose or disconnected video signal cable. Make the monitor has power.
Turn Game On and Nothing Happens.	Check that the power cord is plugged into the computer. Make sure the cabinet On/Off switch is on. Confirm the power cord is plugged into a wall outlet.
No Sound.	Check that the audio cable is connected to the green audio port on the computer.
No Response from Headset or Buttons.	Check that the signal and ground wires are connected to the Headset and buttons. Confirm the HAPP UGCI card is plugged into the USB port on the computer. Confirm the HAPP UGCI card has power by looking for the Green LED.
No Credit given when Coins are Inserted	Check coins per play setting. Check the signal wires to the coin mech. Check the Power wires going to the coin mech.
To many Credits for Number of Coins Inserted	Check coin per play setting in the game software.
Game Dongle not found	Check to make sure the GLOBAL VR USB Game Dongle is connected to the USB port on the back of the computer. If the USB Game Dongle is present and working correctly it should light up with a Red LED. If the dongle is not present plug it back in and reboot your computer.



PUP Warranty Info

LIMITED WARRANTY

GLOBAL VR warrants that its computer circuit boards, hard drives, power supplies, monitors, displays, controls, sensors, and mechanical structures are free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of shipment.

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:

- 1) Purchaser believes that the Product is defective in material or workmanship and promptly notifies GLOBAL VR in writing with an explanation of the claim;
- 2) All claims for warranty service are made within the warranty period;
- 3) Products are returned adequately packed and freight prepaid to GLOBAL VR's designated service center;
- 4) 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 only shall be in effect for a period of ninety (90) days following the repair or replacement of that part or the remaining period of the Product parts warranty, whichever is greater.

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.

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Technical Support

Free telephone, email and online support are provided for the PUP systems during the warranty period. In addition to helping with trouble shooting and diagnosing defective parts technical support is prepared to help you with questions about the operation of your PUP game.

When you contact technical support at GLOBAL VR, please provide the following background information to aid our technical support process:

Your mailing address and telephone number

Your PUP cabinet Serial Number

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

Technical Support is available from 9:00-5:00PST, Monday through Friday.

Call +1-408-501-0000 to reach a technical support staff member.

Email support is available if you email support@globalvr.com

Warranty Service

If at some point you require warranty service, contact your distributor. If technical support staff determines that parts on your PUP cabinet are defective, a Return Merchandize Authorization (RMA) number will be issued.



Legal Statements

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