



Vortek Multi-Game Hardware Upgrade Kit Revision .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 power cables into a properly grounded power sources. 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 you system.
- 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.
- Do not block cooling vents.

Warnings

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

!! Important Information !! Please Read First

Hardware Install on Older Cabinets

Some of the Vortek cabinets will be installed with the Graphite computer. The Graphite computer is much harder to perform the computer hardware upgrade, and GLOBAL VR strongly recommends having a certified technician perform the work. Please follow the instructions below to inspect the hardware installed in your cabinet.

DFI Computer

The DFI computer can easily be upgraded by any service technician not familiar with computers. The computer parts are easy to identify and require only a screw driver to open the lid and perform the hardware upgrade. If your computer looks like the picture below please continue with the rest of the instructions to upgrade the hardware on your computer.



Graphite Computer

The Graphite Computers are still upgradeable, but are much more difficult to perform the upgrade due to the location of the memory slots. Global VR strongly recommends sending the computer back to Global VR for a certified technician to perform the upgrade. Global VR is not responsible for any damage done to your Graphite computer in the attempt to perform the hardware upgrade on your own. If your computer looks like the computer pictured below please contact Global VR's technical support to arrange the upgrade. Instruction are printed at the back of this manual detailing how to package the computer to send back to Global VR



GLOBAL VR Vortek 3 Hardware Upgrade Kit -- Component List

Description	Qty	Part#
1 Nvidia Video Card	1	AS40064AR
2 512 MB SDRAM Memory	1	315-0512-32
3 Vortek Upgrade Manual	1	040-1003-01
4 Ethernet HUB	1	345-08013-00
5 Vortek 3 OS CD	1	050-0014-01



If any parts are missing from your kit please contact GLOBAL VR

Tools Required to complete the hardware installation:

Wire Snips or Wire Cutters		
#2 Philips Screwdriver	Power Drill is Optional	

VORTEK COMPUTER REMOVAL

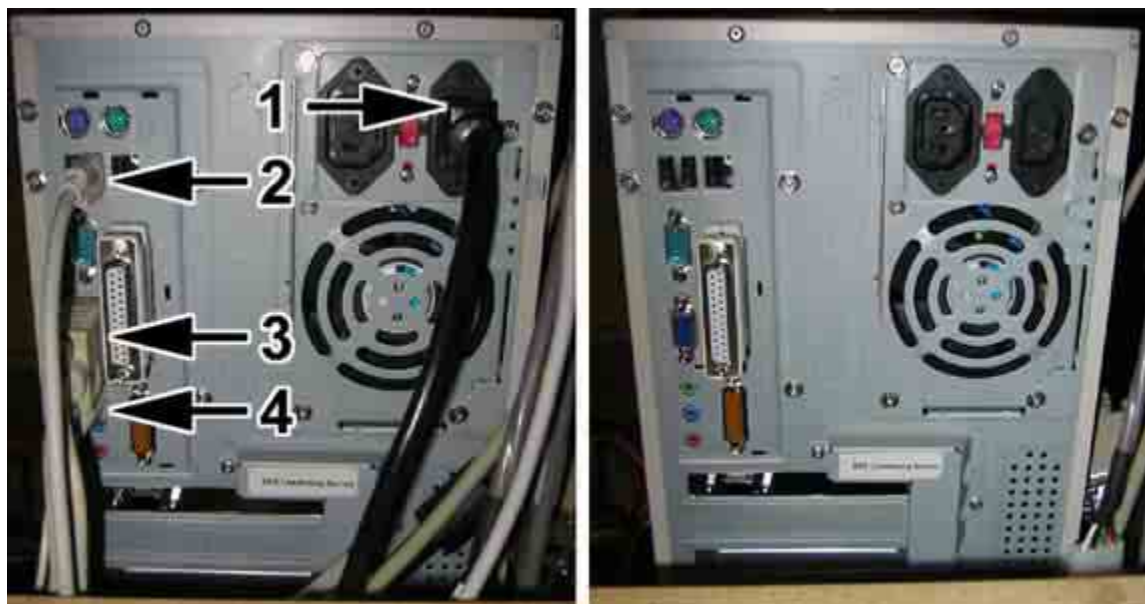
Be sure the cabinet is powered down and unplugged from the wall.

Remove the rear door on the cabinet with the key provided near the coin mech.

1. The location and arrangement of the computer and hardware may vary, but the removal process is the same for all Vortek cabinets.



2. Begin by unplugging all the cables from the computer and setting them aside and out of the way. 1 – Power Cable , 2 – USB Cable , 3 – Video Cable , 4 – Audio Cable

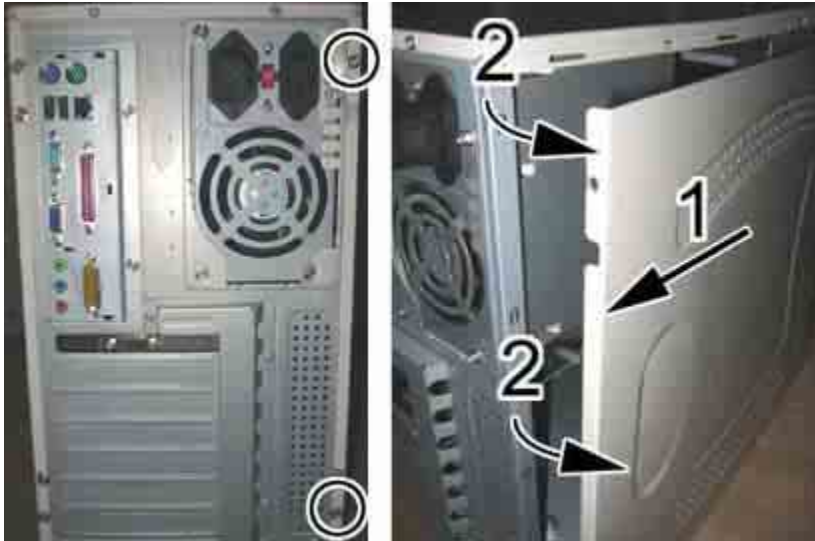


3. Use a #2 Philips screwdriver to remove the 4 woodscrews holding the computer to the cabinet as shown in the picture below. Once the screws are removed safely pull the computer out of the cabinet.



COMPUTER HARDWARE UPGRADE

1. Remove the two screws holding the computer cover on as shown by the circles. The cover is removed by pulling back $\frac{1}{4}$ of an inch (1) and then pivoting the lid out (2) as shown in the picture below.



2. Remove the second serial port from the computer. Use a #2 Philips screwdriver for the screw, and unplug the cable from the motherboard.



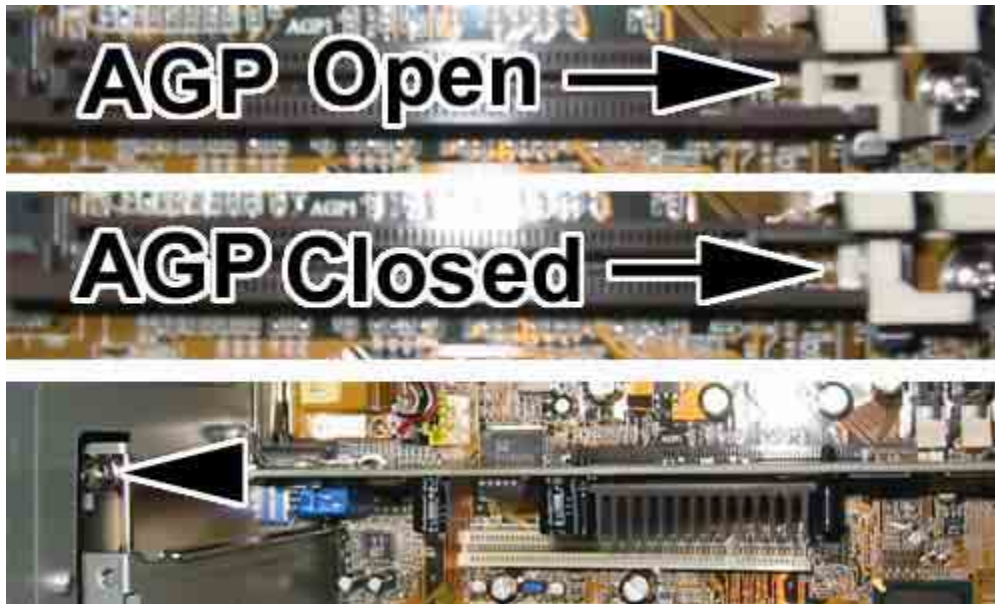
3. Remove the 128MB memory stick installed in the computer shown by the circle. Press the tabs outward to unlock the memory stick from the motherboard shown by the arrows in the picture below. Then gently pull the memory out.



4. Now install the two new 512MB memory stick into the first memory slot on the computer. Be sure the tabs are open and unlocked, align the two notches in the memory stick with the guide pins on the motherboard shown by the circles in the picture below. Gently press the memory stick in until the memory is securely held in by the locking tabs.



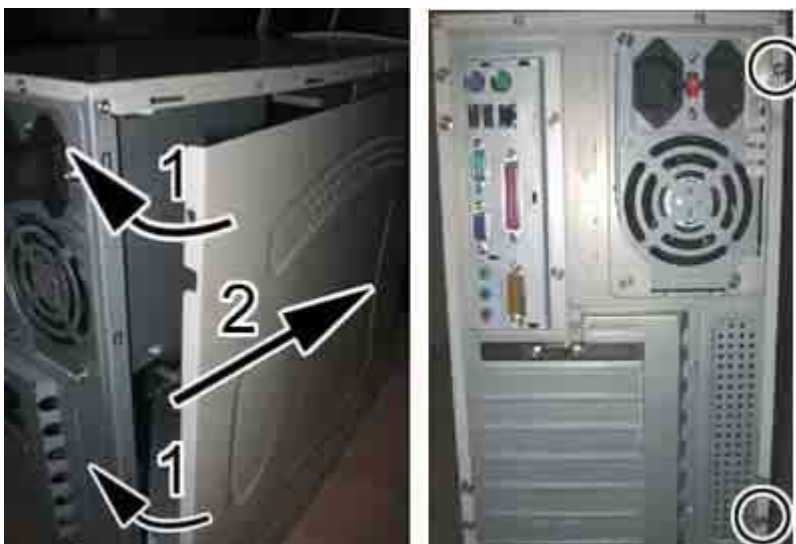
5. Next install the AGP video card into the computer. Be sure the card lock at the end of the AGP slot is open. Insert the card into the AGP slot and use a #2 Philips screwdriver to secure the video card to the chassis as shown by the arrow in the picture below.



6. You need to be sure that the video card is installed correctly. Be sure there are no gold tabs showing just above the AGP slot as shown by the arrows in the picture below.

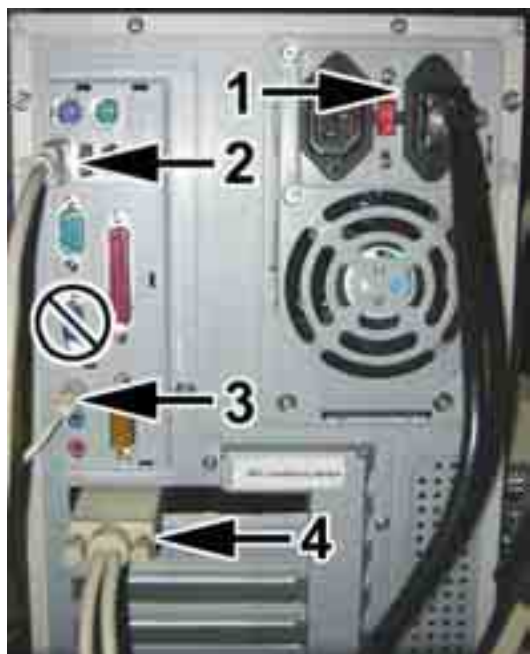


7. Re-install the computer cover by reversing the removal process. You will need to align the teeth on the lid with the slots in the chassis to close the lid properly as shown in the picture below.

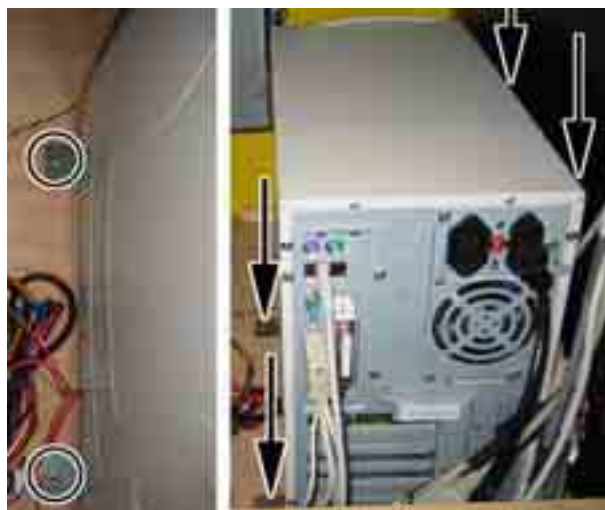


VORTEK 3 CABINET INSTALL

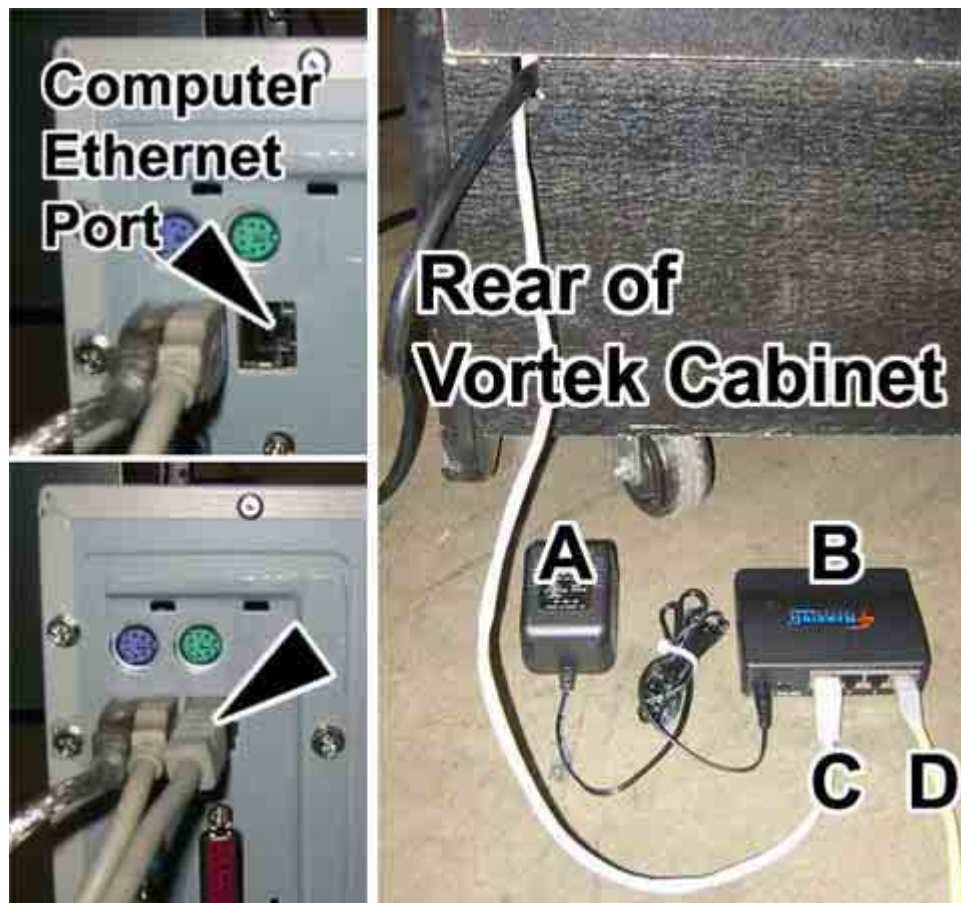
Global VR recommends setting the computer out side the cabinet while you perform the software upgrade so that you can easily reach the CD-ROM. All of the cable should be long enough to reach the computer. Connect the cables to the computer shown by the numbered arrows in the picture below. 1 – Power Cable , 2 – USB Cable , 3 – Audio Cable , 4 – Video Cable (Do not connect the video to the port on the above the audio cables)



When you have finished installing the software and you have verified that everything is working properly install the computer into the cabinet using the 4 woodscrews you removed in the beginning.



Ethernet HUB for Multi-Player Games



A	AC Power Supply for Ethernet HUB
B	Ethernet HUB - 4 Ports
C	Ethernet Cable from Vortek Cabinet
D	Ethernet Cable from secondary Vortek Cabinet

A Ethernet HUB is provided to link Vortek cabinets together for Multi-Player games like Operation Blockade. The Ethernet HUB is placed on the outside of the cabinet and requires a separate AC Plug to power the Ethernet HUB. A maximum of 4 Vortek cabinets can be linked at one time using 1 Ethernet HUB; you can not link more cabinet together because the game software only supports 4 Players. Linking multiple Ethernet HUBs together will cause the cabinet to fail while trying to start a Multi-Player game. A 10ft Ethernet cable is provide with each multiplayer game software kit. Plug the Ethernet cable into the Ethernet port on the computer, run the cable to the outside of the cabinet to connect with the Ethernet HUB as shown in the picture above.



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 Vortek 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.





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.





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 Vortek 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 Vortek 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

A summary of the question or a detailed description of the problem with your Vortek 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 your Vortek computer or cabinet is defective, a Return Merchandize Authorization (RMA) number will be issued.





Legal Statements

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Needs to be geared for Vortek Games

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