



EA SPORTS™ PGA TOUR® Golf

Everlast™ Upgrade Manual

040-0022-01 Rev C

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



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EVERLAST Upgrade Kit Component List

Part #	Description	Qty
115-0025-01 or 115-0050-01	Cabinet Fan, 115 VAC	1
P-ATX1140H	Enhance 1140H-ATX 400 Watt Power Supply	1
A1349	Copper Cooler for Video Card	1
100-0021-01	14-Inch Tie Wrap for AGP Video Card	1
100-0020-01	8.5-Inch Tie Wrap	4
EV088B3-G	Case Fan, 80mm, 60 cfm	1
040-0022-01	<i>Everlast Upgrade Manual</i> (This Document)	1
NA	Heat-sink Thermal Compound	1
NA	2-1/2 x 8-32 Pan Head Bolt	4
NA	8-32 SAE Washer	4
NA	8-32 Nut	4

If any parts are missing from your EVERLAST upgrade kit, please contact your local distributor.





Safety

The following safety instructions apply to all game operators and service personnel who will perform the EVERLAST Upgrade. Specific warnings and cautions will be found throughout this manual. Please be aware the GLOBAL VR is not responsible for any damage that may occur to your computer or other components of the cabinet while performing the EVERLAST Upgrade.

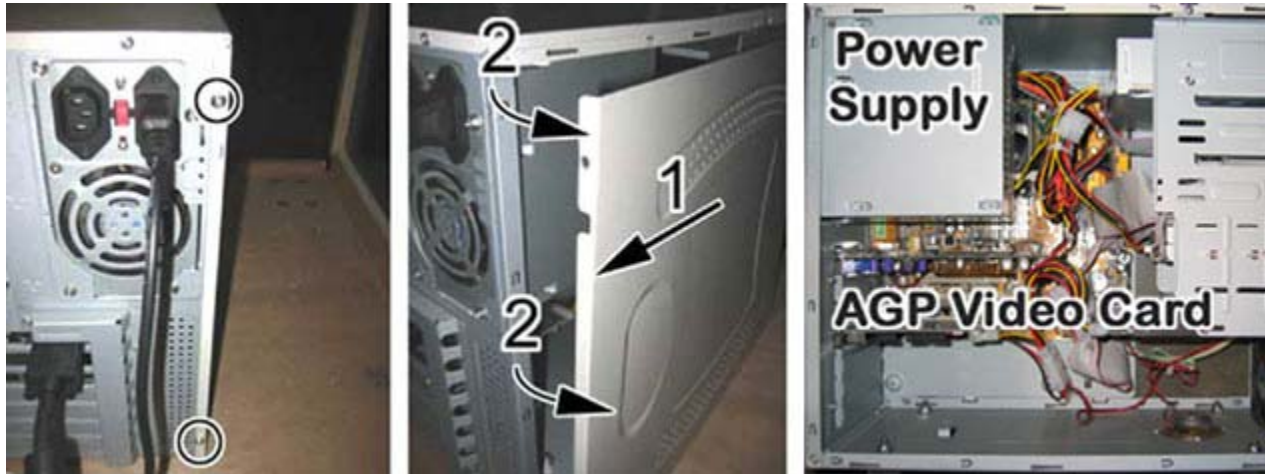
- **Please read this page before preparing your computer for the EVERLAST Upgrade.**
- **Please read the entire manual so you have a good understanding of how to upgrade your computer and your cabinet.**
- Use the following safety guidelines to help protect the system from potential damage and to ensure your personal safety.
- If you feel uncomfortable about doing any of the procedures to complete your upgrade - STOP! Contact your local distributor to ask questions or help you with the EVERLAST upgrade. GLOBAL VR is not responsible for any damage to hardware that may occur.
- To help prevent Electrostatic discharge (ESD) damage to the computer or any other parts, it is best to ground yourself with an ESD strap while working with the computer parts in this upgrade.
- To help prevent ESD damage, always handle the video card by the PCB edge. Do not touch the gold contact points with your hand as you can easily statically shock the components on the video card, making it inoperable.
- Do not push any foreign objects into the openings of the computer system. Doing so can cause fire or electric shock by shorting out interior components.
- Keep your computer far away from radiator and other heat sources while in operation.
- Do not block cooling vents while the cabinet is in operation.

Warnings

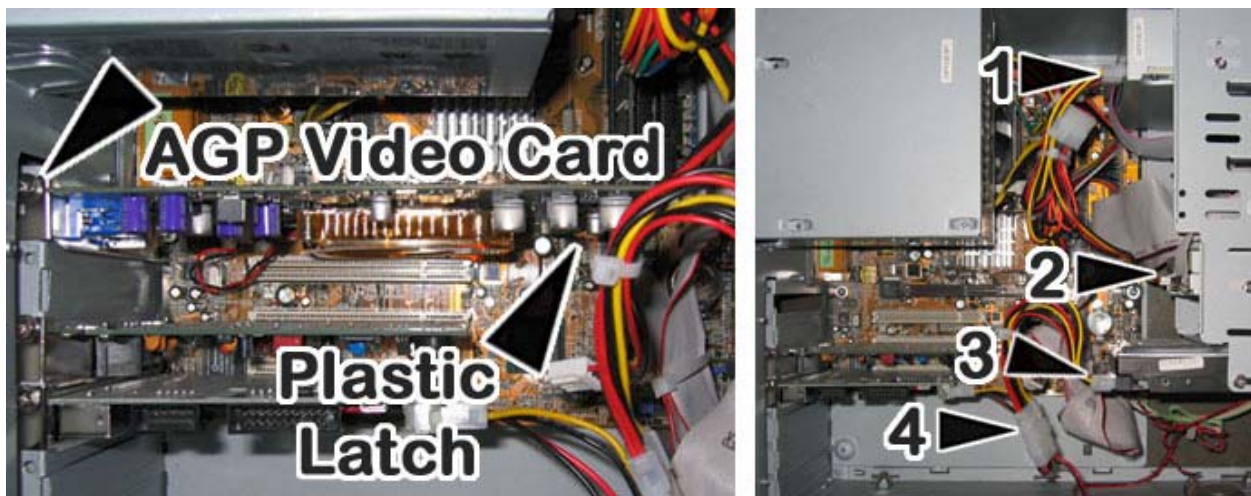
 CAUTION	To avoid electrical shock, unplug the cabinet before performing the installation procedures.
	GLOBAL VR assumes no liability for any damages or injuries incurred while setting up the EVERLAST Upgrade. Only qualified service personnel should perform this installation!

Computer Parts Removal

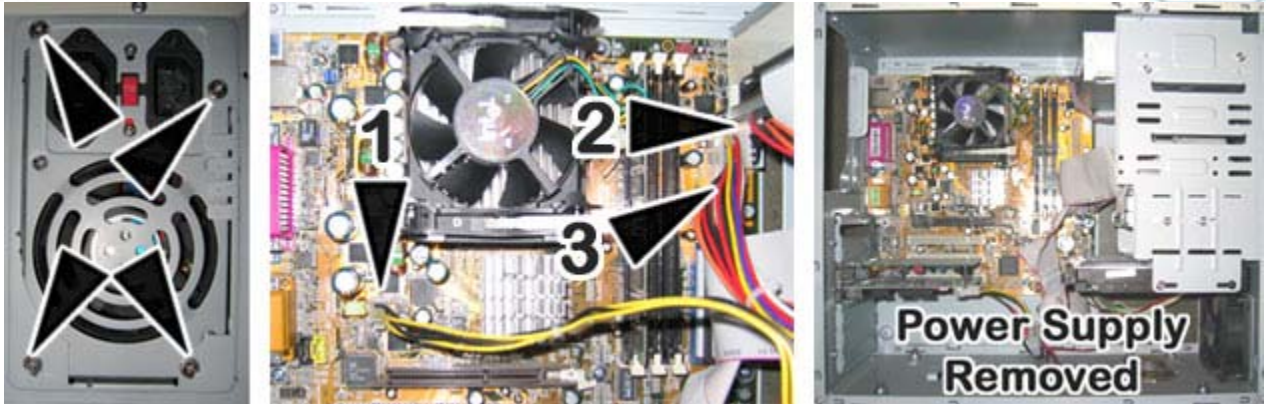
In order to remove and install the Power Supply, Video Card, and case fan from the computer, we suggest that you unplug the cables from the computer and remove the entire computer from the inside of the cabinet before performing the EVERLAST Upgrade.



1. Remove the two screws that hold the side panel onto the computer chassis as shown by the circles in the picture above. Next, slide the side panel back first, then out and away from the chassis to unlock the side panel and remove it.
2. **For White Cases only:** Repeat Step 1 to remove the other side panel. This is necessary to install the new case fan (see page 11).



3. Locate the AGP video card as shown above. You will need to remove the screw holding the front of the video card as shown by the arrow in the picture above. Next, unlock the plastic latch that secures the back end of the video card to the motherboard and remove the AGP video card from the computer.
4. Next, unplug the Power Connectors from the 4 locations shown by the numbered arrows in the picture above. These are: (1) CD-ROM, (2) Floppy Drive (optional), (3) Hard Drive, and (4) USBIO card and chassis fan.



5. Using a Phillips screwdriver, remove the 4 screws holding the power supply to the computer chassis as shown above. You will need to support the power supply in your hands until the 3 other power connections are removed.
6. Once you remove the power supply, you can easily access the 3 other power connections that connect the power supply to the motherboard as shown by the numbered arrows in the picture above. These are: (1) 4-pin S-ATX power connector, (2) 20 ATX power connector, and (3) 6-pin Auxiliary power connector. You will need to un-hook the latch for both the S-ATX, and ATX power connector that helps to hold the connector to the motherboard.

Note: You will **not** use the 6-pin Auxiliary Power Connector with the new power supply. When you are finished, the Power Supply and AGP video card will be removed from the computer chassis.

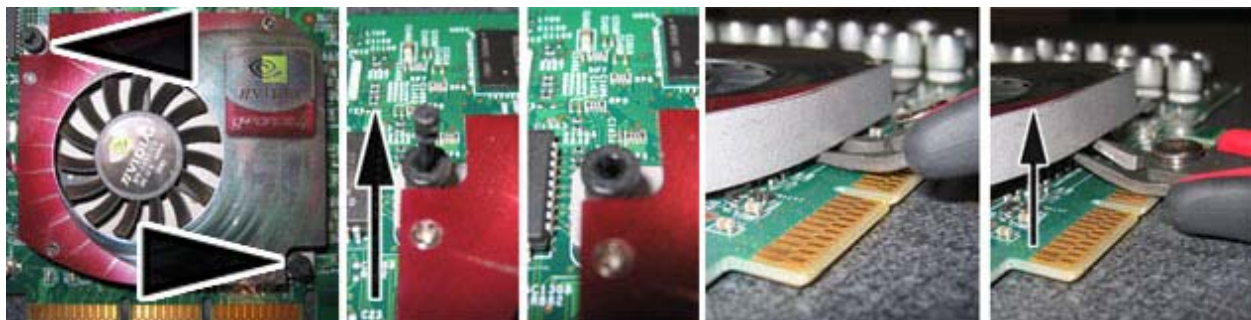
Video Card Heat-Sink (VGA Cooler) Installation

GLOBAL VR accepts no responsibility for any damage that may occur when installing the VGA heat-sink on your Nvidia video card. The Video card can be damaged easily if too much force is used to remove the old VGA cooler. If you feel uncomfortable about changing the VGA cooler, please talk to your local distributor to arrange for them to perform the upgrade.

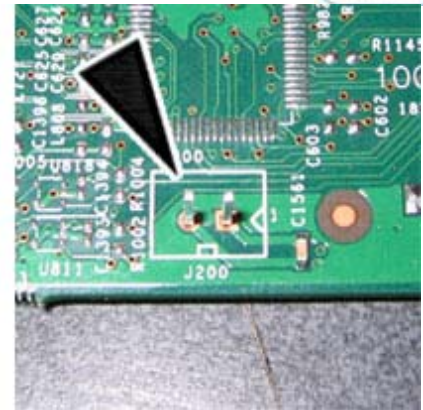
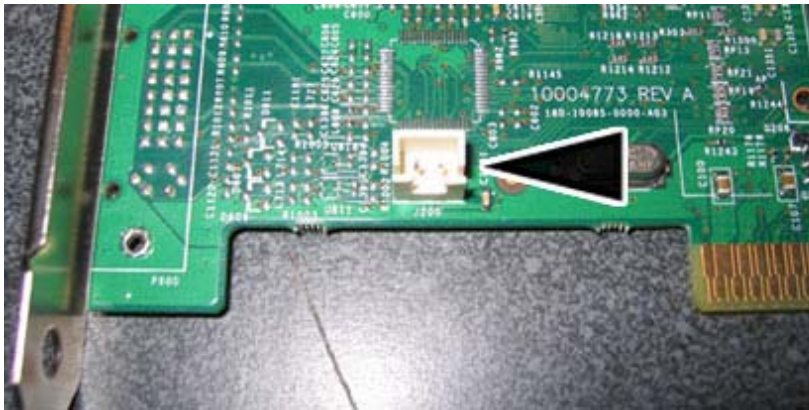
1. Begin by removing the Video Card from your computer. The video card is sensitive to electrostatic discharge (ESD), so handle the card carefully.
2. There are two different styles of VGA heat-sink that may be installed on your video card. Follow the instructions in Step **a** or **b** below, as appropriate for your video card.



- a) **Bonded Heat-Sink / No Plastic Retaining Pins** – You will need a medium size flat tip screwdriver. Make sure the screwdriver does not touch any small resistors or caps on the video card. Place the tip of the screwdriver over one of the metal tabs shown in the first part of the picture above. Insert the screwdriver between the tab and the fins of the heat-sink and twist it so that the plastic tab bends downward, as shown above. The tab will act like a lever to pry the heat-sink off of the video card.



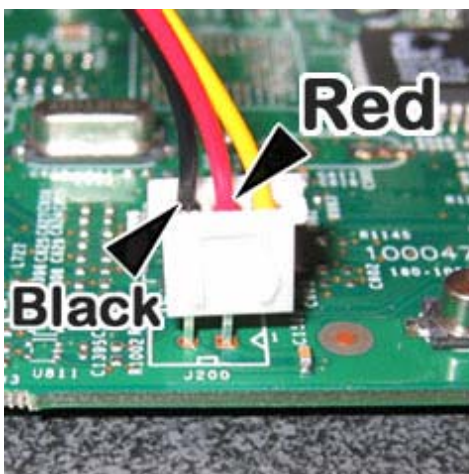
- b) **Plastic Retaining Pins for Heat-sink** - Remove the 2 plastic retaining pins that hold the VGA Heat-sink to the video card as shown by the arrows in the picture above. Using a wire snip, you can cut off the plastic retaining pins to remove them from the video card. Next, use an angle head pair of wire snips to pry up on the heat-sink. Be careful not to crush the surface mount resistors or caps on the video card itself. The heat-sink should come off using very little force.



- Once the old VGA heat-sink has been removed, un-plug the fan power connector from the video card as shown by the arrow above. Next, use needle-nose pliers to pull up and remove the plastic housing that goes around the 2-pin connector, as shown above.



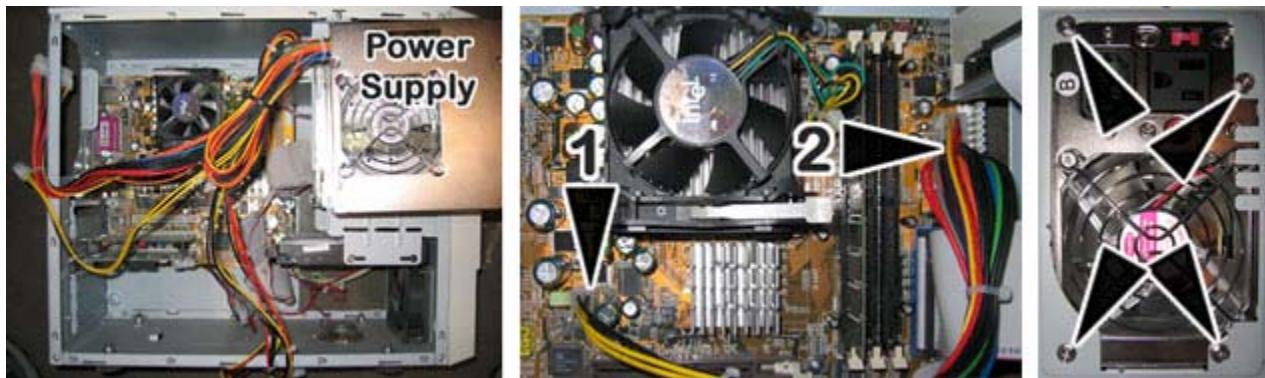
- Apply a small amount of white heat-sink compound that was included with the NEW VGA heat-sink cooler onto the chipset as shown above.
- Remove the plastic seal off the back of the NEW VGA heat-sink cooler and install it on the video card as shown above. The two plastic pins on the VGA heat-sink will line up with mounting holes on the Video Card as shown by the arrows in the picture above. Push both plastic pins through the mounting holes so that the tabs lock the VGA heat-sink in place.



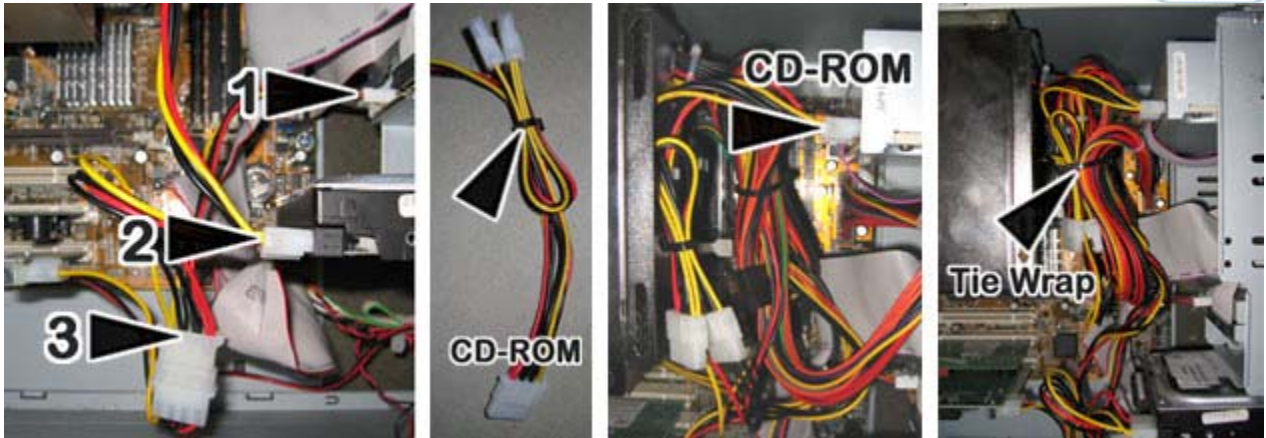
6. Connect the power wires from the fan on the VGA heat-sink to the 2-pin connector on the video card (from step 3), as shown in the previous picture. You will need to align the connector so that the Black Wire connects to the left pin and the Red wire connects to the right pin, as shown in the picture on the previous. The yellow wire will not connect to any pin on the video card; this is OK and is not required. If the fan is not connected correctly, it will not work when the video card is plugged into the computer and powered ON. This will cause your video card to overheat and lock up your game while in operation at a location.

New 400watt Power Supply Installation

You will need to install the new 400watt Power Supply before you install the AGP video card. This will allow you more room to connect the power supply to the internal parts of the computer.



1. Set the 400watt Power Supply on top of the computer where the CD-ROM and Hard-Drive are installed as shown above.
2. From the 400watt Power Supply, plug the (1) 4-pin S-ATX connector and (2) 20-pin ATX connector into the motherboard as shown by the numbered arrows in the picture above. Both connectors are keyed so they cannot be plugged in the wrong way.
Note: The new power supply does **not** connect to the 6-pin Auxiliary Power connector.
3. Flip the power supply over so the fan now faces the motherboard and install the 400watt Power Supply into the computer chassis with the 4 screws you removed earlier from the old power supply, as shown in the picture above.



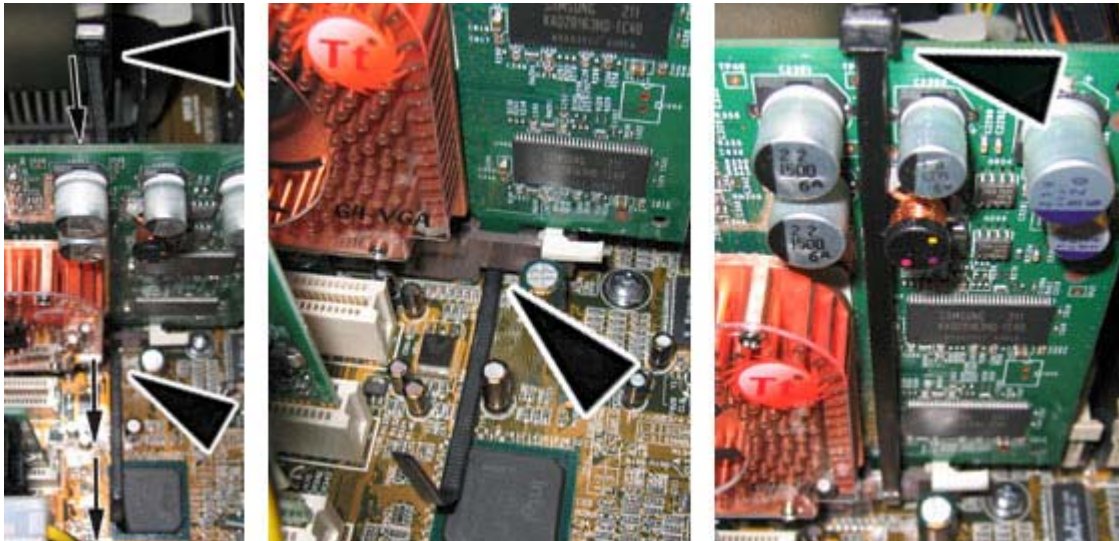
4. Use the power cable with 2 Standard power connectors and 1 Floppy Drive power connector to connect the power to (1) the Floppy Drive, then connect (2) the Hard-Drive, then connect (3) the USBIO card with Chassis Fan as shown by the numbered arrows in the picture above.
5. Use the power cable with three standard power connectors and fold and tie wrap two connectors back on the cable as shown above. Connect this power cable to the CD-ROM drive as shown above.
6. You will need to Tie Wrap the remaining loose cables together as one bundle to help improve the air flow inside the computer chassis, as shown in the picture below. Leaving loose power cables will cause the dust to collect faster and slow the airflow, which will increase the running temperature of the PC, and can create future reliability issues.



Video Card Installation



1. Make sure there are no wires in the way, and that the AGP slot is clear. Also make sure the AGP latch is in the open position so the AGP card will slide in. Install the AGP video card into the motherboard. Secure the AGP video card latch at the back of the video card, and use the screw that you removed earlier to secure the front of the video card to the chassis, as shown by the arrows in the picture above.



2. Use the 14-inch Tie Wrap to secure the back of the video card to the AGP slot. Slide the Tie Wrap between the video card and power supply and under the back of the AGP slot connector, as shown by the arrows in the picture above.

Note: Securing the AGP Video card with a Tie Wrap has improved the problem of the Video Card slipping out during transportation, creating a dead cabinet.

3. Connect the Tie Wrap at the top of the video card and zip tie the AGP Video Card to the motherboard. The Tie Wrap should be tight enough to hold the AGP video card securely, but not so tight that it will bend or break the AGP video card.
4. For computers with white cases, proceed to the next section to install the case fan.

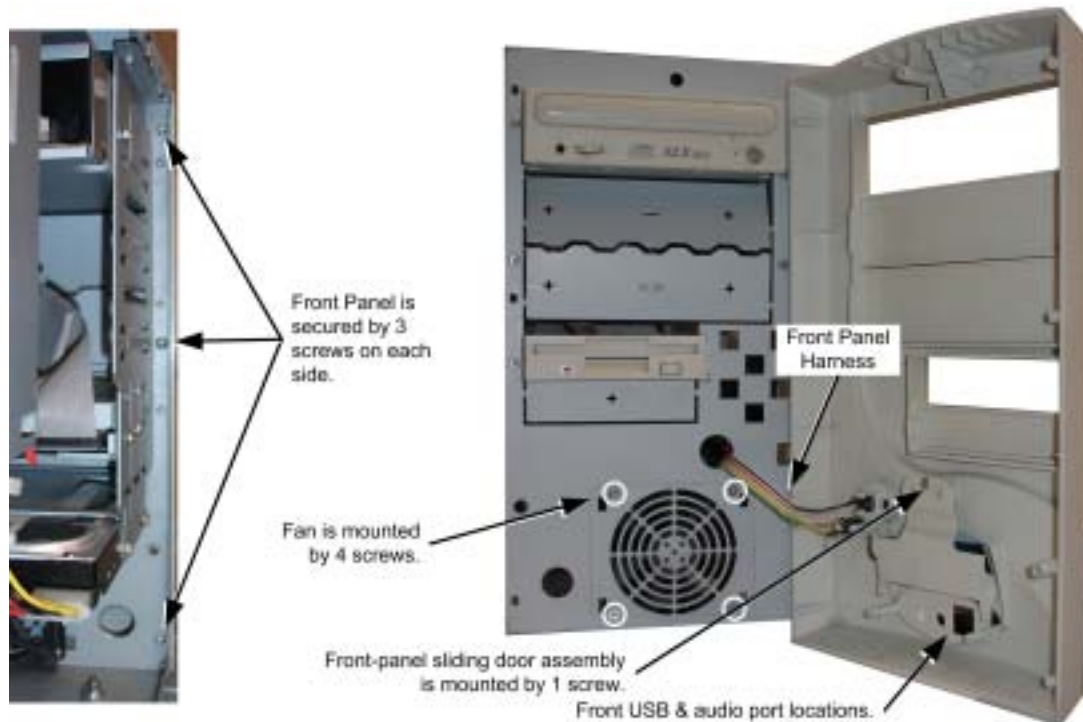
This completes the EVERLAST Computer Upgrade for computers with black cases. Re-Install the computer in the cabinet, and connect the cables, as shown in the diagram on page 14.

Proceed to Page 12 to install the Cabinet Exhaust Fan.

60 CFM Case Fan Installation (White Case Only)

The existing fan in computers with the white case moves air at only 30 cubic feet per minute (cfm). The new 60 cfm fan from the kit will move twice as much air to keep the computer cooler.

1. The front panel is secured in place from inside the case by three (3) screws on each side, as shown in the first part of the figure below. Remove these screws.
2. Carefully remove the front panel and move it to the side, as shown in the figure below. Be careful not to pull the harness that connects to the front panel LEDs and power switch.



3. Remove the screw that secures the small front-panel sliding door assembly in place, and remove the colored plastic sliding door and other parts. This will increase air circulation inside the case. If USB or audio jacks are installed in the front panel, remove them too.
4. Remove the four (4) screws that secure the fan in place.
5. Disconnect the fan harness from the motherboard, noting the location and orientation of the connector.
6. Connect the harness of the new fan to the motherboard.
7. Install the new fan with the screws removed previously.
8. Replace the front cover on the computer. (You need only replace the two center screws.)
9. Replace the computer side panels and secure them with the screws removed previously.

This completes the EVERLAST Computer Upgrade. Re-Install the computer in the cabinet, and connect the cables, as shown in the diagram on page 14. Proceed to the next section to install the Cabinet Exhaust Fan.

Cabinet Exhaust Fan Installation

Installing a Cabinet Exhaust Fan will help ensure that the inside cabinet temperatures are kept cool. The powerful computers and high-resolution monitors used in GLOBAL VR[®] cabinets can generate an excessive amount of heat. Hot conditions will shorten the life span of the computer and monitor, and can lead to unreliable operation. If you were experiencing blank screens or rebooting issues due to high temperature levels inside the cabinet, an Exhaust Fan will solve those problems.



1. Begin by using a screwdriver to remove all the metal grill covers that cover the ventilation slots on the back of your cabinet. Simple push in on each corner of the metal grill and they will pop out and fall to the bottom of the cabinet.
2. You will need to install the Exhaust Fan on the ventilation slot just above the rear cabinet door as shown by the arrow in the picture above.



3. Place the Exhaust Fan on the outside of the ventilation slots and use the mounting holes in the fan as a template for drilling the holes. Use an 11/64 drill bit to drill the 4 mounting holes for the Exhaust Fan.
4. Once you have the 4 holes drilled, place the fan on the inside of the cabinet so that the Exhaust Fan will blow air outside of the cabinet. Use the 8-32 x 2 inch screws with nuts to secure the fan to the cabinet, as shown in the picture above.
5. Plug the Exhaust Fan into the A/C power strip inside the cabinet. Verify the fan is blowing air out of the cabinet, and you are finished.



Troubleshooting

- If no picture appears onscreen, you may have damaged the video card while removing the old heat-sink. Examine the video card very carefully and make sure none of the surface mounted resistors or caps have been broken off or damaged where the screwdriver was used.
- When you power the computer ON for the first time, look inside the computer and verify the fan is spinning on the video card VGA heat-sink. If the fan is not spinning, pull the video card out and verify you have the power wires for the fan on the VGA heat-sink connected correctly to the video card.
- Computer BIOS BEEP error codes - when you power the computer on, a BIOS BEEP code is heard. One BIOS BEEP means a successful boot and the computer and video card are working fine. A BIOS BEEP of one long, and two short BEEPS means that either the video card is not seated correctly, or it has been damaged.

BIOS (CMOS) Settings

Sometimes the BIOS (CMOS) settings will reset during computer upgrade procedures. Perform the steps below to restore the optimal settings.

1. Press the **DEL** key during boot to enter the CMOS Setup Utility. Select **Load Optimized Defaults** from the Main Menu.
2. Reset the key settings for your motherboard, as shown in the tables below. Refer to the figures on Page 14 to identify the type of motherboard in your computer.
3. When finished, press **F10**, or select **Save and Exit** and press **Enter**. Select **YES** to confirm.

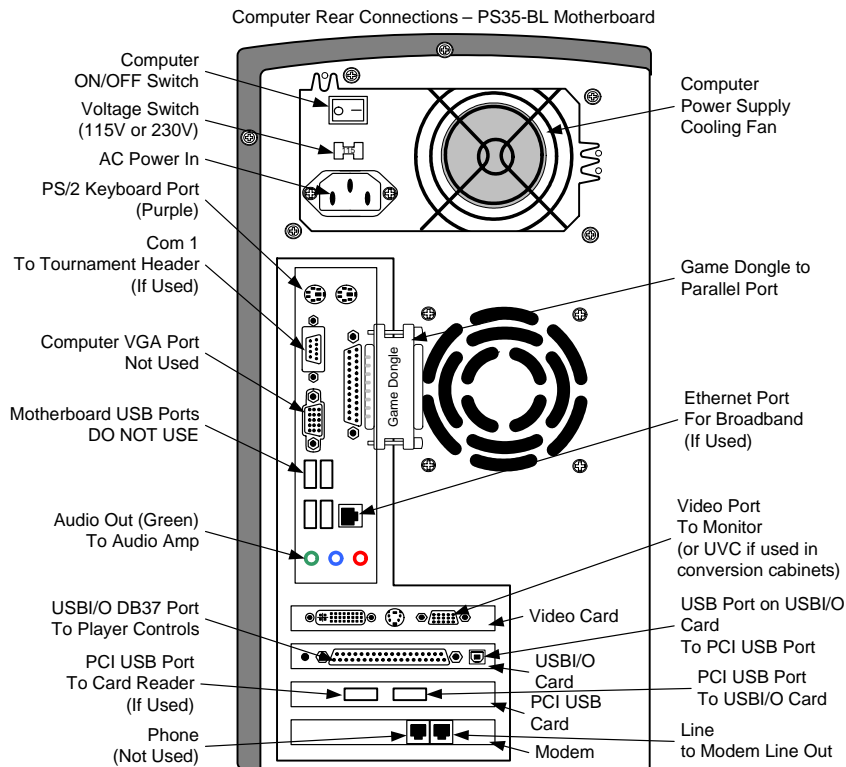
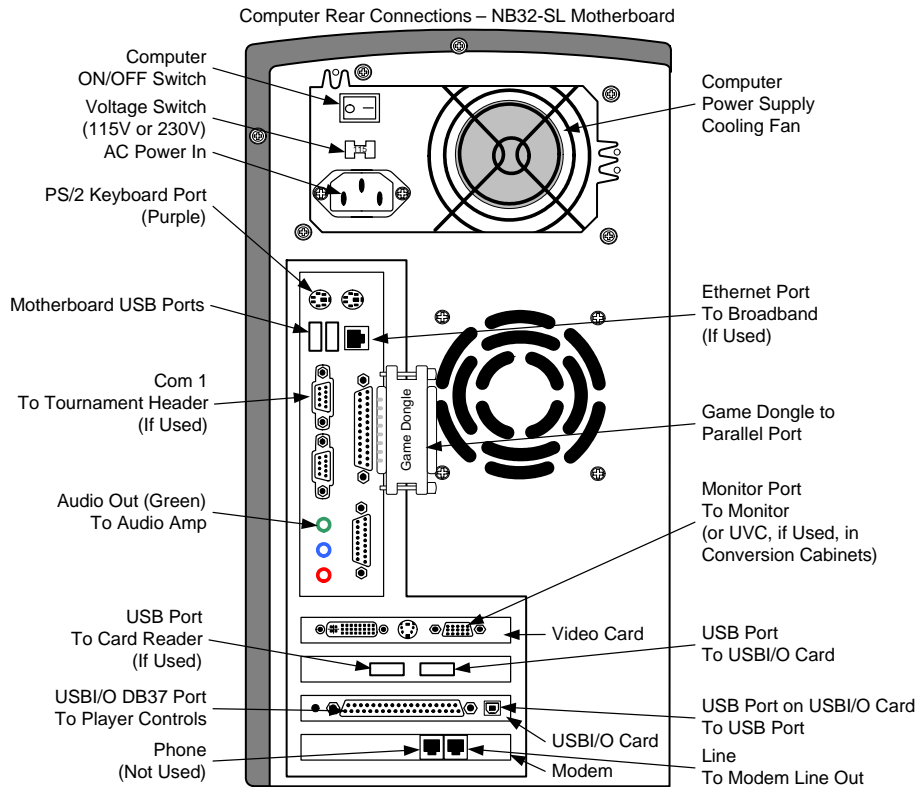
Key BIOS Settings for Computers with NB32-SL Motherboard (Vertical Audio Ports)		
Menu	Item	Setting
Standard CMOS Features	Halt On	No Errors
Advanced BIOS Features	First Boot Device	CDROM*
	Second Boot Device	HDD-0*
	Third Boot Device	Disabled*
Integrated Peripherals	PWR Loss Resume State	Turn On

*If a Floppy Disk Drive is installed, set Floppy as First Boot Device, CDROM as Second Boot Device, and HDD-0 as Third Boot Device.

Key BIOS Settings for Computers with PS35-BL Motherboard (Horizontal Audio Ports)		
Menu	Item	Setting
Standard CMOS Features	Halt On	No Errors
Advanced BIOS Features	First Boot Device	CDROM
	Second Boot Device	Hard Disk
	Third Boot Device	Disabled
Advanced Chipset Features	Memory Frequency For	DDR266
	Dram R/W Timing	Fast
Power Management Setup	PWR Loss Resume State	Turn On

Computer Rear Panel Diagrams

The following figures show the rear connections for the two types of golf computers.





Technical Support

Free telephone, e-mail and online support are provided for systems during the warranty period. In addition to helping with troubleshooting and diagnosing defective parts, GLOBAL VR® technical support is prepared to help you with questions about the operation of your game.

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

Cabinet's Game Serial Number (found on the back of the cabinet). Write your serial number below for easy reference.

Cabinet Serial Number: _____

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. The cabinet ID, software version, and last successful sync are shown on the Registration screen in the Operator Menus.

- Cabinet ID
- Software version number
- Specific error message
- Any changes made to the system
- Date of latest install or upgrade
- Date of last successful sync
- For game-play issues, the game mode and number of players

Technical support is available from 6:00 AM to 6:00 PM, Pacific Time, Monday–Friday.

Call 408.597.3400 to reach a Technical Support staff member.

E-mail support is available at this address: techsupport@globalvr.com

Tournament E-mail Support is available at this address: tournament@globalvr.com

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

Find Technical documents online at: <http://service.globalvr.com/>

Visit the GLOBAL VR® website: www.globalvr.com

Warranty Service

If at some point you require warranty service, contact your distributor. If the technical support staff determines that your game is defective, a Return Merchandise Authorization (RMA) number will be issued.