

**64-Bit 3D  
Windows  
Video  
Accelerator**

***User's Manual***

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## Section 1 - Introduction

Your new 3D Windows Accelerator card is a video/graphics/3D accelerator for PCI-bus based computer systems. The card dramatically increases the video and graphic performance of Windows programs and provides stunning 3D rendering for games and other interactive 3D applications.

The card features a 64-bit GUI engine with a 64-bit DRAM interface. It supports 256 colors at resolutions up to 1600 x 1200 or TrueColor (16.7 million colors) operations at either 800 x 600 or 640 x 480 pixels. The interface supports VESA DPMS, DDC1 and DDC2B signals. The 3D Windows Accelerator card provides 2-Dimensional interpolation for video scaling, color space conversion (YUV to RGB) for video, software MPEG and video playback acceleration, video windows with mixed color depth support and high quality video playback.

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### Package contents:

Your package contains the following items:

- 3D Windows Accelerator PCI Card
- User's Manual
- Drivers on Floppy Disk or CD-ROM

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### Minimum system requirements:

- Intel 486 or compatible CPU
- PCI 2.1 compliant motherboard with 1MB RAM
- MS-DOS 5.0

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### Recommended system configuration:

- Intel Pentium or compatible CPU
- PCI 2.1 compliant motherboard with 8MB (or more) RAM
- MS-Windows 95

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## Section 2 - Hardware Installation

Installation of this adapter card requires opening and manipulating your PC. **Exercise caution at all times when working with AC powered and static-sensitive equipment.** Turn off and unplug your PC before installation. Discharge any static electricity from your body by touching any metal surface.

1. Turn off your computer and all peripherals.
2. Make a note of the power cord and other cables connected to your computer and disconnect them.
3. Remove your computer's cover (refer to your computer owner's manual).
4. Disable or remove any video cards or devices in your computer.
5. Select an available PCI expansion slot and remove the slot cover.
6. Touch the computer chassis before removing the adapter from its

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- antistatic bag. This will discharge any static electricity from your body.
  7. Carefully install the adapter by firmly pressing the card into the slot you have chosen, applying even pressure until the adapter is completely seated in the slot.
  8. Fasten the retaining bracket with the screw from the slot cover. Make sure the adapter is properly aligned. Store the slot cover for future use.
  9. Replace the computer cover and reconnect the power cord and all cables.
  10. Attach the monitor's video cable to your adapter.
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## Section 3 - Video Driver Installation

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### 3.1 Windows 95 drivers

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Windows 95 drivers are found on the driver disk (or CD-ROM) included with your 3D Windows Accelerator card. The following instructions explain how to install these drivers.

When Windows 95 starts for the first time after card installation, it detects the video card and displays the **New Hardware Found** dialog box.

Under **New Hardware Found**, when asked to "Select which driver you want to install for your new hardware," click on "Driver from disk provided by hardware manufacturer." Click "OK."

The **Install From Disk** dialog box now instructs you to "Insert the manufacturer's installation disk into the drive selected, and then click OK." Insert the driver disk (or CD-ROM) into the appropriate drive.

At the "**Copy manufacturer's files from:**" prompt type A:\WIN95 (if you inserted a floppy driver disk into drive A:), or x:\VIRGE\WIN95 (if you inserted a CD-ROM, where x: is the drive letter of the CD-ROM drive). Click "OK".

Windows 95 will now load the drivers from the driver disk (or CD-ROM). Restart Windows 95 when prompted.

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### 3.2 Windows 3.1x drivers

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Windows 3.1x drivers are found on the driver disk (or CD-ROM) included with your 3D Windows Accelerator card. The following instructions explain how to install these drivers.

1. Exit from Windows.
  2. At the DOS prompt change to the Windows directory. (Type **CD \Windows** and press the **ENTER** key.)
  3. Type **SETUP** and press the **ENTER** key. The current Windows configuration is displayed.
  4. Using the cursor keys, highlight "DISPLAY" and press the **ENTER** key. A list of available video drivers is displayed.
  5. Use the cursor keys to highlight "Other (Requires disk provided by
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- Hardware manufacturer)". Press the **ENTER** key.
6. Insert the driver disk (or CD-ROM) into the appropriate drive.
  7. Enter A:\WIN311 (if you inserted a floppy driver disk into drive A:) or x:\VIRGE\WIN31 (if you inserted a CD-ROM, where x: is the drive letter of the CD-ROM drive) and press the **ENTER** key.
  8. Select the desired screen resolution and color depth. Press the **ENTER** key. Files are copied from the installation disk to the Windows directory on the hard drive. The driver installation is now complete.
  9. Restart Windows.

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## Section 4 - Troubleshooting

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### Booting Problems

After installing the 3D Windows Accelerator the computer has no video, or freezes or the computer beeps during boot-up.

- Check for proper seating of the card in the expansion slot.
- Check the monitor cable is securely fastened to the card.
- Check for the correct monitor cable pinout. It needs to work with a standard VGA DB-15 analog graphics adapter.
- Try the card in a different PCI slot.
- Check for another display adapter or built-in video. If either is present, remove or disable it.
- Under Windows 3.1, boot from a DOS boot disk which does not load in Terminate and Stay Resident (TSR) programs. The TSRs may be conflicting with the video card.
- Try the card in another machine.

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### Objects on the screen flicker

- Flicker can be corrected by increasing the vertical frequency. Do not use a frequency which exceeds your monitor's specifications.

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### Scrambled video

- The frequency selected at the resolution is not supported by your monitor. Refer to the monitor's user manual for the correct resolution/frequency combination.

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### Screen display is small

- The vertical frequency may be too high for the monitor. Select a lower vertical frequency.

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## Section 5 - Specifications

Controller:	64-bit S3 ViRGE
Memory:	2MB EDO DRAM, expandable to 4MB
Horizontal Sync Signal:	31.5KHz-81.5KHz
Vertical Refresh:	43.5-84Hz
Maximum Dot Rate:	135MHz
Bus Type:	PCI 2.1 compliant
Connectors:	DB-15 (DC support), VESA 26-pin header

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## Section 6 - Notices

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### FCC Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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 computer and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

To meet FCC requirements: "SHIELDED CABLE(S) AND POWER CORDS MUST BE USED TO CONNECT THE DEVICE TO A PERSONAL COMPUTER OR OTHER CLASS B DEVICE ACCORDING TO FCC 15.838D." ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.

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