



Graphics Card

Drivers and Utilities

Installation Guide

E3386

Second Edition V2

January 2008

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Notices

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canadian Department of Communication Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

Safety information

Electrical safety

- When adding or removing devices to or from the system, unplug the power cables for the devices before connecting the signal cables. If possible, disconnect all power cables from the existing system before you add a device.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing devices on your motherboard, carefully read all the manuals that came with the package.
- Before using the product, ensure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

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About this guide

Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Information that you **MUST** follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. **ASUS Websites**

The ASUS websites worldwide provide updated information on ASUS hardware and software products.

2. **Optional Documentation**

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

1. Support CD information

The support CD contains the drivers and utilities to be installed on your PC for the VGA card. You can also conveniently obtain ASUS contact information, browse the CD or view Read Me file by clicking the relevant bars/icons on the support CD main menu. See figure below.



- The screen displays in this manual may not exactly match the display on your screen.
- Some driver and utility items in the support CD apply only to specific ASUS VGA card models.
- You may need administrator rights to install the drivers and utilities. See your Windows® 2000/XP/Vista documentation for details.
- The contents of the support CD are subject to change at any time without notice. Visit the ASUS website (www.asus.com) for updates.

Insert the support CD into the optical drive of your PC. If autorun is enabled, the Main Menu, as displayed below, automatically appears on your screen. If you are using Windows Vista, you may need to click **Run setup.exe** bar from the Autoplay screen and then follow the screen instruction to proceed to the main menu.



If autorun is NOT enabled in your computer, browse the contents of the support CD to locate the file **SETUP.EXE**. Double-click the **SETUP.EXE** to run the support CD installation program.

2. VGA drivers

A VGA driver is the software program that makes the device work with your operating system. You can install, update, or remove the display driver of your graphics card using any of the recommended methods in this section.



If you are replacing an old graphics card with a new ASUS graphics card, ensure to remove the old display driver from your system.

After physically installing your graphics card, use any of the recommended methods in this section to install your VGA driver.

2.1 Driver installation

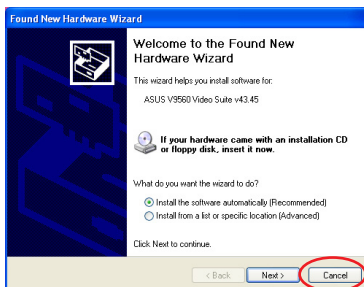
2.1.1 Installation for Windows XP

Installing the VGA driver:

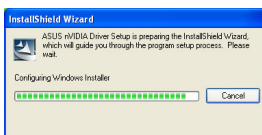
Method 1: Typical installation

The Typical installation is the most common option. We recommend this method to most users.

1. From the Found New Hardware Wizard dialog box, click **Cancel** to enter the Windows desktop.
2. Insert the support CD into the optical drive.
3. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.
If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
4. From the 2D/3D Graphics & Video Accelerator main menu, click **VGA Drivers**.



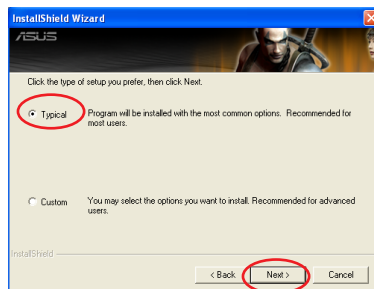
The InstallShield Wizard will guide you through the program setup process.



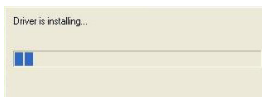
5. Click **Next** from the Install Shield Wizard welcome screen.



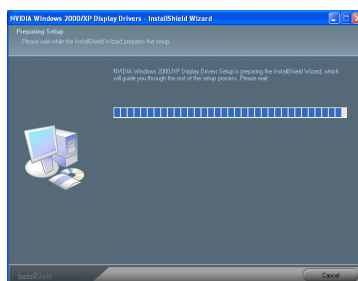
6. Select **Typical** then click **Next**.



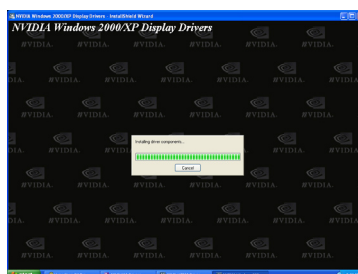
A progress bar on the lower right-hand corner of your screen displays the progress of the driver installation process.



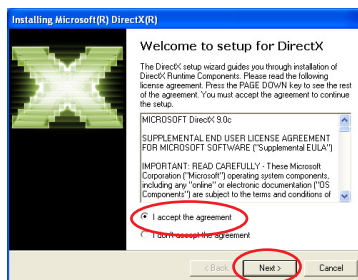
The wizard copies the necessary files to your computer.



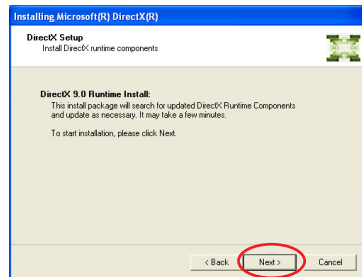
The following screen displays the NVIDIA® display driver installation process.



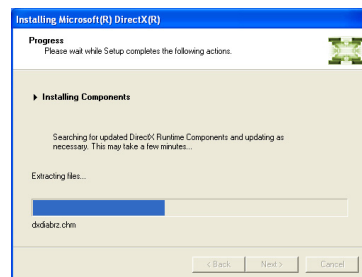
7. The following screen displays the Microsoft® DirectX™ setup. Select **I accept the agreement** then click **Next**.



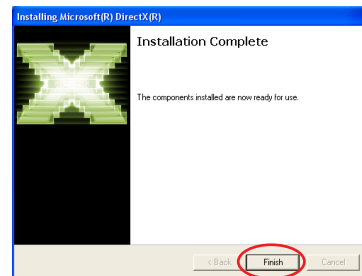
- Click **Next** to continue or **Back** to return to the previous screen or **Cancel** to abort installation.



The Microsoft® DirectX™ setup installs the components.



- Click **Finish** after the installation is completed.



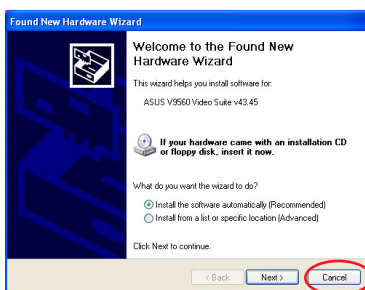
10. Select **Yes, I want to restart my computer now** then click **Finish**.



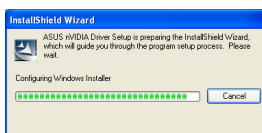
Method 2: Custom installation

The Custom installation method allows you to select the components you want to install. We recommend this method to advanced users.

1. From the **Found New Hardware Wizard** dialog box, click **Cancel** to enter the Windows desktop.
2. Insert the support CD into your optical drive.
3. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.
If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
4. From the 2D/3D Graphics & Video Accelerator main menu, click **VGA Drivers**.



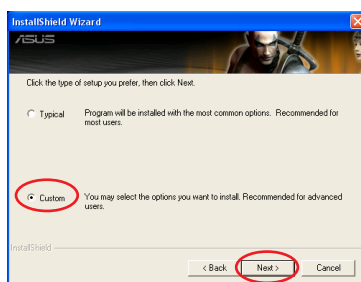
The Setup prepares the InstallShield Wizard which will guide you through the program setup process.



5. Click **Next** from the InstallShield Wizard welcome screen.



6. Select **Custom** then click **Next**.



7. Select the item you want to install then click **Next**.

NVIDIA - installs the NVIDIA® driver for your graphics card.

DirectX - installs the latest Microsoft® DirectX™ runtime libraries.

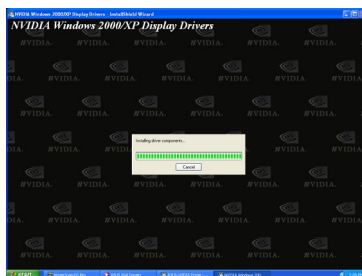


A progress bar on the lower right-hand corner of your screen displays the progress of the driver installation process.

The following screen displays the NVIDIA driver and ASUS drivers installation process.



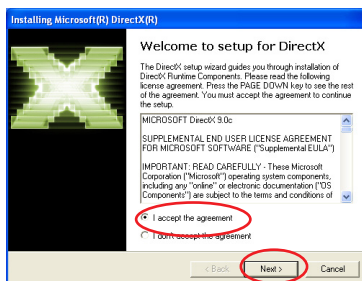
The NVIDIA driver installation process appears only if you selected the NVIDIA® driver from the custom install screen.



8. The following screen displays the Microsoft® DirectX™ setup. Select **I accept the agreement** then click **Next**.

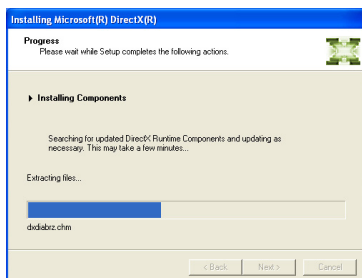
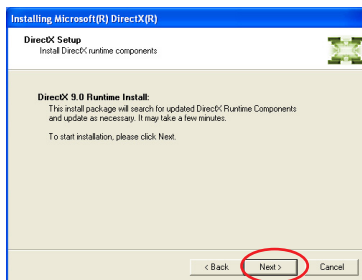


The DirectX™ installation process appears only if you selected the DirectX item from the custom install screen.



9. Click **Next** to continue or **Back** to return to the previous screen or **Cancel** to abort installation.

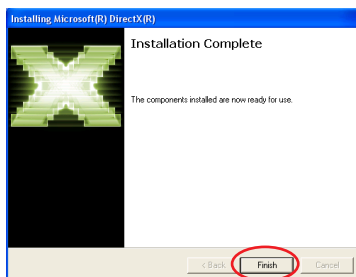
The Microsoft® DirectX™ setup installs the necessary components.



10. Click **Finish** after the installation is completed.



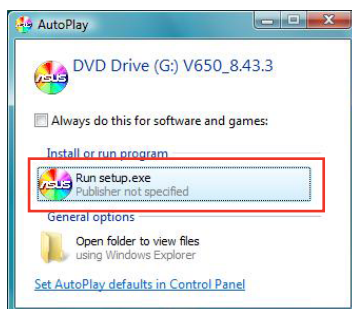
The ASUS VGA installation program will restart your computer after all components are installed into your computer.



2.1.2 Installation for Windows Vista

Installing the drivers for Windows Vista:

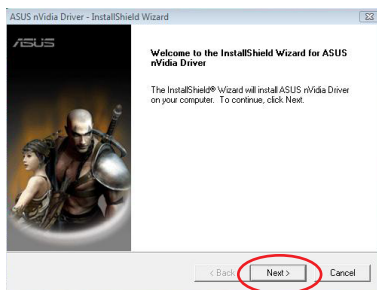
1. Insert the support CD into the optical drive.
2. From the AutoPlay screen click **Run setup.exe** blue bar. Click **Allow** bar from the **User Account Control** screen to continue.



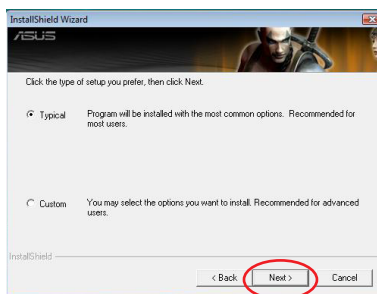
3. From the ASUS VGA Driver main menu, click **VGA Drivers**.



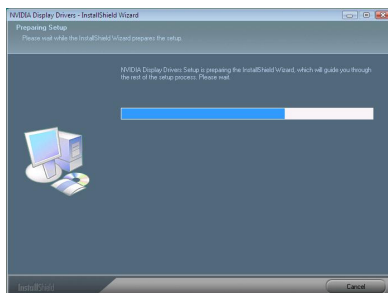
- Click **Next** from the Welcome screen.



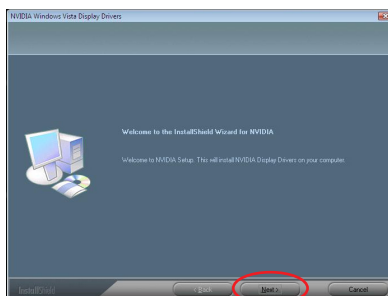
- Select the installation type, then click **Next**.



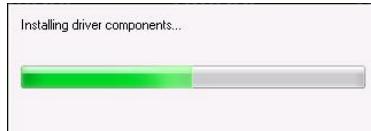
The following screen shows the InstallShield Wizard starting to prepare the setup.



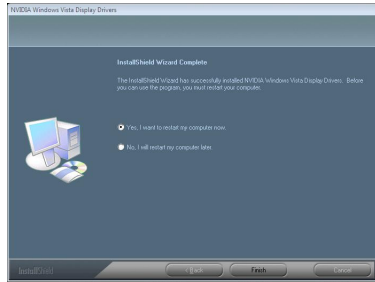
- Click **Next** from the **Welcome to NVIDIA Setup** screen to start installing the driver on your computer.



A process bar displays the installation process.



- After the installation process is completed, choose **Yes, I want to restart my computer now** to restart your computer or choose **No, I will restart my computer later**, then click **Finish**.

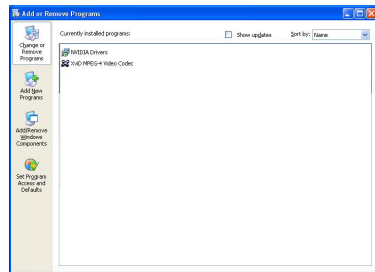


2.2 Removal of drivers

2.2.1 Windows XP

Removing the drivers:

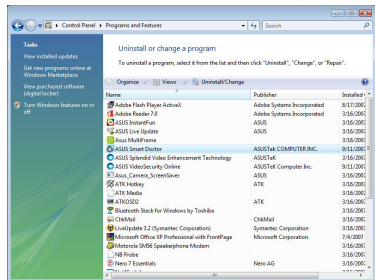
From the **Start** menu, open the control panel then click **Add or Remove Programs**, select the item that you want to remove then click **Change/ Remove**.



2.2.2 Windows Vista

Removing the drivers:

- Open **Control panel** then click **Uninstall or change a program**.
- Select the program you want to remove, then click **Uninstall/Change**.



3. Utilities

Your graphics card package comes with innovative technologies to turn your computer into a smart multimedia center. You can install or remove these utilities using any of the recommended methods in this section.

After installing the VGA drivers for your graphics card, use any of the recommended methods to install any of the following utilities:

A. ASUS SmartDoctor

The Smart Doctor utility monitors the VGA card condition and significantly cools down the VGA Graphics Processing Unit (GPU). This utility also allows you to adjust the graphics card clock settings.



- The ASUS Smart Doctor utility works only for graphics card models with a built-in hardware monitor IC. If the hardware monitor IC is not present, only the SmartDoctor overclocking function will be installed.
- Before using SmartDoctor feature you need to install the GamerOSD first.

B. ASUS VideoSecurity

ASUS VideoSecurity is a powerful security utility that detects any change in a specified surveillance region. Using video capture devices, video snapshots are captured automatically when there is a deviation in the user-defined surveillance region. An optional warning message is also sent to the user via e-mail or phone.

C. ASUS GamerOSD

ASUS GamerOSD allows you to share real-time gaming experience while playing full-screen games. You can remotely monitor a live broadcast using the Internet Explorer browser. With the GamerOSD, you can also adjust GPU clock and image quality without exiting games. It also enables support for Direct3D™ and OpenGL™ modes.

3.1 Utilities installation

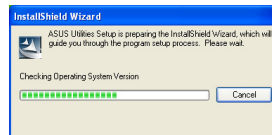
3.1.1 Installation for Windows XP

Installing the utilities:

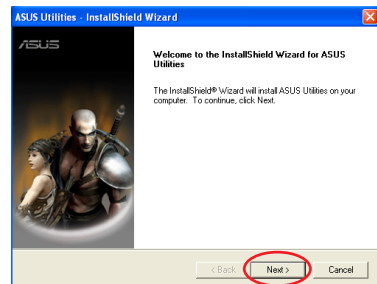
Method 1: Complete installation

Perform this method if you wish to install all program features to your computer. For optimum performance, we recommend that you perform this method.

1. Insert the support CD into your optical drive.
2. If autorun is enabled, the main menu appears automatically.
If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the main menu, click **Utilities**.
The Setup prepares the InstallShield Wizard which will guide you through the program setup process.



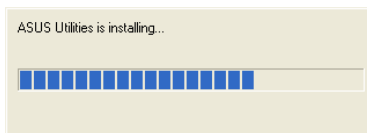
4. Click **Next** from the InstallShield Wizard welcome screen.



5. Select **Complete** then click **Next**.



A progress bar displays the installation process.



6. After the installation is completed, click **Finish**.

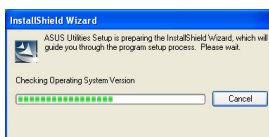
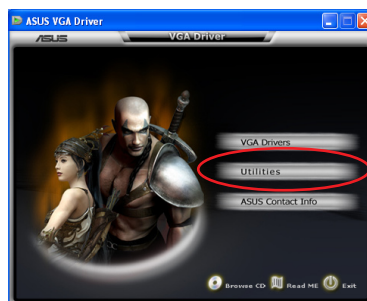


Method 2: Custom installation

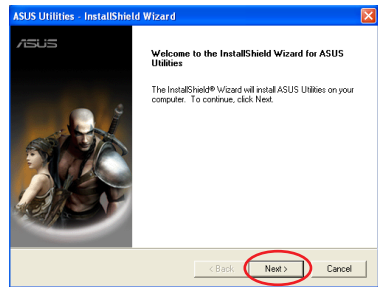
The Custom installation method allows you to select the features you want to install. We recommend this method to advanced users.

1. Insert the support CD into your optical drive.
2. If autorun is enabled, the main menu appears automatically.
If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the main menu, click **Utilities**.

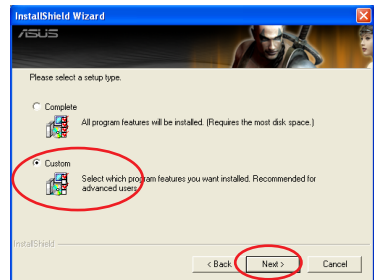
The Setup prepares the InstallShield Wizard which will guide you through the program setup process.



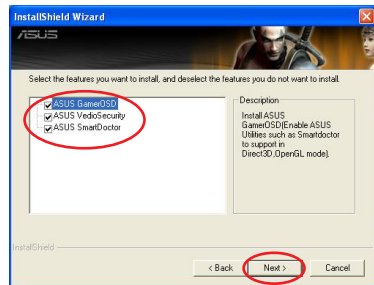
- Click **Next** from the InstallShield Wizard welcome screen.



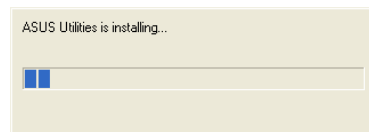
- Select **Custom** then click **Next**.



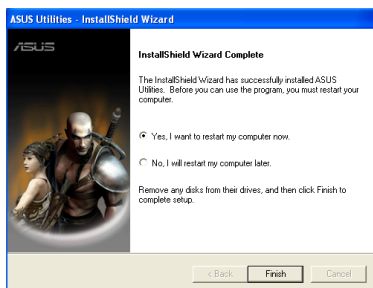
- Select the item you want to install then click **Next**.



A progress bar displays the installation process.



7. After the installation is completed, click **Finish**.



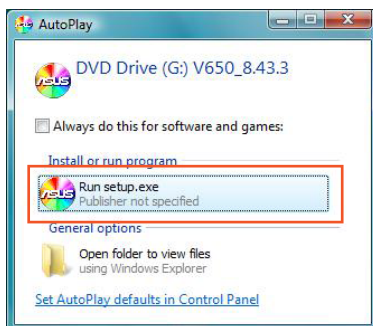
3.1.2 Installation for Windows Vista

Installing the utilities:

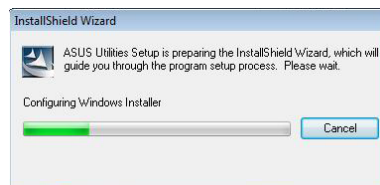
1. Insert the support CD into the optical drive.
2. Click **Run setup.exe** bar from the Autoplay screen.

Click **Allow** bar from the User Account Control screen.

3. From the ASUS VGA Driver main menu, click **Utilities**.



The ASUS ATI Driver Setup prepares the InstallShield Wizard.



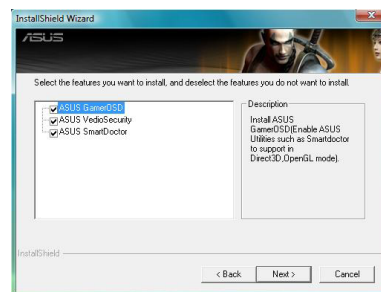
4. From the Welcome screen, click **Next**.



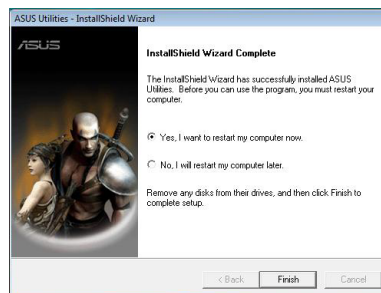
5. Select the installation type, then click **Next**.



You can also use the custom installation type by choosing Custom from the screen of step 5.



6. Choose **Yes, I want to restart my computer now** to restart your computer or choose **No, I will restart my computer later**, then click **finish** to complete the installation process.

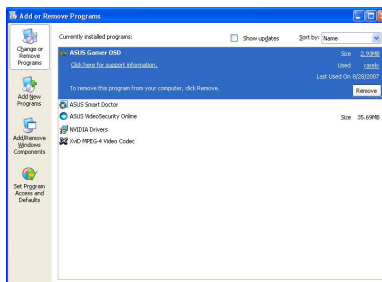


3.2 Removal of utilities

3.2.1 Windows XP

Removing the utilities:

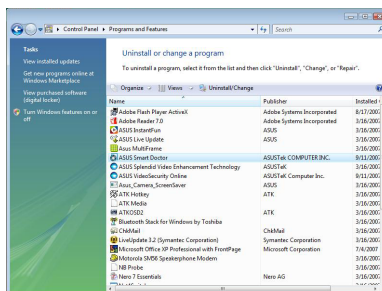
From the **Start** menu, open the control panel and then click **Add or Remove Programs**, select the item that you want to remove then click **Change/Remove**.



3.2.2 Windows Vista

Removing the utilities:

1. Open **Control panel** then click **Uninstall or change a program**.
2. Select the program you want to remove, then click **Uninstall/Change**.



4. Other information

4.1 Browse the support CD

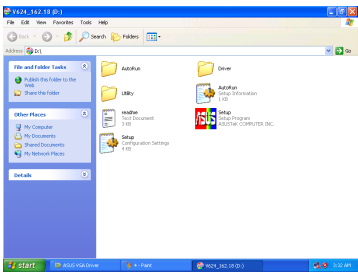
4.1.1 Windows XP

Browsing the support CD:

1. Insert the support CD into the optical drive.
2. If autorun is enabled, the main menu appears automatically.
If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the main menu, click **Browse CD**.



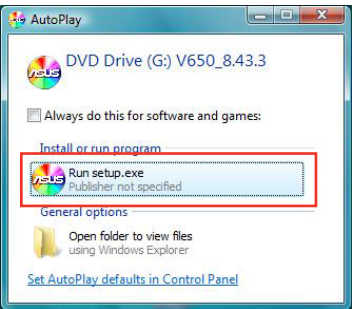
The following screen displays the CD contents.



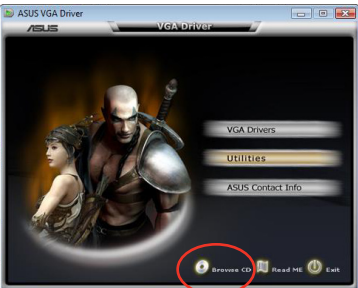
4.1.2 Windows Vista

Browsing the support CD:

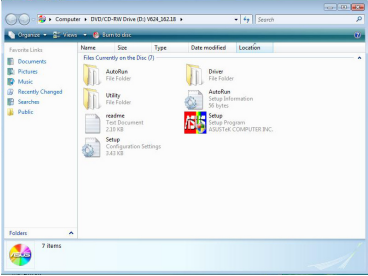
1. Insert the support CD into the optical drive.
2. From the AutoPlay screen click **Run setup.exe** bar.
Click **Allow** bar from the **User Account Control** screen to continue.



3. From the ASUS VGA Driver main menu, click **Browse CD**.



The following screen displays the CD contents.



4.2 View the Contact Information

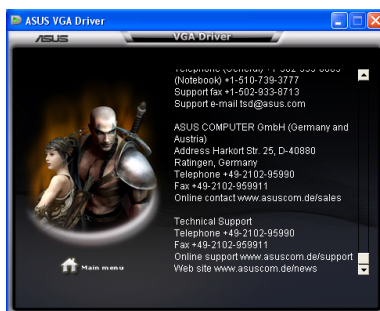
4.2.1 Windows XP

Viewing the contact information:

1. Click **ASUS Contact Info** from the main menu.



The following screen displays the contact information window.



4.2.2 Windows Vista

Viewing the contact information:

1. Click **ASUS Contact Info** from the main menu.



The following screen displays the contact information window.



4.3 View the readme file

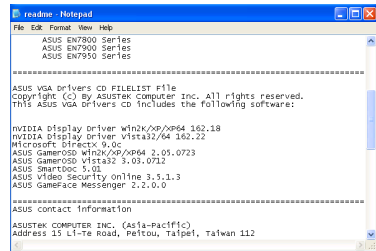
4.3.1 Windows XP

Viewing the readme file:

1. Click **Read Me** from the main menu.



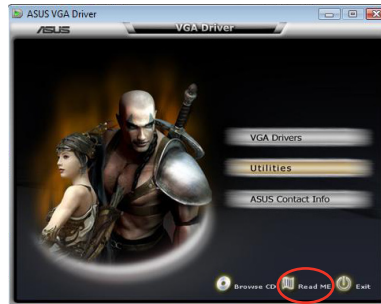
The following screen displays the readme file.



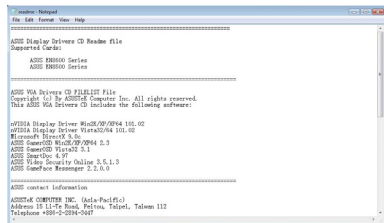
4.3.2 Windows Vista

Viewing the readme file:

1. Click **Read Me** from the main menu.



The following screen displays the readme file.



Appendix: Basic troubleshooting

If you encounter any of the following conditions after installing your graphics card, try performing one of the possible solutions before calling for technical support.

Problem	No display after the card is installed.
Cause	Your card might not be properly installed.
Solution	Ensure that the card is not tilted or skewed on the slot.
Cause	Your monitor might not be properly connected.
Solution	Ensure that the signal cable is properly connected to your monitor and graphics card.
Cause	Your graphics card is not compatible with your motherboard.
Solution	Check the technical documentation that came with your motherboard and check the required specifications for your graphics card such as PCIE voltage requirement.
Cause	The graphics card auxiliary power is not connected.
Solution	Ensure that the auxiliary power cables are properly connected with the power supply unit.
Cause	Insufficient power supply.
Solution	Ensure that your power supply unit can provide the minimum power requirement to your system.
Cause	Incorrect motherboard hardware system settings such as system control panel connections.
Solutions	<ul style="list-style-type: none">• Ensure that the system control panel cables are connected properly such as Power Switch, Reset.• Make sure that your CPU, CPU fan and/or memory DIMMs are in good working condition and are connected properly.

Problem	Wrong color balance
Cause	Your card might not be properly installed.
Solution	Ensure that the card is not tilted or skewed on the slot.
Cause	Your video controls might not be properly set.
Solutions	<ul style="list-style-type: none"> • Manually configure your video controls to your desired settings. • Configure your graphics card display resolution in Display Properties.
Cause	There may be unsupported graphics card drivers installed in your system. Conflicts may occur with graphics card drivers from different vendors.
Solutions	<ul style="list-style-type: none"> • Remove any unused graphics card drivers installed in your system. • Install the graphics card driver from the support CD that came with your graphics card package.
Cause	The graphics card auxiliary power is not connected.
Solution	Ensure that the auxiliary power cables are properly connected with the power supply unit.
Cause	If your monitor comes with BNC connectors, the port connections might be incorrect.
Solution	Ensure that all BNC connectors are connected properly to their ports.
Cause	Your monitor software settings might be incorrect.
Solution	Configure your monitor software to your desired settings.
Cause	Your monitor might not be properly connected.
Solution	Ensure that the signal cable is properly connected to your monitor and graphics card.

Problem	The screen image is garbled.
Cause	Your monitor cannot support desired display settings.
Solution	Ensure that your monitor can support your desired display settings. See the technical documentation that came with your monitor.
Cause	Your graphics card cannot support desired system settings.
Solution	Ensure that your graphics card can support your desired display settings. See the specifications table that came with this graphics card package.
Cause	Some graphics driver files might be corrupted.
Solution	Remove your current graphics drivers and reinstall the graphics drivers from the support CD.
Cause	Poor heat dissipation inside the chassis.
Solution	Make sure that the chassis fan, CPU and heatsink with fan, and/or the graphics card GPU fan are working properly.
Cause	GPU or VGA memory overclocked too much.
Solution	Restore default frequency settings of GPU and VGA memory



Other problems that you might encounter can be related to other parts or accessories (such as motherboard, power supply unit, or LCD/CRT) of your system.
