
KnowledgeBuilder

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DIAMOND MULTIMEDIA - Technical Support Knowledge Base

WELCOME TO THE Diamond Multimedia KNOWLEDGE BASE CENTER.

Diamond Multimedia Technical Support Team is dedicated to assist any issues that you may experience with a Diamond Multimedia product. We gathered all the technical questions that we are commonly asked. It is likely that your question has already been answered on our knowledgebase <http://dmmsupport.com/index.php?action=kb>

Diamond XtremeTV PVR received the Consumer GOLD AWARD by HARDOCP

Conclusion

Accessories and Documentation – 10/10

The PVR-660 came with all the necessary cables as well as some thoughtful accessories like the Coax extender and the S-video to composite adapter. The manual was accurate and easy to follow. It contained screenshots for just about every step outlined. We found the remote functional and ergonomic.

Installation and Ease of Use – 9.0/10

We're always happy when installation goes smoothly, and the 660 installed without any hurdles. Set up was a breeze and we could watch TV as soon as the software finished scanning for channels.

The Electronic Programming Guide, while easy to use, lacked some important features found on most PVR systems, namely the ability to record a program based on title rather than timeslot. However, we don't think it's fair to expect a free service to provide the same functionality as subscription-based services.

Performance ‐ 9.5/10

Overall, we were quite pleased with the performance of the PVR-660. We didn't experience any failures or glitches while viewing or recording TV, or while messing around with the Photo and Music modules.

We liked the integrated nature of the Total Media software but, while adequate in most respects, we found its functionality quite rudimentary at times. Several of the modules (namely Music and Photos) don't offer anything beyond what is already available through Media Player or Picture and Fax Viewer. Windows Movie Maker provides more functionality than Total Media's Video module in terms of editing.

On the other hand, we really liked the ability to use the 660 as a capture device for camcorders and even broadcast radio—two features that are even more notable considering its external, portable nature.

Value ‐ 8.0/10

At anywhere from \$107-\$130, the 660 costs significantly more than its PCI-based siblings. As a rule, external peripherals almost always cost more than their internal counterparts, and the 660 provides no exception. However, we've seen PCMCIA-based tuner/capture cards from other manufactures for less than 1/2 of the price of the PVR-660. Although we haven't evaluated the performance of these other solutions, we find the difference in price range striking. This tuner also does not access HD content.

We've given the 660 a value rating of "good" because it worked just as it was supposed to. Had we experienced any problems, we would have scored it significantly lower.

The Bottom Line ‐ 9.0/10

Pricing aside, the Diamond Multimedia PVR-660 performed as advertised and turned our laptop into a decent PVR. We particularly liked the fact that we didn't have to pay a subscription fee to use the scheduling service, even if it lacked the most advanced features available through other services. The 660 put in a solid performance, and we experienced no issues either during installation or day-to-day use.

Eyefinity setup instructions

The following are steps for creating a new display group. As changes are made to the current display configuration, a message dialog appears prompting you to confirm your changes. Click Yes to proceed with the changes.

From the Graphics menu, click Desktops & Displays. Alternatively, click the Home button in the ATI Catalyst 

Control

Center banner.

Click the triangular button on the desktop surface for which to create a group. In the context menu that appears, click Create Group.

If the only displays eligible to be part of the group are currently running in extended desktop mode, a message dialog opens prompting you to first disable them. Click Yes to proceed with disabling the displays and creating a group. Otherwise, click No.

In the Select Layout dialog that opens, select the desired layout for the display group, and then click Accept.

The dialog lists only the layouts that are applicable to your current display configuration. Layouts are listed according to the number of displays in a group and their corresponding shape, shown in width x height. For example, a 3 display (3 x 1) layout involves three displays arranged side-by-side.

Additional layouts can be made available by disabling extended displays, if applicable. If prompted by a message dialog, click Yes to disable all extended displays to allow for more layout options or click No to keep the existing choices.

If prompted, select additional displays to be included to the group by doing the following:

In the display palette, click an available display. Only displays that can be added to the group are shown in the palette.

A progress bar appears indicating that the display is being added to the group. Once added, the display is automatically enabled as a duplicated display and labeled with the desktop number for the group in the display palette.

Tip: If needed, click Cancel in the instruction area above the desktop arrangement area to cancel your action.

Continue to add as many displays as needed to the group, and then click Next once all displays needed in the group have been added. All displays in the group are automatically reconfigured to share the desktop.

Tip: To remove a display from the group, right-click it in the display palette, and then select Remove in the context menu that appears.

When prompted, specify whether the current display arrangement is correct. Click Yes to keep the current arrangement or No to change it.

If you choose to change the arrangement, the desktop for one display in the group is lit in blue while the others become black,

ATI

Catalyst

Control

Center remains visible, and the layout for the display group appears in the desktop arrangement area.

In the layout, click the grid position to be assigned to the display lit in blue. Once the display is assigned to the grid, it becomes black and the next display becomes lit. Assign all subsequently lit displays to its appropriate grid position in the same manner, and then click Done.

Tip: If needed, click Undo to discard the last display assignment.

If the Set as Primary dialog opens prompting you to set the desktop for the group as primary, click Yes or No as appropriate.

Setting the desktop as primary allows full-screen applications to use the desktop of the display group.

The display group is now ready for use and an additional Display Group entry becomes available in the context menu for the desktop. In the display palette, each display in the group is labeled with the same desktop number. You can hover over a display in the group to view its corresponding position, indicated with dotted lines, in the group layout.

Additionally, the Desktop Area setting on the Desktop Properties > Mode page updates to show new

desktop resolutions that can be applied to the group.

Eyefinity Technology

ATI Eyefinity Technology is closely aligned with AMD's implementation of DisplayPort providing the flexibility and upgradability that modern user's demand. Up to two DVI, HDMI or VGA display outputs can be combined with DisplayPorts outputs for a total of six monitors , depending on the graphics card configuration and the operating system. Wider display connectivity is possible by using display output adapters that support active translation from DisplayPort to DVI or VGA.

HDTV-NO RECEPTION

If you do not get channels during scanning, one reason could be the antenna. The antenna provided is for inner city use and can be position sensitive. Any antenna can qualify as an HDTV antenna but higher end antenna's will give better quality.

Product Alerts

Latest Products Alerts and bulletins.

HD 5870 Series - HD5870-1024MB - New bios flash

Here is your new bios for HD5870-1024MB 02-09-2010 *NOTES* PLEASE VERIFY MODEL NUMBER OF YOUR GRAPHICS CARD BEFORE INSTALLING THIS UPDATE. INSTALLING THIS BIOS FLASH FOR THE WRONG MODEL WILL CAUSE YOUR GRAPHICS CARD NOT TO POST. Please make sure it prompts "Successfully" before doing a restart on your computer. Otherwise, the card will no longer post. You can re-run the flash if it displays a "Failed" message but DO NOT RESTART the computer.

CLICK HERE to download an EXECUTABLE file(s)…

- 1) Run "5870-1024MB.exe" under WinXP/Vista32-Bit/Vista64-Bit/Win7x86/Win7x64

- 2) Click on "UNZIP" button to begin
- 3) Let it run through the flashing progress (roughly 30-60 seconds) and wait for a confirmation message then restart your PC.
- 4) Don't forget to send us an e-mail for the result. Thanks!

Also, please download the hotfix driver from the URL shown below to resolve the grey or colored lines appearing on screens and in some cases crashing. Don't hesitate to contact us if you have any further questions. Thank you.

<http://support.amd.com/us/kbarticles/Pages/Grey-screen-and-vertical-line-corruptions.aspx>

DSL602EU DSL Modem

DSL602EU DSL Modem

The driver and user manual is now available on our Diamond support site. The USB driver is only required for installation if you are connecting the unit through the USB port and not the ethernet port.

Video Card BizView, Stealth, Viper

No Display

- A) Your onboard video has not been disabled, if you don't have onboard video then you need to make sure to remove any existing video card and drivers.
- B) The primary video display has not been changed to PCI/PCIE/AGP in the system BIOS (contact your pc manufacturer if you do not know how to make these changes).
- C) The monitor cable has not been connected to the new video card.

Why is video choppy when playing games?

- A) You must have up to date chipset drivers for your motherboard
- B) The latest drivers for the video card
- C) Latest patches for the game you are playing.

No Icons On Desktop After Loading ATI Drivers

Make sure your onboard video (integrated video card) is disabled inside your device manager. If you do not know how to get into your device manager, and you are running WINXP/WIN2k- you can enter the device manager by going into your control panel, and double clicking on System and single click on Hardware/Device Manager. There should be a section called Display Adapters, you can click on the + sign to expand that device. Make sure there is a X on your integrated video card display name. (that indicates your onboard video is disabled)

DVI Port Is Not Functioning

A) You may need the latest drivers for the video card and it is also recommended to install the monitor manufacturer drivers.

B) The second display needs to be enabled by going to the control center for the video card properties.

Why is the computer rebooting when playing games after installing an AGP card?

A) You may need updated drivers for the video card.

B) You also need to make sure you have the latest chipset drivers for your motherboard.

C) The AGP slot on your computer has to be AGP 2.0 Compliant slot. (not made for use in AGP 1.0 3volt slots)

Why doesn't the AGP/PCIE card fit in any of the slots on the computer?

You don't have an AGP/PCIE slot available. Therefore, this card will not with work on your PC.

How do I disable my onboard video on Windows 2000 Professional?

1) You have to enter in safe mode by hitting F8 right before you get to the Windows 2000 Logo Screen.

After you are in safe mode, you will enter Control Panel, System (icon), Hardware tab, Device manager.

Here are some screen shots on how to disable your onboard video for Windows 2000 Professional.

Control Panel

System Properties

Hardware Tab

Device Manager

Right click onboard video and select disable

Select yes after clicking on disable

Now select YES to restart

After Windows is done restarting, you will see your onboard with a RED X. That indicates that it's now disabled.

Can I install two video cards on my computer?

Yes, but this type of setup is not supported by Diamond Multimedia

What to do if the fan on the card is not spinning or making noise?

- A) The fan may be dirty and it may need some cleaning (dust).
- B) The fan might be going out and you may need to replace the video card. Note: if you have your proof of purchase you may call Diamond for a replacement.

Why would i uninstall my old video card drivers and run another driver clearer in safe mode?

This is mainly an issue with Windows XP and its integrated file protection. When a person installs their video card drivers, some files are naturally stored in system folders. Anytime Windows XP detects some/one of these files missing, it will automatically replace them. As you can see, by simply uninstalling the drivers in windows you are NEVER completely getting rid of the old drivers. By starting in Safe Mode you are bypassing XP's file protection and allowing full, uninterrupted access to those files. Driver cleaner is just moreso there for convenience as it knows what files to look for, and saves you the trouble of doing the job manually.

What video cards give the best TV output?

Generally, most people will recommend an ATI card for their excellent TV output capabilities. NVidia cards have gotten much better in the past few years, but ATI is still considered the better of the two. The current card of choice is the ATI 9600 models, although some people use the 7XXX or 8XXX models, and a 9000 or 9200 which can be found for around \$50-\$70 will usually be more than sufficient for HTPC activities.

How can I configure multiple monitors in Linux?

The ATI Proprietary Linux driver provides support for a wide variety of monitor configurations. The following fglrxconfig options can be used to configure displays:

```
§           Enable TV Out (if one of the displays is a TV)

§
§           Yes or No
§           Select Monitor configuration
§           See below for available configurations
§           Configure monitor arrangement (if more than one monitor is connected)
§           Horizontal: select whether screen 1 is left or right of screen 0
§           Vertical: select whether screen 1 is above or below screen 0
§           Set Primary and Secondary monitors
§           Secondary monitor may not have all the features of the Primary monitor
§           Choose available resolutions
§           These should not exceed the capabilities of your monitor
```

Simply run fglrxconfig and provide the desired answers at the appropriate prompts. Answer yes

when asked to update the XF86Config-4 file. Your new settings should take effect the next time you start X.

Monitor Layout Configurations

The following Monitor configurations are available:

Mode

Screens

Description

Single Head
Laptop Mode
Clone Mode
Big Desktop
Dual Head

1
2
2
2
2

single display only, the second remains dark
toggle between internal or external screen
same content on both screens
one desktop stretched across both screens
separate instances of XFree86 on each screen

For Big Desktop and Dual Head modes, a vertical or horizontal orientation can be selected. In some cases, it is also possible to select which monitor will be Primary and which will be Secondary. Some of these configurations allow for extremely large desktop resolutions. Please note the maximum resolutions for OpenGL operation are as follows:

Resolution

Family

Boards

2560x2560
2048x2048

R200 R300

Radeon 9500-9800, FireGL Z1/X1/X2
Radeon 8500-9200, FireGL 8700/8800/E1

3D windows may corrupt or go blank if stretched beyond this limit.
The various monitor layout configurations have the following features and limitations:

Single Head

- § Single monitor operation only
- § If a second monitor is connected, it remains dark
- § Only mode available if you have only one monitor connected
- § Only mode in which Quad Buffer Stereo will work properly
- § The only mode in which full overlay support will be available

Clone Mode

- § Contents of primary monitor are duplicated on the second monitor
- § If one of the monitors cannot display the selected resolution:
 - § A lower resolution is automatically selected for that monitor
 - § It will behave as a virtual desktop at the original resolution
 - § The smaller screen will pan as the mouse moves around

Big Desktop

- § A single desktop is stretched across both monitors
- § Monitors may overlap by a configurable number of pixels
- § Both monitors have to operate with the same video mode settings
- § Both screens use a single framebuffer and only one window manager
- § The smaller display will NOT autoscroll as in Clone Mode
- § Big Desktop can be configured for Horizontal or Vertical operation

Dual Head

- § Independent displays and video modes are possible for each monitor
- § Each monitor uses a separate framebuffer and separate instance of XFree86
- § Items CANNOT be dragged from one screen to the other
- § It is possible to run two separate window managers in this configuration (one on each monitor)

System hangs, VPU Recover errors or corrupted display when using ATI PCI-Express graphics cards in ASUS Motherboards

The information in this article applies to the following configurations:

- ATI RADEON X300/X600/X800 series PCIe graphics card
- ASUS Intel 915/925 or nForce4 based motherboard

In some instances, when PEG Link Mode is set to a value other than Slow within the BIOS setup, users may experience system instability resulting in graphics corruption, video memory or VPU Recover errors.

ASUS has recently introduced a new BIOS feature called PEG Link Mode. This feature is available for both AMD and Intel based motherboards and allows the user to increase the engine and memory clocks on the graphics card.

The five user configurable options are:

- Auto
- Slow
-

Normal

- Fast
- Faster

By default the feature is set to Auto, which is the same as "Normal". However, the

Normal setting still slightly overclocks the video card by almost 8%.

The PEG Link Mode value must be set to "Slow" in order to disable the overlocking feature, and allow for proper functionality. To set the PEG Link Mode to Slow, please refer to the steps below:

-
- Enter System BIOS
 - Open Advanced menu -> open the Chipset menu
 - Locate PEG Link Mode
 - Change setting to Slow

Power connection on a RADEON X1900 graphics card

The information in this article applies to the following configuration(s):

- RADEON X1900 graphics card

Owners of a RADEON X1900 series graphics card may encounter difficulties installing or getting the graphics card to run stable. This may be caused by a low power or current drawn into the graphics card. Sharing the same power connection with other PC peripheral devices may also cause this problem. If you encounter such difficulties please review the following information:

Review the power supply specifications.

450 Watt capacity with 30A on a +/- 12 volt rail (connection) for single graphics configuration
550 Watt capacity with 38A on a +/- 12 volt rail (connection) for dual graphics configuration
such as CrossFire

Ensure that enough power is drawn into each graphics card. Connect the power cable from the power supply directly into the graphics card and no other device.

For a list of "Certified CrossFire" power supplies, refer to the ATI CrossFire page.

No Post on some Dell models with Radeon X1300, X1500, X1600 Series AGP boards

The information in this article applies to the following configuration(s):

- Radeon® X1300 AGP Series
- Radeon® X1500 AGP Series
- Radeon® X1600 AGP Series

It has been reported that the Radeon X1300 and Radeon X1600 Series AGP boards are not posting in some Dell models.

ATI Engineering has been advised of this issue and is investigating. Any updates will be published when they become available.

Text appears blurry on TV

Text appears blurry on TV

Text or fonts that are crisp when displayed on a VGA or SVGA computer monitor may appear fuzzy or blurry when displayed on a TV set or composite monitor.

This is a limitation of the TV set and the analog video signal. Recommendations for improving the display appear at the end of this document.

Technical Details:

The video circuitry in the most modern TV set is designed to handle video signals which adhere to the NTSC (or PAL) broadcast standards. The NTSC and PAL broadcast (RF transmission) standards impose a limit on the bandwidth of the video signal of about 6 to 10 megahertz. Video Bandwidth is, effectively, the highest frequency analog signal a monitor can handle without distortion. Video Bandwidth limits the sharpness of intensity and color changes on the screen. A high bandwidth means smaller visible details.

Text and 2D computer graphic images, by their nature, have a much higher video bandwidth requirement than does a typical TV image. As an example, even the least expensive VGA (640x480) computer monitor has a Video Bandwidth of about 30 megahertz (3 to 4 times that of a TV set).

When text or computer graphic images are displayed on a TV set the fine detail (text) which is sharp and clear on the PC monitor will appear fuzzy on the TV because the TV is not capable of responding to the high frequencies in the computer image. (The TV was designed to display movies and pictures, NOT text.)

Aside from the electronic limitation of limited bandwidth there is also the issue of DOT PITCH. Computer monitors will have a specification for DOT PITCH which describes the distance between the phosphor dots. This specification is generally listed in millimeters, with values of .28mm, .26mm and .24mm being common. The closer the dots are together (the smaller they are) the more detail an image can contain. (The red, green and blue, phosphor dots on the inside of the monitor screen are the elements that glow and actually produce the visible image.) TV sets do not generally have a DOT PITCH specification but close visual inspection of the front of a TV screen will quickly reveal quite large dots (or stripes for TRINITRON tubes) as compared to the dots on a computer monitor.

Recommendations:

Blurry fonts on television are really a limitation of the TV set and the analog video signal. One or more of the following may help to improve the situation:

§ Use an S-VIDEO connection, instead of a COMPOSITE hookup. S-VIDEO tends to provide a clearer image.

§ Increase the size of the fonts being displayed. Font sizes of 18 points or higher may be required in order to yield acceptable results.

§ Try to avoid strong contrasts (such as black on white or white on black). Colour scheme and contrast level play a large part in the appearance of text on a television.

§ Try adjusting the brightness, contrast (sometimes called "picture") and sharpness settings on the TV.

CLI.EXE - Application "failed to initialize properly" error occurs after installing or launching CATALYST Control Center

The information in this article applies to the following configurations:

§

CATALYST

Control

Center

An error "Cli.exe - Application error - The application failed to initialize properly" will occur after installing and launching

CATALYST

Control

Center .

The

CATALYST

Control

Center requires Microsoft's .NET version 1.1 as well as the CATALYST 6.5 (or later) driver in order to run.

Microsoft's .Net is available at
<http://www.microsoft.com/downloads/details.aspx?FamilyId=262D25E3-F589-4842-8157-034D1E7CF3A3&displaylang=en>

System hang while enabling display device in CrossFire mode

System hang while enabling display device in CrossFire mode

The information in this article applies to the following configuration(s):

CrossFire Edition graphics card

Users of CrossFire Edition graphics card may encounter difficulties attempting to enable more displays when CrossFire mode is on, and may cause the system to hang.

ATI Engineering has been advised of this issue and is investigating. Any updates will be published when they become available.

System hang while enabling display device in CrossFire mode

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ATI Engineering has been advised of this issue and is investigating. Any updates will be published when they become available. (www.ati.com)

Blank screen when launching Quake III Arena fullscreen

Blank screen when launching Quake III Arena fullscreen

This issue affects the RADEON MAC EDITION when using the January 7, 2002 ATI Retail Update.

After installing the update, launching Quake III: Arena in fullscreen mode will cause all displays to blank out. Audio continues functioning normally.

Forcing a restart should restore the display.

To correct this issue, obtain and install the latest RADEON MAC EDITION MacOS 9 Display Drivers.

Battlefield 2: The game may exit to the Windows desktop after the game logo is displayed.

Battlefield 2: The game may exit to the Windows desktop after the game logo is displayed.

The information in this article applies to the following configuration(s):

§ Total Battlefield 2

§ Radeon 9200/9250 series

§ Windows XP

After the BF2 game logo is displayed, a VPU Recovery message appears and then exits to the Windows Desktop.

To resolve this issue, download and install Catalyst 6.3 or later.

SpyHunter - Select "Optimum" Quality setting in Direct 3D control panel causes in-game freezing/flashing

SpyHunter - Select "Optimum" Quality setting in Direct 3D control panel causes in-game freezing/flashing

This issue affects the following system configurations:

§ RADEON 8500 Series

§ RADEON 9000 Series

§ Spy Hunter

If the Direct 3D quality slider is set to "Optimum Quality" and Spy Hunter is launched, the application will freeze/flash.

To resolve this issue, download and install CATALYST 4.3 Display Drivers or higher.

DVD movies do not start from the beginning upon rotating the display

DVD movies do not start from the beginning upon rotating the display

The information in this article applies to the following configurations:

§ DVD Player in

Multimedia
Center

9.03

Upon rotating the display during the playback of a DVD, the movie does not start from the beginning as expected. The movie starts off where it was last played, as though Bookmarks are enabled.

This behaviour is by design. The DVD movie should start from the beginning only upon stopping and restarting the movie.

DVD playback may become corrupt running in extended desktop at 480i on the secondary display

DVD playback may become corrupt running in extended desktop at 480i on the secondary display

Enabling extended desktop mode followed by playing a DVD at 480i no longer results in corruption being noticed when moving the playback window to the secondary display device

To correct this issue, download and install Catalyst 5.12 or higher.

Poor video quality playing an HQV DVD in WinDVD 5.0 using an ATI Radeon X1800 series under Windows XP

Poor video quality playing an HQV DVD in WinDVD 5.0 using an ATI Radeon X1800 series under Windows XP

The information in this article applies to the following configuration(s):

§ WinDVD 5.0

§ Radeon X1800 series

§ Windows XP

Playing an HQV DVD using the WinDVD 5.0 player on systems containing an ATI Radeon X1800 series, and running the Windows XP operating system may result in Poor video playback quality being noticed.

To correct this issue, download and install Catalyst 5.12 or higher.

Captured Video Clips are Choppy

Captured Video Clips are Choppy

This information applies to the following:

- § any ATI product with TV or video input features
- § when used with any software for capturing video clips from a video or broadcast signal

When attempting to play back a captured video clip, the image may appear choppy or distorted.

Before You Start

Whenever you are capturing video, please make sure of the following:

- § No other applications should be running
- § Do not open or close the CD tray
- § Refrain from moving the mouse around

Hardware Considerations

The following hardware factors have been known to affect video capture quality:

-
- § CPU speed/performance

 - § Physical RAM available

 - § Hard Drive speed (preferably 7200 rpm or better)

Upgrade any of these and you should be able to achieve higher capture quality. Downgrade any one of them and you may have to lower your capture settings to keep from dropping frames.

Which Capture Settings to Use?

To find the ideal capture settings for your system, proceed as follows:

- § software Perform an initial test capture using the default settings recommended by your capture

- § Play back the video clip you just captured

- § Select a particular capture setting (see below)

- § If the video clip played fine in step 2, then raise the setting one notch and test again

- § If it appeared choppy or distorted, lower the setting and test again

§ Once you have found the ideal position for this setting, leave it

§ Focus on a different setting and continue testing
Select from the following video or audio settings,

§ VIDEO: Resolution (window size), Framerate (fps), Color Depth (Number of Colors)

§ AUDIO: Sample Rate (kHz), Sample Size (8 or 16 bit), Number of Channels (mono or stereo)

§ other settings may be available, depending on your system and software

You may continue testing in this manner until you have discovered the best capture settings your system can maintain.

As each system configuration uses different hardware and software, ATI Customer Care has no information on exactly which configurations can use which capture settings without dropping frames.

ASUS P5A motherboard: system hangs after installing ATI drivers

ASUS P5A motherboard: system hangs after installing ATI drivers

ASUS has released a BIOS upgrade which should resolve this issue.

Current BIOS updates for the ASUS P5A motherboard can be found on the ASUS web site.

Please read and understand all the instructions for upgrading your BIOS prior to attempting the procedure.

If you continue to experience problems, please report the following details to ATI Technical Support:

- Motherboard make and model number
- Which drivers or patches were installed into the operating system (most motherboards come with a CD that includes bus master drivers and other patches)
- A completed ATI Problem Report showing operating system information, ATI drivers installed and the BIOS part number for your graphics product
- ATI (102) assembly number from the back of the graphics board (if possible)

High CPU Usage with VSYNC turned on in OpenSceneGraph

High CPU Usage with VSYNC turned on in OpenSceneGraph

The information in this article applies to the following configuration(s):

- OpenSceneGraph tool kit
- Catalyst 5.10 and higher display driver
- Windows XP
- RADEON 9500 series graphics card and higher

With VSYNC enabled via the

Catalyst
Control
Center

or through the application control, opening the OpenSceneGraph tool kit will result in the CPU usage reaching 100%.

A special driver has been made available to correct this symptom. Please note that this driver is not supported by ATI Customer Care. All feedback should be reported via the Catalyst Crew Driver Feedback Program

Windows boots correctly but hangs/freezes after 3 or 4 minutes of operation

Windows boots correctly but hangs/freezes after 3 or 4 minutes of operation

On the first system restart after installing an ATI Enhanced display driver for an ATI AGP graphics adapter, the following issue may occur:

Windows boots correctly but hangs/freezes after 3 or 4 minutes of operation

Refer to the following sections for possible causes.

Appropriate motherboard chipset drivers are not present on the system

Not only do you need display drivers for your AGP graphics card, you also need drivers for your motherboard, which enable AGP functionality for the motherboard chipset. These drivers are provided by your motherboard manufacturer, on their website and/or on CD. For additional details, please read:

AGP Motherboard/Chipset Drivers

CMOS setup options are set incorrectly
To read our advice regarding CMOS options, please see:

CMOS settings, which affect AGP display adapters

Updated system BIOS may be needed
Please check with your motherboard manufacturer to ensure that you have the latest BIOS for your motherboard. BIOS updates often address hardware and compatibility problems.

Motherboard has been replaced, but Windows has not been re-installed
If you've changed your motherboard, but not your hard drive, then we strongly recommend that you re-install Windows.

Some Windows versions (e.g. Windows 95/NT 4) do not support AGP by default
For details, please see:

AGP support in Windows 95
AGP support in Windows NT 4.0

If you continue to experience difficulties:
If the recommendations above do not help to correct the problem, please complete an ATI Problem Report and send it to us.

learn more about creating a problem report in Windows

Please be sure to include details regarding:

your CPU
your motherboard
the chipset used on your motherboard
which AGP Motherboard/Chipset Drivers you have installed, and where you obtained them

AutoCAD 2006: Corruption may be noticed when moving the mouse pointer around the desktop area with Radeon X800 PRO

AutoCAD 2006: Corruption may be noticed when moving the mouse pointer around the desktop area with Radeon X800 PRO

The information in this article applies to the following configuration(s):

§ AutoCAD 2006
§ Radeon X800 PRO

Users may notice remnants of the mouse pointer being left on the display in the form of little blue dots when moving the mouse pointer around the desktop.

ATI Engineering has been advised of this issue and is investigating. Any updates will be published when they become available.

3DMark06: Setting the display to 2560x1600 with AA set to 4x results in graphic corruption being noticed when running the HDR tests

3DMark06: Setting the display to 2560x1600 with AA set to 4x results in graphic corruption being noticed when running the HDR tests

The information in this article applies to the following configuration(s):

- § 3DMark06
- § Radeon 9600, 9700 and 9800 series
- § Windows XP Professional / Home Edition

Setting the display to 2560x1600 with AA set to 4x may result in graphic corruption being noticed when running the 3DMark06 HDR tests

To correct this issue, download and install Catalyst 6.3 or higher.

VERICUT - Application window refreshes incorrectly using Unigraphics or Pro/Engineer

VERICUT - Application window refreshes incorrectly using Unigraphics or Pro/Engineer

This issue affects ATI FireGL products configured under Windows 2000 or Windows XP platforms.

When using VERICUT, the main window may not refresh, or refreshes incorrectly when Unigraphics or Pro/Engineer is opened.

The issue appears to be addressed in the Java Run-Time 1.4.1.

The latest version of the Java Run-Time can be downloaded from: <http://java.sun.com/>

If updating the Java Run-Time is not an option, a modification can be made to the java run-time command line that launches VERICUT.

§ open the vericut.bat file

§ locate the command line that launches VERICUT and add the following:
'-Dsun.java2d.noddraw=true'

Once completed, the modified command line should resemble the following:

```
%start_cmd% "%CGTECH_JRE%\bin\javaw" -Dsun.java2d.noddraw=true -Xms16m -Xmx64m -Xss4m -  
classpath "%CGTECH_CLASSES% ; %CGTECH_CLASSES%\CGTech.jar" Vericut %argstr%
```

Windows Movie Maker: Corrupt captured *.AVI files

Windows Movie Maker: Corrupt captured *.AVI files

The information in this article applies to the following configuration(s):

§ Windows Movie Maker

§ Radeon X800 XT

§ Windows XP

Captured *.avi files may appear corrupt in color during playback. Intermittently, a VPU recover error may be triggered during the actual capture of the file.

ATI Engineering has been advised of this issue and is investigating. Any updates will be published when they become available.

TV output cannot be enabled using ATI Hot Keys under Windows 2000

TV output cannot be enabled using ATI Hot Keys under Windows 2000

This issue affects the ALL-IN-WONDER RADEON under Windows 2000.

When using an ATI Scheme hotkey to enable or disable the Television, the following symptoms can occur:

§ The Television and Monitor will flicker, but no change takes place

§ The following error message will appear:
"An error occurred while Windows was working with the Control Panel file
C:\WINNT\System32\desk.cpl"

The same symptoms will occur when using the Schemes menu from the ATI Taskbar icon.

To correct this issue, download and install CATALYST 2.4 display drivers or higher.

Radeon X1800 CrossFire Edition: Corruption may be noticed after resuming from standby mode with CrossFire enabled.

Radeon X1800 CrossFire Edition: Corruption may be noticed after resuming from standby mode with CrossFire enabled.

The information in this article applies to the following configuration(s):

§

Catalyst

Control
Center

§ Radeon X1800 CrossFire Edition

§ Windows XP Professional / Home Edition

Resuming from standby state may result in corruption being noticed on the lower half of the display, or the lower half of the display remains blank when CrossFire is enabled

To correct this issue, download and install Catalyst 6.3 or higher.

Dual Display (BV200)

MAXIMUM RESOLUTIONS

Dongle #1

640x480 (analog)

800x600 (analog)

1024x768 (digital or analog)*

1152x864 (analog)

1280x1024 (analog)

1600x1200 (analog)

1920x1080* 16:9 (analog)

1920x1200 (analog)
1920x1440 (analog)
2048x1536 (analog)

Dongle #2

640x480 (digital or analog)
800x600 (digital or analog)
1024x768 (digital or analog)
1152x864 (digital or analog)
1280x1024 (digital or analog)*
1600x1200 (analog)
1920x1080* 16:9 (analog)
1920x1200 (analog)
1920x1440 (analog)
2048x1536 (analog)

Plug to port #2 on dongle and then install driver. Restart computer and then plug second display to #1 on dongle and use the catalyst control center to enable second display.

DISPLAY MODES:

Resolutions, colors and maximum refresh rates (Hz) for 256, 65K and 16.7M colors Monitor
Resolution Hz

16:9 aspect ratio monitors are supported on 1920x1080 and 848x480 on Windows® XP, Windows® 2000 and Windows® ME. The complete list of resolutions depends on the driver version and operating system.

NOTE: resolutions are limited by the performance of the attached monitor.

No audio when installing the 2000 & 3000 series video cards.

Windows 2K & WindowsXP

Close out of all applications and proceed to your desktop. Right click on My Computer and select manage. If there is no My Computer icon located on the desktop. Click on Start, right click on My Computer. Left click on manage. Double click on device manager. If you look to the right side of the screen you should see a list of installed devices. Look for "Sound, Video and Game Controllers". Click on the plus sign located next to Sound, Video and Game Controllers. Look for your installed sound device example "Realtek AC'97 Audio". Right click on the audio driver and select enable/disable. Also check to make sure the HD Audio device is disabled from the device manager.

Windows Vista

Close out of all applications and proceed to your desktop. Click on the Start button and right click Computer and select manage. Left click on Device Manager. If you look to the right side of the screen you should see a list of installed devices. Look for "Sound, Video and Game Controllers". Click on the plus sign located next to Sound, Video and Game Controllers. Look for your installed sound device example "Realtek AC'97 Audio". Right click on the audio driver and select enable/disable. Also check to make sure the HD Audio device is disabled from the device manager.

Clear QAM for Catalyst Media Center

Clear-QAM is unscrambled digital TV over cable. Digital TV channel support is dependent upon your local cable provider. Please contact your cable provider for a listing of digital channels supported in your area. QAM is only supported under Vista. Clear-QAM is supported in Windows Vista® using ATI Catalyst Media Center 11.5.

Clear-QAM for ATI TvPortal

Clear-QAM is unscrambled digital TV over cable. Digital TV channel support is dependent upon your local cable provider. Please contact your cable provider for a listing of digital channels supported in your area. Clear-QAM is supported in MAC OS X 10.4.10+ or 10.5.x using ATI TvPortal™.

Built-in HDMI with Multi-channel 5.1 surround audio

Dear Valued Customer,
Upon researching this issue, we have found that our packaging does not in fact state anything about a HDMI port. The packaging states "Built-in HDMI with Multi-channel 5.1 surround audio". Below is a more detailed explanation of HDMI support and capabilities:

Built-in HDMI support is available on HD 2400 graphics cards empowered by an AMD onboard HD Graphics Processing Unit Chip (GPU). This chip encodes and transcodes Video/Audio through the DVI Display-Out interface port available on Diamond HD 2400PRO256PE graphics cards. Using a proper HDMI cable, customers may connect the HDMI display unit (LCD Monitor) to the DVI display port (1) available on the HD 2400 Graphics card. HDMI cables are provided by the HDMI display unit (LCD Monitor) or are available separately from a variety of vendors such as Belkin or Monster Cable.

Sample 1: ATI Radeon™ HD 2400 Series Connections
Legend

- 1 DVI-I Dual Link connection (Provides audio and video digital signals. It provides HDMI output that is compatible with most HDMI devices.)
- 2 S-Video connection (Video In/Video Out)
- 3 SVGA connection

In this respect, Diamond Customer Support provides solutions to customers with their HDMI inquiries and needs.

Your feedback is important to us and we are taking the following steps to address your inquiry:

A- Our customer support are now trained to take extra steps to provide solutions to Staples customers.

B- To avoid any future potential for misinterpretation, the "HDMI interface" will be addressed in more detail in our future product introductions.

The ATI Catalyst Hotfix driver (8.471.1) for 3DMark Vantage can be found here:

We have just released our official 3DMark Vantage hotfix driver (driver version 8.471.1). Please forward this information to any customer running 3DMark Vantage benchmarks.

The ATI Catalyst Hotfix driver (8.471.1) for 3DMark Vantage can be found here:

<http://support.ati.com/ics/support/default.asp?deptID=894&task=knowledge&questionID=33840>

Release notes regarding the ATI Catalyst 3DMark Vantage hotfix driver:

Please ensure that you un-install any previous Catalyst driver before installing the Catalyst 3DMark Vantage driver (especially if your current driver is Catalyst 8.4)

When enabling/disabling CrossFire, please reboot your system before running 3DMark Vantage
Corruption may be seen in GPU Game Test 1 when running 3DMark Vantage on
“High” settings on certain ATI Radeon HD 3870 CrossFire configurations under
Windows Vista 32-bit edition

ATI Radeon HD 3870 QUAD CrossFireX performance when running 3DMark Vantage on the
“Extreme” settings is lower than it should be

Note if any TDR’s are encountered when running 3DMark Vantage, please see the
following link: http://download.microsoft.com/download/9/c/5/9c5b2167-8017-4bae-9fde-d599bac8184a/GPUHang_Det-Rec.doc

Note, Catalyst 8.5 (using the 8.491 driver) – posting mid May will include the bug fixes and performance enhancements found in the 8.471.1 3DMark Vantage hotfix driver

What is Eyefinity

Eyefinity gives you the ability to operate up to three high resolution displays simultaneously and independently from a single graphics board. It also allows you to expand your gaming field of view across all displays using the ATI stream technology. Eyefinity requires you to have an operating system that supports DirectX10 or 11 to function. Eyefinity advanced multiple display technology supports Duplicated mode operation giving you the ability to run cloned imaging on multiple displays or extended imaging on multiple displays. This feature is supported by the 5750 and the 5770 only.

Below is a chart displaying the different combinations that is supported by Eyefinity technology. Click on and save the attachment to your PC.

HD 5870 Series - HD5870-1024MB - New bios flash

Here is your new bios for HD5870-1024MB 02-09-2010 *NOTES* PLEASE VERIFY MODEL NUMBER OF YOUR GRAPHICS CARD BEFORE INSTALLING THIS UPDATE. INSTALLING THIS BIOS FLASH FOR THE WRONG MODEL WILL CAUSE YOUR GRAPHICS CARD NOT TO POST.

Please make sure it prompts “Successfully” before doing a restart on your computer. Otherwise, the card will no longer post. You can re-run the flash if it displays a “Failed” message but DO NOT RESTART the computer.

CLICK HERE to download an EXECUTABLE file(s)…

- 1) Run "5870-1024MB.exe” under WinXP/Vista32-Bit/Vista64-Bit/Win7x86/Win7x64
- 2) Click on “UNZIP” button to begin
- 3) Let it run through the flashing progress (roughly 30-60 seconds) and wait for a confirmation message then restart your PC.
- 4) Don’t forget to send us an e-mail for the result. Thanks!

Also, please download the hotfix driver from the URL shown below to resolve the grey or colored lines appearing on screens and in some cases crashing. Don’t hesitate to contact us if you have any further questions. Thank you.

<http://support.amd.com/us/kbarticles/Pages/Grey-screen-and-vertical-line-corruptions.aspx>

Eyefinity Technology

ATI Eyefinity Technology is closely aligned with AMD's implementation of DisplayPort providing the flexibility and upgradability that modern user's demand. Up to two DVI, HDMI or VGA display outputs can be combined with DisplayPorts outputs for a total of six monitors, depending on the graphics card configuration and the operating system. Wider display connectivity is possible by using display

output adapters that support active translation from DisplayPort to DVI or VGA.

56K Modem Supra Max

When I am online how come my Modem on hold feature is not working?

- A) Make sure your caller id is enabled from your phone company
- B) Internet service provider has to support modem on hold feat (MOH)
- C) Internet service provider has to support a valid V 92 Access Number
- D) Make sure you are connected above 33k

Windows reports that there is NO DIAL TONE when trying to connect

- 1) Make sure one end of the phone cord is connected directly into a wall outlet and the other end plugs into the LINE connector on the modem.
 - Try connecting the to the Internet if you changed any connections after reading the above statement. If this does not resolve the problem proceed to step 2.
- 2) Try connecting a telephone directly into the same wall outlet you are using for the modem by disconnecting the cord from the LINE connector on the modem and connecting it to your telephone set.
 - If you do not receive a dial tone on the telephone, try using a different telephone cable.
 - If another telephone cable does not resolve the problem you will need to contact your phone company for further troubleshooting.
 - If you are able to hear the dial toned through a telephone you should now proceed to step 3.
- 3) Try connecting a telephone set into the PHONE connector on the modem. Make sure the phone cable you use for this step is a known working cable.
 - If you can hear a dial tone through the telephone set then the modem should be able to find a dial tone. Try connecting to the Internet after you confirm this step.
 - If the modem still does not have a dial tone then proceed to step 4.
- 4) Do you have a call messaging service on your phone line?
 - If you have a call messaging service on your phone line your modem may not be able to detect a dial tone when there is new messages waiting for you. You need to tell the modem to pause before checking for the dial tone. The way to accomplish this is to place 1 or 2 commas just before the telephone number for your Internet connection.
 - Please contact your ISP for assistance if you are not sure how to make this change in your Internet setup.

The modem connects at low speeds (speeds of 33600 (33.6kbps) or lesser)

There may be a few reasons why your modem would not connect at full speed(56K). Most situations the modem is not the source of the problem.

With a good phone line you should be able to connect to your Internet provider at or around 49333 (49.3Kbps). If you have a average phone line expect to get connection speeds of around 45333. The worse quality of the phone line equals a lesser modem connection speed.

If you are connecting at 33600 or less, you should try testing the modem by connecting through a terminal program to other modem dial-up numbers in your area. Please use the following guidelines while performing the test.

- Make sure the modem is connected directly to a telephone wall outlet.
- Try another telephone cable if you have been using the cable supplied with the modem.
- Try the following test first with your regular number you use to connect with your ISP.

As a second test try any alternate phone numbers in your area from your ISP by visiting the ISP's web site and looking up their list of access numbers.

As a third test try using another ISP for the test. We recommend using the larger nationwide ISP's such as Earthlink, Mfire, and MSN. Each of these ISP's has a list of published access numbers, any of which you can use for this test.

- To perform a line test you must have a terminal emulator installed on your computer.
- Windows XP systems have Hyper Terminal built in and preinstalled into the operating system.
- Windows 95, 98, ME have Hyper Terminal built into the operating system. Hyper Terminal is an optional component in these operating systems and may not have been installed at the time your operating system was installed. You may need to click Start > Settings > Control Panel > Add / Remove Programs > Windows Setup > Communications to install Hyper Terminal. This step will require that you provide your Microsoft Windows CD disc.
- Mac OS systems do not feature a built in terminal emulator. Most of the Best Data CD's offer a program called Microphone Pro which can be optionally installed by inserting the installation CD into your CD-ROM drive and double clicking the Microphone Installer icon (may be located within a software folder on the installation CD).

IBM PC USERS (Macintosh users continue to the next section)

Windows 95/98/ME

- You will first need to know which com port the modem is using. You can find this out by going to Start > Settings > Control Panel > Modems and double clicking the modem # of your modem.

Windows 2000/XP

- You will first need to know which com port the modem is using. You can find this out by going to Start > Control Panel > Phone & Modem Options > Modem tab and double clicking the modem # of your modem.

Hyper Terminal Settings for Windows 95/98/ME/2000/XP

1. Open Hyper Terminal by clicking Start, Programs, Accessories, Hyper Terminal (Windows 98, ME, 2000, XP users will find this one level deeper inside of Communications.)
2. After you start Hyper Terminal you will see a new connection dialog box appear. Type TEST into the New Connection dialog box and click OK to continue.
3. Change the Connect Using option at the bottom to Direct To COMx (where COMx = the com port the modem is using). Click OK to continue.
4. Change the Bits Per Second option to read 115200 and click OK to continue.

Microphone Pro Settings for Mac OS

You should now be looking at a blank terminal window. You may not see the first command while it is being typed. Only type what is between the quotations in the following examples:

Type: "ATE1" and press the ENTER key.

Type: "ATW2" and press the ENTER key.

Type: "AT+MR=2" and press the ENTER key.

type: "ATDT18183370165" and press the ENTER key. (note: if you live in the 818 area code only type the phone number 3370165 without the 1818 prefix).

When the modem connects you should get an indication of what speed the modem connected at. Please make a note of this for point of reference. We have tested our modems on this line and found them to connect at rates of 48000 and 49333 from our facility. We have good to average quality telephone lines. If you experience a lower connect rate chances are it is because that is all that is capable of your telephone lines.

Modem not detected by Windows.

- 1) If you have a PCI modem you can try inserting the modem into a different PCI slot.
- 2) If you have a USB modem you can try inserting the USB cable into a different USB port.
- 3) If you have a PCMCIA modem you can try inserting the card into another PCMCIA socket.

No Dial Tone

- 1) Verify that the modem is connected directly into your wall phone outlet without using a splitter.
- 2) Try connecting a telephone to the TEL or PHONE connector on the back of the modem. If you do not hear a dial tone then you should try using a different phone cable and repeat this step.
- 3) If you have an answering service, such as the kind provided by most local phone companies, new messages waiting can sometimes cause the modem to not see a dial tone. Try placing 2 commas just before the phone number that you use to connect with your ISP. Contact your ISP if you are uncertain where to place the commas.

Cannot establish a connecton

- 1) Make sure you are connecting the modem directly to the wall outlet and make sure the phone cable that you are using is not longer than 25 feet.
- 2) Try connecting to a different provider. You can try using a free service such as NetZero (www.netzero.com) to accomplish this.

Slow connection speeds

- 1) Check with your local phone company and make sure they are using a digital switch for the the phone number that your modem is physically connected to.
- 2) Check with your local phone company to verify how far away the local switch is from your location. High speed connections can usually only be obtained if you are no furthe than 3 miles from the switch at the head end of the phone company.
- 3) Try using a different phone cable.
- 4) Try using a different phone outlet at the wall.

Interrptions of data transfer

- 1) Make sure the phone cord coming from the modem is connected directly into a telephone wall outlet.
- 2) Make sure the phone cord coming from the modem is not nearby or wrapped around any other electronic devices, such as refrigerators, air conditioners, etc.
- 3) If you live next to an airport this can happen frequently, often times without a resolution. Try connecting at a slower speed to avoid this.
- 4) Contact your ISP to make sure they are not experiencing any technical difficulties.

Frequent disconnections from your ISP (INTERNET SERVICE PROVIDER)

- 1) Make sure the phone cord coming from the modem is connected directly into a telephone wall outlet
- 2) If you live next to an airport this can happen frequently, often times without a resolution. Try connecting at a slower speed to avoid this.
- 3) Contact your ISP to make sure they are not experiencing any technical difficulties.

PCMCIA phone cable is broken

The warranty of the modem does not cover the PCMCIA phone cable. These items are sensitive and should be handled gently. If your cable is physically broken you can purchase a new cable through our online store. (<http://www.diamondmm.com/dmmstore.php>)

Why doesn't my 56k modem not connect at 56k?

The federal communications commission limits the amount of voltage that may pass through the phone lines so while most modems can actually achieve 56k the top speed on standard phone lines is about 53k. However the average connections speed is between 40 and 50 due to noise problems on even the best phone lines.

What's a 56k-compatible Line?

If you get a 56k modem, and you get 56k connections, you can safely say that you (presently) have a 56k-compatible line. However, if you don't get 56k connections, you cannot correctly assume that your line is not '56k-compatible'.

Possible reasons for not getting a 56k connect can include:

- The firmware in your modem isn't working properly for your line conditions

- The firmware in your modem isn't 'compatible' with the firmware in the server modem you are calling

- The firmware in one of the modems isn't 'compatible' with the digital portion of the telephone network being used

- Your line is not '56k-compatible'

In some of the above circumstances, you would be able to achieve a 56k connect with a different modem, or calling a different V.90 server.

56k Modem manufacturers have generally defined a '56k-compatible line' as being one that has only 1 D/A conversion (or 1 A/D conversion), and your local loop is less than 3½ miles. You may be able to get an answer - not always correct - if you ask your telco for the loop length and if your line has more than 1 A/D conversion. There is no 'requirement' or standard procedure for getting this information from a telco. But, even if you find you have only 1 A/D conversion (a '56k-compatible line'), you may still not be able to get a 56k connect with any 56k modem if your telco introduces certain types of digital impairments.

Buying a 56k Modem?

If you're buying a new system, you might have a choice on modem (Dell, Gateway, HP, Compaq, etc.), or one might automatically be included (most notebooks and many pre-configured desktop PCs). Rarely will they tell you what you're really getting (chipset, DAA, and drivers), and I recommend that, if you have a choice, you get no modem and purchase it separately.

Almost all modems being manufactured today support the latest V.92 as well as all the popular older modem standards. (Any modems that don't support V.92 should be considered outdated surplus and should be had for next to nothing.) V.92 modems with V.44 compression might provide slightly better performance (throughput) than V.90 modems - and add improved call-waiting compatibility: if your ISP supports V.92, and you have call-waiting service, you may place your Internet connection on hold while taking the call, then resume your Internet session. To V.90 servers, most V.92 modems also offer the ability you to incoming call and allow you to decide whether to ignore it or disconnect and take it.

What is a Voice Modem?

Most modems can be classified with these characteristics:

- Data/fax
- Data/fax/voice
- Data/fax/voice/speakerphone

Voice generally means that the modem is capable, with appropriate software, of supporting telephone answering machine functions: the modem can 'record' and 'play' to the Windows wave device. The answering machine software will also use the sound card on the machine to play and record. The software may also include functions to dial or answer calls using your sound card's microphone and speakers or headphones.

Windows comes with a Phone Dialer. This utility will dial a number with any type of modem; after Phone Dialer dials a number, you use any normal phone (connected to the 'Phone' jack of the modem) to complete a voice call.

Third-party software can be used with a voice modem to enhance functionality. One such package: ModemSpy can record phone calls to wav files.

All modems are also capable of supporting voice functions provided by 'Internet Telephony' - the modem is connected to your ISP in data mode, and software on your system sends and receives voice-encoded data to a compatible telephony server to complete a call. (Many of these services used to be free.) Some providers include: Phone Free, DialPad, IConnectHere, and Skype.

A modem that includes speakerphone capability will have additional audio components on the modem to provide an interface for a microphone and speaker or headset. This allows the modem to dial or answer and provide high-quality full-duplex voice functionality.

Full duplex means you can talk and hear at the same time. Many 'voice' modems when used on voice calls will provide only half-duplex functionality: at any instant, you can either be talking or listening. The quality of the audio produced using a voice modem is often a problem.

Voice modem chipset makers include in the driver or firmware code to interface to the wave device, but do not develop the software that provides voice functionality. The modem makers generally bundle "compatible" third-party voice modem software. Some voice modem software offerings: Ring Central, BVRP, and Messanging Software. Microsoft Windows provides TAPI (a telephony application program interface) and a Unimodem service provider (driver). The Microsoft-provided Unimodem driver uses your modem driver (.inf file) to support TAPI-compliant applications and your modem.

CALLER ID is not automatically supported by all modems. In most cases, data/fax modems will not provide any caller id support. The chipsets for voice, speakerphone and even most data/fax modems are capable of caller id, but the modem must include additional components: the caller id signal is sent by the phone company between the first and second rings while the phone, or modem is still on-hook. Modems that support caller id must have a circuit to receive the caller id information without taking the modem off-hook.

DISTINCTIVE RING - Many modems are capable of supporting distinctive ring - however, Windows XP & 2000's Microsoft-provided Unimodem is not.

VoIP - Voice Over IP and Modems

VoIP - Voice Over IP - has suddenly become a hot topic. In case you've missed the basics - a broadband Internet connection (DSL, cable, etc.) can be configured to provide telephone service in addition to Internet access.

As VoIP proliferates - and it will - new challenges will emerge for dial-up modem users. And, VoIP opens up significant public policy issues. This special report touches on both.

Technical: Direct-dial local, national and international telephone service is available nearly everywhere and is based upon a 100+ year-old "circuit-switched" architecture. Once your call is routed (after you dial last digit and before the other end can ring), you effectively have a 64kbps dedicated channel between your line and the other end. This channel remains yours until you hang up. Each end provides an analog 2-wire line. A codec codes and decodes the analog and digital portions of the telephone network and a hybrid separates the 2-wire circuit to '4-wire'. This is imperfect, and there will be some 'echo' of the send on the receive - and if both ends are 2-wire, there will be near and far echo. The codecs are designed to provide speech-range (~300-3000hz) frequency response using the 64kbps datastream. As calls get more distant, there will be more delay, but, once the call is setup, the delay remains constant.

Note the 64kbps data rate used in the global switched-circuit telephone network. This is a high-enough data rate to provide near CD-quality mono audio using today's compression techniques, but what we've got today is pretty horrible audio - just acceptable speech because the system is based upon ancient technology. Modern codecs can provide switched-circuit phone network quality audio using around 5kbps! Not that VoIP uses such a low rate - at least not yet.

VoIP replaces all or part of the circuit-switched call with IP (Internet Protocol). With IP, packets of data are sent and received over local and/or wide-area networks. Each packet is routed to the destination and travels on a shared network.

VoIP provides a "virtual switched-circuit" connection: the phone is connected via the broadband Internet connection to an Internet-telephony service provider, which routes the call via Internet Protocol to a switch that is connected to the public switched-circuit phone network to complete the call. Note that this allows all sorts of possibilities and features that used to be out-of-reach: with VoIP your phone number can be in a different area code, or even country, than where you actually are! Compression and Internet Protocol Routing introduces more delay than with a traditional switched-circuit call. While the IP end isn't restricted to a virtual 2-wire phone line, the other end is. If echo cancellation isn't perfect (and it often isn't), this delay can be much more significant - but tolerable? - for voice calls. Analog Modems, on the other hand, weren't designed with anything but traditional circuit-switched networks. When VoIP technology is used in any part of a call, the VoIP-switched-network interfaces need to recognize and support analog modems: more bandwidth than voice may require and if there's too much delay, the connection may fail. Dropouts - when the IP portion isn't working like it should - may be a new irritant to VoIP users, and a connection killer for modems - including fax modems. (Most VoIP providers claim to support modem/fax connections.)

VoIP is poised to take off due to compelling economics and competitive forces: Why does caller id cost you \$7.95 + tax from your phone company when the phone company's cost is near-zero? Why is caller id provided at no extra charge with cellular service? Answer: because no one else can offer you that service on your line, and, for cellular, everyone offers it. The game changes for wired-telco providers with VoIP - on all the enhanced services like call-waiting, 3-way calling, etc. Right now, telephone services are highly regulated (although "monopoly" services like caller id and call waiting often are treated as "competitive non-regulated"). Internet Service Providers are not. While VoIP service may not provide the reliability of the almost bullet-proof phone line we've come to expect from our phone companies, the cost savings may be more than enough to win customers.

VoIP requires broadband. While broadband is widely available in the US and elsewhere, broadband availability is not nearly as universal as phone service, and will not have such wide availability for some time. The 'last mile' - the connection to your home remains the biggest hurdle, and defines your options for any particular location.

For most home users, cable is today's only VoIP alternative. Cable companies are not among consumers most-loved and respected companies. But, cable companies have made huge investments to upgrade their networks to support 2-way digital connections, and cable modem service has become more reliable. Cable's primary high-speed competition - DSL - requires a phone line, and your phone company has the most to lose from VoIP (although most phone companies are making plans to provide their own VoIP services...). Expect the cable companies to begin offering telephone service - TimeWarner has already announced. Even without the local cable company offering phone service, third-party providers already offer it. Just remember: one would hope your cable company would do a few things to enhance service reliability before they offer telephone service: like UPS (uninterruptible power supplies) and the maximum possible fault-tolerance/redundancy. Anytime the cable internet service is out, your phone service will be out, too. With a third-party provider, your service becomes vulnerable to problems with your local Internet connection as well as with problems at the third-party and the connection between your ISP and the third-party. 911 issue: you may not be able to call 911, and if you are able, the call will not be handled like a normal 911 call and the emergency response center may not receive any information regarding your phone number or location.

The public policy issues are huge: Billions and billions of dollars are collected today in the USA from taxes, fees and surcharges on telecommunications services: the Universal Service (Slosh) Fund, Federal Excise Taxes, Line Cost Charges, etc., etc., etc. A VoIP provider must purchase access to the public switched network in order to allow you to make calls - so, look for a fight as the players try and lay down rules to catch up with technology. The phone companies will fight for regulation of VoIP providers to protect their turf, as VoIP argues for a chance to compete.

Why Slower Modem Speed may be Faster

Slower = Faster? Here's why: The modem business is very competitive, and the first thing a typical user will consider in evaluating a modem is how fast it indicates it has connected. With the advent of 56k modems, the CONNECT speed reported gives less than 1/2 the picture: first, only the downstream rate is indicated, and second, the modem may not be able to sustain the speed at which it connected.

If the modem is unable to decode the data at the connect speed, the modem will either retrain or do a rate-renegotiation. Both of these events interrupt all data flow - in the case of a retrain, the interruption can be 20 seconds or more of nothing!

Because most users do little more than compare connect speeds of modems, manufacturers have an incentive to be too aggressive with connect speed so you think your modem is faster.

If your modem is connecting at a rate below 40K bps, I strongly urge you to check your throughput with 56k disabled altogether. You may be surprised to find that your modem (a) connects to your ISP faster; and (b) performs better.

If your modem is connecting at a rate of 40k bps or above, but your throughput doesn't match, or if you experience disconnects or unreliable connections, I recommend you try limiting your speed connection to a lower rate.

After you've tested the various options with your modem and present modem driver, I suggest you check to see if an updated driver available, and then re-check and compare the performance.

V.92 Trouble: Interoperability

V.92 and V.44 became International standards in November of 2000, and the first "V.92" modems were sold in November of 2000. As of late April 2003, the V.92 feature that provides for higher upstream rates is still basically non-functional: Cisco, Lucent, and Nortel server modems do not support PCM upstream at all. Patton and Commworks do, but the maximum PCM upstream rate you might achieve is 36kbps - 25% lower than the standard's 48k maximum. Some in the industry doubt 48k upstream is achievable. A consumer advocate might find much of the advertising for V.92 to be deceptive: modems or ISPs promising "...up to 48Kbps..." upstream should disclose that this is a future, possibly unachievable capability.

V.92/V.44 drivers for both client and server modems have undergone revisions to resolve connectivity problems. Some interoperability issues are still being addressed. Some ISP V.92 upgrades can cause connectivity problems for users with older V.90 modems, as well as users with new V.92 modems. The most serious problem is inability or difficulty in completing handshake and getting a CONNECT. Updating your modem driver may help in these situations. There are cases where V.44 fails to work between client/server modems which may result in a CONNECT but no data, a failure of the handshake, or a CONNECT without error correction. (Disabling V.44 on the client modem, or updating the modem driver might help with this problem.)

Modem-on-hold (MoH) is the most compelling feature for many users. Many V.92 modems are sold without the necessary MoH software. The drivers that come with the modem may also need updating to properly handle MoH. There is an issue with V.92 servers that have MoH disabled: when a call comes in, the server denies a MoH request and disconnects instead of allowing the client to decide whether to ignore the call or accept it and disconnect. (Level3, the only national V.92 network provider disables MoH by default. Level3 customers include the largest national ISPs - AOL, MSN, Earthlink, etc., and all major Level3 customers except United Online (NetZero/Juno) have requested MoH be disabled.)

Users getting reduced handshake times (Quick Connect) are hard to find. (Again, most modems will need a later driver than is shipped with the modem, and some modems might need extra initialization commands to enable the feature.) There are cases where quick connect fails resulting in a longer handshake, failure to connect, reduced connection speed, or connection without error correction. Quick Connect may need to be disabled.

V.44 compression is working for many V.92 client-server connections. The performance difference can be impressive with the right kind of data transfer. Only controllerless modems (DSP and Softmodems) are "ready" to benefit: most Windows PCs cannot support real serial port data rates above 115.2k without a high-speed serial card.

The bottom line: The only difference in V.90 vs a V.92 modem is software. Nearly all client modems being made today are V.92. New systems that bundle a modem are almost always V.92 now. ISPs are faced with a more complicated choice. Upgrading to V.92 will almost certainly cause some problems for some customers; and, the ISPs vendor may require expensive service contracts or hardware upgrades.

What 56k Connect Rate Should You Expect?□

56k Modems rarely connect close to 56k. In the US, FCC-imposed power give most 56k modems a maximum potential for a 53.3k connection.
But, what happens in the real world? These are my estimates of 56k connections.

About 60-70% of 56k modem owners are getting 56k connects (rates higher than 33.6k). 30-40% get rates of 33.6k or less.

Of those getting 56k rates, 80-90% are getting 40k or higher. About 75% get rates between 44-49.3k. About 10% get rates of 50k or higher, and about 15% get rates between 34.6 - 38.6k. However, the throughput achieved by a substantial portion of the connections doesn't match the connect rate.

Of the 30-40% of 56k modem owners not getting 56k connects, about 15% are connecting at 31.6 - 33.6k, 70% at 26.4-28.8k, and 15% at 24k or lower.

The rate achieved depends upon a number of factors including:
The Modem (sometimes the one you have won't work with your line conditions/ISP)
The Modem Firmware/driver (sometimes a firmware upgrade/downgrade will yield improvement)
Your line conditions (sometimes the facilities provided by the phone company prevent 56k connects)
The ISP's Modems (sometimes your modem won't achieve 56k-interoperability with your ISP's 56k modems)
The ISP's Modem Firmware (sometimes an ISP modem firmware upgrade will yield improvement)

DSL602EU DSL Modem

DSL602EU DSL Modem

The driver and user manual is now available on our Diamond support site. The USB driver is only required for installation if you are connecting the unit through the USB port and not the ethernet port.

Sound Card

Xtreme Sound

Will my 7.1 24bit sound card work on Windows 98?

No, the sound card is not compatible with Windows 9X. It will only function and run properly on Windows 2k_XP/MCE

Xtreme Sound Troubleshooting

Xtreme Sound Cards Troubleshooting

If you are experiencing an echo in your sound applications & games please check the following:

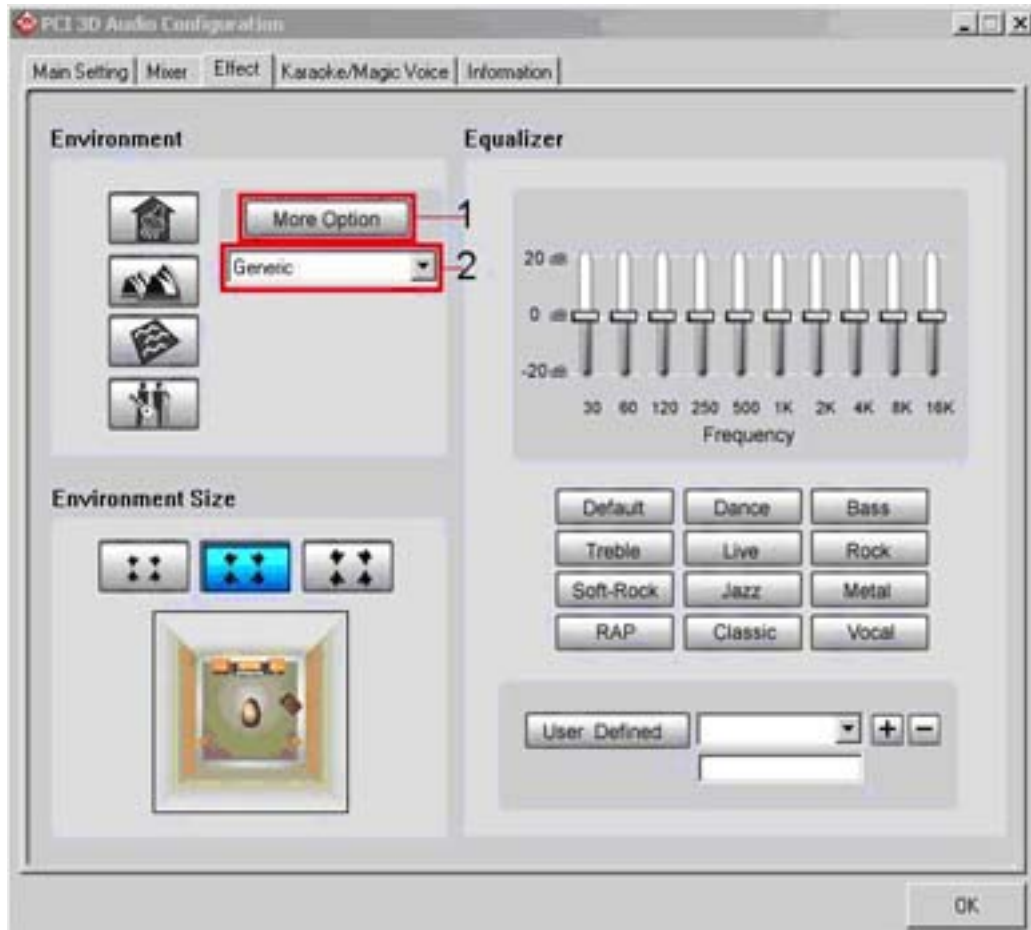
1. Double click the Diamond icon in your system tray as highlighted below:



2. Click the Effect tab.

3. Verify that the More Option is NOT highlighted as indicated by #1 in the image below.

4. Verify that the sound environment is set for Generic as indicated by #2 in the image below.



TV Tuner & PVR

Xtreme TV, Diamond Firefly

What codec do the different encoders use and which is the best?

The hardware encoders take a basic video stream and encode it into MPEG2 format, which is the standard encoding format and is used on other media types such as DVDs. It also doesn't take as much processing power, so it can be done "on-the-fly" which is why most programs tend to use this format.

PVR550 was not detected by windows found new hardware wizard

SOLUTION 1: The card may not be seated all of the way into the PCI slot. Verify that the card is seated properly into the PCI slot, where the gold contacts on the PCI card are not

exposed when the card is occupying the slot..

SOLUTION 2: Try mounting the card into a different PCI slot if solution 1 did not help.

PVR600 was not detected by windows found new hardware wizard.

1. Unplug and re plug the USB cable into the PVR600.
2. Connect the usb cable to a difference USB port on your computer.

Not able to watch / record television

Verify that your input source is properly connected from a known working source.

If you are connecting a coaxial cable direct from the cable TV wall outlet to the XtremeTV, then try connecting the same coaxial cable into a television set to verify that your cable and outlet is functioning properly.

Not able to receive the signal from digital cable or satellite boxes

1)Most digital and satellite boxes have multiple outputs available. It's preferred that you physically connect the digital or satellite box to the XtremeTV card using S-VIDEO cable for the best visual clarity. If your digital cable or satellite box does not offer S-VIDEO, then composite RCA would be the next best choice to use.

2)You will also need to run through the Beyond TV setup wizard again, selecting digital cable box, or satellite box. And then selecting the appropriate connection once by the setup wizard.

3)You may need to purchase an IR Blaster in order to change channels with PVR. Otherwise, you will need to change channels with your Digital Cable or Satellite box remote control.

TV Output from the video card not functioning

Contact your video card manufacturer to make sure the TV output is functioning properly.

Bad reception using an antenna

An antenna is the least favorable means of viewing and recording

Diamond XtremeTV PVR received the Consumer GOLD AWARD by HARDOCP

Conclusion

Accessories and Documentation – 10/10

The PVR-660 came with all the necessary cables as well as some thoughtful accessories like the Coax extender and the S-video to composite adapter. The manual was accurate and easy to follow. It contained screenshots for just about every step outlined. We found the remote functional and ergonomic.

Installation and Ease of Use – 9.0/10

We're always happy when installation goes smoothly, and the 660 installed without any hurdles. Set up was a breeze and we could watch TV as soon as the software finished scanning for channels.

The Electronic Programming Guide, while easy to use, lacked some important features found on most PVR systems, namely the ability to record a program based on title rather than timeslot. However, we don't think it's fair to expect a free service to provide the same functionality as subscription-based services.

Performance – 9.5/10

Overall, we were quite pleased with the performance of the PVR-660. We didn't experience any failures or glitches while viewing or recording TV, or while messing around with the Photo and Music modules.

We liked the integrated nature of the Total Media software but, while adequate in most respects, we found its functionality quite rudimentary at times. Several of the modules (namely Music and Photos) don't offer anything beyond what is already available through Media Player or Picture and Fax Viewer. Windows Movie Maker provides more functionality than Total Media's Video module in terms of editing.

On the other hand, we really liked the ability to use the 660 as a capture device for camcorders and even broadcast radio—two features that are even more notable considering its external, portable nature.

Value – 8.0/10

At anywhere from \$107-\$130, the 660 costs significantly more than its PCI-based siblings. As a rule, external peripherals almost always cost more than their internal counterparts, and the 660 provides no exception. However, we've seen PCMCIA-based tuner/capture cards from other

manufactures for less than 1/2 of the price of the PVR-660. Although we haven't evaluated the performance of these other solutions, we find the difference in price range striking. This tuner also does not access HD content.

We've given the 660 a value rating of "good" because it worked just as it was supposed to. Had we experienced any problems, we would have scored it significantly lower.

The Bottom Line ‐ 9.0/10

Pricing aside, the Diamond Multimedia PVR-660 performed as advertised and turned our laptop into a decent PVR. We particularly liked the fact that we didn't have to pay a subscription fee to use the scheduling service, even if it lacked the most advanced features available through other services. The 660 put in a solid performance, and we experienced no issues either during installation or day-to-day use.

Captured Video Clips are Choppy

Captured Video Clips are Choppy

This information applies to the following:

- § any ATI product with TV or video input features
- § when used with any software for capturing video clips from a video or broadcast signal

When attempting to play back a captured video clip, the image may appear choppy or distorted.

Before You Start

Whenever you are capturing video, please make sure of the following:

- § No other applications should be running
- § Do not open or close the CD tray
- § Refrain from moving the mouse around

Hardware Considerations

The following hardware factors have been known to affect video capture quality:

- § CPU speed/performance
- § Physical RAM available
- § Hard Drive speed (preferably 7200 rpm or better)

Upgrade any of these and you should be able to achieve higher capture quality. Downgrade any one of them and you may have to lower your capture settings to keep from dropping frames.

Which Capture Settings to Use?

To find the ideal capture settings for your system, proceed as follows:

§ software Perform an initial test capture using the default settings recommended by your capture

§ Play back the video clip you just captured

§ Select a particular capture setting (see below)

§ If the video clip played fine in step 2, then raise the setting one notch and test again

§ If it appeared choppy or distorted, lower the setting and test again

§ Once you have found the ideal position for this setting, leave it

§ Focus on a different setting and continue testing
Select from the following video or audio settings,

§ VIDEO: Resolution (window size), Framerate (fps), Color Depth (Number of Colors)

§ AUDIO: Sample Rate (kHz), Sample Size (8 or 16 bit), Number of Channels (mono or stereo)

§ other settings may be available, depending on your system and software

You may continue testing in this manner until you have discovered the best capture settings your system can maintain.

As each system configuration uses different hardware and software, ATI Customer Care has no information on exactly which configurations can use which capture settings without dropping frames.

HDTV-NO RECEPTION

If you do not get channels during scanning, one reason could be the antenna. The antenna provided is for inner city use and can be position sensitive. Any antenna can qualify as an HDTV antenna but higher end antenna's will give better quality.

Mini Firefly- Some buttons do not function

The Mini Firefly that is provided with the PVR550 and PVR560 have some buttons that do not have functionality. These buttons are the menu, option, guide, and power. This would apply for Windows XP and Windows Vista.

Broadband SupraMax DSL Wireless Router

Bridging your DSL602E

- Open your web browser/
- Type in the address line 192.168.1.1 press enter/
- Go to advanced/
- On left side of the screen go to wan/
- Quick start/
- Type: PPOE/
- Change it to bridge/
- Apply/
- Save settings
- Then connect the router to the modem.

Accessories DVI to CRT Adapter, RCA Video Cable, S-Video Cable □

How do I connect a VGA monitor to a DVI-I connector on my graphics board?

"DVI-I to VGA" adapter. This adapter allows monitors using a standard VGA connector to be connected to graphics cards using DVI-I connectors.

Connection

To connect a VGA monitor using the "DVI-I to VGA" adapter:

- connect the cable from the VGA monitor to the VGA end of the adapter
- connect the DVI-I end of the adapter to the DVI-I connector on the graphics card

Text appears blurry on TV

Text or fonts that are crisp when displayed on a VGA or SVGA computer monitor may appear fuzzy or blurry when displayed on a TV set or composite monitor.

This is a limitation of the TV set and the analog video signal. Recommendations for improving the display appear at the end of this document.

Technical Details:

The video circuitry in the most modern TV set is designed to handle video signals which adhere to the NTSC (or PAL) broadcast standards. The NTSC and PAL broadcast (RF transmission) standards impose a limit on the bandwidth of the video signal of about 6 to 10 megahertz. Video Bandwidth is, effectively, the highest frequency analog signal a monitor can handle without distortion. Video Bandwidth limits the sharpness of intensity and color changes on the screen. A high bandwidth means smaller visible details.

Text and 2D computer graphic images, by their nature, have a much higher video bandwidth requirement than does a typical TV image. As an example, even the least expensive VGA (640x480) computer monitor has a Video Bandwidth of about 30 megahertz (3 to 4 times that of a TV set).

When text or computer graphic images are displayed on a TV set the fine detail (text) which is sharp and clear on the PC monitor will appear fuzzy on the TV because the TV is not capable of responding to the high frequencies in the computer image. (The TV was designed to display movies and pictures, NOT text.)

Aside from the electronic limitation of limited bandwidth there is also the issue of DOT PITCH. Computer monitors will have a specification for DOT PITCH which describes the distance between the phosphor dots. This specification is generally listed in millimeters, with values of .28mm, .26mm and .24mm being common. The closer the dots are together (the smaller they are) the more detail an image can contain. (The red, green and blue, phosphor dots on the inside of the monitor screen are the elements that glow and actually produce the visible image.) TV sets do not generally have a DOT PITCH specification but close visual inspection of the front of a TV screen will quickly reveal quite large dots (or stripes for TRINITRON tubes) as compared to the dots on a computer monitor.

Recommendations:

Blurry fonts on television are really a limitation of the TV set and the analog video signal. One or more of the following may help to improve the situation:

§ Use an S-VIDEO connection, instead of a COMPOSITE hookup. S-VIDEO tends to provide a clearer image.

§ Increase the size of the fonts being displayed. Font sizes of 18 points or higher may be required in order to yield acceptable results.

§ Try to avoid strong contrasts (such as black on white or white on black). Colour scheme and contrast level play a large part in the appearance of text on a television.

§ Try adjusting the brightness, contrast (sometimes called "picture") and sharpness settings on the TV.

DVI-CRT Adapter (img)

DVI to VGA (CRT) Adapter.

RCA Video Cable (img)

RCA Video Cable

S-Video Cable (img)

S-Video Cable (img)

Bell South DSL User

Remove your existing modem if you currently have it connected to your PC and telephone line and refer to the Super Max DSL modems quick installation guide on how to connect your new modem.

Turn on the DSL642WLG. Take note on which lights come on at this time. You should see the following lights once the modem is completely initialized and booted up:

Note: During initial setup for your Super Max DSL, it is recommended that your PC is connected to the modem via the supplied RJ-45 Ethernet cable instead of the wireless connection. Once the modem is properly setup and connected to the Bell South network you may proceed with the wireless setup.

POWER – light should be on and solid.

LAN – 1, 2, 3 or 4 should be lit depending on which port you have plugged the Ethernet cable into. This light will flicker on and off.

WLAN – Wireless feature enabled. This light should be solid.

WAN – ADSL link status light this light should come on solid. If not continue with the setup and if the light is not on check to see if that the ADSL line coming from the wall still has a dial-tone. You can connect a telephone handset directly to the ADSL line to verify there is a dial-tone.

Open your web browser and in the address bar type in the following address:

<http://192.168.0.1>. This will bring up the modems configuration menu.

When prompted for username and password enter admin for the username and for the password enter the word password.

5. Click on the "Setup Wizard" link.

Under "Connection to configure" leave the default selection "VC 1" and click "Next";.

7. Under "Determine Connection Method" choose "Manual Selection" and click "Next";.

Under "VC 1 - Primary Internet Connection" change VPI to 8 and VCI to 35 and click "Next";.

9. Under "Connection Method" choose "Login" and under the drop down menu select "PPPoE"; Then select "DSL Multiplexing Method"; and click "Next";.

On the next screen enter your Bell South login name. Example; diamondmm@Bellsouth.com and then enter your Bell South password. In some cases the user name and password may be case sensitive.

Note: the user name and password should be the same as your email login and password. If you are

a new customer and you do not have a username and password you will have to contact Bell South over the phone and have one of Bell South's support representatives create you a temporary or permanent username and password.

Leave all other settings on the default selection and click "Next".

On the "Test Internet Connection" page click on "Finish"; Wait for the results:

"ADSL connection okay"; following will be the "Login Successful message";

Click "Close"; and then close your browser. This completes the setup process now you may add additional PC's to your network either using additionally Ethernet connections or wireless connections.