

ATTACHMENT E. USERS MANUAL

Packard Bell A720 Monitor

Features &
Specifications



Installing your
Monitor



Controls



Safety Instructions &
Troubleshooting

ABOUT YOUR PACKARD BELL A720 MONITOR

Congratulations on purchasing a Packard Bell 17" A720 monitor. One of the most versatile monitors available today, the A720 monitor automatically adjusts its vertical and horizontal scanning frequencies to those of your computer's graphic displays, when used with SUPER VGA compatible graphics adapters and video chip sets (see Features).



This manual gives you information about your Packard Bell A720 Monitor, such as the locations of controls, safety instructions and instructions of how to connect.

PACKARD BELL A720 MONITOR FEATURES***Performance***

The A720 17" monitor features maximum resolutions of 1280 pixels (horizontal) and 1024 lines (vertical) in non-interlaced or interlaced modes. The monitor automatically adapts to the vertical and horizontal frequencies of VGA, SVGA, 8514/A and compatible graphics adapters.

Plug & Play compatibility

The monitor's design allows you to use it with a variety of graphics adapters and supports DDC1/2B plug and play. When using Windows with a Packard Bell DDC1/2B compatible computer, the DDC1/2B feature in the monitor provides a standard means of communication between the monitor and the computer. As a result, DDC1/2B prevents the user from making incorrect display settings to ensure that there is an

U.S.A.

**U.S.FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT
INFORMATION TO THE USER**

NOTE : 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 the 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 into an outlet of a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Connecting of peripherals requires the use of grounded shielded signal cables.

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appropriate display on the monitor.

Power management

When used with a Packard Bell computer that features a power management system, the monitor's power consumption will automatically be reduced by the PC when the computer has not been used for a period of time. This monitor has a three level power-saving feature indicated by the changing colour of the power LED on the front panel.

When the power saving feature is initiated, the LED will change from green to amber and the monitor's power consumption will be reduced from approximately 100 watts to less than 15 watts or 15 watts in two stages. There will be no image on the monitor when power management is working. To display the image again, move the mouse or press a key on the keyboard. It may take up to 10 seconds for the image to reappear. This power-saving feature exceeds the Environmental Protection Agency (EPA) Energy Star requirements for Display Power Management Signals.

Monitor Speakers

Attaching the *Diamond Audio Technology* speakers to the monitor itself provides an optional, attractive and convenient way to house your speakers. After attaching the Diamond Audio Technology speakers to the monitor, connect the plug-end of the audio input jack to the sound card connection on the rear side of the computer.

Tilt and swivel operations

Swivel movement has a range of 100° right or left of the center position. Tilt movements are limited to angles of -5° forward and +12° backward. These ranges allow you to set the screen to the viewing position most comfortable for you.

PACKARD BELL A720 MONITOR SPECIFICATIONS

Specifications subject to change without notice. For a complete list of your system's specifications, see the appropriate Specifications section in each of the sections provided in the **Packard Bell Electronic Hardware Guide**.

Power source	AC 100-240V, 50/60Hz	
Power consumption	LED colour is green	Normal operation (100W)
	LED colour is Orange / Green blinking	Stand by/ Suspend Mode (Less than 15W)
	LED colour is Orange	Off (max. 8W)
Internal audio power	Amplifier 2 x 5W	
Picture tube	17" (diagonal), non-glare, anti-static, 90° deflection, 0.27 mm dot pitch	
Viewable image size	15.9" diagonal	
Maximum resolution	Horizontal	1280 pixels (Non-interlaced)
	Vertical	1024 lines (Non-interlaced)
Input signals	Video	Analog 0.7 Vp-p / 75 Ohm Positive
	Seperate sync	TTL Level Horizontal: Positive/Negative Vertical: Positive/Negative
Synchronisation	Horizontal	30 ~ 70 kHz continuous
	Vertical	50Hz ~ 150Hz continuous
Display colours	Analogue input	Unlimited colours

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Active display area	Horizontal	300 mm typical
	Vertical	225 mm typical
Plug & Play	DDC1/2B	
Operating temperature	+0°C ~ +40°C	
Operating humidity	35% ~ 80% (non-condensing)	
Storage temperature	-20°C ~ +60°C	
Storage humidity	35% ~ 80%	
High voltage	25 KV	
Dimension	Width	414mm
	Height	417mm
	Depth	440mm
Weight	16.1 Kg (Without speaker)	

Timing chart

Mode	Resolution	H-Freq.	V-Freq.	HS. pol	VS.pol
1	640 x 480	31.47 kHz	59.94 Hz	Negative (-)	Negative (-)
2	720 x 400	31.47 kHz	70.00 Hz	Negative (-)	Positive (+)
3	800 x 600	37.88 kHz	60.31 Hz	Positive (+)	Positive (+)
4	640 x 480	43.27 kHz	85.01 Hz	Negative (-)	Negative (-)
5	800 x 600	46.88 kHz	75.00 Hz	Positive (+)	Positive (+)
6	1024 x 768	48.34 kHz	75.02 Hz	Positive (+)	Positive (+)
7	800 x 600	53.67 kHz	85.06 Hz	Positive (+)	Positive (+)
8	640 x 480	63.70 kHz	120.00 Hz	Negative (-)	Negative (-)
9	800 x 600	63.92 kHz	100.03 Hz	Positive (+)	Positive (+)
10	1024 x 768	68.67 kHz	85.00 Hz	Positive (+)	Positive (+)
11	1280 x 1024	63.99 kHz	60.02 Hz	Positive (+)	Positive (+)

INSTALLING YOUR MONITOR

While reading this document, your monitor is already connected to the computer and should function well. However, it is recommended to read this part to see if all connections have been made properly, if you can improve the placement of your computer, and to see what you should do the next time you (dis-) connect your monitor.

Choose the Right Environment

Set up your computer system in a dry, cool, properly-ventilated area away from direct sunlight. (Direct sunlight could cause system overheating or damage to the system case and monitor.)

The monitor should be about **45-70 cm** from your eyes, and the top of your screen should be at eye level, or lower. The ideal position of your monitor is perpendicular to and at least **1.5 m** from a window or another light source, so that your monitor does not reflect glare and you do not get blinded by the light. If your monitor has a tilt/swivel base, you can tilt it slightly downward to minimise reflected light. If you cannot adjust your monitor's angle or the lighting in your work area, try adding an anti-glare screen. Contact your Packard Bell dealer for further information.



Caution: Before connecting your monitor and system's components, make sure all devices are turned OFF! Connecting devices with the system power on could damage your equipment. Position the monitor and the computer so that you can easily get to the rear panel of each unit.

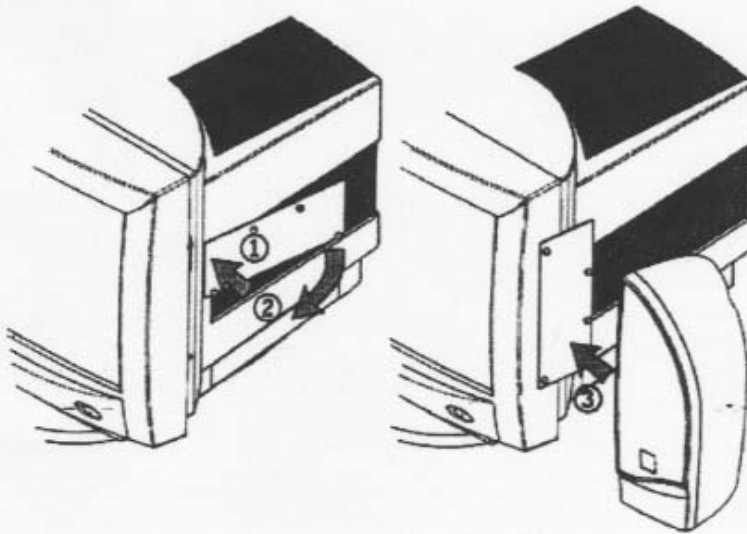
Attaching your Packard Bell speakers

Your new computer includes Packard Bell's exclusive side-mount speakers. These speakers have been designed to attach easily to your Packard Bell monitor, providing optimal listening enjoyment and save desk space.

The side-mount speakers are designed for use only with matching Packard Bell monitors. To attach the speakers, follow these steps:

The procedure of attaching your speakers may have changed after release of this manual. We apologise for any inconvenience this may cause.

1. Place your monitor, speakers and adapter plates on a table that is well lit with plenty of room to work.
2. Slide the top location peg on the appropriately marked adapter plate into the top slot on the side of the monitor (1).
Rotate the adapter plate until the lower peg on the adapter plate locates into the other slot on the side of the monitor (2).
Push the adapter plate down firmly into place (see illustration below) (3).

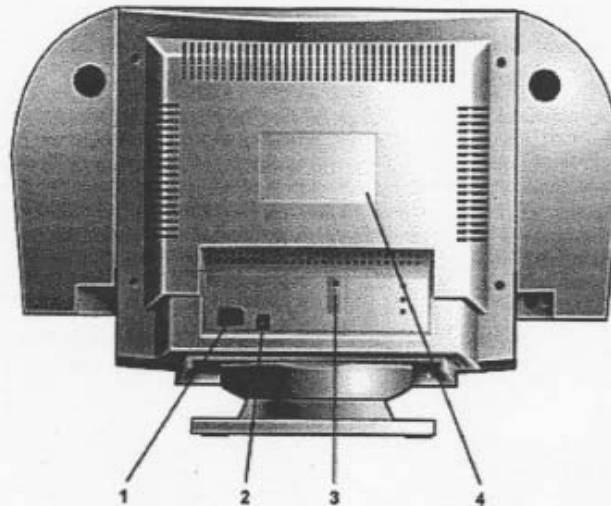


3. Repeat Step 2 with the second adapter plate.
4. Place each speaker onto their corresponding adapter plate and push the four clips into the recessed bushes to secure each speaker in position.
5. Connect the Left-Side speaker **mist-white** coloured DC power cord to the DC power jack on the back of your monitor.
6. Connect the 3.5mm **lime** coloured stereo mini-plug audio cable from the Left-Side speaker to the LINE OUT jack on your computer's sound card.
7. Connect the **brown** coloured RCA audio cable from the Right-Side speaker to the Left-Side speaker rear panel RCA audio output socket.

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- 1: AC Power Input
- 2: Audio DC Output
- 3: VGA Signal cable
- 4: Identification sticker



Connecting the VGA signal cable to the computer

To make it easier to connect the right plug into the right connector, Packard Bell has introduced *Colour Coding*. Each connector has its own icon with its own colour. The industry has followed, but only recently the colours and icons have been standardised to meet PC99 requirements. **Packard Bell is currently in the process of changing its own colour codes into the standardised colours. Therefore, your computer's connectors may have colours that don't match. If that's the case, then please refer to the icon only and ignore the colour.**

Make sure your system and monitor power is OFF. Carefully connect your VGA monitor cable's connector to the video (VGA) display port on your system's rear panel. According to PC99 requirements, the VGA plug and connector should be **blue-labelled**. However, during this transition period, you may have an **orange-labelled** connector or a colourless connector with the VGA icon. Please find the following icon on the rear end of your computer and carefully connect the plug of the VGA cable to this connector:

Please tighten the screws on the VGA signal cable to keep it from coming loose, and to prevent radio and TV interference.

Connect Your Power Cord



Caution: Before connecting the power cord of your monitor, make sure that the speakers and the VGA cable have been correctly connected.

Make sure your system's and monitor's power is OFF. Find your monitor's power cord in the accessory kit in your computer's box. Connect your monitor's AC power cord to the AC Power Connector on the rear panel. Then plug the power cord into a surge protector (power strip) or grounded AC electrical outlet.

We recommend you switch on the monitor first, before switching on the computer!

Screen resolution and colours

Many VGA display systems can be configured to use different resolutions, with 800 x 600, 1024 x 768 and 1280 x 1024 pixels being the most common. While higher resolutions offer more information on a given screen, they also reduce the size of the image, which makes most on-screen text harder to see from a

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comfortable distance.

Which resolution is right for you? This depends on the kind of work you do with your computer. If your work involves word processing, spreadsheets, data entry, and other text-heavy tasks, you may want to use a resolution such as 800 x 600. While higher resolutions are recommended if you use software for drawing, painting, desktop publishing, or computer aided design (CAD), the ideal resolution really depends on what suits you best.

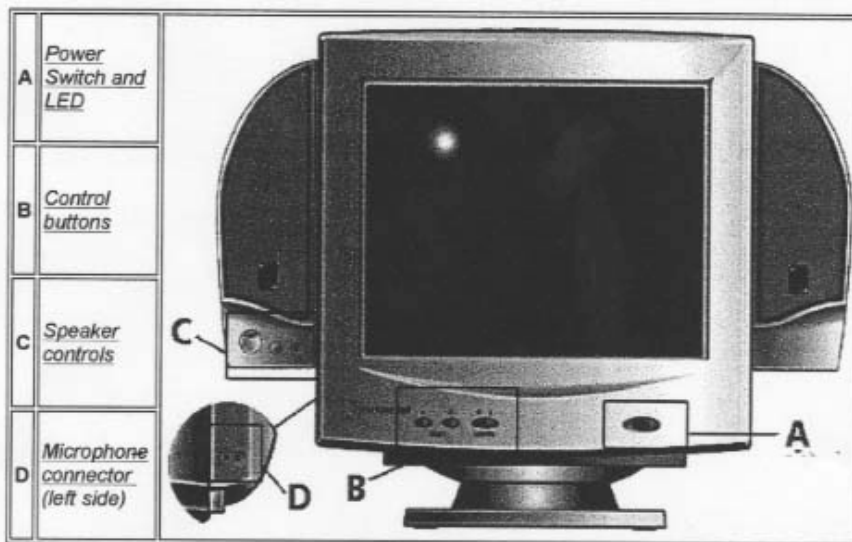
The number of colours you can use depends on the selected resolution and the available video memory. Most common are 16 colours, 256 colours, 65536 colours (high colour) and 16.7 million colours (true colour). By default, Packard Bell computers are configured in high colour. To change display settings, close all programs, with the exception of Windows 98, first. Then right-click with your mouse on an empty spot on the Windows 98 desktop, click on **Properties** and select the **Settings** tab. Please make a note of the original settings before you make any change. This helps you to restore the original settings, should something go wrong.



Packard Bell has configured your software for optimum performance in the pre-selected screen resolution and number of colours. Changing the screen resolution or the number of colours may cause some programs to malfunction. If you wish to use these programs, please select the original settings.

YOUR MONITOR'S CONTROLS

Your Packard Bell A720 monitor includes the following controls on the front panel:



Power Switch and LED

The Power Switch turns the monitor's power ON or OFF. The Indicator LED left from it is lit when the power is ON. This LED also indicates the power status:

- If the LED is **Green**, then the monitor is in normal operation mode.
- If the LED is **Orange / Green blinking**, then the monitor is in Stand By or Suspend mode to save energy.
- If the LED is **Orange**, then the display is off, saving even more energy.

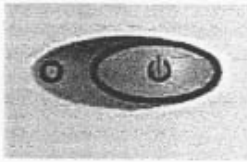
When the monitor is switched on, but not in normal operation mode, you can go back to normal operation by moving the mouse ball, or by striking the Space bar on your keyboard.

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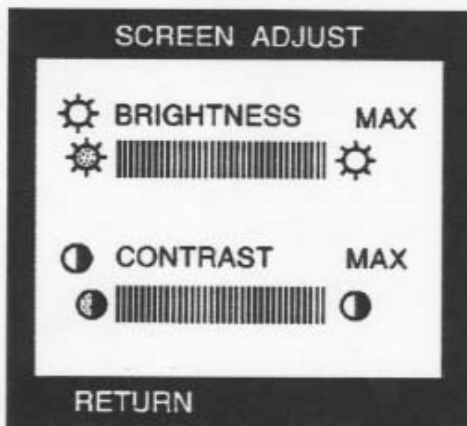
We recommend you switch on the monitor first, before switching on the computer!

Control buttons

With these four buttons you can easily control the settings of your monitor through an onscreen display. The left two buttons, the **Select** buttons, let you select a control function. The right two buttons, the **Down** (down arrow) and **Up** (Up arrow) **control** buttons allow you to decrease or increase the value of the selected control.



To access the onscreen display, press one of the **Select** buttons. A screen like the following will appear:



Select the function you wish to edit using the **Select** buttons. The activated function will be displayed in **Red**. Then use the **Up** and **Down Control** keys to increase or decrease the value.

In the table below you can see what function is represented by each of the icons in the **Select** screen:

	Horizontal position	To adjust the horizontal position of the display		Side Pin Balance	To adjust the straightness of the vertical edges of the display in conjunction with pincushion and trapezoid
	Horizontal size	To adjust the width of the display		Parallelogram	To adjust the display squareness

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	Vertical position	To adjust the vertical position of the display		OSD display time	To set "on screen display" time to either 10, 20 or 30 seconds
	Vertical size	To adjust the height of the display		DEGAUSS	To manually degauss the display
	Pincushion adjustment	To adjust the straightness of the vertical edges of the display		Colour Temperature	To select and adjust the required color temperature
	Trapezoid adjustment	To adjust the straightness of the vertical edges of the display in conjunction with the pincushion control		Language Select	To select the required language
	Rotation adjustment	To adjust the display tilt		Recall	To recall the original factory display settings
	OSD horizontal position	To enable the OSD menu to be moved horizontally		Exit	To quickly remove the OSD menu

Colour Temperature adjust

Select the **Colour Temperature** icon () with the **Select** buttons and press the **Up** or **Down Control** button to display the colour temperature control menu as follows:

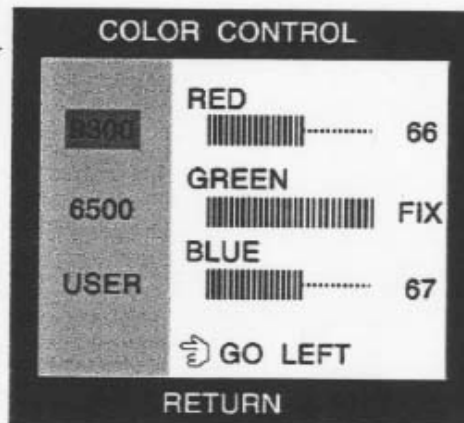
To select any one of the three colour options, press one of the **Select** buttons until the blue cursor bar frames the required colour temperature, then press the **Up** or **Down control** button. The icon will indicate the selected colour.

In selecting the "User color" the RGB (Red Green Blue) colours can be adjusted independently by firstly selecting the colour and using the **Up** and **Down Control** keys to either increase or decrease the setting.

Select **Exit** after choosing the required colour.

Language select

You can select your preferred language by selecting the **Language Select** icon ().



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Press the **Up** or **Down Control** buttons to display the language menu as following:

Select the required language by pressing one of the **Select** buttons. The chosen language is indicated by the blue cursor bar.

Select **Exit** after choosing the required language.



OSD Display Time adjust

OSD Display Time specifies the time the Onscreen Display will remain on the screen when not used, before disappearing.

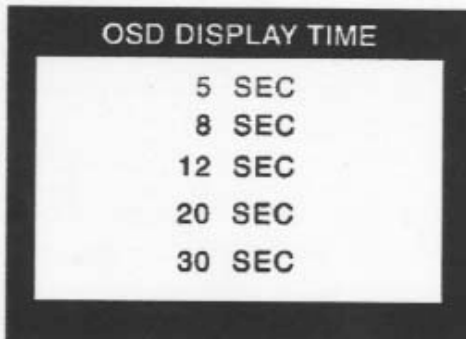
Select the OSD Display



Time icon () using the **Select** buttons to display the OSD Display Time menu as following:

Select the required display time by pressing one of the **Select** buttons. The chosen display time is indicated by the appropriate number bold print.

Select **Exit** after choosing the required time.



Other controls

All controls can be selected by using the **Left** and **Right Select** buttons. When the preferred option is presented, you can change the appropriate settings using the **Up** and **Down Control** buttons.

The functions **Degauss Control** (a function that refreshes your monitor's display), **Recall Control** (to recall the original factory settings) and **Exit** (to leave the on-screen display), can be activated by pressing either one of the **Up** and **Down Control** buttons.

Speaker controls

The speakers can be controlled by the buttons on the left speaker. From left to right you will find:

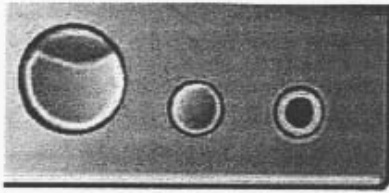
Volume knob: Controls the output volume of your speakers. Please beware that Windows is also able to control the volume. Read more about this feature in the Windows documentation.

3D button: Push to switch 3D sound effects on or off.

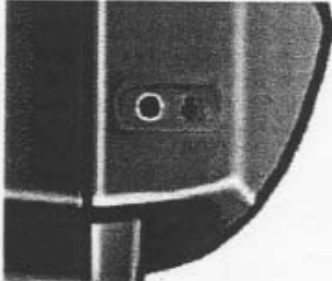
Headphones connectors: Connect your headphones to mute the speakers and listen to your computer's sounds through your headphones.

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**Microphone connector**

On the left side of your *Packard Bell A720 monitor*, you will find a small connector where you can plug an optional mono microphone.

**SAFETY INSTRUCTIONS**

Please follow the safety instructions outlined below, to benefit from your new monitor for a long time.

Placing your monitor

To reduce the risk of fire or electric shock, do not expose this monitor to rain or moisture.

To reduce eye fatigue, avoid using the display in direct sunlight or under bright lights.

Electric shock prevention

To prevent electric shock do not remove screws or cover. There are no user-serviceable parts inside the monitor. Service should be done only by a qualified service person.

Input power source: In many European countries, the wall outlets are 230V, in a range from 200 to 240V. Please check if your monitor supports your country's voltage.

A three core main cord is supplied with the PC which should be connected between the monitor power input socket and either the PC power output feed or a grounded wall outlet or surge protector.

Do not place anything heavy on the cord. A Damaged power cord may cause fire or electric shock. If your power cord is damaged, do not use it. A replacement can be purchased at your local computer or electronics store.

Keep children and pets away from the monitor. Also, do not insert objects into the monitor's cabinets. They may touch dangerous voltage points, which can be harmful or fatal, or cause electric shock, fire or equipment failure.

Do not allow liquids to spill into the cabinet.

Do not operate the monitor beyond the specified temperature and humidity range (see Specifications).

For proper operation, keep the monitor adequately ventilated.

Keep the monitor away from strong magnetic fields produced by transformers, motors, fans, or other devices.

When an irregular AC Voltage is supplied, a protective circuit may turn off the monitor (the power indicator will also go off). If this happens, turn off the power switch and wait at least 30 seconds before turning it on again.

Radio frequency energy

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the 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 the receiver.
- Connect the equipment into 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.

Caution: Only shielded power and signal cables may be used with your system. The use of a non-shielded interface cable is prohibited. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment.

Trouble shooting

Before you call a Packard Bell Authorized Service Provider, please check the following items:

I have no picture and the power indicator is not lit

Check if the AC Power Cord is plugged in and the power switch is on.

I have no picture and the power indicator is lit

Your computer may be in *Power Down* or *Sleep* mode. This is a temporary status in which your computer and monitor reduce power consumption. Try moving the mouse a little bit, or press the space key on your keyboard and wait for a few second.

It is also possible that the *Contrast* or *Brightness* of your monitor have been set too high or too low. Also check the VGA Signal Cable Connector.

The image is not centred

The vertical and horizontal position of the image can be controlled with the control buttons on the front of your monitor.

The image is distorted

The settings for Pincushion and Trapezoid may be wrong. Adjust these using the control buttons on the front of your monitor.

Using a Non-PC type computer

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If a non-PC type personal computer or graphics adapter is being used, make sure the pin assignments of its signal input connector and the signal timing meet the specifications indicated in the Timing Charts section.

Self Test

Whenever there seems to be a problem with the monitor's performance, you can let the monitor perform a self test. This feature will help diagnose if the problem comes from the monitor or the computer. To do so, please do the following:

- Switch off the computer and the monitor.
- Disconnect the VGA signal cable from the computer.
- Wait for at least 10 seconds before switching the monitor on again.
- After a few seconds, a pattern of Crosshatch should appear on the screen. If these crosshatch appear correctly, then your monitor is functioning well. You can correct the image by adjusting the crosshatch monitors brightness and contrast. Please click [here](#) if you want to know how to do this.
- Switch off the monitor and make sure that the computer is still off, before reconnecting the VGA signal cable to the computer. Wait for at least 10 seconds, then switch on the monitor, followed by the computer.

If the test pattern did not appear during this procedure and the monitor screen is still blank, then the problem is most likely caused by the monitor. Please turn off the power to your computer and the monitor, and unplug the monitor.