

APPENDIX H
: USER'S MANUAL

Think

L171 Flat Panel Monitor User's Guide



ThinkVision

Product numbers

9417-AB1

9417-AJ1

9417-AB7

9417-AB9

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Safety information

Before installing this product, read the Safety Information.

مج، يجب قراءة دات السلامة

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 **Safety Information**
(安全信息)。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφαλείας
(safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto produktu si prečítajte bezpečnostné informácie.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

安裝本產品之前，請先閱讀「安全資訊」。

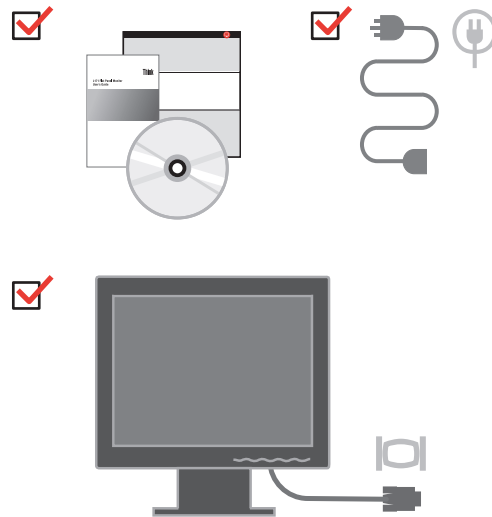
Chapter 1. Getting started

This User's Guide contains detailed information on the ThinkVision™ L171 Flat Panel Monitor. For a quick overview, please see the Setup Poster that was shipped with your monitor.

Shipping contents

The product package should include the following items:

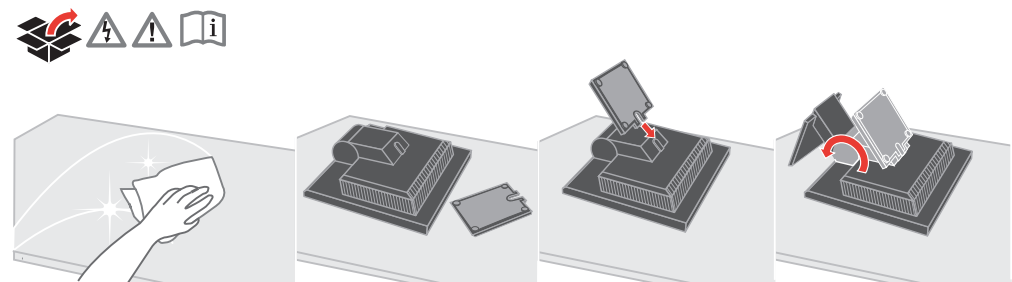
- *ThinkVision L171 Flat Panel Monitor Setup Poster*
- *Monitor Safety, Troubleshooting, and Warranty Guide*
- *Reference and Driver CD*
- ThinkVision L171 Flat Panel Monitor
- Power Cord
- Analog Interface Cable- Attached to monitor



Attaching the base and handling your monitor

To set up your monitor, please see the illustrations below.

Note: Do not touch the monitor within the screen area. The screen area is glass and can be damaged by rough handling or excessive pressure.



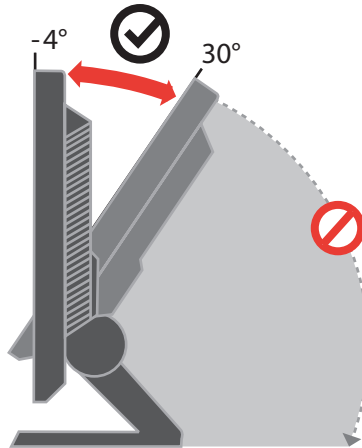
Note: To attach a VESA mount, please see “Detaching the monitor stand” on page 2-7.

Product overview

This section will provide information on adjusting monitor positions, setting user controls, and using the cable lock slot.

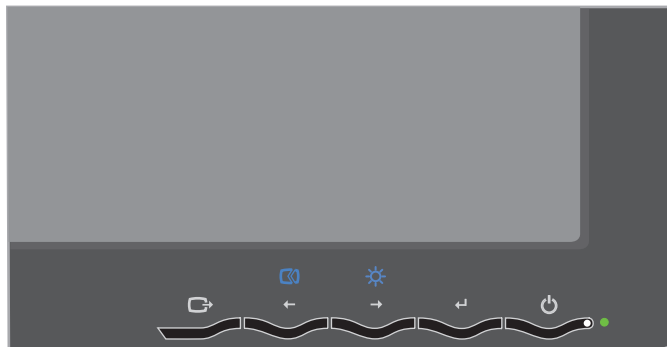
Types of adjustments

Please see the illustration below for an example of the tilt range.



User controls

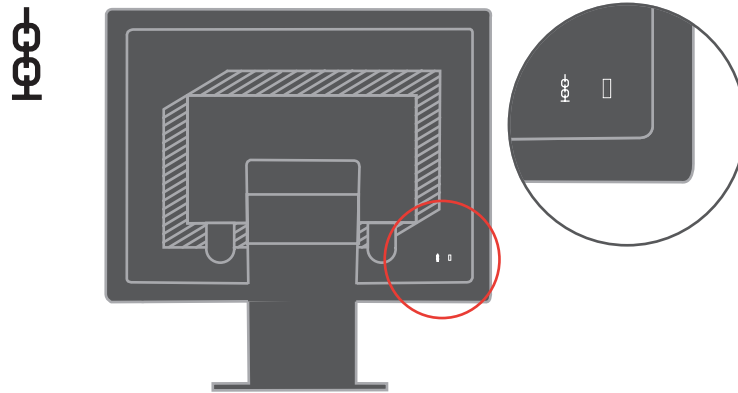
Your monitor has controls on the front which are used to adjust the display.



For information on how to use these controls, please see “Adjusting your monitor image” on page 2-3.

Cable lock slot

Your monitor is equipped with a cable lock slot located on the rear of your monitor (in the lower right corner). Please see the instructions that came with the cable lock to learn how to attach it.



Setting up your monitor

This section provides information to help you set up your monitor.

Connecting and turning on your monitor

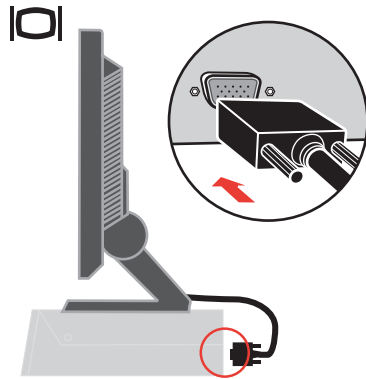
Note: Be sure to read the Safety Information located in the *Monitor Safety, Troubleshooting, and Warranty Guide* before carrying out this procedure.

1. Power off your computer and all attached devices, and unplug the computer power cord.

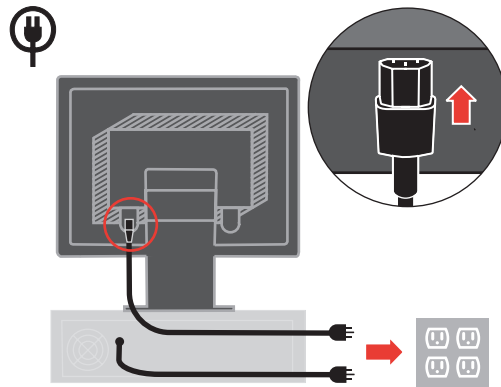


2. Connect the analog signal cable to the video port on the back of the computer.

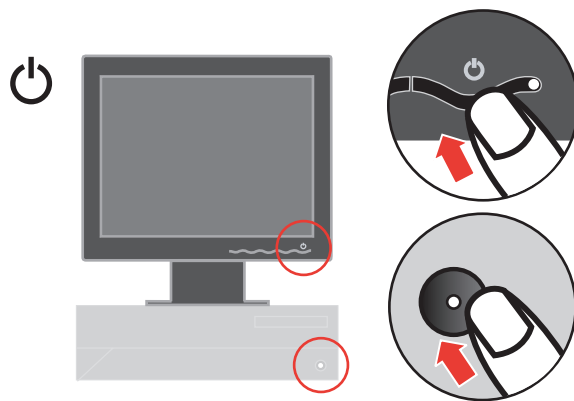
Note: One end of the signal cable is already pre-attached to your monitor.



3. Insert the power cord into the monitor, then plug the monitor power cord and the computer cord into grounded electrical outlets.



4. Power on the monitor and the computer.



5. To install the monitor driver, insert the *Reference and Driver CD*, click **Install driver**, and follow the on-screen instructions.



6. To optimize your monitor image, press the Automatic Image Setup key. Automatic image setup requires that the monitor is warmed up for at least 15 minutes. This is not required for normal operation.



Note: If automatic image setup does not establish the image that you prefer, perform manual image setup. See “Manual image setup” on page 3-3.

Registering your product

Please take a few moments to register your product and provide us with information that will help IBM to better serve you in the future. Your feedback is valuable to us in developing products and services that are important to you, as well as in developing better ways to communicate with you. Register your option on the IBM Web site at

<http://www.ibm.com/pc/register/>

IBM will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

Chapter 2. Adjusting and using your monitor

This section will give you information on adjusting and using your monitor.

Comfort and accessibility

Good ergonomic practice is important to get the most from your personal computer and to avoid discomfort. Arrange your workplace and the equipment you use to suit your individual needs and the kind of work that you perform. In addition, use healthy work habits to maximize your performance and comfort while using your computer.

For more detailed information on any of these topics, visit the IBM Healthy Computing Web site at: <http://www.ibm.com/pc/ww/healthycomputing>

Arranging your work area

Use a work surface of appropriate height and available working area to allow you to work in comfort.

Organize your work area to match the way you use materials and equipment. Keep your work area clean and clear for the materials that you typically use and place the items that you use most frequently, such as the computer mouse or telephone, within the easiest reach.

Equipment layout and setup play a large role in your working posture. The following topics describe how to optimize equipment setup to achieve and maintain good working posture.

Positioning and viewing your monitor

Position and adjust your computer monitor for comfortable viewing by considering the following items:

- **Viewing distance:** Optimal viewing distances for monitors range from approximately 510mm to 760mm (20 in to 30 in) and can vary depending on ambient light and time of day. You can achieve different viewing distances by repositioning your monitor or by modifying your posture or chair position. Use a viewing distance that is most comfortable for you.
- **Monitor height:** Position the monitor so your head and neck are in a comfortable and neutral (vertical, or upright) position. If your monitor does not have height adjustments, you might have to place books or other sturdy objects under the base of the monitor to achieve the desired height. A general guideline is to position the monitor such that the top of the screen is at or slightly below your eye-height when you are comfortably seated. However, be sure to optimize your monitor height so the line of site between your eyes and the center the monitor suits your preferences for visual distance and comfortable viewing when your eye muscles are in a relaxed state.
- **Tilt:** Adjust the tilt of your monitor to optimize the appearance of the screen content and to accommodate your preferred head and neck posture.
- **General location:** Position your monitor to avoid glare or reflections on the screen from overhead lighting or nearby windows.

The following are some other tips for comfortable viewing of your monitor:

- Use adequate lighting for the type of work you are performing.
- Use the monitor brightness, contrast, and image adjustment controls, if equipped, to optimize the image on your screen to meet your visual preferences.
- Keep your monitor screen clean so you can focus on the screen's contents.

Any concentrated and sustained visual activity can be tiring for your eyes. Be sure to periodically look away from your monitor screen and focus on a far object to allow your eye muscles to relax. If you have questions on eye fatigue or visual discomfort, consult a vision care specialist for advice.

Quick tips for healthy work habits

The following information is a summary of some important factors to consider to help you remain comfortable and productive while you use your computer.

- **Good posture starts with equipment setup:** The layout of your work area and the setup of your computer equipment have a large effect on your posture while using your computer. Be sure to optimize the position and orientation of your equipment by following the tips outlined in “Arranging your work area” on page 2-1 so you can maintain a comfortable and productive posture. Also, be sure to use the adjustment capabilities of your computer components and office furniture to best suit your preferences now and as your preferences change over time.
- **Minor changes in posture can help avoid discomfort:** The longer you sit and work with your computer, the more important it is to observe your working posture. Avoid assuming any one posture for an extended period of time. Periodically make minor modifications in your posture to help deter any discomforts that might arise. Make use of any adjustments that your office furniture or equipment provide to accommodate changes in posture
- **Short, periodic breaks help ensure healthy computing:** Because computing is primarily a static activity, it is particularly important to take short breaks from your work. Periodically, stand up from your work area, stretch, walk for a drink of water, or otherwise take a short break from using your computer. A short break from work gives your body a welcome change in posture and helps to ensure you remain comfortable and productive while you do work.

Accessibility information

IBM is committed to providing greater access to information and technology to people with disabilities. With assistive technologies, users can access information in the way most appropriate to their disability. Some of these technologies are already provided in your operating system; others can be purchased through vendors or accessed at: <http://www.ibm.com/able/>

Adjusting your monitor image



This section describes the user control features used to adjust your monitor image.

Using the direct access controls

The direct access controls can be used when the On Screen Display (OSD) is not displayed.

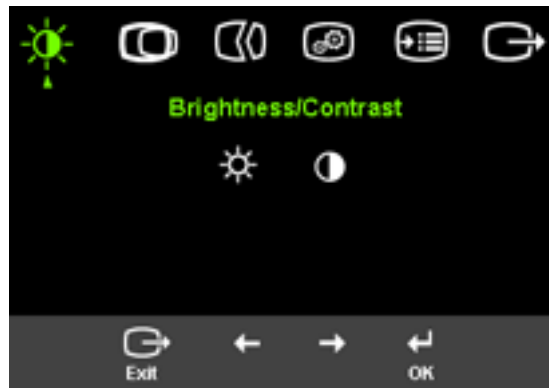
Note: The direct access controls are blue.

Table 2-1. Direct access controls

Icon	Control	Description
	Image Setup	Activates automatic image adjustment.
	Brightness	Direct access to Brightness adjustment.

Using the On-Screen Display (OSD) controls

The settings adjustable with the user controls are viewed through the On-Screen Display (OSD), as shown below.



To use the controls:

1. Press \leftarrow to open the main OSD menu.
2. Use \leftarrow or \rightarrow to move among the icons. Select an icon and press \leftarrow to access that function. If there is a sub-menu, you can move between options using \leftarrow or \rightarrow , then press \leftarrow to select that function. Use \leftarrow or \rightarrow to make adjustments. Press \leftarrow to save.
3. Press \rightarrow to move backwards through the sub-menus and exit from the OSD.
4. Press and hold \leftarrow for 10 seconds to lock the OSD. This will prevent accidental adjustments to the OSD. Press and hold \leftarrow for 10 seconds to unlock the OSD and allow adjustments to the OSD.

Table 2-2. OSD functions




















OSD Icon on Main Menu	Submenu	Description
 Brightness/Contrast	 Brightness	Adjusts overall brightness
	 Contrast	Adjusts difference between light and dark areas
 Image Position	 Horizontal Position	Moves the image left or right.
	 Vertical Position	Moves the image up or down.
 Image Setup	 Automatic	Automatically optimizes the image.
	 Manual	Manually optimizes the image. See “Manual image setup” on page 3-3. <ul style="list-style-type: none"> • Clock • Phase • Save
 Image Properties	 Color	Adjusts intensity of red, green, and blue.
	Preset mode	<ul style="list-style-type: none"> • Default • Reddish • Bluish
	Custom	<ul style="list-style-type: none"> • Red: Increases or decreases the saturation of ‘red’ in the image. • Green: Increases or decreases the saturation of ‘green’ in the image. • Blue: Increases or decreases the saturation of ‘blue’ in the image. • Save: Saves the custom color choices.
 Options	 Information	Shows resolution, refresh rate, and product details. Note: This screen does not allow any changes to the settings.
	 Language	This section lists the languages supported by your monitor. Note: The language chosen only affects the language of the OSD. It has no effect on any software running on the computer.

Table 2-2. OSD functions (continued)

OSD Icon on Main Menu	Submenu	Description
 Options	 Menu Position	Menu position adjusts menu location on the screen.
	Default	Default returns the menu position to the default settings.
	Custom	<ul style="list-style-type: none"> • Horizontal: Changes the horizontal position of the OSD. • Vertical: Changes the vertical position of the OSD. • Save
	 Factory Reset	<ul style="list-style-type: none"> • Cancel • Reset Resets monitor to the original factory settings.
	Accessibility	Controls button and menu settings for accessibility preferences.  Button repeat rate: Select ← or → to change. <ul style="list-style-type: none"> • Off • Default • Slow  Menu time out: Sets the length of time the OSD will remain active after the last time a button is pressed.

Selecting a supported display mode

The display mode the monitor uses is controlled by the computer. Therefore, refer to your computer documentation for details on how to change display modes.

The image size, position and shape might change when the display mode changes. This is normal and the image can be readjusted using automatic image setup and the image controls.

Unlike CRT monitors, which require a high refresh rate to minimize flicker, LCD or Flat Panel technology is inherently flicker-free.

Note: If your system has previously been used with a CRT monitor and is currently configured to a display mode outside the range of this monitor, you may need to re-attach the CRT monitor temporarily until you have re-configured the system; preferably to 1280 x 1024 at 60 Hz, which is the Native Resolution Display mode.

The display modes shown below have been optimized at the factory.

Table 2-3. Factory set display modes

Addressability	Refresh rate
640 x 350	70 Hz
640 x 480	60 Hz, 67 Hz, 72 Hz, 75 Hz
720 x 400	70 Hz
800 x 600	60 Hz, 72 Hz, 75 Hz
1024 x 768	60 Hz, 70 Hz, 75 Hz
1280 x 1024	60 Hz, 70 Hz, 75 Hz

Understanding power management

Power management is invoked when the computer recognizes that you have not used your mouse or keyboard for a user-definable period. There are several states as described in the table below.

For optimal performance, switch off your monitor at the end of each working day, or whenever you expect to leave it unused for long periods during the day.

Table 2-4. Power indicator

State	Power Indicator	Screen	Restoring Operation	Compliance
On	Steady green	Normal		
Standby/Suspend	Steady amber Flashing green (model AB7)	Blank	Press a key or move the mouse There may be a slight delay before the image reappears. Note: Standby also occurs if there is no image output to the monitor.	ENERGY STAR
Off	Off	Blank	Press a key or move the mouse There may be a slight delay before the image reappears.	ENERGY STAR

Caring for your monitor

Be sure to turn off the power before you perform any maintenance on the monitor.

Do not:

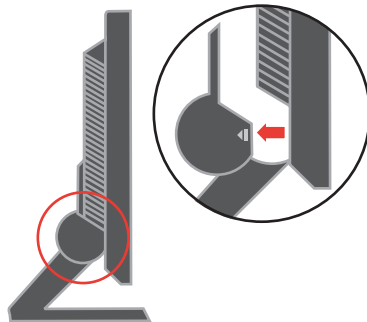
- Apply water or liquid directly to your monitor.
- Use solvents or abrasives.
- Use flammable cleaning materials to clean your monitor or any other electrical equipment.
- Touch the screen area of your monitor with sharp or abrasive items. This type of contact may cause permanent damage to your screen.
- Use any cleaner which contains an anti-static solution or similar additives. This may harm the coating of the screen area.

Do:

- Lightly dampen a soft cloth with water and use this to gently wipe the covers and the screen.
- Remove grease or finger marks with a damp cloth and a little mild detergent.

Detaching the monitor stand

Gently squeeze both ends of the cylinder and remove in the direction shown.



This allows access to the screws that attach the stand to the monitor.

Chapter 3. Reference information

This section contains monitor specifications, instructions to manually install the monitor driver, troubleshooting information, and service information.

Monitor specifications

Table 3-1. Monitor specifications for type-model 9417-Axx

Dimensions	Height	383.5 mm (15.1 in.)
	Depth	169.9 mm (6.9 in.)
	Width	367.5 mm (14.5 in.)
Stand	Tilt range	-4°/+30°
VESA mount	Supported	100 mm (3.94 in.) IBM radial arm sold separately.
Image	Viewable image size	431.80 mm (17.0 in.)
	Maximum height	270.34 mm (10.6 in.)
	Maximum width	337.92 mm (13.3 in.)
	Pixel pitch	0.264 mm (.010 in.) (V)
Power input	Supply voltage	100 - 240 V ac, 60/50 ± 3 Hz
	Max supply current	1.5 A at 120 V ac
Power consumption Note: Power consumption figures are for the monitor and the power supply combined.	Normal operation	< 40 W
	Standby/Suspend	< 2 W
	Off	< 1 W
Video input	Input signal	Analog Direct Drive, 75 ohm 0.7 V
	Horizontal addressability	1280 pixels (max)
	Vertical addressability	1024 lines (max)
	Clock frequency	135 MHz
Communications	VESA DDC	CI
Supported Display Modes (VESA Standard modes between noted ranges)	Horizontal frequency	30 kHz - 81 kHz
	Vertical frequency	56 Hz - 76 Hz
	Native Resolution	1280 x 1024 at 60 Hz
Temperature	Operating	10° to 35° C (5° to 95° F)
	Storage	-20° to 60° C (-4° to 140° F)
	Shipping	-20° to 60° C (-4° to 140° F)

Table 3-1. Monitor specifications for type-model 9417-Axx (continued)

Humidity	Operating	10% to 80%
	Storage	5% to 95%
	Shipping	5% to 95%

Troubleshooting

If you have a problem setting up or using your monitor, you might be able to solve it yourself. Before calling your dealer or IBM, try the suggested actions that are appropriate to your problem.

Table 3-2. Troubleshooting

Problem	Possible cause	Suggested action	Reference
The words "Out of Range" are shown on the screen, and the power indicator is flashing green.	The system is set to a display mode which is not supported by the monitor.	<ul style="list-style-type: none"> • If you are replacing an old monitor, reconnect it and adjust the display mode to within the specified range for your new monitor. • If using a Windows system, restart the system in safe mode, then select a supported display mode for your computer. • If these options do not work, contact the IBM Support Center. 	"Selecting a supported display mode" on page 2-5
The image quality is unacceptable.	The video signal cable is not connected with the monitor or system completely.	Be sure the signal cable is firmly plugged into the system and monitor.	"Connecting and turning on your monitor" on page 1-3
	The color settings may be incorrect.	Select another color setting from the OSD menu.	"Adjusting your monitor image" on page 2-3
	The automatic image setup function was not performed.	Perform automatic image setup.	"Adjusting your monitor image" on page 2-3
The power indicator is not lit and there is no image.	<ul style="list-style-type: none"> • The monitor's power switch is not switched on. • The power cord is loose or disconnected. • There is no power at the outlet. 	<ul style="list-style-type: none"> • Be sure the power cord is connected properly. • Be sure the outlet has power. • Power on the monitor. • Try using another power cord. • Try using another electrical outlet. 	"Connecting and turning on your monitor" on page 1-3








Table 3-2. Troubleshooting (continued)


Problem	Possible cause	Suggested action	Reference
Screen is blank and power indicator is steady amber or flashing green	The monitor is in Standby/Suspend mode	<ul style="list-style-type: none"> Press any key on the keyboard or move the mouse to restore operation. Check the Power Options settings on your computer. 	"Understanding power management" on page 2-6
The power indicator is green, but there is no image.	The video signal cable is loose or disconnected from the system or monitor.	Be sure the video cable is connected with the system properly.	"Connecting and turning on your monitor" on page 1-3
	The monitor brightness and contrast are at the lowest setting.	Adjust the brightness and contrast setting on the OSD menu.	"Adjusting your monitor image" on page 2-3
One or more of the pixels appear discolored	This is a characteristic of the LCD technology and is not an LCD defect.	If there are more than five pixels missing, contact the IBM Support Center.	Appendix A, "Service and Support," on page A-1
<ul style="list-style-type: none"> Fuzzy lines in text or a blurry image. Horizontal or vertical lines through the image. 	<ul style="list-style-type: none"> Image setup has not been optimized Your system Display Properties setting have not been optimized. 	Adjust the resolution settings on your system to match the native resolution for this monitor: 1280 x 1024 at 60 Hz.	"Adjusting your monitor image" on page 2-3 "Manual image setup"
		Perform automatic image setup. If automatic image setup does not help, perform manual image setup.	"Selecting a supported display mode" on page 2-5
		When working in the native resolution, you may find additional improvements by adjusting the Dots Per Inch (DPI) setting on your system.	See the Advanced section of your system's display properties.

Manual image setup

If automatic image setup does not establish the image that you prefer, perform manual image setup.

Note: Have your monitor powered on for about 15 minutes, until the monitor warms up.

1. Press  at the bottom of the monitor to open the OSD menu.
2. Use  or  to select  and press  to access.
3. Use  or  to select **Clock** and **Phase** adjustment.

- **Clock** (pixel frequency) adjusts the number of pixels scanned by one horizontal sweep. If the frequency is not correct, the screen shows vertical stripes and the picture does not have the correct width.
 - **Phase** adjusts the phase of the pixel clock signal. With a wrong phase adjustment, the picture has horizontal disturbances in light picture.
4. When the image no longer looks distorted, save the Clock and Phase adjustments.
 5. Press  to leave the OSD menu.

Manually installing the monitor driver

Below are steps for manually installing the monitor driver in Microsoft® Windows XP® and Microsoft Windows 2000 Professional. Please see the Install Driver section of the *Reference and Driver CD* for automatic installation.

Installing the monitor driver in Windows XP

To use the Plug and Play feature in Windows XP, files should be loaded from the *Reference and Driver CD*.

Note: This section must be completed before continuing with the Windows XP automatic image setup.

1. Turn off the computer and all attached devices.
2. Ensure that the monitor is connected correctly.
3. Turn on the monitor and then the system unit. Allow the system to boot into Windows XP.
4. Open the **Display Properties** window by clicking **Start** → **Settings** → **Control Panel**, and then double-clicking the **Display** icon.
5. Click the **Settings** tab.
6. Click the **Advanced** button.
7. Click the **Monitor** tab.
8. Click the **Properties** button.
9. Click the **Drivers** tab.
10. Open the **Hardware Update Wizard** window by clicking on **Update Driver**, and then click **Next**.
11. Select **Install from a list or Specific location(Advanced)**, and then click **Next**.
12. Insert the Setup CD into the CD drive, then click the **Have Disk** button.
13. Click **OK**.
14. Ensure that the CD drive letter is selected.
15. Choose **ThinkVision L171 Monitor** and click **OK**. The files will be copied from the CD to your hard disk drive.
16. Close all open windows and remove the CD.
17. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. IBM recommends using either 1280 x 1024 at a refresh rate of 60 Hz, or 640 x 480 at a refresh rate of 60 Hz.

Installing the monitor driver in Windows 2000

To use the Plug and Play feature in Windows 2000, files should be loaded from the *Reference and Driver CD*.

Note: This section must be completed before continuing with the Windows 2000 automatic image setup.

1. Turn off the computer and all attached devices.
2. Ensure that the monitor is connected correctly.
3. Turn on the monitor and then the system unit. Allow the system to boot into Windows 2000.
4. Open the **Display Properties** window by clicking **Start** → **Settings** → **Control Panel**, and then double-clicking the **Display** icon.
5. Click the **Settings** tab.
6. Click the **Advanced** button.
7. Click the **Monitor** tab.
8. Click the **Properties** button.
9. Click the **Drivers** tab.
10. Open the **Upgrade Device Driver Wizard** window by clicking on **Update Driver**, and then click **Next**.
11. Select **Display a list of the known drivers for this device so that I can choose a specific driver**, and then click **Next**.
12. Insert the Setup CD into the CD drive, then click the **Have Disk** button.
13. Click **OK**.
14. Ensure that the CD drive letter is selected.
15. Choose **ThinkVision L171 Monitor** and click **OK**. The files will be copied from the CD to your hard disk drive.
16. Close all open windows and remove the CD.
17. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. IBM recommends using either 1280 x 1024 at a refresh rate of 60 Hz, or 640 x 480 at a refresh rate of 60 Hz.

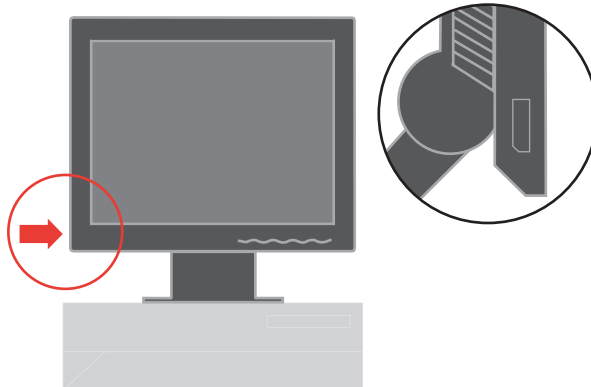
Getting further help

If you still can't solve your problem, please contact the IBM Support Center. For more information on contacting the IBM Support Center, please see Appendix A, "Service and Support," on page A-1.

Service information

Product numbers

The product number for your monitor is located on the side of the display bezel as shown below.



Customer responsibilities

The warranty does not apply to a product which has been damaged due to accident, misuse, abuse, improper installation, usage not in accordance with product specifications and instructions, natural or personal disaster, or unauthorized alterations, repairs or modifications.

The following are examples of misuse or abuse and not covered by warranty:

- Images burned onto the screen of a CRT monitor. Burned image is preventable by utilizing a moving screen saver or power management.
- Physical damage to covers, bezel, base and cables.
- Scratches or punctures on monitor screens.

IBM service parts

The following parts are for use by IBM service, or IBM authorized dealers, to support the customer warranty. Parts are for service use only. The table below shows information for model 9417-Axx.

Table 3-3. List of IBM service parts

FRU (Field Replaceable Unit) Part number	Description	Color	Machine Type Model (MTM)
30R5135	Monitor- L171	Black	9417-AB1
30R5136	Monitor- L171	Black	9417-AJ1
30R5139	Video cable		9417-AB1, 9417-AJ1
30R5140	Stand	Black	9417-AB1, 9417-AJ1
30R5141	Base	Black	9417-AB1, 9417-AJ1
30R5043	Monitor- L171	Black	9417-AB7
30R5047	Video cable		9417-AB7
30R5048	Stand	Black	9417-AB7
30R5049	Base	Black	9417-AB7
30R5027	Monitor- L171	Black	9417-AB9
30R5030	Video cable		9417-AB9
30R5031	Stand	Black	9417-AB9
30R5032	Base	Black	9417-AB9

Appendix A. Service and Support

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of the product. Refer to your IBM Statement of Limited Warranty for a full explanation of IBM warranty terms.

Online technical support

Online technical support is available during the life of your product through the Personal Computing Support Web site at <http://www.ibm.com/pc/support>.

During the warranty period, assistance for replacement or exchange of defective components is available. In addition, if your IBM product is installed in an IBM computer, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Telephone technical support

Installation and configuration support through the IBM Support Center will be withdrawn or made available for a fee, at IBM's discretion, 90 days after the product has been withdrawn from marketing. Additional support offerings, including step-by-step installation assistance, are available for a nominal fee.

To assist the technical support representative, have available as much of the following information as possible:

- Product name
- Product number
- Proof of purchase
- Computer manufacturer, model, serial number (if IBM), and manual
- Exact wording of the error message (if any)
- Description of the problem
- Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

For the support telephone number and support hours by country, refer to the following table. If the number for your country or region is not listed, contact your IBM reseller or IBM marketing representative. Response time may vary depending on the number and nature of the calls received.

Phone numbers are subject to change without notice. For the latest phone number list, go to <http://www.ibm.com/pc/support> and click **Support Phone List**.

Country or Region	Language	Telephone Number	Hours of operation
Africa	--	Africa: +44 (0)1475 555 055 South Africa: +27 11 3028888 and 0800110756 Central Africa: Contact the nearest IBM Business Partner	--
Argentina	Spanish	0800-666-0011	9AM - 10PM Monday-Friday (Local time)
Australia	English	131-426	9AM - 9PM AEST 7 days/week
Austria	German	+43-1-24592-5901	9AM - 5:30PM, Monday - Friday (Local time)
Belgium	Dutch French	02-210-9820 02-210-9800	9AM - 5PM Monday -Friday (Local time)
Bolivia	Spanish	0800-0189	8AM - 9PM Monday -Friday (Local time)
Brazil	Portuguese	55-11-3889-8986	8AM - 6PM Monday -Friday (Local time)
Canada	English French	1-800-565-3344 1-800-565-3344 In Toronto only call: 416-383-3344	24 hours/day, 7 days/week
Chile	Spanish	800-224-488	8AM - 9PM Monday -Friday (Local time)
China	Mandarin	800 810 1818	8:30AM - 5PM Monday -Friday (Local time)
China (Hong Kong S.A.R.)	Cantonese, English, Putonghua	Home PC: 852 2825 7799 Commercial PC: 852 8205 0333 ThinkPad and WorkPad: 852 2825 6580	9AM - 5PM Monday -Friday (Local time)
Colombia	Spanish	1-800-912-3021	8AM - 9PM EST Monday -Friday
Costa Rica	Spanish	284-3911	8AM - 5PM Monday -Friday (Local time)
Cyprus	--	+357-22-841100	--
Czech Republic	--	+420-2-7213-1316	--

Country or Region	Language	Telephone Number	Hours of operation
Denmark	Danish	4520-8200	8:30AM - 4:30PM Monday -Friday (Local time)
Dominican Republic	Spanish	566-4755 566-5161 ext. 8201 Toll Free within the Dominican Republic: 1-200-1929	8AM - 5PM Monday -Friday (Local time)
Ecuador	Spanish	1-800-426911	7AM - 8PM Monday -Friday (Local time)
El Salvador	Spanish	250-5696	8AM - 5PM Monday -Friday (Local time)
Estonia	--	+386-61-1796-699	--
Finland	Finnish	+358-9-459-6960	9AM - 5PM Monday -Friday (Local time)
France	French	+33-238-557-450	9AM - 6PM Monday -Friday (Local time)
Germany	German	+49-7032-15-49201	9AM - 5:30PM Monday -Friday (Local time)
Greece	--	+30-210-680-1700	--
Guatemala	Spanish	335-8490	8AM - 5PM Monday -Friday (Local time)
Honduras	Spanish	Tegucigalpa & San Pedro Sula: 232-4222 San Pedro Sula: 552-2234	8AM - 5PM Monday -Friday (Local time)
Hungary	--	+36-1-382-5720	--
India	English	1600-44-6666	9AM - 6PM Monday -Friday (Local time) Except holidays
Indonesia	Bahasa, Indonesian, English	800-140-3555	8AM - 6PM Monday -Friday (Local time)
Ireland	English	+353-(0)1-815-9200	9AM - 5:30PM Monday -Friday (Local time)
Italy	Italian	+39-02-7031-6101	9AM - 5PM Monday -Friday (Local time)

Country or Region	Language	Telephone Number	Hours of operation
Japan	Japanese, English	<p>Desktop</p> <p>Toll free: 0120-887-870; For International: +81-46-266-4724</p> <p>ThinkPad</p> <p>Toll free: 0120-887-874; For International: +81-46-266-4724</p> <p>Both of the above numbers will be answered with a Japanese language voice prompt. For telephone support in English, please wait for the Japanese voice prompt to end, and an operator will answer. Please ask for "English support please", and your call will be transferred to an English speaking operator.</p>	<p>ThinkPad and Desktop 10AM - 6PM</p> <p>Everyday Except Second Sunday of the month, Year end</p>
	Japanese	<p>IntelliStation and xSeries Inside Japan and Overseas calls: +81-46-266-1358</p>	<p>IntelliStation and xSeries 9AM - 5PM</p> <p>Monday - Friday</p> <p>Except Saturday, Sunday, Holidays, Year End</p>
	Japanese	<p>PC Software 0120-558-695 (Overseas calls: +81-44-200-8666)</p>	<p>PC Software 10AM - 6PM</p> <p>Monday - Friday</p> <p>Except Saturday, Sunday, Holidays, Year End</p>
Korea	Korean	82-2-3284-1500	9AM - 6PM Monday - Friday 9AM - 1PM Saturday
Latvia	--	+386-61-1796-699	--
Lithuania	--	+386-61-1796-699	--
Luxembourg	French	+352-298-977-5063	9AM - 5PM Monday - Friday (Local time)
Malaysia	English	1800-88-8558	8:30AM - 5PM Monday - Friday (Local time)
Malta	--	+356-23-4175	--
Mexico	Spanish	001-866-434-2080	7AM - 8PM Monday - Friday (Local time)
Middle East	--	+44 (0)1475-555-055	--

Country or Region	Language	Telephone Number	Hours of operation
Netherlands	Dutch	+31-20-514-5770	9AM - 5PM Monday - Friday (Local time)
New Zealand	English	0800-446-149	9AM - 9PM 7 days/week
Nicaragua	Spanish	255-6658	8AM - 5PM Monday - Friday (Local time)
Norway	Norwegian	NetVista, ThinkCentre, and ThinkPad: +47 6699 8960 All products: +47 815 21550	8:30AM - 4:30PM Monday - Friday (Local time)
Panama	Spanish	206-6047	8AM - 5PM Monday - Friday (Local time)
Peru	Spanish	0-800-50-866	7AM - 8PM Monday - Friday (Local time)
Philippines	English	1800-1888-1426	9AM - 5PM Monday - Friday (Local time)
Poland	--	+48-22-878-6999	--
Portugal	Portuguese	+351-21-892-7147	9AM - 5PM Monday - Friday (Local time)
Russian Federation	Russian	+7-095-940-2000	--
Singapore	English	1800-3172-888	8AM - 6:30PM Monday - Friday (Local time)
Slovakia	--	+421-2-4954-1217	--
Slovenia	--	+386-1-5830-050	--
Spain	Spanish	+34-91-714-7983	9AM - 5PM Monday - Friday (Local time)
Sri Lanka	English	+94-11-2448-442 +94-11-2421-066 +94-11-2493-500	8:30AM - 5PM Monday - Friday (Local time) Except Holidays
Sweden	Swedish	+46-8-477-4420	8:30AM - 4:30PM Monday - Friday (Local time)
Switzerland	German, French, Italian	+41-58-333-0971	9AM - 5PM Monday - Friday (Local time)
Taiwan	Mandarin	886-2-8723-9799	24 hours/day, 7 days/week
Thailand	Thai	1-800-299-229	8AM - 6PM Monday - Friday (Local time) Except Holidays
Turkey	Turkish	00800-211-4032 +90-212-317-1760	9AM - 6PM Monday - Friday (Local time)
United Kingdom	English	+44-1475-555-055	9AM - 5:30PM Monday - Friday (Local time)

Country or Region	Language	Telephone Number	Hours of operation
United States	English	1-800-IBM-SERV (1-800-426-7378)	24 hours/day, 7 days/week
Uruguay	Spanish	000-411-005-6649	9AM - 10PM Monday - Friday (Local time)
Venezuela	Spanish	0-800-100-2011	8AM - 9PM Monday - Friday (Local time)
Vietnam	English/Vietnamese	Ho Chi Minh = (848) 824-1474 Hanoi = (844) 842-6316	9AM - 5PM Monday - Friday (Local time)

Appendix B. Notices

IBM may not offer the products, services, or features discussed in this document in all countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may

vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Note: As an ENERGY STAR Partner, IBM has determined that this product meets the guidelines for energy efficiency.

Trademarks

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM

ThinkVision

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

ENERGY STAR and the ENERGY Star logo are registered US trademarks.

Other company, product, or service names may be trademarks or service marks of others.

Compliances

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 on a circuit different from that to which the receiver is connected.
- Consult an IBM authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

Declaration of Conformity Trade name
Trade name: IBM Corporation
Model Nos.: [9329-xx9](#)
Responsible Party: LG Electronics USA Inc.
Address: 6133 North River Road Suite 1100 (Riverview Plaza) Rosemont, Illinois, 60018
Telephone No.: 847-692-4630 ext 329
This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Power Cords

For your safety, IBM provides a power cord with a grounded attachment plug to use with this IBM product. To avoid electrical shock, always use the power cord and plug with a properly grounded power outlet.

IBM power cords used in the United States and Canada are listed by the Underwriter's Laboratories (UL) and certified by the Canadian Standards Association (CSA).

For units intended to be operated at 115 volts: Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a parallel blade, grounding-type attachment plug rated 15 amperes, 125 volts.

For units intended to be operated at 230 volts (U.S. use): Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a tandem blade, grounding-type attachment plug rated 15 amperes, 250 volts.

For units intended to be operated at 230 volts (outside the U.S.): Use a cord set with a grounding-type attachment plug. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

IBM power cords for a specific country or region are usually available only in that country or region.

IBM power cord part number	Used in these countries or regions
74P4360	Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Calicos Island, Canada, Cayman Islands, Costa Rica, Columbia, Cuba, Dominican Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Honduras, Jamaica, Mexico, Micronesia (Federal States of), Netherlands Antilles, Nicaragua, Panama, Peru, Philippines, Saudi Arabia, Thailand, Taiwan, United States, Venezuela
74P4362	Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, Caicos Islands, Canada, Cayman Islands, Costa Rica, Columbia, Cuba, Dominican Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Honduras, Jamaica, Japan, Mexico, Micronesia (Federal States of), Netherlands Antilles, Nicaragua, Panama, Peru, Philippines, Taiwan, United States, Venezuela
74P4366	Denmark
74P4368	Liechtenstein, Switzerland
74P4370	Israel
74P4372	Chile, Italy, Libyan Arab Jamahiriya
74P4374	Bangladesh, Lesotho, Maceo, Maldives, Namibia, Nepal, Pakistan, Samoa, South Africa, Sri Lanka, Swaziland, Uganda
74P4376	Abu Dhabi, Bahrain, Botswana, Brunei Darussalam, Channel Islands, Cyprus, Dominica, Gambia, Ghana, Grenada, Guyana, China (Hong Kong S.A.R), Iraq, Ireland, Jordan, Kenya, Kuwait, Liberia, Malawi, Malaysia, Malta, Myanmar (Burma), Nigeria, Oman, Qatar, Saint Kitts & Nevis, Saint Lucia, Saint Vincent and the Grenadines, Seychelles, Sierra Leone, Singapore, Sudan, Tanzania (United Republic of), Trinidad & Tobago, United Arab Emirates (Dubai), United Kingdom, Yemen, Zambia, Zimbabwe
74P4378	Australia, Fiji, Kiribati, Nauru, New Zealand, Papua New Guinea
74P4380	Korea (Democratic Peoples Republic of), Korea (Republic of)
74P4382	Japan
74P4384	India
74P4386	China (PRC)
74P4388	Brazil
74P4390	Argentina, Paraguay, Uruguay
74P4364	Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Belarus, Belgium, Benin, Bosnia and Herzegovina, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo (Democratic Republic of), Congo (Republic of), Cote D'Ivoire (Ivory Coast), Croatia (Republic of), Czech Rep, Dahomey, Djibouti, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, French Guyana, French Polynesia, Gabon, Georgia, Germany, Greece, Guadeloupe, Guinea, Guinea Bissau, Hungary, Iceland, Indonesia, Iran, Kazakhstan, Kyrgyzstan, Laos (Peoples Democratic Republic of), Latvia, Lebanon, Lithuania, Luxembourg, Macedonia (former Yugoslav Republic of), Madagascar, Mali, Martinique, Mauritania, Mauritius, Mayotte, Moldova (Republic of), Monaco, Mongolia, Morocco, Mozambique, Netherlands, New Caledonia, Niger, Norway, Poland, Portugal, Reunion, Romania, Russian Federation Rwanda, Sao Tome and Principe,

IBM power cord part number	Used in these countries or regions
74P4364	Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia (Republic of), Somalia, Spai, Syrian Arab Republic, Tajikistan, Tahiti, Togo, Tunisia, Turkey, Turkmenistan, Ukraine, Upper Volta, Uzbekistan, Vanuatu, Vietnam, Wallis and Futuna, Yugoslavia (Federal Republic of), Zaire

Industry Canada Class B emission compliance statement

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

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de classe B est conforme à la norme NMB-003 du Canada.

TCO Compliances Section



Models [9329-xx9](#) comply with TCO '99 guidelines.



Congratulations!

You have just purchased a TCO'99 approved and labeled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

Why do we have environmentally labeled computers?

In many countries, environmental labeling has become an established method for encouraging the adaptation of goods and services to the environment. With the growing manufacture and usage of electronic equipment throughout the world, there is a recognized concern for the materials and substances used by electronic products with regards to their eventual recycling and disposal. By proper selection of these materials and substances, the impact on the environment can be minimized.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Electronic equipment in offices is often left running continuously, resulting in unnecessary consumption of large amounts of energy and additional power generation. From the standpoint of carbon emissions alone, it is vital to save energy.

What does labeling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labeling of personal computers. The labeling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration). Approval requirements cover a wide range of issues: environment, ergonomics, emission of electric and magnetic fields, energy consumption and electrical safety

Environmental criteria impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, and other materials. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

Energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labeled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields as well as physical and visual ergonomics.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development

SE-114 94 STOCKHOLM, Sweden

Fax: +46 8 782 92 07

E-mail (Internet): development@tco.se

Current information regarding TCO'99 approved and labeled products may also be obtained via the Internet, using the address: <http://www.tcodevelopment.com/>

Environmental requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chlorine, and those flame retardants are chemically related to PCBs. Both the flame retardants containing bromine or chlorine and the PCBs are suspected of giving rise to health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative* processes when not disposed of in accordance with strict standards for disposal.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Cadmium**

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays.

The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

*Bio-accumulative is defined as substances which accumulate within living organisms.

**Lead, Cadmium and Mercury are heavy metals which are bio-accumulative.

Mercury**

Mercury is sometimes found in batteries, relays and switches. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labeled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as there today is no commercially available alternative. TCO aims on removing this exception when a mercury free alternative is available.

CFCs (freons)


The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product or in its packaging. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light. This restriction assures that further damage to the ozone layer from this type of equipment will be eliminated.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

**Lead, Cadmium and Mercury are heavy metals which are bio-accumulative.

ENERGY STAR® Compliances Section

	<p>As an ENERGY STAR® Partner, IBM Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency</p>
---	---

Congratulations!

You have just purchased an ENERGY STAR® qualified product.

What is an ENERGY STAR® qualified product?

The ENERGY STAR® program is a voluntary partnership between the U.S. Environmental Protection Agency / Dept. of Energy and Partners to reduce pollution and save energy. An ENERGY STAR® qualified product meets or exceeds the energy criteria defined in an MOU (Memorandum of Understanding) for that product category. As an ENERGY STAR® Partner, IBM offers ENERGY STAR® qualified computers, monitors and printers that meet the growing performance and networking needs of customers while reducing energy use, saving you money and improving the environment.

IBM is a recognized leader in providing energy efficient office products. In 1998 and 1999, IBM received the ENERGY STAR® Computer Partner of the Year award in the office equipment category and in 2001, IBM received the first ENERGY STAR® Excellence in Corporate Commitment award. ENERGY STAR® products save you more -- look for the ENERGY STAR® label and program information on IBM products, product literature, Web sites, packaging and promotional material.

ENERGY STAR®

Current criteria and information regarding the ENERGY STAR® program can be found at <http://www.energystar.gov>
ENERGY STAR® and the ENERGY STAR® logo are registered US marks.

MPRII

This product complies with Swedish National Council for Metrology (MPR) standards issued in December 1999 (MPRII) for very low frequency (VLF) and Extremely low frequency (ELF) emissions.

Electronic emission notices

Hinweise

Gemäß der Amtsblätter des BMPT Nm. 61Ú1991 und 6Ú1992 wird der Betreiber darauf aufmerksam gemacht, daß die von ihm mit diesem Gerät zusammengestellte Anlage auch den technischen Bestimmungen dieser Amtsblätter genügen muß.

Aus ergonomischen Gründen wird empfohlen, die Grundfarbe Blau nicht auf dunklem Untergrund zu verwenden (schlechte Erkennbarkeit, Augenbelastung bei zu geringem Zeichenkontrast).

Aus ergonomischen Gründen sollten nur Darstellungen auf dunklem Hintergrund bei Vertikalfrequenzen ab 60 Hz (ohne Zeilensprung) benutzt werden.

Die Konvergenz des Bildes kann sich auf Grund des Magnetfeldes am Ort der Aufstellung aus der Korrekten Grundeinstellung verändern. Zur Korrektur empfiehlt es sich deshalb, die Regler an der Frontseite für H STAT und V STAT so einzustellen, daß die getrennt sichtbaren Farblinien für Rot, Grün und Blau bei z.B. der Darstellung eines Buchstabens zur Deckung (Konvergenz) gelangen. Siehe hierzu auch die Erklärungen zu H STAT und V STAT.

European Union (EU) Statement

This product is in conformity with the protection requirements of the EU Council Directive 89/366/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility

IBM can not accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 Ú European Standard EN55024:1998. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

Properly shielded and grounded cables and connectors must be used in order to reduce the potential for causing interference to radio and TV communications and to other electrical or electronic equipment. Such cables and connectors are available from IBM authorised dealers.

In accordance with EN 55024:1998 1992, Performance Criterion A:, it should be noted that in the presence of certain electromagnetic fields, some screen jitter may be observed.

Spécifications de la CEE

Ce produit est conforme aux exigences de protection de la directive 89/ 336/ EEC du Conseil de l'UE sur le rapprochement des lois des États membres en matière de compatibilité électromagnétique.

IBM ne peut accepter aucune responsabilité pour le manquement aux exigences de protection résultant d'une modification non recommandée du produit, y compris l'installation de cartes autres que les cartes IBM.

Ce produit a été testé et il satisfait les conditions de l'équipement informatique de Classe B en vertu de CISPR22 / Standard européen EN55024:1998. Les conditions pour l'équipement de Classe B ont été définies en fonction d'un contexte résidentiel ordinaire afin de fournir une protection raisonnable contre l'interférence d'appareils de communication autorisés.

Des câbles blindés et correctement reliés à la terre doivent être utilisés pour réduire les risques d'interférence avec des communications radio et télévisées, ainsi qu'avec des équipements électriques ou électroniques. Ces câbles et connecteurs sont disponibles auprès de vos revendeurs IBM agréés.

Conformément à la norme EN 55024:1998 (Critère de Performance A), l'utilisateur doit être conscient du fait qu'en présence de certains champs électromagnétiques, l'image peut être instable.

Erklärung für die Europäische Union (EU)

Zulassungbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) vom 30. August 1995 (bzw. der EMC EG Richtlinie 89/336):

Dieses Gerät ist berechtigt in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen.

Verantwortlich für die Konformitätserklärung nach Paragraph 5 des EMVG ist die: IBM Deutschland Informationssysteme GmbH, 70548 Stuttgart.

Informationen in Hinsicht EMVG Paragraph 3 Abs. (2) 2:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024:1998 und EN55024:1998 Klasse B.

EN 55022 Hinweis:

“Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 55022:B festgelegt), dann kann es dabei eventuell gestört werden. In solch einem FALL ist der Abstand bzw. die Abschirmung zu der industriellen Störquelle zu vergrößern.”

Anmerkung:

Um die Einhaltung des EMVG sicherzustellen sind die Geräte, wie in den IBM Handbüchern angegeben, zu installieren und zu betreiben.

Declaración de la Unión Europea (UE)

Este producto satisface los requisitos de protección del Consejo de la UE, Directiva 89/ 336/ CEE en lo que a la legislación de los Estados Miembros sobre compatibilidad electromagnética se refiere.

IBM no puede aceptar responsabilidad alguna si este producto deja de satisfacer dichos requisitos de protección como resultado de una modificación no recomendada del producto, incluyendo el ajuste de tarjetas de opción que no sean IBM.

Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con el Estándar CISPR22 y el Estándar Europeo EN55024:1998. Los límites para los equipos de Clase B se han establecido para entornos residenciales típicos a fin de proporcionar una protección razonable contra las interferencias con dispositivos de comunicación licenciados.

Se deben utilizar conectores y cables debidamente protegidos y conectados a tierra a fin de reducir las posibilidades de que se produzcan interferencias con comunicaciones por radio o televisión y otros equipos eléctricos o electrónicos. Este tipo de cables y conectores pueden adquirirse en concesionarios autorizados de IBM.

De acuerdo con la norma EN 55024:1998, Performance Criterion A, habría que destacar que en presencia de determinados campos electromagnéticos, podría observarse una marcada inestabilidad e la imagen.

Dichiarazione di conformità dell'Unione Europea (EU)

Questo prodotto è conforme alle normative di protezione ai sensi della Direttiva del Consiglio dell'Unione Europea 89/ 336/ CEE sull'armonizzazione legislativa degli stati membri in materia di compatibilità elettromagnetica.

IBM non accetta responsabilità alcuna per la mancata conformità alle normative di protezione dovuta a modifiche non consigliate al prodotto, compresa l'installazione di schede e componenti di marca diversa da IBM.

Le prove effettuate sul presente prodotto hanno accertato che esso rientra nei limiti stabiliti per le apparecchiature di informatica Classe B ai sensi del CISPR 22 / Norma Europea EN55024:1998. I limiti delle apparecchiature della Classe B sono stati stabiliti al fine di fornire ragionevole protezione da interferenze mediante dispositivi di comunicazione in concessione in ambienti residenziali tipici.

Utilizzare cavi e connettori collegati a terra per ridurre il rischio potenziale di interferenza delle comunicazioni radiotelevisive e di altri apparecchi elettrici o elettronici. I cavi sono disponibili presso i rivenditori IBM.

In accordo con quanto previsto nel documento EN 55024:1998, Performance Criterion A, è importante sottolineare che in presenza di determinati campi elettromagnetici è possibile che si verifichi un certo tremolio delle immagini.

Europeiska unionen (EU)

Denna produkt har testats och följer gränsvärdena för Klass B Information Technology Equipment enligt CISPR 22 Ú Europeisk standard EN55024:1998. Gränsvärden för Klass B-utrustning utgår från vanliga bostadsområden för att ge ett rimligt skydd mot störningar i kommunikationsenheter.

Korrekt avskärmade och jordade kablar och kontakter måste användas för att minska risken för störningar i radio- och TV-kommunikationer och annan elektrisk utrustning. Sådana kablar och kontakter finns tillgängliga hos auktoriserade IBM-återförsäljare.

I enlighet med EN 55024:1998 1992, Performance Criterion A påpekas följande: I närheten av en del elektromagnetiska fält kan vissa bildstörningar uppstå på skärmen.

Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

Dieses Gerät ist berechtigt in Übereinstimmung mit dem deutschen EMVG vom 9.Nov.92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM UK, Greenock.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse B.



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주거지역에서는 물론 모든 지역에서 사용할 수 있습니다

VCCI Class B Notice (Japan Only)

This equipment complies with the limits for a Class B digital device (devices used in or adjacent to a residential environment) and conforms to the standards for information technology equipment that are set by the Voluntary Control Council for Interference for preventing radio frequency interference in residential areas.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に
基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的
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Japanese statement of compliance for products less than or equal to 20 A per phase:

高調波ガイドライン適合品