

# **APPENDIX F :**

## **USER'S MANUAL**

# T560 Flat Panel Monitor User Guide

ENGLISH

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## Second Edition (June / 2002)

Note : For important information, refer to the Monitor Safety and Warranty manual that comes with this monitor.

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# Setup

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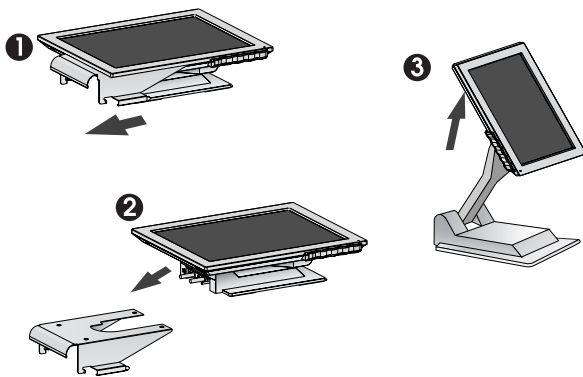
## Hardware Requirements

This monitor requires a computer with a suitable on-board sub-system or Video Adapter card that can support XGA 1024 x 768, SVGA 800 x 600, or VGA 640 x 480 at 60Hz.

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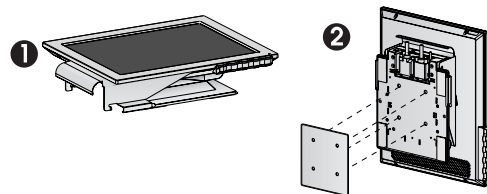
### Desk Top Use

- REMOVE CLIP



### VESA Mount Use

- Do Not Remove Clip

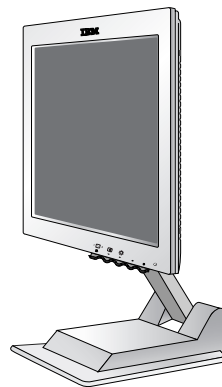


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## Handling Instructions

*Do not support the monitor within the screen area. The Liquid Crystal Display is glass and can be damaged by rough handling or excessive pressure.*

1. Lift the monitor by placing both hands under the lower part of the cover.

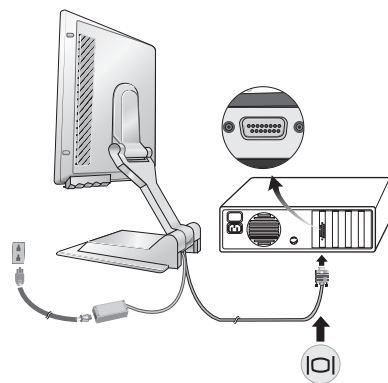


2. Before using your monitor for the first time, remove the clear protective film from the front of the screen.

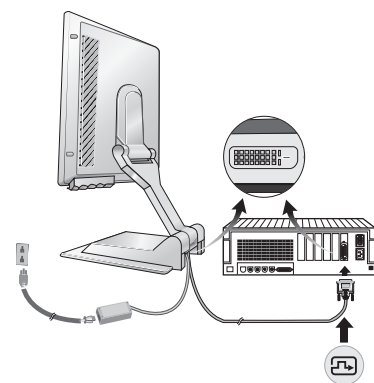
# Monitor Installation

## Connecting your Monitor

1. Turn off your computer and all attached devices.
2. Connect the signal cable.  
The AC adapter and the analog signal cable are already connected to your monitor
  - When connecting the analog signal cable (Figure A)  
Connect free end of the attached signal cable to the Dsub connector on the computer and tighten the screws.
  - When connecting the DVI signal cable (Figure B)  
Connect one end of the monitor signal cable to the DVI connector on the rear panel of the monitor. Connect the other end to the DVI port on the rear panel of the computer and tighten the screws.
3. Connect the power cord to the power adapter and then plug the power cord into a properly grounded outlet.



(Figure A)



(Figure B)

## Switching on your Monitor

1. Switch on the power source to your monitor.
2. Switch on your monitor by pushing and releasing the power switch marked [⏻].  
[To switch off your monitor, push and release the power switch again.]
3. Switch on your computer.
4. Run AUTO SETUP by following the instructions in the **Auto Setup** section on [page 6](#).

# Monitor Driver Installation

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## Driver installation for Windows 95 or Windows 98

*This section must be completed before continuing with the [Windows95 or Windows98 Auto Setup on page 7.](#)*

**i** On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. IBM recommends using either 1024 x 768 at a refresh rate of 60Hz or 640 x 480 at a refresh rate of 60Hz.

To use the Plug and Play feature in Microsoft®Windows®95 or Windows 98, files should be loaded from the **IBM Monitor CD.**

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 Windows95 or Windows98.

Your computer's Plug and Play code may warn you that your system hardware has changed. This means that it has detected your new monitor for the first time.

4. Open the **DISPLAY PROPERTIES** window by clicking **START, SETTINGS, CONTROL PANEL** and then double - clicking on the **DISPLAY** icon.
5. Click the **SETTINGS** tab.

• **In case of Windows 95 :**

- 6 - 1. Click the **CHANGE DISPLAY TYPE** button.
2. Click the **CHANGE MONITOR TYPE** button.

• **In case of Windows 98 :**

- 6 - 1. Click the **ADVANCED** button.
2. Click the **MONITOR** tab.
3. Open the **UPGRADE DEVICE DRIVER WIZARD** window by clicking on **CHANGE** button and then select the **NEXT** button.
4. Click the "Display a list of the known drivers for this device so that I can choose a specific driver" and then select the **NEXT** button.
7. Insert the Setup CD into the CD drive : and click the **HAVE DISK** button.
8. Click **OK**.
9. Ensure that the CD drive letter is selected, and then select the 'Drivers' folder.
10. Choose **IBM T560** monitor and Click **OK**. The files will be copied from the CD to your hard disk drive.
11. Close all open windows and remove the CD.
12. Restart the system.

The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

## Driver Installation for Windows 2000 or Windows Me

**This section must be completed before continuing with the Windows2000 , Windows Me Auto Setup on [page 7](#).**

**i** On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. IBM recommends using either 1024 x 768 at a refresh rate of 60Hz or 640 x 480 at a refresh rate of 60Hz.

To use the Plug and Play feature in Microsoft Windows 2000 or Microsoft Windows Millennium Edition(Me) files should be loaded from the **IBM Monitor CD**.

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 or Windows Me.
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 **DRIVER** tab.
10. Open the **UPGRADE DEVICE DRIVER WIZARD** window by clicking on **UPDATE DRIVER** and then Click the **NEXT** button.
11. Select the "Display a list of the known drivers for this device so that I can choose a specific driver" and then Click the **NEXT** button.
12. Insert the Setup CD into the CD drive : and click the **HAVE DISK** button.
13. Click **OK**.
14. Ensure that the CD drive letter is selected, and then select the 'Drivers' folder.
15. Choose **IBM T560** 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.



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## Driver Installation for Windows XP

***This section must be completed before continuing with the Windows XP Auto Setup on page 7.***

***i*** On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. IBM recommends using either 1024 x 768 at a refresh rate of 60Hz or 640 x 480 at a refresh rate of 60Hz.

To use the Plug and Play feature in Microsoft Windows XP files should be loaded from the **IBM Monitor CD**.

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 **DRIVER** tab.
10. Open the **Hardware Update Wizard** window by clicking on **UPDATE DRIVER** and then Click the **NEXT** button.
11. Select the "Install from a list or Specific location(Advanced)" and then Click the **NEXT** button.
12. Insert the Setup CD into the CD drive : and click the **HAVE DISK** button.
13. Click **OK**.
14. Ensure that the CD drive letter is selected, and then select the 'Drivers' folder.
15. Choose **IBM T560** 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.

# Image Setup for analog input

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## Auto Setup

**Before carrying out this section, it is very important that the correct monitor drivers have been installed.** (See pages 3 and 5)

**i** The Setup Utility included on the setup diskette displays a test pattern of dots. It does not replace or modify the display drivers.

**i** The Auto Setup instructions require the monitor to be warmed up for 15 minutes. This is not required for normal operation.

**i** If your computer does not run with the setup CD shipped with the monitor, refer to **Manual Setup** on page 9.

**i** The AUTO SETUP process only applies to the current screen mode. When a new mode is selected, repeat this section to reset the monitor.

For digital input, image setup is not required.

When you first use your monitor you must perform Auto Setup. This procedure set up your monitor to process the video signals from your computer without image discoloration or smearing. After you perform Auto Setup, the settings are stored and used each time you turn on the monitor.

In order to optimise the displayed image a set-up utility is provided on the IBM Monitor CD. Operation of this utility is dependent on the operating system on your computer. You may choose to run AUTO SETUP for each operating system that you use. This means that if you sometimes use your monitor while running any version of Windows and sometimes also use it from within DOS (not a DOS window), you must run AUTO SETUP for both Windows and DOS. You may run versions of AUTO SETUP in any order.

Before you begin AUTO SETUP for your computer, make sure the computer video mode is set in the range of the supported screen resolution shown in the table on [page 17](#).

You should perform AUTO SETUP for each screen mode you use.

## Auto Setup for Windows 3.1, 95, Windows 98 or Windows 2000, Windows®Me, Windows XP or Windows NT

**i** If the monitor is in standby mode (STANDBY ON), it may automatically turn off while you are waiting for it to warm up.

1. Turn on the monitor first; then the computer.  
If the message CHECK SIGNAL CABLE is displayed, or if nothing is displayed check:
  - that the video interface cable is not connected properly.
  - the correct video adapter card is not installed.
2. Wait approximately 15 minutes, until the monitor warms up.
3. Ensure that the icon bar and tool bar, if displayed are at the bottom of the screen.
4. Insert the CD labelled 'IBM Monitor CD' into the CD drive.
5. Check the operating system installed on your computer and follow the instructions from the table below.

**i** The size and diversity of the dot pattern varies with the screen resolution.

Operating System	Step1	Step2	Step3
Windows 3.1	Open PROGRAM Manager	Select RUN	Type 'x:\TESTPAT' and press ENTER "Where x is the drive letter of your CD drive"
Windows 95			
Windows 98	Select START	Select RUN	
Windows 2000			
Windows Me			
Windows XP			
Microsoft Windows NT®4.0			

**i** Position the mouse pointer at the bottom center of the screen. This allows AUTO SETUP to run properly

6. When the test pattern appears, press the Image Setup direct access button ← at the bottom of the monitor to run the image setup.
7. To clear the Image Setup test pattern, press the ESC key on your keyboard.

You have completed the monitor setup for Windows. If you use other operating systems, perform the appropriate AUTO SETUP for those systems, also: see **Image Setup for DOS** on [page 8](#).

## Image Setup for DOS

**i** If the monitor is in standby mode (**STANDBY ON**), it may automatically turn off while you are waiting for it to warm up. If this happens, switch off the monitor and switch it on again after a few seconds.

**i** If you are using PC-DOS/V, change to U.S. mode by typing '**CHEV US**' and pressing **ENTER** at the command prompt.  
**You must use when you run DOS Auto Setup.**

**i** The size and diversity of the dot pattern varies with the screen resolution.

**i** If the screen flickers, repeat the setup several times until the flicker is minimised, or adjust it manually by following refer to **Manual Setup** on [page 9](#).

1. Turn on the monitor first; then the computer.

If the message CHECK SIGNAL CABLE is displayed, or if nothing is displayed check:

- that the video interface cable is not connected properly.
- the correct video adapter card is not installed.

2. Wait approximately 15 minutes, until the monitor warms up.
3. Insert the CD labelled 'IBM Monitor CD' into the CD drive.
4. Display the command prompt screen of the DOS full-screen display.
5. At the command prompt, type 'x:' where x is the drive letter of your CD drive, and press ENTER.
6. Type '**TESTPATD**' and press ENTER.
7. Select from the screen the number for the color or text mode you want to setup.
8. Select from the screen the number for the video mode you want to setup.  
You may repeat this process for as many of the color and video modes as you need.
9. When the test pattern appears, press the Image Setup direct access button ← at the bottom of the monitor to run the image setup.
10. To clear the Image Setup test pattern, press the ESC key on your keyboard.
11. Type '**Exit**' at the command prompt to return to Windows.

If you use other operating systems, perform the appropriate Image Setup for those systems, also: see













**Image Setup Windows 3.1, Windows 95, Windows 98, Windows 2000, Windows Me, Window XP or Windows NT workstation** on [page 7](#).

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## Manually adjusting the image settings

**i** If the monitor is in standby mode (STANDBY ON), it might automatically turn off while you are waiting for it to warm up.

Normally, you can complete the setup procedure using Image Setup, however, if your screen image is still distorted after you perform Image Setup or the setup CD does not run on your system, perform MANUAL SETUP.

1. Have your monitor turned on for about 15 minutes, until the monitor warms up.
2. Display the image you most frequently use on the screen.
3. Press the OSD Enter button  at the bottom of the monitor to display the initial OSD menu.
4. Use an Arrow button (  or  ) to select the **IMAGE SET-UP** icon  and press the OSD Enter button  to access the function.
5. Using an Arrow button (  or  ), select MANUAL, press  and then press  once to select COARSE. Left and right arrow adjustment indicators become illuminated (see [page15](#)).
6. Use the Arrow buttons to manually adjust to correct (as much as possible) for jitter or noise in the image, then press  to save the changes.
7. Use an Arrow button to select FINE and press the  button.
8. Use the Arrow buttons again to tune the image to your liking.
9. When finished, press the Exit button  four times to exit from the OSD.

You have completed the monitor setup.

# Ergonomic Considerations

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## Workplace Preparation

**i** This section gives advice on what you should consider before you set up your monitor.

### Height

Position the monitor directly the top of the screen is slightly below your eye level when you sit at your workstation.

### Ergonomic

It is recommended that in order to maintain an ergonomic and comfortable viewing position, the forward tilt angle of the monitor should not exceed 5 degree.

### Orientation

- Choose a position that gives the least reflection from lights and windows, usually at a right angle to any windows.
- Position the monitor directly in front of you so that you do not have to twist your body to use it.
- Tilt the monitor to a comfortable viewing angle.

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## Working Practices

**i** This section gives advice on how you can work comfortably and reduce fatigue.

### Rest

Take regular breaks. Vary your posture, stand up and stretch occasionally as prolonged use of computer workstations can be tiring.

### Back

Sit back in your chair and use the backrest.

### Hands

Use a light touch on the keyboard, keeping your hands and fingers relaxed. Allow a space in front of the keyboard to rest your wrists when not typing. Consider using a wristpad.

### Eyesight

Working with monitors, in common with any prolonged close work, can be visually demanding. Look away from the screen periodically and have your eyesight checked regularly.

### Screen settings

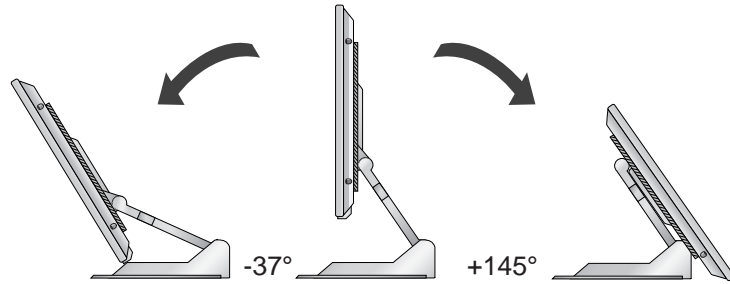
Set the screen brightness and contrast to a comfortable level. You may have to adjust this as the lighting changes during the day. Many application programs let you select color combinations which can help you to view in comfort. See the **User controls** section on page 14 for more information.

# Adjusting the Monitor Position

**i** With the IBM Flat Panel Monitor, you can adjust its position in various ways for maximum comfort.

## Tilt Range :-37°~145°

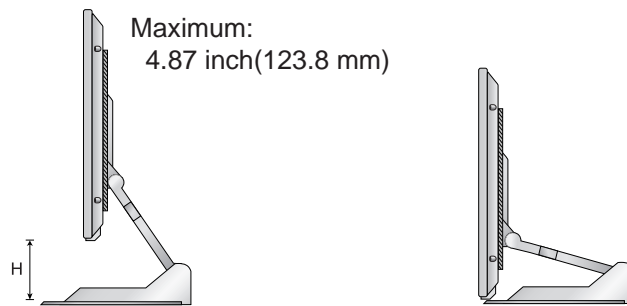
You can tilt the screen backward and forward as shown below(Figure A).



(Figure A)

## Height Range

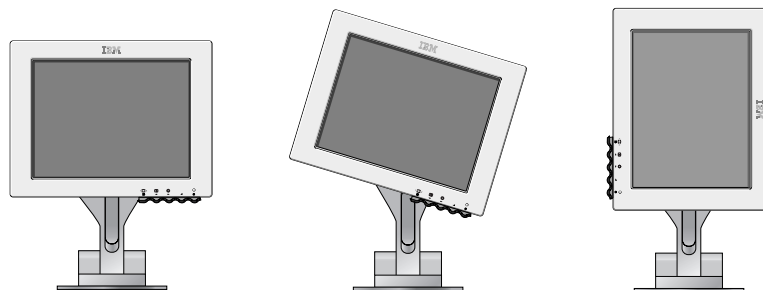
You can adjust height of the screen(Figure B).



(Figure B)

## Landscape & Portrait

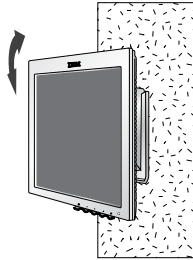
This monitor offers the ability to rotate between landscape and portrait modes(Figure C). The monitor rotates from Landscape to Portrait through 90°clockwise and from Portrait to Landscape through 90°anti-clockwise.



(Figure C)

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## VESA wall mounting (See page 19 for the details)



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## Pivot Software

Pivot software has been provided with your new monitor. This allows the image to be rotated through either 90°, allowing the image to be viewed in landscape or portrait mode, see Figure C. Or rotated through 180°, allowing a person opposite the user to view the image when tilted fully backwards in a landscape orientation, see Figure A. Or rotated through 270°, allowing a person opposite the user to view the image when tilted fully backwards in a portrait orientation.

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## Caring for your Monitor

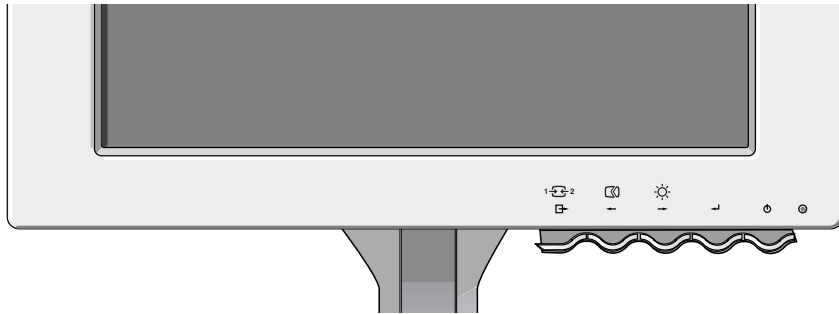
Be sure to turn off the power before you perform any maintenance on the monitor. Clean your monitor as follows:

- Gently wipe the covers and the screen with a soft cloth.
- Remove finger marks and grease with a damp cloth and mild detergent.
- Never use flammable cleaning materials to clean your IBM monitor or any other electrical apparatus.



# Adjusting Your LCD Monitor

## User controls



### User control features

Icon	Monitor controls
	Switches the monitors on and off
	Display main OSD menu and selects highlighted menu item.
	Moved the cursor to highlight icons or make adjustments.
	Exits from current OSD menu.

**i** The image is already optimized for many display modes, however the user controls can be used to adjust the image to your liking.

**i** The settings are saved after adjustment and when exiting the OSD and will be effective thereafter.

Icon	Direct Access Functions
	Bring up Brightness adjustment.
	Bring up auto image setup.
	<p><b>CONTROLS LOCK / UNLOCK</b></p> <p>This feature allows you to secure the current control settings, while allowing the user to adjust Brightness or Contrast, so that they cannot be inadvertently changed. Push and hold the enter button  for 10 seconds; the message "Controls Locked" appears.</p> <p>You can unlock the OSD controls at any time by pushing the enter button  for 10 seconds; the message "Controls Unlocked" will appear.</p>
	Switch between input signals.

## On-screen display (OSD) controls

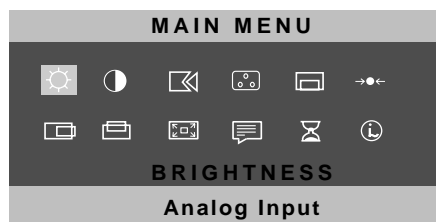
**i** The LCD monitor needs time to become thermally stable the first time you turn it on each day. Thus, to achieve more accurate adjustments for parameters, allow the LCD monitor to warm up (be On) for at least 15 minutes before making any screen adjustment.

The settings adjustable with the user controls are viewed through the On - Screen Display (OSD). Press the enter button [ ↵ ] to display the main OSD menu.

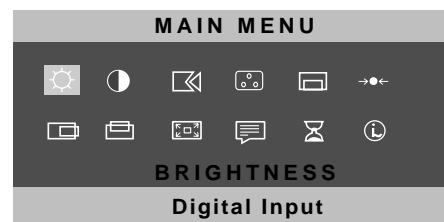
### Initial appearance of OSD

main menu;

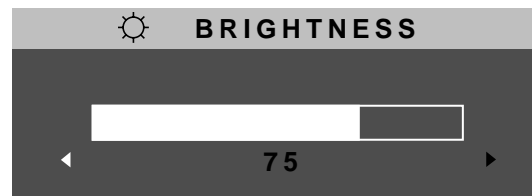
When the Analog Signal input










When the Digital Signal input












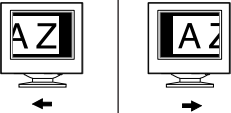

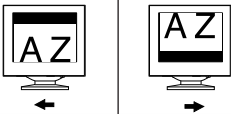




sub menu;



### OSD functions

OSD Icon	Description	sub-menu(s)	Control and Adjustments
 <b>BRIGHTNESS</b>	Adjusts brightness		 
 <b>CONTRAST</b>	Adjusts contrast		 
 <b>IMAGE SET-UP</b>	The IMAGE SET-UP function is used to adjust the level of noise in the video signal which causes horizontal lines or areas on the screen where the image appears to be unstable and jitters or shimmers. This can be done automatically or manually. •It is not available when the digital input	<b>Auto</b>	If AUTO is selected the image will automatically adjust

OSD Icon	Description	Sub-menu(s)	Controls and Adjustments	
 <b>IMAGE SET-UP CONT</b>	If manual is selected, the user will go to the manual adjustment screen.	<b>Manual SET-UP</b>  <ul style="list-style-type: none"> <li>• Fine</li> <li>• Coarse</li> </ul>	To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters. <b>Fine</b> adjustments should be can done after adjusting the <b>Coarse</b> .	
 <b>COLOR</b>	Select the Color Mode you find most comfortable and then fine tune the colors using the User Color Mode menu, if necessary.	<b>COLOR MODE</b>	<b>Preset 1</b> (Warm White)  <b>Preset 2</b> (Normal White)  <b>Preset 3</b> (Cool White)	
 <b>OSD Position</b>	Changes the position of the OSD on the screen.	<b>H-POSITION</b>		
		<b>V-POSITION</b>		

OSD Icon	Description	Sub-menu(S)	Controls and Adjustments
 <b>RESET</b>	Reset should return all available functions (apart from language which should not change unless adjusted via the LANGUAGE menu) to their factory presets.	<ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>	
 <b>H-POSITION</b>	Moves the screen left and right . <ul style="list-style-type: none"> <li>• Is not available with a digital input</li> </ul>		
 <b>V-POSITION</b>	Moves the screen up and down. <ul style="list-style-type: none"> <li>• Is not available with a digital input</li> </ul>		
 <b>OSD SIZE</b>	To select OSD size		<ul style="list-style-type: none"> <li>• SMALL</li> <li>• MID</li> <li>• BIG</li> </ul>
 <b>Language</b>	The language chosen affects only the language of the OSD. Select one of the five language to use for the OSD. It has no effect on any software running on the computer.		<ul style="list-style-type: none"> <li>• ENGLISH</li> <li>• FRANCAIS</li> <li>• DEUTSCH</li> <li>• ITALIANO</li> <li>• ESPANOL</li> </ul>
 <b>OSD time</b>	To select OSD display duration time. (5 - 60 seconds)		
 <b>Information</b>	<p>Display model name, serial number, year of manufacture and microcode level.</p> <p>Display all preset modes stored in the monitor.</p> <p>Display all user modes stored in the monitor.</p> <p>The current display mode will be shown at the base of all information screens.</p>		<ul style="list-style-type: none"> <li>• INFORMATION</li> <li>• PRESET MODES</li> <li>• USER MODES</li> </ul> <p>Use the ← and → buttons to move between information screens.</p>

# Further Information

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## Display modes

**i** If your computer has previously been used with a CRT monitor and is currently configured to a display mode outside the range that the Flat Panel monitor can display, you may need to re-attach the CRT monitor temporarily until you have reconfigured the computer, preferably to 1024 x 768 at 60Hz.

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

The image size, position and shape may change when the display mode changes. This is normal and the image can be readjusted using AUTO SETUP and the monitor controls.

Unlike CRT monitors, which require a high refresh rate to minimize flicker, TFT technology is inherently flicker-free. If possible, configure your computer for 1024 x 768 addressability at 60Hz vertical refresh rate.

For the display modes listed below, the screen image has been optimized during manufacture.

### Factory Set Display Modes

Addressability	Refresh Rate	Horizontal Frequency
640 x 350	70 Hz	31.5 kHz
720 x 400	70 Hz	31.5 kHz
640 x 480	60 Hz	31.5 kHz
640 x 480	66 Hz	35.0 kHz
640 x 480	75 Hz	37.5 kHz
800 x 600	56 Hz	35.2 kHz
800 x 600	60 Hz	37.9 kHz
800 x 600	72 Hz	48.1 kHz
800 x 600	75 Hz	46.9 kHz
832 x 624	75 Hz	49.7 kHz
1024 x 768 †	60 Hz	48.4 kHz
1024 x 768	70 Hz	56.5 kHz
1024 x 768	75 Hz	60.0 kHz

† Recommended

**Note : VESA timings are as detailed in the VESA “Display Monitor Timing Specification”. Version 1.0, Revision 0.8, Dated 09/17/98.**

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## Power Management

To benefit from power management, the monitor must be used in conjunction with a computer that implements the Video Electronics Standards Association (VESA) Display Power Management Signaling (DPMS) Standard.

The power management feature 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.

As an ENERGY STAR 2000® Partner, **IBM** has determined that this product meets the ENERGY STAR 2000® guidelines for energy efficiency.

IBM recommends that you 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.

State	Power Indicator	Screen	Restoring Operation	Compliance
<b>On</b>	Steady green	Normal		
<b>Active off</b>	Steady amber	Blank	Press a key or move the mouse.‡	ENERGY STAR 2000®

‡ There may be a slight delay before the picture reappears.

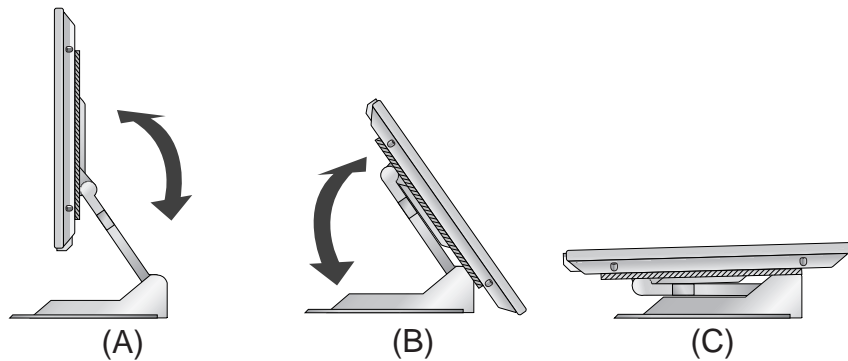
# VESA Wall Mounting

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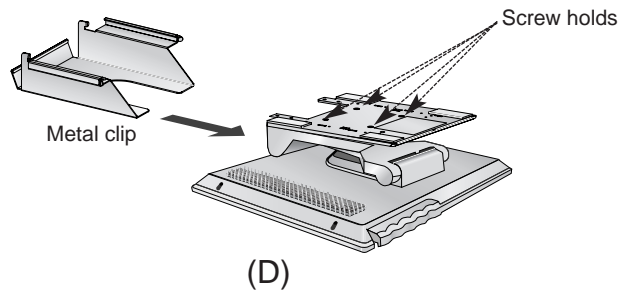
Alternative mounting options for your IBM Flat Panel Monitor may be available from specialist suppliers.

To attach the monitor to an arm or a surface of wall, please follow the instructions below:

1. Power off the monitor, and then disconnect the signal cable and the power cord from the monitor.



2. Fold the monitor arm in the order of Figure (A), (B) and (C) as shown above.
3. Place the monitor on a stable and shock-resistant floor, with the front of the monitor at the bottom.




4. Hold the metal clip and push it carefully until it clamps both of the stand and the arm firmly, as shown in Figure (D) above. (The metal clip is used to keep the arm folded.)
5. You have to use the four screw holds on the bottom of the stand to attach the monitor to the surface of wall. For additional information, see the instructions supplied with the purchased arm.
6. Locate a place to which you want to attach the monitor. When locating the place, you have to consider the lengths of the signal cable and the power cord.
7. Attach the monitor to the place you selected in the step 6, and then reconnect the signal cable and the power cord to the monitor.

To obtain the correct cables and/or to get further instructions on installing them, call the IBM HELPCENTER at the above numbers or contact your dealer, retailer, or other IBM authorized Servicer.

# Troubleshooting

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

Problem	Possible Cause	Suggested Action	Reference
Screen is blank and power indicator is off.	No power to monitor.	<ul style="list-style-type: none"> <li>• Ensure that the electrical outlet and the monitor are both switched on.</li> <li>• Check that the power cord is firmly plugged into the electrical outlet and the power supply unit.</li> <li>• If the power cord plug has a removable fuse, replace it.</li> <li>• Try another power cord.</li> <li>• Try another electrical outlet.</li> <li>• Check the power connection at the back of the panel.</li> </ul>	<b>Connecting your Monitor</b> section on page 3.
Screen is blank and power indicator is steady green.	Brightness and Contrast may be too low.	<ul style="list-style-type: none"> <li>• Adjust brightness and contrast.</li> </ul>	<b>User controls</b> section on page 14.
Screen is blank and power indicator is steady amber.	The monitor is in the Power Management Standby state.	<ul style="list-style-type: none"> <li>• Press any key on the keyboard or move the mouse to restore operation.</li> <li>• Check the Power Management software on your computer.</li> <li>• Press the  to switch between analog and digital mode. If the panel is the wrong mode for the signal being provided, the monitor appears to go into sleep mode.</li> </ul>	<b>Power Management</b> section on <a href="#">page 19</a> .
Power indicator is flashing amber at 0.5 or 1 second intervals.			



**i** For image problems, you may want to run *AUTO SETUP* again before consulting to this section. In most cases, *AUTO SETUP* can fix the problems. See **Auto Setup for the computer** on [page 6](#) for details.

Problem	Possible Cause	Suggested Action	Reference
Screen is blank and power indicator is flashing green every 0.5 second	The monitor is not receiving a video signal	<ul style="list-style-type: none"> <li>• Check that the signal cable is firmly connected to the computer.</li> <li>• Check that no pins are bent in the signal cable connector.</li> </ul>	<b>Connecting your monitor</b> section on <a href="#">page 2</a>
	Display mode of the computer is outside the range of the monitor	<ul style="list-style-type: none"> <li>• Reconfigure key on the computer to use a supported display mode.</li> </ul>	<b>Further Information</b> section on <a href="#">page 17</a>
Screen is blank and power indicator is flashing green every 0.5 or 1 second	The monitor is in the Power Management Suspend or Off state.	<ul style="list-style-type: none"> <li>• Press any key on the keyboard or move the mouse to restore operation.</li> <li>• Check the Power management software on your computer.</li> </ul>	<b>Power Management</b> section on <a href="#">page 18</a>
Image appears to be smeared	There are noises in the video signal	<ul style="list-style-type: none"> <li>• Select IMAGE SET-UP menu in the OSD. Then select MANUAL to adjust FINE / COARSE settings.</li> </ul>	<b>User Controls</b> section on <a href="#">page 13</a>
Image appears to be discolored	The color setting may be incorrect.	<ul style="list-style-type: none"> <li>• Adjust the Color settings.</li> </ul>	<b>User Controls</b> section on <a href="#">page 13</a>
A few dots are missing, discolored, or inappropriately lighted.	The LCD contains over 2,300,000 thin-film transistors (TFTs). A small number of missing, discolored, or lighted dots may be present on the screen, which is an intrinsic characteristic of the TFT LCD technology and is not an LCD defect.		

## Further Help

**i** If possible, stay by your computer. Your Technical Support Representative may wish to go through the problem with you during the call.

**i** More help, late-breaking news and details of the latest accessories for these products may be found on the worldwide web at:

<http://www.pc.ibm.com/us/accessories>

Information about the Video Electronics Standards Association can be found on the worldwide web at :

<http://www.vesa.org>

Machine Name – T560 Color Monitor

Warranty Period – Three (3) Years

See the IBM Statement of Limited Warranty included in this publication for IBM's warranty terms and conditions.

The IBM Machine Warranty worldwide Web site at [http://www-1.ibm.com/servers/support/machine\\_warranties/](http://www-1.ibm.com/servers/support/machine_warranties/) provides a worldwide overview of IBM's Limited Warranty for IBM Machines, a Glossary of IBM definitions, Frequently Asked Questions (FAQs) and Support by Product (Machine) with links to Product Support pages. **The IBM Statement of Limited Warranty is also available on this site in 29 languages via pdf files.**

### Service and support

With the original purchase of an IBM machine, you have access to extensive support coverage. During the IBM machine warranty period, you may call IBM or your reseller for problem determination assistance under the terms of the IBM Statement of Limited Warranty. You may seek help as follows:

**Call IBM HelpCenter® .**

**In the US call 1-800-772-2227**

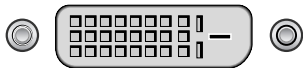
**In Canada (Toronto only) call 416-383-3344  
(all others) call 1-800-565-3344**

In other countries, contact your dealer, retailer, or other IBM authorized servicer. Before calling, please have available as much of the following information as possible:

1. Type, model and serial number from the label on the back of your monitor.
2. Purchase receipt.
3. Description of problem.
4. Computer type and model.
5. System configuration (hardware fitted etc.).
6. System BIOS version number.
7. Operating System and version number.
8. Display driver version number.

# Specifications

## DVI-D Connector (Digital)



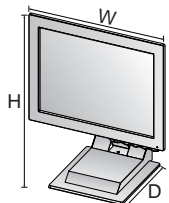
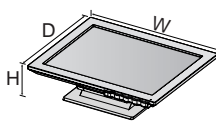
**i** The DVI - D(Digital Visual Interface - integrated) port supports digital signal inputs and also improves quality of the displayed image by eliminating poor video at the monitor source.

Pin	Signal(DVI-D)
1.	T. M. D. S. Data2-
2.	T. M. D. S. Data2+
3.	T. M. D. S. Data2/4 Shield
4.	T. M. D. S. Data4-
5.	T. M. D. S. Data4+
6.	DDC Clock
7.	DDC Data
8.	Analog Vertical Sync.
9.	T. M. D. S. Data1-
10.	T. M. D. S. Data1+
11.	T. M. D. S. Data1/3 Shield
12.	T. M. D. S. Data3-
13.	T. M. D. S. Data3+
14.	+5V Power
15.	Ground (return for +5V, H. Sync. and V. Sync.)

Pin	Signal(DVI-D)
16.	Hot Plug Detect
17.	T. M. D. S. Data0-
18.	T. M. D. S. Data0+
19.	T. M. D. S. Data0/5 Shield
20.	T. M. D. S. Data5-
21.	T. M. D. S. Data5+
22.	T. M. D. S. Clock Shield
23.	T. M. D. S. Clock+
24.	T. M. D. S. Clock-

This color monitor (Type-model 6656-Hxx) uses a 15-inch TFT LCD.

**i** Power consumption figures are for the monitor and the power supply combined.

Full Up Position		Folded Position
 <p>Height: 17.158inch(435.8mm) Width: 14.379inch(365.2mm) Depth: 9.252inch(235mm)</p>		 <p>Height: 3.406inch(86.5mm) Width: 14.379inch(365.2mm) Depth: 12.032inch(305.6mm)</p>
Weight		7.7 kg (16.98 lbs)
Stand Range	Tilt Range : Height Range : Rotate :	-37° ~ 145° (Head) 4.87 inch(123.8 mm) 90° clockwise (L → P)
Image	Viewable Image Size: Maximum Height: Maximum Width: Pixel Pitch:	15inch (381.0 mm) 228.1mm 304.1 mm 0.297 mm (H) x 0.297 mm (V)
Power Input	Supply Voltage: Max Supply Current:	90 - 264 Vac 60/50 ± 3Hz 3 Arms at 90 Vac
Power Consumption	Normal Operation: DPMS Stand-by: DPMS Suspend: DPMS off:	< 30 W < 3 W < 3 W < 3 W
Video Input	Input Signal:	Analog - 75 ohm 0.7V Digital-DVI 1.0
	Horiz. Addressability: Vert. Addressability: Clock Frequency:	1024 pixels (max) 768 lines (max) 78 MHz
Sync Input	Type	Analog - Separate Digital-DVI 1.0
Communications	VESA DDC:	2B
Supported Display Modes	Standard modes :	IBM, VESA, MAC
	Horiz / Vert Freq:	See Factory Set Display Modes on page 19. See Display Mode Ranges on page 27.
Environment	Temperature: Operating: Storage: Shipping:	10 to 35° C - 20 to 60° C - 20 to 60° C
	Humidity: Operating: Storage: Shipping:	10 to 80% 5 to 95% 5 to 95%

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## Display Mode Ranges

Addressability	Refresh Rate / Range ( + / - 3%)	Horizontal Frequency / Range ( + / - 3%)
640 x 350	67.9 ~ 72.1 Hz	30.56 ~ 31.45 kHz
720 x 400	67.9 ~ 72.1 Hz	30.56 ~ 31.45 kHz
640 x 480	58.2 ~ 61.8 Hz	30.56 ~ 31.45 kHz
640 x 480	64.0 ~ 68.0 Hz	34.95 ~ 36.05 kHz
640 x 480	72.8 ~ 77.3 Hz	36.38 ~ 38.63 kHz
800 x 600	54.3 ~ 57.7 Hz	34.14 ~ 36.26 kHz
800 x 600	58.2 ~ 61.8 Hz	36.76 ~ 39.04 kHz
800 x 600	69.8 ~ 74.2 Hz	46.66 ~ 49.54 kHz
800 x 600	72.8 ~ 77.3 Hz	45.49 ~ 48.31 kHz
832 x 624	72.8 ~ 77.3 Hz	48.21 ~ 51.19 kHz
1024 x 768	58.2 ~ 61.8 Hz	46.95 ~ 49.85 kHz
1024 x 768	67.9 ~ 72.1 Hz	54.81 ~ 58.20 kHz
1024 x 768	72.8 ~ 77.3 Hz	58.20 ~ 61.80 kHz

# Compliances

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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.: 6656-HW2 and 6656-HG2

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
13F9959	Antigua, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, Caicos Island, Canada, Cayman Islands, Costa Rica, Columbia, Dominican Republic, Guam, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Japan, Mexico, Netherlands Antilliles, Nicaragua, Panama, Peru, Phillipines, Saudi Arabia, Thailand, Taiwan, United States, Venezuela
1838576	Antigua, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, Caicos Island, Canada, Cayman Islands, Costa Rica, Columbia, Dominican Republic, Guam, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Japan, Mexico, Netherlands Antilliles, Nicaragua, Panama, Peru, Phillipines, Taiwan, United States, Venezuela
13F9978	Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaidjan, Belarus, Benin, Belgium, Bosnia, Burkina Faso, Burundi, Cameroon, Cambodia, Cape Verde, Central African Republic, Chad, Congo (Republic of), Comoros, Congo (Democratic Republic of), Cote D'Ivoire (Ivory Coast), Croatia, Czech Rep, Dahomey, Djibouti, Equatorial Guinea, Eegypt, Eritrea, Estonia, Ethiopia, Finland, France, French Guyana, French Polynesia, Gabon, Georgia, Germany, Greece, Guadeloupe, Guinea, Guinea Bissau, Hungary, Iceland, Indonesia, Iran, Kazakhstan, Korea (South), Kyrgyzstan, Laos, Latvia, Lebanao, Lithuania, Luxemborg, Macedonia, Madagascar, Mali, Martinique, Mauritania, Mauritius, Mayotte, Moldavia, Monaco, Mongolia, Morocco, Mozambique, Netherlands, New Caledonia, Niger, Nigeria, Norway, Poland, Portugal, Reunion, Romania, Russia, Rwanda, Sao Tome, Saudi Arabia, Senegal, Serbia, Slovakia, Solvenia, Somalia, Spain, Suriname, Sweden, Syria, Tajikistan, Togo, Tunisia, Turkey, Turkmenistan, Ukraine, Upper Volta, USSR (C.I.S.), Uzbekistan, Vanuatu, Vietnam, Wallia and Futuna, Yugoslavia, Zaire
13F9996	Denmark
14F0050	Lichtenstein, Switzerland
14F0086	Israel
14F0068	Chile, Italy, Libya
14F0014	Bangladesh, India, Lesotho, Maldives, Nambia, Nepal, Pakistan, Samoa, South Africa, Sri Lanka, Swaziland, Uganda
14F0032	Bahrain, Brunei, Botswana, Channel Islands, Cyprus, Dominica, Gambia, Ghana, Grenada, Guyana, Hong Kong, Iraq, Ireland, Jordan, Kenya, Kuwait, Liberia, Malawi, Malaysia, Malta, Myanmar (Burma), Nigeria, Oman, Qatar, Seychelles, Saint Kitts & Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sierra Leone, Singapore, Sudan, Tanzania, Trinidad & Tobago, United Arab Emirate (Dubai), United Kingdom, Yemen, Zambia, Zimbabwe

IBM power cord part number	Used in these countries or regions
13F9939	Australia, Fiji, New Zealand, Papua New Guinea
02K0545	China
36L8879	Argentina, Paraguay, Uruguay

### 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



Model XXXX-XXX comply with TCO '95 guidelines.



Models 6656-HW2 and 6656-HG2 comply with TCO '99 guidelines.

### Congratulations!

You have just purchased a TCO'95 or 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'95 or 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](mailto: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.

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

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.

#### 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.

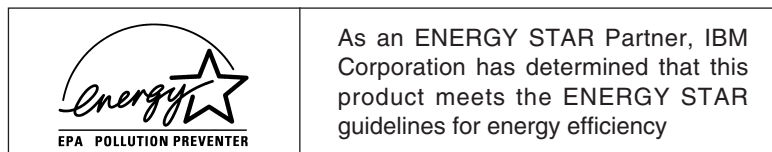
#### Lead\*\*

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.

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

## Energy Star Compliances Section



### Congratulations!

You have just purchased an ENERGY STAR qualified product

### What is an ENERGY STAR (R) 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 (R)

Current criteria and information regarding the ENERGY STAR program can be found at <http://www.energystar.gov>

**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)**

Zulassungsbcheinigung 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 55082 Hinweis:**

“Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 55082: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 consentite 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 och 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.

이 기기는 가정용으로 전자파 적합등록을 한 기기로서  
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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取扱説明書に従って正しい取り扱いをして下さい。

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