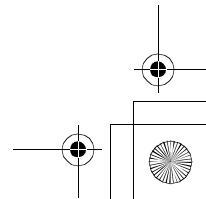
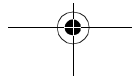
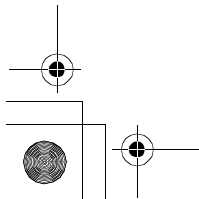
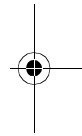
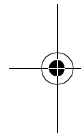
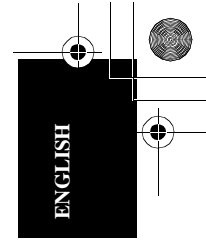
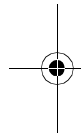
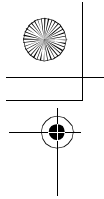


# English





**First Edition (June/2000)**

This publication could contain technical inaccuracies or typographical errors. Changes are made periodically to the information herein; these changes will be made in later editions. IBM may make improvements and/or changes in the product(s) and/or program(s) at any time.

It is possible that this publication may contain reference to, or information about, IBM products (machines and programs), programming, or services that are not announced in your country.

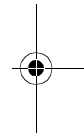
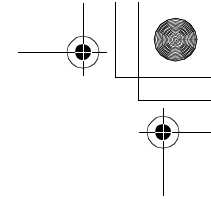
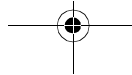
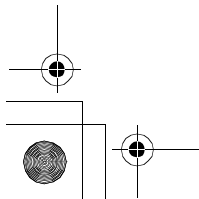
Requests for copies of this publication and for technical information about IBM products should be made to your IBM Authorized Dealer or IBM Retailer.

No part of this publication may be reproduced or distributed in any form or by any means without prior permission in writing from the International Business Machines Corporation.

**© Copyright International Business Machines Corporation 2000. All rights reserved.**

**“Note to U.S. Government Users - Documentation related to restricted rights -Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.”**

**Notices**



References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights or other legally protectable rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, programs, or services, except those expressly designated by IBM, are the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents.

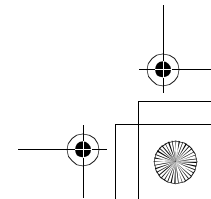
**Trademarks**

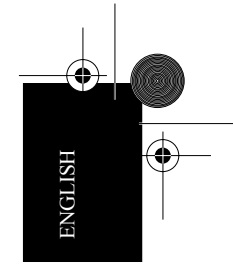
The following terms, used in this publication, are trademarks or service marks of the IBM Corporation in the United States or other countries:

**IBM HelpCenter**

ENERGY STAR is a U.S. registered mark.

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

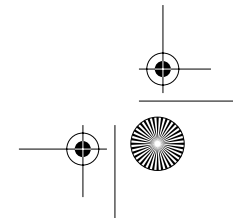
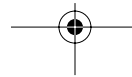
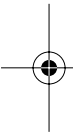




# Contents

---

Setup .....	2
User controls .....	6
Further Information .....	12
Specifications .....	14
Troubleshooting .....	15
Appendix	
Compliances .....	1
Warranty .....	6



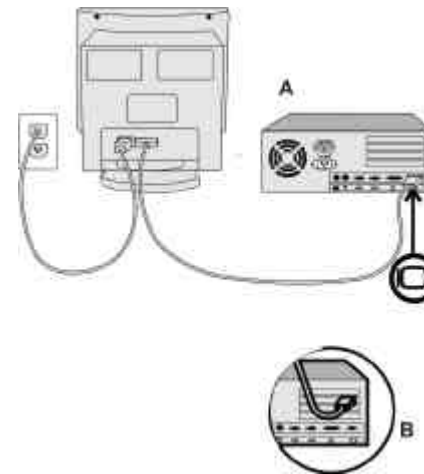
# Setup

**Important:** Before connecting the monitor, turn off the computer and attached devices. Also, ensure the power at the electrical outlet matches the power requirements of the monitor. Refer to the **Specifications** section on page 14 for more details.

## Connecting your monitor

- Step 1. Connect the signal cable to the video port on the back of your computer. This port might be directly attached to your computer (figure A), or it might be part of a video adapter card (figure B).
- Step 2. Connect the power cord to the monitor first, then firmly insert the plug into a properly grounded electrical outlet.
- Step 3. Turn on the monitor, and then the computer.

If your monitor does not seem to be working correctly, refer to the **Troubleshooting** section starting on page 15 for help.



### **Monitor Installation Diskette for Windows 95 or 98 users**

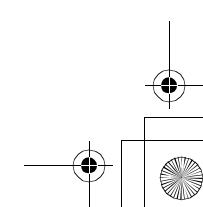
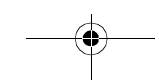
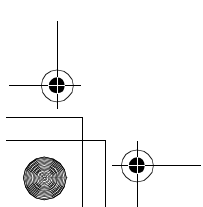
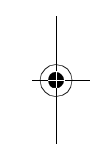
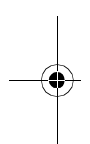
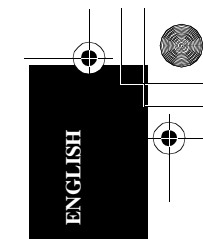
When you start your system after connecting the monitor, Microsoft® Windows® 95 or Windows 98 detects that you have added new hardware and selects a default setting. For best performance, install the files from the diskette supplied with your IBM monitor using the following instructions:

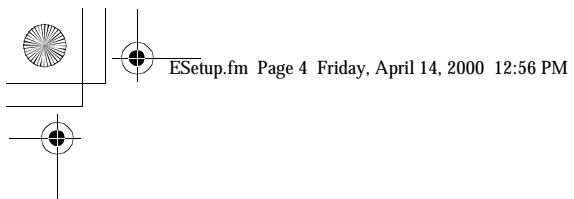
1. Click **Start**.
2. Select **Settings**.
3. Click **Control Panel**. The Control Panel window opens.
4. Double-click the **Display** icon. The Display Properties window opens.
5. Click the **Settings** tab.
6. Click **Advanced Properties**.
7. Click the **Monitor** tab.
8. Click **Change**.
9. Insert the diskette into the diskette drive and then click **Have Disk**.
10. Click **OK**.
11. Select your monitor type and then click **OK**. The files will be copied to your computer from the diskette.
12. Close all windows and remove the diskette from the diskette drive.
13. Restart the system.

### **Monitor Installation Diskette for Windows 2000 users**

When you start your computer after connecting the monitor, Microsoft Windows 2000 Professional detects that you have added new hardware and selects a default setting. For best performance, install the files from the diskette supplied with your IBM monitor using the following instructions:

1. Click **Start**.
2. Select **Settings**.
3. Click **Control Panel**. The Control Panel window opens.
4. Double-click the **Display** icon. The Display Properties window opens.
5. Click the **Settings** tab.
6. Click **Advanced**.
7. Click the **Monitor** tab.
8. Click **Properties**.
9. Click the **Driver** tab, and then click **Update Driver** to open the Upgrade Device Driver Wizard window.
10. Click **Next**.
11. Verify that **Display a list of the known drivers for this device so that can choose a specific driver** is selected.
12. Click **Next**.
13. Insert the diskette into the diskette drive and click **Have Disk**.
14. Click **OK**.





15. Select your monitor type and click **OK**. The files will be copied to your computer from the diskette.
16. Close all windows and remove the diskette from the diskette drive.

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

## ***Workplace Preparation***

### ***Positioning the Monitor***

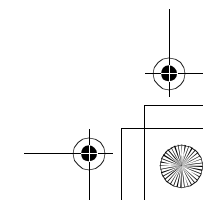
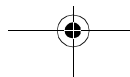
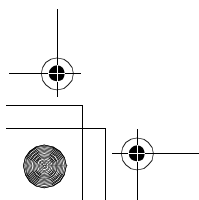
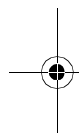
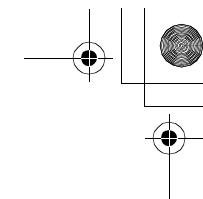
Choose a suitable place to position the monitor where it is not near fluorescent desk lighting or any equipment that produces magnetic fields that could cause interference. Ensure that the furniture or equipment can support the weight of the monitor. Allow at least 2 inches (50mm) ventilation space around the monitor.

### ***Height***

The monitor should be positioned so that the top of the screen is slightly below your eye level when you sit at your workstation.

### ***Orientation***

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



## **Working Practices**

### **Rest**

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

### **Back**

You should sit back in the chair and use the backrest.

### **Hands**

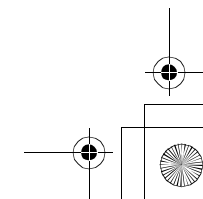
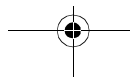
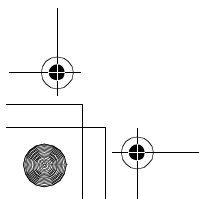
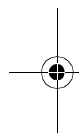
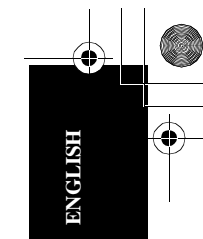
Use a light touch on the keyboard, keeping your hands and fingers relaxed. Allow a space in front of the keyboard to rest your wrists when not typing. Consider using a wristpad.

### **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**

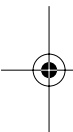
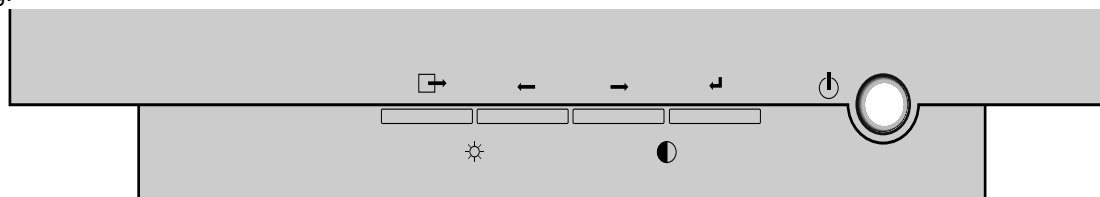
Set the screen brightness and contrast to a comfortable level. You may have to adjust this as the lighting changes during the day. Many application programs let you select color combinations which can help you to view in comfort.


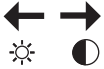




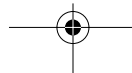


# User controls

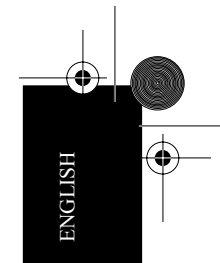
The image is already optimized for many display modes. however, the controls can be used to adjust the image to your liking.



<b>Button</b>		<b>Description</b>
	Power switch	Switches the monitor on and off.
	Adjustment buttons	Allow you to move around the on-screen display (OSD) menu and to make adjustments.
	OSD/Select	Activates the On-Screen-Display / selects control icons / locks the OSD to prevent changes. See page 11.
	EXIT	Closes an active menu window and takes you to the previous level. If you are in the main level of the menu, pushing this button will turn off the menu. Important: Holding in this button for longer than 5 seconds erases all data in the User Settings memory.

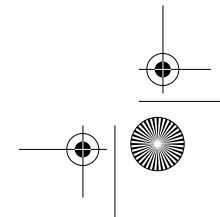
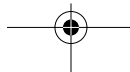
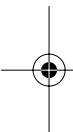






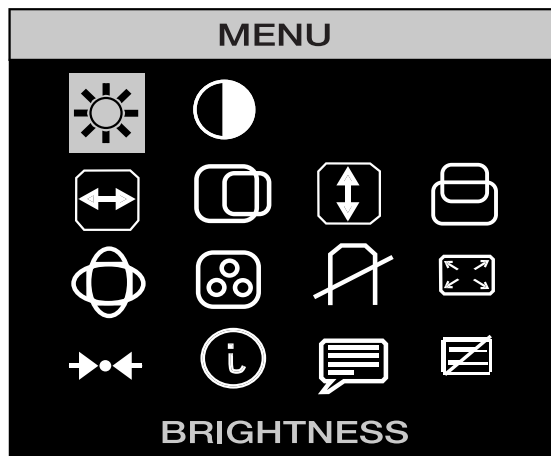
Brightness and contrast can be adjusted as follows, without the need to display the OSD:  
 Select the function and use the ← and → buttons to adjust. If adjustment is not made within 15 seconds, the current settings will be saved and the control screen will disappear automatically..







<i>Icon</i>	<i>Control</i>	<i>Description</i>
← ☀	BRIGHTNESS	Adjusts the background brightness
→ ◐	CONTRAST	Adjusts the contrast between foreground and background

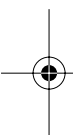














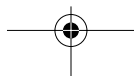
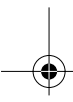
## On-Screen Display (OSD)



To display the OSD, press the  button. While the menu displays on the screen, you can select a control using  or  button. When the required control is highlighted, push the  button to activate the control and then use  and  buttons to make adjustments.

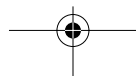
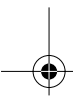
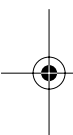


<i>Control</i>	<i>Effect of Button</i>		<i>Control</i>	<i>Effect of Button</i>	
					
 BRIGHTNESS			 CONTRAST		














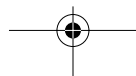
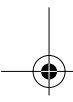
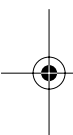







<i>Control</i>	<i>Effect of Button</i>		<i>Control</i>	<i>Effect of Button</i>	
	←	→		←	→
WIDTH			HEIGHT		
H-POSITION			V-POSITION		
ADVANCED	Select this icon to access the following controls that affect the shape of the viewing area.				
PINCUSHION			BALANCED PINCUSHION		
TRAPEZOID			ROTATION		
PARALLELOGRAM			MOIRÉ		

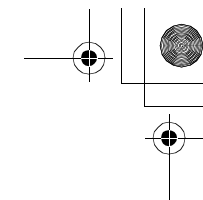
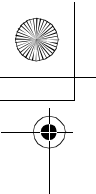




<b>Control</b>	<b>Effect of Button</b>		<b>Control</b>	<b>Effect of Button</b>	
	←	→		←	→
 VERTICAL LINEARITY			 VIDEO INPUT LEVEL		
 COLOR	9300K	6500K	 DEGAUSS (Demagnetize)	YES	NO
	User Color 1	User Color 2		Select YES and push the  button to remove screen color impurities caused by magnetic fields. The monitor may "buzz" momentarily and the image will change color and wobble for a few seconds. These effects are normal. Do not use the degauss feature more than once within a 30 minute period.	
Switches the "warmth" of the image colors. 9300K gives whites a bluish cast, while 6500K is more like natural sunlight. If neither preset color is satisfactory, you can define your own color preference.					
 ZOOM	Reduces view of display area	Enlarges view of display area	 RESET	YES	NO
				Recalls factory settings, if any, for the current display mode.	



<i>Control</i>	<i>Effect of Button</i> ← →	<i>Control</i>	<i>Effect of Button</i> ← →
 INFORMATION	Information displays a list of available modes and the current user setting. This is an informational screen only.	 LANGUAGE	Changes to display the OSD data in any of the six languages listed. Use ← or → button to select English, Deutsch, Español, Français, Italiano, or Português.
 OSD LOCK/ UNLOCK	Allows you to secure the current control settings so that they cannot be inadvertently changed. You can unlock the OSD controls at any time by using the same procedure. <ul style="list-style-type: none"> <li>■ Push and hold in the  button for 10 seconds or more to Lock or to Unlock.</li> </ul>	 HALF TONE	← Half Tone: Off → Half Tone: On



# Further Information

## Display modes

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 the monitor controls.

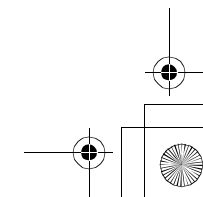
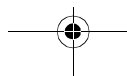
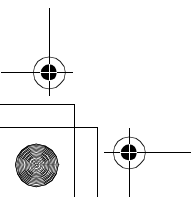
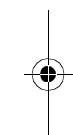
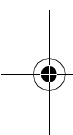
To ensure flicker-free operation, select the highest (non-interlaced) refresh rate both the computer and the monitor can support, (generally 75 Hz or higher), for the addressability that your application requires.

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

Addressability	Refresh Rate	Horizontal Frequency
640 x 480	60 Hz	31.5 kHz
640 x 480	85 Hz	43.3 kHz
720 x 400	70 Hz	31.5 kHz
800 x 600	75 Hz	46.9 kHz
800 x 600	85 Hz	53.7 kHz
960 x 529	75 Hz	41.8 kHz
1024 x 768	75 Hz	60.0 kHz
1024 x 768 †	85 Hz	68.7 kHz
1280 x 1024	75 Hz	80.0 kHz

† Recommended display mode

Table 1: Factory Set Display Modes.





## 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 Signalling (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 of time. There are several states as described in the table below.

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

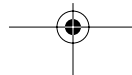
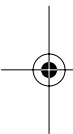
Switch off your monitor at the end of each working day, or whenever you expect to leave it unused for long periods during the day.

State	Power Indicator	Screen	Restoring Operation	Compliance
<b>On</b>	Steady green	Normal		
<b>DPMS Standby</b>	Flashing green (0.5 sec. interval)	Blank	Press a key or move the mouse.	
<b>DPMS Suspend</b>	Flashing green (1 sec. interval)	Blank	Press a key or move the mouse.‡	ENERGY STAR®
<b>DPMS Off</b>	Flashing green (2 sec. interval)	Blank	Press a key or move the mouse.‡	ENERGY STAR® and NUTEK

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



ENGLISH

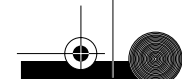


# Specifications

The G78 (Type-model 6627-xAx) color monitor uses a 17 inch IFT CRT with a viewable image size of 16.0 inches (406.4 mm).

<b>Dimensions</b>	Width:	422.0 (mm)	<b>Weight</b>	Unpackaged:	37.48 lb (17.0 Kg)
	Depth:	420.0 (mm)		Packaged:	47.4 lb (21.5Kg)
<b>Tilt Swivel</b>	Height:	420.1 (mm)	<b>Video Input</b>	Input Signal:	Analog Direct Drive, 75 ohm 0-0.7 V
	Forward tilt:	- 4°		Horiz. Addressability:	1600 pels (max.)
<b>Image</b>	Backward tilt:	+ 15°	<b>Communications</b>	Vert. Addressability:	1200 lines (max.)
	Swivel: Clockwise:	+ 45°		VESA DDC	Clock Rate:
<b>Power Input</b>	Counterclockwise:	- 45°	<b>Synchronization Range</b>	1 / 2B / 2Bi	
	Maximum Height:	244.02 mm		<b>Environment</b>	Horiz. Frequency:
<b>Power Consumption (Typical)</b>	Maximum Width:	325.36 mm	Temperature:		Vert. Frequency:
	Dot Pitch:	0.25 mm		Operating:	0 to 40°C(32 to 104F)
<b>Power Consumption (Typical)</b>	Supply Voltage:	90 - 264 V ac, 50 / 60 ± 3 Hz	Storage:	- 20 to 45°C(- 4 to 113F)	
	Max Supply Current:	1.4 A at 120 V ac	Shipping:	- 40 to 65°C(- 40 to 149F)	
<b>Power Consumption (Typical)</b>	Normal Operation:	100 W	Humidity:		
	DPMS Stand-by:	70 W	Operating:	10 to 80%	
<b>Power Consumption (Typical)</b>	DPMS Suspend:	<15 W	Storage:	5 to 90%	
	DPMS Off:	< 3 W	Shipping:	5 to 95%	

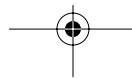




# Troubleshooting

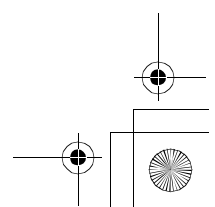
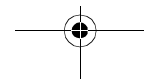
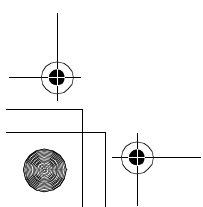
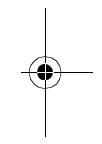
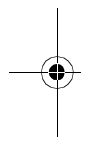
If you have a problem setting up or using your monitor, you might be able to solve it yourself. Before calling your retailer or IBM, try the suggested actions that are appropriate to your problem.

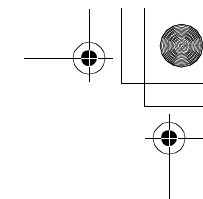
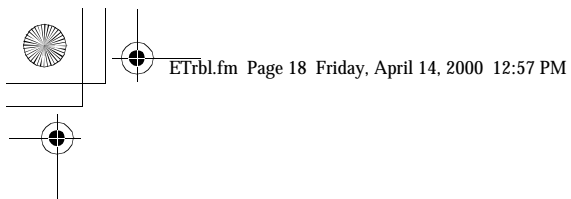
<b>Problem</b>	<b>Possible Cause</b>	<b>Suggested Action</b>	<b>Reference</b>
Screen is blank and power indicator is off.	No power to monitor.	Ensure that the electrical outlet and the monitor are both switched on. Check that the power cord is firmly plugged into the monitor and the electrical outlet. If the power cord plug has a removable fuse, replace it. Try another power cord. Try another electrical outlet.	<i>Connecting your monitor</i> section on page 2.
Screen is blank and power indicator is steady green.	Brightness and Contrast might be too low.	Adjust brightness and contrast.	<i>User controls</i> section starting on page 6..
Screen is blank and power indicator is flashing green every half second.	The monitor is in the Power Management Standby state.	Press any key on the keyboard or move the mouse to restore operation. Check the Power Management software on your computer.	<i>Power Management</i> section on page 13.



<b>Problem</b>	<b>Possible Cause</b>	<b>Suggested Action</b>	<b>Reference</b>
Screen is blank and power indicator is flashing green every 0.3 second.	Display mode of the computer is outside the range of the monitor.	Reconfigure the computer to use a supported display mode.	<b>Further Information</b> on page 12.
Screen is blank and power indicator is flashing green every 1 or 2 seconds.	The monitor is in the Power Management Suspend or Off state.	Press any key on the keyboard or move the mouse to restore operation. Check the Power Management software on your computer.	<b>Power Management</b> section on page 13.
"Check Signal Cable" displays on the screen.	The monitor is not receiving a video signal.	Check that the signal cable is firmly connected to the computer and the monitor. Check that no pins are bent in the signal cable connector.	<b>Connecting your monitor</b> section on page 2.
Image appears to be flickering.	The monitor is operating in an interlaced or low refresh rate display mode.	Reconfigure the computer to use a non-interlaced display mode with a refresh rate of at least 75 Hz.	<b>Further Information</b> on page 12.
	The monitor might be affected by interference from nearby equipment.	Move fluorescent desk lighting or any equipment that produces magnetic fields further away from the monitor.	

<b>Problem</b>	<b>Possible Cause</b>	<b>Suggested Action</b>	<b>Reference</b>
Image appears to be discolored.	The monitor might be affected by interference from nearby equipment.	Move any equipment that produces magnetic fields (e.g. sub woofer loud speakers) further away from the monitor.	
		If another monitor is close by, a separation distance of at least 150 mm (6 inches) is recommended.	
	Magnetization of monitor components has built up.	Demagnetize the monitor.	<b>User Controls, Degauss (Demagnetize)</b> section on page 10.
		Adjust the Color settings.	<b>User Controls, Color</b> section on page 10.





## **Monitor Self Diagnosis**

The monitor continuously checks for the presence of a signal cable. If the cable becomes disconnected, the monitor displays a white box with a red border and characters stating "No Connection! Check Signal Cable." If you see this screen the monitor is working properly. If you do not see this screen and all troubleshooting remedies do not resolve the problem, further help will be required from an IBM authorized dealer or retailer or from an IBM HelpCenter®.

### **Further Help**

If you are unable to correct the problem yourself, contact your dealer, retailer, or other IBM authorized reseller.

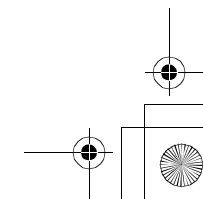
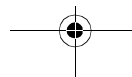
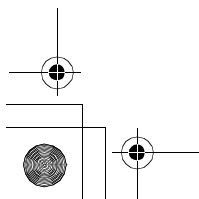
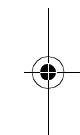
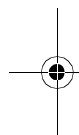
In the US call: 1-800-772-2227

In Canada call: 1-800-565-3344

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.

If possible, stay by your computer system. Your technical support representative might want to go through the problem with you during the call.

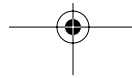


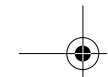


**Warranty period - Three (3) years**

**Your installation Diskette includes translations of IBM's Statement of Warranty in the following languages.**

<b>Worldwide Statement of Warranty (Except Turkiye,U.S.S,Puerto Rico and Canada)</b>	
Arabic	Z1255697.ara.html
Brazilian Portuguese	Z1255697.bra.html
Bulgarian	Z1255697.bul.html
Chinese	Z1255697.chi.html
Croatian	Z1255697.cro.html
Czech	Z1255697.cze.html
Danish	Z1255697.dan.html
Dutch	Z1255697.dut.html
English	Z1255697.eng.html
Finnish	Z1255697.fin.html
French	Z1255697.fre.html
German	Z1255697.ger.html
Greek	Z1255697.gre.html
Hebrew	Z1255697.heb.html
Hungarian	Z1255697.hun.html
Italian	Z1255697.ita.html
Japanese	Z1255697.jap.html
Korean	Z1255697.kor.html



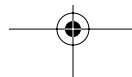


Norwegian	Z1255697.nor.html
Polish	Z1255697.pol.html
Portuguese	Z1255697.por.htm
Russian	Z1255697.rus.html
Slovakianl	Z1255697.sla.htm
Slovenian	Z1255697.sle.html
Spanish	Z1255697.spa.html
Swedish	Z1255697.swe.html
Taiwanese	Z1255697.tai.html



<b>Turkiye Statement of Warranty</b>	
Turkish	Z1255698.tur.html
English	Z1255698.eng.html

<b>United States,Puerto Rico and Canada Statement of Limited Warranty</b>	
English	Z1254753.eng.html
French Canadian	Z1254753.fca.html



## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>