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Contents

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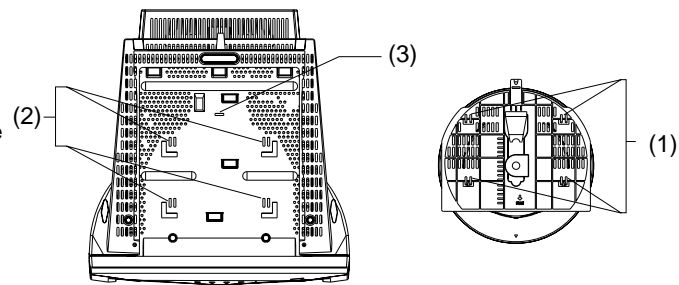
Contents.....	1
Setup	2
User controls	5
On-Screen-Display	6
Further information	24
Specifications	26
Troubleshooting	27
Compliances	A1
Warranty	A4

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 26 for more details.

Attaching the Stand

1. Insert the hooks (1) into the matching slots on the underside of the monitor (2).
2. Slide the base towards the front of the monitor until the latch (3) clicks into the locked position.

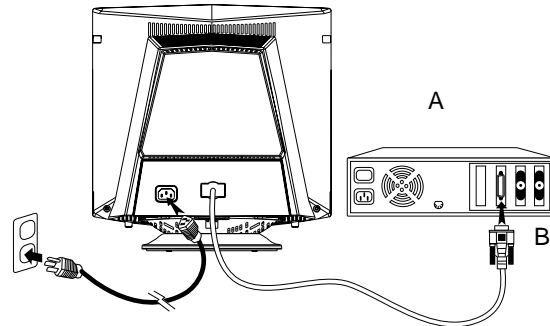




Connecting your monitor

1. Connect the signal cable to the video port on the back of your computer (figure A). Your computer may have a video adapter card installed. In this case, attach the signal cable to the connector on the video adapter card (figure B).
2. Connect the power cord to the monitor first, then firmly insert the plug into a properly grounded electrical outlet.
3. Turn on the monitor, and then the computer.

If your monitor does not seem to be working correctly, refer to the **Troubleshooting** section on page 27 for help.





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 back rest.

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.

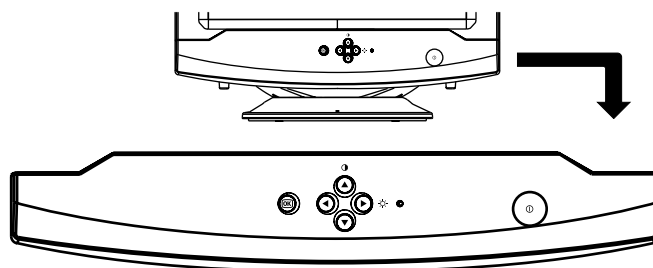
Screen settings

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 colour combinations which can help you to view in comfort.



User controls

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



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Icon	Control	Description
	Power switch	Switches the monitor on and off.
	OSD/Select	Activates the On-Screen-Display / select control icon.
 	Move up /down; Contrast adjustment selection	This control has two functions : 1) To move the highlighted icons to the right for selection. Also used to adjust image after control icon has been selected. 2) To adjust the image contrast.
 	Move left /right; Brightness adjustment selection	This control has two functions : 1) To move the highlighted icons to the left for selection. Also used to adjust image after control icon has been selected. 2) To adjust the image brightness.




On-Screen Display

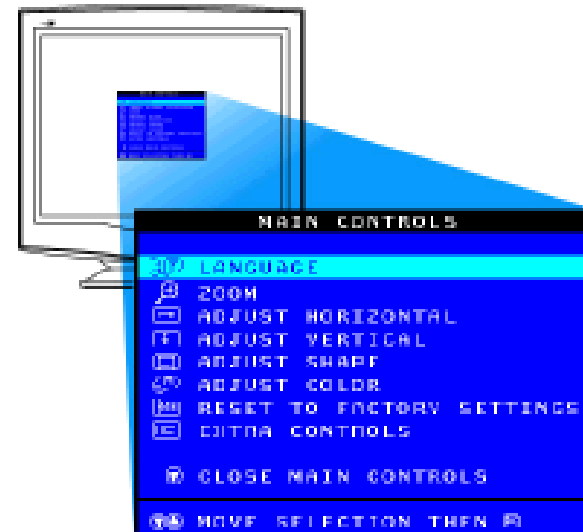
Description of the On-Screen Display

What is the On-Screen Display?

This is a feature which allows an end-user to adjust screen performance of monitors directly through an on-screen

instruction window. The user interface provides user friendliness and ease of use when operating the monitor.



On the front controls of your monitor, once you press the  button, the On-Screen Display (OSD) Main Controls window will appear and you can now start making adjustments to your monitor's various features. Use the  or  button to make your adjustments.










On-Screen Display

BRIGHTNESS








- 1) Press the  or  button on the monitor. The BRIGHTNESS window appears.

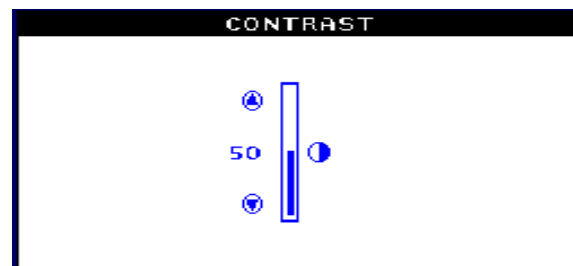


- 2) Press the  or  button to adjust the brightness.
- 3) When the brightness is adjusted to the level desired, stop pressing the  or  button and after three seconds or press  button the BRIGHTNESS window will disappear with the new adjustment saved.


CONTRAST

A 100% contrast is recommended.




- 1) Press the  or  button on the monitor. The CONTRAST window appears.
- 2) Press the  or  button to adjust the contrast.
- 3) When the contrast is adjusted to the level desired, stop pressing the  or  button and after three seconds or press  button the CONTRAST window will disappear with the new adjustment saved.



LANGUAGE


- 1) Press the  button on the monitor. The MAIN CONTROLS window appears. LANGUAGE should be highlighted.





- 2) Press the  button again. The LANGUAGE window appears.
- 3) Press the  or  button until the desired language is highlighted.

LANGUAGE



- 4) Press the  button to confirm your selection and return to MAIN CONTROLS window. CLOSE MAIN CONTROLS will be highlighted...


ZOOM

- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until ZOOM is highlighted.

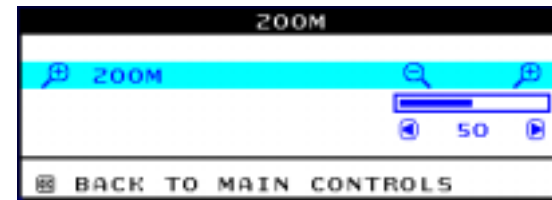



ENGLISH




3) Press the  button. The ZOOM window appears.


4) Press the  or  button to adjust ZOOM.




5) Press the  button to confirm your selection and return to the MAIN CONTROLS window. CLOSE MAIN

ADJUST HORIZONTAL



1) Press the  button on the monitor. The MAIN CONTROLS window appears.



2) Press the  button until ADJUST HORIZONTAL is highlighted.




3) Press the  button. The ADJUST HORIZONTAL window appears. POSITION should be highlighted.

4) Press the  or  button to move the image to the left or right.



5) When the position is adjusted, press the  button to return to MAIN CONTROLS window, or press the  to highlight SIZE.

6) To adjust the horizontal size, press the  or  button.






- 7) When the size is adjusted, press the  button to return to MAIN CONTROLS window. CLOSE MAIN CONTROLS will be highlighted.

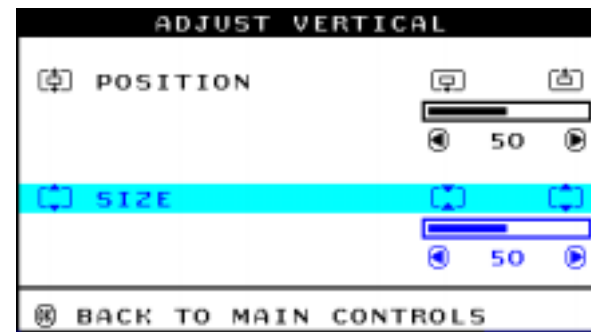
ADJUST VERTICAL






- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until ADJUST VERTICAL is highlighted.



- 3) Press the  button. The ADJUST VERTICAL window appears. POSITION should be highlighted.
- 4) Press the  or  button to move the image up or down.



ENGLISH




- 5) When the position is adjusted, press the  button to return to MAIN CONTROLS window, or press the  to highlight SIZE.
- 6) To adjust the vertical size, press the  or  button.
- 7) When the size is adjusted, press the  button to return to MAIN CONTROLS window. CLOSE MAIN CONTROLS will be highlighted.

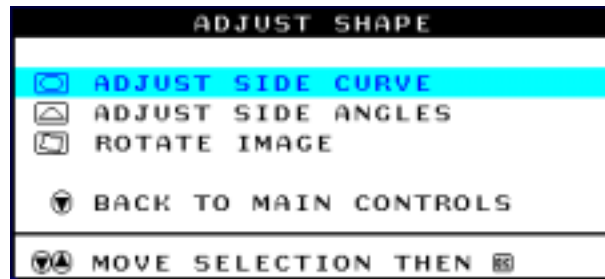
ADJUST SHAPE


ADJUST SIDE CURVE

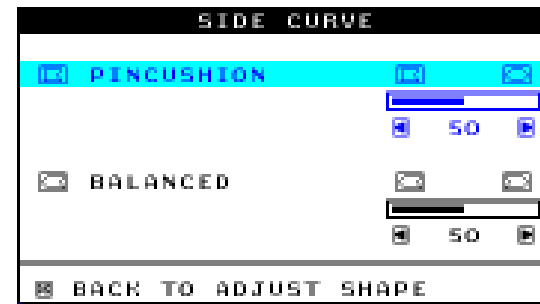
- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until ADJUST SHAPE is highlighted.







3) Press the  button. The ADJUST SHAPE window appears. ADJUST SIDE CURVE should be highlighted.



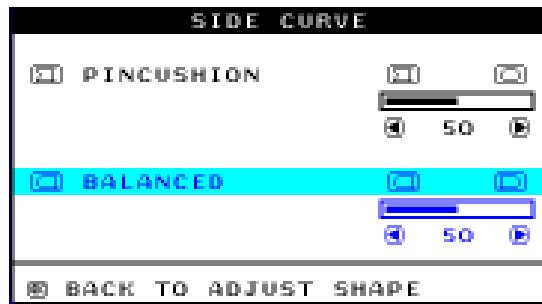
4) Press the  button. The SIDE CURVE window appears. PINCUSHION should be highlighted.






5) To adjust the pincushion, press the  or  button.

6) When the pincushion is adjusted, press the  button to highlight BALANCED or press the  button to return to the ADJUST SHAPE window.






ENGLISH



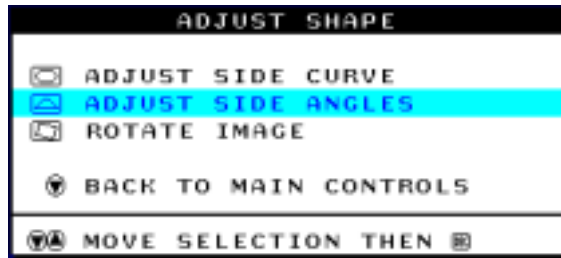
ADJUST SIDE ANGLES


- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until ADJUST SHAPE is highlighted.
- 3) Press the  button. The ADJUST SHAPE window appears. ADJUST SIDE CURVE should be highlighted




- 7) To adjust the balanced pincushion, press the  or  button.
- 8) When the balanced pincushion is adjusted, press the  button to return to the ADJUST SHAPE window. BACK TO MAIN CONTROLS will be highlighted.
- 9) Press the  button to return to the MAIN CONTROLS window, or press the  button until ADJUST SIDE ANGLES is highlighted.









4) Press the  button to highlight ADJUST SIDE ANGLES.



5) Press the  button. The SIDE ANGLES window appears. TRAPEZOID should be highlighted.



6) To adjust the trapezoid, press the  or  button.



7) When the trapezoid is adjusted, press the  button to highlight PARALLELOGRAM or press the  button to return to the ADJUST SHAPE window.



8) To adjust the parallelogram, press the  or  button.






ENGLISH

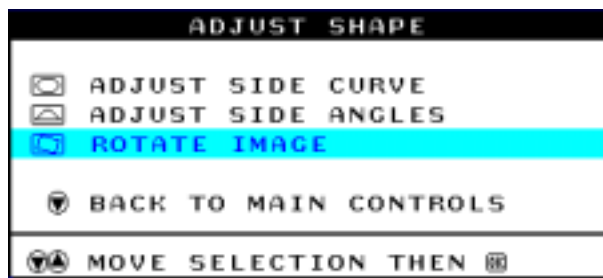


- 9) When the parallelogram is adjusted, press the  button to return to the ADJUST SHAPE window. BACK TO MAIN WINDOWS will be highlighted.
- 10) Press the  button to return to the MAIN CONTROLS




ROTATE IMAGE


- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until ADJUST SHAPE is highlighted.
- 3) Press the  button. The ADJUST SHAPE window appears. ADJUST SIDE CURVE should be highlighted.
- 4) Press the  arrow until ROTATE IMAGE is highlighted.
- 5) Press the  button. The ROTATE IMAGE window appears. ROTATE should be highlighted.




6) To adjust the rotation, press the  or  button.





7) When the rotation is adjusted, press the  button to return to the ADJUST SHAPE window. BACK TO MAIN CONTROLS should be highlighted.



8) Press the  button to return to MAIN CONTROLS.

ADJUST COLOR


1) Press the  button on the monitor. The MAIN CONTROLS window appears.




2) Press the  button until ADJUST COLOR is highlighted.

3) Press the  button. The ADJUST COLOR window appears.







4) Press the  or  button to highlight 9300K for general use, 6500K for games, or USER PRESET for a custom color point.




5) Once you have highlighted GENERAL USE or GAMES, press the  button to confirm your selection and return to the MAIN CONTROLS window. CLOSE MAIN CONTROLS will be highlighted.

6a) If USER PRESET is highlighted, press the  button to highlight RED. Next, press the  or  button to adjust the color red.





- 6b) When finished with RED, press the  button to highlight GREEN. Next, press the  or  button. to adjust the color green.
- 6c) When finished GREEN, press the  button to highlight BLUE. Next, press the  or  to adjust the color blue.




- 6d) When all adjustments are complete, press the  button to confirm your adjustments and return to the MAIN CONTROLS window. CLOSE MAIN CONTROLS will be highlighted.

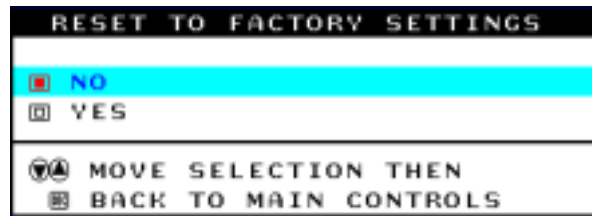
RESET TO FACTORY SETTINGS


RESET TO FACTORY SETTINGS returns everything in all the windows to factory presets.

- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until RESET TO FACTORY




- 3) Press the  button. The RESET TO FACTORY SETTINGS window appears.
- 4) Press the  or  button to select YES or NO. NO is the default. YES returns all settings to their original factory adjustments.






- 5) Press the  button to confirm your selection and return to the MAIN CONTROLS window. CLOSE MAIN CONTROLS will be highlighted.

EXTRA CONTROLS


DEGAUSS

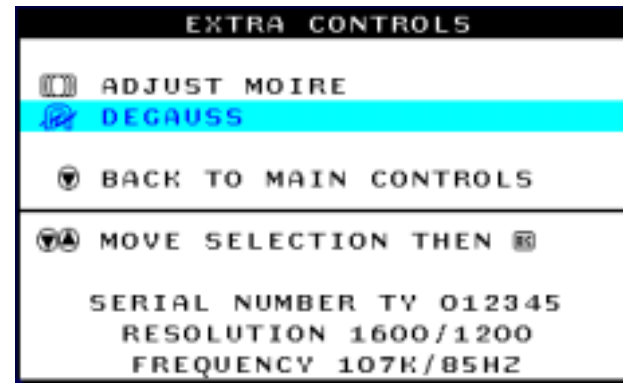
- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.





- 2) Press the  button until EXTRA CONTROLS is highlighted.
- 3) Press the  button. The EXTRA CONTROLS window appears. ADJUST MOIRE will be highlighted. Press the  button. DEGAUSS will be highlighted.

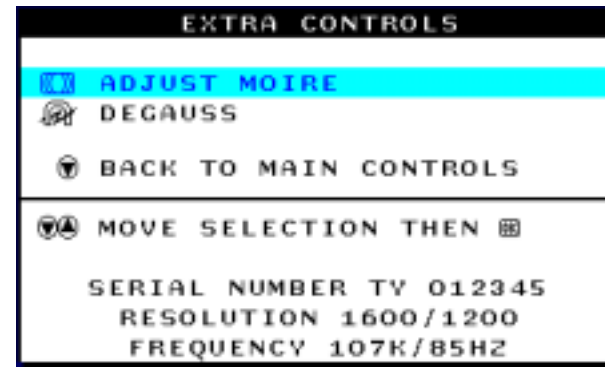



- 4) To degauss your screen, press the  button. Your screen will be degaussed, then the MAIN CONTROLS window will reappear. CLOSE MAIN CONTROLS will be highlighted.






ADJUST MOIRE


- 1) Press the  button on the monitor. The MAIN CONTROLS window appears.
- 2) Press the  button until EXTRA CONTROLS is highlighted.





3) Press the  button. The EXTRA CONTROLS window appears. ADJUST MOIRE will be highlighted.


5) Press the  button. The ADJUST MOIRE window appears. HORIZONTAL will be highlighted

6) To adjust the horizontal moire, press the  or  button.


7) When the horizontal moire is adjusted, press the  button to highlight VERTICAL.

8) To adjust the vertical moire, press the  or  button.



9) When the vertical moire is adjusted, press the  button to return to the EXTRA CONTROLS window. BACK TO MAIN CONTROLS will be highlighted.

CLOSE MAIN CONTROLS

Press the  button to close MAIN CONTROLS.



ENGLISH



Further information



Display modes

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 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 resolution that your application requires.

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



Resolution	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
1024 x 768	75 Hz	60.0 kHz
1024 x 768	85 Hz	68.6 kHz
1280 x 1024	75 Hz	80.0 kHz
1280 x 1024 *	85 Hz	91.0 kHz
1600 x 1200	75 Hz	93.8 kHz

Table 1. Factory Preset Mode

* Recommended mode



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.

State	Power indicator	Screen	Restoring Operation	Compliance
On	Steady Green	Normal		ENERGY STAR
VESA Standby	Steady Amber	Blank	Press a key or move the mouse.*	
VESA Suspend	Steady Amber	Blank	Press a key or move the mouse.*	
VESA Off	Steady Amber	Blank	Press a key or move the mouse.*	

* There may be a slight delay before the picture returns

Specifications

The E94 (M/T 6634) color monitor uses a 19 inch FST CRT with a viewable image size of 18 inches (457.8 mm)

Dimensions	Width:	17.3 inch (440 mm)
	Depth: Height:	17.2 inch (437 mm) 17.6 inch (446.5 mm)
Weight		42.7 lb (19.4 Kg)
Tilt Swivel	Forward tilt:	5°
	Backward tilt: Swivel:	13° + 90° / -90°
Image	Maximum Height:	10.8 inch (274.7 mm)
	Maximum Width:	14.4 inch (366.2 mm)
	Dot Pitch:	0.26 mm
Power input	Supply Voltage:	90 -264 Vac 47-63 Hz
	Max Supply Current:	1.5 A at 100 Vac
Video input	Input Signal:	Analogue Direct Drive, 75 ohm 0-0.7v
	Horiz. Addressability:	1600 pels (max.)
	Vert. Addressability:	1200 lines (max.)
	Clock Rate:	202 Mpels/sec
Communications	VESA DDC	1 /2 B
	Synchronization Range	Horiz. Frequency: Vert. Frequency:
Power Consumption (Typical)	Normal Operation:	< 100 W
	VESA Standby:	< 5 W
	VESA Suspend:	< 5 W
	VESA Off:	< 5 W
Environment	Operating Temperature:	5 to 40° C
	Storage Temperature:	-20 to 65° C
	Shipping Temperature:	-20 to 65° C
	Operating Humidity:	10 to 90%
	Storage Humidity:	5 to 95%
	Shipping Humidity:	5 to 95%
	Emissions:	



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 you should 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">• Ensure 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.	Setup section starting on page 2
Screen is blank and power indicator is steady green.	Brightness and Contrast may be too low.	<ul style="list-style-type: none">• Adjust brightness and contrast.	User controls section starting on page 5
"SIGNAL OUT OF RANGE" message is displayed.	Display mode of the computer is outside the range of the monitor.	<ul style="list-style-type: none">• Reconfigure the computer to use a supported display mode.	Further information section starting on page 24
"CHECK SIGNAL CABLE" message is displayed.	Video cable connection.	<ul style="list-style-type: none">• Check that the signal cable is firmly connected to the computer.• Check that no pins are bent in the signal cable connector.	Setup section starting on page 2



Problem	Possible Cause	Suggested Action	Reference
Screen is blank and power indicator is steady yellow or steady amber.	The monitor is in Power Management Standby / Suspend or Off state.	<ul style="list-style-type: none">• Press any key on the keyboard or move the mouse to restore operation.	Power Management section starting on page 25
	No video signal from the computer.	<ul style="list-style-type: none">• Check the computer is powered on.• Check that the signal cable is firmly connected to the computer.• Check no pins are bent in the signal cable connector.	Setup section starting on page 2
Image appears to be flickering.	The monitor is operating in an interlaced or low refresh rate display mode.	<ul style="list-style-type: none">• Reconfigure the computer to use a non-interlaced display mode with a refresh rate of at least 75 Hz.	Further information section starting on page 24
	The monitor may be affected by interference from nearby equipment.	<ul style="list-style-type: none">• Move fluorescent desk lighting or any equipment that produces magnetic fields further away from the monitor.• If another monitor is close by, a separation distance of at least 15.7 inches (400mm) is recommended.	



Problem	Possible Cause	Suggested Action	Reference
Image appears to be discolored.	The monitor may be affected by interference from nearby equipment.	<ul style="list-style-type: none">• 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 15.7 inches (400mm) is recommended.	
	Magnetization of monitor components has built up.	<ul style="list-style-type: none">• Degauss the monitor using OSD manual demagnetize function. This function can only be used once in a 30 minute period.	Extra Controls section starting on page 20



Further help

If you are unable to correct the problem yourself, you may seek further help as follows:

Call IBM HELPCENTER.
In the US call 1-800-772-2227
In Canada 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 (additional hardware 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.