6332 - 4LE
E74 Color Monitor
User Guide

IBM ®

Safety: Read first

Before installing this product, read the Safety Information.

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

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

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

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza

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

Läs säkerhetsinformationen innan du installerar den här produkten.

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

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

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

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

Pred inštaláciou tohto zariadenia si prečítaje Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

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

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

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

安裝本產品之前，請先閱讀「安全資訊」。

مج، يجب قراءة دات السلامة

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

製品を設置する前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Antes de instalar este producto lea la información de seguridad.

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

Перед установкой продукта прочтите инструкции по технике безопасности.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

First Edition (December / 2004)

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

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Table of Contents

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 50mm (2 in.) ventilation space around the monitor.

Height
Position the monitor 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.
- Position the monitor 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
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 color combinations which can help you to view in comfort.

Power Cord

For safe operation, use the power cord supplied with the unit.

Notes

- Do not install the monitor in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.
- Save the original shipping carton and packing materials, as they will come in handy if you ever have to ship your monitor.
- To keep the monitor looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always unplug the monitor before cleaning it.

Driver installation for Windows 95 or Windows 98

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 Windows 95 or Windows 98.

   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 IBM Monitor CD into the CD drive: and click the HAVE DISK button.
8. Click OK.
9. Ensure that the CD drive letter is selected.
10. Choose **IBM E74** monitor and Click OK. The files will be copied from the CD to your hard disk drive.
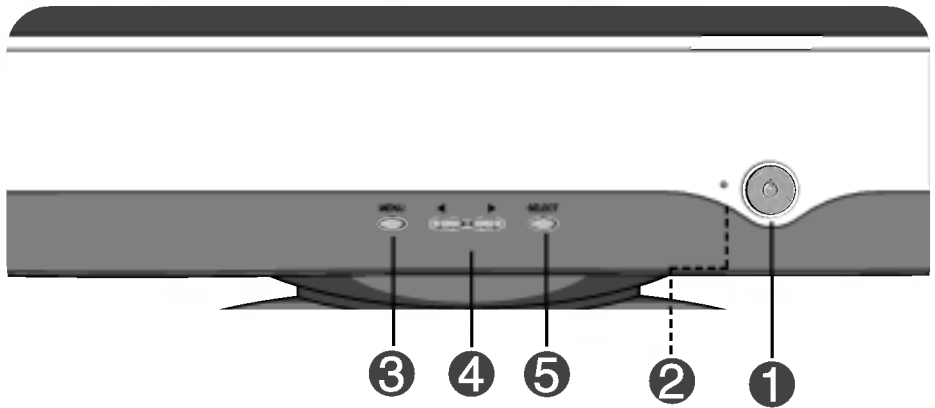11. Close all open windows and remove the CD.
12. Restart the system.

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

Driver installation for Windows 2000 or Windows Me

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 on 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 IBM Monitor CD into the CD drive: and click the HAVE DISK button.
13. Click OK.
14. Ensure that the CD drive letter is selected.
15. Choose **IBM E74** 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.

Driver installation for Windows XP

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 on 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 IBM Monitor CD into the CD drive: and click the HAVE DISK button.

13. Click OK.

14. Ensure that the CD drive letter is selected.

15. Choose **IBM E74** 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.

Control		Function
❶	**Power Button**	Use this button to turn the monitor on or off.
❷	**Power Indicator**	This Indicator lights up green when the monitor operates normally. If the monitor is in power saving mode, this indicator color changes to flicking.
❸	**MENU (or OSD) Button**	Use this button to enter or exit the on screen display.
❹	**◀ ▶ Buttons**	Use these buttons to choose or adjust items in the on screen display.
❺	**SELECT Button**	Use this button to enter a selection in the on screen display.

Screen Adjustment

Making adjustments to the image size, position and operating parameters of the monitor is quick and easy with the On Screen Display Control system. A short example is quick and easy given below to familiarize you with the use of the controls. The following section is an outline of the available adjustments and selections you can make using the OSD.

NOTE

■ Allow the monitor to stabilize for at least 30 minutes before making image adjustments.

To make adjustments in the On Screen Display, follow these steps:

MENU ─→ ◄ ► ─→ SELECT ─→ ◄ ► ─→ SELECT ─→ MENU

1 Press the **MENU Button**, then the main menu of the OSD appears.

2 To access a control, use the ◄ or ► **Buttons**. When the icon you want becomes highlighted, press the **SELECT Button**.

3 Use the ◄ ► **Buttons** to adjust the item to the desired level.

4 Accept the changes by pressing the **SELECT Button**.

5 Exit the OSD by Pressing the **MENU Button**.

The following table indicates all the On Screen Display control, adjustment, and setting menus.

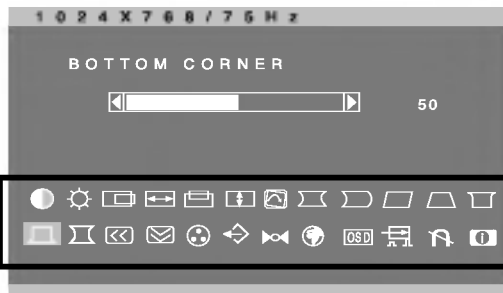| Icon	Main menu		Icon	Main menu		
	Contrast	●		Bottom Corner*		●
	Brightness	●		H Corner*		
	H Position	●		H Moire		●
	H Size	●		V Moire		●
	V Position	●		COLOR	9300	●
	V Size	●			6500	●
	Tilt*	●			K	●
	Pincushion	●			RGB	●
	Pin Balance	●		Recall		●
	Parallelogram	●		Reset		●
	Trapezoid	●		Language		●
	Top Corner*	●		OSD Time		●
● : Adjustable				Video Level		●
				Degauss		●
				Information		●
				Exit*		●

NOTE
- The order of icons may differ depending on the model (A7~A10).
- * This function is available for designated models only.

You were introduced to the procedure of selecting and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the all items shown on the Menu.
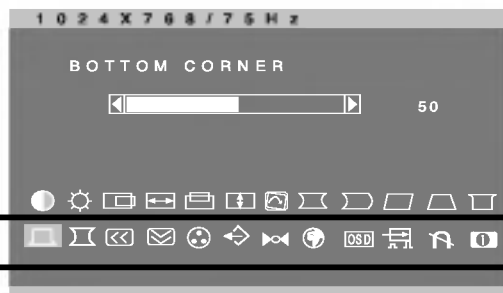
```
1 0 2 4 X 7 6 8 / 7 6 H z

CONTRAST

◄|                    |►        50
```

Icon	Sub menu	Description
CONTRAST		To adjust the contrast of the screen.
BRIGHTNESS		To adjust the brightness of the screen.
H POSITION		To move image left and right.
H SIZE		To adjust image width.
V POSITION		To move image up and down.
V SIZE		To adjust image height.
TILT*		To correct image rotation. PAGE A7
PINCUSHION		To correct a concave or convex bowing of the image.
PIN BALANCE		To correct the balance of both sides bowing.
PARALLELOGRAM		To correctly adjust the skew of the image.
TRAPEZOID		To correct geometric distortion.

```
1024X768/75Hz

BOTTOM CORNER

◀│          │▶        50
```

Icon	Sub menu	Description
TOP CORNER*		To correct an irregular distortion of the displayed image. **PAGE A7**
BOTTOM CORNER*		To correct an irregular distortion of the displayed image. **PAGE A7**
H CORNER*		To correct an irregular distortion of the displayed image. **PAGE A7**
H MOIRE / V MOIRE		This item allows you to reduce the degree of moire. (Moire is caused by interference Horizontal Scan Line with the periodical dot screen). It is normally OFF(H:0/V:0). The moire adjustments may affect the focus of the screen. Moire adjustments may shake slightly while the moire reduction function is on.
COLOR	9300	Slightly bluish white.
	6500	Slightly reddish white.
	K	Select the screen temperature which you prefer among reddish or bluish or any color in between.
	RGB	Set your own color levels.
RECALL	· OK · CANCEL	You can use this function to reload the modified parameters for screen display operation, as specified by the user after purchase: Position, Size, Side Pincushion, Side Pincushion Balance, Parallelogram, Trapezoid, Top Corner, Bottom Corner (These recalled options may differ depending on the mode selected: Preset, User, or New). If you don't want to recall the monitor to these modified settings, use the ◀ ▶ button to select CANCEL and then press the SELECT button.

```
1 0 2 4 X 7 6 8 / 7 5 H z

BOTTOM CORNER

◀ |━━━━━━━━━━━| ▶        50
```

Icon	Sub menu	Description
RESET	· OK · CANCEL	Return to all factory default settings except "LANGUAGE": Brightness, Contrast, Tilt, Color 9300, Video Level, OSD Time, Moire (These reset options may differ depending on the mode selected: Preset, User, or New). If you don't want to reset the monitor, use the ◀ ▶ button to select CANCEL and then press the SELECT button.
LANGUAGE		To choose the language in which the control names are displayed. OSD Menus are available in 12 languages: English, German, French, Spanish, Italian, Swedish, Finnish, Portuguese, Korean, Chinese , Russian and Polish.
OSD TIME	· 5 · 10 · 20 · 30 · 60	Set the OSD time, i.e. the length of time a menu will remain on-screen before it shuts off automatically. Adjust the time to 5, 10, 20, 30 or 60 seconds.
VIDEO LEVEL	· 0.7V · 1.0V	This item is used to select the monitor's input signal level. The normal level used for most PCs is 0.7V. If the screen becomes suddenly washed-out or blurred, please select 1.0V and try again.
DEGAUSS		To manually demagnetize the screen to avoid showing incorrect images or colors.
INFORMATION	·PRESET MODE ·USER MODE	To inform users of preset and user mode data.
EXIT *		To exit from current OSD menu. **PAGE A7** ▷

No image appears

❐ **Is the power cord of the monitor connected?**	• Check and see if the power cord is connected properly to the power outlet.
❐ **Is the power indicator light on?**	• Press the Power button.
❐ **Is the power on and the power indicator green?**	• Adjust the brightness and the contrast.
❐ **Is the power indicator flickening?**	• If the monitor is in power saving mode, try moving the mouse or pressing any key on the keyboard to bring up the screen.
❐ **Do you see an "OUT OF FREQUENCY" message on the screen?**	• This message appears when the signal from the PC (video card) is out of horizontal or vertical frequency range of the monitor. See the 'Specifications' section of this manual and configure your monitor again.
❐ **Do you see a "SELF DIAGNOSITICS" message on the screen?**	• This message appears when the signal cable between your PC and your monitor is not connected. Check the signal cable and try again.

The screen is flickering.

❐ **Is the vertical frequency less than 70Hz or is your monitor set to the interlaced mode?**	• Set the vertical frequency to 72Hz or higher, and consult the video card user manual for instructions on converting to a non-interlaced mode. (You can set this option under the Display icon of the Control Panel.)
❐ **Do you have any magnetic material such as adapter, or high-voltage line near to your monitor?**	• Remove magnetic sources, such as power adapters, speakers, or high-voltage lines, away from the monitor.
❐ **Do you hear a "~ding" sound while the monitor is flickering?**	• Use the normal degaussing function. This function clears the screen and reduces any screen blur that may occur due to the surrounding magnetic field. The screen may flicker for about 5 seconds, accompanied by a "~ding" sound.

The screen color is not normal.

❒ **Do you see basic discoloration (16 colors)?**	• Set the color depth to 256 colors or higher: use 'Control Panel' -> 'Display' ->'Settings' -> 'Color Palette'
❒ **Is the screen color unstable or monochrome?**	• Check the connection of the signal cable.
❒ **Do you see a partial blurring on the screen?**	• This happens due to interference from surrounding magnetic fields, as created when speakers, steel structures, or high-voltage lines are placed near the monitor. Remove any such materials from the immediate vicinity and use the DEGAUSS icon on the screen adjustment menu to fix the screen.

I see an after-image on the screen.

❒ **Do you see the after-image even when you turn off the monitor?**	• A premature aging of the monitor pixels may cause the prolonged display of a single image on the screen. Be sure to use a screen saver to maximize the service life of the monitor.

I see waves on the screen.

❒ **Do you see the wave directly on the screen?**	• This occurs in inverse proportion to the screen focus, which can be caused by a particular frequency or video card. Brighten the screen and use the 'MOIRE' icon on the screen adjustment menu to adjust the screen.

Have you installed the monitor driver?

❒ **Have you installed the monitor driver?**	• Be sure to install the monitor driver from the IBM Monitor CD that comes with your monitor.

Picture Tube	17 inches (16.0 inches viewable) 90 degree deflection 0.26mm diagonal, 0.23mm horizontal dot pitch AGARAS(Anti-Glare Anti-Reflective Anti-Static) coating
Sync Input	Horizontal Freq. 30 - 70kHz (Automatic) Vertical Freq. 50 - 160Hz (Automatic) Input Form Separate TTL, Positive/Negative Signal Input 15 pin D-Sub Connector
Video Input	Input Form Separate, RGB Analog, 0.7Vp-p/75 ohm, Positive Resolution(max) 1280 x 1024@60Hz
Plug&Play	DDC 2B
Power Consumption	Normal $\leq$ 85 W Standby/Suspend $\leq$ 15 W Active Off $\leq$ 5 W DPM Off $\leq$ 5 W
Dimensions &Weight (with tilt/ swivel stand)	Width 40.0 cm / 15.7 inches Height 39.8 cm / 15.6 inches Depth 41.1 cm / 16.2 inches Net 14.0 kg (30.87 lbs)
Power Input	AC 100-240V 50/60Hz 2.0A

Environmental Conditions	Operating Conditions
	   Temperature 0˚C to 40 ˚C
	   Humidity 10 % to 80 % non-Condensing
	Storage Conditions
	   Temperature -20˚C to 60 ˚C
	   Humidity 5 % to 95 % non-Condensing

Tilt/Swivel Stand	Detached
Signal cable	Attached
Power cord	Detached
Regulations	MPR II

Preset Modes (Resolution)

Display Modes (Resolution)			Horizontal Freq. (kHz)	Vertical Freq. (Hz)
1	VESA	640 x 480	31.47	60
2	VESA	640 x 480	37.50	75
3	VESA	640 x 480	43.27	85
4	VESA	720 x 400	31.47	70
5	VESA	720 x 400	37.93	85
6	VESA	800 x 600	46.88	75
7	VESA	800 x 600	53.68	85
8	VESA	1024 x 768	60.02	75
9	VESA	1024 x 768	68.677	85

Service Information

The following parts are for use by IBM services, or IBM authorized dealers, to support customer warranty. Parts are for service use only.

PART NUMBER	DESCRIPTION	MACHINE TYPE	MODEL	COLOR
31P8138	E74 FRU MONITOR	6332	4LE	Business Black
31P8139	E74 FRU - Tilt/Swivel			Business Black