

# Color Monitor

---

E74

---

User's Guide

English

---

## **Second Edition (July 2005)**

**Note:** For important information, refer to Monitor Safety, Troubleshooting, and Warranty booklet that comes with this monitor.

# Table of Contents

---

Safety: Read first .....	2
Your New Monitor .....	3
Connecting Your Monitor .....	3
Front Panel .....	4
Direct Access Buttons .....	5
Operation .....	6
On Screen Display (OSD) .....	6
Monitor function control .....	6
Brightness .....	6
Contrast .....	6
Width & Height .....	6
Horizontal & Vertical Position .....	6
Pincushion .....	7
Balanced Pincushion .....	7
Geometry .....	7
Trapezoid .....	7
Rotation .....	7
Parallelogram .....	7
Moiré .....	7
Color .....	7
Degauss .....	8
Reset .....	8
Information .....	8
Language .....	8
OSD Lock/Unlock .....	8
Troubleshooting .....	9
Help & Service .....	10
Power Saver .....	11
Display Modes .....	11
Specifications .....	12
Service Information .....	13
Notices and Trademarks .....	14

## 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).

לפניהם יש תתקין מוחץ זה, קדאו לא תוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előirásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza

Antes de instalar este producto, 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, прочитайте информацијата за безбедност.

Pred inštaláciou tohto zariadenia si pečítaje Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Ennen kuin asennat tämä 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.

# Your New Monitor

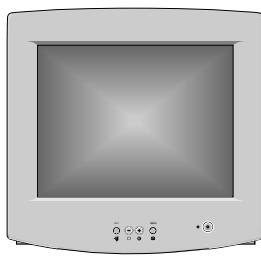
Please make sure the following items are included with your monitor. If any items are missing, contact your dealer.



Power Cord



Stand



Monitor



CD

(User's Guide& Installation File)

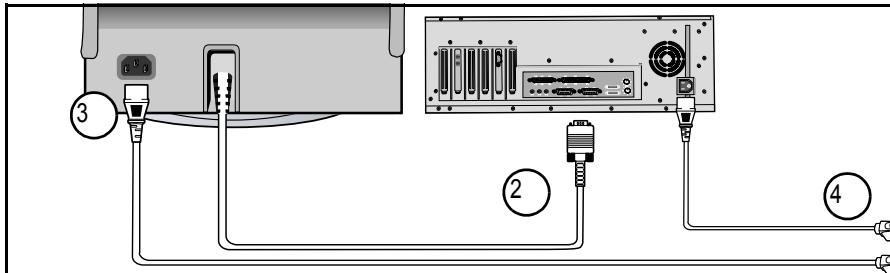


Safety, Troubleshooting,  
and Warranty Guide



Setup Guide

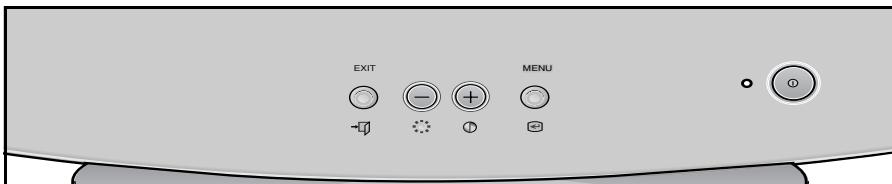
## Connecting Your Monitor



- 1** Turn off your computer and unplug the power cord.
- 2** Signal cable  
Connect the end of the signal cable to your computer's video port (Video board, video card, or graphics card).
- 3** Power port  
Connect the power cord for your monitor to the power port on the back of the monitor.
- 4** **Power cords**  
Plug the power cord for the monitor and the power cord for your computer into a nearby outlet.
- 5** Turn on your computer and monitor. If your monitor displays an image, installation is complete.
- 6** Install monitor driver  
Insert the provided CD into the CD-ROM drive, when prompted by the operating system.

# Your New Monitor

## Front Panel



Button	Description
	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.
	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. <b>Important:</b> Holding in this button for longer than 5 seconds erases all data in the User Settings memory.

# Your New Monitor

---

## Direct Button Access

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.

Icon	Control	Description
	Brightness	Adjusts the background brightness
	Contrast	Adjusts the contrast between foreground and background

# Operation

## On Screen Display (OSD)

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



Control	Effect of Button	
	-	+
 Brightness		
 Contrast		
 Width		
 Height		
 H-position		
 V-position		

# Operation

---

Control	Effect of Button	
	-	+
 Advanced	Select this icon to access a group of controls that affect the shape of the viewing area.	
 Pincushion		
 Balanced Pincushion		
 Trapezoid		
 Rotation		
 Parallelogram		
 Moiré		
 Color	9300K	6500K
	User Color 1	User Color 2
	Switches the "warmth" of the image colours. 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.	

# Operation

---

Control	Effect of Button -      +	
	YES	NO
 Degauss (Demagnetize)	<p>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.</p>	
 Reset	<p>YES</p>	<p>NO</p>
		<p>Recalls factory settings, if any, for the current display mode.</p>
 Information	<p>Information displays a list of available modes and the current user setting. This is an informational screen only.</p>	
 Language	<p>Changes to display the OSD data in any of the six languages listed. Use " - " or " + " button to select between English, German, French, Italian, European Portuguese, and Spanish</p>	
 OSD Lock/ Unlock	<p>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.</p> <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>	

# Troubleshooting

---

Before calling for service, check the information in this section to see if you can solve the problem yourself.

## **There is no screen image**

- Check to see that both the monitor and the computer are plugged in and turned on.

## **There is no screen image and the power indicator light is blinking green**

- The monitor is using its power management system, see “PowerSaver” section.

## **“No Connection, Check Signal Cable” appears**

- Check the signal cable connection between the computer and the monitor.

## **The screen image is too light or too dark**

- Adjust the brightness or contrast settings, see “On Screen Display” section.

## **The screen image is too large or too small**

- Adjust the size settings, see H-size and V-Size “On Screen Display” section.
- Adjust the Zoom setting, see “On Screen Display” section.

## **The colors are distorted with dark or shadowed areas**

- Activate the degauss feature, see “On Screen Display” section.
- Adjust the color temperature, see “On Screen Display” section.

## **You need the monitor driver software**

- The driver is on the *User Guide and Installation files CD*, or
- Download the driver from the internet at <http://www.lenovo.com/think/support>

# Help & Service

---

Machine Name -E74 Color Monitor ( MT 6332 )

Warranty Period - Three (3) Years

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

The Lenovo Machine Warranty worldwide Web site at

<http://www.lenovo.com/think/warranty> provides a worldwide overview of Lenovo's Limited Warranty for Lenovo Machines, a Glossary of Lenovo definitions, Frequently Asked Questions (FAQs) and Support by Product (Machine) with links to Product Support pages.

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

Call Customer Support Center

In the US call 1-800-426-7378

In Canada (Toronto only) call 416-383-3344

(all others) call 1-800-565-3344

In other countries, contact your dealer, retailer, or other Lenovo 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.

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

# PowerSaver

---

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power-off Mode
Power Indicator	Green	Green, Blinking (1 sec. interval)
Power Consumption	90 W (Maximum) 75 W (Nominal)	Less than 2 W

## Display Modes

---

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync. Polarity (H/V)
VGA2, 720 x 400@70Hz	31.469	70.087	28.322	-/+
VGA3, 640 x 480@60Hz	31.469	59.940	25.175	-/-
VESA, 640 x 480@75Hz	37.500	75.000	31.500	-/-
VESA, 640 x 480@85Hz	43.269	85.008	36.000	-/-
VESA, 720 x 400@85Hz	37.927	85.039	35.500	-/+
VESA, 800 x 600@75Hz	46.875	75.000	49.500	+/-
VESA, 800 x 600@85Hz	53.674	85.061	56.250	+/-
VESA, 1024 x 768@75Hz	60.023	75.029	78.750	+/-
VESA, 1024 x 768@85Hz	68.677	84.997	94.500	+/-
VESA, 1152 x 864@75Hz	67.500	75.000	108.000	+/-
MFI2, 960 x 529@75Hz	41.775	75.000	52.637	+/-

# Specifications

Specifications	Model: E74
Picture Tube	<ul style="list-style-type: none"><li>• 17" (432 mm) Flat square type, 16"(406 mm) Viewable image size</li><li>• 90° Deflection</li><li>• Dot pitch : 0.27 mm (0.24mm horizontal dot pitch)</li><li>• Aluminized tri-color phosphor dot trio with black matrix.</li><li>• Anti-doming invar shadow mask.</li></ul>
Synchronization	<ul style="list-style-type: none"><li>• Horizontal : 30 kHz to 69 kHz</li><li>• Vertical : 50 Hz to 120 Hz</li></ul>
Display Color	<ul style="list-style-type: none"><li>• Approximately 64 million colors</li></ul>
Maximum Resolution	<ul style="list-style-type: none"><li>• 1280x1024@60Hz</li></ul>
Active Display	<ul style="list-style-type: none"><li>• Horizontal : 12.3 ± 0.16 inch (312.0 ± 4 mm)</li><li>• Vertical : 9.2 ± 0.16 inch (234.0 ± 4 mm)</li></ul>
Input Signal, Terminated	<ul style="list-style-type: none"><li>• Analog : 0.7 Vpp positive at 75 ohms</li><li>• Separate Sync. : TTL level, positive or negative</li></ul>
Maximum Pixel Clock	<ul style="list-style-type: none"><li>• 110 MHz</li></ul>
Power Supply	<ul style="list-style-type: none"><li>• AC 100 ~ 240 V, 60 Hz / 50Hz ± 3Hz</li></ul>
Power Consumption	<ul style="list-style-type: none"><li>• 90 W (Maximum)</li></ul>
Dimensions/Weight (WxDxH)	<ul style="list-style-type: none"><li>• Unit : 15.7 x 16.2 x 15.7 inches ( 398 x 412 x 400 mm ) / 33.0 lbs (15.0 kg)</li><li>• Carton : 18.3 x 20.3 x 18.2 inches ( 464 x 517 x 467 mm ) / 38.5 lbs (17.5 kg)</li></ul>
Environmental Considerations	<ul style="list-style-type: none"><li>• Operating temperature : 41°F to 104°F (5°C to 40°C)</li><li>• Humidity : 10% to 80%</li><li>• Storage temperature : -4°F to 113°F (-20°C to 45°C)</li><li>• Humidity : 20% to 80%</li></ul>

*Design and specifications are subject to change without notice.*

# Service Information

---

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

## Model Type 6332

40Y6864	6332-PHN	Monitor - Business Black, NH, MPR-II - FRU
40Y6865	6332-PHE	Monitor - Business Black, EQ, MPR-II - FRU
40Y6866	6332-RHN	Monitor - Business Black, NH, JEIDA - FRU
40Y6868		Tilt/Swivel - Pearl White - FRU
40Y6869		Tilt/Swivel - Business Black - FRU

# Notices and Trademarks

---

This section contains information on notices and trademarks.

## Notices

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

Lenovo may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

*Lenovo (United States), Inc.  
500 Park Offices Drive, Hwy. 54  
Research Triangle Park, NC 27709  
U.S.A.*

Attention: Lenovo Director of Licensing

LENOVO GROUP LTD. PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.]

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Lenovo may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary.

Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

## ***Trademarks***

The following terms are trademarks of Lenovo in the United States, other countries, or both:

Lenovo

IBM is a trademark of the IBM Corporation in the United States, other countries, or both and is used under license.

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

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

© Copyright Lenovo 2005; portion © IBM Corp. 2004. All rights reserved.