

# **APPENDIX F :**

## **USER'S MANUAL**

## Regulatory Information

### FCC Compliance Statement

This equipment has been tested and found to comply within the limits of a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment on and off), the user is encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's (or your) authority to operate the equipment. Only peripherals (digital input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this monitor. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

Only shielded signal cables may be used with this System.

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### Canadian DOC Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### CE Conformity Notice (for Europe)

Products with the "CE" Marking comply with the EMC Directive(89/336/EEC) and LOW VOLTAGE Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms :

- EN 55022:1998 ; Radio Frequency Interference
- EN 55024:1998 ; Electromagnetic Immunity
- EN 61000-3-2 ; Power Line Harmonics
- EN 61000-3-3 ; Voltage Fluctuations
- EN 60950 ; Product Safety

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### Low Radiation Compliance (MPR II)

This monitor meets one of the strictest guidelines available today for low radiation emissions, offering the user extra shielding and an antistatic screen coating. These guidelines, set forth by a government agency in Sweden, limit the amount of emission allowed in the Extremely Low Frequency (ELF) and Very Low Frequency (VLF) electromagnetic range.

### TCO95



#### Congratulations!

You have just purchased a TCO'95 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and to the further development of environmentally-adapted electronic products.

#### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem as far as computers and other electronic equipment are concerned is that environmentally harmful substances are used both in the products and during their manufacture. Since it has not been possible so far for the majority of electronic equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from both the working and natural environment viewpoints. Since all types of conventional electricity generation have a negative effect on the environment (acidic- and climatic-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronic equipment in offices consumes an enormous amount of energy, since it is often routinely left running continuously.

#### What does the environmental labelling involve?

This product meets the requirements for the TCO'95

## Regulatory Information cont.

scheme, which provides for international environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Naturkyddsforeningen (The Swedish Society for Nature Conservation), and NUTEK (The National Board for Industrial and Technical Development in Sweden), and SEMKO AB (an international certification agency).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern, among other things, restriction on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons), and chlorinated solvents. The product must be prepared for recycling, and the manufacturer is obliged to have an environmental plan, which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level, in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labeled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, along with physical and visual ergonomics and good usability.

The following is a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development Unit  
Lindegatan 14, S-11494 Stockholm, Sweden  
FAX +46-8 782 92 07  
E-mail (Internet): development@tco.se

Current information regarding TCO'95 approved and labelled products may also be obtained on the Internet using the address: <http://www.tco-info.com/>

TCO'95 is a co-operative project between:



Naturkydds  
foreningen



NUTEK

SEMKO

Närings- och teknikutvecklingsverket

### Environmental requirements

Brominated flame retardants are present in printed circuit boards, cabling, casings, and housings, and are added to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame-retardant substances. These are related to another group of environmental toxins, PCBs, and are suspected of giving rise to similar harm, including reproductive damage in fish-eating birds and mammals. Flame retardants have been found in human blood, and researchers fear that they can disturb fetus development.

Bio-accumulative<sup>1</sup> TCO'95 demands require that plastic components weighing more than 25 grams must not contain flame retardants with organically bound chlorine or bromine.

Lead can be found in picture tubes, display screens, solder, and capacitors. Lead damages the nervous system and in higher doses causes lead poisoning. The relevant bio-accumulative TCO'95 requirement permits the inclusion of lead, as no replacement has yet been developed.

Cadmium is present in rechargeable batteries and in the color-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant bio-accumulative TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The color-generating layers of display screens must not contain any cadmium.

Mercury is sometimes found in batteries, relays and switches. Mercury damages the nervous system and is toxic in high doses. The relevant bio-accumulative TCO'95 requirement states that batteries may not contain more than 25 ppm of mercury and that no mercury is present in any of the electrical or electronic components concerned with the display unit.

CFCs (freons) are sometimes used for washing printed circuit boards and in the manufacture of expanded foam for packaging. CFCs break down ozone and thereby damage the ozone layer in the atmosphere, causing increased reception on Earth of ultra-violet light with consequent increased risks of skin cancer (malignant melanoma). The relevant TCO'95 requirement: Neither CFCs nor HCFCs may be used during the manufacture of the product or its packaging.

<sup>1</sup> Bio-accumulative means that the substance accumulates within living organisms.

### Shipping Package

The packaging material can be recycled, or you can save it to return the monitor to a service center for repair or disposal.

### CFC Compounds in Distribution Packaging

Cushioning material used for shipping finished monitors are not manufactured with nor do they contain any CFC compounds.

### Design for Disassembly/Recycling

These monitors have been designed for easy end-of-life disassembly and recycling. Fasteners are generally of the same type for efficient disassembly. Components made of different materials can be easily separated and plastics have been identified using international symbols to aid in recycling.

### Monitor Disposal

#### WARNING

If you need to dispose of a monitor, ask a qualified service representative for the proper procedure. Improper disposal could result in personal injury from implosion.

## Regulatory Information cont.

### TCO'99



Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

#### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

#### What does labelling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

Approval requirements cover a wide range of issues: environment, ergonomics, usability, emission of electric and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

#### TCO Development

SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): [development@tco.se](mailto:development@tco.se)

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: <http://www.tco-info.com/>

#### Environmental requirements

##### Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative\* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

##### Cadmium\*\*

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

## Regulatory Information cont.

### Mercury\*\*

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit.

### CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

### Lead\*\*

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

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

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

## EPA (U.S.A only)

ENERGYSTAR is a set of power-saving guidelines issued by the U.S. Environmental Protection Agency(EPA).



EPA POLLUTION PREVENTER

As an ENERGY STAR Partner LG Electronics U.S.A.,Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

## NOM MARK (Mexico only)



## GOST MARK



BZ03

Internet Address:<http://www.lg.ru>

Информационная служба LG

Electronics (095)742-77-77

# Color Monitor

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**C170**

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User's Guide

English

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## **First Edition (April / 2003)**

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

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## 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 שתקיין 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 prečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Ennen kuin asennat t m n tuotteen, lue turvaohjeet kohdasta Safety Information.

Před instalac 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」。

مع، 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.

# Setting up the monitor

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## Product Description

This monitor requires a computer with a suitable on-board sub-system or Video Adapter card that can support SXGA 1280 x 1024, XGA 1024 x 768, SVGA 800 x 600, or VGA 640 x 480 at 60Hz.

In addition to your monitor, your option package includes the following:

- *User's Guide and Installation Files CD*
- *Monitor Safety and Warranty Information Manual*
- *C170 Color Monitor Quick Setup Guide*
- *Power Cord*
- *C170 Color Monitor*
- *Signal Cable - Attached to Monitor*

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## Workplace Preparation

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

### 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 to use it.
- Tilt the monitor to a comfortable viewing angle.

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## Working Practices

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

### Rest

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

### Back

Sit back in your chair and use the backrest.

### Hands

Adjust the seat height so that your forearms are approximately horizontal and your wrists are straight when using the keyboard. Your upper arms should be relaxed with your elbows near your body.

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 these settings as the lighting changes during the day. Many application programs let you select color combinations which can help you to view in comfort. See the **User controls** section on page 10 for more information.

### Power cord

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

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## Caring for your Monitor

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

- Gently wipe the covers and the screen with a soft cloth. Do not use solvents or abrasives.
- Remove finger marks and grease with a damp cloth and mild detergent.
- Never use flammable cleaning materials to clean your IBM monitor or any other electrical apparatus.

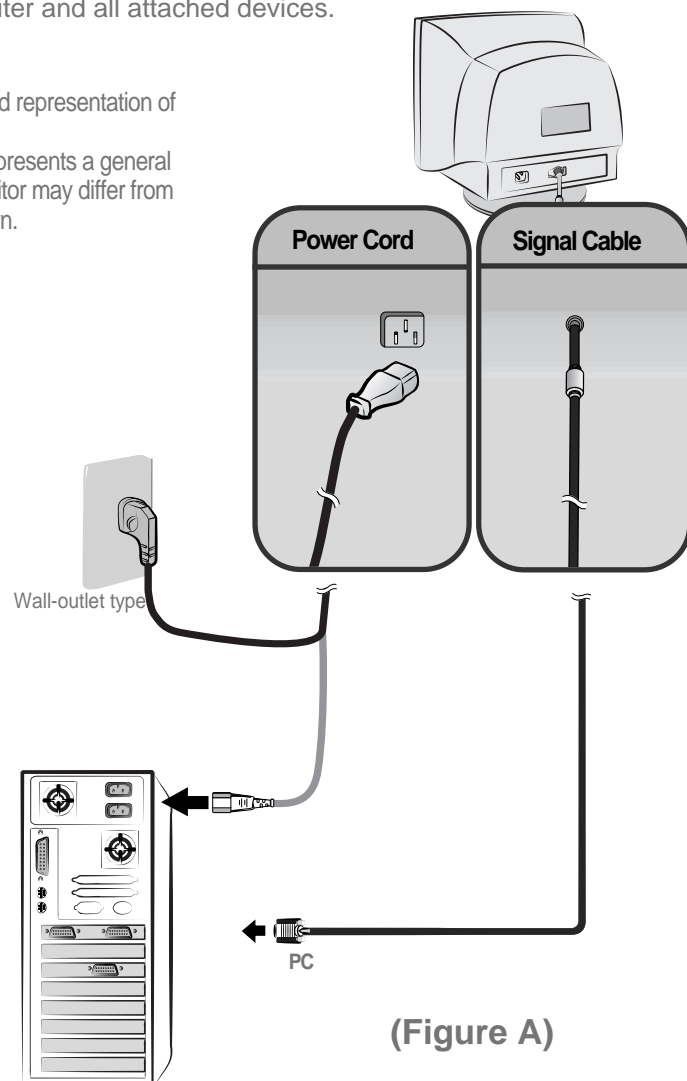
## Connecting your Monitor

Be sure to read the 'Safety' Information located in the Monitor Safety and Warranty Information Manual before carrying out this procedure.

1. Turn off your computer and all attached devices. Next, unplug the power cord(s) to your computer and all attached devices.
2. Connect the signal cable.
3. Connect the power cord to the monitor and then plug the power cord into a properly grounded outlet. Next, reconnect the power cord(s) to your computer and all attached devices.

### NOTE

- This is a simplified representation of the rear view.
- This rear view represents a general model; your monitor may differ from the view as shown.



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## Switching on your Monitor

1. Switch on your computer.
2. Switch on your monitor by pushing and releasing the power switch marked [⏻] at the front of the bezel.  
[To switch off your monitor, push and release the power switch again.]
3. To update or install device drivers, follow the instructions in the **Device Driver Installation** section on page 7.

# Device Driver Installation

## Installing the device driver in Windows 95 or Windows 98

To install the device driver in Microsoft® Windows® 95 or Windows 98, do the following:

You must download files from the *User's Guide and Installation Files CD* to use the Plug and Play feature in Windows 95 or Windows 98.

Note:

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 your computer to start the Windows 95 or Windows 98 operating system.

Your computer's Plug and Play code might 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.

• **If you are using Windows 95 :**

- 6 - 1. Click the **Change Display Type** button.
2. Click the **Change Monitor Type** button.

• **If you are using 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 "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 *User's Guide and Installation Files CD* into the CD driver and click the **Have Disk** button.
8. Click **OK**.
9. Ensure that the CD drive letter is selected, and then select the **DRIVERS** folder.
10. Select **IBM C170 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 computer.

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

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## Installing the device driver in Windows 2000 or Windows Me

To install the device driver in Microsoft Windows 2000 Professional or Microsoft Windows Millennium Edition (Me), do the following:

You must download files from the *User's Guide and Installation Files CD* to use the Plug and Play feature in Windows 2000 or Windows Me.

Note:

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 your computer to start the Windows 2000 or Windows Me operating system.
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 "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 Monitor CD into the CD drive and click the **Have Disk** button.
13. Click **OK**.
14. Ensure that the CD drive letter is selected, and then select the **DRIVERS** folder.
15. Select **IBM C170 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 computer.

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

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## Installing the device driver in Windows XP

To install the device driver in Windows XP, do the following:

You must download files from the *User's Guide and Installation Files CD* to use the Plug and Play feature in Windows XP.

Note:

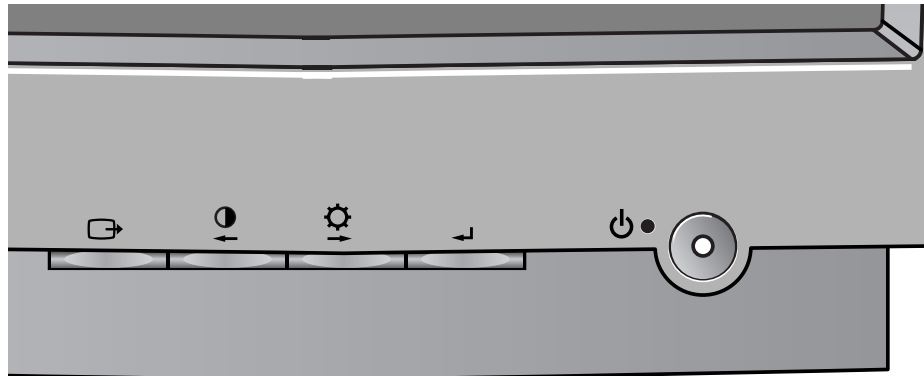
1. Turn off the computer and all attached devices.
2. Ensure that the monitor is connected correctly.
3. Turn on the monitor and then the system unit. Allow your computer to start the Windows XP operating system.
4. Open the **Display Properties** window by clicking **Start, Settings, Control Panel** 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 "Install from a list or Specific location(Advanced)" and then click the **Next** button.
12. Insert the Monitor CD into the CD drive and click the **Have Disk** button.
13. Click **OK**.
14. Ensure that the CD drive letter is selected, and then select the **DRIVERS** folder.
15. Select **IBM C170 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 computer.

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







# Adjusting Your Monitor

## User controls





### USER CONTROL FEATURES

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

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

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

| Icon  | Direct Access Functions         |
|---|---------------------------------|
|  | Bring up Brightness adjustment. |
|  | Bring up Contrast adjustment.   |

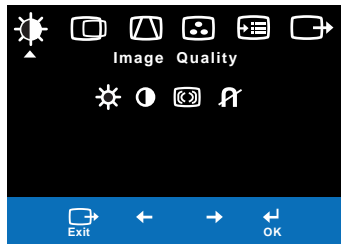
## On-screen display (OSD) controls

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

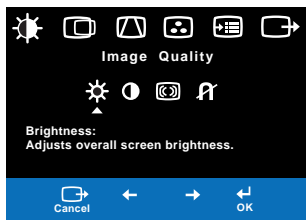
The settings adjustable with the user controls are viewed through the On - Screen Display (OSD). Press the enter button [↵] to display the main OSD menu.

### Initial appearance of OSD

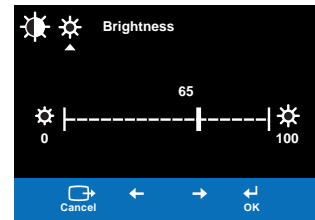
main menu;





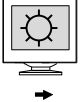


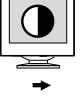


sub menu;





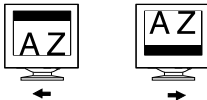



















Adjustment screen;








### OSD functions

| OSD Icon      |  | Description  | sub-menu(s)                | Control and Adjustments   |   |
|---------------|--|--|----------------------------|---|---|
| Image Quality | <br><b>Brightness</b> | Adjusts brightness   |                            |  |  |
|               | <br><b>Contrast</b>   | Adjusts contrast   |                            |  |  |
|               | <br><b>Moire</b>      | To reduce the degree of moire. The moire adjustments may affect the focus of the screen. | • Horizontal<br>• Vertical |   |   |
|               | <br><b>Degauss</b>    | To manually demagnetize the screen to avoid showing incorrect images or colors.          | • YES<br>• NO              |   |   |

| OSD Icon  |  | Description   | Sub-menu(s)   | Controls and Adjustments  |
|---|--|---|---|---|
| <br><b>Image Position/Size</b> | <br><b>Horizontal Position</b>  | Moves the screen left and right .                   |   |  |
|   | <br><b>Vertical Position</b>    | Moves the screen up and down.                       |   |  |
|   | <br><b>Horizontal Size</b>      | Adjusts image width                                 |   |   |
|   | <br><b>Vertical Size</b>        | Adjusts image height                                |   |   |
|   | <br><b>Rotation</b>           | Turns image clockwise or counterclockwise           |   |   |
| <br><b>Image Shape</b>       | <br><b>Parallelogram</b>      | To correctly adjust the skew of the image.          |   |   |
|   | <br><b>Trapezoid</b>          | To correct geometric distortion.                    |   |   |
|   | <br><b>Pincushion</b>         | To correct a concave or convex bowing of the image. |   |   |
|   | <br><b>Pincushion Balance</b> | To correct the balance of both sides bowling.       |   |   |
|   | <br><b>Geometry Reset</b>     | To resets image shape to original setting.          | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul> |   |

| OSD Icon  |   | Description   | Sub-menu(s)   | Controls and Adjustments   |
|---|---|---|---|--|
| <br><b>Color</b>     | <b>1</b> <br><b>Preset Color</b>       | Select from standard white colors.  | <ul style="list-style-type: none"> <li>• 9300K (Blue White)</li> <li>• 6500K (Pink White)</li> <li>• 5000K (Normal White)</li> <li>• Custom</li> </ul>  |  |
|   | <b>2</b> <br><b>User Control Point</b> | Adjusts Red, Green and Blue intensity   | <ul style="list-style-type: none"> <li>• Red</li> <li>• Green</li> <li>• Blue</li> <li>• Save</li> </ul>  | <p>Increases or decreases redness</p> <p>Increases or decreases greenness</p> <p>Increases or decreases blueness</p>                       |
|   | <br><b>Reset Custom Color</b>         | Resets custom color to original value   | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>   |  |
| <br><b>Options</b> | <br><b>Information</b>               | Display the detailed information of resolution, model name and microcode.   |   |  |
|   | <br><b>Menu Language</b>             | The language chosen affects only the language of the OSD.<br>Select one of the Five language to use for the OSD.<br>It has no effect on any software running on the computer. | <ul style="list-style-type: none"> <li>• English</li> <li>• Français</li> <li>• Italiano</li> <li>• Deutsch</li> <li>• Español</li> </ul>               |  |
|   | <br><b>Accessibility</b>             | Change button repeat rate and menu time-out setting.  | <p><b>Button repeat rate</b></p> <ul style="list-style-type: none"> <li>• Default</li> <li>• Slow</li> <li>• Off</li> </ul> <p><b>Menu time out</b></p> | <p>- Adjusts response speed of button.</p> <p>- Adjusts the length of time for which the menu will on the screen before it disappears.</p> |

| OSD Icon   |  | Description   | Sub-menu(s)  | Controls and Adjustments |
|--|--|---|--|--------------------------|
| <br>Options | <br>Factory Default   | Reset should return all available functions (apart from language which should not change unless adjusted via the LANGUAGE menu) to their factory presets. | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>              |                          |
|  | <br>Menu Position     | Changes the position of the OSD on the screen.  | <ul style="list-style-type: none"> <li>• Horizontal</li> <li>• Vertical</li> </ul> |                          |
|  | <br>Video Input Level | Select the monitor input signal level.  | <ul style="list-style-type: none"> <li>• 0.7V</li> <li>• 1.0V</li> </ul>           |                          |
| <br>Exit  |  | Exits from current OSD menu.  |  |                          |

## Further Information

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### 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.

If possible, configure your computer for 1280 x 1024 addressability at 75Hz vertical refresh rate.

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

### Factory Set Display Modes

| Addressability | Refresh Rate | Horizontal Frequency |
|----------------|--------------|----------------------|
| 720 x 400      | 70 Hz        | 31.5 kHz             |
| 640 x 480      | 60 Hz        | 31.5 kHz             |
| 640 x 480      | 85 Hz        | 43.3 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        | 68.7 kHz             |
| 1280 x 1024 †  | 75 Hz        | 80.0 kHz             |
| 1152 x 864     | 75 Hz        | 67.5 kHz             |

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

† Recommended

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## Power Management

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

The power management feature is invoked when the computer recognizes that you have not used your mouse or keyboard for a user-definable period. There are several states as described in the table below.

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

For optimal performance 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        |
|------------|-----------------|--------|---------------------------------|-------------------|
| On         | Steady green    | Normal |                                 |                   |
| Active off | Steady amber    | Blank  | Press a key or move the mouse.* | ENERGY STAR 2000® |

\* There may be a slight delay before the picture reappears.

## Product Disposal

The fluorescent lamps in the liquid crystal display contains a small amount of mercury. Dispose of it as required by local ordinances and regulations.

# Troubleshooting

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

| <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.                                  | <ul style="list-style-type: none"> <li>• Ensure that the electrical outlet and the monitor are both switched on.</li> <li>• Check that the power cord is firmly plugged into the electrical outlet and the power supply unit.</li> <li>• If the power cord plug has a removable fuse, replace it.</li> <li>• Try another power cord.</li> <li>• Try another electrical outlet.</li> <li>• Check the power connection at the back of the panel.</li> </ul> | <b>Connecting your Monitor</b> section on page 5. |
| Screen is blank and power indicator is steady green. | Brightness and Contrast may be too low.               | <ul style="list-style-type: none"> <li>• Adjust brightness and contrast.</li> </ul>   | <b>User controls</b> section on page 10.          |
| Screen is blank and power indicator is steady amber. | The monitor is in the Power Management Standby state. | <ul style="list-style-type: none"> <li>• Press any key on the keyboard or move the mouse to restore operation.</li> <li>• Check the Power Management software on your computer.</li> </ul>  | <b>Power Management</b> section on page 16.       |



| <b>Problem</b>   | <b>Possible Cause</b>  | <b>Suggested Action</b>  | <b>Reference</b>                                  |
|--|--|--|---|
| Screen is blank and power indicator is flashing green every 0.5 second   | Display mode of the computer is outside the range of the monitor | <ul style="list-style-type: none"> <li>• Reconfigure key on the computer to use a supported display mode.</li> </ul>   | <b>Further Information</b> section on page 19.    |
| CHECK SIGNAL CABLE message is shown and power indicator is steady amber. | The monitor is not receiving a video signal                      | <ul style="list-style-type: none"> <li>• Check that the signal cable is firmly connected to the computer.</li> <li>• Check that no pins are bent in the signal cable connector.</li> </ul> | <b>Connecting your monitor</b> section on page 5. |
| Image appears to be discolored   | The color setting may be incorrect.                              | <ul style="list-style-type: none"> <li>• Adjust the Color settings.</li> </ul>   | <b>User Controls</b> section on page 10.          |

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## Help and Service Information

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

Call the IBM HelpCenter®.

In the U.S.A and Puerto Rico call 1-800-772-2227

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

In Canada(all other) call 1-800-565-3344

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

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

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

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. Model and serial number from the label on 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.
9. Video Adapter Type.

# Specifications

This color monitor (Type-model 6737-X6X) uses a 17-inch TFT LCD.

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

|                         |   |  |
|-------------------------|---|--|
| Diemension              | Height:<br>Width:<br>Depth:   | 430.0 mm (16.93 inch)<br>414.0 mm (16.30 inch)<br>420.0 mm (16.54 inch)  |
| Weight                  | With Stand:   | 16 kg (35.27 lbs)  |
| Image                   | Viewable Image Size:<br>Dot Pitch:  | 16-inch (406.4 mm)<br>0.25 mm  |
| Power Input             | Supply Voltage:<br>Rated Current:   | 100 - 240V ac 50/60Hz<br>2.0A  |
| Power Consumption       | Normal Operation:<br>Off:   | < 70 W<br>< 5 W  |
| Video Input             | Input Signal:   | Separate, RGB Analog,<br>0.7Vp-p/75 ohm, positive  |
| Sync Input              | Type  | Separate, Composite,   |
| Communications          | VESA DDC:   | E-DDC  |
| Supported Display Modes | Standard modes :<br>Horiz. Frequency:<br>Vert. Frequency:   | IBM, VESA, MAC<br>30-85 kHz<br>50-160Hz  |
| Environment             | Temperature:<br>Operating:<br>Storage:<br>Shipping:<br>Humidity:<br>Operating:<br>Storage:<br>Shipping: | 10 to 40° C (50 to 95° F)<br>- 20 to 60° C (-4 to 140° F)<br>- 20 to 60° C (-4 to 140° F)<br>10 to 80%<br>5 to 95%<br>5 to 95% |

# Service Information

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

## Model Type 6737

|         | Description          | Video       | Color | MTM      |
|---------|----------------------|-------------|-------|----------|
| 31P9652 | C170 FRU Monitor     | US,CAN,EMEA | TT    | 6737-K6N |
| 31P9653 | C170 FRU Monitor     | US,CAN,EMEA | SB    | 6737-66N |
| 31P9654 | C170 FRU Monitor     | LA, ASEAN   | TT    | 6737-K6E |
| 31P9655 | C170 FRU Monitor     | LA, ASEAN   | SB    | 6737-66E |
| 31P9656 | C170 FRU Monitor     | ANZ         | TT    | 6737-K6S |
| 31P9657 | C170 FRU Monitor     | ANZ         | SB    | 6737-66S |
| 31P9658 | C170 FRU Monitor     | US,CAN,EMEA | PW    | 6737-26N |
| 31P9659 | C170 FRU Monitor     | LA, ASEAN   | PW    | 6737-26E |
| 31P9660 | C170 FRU Monitor     | ANZ         | PW    | 6737-26S |
| 31P9661 | C170 FRU-Tilt/Swivel | WW          | SB    |          |
| 31P9745 | C170 FRU-Tilt/Swivel | WW          | PW    |          |

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