### Exhibit 5

## INSTALLATION AND OPERATING INSTRUCTION



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BECAUSE OF CONTINUOUS PRODUCT IMPROVEMENTS,

THE INFORMATION MENTIONED IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.

## INTRODUCTION AND SAFETY



#### Introduction

The Philips Brilliance 107MP/109MP color monitor displays sharp and brilliant images of text and graphics with a maximum resolution of 1600x1200 (for 107MP); 1800x1350 (for 109MP) pixels. It is optimal for Windows, CAD / CAM / CAE, desktop publishing, spread sheets, multi-media, and any other application that demands a large screen size and high resolutions.

The monitor automatically scans horizontal frequencies from 30KHz to 95KHz (107KHz for 109MP), and vertical frequencies from 50Hz to 160Hz. With microprocessor-based digital-controlled circuitry and On-Screen Display (OSD) controls, the monitor can automatically adjust itself to the video card's scanning frequency and displays an image with the precise parameters you desire.

#### **Features**

- An anti-glare, anti-static, and anti-reflection super highcontrast screen coating eliminates any bad effects caused by room light reflecting on and dust attracted to the screen's surface.
- With the Color Adjustment feature, you can easily choose different preset color temperatures or set your own customized white point for different application.
- The Image Tilt Adjustment feature corrects a rotated image. This correction minimizes the distortions caused by elements such as the Earth's magnetic field.
- The zoom feature allows you to adjust the image on your

screen, both enlarging and reducing its overall size.

- USB Bay at back of monitor is prepared for the Universal Serial Bus hub. You can easily and flexibly connect USBdesigned devices – such as a mouse or keyboard – to the monitor for true Plug-and-Play function. USB hub shipped separately.
- Green Design including automatic power saving function (NUTEK) and low-emission compliance (TCO '95) shows your commitment to the environment.
- DDC1/DDC2B allows communication between the monitor and the PC for optimal video configuration.
- •New CrystalClear II technology delivering sharper, brighter and higher contrast images across the entire screen.
- Moire Cancellation eliminates diffraction, a fringe pattern in the picture.

Note: Your monitor operates according to the VESA DDC level 1/2B. Only computers that support the same guidelines and operate at the same or a higher level can make use of this feature. If your computer does not support the relevant guidelines, you can still use your monitor and computer. However, you may need to manually specify the appropriate resolution in the computer.

As an Energy Star Partner, PHILIPS has determined that this product meets the Energy Star guidelines for energy efficiency.



Contact us at our web site: http://www.monitors.be.philips.com

#### Safety precautions and maintenance

- Unplug the monitor, if you are not going to use it for an extended period of time.
- Unplug the monitor, if you need to clean it with a slightly damp cloth. Wiping the screen with a dry cloth is okay when the power is off. However, never use alcohol or ammoniabased liquids.
- Consult a service technician if the monitor does not operate normally when following the instructions in this manual.
- The back cover should be removed only by qualified service personnel.
- Keep the monitor out of direct sunlight and away from stoves or any other heat source.
- The top of the monitor is not a shelf. Remove any object that could fall into the vents or prevent proper cooling of the monitor's electronics.

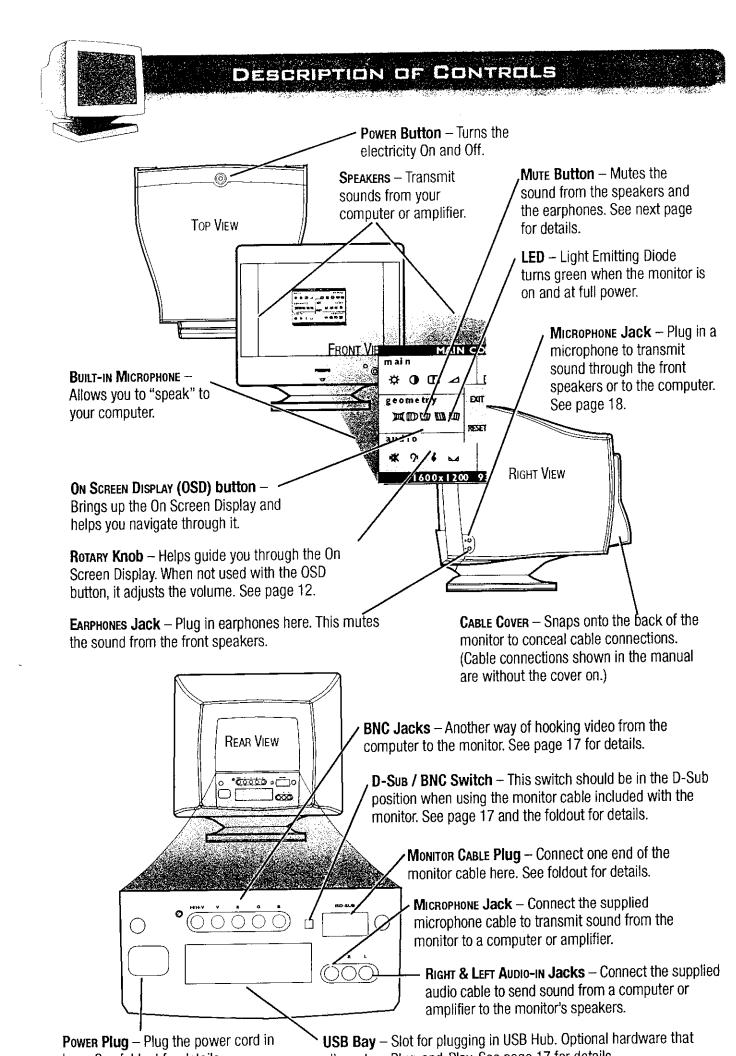
- Keep the monitor dry. To avoid electric shock, do not expose it to rain or excessive moisture.
- Keep the monitor away from magnetic objects, such as speakers, electric motors, transformers, etc.
- When positioning the monitor, make sure the power plug and outlet are easily accessible.

#### End-of-life disposal

Your new monitor contains materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and to minimize the amount to be disposed of.

Please find out about the local regulations on how to dispose of your old monitor.

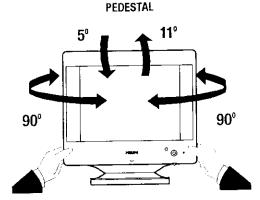
ENERGY STAR is an U.S. registered mark. IBM, IBM PC, and Power PC are registered trademarks of International Business Machines Corporation.



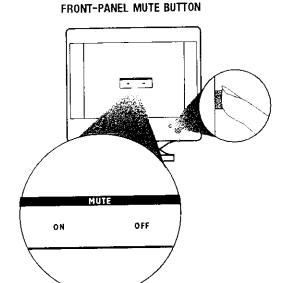
<del>)</del>

## DESCRIPTION OF CONTROLS



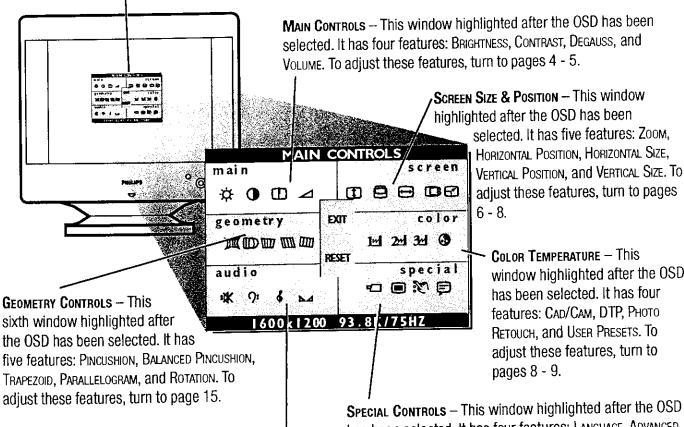


**PEDESTAL** — With the built-in pedestal, you can tilt and swivel the monitor to the most comfortable viewing angle. To best use your monitor, always place it at eye level.



Using the Front-PANEL MUTE BUTTON -To turn the mute On and Off, press the MUTE button to highlight either On or Off. For another way to mute the sound, see page 14.

On Screen Display - Your monitor is preset at the factory. However, you can adjust it using the On Screen Display button and the Rotary knob described on page 2. The way to do so is through the On Screen Display (OSD). Below is a brief description of the six On Screen Display windows.

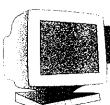


Audio Controls – This fifth window highlighted after the OSD has been selected. It has four features: Mute, Bass, Treble, and Balance. To adjust these factured turn to page 11

window highlighted after the OSD has been selected. It has four features: Cad/Caм, DTP, Рното RETOUCH, and USER PRESETS. To adjust these features, turn to pages 8 - 9.

Special Controls – This window highlighted after the OSD has been selected. It has four features: LANGUAGE, ADVANCED CONTROLS, OSD CONTROLS, and VIDEO INPUT. To adjust these features, turn to pages 10 - 13.

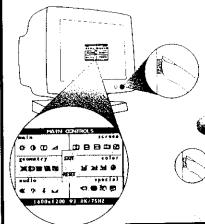
Note: Language allows you to change the On Screen Display from English to French, Spanish, German, or Italian. See page 10 for details.



MAIN CONTROLS WINDOW

#### BRIGHTNESS

To adjust your screen's brightness, follow the steps below. Brightness is the overall intensity of the light coming from the screen. A 50% brightness level is recommended.



Press the On Screen Display button to highlight Brightness icon.



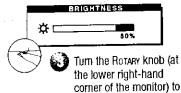
BRIGHTNESS
main

Diagram Community
geometry
EXIT
MID III III III III
RESET



<del>)</del>





adjust the brightness.

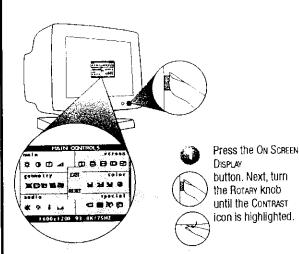
#### SMART HELP

#### After returning to Main Controls ...

- ....to continue to Contrast, turn the Rotary knob until Contrast Icon is highlighted. Next, follow steps 3 5 under Contrast.
- to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)

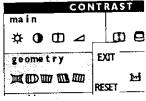
#### CONTRAST

To adjust your screen's contrast, follow the steps below. Contrast is the difference between the light and dark areas on the screen, A 100% contrast level is recommended.

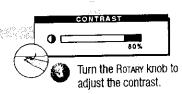




Press the ON SCREEN DISPLAY button to return to MAIN CONTROLS WINDOW.







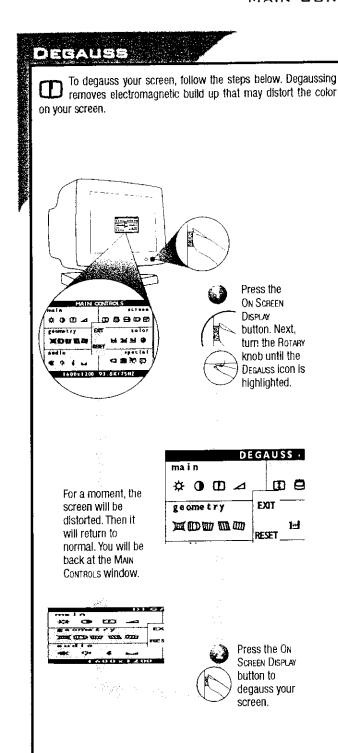
#### SMART HELP

#### After returning to Main Controls ...

- ... to continue to Decauss, turn the Rotaer knob until Decauss Icon Is highlighted. Next, follow steps 3 4 under Decauss (on the next name)
- ... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options).

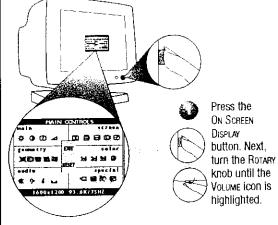


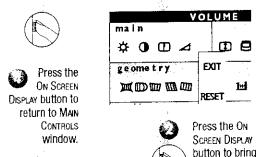
#### MAIN CONTROLS WINDOW

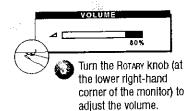


#### VOLUME

To adjust your monitor's volume, follow the steps below. The volume control adjusts the sound from the two front-mounted speakers or the earphones jack.







up Volume screen.

#### SMART HELP

#### After returning to Main Controls ...

- to continue to Volume, turn the Rotary knob until Volume Icon is highlighted. Next, follow steps 3 5 under Volume.
- ... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)

#### SMART HELP

#### After returning to Main Controls ....

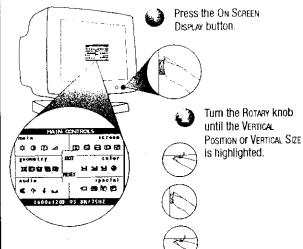
- ... to continue to the SCREEN SIZE & POSITION WINDOW, turn the ROTARY knob until EXIT Is highlighted. Next, press the OSD button. Turn to the next page and follow steps 2 5 under FULL SIZE.
- ... to exit completely, press the OSD button and hold for 1.5 seconds, (See page 16 for other exit options.)



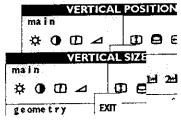
SCREEN SIZE & POSITION WINDOW



Vertical Position adjusts the Image on your screen either up or down. Use this feature if your image does not appear centered Vertical Size expands or contracts the image on your screen, pushing it out toward the top and bottom sides or pulling it in toward the center.











#### SMART HELP

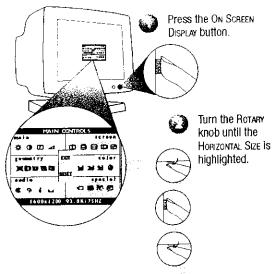
#### After returning to Screen Size & Position ...

... to continue to Vertical Position, turn the Rotary knob until Vertical Position is highlighted. Next, follow steps 3 - 5 under Vertical Position.

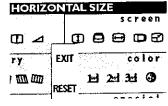
... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)

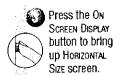


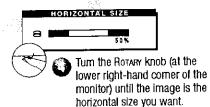
Horizontal Size expands or contracts the image on your screen, pushing it out toward the left and right sides or pulling it in toward the center.



Press the ON SCREEN DISPLAY button to return to Screen Size & Position.





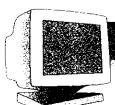


#### SMART HELP

#### After returning to Screen Size & Position ...

... to continue to Horizontal Size, turn the Rotary knob until Horizontal Size is highlighted. Next, follow steps 3 - 5 under Horizontal Size (on the next page).

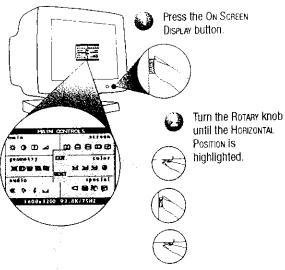
... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)



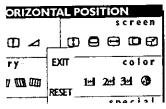
SCREEN SIZE & POSITION WINDOW

#### HORIZONTAL POSITION

Horizontal Position shifts the Image on your screen either to the left or right. Use this feature if your image does not appear centered.











Turn the Rotary (at the lower right-hand comer of the monitor) knob until the image is horizontally balanced.

#### SMART HELP

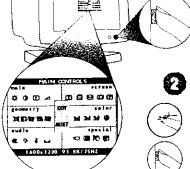
To make other changes in the Size & Position window ...

" after returning to the Size & Posmon window [but before press the On Screen Display (OSD) button in step 6], turn the Rotany knob until another feature — for example, Нойгомта. Розгюм — is highlighted. Next, follow steps 2 - 6 under Horizontal Posmon.

... after you have exited completely, press the OSD button and follow the steps under that feature, for example, Horizontal Position.

#### ZOOM

Zoom allows you to adjust the image on your screen, both enlarging it and reducing its overall size. To zoom your screen in or out, follow the steps below.

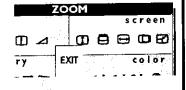


Turn the Rotary knob until Size & Position window is highlighted. Next, press the On Screen Display button.

Press the On Screen Display button.



Press the ON Screen Display button to return to the Main Menu.





Press the On Screen Display button to bring up Zoom screen.



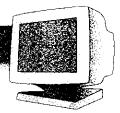
Turn the Rotary knob to adjust the zoom. Note: the screen expands or contracts as you adjust the Rotary knob.

#### SMART HELP

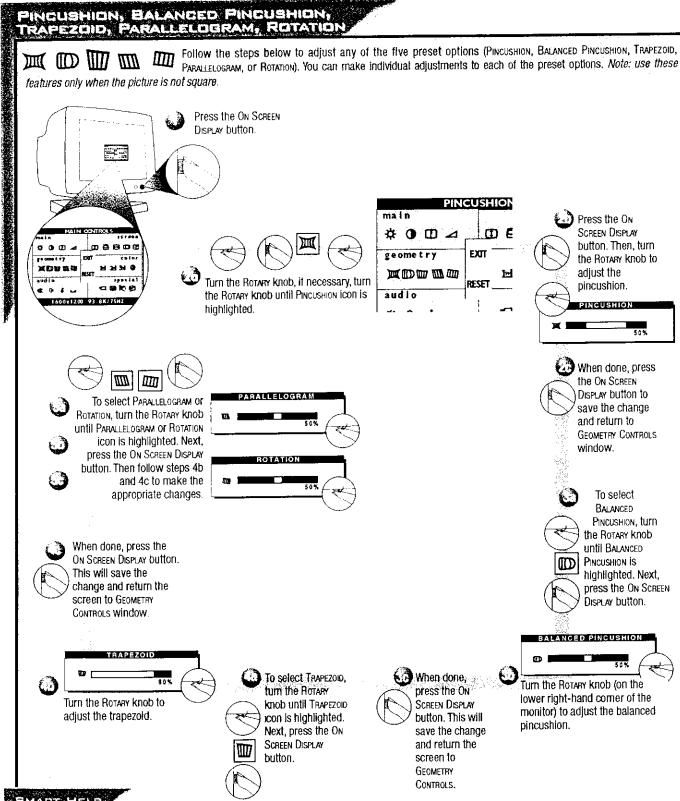
#### After returning to Screen Size & Position ....

... to continue to Geometry window, turn the Rotary knob until Pincushion is highlighted. Next, press the OSD button. Then follow steps 2a - 2c under Geometry window on the next page.

... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)



#### GEOMETRY CONTROLS WINDOW



#### SMART HELP

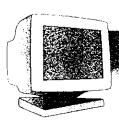
TO exit GEOMETRY CONTROLS ....

. but continue to another window, turn the Rotary knob until required function is highlighted. Now, press the On Screen Display button and follow theinstructions for that window.

... completely, press the On Screen Display button and hold for 1.5 seconds. The On Screen Display will disappear. All changes will be saved.

To make changes to one item, follow the steps for that item. Then, follow "To exit Geometry Controls ...."

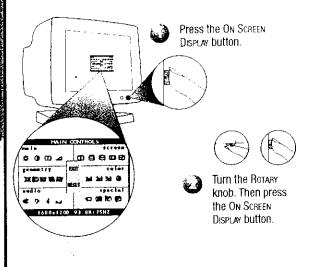
To return to factory presets, see "To Reset an Individual Window" on page 16.



COLOR TEMPERATURE WINDOW

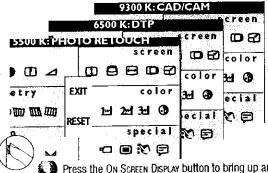
#### 9300 K CAD/CAM / 6500 K DTB 5500 K PHOTO RETOUCH

Your monitor has three preset options you can choose from. One 14 for Computer Aided Design (CAD) work. Two 24 for Desktop Publishing (DTP). And three 34 for Photo Retouch. When you select an option, the computer automatically adjusts itself for that selection.



9300 K: CAD/CAM screer @ @ @ 5500 K: PHOTO RE color screen <u>colo과</u> 3년 🚱 田 色 田 田 田 2년 3년 ③ special EXIT color etry special <u></u> 날 2년 3년 🔞 RESET 画 ※ 同 special Turn the Rotary knob until Cad/Cam, DTP, or Рното Reтouch is highlighted.

After each preset setting is saved, the on screen display automatically returns to the Color Temperature window. To save the next present setting, simply repeat the steps listed here.



Press the On Screen Display button to bring up and save the preset settings for 9300 K CAD/CAM, 6500 K DTP, or 5500 K Photo Retouch.

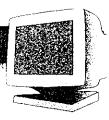
#### SMART HELP

#### After returning to Color Temperature ...

... to continue to Advanced Color Control, turn the Rotary knob until Advanced Color Control is highlighted. Next, follow steps 3 - 9 under Advanced Color Control on the next page.

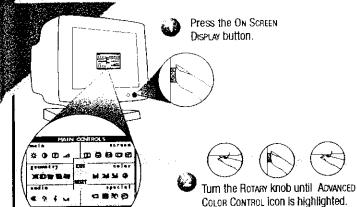
.. to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)

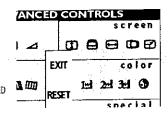




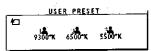
## ADVANCED COLOR

If you need to adjust any of the three preset options (CAD/CAM, DTP, or Photo Retouch), follow the steps below to modify the colors that appear on your screen. You can make individual adjustments to each of the preset options.



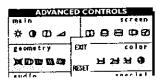


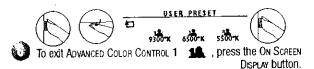


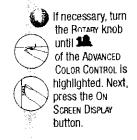


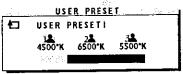
O	You will now be back at the
	ADVANCED COLOR
(	CONTROL WINDOW.
	See Smart Help

1400-1200 91 8K/75HZ









Turn
ROTARY knob to your required white
point, press On Screen Display button
to store the specified value in user



#### SMART HELP

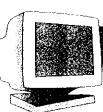
To exit User Presers (step 3 above), turn the Rotary knob until the Go Back Icon is highlighted Go Back appears by the Icon when highlighted. Next, press the On Screen Display button. You will be back at the Color Temperature window.

After returning to Color Temperature ...

... to continue to Usen Preser 2 on 3, repeat steps 3 through 8, selecting either Usen Preser 2 or Usen Preser 3.

... to continue to Special Controls window, turn the Rotary knob until Exit is highlighted. Next, press the On Screen Display button. Then, turn the Rotary knob until Special Controls is highlighted. Now, follow steps 2 - 5 under Special Controls on the next page.

... to exit the ON SCREEN DISPLAY completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)



AUDIO CONTROLS WINDOW

## Bass, E. Balance

Follow the steps below to modify the sound that comes from your speakers. You can make individual adjustments to each of the preset options (Mute, Bass, Treble, of Balance).

ma î n

**☆ ① ① △** 

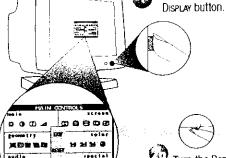
geometry

audlo

\*

EXIT

RESET



Press the On Screen

Turn the Rotary knob, if necessary, turn the Rotary knob until Mute icon is highlighted. If you have sound, MUTE OFF appears at the top of the on screen display. OD 🗗 E **-**

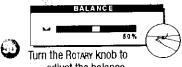
Press the On SCREEN DISPLAY button to mute the sound from your speakers and to return to Audio CONTROLS WINDOW. MUTE ON appears

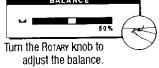
■ at the top of MUTE ON the on screen display.



1600e1200 93 8K/75H

When done, press the On Screen Display button to save the change and return the screen to Audio Controls.

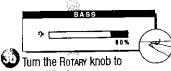




To select BALANCE, turn the ROTARY KNOD Until BALANCE icon is highlighted. Then, press the On Screen



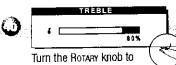
turn the ROTARY knob until Bass icon is highlighted. Next, press the On Screen Display button.



adjust the bass.



When done, press the On Screen Display button to save the change and return the screen to Audio CONTROLS.



adjust the treble.



When done, press the On Screen Display button to save the change and return the screen to Audio CONTROLS.

#### SMART HELP

#### To exit Audio Controls ...

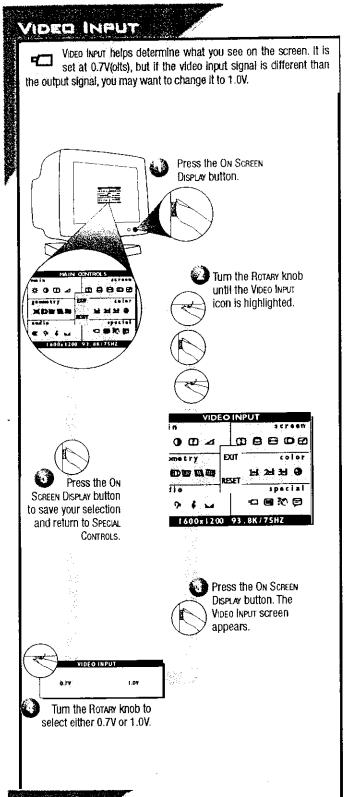
. but continue on to Special Controls, turn the Rotary knob until required function is highlighted. Next, press the On Screen Dispur button. Then go to step 2a on page 15.

... completely, press the On Screen Display button and hold for 1.5 seconds. The On Screen Display will disappear. All changes will be saved. To cancel Mure, repeat step 2b, or press the Mure button on the front of the monitor.

To make changing to one item, follow the steps for that item. Then follow the instructions To exit Audio Controls . . . .



#### SPECIAL CONTROLS WINDOW



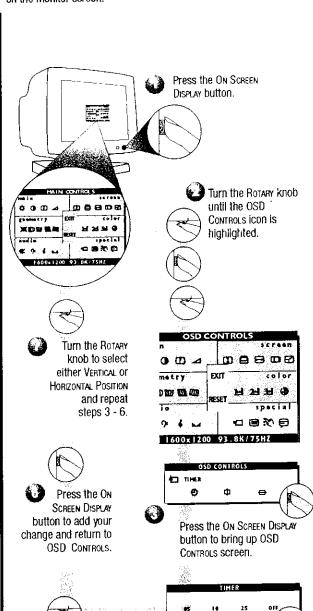
#### SMART HELP

#### After returning to Special Controls ...

- to continue to OSD CONTROLS, turn the ROTARY knob until OSD Controls icon is highlighted. The, follow steps 3 - 6 under OSD
- , to exit completely, press the OSD button and hold for 1.5

#### **BSD CONTROLS**

WITH OSD CONTROLS, you can set the time for the On Screen Display to time out, and change the vertical and horizontal position of the OSD on the monitor screen.



#### SMART HELP

After returning to OSD Conmous ...

Turn the ROTARY

knob to select 05,

10, 25 seconds, or

... to continue to Special Controls, turn the Rotary knob until Go Back is highlighted. Next, press the On

Press the On Screen

TIMER SCREEN.

Display button to bring up

OSD CONTROLS Screen Display button. Then, turn the T GO BACK ROTARY KNOW to SPECIAL CONTROLS window and go to the next page.

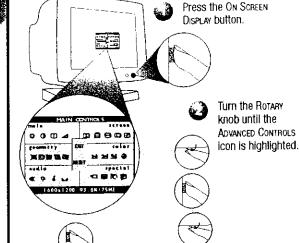
to avit completely proce the OSD button and hold for 1.5.



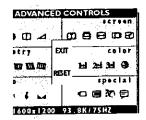
#### SPECIAL CONTROLS WINDOW

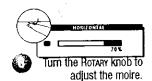
#### ADVANCED CONTROLS MOIRE

ADVANCED CONTROLS is a set of five adjustments, including Moire. Moire is a fringe pattern arising from the interference between two superimposed line patterns. To adjust your Moire, follow the steps below. Note: Use only if necessary. By activating Morre, sharpness can be affected.



Press the On Screen Display button to add your adjustment and to bring up Advanced Controls screen. See SMART HELP to select VERTICAL MOIRE OF TURN Moire Off.









Turn the Rotary knobuntil Horizontal Moire is highlighted. Then, press the On Screen Display button.



Then, press the Ox Screen Display button.

#### SMART HELP

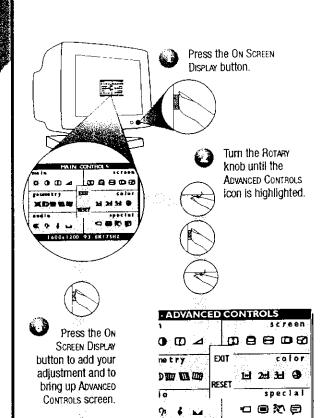
#### After returning to Advanced Controls ...

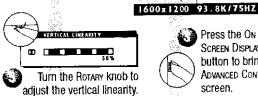
... to continue to Moire, turn the Rotary knob until Moire Icon Is. highlighted. Next, follow steps 4 - 7 under Moine.

... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)

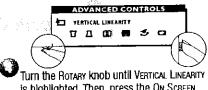
#### ADVANCED GONTROLS VERTICAL LINEARIT

ADVANCED CONTROLS is a set of five adjustments, including Vertical Linearity. Linearity is the degree with which the actual location of a pixel on the screen corresponds with its intended location. To adjust your Vertical Linearity, follow the steps below.





Press the On Screen Display button to bring up ADVANCED CONTROLS screen.



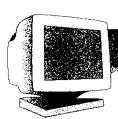
is highlighted. Then, press the On Screen Display button.

#### SMART HELP

#### After returning to ADVANCED CONTROLS ...

to continue to Vertical Linearity, turn the Rotary knob until Vertical LINEARITY ICON is highlighted. Next, follow steps 4 - 6 under VERDCAL LINEARITY (on the next page).

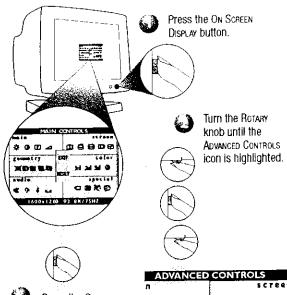
... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)



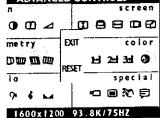
SPECIAL CONTROLS WINDOW

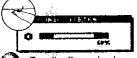
## ADVANCED CONTROLS

ADVANCED CONTROLS IS a set of five adjustments. They include Corner Correction, Vertical Linearity, Moire, Rotary Default, and Power Saving. Corner Correction "squares up" the corners of an image on the screen To adjust your Corner Correction, follow the steps below.









Turn the Rotary knob until desired corner correction is selected.



## ADVANCED CONTROLS BUTTOM CONTROL T II III S S

If necessary, turn the Rotary knob until Corner Correction (up or bottom)) is highlighted. Then, press the On Screen Display button.

#### SMART HELP

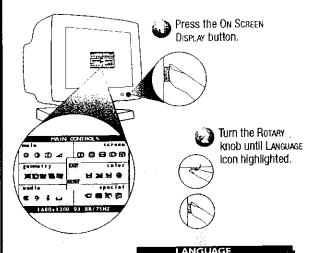
To select Vertical Moire or to turn Moire off, follow the steps above, selecting Vertical Moire of Moire off in step 5.

After returning to Advanced Controls . . .

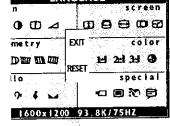
To continue to Rotary Defaut, turn the Rotary knob until Rotary Defaut Icon is highlighted. Next, follow steps 4 - 6 under Rotary Defaut.... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)



The On Screen Display shows its settings in one of five languages. The default is English, but you can select French, Spanish, German, or Italian.



Press the
On Screen Display
button to confirm
your selection and
return to Special
Controls.



Press the On Screen Display button to bring up Language screen.



the lower right-hand comer of the monitor) until desired language is selected.

#### SMART HELP

#### After returning to Advanced Controls ....

... to continue to Power Saving, turn the Rotary knob until Power Saving is highlighted. Next, follow steps 3 - 6 under Power Saving.

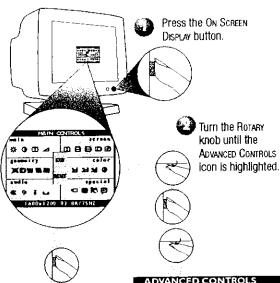
... to exit completely, press the OSD button and hold for 1.5 seconds. (See page 16 for other exit options.)



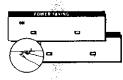
SPECIAL CONTROLS WINDOW

#### ADVANCED CONTROLS POWER SAVING

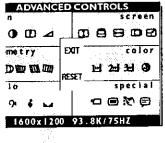
Power Saving helps save energy when the monitor is on but not being used. After a preset time, the monitor will go blank if not being used. To select Power Saving, follow the steps below.



Press the On SCREEN DISPLAY button to add your adjustment and return to Advanced CONTROLS.



Turn the ROTARY knob to select POWER SAVING ON or Off.



Press the On SCREEN DISPLAY button to bring up ADVANCED CONTROLS screen.



Turn the ROTARY KNOD until POWER Saving is highlighted. Then, press the On Screen Display button.

#### SMART HELP

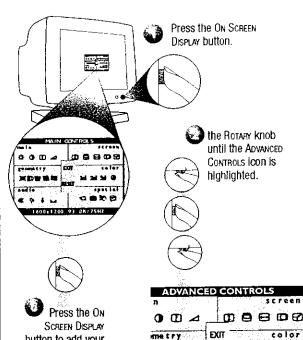
#### After returning to Special Controls ...

to continue to Advanced Controls, turn the Rotary knob until ADVANCED CONTROLS ICON IS highlighted. Next, follow steps 3 - 6 under ADVANCED CONTROLS.

... to exit completely, press the OSD button and hold for 1.5

## ADVANCED CONTROLS ROTARY DEFAULT

ROTARY DEFAULT allows you to pick the feature your ROTARY KNOD will default to when not used in adjusting your On Screen Display. The normal default is volume. To select your ROTARY DEFAULT, follow the steps below.





7 4 2 1600x1200 93.8K/75HZ



•

•

Press the On Screen Display button to bring up ADVANCED CONTROLS screen.

**버 2년 3년 영** 



Turn the Rotary knob until Rotary DEFAULT is highlighted. Then, press the On Screen Display button.

#### SMART HELP

пд 🛈 🖪 🕏 🖂

#### After returning to Advanced Controls ...

... to continue to OSD Controls, turn the Rotary knob until Go Back is ADVANCED CONTROLS highlighted. Next, press the On Screen DISPLAY button. Then, turn the ROTARY GO BACK knob to OSD Controls and go to the

next page.

to authorized the OSD builton and hold for 1.5

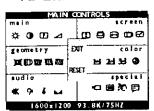


#### EXIT AND RESET

#### EXIT & RESET FROM THE ON SCREEN DISP

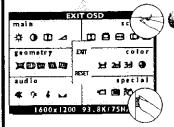
Exiting from the On Screen Display removes the On Screen Display from the monitor screen. Resetting from the On Screen Display returns everything in all the windows to factory presets.

#### TO EXIT AN ENTIRE ON SCREEN DISPLAY



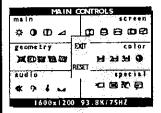


Make sure you have exited from all icons in a window. (See To Exit from AN INDIVIDUAL WINDOW.) FOR example, Main Controls will be highlighted.



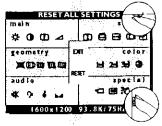
Turn the Rotary knob until Exit is highlighted. Next, press the On Screen Display button. The On Screen Display will disappear.

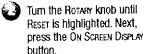
#### RESET ENTIRE ON SCREEN DISPLAY

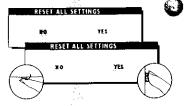




Make sure you have exited from all icons in a window. (See To EXIT FROM AN INDIVIOUAL WINDOW.) For example, Main Controls will be highlighted.







Turn the Rotary knob to select No or Yes. Then press the On Screen Display button.

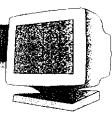




If Yes or No is selected, the Exit OSD screen appears.

## ADDITIONAL HOOK UP OPTIONS

BNC AND USB SET UPS



#### BNC CONNECTIONS

BNC is another way to connect the monitor to the computer. This connection requires an optional BNC cable, it can be connected to either a Macintosh- or IBM-compatible computer. For those who work with graphics or designs, this option may be better.

Note: Be sure to flip the D-Sue/BNC switch to BNC when using this connection.

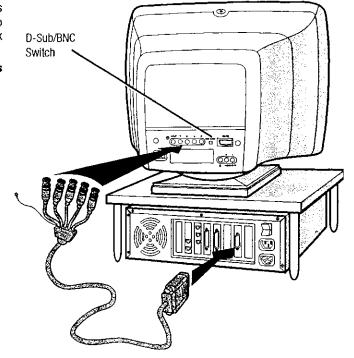
#### For an IBM-compatible computer:

- 1. Turn off the computer.
- Connect the (optional) BNC monitor cable and set D-Sue/BNC switch to BNC.
- 3. Connect the power cable.
- 4. Turn on the monitor. Then turn on the computer.
- **5.** If you have Windows '95, follow the "If you have Windows '95" steps on the Setting Up foldout sheet.

#### For a Macintosh-type computer:

- 1. Connect the Mac adapter to one end of the monitor cable.
- 2, Turn off the computer.
- 3. Connect the (optional) BNC monitor cable and set D-Sue/BNC switch to BNC.
- 4. Connect the power cable.
- 5. Turn on the monitor. Then turn on the computer.

Refer to the "Setting Up your Philips monitor" foldout for a more detailed guide to setting up your monitor.



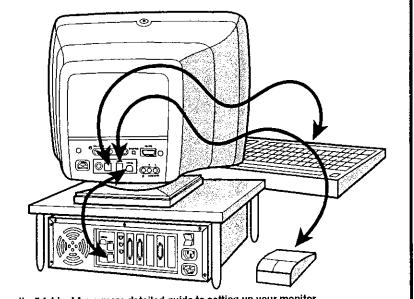
### CONNECTIONS

USB (Universal Serial Bus) is an innovation in connecting your IBM-compatible computer to your monitor. By using the USB, you will be able to connect your keyboard, mouse, printer, and other peripherals to your monitor instead of having to connect them to your computer. This will give you greater flexibility in setting up your system. Plus, you will have true plug-and-play capability. While the software is still being developed, Philips has included the hardware so you will be ready to take advantage of this next generation in computer development.

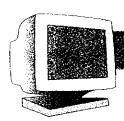
#### For an IBM-compatible Computer:

- 1. Turn off the computer.
- 2. Connect the (optional) USB Hub and cable to the computer and to the monitor. (Computer must have USB port.)
- 3. Connect the power cable.
- 4. Turn on the monitor. Then turn on the computer.
- 5. With the Installation of the correct software, you will be able to connect specially-made peripherals to the

Note: USB Hub and cables sold separately. USB Bay exists in back of monitor.



7



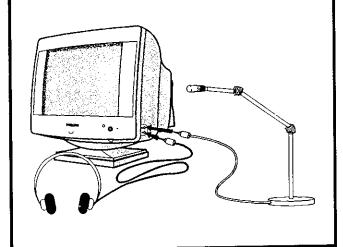
AUDIO HOOK UPS AND POWER SAVING FEATURE

#### MICROPHONE AND EARPHONES JACKS

In addition to built-in speakers and microphone, you can connect this monitor to optional earphones and a microphone. The jacks are on the right side of the monitor.

To use the microphone with your computer or an amplifier, make the connections shown below.

Note: When the earphones are plugged in, there will be no sound from the built-in speakers.

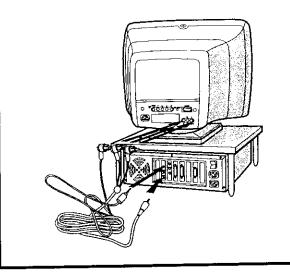


#### MIGROPHONE AND AUDIO-IN JACKS

A microphone jack is on the back of the monitor. Use it and the supplied cable to connect your monitor to your computer or an amplifier (if either has the right type of jack).

On the back of this monitor there is also one set of left and right audio-in jacks. Use them and the supplied cable to connect your monitor to your computer or an amplifier (if either has the right type of lacks).

See page 2 for more detailed illustrations of the jacks' locations.



Refer to the owner's manuals included with your earphones and microphone for a detailed guide to setting up these items.

## AUTOMATIC POWER SAVINGS & PRESET RESOLUTION MODES

If you have VESA's DPMS compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. If input from a keyboard, mouse, or other device is detected, the monitor automatically "wakes up." The table at left shows the power consumption and signalling of this automatic power-saving feature. To turn this feature on and off, see page 12. The table at right shows the 12 factory preset resolution modes. The maximum number of modes is 16. This leaves room for additions.

		Power Ma	nagement De	finition		
VESA's mode	Video	H-sync	V-sync	Power used	Power saving(%)	LED color
ON	Active	Yes	Yes	< 110W	0%	Green
Stand-by	Blanked	No	Yes	< 15W	86.3%	Yellow
Suspend	Blanked	Yes	No	< 15W	86.3%	Yellow
OFF	Blanked	No	No	< 3W	97.2%	Amber

This monitor is Energy Star compliant and power management compatible.



AS AN ENERGY STAR PARTNER, PHILIPS HAS DETERMINED THAT THIS PRODUCT MEETS THE ENERGY STAR GUIDELINES FOR ENERGY EFFICIENCY. The proper operation of the function requires a computer with VESA DPMS power management capabilities. When used with a computer equipped with VESA DPMS, the monitor is Energy Star compilant.

Mode	RESOLUTION	H. FREQ. (KHZ)	V. FREQ. (Hz)	STANDARD
1	640 x 400	31.5	70	VGA
2	640 x 480	31.5	60	VGA
3	640 x 480	37.5	75	VESA/75
4	800 x 600	46.9	75	VESA/75
5	800 x 600	53.7	85	VESA/85
6	1024 x 768	60	75	VESA/75
7	1024 x 768	68.6	85	VESA/85
8	1152 x 870	69.0	75	MAC
9	1152 x 900	71.8	76	SUN SPARO
10	1280 x 1024	80.0	75	VESA/75
11	1280 x 1024	91.0	85	VESA/8
12	1600 x 1200	93.8	75	VESA/7
13*	1600 x 1200	85	75	

COMING TO TERMS WITH THIS BOOK



## 

#### GENERAL.

CRT

Screen size

Viewable Image Size (VIS)

Focusing method Dot pitch

Phosphor

Screen treatment

Display area Factory preset

Maximum usable Scanning frequency

Horizontal (line) Vertical (frame) Input power

Power consumption

Thermal dissipation

input signal

Video Sync

**Pedestal** Titt Swivel

**Physical** 

Unit dimension (WxHxD)

Net weight

Operating conditions Temperature

Humidity Storage conditions

Temperature

:5% - 95%

Humidity

ECIFICATIONS 19MP

#### GENERAL

Vlewable image Size (VIS)

Dot pitch

persistence :Super High contrast

:P22 or equivalent, medium short

:17" (43.2 cm) flat & square

:16.0"

:Dynamic focus

:0.22 mm (horizontal)

:300 mm (H) x 225 mm (V) :326.5 mm (H) x 242 mm (V)

:30-95kHz (AutoScan)

:50-160 Hz (AutoScan) :100-240 V AC, 50-60 Hz :< 125 W (w/ USB, audio)

< 110 W (w/o USB, audio) :375.4 BTU normal (w/o USB)

426.6 BTU maximum (w/USB)

:0.7 or 1.0 Vpp, 75 0hm impedance

:Separate sync. TTL level Composite sync. TTL level

:5° forward, 11° backward

:90° left, 90° right

:442 x 433 x 500 mm

(17.4" x 17" x 19.7") :20.5 kg (45.2 lbs.)

:0° C - 40° C :10% - 90%

:-40° C - 60° C

CRT

Screen size Focusing method

Phosphor

Screen treatment

Display area Factory preset Maximum usable Scanning frequency

Horizontal (line) Vertical (frame) Input power

Power consumption

Thermal dissipation

Input signal Video

Sync

Pedestal Tilt Swivel

**Physical** Unit dimension (WxHxD)

Net weight

Operating conditions

Temperature Humidity

Storage conditions Temperature

Humidity

:19" (48.2 cm) flat & square

:18.0

:Dynamic focus :0.22 mm (horizontai)

:P22 or equivalent, medium short

persistence

:Super High contrast

:340 mm (H) x 255 mm (V) :365.5 mm (H) x 273 mm (V)

:30-107kHz (AutoScan) :50-160 Hz (AutoScan)

:100-240 V AC, 50-60 Hz :< 135 W (w/ USB, audio)

< 110 W (w/o USB, audio) :375.4 BTU normal (w/o USB) 426,6 BTU maximum (w/USB)

:0.7 or 1.0 Vpp, 75 Ohm impedance :Separate sync. TTL level Composite sync. TTL level

:5° forward, 11° backward

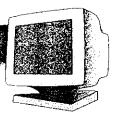
:90° left, 90° right

:485 x 490 x 515 mm (19.1" x 19.3" x 20.3") :24.5 kg (53.9 lbs.)

:0° C - 40° C :10% - 90%

:-40° C - 60° C :5% - 95%





#### PIN ASSIGNMENT

The 15-pin D-sub connector (male) of the signal cable:

#### Pin No. Assignment Red video input Green video input 2 Blue video input 3 Identical output - connected to pin 10 5 Ground 6 Red video ground Green video ground 7 Blue video ground 8 9 No pin Logic ground 10 Identical output - connected to pin 10 Serial data line (SDA) 12 H. Sync / H+V 13

V. Sync (VCLK for DDC)

Data clock line (SCL)



#### GLOSSARY

Here are a few definitions that may help you.

Degauss The process by which metal parts of the monitor are demagnetized in order to reduce screen distortion and color impurity.

D-Sub/ Two ways of connecting your monitor to your computer. Your monitor comes with a D-Sub cable. For work with a heavy emphasis on graphics, a BNC

cable is recommended.

Geometry A set of controls that allows you to adjust the alignment of the picture on the monitor screen. The goal is to "square up" the picture. This is done by adjusting such items as balanced pincushion, pincushion, parallelogram, rotation, and trapezoid.

Moire A fringe pattern caused by the interference between

two superimposed line patterns.

USB Universal Serial Bus. A way to connect your computer, monitor, and peripherals for true Plug-and-

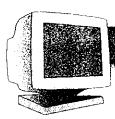
Play functions.

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Muto 14	



WHAT TO DO IF SOMETHING ISN'T WORKING

#### TROUBLESHOOTING

Having trouble? Something not working? Before calling for help, try these suggestions.

HAVING THIS PROBLEM?

CHECK THESE ITEMS

No Picture (Power LED not lit) Make sure the Power cable is plugged in the wall and back of the monitor. Power button on top of the monitor should be in the ON position. Disconnect the monitor from the power outlet for about one minute.

No Picture (Power LED is Amber or Yellow in color)

Make sure the computer is turned on.

Make sure the D-Sub/BNC switch on the rear of the monitor is in the correct position. See pages 2 and 17.

Make sure the monitor cable is properly connected to your computer.

Check to see if the monitor cable has bent pins.

The Energy Saving Feature may be activated. See pages 12 and 18 for more detail.

No Picture (Power LED is Green in color)

Make the Brightness and Contrast controls are set correctly. See page 4 for details

Make sure the D-Sub/BNC switch on the rear of the monitor is in the correct position. See pages 2 and 17.

Make sure the monitor cable is properly connected to your computer.

Check to see if the monitor cable has bent pins. Make sure the computer Power button is on.

Screen says

Make sure the D-Sub/BNC switch on the rear of the monitor is in the correct position. See pages 2 and 17.

Make sure the monitor cable is properly connected to your computer. See Setting Up foldout.

Check to see if the monitor cable has bent pins.

Make sure the computer is turned on

NO SYNC INPUT

when you turn on the monitor.

If you are using a non-VESA-DDC standard video card, consult your local Philips dealer or No Color

service organization to obtain an adapter.

Color appears blotchy

The picture may need degaussing. See page 5 for details.

Remove any nearby magnetic objects. Face the monitor East for best picture quality.

Missing one or more colors

Check user settings of Color Temperature. See pages 8 and 9 for details. Make sure the monitor cable is properly connected to your computer.

Check to see if the monitor cable has bent pins.

Dim Picture

Adjust the Brightness and Contrast controls. See page 4 for details.

Check the Video Input selection and switch from 0.7 volts to 1.0 volts or 1.0 volts to 0.7 volts. See page 13. Check your video card and the manual instructions for it. It may be a non-VESA-DDC Standard card.

Picture is too large or too small

Adjust the Horizontal and/or Vertical Size. See pages 7 and 8 for details.

Edges of the picture are not square

The geometry controls require adjusting. See page 15 for details.

Picture has a double image

Eliminate the use of a video extension cable and/or video switch box.

Face the monitor East for best picture quality.

Picture is not sharp

Check to make sure Moire is switched off. See page 11.

No Audio

Make sure mute is not activated. See pages 2 and 14 for details.

Rotary Default may be set to Brightness or Contrast. See page 12 for details.

Make sure the Right & Left Audio in cable is securely plugged into the monitor and the audio source.

See pages 2 and 18 for details.

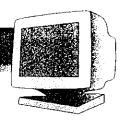
Unstable Picture

Increase your refresh rate. Consult your computer manual for details.

Windows '95 cannot find your video card

Select "Super VGA" under Standard Display Types, or contact your video card manufacturer

for the right drivers.



FIRST SEG LEVEL LEV	OND EL	THIRD LEVEL
Main / Brightness / Contrast / Degaussing / Volume		
Screen / Vertical size / Vertical position / Horizontal size / Horizontal position / Zoom		
Geometry / Pincushion / Balance Pincushion / Trapezoid / Parallelogram / Rotation		
Color / 9300K / 6500K / 5500K **/ Advanced color control	3 User modes	
Audio / Mute / Bass / Treble / Balance		
Special / Video input	0.7V 1.0V	
/ OSD control	Timer	5 — 10 — 25
/Advanced control	H position V position Up control Bottom control Vertical linearity Moire	└─ Off ── H moire
	Rotary default	V moire Off Brightness Contrast Volume On
	Daniela anti-	
/ Language	Power saving —— ENGLISH DEUTSCH FRANÇAIS ITALIANO ESPĀNOL	L Off
/ Language	ENGLISH DEUTSCH FRANÇAIS ITALIANO	

Reset

# Federal Communications Commission (FCC Statement)

NOTE: This equipment has been tested and found to comply with the limits for 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 off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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 authority to operate the equipment.

Use only RF shielded cable that was supplied with the monitor when connecting this monitor to a computer device.

#### Warning:

WHEN POSITIONING THIS EQUIPMENT ENSURE THAT THE MAINS PLUG AND SOCKET IS EASILY ACCESSIBLE.

To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or excessive moisture.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.