



TABLE OF CONTENTS

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19C5808E

Getting Started		<u>Special Controls</u>	
Introduction	... 3	Language	... 13
Features	... 3	Monitor status	... 13
Safety precautions and maintenance	... 5	OSD controls	... 13
End of life disposal	... 5		
Installation	... 6	<u>Advanced Controls</u>	
Connection	... 7	Moire	... 15
Control locations and functions	... 8	Power saving	... 15
OSD menu tree structure	... 9	<u>Geometry Controls</u>	
<u>Main Controls</u>		Pincushion	... 16
Brightness	... 10	Balanced pincushion	... 16
Contrast	... 10	Trapezoid	... 16
Degauss	... 10	Parallelogram	... 16
		Rotation	... 16
<u>Screen Size and Position</u>		<u>Exit or Reset</u>	... 16
Horizontal position	... 11		
Horizontal size	... 11	<u>Additional Information</u>	
Vertical position	... 11	Factory preset mode	... 19
Vertical size	... 11	User mode	... 19
		Automatic power saving	... 20
<u>Color Temperature</u>		Specifications	... 21
9300°K	... 12	Pin assignment	... 22
6500°K	... 12	Troubleshooting	... 23
5500°K	... 12	Glossary	... 26
User presets	... 12		



**E
N**

Appendix

English	Warranty	A1
	Information for user in the U.S.	A2
	Declaration FCC	A3
Français	Declaration FCC	A4
Deutsch	Hinweis / GS / ACHTUNG	A5

OTHER LANGUAGE VERSIONS

FRENCH (FRANCAIS)	..27	SPANISH(ESPAÑOL)	... 54
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Introduction

**E
N**

The Philips Magnavox 109S color monitor displays sharp and brilliant images of text and graphics with a maximum resolution of 1600x1200 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, 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 display an image with the precise parameters you desire.

Features



- An anti-glare, anti-static and anti-reflection, high contrast screen coating eliminates any bad effects caused by room lights 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 color parameters.
- 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 Green Design includes the automatic power saving function (NUTEK) and low-emission compliance.
- DDC1/DDC2B allows communication between the monitor and PC for optimal video configuration.
- Moire Cancellation eliminates diffraction, which is a fringe pattern in the picture.

Contact us at our web site:

<http://www.monitors.be.philips.com>



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.

ENERGY STAR is a U.S. registered mark.

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





Safety precautions and maintenance

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- ◆ 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 ammonia-based 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.
- ◆ 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.

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.

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Installation

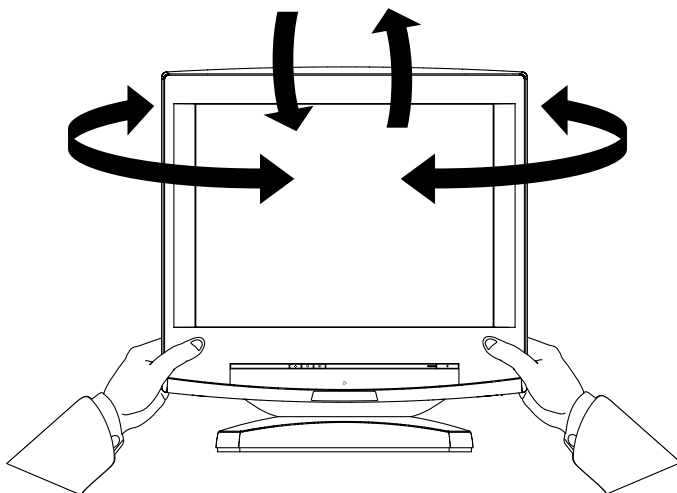
Important: Please refer to the user's manuals of your computer and video adapter to make sure the equipment is properly installed and configured before installing the monitor.

Positioning / Ventilation

- ◆ Avoid exposing the monitor to direct sunlight, stove or any other heat sources.
- ◆ To prevent overheating, make sure the ventilation openings of the monitor are not covered.
- ◆ Keep moisture and dust away.
- ◆ Keep away from any magnetic objects, such as speakers, electric motors, transformers, etc.
- ◆ When positioning this monitor, make sure the power plug and outlet are easily accessible.

Pedestal

With the built-in pedestal you can tilt and / or swivel the monitor to the most comfortable viewing angle.



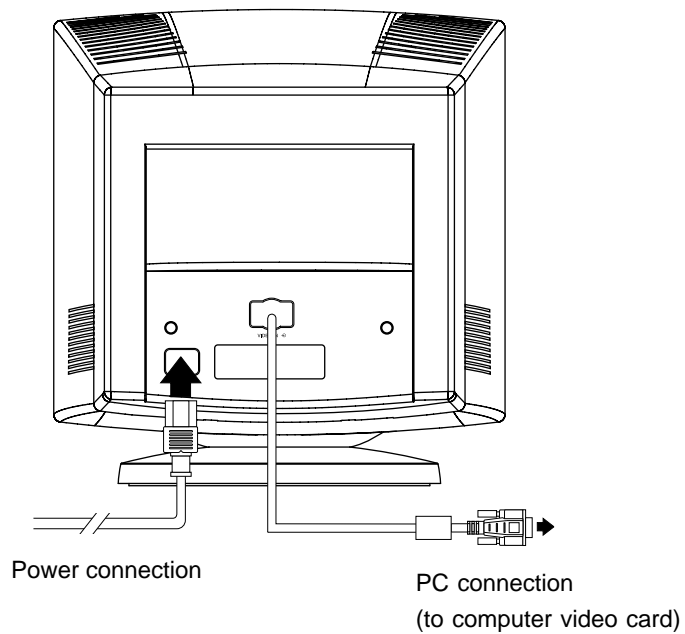


Connection

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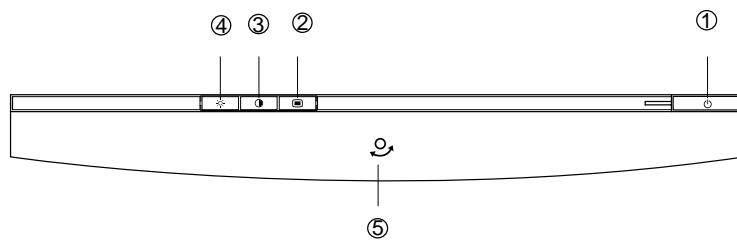
Important: Please make sure the AC power to your computer is “OFF” before connecting or disconnecting any display peripheral. Failure to do so may cause serious personal injury as well as permanent damage to your computer equipments.

- Connect the monitor to the computer using the supplied interface cable. Connect the power cord to a wall outlet after the interface cable is properly connected.










Control locations and functions

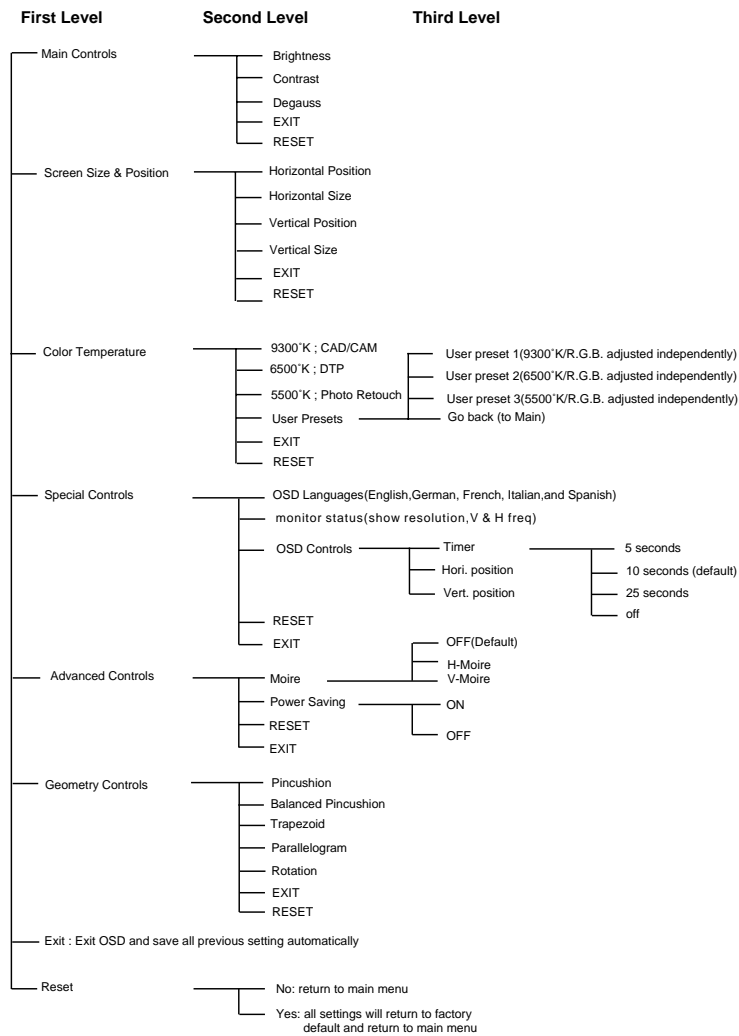


Descriptions of knobs and keypads on front control panel

- ①  • Press this knob to switch ON and OFF the monitor's power.
- ②  • Activate OSD (On-Screen-Display) menu.
 - Confirm selection.
- ③  • Activate contrast control.
- ④  • Activate brightness control.
- ⑤  • Select OSD menu.
 - Increase or decrease the setting.



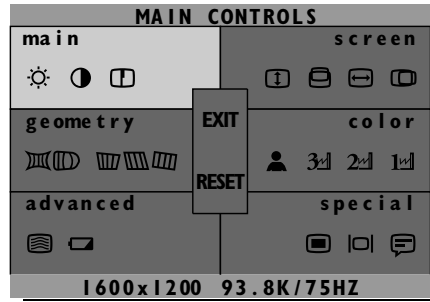
OSD menu tree structure





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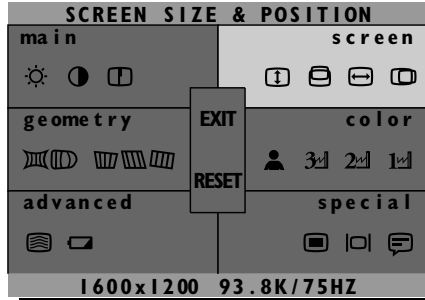
Main Controls



- ☀️ **BRIGHTNESS** Increase or decrease brightness level.
- 🌑 **CONTRAST** Increase or decrease contrast level.
- 📏 **DEGAUSS** Eliminate magnetism.
- EXIT** Save and exit the "MAIN CONTROLS" settings.
- RESET** Reset the "MAIN CONTROLS" settings to factory defaults.



Screen Size and Position

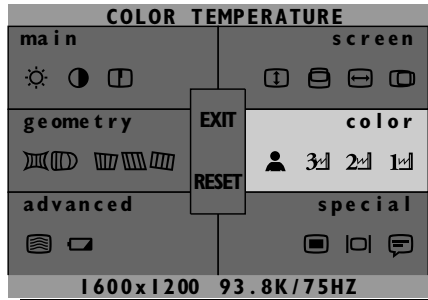


- | | | |
|--|----------------------------|--|
| | HORIZONTAL POSITION | Move the image left or right. |
| | HORIZONTAL SIZE | Increase or decrease the horizontal size of the image. |
| | VERTICAL POSITION | Move the image up or down. |
| | VERTICAL SIZE | Increase or decrease the vertical size of the image. |
| | EXIT | Save and exit the "SCREEN SIZE & POSITION" settings. |
| | RESET | Reset the "SCREEN SIZE & POSITION" settings to factory defaults. |



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Color Temperature



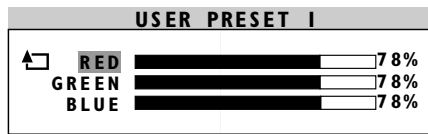
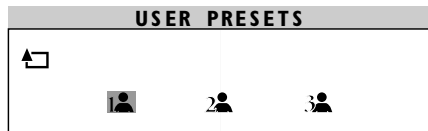
There are three color temperature preset modes: 9300°K for CAD/CAM; 6500°K for DTP; and 5500°K for retouch applications.

1. 9300°K; CAD/CAM


2. 6500°K; DTP

3. 5500°K; PHOTO RETOUCH

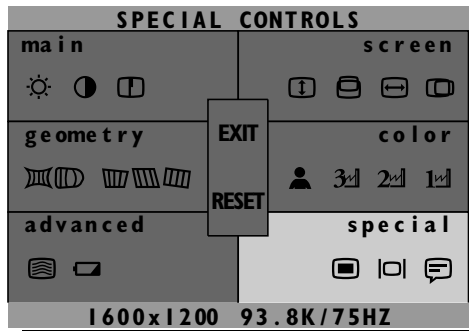
4. **USER PRESETS** Adjust the Red, Green and Blue settings to make a custom color temperature.








-  : Go back to upper layer.
- EXIT** Save and exit the "COLOR TEMPERATURE" settings.
- RESET** Reset the "COLOR TEMPERATURE" settings to functions factory defaults.

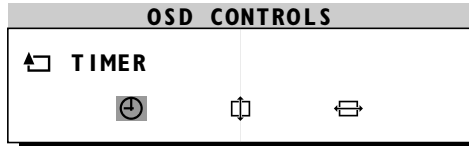
Special Controls



-  **LANGUAGE** Five languages can be chosen: English(default), German, French, Italian,and Spanish.
-  **MONITOR STATUS** Indicates the horizontal and vertical frequency and the resolution.
-  **OSD CONTROLS** OSD display time & position control.



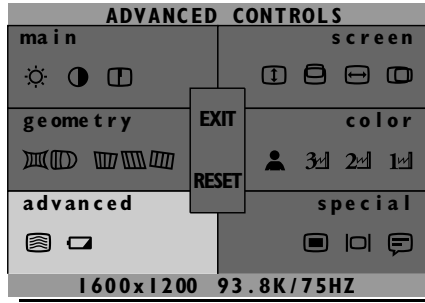
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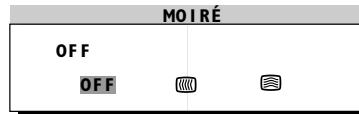
- ⊕ **TIMER** Set OSD display time. The OSD display will disappear; all settings will be saved automatically.
- ⊕ **VERTICAL POSITION** Move the OSD window up or down.
- ⊕ **HORIZONTAL POSITION** Move the OSD window left or right.
- EXIT** Save and exit the "SPECIAL CONTROLS" settings.
- RESET** Reset the "SPECIAL CONTROLS" settings to factory defaults.




Advanced Controls




-  **MOIRÉ** Cancels moire distortion.



- OFF** Disables the cancellation of moire distortion (default).

-  **HORIZONTAL** Increase or decrease the horizontal moire.

-  **VERTICAL** Increase or decrease the vertical moire.

-  **POWER SAVING** Switch the power saving On or Off.

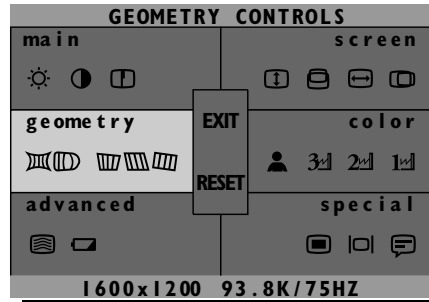
- EXIT** Save and exit the "ADVANCED CONTROLS" settings.






- RESET** Reset the "ADVANCED CONTROLS" settings to factory defaults.



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Geometry Controls

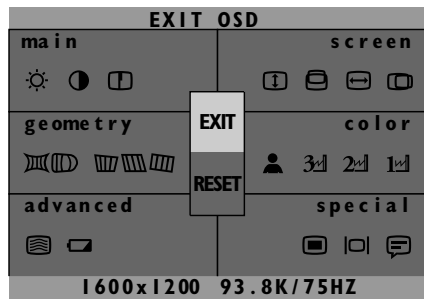


-  **PINCUSHION** Change the curvature of the image inward or outward on each side of the screen.
-  **BALANCED PINCUSHION** Change the curvature of the image inward or outward at either the left or right side of the screen.
-  **TRAPEZOID** Increase or decrease the bottom part of the image in order to match the size of the top part of the image.
-  **PARALLELOGRAM** Adjust the degree to which each side of the image tilts to the right or left.
-  **ROTATION** Rotate the total image clockwise or counterclockwise.
- EXIT** Save and exit the "GEOMETRY CONTROLS" settings.
- RESET** Reset the "GEOMETRY CONTROLS" settings to factory defaults.



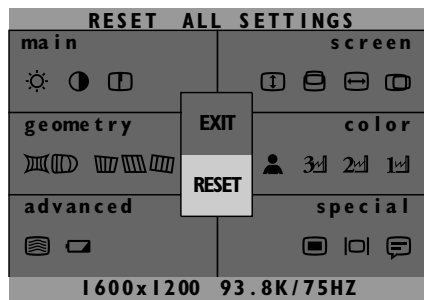
Exit or Reset

EXIT: Exit OSD menu and save all previous settings automatically.



When you finish all the settings, you can choose "EXIT."

RESET: Reset all settings to the factory defaults.

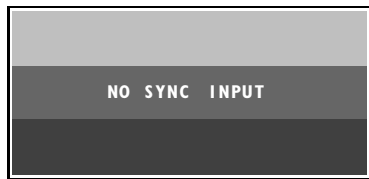


NO : Escape the RESET function and return to main controls menu.
YES : Confirm the RESET function and return to main controls menu.



Self Test

If the signal cable is disconnected if there is no signal input from the PC when the monitor power first turns on, the screen will show a message as below:





Data Storage

(A) Factory preset mode:

This monitor has eight factory-preset modes as indicated in the following table:

	Resolution	Frequency		Standard
		H(KHz)	V(Hz)	
M01	640x400	31.5	70	VGA
M02	640x480	31.5	60	VGA
M03	800x600	46.9	75	VESA/75
M04	1024x768	60.0	75	VESA/75
M05	1024x768	68.7	85	VESA/85
M06	1152x870	68.7	75	MAC
M07	1280x1024	80.0	75	VESA/75
M08	1280x1024	91.1	85	VESA/85

(B) User mode

In addition to factory preset modes, the monitor also provides ten additional user-defined modes, which can be adjusted based on preset modes.

If the input video signal is different from our factory-preset modes, the new timing data will be stored automatically. However, the displayed parameters may need to be adjusted. You may adjust the parameters using the On-Screen-Display (as described on the previous pages).




Automatic Power Saving

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 an input from a keyboard, mouse, or other device is detected, the monitor will automatically "wake up." The following table shows the power consumption and signalling of this automatic power saving feature:

Power Management Definition						
VESA's mode	Video	H-sync	V-sync	Power used	Power saving(%)	LED color
ON	Active	Yes	Yes	< 130W	0%	Green
Stand-by	Blanked	No	Yes	< 15W	88.5%	Yellow
Suspend	Blanked	Yes	No	< 15W	88.5%	Yellow
OFF	Blanked	No	No	< 5W	96.2%	Amber

This monitor is Energy Star compliant 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's DPMS power management capabilities. When used with a computer equipped with VESA's DPMS, the monitor is Energy Star compliant.



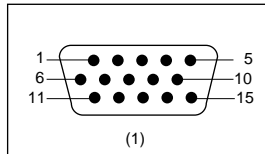
Specifications

(I) General

CRT	
Screen size	: 19" (48.2 cm) flat & square
Viewable Image Size (VIS)	: 17.9"
Focusing method	: Dynamic focus
Dot pitch	: 0.26 mm
Phosphor	: P22 or equivalent, medium short persistence
Screen treatment	: ARASC
Display area	
Factory preset	: 340 mm (H) x 255 mm (V)
Maximum usable	: 360 mm (H) x 270 mm (V)
Scanning frequency	
Horizontal (line)	: 30-95kHz (AutoScan)
Vertical (frame)	: 50-160 Hz (AutoScan)
Input power	: 100-240 V AC±10%, 60-50 Hz
Power consumption	: 110 Watt normal, 130 Watt maximum
Thermal dissipation	: 375 normal BTU/Hr., 444 maximum BTU/Hr.
Input signal	
Video	: 0.7 Vpp, 75 Ohm impedance
Sync	: Separate sync. TTL level Composite sync. TTL level
Pedestal	
Tilt	: 5° forward, 11° backward
Swivel	: 90° leftward, 90° rightward
Physical	
Unit dimension (WxHxD)	: 450 x 475 x 473 mm (17.7" x 18.7" x 18.6")
Net weight	: 23 kg
Operating conditions	
Temperature	: 5° C - 40° C
Humidity	: 20% - 80%
Storage conditions	
Temperature	: -20° C - 65° C
Humidity	: 5% - 95%



(II) Pin assignment:



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

Pin No.	Assignment	Pin No.	Assignment
1	Red video input	9	No pin
2	Green video input	10	Logic ground
3	Blue video input	11	Identical output - connected to pin 10
4	Identical output - Connected to pin 10	12	Serial data line (SDA)
5	Ground	13	H. Sync / H+V
6	Red video ground	14	V. Sync (VCLK for DDC)
7	Green video ground	15	Data clock line (SCL)
8	Blue video ground		



Troubleshooting



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

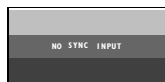
HAVING THIS PROBLEM?

No Picture
(Power LED not lit)

No Picture
(Power LED is amber
yellow.)

No Picture
(Power LED is green.)

Screen says



when you turn on
the monitor.

CHECK THESE ITEMS

Make sure the Power cable is plugged into the wall outlet and into the back of the monitor.

The power button on top of the monitor should be in the ON position.

Disconnect the monitor from the power outlet for about one minute.

Make sure the computer is turned on.
Make sure the monitor cable is or connected properly to your computer.
Check to see if the monitor cable has bent pins.

The Automatic Power Saving may be activated.

Make sure the Brightness and Contrast controls are set correctly.

Make sure the monitor cable is connected properly to your computer.
Check to see if the monitor cable has bent pins.

Make sure the computer power is on.

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

Check to see if the monitor cable has bent pins.

Make sure the computer is turned on.



HAVING THIS PROBLEM?

No Color

Color appears blotchy.

Missing one or more colors

Dim Picture.

Picture is too large
or too small.

Edges of the picture
are not square.

Picture has a double
image.

CHECK THESE ITEMS

If you are using a non-VESA-DDC standard video card, consult your local Philips dealer or service organization to obtain an adapter.

Adjust the DEGAUSS setting.
Remove any nearby magnetic objects.
Face the monitor toward the East for best picture quality.

Check user settings of Color Temperature.
Make sure the monitor cable is connected properly to your computer.
Check to see if the monitor cable has bent pins.

Adjust the Brightness and Contrast controls.
Check your video card and its instruction.
It may be a non-VESA-DDC Standard card.

Adjust the Horizontal and/or Vertical Size.

Adjust the geometry controls.

Eliminate the use of a video extension cable and/or video switch box.
Face the monitor toward the East for best picture quality.





Picture is not sharp.

Check to make sure Moire is switched off.

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.



For further assistance, contact Philips at (800) 835-3506 or (423) 475-0280.





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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.
- 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, parallologram, rotation, and trapezoid.
- Moire** A fringe pattern caused by the interference between two superimposed line patterns.

