

XEROX®

User's Guide

XM9-23w **LCD Monitor**



©2005 by Xerox Corporation. All rights reserved.

Copyright protection claimed includes all forms and matters of copyrightable material and information now allowed by statutory judicial law or hereinafter granted, including without limitation, material generated from the software programs which are displayed on the screen such as icons, screen displays, looks, etc.

XEROX® and all Xerox product names mentioned in this publication are trademarks of XEROX CORPORATION. Other company trademarks are also acknowledged.

Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

Table of Contents

TCO'03	3
CE Marking Declaration Of Conformity	5
Federal Communications Commission (FCC) Statement	6
Important Safety Instructions	7
 1 Introduction	
Features	10
Package Contents	11
Front View and Controls	12
 2 Installation	
Connecting Your LCD Monitor to a Computer	14
Method 1: Analog (D-SUB) Connection	14
Method 2: Digital (DVI) Connection	16
Using Your LCD Monitor	18
Installing the Speaker (optional) to Your LCD Monitor	19
Installing the Wall Mount (optional) to Your LCD Monitor	21
 3 OSD MENU	
Using the OSD Menu	22
The OSD Options	24
The PICTURE SETUP Menu	25
The SOUND SETUP Menu	27
The OSD SETUP Menu	28
 4 Technical Information	
Preset Mode Timing Chart	29
DVI Connector PIN Assignment	30
D-SUB Connector PIN Assignment	31
Plug and Play	32
Visual Inspection	32
Troubleshooting	33
Specifications	34
Authorized Service Center	35



TCO Development

Congratulations!

The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

Ergonomics

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

Energy

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

Emissions

- Electromagnetic fields
- Noise emissions

Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001
- Restrictions on
 - o chlorinated and brominated flame retardants and polymers
 - o heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in cooperation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit
www.tcodevelopment.com

Recycling Place

EUROPE

When disposing of Proview products in Europe, please contact one of the following three locations to make arrangements for recycling.

- Proview International (UK) Limited
30 The Avenue, Watford, Hertfordshire
WD17 4AE United Kingdom
Timothy Lo
Tel: +44 1923-248-111
Fax: +44 1923-248-222
Email: tim.lo@proview.co.uk

- PGL Europe B.V. (Proview Group Limited Rotterdam)
Satijnbloem 37,
3068 JP
Rotterdam
Hollande
David Hsieh
Tel: +31-10-238-1090
Fax: +31-10-238-1091
Email: david@proview-group.nl

- Xaal bvba
Raketstraat 100-B1130
Brussels
Mr. Leo Starckx
Tel: +32-2-702-6011
Fax: +32-2-725-2513
Email: rma@proview-repair.com
leo.starckx@proview-repair.com

ASIA

When disposing of Proview products in Asia, please contact the following location to make arrangements for recycling.

- Proview Technology (ShenZhen) Co., Ltd.
North Block 21, 23# Shatoukok Free Trade Zone, ShenZhen, China.
Mr. Dennis Chang
Tel: +86-755-2526-1512
Fax: +86-755-2526-1565
Email: recycling@proview.com.cn

AMERICA

When disposing of Proview products in America, please call the following location to make arrangements for recycling.

- Proview Technology, Inc. (U.S.A.)
7373 Hunt Avenue, Garden Grove, CA 92841 U.S.A.
Patrick Yen
Tel: 714-799-3865
Fax: 714-379-6290
Email: pyen@proview.net

“THIS DISPLAY UNIT IS AN ELECTRIC DEVICE WHICH MAY CONTAIN HAZARDOUS MATERIALS AND COMPONENTS, AND WHICH MUST BE DISPOSED OF AT END OF LIFE ACCORDING TO THE PROPER PROCEDURE”

CE Marking Declaration Of Conformity

This LCD monitor complies with the requirements of the EC Directive 89/336/EEC "EMC Directive" and 73/23/EEC "Low Voltage Directive" as amended by Directive 93/68/EEC. The electro-magnetic susceptibility has been chosen at a level that gives correct operation in residential areas, business and light industrial premises and small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterized by their connection to the public low voltage power supply system.

Federal Communications Commission (FCC) Statement

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

1. Reorient/Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit which is different from what the receiver is connected to.
4. Consult the dealer or an experienced radio/TV technician for help.

**CAUTION:**

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user authority to operate the equipment.

Important Safety Instructions

To prevent any injuries, the following safety precautions should be observed in the installation, use, servicing and maintenance of this equipment.

Before operating this equipment, please read this manual completely, and keep it nearby for future reference.

Warnings



- Do not place the equipment on any uneven or unstable carts, stands, tables, shelves etc. The equipment may fall, causing serious injury to children or adults and serious damage to the equipment itself.
- Use only a cart or stand recommended by the manufacturer. This equipment and recommended cart or stand should be handled with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart/stand to overturn.
- Do not disable the 3-wire grounding type plug. The grounding pin on the 3-prong plug is an important feature. Removing the grounding pin will increase the risk of damaging the equipment. If you can not fit the plug into the electrical outlet, contact an electrician to install a grounding outlet.
- Always operate this equipment from the type of power source indicated on the rear of the serial/model plate.
- Never overload wall outlets and extensions.
- Use and handle the power cord with care.
- Do not place any heavy objects on the AC power cord.
- Do not pull the AC power cord. Do not handle the AC power cord with a wet hand.

- Do not touch the power cord and antenna cable during lightning.
- Remove the plug from the wall outlet if the equipment will not be used for a long period of time.
- Do not place, use or handle this equipment near water.
- Never expose the equipment to liquid, rain, or moisture. Seek qualified service if any of the above is spilled into the equipment.
- Do not attempt to service the equipment yourself.
- Opening and removing the covers may expose you to dangerous voltage or other hazards and may void your warranty. Refer service to qualified personnel.
- Always remove the power cord from the outlet before cleaning the equipment.
- Never use liquid or aerosol cleaners on the equipment. Clean only with a soft dry cloth.
- Do not expose the equipment to extreme temperature or to direct sunlight, as the equipment may heat up and suffer damage.
- Do not install the equipment near any heat sources such as radiators, heat registers, stoves, or any other apparatus that might produce heat.
- Do not block any ventilating openings. Leave an open space around the equipment.
- Never place the equipment on a bed, sofa, rug, or any other similar surfaces; too close to drapes/curtains/walls, in a bookcase, built-in cabinet, or any other similar places that may cause poor ventilation.

(continued on next page)

- If any of the following conditions occur, unplug the power cord from the outlet and request service from qualified personnel.
 - a. The power cord or plug is damaged.
 - b. Liquid is spilled into the product .
 - c. An object falls onto or into the product.
 - d. The product has been dropped or damaged.
 - e. The product's display is abnormal.



DISPOSAL OF WASTE ELECTRONIC EQUIPMENT BY PRIVATE HOUSEHOLDS WITHIN THE EUROPEAN UNION

This sign indicates that this product may not be disposed of with your regular household waste. The recycling and separate collection of such products is your responsibility. Please drop off the above-mentioned waste at a designated place for recycling waste electrical and electronic equipment. If you do not know where to drop off your waste equipment for recycling, please contact your local city office or household waste collection service.

1 Introduction

Features



- **Rapid Video Response**

Fast action media such as gaming, DVD and video conferencing will playback smoothly thanks to the rapid video 8ms response time of the LCD panel.



- **Extremely High Resolution**

Expand your view with this 23" 1920x1200 native resolution wide-screen LCD.



- **Wide Viewing Angle**

The XM9-23w features wide viewing angles to optimize productivity for graphics, CAD, and large spreadsheet applications.



- **Stunning Colors**

ACE (Advanced Color Management) video processing engine improves graphics, photos, or presentations with more saturated colors, high contrast ratio, and dark black levels. You can instantly change to ACE by simply pressing the enhance button, or make any fine color adjustments from on-screen menu.



- **Precise Xtouch™ Buttons**

Tap the touch sensitive Xtouch™ buttons to access the the on-screen menu for easy image adjustments.

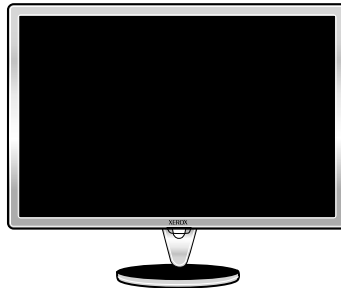


- **Digital DVI Input**

Digital Video Input (DVI) provides precise digital image display, and the XM9-23w series the flexibility to accept both digital or analog signals.

Package Contents

Make sure all of the following contents are included in the box. If any items are missing, please return this product to the original place of purchase.



LCD Monitor



Power Cord*



AC-DC Adapter



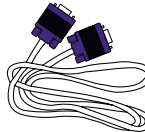
Quick Guide



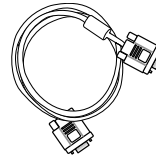
Warranty Card



CD-ROM
(Driver/User Guide)



D-SUB Cable



DVI Cable

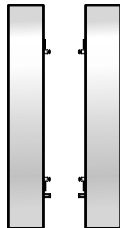


Audio Cable

* Power cord specification : H05 VV-F 3G 0.75mm²

Optional Parts

Optional parts as below are available for the XM9-23w series.



Right/Left
Detachable Speakers



VESA Mount
(two size types are included)

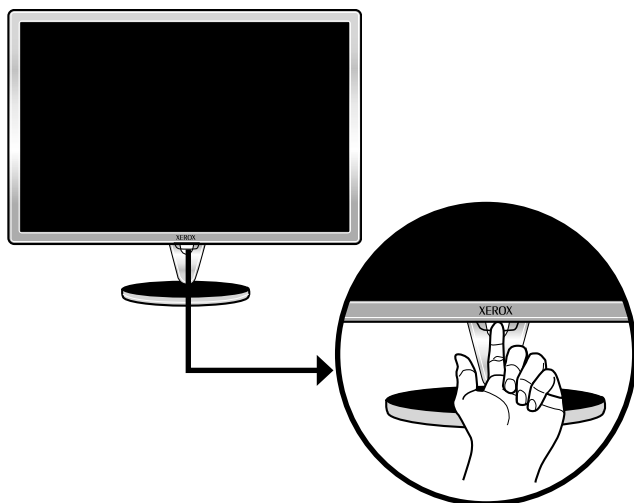


CAUTION:

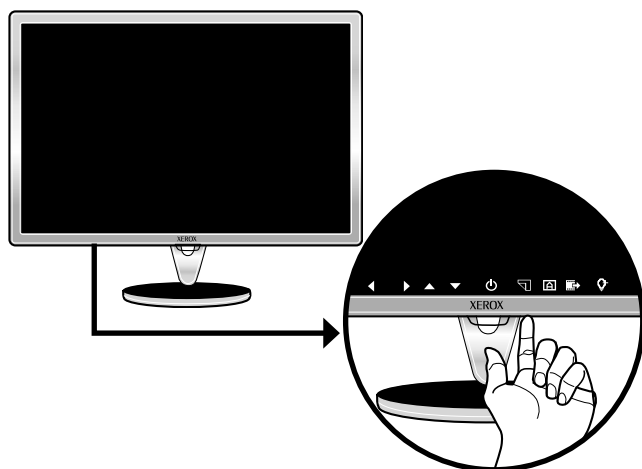
Be sure to save original box and all packing material for future transport of monitor.

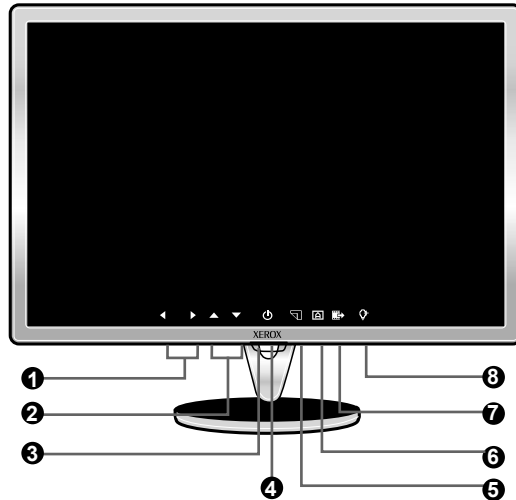
Front View and Controls

- 1 Press the **POWER** button, located on the bottom side of the main unit.



- 2 Press the **MENU** button, located on the bottom side of the main unit to display on-screen menu.





- 1** ◀▶

In OSD mode, press the ◀▶ buttons to change the value of the selected item. Adjusts the volume up and down.
- 2** ▲▼

In OSD mode, press the ▲▼ buttons to move the selection highlight to the next menu item.
- 3** LED

The LED light indicates when the LCD monitor is activated (blue light indicates power on and amber flash indicates power saving).
- 4** ⏻

Turns the LCD monitor on and off.
- 5** □

Press once to display the OSD (On Screen Display), and press again to turn the OSD off.
- 6** □

Press to automatically adjust the display settings to optimize performance based on the D-SUB signal.
- 7** 🔊

Mutes and restores your LCD monitor sound.
- 8** ☀

Press to increase the brightness of the picture.

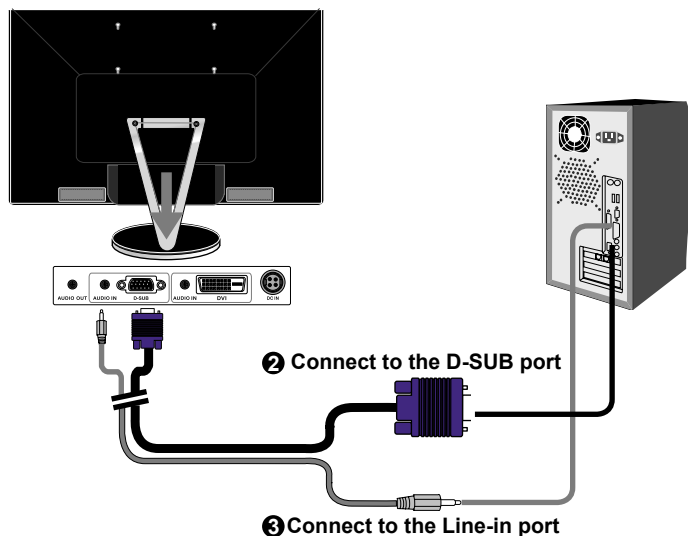
2 Installation


Refer to the owner's manual of the computer for connections. In the process of connecting external equipment, do not connect any AC power cords to wall outlets until all other connections are completed.

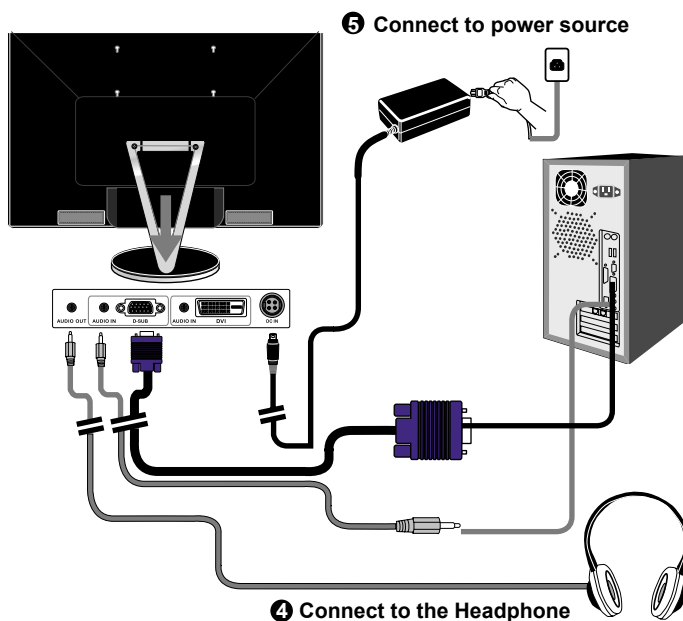
Connecting Your LCD Monitor to a Computer

Method 1: Analog (D-SUB) Connection

- 1 Turn off the computer and unplug the power cable.
- 2 Connect the D-SUB signal cable to the D-SUB port on the back of the computer.
- 3 Connect the audio cable to the line-in port on the back of the computer.




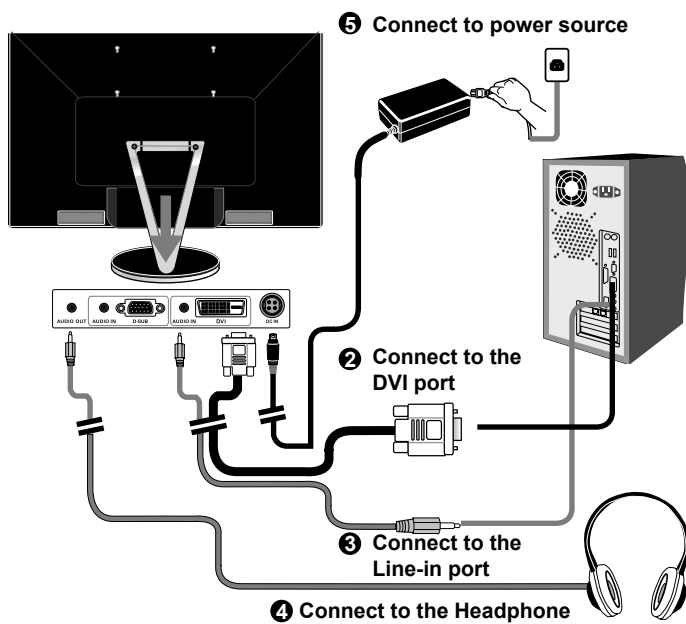
- 4 If you would like to listen to PC audio with a headphone, connect the audio out port to the headphone.
- 5 Connect the DC plug of the AC-DC adapter to the DC 24V port at the rear of the monitor. Connect the power cord to the AC-DC adapter and wall outlet.
- 6 Press the  button, located on the bottom side of the main unit to turn the monitor on, then turn the computer on. If the monitor displays an image, the monitor is successfully installed. If no image is displayed, check all connections.

**NOTE:**

Unplug the monitor before installation to avoid electric shock or damage.

Method 2: Digital (DVI) Connection

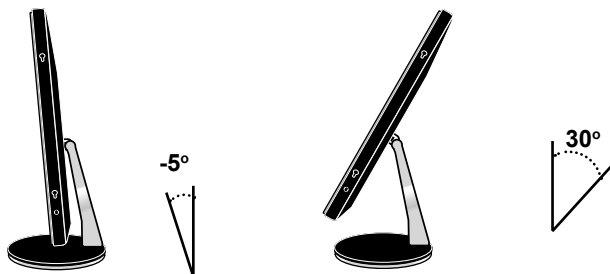
- 1** Turn off the computer and unplug the power cable.
- 2** Connect the signal cable (DVI-D) to the DVI port on the back of the computer.
- 3** Connect the audio cable to the line-in port on the back of the computer.
- 4** If you would like to listen to PC audio with a headphone, connect the audio out port to the headphone.
- 5** Connect the DC plug of the AC-DC adapter to the DC 24V port at the rear of the monitor. Connect the power cord to the AC-DC adapter and wall outlet.
- 6** Press the  button, located on the bottom side of the main unit to turn the monitor on, then turn the computer on. If the monitor displays an image, the monitor is successfully installed. If no image is displayed, check all connections.




Using Your LCD Monitor

In order to ensure a healthy and relaxed body position when using the monitor at visual display workstations, you are able to adjust the monitor's angle of the stand.

The angle of the LCD monitor may be adjusted approximately 35 degrees.




NOTE:

Press and hold the  button for approximately 2 seconds to turn the LCD monitor off.



NOTE:

The  button is used for switching the LCD monitor on and off, it does not disconnect the device from the main voltage. To completely disconnect the main voltage, please remove the power plug from the socket.



NOTE:

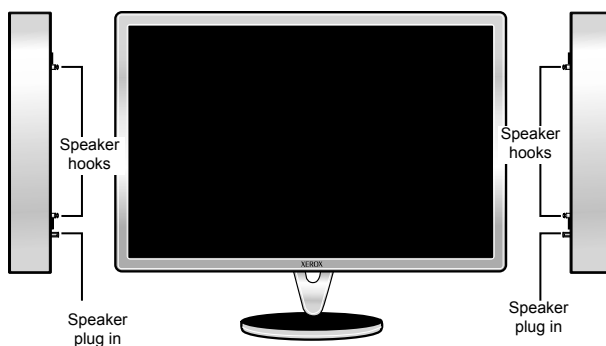
The LED indicator is blue when the monitor operates normally and will turn to amber when in power saving mode. When the monitor is off, the LED turns dark.

Installing the Speaker(optional) to Your LCD Monitor

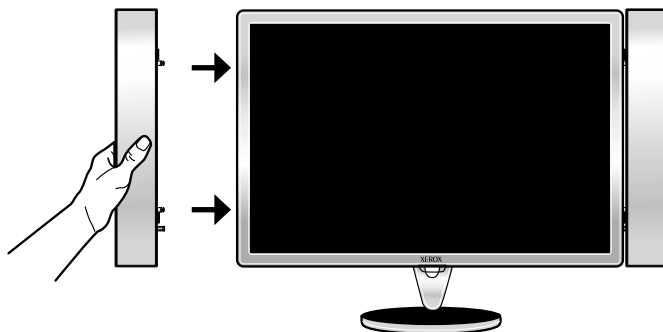
Install

Follow the instructions below to install the optional speakers.

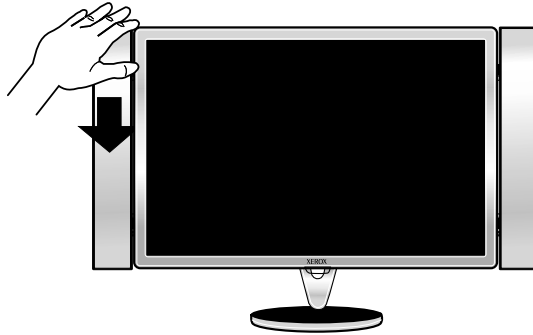
- 1 Attach the speaker onto both sides of the LCD monitor as shown.



- 2 Hold the optional speaker and place it on the two hooks and speaker plug on the unit as shown.

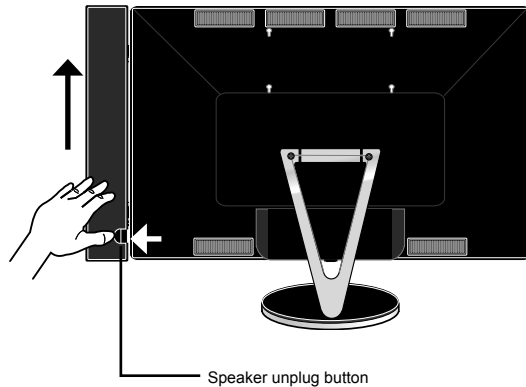


- 3** Once the hooks are matched with the LCD monitor unit, pull the speaker down to complete the attachment.



Remove

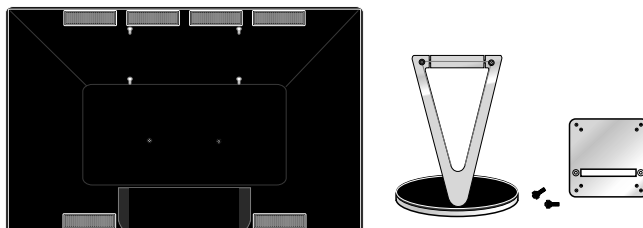
Push the speaker unplug button of the speaker in the direction of the arrows and pull away from the LCD monitor unit.



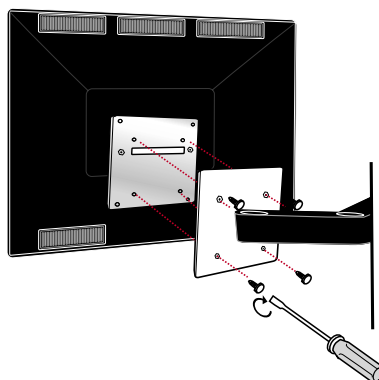
Installing the Wall Mount (optional) to Your LCD Monitor

If you wish to lock the LCD monitor on a wall, carefully follow the instructions below.

- 1 Remove the screws on the back of the stand.



- 2 Use the screws to fix the VESA mount (two type: 75x75mm, 100x100mm) on the rear of the display monitor. Be sure the screws are firmly fixed in place.
- 3 Affix the VESA mount to the back of the LCD monitor using the four screws provided in the wall-mount kit.


**NOTE:**

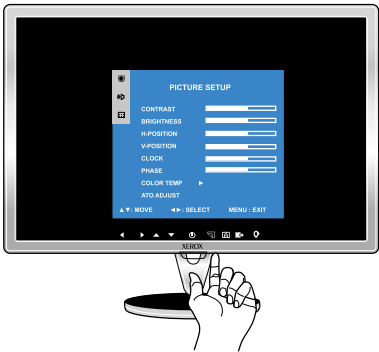
For instructions on wall-mount installation, please refer to the installation guide provided by the wall-mount kit vendor.





3 OSD MENU

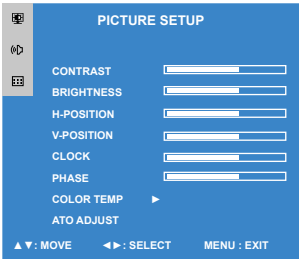
Using the OSD Menu

To create the best picture, your XM9-23w series has been preset at the factory with the Preset Mode Timing shown on page 29. The OSD (On Screen Display) Menu allows the user to adjust various settings and options by following the steps below.

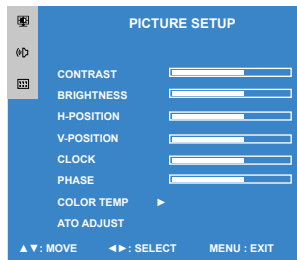
- 1** Press the  button to display the OSD. The OSD main menu provides an overview of the selection of controls available.



- 2** Press the  or  button to highlight the desired sub-menu icon. Then, press the  or  button to enter the desired sub-menu.



- 3** Press the ▲ or ▼ button to select the desired adjustment item.



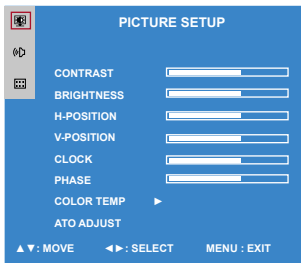
- 4** Press the ◀ or ▶ button to change the value of the selected item.
- 5** Select the ◀ icon to exit the OSD.
- 6** Repeat steps 1 through 5 to make further adjustments. All changes are stored immediately.

The OSD Options

The main menu includes the following options:

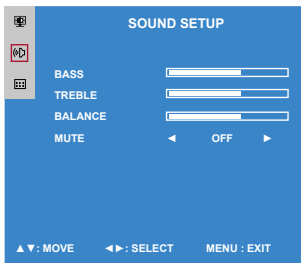
1 PICTURE SETUP

Adjusts picture settings such as brightness, contrast.



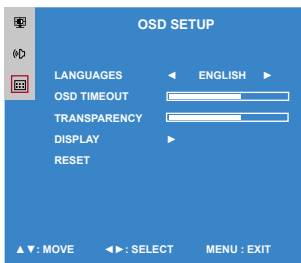
2 SOUND SETUP

Allows selection of the sound options and effects.



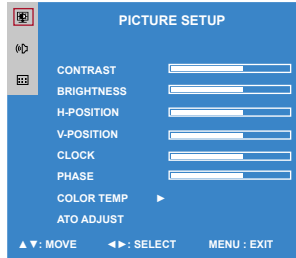
3 OSD TIME

Adjusts settings for miscellaneous features: OSD timeout, languages, transparency of OSD background, display, and reset.



The PICTURE SETUP Menu

- 1** The PICTURE SETUP Menu provides access to the following menus:



- 2** The PICTURE SETUP menu includes the following options:

CONTRAST

Controls the difference between the brightest and darkest regions of the picture.

BRIGHTNESS

Controls the overall brightness.

H. POSITION

Adjusts the position of the picture left and right in the window.

V. POSITION

Adjusts the position of the picture up and down in the window.

CLOCK

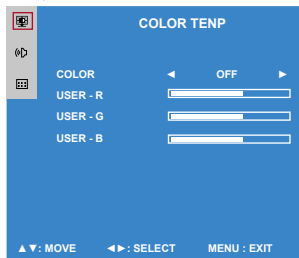
Adjusts the width of the picture.

PHASE

Adjusts signal phase, which can improve focus clarity and image stability.

COLOR TEMP

Allows selection of the general color tint: NATURAL, WARM, COOL, or USER.



NATURAL

Inclines colors toward the natural end of the spectrum. Fixes the red, green and blue component levels at factory settings; they cannot be independently adjusted.

COOL

Inclines colors toward the blue end of the spectrum. Fixes the red, green and blue component levels at factory settings; they cannot be independently adjusted.

WARM

Inclines colors toward the red end of the spectrum. Fixes the red, green and blue component levels at factory settings; they cannot be independently adjusted.

USER

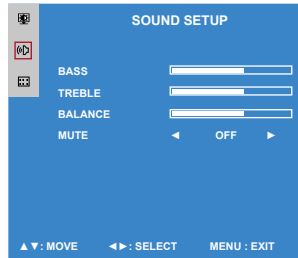
Allows the user to adjust red, green and blue color component levels independently.

AUTO ADJUST

Automatically adjust the display settings to optimize performance based on the D-SUB signal.

The SOUND SETUP Menu

- 1** The SOUND SETUP Menu provides access to the following menus:



- 2** The SOUND SETUP menu includes the following options:

BASS

Controls the relative intensity of lower-pitched sounds.

TREBLE

Controls the relative intensity of higher-pitched sounds.

BALANCE

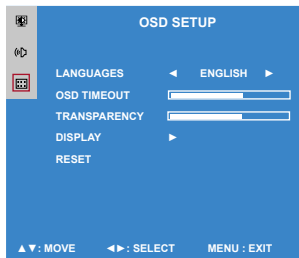
Adjusts the relative volume of the speakers in a multiple-speaker system.

MUTE

Mutes and restores your monitor sound.

The OSD SETUP Menu

- 1** The OSD TIME Menu provides access to the following menus:



- 2** The OSD TIME menu includes the following options:

LANGUAGES

Allows selection of the languages used on all the on-screen menus.

OSD TIMEOUT

Allows selection of the display time of the on-screen menu.

TRANSPARENCY

Controls the translucence of the on-screen menu's background.

DISPLAY

Press the ◀ or ▶ buttons to display the current of vertical refresh rate and resolution.

RESET

Press the ◀ or ▶ buttons to restore the factory settings.

4 Technical Information

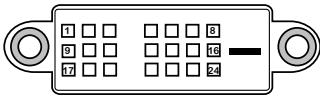
Preset Mode Timing Chart

The screen image has been optimized during manufacture for the display modes listed below.

Video signal: (IBM PC/AT)

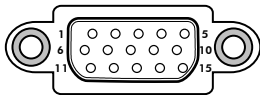
Dot X Line	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640 x 350	31.47	70.08
720 x 400	31.47	70.08
640 x 480	31.47	60.00
	37.86	72.80
	37.50	75.00
800 x 600	35.16	56.25
	37.88	60.30
	46.87	75.00
1024 x 768	48.36	60.00
	56.48	70.10
	60.02	75.00
1280 x 1024	63.98	60
	79.98	75.00
	91.10	85.00
1600 x 1200	75.00	60.00
1920 x 1080	67.05	60.00(for D-Sub)

DVI Connector PIN Assignment



PIN	DESCRIPTION	PIN	DESCRIPTION
1	TMDS Data 2-	15	GND
2	TMDS Data 2+	16	Hot Plug Detect
3	TMDS Data 2/4 shield	17	TMDS Data 0-
4		18	TMDS Data 0+
5		19	TMDS Data 0/5 shield
6	DDC Clock	20	
7	DDC Data	21	
8	Analog Vertical Sync	22	Clock shield
9	TMDS Data 1-	23	Clock +
10	TMDS Data 1+	24	Clock -
11	TMDS Data 1/3 shield		
12			
13			
14	+5V Power		

D-SUB Connector PIN Assignment



PIN	DESCRIPTION
1	Red
2	Green
3	Blue
4	Ground
5	Self Test
6	Red Ground
7	Green Ground
8	Blue Ground
9	5 VDC
10	Ground
11	Ground
12	SDA (FOR DDC)
13	H. Sync
14	V. Sync
15	SCL (FOR DDC)

Plug and Play

This monitor conforms to the VESA DDC (Display Data Channel) standard, which means that when it is used with a DDC compatible video card, the monitor is easier to set up. With VESA DDC 1/2B, when the monitor is turned on, it will automatically notify a windows 9X/2000/XP host computer of its scanning frequencies, capabilities and characteristics. Windows 9X/2000/XP will automatically recognize the presence of the monitor and select the appropriate display resolution.

Visual Inspection

Permanently unlit or lit pixels

The standard of production techniques today cannot guarantee an absolutely fault free LCD display. A few isolated permanently lit or unlit pixels may be present. The maximum permitted number of pixel faults is stipulated in the stringent international standard ISO 13406-2 (Class II).

Example:

A 17" flat-screen monitor with a resolution of 1280 x 1024 has $1280 \times 1024 = 1310720$ pixels. Each pixel consists of three subpixels (red, green and blue), so there are about 4 million dots in total.

According to ISO 13406-2 (Class II), a maximum of 6 pixels and 7 subpixels may be defective, i. e. a total of 25 faulted dots. This corresponds to approx. 0.002 % of the entire screen surface.

Troubleshooting

Before consulting service personnel, check the following chart for a possible cause and solution to the trouble you are experiencing.



Monitor will not turn on

- Make sure the power cord is plugged in.



No picture

- Make sure the power cord is plugged in.
- Check the signal cable connecting the LCD monitor and the computer (refer to page 14-17).
- Press the **POWER/⏻** button on the front panel of the monitor.

Poor picture or abnormal picture

- Check the signal cable connecting the LCD monitor and the computer (refer to page 14-17).
- Press the  button to adjust the Brightness Contrast options in the OSD.
- Adjust the Color Select option in the OSD.
- Press the  button on the front panel of the monitor, to automatically adjust the display mode.

Out of range message appears

- Press the  button on the front panel of the monitor, to automatically adjust the display mode.
- Press the  button to adjust the V Position, H Position and H Size options in the OSD.
- If using Windows 9X/2000/XP, wait a few seconds; once Windows detects the problem, a dialog will appear allowing you to manually set up the video mode according to the preset mode timing chart (refer to page 29).

Specifications

MODEL		XM9-23w
LCD Panel	Panel Size	23" WIDE TFT LCD
	Brightness	250
	Contrast Ratio	800:1
	Dot Pitch	0.258mm x 0.258mm
Max. Resolution		1920x1200
Speakers		Optional
Input Connector		DVI-D x1/ D-SUBx1/ AUDIO IN x2/AUDIO OUT x1
Power Source		AC100-240V, 50-60Hz
Power Consumption		96W
Dimension		542x438.8x210 mm
Stand		V type

Changes are periodically made to this specifications.
Current specifications may also be obtained via the internet,
www.xerox-displays.com or www.xerox-displays.info

Authorized Service Centers

U.S.A.
CALIFORNIA: AUTHORIZED SERVICE CENTER
7373 HUNT AVENUE
GARDEN GROVE, CA 92841
(714) 799-3899
(800) 469-1175
(714) 379-6290 Fax
Hours: 8AM ~ 6PM - Pacific Standard Time

TEXAS: AUTHORIZED SERVICE CENTER
10849 KINGHURST SUITE # 120
HOUSTON, TX 77099
(281) 530-4100
(281) 530-4104 Fax
Hours: 8AM ~ 6PM - Central Time

EUROPE
AUTHORIZED SERVICE CENTER CONTACTS:
XOAL BVBA
RAKETSRAAT 100
B-1130 BRUSSEL BELGIUM
E-EMAIL: rma@proview-repair.com
<http://www.proview-repair.com>
Hotline: 00800 00 88 77 66
Fax: +32-2-725-2513
Hours: 10AM ~ 12PM and 2PM ~ 5PM
Monday through Friday