



Colour Monitor

USER GUIDE

BENUTZERHANDBUCH

MANUEL D'UTILISATION

GUIDA UTENTE

GUIA DEL USUARIO

MODEL : StudioWorks 74m



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Introduction

Thank you for purchasing a Goldstar color monitor. This monitor supports DDC1, DDC2B, DDC2AB and Sound. It will give you high resolution performance and operation in a variety of video operating modes. It is compatible with standard PC type personal computers. The 17-inch flat Square Tube design (15.7 inches viewable) is excellent for use in a windows or desktop publishing environment, where smaller screen sizes result in images difficult to see easily. The anti-glare and anti-static face treatment is easy on the eyes.

For low cost of monitor operation, this monitor is certified as meeting the EPA Energy Star Requirements, and utilizes the VESA Display Power Management Signalling (DPMS) protocol.

Please review this manual completely before operating the monitor.

Monitor Registration

The model and serial numbers are found on the rear of this unit. These numbers are unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase staple your receipt to this page.

Date of Purchase : _____
Dealer Purchased From : _____
Dealer Address : _____
Dealer Phone No. : _____
Model No. : _____
Serial No. : _____

Notice

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Trademark Acknowledgments

GoldStar is a trademark of **LG Electronics Inc.**

IBM is a registered trademark and **VGA** is a trademark of International Business Machines Corporation.

WARNING : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

AVERTISSEMENT : Ne pas placer cet appareil dans un endroit humide. Cela peut entraîner un incendie ou une décharge électrique.

Important Precautions

This unit has been engineered and manufactured to assure your personal safety, but improper use can result in potential electrical shock or fire hazard. In order not to defeat the safeguards incorporated in this monitor, observe the following basic rules for its installation, use and servicing. Also follow all warnings and instructions marked directly on your monitor.

On safety

1. Use only the power cord supplied with the unit. In case you use another power cord, make sure that it is certified by the applicable standards(UL/CSA or VDE) if not being provided by the supplier.
2. Operate the monitor only from a power source indicated in the specifications of this manual or listed on the monitor. If you are not sure what type of power supply you have in your home, consult your dealer.
3. Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.
4. **DO NOT OPEN THE MONITOR.** There are no user serviceable components inside. There are Dangerous High Voltages inside, even when the power is Off. Contact your dealer If the monitor is not operating properly.
5. To avoid personal injury :
 - Do not place the monitor on a sloping shelf unless properly secured.
 - Use only a stand recommended by the manufacturer.
 - Do not try to roll a stand with small casters across thresholds or deep pile carpets.
6. To prevent Fire or Hazards:
 - Always turn the monitor Off if you leave the room for more than a short period of time. Never leave the monitor On when leaving the house.

- Keep children from dropping or pushing objects into the monitor's cabinet openings. Some internal parts carry hazardous voltages.
- Do not add accessories that have not been designed for this monitor.
- During a lightning storm or when the monitor is to be left unattended for an extended period of time, unplug it from the wall outlet.
- Do not bring magnetic devices such as magnets or motors near the picture tube.

On installation

1. Do not allow anything to rest upon or roll over the power cord, and do not place the monitor where the power cord is subject to damage.
2. Do not use this monitor near water such as near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
3. Monitors are provided with ventilation openings in the cabinet to allow the release of heat generated during operation. If these openings are blocked, built up heat can cause failures which may result in a fire hazard. Therefore, NEVER:
 - Block the bottom ventilation slots by placing the monitor on a bed, sofa, rug, etc.
 - Place the monitor in a built-in enclosure unless proper ventilation is provided.
 - Cover the openings with cloth or other material.
 - Place the monitor near or over a radiator or heat source.

On cleaning

- Unplug the monitor before cleaning the face of the picture tube.
- Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the picture tube because overspray may cause electrical shock.

On repacking.

- Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it in its original material.

Installation

The supply voltage is marked on the ID label located on the rear panel of the monitor. If your local voltage is different, do not use the monitor and contact your supplier before using the display.

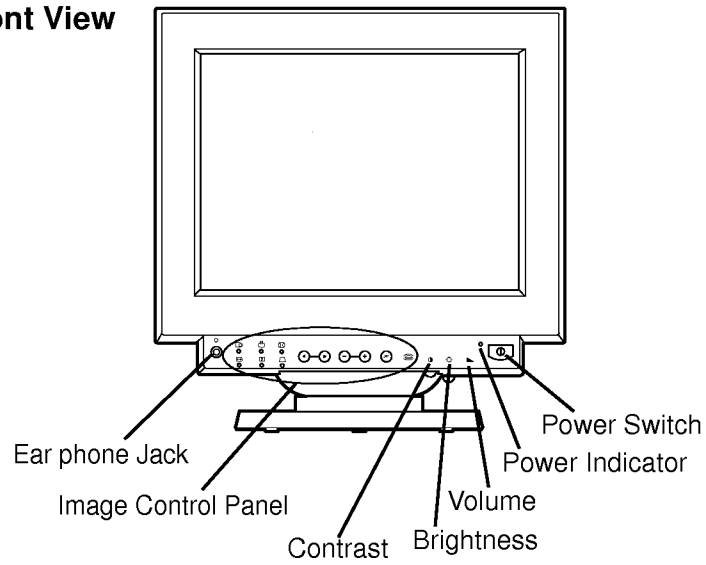
Connections

To connect your monitor after the video adapter is properly installed:

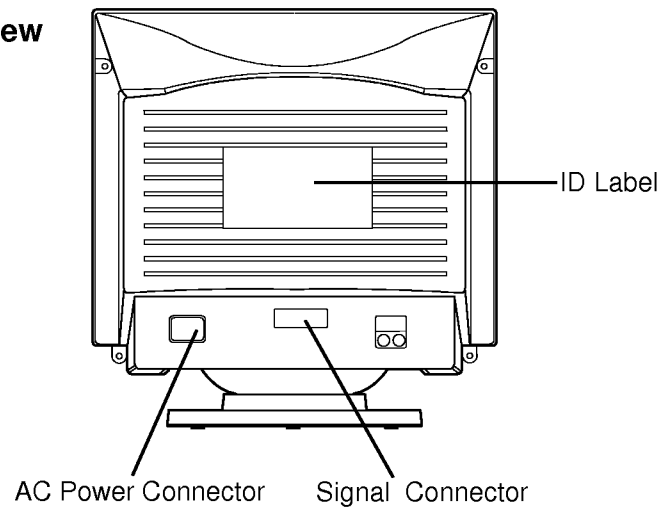
1. Turn OFF the power to your computer and all its attached options.
 2. Position the monitor and the computer so that you can easily get to the back panel of each.
 3. Connect the signal cable with D-sub connector to the graphics board on your PC as described in your PC Owner's Manual.
 4. Tighten the screws on the video cable connectors to keep them from coming loose and to prevent radio and TV interference.
 5. Connect the power cord to the AC receptacle on the back of the monitor. Plug the other end of the power cord into a properly grounded electrical outlet.
 6. The socket-outlet should be installed near the equipment and should be easily accessible.
- * Other Users: To work with equipment using a different connector than on the cable supplied, you may need to purchase an adapter cable or adapter block to attach the monitor to your equipment. Example: For MACII users, you might need an adapter block to change from the high density (3 row) db-15 VGA connector on the supplied cable to a standard (2 row) db-15 connector for your MAC II.
- * This product is also designed for IT power system with Phase to Phase voltage 230V.

Control Layout and Descriptions

Front View



Rear View



- 🎧 Earphone (All kinds of earphones are available)
- Contrast (To adjust Contrast level)
- ☀️ Brightness (To adjust Brightness level)
- ▶️ Audio Volume (Adjust this control for audio volume)

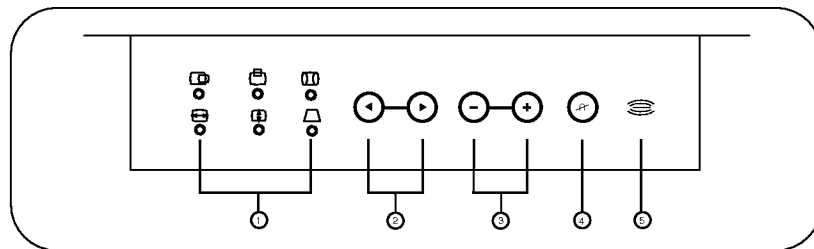
Power Indicator

The power indicator lights when the power is On, and indicates the operating status of the display.

Power Switch

Used to turn the power On or Off.

Image Control Panel



① Image control icons

- 📏 Horizontal Position (To move picture image left and right)
- 📏 Horizontal Width (To adjust image width)
- 📏 Vertical Position (To move image up and down)
- 📏 Vertical Height (To adjust image height)
- 📏 Side Pincushion (To correct the bowing in and bowing out of the image)
- 📏 Trapezoid (To correct geometric distortion)

② Image adjustment

Use either the ◀️ or ▶️ button to select the icons of Menu 1 to 6 which you wish to adjust and display.

③ -/+ buttons

Used to set digital values for each of the select on screen control item by pressing + button for increment or - button for decrement.

④ Degauss button

This button is used to demagnetic the picture to give a more accurate image and color.

⑤ Mic

On the front panel there is a Condenser Microphone. In order to use Condenser Microphone, you need to use a cable to plug into the rear of the monitor (Mic out) and into the Mic input jack of your sound card (if available).

To adjust the image controls:

- 1) Press an image select button (◀ or ▶) to highlight an item you wish to adjust.
- 2) Press either the + or - button to adjust the image. A display for that item will show the item level and effect of pushing the - or + keys.
- 3) To adjust other controls, repeat above steps 1) and 2).
- 4) Any image adjustments you make will be automatically stored in the monitor's memory.

General Operation

After following the general installation directions and reviewing the section on control layout and function, you are ready to power-up and operate the monitor.

1. Turn on the monitor by pressing the power button once. The monitor's power indicator will light amber.
2. Turn on the PC.
3. After booting (the PC power-up sequence and initialization) the power LED on the monitor should be illuminated green. If not, check the connections and the trouble-shooting section of this manual.
4. While looking at the image on the screen, select the image control icons Menu 1 to 6 and press + or - button for image adjustment you prefer.

Power Management System

This monitor incorporates new circuitry for lowering energy usage during idle time, following the Display Power Management Signalling (DPMS) guide-lines of the Video Electronics Standards Association (VESA), and is certified as exceeding the EPA's Energy Star program for reduced power usage.

For the power savings feature to operate, the monitor must be used with either a PC having power saving circuitry or a PC running screen blanking software. The monitor has three power-saving states, and the power saving operation is indicated by the power indicator on the front panel.

When the power indicator is green, operation is normal. When the power indicator is amber, the monitor is in a power saving mode. If the power indicator is amber and you wish to use the PC again, move your mouse pointer or touch a keyboard button. When not in use, save energy by turning off the monitor.

Image Adjustment

This monitor has a microprocessor-based control system for adjusting the following items: Horizontal width, horizontal position, vertical height and position, side pincushion and trapezoid. When you make adjustments to any of the above items, the microprocessor will automatically memorize the adjustments you made. Your settings will be maintained even if you turn off the monitor and turn it on again at some later time.

NOTE: The only time you may need to adjust the image settings again is in the event you change video modes (for example, you may go from a 640x480 video mode in DOS to an 800x600 video mode for windows). In this event, you may need to adjust the image controls again to meet the image display you desire. Now the microprocessor will memorize the new image settings you made in the 800x600 video mode, having already stored your 640x480 image settings before. From now on, when you switch between a 640x480 mode and a 800x600 mode, the monitor will recall each of the specific image settings you made in each of these modes. More on image memory modes in the video memory modes section.

Video Memory Modes

This multi-synchronous auto-scanning monitor can automatically detect and display several video modes falling within the monitor's scanning range of 30-50KHz Horizontal and 50-90Hz Vertical. For convenience, the monitor has a 17 mode memory of which 5 modes come from the factory preset to popular video modes as described below.

Mode	Display Mode	Horizontal Frequency	Vertical Frequency	Polarity		Comments
				Horiz sync	Verti sync	
1	VGA640 x 400	31.47 KHz	70 Hz	-	+	Factory fixed, but may be updated by user's setting.
2	VGA640 x 480	31.47 KHz	60 Hz	-	-	
3	VESA640 x 480	37.50 KHz	75 Hz	-	-	
4	SVGA/VESA75,800 x 600	46.88KHz	75 Hz	+	+	
5	1024 x 768	48.40 KHz	60 Hz	-	-	

Modes6-17 are empty and can accept new video data.

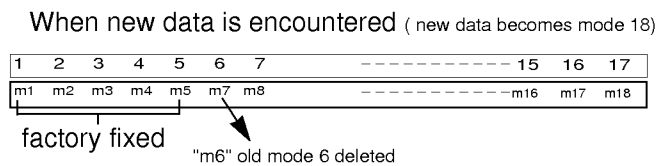
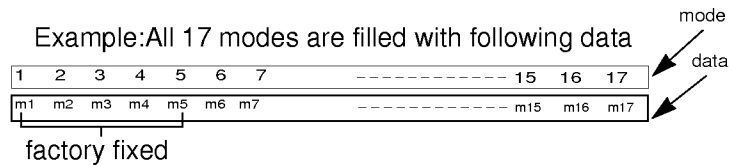
If the monitor detects one of the above signals from your computer's video card, it will recall that mode and any stored image adjustments you may have made before. If the monitor detects a new video mode that had not been present before or is not one of the above listed factory presets, it will store a new mode automatically in one of the blank (empty) memory modes (in this example, mode 6). When you now adjust the image controls to your preference, these image settings will also be stored in mode 6. Whenever your video card or PC switches to the mode that the monitor recognizes as mode 6, your personal image settings will also be recalled.

A note about the video memory modes:

There are a total of 17 video memory modes, generally more modes than you will use at any one time. Of these 17 modes, 5 are permanent, factory fixed modes that cannot be changed. The remaining 12 modes left blank (empty). If you use up the 12 blank modes and still have more new video modes, the monitor will only delete modes 6 of the last mode and new mode added in the last mode 17.

If you use a video card that has a number of resolutions and frequencies that do not correspond to any of the monitor video modes set at the factory, here's what will happen:

- 1) As the monitor encounters new video data, the monitor will save the new information in the next available empty mode (mode 6 if this is the first new data encountered).
- 2) If you have used up modes 6-17 with 12 new video modes, and the monitor has another mode it encounters, it will store the new data in mode 17 of the last mode.
- 3) If even more new modes are encountered by the monitor, each new mode becomes the 17th mode and the old mode 6 is deleted. In summary, if the 17 modes are full and new modes are added at the last mode 17 repeatedly.



By designing the monitor this way, you will always have the most common 12 video modes generated by your graphics card available, with your own image settings recalled automatically.

Audio Features

A major feature of this monitor is its built-in audio system. This conveniently integrates a stereo audio amplifier and speakers without taking up any more space. By designing the monitor like this, you can easily upgrade to audio capable multimedia applications by attaching your PC with sound card to the back of this monitor. It will result in significantly less cabling and space requirements.

Audio Connections

Use the supplied cable to attach to the rear of the monitor (audio in) and to the sound card in your PC (line out). The cable will carry both left and right channel signals in the one wire. Make sure when you use the PC to turn up the volume of the sound card all the way. Otherwise, the volume control on the monitor front panel will only control the lower volume coming out of the sound card. An additional "SPEAKER IN" connector is located on the rear of the monitor and connect the sound card in your PC (speaker out).

DDC (Display Data Channel)

DDC is a communication channel over which the monitor automatically informs the host system(PC) about its capabilities. This monitor has three DDC functions; DDC1, DDC2B, DDC2AB. DDC1 and DDC2B carry out uni-directional communication between the PC and the monitor. Under these situations, the PC sends display data to the monitor but not commands to control the monitor settings. DDC2AB has the function of bi-directional communication. For example, the PC can fetch screen data from monitor and adjust the screen with the PC keyboard.

NOTE: PC must support DDC functions to do this.

Troubleshooting

Symptom: The power LED is amber.

Possible causes:

- Display power management mode.
- There is no sync signal.
- The signal cable is not fastened securely.
- Check the computer power and graphics adapters configuration.
- The frequency of the sync input is outside the operating range of the monitor.

HORZ:30KHz-50KHz
VERT:50Hz-90Hz

The signal cable is incorrectly configured or connected. Refer to the page *Signal connector pin assignment* for reference.

Symptom: The image on the SCREEN is not centered, or too small or not a rectangle shape.

Possible Causes: Image adjustment not been done yet in the current operating mode. Use the SELECT and +/- buttons to set the image to your liking.

Symptom: The monitor doesn't enter the power saving off mode (Amber led).

Possible Causes: Computer video signal is not VESA DPMS standard. Enter the PC or the video controller card is not using the VESA DPMS power management function.

Service

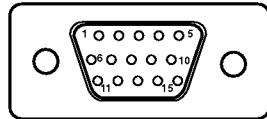
1. Unplug the monitor from the wall outlet and refer servicing to qualified service personnel when :
 - The power cord or plug is damaged or frayed.
 - Liquid has been spilled into the monitor.
 - The monitor has been exposed to rain or water.
 - The monitor does not operate normally following the operating instructions. Adjust only those controls that are covered in the operating instructions. An improper adjustment of other controls may result in damage and often requires extensive work by a qualified technician to restore the monitor to normal operation.
 - The monitor has been dropped or the cabinet has been damaged.
 - The monitor exhibits a distinct change in performance.
 - Snapping or popping from the monitor is continuous or frequent while the monitor is operating. It is normal for some monitors to make occasional sounds when being turned on or off, or switching video modes.
2. Do not attempt to service the monitor yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
3. When replacement parts are required, have the service technician verify in writing that the replacements used have the same safety characteristics as the original parts. Use of manufacture specified replacements can prevent fire, shock and other hazards.
4. Upon completion of any service or repairs to the monitor, ask the service technician to perform the safety check described in the manufacturer's service manual.
5. When a video monitor reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the monitor.

Input Specifications

D P M (Display Power Management)

MODE	H. Sync	V. Sync	Power Consumption	LED Color
Normal	On	On	≤ 110W	Green
Stand by	Off	On	≤ 15W	Amber
Suspend	On	Off	≤ 15W	Amber
Off	Off	Off	≤ 8W	Amber

Signal connector pin assignment



Pin	Signal (D-Sub)
1	Red
2	Green
3	Blue
4	Ground
5	Self-Test
6	Red Ground
7	Green ground
8	Blue Ground
9	Not used
10	Ground
11	Ground
12	SDA
13	Horiz.Sync
14	Vert.Sync
15	SCL

Specifications

Picture tube	: 17 inch (15.7 inches viewable)FST, Non-glare, 90 degree deflection 0.39 mm,
Display Size	: 300x225 mm/11.8"x8.9"(HxV)
Audio Signal	
output	: 3W x 2
Freq. Range	: 20Hz ~ 20KHz
T. H. D.	: 1KHz 10%
Horizontal Frequency	: 30 ~ 50 KHz
Vertical Frequency	: 50 ~ 90 Hz
Video Bandwidth	: 65 MHz
Signal connector	: 15 pin D-Sub type
Power input	: 100-240VAC, 50/60Hz, 2.0A
Power Consumption	: 100 Watts max 15 Watts suspend mode, stand-by mode 8 Watts DPMS-Off mode
Dimensions (WxHxD)	
	16.3 x 17.5 x 16.5 inches
Weight (net)	
	38.6 lbs (17.5 kg)

MODEL : StudioWorks 74m

P/NO : 3828TUL002E (S-9606)

Printed in Korea

FCC Compliance Statement

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 using one or more of the following measures:

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

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

Only shielded Signal Cables may be used with this System.

Canadian D. O. C Notice

Suggested text for the notice indication compliance with this Standard:

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

