

ATTACHMENT J – USER’S MANUAL

USER'S GUIDE



<http://www.lge.com>

StudioWorks 77ME / 77M Color Monitor

Color Monitor

StudioWorks 77ME/77M

User's Guide
Benutzerhandbuch
Manuel d'utilisation
Guida Utente
Guia del Usuario
Manual do proprietário
Handleiding

Please read this manual carefully before operating your set.
Retain it for future reference.
Record model number and serial number of the set.
See the label attached on the back cover and quote this
information to your dealer when you require service.

P/NO : 3828TUL141A (S-0011)

Printed in Indonesia



Contents

ENGLISH

Introduction	A1
Connecting the Monitor	A2
Location and Function of Controls	A3
Control Panel Function	A4
On Screen Display (OSD) Control Adjustment ...	A6
On Screen Display(OSD) Selection and Adjustment	A7
Sound Selection and Adjustment	A11
Video Memory Modes	A12
Troubleshooting	A13
Specifications	A14

DEUTSCH

Einleitung	B1
Anschließen	B2
Ort und Funktion der Bedienungselemente	B3
Bedienungselemente der Bildkontrolle	B4
On Screen Display (OSD) Anpassung	B6
OSD Einstellung und Auswahlssymbole	B7
Ton Einstellung und Auswahlssymbole	B11
Videospeichermodi	B12
Störungen	B13
Produktbeschreibung	B14

FRANÇAIS

Introduction	C1
Branchement du Moniteur	C2
Nomenclature et Fonctions	C3
Fonctions du Panneau de Commande	C4
Réglage des Commandes Affichage Écran	C6
Options de sélection et de Réglage OSD (affichage écran)	C7
Son de Sélection et de Réglage	C11
Mise en Mémoire de Modes Vidéo	C12
Quelques Conseils en Cas D'incident	C13
Spécifications D'entree	C14

ITALIANO

Introduzione	D1
Collegamento del Monitor	D2
Posizione e Funzione dei Conandi di Controllo ...	D3
Funzione del Pannello di Controllo	D4

Controllo Regolazione On Screen Display (OSD) ...	D6
Elementi di Selezione e Regolazione dell'OSD	D7
Souno di Selezione e Regolazione	D11
Modalità di Memoria Video	D12
In Caso di Problemi	D13
Specifiche	D14

ESPAÑOL

Introducción	E1
Conectando del Monitor	E2
Ubicacion y Funcion de los Controles	E3
Función del Panel de Control	E4
Ajuste del Control de Exhibición en Pantalla (OSD)	E6
Ajuste del OSD y Selección de Elementos	E7
Ajuste del Sonido y Selección de Elementos	E11
Modos de Memoria de Video	E12
Sugerencias para Localizar las Fallas	E13
Especificaciones	E14

PORTUGUÊS

Introdução	F1
Conectando o Monitor	F2
Posição dos Controles e Descrição	F3
Funções do Painel de Controle	F4
Ajuste On Screen Display(OSD)	F6
Ajustes OSD e Itens de Seleção	F7
Ajustes Som e Seleção	F11
Modos de Memória de Vídeo	F12
Resolvendo Problemas	F13
Especificações	F14

NEDERLANDS

Inleiding	N1
De Monitor Aansluiten	N2
De plaatsing en de werking van de knoppen	N3
Het bedieningspaneel	N4
Bediening via het beeldscherm OSD (On Screen Display)	N6
Kiezen en instellen via het OSD-systeem	N7
Selectie en aanpassing van het geluid	N11
Modi voor videogeheugen	N12
Problemen oplossen	N13
Specificaties	N12

FCC Warning

Class B Computing Device

Information to the User

This equipment has been tested and found to comply with the limits for a class B digital device pursuant to part 15 of 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 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 and for additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE: In order for an installation of this product to maintain compliance with the limits for a Class B device, **shielded** cables must be used.

Introduction

Thank you for purchasing a high resolution monitor. It will give you high resolution performance and convenient reliable operation in a variety of video operating modes.

ENGLISH

Features

- The monitor is a 17 inches (15.9 inches viewable) intelligent, microprocessor based monitor compatible with most analog RGB (Red, Green, Blue) display standards, including IBM PC®, PS/2®, Apple®, Macintosh®, Centris®, Quadra®, and Macintosh II family.
- The monitor provides crisp text and vivid color graphics with VGA, SVGA, XGA, and VESA Ergonomic modes (non-interlaced), and most Macintosh compatible color video cards when used with the appropriate adaptor. The monitor's wide compatibility makes it possible to upgrade video cards or software without purchasing a new monitor.
- Digitally controlled auto-scanning is done with the micro-processor for horizontal scan frequencies between 30 and 70kHz, and vertical scan frequencies between 50-160Hz.
- This monitor is capable of producing a maximum horizontal resolution of 1280 dots and a maximum vertical resolution of 1024 lines.
- The microprocessor-based digital controls allow you to adjust conveniently a variety of image controls by using the OSD (On Screen Display).
- Plug and play capability if supported by your system.
- This monitor has DDC 2B function.*
- Compliant with the following regulated specifications :*
 - EPA ENERGY STAR
 - Swedish MPR II
 - Swedish TCO'99 (Applies to 77ME only)

** For detailed information, please refer to the **Reference Guide** provided .*

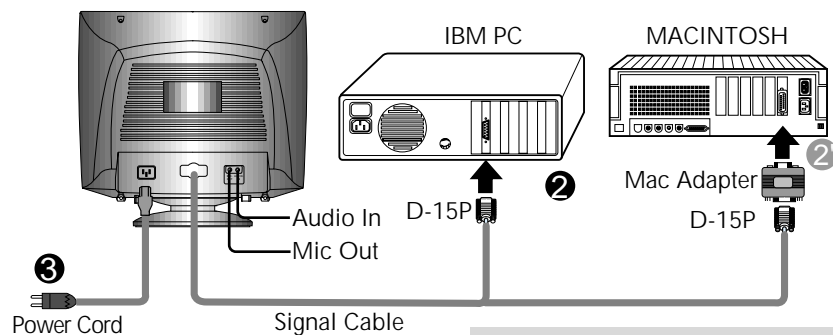
Connecting the Monitor

On the back of the monitor are two plug-in connections; one for the AC power cord, and the other for the signal cable from the video card.

- 1 Power off both the monitor and PC.
- 2 Connect the 15 pin VGA connector of the supplied signal cable to the output VGA video connector on the PC. The connectors will mate only one way. If you cannot attach the cable easily, turn the connector upside down and try again. When mated, tighten the thumbscrews to secure the connection.
- 2 Locate the appropriate MAC to VGA adapter block at your local computer store. This adapter changes the high density 3 row 15 pin VGA connector to the correct 15 pin 2 row connection to mate with your MAC. Attach the other end of the signal cable to the side of the adapter block with 3 rows.

Connect the attached adapter block/signal cable to the video output on your MAC.

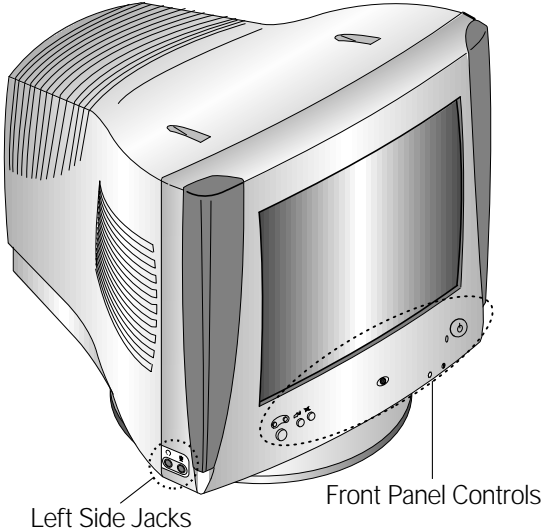
- 3 One end of the AC power cord is connected into the AC power connector on the back of the monitor. The other end is plugged into a properly grounded three-prong AC outlet.
- 4 Power ON the PC, then the monitor.
- 5 If you see the **SELF DIAGNOSTICS** message, check the signal cable and connectors.
- 6 After using the system, power OFF the monitor, then the PC.



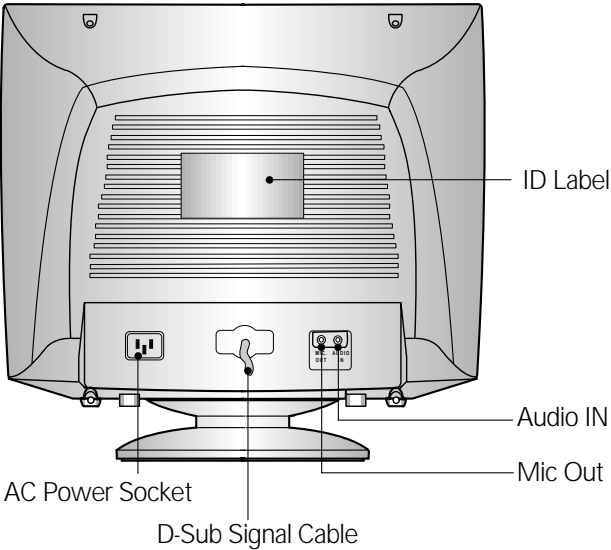
*** NOTE :** For Apple Macintosh use, a separate plug adapter is needed to change the 15 pin high density (3 row) D-sub VGA connector on the supplied cable to a 15 pin 2 row connector.

Location and Function of Controls

Front View

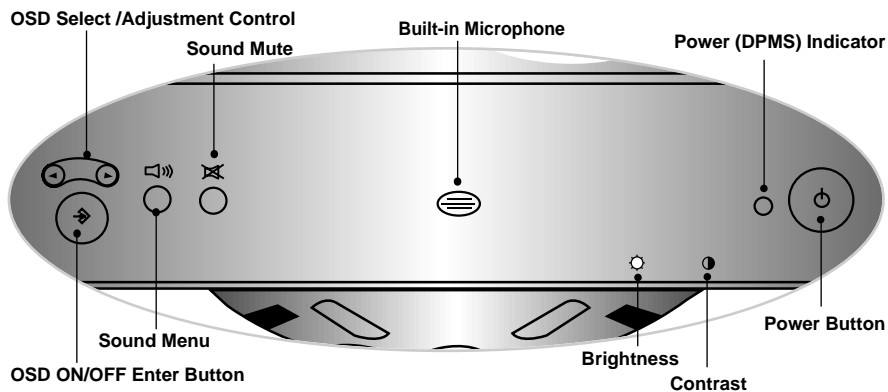











Rear View



Control Panel Function




Front Panel Controls




Control	Function
 OSD Select/Adjustment Control	Use these buttons to choose or adjust items in the on screen display.
 OSD ON/OFF Enter Button	Use this button to enter or exit the on screen display.
 Sound Menu	To adjust sound menu.
 Sound Mute	Used to select mute on (means sound off) and mute off (means sound on).
 Built-in Microphone	Built-in Microphone.
 Brightness Adjustment Control	Used to adjust the brightness of the screen.
 Contrast Adjustment Control	Adjust the display to the contrast desired.
 Power (DPMS) Indicator	This Indicator lights up green when the monitor operates normally. If the monitor is in DPM (Energy Saving) mode (stand-by/suspend/power off), this indicator color changes to amber.
 Power Button	Use this button to turn the monitor on or off.

Control Panel Function

Left Side Jacks

	Headphone Jack 	Headphone Jack that automatically mutes the speaker volume when headphone is attached.
	Microphone Jack 	An external microphone can be used instead of the built-in microphone.

Rear Panel Jacks

	Mic. Out	Connects microphone sound to PC via cable.
	Audio In	Connects speaker sound to PC via cable attachment.

Microphone Operation

On the left side there is a MIC (Microphone) jack. By plugging a microphone in here, it may reduce the long length of cable needed to reach the PC's sound card. In order to use this MIC jack, you need to use a cable (supplied) to plug into the rear of the monitor (MIC OUT) and into the MIC input jack of your sound card (if available).

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. Because the monitor is designed 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.

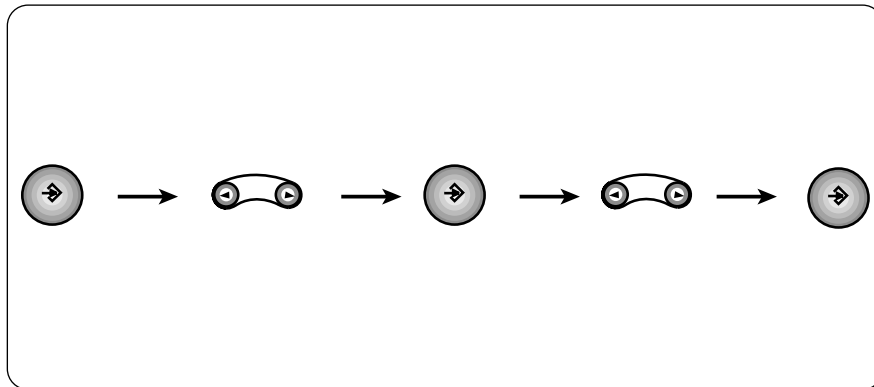
On Screen Display (OSD) Control Adjustment







Making adjustments to the image size, position and operating parameters of the monitor are quick and easy with the On Screen Display Control system. A quick example is given below to familiarize you with the use of the controls. Following section is an outline of the available adjustments and selections you can make using the OSD.

NOTE

- Allow the monitor to stabilize for at least 30 minutes before making image adjustment.

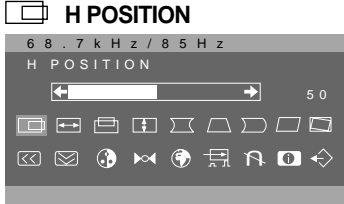
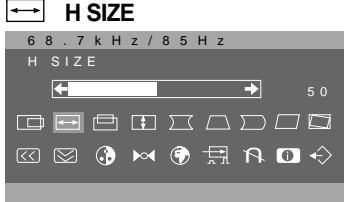
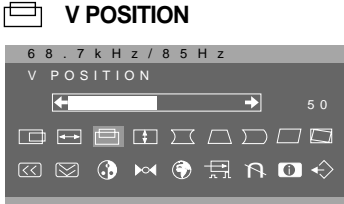

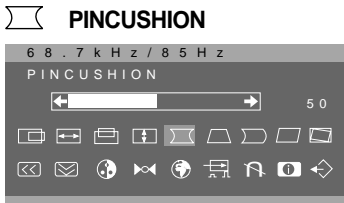
To make adjustments in the On Screen Display, follow these steps:





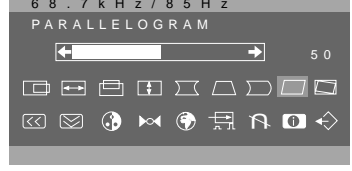



- 1** Press the  Button, then the main menu of the OSD appears.
- 2** To access a control, use the  or  Buttons. When the icon you want becomes highlighted, press the  Button.
- 3** Use the  Buttons to adjust the item to the desired level.
- 4** Accept the changes by pressing the  Button.

On Screen Display(OSD) Selection and Adjustment

You were introduced to the procedure of selection and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the items that are shown on the Menu.

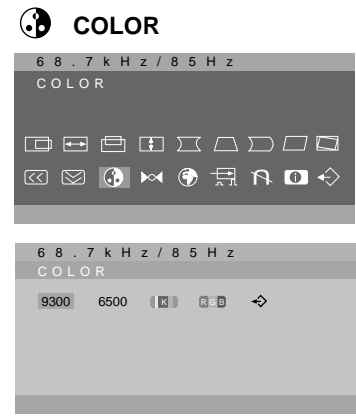
OSD Adjust	Description
 <p>H POSITION 6 8 . 7 k H z / 8 5 H z H POSITION 50</p>	<p>To move picture image left and right.</p> <ul style="list-style-type: none"> ⏪ Moves the screen image left. ⏩ Moves the screen image right.
 <p>H SIZE 6 8 . 7 k H z / 8 5 H z H SIZE 50</p>	<p>To adjust image width.</p> <ul style="list-style-type: none"> ⏪ Decreases the size of the screen image. ⏩ Increases the size of the screen image.
 <p>V POSITION 6 8 . 7 k H z / 8 5 H z V POSITION 50</p>	<p>To move image up and down.</p> <ul style="list-style-type: none"> ⏩ Moves the screen image down. ⏪ Moves the screen image up.
 <p>V SIZE 6 8 . 7 k H z / 8 5 H z V SIZE 50</p>	<p>To adjust image height.</p> <ul style="list-style-type: none"> ⏩ Decreases the size of the screen image. ⏪ Increases the size of the screen image.
 <p>PINCUSHION 6 8 . 7 k H z / 8 5 H z PINCUSHION 50</p>	<p>To correct the bowing in and out of the image.</p> <ul style="list-style-type: none"> ⏩ Curves the image's edges inwards. ⏪ Curves the image's edges outwards.

On Screen Display(OSD) Selection and Adjustment

OSD Adjust	Description
	<p>To correct geometric distortion.</p> <ul style="list-style-type: none"> ⌚ Makes the screen image narrower at the top. ⌚ Moves the screen image wider at the top.
	<p>To correct the balance of both sides bowing.</p> <ul style="list-style-type: none"> ⌚ Curvature of the sides to the right. ⌚ Curvature of the sides to the left.
	<p>This control adjusts for a skewing of the screen image.</p> <ul style="list-style-type: none"> ⌚ Tilts the screen image leftward. ⌚ Tilts the screen image rightward.
	<p>To correct image rotation.</p> <ul style="list-style-type: none"> ⌚ Tilts the screen image left. ⌚ Tilts the screen image right.
	<p>Reduce horizontal moire when interference patterns of dark steady wavy lines appear on your screen. The moire adjustments may affect the focus of the screen.</p>
	<p>Reduce vertical moire when interference patterns of dark steady wavy lines appear on your screen. The moire adjustments may affect the focus of the screen.</p>

On Screen Display(OSD) Selection and Adjustment

OSD Adjust	Description
------------	-------------



- **9300** : To appear the display's color temperature. Slightly bluish white.
- **6500** : To appear the display's color temperature. Slightly reddish white.
- **K** : Temperature range is from 5000K to 10000K. So, user easily color set without adjustment Red, Green and Blue (R/G/B).
- **RGB** : To set your own color levels. Allow for specific adjustments to Red, Green and Blue (R/G/B).
- : To exit the COLOR OSD.






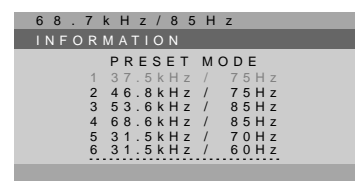

You can use this function when you want to go back to the screen display of the time you purchased the product after adjusting to modify it in the Preset Mode.

When you are in the User mode, you can recall only , , , items. After using Recall, adjust the screen display again if necessary. If you want more information on the Preset Mode, refer to A12 page.



To choose the language in which the control names are displayed. OSD Menus are available in 7 languages : **English, German, French, Spanish, Italian, Português and Korean.**

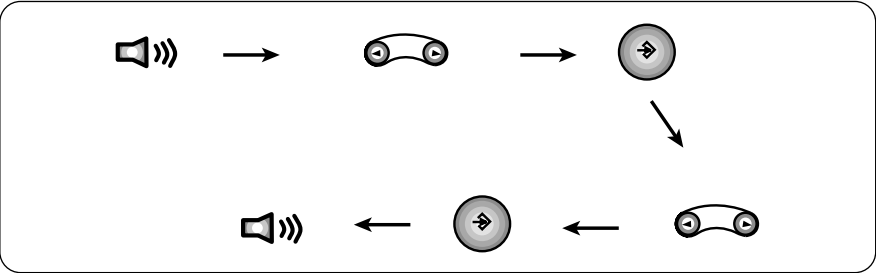
On Screen Display(OSD) Selection and Adjustment

OSD Adjust	Description
 <p>VIDEO LEVEL</p> <p>6 8 . 7 H z / 8 5 H z</p> <p>VIDEO LEVEL</p> <p>0.7V 1.0V</p> <p>Icons: [Left], [Right], [Up], [Down], [Source], [Mode], [Exit]</p>	<p>This item is used to select the monitor's input signal level. The normal level used for most PC's is 0.7V. When the screen suddenly gets brightened or blurry, please select 1.0V and try again.</p>
 <p>DEGAUSS</p> <p>6 8 . 7 k H z / 8 5 H z</p> <p>DEGAUSS</p> <p>Icons: [Left], [Right], [Up], [Down], [Source], [Mode], [Exit]</p>	<p>To manually demagnetize the screen which may show some image or color incorrectly.</p>
 <p>INFORMATION</p> <p>6 8 . 7 k H z / 8 5 H z</p> <p>INFORMATION</p> <p>Icons: [Left], [Right], [Up], [Down], [Source], [Mode], [Exit]</p>  <p>6 8 . 7 k H z / 8 5 H z</p> <p>INFORMATION</p> <p>PRESET MODE</p> <p>1 3 7 . 5 k H z / 7 5 H z</p> <p>2 4 6 . 8 k H z / 7 5 H z</p> <p>3 5 3 . 6 k H z / 8 5 H z</p> <p>4 6 8 . 6 k H z / 8 5 H z</p> <p>5 3 1 . 5 k H z / 7 0 H z</p> <p>6 3 1 . 5 k H z / 6 0 H z</p>	<p>To inform users of preset and user mode data.</p> <p>⬅ : USER MODE</p> <p>➡ : PRESET MODE</p>
 <p>OSD EXIT</p> <p>6 8 . 7 k H z / 8 5 H z</p> <p>OSD EXIT</p> <p>Icons: [Left], [Right], [Up], [Down], [Source], [Mode], [Exit]</p>	<p>To disappear of the OSD on the screen.</p>

Sound Selection and Adjustment

You were introduced to the procedure of selection and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the items that are shown on the main Menu.

To make adjustments in the On Screen Display, follow these steps:



OSD Adjust	Description
	VOLUME Raises or lowers audio level.
	TREBLE Raises or lowers treble level.
	BASS Raises or lowers Bass level.
	BALANCE Changes balance of left/right speaker level.
	MICROPHONE Enables or disables microphone usage.

Video Memory Modes

The monitor has 36 memory locations for display modes, 11 of which are factory preset to popular video modes.

Preset Modes (Resolution)

	Display Modes (Resolution)		Horizontal Freq.(kHz)	Vertical Freq.(Hz)
1	VGA	640 x 480	37.50	75
2	VESA	800 x 600	46.88	75
3	VESA	800 x 600	53.68	85
4	VESA	1024 x 768	68.677	85
5	MAC	640 X 400	31.47	70
6	VESA	640 X 480	31.47	60
7	VESA	800 X 600	37.88	60
8	VESA	640 X 480	43.27	85
9	VESA	832 X 624	49.75	75
10	VESA	1024 X 768	60.02	75
11	VESA	1280 X 1024	63.98	60

User Modes

- Modes 12-36 are empty and can accept new video data. If the monitor detects a new video mode that has not been present before or is not one of the preset modes, it stores the new mode automatically in one of the empty modes starting with mode 12.

If you use up the 25 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 12.

Recalling Display Modes

- When your monitor detects a mode it has seen before, it automatically recalls the image settings you may have made the last time you used that mode.

You may, however, manually force a recall of each of the 11 preset modes by pressing the Recall button. All preset modes are automatically recalled as the monitor senses the incoming signal.

The ability to recall the preset modes is dependent on the signal coming from your PC's video card or system. If this signal does not match any of the factory modes, the monitor automatically sets itself to display the image.

Troubleshooting

Check the following before calling for service.

SELF DIAGNOSTICS message.

- The signal cable is not connected, or is loose. Check and secure the connection.

OUT OF FREQUENCY message appears.

- The frequency of the signal from the video card is outside the operating range of the monitor.

* Horizontal Frequency : 30-70kHz



* Vertical Frequency : 50-160Hz

Use the graphics board's utility software to change the frequency setting (Refer to the manual for graphics board).

The power LED is illuminated amber.

- Display power management mode.
- There is no active signal coming from the PC.
- The signal cable is not fastened securely.
- Check the computer power and graphics adapter configuration.

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

- Image adjustment not been done yet in the current operating mode. Use the  and  buttons to set the image to your liking.

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

- Computer video signal is not VESA DPMS standard. Either the PC or the video controller card is not using the VESA DPMS power management function.

An abnormal picture is displayed on the screen. For example, the upper part of the picture may be missing or dark.

- If using certain non-VESA Standard video card, an abnormal picture may be displayed. Try setting it to one of the factory preset modes, or selecting to a resolution and refresh rate within the specification limits of the monitor.

NOTE

- If the power indicator(LED) light is blinking amber, may result in abnormal condition of the monitor.
- Then press a power ON/OFF button on the front panel control and call your service technician for more information.

Specifications

Picture Tube	17 inch (15.9 inches viewable) FST	
	90 degree deflection	
	0.27mm dot pitch	
	ARAS(Anti-Reflective Anti-Static) coating	
Sync Input	Horizontal Freq.	30 - 70kHz (Automatic)
	Vertical Freq.	50 - 160Hz (Automatic)
	Input Form	Separate TTL, Positive/Negative
	Signal Input	15 pin D-Sub Connector
Video Input	Input Form	Separate, RGB Analog, 0.7Vp-p/75 ohm, Positive
	Resolution(max)	1280 x 1024@60Hz
Audio	RMS Audio Output	4W (R+L)
	Input Sensitivity	0.7 Vrms
	Built-in MIC	E.C.M type (Electret Condenser Microphone)
	Speaker Impedance	4Ω
Power Consumption	Normal	≤ 120W
	Stand-by/Suspend	≤ 15W
	Power Off	≤ 8W
Dimensions (with tilt/ swivel stand)	Width	46.5 cm / 18.3 inches
	Height	43.6 cm / 17.2 inches
	Depth	44.2 cm / 17.4 inches
Power Input	Europe	AC 200-240V 50Hz 1.5A
	Others	AC 100-240V 50/60Hz 2.0A
	The products should be used according to the Power requirements of each ID LABEL.	
Weight	Net	18.96 kg (41.80 lbs)
Environmental Conditions	Operating Condition	
	Temperature	10 °C to 40 °C
	Humidity	10 % to 90 % non-Condensing
	Storage Condition	
	Temperature	0 °C to 60 °C
	Humidity	5 % to 90 % non-Condensing

NOTE

- Information in this document is subject to change without notice.