SAMSUNG

SyncMaster 240MP
(For NTSC systems)
TFT-LCD Monitor

**Owner's
Instructions**

For Better Display

1. Adjust computer resolution and screen injection rate (refresh rate) in control panel of computer as described below to enjoy the best quality of picture. You can have an uneven quality of picture in the screen if the best quality of picture is not provided in TFT-LCD.
   - Resolution: 1920 x 1200
   - Vertical frequency (refresh rate): 60 Hz

2. TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.
   - For example, the no. of TFT LCD pixels that is contained in this product are 6,912,000.

3. When you clean the monitor and the panel outside, please apply the recommended small amount of cleaner by using soft and dry cloth and polish it. Let LCD area not to be forced but to be scrubbed out softly. If excessive force is applied, you can have a stain on it.

4. If you are not satisfied with the quality of picture, you can get better quality of picture by executing "auto adjustment function" in display screen that is appeared as window termination button is pressed. If there's still noise after automatic adjustment, use FINE/COARSE adjustment function.

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Safety Instructions

1 Before connecting the AC power cord to the DC adapter outlet, make sure the voltage designation of the DC adapter corresponds to the local electrical supply.

2 Never insert anything metallic into the cabinet openings of the Liquid Crystal Display (LCD) monitor; doing so may create the danger of electric shock.

3 To avoid electric shock, never touch the inside of the LCD monitor. Only a qualified technician should open the case of the LCD monitor.

4 Never use your LCD monitor if the power cord has been damaged. Do not allow anything to rest on the power cord, and keep the cord away from areas where people can trip over it.

5 Be sure to hold the plug, not the cord, when disconnecting the LCD monitor from an electric socket.

6 Openings in the LCD monitor cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Also, avoid using the LCD monitor on a bed, sofa, rug, or other soft surface. Doing so may block the ventilation openings in the bottom of the cabinet. If you put the LCD monitor in a bookcase or some other enclosed space, be sure to provide adequate ventilation.

7 Put your LCD monitor in a location with low humidity and a minimum of dust.

8 Do not expose the LCD monitor to rain or use it near water (in kitchens, near swimming pools, etc.). If the LCD monitor accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the LCD monitor with a damp cloth when necessary, but be sure to unplug the LCD monitor first.

9 Place the LCD monitor on a solid surface and treat it carefully. The screen is made of thin glass with a plastic front surface and can be damaged if dropped, hit or scratched. Do not clean the front panel with keton-type materials (e.g., acetone), ethyl alcohol, toluene, ethyl acid, methyl, or chloride – these may damage the panel.

10 Locate your LCD monitor near an easily accessible AC outlet.

11 If your LCD monitor does not operate normally – in particular, if there are any unusual sounds or smells coming from it – unplug it immediately and contact an authorized dealer or service center.

12 High temperature can cause problems. Don't use your LCD monitor in direct sunlight, and keep it away from heaters, stoves, fireplaces, and other sources of heat.

13 Unplug the LCD monitor when it is going to be left unused for an extended period of time.

14 Unplug your LCD monitor from the AC outlet before any service.

⚠	**CAUTION** RISK OF ELECTRIC SHOCK DO NOT OPEN	⚡
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

Unpacking Your Monitor

Please make sure the following items are included with your monitor. If any items are missing, contact your dealer.

Color Utility & Driver

Power Cord

Warranty Card
(not available in all locations)

Remote Controller

Manual

Batteries
(AAA x 2)

Monitor

S-Video Cable

DC Adapter
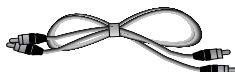
Sound RCA Cable (L/R)

TV Tuner Cable

15-pin D-Sub Signal Cable

Video RCA Cable

PC Stereo Cable

TV Tuner Box
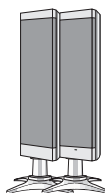
Speaker / Stand / Stereo Cable x 2

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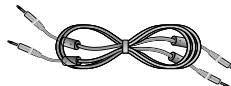
Setting up Your LCD Monitor

Setting up an Ergonomic Workstation

Consider the advice given below before you install your monitor.

Monitor location

Choose a position that exposes your monitor to the least reflection from lights or windows, usually at a right angle to any window.

Workstation height

Place your LCD monitor so that the top of the screen is slightly below your eye level when you are comfortably seated.

Viewing angle

Tilt the screen until you feel comfortable working with your monitor.
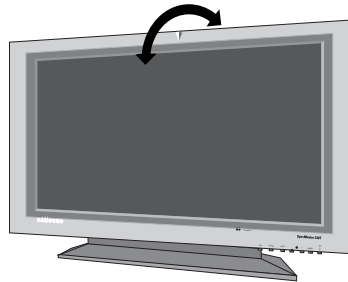
Figure 1. Tilt the screen

Kensington Security Slot

This monitor offers you the opportunity to secure your monitor using a Kensington-type security device. Kensington lock is not included. Refer to your locking device documentation for installation instructions.
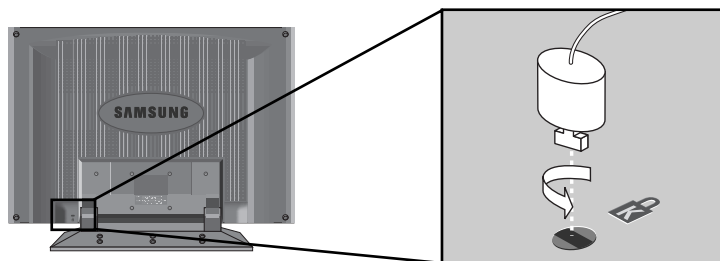
Figure 2. Kensington-type security slot location

Setting up Your LCD Monitor

Connecting Your LCD Monitor
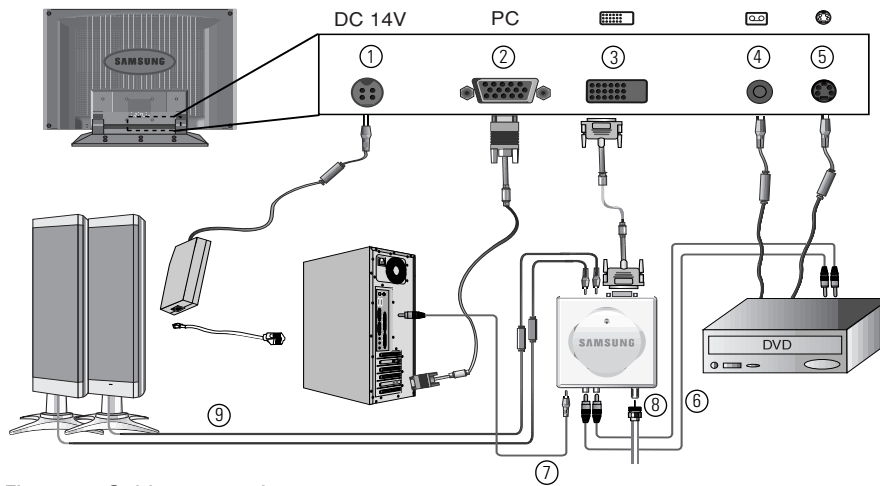
Figure 3. Cable connections

1. Connect the power cord to the DC adaptor and connect the adaptor plug to the DC14V power connector ① on the back of the monitor.
2. Connect the 15-pin D-Sub signal cable from PC to ②.
3. Connect RCA cable from external video devices such as VCR, DVD, and Camcorder to④.
4. Connect S-Video cable from external video devices such as VCR, DVD, and Camcorder to ⑤.
5. Connect RCA cable from external video devices such as VCR, DVD and Camcorder to ⑥ .
6. Connect Stereo cable from PC to ⑦ .
7. Connect TV Tuner cable from Tuner Box to ③.
8. Connect speaker stereo cables from Tuner Box to speaker. ⑨
9. Connect antenna or CATV cable to the "Antenna" port of Tuner Box. ⑧
10. Turn the monitor on, and then turn on the computer.
11. Now, install the monitor driver with accompanied utility CD.
12. Recommended resolution of SyncMaster240MP is WUXGA, 1920 x 1200.
 * You must use stereo cables in order to connect from speaker to Tuner Box.

NOTE: Although the monitor is designed to be compatible with wide variety of popular video adaptors, it is WUXGA, 1920x1200 mode, that needs special care. Since there is no industry standard for WUXGA mode, video adaptor manufacturers are using several different configurations that cause the monitor false video mode interpretation. If the screen image's quality is poor when you are using either UXGA or WUXGA mode, please check the followings.

1. UXGA mode identified as WUXGA mode
  – Touch the "Menu" button, and then select "Hz", information, icon.
  – Read the information and make sure that the video mode says "1600x1200"
  – If no resolution is appeared, then the monitor is in WUXGA mode.
2. WUXGA mode identified as UXGA mode
  – Touch the "Menu" button, and then select "Hz", information, icon.

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– Read the information and make sure that the video mode says only
"H_Sync… V_Sync…" without mentioning resolution.
–If you read 1600x1200, then the monitor is in UXGA mode.
If you are experiencing the above, then please follow the steps given below to solve the
problem.
   1.Touch the "Menu" button to bring up OSD window.
   2.Select "Hz" menu.
   3.Press "Menu" button seven times while keeping "Hz" menu highlighted.
   4.The monitor's displayed mode will be changed from UXGA mode to WUXGA mode, or
    from WUXGA mode to UXGA mode depending on the current mode.

Plug and Play

The adoption of the new VESA® Plug and Play solution eliminates complicated and time consuming setup. It allows you to install your monitor in a Plug and Play compatible system without the usual hassles and confusion. Your PC system can easily identify and configure itself for use with your display. This monitor automatically tells the PC system its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so the PC system can automatically configure itself to use the flat panel display. If your PC system needs a video driver, follow the instructions given below according to the operating system your computer uses.

Installing the Video Driver

The CD that accompanies this product contains the necessary drivers for installing your monitor. Please refer to the driver installation instructions included with your CD package for more information.

Self-Test Feature Check (STFC)

Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. Make sure that PC is selected as a primary source by checking if the source indicator LED labeled "PC" is on. If your monitor and computer are properly connected but the monitor screen remains dark and the power indicator is blinking, run the monitor self-test by following the steps given below:

Power Indicator ⎯⎯⎯⎯→ ⏻

Figure 4. Power Indicator

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Setting up Your LCD Monitor

1 Turn off both your computer and the monitor.

2 Unplug the video cable from the back of the computer.

3 Turn on the monitor.

If the monitor is functioning properly in PC mode, you will see a white box with a large blue oval Samsung logo and an error messsage "CHECK SIGNAL CABLE   PC" in black color.

CHECK SIGNAL CABLE
PC
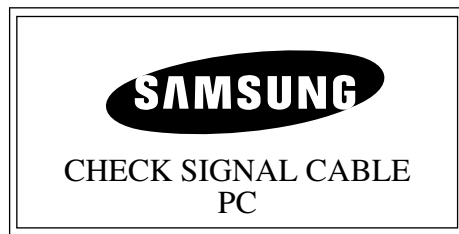
Figure 5. Monitor self-test screen

This box also appears during normal operation if the video cable becomes disconnected or damaged.

4 Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after following the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Getting Help

If your monitor does not display an image, check your cable connections and refer to "Troubleshooting" on page 27. If you experience difficulties with the quality of the displayed image, run Auto Adjustment by touching "Auto" control button. You may want to refer to "Adjusting Your LCD Monitor" on page 8 or "Troubleshooting" on page 27.

Warm-up Time

All LCD monitors need time to become thermally stable whenever you turn on the monitor after letting the monitor be turned off for a couple of hours. Therefore, to achieve more accurate adjustments for parameters, allow the LCD monitor to warm (be on) for at least 20 minutes before making any screen adjustments.

Adjusting Your LCD Monitor

User Controls

Your LCD monitor allows you to easily adjust the characteristics of the image being displayed. All of these adjustments are made using the control buttons on the front of the monitor. While you use these buttons to adjust the controls, an OSD shows you their numeric values as they change.

SyncMaster 240MP

Video PC Source Exit/Auto — VOL + — CH + Menu
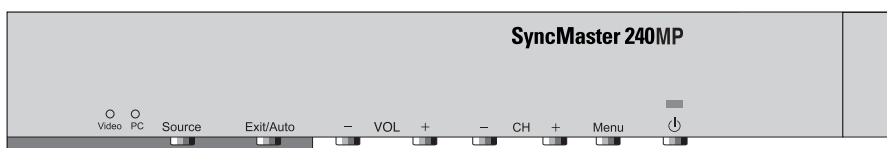
Figure 6. User control locations

No.	Name	Description
1	**Source**	■ Selects Video source. ■ Two source indicator LEDs on the left of the control button indicate currently active Video source.
2	**Exit/Auto**	■ Use this button to optimize image quality automatically. ■ "Auto adjustment" feature affects following parameters: Fine, Coarse, and Image Position. ■ Exits from menus and sub-menus. ■ Exits from the OSD system. ■ Turns the PIP off.
3	**— VOL +**	■ Increases or decreases the level of audio volume. ■ Moves the selector up or down on the OSD. ■ Increases or decreases the value of the selected function.
4	**— CH +**	■ Moves the selected left or right on the OSD. ■ Increase or decrease the channel number.
5	**Menu**	■ Opens the OSD and selects the highlighted function.

Adjusting Your LCD Monitor

No.	Name	Description
6	**Power**	■ Turns ON/OFF the monitor. ■ Indicates the status of the monitor. -Green : Normal Operation. -Amber : Power Saving Mode or Disconnected Signal Cable.

Automatic Save

Whenever you open the OSD and allow an adjustment window to remain active for about 3 seconds without pressing other buttons, the monitor automatically saves any adjustment you have made. These changes are saved into a user area in the monitor.
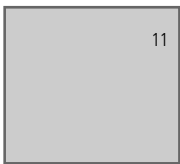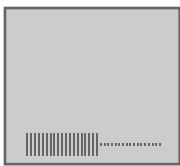
The monitor can save adjustments for up to 4 user modes. It has 15 for 240MP factory preset or preload modes, one for each signal frequency as listed in table 6 on page 31.

If you have made no adjustments, the on screen display disappears and the monitor does not save anything.

Adjusting Your LCD Monitor

Direct-Access Features

While you are watching full screen TV or in PIP mode

Channel	11	When OSD is not on the screen, push the " $+$ " or " $-$ " button to select program channel number. **1** Push the " $-$ " button to decrease channel number. **2** Push the " $+$ " button to increase the channel number.
Volume	⦀⦀⦀⦀⦀⦀⦀............	When OSD is not on the screen, push the " $-$ " or " $+$ " button to adjust volume. **1** Push the " $-$ " button to decrease the volume. **2** Push the " $+$ " button to increase the volume.

OSD Lock/Unlock

This function allows you to secure the current settings so that they cannot be inadvertently changed, while still allowing you to adjust the Brightness, Contrast, Channel, and Volume. You can unlock the OSD controls at any time by using the same procedure.

With the **OSD** screen off, push and hold the **Menu** button for at least 5 seconds to lock or unlock the controls. When locked, a 'LOCKED!' message will be displayed along the bottom of each OSD menu except for these screens :

- Brightness
- Contrast
- Channel
- Volume

Adjusting Your LCD Monitor

On Screen Display(OSD)
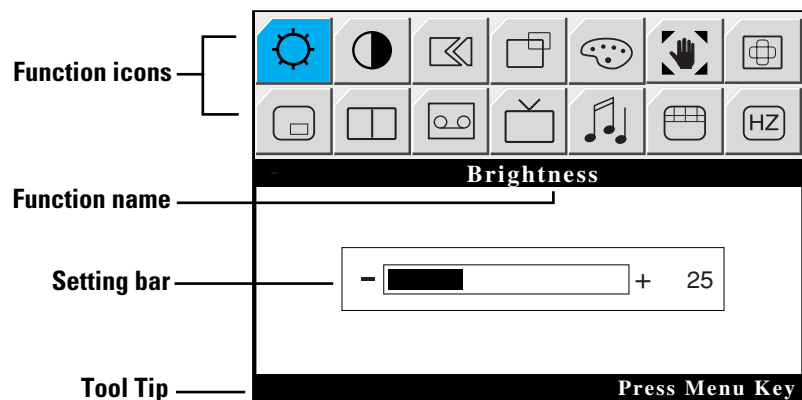
Figure 7. On Screen Display(OSD)

Accessing the menu system

1 With the OSD off, push the **Menu** button to display the main OSD menu.

2 Use the "**– CH +, – VOL +** " buttons to move from one function to another. As you move from one icon to another, the function name changes to reflect the function or group of functions represented by that icon. See Table 1 starting on the next page to view a complete list of all of the functions available for the monitor.

3 Press the **Menu** button once to activate the highlighted function, then follow the Tool Tips to select the function and adjust the value.

4 Use "**– VOL +**" buttons to select the sub-menu, and press the **Menu** button once to activate the selected sub-menu.

5 After selecting a function, use the "**– CH +** " buttons to make necessary adjustments. The setting bar moves and the numeric value indicator changes to reflect your adjustments.
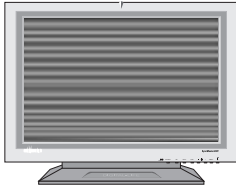
NOTE: The numeric value indicator is provided as a point of reference only and has nothing to do with a real measurement.

6 Push the **Exit** button a couple of times to return to the main menu to select another function or to exit from the OSD.

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Adjusting Your LCD Monitor

OSD functions and adjustment

Table 1. Screen controls

Icon	Menus and Sub-menus	Function Descriptions	
		–	**+**
☼	**Brightness**	Changes the overall light intensity of the images being displayed.	
◑	**Contrast**	Changes the ratio of light intensity between the brightest white and the darkest black. If "Contrast" ratio is set too high, color saturation occurs resulting loss of details. It work only with PC source.	
◁◁	**Image Lock**	Image Lock is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. It work only with PC source.	
	■ Fine ■ Coarse	The FINE and COARSE adjustments allow you to fine tune image quality of the monitor. Use "– " and "+" buttons to set the corresponding values to remove or minimize horizontal and vertical noise shown in Figure A and Figure B respectively.	
		Figure A	Figure B

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions	
		–	**+**
⫷	■ Fine ■ Coarse	Although "Auto Adjustment" automatically finds the optimum values of FINE and COARSE parameters as well as image position, it may be necessary for you to adjust those parameters manually. It is recommended for you to use "Auto Adjustment" first. If the adjustment results are not satisfactory, then use COARSE and FINE adjustment features to get the best adjustment results. Bear in mind that COARSE and FINE adjustments may change the width of the image and affect image position as well. If the image is clear while out of center by a couple of pixels, use image position to center the image.	
	■ Reset	Image lock and position parameters are replaced with the factory default values.	
⊡	**PC Position**	■ Changes the location of the image. ■ In case of the image is off center, use this function to center the image. ■ It work only with PC source.	
	■ H-Position	"–CH" : Move to the Left "CH+" : Move to the Right	
	■ V-Position	"–CH" : Move to the Bottom "CH+" : Move to the Top	

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions
		− +
🎨	**PC Color control**	The tone of color can be changed from bluish white to redish white. The individual color components are also user customizable.
	■ Mode 1	Redish white.
	■ Mode 2	Plain white.
	■ Mode 3	Bluish white.
	■ User Mode	User customizable.
	■ Reset	Color parameters are replaced with the factory default values.
✋	■ Zoom	■ Performs Digital Zoom. ■ Any part of an image can be magnified by ZOOM feature and the center of magnification can be arbitrarily changed by PAN feature. ■ Magnifies an image ■ It work only with PC source. (Not working with UXGA , 1080i ,WUXGA mode, 4:3 & 1:1 image size.)
	■ Pan	■ H-Pan – Moves magnified image to the horizontal direction – Same as changing the center of ZOOM to the horizontal direction ■ V-Pan – Moves magnified image to the vertical direction – Same as changing the center of ZOOM to the vertical direction

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions
		– **+**
⊕	**Image Size/ Effect**	Aspect ratio is the proportion of a vertical versus a horizontal resolution, and it varies depending on the input video resolution. For example, 640x480, 800x600 and 1024x768 have the aspect ratio of 4:3, and 1280x1024 has the aspect ratio of 5:4. To view original image without geometrical distortion, aspect ratio must be preserved. The aspect ratio of SyncMaster 240MP is 16:10 that is neither 4:3 nor 5:4. Thus if the input image resolution has the aspect ratio of 4:3 or 5:4, full screen expansion to 16:10 makes image looked wider to the horizontal direction. This is not appropriate especially for those who do CAD, CAM, and Graphic oriented jobs. To resolve this, IMAGE SIZE control provides three different image expansion methods: 16:10, 4:3, and 1:1.
		Notice. This function is not available for UXGA and WUXGA modes.
	■ **16 : 10**	Performs full screen image expansion regardless of the aspect ratio of the input video resolution
	■ **4 : 3**	Performs image expansion while keeping the aspect ratio of the original video resolution. Usually, there will be some unfilled space to the horizontal direction.
	■ **1 : 1**	Performs no image expansion. In this mode, input video is displayed at the center of the monitor as it is.

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions	
		–	**+**
⊕	**Image Effect**	■ Performs digital image quality compensation. ■ When an input video resolution is lower than 1920x1200 and if IMAGE SIZE is set to "16:10" or "4 : 3", then depending on the input video resolution, the expanded image becomes hazy or blurred. In this case, applying sharpening filter enhances the quality of the image, and Image Effect is the features providing such Digital Image Compensation Effects. Image Effect is applicable both Composite Video signals fed by RCA, S-Video or TV connector and PC Video signals fed by D-Sub connector. ■ Sharpen Makes image looked sharper ■ Medium Makes image looked sharper but not as sharper as "Sharpen" ■ Soften Makes image looked smoother	
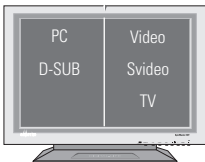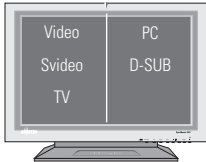
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Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions	
		–	**+**
▢	**PIP(Picture-in-Picture) Control**	■ Shows a small sub-window superimposed on Video or PC. ■ When Video is a full screen video source, then PC will be appeared in a small window. Likewise, when PC is a full screen video source, then Video will be appeared in a small window. ■ The monitor remembers the previous state of Video and PC. Thus if the previous state of PC was S-Video, and currently PC video is displayed in full screen, then S-Video will appear in the PIP window. ■ When powered on, PIP source is from D-Sub and Video is from TV. If your PC connects Analog or your Video connects RCA, change source like below method. ■ When you touch SOURCE button when PIP feature is active, PIP source will be changed in order of RCA, S-Video and TV.	
	■ Size	Off: Disables PIP **S** : 400 x 300 **M** : 640 x 480 **L** : 800 x 600	
	■ Position	■ H-Position Changes PIP window position to the horizontal direction. ■ V-Position Changes PIP window position to the vertical direction.	

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

| Icon	Menus and Sub-menus	Function Descriptions
		− **+**
▢▢	**PBP (Picture by picture) Control**	■ Shows PC and Video side by side. ■ The monitor screen splits by half and one side is filled with PC and the other side is filled with Video. Again, the monitor remembers the previous state of PC and Video. Thus if the previous state of PC is D-Sub and currently RCA is displayed in full screen mode, PC video signal from D-sub and Composite video signal from RCA will be displayed side by side. ■ PBP OFF: Disable PBP feature ■ PBP 1 : PC + Video ■ PBP 2 : Video + PC PBP1 PBP2 PBP1: PC D-SUB | Video Svideo TV PBP2: Video Svideo TV | PC D-SUB ■ PC Source : PC Video Signal Analog (D-Sub) ■ Video Source 1: Normal Composite Video Signal ■ Video Source 2: Super Video Signal (S-Video) ■ Video Source 3: TV Signal select Video source. ■ The method for source change is the same as PIP.
⌑⌑	**Video Control**	■ The color characteristic of Composite Video is often different from the one of PC Video signal. ■ Use VIDEO CONTROL feature to adjust Color Characteristic of Composite Video (TV, DVD, VCR, etc) independent of the one of PC Video. ■ Brightness Increases or decreases the light intensity of composite video. ■ Contrast Increases or decreases the ratio of the light intensity between the brightest white and the darkest dark. ■ Saturation Increases or decreases the pureness of color. ■ Hue Changes the tone of colors.

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions
		– **+**
📺	**TV Control**	The channel system can be set in several different ways.
	■ Channel system	Select a channel system that is being used in your region. (See "NTSC broadcasting systems" on page 32) • US-Air • US-Cable • Japan-Air • Japan-Cable Upon selecting a channel system, you will be asked if you want to perform "Channel auto program". Select "OK" to perform the "Channel auto program" or select "Cancel" to select different channel system. (See page 22 for "Channel auto program".)
	■ Fine Tune	Due to weak signals or a wrong antenna configuration, some of the channels may not be tuned correctly. Select "Fine Tune" under TV Setup menu to make the video image as clear as possible. • Use "– ,+ " to fine tune the quality of video images when you satisfy with the setting. • Select "Save" to save or "Cancel" to cancel the setting.

	■ Stereo System	Due to the various encoding schemes, the audio system corresponding to the channel system must be selected manually. Currently, there are three stereo audio systems in NTSC system: A2, BTSC and EIAJ. Please select the stereo audio system that is applicable to your region.
		    • A2: Korea
		    • BTSC: Most regions using NTSC System including USA, Canada, Chile, Venezuela, and Taiwan
		    • EIAJ: Japan
		      (See "NTSC broadcasting systems" on page 32)
		
		NOTE:
		    BTSC: Broadcast Television System Committee.
		    EIAJ: Electronic Industries Association of Japan.

Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions	
		–	**+**
⊻	■ ClosedCaption (US only)	Enable or disable closed caption feature and set the appearance of closed caption text. • Caption Off/On • Mode Caption/Text • Channel 1 / 2 • Field 1 / 2	
	■ V-Chip (US only)	See "V-Chip" on page 23~24.	
♫	**Audio Control**	The monitor has a built-in high fidelity stereo audio amplifier. The audio circuit processes audio signal from various external input sources such as DVD, VCR, TV or PC.	
	■ Source Select	Selects a sound source from PC, DVD, VCR or TV.	
	■ Bass	Bass: Emphasize low frequency audio.	
	■ Treble	Treble: Emphasize high frequency audio.	
	■ Stereo/Mono/ SAP	Stereo: Process stereo sound if available. Mono: Process sound as mono. For stereo sound left and right channels are merged to be processed as mono. SAP: Select the language you want to hear for MTS system. *NOTE: SAP: Second Audio Program* *MTS: Multi-Television Sound*	
	■ Balance	Control the left and right speaker volume.	
	■ Speaker mute	Mutes the sound temporarily. *NOTE: Mute is released when you change channel, adjust volume, activate PIP or access MTS menu via either the monitor or the remote controller.*	

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Adjusting Your LCD Monitor

Table 1. Screen controls (*Continued*)

Icon	Menus and Sub-menus	Function Descriptions	
		–	**+**
⊞	**OSD Control**	■ Sets up OSD appearances ■ Language – Selects one OSD language out of two different languages – English /Español ■ Halftone – Sets the transparency of the background of OSD – Use "–" and "+ "buttons to adjust values ■ OSD Position – Sets OSD window display position – H-Position: Moves OSD window to the horizontal direction – V-Position: Moves OSD window to the vertical direction ■ OSD Duration – Sets time span before OSD window disappears. – The units are seconds. – 5 / 10 / 20 / 50 / 200 are selectable.	
HZ	**Information**	■ Shows the information of the current video signal. ■ The information includes the following; – Video Signal Type – Sync. Types and frequencies with polarities – Resolution – Example PC H 67.3 (P)kHz V 74.8 (P)Hz 1152×864 SEPARATE ■ The example shown above says the following; – Video Signal Type: PC video H_Sync: "+ / +" 67.3 kHz V_Sync: "– / –" 74.8 HZ	

Adjusting Your LCD Monitor

* According to our R&D Lab test result, "Channel auto program" usually takes around 5 minutes to scan 125 channels. The scanning can be longer or shorter depending on the number of channels and the video source whether the video source is from cable or air.

* Upon completion of "Channel auto program", the result of the channel search is stored in designated internal memory. Each found channel is indexed into that memory and the channel indices are used as a look up table. In other words, when a user changes the channel, the monitor refers to the look up table to find the appropriate channel freqency instead of performing physical frequency scanning which gives a lot slower tuning result. In rare cases, "Channel auto program" may miss a channel due to weak signals or for other reasons. To add a channel, please enter the channel number by using the numeric key pads on the remote controller, then use "Fine Tune" menu in the "TV Setup" menu from OSD. When you finish fine tunning the channel you want to add, select "Save".
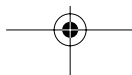
Appendix

V - Chip (US only)

The Telecommunications Act of 1996 in USA requires that every television made, starting in 1998, must be equipped with the technological device named V - Chip. The V - Chip can block certain rated television shows off television (if chosen) so children cannot watch programs that their parents do not approve. With this device, program-rating information will be transmitted along with the television signal, and be decoded by the chip in each television. The chip will then compare the rating codes to values preset by the viewer, which is meant to be the parents. If the rating codes are higher than the preset values, the television signal will be blocked, and a blank screen will be displayed.

SyncMaster 240MP have this feature and you can adjust the V - Chip setting via OSD. Use arrow keys on the remote controller or control buttons on the front cabinet of the monitor to change the setting.

1. Select V - Chip on OSD, then enter 4 digits of pin number.
   - Initial pin number is "0000"
   - If you enter an incorrect pin number "Incorrect" message will be displayed for 3 seconds.

2. Use arrow keys to change or to activate the highlighted function.

3. Setting up **TV Guidelines**
   - Use Up/Down/Left/Right arrow buttons to move around the matrix and press **Menu** button to change the value from "U" to "B" or "B" to "U"
   - **U** : Unblock   **B** : Block

	All	FV	V	S	L	D
TV-Y	B					
TV-Y7	B	B				
TV-G	U					
TV-PG	U		U	U	U	U
TV-14	U		U	U	U	
TV-MA	U		U	U	U	

TV-Y : Young Children TV-Y7 : Children 7 and over TV-G : General Audience TV-PG : Parent Guidance TV-14 : Viewers 14 and over TV-MA : Mature audience	FV : Fantasy Violence V : Violence S : Sexual Situation L : Coarse Language D : Suggestive Dialog

Appendix

4. Setting up MPAA rating Mode
   - Use Up/Down/Left/Right arrow buttons to move around the matrix and press **Menu** button to change the value from "U" to "B" or "B" to "U"
   - MPAA : Motion Picture Association (of) America [movie rating organization]

G	U	General Guidance
PG	U	Parental Guidance Suggested
PG-13	U	Parents Strongly Cautioned
R	U	Restricted Under 17 Requires
NC-17	U	No Children Under 17 Admitted
X	U	Adult Only
NR	U	Not Rated

5. Entering a new pin number
   - Use numeric keys enter a new pin number. Pin number confirm menu appears.
   - Again, use numeric keys to enter the pin number you entered at the previous step. If the two pin numbers do not match, "Incorrect" message will be displayed for 3 seconds.

6. Blocking Screen
   - If the incoming signal's rating is higher than the one specified, the screen will be blanked and "Excessive rating" message will be appeared.

*NOTE: When the screen is blocked by V-Chip, and if you want to change V-Chip setting, press **Exit** button on the remote control or on the front cabinet of the monitor to bring up OSD Menu.*

Appendix

By Remote-Control

Power On/Off ←

Source on ←

Audio ←

PIP Position ←

Turn on the OSD
Select a function ←

Sound mute ←

Display setup information ←
(Video source, Audio source,
Channel number, Sound
mode, Audio mute on/off)

The values of fine, coarse ←
and position are adjusted
automatically.

Power

Source Audio PBP PIP

PIP Position   PIP Size

+CH

VOL −   Menu   VOL +

−CH

Mute   Exit

1   2   3
4   5   6
7   8   9
Display   0   Pre.CH

Auto CH Search MTS/S-mode Caption

SAMSUNG

→ "Source Control keys."

→ PBP

→ PIP

→ PIP size

→ Channel Up/Down

→ Volume Up/Down

→ Turn off the OSD

→ Numeric keypads for
direct channel access.

→ Previous channel

→ Caption (USA Only)

→ MTS-mode (USA)
or S-mode (Europe)

→ Channel search

English   25

Appendix

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain period of time. The available modes are "On", "Standby", "Sleep", and "Deep Sleep". Power Saver operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature. See Table 1 below for details.

Table 1. Power-saving modes

State	Normal Operation	Power-Saving Function mode (EPA/NUTEK)		
		Standby Mode	Sleep Mode Position A1	Deep Sleep Mode Position A2
Horizontal Sync Vertical Sync Video	Active Active Active	Inactive Active Blanked	Active Inactive Blanked	Inactive Inactive Blanked
Power Indicator	Green	Amber	Amber Blinking (0.5 sec interval)	Amber Blinking (1 sec. interval)
Power Consumption	110W (Max.)	Less than 5W	Less than 5W	Less than 5W

NOTE: This monitor automatically returns to normal operation when horizontal and vertical sync return. This occurs when you move the computer's mouse or press a key on the keyboard.

*This monitor is EPA ENERGY STAR® compliant and NUTEK compliant when used with a computer equipped with VESA DPMS functionality.
For energy conservation, turn your monitor OFF when you are not using it or when leaving it unattended for long periods.

NOTE: Maximum power consumption is measured after letting the monitor turned on for 30 minuites that is the time required for the unit to be thermally stable.

Appendix

Troubleshooting

If you have a problem setting up or using your LCD monitor, you may be able to solve it yourself. Before contacting customer service, try the suggested actions that are appropriate to your problem.

Table 2. Troubleshooting – Image

What you see...	Suggested Actions	Reference
Screen is blank and power indicator is off	■ Ensure that the power cord is firmly connected and the LCD monitor is on.	Connecting your LCD monitor, page 5.
" Check Signal Cable" message	■ Ensure that the signal cable is firmly connected to the PC sources. ■ Ensure that the PC or video sources are turned on.	Connecting your LCD monitor, page 5.
"Sync. Out of Range" message	■ Check the maximum resolution and the frequency of the video adaptor. ■ Compare these values with the data in the Display Modes Timing Chart.	Display Modes, page 31.
The image is too light or too dark	■ Adjust the Brightness and Contrast.	Brightness, page 12. Contrast, page 12.
Horizontal bars appear to flicker, jitter or shimmer on the image	■ Adjust the Fine function.	Image Lock, Fine, page 12.
Vertical bars appear to flicker, jitter or shimmer on the image.	■ Adjust the Coarse function and then adjust the Fine function.	Image Lock, Coarse, page 12. Image Lock, Fine, page 12.

Appendix

Table 2. Troubleshooting – Image (*Continued*)

What you see...	Suggested Actions	Reference
Screen is blank and power indicator light is steady amber or blinks every 0.5 or 1 seconds	■ The monitor is using its power management system. ■ Move the computer's mouse or press a key on the keyboard	Power Saver, page 26.
Image is not stable and may appear to vibrate	■ Check that the display resolution and frequency from your PC or video board is an available mode for your monitor. On your computer check: Control Panel, Display, Settings	Display Modes, page 31.
	■ If the setting is not correct, use your computer utility program to change the display settings.	Installing the Video Driver, page 6.
	NOTE: Your monitor supports multiscan display functions within the following frequency domain:	
	■ Horizontal frequency: Vertical frequency: Maximum refresh rate:	Analog: 30 kHz ~ 90 kHz 50 ~ 85 Hz 1920 x 1200
Image is not centered on the screen.	■ Adjust the horizontal and vertical position.	H-Position, page 13. V-Position, page 13.
You need the monitor driver software	■ Download the driver from WWW pages: http://www.samsung-monitor.com http://www.samsungmonitor.com (USA only)	

Appendix

Specifications

Table 3. Technical and environmental specifications

Panel	Size Display Size Type Pixel pitch Viewing Angle	24.06" Diagonal 518.4 (H) x 324 (V) mm a-si TFT Active matrix 0.27 (H) x 0.27 (V) mm 80/80/80/80 (L/R/U/D):Typ.
* Frequency	Horizontal Vertical Display color	Analog: 30 ~ 90 kHz 50 ~ 85 Hz 16,777,216 colors
Display Resolution	Analog	1920 x 1200
Input Signal	Sync. Video signal	H/V Separate, TTL, P. or N. H/V Composite, TTL, P. or N. Sync-on-green 0.3 Vp-p, N. 0.7 Vp-p @ 75 ohm
TV.Video	Color system Sound system Video system	NTSC M/N CVBS, S-VHS
Audio Characteristics	Audio Input 1 Audio Input 2 Frequency Response	3.5 Stereo jack 0.5 Vrms (-9dB) RCA jack Red (R), White (L) 0.5 Vrms (-9dB) RF : 80Hz ~ 15 kHz (at -3dB) A/V : 80Hz ~ 20kHz (at -3dB)
Power Supply	Input Output	AC 100 ~ 240 Vrms (50/60Hz) DC 14V/8A
Power Consumption	Maximum Power Saving	110 W 5 W
Dimensions/ Weight (W x H x D)	Unit	620.4 x 228.0 x 483.4mm/13.8 kg
Environmental Considerations	Operating Temperature: 50 °F to 104 °F (10 °C to 40 °C) Operating Humidity: 10% to 80% Storage Temperature: -13 °F to 113 °F (-25 °C to 45 °C) Storage Humidity: 5% to 95%	

NOTE: Maximum power consumption is measured after letting the monitor turned on for 30 minuites that is the time required for the unit to be thremally stable.
* Referring to preset timing modes, page 31.

Appendix

Pin Assignments

Table 4. 15 pin D-sub connector

Pin	Separate H/V	Composite H/V	Sync-on-green
1	Red	Red	Red
2	Green	Green	Green + H/V Sync
3	Blue	Blue	Blue
4	GND	GND	GND
5	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)
6	GND-Red	GND-Red	GND-Red
7	GND-Green	GND-Green	GND-Green
8	GND-Blue	GND-Blue	GND-Blue
9	No Connection	No Connection	Not used
10	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND	GND
12	DDC _SDA	DDC _SDA	DDC _SDA
13	H_Sync	H/V Sync	Not used
14	V_ Sync	Not used	Not used
15	DDC _SCL	DDC _SCL	DDC _SCL

Table 5. TV Tuner Connector

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	SCL 1	11	GND	21	GND
2	SCR 1	12	GND	22	GND
3	GND	13	SDA	23	GND
4	GND	14	Tuner Power	24	GND
5	SCL	15	GND	25	LEFT −
6	Qss - IF	16	CHK - Tuner	26	GND
7	RF - CVBS	17	SCL 2	27	RIGHT −
8	GND	18	N.C	28	RIGHT +
9	SCR 2	19	N.C	29	LEFT +
10	GND	20	GND		

Appendix

Display Modes

If the signal from the system equals to the standard signal mode, the screen is adjusted auto-matically. If the signal from the system doesn't equal to the standard signal mode, adjust the mode with referring to the Videocard user guide because the screen might not display or only the power LED might be on. For the display modes listed below, the screen image has been optimized during manufacture.

Table 6. Preset timing modes

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
HDTV format	1280 x 720p	44.955	59.94	74.176	+/−,+/−
	1920 x 1080i	33.716	59.94i	74.176	+/−,+/−
VGA	720 x 400	31.469	70.087	28.322	−/+
	640 x 480	31.469	59.940	25.175	−/−
	640 x 480	37.500	75.000	31.500	−/−
	640 x 480	43.269	85.008	36.000	−/−
SVGA	800 x 600	46.875	75.000	49.500	+/+
	800 x 600	53.674	85.061	56.250	+/+
XGA	1024 x 768	48.363	60.004	65.000	−/−
	1024 x 768	60.023	75.029	78.750	+/+
	1024 x 768	68.677	84.997	94.500	+/+
SXGA	1280 x 1024	63.981	60.020	108.000	+/−,+/−
	1280 x 1024	79.976	75.025	135.000	+/+
UXGA	1600 x 1200	75.000	60.000	162.000	+/−,+/−
WUXGA	1920 x 1200	75.000	60.000	193.156	+/−,+/−

When input signal is HDTV Format, this monitor doesn't support the following functions; Auto, PC Position, Image Lock & Zoom / Pan.

Appendix

1600 x 1200 / 1920 x 1200 Mode change function

The recommended mode of SyncMaster 240MP is 1920 x 1200,
however you may prefer 1600 x 1200 to 1920 x 1200.
Then, please use mode change function for optimal screen display.

1. Press "Menu" button on the Monitor front.
2. Choose "information" menu by using +/– key ("– CH +" and "– Vol +")
3. Press "Menu" button 7 times continuously
4. Then, the mode change funcion operates
5. If you want to revert to the original mode, then do the 1-3 procedure again.

Table 7. NTSC Broadcasting Systems

| Color System	Sound System	Stereo System	Channel System	Countries
NTSC	M	A2	US	Korea
		BTSC (SAP)	US	USA, Canada, Chile, Venezuela, Cuba, Colombia, Jamaica, Mexico, Panama, Peru, Philippines, Puerto-Rico, Taiwan
		EIAJ	Japan	Japan

Appendix

Changing the Base

Removing the base

1 Turn off your monitor and unplug its power cord.

2 Lay the LCD monitor face-down on a flat, soft surface.

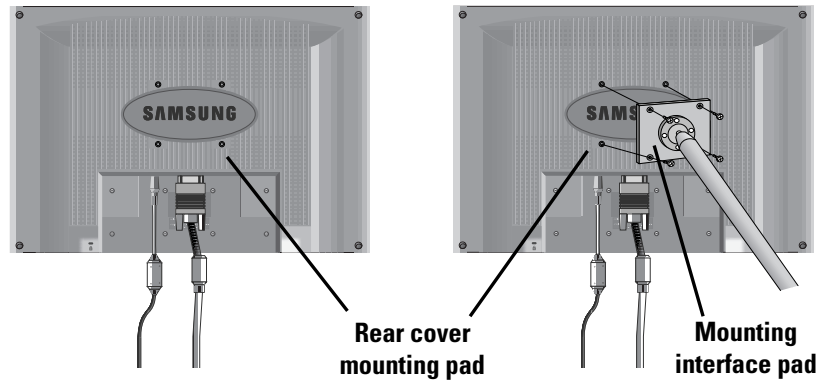**3** Remove the six screws and then remove the hinge cover.
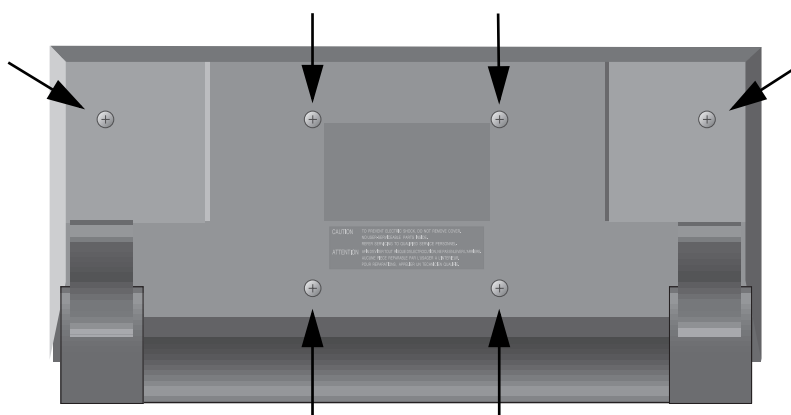
4 Remove the four screws and then lift off the stand.

English   33
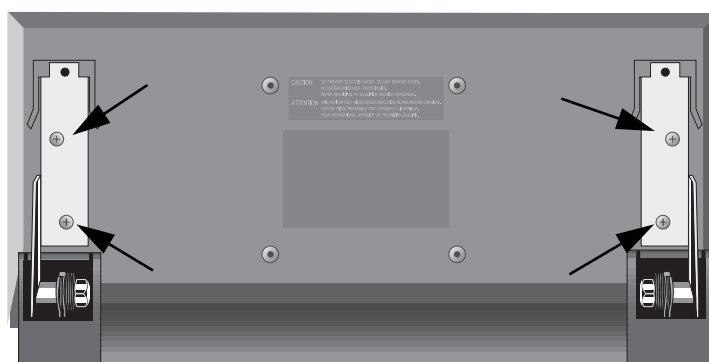
Appendix

Attaching the base

NOTE: This monitor accepts a 100mm x 100mm VESA-compliant mounting interface pad.

Rear cover mounting pad

Mounting interface pad

1 Align the Mounting Interface Pad with the holes in the Rear Cover Mounting Pad and secure it with the four screws that came with the arm-type base, wall mount hanger or other base.

Maintenance of Your LCD

WARNING: To avoid risk of electric shock, do not disassemble the monitor cabinet (except for gaining access to the cable connectors as described on page 6). Users cannot service the monitor. User maintenance is restricted to cleaning as explained below:

Unplug the monitor from the power outlet before cleaning.

- ■ To clean your LCD screen, lightly dampen a soft, clean cloth with water or mild detergent. If possible, use a special screen cleaning tissue or solution suitable for the antistatic coating.
- ■ To clean the monitor cabinet, use a cloth lightly dampened with a mild detergent.
- ■ Never use flammable cleaning material to clean your LCD or any other electrical apparatus.

Index

Regulatory Information

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television receptions, 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.

User Information

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

If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.

Declaration of conformity for products Marked with FCC Logo

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
85 West Tasman Drive
San Jose, CA 95134 USA
Tel) 408-544-5124
Fax) 408-544-5191

Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.

For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numérique de classe B respecte toutes les exigences du Règlemont ICES-003 sur les équipements produisant des interférences au Canada.

MPR II Compliance

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

■ EN55022:1998 – Radio Frequency Interference
■ EN55024:1998 – Electromagnetic Immunity
■ EN61000-3-2:1995 + A1 + A2 – Power Line Harmonics
■ EN61000-3-3:1995 – Voltage Fluctuations
■ EN60950 – Product Safety.

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