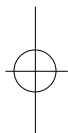
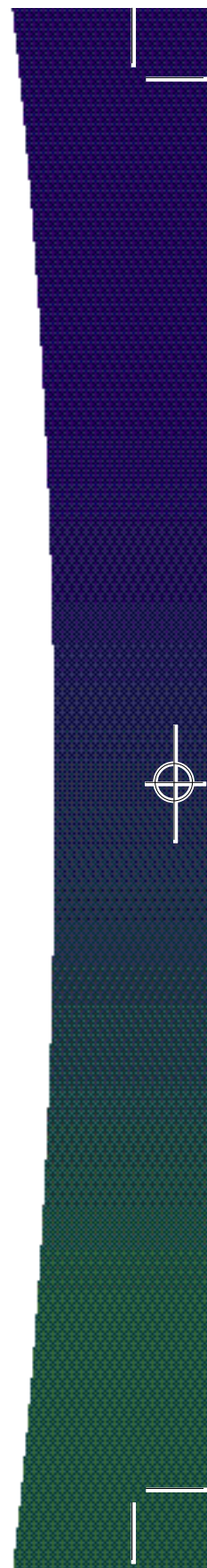
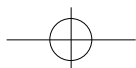




SyncMaster 320 TFT SyncMaster 520 TFT


Color Monitor




Owner's
Instructions



	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.		

 The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.










 The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

About this Manual

This manual shows the precautions, features, specifications, installation, and operation of your LCD monitor.

Unpacking your Monitor

Please make sure the following items are included with your computer monitor:

 This Manual	 Monitor and Stand-base	 Microphone Output Cable
 Warranty Card (not available in all areas)	 DC Adapter (Optional)	 Sound Cable
 Diskette		 Signal Cable
		 Power Cable

Note: You can connect the LCD monitor to a Macintosh computer using an optional adapter. For the optional adapter, please contact your LCD monitor dealer.

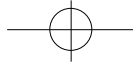


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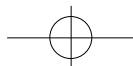
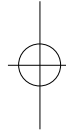
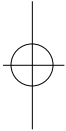
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Precautions

Please read and follow these instructions when connecting and using your LCD monitor.

Do not touch the surface of the LCD monitor panel with objects having sharp tips or edges.

Although the surface of the TFT-LCD monitor has been coated to have scratch resistance, touching the surface with sharp objects can damage the panel.

Do not press hard or allow heavy objects to fall onto the surface of the LCD monitor.

Keep the LCD monitor away from direct sunlight and other heat sources.

Setting up the LCD monitor under direct sunlight can significantly decrease the contrast and increase glare. Also, if the ambient temperature is out of the guaranteed operation specification, the panel can show residual images that will overlap other images.

This ghost-like residual image will gradually disappear as time passes, but for some extreme cases this residual image means that the LCD panel has been permanently damaged.

When you set up the LCD monitor, allow enough room for ventilation around the back of the LCD monitor cabinet.

The LCD monitor has guaranteed operation temperature specifications.

Reserving ample space for ventilation and not blocking the ventilation holes on the back of the monitor is essential for the safe and stable operation of the LCD monitor.

Use the enclosed power cord and optional adapter.

The enclosed power cord and optional adapter are specifically designed for the LCD monitor you just purchased. Connecting a different power cord and adapter can cause a fire or equipment damage.

Keep liquids away from the LCD monitor.

Although the LCD panel is especially coated to protect it from scratches, dust and moisture, it is not waterproof. Spillage onto the LCD panel or cabinet can result in electric shock and/or permanent equipment damage. When you spill liquid on the cabinet, unplug the LCD monitor immediately and have it checked by a qualified technician.

Do not use any strong solvents or abrasive cleansers to clean the LCD panel.

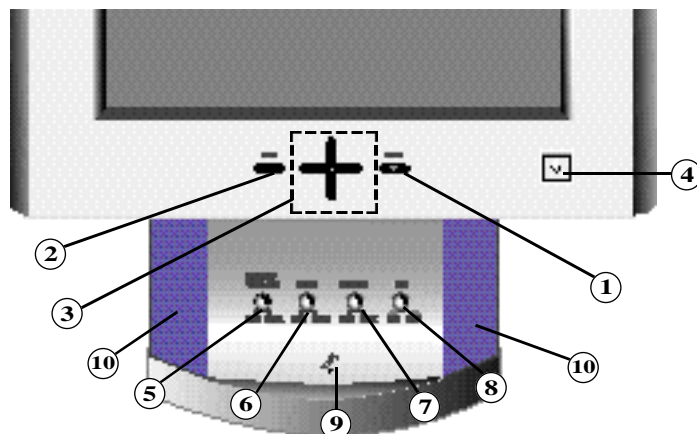
The use of any strong solvents or abrasive cleansers can damage the very thin coating layer. This coating improves the screen quality of the LCD monitor.

Use a soft cloth to protect the surface of the LCD monitor when removing dust or any stains.

Overview of LCD Monitor

English

Frontview



Screen Controls

1. **Menu [+] button.** Use this button to activate the on-screen display or to enter a selection in the on-screen display.
2. **Exit button.** Use this button to exit the on-screen display.
3. **Up [s] / Down [t] and -/+ buttons.**
Use these buttons to choose or adjust items in the on-screen display.
4. **Power button and Indicator.**
Use this button to turn the monitor On and Off. The indicator light in the middle of the button glows green during normal operation and glows amber while the monitor is in the power saving mode or if the signal cable is disconnected.

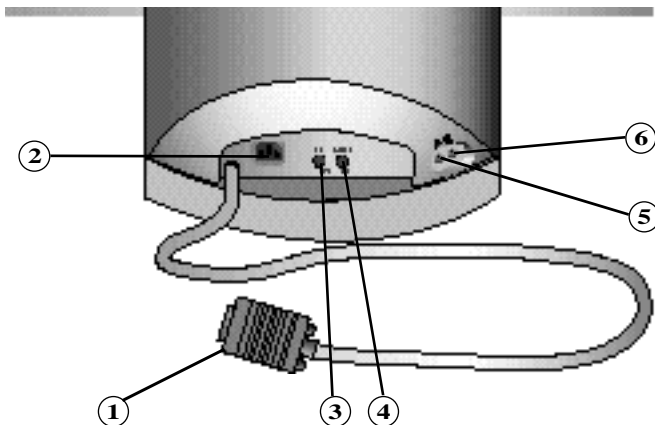
Audio Controls

5. **Audio On/Off and Volume.**
Use this button to turn the sound On and Off and to control the sound volume.
6. **Bass.** Use this button to adjust the volume of the low sounds.
7. **Treble.** Use this button to adjust the volume of the high sounds.
8. **Microphone On/Off.** Use this button to turn the internal microphone On or Off.
9. **Microphone.** Picks up sound and sends it to the sound card in your PC.
10. **Amplified Stereo Speakers**

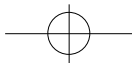


Overview of LCD Monitor

Rearview



- 1. Signal cable.**
Connect your signal cable to the port of video card in the PC.
- 2. Power port.**
Connect the power cable here.
- 3. Microphone out port.**
Connect a cable here to send sound from the monitor's microphone to the computer's sound card.
- 4. Audio in port.**
Connect a cable here to bring in sound from your computer's sound card.
- 5. External microphone jack.**
Connect an external microphone here. Using an external microphone automatically disconnects the monitor's internal microphone.
- 6. Headphone jack.**
Connect headphones here. When you connect headphones, the monitor's speakers are turned off.



Installation

Before connecting the LCD monitor to your computer, make sure that your computer supports the video mode supported by the LCD monitor. If the video mode, at the time of installation, is not one supported by the LCD monitor, the LCD monitor may not display the image as it is intended.

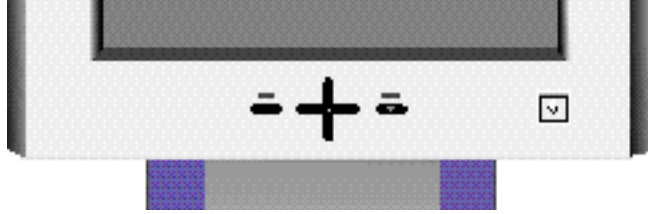
Connecting Your LCD Monitor

1. Be sure that the power switches of both the Computer and the LCD monitor are OFF.
2. If you are using a Macintosh computer, connect the other end of the signal cable to a Macintosh adapter. (The adapter is not included with your monitor. Contact your dealer for more information.) If you are using a standard PC and graphics board, skip to step 5.
3. Follow the instructions included with your Macintosh-to-PC adapter to set the configurations on your adapter, if necessary.
4. Connect the signal cable to the video port on the back of your computer. This port might be directly attached to your computer, or it might be part of a video board, video card, or graphics card.
5. Connect the power cable for the LCD monitor to the back of your monitor.
6. Follow the directions that came with your sound card or your computer to connect the monitor's speakers and microphone.
7. Plug the computer and monitor power cables into a nearby outlet.
8. Turn your computer and monitor on.
If your monitor displays an image, you have successfully installed the monitor.
If the monitor does not display an image, check all the connections and follow the troubleshooting guide beginning on page 15.
9. Your LCD monitor is now ready to use, but to get the best image on the LCD monitor, most of the LCD monitor parameters must be fine tuned to work with the video adapter you are using. The following sections will guide you through the step-by-step procedures for adjusting the parameters for your specific needs.

Your LCD monitor uses an On-Screen Display (OSD) which gives you a convenient way to fine tune the quality of the screen image. Six control buttons on the front panel of the LCD monitor are used to operate the OSD menu.



Adjusting Your LCD Monitor



1. The **MENU** button turns on the menu and activates the highlighted function.
2. Push the **EXIT** button to stop and close the OSD.
3. Use the **s** and **t** buttons to move between the function menus, and use the **-** and **+** buttons to make adjustments to the selected function option.

Your LCD monitor also provides audio controls located on the front of the stand. The audio controls are described starting on page 13.

Screen Image Adjustment

Tip 1:

The LCD monitor needs time to become thermally stable the first time you turn it on each day. Thus, to achieve more accurate adjustments for parameters, allow the LCD monitor to warm up (be On) for at least 20 minutes before making any screen adjustments.

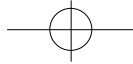
Tip 2:

The image on the LCD monitor is viewed best when the monitor is placed just below eye level. Please tilt the monitor screen for your viewing comfort.

Tip 3:

The accompanying installation diskette with the label "Screen Manager" contains utilities that are useful when making screen adjustments. Install and run the Screen Manager and read the "readme.txt" file before you make adjustments.

Caution: Do not push and hold in for more than 3 seconds any control button on the front panel of the monitor. Doing so may activate a special function that replaces the parameters with the factory preset values.



Adjusting Your LCD Monitor

English

Automatic Adjustment

Your LCD monitor is designed to interface with the standard analog Red, Green and Blue video signals from a PC or graphics video board. The video signal from a PC is converted to a digital signal through an Analog-to-Digital Converter (ADC). To make the proper conversion for accurate image performance, the LCD monitor must generate exactly the same pixel clock rate and must synchronize it with the clock signal coming from the PC. When the clocks are not correctly matched, some vertical and horizontal distortion may appear on the screen.

Using the Automatic Adjustment function, you can get a more stable image. Your LCD monitor can automatically set most adjustment parameters: Video Gain, Frequency, Fine, and Position using the OSD Auto Adjustment function. Even though you can set most image adjustments automatically, distortion or noise may remain depending on the video board performance. Thus, after using the Auto Adjustment function, we recommend that you readjust the function settings to get the very best picture possible.

Caution: Use only the Samsung **provided software** and the OSD to make parameter adjustments. Software available from other vendors will not work properly with this LCD monitor and may damage the monitor.

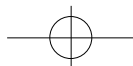
Procedure

1. Turn on your PC in accordance with its instructions and push the Power button on the front of your LCD monitor.
2. Install the Screen Manager utility program into your PC system in accordance with the "readme.txt" file.
3. Run the Screen Manager utility program by clicking the icon, and follow the instructions.
4. Use the **t** button to move down and to highlight the **▶◀** icon and see the Auto/Reset menu, then push the **MENU** button again.
5. If Auto Adjustment is not highlighted, use the **s** button to highlight it and push the **MENU** button again.

Quick Step : Push the **+** button twice to start the Auto Adjustment Function.

6. Push the **+** button to activate the Auto Adjustment function.
7. **If you notice horizontal or vertical lines flickering on your screen, use the Coarse and Fine functions found on the Image Lock menu to reduce or eliminate these lines.**
8. If the display area is not centered on the screen, use the Position menu to move the display area horizontally and/or vertically on the screen.
9. Use the Brightness and Contrast menus to adjust the screen for your eye comfort.
10. Make any other desired adjustments using the OSD menus and the directions found in the following sections.
11. We suggest that you lock the OSD menu system when you have your LCD monitor properly adjusted.
12. Exit the OSD menu system by pushing the **EXIT** button 1 or 2 times until the OSD menu disappears.

Caution: After the OSD disappears, do not continue holding in the **EXIT** button. If you do, the OSD may reset to the original factory settings and you will need to make your adjustments again.





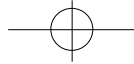
Adjusting Your LCD Monitor

Manual Adjustments

When making adjustments to the way your LCD monitor displays an image, we recommend that you use the test pattern provided by the SyncMaster Screen Manager. If your computer operating system cannot run this utility program, display a checkerboard pattern on the screen. For Macintosh users, you can display a checkerboard pattern using the General Controls from the Macintosh Control Panel menu.








The information provided below describes the OSD menu options in the order that they appear on the OSD. When you first install your monitor, we recommend that you first use the Automatic Adjustment procedure as outlined above before making other adjustments. The numbers shown along the right side of the Brightness, Contrast, Image Lock, Position, Color Control and Menu Position OSD windows represent arbitrary values for reference only.

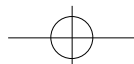
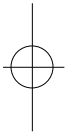
OSD Icon & Menu	Function Name	Effect of Button	
		-	+
	Brightness		
	Contrast		
	Image Lock	These functions correct for noise (slight interference) in the video signal from the computer or video board.	
	Fine	Fine eliminates or limits noise which causes horizontal lines or areas on the screen where the image appears to be unstable and jitters, shimmers or flickers. Use the - and + buttons to adjust away the interference. If you cannot get satisfactory results using the Fine adjustment, get the best results you can with the Coarse adjustment then use Fine again.	



Adjusting Your LCD Monitor




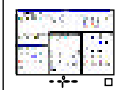

English

OSD Icon & Menu	Function Name	Effect of Button	
		-	+
	Coarse	Coarse eliminates or limits noise which causes vertical lines or areas on the screen where the image appears to be unstable and jitters, shimmers or flickers. This function slightly changes the width of the display image. Use the H-Position function on the Position menu to center the display image on the screen.	
	Position H-Position		
	V-Position		
	Color Temperature	Color temperature changes the color coordinates to make the colors appear more warm (red) or cool (blue) or to use the LCD natural characteristics. Select the mode you find most comfortable using then fine tune the colors using the Color Control menu.	
	Mode 1	Colors appear with the LCD panel's natural characteristics.	
	Mode 2	Colors appear more cool with a bluish cast	
	Mode 3	Colors appear more warm with a reddish cast	
	Color Control	After selecting a Color Temperature mode, you can adjust the hue that the screen displays for red, green and blue.	
	Red	Decrease redness	Increase redness
	Green	Decrease greenness	Increase greenness
	Blue	Decrease blueness	Increase blueness




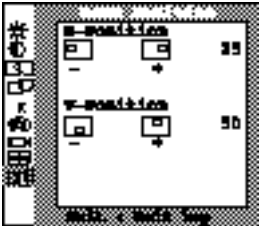
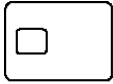

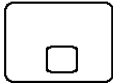




Adjusting Your LCD Monitor

OSD Icon & Menu	Function Name	Effect of Button	
		-	+
	Auto / Reset	See page 7 for a complete description of the Automatic Adjustment function. Use the two Reset functions to restore the screen settings to their original manufacturing settings.	
	Auto Adjustment	No	Yes
	Geometry Reset	No	Yes
	Color Reset	No	Yes
	Image Size	Move highlight left	Move highlight right
	Zoom	Scales the contents of the entire display area to 1, 2, 4, and 8 times the normal size.	
	Display Size	Normal	Expand
		<p>If your computer or video board supplies a signal rate and resolution lower than 1024x768, this LCD monitor provides a scaling processor which can expand the rate up to 1024x768. If the signal rate is already XGA (1024x768) you will see "(Disable)" below Expand. This means that this function is not available because the screen is already at its largest size.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Normal (VGA:640x480)</p> </div> <div style="text-align: center;">  <p>Expanded (1024x768)</p> </div> <div style="text-align: center;">  <p>Normal (SVGA:800x600)</p> </div> </div>	


Adjusting Your LCD Monitor

English

OSD Icon & Menu	Function Name	Effect of Button	
		-	+
	Miscellaneous	This menu offers functions that you may find useful, but will probably use only when initially setting up your LCD monitor.	
	Language English Deutsch Español Français Italiano	Use the s and t buttons to select one of the five languages to use for the OSD. The language you choose affects only the language that the OSD displays. It has no effect on any software running on your computer.	
	Menu Position	This function allows you to set the location where the OSD menu displays on your screen. The default location is in the center of the screen.	
	H-Position		
	V-Position		
	Menu Display Time	This function defines how long the OSD will stay active, after you stop pushing any buttons. Use the - and + buttons to select between 5, 10, 20, and 200 seconds.	



Adjusting Your LCD Monitor

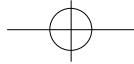
OSD Icon & Menu	Function Name	Effect of Button	
		-	+
	Display Mode	This is an information only screen which shows the frequency and resolution that your LCD monitor is receiving from your computer or video board.	

Non-OSD Controls

OSD Locking

You can lock the OSD controls to protect your settings from accidental or unwanted changes by pushing and holding in the **MENU** button for 5 seconds.

The OSD will open then close automatically. When you open the OSD again, "Locked" will appear along the bottom of most menus and you cannot change any controls except Brightness and Contrast. To unlock the OSD, push and hold in the **MENU** button for 5 seconds again.

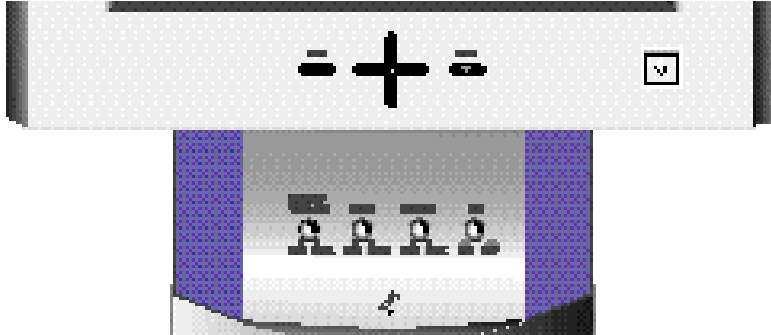


Adjusting Your LCD Monitor

English

Audio Controls

Your LCD monitor provides four audio control buttons located on the front of the stand.



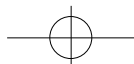
Audio Adjustments

To access the On/Off, Volume, Bass and Treble functions, push the appropriate blue control button until it pops out, then turn it to the right or left to adjust the function.

Function Name	Effect of Control Movement	
	Left	Right
Audio On/Off and Volume	Off Decrease volume	On Increase volume
Bass	Decrease low sounds	Increase low sounds
Treble	Decrease high sounds	Increase high sounds

Your LCD monitor includes an internal microphone which you can turn On or Off using the rightmost control of the Audio controls.

Function Name	Effect of Control Movement	
	In	Out
Microphone On/Off	On	Off





Adjusting Your LCD Monitor

Power Saver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into an off mode when it has not been used for a certain amount of time.

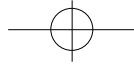
This system operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature. See the table below for details.

State	Normal operation	Power-Saving Function Mode EPA/NUTEK		
		Standby mode	Suspend mode/ Position A1	Power-off mode/ Position A2
Horizontal Sync	Active	Inactive	Active	Inactive
Vertical Sync	Active	Active	Inactive	Inactive
Video	Active	Blanked	Blanked	Blanked
Power Indicator	Green	Amber	Amber Blinking (0.5 Sec,Interval)	Amber Blinking (1.0 Sec,Interval)
Power Consumption	320TFT : 40W(max.) 30W(nominal) 520TFT : 45W(max.) 35W(nominal)	Less than 5 W	Less than 5 W	Less than 5 W

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. If your computer system cannot support a display power management function, you can purchase an optional DPMS software program to enable the power saving function. Please contact Samsung or your dealer for more information.

For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.



Adjusting Your LCD Monitor

English

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.

Image Problems

Problem	Suggested Action	Reference
Screen is blank and power indicator is off.	<ul style="list-style-type: none"> Ensure that the power cord is firmly connected and the LCD monitor is On. 	Installation, page 5
"Check Signal Cable" appears on screen.	<ul style="list-style-type: none"> Ensure that the signal cable is firmly connected to the PC or video board. Ensure that the PC is turned On. 	Installation, page 5
The image is too light or too dark	<ul style="list-style-type: none"> Adjust the Brightness and Contrast. 	Brightness, page 8 Contrast, page 8
Horizontal bars appear to flicker, jitter or shimmer on the image.	<ul style="list-style-type: none"> Adjust the Fine function. 	Image Lock, Fine, page 8
Vertical bars appear to flicker, jitter or shimmer on the image.	<ul style="list-style-type: none"> Adjust the Coarse function and then adjust the Fine function. 	Image Lock, Coarse, page 9 Image Lock, Fine, page 8
Image is not stable and may appear to vibrate.	<ul style="list-style-type: none"> Check that the display resolution and frequency from your PC or video board is an available mode for your LCD monitor. If the setting is not correct, use your computer utility program to change the display settings. 	Misc., Display Mode, page 12 Display Modes Timing Chart, page 21 On your computer: Display Settings. For Windows 95 or later, use "Start", "Settings", "Control Panel", "Display", and "Settings".
Note: Your LCD monitor supports the multiscan display function within the following frequency domain:		
Horizontal frequency:		30 kHz - 61 kHz
Vertical frequency:		50 Hz - 75 Hz
Maximum refresh rate:		1024 x 768 @ 75 Hz

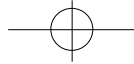


Adjusting Your LCD Monitor

Problem	Suggested Action	Reference
Image is too small using the VGA and SVGA resolution.	<ul style="list-style-type: none"> Use the Expand function to stretch the image to 1024x768. 	Image Size, Expand, page 10
Image is too big and extends beyond the edge of the screen.	<ul style="list-style-type: none"> Disable or adjust the Zoom-in function as appropriate. 	Image Size, Zoom, page 10
Image is not centered on the screen.	<ul style="list-style-type: none"> Adjust the image horizontal and vertical position. 	Position, H-Position, page 9 Position, V-Position, page 9

Audio Problems

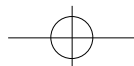
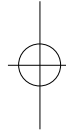
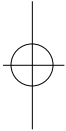
Problem	Suggested Action	Reference
No sound.	<ul style="list-style-type: none"> Ensure that the audio cable is firmly connected to both the audio-in port on your LCD monitor and to the audio-out port on your sound card or computer. Rotate the Audio On/Off and Volume control to the right to turn it on and raise the volume. 	Installation, page 5 Audio Controls, page 13
Sound level is too low.	<ul style="list-style-type: none"> Rotate the Audio On/Off and Volume control to the right to raise the volume. If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program. 	Audio Controls, page 13 Refer to your computer, sound card or software documentation.



Adjusting Your LCD Monitor

Problem	Suggested Action	Reference
Howling effect occurs.	<ul style="list-style-type: none">• Decrease the volume slightly.• If you are using an external microphone, move it away from the speakers and adjust the volume level.	Audio Controls, page 13
Sound is too high pitched or too low pitched.	<ul style="list-style-type: none">• Adjust the Treble and Bass as appropriate.	Audio Controls, page 13
Microphone is not working.	<ul style="list-style-type: none">• Check the microphone cable connection.• Your sound card must be compatible with an internal, embedded microphone. If it is not, use the microphone that came with your computer or sound card.	Installation, page 5 Your computer or sound card documentation.

English

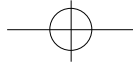




Appendix

Electrical Specifications

	SyncMaster 320TFT	SyncMaster 520TFT
LCD Panel	Size: 13.3" diagonal	15.0" diagonal
	Display area: 270.3 (H) x 207.8 (V)	304.1 (H) x 228.1 (V)
	Type: Amorphous silicon TFT LCD (Liquid Crystal Display)	
	Pixel pitch: 0.264 (H) x 0.264 (V)	0.297 (H) x 0.297 (V)
	Viewing angle: 55/55/60/60 (U/D/L/R) (degrees)	
Synchronization (Scan Frequency)	Horizontal: 30 -61kHz (Automatic scanning)	
	Vertical: 50-75Hz(Automatic scanning) (1024x768 is upto 75Hz)	
Display Colors:	16.7 Million colors	
Display Resolution	Optimum mode: 1024 dots x 768 lines	
	Native mode: 640 x 480, 800 x 600, 832 x 624 (Macintosh), 1024 x 768	
	Expand mode: 640 x 480 -> 1024 x 768	
	800 x 600 -> 1024 x 768	
	832 x 624 -> 1024 x 768 (Macintosh)	
	1024 x768-> 1024 x 768	
Maximum Input Pixel Clock:	80MHz at 1024x768@75Hz	
Input Signal	Sync: H/V Separate, TTL, Positive or Negative H/V Composite, TTL, Positive or Negative Sync-On-Green 0.3 Vp-p, Negative	
	Video signal: 0.714Vp-p@75 ohm, Positive	
	Signal Cable: 26 pin MDR connector (monitor) to 15 pin d-sub (PC)	
Power Supply:	AC 100-240 Volt \pm 10%, 60Hz/50Hz \pm 3Hz	
Power Consumption	Normal: 30 Watt (without audio)	35 Watt (without audio)
	Maximum: 40 Watt (with audio)	45 Watt (with audio)
	Power Saving: 5 Watt	5 Watt
	(VESA DPMS compliance)	(VESA DPMS compliance)

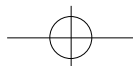
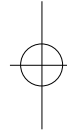
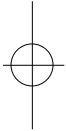


Appendix

English

Mechanical Specifications

	SyncMaster 320TFT	SyncMaster 520TFT
Dimension		
Unit (WxHxD):	355.0 x 395.0 x 196.0 mm	404.0 x 419.0 x 196.0mm
Carton (WxHxD):	455.0 x 488.0 x 282.0 mm	475.0 x 510.0 x 282.0 mm
Weight		
Unit:	6.4Kg	7.5Kg
Carton:	8.0Kg	9.5Kg
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%	
Audio Characteristics		
Built-in Microphone:	High Sensitivity Condenser Microphone (mono)	
Audio Input:	Left/Right Stereo Phone Jack, 0.5Vrms	
Sound Output:	1.0W (left) + 1.0W (right)/THD 1% at 4ohm	
Frequency Response:	80Hz - 20KHz (at -3dB)	
Headphone:	Max 50mW output (3.5-pi jack)	





Appendix

Pin Assignments

1. 15pin-26pin D-sub connector (slim-type), 15-pin side

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 Data	DDC Data	DDC Data
13	Horizontal Sync	H/V Sync	Not used
14	Vertical Sync	Not used	Not used
15	DDC Clock	DDC Clock	DDC Clock

2. 15pin-26pin D-sub connector (slim-type), 26-pin side

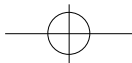
Pin	Separate H/V	Composite H/V	Sync-on-green
1	Red	Red	Red
2	Green	Green	Green + H/V Sync
3	Blue	Blue	Blue
4	GND	GND	GND
5	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)
6	GND-Red	GND-Red	GND-Red
7	GND-Green	GND-Green	GND-Green
8	GND-Blue	GND-Blue	GND-Blue
9	No Connection	No Connection	Not used
10	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND	GND
12	DDC Data	DDC Data	DDC Data
13	Horizontal Sync	H/V Sync	Not used
14	Vertical Sync	Not used	Not used
15	DDC Clock	DDC Clock	DDC Clock
16~ 26	GND	GND	GND

Appendix

Display Modes Timing Chart (Factory preset Modes)

No.	Display mode	Horizontal Frequency	Vertical Frequency	Pixel Clock	Sync Polarity (horiz./vert.)
1	VGA, 640x350	31.47kHz	70.00Hz	25.175MHz	+/-
2	VGA, 720x400	31.47kHz	70.00Hz	28.322MHz	-/+
3	VGA, 640x480	31.47kHz	60.00Hz	25.175MHz	+,-/+,-
4	VGA, 640x480	37.50kHz	75.00Hz	31.500MHz	+,-/+,-
5	Mac, 640x480	35.00kHz	66.667Hz	30.240MHz	-/-
6	SVGA, 800x600	35.16kHz	56.20Hz	36.000MHz	+,-/+,-
7	SVGA, 800x600	37.88kHz	60.30Hz	40.000MHz	+,-/+,-
8	SVGA, 800x600	46.87kHz	75.00Hz	49.500MHz	+,-/+,-
9	Mac, 832x624	49.73kHz	75.00Hz	57.250MHz	+,-/+,-
10	XGA, 1024x768	48.36kHz	60.00Hz	65.000MHz	+,-/+,-
11	XGA, 1024x768	56.48kHz	70.00Hz	75.000MHz	+,-/+,-
12	XGA, 1024x768	60.02kHz	75.00Hz	78.750MHz	+,-/+,-

English



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
QA Lab of Samsung America

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 6015P 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 Règlement ICES-003 sur les équipements produisant des interférences au Canada.

MPR II Compliance

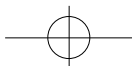
This monitor complies with SWEDAC (MPR II) recommendations for reduced electric and magnetic fields.

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 (CISPR 22) – Radio Frequency Interference
- EN50082-1 : 1992 – Electromagnetic Immunity
- EN60555-2 (IEC555-2) – Power Line Harmonics
- EN60555-3 (IEC555-3) – Voltage Fluctuations
- EN60950 (IEC950) – Product Safety.



U.S.A. :

Samsung Electronics America (SEA)
One Samsung Place
Ledgewood, NJ 07852
Tel. : 1-800-SAMSUNG (1-800-726-7864)
Fax-on-Demand for product information :
1-800-229-2239

CANADA :

Samsung Electronics Canada Inc.
7037 Financial Drive
Mississauga, Ontario L5N 6R3
Tel. : 1-800-SAMSUNG (1-800-726-7864)
Fax. : (905) 542-1199

GERMANY :

Samsung Electronics GmbH Samsung-Haus
Am Kronberger Hang 6/65824 Schwalbach/Ts.
Tel. : 06196-66-1134
Fax. : 06196-66-1133

AUSTRALIA :

Samsung Electronics Australia Pty Ltd.
Unit G, 10-16 South Street,
Rydalmere, N.S.W. 2116
P.O. BOX 368
Tel. : (02) 638 5200

ITALIA :

Samsung Electronics Italia SpA
Via C. Donat Cattin,
5-20063 Cernusco sul Naviglio (Mi)
Tel. : 167-010740

PANAMA :

Servicios Samsung (Zona Libre), S.A.
50 and 61 Streets Sta, Cecilia
Bdl. Don Camilo, Panama City
Tel. : (507) 264-0195 or 269-5571
Fax : (507) 269-5568

ESPAÑA :

Samsung Electrónica Comercial Ibérica, S.A.
Ciencias, 55-65 (Polígono Pedrosa) 08908
Hospitalet de Llobregat (Barcelona)
Tel. : (93) 261 67 00
Fax. : (93) 261 67 50

UK :

Samsung Electronics (UK) Ltd.
Samsung House, 225 Hook Rise South
Surbiton, Surrey KT6 7LD
Tel. : (0181) 391 0168
Fax. : (0181) 397 9949

<European Service Center & National Service>

Stafford Park 12 Telford, Shropshire, TF3 3BJ
Tel. : (01952) 292 262
Fax. : (01952) 292 033

THAILAND :

Samsung Service Center
729-729/1 JSP Tower Rachadapisek RD.,
Bangpongpan, Yannawa, Bangkok 10120
Tel : (662) 2954508-14
Fax : (662) 2954267

SOUTH AFRICA :

Samsung Electronics South Africa
Somerset Office Park 5 Libertas Road
Bryanston, South Africa
Tel : (27)-11-463-5678
Fax : (27)-11-463-5215

BRASIL :

Samsung Eletrônica da Amazonia Ltda.
R. Prof. Manoelito de Ornellas, 303-2º Andar
Chácara Sto. Antônio • cep : 04719-040
São Paulo • SP
Tel. : (011) 541-8500
Fax : (011) 523-3995, 522-0726



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