

SyncMaster







Do not touch

Grounding to prevent an electric shock





Use only a properly grounded plug and receptacle.

• An improper ground may cause electric shock or equipment damage.



Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.

• This may cause an electric shock or fire.



Do not connect too many extension cords or plugs to an outlet.

• This may cause a fire.







- Contact a Service Center or Customer Center for interior cleaning once a year.
 - Keep the product's interior clean. Dust which has accumulated in the interior over an extended period of time may cause malfunction or a fire.



Index Safety Instruct	ons Introduction	Setup Adjusting Your Monitor Troubleshooting Specifications Information
Sofety Instructions Notational		 Do not place water containers, chemical products or small metal objects on the monitor. This may cause malfunction, an electric shock or a fire. If a foreign substance enters the monitor, unplug the power cord and contact the Service Center.
 Power Installation Cleaning Other 		 Do not use or store inflammable substances near the monitor. This may cause an explosion or fire.
		 Never insert anything metallic into the monitor openings. This may cause an electric shock, fire or injury.
		 Do not insert metal objects such as utensils, wire or drill bits, or things that catch fire easily, such as pieces of paper or matches, into the vents or the headphone or A/V ports on the monitor. This may cause malfunction, an electric shock or a fire. Always contact the Service Center if foreign substances/objects enter into the monitor.
		 If you view a fixed screen for an extended period of time, residual image or blurriness may appear. Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.
		 Be careful when adjusting the stand angle. Applying too much force may cause the monitor topple over or fall, resulting in injury. Your hand or finger(s) may get caught between the monitor and the stand, causing injury.
		 Adjust the resolution and frequency to the levels appropriate for the model. Inappropriate resolution may cause undesirable picture quality. 17 inch - 1280 X 1024
		 Keep a proper distance between your eyes and the monitor screen. Sitting too close to the monitor on a continuous basis may damage eyesight.
	NOT	 When moving the monitor, turn the power switch off and unplug the power cord. Make sure that all cables, including the antenna cable and cables connecting to other devices, are disconnected before moving the monitor. Failure to disconnect a cable may damage it and lead to a fire or an electric shock.



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

Unpacking

Front

Rear



Signal Cable(15 pin D-Sub)





Power Cord

Driver Installation CD

Monitor

User's Guide and Natural Color/ Warranty Card (Not available in all locations)



Quick Setup Guide

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- Unpacking
- Front
- Rear



1. Power button	Use this button to turn the monitor on and off.	
2. Power indicator	This light glows green during normal operation, and blinks green once as the monitor saves your adjustments.	
3. Auto/Exit button	Use this button to auto adjustment direct access./Use this button to Exit the active menu or the OSD.	
4. Menu button	Use this button to open the OSD and activate a highlighted menu item.	
5. Adjust buttons	These buttons allow you to highlight and adjust items in the menu.	

Note: See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

Index | Safety Instructions

Introduction

- Front
- Rear



Setup | Adjusting Your Monitor | Troubleshooting | Specifications | Information

(The configuration at the back of the monitor may vary from product to product.)

- 1. Power portConnect the power cord for your monitor to the power port on the back of the
monitor.2. Signal portConnect the signal cable to the 15-pin, D-sub connector on the back of your
monitor.
- Note: See Connecting Your Monitor for further information regarding cable connections.



- 1. Connect the power cord for your monitor to the power port on the back of the monitor. Plug the power cord for the monitor into a nearby outlet.
- 2. Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.
- 3. Connect the monitor to the Macintosh computer using the D-SUB connection cable.
- 4. In the case of an old model Macintosh, you need to connect the monitor using a special Mac adaptor.
- 5. Turn on your computer and monitor. If your monitor displays an image, installation is complete.



 Internet web site : http://www.samsung-monitor.com/ (Worldwide) http://www.samsungusa.com/monitor/ (USA) http://www.sec.co.kr/monitor/ (Korea) http://www.samsungmonitor.com.cn/ (China)

Windows ME | Windows XP/2000

1. Windows ME

- Refer to **"Installing the Monitor Driver and User Manual**" CD-ROM supplied with the monitor. When inserted into the computer CD drive, the CD-ROM boots up automatically. If it fails to boot up automatically, click **monsetup.exe** twice in the CD-ROM drive folder of Windows Explorer.
 - 1. Insert CD into the CD-ROM driver.
 - 2. Click "Windows ME Driver"
 - 3. Choose your monitor model in the model list, then click the "OK" button.

Samaung Monitor Setup for Windows ME	x C x		
Pick the display adapter on which you want to install t	he monitor		
Intel740 Compatible Graphics Adapter	*		
Currently initialed monitor			
Pick the monitor which you want to install			
SencMaster 152MP, SyncMaster Magc (X157A/P)-G SencMaster 172MP, SyncMaster Magc (X177A/P)-G			
Cancel	OK.		

4. Click the "Install" button in the "Warning" window.



5. Monitor driver installation is completed.



Connecting Your Monitor Installing the

Monitor Driver Installing a VESA

base

2. Windows XP/2000

- Refer to "Installing the Monitor Driver and User Manual" CD-ROM supplied with the monitor. When inserted into the computer CD drive, the CD-ROM boots up automatically. If it fails to boot up automatically, click monsetup.exe twice in the CD-ROM drive folder of Windows Explorer.
- 1. Insert CD into the CD-ROM driver.
- 2. Click "Windows XP/2000 Driver".
- 3. Choose your monitor model in the model list, then click the "OK" button.



4. Click the "Install" button in the "Warning" window.

matches the na of your monitor you select the Windows in the	itor name that exactly ame printed on the front or on the back label. If wrong monitor, restart e "Safe Mode" and use or Diskette) again to act monitor.
	Cancel

5. If you can see following Message window, then click the **"Continue Anyway"** button. Then click **"OK"** button.

Har dwo	re Installation
▲	The software you are installing for this handware: Specification (SDNP)/CDNP; Specification Magin CONDUCTINE)S-G has not passed Windows Logo testing to verify its compatibility with Windows OP; (Cold on university battery is more thank). Continuing your installation of this software may impair or destabilities the connect operation of pass system with the immediately or in the future. Microsoft attornyly micromeenide that you say this installation new and contact the handware vender for software that has passed Windows Logo testing.
	Continue Argungs STOP Installation

- This monitor driver is under a certified MS logo. This installation will not damage your system. The certified driver will be posted on Samsung Monitor Homepage http://www.samsung-monitor.com/
- 6. Monitor driver installation is completed.



http://www.sec.co.kr/monitor/ (Korea) http://www.samsungmonitor.com.cn/ (China)

- To install the monitor driver manually, follow the procedures explained below after checking your
- I o install the monitor driver manually, follow the procedures explained below after checking you operating system.

Windows XP | Windows 2000 | Windows Me | Windows NT | Linux

1. Microsoft[®] Windows[®] XP Operating System

- 1. Insert CD into the CD-ROM driver.
- 2. Click "Start" ----- "Control Panel" then click the "Appearance and Themes" lcon.



3. Click "Display" icon and choose the "Settings" tab then click "Advanced..".

Apparation and Home		u ta 🔯	Display Properties
Se SA Ser Suche Sal Quer - Q - B / Parts Strip Parts of here	Colore Dr M	- C+	Therees Deuking Sureen Sarren Approximite Contings
Territorio () Territorio () Territ	Concernent and these Pick a task Concernent and these Concernent and these Concernent and Concernet and Concernent and Concernent and Conc		
	or pick a Control Pasel Icon	-	Disater on Intel/All Compatible Stagings Adapter Less More 1604 to 200 pixets
	Inime		Joshketool. Adjunced

4. Click the "Properties" button on the "Monitor" tab and select "Driver" tab.



5. Click "Update Driver.." and select "Install from a list or.." then click "Next" button.

Hansol 9200 Properties	🕜 🔀 Hardware	e Update Wisard	
General Driver		Welcome to the Hardware Update Wizard	
Driver Provider: Microsoft		This wized helps you install software for	
Driver Date: 6/6/2001		Hanol/\$200	
Driver Vestion: 5.1.2001.0			
Digital Signer: Hicrosoft Windows XP P		If your hardware came with an installation Cl or lingage disk, insort it now.	0
Update Drives	: device.	What do you want the wised to do? O (votal the schware automatically Recommended)	
Boll Back Driver Boll Back Driver Back to the previously inclu-	ting the drives, not Red-drives,	(Einstall from a list or ganzilic location (Advanced)	
Uninetal To uninetal the direct/Adve	arced.	Click New to continue.	
	Carcel	(jak jet) Cree	•

6. Select "Don't search ,I will.." then click "Next" and then click "Have disk".



 Click the "Browse" button then choose A:(D:\Driver)and choose your monitor model in the model list and click the "Next" button.

anna en	lon the Next button.		
Install F	rem Disk		Hardware Update Waard Select the device drives pay want to install for this hardware.
4	Inset the manufacture's installation disk, and then make sure that the conect drive is selected below	OK Canol	Control for denote denote you want to be and the the backware. Control for another the manufacture and hour pro-risks find. If you Know a delinitian optimum the discorption want to initial, slick Plane Disk. Model Equivibulance 15(5)(47) Specificance 15(5)(47)
	Copy manufacturer's files from:		This drives in not digitally signed Dataset in not digitally signed
		Provide	rijest jast Cavel

8. If you can see following "Message" window, then click the "Continue Anyway" button. Then click "OK" button.



- This monitor driver is under a certified MS logo. This installation will not damage your system. The certified driver will be posted on Samsung Monitor Homepage http://www.samsung-monitor.com/
- 9. Click the "Close" button then click "OK" button continually.

патения сума неме	
Completing the Hardware Update Mizard In-exact the finited installing the software for Syndhate 1534P Dist. Freih to steet the wised	
(jack Freih Carcel	
Sync.Haster 152MP Properties 🛛 😨 🔀	SyncMaster 152MP and Intel740 Compatible Grapid. 😰 🔯
General Driver	General Adapter Honitor Troublenhoot Color Management
Specification 152HP	Musturise SyncMaster 152MP
Driver Provider: Samoung	Properties
Driver Date: 2/6/2002	Munitar settings
Driver Version: 1.0.0.0	Screen refresh sate:
Dighal Signer: Not digitally signed	75 Helz
Driver Details To view details about the driver lifes.	Before modes that this monitor cannot display Dealing this check, box allows you to select display-modes that this monitor connot despine committy. The max lead to an unusable despine
Update Drives	and/or damaged hardware.
Boll Back Driver Ethe device fails after updating the driver, sol back to the previously installed driver.	
Uninstal To uninstal the driver (Advanced)	
Cancel Cancel	OK Cancel Look

10. Monitor driver installation is completed.

2. Microsoft[®] Windows[®] 2000 Operating System

- * When you can see "Digital Signature Not Found" on your monitor, follow these steps.
 - 1. Choose "OK" button on the "Insert disk" window.
 - 2. Click the "Browse" button on the "File Needed" window.
 - 3. Choose A:(D:\Driver)then click the "Open" button and then click "OK" button.
- * How to install
 - 1. Click "Start", "Setting", "Control Panel".
 - Double click the "Display" Icon.
 - 3. Choose the "Settings" tab and then click "Advanced..".
 - 4. Choose "Monitor".
 - Case 1: If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation.
 - Case 2: If the "Properties" button is active, click the "Properties" button then follow next steps continually.

- 5. Click "Driver" and then click on "Update Driver.." then click on the "Next" button.
- 6. Choose "Display a list of the known drivers for this device so that I can choose a specific driver" then click "Next" and then click "Have disk".
- 7. Click the "Browse" button then choose A:(D:\Driver).
- 8. Click the "Open" button, then click "OK" button.
- 9. Choose your monitor model and click the "Next" button then click "Next" button.
- 10. Click the "Finish" button then the "Close" button.

If you can see the "Digital Signature Not Found" window then click the "Yes"button. And click the "Finish" button then the "Close" button.

3. Microsoft[®] Windows[®] Millennium Operating System

- Click "Start", "Setting", "Control Panel".
 Double click "Display" icon.
 Select the "Settings" tab and click "Advanced Properties" button.
- 4
- Select the **"Monitor**" tab. Click the **"Change**" button in the **"Monitor Type**" area. 5.
- 6. Choose "Specify the location of the driver".
- 7. Choose "Display a list of all the driver in a specific location.." then click "Next" button.
- 8. Click the "Have Disk" button
- 9. Specify A:(D:\Driver)then click "OK" button.
- 10. Select "Show all devices" and choose the monitor that corresponds to the one you connected to your computer and click "NEXT". Click "NEXT" again and "FINISH" to complete installation.
- 11. Continue choosing "CLOSE" button and "OK" button until you close the Display Properties dialogue box.

(You may get a screen with a warning or other message, just click the appropriate option for your monitor.)

4. Microsoft[®] Windows[®] NT 4.0 Operating System

- 1. Click Start, Settings, Control Panel, and then double-click Display icon.
- 2. In Display Registration Information window, click Settings Tab and then click All Display Modes.
- Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then 3. click OK.
- 4. Click Apply button if you see the screen working normally after clicking Test. If the screen is not normal, change to a different mode (lower mode of resolution, colors or frequency).
- \mathbb{V} If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Display Modes in the user guide.

5. Linux Operating System

70 execute X-Window, you need to make the X86Config file, which is a type of system setting file.

- 1 Press Enter at the first and the second screen after executing the X86Config file.
- 2 The third screen is for setting your mouse.
- 3. Set a mouse for your computer.
- The next screen is for selecting a keyboard. 4
- Set a Keyboard for your computer. 5
- 6. The next screen is for setting your monitor.
- First of all, set a horizontal frequency for your monitor. (You can enter the frequency directly.) 7.
- Set a vertical frequency for your monitor. (You can enter the frequency directly.) 8
- 9. Enter the model name of your monitor. This information will not affect the actual execution of X-Window.
- 10. You have finished setting up your monitor. Execute X-Window after setting other requested hardware.



- 1. Turn off your monitor and unplug its power cord.
- 2. Lay the LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.

а

3. Remove the four screws and then remove the Stand from the LCD monitor.

Attaching a base

NOTE: This monitor accepts a 75mm x 75mm VESA-compliant mounting interface pad.



- 1. Rear cover mounting pad
- 2. Mounting interface pad

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.

[On-Screen Display]



Adjusting Your LCD Monitor

Simply move your mouse over each topic to view information about the on-screen menu.		
Adjustment Menu		
Brightness	Color Temperature	
 Contrast 	 Color Control 	

001111001	
 Image Lock 	 Language
- Fine	Halftone
- Coarse	Menu Position
 Position 	- H-Position

- H-Position - V-Position
 - Menu Display Time Display Mode

- Geometry Reset Auto

MagicBright

OSD Lock/Unlock

- V-Position

- Color Reset

Reset

1. Auto/Exit Button

- 2. Menu Button
- 3. Adjust Button
- a. MagicBright Button



- Check List
- 🕨 Q & A
- Self-Test Feature Check

Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the warranty card, Note the phone number on the Information section or contact your dealer

Symptom	Check List	Solutions
No images on the screen. I cannot turn on the monitor.	Is the power cord connected properly?	Check the power cord connection and supply.
	Can you see "No Connection, Check Signal Cable" on the screen?	Check the signal cable connection.
	If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen.	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/XP/2000) and then change the frequency of the video card. (Refer to the Preset Display Modes)
		Note: If the initial screen (the login screen) does not appear, contact a service center or your dealer.
	Can you see "Video mode not supported" on the screen?	You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can properly handle.
		Adjust the maximum resolution and frequency that the monitor can properly handle.
	There is no image on the screen. Is the power indicator on the	The monitor is in PowerSaver mode.
	monitor blinking at 1 second intervals?	Press a key on the keyboard or move the mouse to activate the monitor and restore the image on the screen.
I cannot see the On Screen Display.	Have you locked the On Screen Display (OSD) Menu to prevent changes?	Unlock the OSD by pressing the MENU button for at least 5 seconds.
The screen shows strange colors or just	Is the screen displaying only one color as if looking at the screen	Check the signal cable connection.
black and white.	through a cellophane paper?	Make sure the video card is fully inserted in it's slot.
	Have the screen colors become strange after running a program or due to a crash between applications?	Reboot the computer.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
The screen suddenly has become unbalanced.	Have you changed the video card or the driver?	Adjust screen image position and size using the OSD.
	Have you adjusted the resolution or frequency to the monitor?	Adjust the resolution and frequency at the video card. (Refer to the Preset Display Modes).
	The screen can be unbalanced due Readjust Position by referring to the second se	e to the cycle of the video card signals. he OSD.

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	The screen is out of focus or OSD cannot be adjusted.	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the Preset Display Modes).
Trautileshading Check List Q & A Self-Test Feature	LED is blinking but no images on the screen.	Is the frequency properly adjusted when checking the Display Timing on the menu?	Adjust the frequency properly by referring to the video card manual and the Preset Display Modes.
Check			(The maximum frequency per resolution may differ from product to product.)
	There are only 16 colors shown on the screen. The screen colors have changed	Have the Windows colors been set properly?	For Windows ME/XP/2000: Set the colors properly at the Control Panel , Display , Settings .
	after changing the video card.	Has the video card been set properly?	Set the video card by referring to the video card manual.
	There is a message that reads "Unrecognized	Have you installed the monitor driver?	Install the monitor driver according to the Driver Installation Instructions.
	monitor, Plug & Play (VESA DDC) monitor found".	See the video card manual to see if the Plug & Play (VESA DDC) function can be supported.	Install the monitor driver according to the Driver Installation Instructions.

Check the following items if there is trouble with the monitor.

- 1. Check if the power cord and the cable are properly connected to the computer.
- 2. Check if the computer beeps more than 3 times when booting.
 - (If it does, request an after-service for the main board of the computer.)
- 3. If you installed a new video card or if you assembled the PC, check if the installed the adapter(video) driver and the monitor driver.
- 4. Check if the scanning ratio of the video screen is set at 75Hz or 85Hz.
- (Do not exceed 60Hz when using the maximum resolution.)
 5. If you have problems in installing the adapter (video) driver, boot the computer in Safe Mode, remove the Display Adapter at the "Control Panel, System, Device Administrator" and then reboot the computer to reinstall the adapter (video) driver.

Note: If problems repeatedly occur, contact an authorized service center.



Check List

🕨 Q & A Self-Test Feature Check

Question	Answer
How can I change the frequency?	Frequency can be changed by reconfiguring the video card.
	Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)
How can I adjust the resolution?	Windows ME/XP/2000: Set the resolution at the Control Panel , Display , Settings .
	* Contact the video card manufacturer for details.
How can I set the Power Saving function?	Windows ME/XP/2000: Set the function at BIOS-SETUP of the computer or the screen saver. (Refer to Windows/Computer Manual).
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water.
	Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.



3. Turn on the monitor.

If the monitor is functioning properly, you will see a box with a border and text inside as shown in the following illustration:

The three boxes inside the border are red, green and blue.



Failure of any of the boxes to appear indicates a problem with your monitor. 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 using the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Warning Messages

If there is something wrong with the input signal, a message appears on the screen or the screen goes blank although the power indicator LED is still on. The message may indicate that the monitor is out of scan range or that you need to check the signal cable.

Video moo	de
no	ot supported

Environment

The location and the position of the monitor may influence the quality and other features of the monitor.

- 1. If there are any woofer speakers near the monitor, unplug and relocate the woofer to another room.
- 2. Remove all electronic devices such as radios, fans, clocks and telephones that are within 3 feet (one meter) of the monitor.





Check List

- ▶ Q & A
- Self-Test Feature Check

) Useful Tips

• A monitor recreates visual signals received from the PC. Therefore, if there is trouble with the PC or the video card, this can cause the monitor to become blank, have poor coloring, noise, Video mode not supported, etc. In this case, first check the source of the problem, and then contact a service center or your dealer.

Judging the monitor's working condition

If there is no image on the screen or an "Video mode not supported" message comes up, disconnect the cable from the computer while the monitor is still powered on.

- o If there is a message coming up on the screen or if the screen goes white, this means the monitor is in working condition.
 In this case, check the computer for trouble.

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Setup

Adjusting Your Monitor

Troubleshooting

Information

and the second	General			
3.4.	Model Name	SyncMaster 173VT		
	LCD Panel			
Specifications	Size	17.0 inch diagonal		
General	Display area	337.92 (H) x 270.336 (V)		
PowerSaver Preset Timing	Pixel Pitch	0.264 (H) x 0.264 (V)		
Modes	Туре	a-si TFT active matrix		
	Viewing Angle	140(H) / 120(V)		
	Synchronization			
	Horizontal	30 ~ 81 kHz		
	Vertical	56 ~ 75 Hz		
	Display Color			
	16,194,277			
	Resolution			
	Optimum resolution	1280 x 1024@60Hz		
	Maximum resolution	1280 x 1024@75Hz		
	Input Signal, Terminated			
	RGB Analog 0.7 Vpp positive at 75 ohms Separate H/V sync, Composite, TTL level positive or negative			
	Maximum Pixel Clock			
	135 MHz			
	Power Supply			
	AC 90 ~ 264 VAC rms, 60/50 Hz ± 3Hz			
	Signal Cable			
	15pin-to-15pin D-sub cable, detachable			
	Power Consumption			
	Less than 45W			
	Dimensions (WxDxH) / Weight			
	384.6 X 66.7 X 338.0 mm (Without stand) 384.6 X 201.0 X 392.8 mm / 5.4kg (With basic stand)			
	Dimensions (WxDxH) / Weight (Protection Glass)			
	384.6 X 66.7 X 338.0 mm (Without stand) 384.6 X 201.0 X 392.8 mm / 6.0kg (With basic stand)			
	VESA Mounting Interface			
	75mm x 75mm (for use with Specialty(Arm) Mounting hardware.)			
	Environmental considerations			
	Operating	Temperature: 50°F ~ 104°F(10°C ~ 40°C) Humidity: 10% ~ 80%, non-condensing		
	Storage	Temperature: -4°F ~113°F (-20°C ~ 45°C) Humidity: 5% ~ 95%, non-condensing		
	Plug and Play Capability			
	systems will provide the best of	n any Plug & Play compatible system. Interaction of the monitor and computer perating conditions and monitor settings. In most cases, monitor installation ss the user wishes to select alternate settings.		
	Dot Acceptable			
	TFT LCD panel manufactured I	by using advanced semiconductor technology with precision of 99.999%		

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 3,932,160.

Note: Design and specifications are subject to change without prior notice.

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Image: Second	by switching your mo time. The monitor au press a key on the ke when leaving it unatt	nitor into a low-power mod tomatically returns to norm ayboard. For energy conse ended for long periods. Th	system called PowerSaver. T le when it has not been used al operation when you move rvation, turn your monitor OF e PowerSaver system operat . Use a software utility install	for a certain amount of the computer's mouse or F when it is not needed, or tes with a VESA DPMS
	State	Normal Operation	Power saving mode EPA / ENERGY 2000	Power off

State	Normal Operation	Power saving mode EPA / ENERGY 2000	Power off
Power Indicator	Green	Green Blinking	Black
Power Consumption	Less than 45W	Less than 2W	Less than 1W (110 Vac)



This monitor is EPA ENERGY STAR[®] compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality. As an ENERGY STAR[®] Partner, SAMSUNG has determined that this product meets the ENERGY STAR[®] guidelines for energy efficiency.



General

PowerSaver Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.086	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+,-/+,-
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1280 x 1024	63.981	60.020	108.00	+/+
VESA, 1280 x 1024	79.976	75.025	135.00	+/+
SUN, 1280 x 1024	81.129	76.106	135.00	-/-



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz

Service Center

- Terms
- Regulatory
- Natural Color
- For Better Display
- Authority

AUSTRALIA:

Samsung Electronics Australia Pty Ltd. Customer Response Centre 7 Parkview Drive, Homebush Bay NSW 2127 Tel: 1300 362 603 http://www.samsung.com.au/

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Samsung Electronics Canada Inc. Samsung Customer Care 7037 Financial Drive Mississauga, Ontario L5N 6R3 1-800-SAMSUNG (1-800-726-7864) http://www.samsung.ca/

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Samsung Electronics Oombia CraN96929f. 6 Bojota, Colombia Tel.: 910102 Fax: 1/56601 http://www.samsunglatin.com/ email: soporte@msung-atin.com

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Servicio Integral Samsung Av.Argentina 1790 Lima1. Peru Tel: 51-1-336-8686 Fax: 51-1-336-8551 http://www.samsungperu.com/

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SAMSUNG ELECTRONICA PORTUGUESA S.A. Rua Mário Dioniso, Nº2 - 1º Drt. 2795-140 LINDA-A-VELHA Tel. 214 148 114/100 Fax. 214 148 133/128 Free Line 800 220 120 http://www.samsung.pt/

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Dot Pitch

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

Vertical Frequency

- The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz
- Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz. In this case, flickering of the screen can be detected. To avoid this problem, there is a Flicker-free Mode using a vertical frequency over 70 Hz.

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Interlace and Non-Interlace Methods

Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

Plug & Play

This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

Resolution

The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1280 X 1280, this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1280 vertical lines (vertical resolution).

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Terms	MPR II Compliance
Regulatory	
Natural Color	This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.
For Better Display	
Authority	European Notice (Europe only)
	Products with the CE marking comply with 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+A1:2000 - Radio Frequency Interference

- EN55024:1998 Electromagnetic Immunity
- EN55013:1990+A12:1994+A13:1996+A14:1999 Radio Frequency Interference
- EN55020:1994+A11:1996+A12/A13/A14:1999 Electromagnetic Immunity
- EN61000-3-2:1995+A1/A2:1998 Power Line Harmonics
- EN61000-3-3:1995 Voltage Fluctuations
- EN60065:1997 or EN60950:1998 Product Safety

PCT Notice



This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

TCO'99-Ecological requirements for personal computers (TCO'99 applied model only)



Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

This product meets the requirements for the TCO'99 scheme which provides for an international environmental and quality labelling labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO(The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen(The Swedish Society for Nature Conservation), Statens Energimyndighet(The Swedish National Energy Administration) and SEMKO AB.

The requirements cover a wide range of issuse: environment, ergonomics, usability, reduction of electric and magnetic fields, energy consumption and electrical safety.

Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

What does labelling involve?

The environmental demands has been developed by Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation). These demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs(freons)and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development

SE-114 94 Stockholm, Sweden Fax: +46 8 782 92 07 Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: http://www.tco-info.com/

Environmental requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Cadmium**

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury**

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as today there is no commercially available alternative. TCO aims on removing this exception when a Mercury free alternative is available.

CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

^{*} Bio-accumulative is defined as substances which accumulate within living organisms.

^{**} Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

TCO'03-Ecological requirements for personal computers (TCO'03 applied model only)



Congratulations!

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

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

Ergonomics

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

Energy

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

Emissions

- Electromagnetic fields
- Noise emissions

Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 000
- Restrictions on
- o chlorinated and brominated flame retardants and polymers
- o heavy metals such as cadmium, mercury and lead.

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

For more information, Please visit www.tcodevelopment.com

TCO'03 Recycling Information (TCO'03 applied model only)

For recycling information for TCO'03 certified monitors, for the residents in the following countries, please contact the company corresponding to your region of residence. For those who reside in other countries, please contact a nearest local Samsung dealer for recycling information for the products to be treated in environmentally acceptable way.

	[U.S.A. Residents Only]	[European Residents Only]		
	U.S.A.	SWEDEN	NORWAY	GERMANY
COMPANY	Solid Waste Transfer & Recycling Inc	ELKRETSEN	Elektronikkretur AS	vfw AG
ADDRESS	442 Frelinghuysen Ave Newark, NJ 07114	ELKRETSEN Box 1357, 111 83 Stockholm Barnhusgatan 3, 4 tr.	6454 Etterstad 0602 Oslo	Max Plank Strasse 42 50858 Collogne Germany

TELEPHONE	973-565-0181	08-545 212 90	23 06 07 40	49 0 2234 9587 - 0
FAX	Fax: 973-565-9485	08-545 212 99	23 06 07 41	
E-MAIL	none	info@el-kretsen.se	adm@elektronikkretur.no	vfw.info@vfw- ag.de
HOME PAGE	, , v	http://www.el- kretsen.se/	http://www.elretur.no/	



One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor.

The Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ÉTRI). This system is available only for Samsung monitors and makes the color of the images on the monitor the same as the printed or scanned images.

For more information, refer to Help (F1) in the software program.

How to install the Natural Color software

Insert the CD included with the Samsung monitor into the CD-ROM Drive. Then, the initial screen of the program installation will be executed. Click Natural Color on the initial screen to install the Natural Color software. To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the [Start] button of Windows and then select [Execute]. Enter D:\color\eng\setup exe and then press the <Entrer> key. (If the drive where the CD is inserted is not D:\, enter the applicable drive.)

How to delete the Natural Color software program

Select [Setting]/[Control Panel] on the [Start] menu and then double-click [Add/Delete a program]. Select Natural Color from the list and then click the [Add/Delete] button.

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- 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.
 - o Resolution: 1280 x 1024
 - Vertical frequency (refresh rate): 60 Hz
- 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 number of TFT LCD pixels that is contained in this product are 3,932,160.
- 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.
- 5. If you view a fixed screen for an extended period of time, residual image or blurriness may appear. Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.
- 6. Do not display a still image(such as on a video game or when hooking up a DVD to this LCD_TV) on the Color TFT-LCD (Thin Film Transister Liquid Crystal Display) panel for a long time as it can cause screen image retention. This image retention is also known as " screen burn". To avoid such image retention, reduce the degree of brightness and contrast of this screen when displaying a still image.

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