



**Driver Installation**

- >> Windows XP Windows 98
- >> Windows 2000 Windows 95

**Program Installation**

- >> Natural Color
- >> MagicTune

SyncMaster 710V/910V/510M/710M/910M/712V



Notational

Power

Installation

Clean

Other

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

### Warning / Caution



Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

### Notational Conventions



Prohibited



Important to read and understand at all times



Do not disassemble



Disconnect the plug from the outlet



Do not touch



Grounding to prevent an electric shock

## Power

When not used for extended periods of time, set your PC to DPMS. If using a screen saver, set it to the active screen mode.



### Do not use a damaged or loose plug.

- This may cause an electric shock or fire.



### Do not pull the plug out by the wire nor touch the plug with wet hands.

- This may cause an electric shock or fire.



### 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.

- Failure to do so may cause an electric shock or fire.



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

- This may cause a fire.

## Installation



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

- An electric shock or fire could result inside the monitor.



➤ **Do not drop the monitor when moving it.**

- This may cause damage to the product or human body.



➤ **Place the monitor on a flat and stable surface.**

- The monitor can cause injury by falling.



➤ **Set down the monitor carefully.**

- It could be damaged or broken.



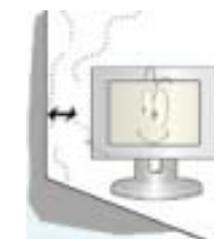
➤ **Do not place the monitor face down.**

- The CDT surface may be damaged.



➤ **Installing a wall bracket must be done by a qualified professional.**

- Installation by unqualified personnel may result in injury.
- Always use the mounting device specified in the owner's manual.



➤ **Leave a space for ventilation between the product and the wall.**

- Poor ventilation may cause the interior temperature to rise and lead to a fire.

Notational

Power

Installation

Clean

Other

➤ Clean



When cleaning the monitor case or the surface of the TFT-LCD, wipe with a slightly moistened, soft fabric.



➤ **Do not spray water or detergent directly on the monitor.**

- This may cause damage, electric shock or a fire.



➤ **Use the recommended detergent with a smooth cloth.**



➤ **If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.**

- A dirty connector can cause an electric shock or 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.

Notational

Power

Installation

Clean

Other

➤➤ **Other**



➤ **Do not remove cover (or back). No user serviceable parts inside.**

- This may cause an electric shock or a fire.
- Refer servicing to qualified service personnel.



➤ **If your 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.**

- This may cause an electric shock or fire.



➤ **Be careful not to let water drip into the monitor or expose the monitor to moisture.**

- This may cause malfunction, an electric shock or a fire.
- Especially avoid operating the monitor near water or outdoors where it could be exposed to snow or rain.



➤ **If the monitor is dropped or the casing is damaged, turn the monitor off and unplug the power cord.**

- The monitor may malfunction, causing an electric shock or a fire.
- Then contact the [Service Center](#) .



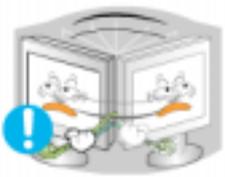
➤ **Keep the power off when there is thunder and lightening outside, or let the monitor remain unused for an extended period of time.**

- The monitor may malfunction, causing an electric shock or a fire.



➤ **Do not try to move the monitor by pulling on the wire or the signal cable.**

- This may cause a breakdown, electric shock or a fire due to damage to the cable.



➤ **Do not move the monitor right or left by pulling only the wire or the signal cable.**

- This may cause a breakdown, electric shock or a fire due to damage to the cable.



➤ **Do not cover the vents on the monitor cabinet.**

- Bad ventilation may cause a breakdown or fire.



➤ **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](#) .



➤ **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.



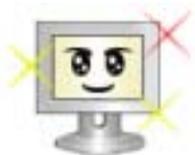
➤ **Adjust the resolution and frequency to the levels appropriate for the model.**

- Inappropriate resolution may cause undesirable picture quality.
- 17 inch - 1280 X 1024

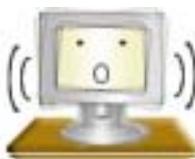


➤ **Keep a proper distance between your eyes and the monitor screen.**

- Sitting too close to the monitor on a continuous basis may damage eyesight.



➤ **To ease eye strain, take at least a five-minute break after every hour of using the monitor.**



➤ **Do not use the monitor where it can be exposed to strong vibrations.**

- Exposure to strong vibrations can be a fire hazard and shorten the life of the monitor.



➤ **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.



Unpacking |

Front |

Rear |

Please make sure the following items are included with your monitor.  
If any items are missing, [contact your dealer](#).

» Unpacking  
» Monitor



Monitor



Bottom



Hanger

» Manual



Quick Setup Guide



Warranty Card



User's Guide, Monitor Driver, Natural Color software, MagicTune™ software CD

## > Cable



**D-Sub Cable**



**Power Cord**

Unpacking

Front

Rear

## >> Front



- 1. Menu button [☰]** Use this button to open the on-screen menu and exits from the menu screen or closes screen adjustment menu.
- 2. MagicBright™ button [☀]** MagicBright™ is a new feature providing optimum viewing environment depending on the contents of the image you are watching. Currently four different modes are available: Custom, Text, Internet, and Entertain. Each mode has its own pre-configured brightness value. You can easily select one of four settings by simply pressing MagicBright control buttons.
- 3. Power button [⏻] / Power indicator** Use this button to turn the monitor on and off./ This light glows green during normal operation, and blinks green once as the monitor saves your adjustments.
- 4. Brightness button [☀]** When OSD is not on the screen, Push the button to adjust brightness.
- 2,4. Adjust buttons [⏴/⏵]** Use this button to navigate and select menus or adjust the menu items in the menu screen.
- 5. Enter button [↵] / Auto button** Activate a highlighted menu item. / Use this button to auto adjustment direct access.



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.

Unpacking

Front

Rear



## Rear



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

- 1. Power port** Connect the power cord for your monitor to the power port on the back of the monitor.
- 2. D-sub 15-pin port** Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.



See [Connecting Your Monitor](#) for further information regarding cable connections.



Unpacking |

Front |

Rear |

Please make sure the following items are included with your monitor.  
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» Unpacking  
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Monitor



Bottom



Hanger

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Quick Setup Guide



Warranty Card



User's Guide, Monitor Driver, Natural Color software, MagicTune™ software CD

## > Cable



**D-Sub Cable**



**Power Cord**



**Audio Cable**

Unpacking

Front

Rear

## >> Front



- 1. Menu button [☰]** Use this button for open the on-screen menu and exits from the menu screen or closes screen adjustment menu.
- 2. MagicBright™ button [☐]** MagicBright™ is a new feature providing optimum viewing environment depending on the contents of the image you are watching. Currently four different modes are available: Custom, Text, Internet, and Entertain. Each mode has its own pre-configured brightness value. You can easily select one of four settings by simply pressing MagicBright control buttons.
  - 1) Text** : Normal Brightness  
For documentations or works involving heavy text.
  - 2) Internet** : Medium Brightness  
For working with a mixture of images such as text and graphics.
  - 3) Entertain** : High Brightness  
For watching motion pictures such as a DVD or VCD.
  - 4) Custom**  
Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste.

If this is the case, adjust the Brightness and Contrast by using the OSD menu.

3. **Power button** [  ] / **Power indicator**  
Use this button for turn the monitor on and off./  
This light glows green during normal operation, and blinks green once as the monitor saves your adjustments.
4. **Volume button** [  ]  
When OSD is not on the screen, push the button to adjust volume.
- 2,4. **Adjust buttons** [  ] / [  ]  
Use this button for navigate and select menus or adjust the menu items in the menu screen.
5. **Enter button** [  ] / **Auto button**  
Activate a highlighted menu item. /  
Use this button for auto adjustment direct access.



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.

Unpacking

Front

Rear



Rear



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

1. **Power port**  
Connect the power cord for your monitor to the power port on the back of the monitor.
2. **D-sub 15-pin port**  
Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.



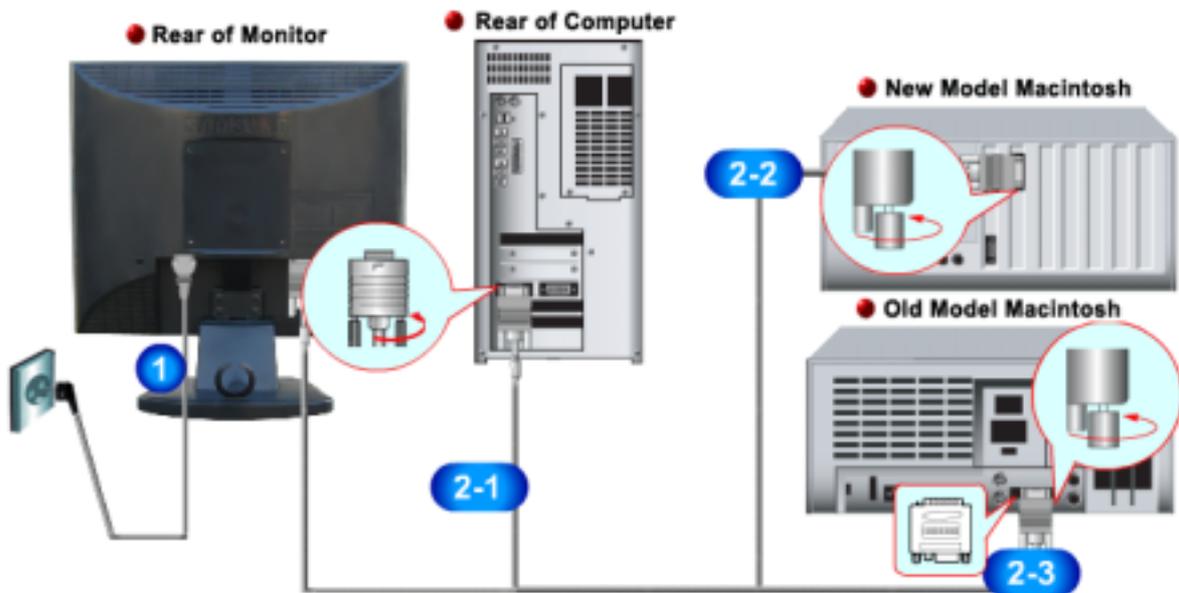
**1. Headphone connection terminal [1]**

**2. PC sound connection terminal**

Connect the audio cable for your monitor to the audio port on the back of your computer.



**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.
- 2-1. Using the D-sub (Analog) connector on the video card.  
Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.  

- 2-2. Connected to a Macintosh.  
Connect the monitor to the Macintosh computer using the D-SUB connection cable.
- 2-3. In the case of an old model Macintosh, you need to connect the monitor using a special Mac adaptor.
3. Turn on your computer and monitor. If your monitor displays an image, installation is complete.

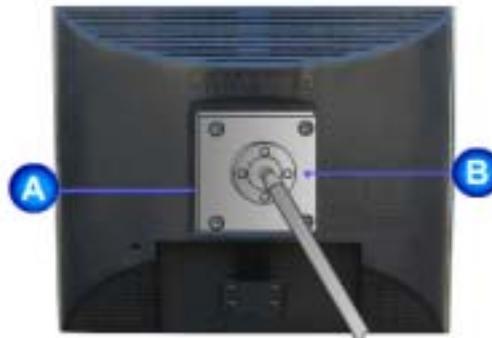
## ➤ Monitor Assembly



1. Monitor and Bottom
2. Monitor and Hanger

## ➤ Attaching a base

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



- A.** Monitor  
**B.** Mounting interface pad

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.
3. Remove the four screws and then remove the Stand from the LCD monitor.
4. 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.



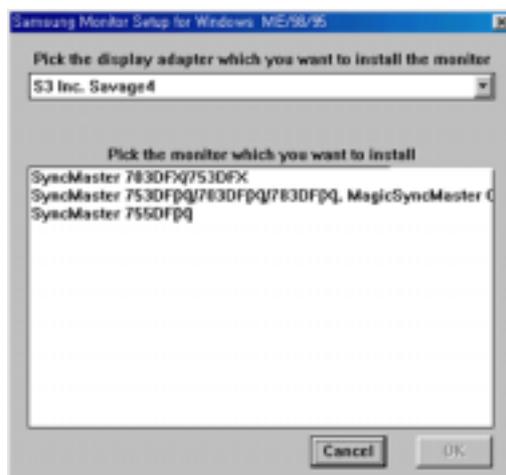
**When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions as appropriate for the operating system you have.**

Prepare a blank disk and download the driver program file at the Internet web site shown here.

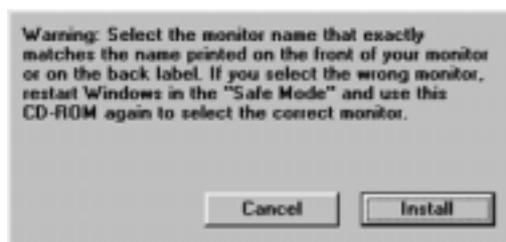
- Internet web site : <http://www.samsung-monitor.com/> (Worldwide)  
<http://www.samsungusa.com/monitor> (USA)  
<http://www.sec.co.kr/monitor> (Korea)  
<http://www.samsungmonitor.com.cn/> (China)

## ➤ Windows ME

1. Insert CD into the CD-ROM drive.
2. Click "**Windows ME Driver**".
3. Choose your monitor model in the model list, then click the "**OK**" button.



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



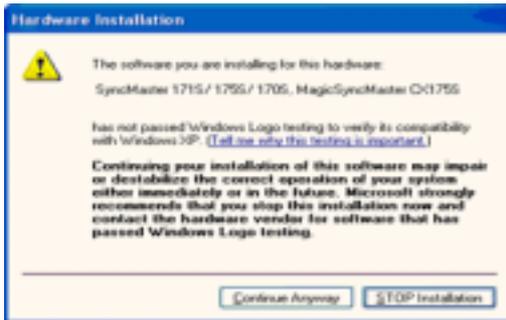
5. Monitor driver installation is completed.

## ➤ Windows XP/2000

1. Insert CD into the CD-ROM drive.
2. Click "**Windows XP/2000 Driver**".
3. Choose your monitor model in the model list, then click the "**OK**" button.



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



This monitor driver is under certifying MS logo, and this installation don't damage your system. The certified driver will be posted on Samsung Monitor Homepage <http://www.samsung-monitor.com/>.

5. Monitor driver installation is completed.



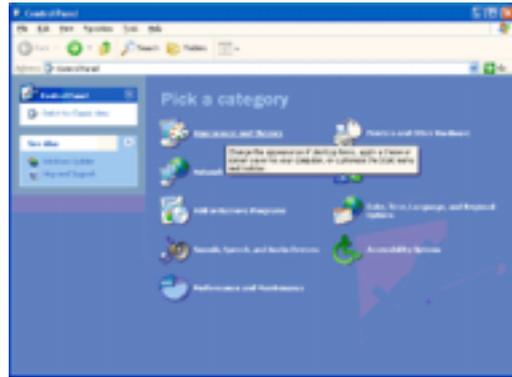
**When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions as appropriate for the operating system you have.**

Prepare a blank disk and download the driver program file at the Internet web site shown here.

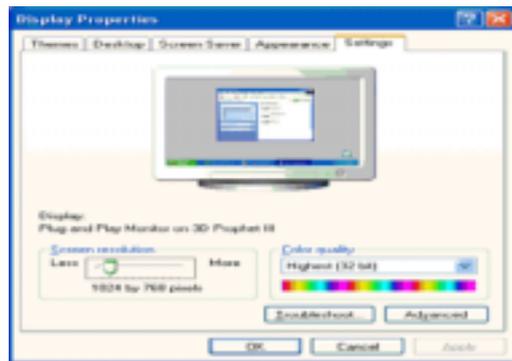
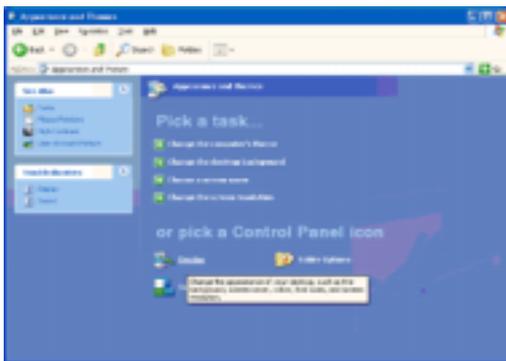
- Internet web site : <http://www.samsung-monitor.com/> (Worldwide)  
<http://www.samsungusa.com/monitor> (USA)  
<http://www.sec.co.kr/monitor> (Korea)  
<http://www.samsungmonitor.com.cn/> (China)

 **Microsoft® Windows® XP Operating System**

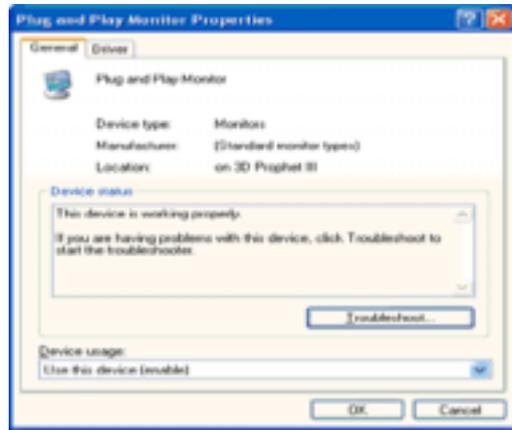
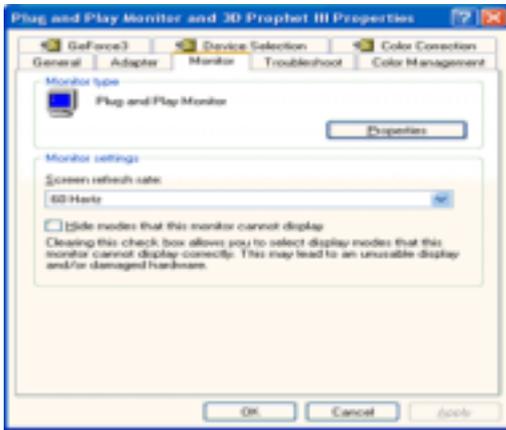
1. Insert CD into the CD-ROM driver.
2. Click "Start" → "Control Panel" then click the "Appearance and Themes" Icon.



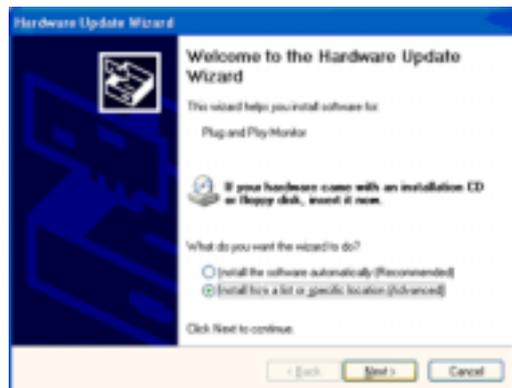
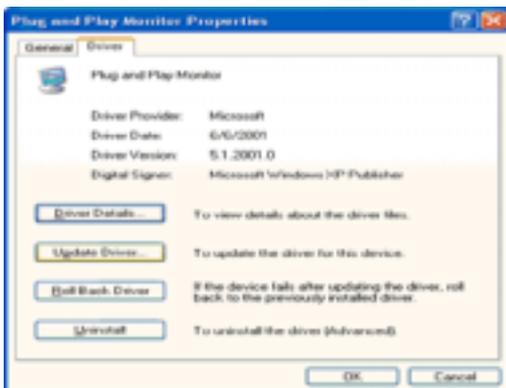
3. Click "**Display**" icon and choose the "**Settings**" tab then click "**Advanced..**".



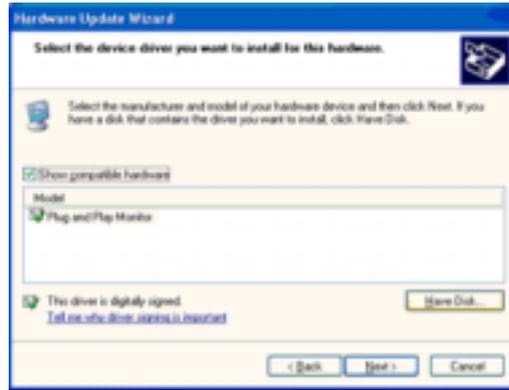
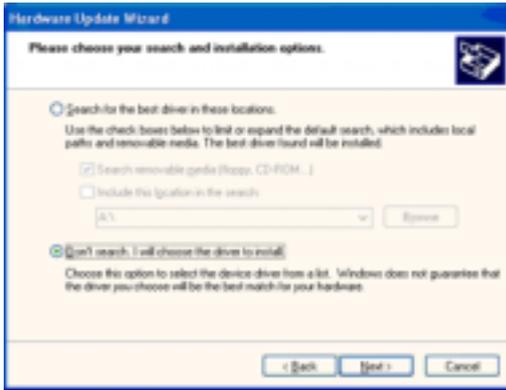
4. Click the "**Properties**" button on the "**Monitor**" tab and select "**Driver**" tab.



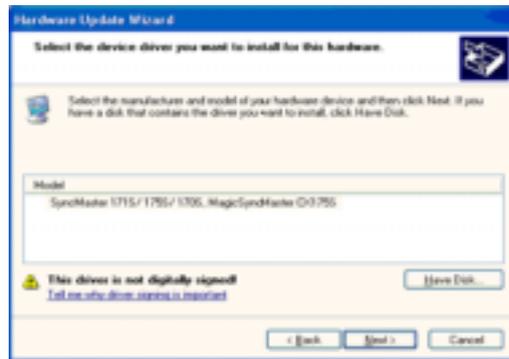
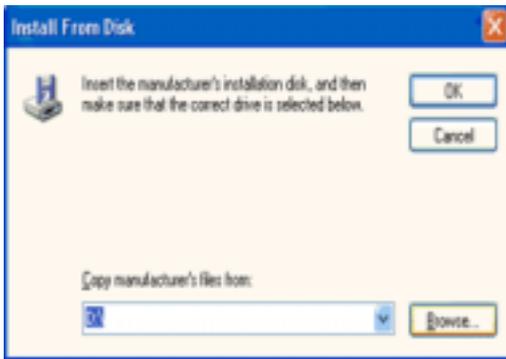
5. Click "**Update Driver..**" and select "**Install from a list or..**" then click "**Next**" button.



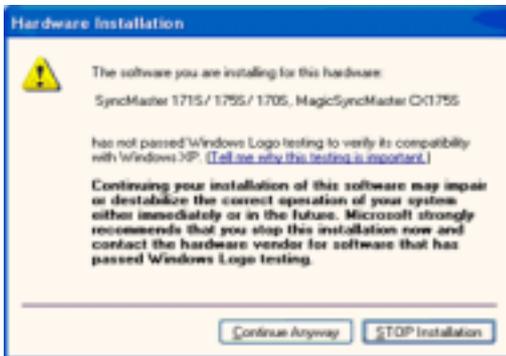
6. Select "**Don't search, I will..**" then click "**Next**" and then click "**Have disk**".



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

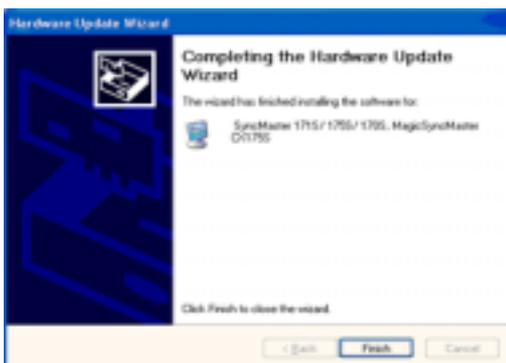


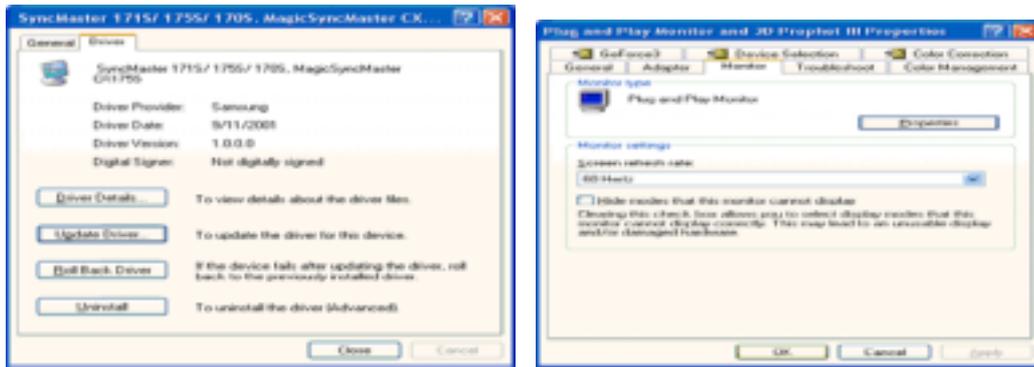
- If you can see following **"Message"** window, then click the **"Continue Anyway"** button. Then click **"OK"** button.



This monitor driver is under certifying MS logo, and this installation don't damage your system. The certified driver will be posted on Samsung Monitor Homepage <http://www.samsung-monitor.com/>

- Click the **"Close"** button then click **"OK"** button continually.





10. Monitor driver installation is completed.

## ➤ 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:WDriver) then click the "Open" button and then click **"OK"** button.

🌀 **How to install**

1. Click **"Start"** , **"Setting"** , **"Control Panel"**.
2. Double click the **"Display"** Icon.
3. Choose the **"Settings"** tab and then click **"Advanced.."**.
4. Choose **"Monitor"**.
  - Case1: If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation
  - Case2: 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:WDriver).
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.

## ➤ Microsoft® Windows® Millennium Operating System

1. Click **"Start"** , **"Setting"** , **"Control Panel"**.
2. Double click **"Display"** icon.
3. Select the **"Settings"** tab and click **"Advanced Properties"** button.
4. Select the **"Monitor"** tab.
5. Click the **"Change"** button in the **"Monitor Type"** area.
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:W(D:Wdriver) 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 **"OK"**.
11. Continue choosing **"Close"** button and **"OK"** button until you close the Display Properties dialogue box.  
(You can get some other screen for warning message or others, then click the appreciate option for your monitor.)

## ➤ Microsoft® Windows® NT 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**.
3. Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then 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).



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.

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## Linux Operating System

To 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.
4. The next screen is for **selecting a keyboard**.
5. Set a Keyboard for your computer.
6. The next screen is for **setting your monitor**.
7. First of all, set a **horizontal frequency** for your monitor. (You can enter the frequency directly.)
8. Set a **vertical frequency** for your monitor. (You can enter the frequency directly.)
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.



## User Control Buttons

Direct Functions

OSD Functions



1. Opens the OSD menu. Also used to exit the OSD menu or return to the previous menu.
2. These buttons allow you to adjust items in the menu.
3. These buttons allow you to adjust items in the menu.
4. Activate a highlighted menu item.

○ **AUTO**



Menu	Description
<b>AUTO</b>	<p>When the '<b>AUTO</b>' button is pressed, the Auto Adjustment screen appears as shown in the animated screen on the center.</p> <p>Auto adjustment allows the monitor to self-adjust to the incoming video signal. The values of fine, coarse and position are adjusted automatically.</p> <p>To make the automatic adjustment function sharper, execute the 'AUTO' function while the <b>AUTO PATTERN</b> is on.</p>

○ **MagicBright™**



Menu	Description
<b>MagicBright™</b>	<p>Then push the MagicBright™ button again to circle through available preconfigured modes.</p> <p>- four different mode (Custom/Text/Internet/Entertain)</p>

⊙ **Brightness**



Menu	Description
<b>Brightness</b>	Adjust Brightness.

## Picture



Menu	Description	Play/Stop
<b>Brightness</b>	Adjust the Brightness. <b>Direct Access Feature</b> : When OSD is not on the screen, Push the button to adjust brightness.	
<b>Contrast</b>	Adjust the Contrast.	

## Color



Menu	Description	Play/Stop
<b>Color Tone</b>	The tone of the color can be changed and one of four modes can be selected - Cool, normal, Warm and Custom.	
<b>Color Control</b>	Follow these steps to adjust individual R,G,B color control.	
<b>Gamma</b>	Select one of three pre-defined gammas.	

 **Image**



Menu	Description	Play/Stop
<b>Coarse</b>	Image is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.	
<b>Fine</b>	Image is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.	
<b>Sharpness</b>	Follow these instuction to change the clearance of image.	
<b>H-Position</b>	Follow these instructions to change the horizontal position of the monitor's entire display.	
<b>V-Position</b>	Follow these instructions to change the vertical position of the monitor's entire display.	

OSD



Menu	Description	Play/Stop
<b>Language</b>	Follow these steps to change the language used in the menu. You can choose one of seven languages. (English, German, Spanish, French, Italian, Swedish, Russian) <b>Note:</b> The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.	
<b>H-Position</b>	You can change the horizontal position where the OSD menu appears on your monitor.	
<b>V-Positon</b>	You can change the vertical position where the OSD menu appears on your monitor.	
<b>Transparency</b>	Change the translucency of the background of the OSD.	
<b>Display Time</b>	The menu will automatically turn off if no adjustments are made for a certain time period. You can set the amount of time the menu will wait before it turns off.	

## ⊙ Setup



Menu	Description	Play/Stop
<b>Image Reset</b>	Image parameters are replaced with the factory default values.	
<b>Color Reset</b>	Color parameters are replaced with the factory default values.	

## ⊙ Information



Menu	Description
<b>Information</b>	Shows a video source, display mode on the OSD screen.



1. Opens the OSD menu. Also used to exit the OSD menu or return to the previous menu.
2. These buttons allow you to adjust items in the menu.
3. These buttons allow you to adjust items in the menu.
4. Activate a highlighted menu item.

**MagicTune™2.5 manual**

⊙ **AUTO**



Menu	Description
<b>AUTO</b>	<p>When the '<b>AUTO</b>' button is pressed, the Auto Adjustment screen appears as shown in the animated screen on the center.</p> <p>Auto adjustment allows the monitor to self-adjust to the incoming video signal. The values of fine, coarse and position are adjusted automatically.</p> <p>To make the automatic adjustment function sharper, execute the 'AUTO' function while the <a href="#">AUTO PATTERN</a> is on.</p>

⊙ **MagicBright™**



Menu	Description
<b>MagicBright™</b>	<p>Then push the MagicBright™ button again to circle through available preconfigured modes.</p>

- four different mode (Custom/Text/Internet/Entertain)

## ⊙ Brightness



Menu	Description
<b>Brightness</b>	Adjust Brightness.

Picture



Menu	Description	Play/Stop
<b>Brightness</b>	Adjust the Brightness. <b>Direct Access Feature</b> : When OSD is not on the screen, Push the button to adjust brightness.	
<b>Contrast</b>	Adjust the Contrast.	

Color



Menu	Description	Play/Stop
<b>Color Tone</b>	The tone of the color can be changed and one of four modes can be selected - Cool, normal, Warm and Custom.	

<b>Color Control</b>	Follow these steps to adjust individual R,G,B color balance.	
<b>Gamma</b>	Select one of three pre-defined gammas.	

 **Image**



Menu	Description	Play/Stop
<b>Coarse</b>	Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the Horizontal Control menu.	
<b>Fine</b>	Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed).	
<b>Sharpness</b>	Follow these instuction to change the clearance of image.	
<b>H-Position</b>	Follow these instructions to change the horizontal position of the monitor's entire display.	
<b>V-Position</b>	Follow these instructions to change the vertical position of the monitor's entire display.	

OSD



Menu	Description	Play/Stop
<b>Language</b>	Follow these steps to change the language used in the menu. You can choose one of seven languages. (English, German, Spanish, French, Italian, Swedish, Russian) <b>Note:</b> The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.	
<b>H-Position</b>	You can change the horizontal position where the OSD menu appears on your monitor.	
<b>V-Positon</b>	You can change the vertical position where the OSD menu appears on your monitor.	
<b>Transparency</b>	Change the translucency of the background of the OSD.	
<b>Display Time</b>	The menu will automatically turn off if no adjustments are made for a certain time period. You can set the amount of time the menu will wait before it turns off.	

## ⊙ Setup



Menu	Description	Play/Stop
<b>Image Reset</b>	Image parameters are replaced with the factory default values.	
<b>Color Reset</b>	Color parameters are replaced with the factory default values.	

## ⊙ Information



Menu	Description
<b>Information</b>	Shows a video source, display mode on the OSD screen.



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, the phone number on the Information section or contact your dealer.

Symptom	Check List	Solutions
<b>No images on the screen. I cannot turn on the monitor.</b>	Is the power cord connected properly?	Check the signal cable connection.
	Can you see <b>"Check Signal Cable"</b> 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 <a href="#">Preset Display Modes</a> )  Note: If the initial screen (the login screen) does not appear, <a href="#">contact a service center or your dealer</a> .
	Can you see <b>"Not Optimum Mode" "Recommended mode 1280 x 1024 60Hz"</b> 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.  If the display exceeds SXGA or 75Hz, a <b>"Not Optimum Mode. Recommended mode 1280 x 1024 60Hz"</b> message is displayed. If the display exceeds 85Hz, the display will work properly but the <b>"Not Optimum Mode. Recommended mode 1280 x 1024 60Hz"</b> message appears for

		one minute and then disappears. Please change to the recommended mode during this one-minute period. (The message is displayed again if the system is rebooted.)
	There is no image on the screen. Is the power indicator on the monitor blinking at 1 second intervals?	The monitor is in PowerSaver mode.  Press a key on the keyboard or move the mouse to activate the monitor and restore the image on the screen.
<b>The screen shows strange colors or just black and white.</b>	Is the screen displaying only one color as if looking at the screen through a cellophane paper?	Check the signal cable connection. Make sure the video card is fully inserted in its 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.
<b>The screen suddenly has become unbalanced.</b>	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 <a href="#">Preset Display Modes</a> ).
	<b>The screen can be unbalanced due to the cycle of the video card signals. Readjust Position by referring to the OSD.</b>	
<b>The screen is out of focus or OSD cannot be adjusted.</b>	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the <a href="#">Preset Display Modes</a> ).
<b>LED is blinking but no images on the screen.</b>	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 <a href="#">Preset Display Modes</a> .  (The maximum frequency per resolution may differ from product to product.)
<b>There are only 16 colors shown on the screen. The screen colors have changed after changing the video card.</b>	Have the Windows colors been set properly?	Windows ME/2000/XP: Set the colors properly at the <b>Control Panel → Display → Settings</b> .
	Has the video card been set properly?	Set the video card by referring to the video card manual.
<b>There is a message that reads "Unrecognized monitor, Plug &amp; Play (VESA DDC) monitor found".</b>	Have you installed the monitor driver?	Install the monitor driver according to the <a href="#">Driver Installation Instructions</a> .
	See the video card manual to see if the Plug & Play (VESA DDC) function can be supported.	Install the monitor driver according to the <a href="#">Driver Installation Instructions</a> .



**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. (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.



If problems repeatedly occur, [contact an authorized service center](#).

[Check List](#)

[Q & A](#)

[Self-Test Feature Check](#)



## Q & A

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.

[Check List](#)

[Q & A](#)

[Self-Test Feature Check](#)



## Self-Test Feature Check

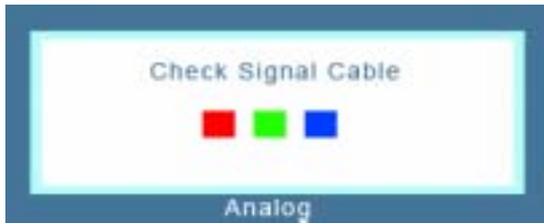
[Self-Test Feature Check](#) | [Warning Messages](#) | [Environment](#) | [Useful Tips](#)

**Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.**



### Self-Test Feature Check

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, 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.



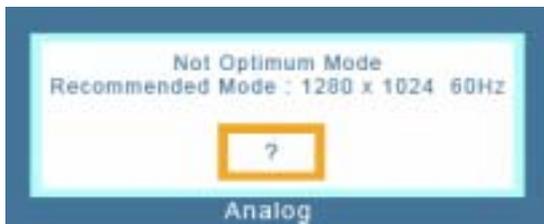
Failure of any of the boxes to appear indicates a problem with your monitor. This box also appears during normal operation if the video cable becomes disconnected or damaged.

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.

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### ➤ 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.



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### ➤ 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.

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### ➤ 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 "**Not Optimum Mode**" "**Recommended mode 1280 x 1024 60Hz**" message comes up, disconnect the cable from the computer while the monitor is still powered on.
  - 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.



General | PowerSaver | Preset Timing Modes |

## General

General	
Model Name	SyncMaster 710V
LCD Panel	
Size	17" Diagonal
Display area	337.92 (H) x 270.336 (V)
Pixel Pitch	0.264mm (H) x 0.264mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60 Hz
Maximum resolution	1280 x 1024@75 Hz
Input Signal, Terminated	
RGB Analog, 0.7 Vpp positive at 75 ohms Separate H/V sync, TTL level positive or negative.	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	

Signal Cable	
15pin-to-15pin D-sub cable, attach	
Power Consumption(maximum)	
Less than 34W	
Dimensions (WxDxH)/ Weight	
382.0 x 62.0 x 320.5 mm (Without Stand) 382.0 x 175.0 x 383.7 mm (with Basic Stand)/4.55kg	
VESA Mounting Interface	
100mm x 100mm (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	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	
Dot Acceptable	
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. <ul style="list-style-type: none"> <li>For example, the number of TFT LCD pixels that is contained in this product are 3,932,160.</li> </ul>	
<b>Note: Design and specifications are subject to change without prior notice.</b>	

## » 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 amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking (Off-mode)	Black (at 120V)
Power Consumption	Less than 34W	Less than 1W	Less than 1W



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

## 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.

**Table 1. 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	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.00	-/-
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, 1152 x 864	67.500	75.000	108.00	+/+
VESA, 1280 x 1024	63.981	60.020	108.00	+/+
VESA, 1280 x 1024	79.976	75.025	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



General | PowerSaver | Preset Timing Modes |

## General

General	
Model Name	SyncMaster 910V
LCD Panel	
Size	19" Diagonal
Display area	376.32 (H) x 301.056 (V)
Pixel Pitch	0.294mm (H) x 0.294mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	31 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60 Hz
Maximum resolution	1280 x 1024@75 Hz
Input Signal, Terminated	
RGB Analog, 0.7 Vpp positive at 75 ohms Separate H/V sync, TTL level positive or negative.	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	

Signal Cable	
15pin-to-15pin D-sub cable, attach	
Power Consumption(maximum)	
Less than 38W	
Dimensions (WxDxH)/ Weight	
428.0 X 61.8 X 356.0 mm (Without Stand) 428.0 X 195.7 X 430.0 mm (with Basic Stand)/4.8kg	
VESA Mounting Interface	
100mm x 100mm (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	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	
Dot Acceptable	
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. <ul style="list-style-type: none"> <li>For example, the number of TFT LCD pixels that is contained in this product are 3,932,160.</li> </ul>	
<b>Note: Design and specifications are subject to change without prior notice.</b>	

## ➤ 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 amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking (Off-mode)	Black (at 120V)
Power Consumption	Less than 38W	Less than 1W	Less than 1W



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

## ➤ 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.

**Table 1. 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	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.00	-/-
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, 1152 x 864	67.500	75.000	108.00	+/+
VESA, 1280 x 1024	63.981	60.020	108.00	+/+
VESA, 1280 x 1024	79.976	75.025	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



General | PowerSaver | Preset Timing Modes |

## General

General	
Model Name	SyncMaster 510M
LCD Panel	
Size	15" Diagonal
Display area	304.1 (H) x 228.1 (V)
Pixel Pitch	0.297mm (H) x 0.297mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	31 ~ 61 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1024 x 768@60 Hz
Maximum resolution	1024 x 768@75 Hz
Input Signal, Terminated	
RGB Analog, 0.7 Vpp positive at 75 ohms Separate H/V sync, TTL level positive or negative.	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz $\pm$ 3Hz	

Signal Cable	
15pin-to-15pin D-sub cable, attach	
Power Consumption(maximum)	
Less than 34W	
Dimensions (WxDxH)/ Weight	
353.9 X 57.0 X 304.7 mm (Without Stand) 353.9 X 175.0 X 344.7 mm (with Basic Stand)/4.8kg	
VESA Mounting Interface	
100mm x 100mm (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	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	
Dot Acceptable	
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.	
<ul style="list-style-type: none"> <li>For example, the number of TFT LCD pixels that is contained in this product are 2,359,296.</li> </ul>	
<b>Note: Design and specifications are subject to change without prior notice.</b>	

## » 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 amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking (Off-mode)	Black (at 120V)
Power Consumption	Less than 34W	Less than 1W	Less than 1W



This monitor is EPA ENERGY STAR<sup>®</sup> compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality. As an ENERGY STAR<sup>®</sup> Partner, SAMSUNG has determined that this product

meets the ENERGY STAR® guidelines for energy efficiency.

General

PowerSaver

Preset Timing Modes

## ❖ 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.

**Table 1. 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	70.087	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	+/+

### 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



[General](#)
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## General

General	
Model Name	SyncMaster 710M
LCD Panel	
Size	17" Diagonal
Display area	337.92 (H) x 270.336 (V)
Pixel Pitch	0.264mm (H) x 0.264mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60 Hz
Maximum resolution	1280 x 1024@75 Hz
Input Signal, Terminated	
RGB Analog, 0.7 Vpp positive at 75 ohms Separate H/V sync, TTL level positive or negative.	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	

Signal Cable	
15pin-to-15pin D-sub cable, attach	
Power Consumption(maximum)	
Less than 34W	
Dimensions (WxDxH)/ Weight	
381.9 X 62.0 X 342.9 mm (Without Stand) 381.9 X 175.0 X 383.9 mm (with Basic Stand)/4.8kg	
VESA Mounting Interface	
100mm x 100mm (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	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	
Dot Acceptable	
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.	
<ul style="list-style-type: none"> <li>For example, the number of TFT LCD pixels that is contained in this product are 3,932,160.</li> </ul>	
<b>Note: Design and specifications are subject to change without prior notice.</b>	

## ➤ 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 amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking (Off-mode)	Black (at 120V)
Power Consumption	Less than 34W	Less than 1W	Less than 1W



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

## ➤ 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.

**Table 1. 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	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.00	-/-
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, 1152 x 864	67.500	75.000	108.00	+/+
VESA, 1280 x 1024	63.981	60.020	108.00	+/+
VESA, 1280 x 1024	79.976	75.025	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



General | PowerSaver | Preset Timing Modes |

## General

General	
Model Name	SyncMaster 910M
LCD Panel	
Size	19" Diagonal
Display area	376.32 (H) x 301.056 (V)
Pixel Pitch	0.294mm (H) x 0.294mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60 Hz
Maximum resolution	1280 x 1024@75 Hz
Input Signal, Terminated	
RGB Analog, 0.7 Vpp positive at 75 ohms Separate H/V sync, TTL level positive or negative.	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz $\pm$ 3Hz	

Signal Cable	
15pin-to-15pin D-sub cable, attach	
Power Consumption(maximum)	
Less than 38W	
Dimensions (WxDxH)/ Weight	
428.0 X 61.8 X 380.5 mm (Without Stand) 428.0 X 195.7 X 430.0 mm (with Basic Stand)/5.75kg	
VESA Mounting Interface	
100mm x 100mm (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	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	
Dot Acceptable	
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. <ul style="list-style-type: none"> <li>For example, the number of TFT LCD pixels that is contained in this product are 3,932,160.</li> </ul>	
<b>Note: Design and specifications are subject to change without prior notice.</b>	

General

PowerSaver

Preset Timing Modes

## 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 amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking (Off-mode)	Black (at 120V)
Power Consumption	Less than 38W	Less than 1W	Less than 1W



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

## Preset Timing Modes

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**Table 1. 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	-/-
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MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
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### 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



## **General**

General	
Model Name	SyncMaster 712V
LCD Panel	
Size	17" Diagonal
Display area	337.92 (H) x 270.336 (V)
Pixel Pitch	0.264mm (H) x 0.264mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60 Hz
Maximum resolution	1280 x 1024@75 Hz
Input Signal, Terminated	
RGB Analog, 0.7 Vpp positive at 75 ohms Separate H/V sync, TTL level positive or negative.	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	

Signal Cable	
15pin-to-15pin D-sub cable, attach	
Power Consumption(maximum)	
Less than 34W	
Dimensions (WxDxH)/ Weight	
382.0 x 62.0 x 320.5 mm (Without Stand) 382.0 x 175.0 x 383.7 mm (with Basic Stand)/4.55kg	
VESA Mounting Interface	
100mm x 100mm (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	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	
Dot Acceptable	
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.	
<ul style="list-style-type: none"> <li>For example, the number of TFT LCD pixels that is contained in this product are 3,932,160.</li> </ul>	
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## » 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 amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking (Off-mode)	Black (at 120V)
Power Consumption	Less than 34W	Less than 1W	Less than 1W



This monitor is EPA ENERGY STAR<sup>®</sup> compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality. As an ENERGY STAR<sup>®</sup> Partner, SAMSUNG has determined that this product

meets the ENERGY STAR<sup>®</sup> guidelines for energy efficiency.

## ➤ Preset Timing Modes

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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	70,087	28,322	-/+
MAC, 640 x 480	35,000	66,667	30,240	-/-
MAC, 832 x 624	49,726	74,551	57,284	-/-
MAC, 1152 x 870	68,681	75,062	100,00	-/-
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	-/-
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VESA, 1024 x 768	60,023	75,029	78,750	+/+
VESA, 1152 x 864	67,500	75,000	108,00	+/+
VESA, 1280 x 1024	63,981	60,020	108,00	+/+
VESA, 1280 x 1024	79,976	75,025	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



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Fax. : (0208) 397 9949  
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Tel. : (0870) 242 0303  
Fax. : (01952) 292 033  
<http://samsungservice.co.uk/>

➤ **U.S.A. :**  
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Service Division  
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Mount Arlington, NJ 07856  
1-800-SAMSUNG (1-800-726-7864)  
<http://samsungusa.com/monitor/>

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## » Terms

### ➤ **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.

### ➤ **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 1024 , this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1024 vertical lines (vertical resolution).

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### **For Better Display**

1. Adjust computer resolution and screen injection rate (refresh rate) on 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
  - o 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.
  - o 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.

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