

Notational

Note

These safety instructions must be followed to ensure your safety and prevent property damage.

Make sure to read the instructions carefully and use the product in the correct manner. **Warning / Caution**



Otherwise, it may result in personal injury or property damage.

Notational Conventions



Power



When not used for extended period of time, set your computer to DPM.

If using screen saver, set it to active screen mode.

The images here are for reference only, and are not applicable in all cases (or countries).

Shortcut to Anti-Afterimage Instructions



Do not use a damaged power cord or plug or a damaged or loose power outlet.

• Otherwise, this may result in electric shock or fire.



Do not touch the power plug with wet hands when removing or plugging the plug into the outlet.



Otherwise, this may result in electric shock.



Make sure to connect the power cord to a grounded power outlet.

• Otherwise, it may result in electric shock or personal injury.



Ensure that the power plug is plugged into the power outlet firmly and correctly.

• Otherwise, this may result in fire.



Do not forcefully bend or pull the power plug and do not place any heavy material on it.

Otherwise, this may result in fire.



Do not connect multiple appliances to the same power outlet.

• Otherwise, this may cause fire due to overheating.



Do not disconnect the power cord while using the product.

• Otherwise, this may result in damage to the product due to electric shock.



To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

This may cause electric shock or fire.



Use only the power cord provided by our company. Do not use the provided power cord of another product.

Otherwise, this may result in fire or electric shock.

Installation



Be sure to contact an authorized Service Center when installing your monitor in a location with heavy dust, high or low temperatures, high humidity, and exposed to chemical substances and where it operates for 24 hours such as at airports, train stations etc.

Failure to do so may cause serious damage to your monitor.



Do not drop the monitor when moving it.

This may cause damage to the product or the person carrying it.



Ensure that at least two persons lift and move the product.

 Otherwise, it may be dropped and cause personal injury, and/or damage the product.



When installing the product in a cabinet or rack, make sure that the front end of the bottom of the product does not project out.

- Otherwise, it may fall or cause personal injury.
- Use a cabinet or rack of a size appropriate to the product.



DO NOT PLACE CANDLES, MOSQUITO REPELLANT, CIGA-RETTES AND ANY HEATING APPLIANCES NEAR THE PROD-UCT.

Otherwise, this may result in fire.



Keep heating appliances as far away from the power cord or the product as possible.

• Otherwise, this may result in electric shock or fire.



Do not install it in a badly ventilated location such as a bookcase or closet.

• Otherwise, this may result in fire due to an increase in the internal temperature.



- Put down the monitor carefully.
 - Failing to do so may damage the monitor.



Do not place the front of the product on the floor.

Otherwise, this may result in damage to the screen display.



Ensure that an authorized installation company installs the wall mount.

- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.



■ Install your product in a well ventilated location. Ensure that there is a clearance of more than 10 cm from the wall.

• Otherwise, it may result in fire due to an increase in the internal temperature.



Bend the outdoor antenna cable downwards at the location where it goes in so that rainwater does not flow in.

• If rainwater enters the product, it may result in electric shock or fire.



Install the antenna far away from any high voltage cables.

If the antenna touches or falls onto a high voltage cable, it may result in electric shock or fire.



Ensure that the packaging vinyl is kept away from children.

Otherwise, it may result in serious harm (suffocation) if children play with it.



If the height of your monitor is adjustable, do not place any object or part of your body on the stand when lowering it.

This may cause damage to the product or the person carrying it.

Clean



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



Do not spray cleaner directly onto the surface of the product.

• Otherwise, this may result in the discoloration and distortion of the structure and the screen surface may peel off.



Clean the product using a soft cloth with a monitor cleaner only. If you must use a cleaner other than the monitor cleaner, dilute it with water at a ratio of 1:10.



When cleaning the power plug pins or dusting the power outlet, clean it with a dry cloth.

• Otherwise, it may result in fire.

When cleaning the product, make sure to disconnect the power cord.

• Otherwise, it may result in electric shock or fire.



When cleaning the product, disconnect the power cord and clean it softly with a dry cloth.

• (Do not use chemicals such as wax, benzene, alcohol, thinner, mosquito repellant, lubricant, or cleaner.) These may change the appearance of the product surface and peel off the indication labels on the product.



Since the product housing is easily scratched, make sure to use the specified cloth only.

Use the specified cloth adding only a little water. As the product may be scratched if there is any foreign material on the cloth, make sure to shake it thoroughly before using it.



When cleaning the product, do not spray water directly onto the main body of the product.

- Ensure that water does not enter the product and that it is not wet.
- Otherwise, this may result in electric shock, fire or a malfunction.

Others



The product is a high voltage product. Ensure that users do not disassemble, repair or modify the product themselves.

• Otherwise, this may result in electric shock or fire. If the product needs to be repaired, contact a Service Center.



If there is a strange smell or a strange sound or smoke is coming from the product, disconnect the power plug immediately and contact a Service Center.

Otherwise, this may result in electric shock or fire.



Do not place this product in a location exposed to moisture, dust, smoke, water, or in a car.

Otherwise, this may result in electric shock or fire.



When you drop the product or the case is broken, turn the power off and disconnect the power cord. Contact a Service Center.

Otherwise, this may result in electric shock or fire.



If thunder or lightening is occurring, do not touch the power cord or antenna cable.

Otherwise, this may result in electric shock or fire.



Do not try to move the monitor by pulling only the wire or the signal cable.

Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.



Do not lift or move the product back and forwards or right and left while only holding the power cord or signal cables.

Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.



Make sure that the ventilating opening is not blocked by a table or curtain.

Otherwise, it may result in fire due to an increase in the internal tem-• perature.



Do not place any containers containing water, vases, flowerpots, medicines as well as any metal on the product.

- If water or a foreign material enters the product, disconnect the power cord and contact a Service Center.
- This may result in a product malfunction, electric shock, or fire.

Do not use or keep combustible spray or flammable material near the

product.

Otherwise, this may result in an explosion or fire.



Do not insert any metal, such as chopsticks, coins, pins and steel, or flammable objects, such as matches or paper, inside the product (through the ventilating openings, input and output terminals, etc).

- If water or foreign material enters the product, disconnect the power cord and contact a Service Center.
- Otherwise, this may result in electric shock or fire.



When using a fixed screen for a long time, an afterimage or stain may occur.

If you are not using your product for a long period of time, put it into sleep mode or use a moving screen saver.



Otherwise, your eyesight may be damaged.



When using headphones or earphones, do not turn the volume too high.

Having the sound too loud may damage your hearing.



If you continually move closer to the product screen, your eyesight may be failing.



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



Do not install it in an unstable location such as an unstable rack or uneven surface or a location exposed to vibrations.

- Otherwise, it may fall and cause personal injury and/or damage the product.
- If you use the product in a location exposed to vibrations, it may • damage the product and result in fire.



Otherwise, it may result in electric shock or fire.



Ensure that children do not hang onto the product or climb up onto the product.

The product may fall and cause personal injury or death.



If you do not use the product for a long period of time, disconnect the power cord from the power outlet.

• Otherwise, this may result in overheating or fire due to dust, and may result in fire due to electric shock or leakage.

Do not place any heavy items or toys or confectionery, such as cookies etc. that may attract the attention of children and to the product.

Your children may hang onto the product causing it to fall and this may result in personal injury or death.



Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

- If children have had the battery in their mouths, consult your doctor immediately.
- When replacing the battery, insert it with right polarity (+, -).



• Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.



Use only specified standard batteries. Do not use new and used batteries together.

• This may cause a battery to break or leak and may cause fire, injury, or contamination (damage).



The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

• The customer can return used or rechargeable batteries to a nearby public recycling center or to a store selling the same type of the battery or rechargeable battery.



Do not turn the product upside down or move it while holding only the stand.

• Otherwise, it may fall and result in personal injury and/or damage to the product.



Do not place the product in a location exposed to direct sunlight or near any heat such as a fire or heater.

• This may reduce the lifetime of the product, and may result in fire.



Do not drop any objects onto the product or cause any impact to the product.

Otherwise, this may result in electric shock or fire.



Otherwise, this may result in electric shock or fire.

Do not use a humidifier or kitchen table near the product.



When there is a gas leak, do not touch the product or the power plug but ventilate immediately.

• If a spark occurs, it may cause an explosion or fire.



If the product has been turned on for a long time, the display panel becomes hot. Do not touch it.



Be careful when adjusting the angle of the product or the height of the stand.

- This may result in personal injury as your hand or fingers may become caught.
- Also, if you tilt the product too far, it may fall and cause personal injury.



Do not install the product in a location low enough for children to reach.

- Otherwise, it may fall and result in personal injury.
- Since the front part of the product is heavy, install the product on a level and stable surface.



- Do not put any heavy objects on the product.
- This may result in personal injury and/or damage to the product.

Good Postures When Using the Monitor



- When using the product, use it in the correct position.
- Keep your back straight while looking at the product.
- The distance between your eyes and the screen should be between 45 to 50 cm. Look at the screen from a slightly higher location than the height of the screen.
- When using the product, use it in the correct position.
- Adjust the angle so that light is not reflected on the screen.
- Place your arms perpendicular to your sides and allow your arms to be level with the back of the hand.
- Keep your elbow at 90 degrees.
- Keep your knees at greater than 90 degrees, and keep your heels firmly on the floor. Keep your arms lower than your heart.

Package Contents

Note

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

If any items are missing, contact your dealer.

Contact a local dealer to buy optional items.

Unpacking





Cleaning Cloth is only provided for highly polished black products as a product feature.

Your Monitor

Front





Activates a highlighted menu item.

Push the ' Dure ', button to change the input signal source.

Changing the source is only allowed for external devices connected to the product at the time.

To switch Screen modes:

$$[PC] \rightarrow [DVI] \rightarrow [TV] \rightarrow [Component] \rightarrow [HDMI1] \rightarrow [HDMI2]$$

>> Click here to see an animation clip

2 MENU

Use this button to open the on-screen menu and to exit from the on-screen menu or to close the screen adjustment menu.

3,4 - VOL+

Moves from one menu item to another horizontally or adjusts selected menu values. Adjusts the audio volume.

5,6 - CH +

Moves from one menu item to another vertically or adjusts selected menu values. In **TV/DTV** mode, selects TV/DTV channels.



Use this button for turning the product on and off.

Note

The button to the right of the monitor are touch-sensitive buttons.

Touch a button lightly with your finger.

Power indicator

This light is lit when operating normally, and blinks once when your adjustments are saved.

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.



Rear



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





2 PC



POWER

Connect the power cord for your monitor to the *POWER* port on the back of the product.



○ PC

Connect the *PC* terminal at the back of your monitor to your computer.

3 HDMI/PC/DVI-D AUDIO IN

DIGITAL AUDIO OUT(OP-TICAL)

EX-LINK



A HDMI/PC/DVI-D AUDIO IN

Connect the [HDMI/PC/DVI-D AUDIO IN] terminal at the back of your product to your computer's sound card.

B DIGITAL AUDIO OUT(OPTICAL)

Connect the [DIGITAL AUDIO OUT(OPTI-CAL)] terminal of your product to the digital sound output or standard sound output terminal of the DVD home theater (or amplifier) using a digital audio optical output cable.



This is a reserved terminal used for servicing.



SERVICE

This is a reserved terminal used for servicing.



4 SERVICE





🔍 DVI-D

Connect the DVI cable to the *DVI-D* port on the back of your product.

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• The Kensington Lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for proper use. The locking device has to be purchased separately.

Note

The location of the Kensington Lock may be different depending on its model.

Using the Anti-Theft Kensington Lock

- Insert the locking device into the Kensington slot on the Monitor (B) and turn it in the locking direction (A).
- 2. Connect the Kensington Lock cable.
- 3. Fix the Kensington Lock to a desk or a heavy stationary object.





HDMI IN 1



HDMI IN 1

Connect the [HDMI IN 1] terminal at the back of your monitor to the HDMI terminal of your digital output device using a HDMI cable.



Connect the port of the DVD, VCR (DVD / DTV Set-Top Box) to the [*R* - *AUDIO* - *L*] port of the product.



Connect the VIDEO OUT port of the DVD / DTV Set-Top Box to the [P_R , P_B , Y] input ports using a component video cable (P_R , P_B , Y).







Cable holding ring

• Fix the cables using the holding ring, as shown in the figure.

Remote Control





T . 1	
Introd	netion
muou	uction

11. MTS	You can select the MTS (Multichannel Television Stereo) mode.
	Mono, Stereo, SAP (Separate Audio Program)
	Set 'MTS' to ON to choose Mono, Stereo or SAP.
12. III MENU	Opens the on-screen menu and exits from the menu or closes the adjustment menu.
13. 🔁 SOURCE	Press the button to change the input signal SOURCE.
	Changing the SOURCE is only allowed for external devices that are connected to the monitor at the time.
14. PRE-CH	This button is used to return to the immediately previous channel.
15. УСНА	In TV mode, selects TV channels.
16. 🕸 MUTE	Adjusts the audio volume.
17. ^D RETURN	Returns to the previous menu.
18. ENTER	Activates a highlighted menu item.
19. → 🚺 EXIT	Exits from the menu screen.
20. (•) SRS	Not Available.
21. FAV.CH	Press to switch to your favorite channels.
22. P.SIZE	Press to change the screen size.
	PC / DVI mode : Wide / 4:3
	TV / Component mode : Wide / 16:9 / Zoom1 / Zoom2 / 4:3
	HDMI mode : Wide / 16:9 / Wide Fit / 4:3 / Just Scan

Connections

Connecting Cables

Connecting to a Computer



UConnect 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.



Use a connection appropriate for your computer.

Using the D-sub (Analog) connector on the video card.

• Connect the signal cable to the [PC] port on the back of your monitor.



Using the DVI (Digital) connector on the video card.

• Connect the DVI Cable to the [DVI-D] Port on the back of your Monitor.



Connect the [HDMI/PC/DVI-D AUDIO IN] port on the rear side of the monitor to the sound card of the PC.

Note Note

- You may enjoy clear and quality sound from the computer sound card using the monitor speakers. (You don't need to install any separate speakers for your computer.)
- You may get a blank screen depending on the type of video card you are using, if you connect simultaneously both the D-sub and DVI cables to one computer.

• If you connect properly your monitor using the DVI connector but get a blank or fuzzy screen, check to see if the monitor status is set to analogue. Press 'SOURCE []' button to have the monitor double-check the input signal source.

Connecting to a Macintosh



- 1. Using the D-sub (Analog) connector on the video card.
- Connect the signal cable to the D-SUB port on the back of your monitor.



Note

Turn on the monitor and Macintosh.

Connecting to Other devices

Note

- This monitor allows the user to connect it to such input devices as a DVD player, a VCR or camcorder, or a DTV or TV without disconnecting the PC.
- The configuration at the back of the monitor may vary from product to product.
- The DVI to HDMI cable, digital audio optic output cable, and RCA to stereo (for PC) cable are all sold separately. Contact a Service Center to purchase any products sold separately.

Connecting TV



You may view television programs on the monitor if it is connected to an antenna or CATV cable without installing any separate TV reception hardware or software on your computer.

Connections



 $1. \quad Connect the CATV cable or TV antenna cable to the "ANT IN" port on the rear side of the monitor.$

Make sure to use a TV antenna cable (sold separately) as the antenna cable.

• When using an interior antenna terminal:

Check the antenna terminal on the wall first and connect the antenna cable.

• When using an outdoor antenna:

If you are using an outdoor antenna, use a professional for installation if possible.

• To connect the RF cable to the antenna input terminal:

Keep the copper wire portion of the RF cable straight.

- 2. Turn on the monitor.
- 3. Select TV using the TV / DTV.
- 4. Select a desired TV channel.

Note

Is weak signal causing poor reception?

Purchase and install a signal amplifier for better reception.

Connecting DVD / DTV Set Top Box

Note

Connect to the DVD / DTV Set Top Box input if the device has a [COMPONENT IN] connector. You can watch Component simply by hooking up the Component with the monitor as long as the power is on.

Connections



Connect the port of the DVD, VCR (DVD / DTV Set-Top Box) to the [*R-AUDIO-L*] port of the monitor.

Connect the VIDEO OUT port of the DVD / DTV Set-Top Box to the $[P_R, P_B, Y]$ input ports using a component video cable (P_R, P_B, Y) .

Note

Select "Component" using the 'SOURCE [

If you connect the P_R , P_B , and Y component cables to the incorrect terminals, the screen will be displayed in red or blue.

For single-family houses, install an UHF antenna to receive digital broadcasting.

Connecting HDMI

Note

You can connect digital output devices to your monitor.

You can enjoy better screen and sound quality.

1. Connecting Using a HDMI Cable



• Input devices such as digital DVD are connected to the *[HDMI IN 1]* terminal of the monitor using the HDMI cable. When all the connections are completed, connect the power cords for the monitor and DVD(or the device connected to the digital output terminal).

Select **HDMI** using the '*SOURCE* []' button.

2. Connecting Using a DVI to HDMI Cable



Connect the DVI output terminal of a digital output device to the *[HDMI IN 1]* terminal of the monitor using a DVI to HDMI cable.

Connect the red and white jacks of an RCA to stereo (for PC) cable to the same colored audio output terminals of the digital output device, and connect the opposite jack to the [HDMI/PC/DVI AUDIO IN] terminal of the monitor.

3. When all the connections are completed, connect the power cords for the monitor and DVD (or the device connected to the digital output terminal).

4. Select "**HDMI**" using the 'SOURCE []' button.

If you just connect using the DVI to HDMI cable without connecting to the sound source, you cannot hear sound.

Connecting the audio output terminal of a digital device to the [*R*-AUDIO-L] of [COMPONENT IN] of the monitor using an audio cable will not give you sound. Make sure to connect to the [HDMI/PC/DVI-D AUDIO IN] terminal of the monitor.

Connecting and Using an Amplifier

Note

You can connect the digital sound input (optical) or standard sound input terminal of your amplifier to your monitor using the correct cable.



1. Connect the [DIGITAL AUDIO OUT (OPTICAL)] terminal of your monitor to the digital sound input terminal of your digital amplifier using an optical cable.

Connections

- 2. Set the Internal Mute On in the Sound menu using the MENU button.
- 3. Adjust the sound volume using the Volume button of your amplifier
- 4. If the connections are set up, power up your monitor and amplifier.

Note

- If no sound is emitted from the monitor, you need to use an amplifier.
- For information on how to connect a speaker and amplifier, refer to the respective user manuals provided by their manufacturers.

Connecting Headphone

Note

You may connect your headphones to the monitor.



• Connect your headphones to the Headphone connection terminal.

Using the Stand

Monitor Assembly



Monitor and Bottom

Connections

Tilt angle





You can tilt the monitor upwards at an angle of -1° to 21° .

Monitor Driver

🖉 Note

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 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.com/ (Worldwide)

Installing the Monitor Driver (Automatic)

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

E SAM	SUNG monitor installer	X
	Select the display adapter on which	you want to intall the monitor
1 PA	DEON 9550 : Plug and Play Monitor	
	Select the monitor which y	you want to install
Sams	ung ****	
1		>
	OK	CANCEL

4. If you can see following message window, then click the "Continue Anyway" button. Then click "OK" button (Microsoft[®] Windows[®] XP/2000 Operating System).

Hardwar	e Installation
1	The software you are installing for this hardware: Samsung **** has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway



This monitor driver is under certifying MS logo, and this installation doesn't damage your system.

The certified driver will be posted on Samsung Monitor homepage.

http://www.samsung.com/

Installing the Monitor Driver (Manual)

Microsoft[®] Windows VistaTM, Operating System

- 1. Insert your Manual CD into your CD-ROM drive.
- 2. Click 🚱 (Start) and "Control Panel". Then, double-click on "Appearance and Personalization".



3. Click "Personalization" and then "Display Settings".



4. Click "Advanced Settings...".

onitor		
Drag the icons to match your monitors.		Jdentify Monitors
1. (Multiple Monitors) on NVIDIA Gefo) Ihis e my main monitor	xe 6600 LE (Microsoft Corporation - •
1. (Multiple Monitors) on NMDIA Gefo (2) This is my main menitors (2) Eathord the desistop onto the monitor Benolution	xe 6600 LE (1	Alcrosoft Corporation - • Colors
I. (Muhipie Moniton) on NMDIA Gefo () Into a my main monitor () Entand the desistop onto this monito Besolution Low	xe 6600 LE ()	Microsoft Corporation - + Colors Highest (32 bit) - +
1. (Muhipie Moniton) on MVEVA Gefo (2) Inia un yn main mardian (2) Ediand the dealtog anfar blin mandra Brekeldion Low () 1280 by 5024 piwlei	xe 6600 LE (Microsoft Corporation - • Solove Highest (32 bit) •

5. Click "Properties" in the "Monitor" tab. If the "Properties" button is deactivated, it means the configuration for your monitor is completed. The monitor can be used as is.

If the message "Windows needs..." is displayed, as shown in the figure below, click "Continue".

Using the Software

Manitor Type	Windows needs your permission to contionu
Generic Pr/P Monitor	If you started this action, continue.
Monitor Settings Spreen refresh rate:	Device Properties Microsoft Windows
60 Hertz ·	
Generation that this monitor cannot display	
Clearing this check box allows you to select display modes that this monitor cannot display correctly. This may lead to an unusable	Continue Cance
display and/or damaged hardware.	User Account Control helps stop unauthorized changes to your compu
	L.

Note

This monitor driver is under certifying MS logo, and this installation doesn't damage your system.

The certified driver will be posted on Samsung Monitor homepage.

6. Click "Update Driver..." in the "Driver" tab.



7. Check the "Browse my computer for driver software" checkbox and click "Let me pick from a list of device drivers on my computer".



8. Click "Have Disk..." and select the folder (for example, D:\Drive) where the driver setup file is located, and click "OK".

Using the Software

Select the device driver you want to install for this hardware. Sector to exclusive and nooi if you before device and the lish flat. Five here a dish flat contains the diversity work to relat, dish New Dek.	Inset the manufacture's installation date, and then make sure that the correct drive is selected below. Cancel Can
2/Den gandeliki kaluani Node 19 Genesi hit Modar	Copy manufacture's files from:
Disa dower is diptaly signed Here Data Id me who down a monitorit	l

9. Select the model that matches your monitor from the list of monitor models on the screen, and click "Next".



10. Click "Close" \rightarrow "Close" \rightarrow "OK" \rightarrow "OK" on the following screens displayed in sequence.



Microsoft[®] Windows[®] XP Operating System

- 1. Insert CD into the CD-ROM drive.
- 2. Click "Start" \rightarrow "Control Panel" then click the "Appearance and Themes" icon.

		B. Central Panel	E 8 8
Dark park	and the second	the fit yes faulte but the	*
	My Documents My Recent Documents My Pictures My Pictures My Computer Convoid Valet Profess and Paxes Profess and Paxes	Image: Second and Second an	The second secon
All <u>Programs</u>			
	🔀 Log Off 🛛 🔯 Tyrn Off Computer		
📲 start			

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

B Appearance and Tremes	2 - C	Display Properties 🛛 🖓 🔯
G tel O - 5 Diech	🐉 Polites 🗐 -	Themes Desktop Screen Saver Appearance Settings
Carlo Carlos Car	Anne A	Themes Desktop Screen Saver Appearance Settings
		OK Cancel Acoly

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

Plug and Play Monitor and 3D Prophet III Properties 👘 😰 🔀	Plug and Play Monitor Properties	22
Genore3 Galorce3 Device Selection Color Correction General Adapte Monitor Troubleshoot Color Management Monitor type Plug and Play Monitor Properties	General Driver Plug and Play Monitor Device type: Monitors Manufacturer (Standard monitor types)	
Monitor settings Screen refresh rate:	Location: on 3D Prophet III	
60 Hertz	This device is working property. If is govern having problems with this device, click. Troubleshoot to start the troubleshooter. Iroubleshoot	2
OK Cancel (Asola)	Pevice usage: Use this device (anable) OK C	ancel

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".

Using the Software

Hardware Update Wizard	Hardware Update Wizard
Please choose your search and installation options.	Select the device driver you want to install for this hardware.
Search for the best driver in these locations. Use the check boxes below to limit or expand the default rearch, which includes local paths and removable media. The best driver found will be installed.	Select the monufacturer and model of your hardware device and then click Next. If you have a disk that contains the diver you want to install, click Have Disk.
Search removable gedia (Ropp; CD ROM_) Include this location in the rearch: A:\ V Biprove	Elson compatible handward Model Weight Analysis Prog and Play Monitor
Open teach i will choose the divert to initial. Droce this option to teach the divers driver from a first. Windows does not guarantee that the driver you choose will be the best match for your hardware.	D This driver is deptady signed. Influence who driver since in innoctant
< <u>Back</u> Next> Cancel	<back next=""> Cancel</back>

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

Install From Disk	X	Hardware Update Wizard
Inset the manufacture's installation disk, and then make sure that the correct drive is selected below.	OK Cancel	Select the device driver you want to initial for this hardware.
Copy manufacturer's files from:	Browse	This drives in not digitally signed Tallow why driver similar is monited (get: Net) Carcel

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

lardware	Installation
⚠	The software you are installing for this hardware: Samsung ****
	has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
	Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the truture. Microsoft strongly contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

Note

This monitor driver is under certifying MS logo, and this installation doesn't damage your system.

The certified driver will be posted on Samsung Monitor homepage.

http://www.samsung.com/

9. Click the "Close" button then click "OK" button continually.

Hardware Update Wizard		Samsur	g *****	12 III III III III III III III III III I	×
Completin Wizard The wisard has San	ng the Hardware Update finished installing the software for. Issung ****		al Driver Samsung **** Driver Provider: Driver Pate: Driver Version: Digkal Signer: Digkal Signer: All Back: Driver	Samsung 3/11/2001 1.0.0.0 Not digitally signed To view details about the driver files. To update the driver for this device. If the driver fails after updating the driver, reliable, to the graverously installed driver.	
Click Finish to c	lose the wizard.		Uninstal	To uninstall the driver (Advanced).	
	Cancel			Close Cancel	

	Device Selection	Color Correction
reneral Adapter	Troubleshe	ot Uotor Managemen
Monitor type		
Flug and Play Ma	onator	
		Eroperties
Monitor settings		
Former release rate		
Screen renern race:		[100.0
60 Heitz		× 1
E Hide modes that this r	nonitor cannot display	
Clearing this check box a	flows you to select disp	play modes that this
and/or damaged hardwar	rectly. This may lead t re.	to an unusable display

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:\Driver) 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. Select the "Settings" tab and click "Advanced Properties" button.
- 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:\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.

Microsoft® Windows® Millennium Operating System

- 1. Click "Start", "Setting", "Control Panel".
- 2. Double click the "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:\(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 "OK".
- 11. Continue choosing "Close" button and "OK" button until you close the Display Properties dialogue box.

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).

Note

If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Timing Modes in the user guide.

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.

Natural Color

Natural Color Software Program



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 (ETRI). 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 Natural Color 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 [Run...]. Enter D:\color\NCProSetup.exe and then press the [Enter] 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.

Adjusting the Monitor

Picture

Available Modes

- 🖻 PC / DVI
- 🚺 TV
- Component
- 🗄 HDMI

Note

The default setting may be different depending on the selected Input Mode (input signal source selected in External Input List) and the selected resolution.

Picture : PC / DVI 🕑

MagicBright



MagicBright is a feature providing optimum viewing environment depending on the contents of the image you are watching. Currently five different modes are available: **Entertain**, **Internet**, **Text**, **Dynamic Contrast** and **Custom**. Each mode has its own pre-configured brightness value.

• Entertain

High Brightness

For watching motion pictures such as a DVD or VCD

• Internet

For working with a mixture of images such as texts and graphics.

• Text

For documents or works involving heavy text.

• Dynamic Contrast

Dynamic Contrast automatically detects the distribution of the visual signal and adjusts to create an optimum contrast.

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.

 $\mathrm{MENU} \to \textcircled{\bullet} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU}, \mathrm{EXIT}$

Contrast / Brightness / Sharpness

(Not available in MagicBright mode of Dynamic Contrast.)



You can use the on-screen menus to change the contrast and brightness according to personal preference.

- Contrast : Adjust the Contrast.
- Brightness : Adjust the Brightness.
- Sharpness : Adjust the Sharpness.

$$MENU \rightarrow \boxdot \rightarrow \blacktriangle, \forall \rightarrow \boxdot \rightarrow \bigstar, \forall, \checkmark, \blacklozenge, \blacktriangleright \rightarrow \boxdot \rightarrow MENU, EXIT$$

Auto Adjustment



The values of Fine, Coarse and Position are adjusted automatically.
By changing the resolution in the control panel, auto function is performed.

(Available in PC Mode Only)

 $MENU \rightarrow \textcircled{\bullet} \rightarrow \blacktriangle, \blacktriangledown \rightarrow \textcircled{\bullet} \rightarrow MENU, EXIT$

Screen : (Available in PC mode only)

- Coarse / Fine



Coarse

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.

• Fine

Removes noise such as horizontal stripes.

If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed).

 $\mathrm{MENU} \to \textcircled{\bullet} \to \underbar{\bullet}, \blacktriangledown \to \textcircled{\bullet} \to \textcircled{\bullet}, \blacktriangledown, \blacktriangledown, \clubsuit \to \textcircled{\bullet} \to \mathrm{MENU, EXIT}$

- Position



Adjusts the screen location horizontally and vertically.

 $\mathrm{MENU} \to \textcircled{\bullet} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \blacklozenge, \flat \to \mathrm{MENU}, \mathsf{EXIT}$

- Image Reset



Image parameters are replaced with the factory default values.

 $\mathrm{MENU} \to \textcircled{e} \to \underbar{a}, \blacktriangledown \to \textcircled{e} \to \underbar{a}, \blacktriangledown \to \textcircled{e} \to \mathrm{MENU}, \mathrm{EXIT}$

- Resolution



Displays the resolution set on the PC.

Picture Options

- Color Tone



The tone of the color can be changed.

(Available in **PC** / **DVI** mode only)

Cool / Normal / Warm / Custom

 $\mathrm{MENU} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU, EXIT}$

- R-Gain / G-Gain / B-Gain



Adjusts the individual R, G, B color controls.

$$\mathrm{MENU} \to \textcircled{\bullet} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet}, \blacktriangledown \to \bigstar, \blacktriangledown \to \textcircled{\bullet}, \blacktriangledown \to \bigstar, \blacktriangledown, \blacklozenge, \bullet \to \mathrm{MENU}, \mathsf{EXIT}$$

- Size



You can switch the Size.

Wide / 4:3

 $\mathrm{MENU} \rightarrow \textcircled{\bullet} \rightarrow \measuredangle, \blacktriangledown \rightarrow \textcircled{\bullet}, \blacktriangledown \rightarrow \clubsuit, \blacktriangledown \rightarrow \textcircled{\bullet}, \blacktriangledown \rightarrow \texttt{MENU,EXIT}$

Reset



Picture parameters are replaced with the factory default values.

- OK
- Cancel

 $\mathrm{MENU} \to \textcircled{\bullet} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU, EXIT}$

Picture : TV / Component / HDMI

Mode



The Monitor has three automatic picture settings ("Dynamic", "Standard", and "Movie") that are preset at the factory.

You can activate either Dynamic, Standard, or Movie.

• Dynamic

Selects the picture for high-definition in a bright room.

• Standard

Selects the picture for optimum display in a normal environment.

• Movie

Selects the picture for viewing movies in a dark room.

 $\mathrm{MENU} \to \textcircled{\bullet} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU}, \mathrm{EXIT}$

Backlight / Contrast / Brightness / Sharpness / Color / Tint



You can use the on-screen menus to change the contrast and brightness according to personal preference.

- Backlight : Adjust the screen brightness by adjusting the LCD backlight.
- **Contrast** : Adjust the Contrast.
- **Brightness** : Adjust the Brightness.
- Sharpness : Adjust the Sharpness.
- Color : Adjusts the picture color.
- **Tint** : Adds a natural tone to the display.

 $\mathrm{MENU} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \bigstar, \blacktriangleright \to \textcircled{\bullet} \to \mathrm{MENU}, \mathsf{EXIT}$

Picture Options

- Color Tone



The tone of the color can be changed.

Cool1 / Cool2 / Normal / Warm1 / Warm2

Note

"Warm1" or "Warm2" is only activated when the picture mode is "Movie".

Settings can be adjusted and stored for each external device you have connected to an input of the TV.

$$\mathsf{MENU} \to \textcircled{\bullet} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathsf{MENU,EXIT}$$

- Size



You can switch the Size.

The direct button on the remote control is 'P.SIZE' button.

Wide - A full screen is displayed regardless of the screen aspect ratio of the input signals.

16:9 - Sets the picture to 16:9 wide mode.

Zoom1 - Magnifies the size of the picture on the screen.

Zoom 2 - Magnifies the size of the picture more than "Zoom1".

Wide Fit - Enlarges the aspect ratio of the picture to fit the entire screen.

4:3 - Sets the picture to 4:3 normal mode.

Just Scan - Use the function to see the full image without any cut off when HDMI (480i / 1080i), Component (480i / 1080i) or DTV(480i / 1080i) signals are input.

(Wide Fit and Just Scan are only operated in HDMI mode.)

 $\mathrm{MENU} \to \textcircled{\bullet} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \mathrm{MENU}, \mathsf{EXIT}$

- Digital NR



Digital Noise Reduction.

If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.

Off - Turns the screen noise reduction function off.

Low - Reduces screen noise at a low level.

Medium - Reduces screen noise at a medium level.

High - Reduces screen noise at a high level.

Auto - Automatically recognizes and reduces screen noise.

 $MENU \rightarrow \textcircled{\bullet} \rightarrow \blacktriangle, \forall \rightarrow \textcircled{\bullet}, \forall \rightarrow \textcircled{\bullet}, \forall \rightarrow \textcircled{\bullet}, \forall \rightarrow MENU, EXIT$

- HDMI Black Level



When a DVD or set-top box is connected to your TV via **HDMI**, it may cause a degradation in the screen quality, such as an increase in the black level, a low contrast, or discoloration, etc., depending on the external device connected. In this case, adjust the screen quality of your TV by configuring the **HDMI Black Level**. This function is active only when the an external device (DVD player, STB etc.) is connected to the TV via **HDMI**(RGB Signal).

(Available in HDMI Mode Only)

Normal / Low

 $\mathrm{MENU} \rightarrow \textcircled{\bullet} \rightarrow \measuredangle, \blacktriangledown \rightarrow \textcircled{\bullet}, \blacktriangledown \rightarrow \bigstar, \blacktriangledown \rightarrow \textcircled{\bullet}, \blacktriangledown \rightarrow \texttt{MENU,EXIT}$

- Film Mode



The Film Mode feature offers you a theater-quality viewing experience.

"Film mode" is supported in TV, Component (480i / 1080i) and HDMI (480i / 1080i)

Off / Auto

 $\mathrm{MENU} \to \textcircled{\bullet} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \mathrm{MENU,EXIT}$

Reset



Picture parameters are replaced with the factory default values.

- OK
- Cancel

 $\mathrm{MENU} \to \textcircled{\bullet} \to \underbar{\bullet}, \blacktriangledown \to \textcircled{\bullet} \to \underbar{\bullet}, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU}, \mathrm{EXIT}$

Sound

Available Modes

- PC / DVI
- **T**TV

• Component

- 🖸 HDMI
- 🖉 Note

The default setting may different depending on the selected Input Mode (input signal source selected in External Input List) and the selected resolution.

Mode PTCH



The Monitor has a built-in high fidelity stereo amplifier.

Standard

Choose Standard for the standard factory settings.

• Music

Choose Music when watching music videos or concerts.

• Movie

Choose Movie when viewing movies.

• Speech

Choose Speech when watching a show that is mostly dialogue (i.e., news).

• Custom

Choose Custom if you want to adjust the settings according to personal preference.

 $\mathrm{MENU} \to \blacktriangle, \forall \to \textcircled{el} \to \textcircled{el} \to \bigstar, \forall \to \textcircled{el} \to \mathrm{MENU}, \mathrm{EXIT}$

Equalizer PTCH



You can adjust the left and right sound balance and the low or high volume as required.

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \blacklozenge, \clubsuit \to \textcircled{\bullet} \to \mathrm{MENU}, \mathsf{EXIT}$

Multi-Track Options

Preferred Language



You can select the audio language.

(Available in **DTV** Mode Only)

 $MENU \rightarrow \blacktriangle, \forall \rightarrow \blacksquare \rightarrow \bigstar, \forall \rightarrow \blacksquare \rightarrow \blacksquare \rightarrow \blacksquare, \forall \rightarrow \blacksquare \rightarrow MENU, EXIT$

Multi-Track Sound



- **Mono** : Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.
- Stereo : Choose for channels that are broadcasting in stereo.
- **SAP** : Choose to listen to the Separate Audio Program, which is usually a foreign-language translation.

(Available in Analog TV Mode Only)

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathsf{MENU}, \mathsf{EXIT}$

Auto Volume PTCH



Reduces the differences in volume level among broadcasters.

- Off
- On

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{e} \to \bigstar, \blacktriangledown \to \textcircled{e} \to \bigstar, \blacktriangledown \to \textcircled{e} \to \mathrm{MENU,EXIT}$

TV Speaker PTCH



If you set this menu "On", sound output from the speakers is muted in case of using the home theater.

- Off
- On

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU}, \mathrm{EXIT}$

Channel

Available Modes

- **P** PC / DVI
- 🚺 TV
- Component
- 🖪 HDMI

Note

The default setting may different depending on the selected Input Mode (input signal source selected in External Input List) and the selected resolution.

Antenna 🚺



You can select a normal or wired channel.

If ANT IN are connected, select the antenna input you want. If the antenna input is not selected properly, noise may appear on the screen.

- Air
- Cable

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{el} \to \textcircled{el} \to \bigstar, \blacktriangledown \to \textcircled{el} \to \mathrm{MENU, EXIT}$

Auto Program 🚺



The TV automatically cycles through all of the available channels and stores them in memory.

In rare cases, "Auto program" may miss a few channels due to weak signals and the channels may not be added to the channel memory.

- Air
- Cable
- Auto

 $\mathrm{MENU} \to \blacktriangle, \forall \to \textcircled{e} \to \bigstar, \forall \to \textcircled{e} \to \bigstar, \forall \to \textcircled{e} \to \bigstar, \forall, \checkmark, \blacklozenge, \blacktriangleright \to \textcircled{e} \to \textcircled{e} \to \mathrm{MENU}, \mathrm{EXIT}$

Clear Scrambled Channel



The Clear Scrambled Channel function is used to filter out scrambled channels after "Auto Program" is completed. It removes the scrambled channels from the list by tuning the digital cable channels. This process may take up to 20~30 minutes.

(Available in Digital Cable TV Mode Only)

 $MENU \rightarrow \blacktriangle, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall \rightarrow \textcircled{e} \rightarrow MENU, EXIT$

Channel List 🚺

You can manage the channels.

All



 $\begin{array}{c} \text{MENU} \rightarrow \blacktriangle, \blacktriangledown \rightarrow \textcircled{l} \rightarrow \bigstar, \blacktriangledown \rightarrow \textcircled{l} \rightarrow$

Added



Note

• All selected channels will be shown on "Added" menu.

Favorite



Note

- Only memorized channels can be set as favorite channels.
- All favorite channels will be shown in the "Favorite" menu.

Name 🚺



If channel name information is broadcast when you store the channels either manually or automatically, the names are assigned to the channels directly. You can however change these names or assign new names as required.

(Available in Analog TV Mode Only)

 $\mathrm{MENU} \rightarrow \blacktriangle, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall, \blacklozenge, \clubsuit \rightarrow \textcircled{e} \rightarrow \blacklozenge, \clubsuit \rightarrow \textcircled{e} \rightarrow \mathsf{MENU}, \mathsf{EXIT}$

Fine Tune 🚺



Due to weak signals or an incorrect antenna configuration, some of the channels may not be tuned correctly.

(Available in Analog TV Mode Only)

 $\mathrm{MENU} \to \blacktriangle, \forall \to \textcircled{e} \to \bigstar, \forall \to \textcircled{e} \to \bigstar, \forall \to \textcircled{e} \to \bigstar, \forall \to \textcircled{e} \to \mathtt{MENU}, \mathsf{EXIT}$

Signal Strength



Unlike analog channels, which can vary in reception quality from "snowy" to clear, digital (HDTV) channels have either perfect reception quality or you will not receive them at all. So, unlike analog channels, you cannot fine tune a digital channel. You can, however, adjust your antenna to improve the reception of available digital channels.

If the signal strength meter indicates that the signal is weak, physically adjust your antenna to increase the signal strength. Continue to adjust the antenna until you find the best position with the strongest signal.

(Available in Digital Cable TV Mode Only)

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \textcircled{\bullet} \to \mathrm{MENU}, \mathrm{EXIT}$

Setup

Available Modes

- **P** PC / DVI
- **T** TV
- Component
- 🖪 HDMI

Note

The default setting may different depending on the selected Input Mode (input signal source selected in External Input List) and the selected resolution.

Plug & Play 🚺



You can manage the entire configuration.



Language PTCH



You can choose one of 3 languages.

English Español Français

The language chosen affects only the language of the OSD.

$$\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathrm{MENU,EXIT}$$

Time PTCH

Clock

You can set the current time.

- Clock Mode



Auto / Manual



- Clock Set



Note

"Clock Set" are available only when "Clock Mode" set to "Manual".

 $\mathrm{MENU} \rightarrow \blacktriangle, \blacktriangledown \rightarrow \textcircled{\bullet} \rightarrow \bigstar, \blacktriangledown \rightarrow \textcircled{\bullet} \rightarrow \textcircled{\bullet} , \blacktriangledown \rightarrow \textcircled{\bullet} \rightarrow \bigstar, \blacktriangledown, \blacktriangledown, \blacklozenge, \blacklozenge, \blacklozenge \rightarrow \textcircled{\bullet} \rightarrow \mathsf{MENU,EXIT}$

- Time Zone



Note

"Time Zone" are available only when "Clock Mode" set to "Auto".

 $\mathrm{MENU} \rightarrow \blacktriangle, \blacktriangledown \rightarrow \bigstar, \blacksquare \rightarrow \bigstar, \blacksquare \rightarrow \bigstar, \blacksquare \rightarrow \bigstar, \blacksquare \rightarrow \mathsf{MENU}, \mathsf{EXIT}$

- DST



Note

- "DST" are available only when "Clock Mode" set to "Auto".
- Depending on the broadcast station and signal, the auto time may not be set correctly. If this occurs, set the time manually.
- The Antenna or cable must be connected in order to set the time automatically.

Sleep Timer



Use to set the Monitor to be turned off automatically in certain minutes.

• Off, 30, 60, 90, 120, 150, 180

 $\mathrm{MENU} \rightarrow \blacktriangle, \blacktriangledown \rightarrow \textcircled{\bullet}, \blacktriangledown, \blacklozenge, \clubsuit \rightarrow \textcircled{\bullet} \rightarrow \mathsf{MENU}, \mathsf{EXIT}$

Timer1 / Timer2 / Timer3



You can set the monitor to be turned on or off automatically at a specified time. Note

Setting the clock is necessary in order to use the various timer features of the product.

Three different **On/Off** Timer Settings can be made.

 $MENU \rightarrow \blacktriangle, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall \rightarrow \textcircled{e} \rightarrow \bigstar, \forall , \blacklozenge, \blacklozenge, \blacktriangleright \rightarrow \textcircled{e} \rightarrow MENU, EXIT$

V-Chip 🚺

Protects children from viewing inappropriate programs by blocking certain broadcast or AV programs. (More Information)

- Parental restriction levels differ depending on the broadcasting station.
- The default menu name and Downloadable US rating change depending on the downloaded information.

- Even if you set the On-screen display to your desired language, the "Downloadable U.S. Rating" menu will appear in English only.
- The rating will automatically block certain categories that are more restrictive.
- The rating titles(For example: Humor Level..etc) and TV ratings(For example:DH,MH,H..etc) may differ depending on the broadcasting station.
- If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0 : Power Off → Mute → 8 → 2 → 4 → Power On.

V-Chip Lock



• Off / On

$\mathrm{MENU} \to \blacktriangle, \forall \to \textcircled{\bullet} \to \bigstar, \forall \to \textcircled{\bullet} \to & \ast \ast \ast \ast \to \textcircled{\bullet} \to \bigstar, \forall \to \textcircled{\bullet} \to \mathrm{MENU,EXIT}$

TV Parental Guidelines



 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \bullet \to \textcircled{\bullet} \to \mathrm{MENU, EXIT}$

MPAA Rating



 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \bullet \to \textcircled{\bullet} \to \mathsf{MENU}, \mathsf{EXIT}$

Canadian-English



 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \clubsuit \to \textcircled{\bullet} \to \mathsf{MENU}, \mathsf{EXIT}$

Canadian-French



 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \ast \ast \ast \ast \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \blacklozenge, \clubsuit \to \textcircled{\bullet} \to \mathrm{MENU}, \mathsf{EXIT}$

Downloadable U.S. Rating



 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown, \blacktriangledown, \bigstar, \clubsuit \to \textcircled{\bullet} \to \mathsf{MENU}, \mathsf{EXIT}$

Change PIN





Caption 🚺

Enables or disables the Caption feature and sets the appearance of closed caption text.

Caption





Caption Mode



- The Defaultis "CC1".
- CC1 : The Primary Synchronous Caption Service.

These are captions in the primary language that must be in sync with the sound, preferably matched to a specific frame.

• CC2 : The Special Non-Synchronous Use Captions.

This channel carries data that is intended to augment information carried in the program.

• CC3 : Secondary Synchronous Caption Service.

Alternate program-related caption data, typically second language captions.

- CC4 : Special Non-Synchronous Use Captions. Similar to CC2.
- Text1 : First Text Service. This may be various non-program related data.
- Text2 : Second Text Service. Additional data, usually not program related.
- Text3 / Text4 : Third and Fourth Text Services.

These data channels should be used only if Text1 and Text2 are not sufficient.

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacksquare \to \textcircled{\bullet} \to \mathsf{MENU}, \mathsf{EXIT}$

Digital Caption Options



• Size

Default, Smart, Standard, Large

• Font Style

Default, Style0, Style1, Style2, Style3, Style4, Style5, Style6, Style7

• Foreground Color

Default, White, Black, Red, Green, Blue, Yellow, Magenta, Cyan

Background Color

Default, White, Black, Red, Green, Blue, Yellow, Magenta, Cyan

Foreground Opacity

Default, Transparent, Translucent, Solid, Flashing

Background Opacity

Default, Transparent, Translucent, Solid, Flashing

• Return to Default

"Digital Caption Options" are available only when "Service1~Service6" can be selected in "Caption Mode".

Service1~Service6 in digital caption mode may not be available depending on the broadcast.

Melody PTCH



A melody sound can be set to come on when the monitor is powered On or Off.

- **Off** : Turns off the melody function.
- Low : Sets the melody volume to low.
- Medium : Sets the melody volume to medium.
- **High** : Sets the melody volume to high.

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathsf{MENU,EXIT}$

Light Effect PTCH



You can turn on/off the LED on the front of monitor according to the situation. Use it for saving power or when the LED dazzles your eyes.

- **Off** : LED will not come on.
- In Standby : Turns the LED on in standby mode.
- In Watching TV : Turns the LED on while watching TV.
- Always : LED is always on.

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{el} \to \bigstar, \blacktriangledown \to \textcircled{el} \to \bigstar, \blacktriangledown \to \textcircled{el} \to \mathsf{MENU}, \mathsf{EXIT}$

Light Level PTCH



Use to adjust the light level i.e., the brightness of the light.

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangleright \to \textcircled{\bullet} \to \mathsf{MENU,EXIT}$

Energy Saving



This feature adjusts the brightness of the TV in order to reduce power consumption. When watching TV at night, set the "**Energy Saving**" mode option to "**High**" to reduce eye fatigue as well as power consumption.

- **Off** : Turns off the energy saving function.
- Low : Sets the TV to low energy saving mode.
- Medium : Sets the TV to medium energy saving mode.
- High : Sets the TV to high energy saving mode.

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \bigstar, \blacktriangledown \to \textcircled{\bullet} \to \mathsf{MENU,EXIT}$

SW Upgrade PTCH



Use to upgrade the software.

• USB

 $\mathrm{MENU} \to \blacktriangle, \forall \to \textcircled{e} \to \bigstar, \forall \to \textcircled{e} \to \textcircled{e} \to \textcircled{e} \to \mathrm{MENU,EXIT}$

Input

Available Modes

- **P** PC / DVI
- **T**V
- Component
- 🗄 HDMI

Note

The default setting may different depending on the selected Input Mode (input signal source selected in External Input List) and the selected resolution.

Source List PTCH



Use to select **PC**, **TV** or other external input source connected to the Monitor.Use to select the screen of your choice.

The direct button on the remote control is "SOURCE" button.

- PC
- DVI
- TV
- Component
- HDMI1
- HDMI2

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{e} \to \textcircled{e} \to \bigstar, \blacktriangledown \to \textcircled{e}$

Edit Name PTCH



Name the input device connected to the input jacks to make your input source selection easier

- PC
- DVI
- Component
- HDMI1
- HDMI2

 $\mathrm{MENU} \to \blacktriangle, \blacktriangledown \to \textcircled{e} \to \bigstar, \blacktriangledown \to \textcircled{e} \to \textcircled{e} \to \bigstar, \blacktriangledown \to \textcircled{e} \to \mathrm{MENU}, \mathrm{EXIT}$

Self-Test Feature Check

🖉 Note

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 in the illustration below.



This box 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*.

Not Optimum Mode

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.



2 Note

Refer to Specifications > Preset Timing Modes for the resolutions or frequencies that are supported by the monitor.

Maintenance and Cleaning

1. Maintaining the Monitor Case.

Clean with a soft cloth after disconnecting the power cord.



- Do not use benzene, thinner or other flammable substances, or a wet cloth.
- We recommend a Samsung cleansing agent is used to prevent damage to the screen.

2. Maintaining the Flat Panel Display Screen.

Clean with a soft cloth (cotton flannel) smoothly.



Never use acetone, benzene or thinner.

(They may cause flaws or deformation of the screen surface.)

 The user will be required to pay costs and related expenses for repair of damages caused by improper cleaning and usage.

Symptoms and Recommended Actions



A monitor recreates visual signals received from the computer. Therefore, if there is trouble with the computer 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.

1. Check if the power cord and the video cables 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 you installed the adapter (video) driver and the monitor driver.

4.Check if the scanning ratio of the video screen is set at 56 Hz \sim 75 Hz.

(Do not exceed 60 Hz 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.

Check List



Before calling for assistance, 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 Information section or contact your dealer.

1. Problems related to Installation

Ø Note

Problems related to the monitor installation and their solutions are listed.

PC Mode

- Q: It appears the PC does not function normally.
- A: Check if the Display Adapter Driver (VGA Driver) is properly installed. (Refer to Installing Driver)
- Q: The monitor screen flickers.
- A: Check if the signal cable between the computer and the monitor is securely connected and tightened.(Refer to Connecting the monitor)

TV Mode

- Q: TV screen is blurred or shows noise signals.
- A: Check if the TV antenna connector is securely connected to the external antenna.(Refer to Connecting TV)
- Q: TV signal is not received
- A: Select "**Auto Program**" to configure the channel system automatically. (Refer to the Auto Program)

2. Problems related to Screen

Note

Problems related to the monitor screen and their solutions are listed.

- Q: Screen is blank and power indicator is off
- A: Ensure that the power cord is firmly connected and the LCD monitor is on.(Refer to the Connecting the monitor)
- Q: "Check Signal Cable" message
- A: Ensure that the signal cable is firmly connected to the PC or video SOURCEs.(Refer to the Connecting the monitor)
- A: Ensure that the PC or video SOURCEs are turned on.
- Q: "Not Optimum Mode" message
- A: Check the maximum resolution and the frequency of the video adapter.
- A: Compare these values with the data in the Preset Timing Modes Chart.
- Q: Picture rolls vertically.
- A: Check if the signal cable is securely connected.Connect it again securely. (Refer to Connecting the monitor)
- Q: Image is not clear. Picture is blurred.
- A: Run Frequency Coarse and Fine tuning.
- A: Turn on again after removing all accessories (video extension cable, etc.)
- A: Set resolution and frequency to the recommended ranges.

Q: Picture image is unstable and vibrates.

Ghost images are shown in the picture.

- A: Check if the resolution and frequency set for the computer video card falls in the range supported by the monitor. If not, reset them referring to the current Information under the monitor menu and Preset Timing Modes.
- Q: The image is too light or too dark
- A: Adjust the Brightness and Contrast.(Refer to the Brightness, Contrast)
- Q: The Power Indicator blinks.
- A: The monitor is currently saving the changes made in settings to the OSD memory.
- Q: The screen is blank and the power indicator light blinks every 0.5 or 1 seconds.
- A: The monitor is using its power management system.
- A: press a key on the keyboard.
- Q: The screen is blank and is blinking.
- A: If you see the "TEST GOOD" message on the screen when you press the MENU button, check the cable connection between the monitor and the computer to ensure that the connector is properly connected.

3. Problems related to Audio

🖉 Note

Problems related to audio signals and their solutions are listed below.

- Q: No sound
- A: Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and the audio-out port on your sound card.(Refer to the Connecting the monitor)
- A: Check the volume level.(Refer to the Volume)
- Q: The sound level is too low.
- A: Check the volume level.(Refer to the Volume)
- A: If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.

4. Problems related to Remote Control

Note

Problems related to the remote control and their solutions are listed.

- Q: The remote control buttons do not respond.
- A: Check the battery polarities (+/-).
- A: Check if the batteries have been exhausted.
- A: Check if the power is on.

- A: Check if the power cord is securely connected.
- A: Check if a special fluorescent or neon lamp is on in the vicinity

5. You may see small particles if you look closely at the edge of the bezel surrounding the screen.

This is part of the product's design and is not a defect.

Q & A

- Q: How can I change the frequency?
- A: The frequency can be changed by reconfiguring the video card.
- A: 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.)
- Q: How can I adjusts the resolution?
- A: Windows XP:

Set the resolution in the Control Panel \rightarrow Appearance and Themes \rightarrow Display \rightarrow Settings.

A: Windows ME/2000:

Set the resolution in the Control Panel \rightarrow Display \rightarrow Settings.

* Contact the video card manufacturer for details.

- Q: How can I set the Power Saving function?
- A: Windows XP:

Set the resolution in the Control Panel \rightarrow Appearance and Themes \rightarrow Display \rightarrow Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

A: Windows ME/2000:

Set the resolution at the Control Panel \rightarrow Display \rightarrow Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

- Q: How can I clean the outer case/LCD Panel?
- A: 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 detergent or scratches on the case. Do not let any water enter the monitor.

- Q: What are the benefits of digital broadcasting?
- A: Digital TV broadcasting generates less noise and provides clearer visuals and sound than analog TV broadcasting does. As services develop, you can also enjoy various information services because various kinds of data besides video and audio can be sent.
- A: For example, while watching a sports game, you can view various data on your favorite player or you can view all or selected screens which have been captured from different angles for a

specific scene. In addition, you can retrive information on a previous story or drama or you can buy home shopping products such as an accessory currently on TV.

Digital TV broadcasting allows you to easily access various information services in your home creating a more information-oriented home.

- Q: What is the difference between HDTV and SDTV?
- A: There are various types of digital TVs.
- A: The most widely known types of digital TV are HDTV and SDTV. They are classified according to the screen quality and the video specifications.
 - HDTV (High Definition TV): High screen quality, very clear TV.
 - SDTV (Standard Definition TV): Common standard digital TV.
- A: An SDTV has an aspect ratio of 4:3 which is the same as that of an analog TV. SDTV has an aspect ratio of 16:9 which is similar to a cinema screen. This provides a much better screen quality than SDTV. It's like having a theater in your home.
- A: Digital TV broadcasting in our country is ultimately orientated towards HDTV.
- Q: Can I watch HD broadcasting with all digital TVs?
- A: You can receive all digital broadcasts, whether they are SD or HD, using any digital TV. However, you cannot enjoy HD programs, which are the highest quality digital TV programs, using an SD digital TV. Especially, as SD broadcasting has an aspect ratio of 4:3, HD broadcasting has an aspect ratio of 16:9, similar to a cinema screen.

Therefore, to enjoy the full benefits of digital TV, it is better to purchase an HD digital TV. (At present, all digital TVs from Samsung Electronics have the 16:9 wide aspect ratio.)

- Q: Can I watch digital TV broadcasting with an analog TV?
- A: No.
- A: The analog TV cannot interpret digital signals. Therefore, a digital TV is required to watch digital TV broadcasting.
- Q: Can I use my present antenna to receive digital broadcasting?
- A: As for existing analog TV, digital TV is designed so that digital broadcasting signals are received via both indoor and outdoor antennas.
- A: If signal reception is very good in your environment, you can watch digital broadcasts with your existing indoor antenna. If not, it is better to install an outdoor UHF antenna.
- Q: How do I connect an antenna for an apartment or tenement house?
- A: Consult the superintendent's office or broadcasting facility administrator for your apartment or tenement house to check whether UHF reception is available.
- A: Even if digital TV broadcasting is available in your area, if you cannot watch it because the superintendent's office or common broadcasting facility does not rebroadcast the signal, you have to install an indoor or outdoor antenna.
- A: Alternatively, your local cable broadcasting company provides a digital TV service, and you can subscribe to it.

A: If a cable broadcasting company is sharing a common broadcasting facility for your apartment or tenement house, it has to adjust and send digital TV signals so that they are compatible to shared viewing which is the original purpose of the common broadcasting facility.
General

General	
Model Name	SyncMaster T200HD
LCD Panel	
Size	20 inch (51 cm)
Display area	433.44 mm (H) x 270.9 mm (V)
Pixel Pitch	0.258 mm (H) x 0.258 mm (V)
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16.2M	
Resolution	
Optimum resolution	1680 x 1050 @ 60 Hz
Maximum resolution	1680 x 1050 @ 60 Hz
Innut Signal. Termin	ated
RGB Analog DVI(Dis	zital Visual Interface)
$0.7 \text{ Vn n} \pm 5.9/$	
$0.7 \text{ vp-p} \pm 3\%$	
separate H/V sync, Co	mposite
TTL level (V high ≥ 2 .	$0 \text{ V}, \text{ V} \text{ low} \le 0.8 \text{ V}$
Maximum Pixel Cloc	k
146.250 MHz (Analog	, Digital)
Power Supply	
AC 100 - 240 V~ (+/-	10 %), 50/60 Hz ± 3 Hz
Simul Cable	
Signal Cable	ik oshla. Datashahla
13pm - to - 13pm D-su	
DVI-D to DVI-D conn	ector, Detachable
Dimensions (W x H x	D) / Weight
486 x 350 x 86 mm / 1	9.1 X 13.8 X 3.4 inch (Without Stand)
520 x 441.5 x 215 mm	/ 20.5 X 17.4 X 8.5 inch (With Stand) / 6.0 kg / 13.2 Ibs
Environmental consid	derations
Operating	Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C)

Environmental considerations

	Humidity : 10 % ~ 80 %, non-condensing
Storage	Temperature : -4 °F ~ 113 °F (-20 °C ~ 45 °C)
	Humidity : 5 % \sim 95 %, non-condensing

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. The interaction of the monitor and the computer systems will provide the best operating conditions and monitor settings. In most cases, the monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT-LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problems.

For example, the number of TFT-LCD sub pixels contained in this product are 5,292,000.

Note

Design and specifications are subject to change without prior notice.

Class B Equipment (Information Communication equipment for residential use)

This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor to 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 DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode Po	ower off (Power button) EPA/ENERGY 2000
Power Indicator	On	Blinking	Off
Power Consump-	Less than 50 watts	Less than 2 watt	Less than 1 watts



This monitor is EPA ENERGY STAR[®] compliant and EN-ERGY2000 compliant when used with a computer equipped with VESA DPM functionality.

As an ENERGY STAR[®] Partner, SAMSUNG has determined that this product meets the ENERGY STAR[®] 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 adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Fre- quency (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	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	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	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
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	108.000	+/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1680 x 1050	65.290	59.954	146.250	_/+

Horizontal Frequency



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

General

General		
Model Name	SyncMaster T220HD	
LCD Panel		
Size	22 inch (55 cm)	

C	· C.	· •
Nn	ecitic	ations
vγ	contro	anons

LCD Panel	
Display area	473.76 mm (H) x 296.1 mm (V)
Pixel Pitch	0.282 mm (H) x 0.282 mm (V)
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16.2M	
Develoption	
Resolution	
Optimum resolution	1680 x 1050 (<i>a</i>) 60 Hz
Maximum resolution	1680 x 1050 @ 60 Hz
Input Signal, Termin	ated
RGB Analog, DVI(Dig	gital Visual Interface)
0.7 Vp-p ±5 %	
separate H/V sync, Co	mposite
TTL level (V high ≥ 2 .	$0 \text{ V}, \text{ V} \text{ low} \le 0.8 \text{ V}$
Maximum Pixal Class	
146 250 MHz (Appleg	
146.230 MHZ (Allalog	, Digitar)
Power Supply	
AC 100 - 240 V~ (+/-	10 %), 50/60 Hz ± 3 Hz
Signal Cable	
15pin - to - 15pin D-sr	b cable. Detachable
	eator Datashabla
UVI-D TO DVI-D conn	lector, Detachable
Dimensions (W x H x	D) / Weight
Dimensions (W x H x 520 x 373.5 x 86.5 mm	D) / Weight 1 / 20.5 X 14.7 X 3.4 inch (Without Stand)
Dimensions (W x H x 520 x 373.5 x 86.5 mm 520 x 441.5 x 215 mm	D) / Weight n / 20.5 X 14.7 X 3.4 inch (Without Stand) / 20.5 X 17.4 X 8.5 inch (With Stand) / 6.2 kg / 13.7 Ibs
Dimensions (W x H x 520 x 373.5 x 86.5 mm 520 x 441.5 x 215 mm	D) / Weight 1 / 20.5 X 14.7 X 3.4 inch (Without Stand) / 20.5 X 17.4 X 8.5 inch (With Stand) / 6.2 kg / 13.7 Ibs
Dimensions (W x H x 520 x 373.5 x 86.5 mm 520 x 441.5 x 215 mm Environmental consid	D) / Weight 1 / 20.5 X 14.7 X 3.4 inch (Without Stand) / 20.5 X 17.4 X 8.5 inch (With Stand) / 6.2 kg / 13.7 Ibs lerations Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C)
Dimensions (W x H x 520 x 373.5 x 86.5 mm 520 x 441.5 x 215 mm Environmental consid Operating	D) / Weight n / 20.5 X 14.7 X 3.4 inch (Without Stand) / 20.5 X 17.4 X 8.5 inch (With Stand) / 6.2 kg / 13.7 Ibs derations Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C) Humidity : 10 % ~ 80 % and an elements
Dimensions (W x H x 520 x 373.5 x 86.5 mm 520 x 441.5 x 215 mm Environmental consid Operating	D) / Weight n / 20.5 X 14.7 X 3.4 inch (Without Stand) / 20.5 X 17.4 X 8.5 inch (With Stand) / 6.2 kg / 13.7 Ibs derations Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C) Humidity : 10 % ~ 80 %, non-condensing Temperature : 4 °F = 112 °F (20 °C) = 45 °C)
Dimensions (W x H x 520 x 373.5 x 86.5 mm 520 x 441.5 x 215 mm Environmental consid Operating Storage	D) / Weight n / 20.5 X 14.7 X 3.4 inch (Without Stand) / 20.5 X 17.4 X 8.5 inch (With Stand) / 6.2 kg / 13.7 Ibs derations Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C) Humidity : 10 % ~ 80 %, non-condensing Temperature : -4 °F ~ 113 °F (-20 °C ~ 45 °C)

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. The interaction of the monitor and the computer systems will provide the best operating conditions and monitor

Plug and Play Capability

settings. In most cases, the monitor installation will proceed automatically, unless the user wishes to select alternate settings.

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PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor to 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 DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode	Power off (Power button) EPA/ENERGY 2000
Power Indicator	On	Blinking	Off
Power Consump-	Less than 58 watts	Less than 2 wa	tts Less than 1 watts



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Display Mode	Horizontal Frequency (kHz)	Vertical Fre- quency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-

Display Mode	Horizontal Frequency (kHz)	Vertical Fre- quency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
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	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	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	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
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	108.000	+/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1680 x 1050	65.290	59.954	146.250	_/+

Horizontal Frequency



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

Information

For Better Display

Adjust the computer resolution and screen injection rate (refresh rate) on the computer as described below to enjoy the best picture quality. You can have an uneven picture quality on screen if the best picture quality is not provided for TFT-LCD.

- Resolution: 1680 x 1050
- Vertical frequency (refresh rate): 60 Hz

• TFT-LCD panels manufactured by using advanced semiconductor technology with a precision of 1ppm (one millionth) and 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 any problems.

• For example, the number of TFT-LCD sub pixels contained in this product are 5,292,000.

When cleaning the monitor and the panel outside, please apply the recommended small amount of cleaner by using a soft cloth to polish. Do not force the LCD area but rub softly.

If excessive force is applied, you may stain it.

If you are not satisfied with the picture quality, you can get better quality of picture by performing the "Auto Adjustment function" in display screen that is appeared as window termination button is pressed.

If there's still noise after the automatic adjustment, use the **Fine/Coarse** adjustment function.

• When viewing a fixed screen for an extended period of time, a residual image or blurriness may appear.

Change the mode to energy save or set a screensaver to move the picture when you need to be away from the monitor for an extended period of time.

[•] 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.

Watching Digital Broadcasting Correctly

Digital 16:9 HD Broadcasting Screen



This screen is shown when scenes are captured using digital broadcasting equipment

Digital SD Broadcasting Screen



This screen is shown when scenes are converted to analog broadcasting signals before being sent. Humans and

Digital 4:3 Broadcasting Screen



This screen is shown when scenes created via analog signals are displayed while

Information

and they are sent in HDTV objects appear heavier than in watching HDTV broadcast-(16:9) mode. reality. ing.



If temporary stops, mosaic screens, or jagged screens occur, this is not a TV problem. Contact your cable broadcasting company for a check-up.

For information on how to connect and use your video, DVD, DVD combo, home theater, PC, etc., refer to their respective user manuals.

PRODUCT INFORMATION (Image Retention Free)

LCD Monitors and TVs may have image retention when switching from one image to another especially after displaying a stationary image for a long time.

This guide is to demonstrate correct usage of LCD products in order to protect them from Image retention.

Warranty

Warranty does not cover any damage caused by image retention.

Burn-in is not covered by the warranty.

• What is Image retention ?

During normal operation of a LCD panel, pixel image retention doesn't occur. However, if the same image is displayed for a long time, a slight difference in electric charge accumulates between the two electrodes which encase the liquid crystal. This may cause the liquid crystal to build up in a certain areas of the display. Thus, the previous image is retained when switching to a new video image. All display products, including LCD, are subject to image retention. This is not a product defect.

Please follow the suggestions below to protect your LCD from image retention.

Power Off, Screen Saver, or Power Save Mode

Ex)

- Turn the power off when using a stationary pattern.
 - Turn the power off for 4 hours after 20 hours in use
 - Turn the power off for 2 hours after 12 hours in use
- Use a Screen saver if possible
 - Screen saver in one color or a moving image is recommended.
- Set the Monitor to power off with the PC Display Properties Power Scheme.

Suggestions for specific applications

Ex) Airports, Transit Stations, Stock Markets, Banks, and Controlling Systems We recommend that you follow set up of your display system program as below:

Display Information together with Logo or Moving image cycle.

Information

Ex) Cycle : Display Information for 1 hour followed by a Display Logo or moving image for 1 minute.

Change the Color Information periodically (Use 2 different colors).

Ex) Rotate the Color Information with 2 colors every 30 minutes.

Type 1		Туре 1	
FLGHT	TIME	FLGHT	TIME
OZ348	20:30	OZ348	20:30
UA102	21:10	UA102	21:10

Avoid using a combination of characters and background color with large difference in luminance.

Avoid using Grey colors, which can cause Image retention easily.

• Avoid: Colors with big difference in luminance (Black & White, Grey)

Ex)		
	SYSTEM : 245	SYSTEM : 245
	STATUS : NG	STATUS : NG

- · Recommended settings: Bright colors with little difference in luminance
 - Change the characters color and background color every 30 minutes

Ex)				
	SYSTEM : 245	SYSTEM : 245	SYSTEM : 245	SYSTEM : 245
	STATUS : UK	STATUS : OK	STATUS: UK	STATUS : OK

• Every 30 minutes, change the characters with movement.

0	0
KA1710 12:00 UA0110 13:30	KA1710 12:00 FA//// 14:15 LIA0110 13:30
3	
AA0002 14:00	
FA7777 14:15	

• The best way to protect your monitor from Image retention is to set your PC or System to operate a Screen Saver program when you are not using it.

Image retention may not occur when a LCD panel is operated under normal conditions.

Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (-over 12 hours-), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed.

To prevent this, the accumulated voltage difference must be decreased.



Our LCD Monitor satisfies ISO13406-2 Pixel fault Class II

Contact SAMSUNG WORLDWIDE

Note

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

North America				
U.S.A	1-800-SAMSUNG(726-7864)	http://www.samsung.com		
CANADA	1-800-SAMSUNG(726-7864)	http://www.samsung.com/ca		
MEXICO	01-800-SAMSUNG(726-7864)	http://www.samsung.com		
	Latin America	- <i>"</i> ,		
ARGENTINE	0800-333-3733	http://www.samsung.com/ar		
BRAZIL	0800-124-421	http://www.samsung.com		
	4004-0000			
CHILE	800-SAMSUNG(726-7864)	http://www.samsung.com/cl		
COLOMBIA	01-8000112112	http://www.samsung.com/co		
COSTA RICA	0-800-507-7267	http://www.samsung.com/latin		
ECUADOR	1-800-10-7267	http://www.samsung.com/latin		
EL SALVADOR	800-6225	http://www.samsung.com/latin		
GUATEMALA	1-800-299-0013	http://www.samsung.com/latin		
HONDURAS	800-7919267			
JAMAICA	1-800-234-7267	http://www.samsung.com/latin		
NICARAGUA	00-1800-5077267			
PANAMA	800-7267	http://www.samsung.com/latin		
PUERTO RICO	1-800-682-3180	http://www.samsung.com/latin		
REP. DOMINICA	1-800-751-2676	http://www.samsung.com/latin		
TRINIDAD & TO- BAGO	1-800-SAMSUNG(726-7864)	http://www.samsung.com/latin		
VENEZUELA	0-800-100-5303	http://www.samsung.com/latin		
	Furone			
AUSTRIA	0800 SAMSUNG (726 7864)	http://www.samsung.com/at		
BELGIUM	0032 (0)2 201 24 18	http://www.samsung.com/be		
CZECH REPUBLIC	844 000 844	http://www.samsung.com/cz		
CELCII III ODEIC	Distributor pro Českou republiku:	http://www.sullbullg.com/cz		
Samsung Zrt., česka organizační složka Vyskočilova 4, 14000 Praha 4				
DENMARK	70 70 19 70	http://www.samsung.com/dk		
EIRE	0818 717 100	http://www.samsung.com/ie		
FINLAND	030-6227 515	http://www.samsung.com/fi		
FRANCE	3260 SAMSUNG (€ 0,15/Min)	http://www.samsung.com		
	08 25 08 65 65 (€ 0,15/Min)			

Europe			
GERMANY	01805 - SAMSUNG (726-7864) (€ 0,14/Min)	http://www.samsung.com	
HUNGARY	06-80-SAMSUNG (726-7864)	http://www.samsung.com	
ITALIA	800-SAMSUNG (726-7864)	http://www.samsung.com	
LUXEMBURG	0035 (0)2 261 03 710	http://www.samsung.com/be	
NETHERLANDS	0900 SAMSUNG (726-7864 € 0,10/Min)	http://www.samsung.com/nl	
NORWAY	815-56 480	http://www.samsung.com/no	
POLAND	0 801 801 881	http://www.samsung.com/pl	
	022-607-93-33		
PORTUGAL	80820-SAMSUNG (726-7864)	http://www.samsung.com/pt	
SLOVAKIA	0800-SAMSUNG (726-7864)	http://www.samsung.com/sk	
SPAIN	902 10 11 30	http://www.samsung.com	
SWEDEN	0771-400 200	http://www.samsung.com/se	
SWITZERLAND	0800-SAMSUNG (726-7864)	http://www.samsung.com/ch	
U.K	0845 SAMSUNG (7267864)	http://www.samsung.com	

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LITHUANIA	8-800-77777	http://www.samsung.lt
KAZAKHSTAN	8-10-800-500-55-500	http://www.samsung.kz
KYRGYZSTAN	00-800-500-55-500	
RUSSIA	8-800-555-55-55	http://www.samsung.ru
TADJIKISTAN	8-10-800-500-55-500	
UKRAINE	8-800-502-0000	http://www.samsung.com
UZBEKISTAN	8-10-800-500-55-500	http://www.samsung.uz

Asia Pacific

AUSTRALIA	1300 362 603	http://www.samsung.com
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	010-6475 1880	
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	1800 110011	
INDONESIA	0800-112-8888	http://www.samsung.com
JAPAN	0120-327-527	http://www.samsung.com/jp
MALAYSIA	1800-88-9999	http://www.samsung.com/my
NEW ZEALAND	0800 SAMSUNG(726-7864)	http://www.samsung.com/nz
PHILIPPINES	1800-10-SAMSUNG(726-7864)	http://www.samsung.com/ph
SINGAPORE	1800-SAMSUNG(726-7864)	http://www.samsung.com
THAILAND	1800-29-3232, 02-689-3232	http://www.samsung.com

	Asia Pacific					
	TAIWAN	0800-329-9	99	http	p://www.samsung.com/tw	
	VIETNAM	1 800 588 8	89	http	p://www.samsung.com	
	Middle East & Afr			a		
	SOUTH AFRICA	0860-SAMS	SUNG(726-7864)	http	p://www.samsung.com	
	TURKEY	444 77 11		http	p://www.samsung.com	
	U.A.E	800-SAMS	UNG(726-7864)	http	p://www.samsung.com	
		8000-4726				
Terms						
	Sync Signal Sync (Synchroni required to displa into Vertical and normal color ima		Sync (Synchronized required to display d into Vertical and He normal color image	nized) Signals refer to the standard signals that are lay desired colors on the monitor. They are divided d Horizontal Sync Signals. These signals display nages by the set resolution and frequency.		
	Types of Sync Signals	5	Separate		This is a scheme of transmitting individual vertical and ho sync signals to the monitor.	ori
			Composite		This is a scheme of combining vertical and horizontal s nals into one composite signal and transmitting it to the The monitor displays the color signals by separating the site signal into original color signals.	yr m(c(
	Dot Pitch The image on a The closer the c tween two dots mm		The image on a mon The closer the dots tween two dots of t mm	nitor s, the the sa	r is composed of red, green and blue dots. e higher the resolution. The distance be- same color is called the 'Dot Pitch'. Unit:	
	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 the 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 the Horizontal Cycle. The in- verse number of the Horizontal Cycle is called Horizontal Fre- quency. Unit: kHz			
	Interlace and Non Methods	-Interlace	Showing the horizon tom sequentially is ing odd lines and the method. The Non-I monitors to ensure a as that used in TVs.	ntal l calle hen o Interl clea	lines of the screen from the top to the bot- ed the Non-Interlace method while show- even lines in turn is called the Interlace rlace method is used for the majority of ar image. The Interlace method is the same	
	Plug & Play		This is a function th by allowing the cor tion automatically. T VESA DDC for the	at pro nputo This 1 Plug	rovides the best quality screen for the user ter and the monitor to exchange informa- monitor follows the international standard og & Play function.	
	Resolution		The number of hori screen image is call	izont ed th	tal and vertical dots used to compose the he 'resolution'. This number shows the ac-	

	curacy of the display. A high resolution is good for performing multiple tasks as more image information can be shown on the screen.
	Example: If the resolution is 1680(1920) x 1050(1200), this means the screen is composed of 1680(1920) horizontal dots (horizontal resolution) and 1050(1200) vertical lines (vertical resolution).
RF Cable	A round signal cable generally used for TV antennas.
Satellite Broadcasting	Balances the levels of the sound coming from each speaker in televisions with two speakers.
Cable TV	Whereas the terrestrial broadcasting is delivered via frequency signals through the air, cable broadcasting is transmitted via a cable network. In order to view cable TV, one must purchase a cable receiver and hook it up to the cable network.
CATV	"CATV" refers to the broadcasting service offered at hotels, schools and other buildings through their own broadcasting system, apart from VHF or UHF broadcasting by terrestrial broadcasters. The CATV programs may include movies, entertainment and educational programs. (Different from cable TV.)
	CATV can be viewed only within the area in which the CATV service is offered.
VHF/UHF	VHF indicates TV channels 2 to 13, and UHF indicates channels 14 through 69.
Channel Fine Tuning	This feature allows the viewer to fine-tune the TV channel to ob- tain the best viewing conditions. The Samsung LCD TV has both automatic and manual channel fine-tuning features to enable the viewer to adjust their desired settings.
External Device Input	External device input refers to video input from such external vid- eo devices as VCRs, camcorders and DVD players, separate from a TV broadcast.
DVD	A type of digital disk technology that takes up only the benefits of CD and LD, to implement a high resolution/quality, which en- ables the user to enjoy clearer images.
DTV Broadcasting (Digital TV Broadcasting)	An enhanced broadcasting technology to process digital video signals using a set-top box, which implements a high resolution and clearer digital images on the screen.
LNA (Low Noise Amplifier)	This derives from artificial satellite technology that amplifies weak signals even in poor reception areas for sharper images.
Antenna Converter	A connection part that is used to link a Wide antenna cable (feeder cable) to the TV.
English Caption (= Caption Set- ting)	A kind of language selection feature that provides English subti- tles (caption) or character information services from broadcasting services (ex: AFKN) or video tapes (marked CC), and which are especially useful for studying English.
Multiplex Broadcasting	This enables the user to enjoy the broadcasting service in both Korean and foreign (original) language as well as in stereo mode.

A2	This system uses two carriers to transmit voice data. Countries such as South Korea and Germany use this system.
BTSC	Broadcast Television System Committee The stereo broadcasting system that is used in most of the countries that have adopted the NTSC system, including the United States, Canada, Chile, Vene- zuela and Taiwan. It also refers to the organization that has been organized to promote its development and management.
EIAJ	Electronic Industries Association of Japan.
DVI	DVI is the acronym for Digital Video Interface. It is a new type of video interface technology that provides the maximum screen quality for high quality display devices and high-end graphics cards including flat panel LCD monitors.
HDMI(High Definition Multi- media Interface)	This is an interface that connects both quality video signals and digital audio signals with a cable without any compression.
	• HD (High Definition)
	In HD, 1080-line, 2x density beaming (1080i) is used. HD provides a five times clearer screen quality than the existing analog method and has a wide 16:9 aspect ratio.
	• SD (Standard Definition)
	In HD, 480-line, double beaming (480i) is used. SD provides a screen quality somewhere between HD and the existing an- alog method. It exhibits a two times better screen quality than analog TV.

Correct Disposal

Correct Disposal of This Product (Waste Electrical & Electronic Equipment) -Europe only



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Authority

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