

LTM1525

TFT-LCD TELEVISION

Owner's Instructions

Warning! Important Safety Instructions



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



This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.



This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Caution: To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

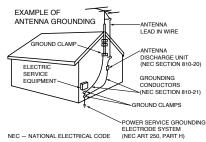
Thank You for Choosing Samsung

Thank you for choosing Samsung! Your new Samsung TV represents the latest in television technology. We designed it with easy-to-use on-screen menus and closed captioning capabilities, making it one of the best products in its class. We are proud to offer you a product that will provide convenient, dependable service and enjoyment for years to come.

Important Safety Information

- Always be careful when using your TV receiver. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.
- Read all safety and operating instructions before operating your TV.
- Keep the safety and operating instructions for future reference.
- Heed all warnings on the TV receiver and in the operating instructions.
- · Follow all operating and use instructions.
- Unplug the TV receiver from the wall outlet before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.
- Never add any attachments and/or equipment without approval of the manufacturer. Such additions can increase the risk of fire, electric shock, or other personal injury.
- Do not use the TV receiver where contact with or immersion in water is a possibility, such as near bath tubs, sinks, washing machines, swimming pools, etc.
- Do not place the TV on an unstable cart, stand, tripod, bracket, or table where it can fall. A falling TV can cause serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the TV. Follow the manufacturer's instructions when mounting the unit, and use a mounting accessory recommended by the manufacturer. Move the TV and cart with care. Quick stops, excessive force, and uneven surfaces can make the unit and cart unsteady and likely to overturn.
- Provide ventilation for the TV receiver. The unit is designed with slots in
 the cabinet for ventilation to protect it from overheating. Do not block these openings with any object,
 and do not place the TV receiver on a bed, sofa, rug, or other similar surface. Do not place it near a
 radiator or heat register. If you place the TV receiver on a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your TV receiver only from the type of power source indicated on the marking label. If you are
 not sure of the type of power supplied to your home, consult your appliance dealer or local power
 company.
- Use only a grounded or polarized outlet. For your safety, this TV is equipped with a polarized alternating current line plug having one blade wider than the other. This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your outlet.
- Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

- Unplug the TV from the wall outlet and disconnect the antenna or cable system during a lightning storm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-line surges.
- Avoid overhead power lines. An outside antenna system should not be placed in the vicinity of overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outside antenna system, be extremely careful to keep from touching the power lines or circuits. Contact with such lines can be fatal.
- Do not overload the wall outlet or extension cords. Overloading can result in fire or electric shock.
- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts. Never spill liquid of any kind on the TV.
- Ground outdoor antennas. If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



- Do not attempt to service the TV yourself. Refer all servicing to qualified service personnel. Unplug the unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - when the power-supply cord or plug is damaged
 - if liquid has been spilled on the unit or if objects have fallen into the unit
 - if the TV has been exposed to rain or water
 - if the TV does not operate normally by following the operating instructions
 - if the TV has been dropped or the cabinet has been damaged
 - when the TV exhibits a distinct change in performance
- If you make adjustments yourself, adjust only those controls that are covered by the operating instructions. Adjusting other controls may result in damage and will often require extensive work by a qualified technician to restore the TV to normal.
- When replacement parts are required, be sure the service technician uses replacement parts specified
 by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in additional damage to the unit.
- Upon completion of any service or repairs to this TV, ask the service technician to perform safety checks to determine that the TV is in a safe operating condition.
- Keep all power adaptors apart. Possible fire hazard.
- Keep the power adaptor away from any other heater. Possible fire hazard.
- Remove and discard the plastic cover from the power adaptor before use.
 Possible fire hazard.
- Always keep the power adaptor in a well-ventilated area.

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Your New TV

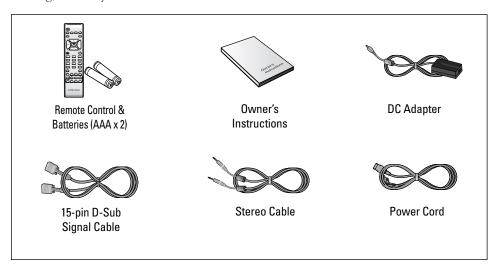
List of Features

Your TV was designed with the latest technology. This TV is a high-performance unit that includes the following special features:

- Easy-to-use remote control
- Easy-to-use on-screen menu system
- · Automatic timer to turn the TV on and off
- Adjustable picture and sound settings that can be stored in the TV's memory
- Automatic channel tuning for up to 181 channels
- A special filter to reduce or eliminate reception problems
- Fine tuning control for the sharpest picture possible
- A built-in multi-channel sound decoder for stereo and bilingual listening
- Built-in, dual channel speakers
- A special sleep timer
- · Headphone jack for private listening

Accessories

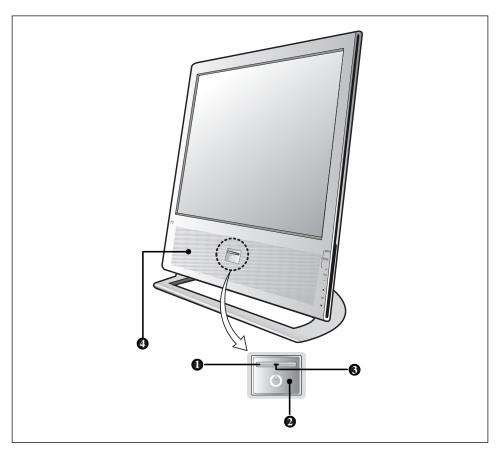
Please make sure the following items are included with your LCD TV. If any items are missing, contact your dealer.



Familiarizing Yourself with The TV

Front Panel Buttons

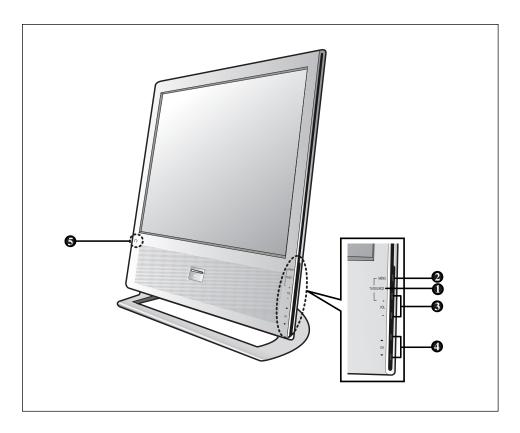
To use the more advanced features, you must use the remote control.



- POWER Press to turn the TV on and off.
- Remote Control Sensor Aim the remote control towards this spot on the TV.
- **3 POWER & TIMER indicator** Lights up when you turn the power off.
- **9** SPEAKER

Side Panel Buttons & Jack

The buttons on the side panel control your TV's basic features, including the on-screen menu, you can use the side panel jack to connect headphones.



TV/SOURCE

Press the MENU and Volume up buttons simultaneously to change the signal source.

9 MENU

Press to see an on-screen menu of your TV's features.

❸ VOL(VOLUME) - , +

Press to increase or decrease the volume. Also used to select items on the onscreen menu.

4 CH ▼ and CH ▲

Press to change channels. Also press to highlight various items on the on-screen menu.

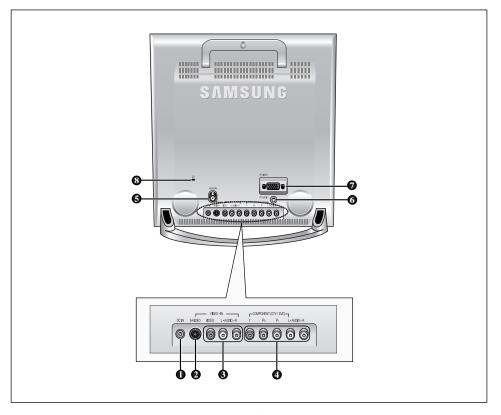
6 HEADPHONE JACK

Connect a set of external headphones to this jack for private listening.

Rear Panel Jacks

Use the rear panel jacks to connect an A/V component such as a VCR, Camcorder, Video Game or DVD player.

For more information on connecting equipment, see pages 2.1 - 2.9.



- **1** POWER INPUT CONNECTOR
- 2 SUPER VIDEO IN JACK
 Used to connect an S-Video signal from a
 camcorder or a video game
- VIDEO/AUDIO IN JACKS Used to connect a video/audio signal from a camcorder or a video game.
- COMPONENT (DTV/DVD) Connect component video/audio from a DVD player or Set-Top Box.

- **5 TV ANTENNA**Connect to an antenna or cable TV system.
- 6 PC AUDIO INPUT
 Connect these to the audio-output jacks on your
 PC.
- **PC VIDEO INPUT**Connect the video output port on your PC.
- **8** Kensington lock (See page A.2)

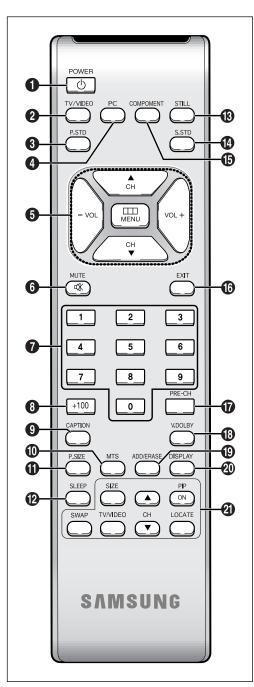
Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote, always point it directly at the TV.

- 1 POWER
 Turns the TV on and off.
- 2 TV/VIDEO
 Press to display all of the available video sources.
- P.STD Adjust the TV picture by selecting one of the preset factory settings (or select your personal, customized picture settings).
- **4 PC**Press to switch to the PC mode.
- **5 MENU**Displays the main on-screen menu.
 - VOL -, VOL +
 Press to increase or decrease the
 volume. (Also used to make selections on the on-screen menus.)

CH▲ and CH▼ (Channel Up/Down) Press CH▲ or CH▼ to change channels. (Also used to highlight selections on the on-screen menus.)

- 6 MUTE
 Press to temporarily cut off the sound.
- Number buttons Press to select channels directly on the TV.
- +100 Press to select channels over 100. For example, to select channel 121, press "+100," then press "2" and "1."
- **OCAPTION** Controls the caption decoder.
- MTS (Multichannel Television Stereo)
 Press to choose stereo, mono or Separate Audio Program (SAP
- Separate Audio Program (SAP broadcast).
- P.SIZE Press to change the screen size.
- SLEEP Press to select a preset time interval for automatic shutoff.



® STILL

Press to stop the action during a particular scene. Press again to resume normal video.

- Adjust the TV sound by selecting one of the preset factory settings (or select your personal, customized sound settings).
- © COMPONENT
 Press to switch to the COMPONENT mode.
- **(6) EXIT** Press the menu to exit.
- **PRE-CH**Tunes to the previous channel.
- **V.DOLBY**This feature allows the TV L/R speakers to provide a home Theater-like Dolby effect.
- ADD/ERASE Press to add or erase channels in the TV's memory.
- DISPLAY
 Press to display the current channel and the audio-video settings.
- ② PIP controls

SIZE
When you press the size button, the "Not available" screen will appear.

SWAP

When you press the SWAP button, the "Not available" screen will appear.

TV/VIDEO

Press to select one of the available signal sources for the PIP window.

<u>CH</u>

Displays the available channels in sequence. (These buttons change channels in the PIP window only).

LOCATE

Press to move the PIP window to any of the four corners of the TV screen.

Installation

Connecting VHF and UHF Antennas

If your antenna has a set of leads that look like this, see "Antennas with 300-ohm Flat Twin Leads," below.



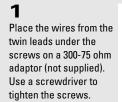
If your antenna has one lead that looks like this, see "Antennas with 75-ohm Round Leads," on page 2.2.

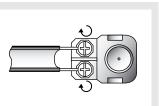


If you have two antennas, see "Separate VHF and UHF Antennas," on page 2.2.

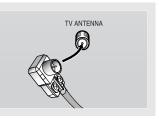
Antennas with 300-ohm Flat Twin Leads

If you are using an off-air antenna (such as a roof antenna or "rabbit ears") that has 300-ohm twin flat leads, follow the directions below.







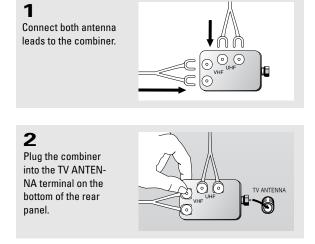


Antennas with 75-ohm Round Leads



Separate VHF and UHF Antennas

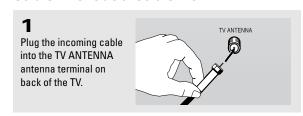
If you have two separate antennas for your TV (one VHF and one UHF), you must combine the two antenna signals before connecting the antennas to the TV. This procedure requires a an optional combiner-adaptor (available at most electronics shops).



Connecting Cable TV

To connect to a cable TV system, follow the instructions below.

Cable without a Cable Box



■ Because this TV is cable-ready, you do not need a cable box to view unscrambled cable channels.

Connecting to a Cable Box that Descrambles All Channels

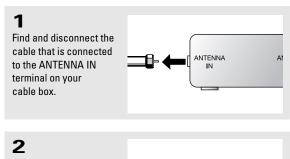


■ This terminal might be labeled "ANT OUT," "VHF OUT," or simply, "OUT."

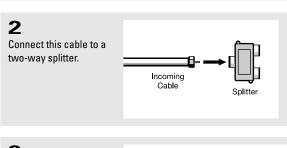


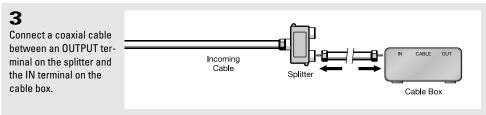
Connecting to a Cable Box that Descrambles Some Channels

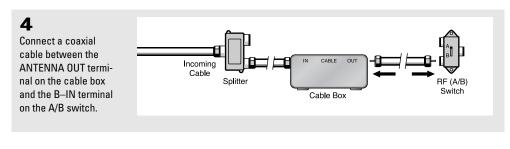
If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of coaxial cable. (These items are available at most electronics stores.)

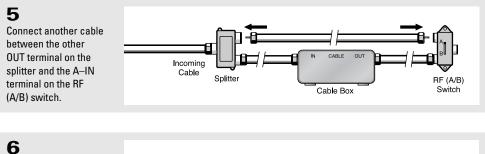


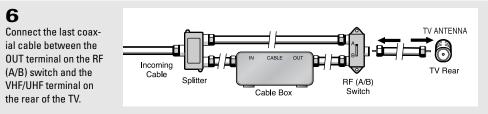
■ This terminal might be labeled "ANT IN," "VHF IN," or simply, "IN."







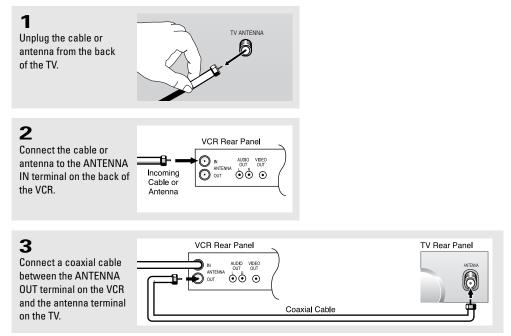




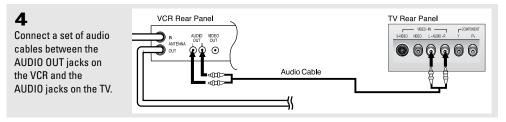
After you've made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels. (When you set the A/B switch to "B," you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

Connecting a VCR

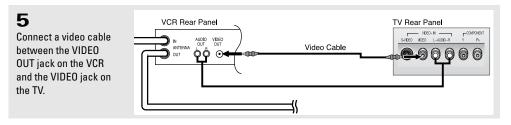
These instructions assume that you have already connected your TV to an antenna or a cable TV system (according to the instructions on pages 2.1-2.3). Skip step **1** if you have not yet connected to an antenna or a cable system.



A coaxial cable is usually included with a VCR. (If not, check your local electronics store).



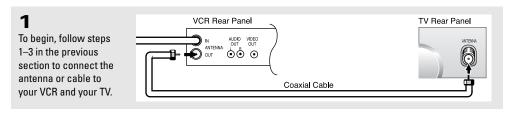
If you have a "mono" (non-stereo) VCR, use the Y-connector (not supplied) to hook up to the left and right audio input jacks of the TV. If your VCR is stereo, you must connect two cables.

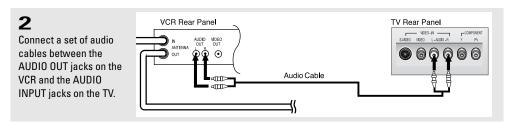


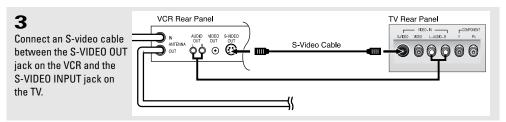
Follow the instructions in "Viewing a VCR or Camcorder Tape" to view your VCR tape.

Connecting an S-VHS VCR

Your Samsung TV can be connected to an S-Video signal from an S-VHS VCR. (This connection delivers a better picture as compared to a standard VHS VCR.)







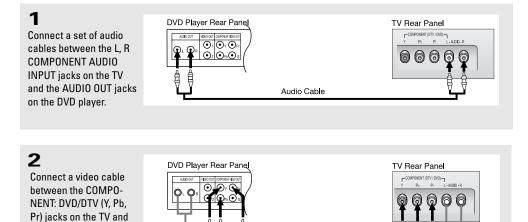
An S-video cable is usually included with an S-VHS VCR. (If not, check your local electronics store.)

the Y, Pb, Pr jacks on the

DVD player.

Connecting a DVD Player

The rear panel jacks on your TV make it easy to connect a DVD player to your TV.

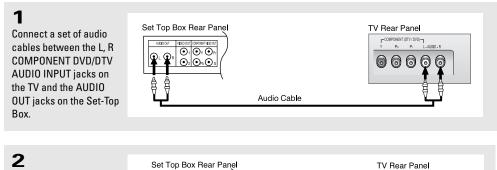


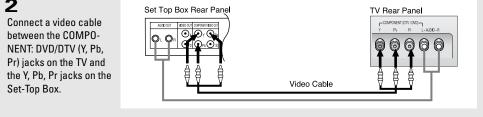
Video Cable

Note: For an explanation of Component video, see your DVD player owner's manual.

Connecting a Digital TV Set-Top Box

The connections for a typical set-top box are shown below.

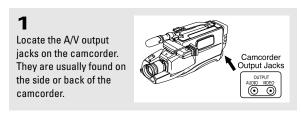


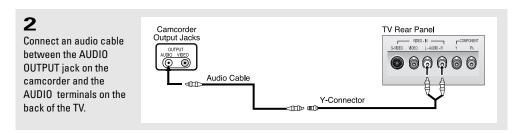


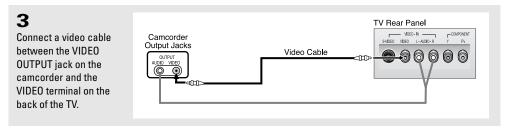
Note: For an explanation of Component video, see your Set-Top Box owner's manual.

Connecting a Camcorder

The connections for a camcorder are shown below. They allow you to view the camcorder tapes without using a VCR. (Also see "Viewing a VCR or Camcorder Tape" on page 3.14)







The audio-video cables shown here are usually included with a Camcorder. (If not, check your local electronics store.) If your camcorder is stereo, you need to connect a set of two cables.

Installing Batteries in the Remote Control





2 Install two AAA size batteries.



■ Make sure to match the "+" and "—" ends of the batteries with the diagram inside the compartment.





■ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.

The remote control can be used up to about 23 feet from the TV.

(Assuming typical TV usage, the batteries last for about one year.)

Chapter 3

OPERATION

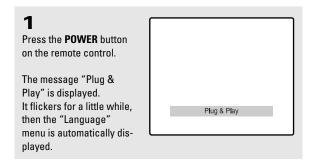
Turning the TV On and Off

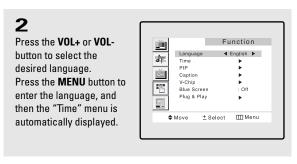
Press the POWER button.

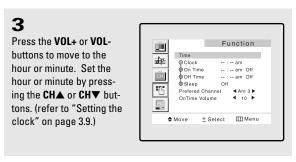
You can also use the Power button on the front panel.

Plug & Play Feature

When the TV is initially powered On, two basic customer settings proceed automatically and subsequently: Setting Auto program, Clock.







OPERATION

4

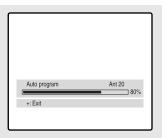
Press the **VOL+** or **VOL**button to select the desired video signal source.

Press the **MENU** button to enter the video signal source, and then the "Ant Input check" is automatically displayed.



5

Make sure that the antenna is connected to the TV. Press the **VOL+** or **VOL-** button to activate "Auto Program" or press the **MENU** button to skip. (refer to "Auto program" on page 3.6.)



6

The message "Enjoy your watching." is displayed.



7

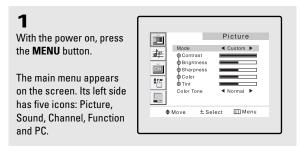
If you want to reset this feature

- (1) Press the **MENU** button.
- (2) Press the CH▼ button to highlight the Function menu and press the VOL+ button.
- (3) Press the CH▼ button to select Plug & Play and press the VOL+ button. The message "Plug & Play" is displayed.

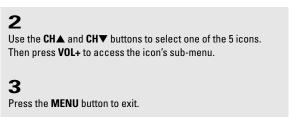


Viewing the Menus and On-Screen Displays

Viewing the Menus



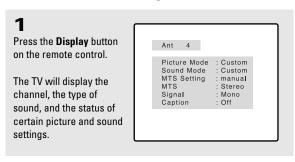
■ The on-screen menus disappear from the screen after about thirty seconds.



▼ You can also use the MENU, CHANNEL, and VOLUME buttons on the control panel of the TV to make selections.

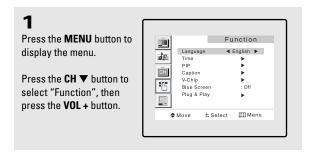
Viewing the Display

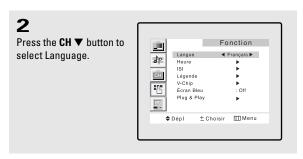
The display identifies the current channel and the status of certain audio-video settings.

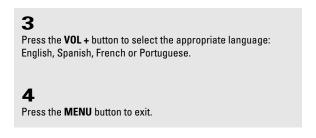


■ The on-screen displays disappear after about ten seconds.

Selecting a Menu Language





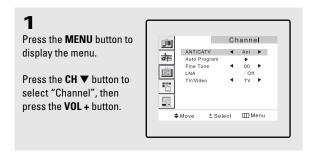


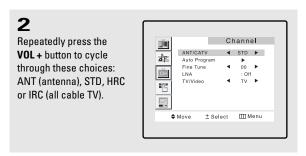
Memorizing the Channels

Your TV can memorize and store all of the available channels for both "off-air" (antenna) and cable channels. After the available channels are memorized, use the CH ▲ and CH ▼ buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

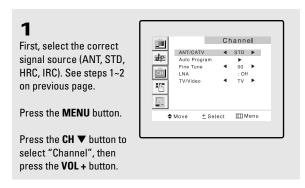


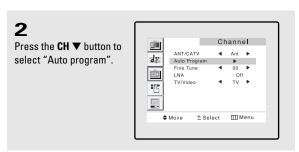


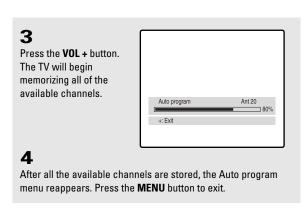
Note: STD, HRC and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area.

At this point the signal source has been selected. Proceed to "Storing Channels in Memory" (next page).

Storing Channels in Memory (Automatic Method)







■ The TV automatically cycles through all of the available channels and stores them in memory. This takes about one to two minutes.

Press VOL+ at any time to interrupt the memorization process and return to the CHANNEL menu.

Adding and Erasing Channels (Manual Method)



Use the number buttons to directly select the channel that will be added or erased.

2

Press the ADD/ERASE button.

Repeatedly pressing this button will alternate between "Added" and "Erased."

You can view any channel (including an erased channel) by using the number buttons on the remote control.

Changing Channels

Using the Channel Buttons

1

Press the $\mathbf{CH} \triangle$ or $\mathbf{CH} \nabla$ buttons to change channels.

When you press the $CH \triangle$ or $CH \nabla$ buttons, the TV changes channels in sequence. You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

Directly Accessing Channels

Use the number buttons to quickly tune to any channel.

1

Press the number buttons to go directly to a channel.

For example, to select channel 27, press "2," then "7." The TV will change channels when you press the second number.

When you use the number buttons, you can directly select channels that were either erased or not memorized.

To select a channel over 100, press the +100 button. (For channel 122, press "+100," then "2," then "2.")

To change to single-digit channels (0–9) faster, press "0" before the single digit. (For channel "4," press "0," then "4.")

Using the Pre-CH Button to select the Previous Channel



Press the PRE-CH button.

The TV will switch to the last channel viewed.

To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then, use the PRE-CH button to quickly alternate between them.

Adjusting the Volume

1

Press the **VOL** + or **VOL** – buttons to increase or decrease the volume.

Using Mute

At any time, you can temporarily cut off the sound using the Mute button.

1

Press MUTE and the sound cuts off.

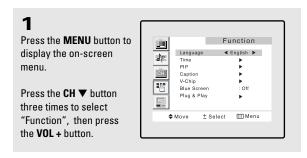
The word "Mute" will appear in the lower-left corner of the screen.

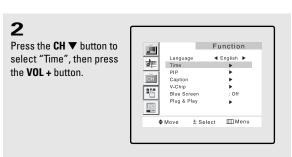
2

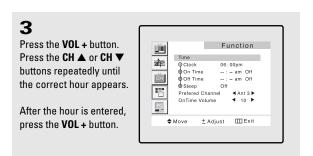
To turn mute off, press the **MUTE** button again, or simply press either the **VOL** + or **VOL** – button.

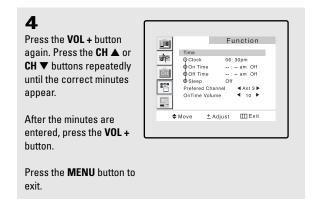
Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV. (Just press DISPLAY.)









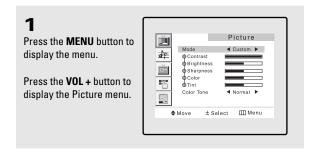
■ When selecting the hours, be sure to select the proper time of day (AM or PM).

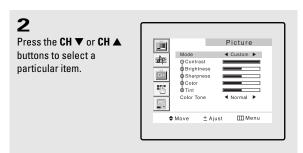
You can change the hours by pressing the $CH \triangle$ or $CH \bigvee$ buttons repeatedly (or by holding down either of these buttons).

The time will appear every time you press the Display button.

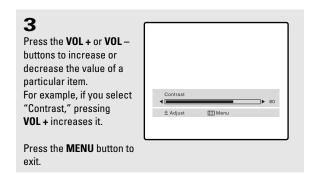
Customizing the Picture

You can use the on-screen menus to change the contrast, brightness, sharpness, color, tint and color tone according to personal preference. (Alternatively, you can use one of the "automatic" settings. See next page.)



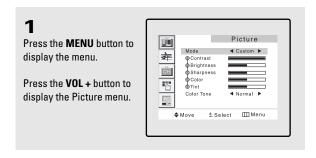


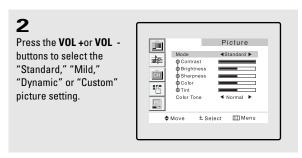
■ When Color Tone is selected you can choose between "Normal", "Warm", or "Cool" according to personal preference.



Using Automatic Picture Settings

Your TV has two automatic picture settings ("Standard", "Mild" and "Dynamic") that are preset at the factory. You can activate either Standard, Mild or Dynamic by pressing P.STD (or by making a selection from the menu). Or, you can select "Custom" which automatically recalls your personalized picture settings.





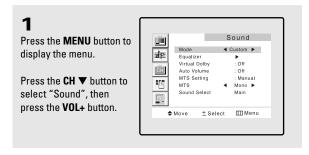
Alternate method:

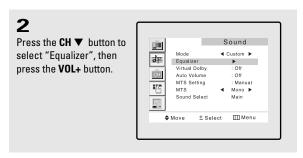
Simply press the **P.STD** button on the remote control to select one of the standard picture settings.

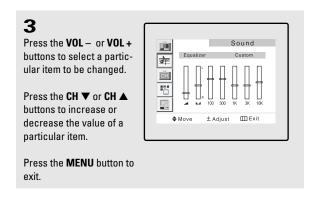
- Choose Standard for the standard factory settings.
- Choose Mild ("Mild Contrast") when viewing the TV in low light, or when playing video games.
- Choose *Dynamic* to increase the clarity and sharpness of the picture.
- Choose Custom if you want to adjust the settings accordings to personal preference (see "Customizing the Picture, page 3.10).

Customizing the Sound

The sound settings can be adjusted to suit your personal preference. (Alternatively, you can use one of the "automatic" settings. See next page.)

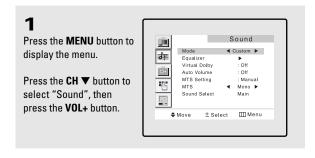


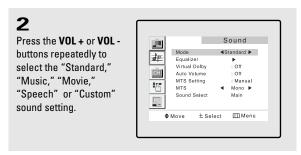




Using Automatic Sound Settings

Your TV has four automatic sound settings ("Standard," "Music," "Movie" and "Speech") that are preset at the factory. You can activate any of them by pressing the S.STD button (or by making a selection from the on-screen menu). Or, you can select "Equalizer," which automatically recalls your personalized sound settings.



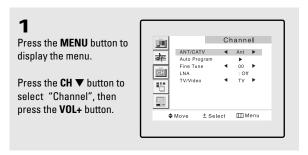


Alternate method:
Simply press the the **S.STD** button on the remote control to select one of the standard sound settings.

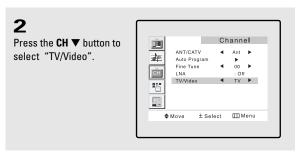
- Choose Standard for the standard factory settings.
- Choose *Music* when watching music videos or concerts.
- Choose Movie when watching movies.
- Choose *Speech* when watching a show that is mostly dialogue (i.e., news).
- Choose Custom to recall your personalized settings.

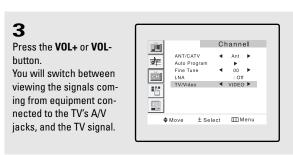
Viewing a VCR or Camcorder Tape

You must select the appropriate mode in order to view the VCR or Camcorder signal on the TV.



■ Quick way to access the external signal: Simply press the TV/VIDEO button on the remote control.



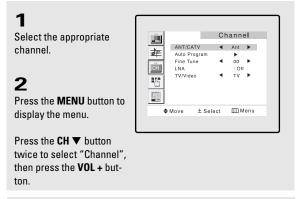


Chapter 4

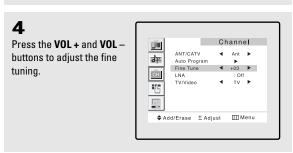
SPECIAL FEATURES

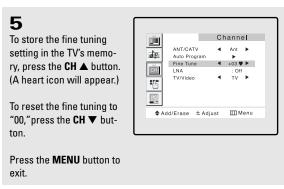
Fine Tuning Channels

Use fine tuning to manually adjust a particular channel for optimal reception.





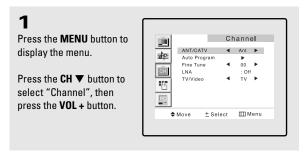


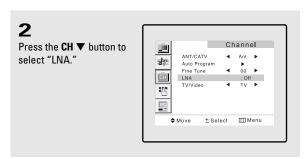


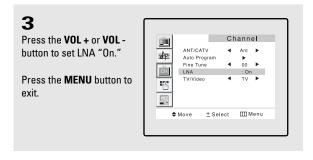
■ After you adjust the fine tuning, the "heart icon" will appear when you press Display while watching this channel.

LNA (Low Noise Amplifier)

If the TV is operating in a weak-signal area, sometimes the LNA function can improve the reception (a low-noise preamplifier boosts the incoming signal).





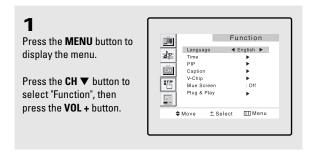


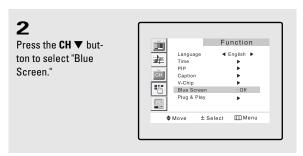
◆ Pressing VOL - or VOL + will alternate between "On" and "Off."

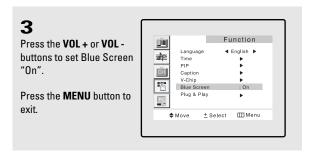
Setting the Blue Screen Mode

If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background.

If you wish to continue viewing the poor picture, you must set the "Blue screen" mode to "Off".

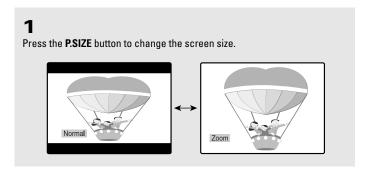






→ Pressing the VOL- or VOL+ buttons will alternate between "On" and "Off".

Changing the Screen Size (DVD/DTV)



- Normal: Sets the picture to 4:3 normal mode. This is a standard TV screen size.
- Zoom: Magnifies the size of the picture on screen.

Note: P.Size works in DVD/DTV mode.

Freezing the Picture

1

Press the STILL button to freeze the main picture.

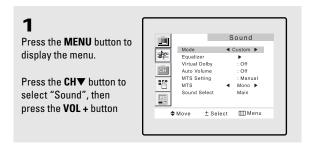
- Not available if V-Chip is turned on.
- Normal sound will still be heard.

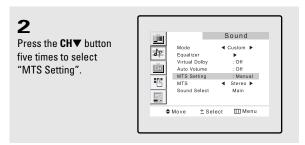
Press again to cancel.

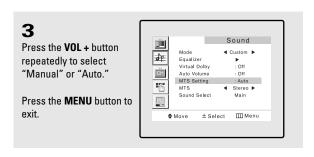
Special Sound Options

Setting Multi-channel Soundtrack (MTS)

When MTS is set to "Auto", MTS will be set automatically to "Mono" or "Stereo", according to the signal transmitted from the broadcasting company. If a channel is selected in an area where reception is poor, the sound might be distorted. When this occurs, set MTS Setting to "Manual" and MTS to "Mono".

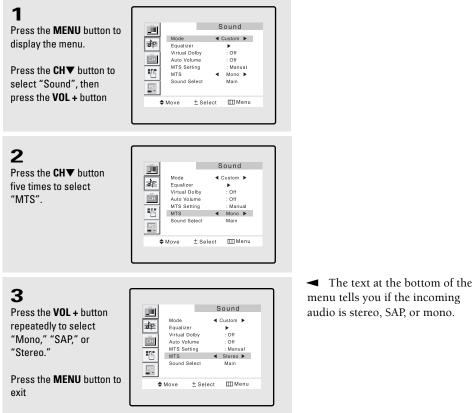






Choosing a Multi-Channel Soundtrack (MTS)

Depending on the particular program being broadcast, you can listen to stereo, mono, or a Separate Audio Program. (SAP audio is usually a foreign-language translation. Sometimes SAP has unrelated information like news or weather.)

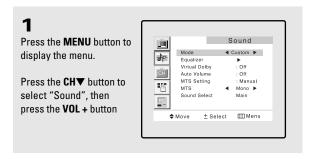


- Choose Stereo for channels that are broadcasting in stereo.
- Choose Mono for channels that are broadcasting in mono, or if you are having difficulty receiving a stereo signal.
- Choose SAP to listen to the Separate Audio Program, which is usually a foreign-language translation.

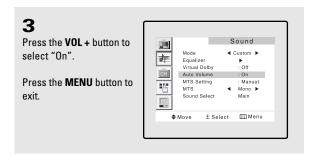
You can also change the MTS setting by pressing the "MTS" button on the remote control. (When you change channels, MTS is set to "Stereo" automatically. To listen in 'SAP' or 'Mono,' change the MTS setting.)

Auto Volume

Each broadcasting station has its own signal conditions, and it is inconvenient to adjust the volume every time the channel is changed. "Auto volume" automatically adjusts the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.



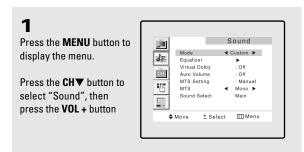




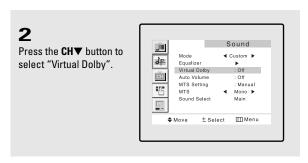
◆ Pressing VOL - or VOL + will alternate between "On" and "Off."

Virtual Dolby

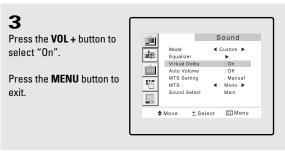
This feature allows the TV's L/R speakers to provide a home Theater-like Dolby effect. The center and surround sounds are mixed into the L/R speakers.



■ Quick way to access the Virtual Dolby menu: Simply press the V.DOLBY button on the remote control.

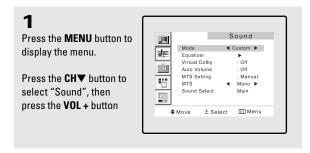


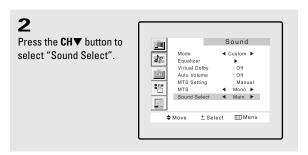
▼ Pressing VOL - or VOL + will alternate between "On" and "Off."

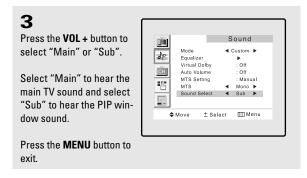


Selecting the Headphone Sound

You can select either Main or Sub when PIP is On.







■ Note: Sound Select can also be used to select the Main or Sub sound over the speakers.

Setting the On/Off Timer

1 Press the **MENU** button to display the on-screen

Press the CH ▼ button three times to select "Function", then press the VOL + button.



■ Before using the timer, you must set the TV's clock. (See "Setting the Clock" on page 3.9)

2

menu.

Press the $\mathbf{CH} \ \nabla$ button to select "Time", then press the $\mathbf{VOL} + \mathbf{button}$.



3

Press the **CH** ▼ button to select "On time", then press the **VOL** + button.

Press the CH ▲ or CH ▼ buttons repeatedly to select the appropriate hours (i.e., the hour when the TV will turn on.)

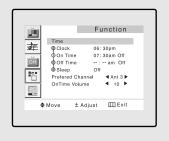


■ When you set the hours, make sure the correct time of day (AM or PM) appears to the left of the hour.

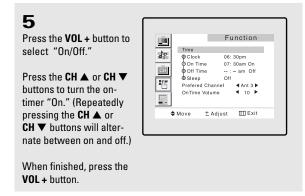
4

Press the **VOL +** button to select the "On time" minutes.

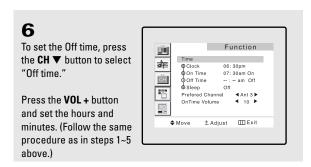
Press the **CH** ▲ or **CH** ▼ buttons repeatedly to select the appropriate minutes.



continued...



■ To deactivate the "On time," select "Off" during this step.



7

When finished setting the timer, press the $\boldsymbol{\mathsf{MENU}}$ button to exit.

Setting the Sleep Timer

The sleep timer automatically shuts off the TV after a preset time (from 10 to 180 minutes).

1

Press the **SLEEP** button on the remote control.

2

Press **SLEEP** repeatedly until the appropriate time interval appears (any of the preset values from "Off" to "360").

■ After about 5 seconds, the sleep display will disappear from the screen, and the time interval will be set.

Viewing Closed Captions

Your TV decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign-language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most pre-recorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging: CC.

Note: The Caption feature does not work with PC, DVD and DTV signals.

Press the **MENU** button to display the menu.

Press the $\mathbf{CH} \ \nabla$ button to select "Function", then press the $\mathbf{VOL+}$ button.



■ Quick way to access the Caption menu: Simply press the CAPTION button on the remote control.

2

Press the **CH** ▼ button to select "Caption", then press the **VOL+** button.



3

Press the **VOL**+ or **VOL** – buttons to turn closed captioning on/off.



4

Press the **CH** ▼ button to select "Mode."

Press the **VOL** + or **VOL** – buttons to select "Caption" or "Text."



5

Depending on the particular broadcast, it might be necessary to make changes to "Channels" and "Field": Use the $\mathbf{CH} \triangle$, $\mathbf{CH} \nabla$, $\mathbf{VOL} +$ and $\mathbf{VOL} -$ buttons to make the

Use the CH ▲, CH ▼, VOL + and VOL - buttons to make the changes. (Follow the same procedure as in steps 3~4 above.)

Press the MENU button to exit.

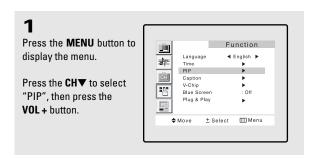
■ Different channels and fields display different information: Field 2 carries additional information that supplements the information in Field 1. (For example, Channel 1 may have subtitles in English, while Channel 2 has subtitles in Spanish.)

Viewing Picture-in-Picture

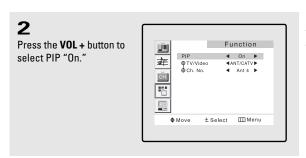
You can use the PIP feature to simultaneously watch two video sources.

Note: While V-Chip is in operation, PIP function cannot be used. If PIP does not operate, please check whether V-chip is in operation. PIP works in PC mode and DVD/DTV mode.

Activating Picture-in-Picture



■ Quick way to access the PIP menu: Simply press the PIP button on the remote control.



◀ If you turn the TV off while watching and turn it on again, the PIP window will disappear.

3
Press the MENU button to exit.

PIP Settings

O: PIP operates X: PIP doesn't operate

Sub picture Main picture	Antenna	Video	S-Video	Component	PC IN
Antenna	х	Х	х	Х	х
Video	х	х	х	х	х
S-Video	х	Х	х	х	х
Component	0	0	0	Х	х
PC IN	0	0	0	Х	Х

Selecting a Signal Source (External A/V) for PIP

Press the **TV/VIDEO(PIP)** button repeatedly to cycle through all of the available signal sources: "RF", "Video", "S-Video".

■ For more information about external A/V components and signals, see "Viewing a VCR or Camcorder Tape" on page 3.14.

If you select "TV", the PIP image is the same as the main image.

Swapping the Contents of the PIP image and Main image

When you press the **SWAP** button, the "Not available" screen will appear.

Changing the PIP Channel

Press the PIP $CH \triangle$ or $CH \bigvee$ button to change the channel that appears in the PIP window.

Changing the Location of the PIP Window

When you press the **LOCATE** button repeatedly, the PIP window moves from corner to corner on the TV screen.

Changing the Size of the PIP Window

When you press the **SIZE** button, the "Not available" screen will appear.

Using the V-Chip(US only)

The V-Chip feature automatically locks out programming that is deemed inappropriate for children. The user must first enter a PIN (personal ID number) before any of the V-Chip restrictions can be set up or changed.

Note: While V-Chip is in operation, PIP function cannot be used. If PIP does not operate, please check whether V-chip is in operation.

Setting Up Your Personal ID Number (PIN)

1

Press the **MENU** button to display the menu.

Press the $\mathbf{CH} \ \nabla$ button to select "Function", then press the $\mathbf{VOL} + \mathbf{b}$ utton.



■ Quick way to access the V.CHIP menu: Simply press the V.CHIP button on the remote control.

2

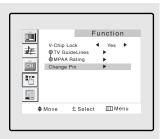
Press the **CH** ▼ button to select "V-chip", then press the **VOL+** button.



The "Enter Pin" screen will appear. Enter your 4-digit PIN number. Note: The default PIN number for a new TV set is "0-0-0-0."

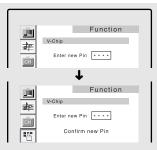
3

After entering a valid PIN number, the "V-chip" screen will appear.
Press the CH ▼ button to select "Change Pin."



4

Press the **VOL+** button. The Change pin screen will appear. Choose any 4-digits for your PIN and enter them.



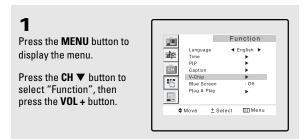
As soon as the 4 digits are entered, the "Confirm new Pin" screen appears. Re-enter the same 4 digits. When the Confirm screen disappears, your PIN has been memorized. Press the **MENU** button to exit.

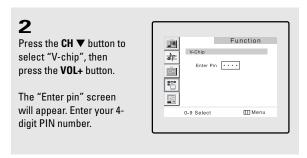
■ Note: If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0-0:

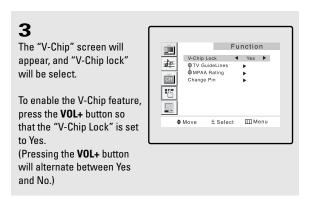
POWER OFF \rightarrow MUTE \rightarrow 8 \rightarrow 2 \rightarrow 4 \rightarrow POWER ON.

How to Enable/Disable the V-Chip

Note: V-Chip cannot be used during PIP operation.

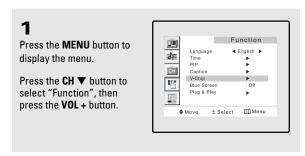






How to Set up Restrictions Using the "TV guidelines"

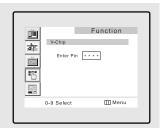
First, set up a personal identification number (PIN), and enable the V-Chip. (See previous section.) Parental restrictions can be set up using either of two methods: The TV guidelines or the MPAA rating.



ENG 4.16

Press the CH ▼ button to select "V-chip", then press the VOL+ button.

The "Enter pin" screen will appear. Enter your 4digit PIN number.



3

Press the CH ▼ button, to select "TV Guidelines", then press the VOL+ button.



All

U: Unblocked

± Select

TV-Y
TV-Y7
TV-G
TV-PG
TV-14
TV-MA

B: Blocked

#

CH

-15

Function

FV V S L D

U U

U U U U U U U

Ⅲ Menu

4

The "TV guidelines" screen will appear. Press the the CH ▲, CH ▼ buttons to select one of the six age-based categories: TV-Y Young children

TV-G General audience TV-PG Parental guidance

TV-Y7 Children 7 and over TV-14 Viewers 14 and over TV-MA Mature audience

■ Note: These categories consist of two separate groups: TV-Y and TV-Y7 (young children through age 7), and TV-G through TV-MA (everybody else).

The restrictions for these two groups work independently: If a household includes very young children as well as young adults, the TV guidelines must be set up separately for each age group. (See next step.)

5

At this point, one of the TV-Ratings is selected.

Press the VOL+ button: Depending on your existing setup, a letter "U" or "B" will start blinking. (U= Unblocked, B= Blocked)

While the "U" or "B" is blinking, press the CH ▲ or CH ▼ buttons to block or unblock the category.

Press the MENU button once to save the TV guidelines. A TV-Rating will be highlighted, and no letters will blink. To exit this screen, press the **MENU** again. To select a different TV-Rating, press the **CH** ▲ or **CH** ▼ buttons and then repeat the process.

Note 1: The TV-Y7, TV-PG, TV-14 and TV-MA have additional options. See the next step to change any of the following sub-ratings:

FV: Fantasy violence

D: Sexual suggestive dialog

L: Adult language

S: Sexual situation

V: Violence

Note 2: The V-Chip will automatically block certain categories that are "more restrictive." For example, if you block "TV-Y" category, then TV-Y7 will automatically be blocked. Similarly, if you block the TV-G category, then all the categories in the "young adult" group will be blocked (TV-G, TV-PG, TV-14 and TV-MA). The sub-ratings (D, L, S, V) work together similarly. (See next section.)

6

How to set the FV, D, L, S and V sub-ratings.

First, highlight one of these TV-Ratings: TV-Y7, TV-PG, TV-14 or TV-MA (See Step 4, on previous page). Next, while the TV-Rating is selected, repeatedly press the **V0L+** button. This will cycle through the available sub-ratings (FV,L, S, D or V).

A blinking letter ("U" or "B") will be displayed for each sub-rating. While the "U" or "B" is blinking, press the $\mathbf{CH} \triangle$ or $\mathbf{CH} \nabla$ buttons to change the sub-rating.

Press **MENU** once to save the TV guidelines. A TV-Rating will be selected, and no letters will blink. To exit this screen, press the **MENU** button again. To select a different TV-Rating, press the **CH** \blacktriangle or **CH** \blacktriangledown buttons and then repeat the process.

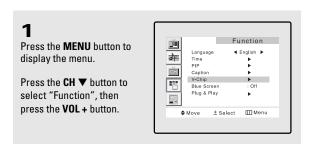
Note: The V-chip will automatically block certain categories that are "More restrictive". For example, if you block "L" sub-rating in TV-PG, then the "L" sub-ratings in TV-14 and TV-MA will automatically be blocked.

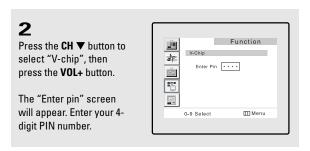
7

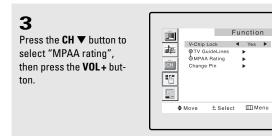
Press the **MENU** button three times to clear all the screens. (Or proceed to the next section, and set up additional restrictions based on the MPAA codes).

How to Set up Restrictions using the MPAA Ratings: G, PG, PG-13, R, NC-17, X

The MPAA rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies. (Eventually, movie videocassettes will be encoded with MPAA ratings.) When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either MPAA or TV-Ratings).







Repeatedly press the CH Function G ► U PG ► U PG-13 ► U ▼ button to select a par-4 ticular MPAA category. CH ▶ 11 (When a category is =15 ▶ U ▶ U selected, its color changes to blue.) Pressing B: Blocked U: Unblocked the CH ▼ button will cycle ± Select through the MPAA categories:

G	General audience (no restrictions).				
PG	Parental guidance suggested.				
PG-13	PG-13 (Parents strongly cautioned).				
R	R (Restricted. Children under 17 should be accompanied by an adult).				
NC-17	No children under age 17.				
X	X (Adults only).				
NR	Not rated.				

While a particular category is highlighted, press the VOL+ button to activate it. A blinking letter ("U" or "B") will be displayed. Press the CH \blacktriangle or CH \blacktriangledown buttons to select "U" or "B".

Press the MENU button three times to save the settings and to clear all screens.

Note: The V-Chip will automatically block any category that is "more restrictive." For example, if you block the "PG-13" category, then "R," "NC-17," and "X" will automatically be blocked also.

How to Reset the TV after the V-Chip Blocks a Channel ("Emergency Escape")

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the following message will appear: "Excessive rating."

To resume normal viewing, tune to a different channel using the number buttons. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels. In this case, use the V-Chip button for an "emergency escape":

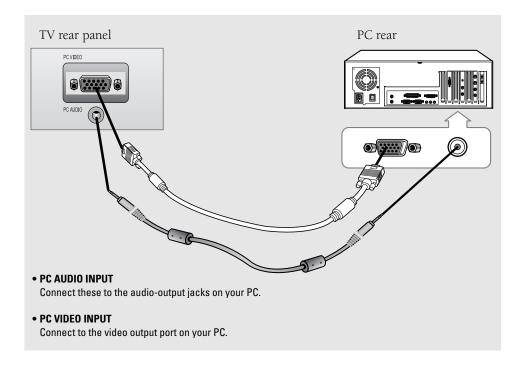
Press the V.chip button on the remote control. Enter your PIN number, and press the **VOL+** button to temporarily disable the V-Chip Lock.

PC DISPLAY

Using Your TV as a Computer (PC) Display

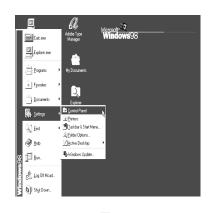
How to Connect Your PC to the TV

Note: This figure shows the Standard Connector-jack panel. The actual configuration on your TV may be different, depending on the model.



How to Set up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below. However, the actual screens on your PC will probably look different, depending upon your particular version of Windows and your particular video card. Even if your actual screens look different, the same, basic set-up information will apply in most cases. (If not, contact your computer manufacturer or Samsung Dealer.)



First, click on "Settings" on the Windows start menu.

While "Settings" is highlighted, move the cursor so that "Control Panel" is highlighted.

When the control panel screen appears, click on "Display" and a display dialog-box will appear.

Navigate to the "settings" tab on the display dialog-box.



The two key variables that apply the TV-PC interface are "resolution" and "colors." The correct settings for these two variables are:

* Size (sometimes called "resolution"): 1024 x 768 pixels

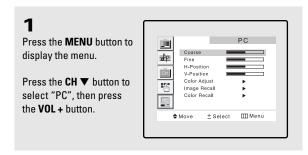
If a vertical-frequency option exists on your display settings dialog box, the correct value is "60" or "60 Hz." Otherwise, just click "OK" and exit the dialog box.

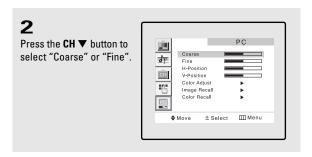


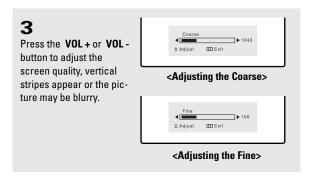
Adjusting the Screen Quality

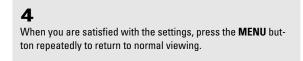
The purpose of picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by fine tuning alone, then do the frequency adjustments to the utmost and fine tune again. After the noise has been reduced, re-adjust the picture so that it is aligned on the center of screen

Press the PC button on the remote control to select the PC mode.



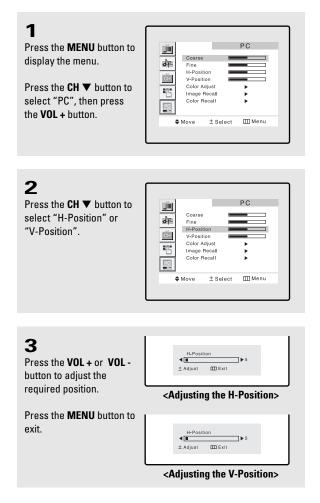




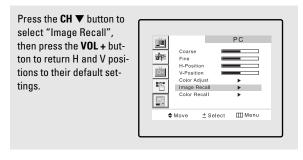


Changing the Screen Position

Press the PC button on the remote control to select the PC mode.

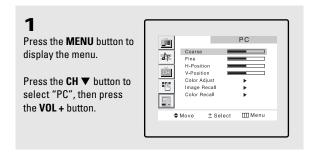


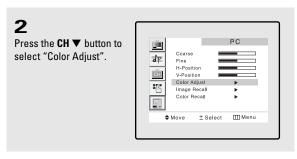
To Return the Screen Position settings to the default position

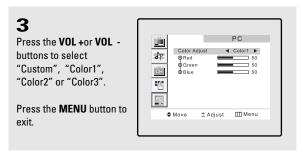


Changing the Screen Color Standard

Press the PC button on the remote control to select the PC mode.

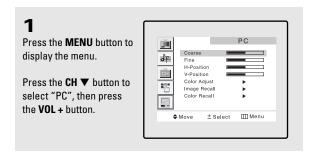


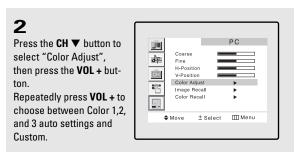


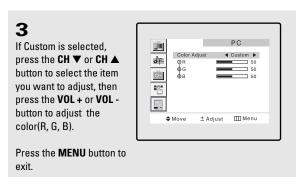


Adjusting the Screen Color Settings

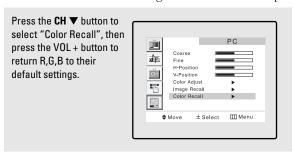
Press the PC button on the remote control to select the PC mode.







To Return the Custom settings back to the default position



Chapter 6

TROUBLESHOOTING

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, call your nearest service center.

Identifying Problems

Problem	Possible Solution
Poor picture	Try another channel.
	Adjust the antenna.
	Check all wire connections.
Poor sound quality.	Try another channel.
	Adjust the antenna.
No picture or sound.	Try another channel.
	Press the TV/VIDEO button.
	Make sure the TV is plugged in.
	Check the antenna connections.
No color, wrong colors or	Make sure the program is broadcast in color.
tints.	Adjust the picture settings.
	If the set is moved or turned in a different direction, the
	power should be OFF for at least 30 minutes.
	Adjust the antenna.
Picture rolls vertically.	Check all wire connections.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it
	again.
The TV won't turn on.	Make sure the wall outlet is working.
Blurred or snowy picture,	Check the direction, location and connections of your
distorted sound	antenna.
	This interference is often due to the use of an indoor
	antenna.
Remote control malfunctions	Replace the remote control batteries.
	Clean the upper edge of the remote control
	(transmission window).
	Check the battery terminals.
"Check Signal Cable"	Ensure that the signal cable is firmly connected to the
message.	PC or video sources.
	Ensure that the PC or video sources are turned on.

Problem	Possible Solution				
"Not Supported Mode!" mes-	Check the maximum resolution and the frequency of				
sage.	the video Adapter.				
	Compare these values with the data in the Display				
	Modes Timing Chart.				
The image is too light or too	Adjust the Brightness and Cor	ntrast.			
dark.	Adjust the Fine function.				
Horizontal bars appear to	Adjust the Coarse function an	d then adjust the Fine			
flicker, jitter or shimmer on	function.				
the image.					
Vertical bars appear to flicker,	The TV is using its power management system.				
jitter or shimmer on the	Move the computer's mouse or press a key on the				
image.	keyboard.				
Screen is black and power	Check that the display resolution and frequency from				
indicator light blinks steadily.	your PC or video board is an a	available mode for your			
	TV. On your computer check: Control Panel, Display,				
	Settings.				
Image is not stable and may	If the setting is not correct, us	e your computer utility			
appear to vibrate.	program to change the display settings.				
	NOTE: Your TV supports multiscan display functions				
	within the following frequency domain:				
	 Horizontal frequency: 	30 kHz ~ 61 kHz			
	• Vertical frequency:	56 Hz ~ 75 Hz			
	• Maximum refresh rate:	1024 x 768 @ 60 Hz			
Image is not centered on the	Adjust the horizontal and vert	ical position.			

Display Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your Videocard user guide; otherwise there may be no video. For the display modes listed below, the screen image has been optimized during manufacture.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
MAC, 640 × 480	35.000	66.667	30.240	-/-
MAC, 832 × 624	49.726	74.551	49.500	+/+
IBM, 640 × 480	31.469	59.940	25.175	-/-
IBM, 720 × 400	31.469	70.087	28.322	-/+
VESA, 640 × 480	37.500	75.000	31.500	-/-
VESA, 640 × 480	37.861	72.809	31.500	-/-
VESA, 800 × 600	37.879	60.317	40.000	+/+
VESA, 800 × 600	46.875	75.000	49.500	+/+
VESA, 800 × 600	48.077	72.188	50.000	+/+
VESA, 1024 × 768	48.363	60.004	65.000	-/-
VESA, 1024 × 768	56.476	70.069	75.000	-/-
VESA, 1024 × 768	60.023	75.029	78.750	+/+

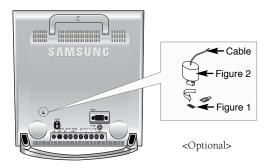
Retractable Stand

Note: The maximum tilt angle is 15 degrees in the backward direction. Please do not tilt the TV outside the specified range. Using excessive force to tilt the LCD TV may cause permanent damage to the mechanical part of the stand.





Using the Anti-Theft Kensington Lock



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. Please refer to the manual provided with the Kensington lock for proper use.

1

Insert the locking device into the Kensington slot on the LCD TV(figure 1), and turn it in the locking direction(figure 2).

2

Connect the Kensington lock cable.

3

Fix the Kensington lock to a desk or a heavy stationary object.

Pin Assignments

Pin D-Sub Connection

Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Separate H/V	Red	Green	Blue	GND	GND (DDC Return)	GND -Red	GND -Green	GND- Blue	No Connection	GND-Sync/ Self Test	GND	DDC _SDA	H_Sync	V_Sync	DDC _SCL



Cleaning and Maintaining Your TV

With proper care, your TV unit will give you many years of service. Please follow these guidelines to get the maximum performance from your TV.

Placement

- Do not place the TV near extremely hot, cold, humid or dusty places.
- Do not place the TV near appliances with electric motors that create magnetic fields, such as vacuum cleaners.
- Keep the ventilation openings clear; do not place the TV on a soft surface, such as cloth or paper.
- Place the TV in a vertical position only.

Liquids

Do not handle liquids near or on the TV.
 Liquids that spill into it can cause serious damage.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your TV with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

• If your TV is suddenly moved from a cold to a warm place, unplug the power cord, and allow at least two hours for moisture that may have formed inside the unit to dry completely.

Using Your TV in Another Country

If you plan to take your TV with you to a foreign country, please be aware of the different television systems that are in use around the world. A TV designed for one system may not work properly with another system due to differences in the TV channel frequencies.

Specifications

Model	LTM1525				
Size	15.0 inch diagonal				
Display area	304.1(H) X 228.1(V) mm				
Pixel pitch	0.297(H) X 0.297(V) mm				
Туре	a-si TFT active matrix				
Viewing angle	70/70/55/60 (L/R/T/B)				
Synchronization	Horizontal 30~61kHz				
	Vertical 56~75Hz				
	Non-interlaced				
Display Colors	16,194,277 Colors				
Resolution	Optimum resolution: 1024 X 768 @60Hz				
	Maximum resolution: 1024 X 768 @75Hz				
Input signal, Terminated	RGB Analog 0.7Vp-p Positive at 75Ω				
	Separate H/V sync, TTL level positive or negative				
Maximum pixel clock	65MHz				
Power supply	AC 90 to 264 VAC, 60/50Hz ± 3Hz				
	DC 14V/3.5A				
Signal cable	15pin to 15pin D-sub cable, Detachable				
Signal connectors	15pin 3-row D-sub connector, External TV tuner, Ypbpr, S-VHS, VCR				
Power consumption	Max. 50W				
Dimensions/Weight	346.0 x 169.0 x 361.5 mm / 3.2 kg (with Stand)				
(W X D X H)	; 13.6 X 6.6 x 14.2 inches / 7.0 lbs (with Stand)				
Environmental considerations	Operating Termperature : 50°F to 104°F (10°c to 40°c)				
	Humidity : 10% to 80%, Non-condensing				
	Storage Temperature : -4°F to 113°F (-20°C to 45°C)				
	Humidity : 5% to 95%, Non-condensing				

^{*} Referring to Preset timing modes, page A.1.

