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Ⓣ LCD *Projection TV*

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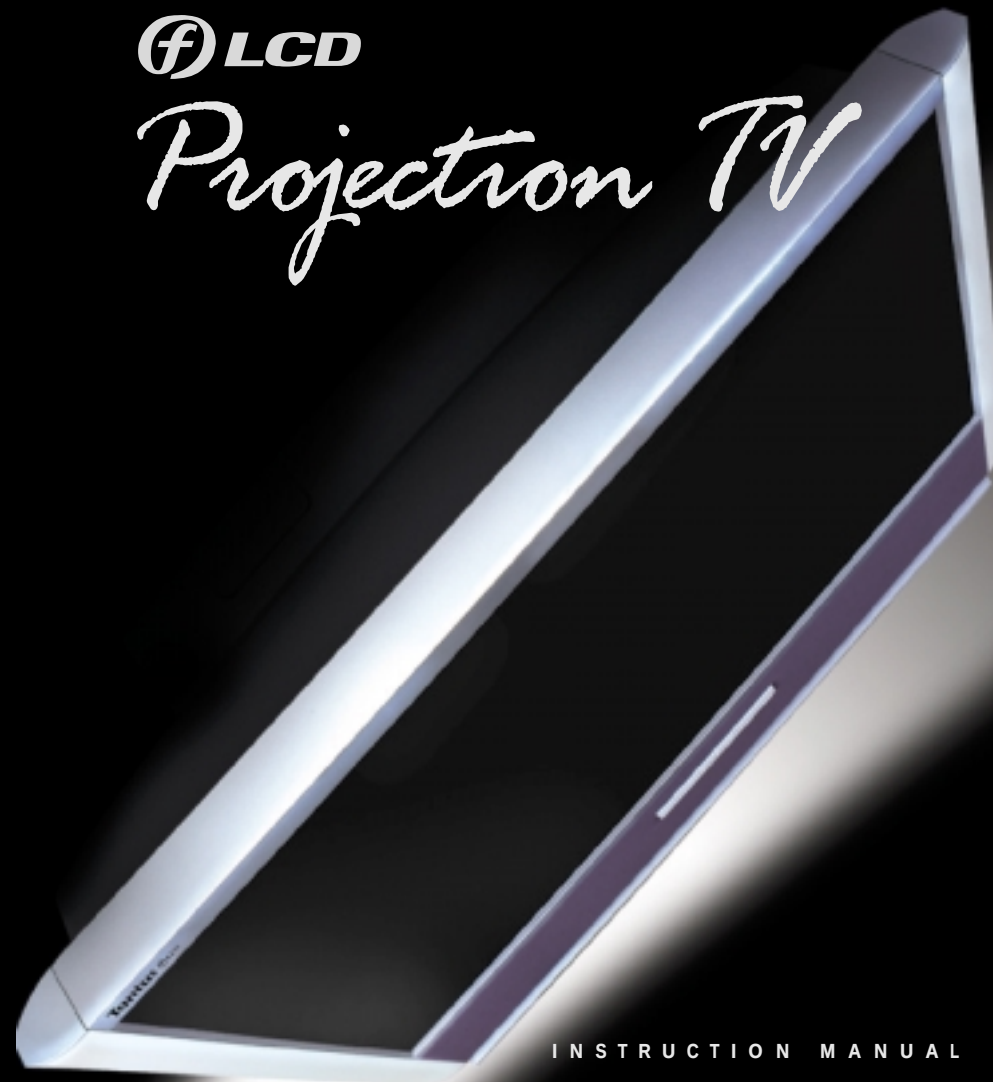
SAMSUNG ELECTRONICS AMERICA INC.
105 CHALLENGER ROAD, RIDGEFIELD PARK, NJ 07660 U.S.A.

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AA68-01242A(ENG)

I N S T R U C T I O N M A N U A L

Projection Color Television HLK436W/HLK506W





Warning! Important Safety Instructions

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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



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



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

CAUTION: FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

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

ATTENTION: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Note to CATV system installer: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as possible.

Important: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws. Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these laws.

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

As an ENERGY STAR Partner, Samsung Electronics America, Inc. has determined that this product or product model meets the ENERGY STAR guidelines for energy efficiency.

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Thank You for Choosing Samsung

Thank you for choosing Samsung! Your new Samsung projection 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

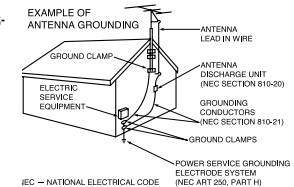


Always be careful when using your TV. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your unit.

- 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 and in the operating instructions.
- Unplug the TV 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 where contact with water is possible, 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 more likely to overturn.
- The TV 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 put the TV on a bed, sofa, rug, or other similar surface. Do not put the TV near a radiator or heat register. If you do put the TV on a rack or bookcase, make sure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your TV 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 an 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 from 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 when:
 - The power-supply cord or plug is damaged
 - Liquid has been spilled on the unit or if objects have fallen into the unit
 - The TV has been exposed to rain or water
 - The TV does not operate normally by following the operating instructions
 - The TV has been dropped or the cabinet has been damaged
 - The TV exhibits a distinct degradation in performance
 - When the LAMP(BULB ONLY) replacement is needed
- 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.



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference that may cause undesired operation.

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Your New Wide TV

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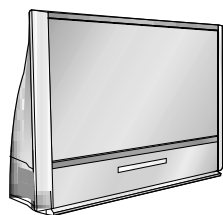
List of Features

Your Samsung TV was designed and engineered using the latest technology. It is a full-featured, high-performance unit that exceeds industry standards. In addition, it has these special features:

- Easy-to-operate remote control
- Easy-to-use on-screen menu system you can access from the side panel or remote control
- Automatic timer to turn the TV on and off at any time you choose
- Adjustable picture and sound settings and the ability to memorize your favorite settings
- Automatic channel tuning for up to 181 channels
- 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 (15 watts per channel)
- Picture-in-Picture capability that lets you watch two channels at once
- Widescreen TV with adjustable image size
- COMPONENT INPUT jacks to obtain a sharper image from external sources
- PC input
- Surround output
- HD COMPONENT input

Checking Parts

Once you have unpacked your TV, check to make sure that you have all the parts shown here. If any piece is missing or broken, call your dealer.
(The TV illustration shown does not necessary match the design of your TV set.)



Television



Wireless Remote Control



This Manual



Warranty Card



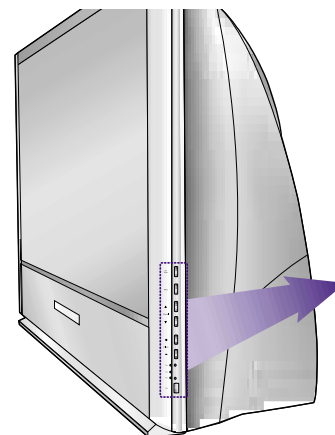
300-75 ohm Adapter



RCA Cable

Side Panel Buttons

The buttons on the side panel control your TV's basic features, including the on-screen menu system. To use the more advanced features, you must use the remote control.

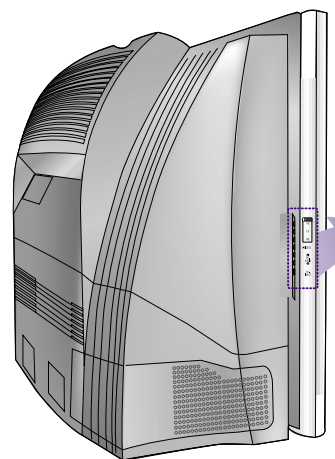


- TV / Video**
Press to display all of the available video sources (i.e., TV, VCR, DVD, DTV, PC.).
- Menu**
Press to see the on-screen menu.
- ▲ Channel ▼**
Press to change channels.
- Volume +, -**
Press to lower or raise the volume.
- Power**
Press to turn the TV on and off.

- To select an external source signal with the TV/Video button on the side panel, (1) press the TV/Video button, (2) use the channel up/down buttons to move to source signal that you prefer, and (3) press the volume +/- buttons to select it.
(Note: To select an external source signal with the TV/Video button on the remote control, use the joystick button to select the source signal that you prefer.)

Side Panel Jacks

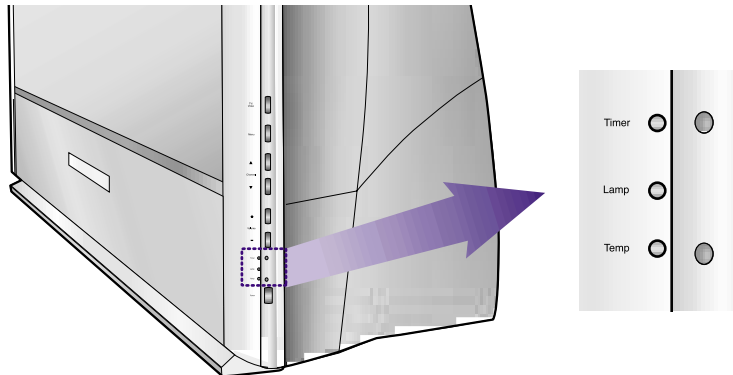
Use the side panel jacks to connect a component that is used only occasionally (a camcorder, video game or PC, for example).



- VIDEO IN JACK**
Connect the video signal from a camcorder or video game.
- AUDIO IN JACKS**
Connect the audio signal from a camcorder or video game.
- S-VIDEO IN JACK**
Connect an S-video signal from a camcorder or video game. (S-Video 2 jack and Audio L/R input 3 interlock.)
- PC AUDIO IN JACKS**
Connect these to the audio-output jacks on your PC.
- PC VIDEO IN JACK**
Connect to the video output port on your PC.

Side Panel LED Indicators

The three lights on the side panel indicate the status of your TV.



Indicator Light Key

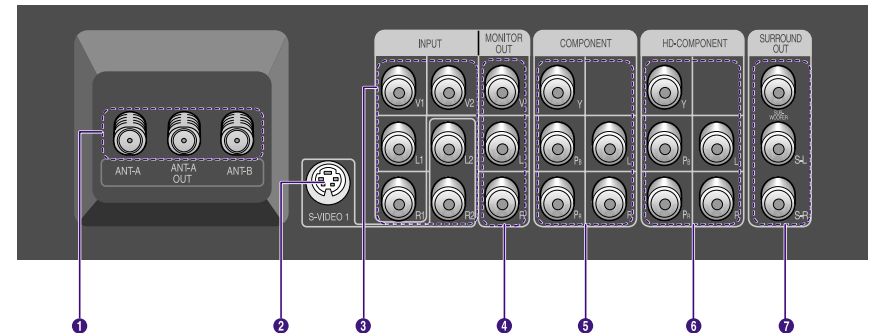
- : Light is On
- ◐ : Light is Blinking
- : Light is Off

Indicator Light			Indication
Timer	Lamp	Temperature	
○	●	○	Normal operation.
●	○	○	On time or off time is set.
●	●	○	On time or off time is set. Normal operation.
○	◐	○	Lamp is warming up. The normal picture comes on in about 30 seconds.
◐	○	◐	Air vent cover at the rear of the TV is not properly installed.
○	○	◐	Inside temperature of the TV is too high. Turn the TV off and clean the air vent cover on the back of the TV. Turn the TV on after 1 hour.
◐	◐	◐	Lamp inside the TV needs to be replaced.

- It takes about 30 seconds for the TV to warm up, so normal brightness may not appear immediately.
- The TV has a fan to keep the inside lamp from overheating. You'll occasionally hear it working.

Rear Panel Jacks

Use the rear panel jacks to connect components such as a VCR or laserdisc player. You can connect two different components such as two VCRs, a laserdisc player and a DVD player etc., because there are two sets of video input jacks and one set of component video input jacks on the rear panel of your TV. For more information, please see "Connections".



1 ANTENNA terminals

Two independent cables or antennas can be connected to these terminals. Use ANT-A and ANT-B terminals to receive a signal from VHF/UHF antennas or your cable system. Use the ANT-A OUT terminal to send the signal being received by the ANT-A terminal out to another component (such as a Cable Set Top Box). The PIP channel can be received only when a signal source is connected to ANT-A.

2 S-VIDEO IN jack

Connects an S-Video signal from an S-VHS VCR or laserdisc player.

3 VIDEO INPUT jacks(V1, V2)

Connect video signals from external sources like VCRs or DVD players.

AUDIO INPUT jacks(L1,R1 / L2,R2)

Connect audio signals from external sources like VCRs or DVD players.

4 VIDEO MONITOR OUT jack

Sends a video signal from the TV to an external source, such as a VCR.

AUDIO MONITOR OUT jacks

Send audio signals from the TV to an external source, such as a VCR.

5 COMPONENT AUDIO INPUT jacks (L, R)

Use these jacks to connect the audio signals from a DVD player when using the component video input jacks.

COMPONENT VIDEO INPUT jacks (Y, Pb, Pr)

Use these jacks to connect the component video signals from a DVD player.

Note: Only 480i format is supported in its original format.

6 HD Component (set top) VIDEO INPUT jacks (Y, Pb, Pr)

Receives the DTV video signals (Y/Pb/Pr) from a set top box.

Note: Only 480p, 720p and 1080i formats are supported in their original formats.

HD Component (set top) AUDIO INPUT jacks (L, R)

Receives the DTV audio signals (L/R) from a set top box.

7 SURROUND OUTPUT jacks

Use to connect a subwoofer and powered rear surround speakers.

Remote Control

You can use the remote control up to a distance of about 23 feet from the TV. When using the remote, always point it directly at the TV. The remote control can also operate your VCR, cable box, and DVD player.

1. POWER

Turns the TV on and off.

2. +100

Press to select cable channels over 100 on TV.

3. Menu

Displays the main on-screen menu.

4. CH(Channel) and VOL(Volume)

Controls volume, channel selection.

5. Mute

Press to mute the TV sound.

6. Display

Press to display information on the TV screen.

7. Aspect

Press to change the screen size.

8. Surround

Press to hear the Dolby surround effect.

9. MTS(Multichannel Television Stereo)

Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

10. Mode

Selects a target device to be controlled by the Samsung remote control (i.e., TV, VCR, Cable, or DVD).

11. Pre-ch

Tunes to the previous channel.

12. TV / Video

Press to display all of the available video sources (i.e., TV, VCR, DVD, DTV, PC).

13. Joystick

Use to highlight on-screen menu items and change menu values.

14. Caption

Controls the caption decoder.

15. PIP

Activates picture in picture.

16. TV / PC

Press to switch to the PC mode (when the PC is connected to your TV).

17. Fav.CH (Favorite Channel)

Press to switch between your favorite channels.

18. S.Mode

Adjust the TV sound by selecting one of the preset factory settings (or select your personal, customized sound settings.)

19. P.Mode

Adjust the TV picture by selecting one of the preset factory settings (or select your personal, customized picture settings.)

20. VCR controls

Controls VCR tape functions: Rewind, Play, Fast Forward, Stop, Pause.

21. PIP controls

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

Scan; Press to scan the memorized channels.

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

Swap; Exchanges the video signal that is currently displayed on the main screen with the signal in the PIP window.

Size; Press to make the PIP window larger or smaller.

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

22. V.chip

Press to set up and activate the parental locks.

23. Set

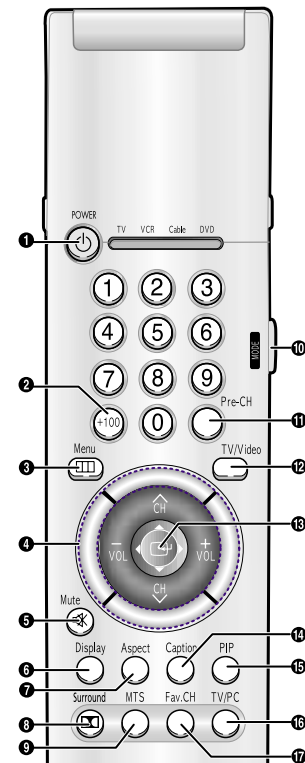
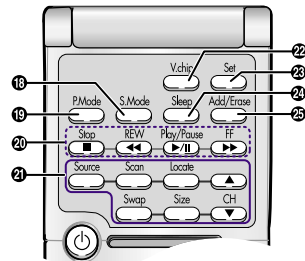
Used during set up of this remote control, so that it will work compatibly with other devices (VCR, cable box, DVD, etc.)

24. Sleep

Press to select a preset time interval for automatic shutoff.

25. Add / Erase

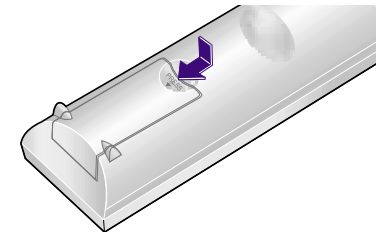
Press to add or erase channels in the TV's memory. Use the Add/Erase button to memorize/erase the optimal state of value after fine tuning channels.



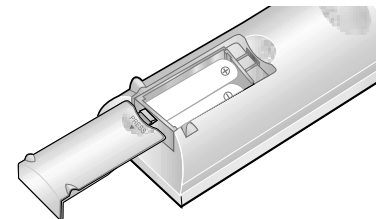
Installing Batteries in the Remote Control

With normal use, the batteries in the remote control should last about a year. If you notice a performance degradation while using the remote, the batteries may need to be replaced. Make sure you replace both batteries and do not mix old and new batteries in the remote control. If you won't be using the remote control for a long time, remove the batteries and store them in a cool dry place.

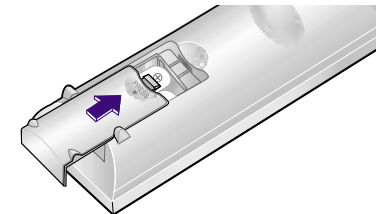
- Slide the back cover all the way out to open the battery compartment of the remote control.



- Install two AAA size batteries. Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment.



- Slide the cover back into place.



Connection

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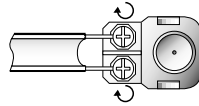
Connecting VHF and UHF Antennas

If you do not have a cable system, you will need to connect an antenna to your TV.

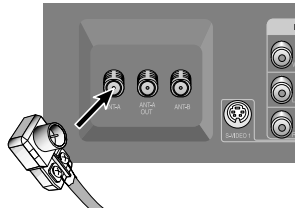
Antennas with 300-ohm Flat Twin Leads

If your antenna looks like this:  it has 300-ohm flat twin leads.

- 1 Place the wires from the twin leads under the screws on the 300-75 ohm adapter (included). Use a screwdriver to tighten the screws.



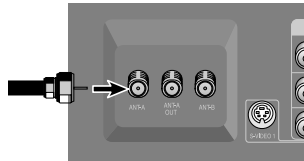
- 2 Plug the adapter into the ANT A terminal on the back panel of the TV.



Antennas with 75-ohm Round Leads

If your antenna looks like this:  it is an antenna with 75-ohm round leads.

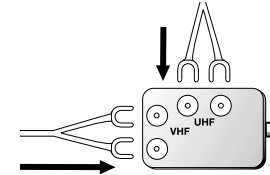
- 1 Plug the antenna lead into the ANT A terminal on the back panel of the TV.



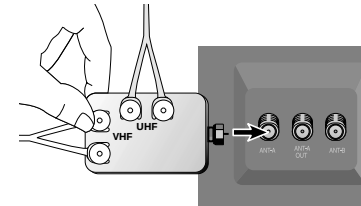
Separate VHF and UHF Antennas

If you have two separate antennas for your TV (one VHF and one UHF), you must combine the two antenna signals before connecting them to the TV. This requires a combiner attachment, which you can buy at an electronics store.

- 1 Connect both antenna leads to the combiner.



- 2 Plug the combiner into the ANT A terminal on the back panel of the TV.



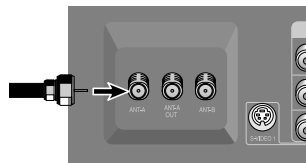
Connecting Cable TV and VCR

You can connect different cable systems to your TV, including cable without a cable box, and cable with a cable box that descrambles some or all channels.

Cable without a Cable Box

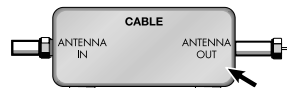
If you want to connect cable, and you do not need to use a cable box:

- 1 Plug the incoming cable into the ANT A antenna terminal on the back of the TV.

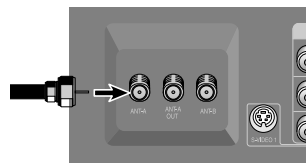


Cable with a Cable Box that Descrambles All Channels

- 1 Find the cable that is connected to the ANTENNA OUT terminal on your cable box. This terminal might be labeled "ANT OUT," "VHF OUT," or simply, "OUT."

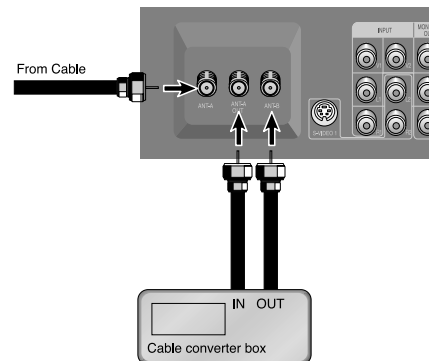


- 2 Connect the other end of this cable to the ANT A antenna terminal on the back of the TV.



Connecting a Cable Converter Box

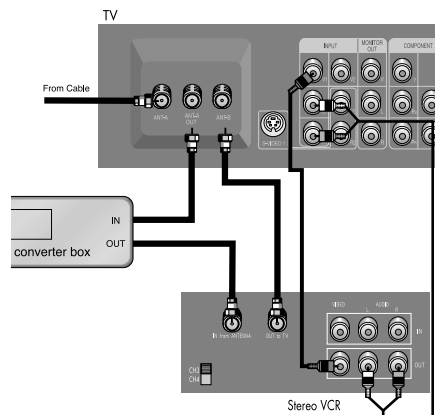
This connection allows you to watch cable and premium channels. You should keep your TV selected to ANT A so that you can use the TV features. When viewing premium channels, select ANT B and tune the TV to channel 3 or 4 (whichever channel is vacant in your area), then use the converter box to change channels. You will need two coaxial cables.



Note: When you use a converter box with your TV, there may be features that you can not program using the remote control, such as programming your favorite channels and blocking channels.

Connecting a Cable Converter Box and a VCR

This connection allows you to watch and record basic and premium cable channels, as well as watch videotapes. You should keep your TV selected to ANT A so that you can use the TV's features. When viewing premium channels or recording with the VCR, select ANT B (whichever channel is vacant in your area), then use the converter box to change channels.



Caution: If you want to record one channel while watching another channel, a splitter (not included) must be added between the cable and ANT A. One output of the splitter goes to ANT A and the second output is connected to IN on the cable converter box.

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

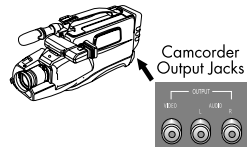
If you have a S-VHS VCR, use the S-video connections and remove the video cable. Do not connect the video cable and the S-video cable to video1 simultaneously.

When you use a converter box with your TV there may be features that you can not program using the remote control, such as programming your favorite channels and blocking channels.

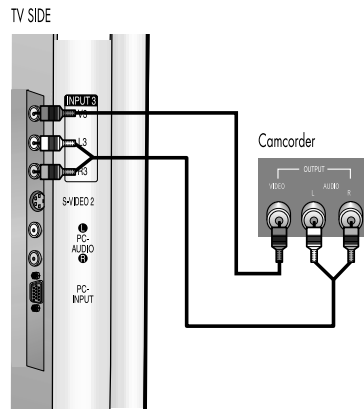
Connecting a Camcorder

The side panel jacks on your TV make it easy to connect a camcorder to your TV. You can use your camcorder to view tapes without using a VCR.

- 1 Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.



- 2 Connect an audio cable between the AUDIO OUTPUT jack on the camcorder and the AUDIO terminals on the side of the TV. If your camcorder is stereo, you must connect two separate cables. (The audio cables are usually included with the camcorder.)



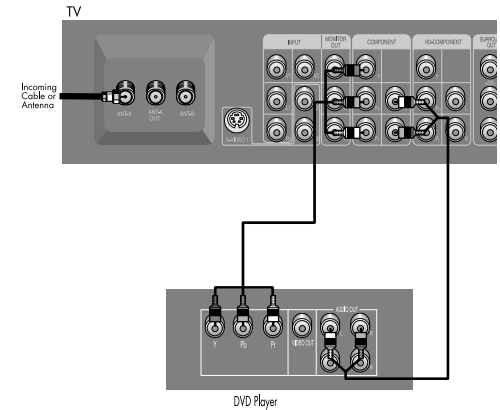
- 3 Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the VIDEO terminal on the side of the TV. (A video cable is usually included with the camcorder.) To watch a tape, follow your camera's instructions and the section on "Viewing a VCR, DVD or Camcorder Tape" in this manual.

Connecting a DVD Player

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

Connecting to Y,Pb,Pr

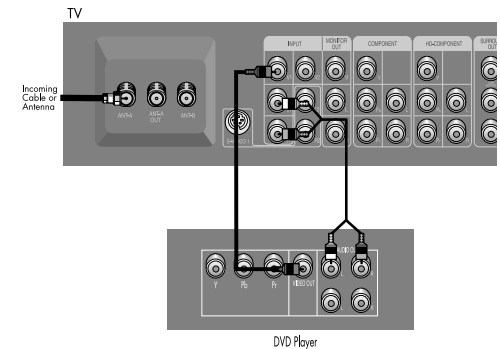
- 1 Connect a set of audio cables between the Component audio in jacks on the TV and the AUDIO OUT jacks on the DVD player.



- 2 To enable Component video viewing, connect video cables between the Y, Pb and Pr inputs on the TV and Y, Pb and Pr (or Y, Cb, Cr) outputs on the DVD player.
Note: For an explanation of Component video, see your DVD player's owner's manual.

Connecting to audio and video jacks

- 1 Connect a set of audio cables between the Audio in jacks on the TV and the AUDIO IN jacks on the DVD player.

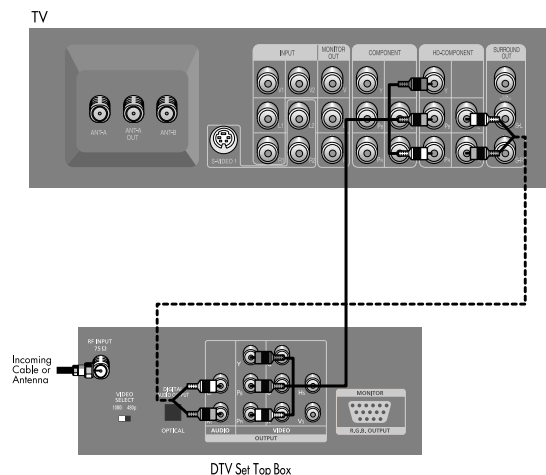


- 2 Connect video cables between the VIDEO OUT jack on the DVD player and the VIDEO IN jack on the TV.

Connecting a DTV Set Top Box

- 1 Connect AUDIO outputs of the Set Top Box to the HD-COMPONENT AUDIO L/R input of the TV.

- 2 Connect Y/Pb/Pr (or Y, Cb, Cr) jacks of the Set Top Box to the HD-COMPONENT Y/Pb/Pr jacks of the TV.

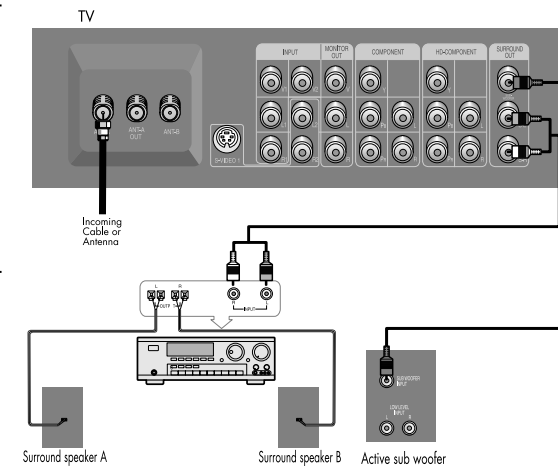


Note: The DTV Set-Top-Box connection is not supported in PC mode.

Connecting Surround Speakers

- 1 Connect inputs of an amplifier to the SURROUND OUT outputs of the TV. Then connect the surround speakers to your amp.

- 2 Connect the subwoofer input on the active subwoofer to the subwoofer jack on the rear of the TV. Note: Use a subwoofer with a built-in amp.





Operation

SAMSUNG

Turning the TV On and Off

Press the Power button on the remote control or on the side panel to turn your TV on and off.

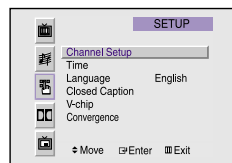
Adjusting Basic Convergence

If the color appears spread out or “smeared” on the screen, the convergence probably needs alignment. Be sure to use the remote control for the convergence adjustments.

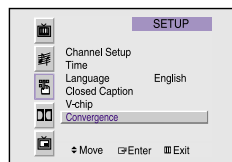
First steps:



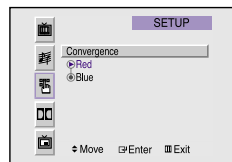
- 1 With the power on, press the Menu button on the remote control. Move the joystick down to select SETUP, then press the joystick to enter.



- 2 Move the joystick down to select “Convergence”, then press the joystick to enter.



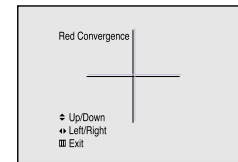
- 3 The “Convergence” screen will appear, and the word “Red” will be highlighted.



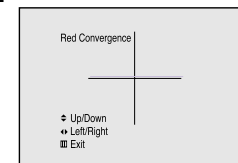
Adjust Red Convergence



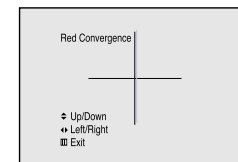
- 4 While “Red” is highlighted, press the joystick to enter. A crosshair pattern will appear on the screen. If either a vertical or a horizontal red line is visible, then the convergence needs alignment.



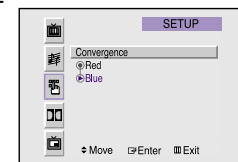
- 5 If a horizontal red line is visible, move the joystick up and down to move the line so that it is superimposed on the horizontal center-line (i.e., make a single horizontal line that is as white as possible.)



- 6 If a vertical red line is visible, move the joystick right and left to move the line so that it is superimposed on the vertical-center line (i.e., make a single vertical line that is as white as possible.)

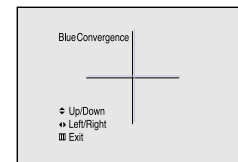


- 7 At this point, the Red convergence is correctly adjusted. Press Menu, then move the joystick down to select “Blue”.



Adjust Blue Convergence

- 8 While the word “Blue” is highlighted, move the joystick to enter. When the crosshair pattern appears, move the joystick to convergence the blue line (same procedure as in steps 1~7, above). After the blue convergence is correctly adjusted, press Menu to exit menu.



NOTE

Some flashes may appear on the screen during the convergence adjustments. This does not indicate a problem and is normal.

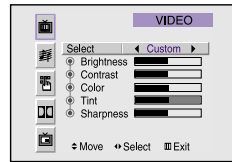
Viewing the Menus and Displays

The on-screen menu system allows you to control the settings of your TV. Access the on-screen menu system by pressing the Menu button on the remote control. Once the on-screen menu appears, use the joystick button on your remote control to move between menu items, select menu items, and make adjustments. You can also view the on-screen menu system and make some adjustments using the TV's side panel buttons.

Displaying the Menus



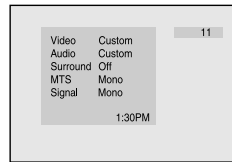
- 1 With the power on, press the Menu button on the remote control. The main menu appears on the screen. The Video menu is selected.



- 2 Use the joystick (up, down) button to move to items in the menu. Use the joystick (left, right) button to display, change, or use the selected items. Use the joystick (Enter) button to enter items in the menu. On-screen menus disappear from the screen automatically after about thirty seconds, or you can press the Menu button on your remote control to exit the menu.

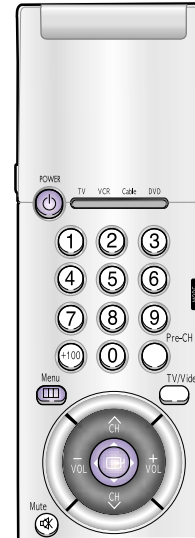
Displaying Status Information

- 1 Press the Display button on the remote control. The TV will display the channel, current time, and the audio signal you are listening to.

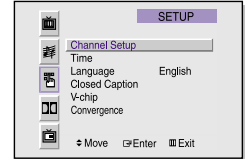


Selecting the Menu Language

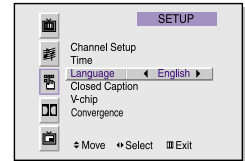
Choose a language for the on-screen menus: English, Spanish or French.



- 1 Press the Menu button. Move the joystick down to select SETUP, then press the joystick to enter.



- 2 Move the joystick down to select "Language."

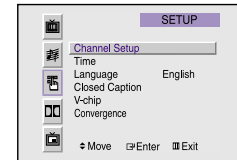


- 3 Move the joystick right or left to select the language. Press the Menu button on the remote control to exit the menu.

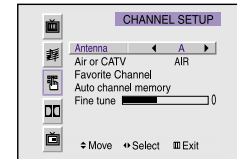
Selecting the Antenna Input

You can connect to two different signal sources by choosing the antenna input(ANT A or ANT B).

- 1 Press the Menu button. Move the joystick down to select SETUP, then press the joystick to enter.



- 2 Press the joystick to enter. The channel setup menu will appear. The first line of the menu is selected.



- 3 Move the joystick right or left to select "ANT A" or "ANT B". Press the Menu button on the remote control to exit the menu.

NOTE

When the cable box output is connected to ANT-B, it cannot be viewed in the PIP window.

Channel Memory

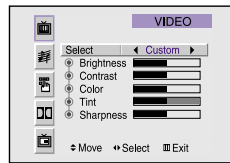
Your TV can memorize and store all of the channels available. Once the channels are memorized, you can use the CH $\wedge$ and CH $\vee$ buttons to scan through the available channels.

Selecting the Broadcast Source

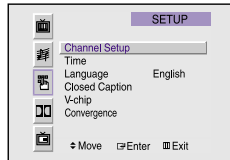
Before memorizing available channels, you must select what broadcast source your TV is connected to, either an antenna or a cable system.



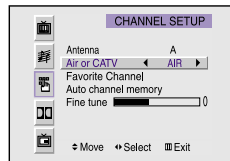
- 1 Press the Menu button on the remote control to display the on-screen menu.



- 2 Move the joystick down to select SETUP, then press the joystick to enter.



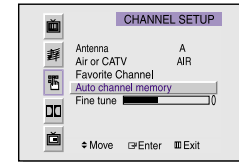
- 3 Press the joystick to enter. The channel setup menu will appear. Move the joystick down to select "Air or CATV".



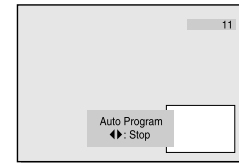
- 4 If you are connected to an antenna, leave "AIR" displayed. If you connected cable, press the joystick to the right to display the type of cable system: "STD," "HRC," or "IRC." (If you are not sure which type of cable system you have, contact your cable company.)

Storing Channels in Memory Automatically

- 1 First, select the broadcast source as described on the previous page. With the CHANNEL SETUP menu on screen, move the joystick down to select "Auto channel memory."



- 2 Press the joystick to enter. The TV will begin memorizing all of the available stations. Move joystick right or left at any time to interrupt the memorization process.
If the TV set stops operation when AUTO PROGRAM runs, it is recommended to re-run the program.



Note: When the ANT B mode is selected, the auto programming runs on the main screen.

Adding and Erasing Channels

- 1 Use the number buttons to select the channel you want to add or erase.
- 2 To add a channel, select it and press the Add/Erase button on the remote control. The channel will be added to the TV's memory and the word "Add" will appear in the corner of the screen.
- 3 To erase a channel, select it and then press the Add/Erase button on the remote control. The word "Erase" will appear in the corner of the screen. You can still view a channel that has been erased from memory by using the number buttons on the remote control to select the channel directly.

Changing Channels

You can change channels on your TV by using the CH $\wedge$ and CH $\vee$ buttons, or by direct selection using the number buttons. You can use the number buttons to tune to any channel (even one that has been erased or has not been memorized).



Using the Channel Buttons

Press the CH $\wedge$ or CH $\vee$ buttons to change channels. The TV changes each channel in order, up or down, depending on which button you press. 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 not memorized or have been erased.

Using the Number Buttons

To change to single-digit channels (0–9) faster, press “0” before the single digit.

Example: For channel 4, press “0,” then “4.”

To select a channel over 100, press the +100 button first.

Example: For channel 122, press “+100,” then “2,” then “2.”

Using the Previous Channel

Press the Pre-ch button on the remote control. The TV changes to the last channel you were watching.

Scanning channels

You can automatically scan all of the channels in memory at the touch of just one button. Press the Scan button on the remote control. The TV will change the channels automatically, one by one. To stop channel scan, press the Scan button again.

Note: When the ANT B mode is selected, the channels scan function doesn't work.

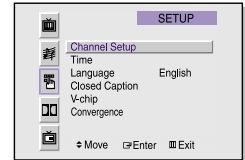
Selecting Your Favorite Channels

You can store up to ten of your favorite channels for each available input source (such as TV and CATV). Then, when you press the Fav.CH button on the remote control, the TV displays only the favorite channels you previously stored, allowing you to quickly and easily find frequently watched channels.

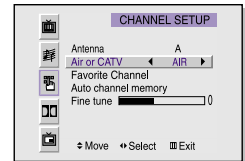


To Store Your Favorite Channels:

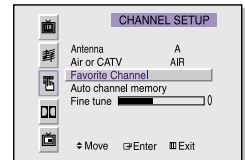
1 Press the Menu button. Move the joystick down to select SETUP, then press the joystick to enter.



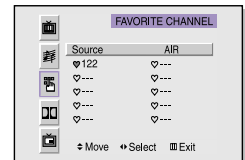
2 Press the joystick to enter. The channel setup menu will appear. Move the joystick down to select Air or CATV, then move the joystick to the right to display the type of cable system or Air.



3 Move the joystick down to select “Favorite Channel”, then press the joystick to enter.



4 Move the joystick to the left or right to select channel. Note: Only memorized channels can be set as Favorite channels.



To View Your Favorite Channels:

Press the Fav.CH button repeatedly to jump from one favorite channel to another.

Sound Control

You can control and customize the sound levels and settings of the TV with the remote control. Using the on-screen menus, you can change the TV's bass, treble, and balance settings.



Adjusting the Volume

Press VOL + to raise the volume or VOL - to lower the volume.

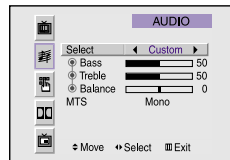
Using the Mute Button

Press the Mute button on the remote control to silence the volume. The word "Mute" will appear in the lower left corner of the screen.

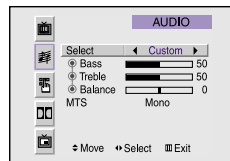
To turn mute off, press the Mute button again, or raise or lower the volume with the VOL - and VOL + buttons.

Customizing the Sound

- 1 Press the Menu button on the remote control to display the on-screen menu. Move the joystick down to select the AUDIO menu. Press the joystick to enter.

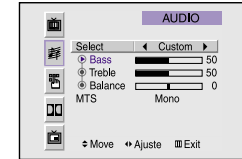


- 2 You will see the items "Bass," "Treble," "Balance," and "MTS."

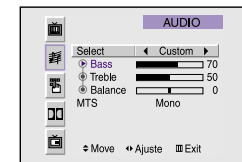


Continued...

- 3 Move the joystick down to select the item you want to change.



- 4 Move the joystick right or left to raise or lower the value of the item, using the on-screen gauge as your guide.



You can continue to make adjustments, or press the Menu button to exit.

Using Automatic(Standard) Sound Settings

- 1 Press the S.Mode button on the remote control to change the automatic sound setting.



- 2 Press the S.Mode button again to select the "Standard," "Music," "Movie," "Speech," or "Custom" sound setting.

Guide to Automatic Sound Settings

- Choose Standard for the "factory" settings (the best choice for most people).
- Choose Music when watching music videos or concerts.
- Choose Movie when watching a movie.
- Choose Speech when watching a show that is mostly dialogue, like a news show.
- Choose Custom if you want to adjust the settings yourself.

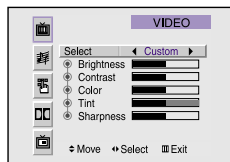
Picture Control

Using the remote, you can change the contrast, brightness, tint, color, and sharpness settings of the TV.

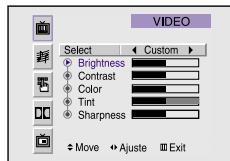


Customizing the Picture

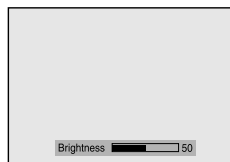
- 1 Press the Menu button.
Press the joystick to enter.
Move joystick left or right to select "Custom".
You will see the items "Brightness," "Contrast," "Color," "Tint," and "Sharpness."



- 2 Move the joystick down to select the item you want to change.



- 3 Move the joystick right or left to raise or lower the value of the item.



When you are finished adjusting an item, wait a moment. The level indicator will disappear and the Video menu will return. You can continue to make adjustments, or press the Menu button to exit.

Using Automatic ("Standard") Picture Settings

- 1 Press the P.Mode button on the remote control to change the picture settings.
- 2 Press P.Mode repeatedly to select the "Standard," "Mild," or "Custom" picture setting.



Guide to Automatic Picture Settings

- Choose Standard to set the TV to operate at top performance according to your TV's specifications.
- Choose Mild when viewing the TV in low light, or when playing video games.
- Choose Custom if you want to adjust the settings yourself.