

# **DLP TV**

## Owner's Instructions PT50DL24 PT61DL34



This device is a Class B digital apparatus.

## A Guide to Digital TV

## • What is Digital Television?

Digital television (DTV) is a new way of transmitting high quality video and audio to your TV set. Using DTV, broadcasters can transmit high definition TV (HDTV) images, Dolby digital surround audio, and new services such as multicasting (transmitting more than one program on the same TV channel) and datacasting. Several of these services can be combined into a single digital broadcast.

## **Digital Television Services**

#### • Digital Picture Quality

DTV programs are transmitted in two different formats. The first is Standard Definition Television (SDTV) and the second is High Definition Television (HDTV).

- **SDTV** program formats include 480-line interlaced (480i) and 480-line progressive (480p) video. 480i programs are essentially a digital version of our current analog TV programs, while the 480p format offers improved image detail over 480i. Some 480p programs are broadcast in widescreen and are comparable to progressive-scan DVD movies in image quality.
- **HDTV** program formats include 1080-line interlaced (1080i) and 720-line progressive (720p). Both HDTV formats are always broadcast in widescreen, and offer much higher picture quality than SDTV.

#### • Dolby Surround Sound

With DTV, you can listen to a variety of Dolby digital audio formats from Dolby Surround 2.0 to Dolby Digital 5.1 surround, using your home audio system. Many HDTV programs are now broadcast with DD 5.1 soundtracks.

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#### 1. Is the antenna I use for existing TV reception good enough for DTV?

Over-the-air (OTA) digital TV broadcasting uses the same channels as analog TV and works well with many existing TV antennas. However, DTV broadcast channel assignments are different than analog channels. You should find out whether your local DTV broadcasts are on VHF (channels 2-13) or UHF (channels 14-69) to see if you need a different antenna.

If your DTV channels are on UHF and you already get good UHF reception, your present antenna may work fine. The same holds true for VHF DTV reception. Note that in some markets, both VHF and UHF channels are used for DTV broadcasts.

You can find out the latest DTV channel assignments for your area by browsing selected Internet web sites such as www.titantv.com, www.10000watts.com, and www.fcc.gov.

#### 2. How difficult is it to receive DTV signals indoors?

This depends on whether your local DTV stations are running full power or not and how close your location is to the transmission tower. DTV receivers do not require as much signal as analog TV receivers to produce high-quality images and sound.

Once the DTV signal level exceeds a certain threshold at the receiver, the digital video and audio data is decoded at the same quality it was originally encoded for broadcast. This is a big advantage for DTV over analog TV - there is no noise, ghosting, static, or scratchy audio.

# 3. How can I connect an antenna in my townhouse, co-operative apartment, condominium, or apartment?

The Federal Communications Commission's OTARD Rule (part of the Telecommunications Act of 1996) allows residents of condominiums, townhouse, or members of neighborhood associations to put up outside antennas for reception of broadcast TV signals as long as those antennas are not located in common areas and are no more than 12' in height.

Residents of rental units (apartments, etc.) are not covered by the OTARD rules and will have to use indoor antennas to receive DTV broadcasts. It is possible that the landlord of an apartment complex can provide broadcast DTV signals via a master TV antenna system to each apartment.

#### 4. Can I connect my DTV set-top receiver to my cable TV service?

Cable TV systems use a different method for transmitting digital TV programs that is currently incompatible with broadcast DTV set-top receivers. So you will still need to use an outdoor or indoor antenna to receive OTA broadcast DTV programs.

The good news is that you won't have to pay a monthly or per-program charge to watch OTA DTV and HDTV programs. They're free, unlike subscription satellite TV or premium cable TV. All you need is an antenna and a DTV set-top receiver to enjoy clear, sharp widescreen images and high-quality audio.

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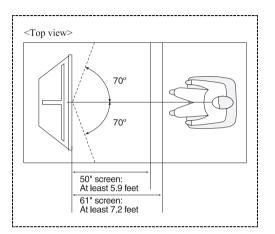


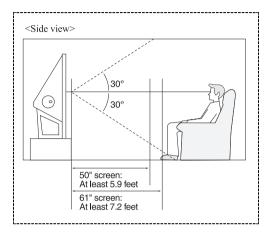
# Your New Wide TV

## Your New Wide TV

## **Viewing Position**

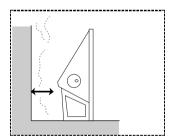
To optimize your viewing comfort, please follow the guidelines below for viewing distance. If viewing for an extended period of time, sit as far back from the screen as possible.





When installing the product, make sure to keep it away from the wall (more than 10 cm/4 inches) for ventilation purposes.

• Poor ventilation may cause an increase in the internal temperature of the product, resulting in a shortened component life and degraded performance.

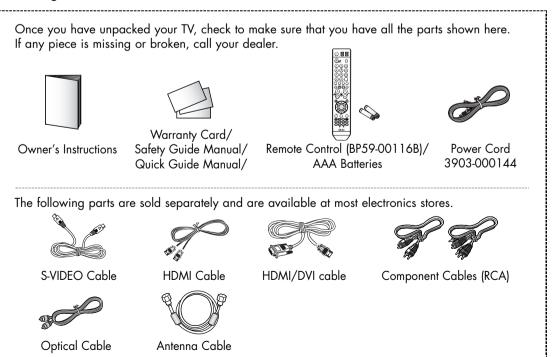


## List of Features

Your 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 right side buttons 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
- 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
- Widescreen TV with adjustable image size
- Life-like clear images provided by DCE technology
- My Color Control Mode for corresponding with your color style
- Color weakness Mode
- Digital Input jack
- Digital Audio Output (OPTICAL) jack
- Game Mode

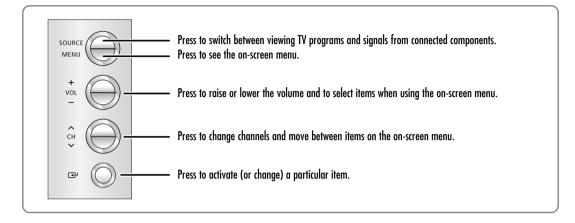
## **Checking Accessories**



## Your New Wide TV

## **Right side buttons**

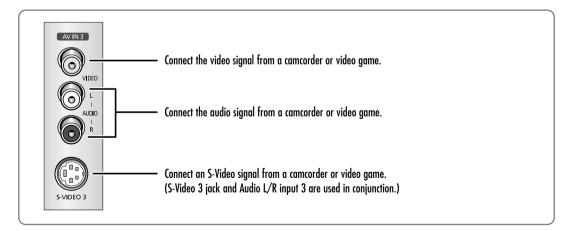
The buttons on the right side panel control your TV's basic features, including the on-screen menu system. To use the more advanced features, you must use the remote control. The product color and shape may vary depending on the model.



## Side Panel Jacks

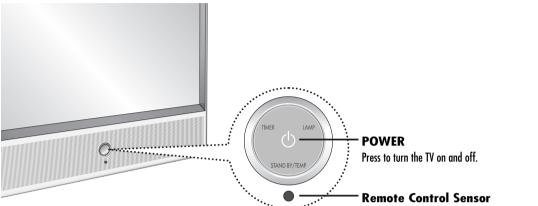
Use the right side panel jacks to connect a component that is used only occasionally (a camcorder or video game, for example).

The product color and shape may vary depending on the model.



## Front Panel LED Indicators

The three lights on the front panel indicate the status of your TV. The product color and shape may vary depending on the model.



Aim the remote control towards this spot on the TV.

## **Indicator Light Key**

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

TIMER	LAMP	STAND BY/TEMP	Indication
0	0	•	Standby state.
0	•	0	The picture will automatically appear in about 15 seconds.
•	•	0	Auto Timer ON/OFF has been set and the set will automatically be turned on in about 25 seconds.
•	0	•	A cooling fan inside the set is not operating normally.
0	•	•	Lamp cover on the rear of the set is not properly shut.
0	0	•	Check if the ventilation hole on the rear of the set is blocked, because if the inner temperature is too high, the power will shut off.
•	•	•	Lamp may be defective. Please contact a certified technician.

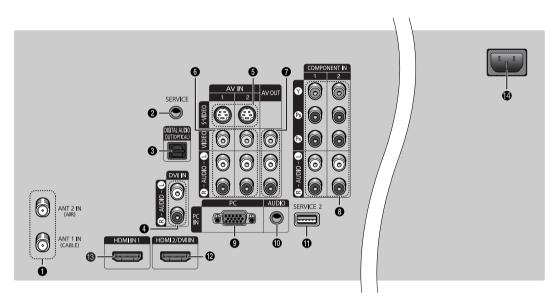
• It takes about 30 seconds for the TV to warm up, so normal brightness may not appear immediately.

• The TV has a fan to keep the inside lamp from overheating. You'll occasionally hear it working.

## Your New Wide TV

## **Rear Panel Jacks**

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



#### ANTENNA terminals

Two independent cables or antennas can be connected to these terminals. Use "ANT 1 IN (CABLE)" and "ANT 2 IN (AIR)" terminals to receive a signal from VHF/UHF antennas or your cable system. (Refer to pages 16~18)

**Ø** SERVICE

This jack is for service only.

- OIGITAL AUDIO OUT (OPTICAL) jack Connect to a Digital Audio Component. (Refer to page 23)
- DVI (Digital Video Interface) AUDIO input jacks Connect to the digital audio output jacks of a device with DVI
- output. (Refer to page 23) S-VIDEO input jacks

Connects an S-Video signal from an S-VHS VCR or DVD player. (Refer to page 20)

VIDEO/AUDIO input jacks Connect video/audio signals from external sources, such as VCR or DVD players. (Refer to pages 19 and 21)

#### **VIDEO/AUDIO** output jacks

Sends video/audio signals from the TV to an external source, such as a VCR. These jacks are available only in TV, Video and S-Video modes. (Refer to pages 19 and 24)

COMPONENT IN 1, 2 jacks (Y, PB, PR, AUDIO L/R) Use these jacks to connect the component video/audio signals from a DVD player or a Set-Top Box. (Refer to pages 21~22)

- PC VIDEO Input jack
   Connect these to the video output jack on your PC.
- PC AUDIO Input jack Connect these to the audio output jack on your PC. (Refer to page 104)
- SERVICE 2 This jack is for service only.
- HDMI (High Definition Multimedia Interface)/ DVI Input jack (HDMI 2/DVI IN) Connect to the HDMI jack of a device with HDMI output. This input can also be used as a DVI connection with separate analog audio inputs. An optional HDMI/DVI cable will be necessary to make this connection. When using the optional HDMI/DVI adapter, the DVI analog audio inputs on your TV allow you to receive left and right audio from your DVI device. (Not compatible with PC) (Refer to pages 22~23)
- HDMI (High Definition Multimedia Interface) Input jack (HDMI IN 1)

Connect to the HDMI jack of a device with HDMI output.

#### POWER IN

Connect the supplied power cord.

## **Remote Control**

You can use your remote control within a distance of 23 feet and an angle of 30 degrees from the left and right sides of the TV's remote control receiver. You can also use your remote control to operate your VCR, Cable box, DVD player and Set-top box. See pages 38~40 for details.

1. POWER

Turns the TV on and off.

- 2. Channel Number Press to directly tune to a particular channel.
- 3.

Press to select additional channels (digital and analog) being broadcast by the same station. For example, to select channel "54-3", press "54", then press "-" and "3".

4. ANTENNA Press to select "AIR" or "CABLE".

5. CH MGR Used to displays Channel Lists on the screen.

6. VCR/DVD Controls Controls VCR or DVD functions: Rewind, Stop, Play/Pause, Fast Forward.

7. VOL +, VOL -Press to increase or decrease the volume.

8. MUTE Press to mute the TV sound.

9. MENU Displays the main on-screen menu.

- ▲, ▼, ◄, ►, ENTER <sup>•</sup>
   Press to select highlight up, down, left, or right. While using the on-screen menus, press ENTER to activate (or change) a particular item.
- INFO Press to display information on the TV screen.
- 12. CAPTION Controls the caption decoder.
- 13. P.MODE

Adjust the TV picture by selecting one of the preset factory settings (or select your personal, customized picture settings.) (Refer to page 60)

14. S.MODE Select Sound effect. (Refer to page 75)

15. MTS (Multichannel Television Stereo) Press to choose Stereo, Mono or SAP

(Secondary Audio Program).

16. Mode

#### (TV/DVD/STB/CABLE/VCR)

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

#### 17. SOURCE

Press to display all of the available video sources (TV, AV1, AV2, AV3, S-Video1, S-Video2, S-Video3, Component1, Component2, PC, HDM11, and HDM12).

18. PRE-CH

Tunes to the previous channel.

19. DSE

DSE enhances the sound quality, automatically controls output, and prevents sound distortion. Press this button to set it On or Off. (Refer to page 81)

20. FAV.CH (Favorite Channel) Press to switch between your favorite channels.

21. CH /// Press to change channels.

**22. EXIT** Press to exit the menu.

- 23. SLEEP Press to select a preset time interval for automatic shut off. (Refer to page 44)
- 24. P.SIZE

Press to change the screen size. (Refer to page 63)

25. STILL

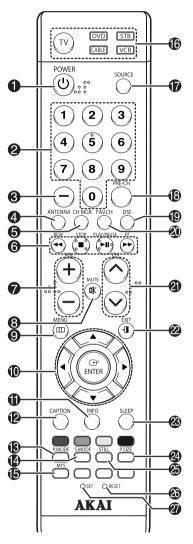
Press to pause the current screen. (Refer to page 70)

26. RESET

If your remote control is not functioning properly, take out the batteries and press the reset button for about 2~3 seconds. Re-insert the batteries and try using the remote control again.

27. SET

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



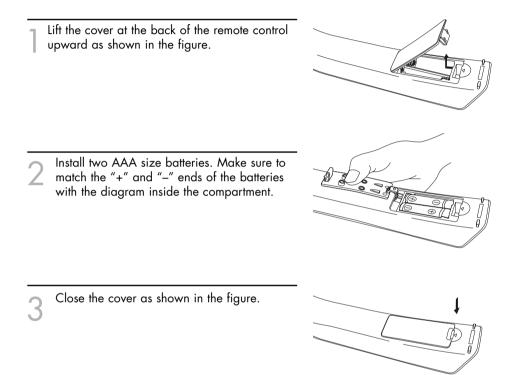
## NOTES

- The Color buttons are used during the channel list function. (Refer to pages 48~53)
- This is a special remote control for the visually impaired, and has Braille points on the POWER, VOL +, VOL −, CH ^/~, STOP, and PLAY/PAUSE buttons.

## Your New Wide TV

#### **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.



#### NOTE

• Do not mix battery types, i.e, alkaline and manganese.

# Connections

# Connections

## **Connecting VHF and UHF Antennas**

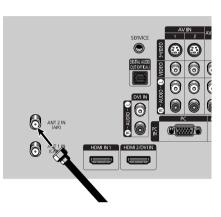
If you do not have a cable system, you will need to connect an antenna to your TV.

## Antennas with 75-ohm Round Leads

If your antenna looks like this:

it has 75-ohm round leads.

Plug the antenna lead into the ANT 2 IN (AIR) on the rear panel of your TV.

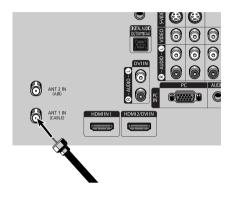


## Connecting Cable TV

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.

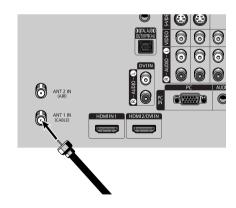
#### **Cable without a Cable Box**

Plug the incoming cable into the ANT 1 IN (CABLE) on the rear panel of your TV.



## Cable with a Cable Box that Descrambles All Channels

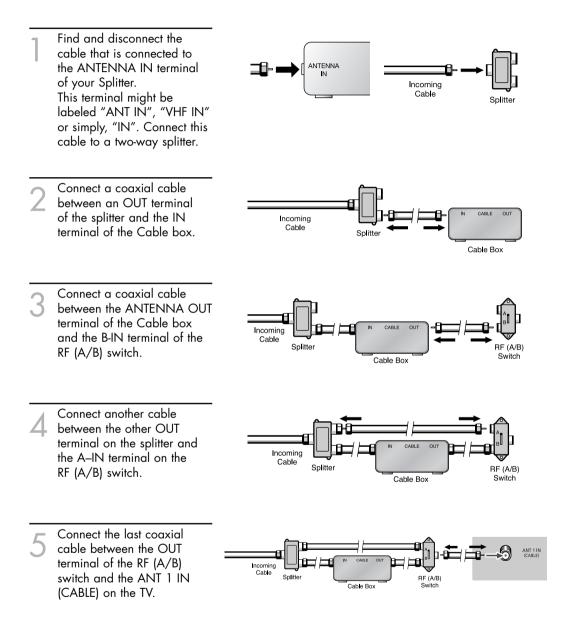
- Find the cable connected to the ANTENNA OUT terminal on your Cable box. This terminal might be labeled "ANT OUT", "VHF OUT" or simply "OUT".
- Cable Box
- Connect the other end of the cable to the "ANT 1 IN (CABLE)" terminal on the rear panel of your TV.



## Connections

## Cable with a Cable Box that Descrambles Some (But Not All) Channels

To complete this connection you will need a two-way splitter, an RF (A/B) switch, and four coaxial cables (which you can buy from your AKAI dealer or any electronics store).



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 Set-Top Box to the Cable box's output channel, which is usually channel 3 or 4.)

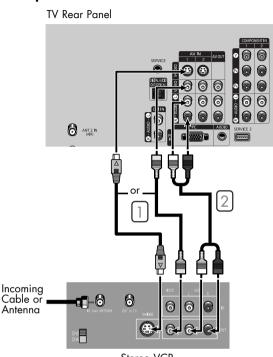
## Connecting a VCR

## Connecting a VCR to the Video or S-Video/Audio jack

- Connect a video cable between the VIDEO IN (1 or 2) (or S-VIDEO IN) jack on the TV and the VIDEO (or S-VIDEO) output jack on the VCR.
- 2 Connect a set of audio cables between the AUDIO IN (1 or 2) jacks on the TV and the AUDIO output jacks on the VCR.

## **NOTES**

- For better video, use an S-Video cable.
- Please be sure to match the color coded input terminals and cable jacks.



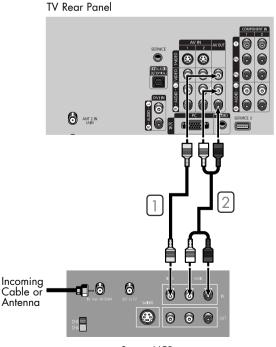
Stereo VCR

## Connecting a Second VCR to Record from the TV

- Connect a video cable between the VIDEO OUT jack on the TV and the VIDEO input jack on the VCR.
- 2 Connect a set of audio cables between the AUDIO OUT jacks on the TV and the AUDIO input jacks on the VCR.

#### NOTES

- Refer to your VCR's instructions for more information about how to record using this kind of connection.
- Please be sure to match the color coded input terminals and cable jacks.



Stereo VCR

## Connections

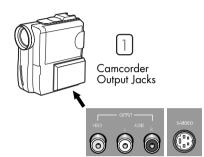
## Connecting a Camcorder

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.

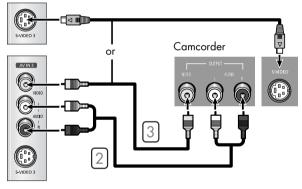
- Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.
- 2 Connect a set of audio cables between the AUDIO IN jacks on the TV and the AUDIO output jacks on the camcorder. If you have a mono Camcorder, connect L(mono) to the Camcorder audio out using only one audio cable.
- 3 Connect a video cable between the VIDEO IN (or S-VIDEO IN) jack on the TV and the VIDEO (or S-VIDEO) output jack on the Camcorder. 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.

## NOTE

Please be sure to match the color coded input terminals and cable jacks.



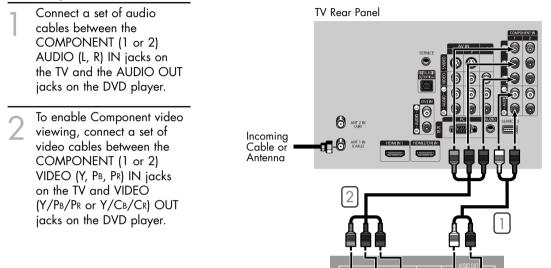
TV Rear of right side



## **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



DVD Player

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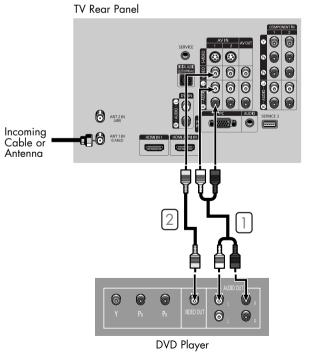
6

#### **Connecting to Audio and Video Jacks**

- Connect a set of audio cables between the AUDIO IN (1 or 2) jacks on the TV and the AUDIO OUT jacks on the DVD player.
- 2 Connect a video cable between the VIDEO IN (1 or 2) jack on the TV and the VIDEO OUT jack on the DVD player.

## NOTES

- Component Video separates the video into Y(Luminance (Brightness)), P<sub>B</sub> (Blue) and P<sub>R</sub> (Red) for enhanced video quality.
- Please be sure to match the color coded input terminals and cable jacks.



# Connections

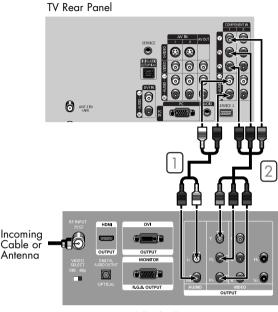
## Connecting a DTV Set-Top Box

## Connecting to Y, PB, PR

- Connect a set of audio cables between the COMPONENT (1 or 2) AUDIO (L, R) IN jacks on the TV and the AUDIO OUT jacks on the Set-Top Box.
- 2 Connect a set of video cables between the COMPONENT (1 or 2) VIDEO (Y, PB, PR) IN jacks on the TV and VIDEO (Y/PB/PR or Y/CB/CR) OUT jacks on the Set-Top Box.

## NOTE

Please be sure to match the color coded input terminals and cable jacks.



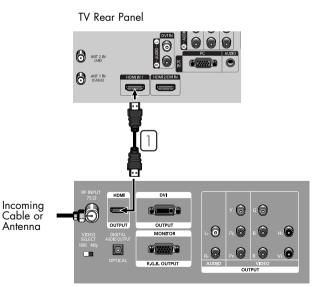
DTV Set-Top Box

## **Connecting to HDMI (High Definition Multimedia Interface)**

Connect an HDMI cable between the HDMI IN 1 jack on the TV and the HDMI OUT jack on the Set-Top Box.

## NOTE

 Make sure the HDMI/DVI source's power is on, or you will be unable to select it in the TV menu's source list.



DTV Set-Top Box

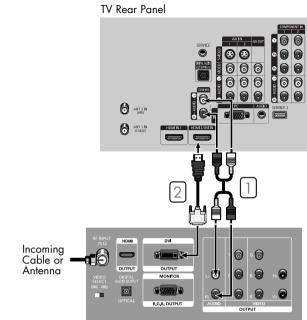
#### **Connecting to DVI (Digital Visual Interface)**

Connect a set of audio cables between the DVI AUDIO (L, R) IN jacks on the TV and the AUDIO OUT jacks on the Set-Top Box.

2 Connect an HDMI/DVI cable between the HDMI 2/DVI IN jack on the TV and the DVI OUT jack on the Set-Top Box.

#### **NOTES**

- Make sure the DVI source's power is on, or you will be unable to select it in the TV menu's source list.
- The HDMI/DVI IN jack is not compatible with PC.



DTV Set-Top Box

## Connecting a Digital Audio System

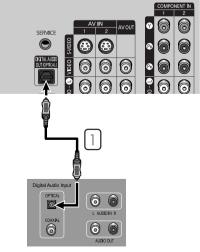
There are many types of digital audio systems on the market today. A simplified illustration of an audio system is shown below. For more information, see your audio system owner's manual.

If your audio system has an optical digital audio input, connect to the DIGITAL AUDIO OUT (OPTICAL) jack on the TV.

#### **NOTES**

- OPTICAL: converts the electric signal into an optical light signal, and transmits it through glass fibers.
- When a Digital audio system is connected to the Digital Audio Out (Optical) terminal: Decrease the gain (volume) of the TV, and adjust the volume level with the audio system's volume control.

TV Rear Panel



Audio System

# Connections

## Connecting to an Analog Amplifier

The AV OUT (AUDIO L/R)

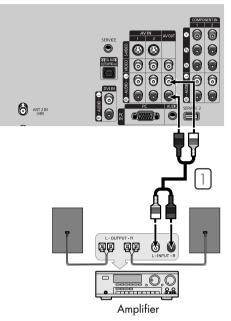
terminals cannot be used for external speakers. You must hook them up to an amplifier.

When an audio amplifier is connected to the AV OUT (AUDIO L/R) terminals: Decrease the gain (volume) of the TV, and adjust the volume level with the volume control audio amplifier.

NOTE

 If using the HDMI/DVI, PC, or Component input on the TV, the audio output signal is available only when the TV's Internal Mute is set to on. (Refer to page 79)





	Internal	Speakers	Audio Out (Optical, L/R Out)		
	Internal Mute Off	Internal Mute On	Internal Mute Off	Internal Mute On	Video Output
RF AV S-Video	Active	Inactive	Active	Active	Active
Component PC HDMI	Active	Inactive	Active	Active	Inactive

When "Internal Mute" is set to "On", Sound menus except "Multi-Track Options" cannot be adjusted.

# Operation

# Operation

## Turning the TV On and Off

Press the POWER button on the remote control. You can also use the **U** (Power) button on the front panel.

## Plug & Play Feature

When the TV is initially powered On, basic customer settings proceed automatically and subsequently: Setting the language, checking the antenna input, memorizing the channels, and setting the time.

## NOTE

• The Plug & Play function operates after plugging in the TV for the first time.

1	Press the POWER button on the remote control. The message "Menu language, Channels and Time will be set." is displayed. Press the ENTER button, then the Language menu is displayed.	Menu language, Channels and Time will be set. Start
	<ul> <li>The Language menu will automatically appear after several seconds, even if the ENTER button is not pressed.</li> </ul>	
2	Press the ENTER button to enter the language. Press the $\blacktriangle$ or $\checkmark$ button to select language, then press the ENTER button. "Selects the antenna to execute the Auto Program Function." menu is automatically displayed.	Plug & Play Select the language of the OSD. Language English Español Français
	• The message to check the connected status of the antenna is displayed.	♦ Move 🖙 Enter 🎹 Skip
3	Press the ▲ or ▼ button to memorize the channels of the selected connection. Press the ENTER button to select "Start".	Plug & Play Selects the antenna to execute the Auto Program function. Air Start
		Cable Start

Air+Cable

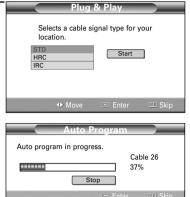
Start

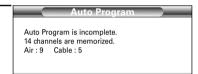
- If the antenna is connected to ANT 1 IN (CABLE), select "Cable" and if it is connected to ANT 2 IN (AIR), select "Air".
- If both ANT 1 IN and ANT 2 IN are connected, select the "Air + Cable".

Continued...

- Press the ENTER button to start the auto program. By default, the cable TV system is set to "STD".
  If you want to select another type of cable system, press the ◄ button and use the ▲ or ▼ button to select "STD", "HRC" or "IRC".
  Press the ENTER button.
  - 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.
- The TV will begin memorizing all of the available channels. After all the available channels are stored, the Auto program menu reappears. Press the ENTER button at any time to interrupt the memorization process. Press the ENTER button, then the menu

to set the clock mode is automatically displayed.





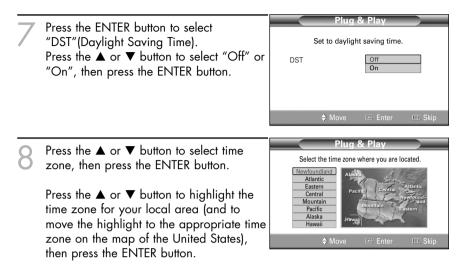
) M Pre or	ess the ENTER button to select "Clock ode". ess the ▲ or ▼ button to select "Auto" "Manual", then press the ENTER tton.	Pluc Sets the current time r Clock Mode	nanually or auto	omatically.
		Move	🖙 Enter	🎞 Skip

Continued...

# Operation

## **Option 1: Setting the Clock Automatically**

If you set "Clock Mode" to "Auto" in step 6, follow the instructions below.



- When you set up Auto Time, the set time may not be correct depending on the broadcasting station and signal. If there is a difference between the real time and set time, please set the time manually.
- The message "Enjoy your watching." is displayed. When you have finished, press the ENTER button.

i	Enjoy your watching.
	ОК

OK

## **Option 2: Setting the Clock Manually**

If you set "Clock Mode" to "Manual" in step 6, follow the instructions below.

Plug & Play Press the ◀ or ► button to move to "Month", "Day", "Year", "Hour", "Minute", or "am/pm". Enter the current date and time. Month Day Year Set the clock you want by pressing Minute Hour am/pm the  $\blacktriangle$  or  $\blacktriangledown$  button, then press the ENTER button. You can set the month, day, year, hour and minute directly by pressing the number buttons on the remote control. The message "Enjoy your watching." is Enjoy your watching i displayed. When you have finished, press the ENTER button.

## Viewing the Menus and On-Screen 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  $\Delta/\nabla/\langle / \rangle$ /ENTER buttons on your remote control to 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.



#### **Viewing the Menus**

- Press the MENU button. 🐔 Input Source List ·TV The main menu is displayed. Edit Name Picture There are five menu groups: "Input", "Picture", "Sound", Sound "Channel", and "Setup". Channe 觉 Setup TV Press the  $\blacktriangle$  or  $\blacktriangledown$  button to 🐔 Input Mode : Dynamic ► select an item you want Size : 16:9 ► in the menu. Digital NR : On ▶ DCE : On Press the  $\blacktriangleleft$ ,  $\blacktriangleright$  or ENTER Sound My Color Control : Off button to display, change, Film Mode Channel or use the selected items. 🗴 Setup Use the ENTER button to **⇒** M enter items in the menu.
  - **Q** Press the EXIT button to exit.

## Viewing the Display

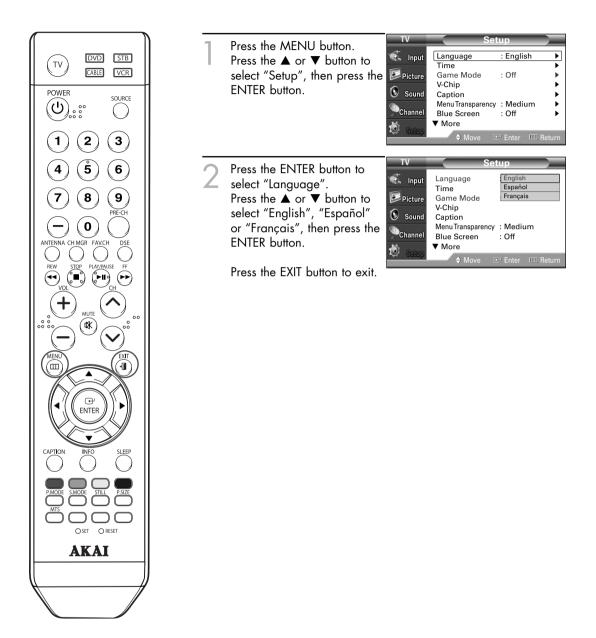
Press the INFO button on the remote control. The TV displays the current channel, the status of certain picture, sound settings and the current time. The information displayed varies

according to the selected source.

: Dynamic	
	: Dynamic : Custom : Mono : Off : Off

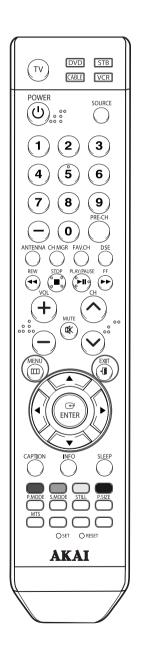
# Operation

## Selecting a Menu Language



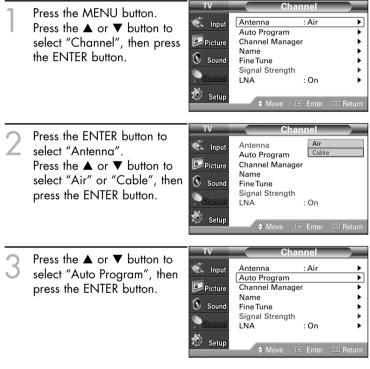
## Memorizing the Channels

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  $\land$  and CH  $\checkmark$  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 air or cable system).



Continued...

## NOTE

• All available DTV and analog channels are automatically stored in memory.

## Operation

- Press the  $\blacktriangle$  or  $\blacktriangledown$  button to select the Antenna connection, then press the ENTER button.
  - Air : "Air" antenna signal Cable : "Cable" antenna signal Air+Cable : "Air" and "Cable" antenna signals

TV	Auto Pro	gram
🐝 Input	Selects the antenna to Program function.	execute the Auto
Picture	Air	Start
Sound	Cable	Start
Channel	Air+Cable	Start
🔨 Setup	🕈 Move 🖃	Enter 🎟 Return

When selecting Cable TV system: Press the ENTER button to start the auto program. By default, the cable TV system is set to "STD". If you want to select another type of

cable system, press the ◀ button and use the  $\blacktriangle$  or  $\blacktriangledown$  button to select "STD", "HRC" or "IRC". Press the ENTER button.

TV	Auto Program	
<ul> <li>Input</li> <li>Picture</li> <li>Sound</li> <li>Chennel</li> <li>Setup</li> </ul>	Selects a cable signal type for your location.           STD         Start           HRC         IRC	
- Setup	💠 Move 🖙 Enter 💷 Return	

• 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.

Press the ► button to select "Start", then press the ENTER button to start the auto program. The TV begins memorizing all available stations. Press the ENTER button at any time to interrupt the memorization process.

Press the EXIT button to exit.

• The TV must be connected to an antenna in order to receive digital TV signals. Even if a particular channel is deleted from the memory, you can always tune to that channel directly by using the number buttons on the remote control.

TV	Auto Program
Input       Picture       Sound       Channel	Selects a cable signal type for your location.           STD         Start           HRC         IRC
🖄 Setup	◆ Move 🖃 Enter 🎟 Return
	Auto Program

Auto Program	
Auto program in progress.	
	Cable 26
	37%
Stop	
🖙 Enter	r 💷 Return

## **Changing Channels**

## **Using the Channel Buttons**

Press the CH  $\wedge$  or CH  $\vee$  button to change channels.

When you press the CH ∧ or CH ∨ button, 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.

#### **Using the Number Buttons**

Use the number buttons to quickly switch to any channel.

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.

## Using the "-" Button

The "-" button is used to select stations that broadcast both a digital and analog signal.



For example, for channel 7-1 (digital), press "7", then "-", then "1". Ficture Mode : Dynamic Sound Mode : Custom MTS : English Caption : Off V-Chip : Off 12:00 am For channel 7-2 (analog), press "7", then "-", then "2". Air 7-2 Mono Picture Mode : Dynamic Sound Mode : Custom MTS : Mono Caption : Off V-Chip : Off 12:00 am

## NOTE

 HD indicates the TV is receiving a Digital High Definition signal.
 SD indicates the TV is receiving a Analog standard definition signal.

## **Using the Previous Channel**

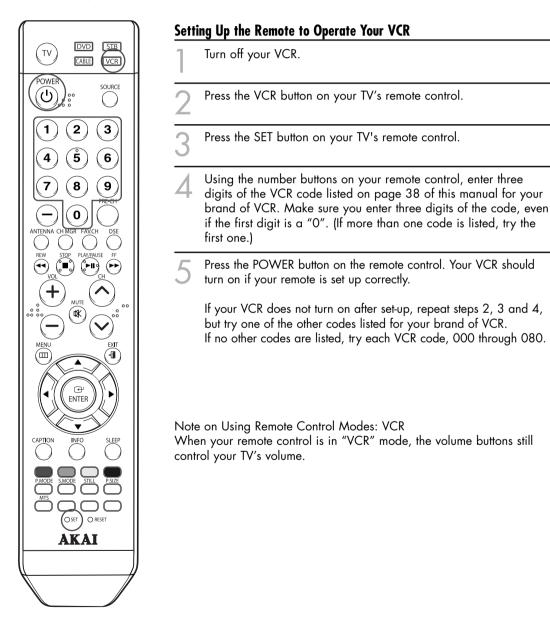
Press the PRE-CH button. The TV changes to the last channel you were watching.

## **Customizing Your Remote Control**

After it has been set up properly, your remote control can operate in five different modes: TV, VCR, Cable, DVD, or Set-Top Box. Pressing the corresponding button on the remote control allows you to switch between these modes, and control whichever piece of equipment you choose.

## NOTE

• The remote control might not be compatible with all DVD Players, VCRs, Cable boxes, and Set-Top Boxes.





## Setting Up the Remote to Operate Your Cable Box

Turn off your cable box.

- Press the CABLE button on your TV's remote control.
- Press the SET button on your TV's remote control.

Using the number buttons on your remote control, enter three digits of the cable box code listed on page 39 of this manual for your brand of cable box. Make sure you enter three digits of the code, even if the first digit is a "0".
(If more than one code is listed, try the first one.)

Press the POWER button on the remote control.

Your cable box should turn on if your remote is set up correctly.

If your cable box does not turn on after set-up, repeat steps 2, 3 and 4, but try one of the other codes listed for your brand of cable box. If no other codes are listed, try each code, 000 through 046.

Note on Using Remote Control Modes: Cable Box When your remote control is in "CABLE" mode, the volume buttons still control your TV's volume.

# Operation



## Setting Up the Remote to Operate Your DVD

Turn off your DVD.

- Press the DVD button on your TV's remote control.
- Press the SET button on your TV's remote control.
- Using the number buttons on your remote control, enter three digits of the DVD code listed on page 40 of this manual for your brand of DVD. Make sure you enter three digits of the code, even if the first digit is a "0". (If more than one code is listed, try the first one.)
- 5 Press the POWER button on the remote control. Your DVD should turn on if your remote is set up correctly.

If your DVD does not turn on after set-up, repeat steps 2, 3 and 4, but try one of the other codes listed for your brand of DVD. If no other codes are listed, try each code, 000 through 141.

Note on Using Remote Control Modes: DVD When your remote control is in "DVD" mode, the volume buttons still control your TV's volume.



#### Setting Up the Remote to Operate Your Set Top Box

Turn off your STB.

- Press the STB button on your TV's remote control.
- Press the SET button on your TV's remote control.

4 Using the number buttons on your remote control, enter three digits of the STB code listed on page 39 of this manual for your brand of STB. Make sure you enter three digits of the code, even if the first digit is a "O". (If more than one code is listed, try the first one.)

5 Press the POWER button on the remote control. Your STB should turn on if your remote is set up correctly.

If your STB does not turn on after set-up, repeat steps 2, 3 and 4, but try one of the other codes listed for your brand of STB. If no other codes are listed, try each code, 000 through 074.

Note on Using Remote Control Modes: STB When your remote control is in "STB" mode, the volume buttons still control your TV's volume

# Operation

# **Remote Control Codes**

#### VCR

Brand	Code
SAMSUNG	000 001 002 003 004 005 077 078 079
ADMIRAL	020
AIWA	025
AKAI	004 027 032
AUDIO DYNAMICS	007 026
BELL&HOWELL	018
BROKSONIC	022
CANDLE	002 003 006 008 015 055
CANON	021 056
CITIZEN	002 003 006 008 015 055
COLORTYME	007
CRAIG	002 024
CURTIS MATHES	002 007 008 017 021 025 056 064 066
DAEW00	003 010 011 012 013 014 015 016
DB	007 026
DIMENSIA	017
DYNATECH	025
ELECTROHOME	034
EMERSON	001 003 006 021 022 025 030 032 034 040 047 050
	052 060 063 065 066 067 069 073
FISHER	018 024 028 029 048 051 061
FUNAI	025
GENERAL ELECTRIC	002 005 017 021 056
GO VIDEO	002
LG(Goldstar)	006 007 008 009 010
HARMAN KARDON	007
HITACHI	019 025 041 042 074
INSTANT REPLAY	021
JC PENNEY	002 007 018 019 021 026 037 041 054 056
JCL	007 008 018 021 026 037
KENWOOD	007 008 018 026 037
KLH	070
LIOYD	025
	038
LXI	025
JVC	081 082 083
MAGNAVOX	021 056 059
MAGNAVUX	007 008 018 021 026 037 062
MARTA	006
	036
ORION	073 074 075 076
MEI	
MEMOREX	006 021 024 025
MGA	034
MIDLAND	005
MINOLTA	019 041 075

Brand	Code
MITSUBISHI	019 034 041 046
MONTGOMERY WARD	020
MTC	002 025
MULTITECH	002 005 025 038
NEC	007 008 018 026 037 062 064
OPTIMUS	020
PANASONIC	021 056 071 072
PENTAX	019 041 075
PENTEX RESEARCH+	008
PHILCO	021 056 059
PHILIPS	021 080
PIONEER	019 026 039 053
PORTLAND	015 049 055
PROSCAN	017
QUARTZ	018
QUASAR	021 056
RADIO SHACK/REALISTIC	006 018 020 021 024 025 029 034 048 056
RCA	002 017 019 021 035 041 043 057 068 076
SANSUI	026
SANYO	018 024
SCOTT	003 047 052 067
SEARS	006 018 019 024 028 029 041 048 051
SHARP	020 034 045 015
SHIMTOM	027 033 038 058
SIGNATURE	025
SONY	027 033 044
SYLVANIA	021 025 056 059
SYMPHONIC	025
TANDY	018 025
TASHIKA	006
TATUNG	037
TEAC	025 037 068
TECHNICS	021
TEKNIKA	006 021 025 031
ТМК	066
TOSHIBA	003 019 029 051 052
TOTEVISION	002 006
UNITECH	002
VECTOR RESEARCH	007 026
VICTOR	026
VIDEO CONCEPTS	007 026
VIDEOSONIC	002
WARDS	002 003 006 019 020 021 024 025 034 038 041
YAMAHA	007 008 018 026 037
ZENITH	023 027 033

### **Remote Control Codes**

#### CABLE BOX

Brand	Code
SAMSUNG	000 001 002 003 004 005 006 007
GI	041
HAMLIN	003 024 031
HITACHI	025 030
JERROLD	038 039
MACOM	025 030
MAGNAVOX	019 023 028
OAK	026
PANASONIC	003 022 027 037 044
PHILIPS	019 021 023 028
PIONEER	004 018 020 044
RCA	014 022 040
REGAL	003

Brand	Code
REGENCY	015 023
SA	042 043
SCIENTIFIC ATLAN	042 043
SPRUCER	022
STARGATE 2000	036
SYLVANIA	016
TEXSCAN	016
тосом	032
UNIVERSAL	033 034
VIEWSTAR	019 021 023 028
WAMER AMEX	046
ZENITH	017 029 035 037 045

Code

010

011 012

Product

Satellite STB HDD COMBO Premium CABLE STB HDD COMBO Standard

CABLE STB HDD COMBO Premium012Ground wave STB HDD COMBO Standard013

#### SAMSUNG SET-TOP BOX

Product	Code
Ground wave STB	001 002
Satellite STB	003
CABLE STB	004
STB DVD COMBO	008
Satellite STB HDD COMBO Standard	009

#### SET-TOP BOX

Brand	Code
ALPHASTAR	023
ANAM	043
CHANNEL MASTER	018 034
CROSSDIGITAL	019
CHAPARRAL	035
DIRECT TV	015 016 017 019 022 045 060 061 062 065 066 067 068
DAEW00	074
DISH NETWORK SYSTEM	069 070
DISHPRO	069
DRAKE	018 024 032
DX ANTENNA	027
ECHOSTAR	025 069 070 071
EXPRESSVU	069
GOI	069
GE	065
GENERAL INSTRUMENT	046 047 048 063 064
HTS	069
HOME CABLE	056
HITACHI	022
HUGHES NETWORK	015 017
IQ	020
IQ PRISM	020
JANEIL	059
JERROID	063
JVC	069 070

Ground wave STB HD	D COMBO Premium 014
Brand	Code
LG(Goldstar)	044 073
MAGNAVOX	016 021 036 038 039 040 041 042
MEMOREX	016
MOTOROLA	064
MACOM	018
MITSUBISHI	015
NEXT LEVEL	047 048 064
PHILIPS	015 016 017 021 033 036 038 039 040 041 042 067
PRIMESTAR	046 049 050 063
PANASONIC	058 059 061 062
PAYSAT	016
PROSCAN	065 066
RCA	051 052 053 065 066
RADIOSHACK	064
REALISTIC	057
STS	020 027
STAR TRAK	026
SKY	031
SKY LIFE	005 006 007
SHACK	064
STAR CHOICE	064
SONY	054 060
TOSHIBA	015 017 028 029 030 072
ULTIMATE TV	060 066
UNIDEN	016 021 037 055 056 057
ZENITH	024 031 068

continued...

# Operation

# **Remote Control Codes**

#### SAMSUNG DVD

Product	Code
DVD	000 001 002
DVDR	003 004
BD Record	005 006
VCR COMBO	007 008 009 010 011
VCR Record	012
DHR COMBO	013

Code
014 015 016
017
018
019
020
021

#### DVD

Brand	Code
ANAM	030
AUDIOVOX	075
AUDIOLOGIC	085
ANABA	072
APEX DIGITAL	070 071 074 086 083 084 088 111 112
AIWA	114
BROKSONIC	062
BLAUPUNKT	074
B&K	122 123
CURTIS MATHES	027
CYBER HOME	065 077 078 079 082
CLARION	080 125
CIRRUS	081
CINEVISION	095
DAEW00	066
DENON	146
FARENHEIT	067 068
FISHER	090
GPX	060
GO VIDEO	061 089 133 135
GE	069 074
GREENHILL	074
HITACHI	064 113
HITEKER	071
НОҮО	073
HARMAN / KARDON	091 110
IRT	089
INTEGRA	092
JBL	091
JVC	022 033 115 116
JATON	073
KENWOOD	051 108 109
KISS	073
KONKA	059 100 106 107
KLH	074 075
LG(Goldstar)	025 031
LOEWE	057
LASONIC	058
MOBILE AUTHORITY	054
MEMOREX	055
MALATA	056
MAGNAVOX	076 093
MINTEK	074 094
MONYKA	073

Brand	Code
NORCENT	048 049 050
NEXT BASE	052
NEC	053
NANTAUS	144
NESA	074
OPTOMEDIA ELECTRONICS	105
OPTIVIEW	072
ONKYO	076 092 119
PHILCO	044 045
PRINCETON	046 047
PROSCAN	023
PANASONIC	024 034 124 134 136 137 138
PHILIPS	036 076
ROTEL	117 118
RIO	120
RCA	023 035 074 075 131 132
RAITE	073
ROWA	038
SAMPO	104
SONY	026 029 126 127 128 129 130 141
SHERWOOD	039 041
SVA	042
SYLVANIA	043 093
SHARP	140
SANSUI	062
SANYO	062
SHINSONIC	094
SANYO	090
THOMSON	145
TOSHIBA	028 062 076
TECHNICS	139
TVIEW	072
ТОКАІ	073
TEAC	096
TECHWOOD	097
TREDEX	098 099 101
URBAN CONCEPTS	076
VENTURER	075
VOCOPRO	102
YAMAHA	032 063
YAMAKAWA	040 073
XWAVE	103
ZENITH	076 121

### 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 the INFO button.)

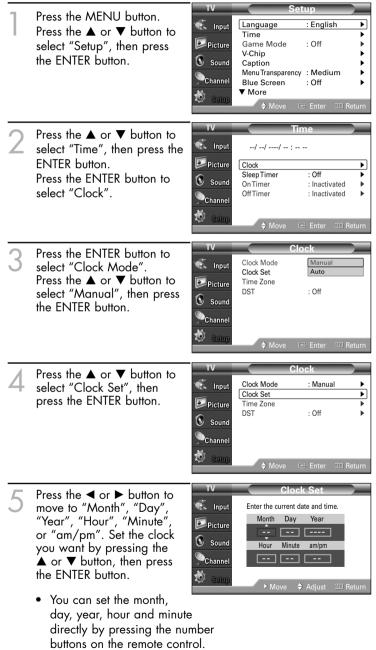


• The current time will

appear every time you

press the INFO button.

#### **Option 1: Setting the Clock Manually**

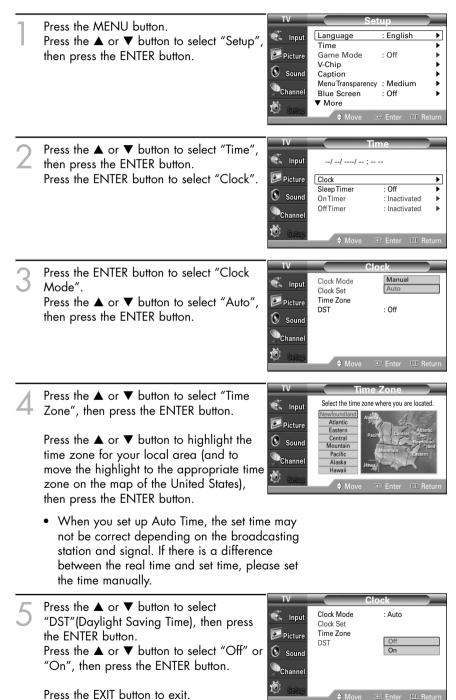


Press the EXIT button to exit.

# Operation

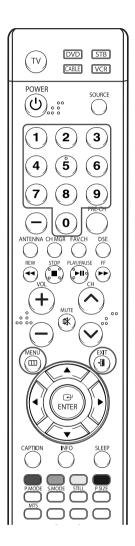
#### **Option 2: Setting the Clock Automatically**

The Clock can be set automatically if you are receiving a digital signal.



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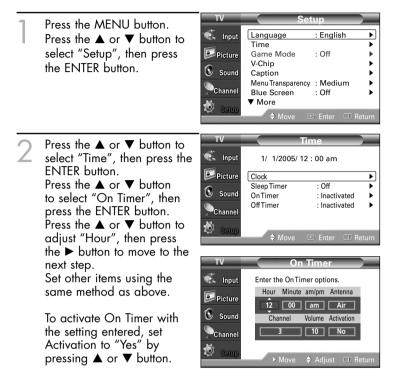
### Setting the On/Off Timer



#### NOTE

#### • Auto Power Off

When you set the timer "On", the television will eventually turn off, if no controls are operated for 3 hours after the TV was turned on by the timer. This function is only available in timer "On" mode and prevents overheating, which may occur if a TV is on for too long.



 You can set the hour, minute, and channel directly by pressing the number buttons on the remote control.

When finished, press the MENU button to return.

Press the ▲ or ▼ button to select "Off Timer", then press the ENTER button. Press the ▲ or ▼ button to adjust "Hour", then press the ▶ button to move to the next step. Set other items using the same method as above.



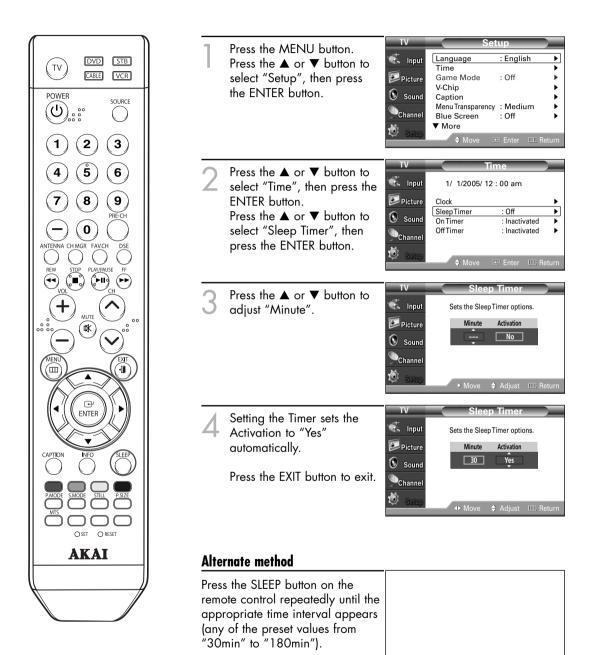
To activate Off Timer with the setting entered, set Activation to "Yes" by pressing  $\blacktriangle$  or  $\blacktriangledown$  button.

When finished, press the EXIT button to exit.

# Operation

### Setting the Sleep Timer

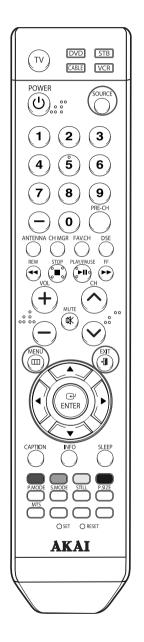
The sleep timer automatically shuts off the TV after a preset time (from 30 to 180 minutes).



Sleep Timer : 90min

### Viewing an External Signal Source

Use the remote control to switch between viewing signals from connected equipment, such as a VCR, DVD, Set-Top Box or the TV source (broadcast or cable).



#### Setting the Signal Source

Press the MENU button. 🐔 Int Source List T٧ ► Press the ENTER button to Edit Name Picture select "Input". Sound Channe Ö Setup TV Press the ENTER button to 🐔 lu: TV select "Source List". AV1 Picture Press the  $\blacktriangle$  or  $\blacktriangledown$  button to AV2 · \_\_\_\_ AV3 ----select a signal source, then Sound S-Video1 . \_ \_ \_ \_ S-Video2 press the ENTER button. Channe S-Video3 . More Setur When you connect equipment to the TV, you can choose between the following sets of jacks: "AV1", "AV2", "S-VIDEO1", "S-VIDEO2", "COMPONENT1", "COMPONENT2", "PC", "HDMI1", or "HDMI2" on the TV's rear panel and "AV3" or "S-VIDEO3" on the TV's side panel.

#### Alternate method

Press the SOURCE button on the remote control repeatedly to select an external signal source.

AV1	_	

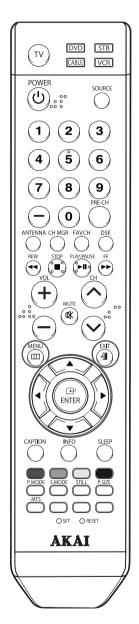
#### NOTES

- Only connected devices can be selected.
- Before selecting an input source, connect an external device first.
- HDMI input can be selected only when the external device is turned on and connected to the TV.

# Operation

# Assigning Names to External Input Mode

This feature enables you to name the input source you have connected.



1	Press the MENU button. Press the ENTER button to select "Input".	TV C Inpuli Picture Sound Channel Setup	Source List Edit Name	nput :TV	Return
2	Press the ▲ or ▼ button to select "Edit Name", then press the ENTER button.	TV C Input Picture Sound Channel Setup	Source List Edit Name	nput :TV	Return
3	Press the ▲ or ▼ button to select a signal source to edit, then press the ENTER button.	TV C Input Picture Sound Channel Setup	AV1 AV2 AV3 S-Video1 S-Video2 S-Video3 Component1 ▼ More More	t Name	) ) ) ) ) Return
4	Press the ▲ or ▼ button to select the external device : VCR, DVD, D-VHS, Cable STB, HD STB, Satellite STB, PVR STB, AV Receiver, DVD Receiver, Game, Camcorder, DVD Combo, DVD HDD Recorder, PC, Internet TV Recv., Interactive T VOD (Video On Demand) ST Press the ENTER button. Set other signal sources (AV2, AV3, S-Video 1,		AV1 AV2 AV3 S-Video1 S-Video2 S-Video3 Component1 ▼ More	t Name VCR DVD D-VHS Cable STI HD STB Satellite S T	
	S-Video2, S-Video3, Component1, Component2, PC, HDMI1, HDMI2) using the same method				

as listed above.

Press the EXIT button to exit.

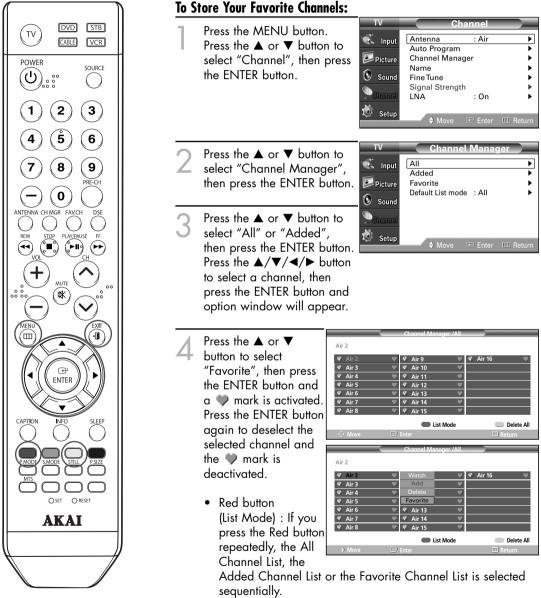
# **Channel Control**

# **Channel Control**

### **Selecting Your Favorite Channels**

You can store your favorite channels for each available input source (such as TV and Cable box). 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.

Preset : To use the Channel Manager function, first run Auto Program (see page 31).

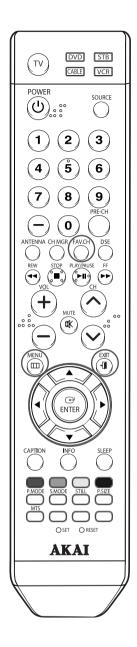


• Yellow button : Press to delete all channels memorized.

Press the EXIT button to exit.

#### NOTE

• Only memorized channels can be set as favorite channels.



#### To View Your Favorite Channels list: anne Press the MENU button. 🐔 Input Antenna : Air ► Press the $\blacktriangle$ or $\blacktriangledown$ button to Auto Program • select "Channel", then press Picture Channel Manager ► Name ۲ the ENTER button. 🗴 Sound **Fine Tune** Signal Strength ▶ ۲ : On LNA ۲ Ö Setup TV Channe Press the $\blacktriangle$ or $\blacktriangledown$ button to 🐔 Input All ۲ select "Channel Manager", Added ۲ Picture then press the ENTER button. Favorite Default List mode : All ٠ Sound Setup Press the $\blacktriangle$ or $\blacktriangledown$ Air 2 button to select Air 2 Air 3 🐔 Air 9 "Favorite", then press Air 10 the ENTER button. ✓ Air 5 ✓ Air 6 ♥ ♥ Air 12 ♥ ♥ Air 13 🔍 Air 7 🕈 Air 14 < Air 8 🔍 🔍 Air 15 • The favorite channel Delete All List Mode list will appear.

Press the EXIT button to exit.

#### NOTE

• Watch, Add, Delete, or Favorite setting on the channel is available in the Favorite channel list.

#### To Watch Favorite channels:

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

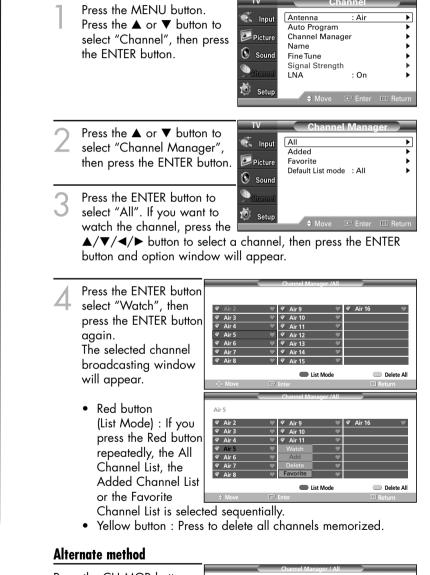
# **Channel Control**

### Viewing the Channel Lists

You can display a list of all channels or your favorite channels.

Preset : To use the Channel Manager function, first run Auto Program (see page 31).





Press the CH MGR button on the remote control to display a list of channels.

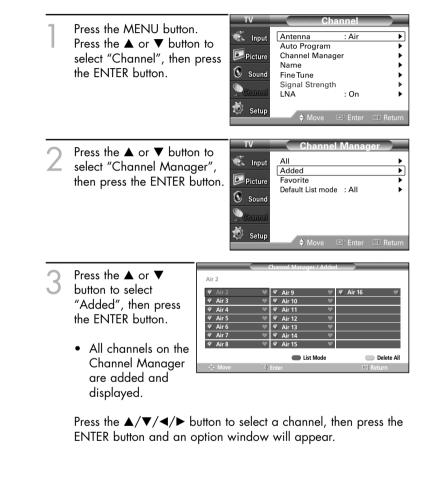
Air 2			
< Air 2	🖤 🔍 Air 9	🎔 🔍 Air	16 🖤
< Air 3	🆤 🔍 Air 10	*	
< Air 4	🔍 🔍 Air 11	*	
< Air 5	🖤 🔍 Air 12	۲	
< Air 6	🆤 🔍 Air 13		
< Air 7	🎔 💎 Air 14	*	
< Air 8	🆤 🔍 Air 15		
	<b>—</b> Li	st Mode	Delete All
💠 Move	🖙 Enter		Exit

### Editing the Channel Lists

You can edit channels to be added or deleted.

Preset : To use the Channel Manager function, first run Auto Program (see page 31).

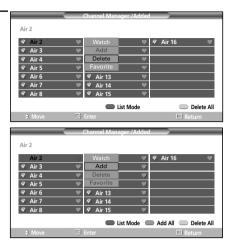




Continued...

# **Channel Control**

- Press the ▲ or ▼ button to select "Delete" to delete a channel, then press the ENTER button; the ♥ mark will disappear. To select the deselected channel, select "Add" to add a channel by pressing the ▲ or ▼ button. The ♥ mark will appear.
  - Red button (Channel Mode) : If you press the Red button repeatedly, the All Channel List, the Added Channel List or the Favorite Channel List is selected sequentially.



Press the EXIT button to exit.

### Default List mode

You can set All, Added or Favorite to be the Default List that appears when you press the CH MGR button.



1	Press the MENU button Press the ▲ or ▼ button select "Channel", then the ENTER button.	n to	IV Input Picture Sound Chennel	Chan Antenna Auto Program Channel Manage Name Fine Tune Signal Strength LNA ♦ Move	anel : Air → r : On → # Enter III Return
2	Press the ▲ or ▼ buttor select "Channel Manag then press the ENTER b	er″,	TV Sound Channel Setup	Channel I All Added Favorite Default List mode	) ) )
3	Press the ▲ or ▼ button to select "Default List mode", then press the ENTER b Press the ▲ or ▼ button to select "All", "Added", or "Favorite" then press the ENTER b • All: All of the memor • Added : Added char • Favorite : Favorite ch	, utton. ized c nnels		Channel I All Added Favorite Default List mode	Manager All Added Favorite
4	Press the CH MGR button on the remote control, then Default List mode will be displayed.	Air 2 Air 2 Air 3 Air 4 Air 5 Air 6 Air 6 Air 7 Air 8 Air 8	* * * *	Annel Manager / Added                 Air 10	Y Air 16 ♥ Delete All

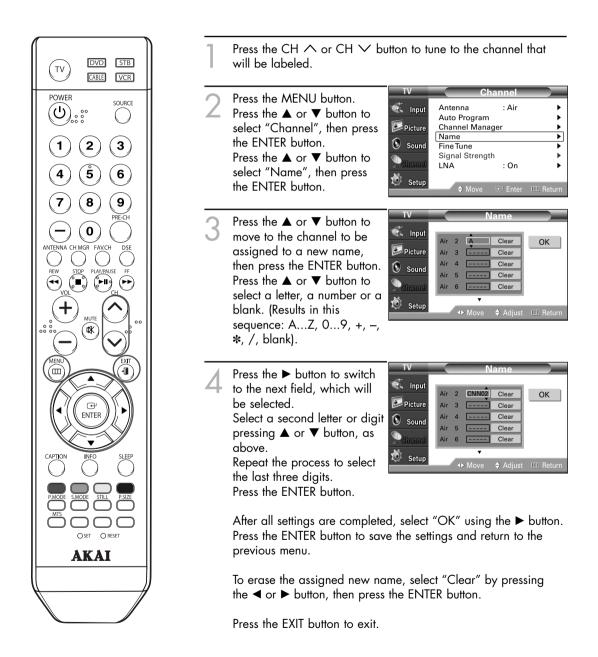
TW

01

# **Channel Control**

### Labeling the Channels

Use this feature to assign an easy-to-remember label to analog channels (i.e., "CBS", "ESPN", "PBS2", CNN02", etc.) A label consists of five fields, where each field is a letter, a number or a blank. When the INFO button is pressed, the channel label will appear below the channel number.

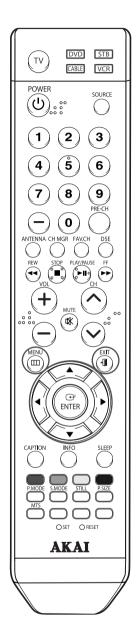


#### NOTE

• If you add or delete a TV channel, the channel label (if set) will also be added or deleted.

# Fine Tuning Analog Channels Analog

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



1	Press the MENU button. Press the ▲ or ▼ button to select "Channel", then press the ENTER button.	TV     Channel       ▲ Input     Antenna     : Air       ▲ Auto Program     .       ▲ Auto Program     .       Channel Manager     .       O Sound     Fine Tune       Signal Strength     .       LNA     : On       Setup     .       ♦ Move     Enter
2	Press the ▲ or ▼ button to select "Fine Tune", then press the ENTER button.	INPUt       Antenna       : Air         Picture       Antenna       : Air         Sound       Fine Tune       >         Signal Strength       LNA       : On         Setup       Move       © Enter       Image: Return
3	Press the ◀ or ► button to adjust the fine tuning.	Fine Tune Air 26 Not Fine Tuned 0 Reset ◆ Adjust  Save  Return
4	To store the fine tuning setting in the TV's memory, press the ENTER button. To reset the fine tuning setting, press the ▼ button to select "Reset", then press the ENTER button.	Fine Tune Air 26* Fine Tuned 3 Reset ◆ Adjust  Save  Return
5	Press the EXIT button to exit.	Fine Tune Air 26 Not Fine Tuned 0 Reset ♦ Move  Enter  Return

#### **NOTES**

- Only analog TV channels can be fine tuned.
- "\*" will appear next to the name of fine-tuned channels.

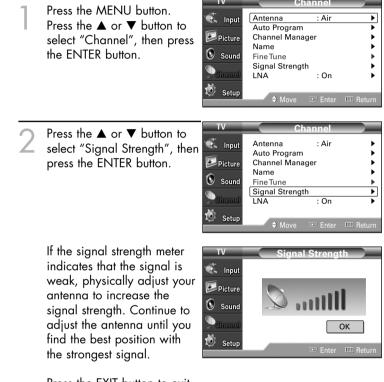
# **Channel Control**

### Checking the Digital-Signal Strength Digital

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

You can, however, adjust your antenna to improve the reception of available digital channels.





Press the EXIT button to exit.

### 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).



1	Press the MENU button. Press the ▲ or ▼ button to select "Channel", then press the ENTER button.	TV Sound Sound Setup	Antenna       : Air         Auto Program       ↓         Auto Program       ↓         Channel Manager       ↓         Name       ↓         Fine Tune       ↓         Signal Strength       ↓         LNA       : On         ♦ Move       🗠 Enter       Im Return
2	Press the ▲ or ▼ button to select "LNA", then press the ENTER button.	TV C Input Picture Sound Channel Setup	Channel         Antenna       : Air         Auto Program       >         Channel Manager       >         Name       >         Fine Tune       >         Signal Strength       >         LNA       : On         Move       >         Move       >
3	Press the ▲ or ▼ button to select "On" or "Off", then press the ENTER button.	TV Sound Channel Setup	Channel Antenna : Air Auto Program Channel Manager Name Fine Tune Signal Strength LNA Off On Nove ⊡ Enter III Return
4	Press the EXIT button to exit.		

#### **NOTES**

- LNA functions only when antenna is set to Air. The settings will be stored separately in each channel.
- If the picture is noisy with the LNA set to On, select Off.
- The LNA setting needs to be set individually for each channel.



### **Picture Control**

You can select the type of picture which best corresponds to your viewing requirements.



#### Changing the Picture Standard

1	Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.	TV Sound Channel Setup	Picture         Mode       : Dynamic         Size       : 16:9         Digital NR       : On         DCE       : On         My Color Control       >         Film Mode       : Off         ♦ Move       Enter       III Return
2	Press the ENTER button again to select "Mode".	TV Marking Input Pleiture Sound Channel Setup	Mode       Dynamic         Contrast       100         Brightness       45         Sharpness       75         Color       55         Tint (G/R) G50       850         Color Tone       : Cool1         Reset       * Move       Enter       ® Return
3	Press the ENTER button. Press the ▲ or ▼ button to select the desired picture mode (Dynamic, Standard, Movie, Custom), then press the ENTER button. Press the EXIT button to exit.	TV C Input Pleiture Sound Channel Setup	Mode Contrast Brightness Sharpness Color Color Tint (G/R) G50 Color 50 Tint (G/R) G50 Color R50 Color R50

#### Alternate method

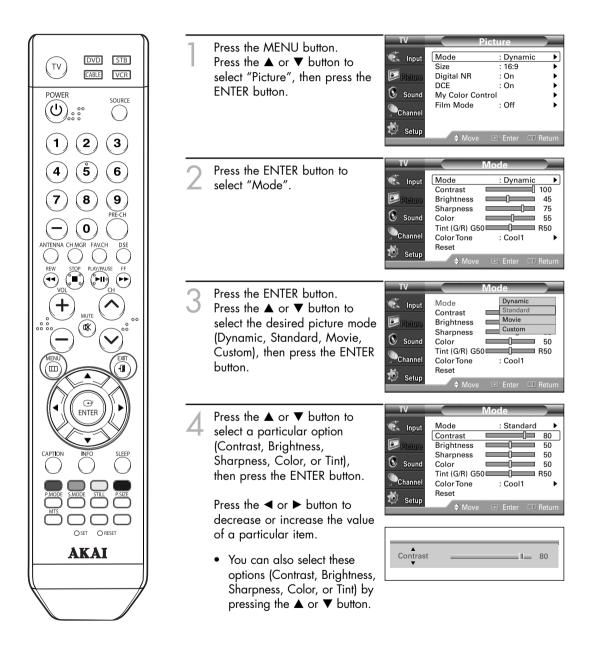
Press the P.MODE button on the remote control repeatedly to select the desired picture mode.

t		
	Dynamic	

- Choose "Dynamic" for viewing the TV during the day or when there is a bright light in the room.
- Choose "Standard" for general TV watching mode.
- Choose "Movie" when viewing a movie.
- Choose "Custom" if you want to adjust the settings according to personal preference (see "Customizing the Picture Settings", page 61).

#### **Customizing the Picture Settings**

You can use the on-screen menus to change the "Contrast", "Brightness", "Sharpness", "Color", "Tint", and "Color Tone" according to personal preference. You can select "Standard" which automatically recalls your personalized picture settings.



Continued...

5 Press the ENTER button to return to "Mode".

Press the ▲ or ▼ button to select "Color Tone", then press the ENTER button.

Press the ▲ or ▼ button to select a particular option (Cool2, Cool1, Normal, Warm1, or Warm2), then press the ENTER button.

	<ul> <li>Input</li> <li>Plotures</li> <li>Sound</li> <li>Channel</li> <li>Setup</li> </ul>	Mode Contrast Brightness Sharpness Color Tint (G/R) G50 Color Tone Reset ♦ Move	: Standard 80 50 50 50 50 . Cool1 . Cool1 . Return
,	TV Sound Channel Setup	Mode Contrast Brightness Sharpness Color Tint (G/R) G50 Color Tone Reset	Warm1 Warm2

#### **Resetting the Picture Settings to the Factory Defaults**

To return the factory defaults, select "Reset" by pressing the ▲ or ▼ button. Press the ENTER button.

TV	Mode
🐝 Input ව Pisture	Mode  : Standard    Contrast  80    Brightness  50    Sharpness  50
Sound Sound	Color 50
Channel	Tint (G/R) G50 R50 ColorTone : Cool1 ►
憽 Setup	Angle

Press the EXIT button to exit.

• The previously adjusted settings will be reset to the factory defaults.

### Changing the Picture Size

You can select the picture size which best corresponds to your viewing requirements.



Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button. Press the ▲ or ♥ button to select "Size", then press the ENTER button.

Press the ▲ or ▼ button to select the screen format you want, then press the ENTER button.

🐔 Input	Mode	: Dynamic	•
	Size	: 16:9	
Picture 2	Digital NR	: On	•
0	DCE	: On	
🕑 Sound	My Color Con	trol	
Channel	Film Mode	: Off	•
憽 Setup	♦ Move	🖃 Enter 📖	Return
TV		Size	
🐔 Input		16:9	

Wide Fit

.

Press the EXIT button to exit.

#### Alternate method

Press the P.SIZE button on the remote control repeatedly to select one of the picture size settings.

TV

Sound

Channel

🗴 Setup

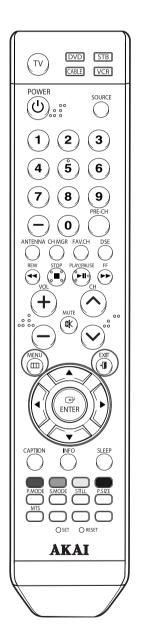
- "16:9": Sets the picture to 16:9 wide mode.
- "Zoom1": Magnifies the size of the picture on screen.
- "Zoom2": Magnifies the size of the picture more than "Zoom1".
- "Wide Fit": Enlarges the aspect ratio of the picture to fit the entire screen.
- "4:3": Sets the picture to 4:3 normal mode.

#### **NOTES**

- You can select only the 16:9 and 4:3 screen sizes in the DTV, Component (720p, 1080i) mode or HDMI (720p, 1080i) mode.
- For Zoom1 and Zoom2, you can adjust the vertical position by using the ▲ or ▼ button after pressing the P.SIZE button on the remote control.
- When watching a DTV signal (only 720p, 1080i), you can use Wide Fit. Wide Fit does not support all external devices.

# **Digital Noise Reduction**

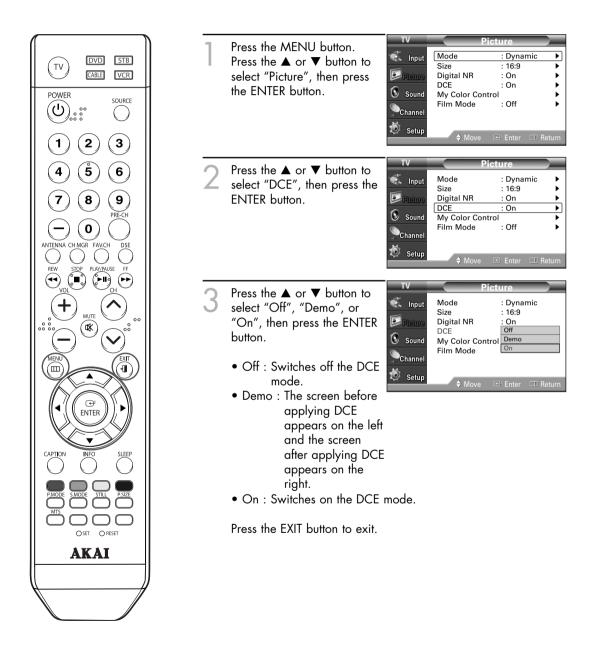
If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.



1	Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.	TV Input Ploture Sound Channel Setup	Picture         Mode       : Dynamic         Size       : 16:9         Digital NR       : On         DCE       : On         My Color Control       >         Film Mode       : Off
		TV	
2	Press the ▲ or ▼ button to select "Digital NR", then press the ENTER button.	<ul> <li>Input</li> <li>Ploiture</li> <li>Sound</li> <li>Channel</li> <li>Setup</li> </ul>	Picture         Mode       : Dynamic         Size       : 16:9         Digital NR       : On         DCE       : On         My Color Control       >         Film Mode       : Off         ♦ Move       Enter       III Return
3	Press the ▲ or ♥ button to select "Off" or "On", then press the ENTER button. Press the EXIT button to exit.	TV Sound Channel Setup	Picture         Mode       : Dynamic         Size       : 16:9         Digital NR       Off         DCE       On         My Color Control       Film Mode         Film Mode       : Off

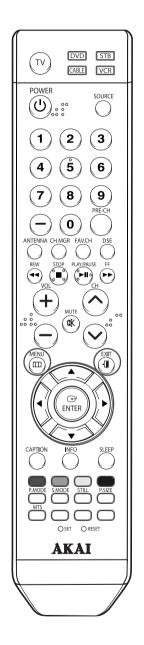
### Viewing the DCE Demonstration

This TV includes the DCE function so as to provide a high visual quality. If you set DCE to Demo, you can view the applied DCE and normal pictures on the screen for demonstration purposes. Using this function, you can view the difference in visual quality.



### Setting the My Color Control Mode

My Color Control allows you to adjust colors according to your preference, by adjusting skin, sky, and grass tones using the predefined settings ("Blue", "Green", "Pink", "Standard", and "Custom") without affecting other colors on the screen.

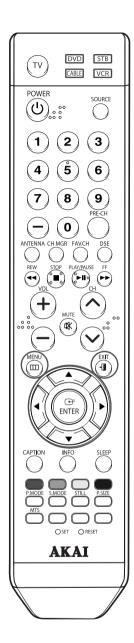


#### Using the Easy Control Menu

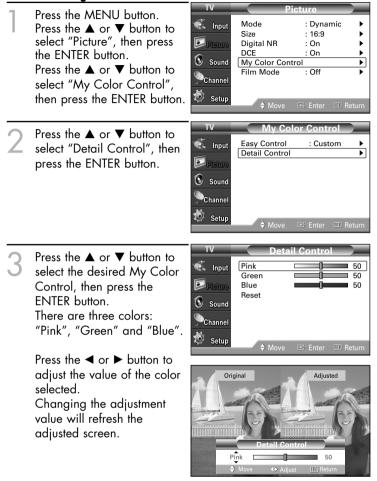
- Press the MENU button. 🐔 Input Mode Dynamic ۲ Press the  $\blacktriangle$  or  $\blacktriangledown$  button to select "Picture", then press Size · 16·9 . Digital NR · On ۲ the ENTER button. DCE : On ۲ Sound My Color Control · Off Film Mode Channel 🙆 Setup Press the  $\blacktriangle$  or  $\blacktriangledown$  button to 🐔 Input Mode : Dvnamic select "My Color Control", : 16:9 Size then press the ENTER button. Digital NR : On DCE : On • Sound My Color Control ۲ · Off Film Mode Channel 🙆 Setup ♦ Mo My Color Control TV Press the ENTER button to 🐔 Input Easy Control : Custom ▶ select "Easy Control". Detail Control Press the  $\blacktriangleleft$  or  $\blacktriangleright$  button to select one of the picture Sound settings you want. Channel The original picture (before 🙆 Setup adjustment) is shown on the left side, while the picture Original Custom after adjustment is shown on the right side, and an adjustment bar is shown on the bottom of the screen. Press the ENTER button to Standard Custom accept the selected mode. Press the EXIT button to exit.
- "Blue": Emphasizes Clear Blues.
- "Green": Emphasizes Mild Greens.
- "Pink": Emphasizes Warm Skin Colors.
- "Standard": Standard Picture.
- "Custom": Customise Colors on the Screen.

#### **NOTES**

- Changing the settings in the "Detail Control" menu (see next page) will automatically set the My Color Control mode to "Custom".
- Pressing the ENTER button on the remote control for 3 seconds when there is no OSD on the screen will display the My Color Control menu.



#### **Custom Settings**



#### Resetting the My Color Control Colors to the Factory Defaults

You can return to the factory default settings for My Color Control colors.

- Press the MENU button to display the "Detail Control" menu. Press the ▲ or ▼ button to select "Reset", then press the
  - ENTER button. The previously adjusted My

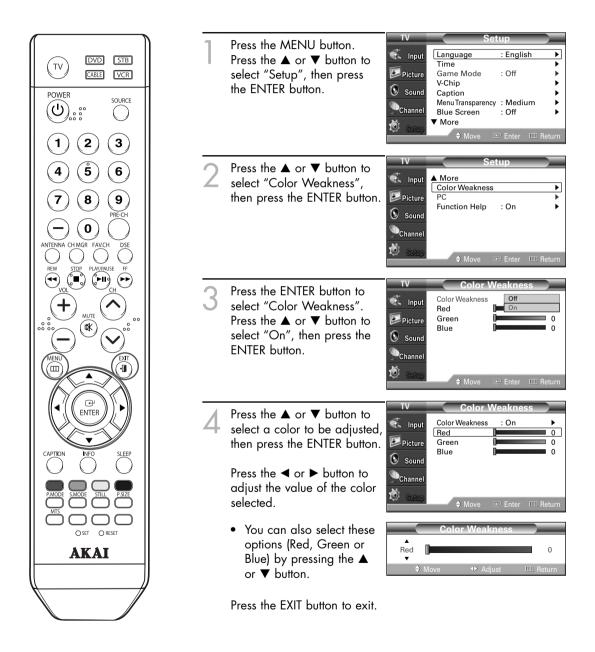
Color Control colors will be reset to the factory defaults.

TV		etail Contro	
<ul> <li>Input</li> <li>Plotura</li> <li>Sound</li> <li>Channel</li> <li>Setup</li> </ul>	Pink Green Blue Reset		50 50 50
Setup	⇒ M		IIII Return

Press the EXIT button to exit.

### Using the Color Weakness Enhancement Feature

This feature adjusts the Red, Green or Blue color to enhance the picture according to the user's particular color weakness.



# Setting the Film Mode

You can automatically sense and process film signals from all sources and adjust the picture for optimum quality.



1	Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.	TV Sound Channel Setup	Mode       : Dynamic         Size       : 16:9         Digital NR       : On         DCE       : On         My Color Control       .         Film Mode       : Off	-) - - -
2	Press the ▲ or ▼ button to select "Film Mode", then press the ENTER button.	TV Sinput Pioture Sound Channel Setup	Picture         Mode       : Dynamic         Size       : 16:9         Digital NR       : On         DCE       : On         My Color Control	
3	Press the ▲ or ▼ button to select "Off" or "On", then press the ENTER button. Press the EXIT button to exit.	TV Input Pleiturs Sound Channel Setup	Picture         Mode       : Dynamic         Size       : 16:9         Digital NR       : On         DCE       : On         My Color Control       Off         Film Mode       Off         ♦ Move       🕑 Enter       III Return	n

#### NOTE

• Film mode is supported in 480i only.

# Freezing the Picture



Press the STILL button to freeze a moving picture. (Normal sound will still be heard.)

To cancel this function, press the STILL button again or press any button on the remote control.

# 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".



]	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	INPUt     Setup       Imput     Language     : English       Picture     Game Mode     : Off       Gosound     Caption     Caption       Channel     Blue Screen     : Off       Sound     ✓ More     More
2	Press the ▲ or ▼ button to select "Blue Screen", then press the ENTER button.	INPUt       Language       : English         Picture       Game Mode       : Off         Gosund       Caption       Caption         Channel       Blue Screen       : Off         Sound       More       More
3	Press the ▲ or ▼ button to select "Off" or "On", then press the ENTER button. Press the EXIT button to exit.	TV     Setup       Input     Language     : English       Time     Game Mode     : Off       O Sound     Caption     Menu Transparency       Channel     Blue Screen     Off       More     On     On



# Sound Control

### **Sound Control**

### Sound Control

You can control and customize the sound levels and settings of the TV with the remote control.



#### Adjusting the Volume

Press the VOL+ or VOL- button to increase or decrease the volume.

#### **Using the MUTE Button**

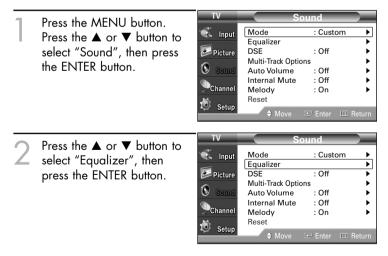
At any time, you can temporarily cut off the sound. Press the MUTE button on the remote control. The message "Mute" is displayed and the sound cuts off.

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

#### **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.)

Mute



Continued...

Press the ◄ or ► button to select a particular item to be changed. Press the ▲ or ▼ button to increase or decrease the selected frequency.

Press the EXIT button to exit.

#### **NOTES**

• If you make any changes to the equalizer settings, the sound mode is automatically switched to the custom mode.

🐔 Input

Picture

Setup

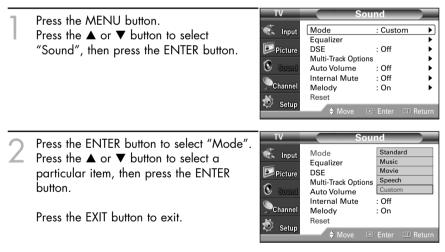
♦ Adjust

Sound Channel

- L/R Sound Balance Adjustment To adjust the sound balance of the L/R speakers.
- Bandwidth Adjustment (100Hz, 300Hz, 1KHz, 3KHz, 10KHz) To adjust the level of different bandwidth frequencies.

#### **Using Automatic Sound Settings**

Your TV has automatic sound settings ("Standard", "Music", "Movie", and "Speech") that are preset at the factory. You can select "Custom", which automatically recalls your personalized sound settings.



#### Alternate method

Press the S.MODE button on the remote control repeatedly to select one of the standard sound settings.

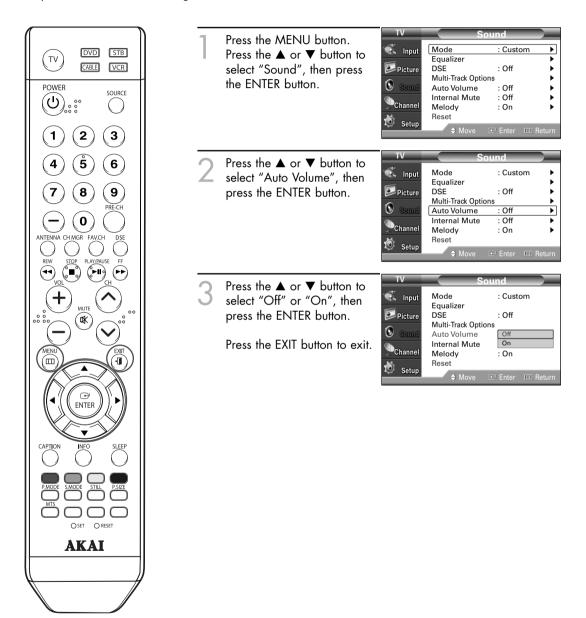


- Choose Standard for the standard factory settings.
- Choose Music when watching music videos or concerts.
- Choose Movie when watching movies.
- Choose Speech when watching a show that is mostly dialog (i.e., news).
- Choose Custom to recall your personalized settings (see "Customizing the Sound", page 74).

### **Sound Control**

### **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.



### Choosing a Multi-Channel Sound (MTS) track Digital

The digital-TV transmission system is capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages). The availability of these additional "multitracks" depends upon the program.



Press the ▲ or ▼ button to select "Sound", then press the ENTER button.         Made :: Custom         Channel         Multi-Track Options         Auto Volume :: Off         Multi-Track Options         Auto Volume :: Off         Melody :: On         Reset         Move :: Enter :: Returnel         Move :: Custom         Move :: Custom         Move :: Custom         Move :: Custom         Beset         Move :: Custom         Beset         Move :: Custom         Beset :: Custom         Setup :: Noternal Mute :: Custom         Beset :: Custom         Press the ENTER button to select "Preferred Language".         Press the A or V button to choose the language (English, Spanish or French) you want, then press the ENTER button.         Now want, then press the EN	1	Press the MENU button.	TV	So	ound	
Select "Sound", then press the ENTER button. Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button. Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button. Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the ENTER button to chonse the language (English, Spanish or French) you want, then press the ENTER button to chonse the language			🐔 Input	Mode	: Custom	
the ENTER button. Multi-Track Options Auto Volume : Off Melody : On Reset Move C'Enter C Return Mode : Custom Equalizer DSE : Off Melody : On Reset Nove C'Enter C Return Mode : Custom Equalizer DSE : Off DSE : Off Melody : On Reset Press the ENTER button. 3 Press the ENTER button to select "Preferred Language" Press the A or ▼ button to choose the language (English, Spanish or French) you want, then press the Events Seturn Multi-Track Options Nove C'Enter C Return Nove C Nove C'Enter C Return Nove C Nove C		Press the A or V button to	aga mipar	Equalizer		
the ENTER button. Multi-Track Options Auto Volume : Off Melody : On Reset Move C'Enter C Return Mode : Custom Equalizer DSE : Off Melody : On Reset Nove C'Enter C Return Mode : Custom Equalizer DSE : Off DSE : Off Melody : On Reset Press the ENTER button. 3 Press the ENTER button to select "Preferred Language" Press the A or ▼ button to choose the language (English, Spanish or French) you want, then press the Events Seturn Multi-Track Options Nove C'Enter C Return Nove C Nove C'Enter C Return Nove C Nove C		select "Sound", then press	Picture	DSE	: Off	
Allo Volume - Oni Press       Off Melody : On Reset         2       Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button.       Imput Mode : Custom Equalizer DSE : Off Multi-Track Options Auto Volume : Off Multi-Track Options Auto Volume : Off Melody : On Reset         3       Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the Etypication			0	Multi-Track Optio	ns	
2       Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button.       Imput Mode :: Custom Equalizer DSE :: Off         3       Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the       Imput Mode :: Custom Equalizer DSE :: Off         3       Press the ENTER button to choose the language (English, Spanish or French) you want, then press the Enter       Imput Mode :: Custom Equalizer DSE :: Off         3       Press the A or ▼ button to choose the language (English, Spanish or French) you want, then press the Enter       Imput Preferred Language (English, Spanish or French) you want, then press the		The EINTER DUTTON.	💟 Sound	Auto Volume	: Off	
2 Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button. 3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the			<b>(</b> )	Internal Mute		
Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button. Press the ENTER button. Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the Press the Internet			Channel	'	: On	
2 Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button. 3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the			to cature	Reset		
2 Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button.          Image: Select "Multi-Track Options", then press the ENTER button.       Mode : Custom Equalizer DSE : Off [Multi-Track Options Auto Volume : Off Internal Mute : Off Melody : On Reset Setup]         Image: Setup Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the French in the press the Frenc			Setup	Move	🖃 Enter 🔟 I	Retu
Press the ▲ or V button to select "Multi-Track Options", then press the ENTER button.          Imput       Mode : Custom Equalizer DSE : Off         Multi-Track Options       Off         Multi-Track Options       Auto Volume : Off         Needed       Setup         Setup       Move @ Internal Mute : Off         Melody : On       Reset         Move @ Internal Mute : Off       Multi-Track Options         Melody : On       Reset         Move @ Internal Mute : Diff       Preferred Language         Press the A or V button to choose the language (English, Spanish or French) you want, then press the Sound       Setup         Setup       Setup			TV	So	ound	
3       Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the       TV       Multi-Track Options         3       Press the A or ▼ button to choose the language       TV       Multi-Track Options         3       Press the ▲ or ▼ button to choose the language       Input       Preferred Language       English / Español         5       Sourd       Sourd       Preferred Language       Input       Preferred Language         6       Sourd       Sourd       Sourd       English / Español         6       Sourd       Sourd       Español         7       V       Multi-Track Sound       Español         8       Spanish or French)       Sourd       Sourd         9       Sourd       Sourd       Sourd	$\mathbf{O}$	Press the $\blacktriangle$ or $\blacktriangledown$ button to	At .			
then press the ENTER button.		select "Multi-Track Options".	🛰 Input		: Custom	
Image: Second Secon			<b>F</b>		. 0#	
3 Press the ENTER button to select "Preferred Language". Press the A or ▼ button to choose the language (English, Spanish or French) you want, then press the the press the press the the press the the press the the press the press the th		then press the EINIER Dutton.	Picture			
3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the Français			Sound			
3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the French in the press the press the Fr			C Godina			
3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the Spanish or French) with the press the the press th			Channel			
3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the Tou want was a set of the tou want.			2	'	. 011	
3 Press the ENTER button to select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the ENTER button to the select "Preferred Language (English, Spanish or French) sound Select "Select "Se			🧐 Setup	♦ Move	🖙 Enter 💷 I	Retu
	3	select "Preferred Language". Press the ▲ or ▼ button to choose the language (English, Spanish or French) you want, then press the	<ul> <li>Input</li> <li>Picture</li> <li>Sound</li> <li>Channel</li> </ul>	Preferred Languag	Je English Español	

#### Alternate method

Press the MTS button on the remote control. You can listen in a language other than the favorite language by pressing the MTS button.

MTS : 1. English

#### NOTE

• You can only select the language from among the actual languages broadcast by the station. For example, if the current program is not broadcast in French, yet you select French as your Preferred language, you will hear the default language (e.g. English) determined by the broadcasting station.

### **Sound Control**

### Choosing a Multi-Channel Sound (MTS) track Analog

Depending on the particular program being broadcast, you can listen to Mono, Stereo or SAP.



1	Press the MENU button. Press the ▲ or ▼ button to	TV 🐔 Input	Sou Mode Equalizer	nd : Custom
-	select "Sound", then press	Picture	DSE Multi-Track Options	: Off
	the ENTER button.	Sound	Auto Volume	: Off
		<b>A</b>	Internal Mute	: Off
		Channel	Melody	: On
		🧔 Setup	Reset	
			🔶 Move 🖙	Enter 💷 R
0	Press the ▲ or ▼ button to	TV	Sou	nd
	select "Multi-Track Options",	🐔 Input	Mode	: Custom
		Picture	Equalizer	. 0#
	then press the ENTER button.	Picture	DSE Multi-Track Options	: Off
		Sound	Auto Volume	: Off
		<b>(</b> )	Internal Mute	: Off
		Channel	Melody	: On
		🧔 Setup	Reset	
			🔶 Move 🖙	Enter 💷 R
0	Press the ▲ or ▼ button to	TV	Multi-Track	Options
3		🐔 Input	Preferred Language	: English
	select "Multi-Track Sound",	_	Multi-Track Sound	Mono
	then press the ENTER button.	Picture		Stereo SAP
	Press the ▲ or ▼ button to	Sound		JAI
	select a setting you want,			
	then press the ENTER button.	Channel		
	men press me LINTER bonon.	憽 Setup		
	Press the EXIT button to exit.		🔶 Move 🖙	Enter 🎞 R
Alte	rnate method			
Pres	s the MTS button on the			
remo	ote control repeatedly to select			
	external signal source.			
une	meriai signal source.			
				_
			MTS : Stereo	
NOT	TES			
	Thoose "Mono" for channels th	at are br	oadcastina in	mono d
	you are having difficulty recei		Ų	
	,			

- Choose "Stereo" for channels that are broadcasting in stereo.
- Choose "SAP" to listen to the Separate Audio Program, which is usually a foreign-language translation.

### Selecting the Internal Mute

When using a device such as a Home Theater or Amplifier with external speakers, you can set Internal Mute to On to cut off sound from the TV's internal speakers.



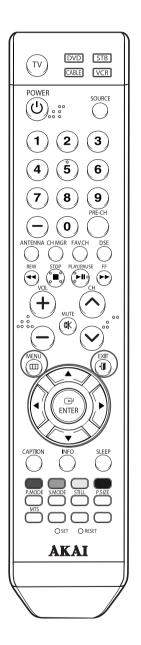
1	Press the MENU button.	TV	Sound
	Press the ▲ or ▼ button to select "Sound", then press the ENTER button.	<ul> <li>Input</li> <li>Picture</li> <li>Sound</li> <li>Channel</li> <li>Setup</li> </ul>	Mode       : Custom         Equalizer       >         DSE       : Off         Multi-Track Options       >         Auto Volume       : Off         Internal Mute       : Off         Melody       : On         Reset         ♦ Move       Enter
2	Press the ▲ or ▼ button to select "Internal Mute", then press the ENTER button.	TV Sound Dicture Sound Channel Setup	Mode       : Custom         Equalizer       >         DSE       : Off         Multi-Track Options       >         Auto Volume       : Off         Internal Mute       : Off         Melody       : On         Reset         ♦ Move       : Enter       : Return
3	Press the $\blacktriangle$ or $\blacktriangledown$ button to select "On", then press the ENTER button. Pressing the $\blacktriangle$ or $\blacktriangledown$ button will alternate between "Off" and "On".	TV Sound Channel Setup	Sound         Mode       : Custom         Equalizer       Off         DSE       : Off         Multi-Track Options       Auto Volume         Auto Volume       : Off         Internal Mute       Off         Melody       On         Reset
	Press the EXIT button to exit.		

- The VOL +, VOL and MUTE buttons do not operate when the Internal Mute is set to On.
- When Internal Mute is set to "On", Sound menus except Multi-Track Options cannot be adjusted.

## **Sound Control**

### Setting the On/Off Melody

A melody sound can be set to come on when the TV is powered on or off.



1	Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.	TV Constant Input Picture Constant Channel Channel Setup	Si Mode Equalizer DSE Multi-Track Optio Auto Volume Internal Mute Melody Reset \$ Move	: Off : Off : On	m ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )
2	Press the ▲ or ▼ button to select "Melody", then press the ENTER button. Press the ▲ or ▼ button to select "Off" or "On", then press the ENTER button. Press the EXIT button to exit.	TV Construction Channel Channel Channel	Si Mode Equalizer DSE Multi-Track Optic Auto Volume Internal Mute Melody Reset & Move	Custo : Custo : Off : Off : Off : Off : Off : Off : Off : Off : Off : The second secon	m III Return

### Setting up DSE (Digital Sound Enhancer)

DSE enhances the sound quality, automatically controls output, and prevents sound distortion.



1	Press the MENU button.	TV	Sou	und	
	Press the $\blacktriangle$ or $\checkmark$ button to	🐔 Input	Mode	: Custom	►
		_	Equalizer		
	select "Sound", then press	Picture 🔛	DSE	: Off	
	the ENTER button.	Sound	Multi-Track Option Auto Volume	s : Off	
		Contraction Contraction	Internal Mute	: Off	
		Channel	Melody	: On	. ►
		1	Reset		
		🐺 Setup	🗢 Move 🖪	E' Enter 💷 F	Return
		ти		_	
$\mathbf{O}$	Press the ▲ or ▼ button to	IV	Sou	ind	_
	select "DSE", then press the	🐔 Input	Mode	: Custom	•
			Equalizer	~ "	<b>▶</b>
	ENTER button.	Picture 🔛	DSE Multi-Track Option	: Off	
		Sound	Auto Volume	s : Off	
		• • • • • • • • • • • • • • • • • • •	Internal Mute	: Off	. ►
		Channel	Melody	: On	▶
		Mi ann	Reset		
		12 Setup	🗢 Move 🛛	E'Enter 💷 F	Return
		ти	So	und	
2	Press the ▲ or ▼ button to	A.			
J	select "On", then press the	🐨 Input	Mode Equalizer	: Custom	
	ENTER button	Picture	DSE	Off	
		-	Multi-Track Option	s On	
	Pressing the ▲ or ▼ button	Sound Sound	Auto Volume	: Off	
	will alternate between "Off"	<b></b>	Internal Mute	: Off	
	and "On".	Channel	Melody	: On	
		觉 Setup	Reset		
			🔶 Move 🕒	🗄 Enter 📖 F	Return
	Press the EXIT button to exit.				

#### Alternate method

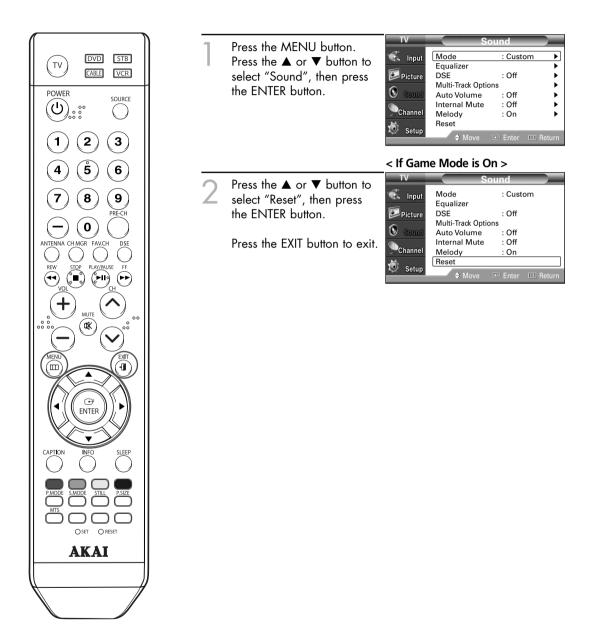
Press the DSE button on the remote control repeatedly to select "Off" or "On".

DSE : On

### **Sound Control**

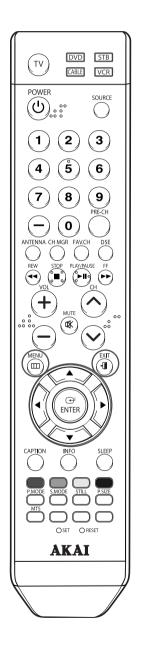
### Sound Reset

If Game Mode is On (Refer to page 86), the Reset Sound function is activated. Selecting the Reset function after setting the equalizer resets the equalizer to the factory defaults.



### Setting the Function Help

Displays Help on the menu functions.



1	Press the MENU button	TV	Se	tup	_
	Press the $\blacktriangle$ or $\checkmark$ button to	🐔 Input	Language	: English	
-	select "Setup", then press	Picture	Time Game Mode	: Off	
	the ENTER button.	Sound	V-Chip		
		Sound	Caption Menu Transparency	/ · Medium	
		Channel	Blue Screen	: Off	•
		🔕 Setup	▼ More		_
			A Move	🖭 Enter 💷 Reti	urn
	Press the ▲ or ▼ button to	TV	Se	tup	
')		🐔 Input	▲ More		
	select "Function Help", then		Color Weakness		
	press the ENTER button.	Picture	PC Function Help	: On	┢
		Sound Sound		-	
		Channel			
		<u>.</u>			
		🧶 Sətup	Shove (	🖅 Enter 🕮 Retu	urn
		ти	Se	tup	
	Press the ▲ or ▼ button to			tup	
Us	elect "Off" or "On", then	🐔 Input	▲ More Color Weakness		
F	press the ENTER button.	Picture	PC		_
		Sound	Function Help	Off On	-
F	Press the EXIT button to exit.				
		Channel			
		🧔 Sətup	♦ Move 1	🖭 Enter 📖 Reti	
				🖭 Enter 💷 Reti	ur()
		? 5	witches the Functio	n Help on.	



### Menu Transparency Level

Adjusts the transparency of the menu screen.

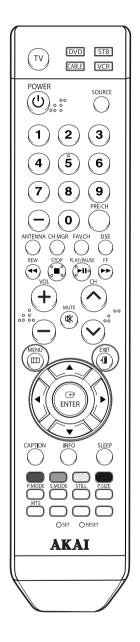
.



1	Press the MENU button.	TV	Set	up	
	Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	<ul> <li>Input</li> <li>Picture</li> <li>Sound</li> <li>Channel</li> <li>Seittp</li> </ul>	Language Time Game Mode V-Chip Caption Menu Transparency Blue Screen ▼ More	: English : Off : Medium : Off : Enter III Re	<ul> <li></li></ul>
2	Press the ▲ or ▼ button to select "Menu Transparency", then press the ENTER button. Press the ▲ or ▼ button to select level, then press the ENTER button.	TV Market Input Picture Sound Channel Ssiup	Set Language Time Game Mode V-Chip Caption Menu Transparency Blue Screen ▼ More	up : English : Off High Medium Low Opaque	
	Press the EXIT button to exit.				

### **Using Game Mode**

When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting the game mode to on.



1	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	INPUT     Language     : English       ▶     Time     >       ♥     Picture     Game Mode     : Off       ♥     Sound     Caption     >       ♥     Channel     >     >       ♥     Satup     ♥ More     ●     Picture
2	Press the ▲ or ▼ button to select "Game Mode", then press the ENTER button.	TV       Setup         Input       Language       : English         Time       Game Mode       : Off         Sound       V-Chip       Caption         Channel       Blue Screen       : Off         Soutp       ✓ More       ✓ More
3	Press the ▲ or ▼ button to select "Off" or "On", then press the ENTER button. Press the EXIT button to exit.	TV     Setup       Input     Language     : English       Time     Game Mode     Off       O Sound     Off     On       Channel     Menu Transparency     : Medium       Blue Screen     : Off       V More     Move

#### **Restrictions on Game Mode (Caution)**

- To disconnect the game console and connect another external device, set Game to Off in the setup menu.
- If you display the TV menu in Game mode, the screen shakes slightly.

#### If Game Mode is On

- Picture Mode is automatically changed to Custom and users cannot change the mode.
- Sound Mode in the Sound menu is deactivated. Adjust the sound using the equalizer.
- The Reset Sound function is activated. Selecting the Reset function after setting the equalizer resets the equalizer to the factory defaults.

- Game Mode is available for all external input sources.
- For component and HDMI input, game mode supports a resolution of up to 720p.

### Using the V-Chip

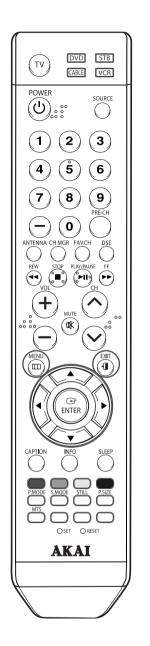
Access to channels and programs is controlled by a password (i.e., a 4-digit secret code that is defined by the user). The on-screen menu will instruct you to assign a password (you can change it later, if necessary).

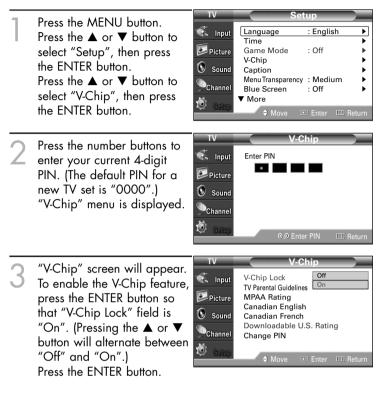


#### How to Change Your Password Press the MENU button. 🐔 Input Language : English Press the $\blacktriangle$ or $\blacktriangledown$ button to Time select "Setup", then press Picture Game Mode : Off V-Chip the ENTER button. Sound Sound Caption Press the $\blacktriangle$ or $\checkmark$ button to MenuTransparency : Medium Channe Blue Screen · Off select "V-Chip", then press ▼ More the ENTER button. Press the number buttons to 🐔 Input Enter PIN enter your current 4-digit \* Picture PIN. (The default PIN for a new TV set is "0000".) Sound Sound "V-Chip" menu is displayed. Channe TV Press the $\blacktriangle$ or $\blacktriangledown$ button to V-Chip Lock 🐔 Input : Off ۲ select "Change PIN", then TV Parental Guidelines Picture press the ENTER button. MPAA Rating Canadian English Sound Sound Canadian French Downloadable U.S. Rating Channel Change PIN TV Change Press the number buttons to 🐔 Input Enter new PIN. enter your new 4-digit PIN. Re-enter your new PIN to Picture Confirm new PIN. confirm. 🗴 Sound Channel Press the EXIT button to exit. Ö

- If you forget the PIN, press the remote control buttons in the following sequence, which resets the PIN to 0-0-0: POWER (Off), MUTE, 8, 2, 4, POWER (On).
- The V-Chip function only works in TV, AV mode and S-Video mode.

#### How to Enable/Disable the Rating Controls

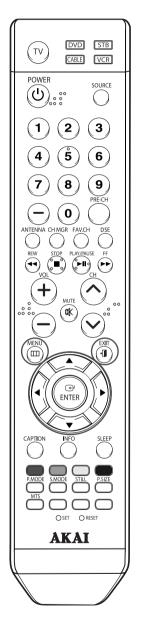




Press the EXIT button to exit.

### How to Set up Restrictions Using "TV Parental Guidelines"

The parental restrictions can be set up using either of two methods: "TV Parental Guidelines" or "MPAA Rating".

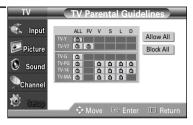


1	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button. Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.	Input     Language     : English       Picture     Game Mode     : Off       Sound     Caption     >       Channel     Menu Transparency     : Medium       Sound     Caption     >       Channel     Move     >       Move     >     Enter
2	Press the number buttons to enter your current 4-digit PIN. (The default PIN for a new TV set is "0000".) "V-Chip" menu is displayed.	TV     V-Chip       Input     Enter PIN       Picture     Image: Channel       Sound     Image: Channel       Sound     0.0 Enter PIN
3	Press the ▲ or ▼ button to select "TV Parental Guidelines", then press the ENTER button.	Input       V-Chip         Imput       V-Chip Lock : On →         Imput       TV Parental Guidelines →         Imput       MPAA Rating →         Canadian English →       Canadian French →         Downloadable U.S. Rating →       Change PIN →         Setup       ★ Move Impute Enter Impute
	continued	

Press the  $\blacktriangle/\bigtriangledown/\checkmark/\checkmark$  buttons and the ENTER button to activate the appropriate restrictions for TV (FCC) rating system.

- TV-Y : Young children.
- TV-Y7 : Children 7 and over.
- TV-G : General audience.
- TV-PG : Parent guidance.
- TV-14 : Viewers 14 and over.
- TV-MA : Mature audience.

Press the EXIT button to exit.



#### NOTES

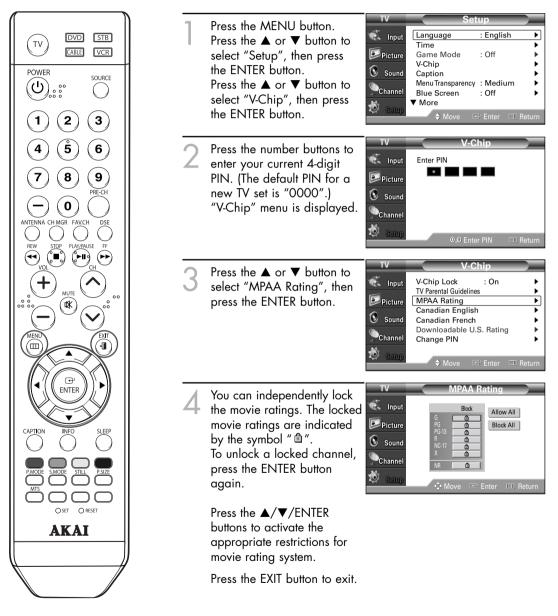
- Allow All : Press to unlock all TV ratings.
- Block All : Press to lock all TV ratings.

- 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 parental guidelines must be set up separately for each age group. (See page 92.)

#### How to Set up Restrictions Using "MPAA Rating"

The Movie rating system uses "MPAA" (Motion Picture Association of America) system, and its main application is for movies.

When the rating control is on, the TV will automatically block any programs that are coded with objectionable ratings (either "MPAA Rating" or "TV Parental Guidelines").



- Allow All : Press to unlock all movie ratings.
- Block All : Press to lock all movie ratings.

#### **Important Notes About Parental Locks**

Explanation of the MPAA and TV (FCC) Rating Systems:

#### TV (FCC) Age-Based Ratings

#### TV-Y

All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages two to six.

#### TV-Y7

Directed to older children. The Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of seven.

#### TV-G

General audience. It contains little or no violence, no strong language, and little or no sexual dialog or situations.

#### TV-PG

Parental guidance suggested. This program may contain infrequent coarse language, limited violence, some suggestive sexual dialog and situations.

#### TV-14

Parents strongly cautioned. This program may contain sophisticated themes, sexual content, strong language and more intense violence.

#### TV-MA

Mature audiences only. This program may contain mature themes, profane language, graphic violence and explicit sexual content.

#### TV (FCC) Content Category

FV	Fantasy violence.	
----	-------------------	--

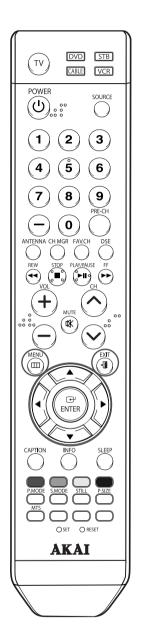
- D Sexually suggestive dialog.
- L Adult language.
- **S** Sexual situation.
- V Violence.

### MPAA Rating System (Movies)

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

- TV (FCC) ratings : The particular rating that you have selected will be locked (and indicated as a red "L" on a blue background). Also, all of the age-based ratings will be locked within the particular group (i.e., "group 1" or "group 2"). Suppose that the TV-G rating and all of its contents (V, S, L, and D) are locked. In that case, more restrictive ratings (TV-PG, TV-14, and TV-MA) and all of their contents (V, S, L, and D) are automatically locked as well.
- MPAA ratings : The particular rating that you have selected will be locked. In addition, more restrictive ratings will be locked as well.
- Neither TV (FCC) ratings nor MPAA ratings apply to news programs.

### How to Set up Restrictions Using Canadian English



1	Press the MENU button. Press the ▲ or ♥ button to select "Setup", then press the ENTER button. Press the ▲ or ♥ button to select "V-Chip", then press the ENTER button.	© Sound Captic MenuT Blue S Channel Channel	Mode : Off Don Transparency : Medium Screen : Off	Image: Non-State State St
2	Press the number buttons to enter your current 4-digit PIN. (The default PIN for a new TV set is "0000".) "V-Chip" menu is displayed.	TV Enter Picture Sound Channel Saup		Return
3	Press the ▲ or ▼ button to select "Canadian English", then press the ENTER button.	Picture MPAA     Canac     Sound Canac     Down     Channel     Sound	ntal Guidelines I Rating dian English dian French loadable U.S. Rating ge PIN	P P Return

771/

continued...

Press the  $\blacktriangle$  or  $\triangledown$  button to select a appropriate restriction.

Press the ENTER button to activate the restriction selected. " <sup>™</sup> symbol is indicated. To unlock a locked channel, press the ENTER button again.

Press the EXIT button to exit.

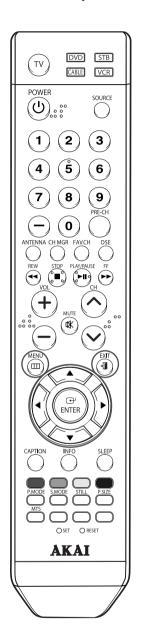


#### **NOTES**

Allow All : Press to unlock all TV ratings.
Block All : Press to lock all TV ratings.

E	Exempt programming includesnews, sports, documentaries and other information programming, talk shows, music videos, and variety programming.
С	Programming intended for children under age 8.
C8+	Programming generally considered acceptable for children 8 years and over to watch on their own.
G	General programming, suitable for all audiences.
PG	Parental guidance.
14+	Programming contains themes or content which may not be suitable for viewers under the age of 14.
18+	Adult programming.

### How to Set up Restrictions Using Canadian French



1	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button. Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.	TV Control Input Picture Control Sound Channel Control Solup	Language       : English         Time       •         Game Mode       : Off         V-Chip       •         Caption       •         Menu Transparency       : Medium         Blue Screen       : Off         ♥ More       ●
2	Press the number buttons to enter your current 4-digit PIN. (The default PIN for a new TV set is "0000".) "V-Chip" menu is displayed.	TV Construction Construction Channel Construction Channel	V-Chip Enter PIN O.S Enter PIN III Return
3	Press the ▲ or ▼ button to select "Canadian French", then press the ENTER button.	TV Input Picture Sound Channel Solup	V-Chip V-Chip Lock : On ↑ TV Parental Guidelines ↓ MPAA Rating ↓ Canadian Ergench ↓ Downloadable U.S. Rating ↓ Change PIN ↓ Move <sup>™</sup> Enter <sup>™</sup> Return

continued...

Press the  $\blacktriangle$  or  $\triangledown$  button to select a appropriate restriction.

Press the ENTER button to activate the restriction selected. " <sup>™</sup> symbol is indicated. To unlock a locked channel, press the ENTER button again.

Press the EXIT button to exit.

TV	Canadian French
🐔 Input	Block Allow All
Picture	Block All
Sound	G 8 ans+ 13 ans+ 13
Channel	16 ans <sup>+</sup>
🗵 Sətup	♦ Move I Enter III Return

#### **NOTES**

Allow All : Press to unlock all TV ratings.
Block All : Press to lock all TV ratings.

	E		Exempt programming includesnews, sports, documentaries and other information programming, talk shows, music videos, and variety programming.
(	G		General.
8	B	ans+	Not recommended for young children.
•	13	ans+	Programming may not be suitable for children under the age of 13.
•	16	ans+	Programming is not suitable for children under the age of 16.
•	18	ans+	Programming restricted to adults.

### Using the V-Chip for Digital channels

Parental restriction information can be used while watching DTV channels.



1	Press the MENU button. Press the $\blacktriangle$ or $\blacktriangledown$ button to select "Setup", then press the ENTER button. Press the $\blacktriangle$ or $\blacktriangledown$ button to select "V-Chip", then press the ENTER button.	Input       Language       English         Dirine       Game Mode       Off         Sound       Caption       Amount Transparency         Channel       Blue Screen       Off         Source       More       More
2	Press the number buttons to enter your current 4-digit PIN. (The default PIN for a new TV set is "0000".) "V-Chip" menu is displayed.	Input     Enter PIN       Picture     Image: Channel Source       Source     0.9 Enter PIN
3	Press the ▲ or ▼ button to select "Downloadable U.S. Rating", then press the ENTER button.	INPUt     V-Chip       Input     V-Chip Lock : On ITV Parental Guidelines       Picture     MPAA Rating       Anadian English     Canadian English       Channel     Downloadable U.S. Rating       Change PIN     Hove

#### NOTES

- If information is not downloaded from the broadcasting station, the Downloadable U.S. Rating menu is deactivated.
- Parental restriction information is automatically downloaded while watching DTV channels. It may take several seconds.
- The downloadable U.S. Rating menu is available for use after information is downloaded from the broadcasting station. However, depending on the information from the broadcasting station, it may not be available for use.

Continued...

You can independently lock the TV ratings. The locked TV ratings are indicated by the symbol "<sup>™</sup>. To unlock a locked channel, press the ENTER button again.

Press the  $\blacktriangle/\bigtriangledown/\checkmark/\checkmark$  buttons and the ENTER button to activate the appropriate restrictions for TV rating system.

 NV
 Downloadable U.S. Rating

 Input
 Violence Level
 ↓ 1/2

 Picture
 NV
 Allow All

 O
 Sound
 Violence Level

 Channel
 Violence
 Event

 Solup
 ♦ Move
 Enter

The number of current rating title

The number of all rating title

Press the EXIT button to exit.

- Allow all: Press to unlock all TV ratings. / Block all: Press to lock all TV ratings.
- Parental restriction levels differ depending on the broadcasting station.
- The default menu name and Downloadable U.S. Rating changes depending on the downloaded information.
- Even if you set the On-screen display to your desired language, the "Downloadable U.S. Rating" menu will appear in English only.
- The rating will automatically block certain categories that are more restrictive.
- The rating titles (For example : Violence Level.etc) and TV ratings (For example : NV, MV, V..etc) may differ depending on the broadcasting station.

### Viewing Closed Captions (On-Screen Text Messages) Analog

The Analog Caption function operates in either analog TV channel mode or external signal mode. (Depending on the broadcasting signal, the Analog Caption function may operate on digital channels.)



1	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	Input     Language     : English       Picture     Game Mode     : Off       Sound     Caption     >       Channel     Blue Screen     : Off       Sound     • More     • More
2	Press the ▲ or ♥ button to select "Caption", then press the ENTER button.	Input       Language       : English         Picture       Game Mode       : Off         Sound       Caption       >         Channel       Blue Screen       : Off         Sound       ✓ More       >
3	Press the ENTER button to select "Caption". Press the ▲ or ▼ button to select "On", then press the ENTER button.	V     Caption       Input     Caption Mode Caption Options     Off       Picture     Caption Options       Sound       Channel       Solup   Move Image: Enter Image: Return

continued...

Press the ▲ or ▼ button to select "Caption Mode", then press the ENTER button.
Press the ▲ or ▼ button to select submark

Press the ▲ or ▼ button to select submenu (CC1~CC4 or Text1~Text4) you want, then press the ENTER button.

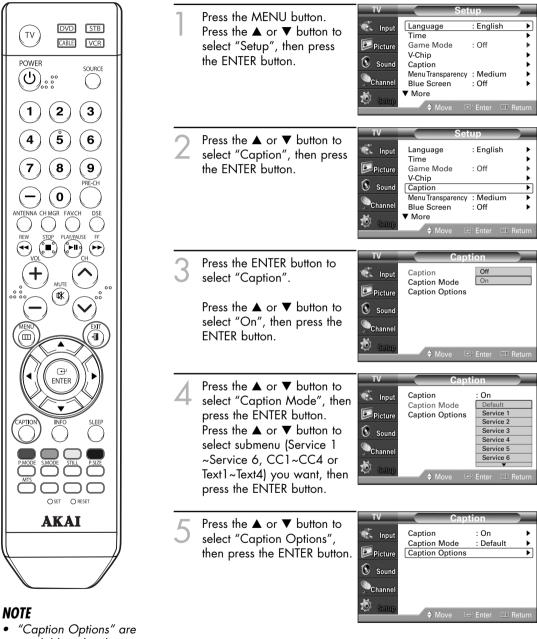
Press the EXIT button to exit.

TV	Capti	on
🐔 Input	Caption	: On
_	Caption Mode	Default
Picture 🔛	Caption Options	CC1
- I local o		CC2
Sound		CC3
~		CC4
Channel		Text1
J Ghainer		Text2
TOL and		•
A Setup	🔶 Move 🖙	Enter IIII Return

- The default is "CC1".
  - CC1 : The Primary Synchronous Caption Service. These are captions in the primary language that must be in sync with the sound, preferably matched to a specific frame.
  - CC2 : The Special NonSynchronous Use Captions. This channel carries data that is intended to augment information carried in the program.
  - CC3 : Secondary Synchronous Caption Service. Alternate program-related caption data, typically second language captions.
  - CC4 : Special Non-Synchronous Use Captions. Similar to CC2.
  - Text1 : First Text Service. This may be various non-program related data.
  - Text2 : Second Text Service. Additional data, usually not program related.
  - Text3/Text4 : Third and Fourth Text Services. These data channels are used only if Text1 and Text2 data bandwidths not sufficient.
- The Caption feature only works in TV, AV and S-Video mode.
- The availability of captions depends on the program being broadcast.

### Viewing Closed Captions (On-Screen Text Messages) Digital

The Digital Captions function operates on digital channels.



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

continued...

6 Press the ▲ or ▼ button to select "Size", then press the ENTER button. Press the ▲ or ▼ button to select one you want, then press the ENTER button. Set other listed options below using the same method as above. Press the EXIT button to exit.

TV	Capti	ion	
🐔 Input	Size	: Default	►
Picture	Font Style Foreground Color	: Default : Default	<b>*</b>
6	Background Color		•
Sound	Foreground Opacity Background Opacity		•
Channel	Return to Default		
🔘 Sətup	⇒ Move 🖃	Enter IIII	Return

#### NOTE

• The availability of captions depends on the program being broadcast.

#### Size

This option consists of "Default", "Small", "Standard", and "Large". The default is "Standard".

#### **Font Style**

This option consists of "Default", "StyleO ~ Style 7". You can change the font you want. The default is "Style O".

#### **Foreground Color**

This option consists of "Default", "White", "Black", "Red", "Green", "Blue", "Yellow", "Magenta", and "Cyan".

You can change the color of the letter. The default is "White".

#### **Background Color**

This option consists of "Default", "White", "Black", "Red", "Green", "Blue", "Yellow", "Magenta", and "Cyan". You can change the background color of the caption. The default is "Black".

#### **Foreground Opacity**

This option consists of "Default", "Transparent", "Translucent", "Solid", and "Flashing". You can change the opacity of the letter.

#### **Background Opacity**

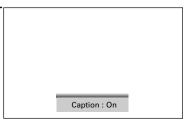
This option consists of "Default", "Transparent", "Translucent", "Solid", and "Flashing". You can change the background opacity of the caption.

#### **Return to Default**

This option sets each of "Size", "Font Style", "Foreground Color", "Background Color", "Foreground Opacity", and "Background Opacity" Color to its default.

#### Alternate method

Press the CAPTION button on the remote control repeatedly to select "On" or "Off".



# **PC Display**

## **PC Display**

### Using Your TV as a Computer (PC) Display

#### How to Connect Your PC to the TV

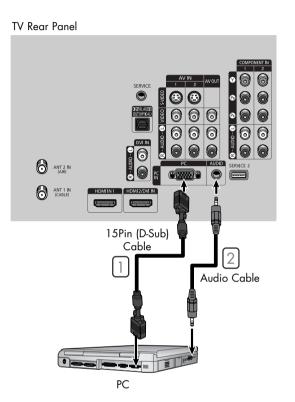
This figure shows the Standard Connector-jack panel. The actual configuration on your TV may be different, depending on the model.

#### Connecting a PC (15p D-SUB) to the TV

- Connect a PC cable between the PC Output jack on the PC and the RGB input jack (PC IN) on the TV.
- 2 Connect a Audio cable between the Audio jack on the PC and the Audio input jack (PC AUDIO IN) on the TV.



• You cannot connect this TV to a PC via HDMI/DVI.



#### Setting up Your PC Software (Based on Windows XP)

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

 $|\mathbf{2}|$ 1. Right click the mouse on the Windows Desktop, Themes Desktop Screen Saver Appearance Settings then click on Properties. The Display Dialog-Box A theme is a background plus a set of sounds, icons, and other elements to help you personalize your computer with one click will be displayed. V Save As... Delete 2 Click on Settings, then set the Display Mode with reference to the Display Modes Table. You do not need to change the Colors settings. Cancel 3 Click on Advanced. A new settings dialog box will be displayed. sktop Screen Saver Appearance Settings 4 Click on the Monitor tab, then set the Screen Refresh Rate with reference to the Display Modes Table. Set the Vertical Frequency and Horizontal Frequency individually if you can do so, instead of setting the Screen Refresh Rate. 2 Display: Plug and Play Monitor on NVIDIA Ge 5 Press the OK button, close the window, then n resolu Screi Less More Highest (32 bit) press the OK button on the Display Registration 1024 by 768 pie Information window. Automatic re-booting may 3 commence at this moment. Cancel 6 Shutdown the PC, and connect it to your TV. The actual screens on your PC may look different, depending on your particular version of Windows and the type of your PC. Plug and Play Monito \* When you use your TV as a PC monitor, Properties it supports Colors up to 32 bits. 4 In this case, the display on the TV may look Screen refresh rat 75 Hertz different depending on your particular version of Windows or the PC manufacturer. \* When connecting a PC, you must set it to the display settings that are supported by the TV. Otherwise, the message Out of input range 5 will be displayed. OK Cancel

continued...

## **PC Display**

#### **Display Modes**

Mode	Resolution	Horizontal Frequency [KHz]	Vertical Frequency [Hz]	Pixel Clock [MHz]	Sync Polarity (H/V)
VGA	640 x 350	31.47	70.00	25.175	+/-
	720 x 400	31.47	70.00	28.322	-/-
	640 x 480	31.47	60.00	25.175	-/+
		35.00	66.70	30.24	-/-
		37.86	72.80	31.50	-/-
		37.50	75.00	31.50	-/-
SVGA	800 x 600	35.16	56.30	36.00	-+/-
		37.88	60.30	40.00	+/+-
		48.08	72.20	50.00	+/+
		46.87	75.00	49.50	+/+
XGA	1024 x 768	48.36	60.00	65.00	-/-
		56.40	70.10	75.00	-/-
		60.02	75.00	78.75	+/-
VESA	640 x 480	35.000	70.000	28.6	-/+
		43.269	85.008	36.0	-/-
	720 x 400	37.927	85.039	35.5	+/-
	800 x 600	43.750	70.000	45.5	-/+
	1024 x 768	57.672	72.000	78.4	-/+
		68.677	84.997	94.5	+/+
DTV	1920 x 1080i	33.75	60	74.25	Х
	1280 x 720p	45.00	60	74.25	Х
	720 x 483p	31.47	60	27	Х

- The PC text quality is optimum in XGA mode (1024 x 768@60Hz).
- Both screen position and size will vary, depending on the type of PC monitor and its resolution. The table above shows all of the display modes that are supported:
  - \* The interlace mode is not supported.
  - \* The TV will operate abnormally if a non-standard video format is selected.
- When this TV is used as a PC display, 32-bit color is supported (over 16 million colors).
- Your PC display screen might appear different, depending on the manufacturer (and depending on your particular version of Windows). Check your PC instruction book for information about connecting your PC to a TV display-monitor.
- Same modes as PC are supported for the signal input to the DVI jack. Only a separate sync signal is supported.

### Adjusting the Picture 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 to the center of screen.

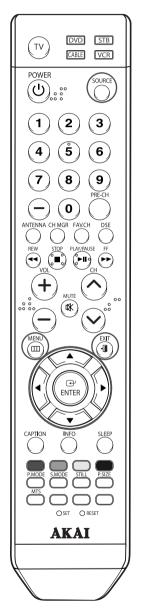
Press the MENU button.

Press the  $\blacktriangle$  or  $\blacktriangledown$  button to

select "Setup", then press

the ENTER button.

Press the SOURCE button to select "PC".



#### Sound Caption MenuTransparency : Medium Blue Screen : Off ▼ More Press the $\blacktriangle$ or $\blacktriangledown$ button to 🐔 Input ▲ More select "PC", then press the Color Weakness ENTER button. Picture PC ► Function Help : On Sound ŏ TV Press the ENTER button to 🐔 Input Image Lock select "Image Lock", then Position Picture press the ENTER button. Auto Adjustment Image Reset Sound Resolution : 1024x768 @75Hz Press the $\blacktriangle$ or $\blacktriangledown$ button to 🐔 Input Coarse \_\_\_\_ 50 select "Coarse" or "Fine", Fine Picture then press the ENTER button. Sound Sound • You can also select these options (Coarse, or Fine) by pressing the Ö ▲ or ▼ button. Press the $\blacktriangleleft$ or $\blacktriangleright$ button to remove the picture noise. Coarse 50 Press the EXIT button to exit. Fine 0

🐔 Input

Picture

Language

Game Mode

Time

V-Chip

: English

: Off

►

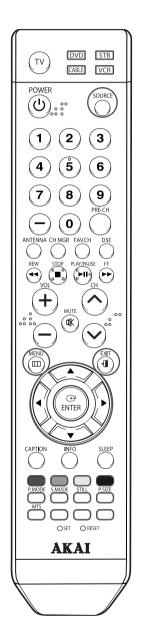
#### NOTE

This feature may change the width of the image. If necessary, adjust the position to center.

# PC Display

### Changing the Picture Position

After connecting the TV to your PC, adjust the position of picture if it is not well-aligned.



1	Press the SOURCE button to select "PC".		
2	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	TV     Setup       Input     Language     : English       Time     Game Mode     : Off       Gosound     Caption     Caption       Channel     Blue Screen     : Off       Sound     Y More     Move	
3	Press the ▲ or ▼ button to select "PC", then press the ENTER button.	Input     ▲ More Color Weakness       Picture     PC       Sound     Function Help       Channel       Stup       ♦ Move       Enter       Enter	
4	Press the ▲ or ▼ button to select "Position", then press the ENTER button.	IV     PC       Image Lock     ▶       Position     ▶       Picture     Auto Adjustment Image Reset       Sound     ►       Channel     ►       Saup     Move       Move     Enter	
5	Adjust the position of picture by pressing the ▲/▼/◀/► button. Press the EXIT button to exit.	TV     Position       Input     Imput       Picture     Imput       Sound     Imput       Channel     Imput       Solup     Adjust	

# Adjusting the Picture Quality and Position Automatically

This feature allows the TV to self-adjust to the incoming video signal. The values of fine, coarse and position are adjusted automatically.

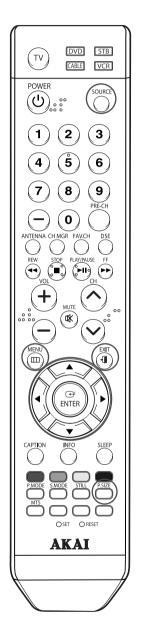


2	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	TV     Setup       Input     Language : English Time       Picture     Game Mode : Off V-Chip       Sound     Caption       Menu Transparency : Medium Blue Screen : Off       Statup     More
3	Press the ▲ or ▼ button to select "PC", then press the ENTER button.	TV     Setup       Input     ▲ More Color Weakness       Picture     PC Function Help : On       O Sound     Channel       O Satup     ♦ Move
4	Press the ▲ or ▼ button to select "Auto Adjustment", then press the ENTER button. The picture quality and position are automatically adjusted, and the picture returns to original view a few seconds later.	TV     PC       Input     Image Lock Position       Picture     Auto Adjustment       Sound     Image Reset Resolution       Channel     Move
	Press the EXIT button to exit.	Auto Adjustment in Progres Please Wait.

# PC Display

# Changing the Picture Size (PC Mode)

You can select the picture size which best corresponds to your viewing requirements.



1	Press the SOURCE button to s	select "PC	2".		
2	Press the MENU button. Press the $\blacktriangle$ or $\blacktriangledown$ button to select "Picture", then press the ENTER button. Press the $\blacktriangle$ or $\blacktriangledown$ button to select "Size", then press the ENTER button.	TV Constant Total To	Pict Mode Size Digital NR DCE My Color Control Film Mode	: Dynamic : Wide PC : On : Off : Off	Image: Non-State State
3	Press the ▲ or ▼ button to select the screen format you want, then press the ENTER button. Press the EXIT button to exit.	TV Construction To Sound Channel Setup	Si:	WideTV Wide PC 4:3	leturn

#### **NOTES**

- "Wide TV": Scales the picture to the size of the TV screen, regardless of the aspect ratio of the input source.
- "Wide PC": Scales the picture to 92% of the TV screen, regardless of the aspect ratio of the input source. The picture position (□, □) and size (□) adjustment are available by pressing the ▲/▼/◄/► button.
- "4:3": Displays the picture as it is without changing the aspect ratio of input source.

#### Alternate method

Press the P.SIZE button on the remote control repeatedly to change the picture Size.

	Wide PC	¢eæ	
	Wideric		

# Viewing the Current Resolution

You can get the resolution information of your PC.



1	Press the SOURCE button to select "PC".		
2	Press the MENU button. Press the ▲ or ♥ button to select "Setup", then press the ENTER button.	IV     Setup            ▲ Input           Language         : English             Time           Game Mode         : Off         V-Chip         Caption             Sound           Caption             Channel           Blue Screen             Silup           Move	
3	Press the ▲ or ▼ button to select "PC", then press the ENTER button.	TV     Setup       Input     More       Color Weakness     Picture       Picture     Function Help     : On       Channel     Channel     Move     Enter     Return	
	The resolution information is displayed on the screen.	TV     PC       Input     Image Lock       Position     Auto Adjustment       Image Reset     Resolution       Resolution     1024x768 @75Hz	
	Press the EXIT button to exit.	Channel	

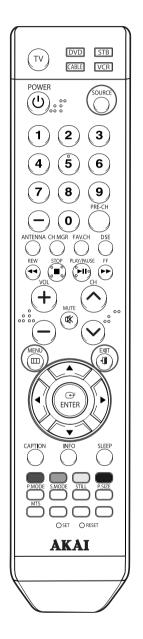
#### NOTE

• To change the resolution, see pages 105~106.

# PC Display

# Initializing the Picture Settings

You can replace all picture settings with the factory default values.



1	Press the SOURCE button to select "PC".		
2	Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.	TV       Setup         Input       Language       : English         Time       Game Mode       : Off         Sound       V-Chip       >         Caption       Henu Transparency       : Medium         Blue Screen       : Off       >         Sound       Y More       *	
3	Press the ▲ or ▼ button to select "PC", then press the ENTER button.	TV       Setup         Input       ▲ More         Color Weakness       ▶         PC       ▶         Sound       ▶         Channel       ♦         Move       ♥ Enter         Beturn       ♥	
4	Press the ▲ or ▼ button to select "Image Reset", then press the ENTER button. The picture settings are replaced with the factory default values. Press the EXIT button to exit.	Input       Image Lock         Position       Auto Adjustment         Sound       Resolution       : 1024x768 @ 75Hz         Channel       Move       Enter       Return         Image Reset is completed.       Image Reset is completed.       Return	

# Appendix

# Appendix

### **Replacing the Lamp**

• Why do I need to replace the lamp?

The lamp used in a DLP TV has a limited lifespan. For the best screen quality it needs to be replaced periodically. After replacing the lamp, the screen quality will be bright and clear as new.

#### • When do I need to replace it?

It should be replaced when the screen becomes darker, less clear or when all three LEDs on the front (TIMER, LAMP, & STAND BY/TEMP) are flashing.

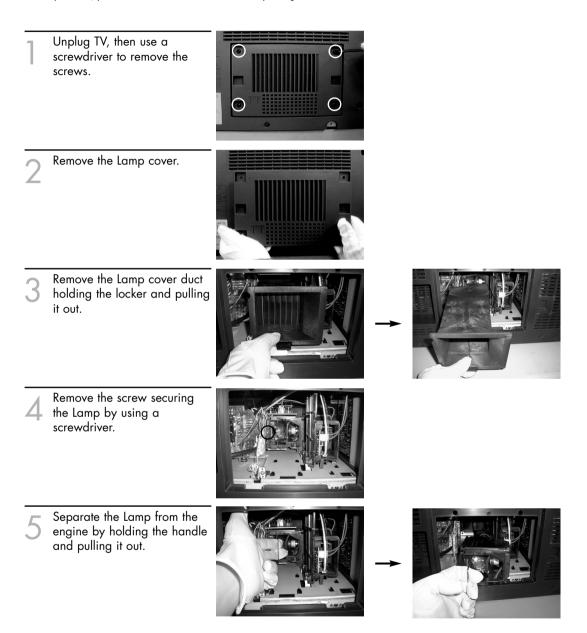
#### Check before lamp replacement

- 1. The lamp must be the same code number and type.
- 2. The lamp type is indicated on the right side of the TV. It is also indicated on the lamp case.
- 3. After checking the code number for the lamp, give the code number to the store where you purchased the TV or to a AKAI Service center.

#### Caution

- 1. Replace with the correct code numbered lamp to avoid damage to the TV.
- 2. Turn the power off and wait for 30 minutes before replacing the lamp as it will be hot.
- 3. Do not touch the glass part of the lamp with your bare hands or insert any foreign object inside the cover as it may cause poor screen quality, electric shock or fire.
- 4. Do not place the old lamp near flammable objects or within the reach of children.
- 5. Be sure to connect this TV directly to an AC wall outlet. If the TV's AC plug is connected to a cable box or other source, it will not allow for proper cool down time.

• For replacement, you will need a 5.91-Inch screwdriver and a pair of gloves.



#### **NOTES**

- Be sure the replacement Lamp is the same type.
- After replacing the lamp, align the lamp cover with the groove and secure the screws.
- The TV will not turn on if the lamp cover is not correctly closed (as this will activate the protective circuit).

# Appendix

# 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, then call your nearest AKAI authorized service center.

Problem	Possible Solution
Poor picture quality.	Try another channel. Adjust the antenna. Check all wire connections.
Poor sound quality.	Try another channel. Adjust the antenna. Make sure the MUTE button is off.
No picture or sound.	Try another channel. Press the SOURCE button. Make sure the TV is plugged in. Check the antenna connections. Check that the Mute feature is off.
No color, wrong colors or tints.	Make sure the program is broadcasted in color. Adjust the picture settings.
Picture rolls vertically.	Adjust the antenna. Check all wire connections. If you are using a VCR, check the tracking.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it again.
Your remote control does not operate your TV.	Press the "TV" button to put your remote control into "TV" mode. Make sure the remote has batteries.
The TV won't switch on.	Make sure the wall outlet is working. Make sure the TV is plugged in. Make sure the remote has batteries.
Digital broadcasting screen problem.	Please check the digital signal strength and input antenna.
The visual qualities of digital channels vary.	<ul> <li>The visual qualities of digital channels may vary depending on the original production method (analog or digital).</li> <li>→ If the original production method is digital: High visual quality program.</li> <li>→ If the original production method is analog: The digital program displayed on the screen is originally an analog program which has been converted. The visual quality is of an SD grade.</li> </ul>
Although the TV caption shows HD, the visual quality is not satisfactory.	The HD caption that appears when switching channels or when pressing the Information button on the remote control means the selected channel is simply a digital channel. If the broadcasting station converts an analog signal into digital and transmits the signal, the visual quality may not be perfect. (Applied to Set Top Box built-in model only.)

• The display panel used for the DLP TV is composed of many tiny pixels. These pixels may occasionally appear on the screen.

# **Cleaning and Maintaining Your TV**

Please follow these guidelines to get the maximum performance from your TV.

#### Placement

- Do not put 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.
- This DLP TV projects the image onto a large screen by applying an optical system. If you place the TV set face down, it might cause a problem because dirt, or some other contaminant may become attached to the inside of the TV set.

#### 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	PT50DL24	PT61DL34
Voltage	AC 110-120V	AC 110-120V
Frequency of Operation	60Hz	60Hz
Power Consumption	200 watts	200 watts
Dimensions (W x D x H)	46.54 x 14.13 x 34.25 inches 1182 x 359 x 870 mm	56.93 x 18.27 x 41.65 inches 1446 x 464 x 1058 mm
Weight	36 Kg / 79.37 lbs	49 Kg / 108.02 lbs

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