



LCD TV

LW46G15W

Owner's Instructions

Before operating the unit,
please read this manual thoroughly,
and retain it for future reference.

**PICTURE IN PICTURE (PIP)
TELETEXT**



This device is a class B digital apparatus.

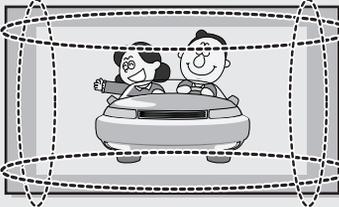
Precautions When Using the Still Image

The still image may cause permanent damage to the TV screen.

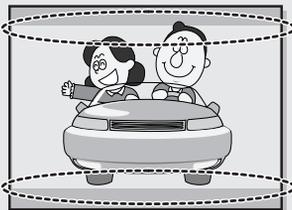
- Digital Ready TV: When you select the regular screen (4:3) mode to watch an SD-grade digital broadcast (and the set-top box output is 480p).



- Digital Ready TV: When you select the wide screen (16:9) mode to watch an SD-grade digital broadcast (and the set-top box output is 1080i).



- Digital Ready TV: When the TV receives HD-grade signals (and the set-top box output is 1080i).



Although digital broadcasting must be in the wide screen (16:9) HD format, broadcasters sometimes show programs made originally in the regular screen format (4:3) by converting the signals into digital form, in which case the left and right side edges of the screen are cropped.

Note : If the borders at the left, right and the center of the screen remain fixed for an extended period of time, the amounts of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

When you watch a digital HD-grade broadcast on a regular (4:3) TV with the screen size "16:9" or "Panorama" selected, you will be able to watch the program but the top and bottom edges of the screen will be cropped.

Note : If the borders at the top, bottom and the center of the screen remain fixed for an extended period of time, the amounts of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

Precautions When Using the Still Image (continued)

- Integrated Digital TV (Wide-screen): When the TV receives SD-grade (regular) broadcasting signals (receives 480p regular signals).
- Digital Ready TV (wide-screen): digital TV: When the TV receives SD-grade (regular) broadcasting signals (with a set-top box).
- When you watch an analogue (regular) broadcast on a wide-screen TV (with the 4:3 screen mode selected).

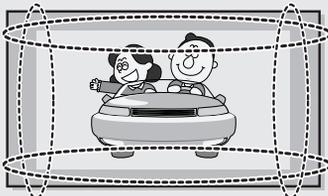


Although digital broadcasting must be in the wide screen (16:9) HD format, broadcasters sometimes show programs made originally in the regular screen format (4:3) by converting the signals into digital form, in which case the left and right side edges of the screen are cropped.

Note : If the borders at the left, right and the center of the screen remain fixed for an extended period of time, the amounts of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

- When you watch a DVD, CD or a video in wide screen (21:9) format on a wide-screen (16:9) TV.
- When you connect a computer or a game console to the TV and select the 4:3 screen mode.



If you connect a DVD player, computer or a game console to the wide-screen TV and watch a movie or play a game in regular (4:3) or wide (21:9) screen mode, the left and right side edges, or the top and bottom edges of the screen will be cropped.

Note : If the borders at the left, right and the center of the screen remain fixed for an extended period of time, the amounts of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

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Symbols



Press



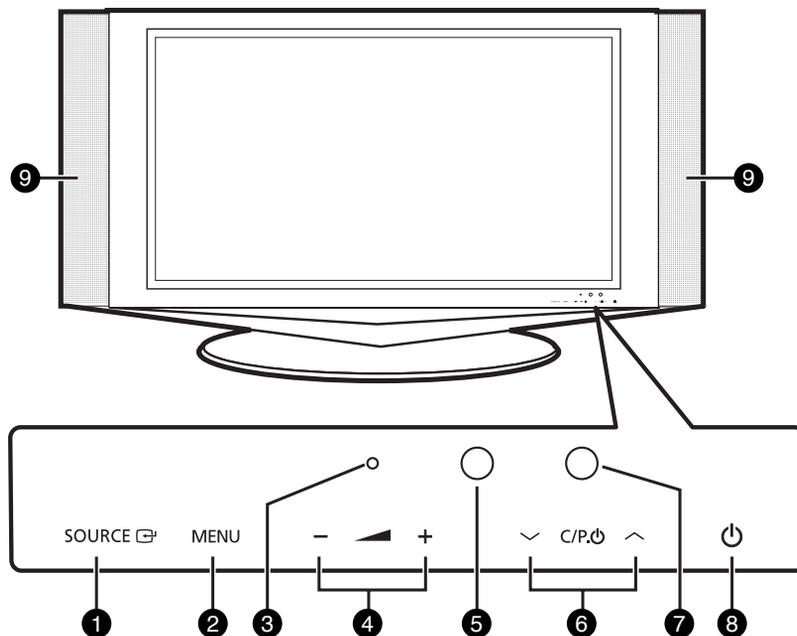
Important



Note

Control Panel

TV Front View

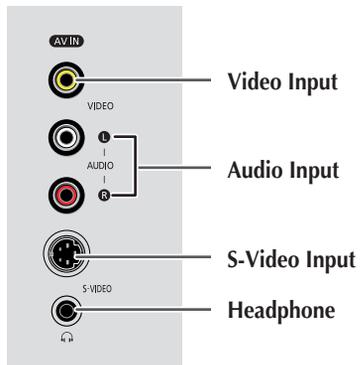


- | | |
|---|--|
| <p>(1) SOURCE </p> <p>External input selection.
Confirm your choice(Store or Enter) on the on-screen menu.</p> <p>(2) MENU</p> <p>Press to open or exit from the on-screen menu, or return to the previous menu.</p> <p>(3) Power Indicator
Power off : Red
Power on : Off
Timer on : Green</p> <p>(4) - ▲ +</p> <p>Adjust the volume.
Also used to select or adjust items on the on-screen menu.</p> | <p>(5) Remote Control Sensor
Aim the remote control towards this spot on the TV.</p> <p>(6) ∨ C/P. ⏻ ^</p> <p>Select channels.
Auto power on. Also used to move up or down in the on-screen menu.</p> <p>(7) Light Detecting Sensor
Senses the ambient light and adjusts the brightness automatically.
Checks the connection status of all input sources or selects an item from the menu screen.</p> <p>(8) ⏻ (Power)
Press to turn the TV on and off.</p> <p>(9) Speakers</p> |
|---|--|

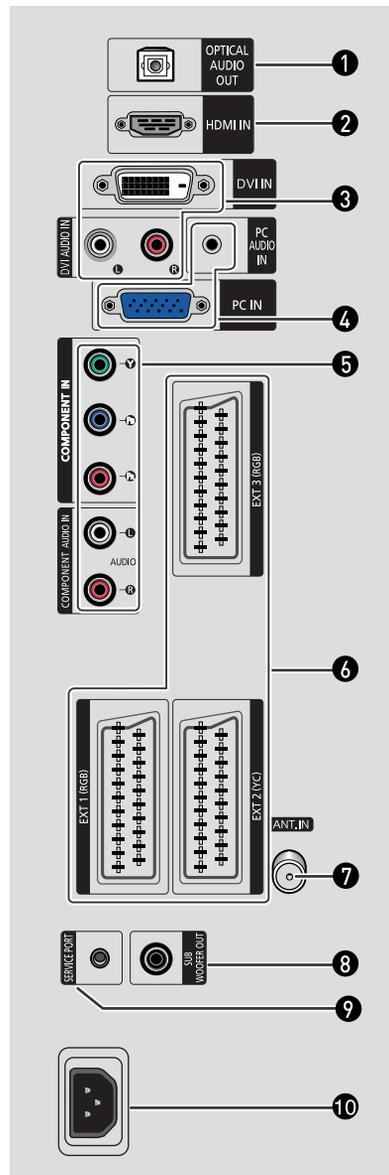
- ◆ You can use the ∨ C/P. ⏻ ^ buttons to switch on the TV when it is in standby mode depending on the model.
- ◆ The - ▲ + and ∨ C/P. ⏻ ^ buttons have the same function as the ▲▼/◀▶ buttons on the remote control.
- ◆ If the remote control no longer works or your have misplaced it, you can use the controls on the panel of the TV.

Connection Panel

TV Side View



TV Rear View

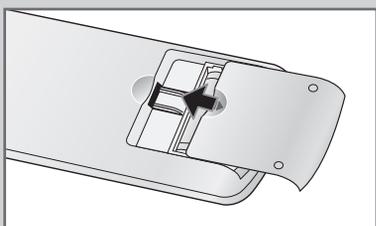
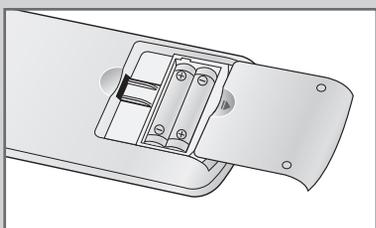
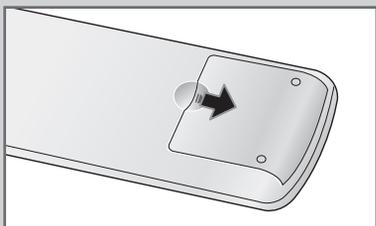


- (1) **OPTICAL AUDIO OUT**
Connect to the optical audio input jack for amplifier with optical audio input. The optical out is available only when you use the HDMI digital in.
- (2) **HDMI IN**
Connect to the HDMI output jack for device with HDMI output.
- (3) **DVI IN/DVI AUDIO IN**
Connect to the digital video and audio output jack for device with DVI output.
- (4) **PC IN/PC AUDIO IN**
Connect to the video and audio output jack on your PC.
- (5) **COMPONENT IN/ COMPONENT AUDIO IN**
Connect to the Y, P_B, P_R (Component video) and L-AUDIO-R (Component audio) inputs for device with component out.
- (6) **EXT 1 (RGB), EXT 2 (YC), EXT 3 (RGB)**
Connect to the video and audio inputs for external devices, such as a camcorder or VCR.
- (7) **ANT. IN**
75Ω coaxial connector for aerial/cable network.
- (8) **SUB WOOFER OUT**
Connect for active subwoofer speaker.
- (9) **SERVICE PORT**
Connect for service only.
- (10) **AC POWER IN**

➤ For further details about the connections, refer to pages 58-63.

👉 Whenever you connect an audio or video system to your television, ensure that all elements are switched off. Refer to the documentation supplied with your equipment for detailed connection instructions and associated safety precautions.

Inserting the Batteries into the Remote Control



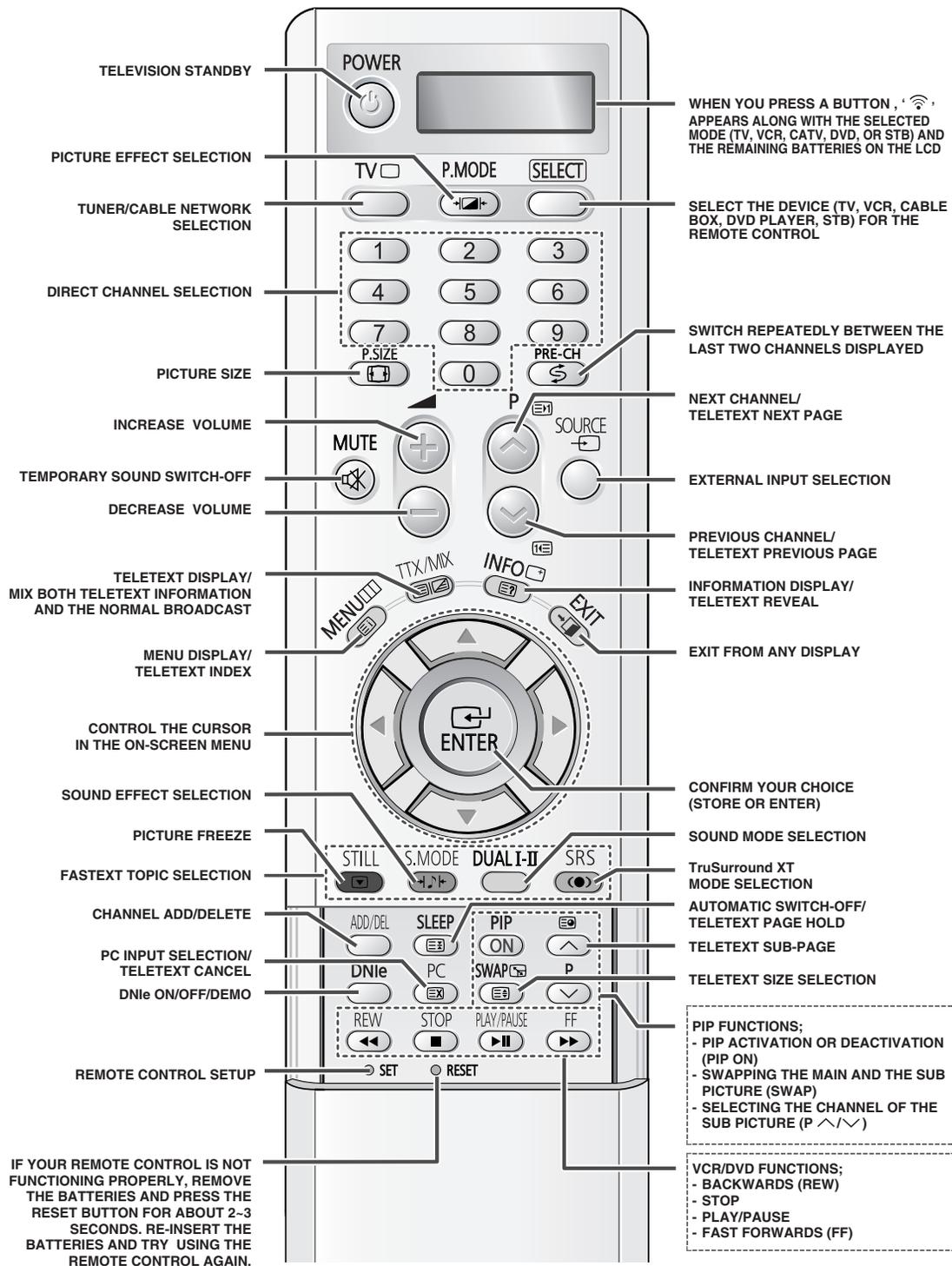
You must insert or replace the batteries in the remote control when you:

- ◆ *Purchase the television.*
- ◆ *Find that the remote control is no longer operating correctly.*

- 1 Remove the cover on the rear of the remote control by pressing the symbol (▼) downwards, then pulling firmly to remove it.
- 2 Insert two R03, UM4, "AAA" 1.5V or equivalent batteries taking care to respect the polarities:
 - ◆ - on the battery against - on the remote control
 - ◆ + on the battery against + on the remote control
- 3 Replace the cover by aligning it with the base of the remote control and pressing it back into place.

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

Infrared Remote Control



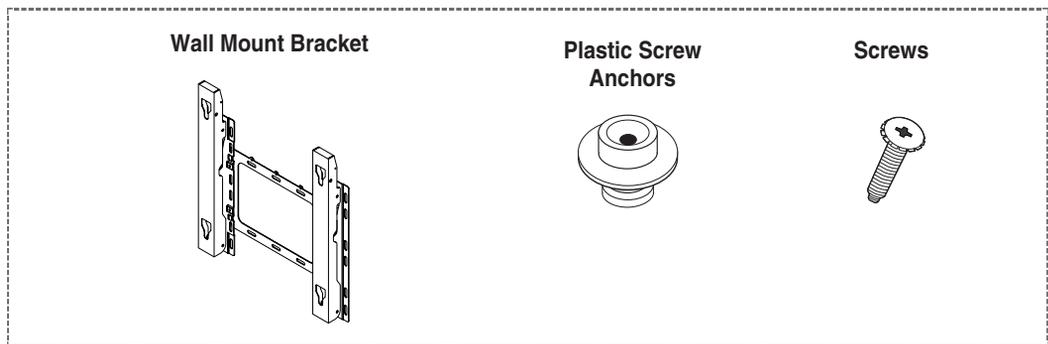
➤ The performance of the remote control may be affected by bright light.

Wall Installation Instructions

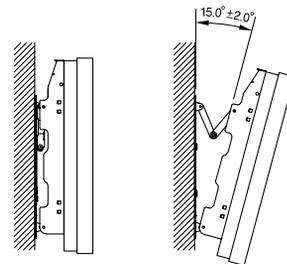
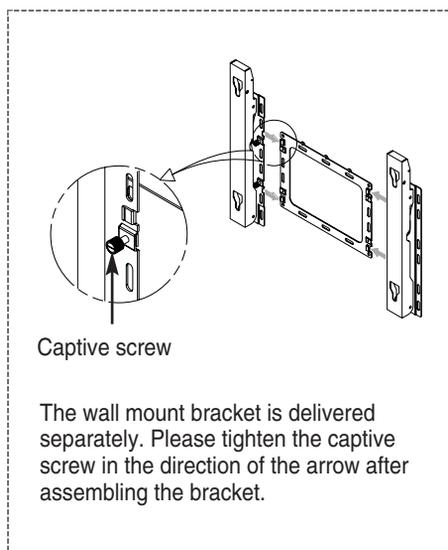
Installation Notes

- ◆ The wall attachment panel is sold separately.
- ◆ Do not install the product in any location other than a vertical wall.
- ◆ To protect the performance of your product and prevent problems, avoid the following locations:
 - Any place vulnerable to vibration or impact: The product may come off and break.
 - Near smoke and fire detectors: The sprinkler may be activated upon detecting heat from the product.
 - Near high voltage: The reception for your product may be interrupted.
 - Near heat sources: The product may get overheated.

List of Contents (Sold Separately)



How to Adjust Mounting Angle

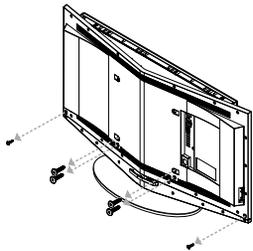


- 1 Attach the TV to the wall bracket.
(Follow the instructions below.)
- 2 Pull the upper part of the TV (which has been attached to the bracket) forward in the direction of the arrow and adjust the angle.
- 3 You can adjust the angle to your liking between 0-15° . (±2°)

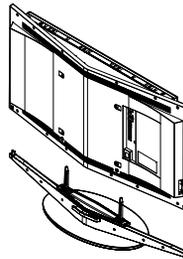
Wall Installation Instructions (continued)

How to Attach the TV to the Bracket (sold separately)

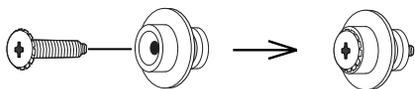
- 1** Remove the 6 screws from the back of the TV.



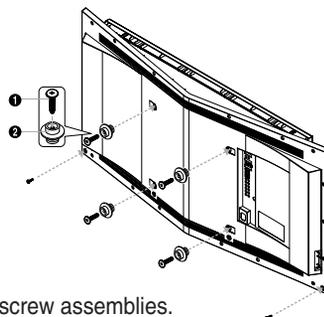
- 2** Separate the stand from the TV.



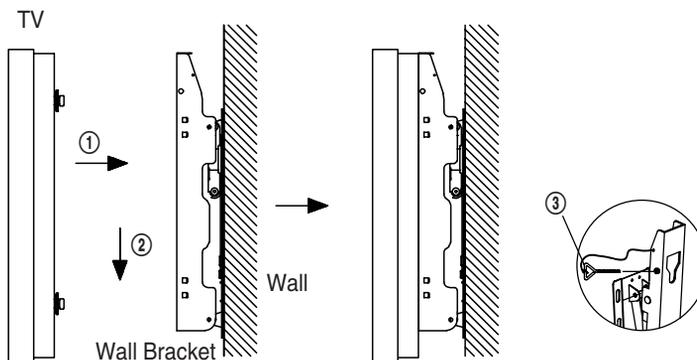
- 3** Assemble the plastic screw anchors and the screws.



- 4** Tighten the screw assemblies (as shown in Picture 3) to the back of the TV.



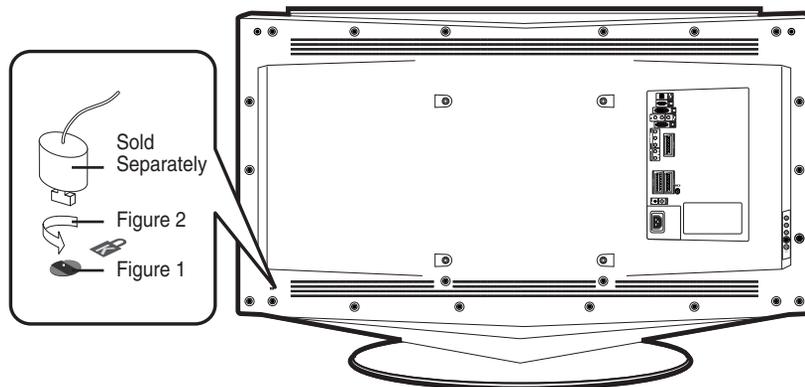
- 5** Put the four holders on the back of the TV into the holes on the wall bracket **①**, lower the TV **②** and hang the TV on the bracket. Fasten the TV securely to the wall bracket with stick screws as shown in **③** so that the two will not separate.



Using the Anti-Theft Lock

The kensington lock is a device used to physically secure the TV when using it in a public place.

- ◆ The TV is designed to use the anti-theft lock.
- ◆ The lock device is used to secure the TV when it is used in a public place.
- ◆ The appearance and locking method may differ depending on the manufacturer. Please refer to the owner's instructions provided with the lock for proper use.



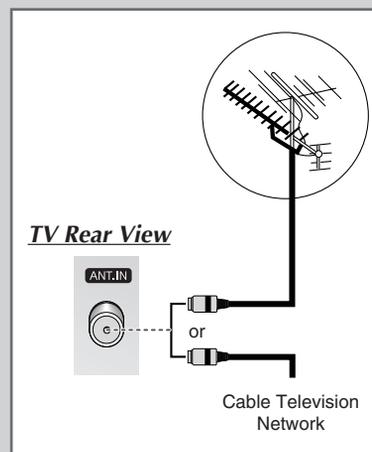
- 1 Insert the locking device into the kensington slot on the TV (Fig. 1), and turn it in the locking direction (Fig. 2).
- 2 Connect the kensington lock cable.
- 3 Secure the kensington lock to a desk or a heavy stationary object.

Connecting to an Aerial or Cable Television Network

To view television channels correctly, a signal must be received by the set from one of the following sources:

- ◆ An outdoor aerial
- ◆ A cable television network
- ◆ A satellite network

- 1 In the first three cases, connect the aerial or network input cable to the 75Ω coaxial socket at the back of the television.
- 2 If you are using an indoor aerial, you may need to adjust it when tuning your television until you obtain a picture that is both sharp and clear.
For further details, refer to:
 - ◆ "Storing Channels Automatically" on page 18.
 - ◆ "Storing Channels Manually" on page 20.



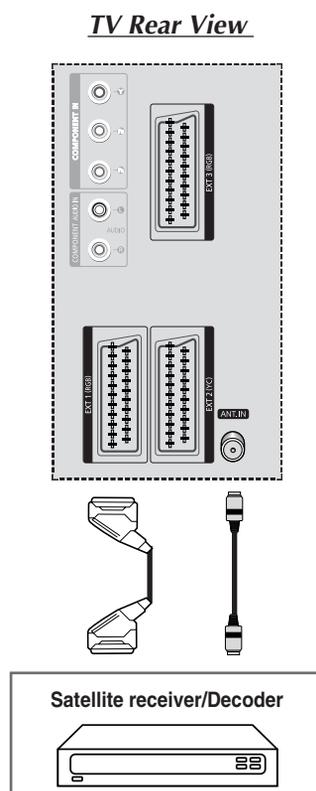
Connecting a Satellite Receiver or Decoder

In order to watch television programmes broadcast via a satellite network, you must connect a satellite receiver to the back of the TV. Also, in order to descramble a coded transmission signal, you must connect a decoder to the back of the TV.

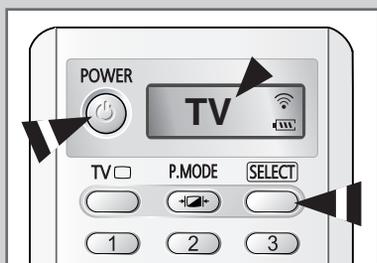
- ◆ **Using a SCART cable**
Connect the receiver (or decoder) SCART cable to one of the SCART connectors at the back of the television.
- ◆ **Using a coaxial cable**
Connect a coaxial cable to the:
 - Receiver (or Decoder) output socket.
 - Television aerial input socket.

- If you wish to connect both a satellite receiver (or decoder) and a VCR, you should connect the:
- ◆ Receiver (or Decoder) to the VCR
 - ◆ VCR to the television

Otherwise, connect the receiver (or decoder) directly to the television.



Switching Your Television On and Off



The mains lead is attached to the back of your television.

- 1 Plug the mains lead into an appropriate socket.
 - The main voltage is indicated on the back of the television and the frequency is 50 or 60Hz.

- 2 Press the “⏻” button (On/Off) on the front of the television.

Result: The Standby indicator on the front of the television lights up.

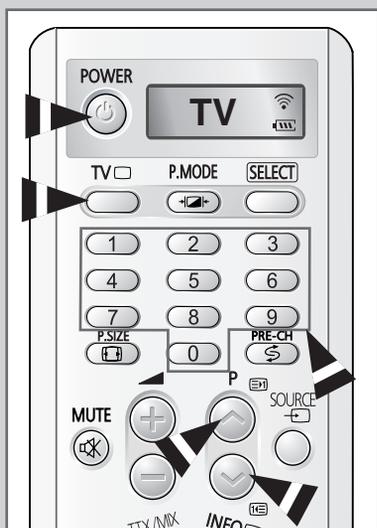
- 3 Press the **POWER** (⏻) button on the remote control to switch the television on.

Result: The programme that you were watching last is re-selected automatically.

 - ♦ If your television isn't turned on when the **POWER** (⏻) button is pressed, press the **SELECT** button to check if “TV” mode has been chosen.
 - ♦ If you have not yet stored any channels, no clear picture appears. Refer to “Storing Channels Automatically” on page 18 or “Storing Channels Manually” on page 20.

- 4 To switch your television off, press the “⏻” button (On/Off) again.

Placing Your Television in Standby Mode



English - 14

Your television can be placed in Standby mode, in order to reduce the power consumption.

Standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).

- 1 Press the **POWER** (⏻) button on the remote control.

Result: The screen is turned off and the Standby indicator on the front of the television lights up.

- 2 To switch the television back on, simply press the **POWER** (⏻) button again or a number button.
 - You can also switch the TV back on by pressing the **TV** (□), **P** (⊖/⊕) or a number button.

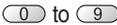
- ☞ Do not leave your television in Standby mode for long periods of time (when you are away on holiday, for example). Turn your television off by pressing the “⏻” button (On/Off) on the front of the television. It is best to unplug the set from the mains and aerial.

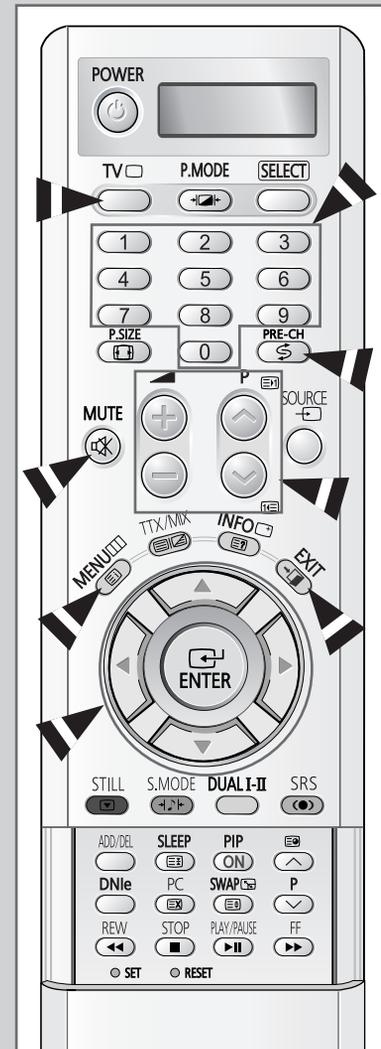
Familiarizing Yourself with the Remote Control

The remote control is used mainly to:

- ◆ Change channels and adjust the volume
- ◆ Set up the television using the on-screen menu system

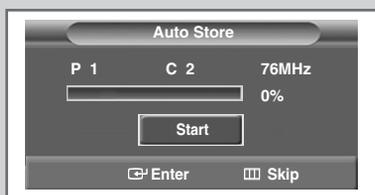
The following table presents the most frequently used buttons and their functions.

Button	Viewing Function	Menu Function
	Used to display the next stored channel.	-
	Used to display the previous stored channel.	-
	Used to display the corresponding channels.	
	➤ For double digit channels, the second digit must be pushed immediately after the first. Failure to do this will result in a single digit channel being displayed.	
PRE-CH ()	Press the PRE-CH button. The TV will switch to the last channel viewed. To quickly switch between two channels that are far apart, select the first channel, then use the number buttons to select the second channel. Then, use the PRE-CH button to quickly alternate between them.	
	Used to increase the volume.	-
	Used to decrease the volume.	-
MUTE ()	Used to switch the sound off temporarily. ➤ To turn the sound back on, press this button again, or press the  or  button.	
MENU ()	Used to display the on-screen menu system.	Used to return to the previous menu or normal viewing.
	-	Used to: ◆ Display a submenu containing selections for the current menu option. ◆ Increase/decrease a menu option value.
	-	Used to confirm your choice.
TV ()	Used to switch the television on when it is in standby mode.	Used to exit from the menu system and return to normal viewing directly.
EXIT ()	-	Used to exit from any display.



Plug & Play Feature

Plug & Play



Enjoy your viewing

English - 16

When the television is initially powered on several basic customer settings proceed automatically and subsequently. The following settings are available.

- 1 If the television is in Standby mode, press the **POWER** (⏻) button on the remote control.
Result: The message **Plug & Play** is displayed.
- 2 To start Plug & Play, press the **ENTER** (↵) button.
Result: The **Language** menu is displayed.
- 3 Select the appropriate language by pressing the **▲** or **▼** button. Press the **ENTER** (↵) button to confirm your choice.
Result: The message **Check antenna input.** is displayed.
- 4 Make sure that the antenna is connected to the TV, then press the **ENTER** (↵) button.
Result: The **Country** menu is displayed.
- 5 Select your country by pressing the **▲** or **▼** button. Press the **ENTER** (↵) button to confirm your choice.
Result: The **Auto Store** menu is displayed.
- 6 To start channel store, press the **ENTER** (↵) button.
Result: The search will end automatically. Channels are sorted and stored in the order which reflects their position in the frequency range (with lowest first and highest last). When it has finished, the **Clock Set** menu is displayed.
➤ To stop the search before it has finished or return to normal viewing, press the **MENU** (☰) button.
- 7 Press the **◀** or **▶** button to move to the **Hour** or **Minute**. Set these by pressing the **▲** or **▼** button.
➤ You can also set the **Hour** and **Minute** by pressing the number buttons directly.
- 8 Press the **ENTER** (↵) button.
- 9 When the setting has all finished, the message **Enjoy your viewing** is displayed, then the channel which has been stored will be activated.

Plug & Play Feature (continued)

If you want to reset this feature...

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Plug & Play**.
Press the **ENTER** () button.
Result: This feature starts with the message **Plug & Play** being displayed.
- 5 For further details on setting up options, refer to the page 16.



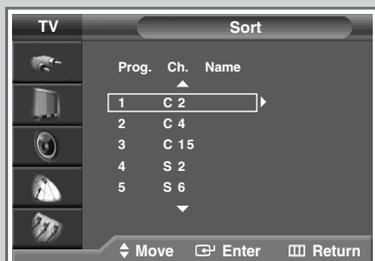
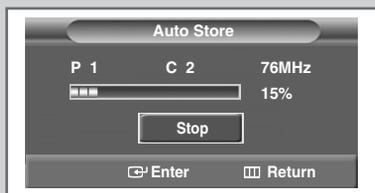
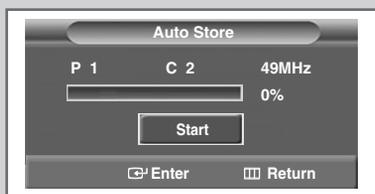
Choosing Your Language

When you start using your television for the first time, you must select the language which will be used for displaying menus and indications.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Language**. Press the **ENTER** () button.
Result: The available languages are listed.
- 5 Select the appropriate language by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.



Storing Channels Automatically



You can scan for the frequency ranges available to you, (availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However you can sort numbers manually and clear any channels you do not wish to watch.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Channel1**.
Result: The options available in the **Channel1** group are displayed.
- 3 Press the **ENTER** () button.
Result: **Country** is selected.
- 4 Press the **ENTER** () button again. Select your country by pressing the **▲** or **▼** button.
The countries are displayed in the following order:
Belgium - Germany - Spain - France - Italy - Netherlands - Switzerland - Sweden - United Kingdom - Eastern Europe - Others.
➤ If you have selected the **Others** option but do not wish to scan the PAL frequency range, store the channels manually (see page 20).
- 5 Press the **ENTER** () button to confirm your choice.
- 6 Press the **▲** or **▼** button to select **Auto Store**. Press the **ENTER** () button.
- 7 Press the **ENTER** () button to start the search.
Result: The search will end automatically. Channels are sorted and stored in the order which reflects their position in the frequency range (with lowest first and highest last). The programme originally selected is then displayed.
➤ To stop the search before it has finished or return to normal viewing, press the **MENU** () button.
- 8 When searching and storing are complete, the **Sort** menu is displayed.
 - ◆ To sort the stored channels into the desired numerical order, go to step 5 of the "Sorting the Stored Channels" procedure on page 19.
 - ◆ To exit from the channel store function without sorting the channels, press the **MENU** () button repeatedly until the menus disappear.
- 9 When the channels have been stored, you can:
 - ◆ Sort them in the order required (see page 19)
 - ◆ Assign names to the stored channels (see page 23)
 - ◆ Clear a channel (see page 22)
 - ◆ Fine-tune channel reception if necessary (see page 24)
 - ◆ Activate/deactivate the **LNA** (Low Noise Amplifier) feature (see page 25)

Sorting the Stored Channels

This operation allows you to change the programme numbers of stored channels. This operation may be necessary after using the auto store. You can delete those channels you do not want to keep.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Channel1**.
Result: The options available in the **Channel1** group are displayed.

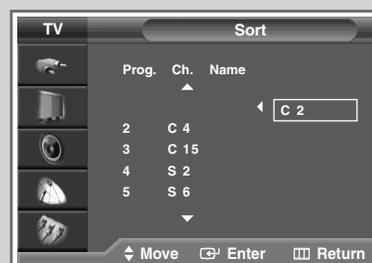
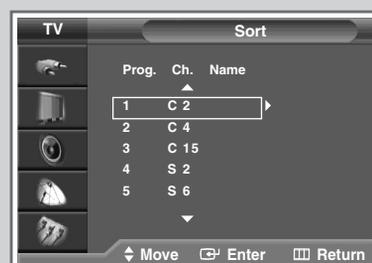
- 3 Press the **ENTER** () button.

- 4 Press the **▲** or **▼** button to select **Sort**. Press the **ENTER** () button.
Result: The **Sort** menu is displayed.

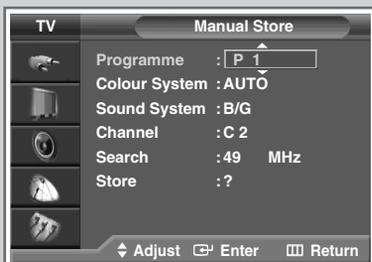
- 5 Select the channel that you wish to move by pressing the **▲** or **▼** button. Press the **ENTER** () button.

- 6 Select the number of the programme to which the channel is to be moved by pressing the **▲** or **▼** button. Press the **ENTER** () button.
Result: The channel is moved to its new position and all other channels are shifted accordingly.

- 7 Repeat Steps 5 to 6 until you have moved all the channels to the required programme numbers.



Storing Channels Manually



You can store the television channels, including those received via cable networks.

When storing channels manually, you can choose:

- ◆ Whether or not to store each of the channels found
- ◆ The programme number of each stored channel which you wish to identify

1 Press the **MENU** () button.

Result: The main menu is displayed.

2 Press the **▲** or **▼** button to select **Channel**.

Result: The options available in the **Channel** group are displayed.

3 Press the **ENTER** () button.

4 Press the **▲** or **▼** button to select **Manual Store**. Press the **ENTER** () button.

Result: The options available in the **Manual store** group are displayed with the **Programme** selected.

5 Press the **ENTER** () button again.

6 To assign a programme number to a channel, find the correct number by pressing the **▲** or **▼** button, then press the **ENTER** () button.

7 If necessary, select the broadcasting standard required. Press the **▲** or **▼** button to select **Colour System**, then press the **ENTER** () button. The colour standards are displayed in the following order.

AUTO — PAL — SECAM — NTSC4.43

8 Select the desired colour system by pressing the **▲** or **▼** button. Press the **ENTER** () button to confirm your choice.

9 Press the **▲** or **▼** button to select **Sound System**, then press the **ENTER** () button. The sound standards are displayed in the following order.

B/G — D/K — I — L

10 Select the desired sound system by pressing the **▲** or **▼** button.

11 Press the **ENTER** () button to confirm your choice.

Storing Channels Manually (continued)

- 12** If you know the number of the channel to be stored, see the following steps.
- ◆ Press the ▲ or ▼ button to select **Channel1**, then press the **ENTER** (↵) button.
 - ◆ Press the ▲ or ▼ button to select **C** (Air channel) or **S** (Cable channel).
 - ◆ Press the ► button.
 - ◆ Press the ▲ or ▼ button to select the required number, then press the **ENTER** (↵) button.
 - You can also set the channel number by pressing the number buttons directly.

➤ If no sound or abnormal sound can be heard, re-select the sound standard required.

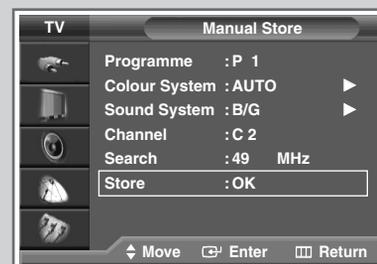
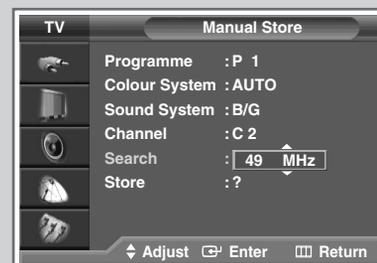
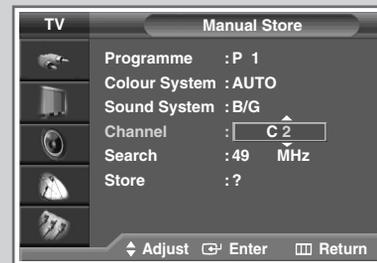
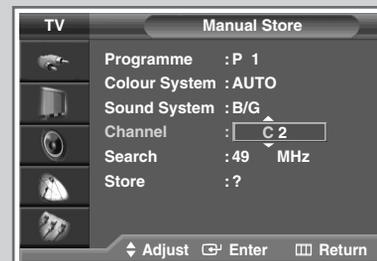
- 13** If you do not know the channel numbers, select the **Search** by pressing the ▲ or ▼ button. Press the **ENTER** (↵) button. Press the ▲ or ▼ button to start the search.
- Result: The tuner scans the frequency range until the first channel or the channel that you selected is received on your screen.

- 14** To store the channel and associated programme number, select **Store** by pressing the ▲ or ▼ button. Set to **OK** by pressing the **ENTER** (↵) button.

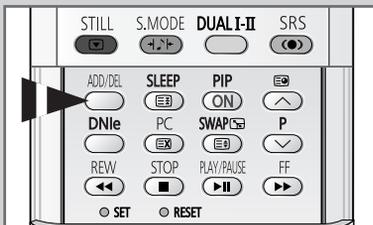
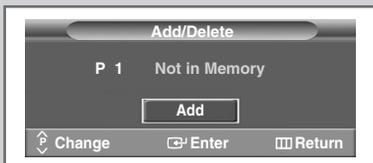
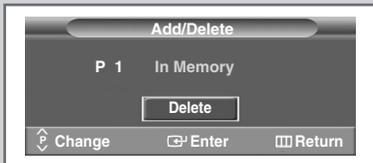
- 15** Repeat Steps 12 to 14 for each channel to be stored.

Channel mode

- ◆ **P** (Programme mode): When completing tuning, the broadcasting stations in your area have been assigned to position numbers from P00 to max P99. You can select a channel by entering the position number in this mode.
- ◆ **C** (Real channel mode): You can select a channel by entering the assigned number for each air broadcasting station in this mode.
- ◆ **S** (Cable channel mode): You can select a channel by entering the assigned number for each cable channel in this mode.



Editing the Channels



You can exclude channels of your choice from the channel scan operation. When you scan through the stored channels, those that you have chosen to skip are not displayed. All channels that you do not specifically choose to skip are displayed during scanning.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Channel1**.
Result: The options available in the **Channel1** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Add/Delete**. Press the **ENTER** () button.
Result: The **Add/Delete** menu is displayed with the current channel selected.
- 5 Press the **P** () or () button to delete or add the required channel. Press the **ENTER** () button.
- 6 Repeat Step 5 for each channel to be erased or added.

➤ You can select these options by simply pressing the **ADD/DEL** button on the remote control.

Assigning Names to Channels

Channel names will be assigned automatically when channel information is broadcast. These names can be changed, allowing you to assign new names.

- 1 Press the **MENU** () button.

Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Channel1**.

Result: The options available in the **Channel1** group are displayed.

- 3 Press the **ENTER** () button.

- 4 Press the **▲** or **▼** button to select **Name**. Press the **ENTER** () button.

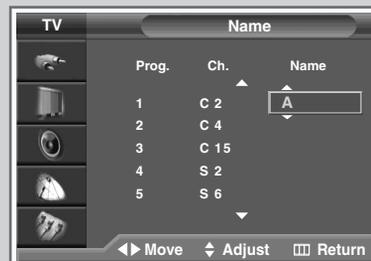
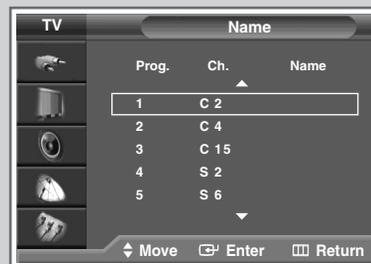
Result: The **Name** menu is displayed with the current channel selected.

- 5 If necessary, select the channel to be assigned to a new name by pressing the **▲** or **▼** button. Press the **ENTER** () button.

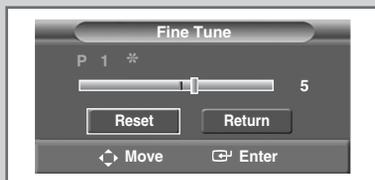
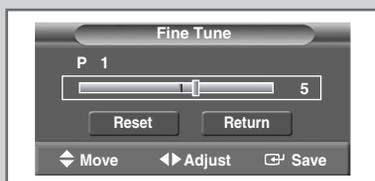
Result: Arrow indications are displayed around the name box.

- 6 Press the **▲** or **▼** button to select a letter (A~Z), a number (0~9) or a symbol (-, space). Move on to the previous or next letter by pressing the **◀** or **▶** button.

- 7 When you have finished entering the name, press the **ENTER** () button to confirm the name.



Fine Tuning Channel Reception



If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, you may have to fine tune the channel manually.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Channel1**.
Result: The options available in the **Channel1** group are displayed.

- 3 Press the **ENTER** () button.

- 4 Press the **▲** or **▼** button to select **Fine Tune**. Press the **ENTER** () button.
Result: The horizontal bar is displayed.

- 5 To obtain a sharp and clear picture and good sound quality, press the **◀** or **▶** button until you reach the optimal setting.

- 6 To store the fine tuning setting in the TV's memory, press the **ENTER** () button.
Result: The programme number turns red, and the “*” symbol is displayed. (**P 1 ***)

- 7 To reset the fine tuning to 0, select **Reset** by pressing the **▲** or **▼** button then press the **ENTER** () button.

Using the LNA (Low Noise Amplifier) Feature

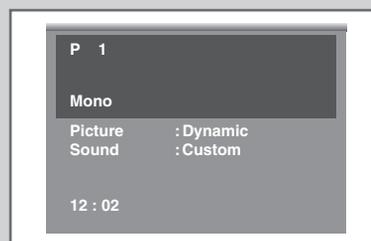
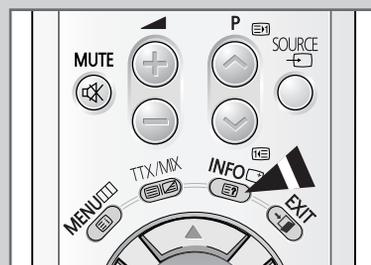
This feature is very useful in situations where the TV is used in weak signal areas because it amplifies the TV signal in those area, but it does not improve the noise.

- 1 Press the **MENU** () button.
Result : The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Channel**.
Result : The options available in the **Channel** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **LNA**. Press the **ENTER** () button.
- 5 Select **Off** or **On** by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.

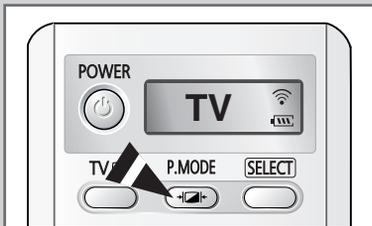
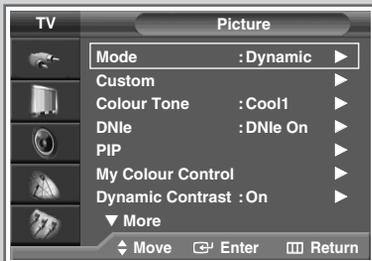


Displaying Information

You can view the channel information and setting status you select by pressing the "INFO ()" button on the remote control. The displayed information are different depending on the selected source.



Changing the Picture Standard



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

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.

- 3 Press the **ENTER** () button.
Result: **Mode** is selected.

- 4 Press the **ENTER** () button again.
Result: The available options are listed.

- 5 Select the required option by pressing the **▲** or **▼** button.
Result: The following modes are available:
 - ◆ **Dynamic** : Choose Dynamic to increase the clarity and sharpness of the picture.
 - ◆ **Standard** : Choose Standard if viewing in a well-lit room for optimum sharpness of the picture.
 - ◆ **Movie** : Choose Movie when viewing in a dark room to lessen eye strain.
 - ◆ **Custom** : Choose Custom to view using your preferred settings. (see page 27)

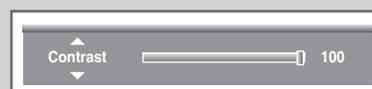
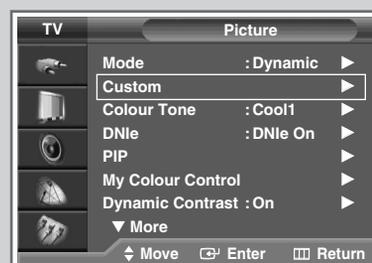
- 6 Press the **ENTER** () button to confirm your choice.

➤ You can select these options by simply pressing the **P.MODE** ( : Picture Mode) button on the remote control.

Customizing the Picture Settings

Your television has several settings options that allow you to control the picture quality.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Custom**. Press the **ENTER** () button.
Result: The **Custom** menu is displayed.
- 5 Select the option (**Contrast**, **Brightness**, **Sharpness**, **Colour**, or **Tint**-NTSC only) to be adjusted by pressing the **▲** or **▼** button. Press the **ENTER** () button.
Result: The horizontal bar is displayed. Press the **◀** or **▶** button until you reach the setting.
- 6 Press the **MENU** () button to return to the **Picture** menu. Press the **▲** or **▼** button to select **Colour Tone**. Press the **ENTER** () button.
- 7 Select the required colour tone (**Cool2**, **Cool1**, **Normal**, **Warm1**, or **Warm2**) by pressing the **▲** or **▼** button.
- 8 Press the **ENTER** () button to confirm your choice.



Customizing the Picture Settings (PC or DVI mode)



Your television has several settings options that allow you to control the picture quality in PC or DVI mode.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Custom**. Press the **ENTER** () button.
Result: The **Custom** menu is displayed.
- 5 Select the option (**Contrast** or **Brightness**) to be adjusted by pressing the **▲** or **▼** button. Press the **ENTER** () button.
Result: The horizontal bar is displayed. Press the **◀** or **▶** button until you reach the setting.
- 6 Press the **MENU** () button to return to the **Picture** menu. Press the **▲** or **▼** button to select **Colour Tone**. Press the **ENTER** () button.
- 7 Select the required colour tone (**Cool2**, **Cool1**, **Normal**, **Warm1**, or **Warm2**) by pressing the **▲** or **▼** button.
- 8 Press the **ENTER** () button to confirm your choice.

DNle™ (Digital Natural Image engine) DNle™

This feature brings you more detailed images with 3D noise reduction, detail enrichment, contrast and white enhancement. A new image Compensation Algorithm gives brighter, clearer, more detailed images. DNle™ technology will always deliver the best quality pictures from any signal.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.

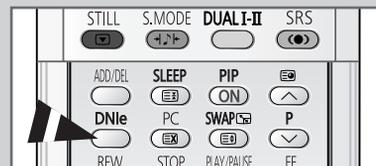
- 3 Press the **ENTER** () button.

- 4 Press the **▲** or **▼** button to select **DNle**. Press the **ENTER** () button.

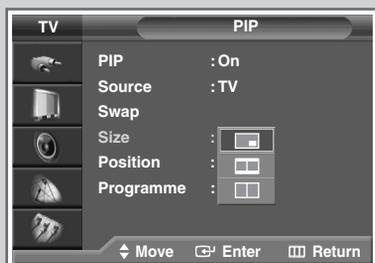
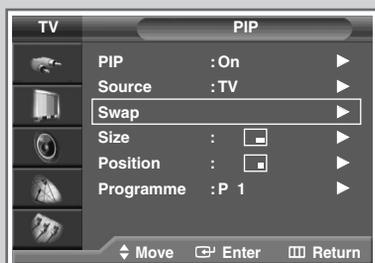
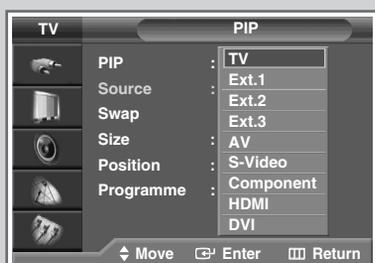
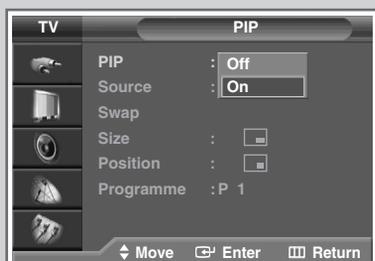
- 5 Press the **▲** or **▼** button to change the setting.
 - ◆ **DNle On** : Switches on DNle mode.
 - ◆ **DNle Off** : Switches off DNle mode.
 - ◆ **DNle Demo** : The screen before applying DNle appears on the right and the screen after applying DNle appears on the left.

- 6 Press the **ENTER** () button to confirm your choice.

➤ You can select these options simply by pressing the **DNle** button.



Viewing Picture In Picture (PIP)



You can display a sub picture within the main picture of a TV programme or external A/V devices. In this way you can watch a TV programme or monitor the video input from any connected devices while watching TV or other video input.

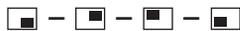
- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **PIP**. Press the **ENTER** () button.
Result: The **PIP** menu is displayed with the **PIP** option selected.
- 5 Press the **ENTER** () button again. To activate, set **PIP** to **on** by pressing the **▲** or **▼** button. Press the **ENTER** () button.
- 6 Press the **▲** or **▼** button to select **Source**. Press the **ENTER** () button.
Result: The available sources are displayed.
TV – Ext.1 – Ext.2 – Ext.3 – AV – S-Video – Component – HDMI – DVI
- 7 Select the source of the sub picture by pressing the **▲** or **▼** button. Press the **ENTER** () button.
- 8 Press the **▲** or **▼** button to select **Swap**. Press the **ENTER** () button.
Result: The main picture and the sub picture are interchanged.
- 9 Press the **▲** or **▼** button to select **Size**. Press the **ENTER** () button.
Result: The available sizes are displayed.

(Small) (Double1) (Double2)
- 10 Select a size for the sub picture by pressing the **▲** or **▼** button. Press the **ENTER** () button.

Viewing Picture In Picture (PIP) (continued)

- 11** Press the **▲** or **▼** button to select **Position**. Press the **ENTER** () button.

Result: The available positions are displayed.



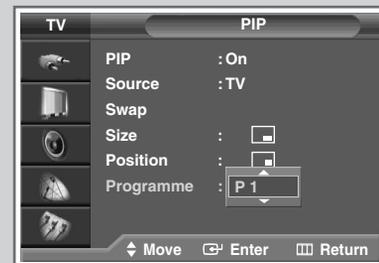
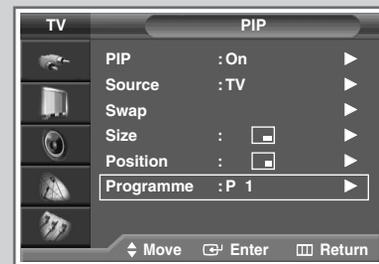
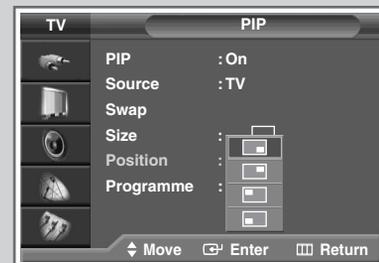
➤ The **Position** menu is available when the **Size** is small.

- 12** Select a position for the sub picture by pressing the **▲** or **▼** button. Press the **ENTER** () button.

- 13** Press the **▲** or **▼** button to select **Programme**. Press the **ENTER** () button. You can select the channel that you want to view through the sub picture by pressing the **▲** or **▼** button.

➤ When the **Source** is set to **TV**, you can select the channel of the sub picture.

- 14** Press the **ENTER** () button to confirm your choice.



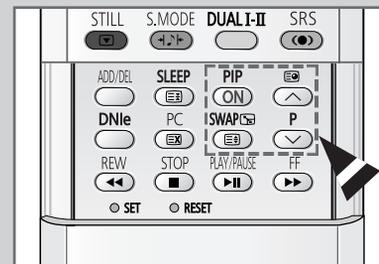
PIP \ Main	TV	Ext.1	Ext.2	Ext.3	AV	S-Video	Component	HDMI	DVI	PC
TV	0	0	0	0	0	0	0	0	0	0
Ext.1	0	X	0	0	0	0	0	0	0	0
Ext.2	0	0	X	0	0	0	0	0	0	0
Ext.3	0	0	0	X	0	0	0	0	0	0
AV	0	0	0	0	X	0	0	0	0	0
S-Video	0	0	0	0	0	X	0	0	0	0
Component	0	0	0	0	0	0	X	0	0	X
HDMI	0	0	0	0	0	0	0	X	X	0
DVI	0	0	0	0	0	0	0	X	X	0
PC	X	X	X	X	X	X	X	X	X	X

Easy functions of the remote control.

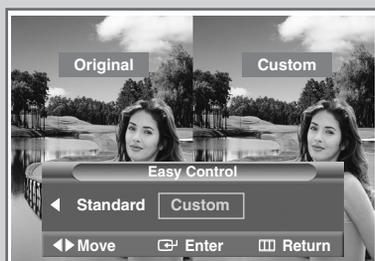
Buttons Feature

- PIP ON** Used to activate or deactivate the PIP function directly.
- SWAP** Used to interchange the main picture and the sub picture.
- When the main picture is in Video mode and the sub picture is in TV mode, you might not hear the sound of the main picture when pressing the **SWAP** () button after changing the sub picture channel. At this time, reselect the channel of the main picture.

P ▲ / ▼ Used to select the channel for the sub picture.



Setting the My Colour Control Mode (Easy Control)



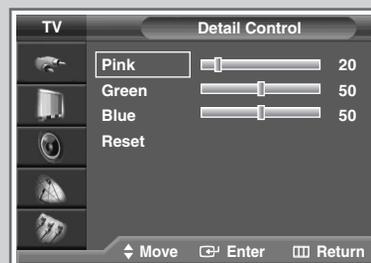
My Colour Control mode allows users to adjust colours according to their preferences, by adjusting skin, sky, and grass tones using the predefined settings (Blue, Green, Pink, Standard, or Custom) without affecting other colours on the screen.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **My Colour Control**. Press the **ENTER** () button.
Result: The options available in the **My Colour Control** group are displayed.
- 5 Press the **▲** or **▼** button to select **Easy Control**. Press the **ENTER** () button.
Result: The options available in the **Easy Control** group are displayed.
- 6 Press the **◀** or **▶** button to select the mode you want among the various picture settings. The original picture (before adjustment) is shown on the left side, while the selected mode is shown on the right side. There are five Easy Colour Control modes:
 - ◆ **Blue** : Emphasizes clear blues
 - ◆ **Green** : Emphasizes mild greens
 - ◆ **Pink** : Emphasizes warm skin colours
 - ◆ **Standard** : Standard picture
 - ◆ **Custom** : Recalls your personalized settings (see page 33)
- 7 Press the **ENTER** () button to confirm your choice.
 - ◆ Images shown above may differ from the actual adjustment on the screen. These images are presented for illustrative purposes.
 - ◆ This feature is not available when the input source is in PC mode, or **DNle** is set to **Off** mode, or **PIP** is set to **On**.

Setting the My Colour Control Mode (Detail Control)

These settings can be adjusted to suit your personal preferences.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **My Colour Control**. Press the **ENTER** () button.
Result: The options available in the **My Colour Control** group are displayed.
- 5 Press the **▲** or **▼** button to select **Detail Control**. Press the **ENTER** () button.
Result: The options available in the **Detail Control** group are displayed.
- 6 Press the **▲** or **▼** button to select the desired colour, then press the **ENTER** () button.
- 7 Press the **◀** or **▶** button to adjust the setting.
➤ Images shown above may differ from the actual adjustment on the screen. These images are presented for illustrative purposes.
- 8 To return to the factory defaults, select **Reset** by pressing the **▲** or **▼** button, then press the **ENTER** () button.
Result: The previously adjusted colours will be reset to the factory defaults.
➤ This feature is not available when the input source is in PC mode, or **DNLe** is set to **Off** mode, or **PIP** is set to **On**.



Setting the Dynamic Contrast

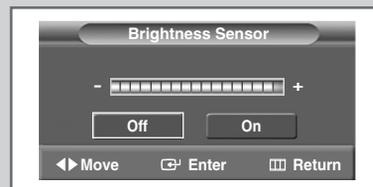


Dynamic Contrast automatically detects the visual signal and adjusts to create optimum contrast.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Dynamic Contrast**. Press the **ENTER** () button.
- 5 Select **Off** or **On** by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.

➤ This feature is not available when the input source is in PC mode, or **DNle** is set to **Off** mode, or **PIP** is set to **On**.

Setting the Brightness Sensor



Brightness Sensor adjusts the screen brightness automatically depending on the surrounding lighting conditions.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Brightness Sensor**. Press the **ENTER** () button.
- 5 Select **Off** or **On** by pressing the **◀** or **▶** button.
- 6 Press the **ENTER** () button to confirm your choice.

➤ This feature is not available when the input source is in PC mode.

Setting the Colour Weakness Enhancement

This option adjusts the Red, Blue, or Green colour to enhance the image according to the user's particular colour weakness.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.

- 3 Press the **ENTER** () button.

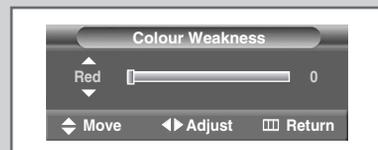
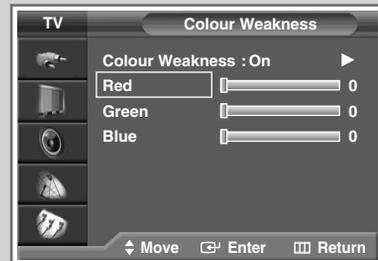
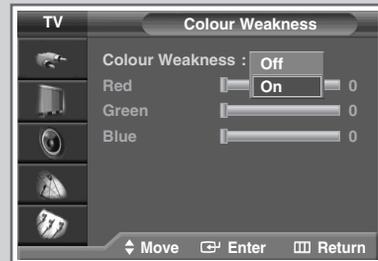
- 4 Press the **▲** or **▼** button to select **Colour Weakness**. Press the **ENTER** () button.

- 5 Press the **ENTER** () button again. Press the **▲** or **▼** button to select **On**, then press the **ENTER** () button.
Result: The options available in the **Colour Weakness** group are displayed.

- 6 Press the **▲** or **▼** button to select the colour you wish to enhance, then press the **ENTER** () button.

- 7 Press the **◀** or **▶** button to adjust to your preference.

- 8 Press the **MENU** () button to confirm your choice.
➤ This feature is not available when the input source is in PC mode, or **DNIe** is set to **Off** mode.



Selecting the Picture Size



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

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Picture**.
Result: The options available in the **Picture** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Size**. Press the **ENTER** () button.
Result: The **Size** menu is displayed.
- 5 Select the required mode by pressing the **▲** or **▼** button. Press the **ENTER** () button.
Result: The following modes are available:

Auto Wide Automatically enlarges the image to fit into 16:9 aspect ratio providing optimal display.

Wide Adjusts the picture to fit into the 16:9 wide aspect ratio.

Panorama Adjusts a wide picture to appear natural.

Zoom1 Vertically enlarges the picture by approximately 130%.

Zoom2 Vertically enlarges the picture by approximately 150%.

4:3 Adjusts the picture to fit into a 4:3 normal aspect ratio.

- ◆ Lifting is available in the **Zoom1** or **Zoom2** mode by pressing the **▲** or **▼** button.
- ◆ Subtitles may be cut-off or hidden below the screen area in **Zoom1** and **Zoom2** modes.
- ◆ **Zoom1** and **Zoom2** mode is only enabled when the input source is TV, AV, S-Video, or Component.
- ◆ **Panorama**, **Zoom1**, or **Zoom2** mode is disabled in DVI mode.
- ◆ Only **Wide** and **4:3** modes are selectable in PC mode.
- ◆ The screen size can be adjusted in each input mode, and the PIP is only enabled in **Wide** mode.
- ◆ The **Panorama** mode is disabled in component modes (480i, 480p, 576i, 576p, 720p, 1080i, 1080p).

- You can select these options by simply pressing the **P.SIZE** () button on the remote control.

Setting the Blue Screen Mode

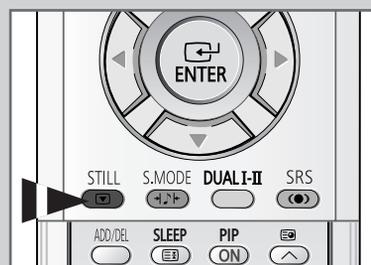
If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background. If you wish to continue viewing the poor picture, you must set the blue screen mode to off.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Blue Screen**. Press the **ENTER** () button.
- 5 Select **Off** or **On** by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.

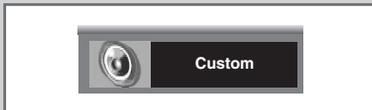
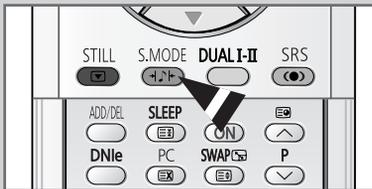
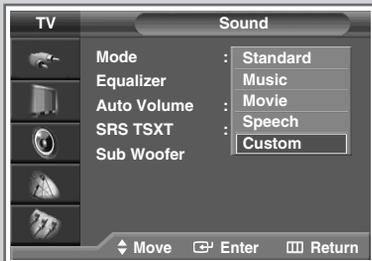
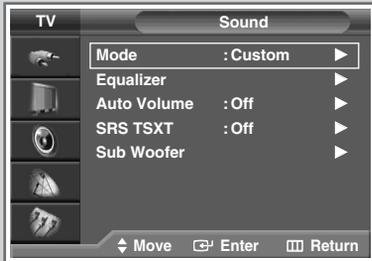


Freezing the Current Picture

You can freeze the picture when watching a television programme simply by pressing the “**STILL** ()” button. To return to normal viewing, press it again.



Changing the Sound Standard



You can select the type of special sound effect to be used when watching a given broadcast.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Sound**.
Result: The options available in the **Sound** group are displayed.
- 3 Press the **ENTER** () button.
Result: **Mode** is selected.
- 4 Press the **ENTER** () button again.
- 5 Select the required option by pressing the **▲** or **▼** button.
Result: The following modes are available:
 - ◆ **Standard** : Standard settings suitable for all programmes
 - ◆ **Music** : Enhances playback of music
 - ◆ **Movie** : Emphasizes bass tones
 - ◆ **Speech** : Emphasizes crisp, clear dialogue
 - ◆ **Custom** : Recalls your personalized settings (see page 39)
- 6 Press the **ENTER** () button to confirm your choice.

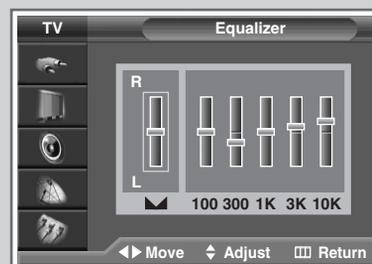
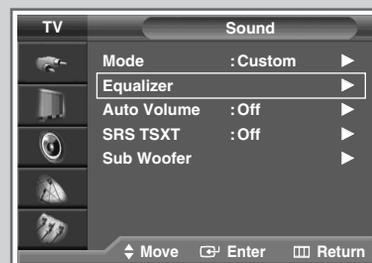
➤ You can select these options by simply pressing the **S.MODE** ( : Sound Mode) button on the remote control.

Customizing the Sound Settings

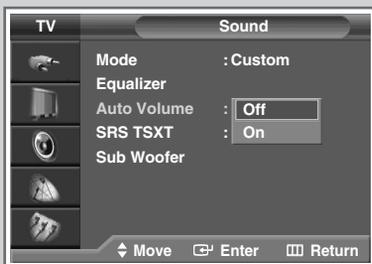
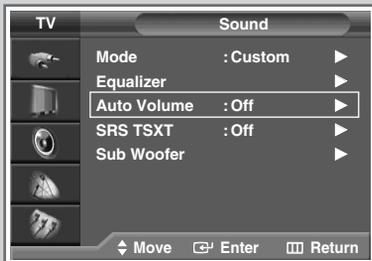
Your television has several settings which allow you to control the sound quality.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Sound**.
Result: The options available in the **Sound** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Equalizer**. Press the **ENTER** () button.
Result: The **Equalizer** menu is displayed with the current option.
- 5 Select the option (balance or equalizer) to be adjusted by pressing the **◀** or **▶** button.
Press the **▲** or **▼** button to reach the required setting.

➤ If you make any changes to the custom settings, the sound standard is automatically switched to **Custom**.



Adjusting the Volume Automatically



Each broadcasting station has its own signal conditions, and so it is not easy to adjust the volume every time the channel is changed. This feature lets you automatically adjust 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.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Sound**.
Result: The options available in the **Sound** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Auto Volume**. Press the **ENTER** () button.
- 5 Select **Off** or **On** by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.

Setting up SRS TSXT

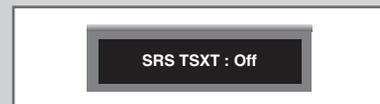
TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Sound**.
Result: The options available in the **Sound** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **SRS TSXT**. Press the **ENTER** () button.
- 5 Select the required option (**Off**, **3D Mono**, or **Stereo**) by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.

- ◆ TruSurround XT, SRS and Symbol  are trademarks of SRS Labs, Inc. TruSurround XT technology is incorporated under license from SRS Labs, Inc.



- ◆ You can select these options by simply pressing the **SRS** () button on the remote control.



Setting the Sub Woofer Output

If your TV is connected to a Sub Woofer, you can select the Sub Woofer output, volume and cut-off frequencies.



1 Press the **MENU** () button.

Result: The main menu is displayed.

2 Press the **▲** or **▼** button to select **Sound**.

Result: The options available in the **Sound** group are displayed.

3 Press the **ENTER** () button.

4 Press the **▲** or **▼** button to select **Sub Woofer**. Press the **ENTER** () button.

5 Press the **ENTER** () button again. Press the **▲** or **▼** button to select **On**, then press the **ENTER** () button.

Result: The options available in the **Sub Woofer** group are displayed.

6 Press the **▲** or **▼** button to select the item you wish to adjust, then press the **ENTER** () button. Press the **◀** or **▶** button to adjust to your preference.

- ◆ **Volume** : Adjusts the volume of the sub woofer.
- ◆ **Cut off Freq.** : Adjusts the cut off frequency for the sub woofer for the best bass response in your room.

Setting up the Melody Sound

You can hear clear melody sound when the television is powered on or off.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Melody**. Press the **ENTER** () button.
- 5 Select the required option (**Off** or **On**) by pressing the **▲** or **▼** button.
- 6 Press the **ENTER** () button to confirm your choice.



Selecting the Sound Mode



The "DUAL I-II" button displays/controls the processing and output of the audio signal. When power is switched on, the mode is automatically preset to either "Dual I" or "Stereo", depending on the current transmission.

	Type of broadcast	On-screen indication
NICAM Stereo	Regular broadcast (Standard audio)	Mono (Normal use)
	Regular + NICAM Mono	NICAM Mono ↔ NICAM Mono
	NICAM Stereo	NICAM Stereo ↔ Mono (Normal)
	NICAM Dual I/II	NICAM Dual I → NICAM Dual II → Mono (Normal) ↑—————↑
A2 Stereo	Regular broadcast (Standard audio)	Mono (Normal use)
	Bilingual or Dual I/II	Dual I ↔ Dual II
	Stereo	Stereo ↔ Mono (Forced mono)

- ◆ If the receiving conditions deteriorate, listening will be easier if the mode is set to the **Mono**.
- ◆ If the stereo signal is weak and automatic switching occurs, switch to the **Mono**.
- ◆ When receiving mono sound in AV mode, connect to the "AUDIO-L" input connector on the panel (front or side, depending on the model). If mono sound only comes out of the left speaker, press the **DUAL I-II** button.

Setting and Displaying the Current Time

You can set the television clock so that the current time is displayed when pressing the "INFO ()" button. You must also set the time if you wish to use the automatic on or off timers.

- When pressing the "⏻" button (On/Off) on the panel of the television, the clock setting will be reset.

1 Press the **MENU** () button.

Result: The main menu is displayed.

2 Press the **▲** or **▼** button to select **Setup**.

Result: The options available in the **Setup** group are displayed.

3 Press the **ENTER** () button.

4 Press the **▲** or **▼** button to select **Time**. Press the **ENTER** () button.

Result: The options available in the **Time** group are displayed with **Clock Set** is selected.

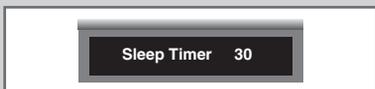
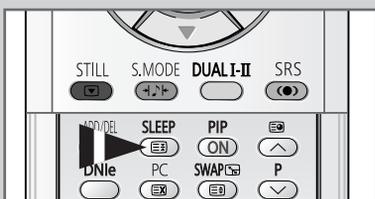
5 Press the **ENTER** () button.

6 Press the **◀** or **▶** button to move to the **Hour** or **Minute**. Set these by pressing the **▲** or **▼** button.

- You can also set the **Hour** and **Minute** by pressing the number buttons directly.



Setting the Sleep Timer



You can select a time period of between 30 and 180 minutes after which the television automatically switches to Standby mode.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Time**. Press the **ENTER** () button.
Result: The options available in the **Time** group are displayed.
- 5 Press the **▲** or **▼** button to select **Sleep Timer**. Press the **ENTER** () button.
- 6 Select the preset time interval (**Off**, **30**, **60**, **90**, **120**, **150**, or **180**) for staying on by pressing the **▲** or **▼** button.
- 7 Press the **ENTER** () button to confirm your choice.

- ◆ You can also set these options simply by pressing the **SLEEP** () button.
- ◆ If the sleep timer is not yet set, **Off** is displayed. If the sleep timer is already set, the remaining time before which the television switches to Standby mode is displayed.

Switching the Television On and Off Automatically

You can set the On or Off timers so that the television will:

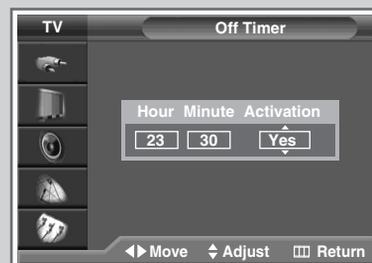
- ◆ Switch on automatically and tune to the channel of your choice at the time you select
- ◆ Switch off automatically at the time you select

➤ The first step is to set the television's clock (refer to "Setting and Displaying the Current Time" on page 45).

- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **Time**. Press the **ENTER** () button.
Result: The options available in the **Time** group are displayed.
- 5 Press the **▲** or **▼** button to select **On Timer**. Press the **ENTER** () button.
Result: The options available in the **On Timer** group are displayed.
- 6 Select the **Hour**, **Minute**, **Prog.** (programme number), or **Vol.** (volume level) by pressing the **◀** or **▶** button. Set these by pressing the **▲** or **▼** button.
- 7 To activate the **On Timer** with the settings entered, select **Activation** by pressing the **◀** or **▶** button, then select **Yes** by pressing the **▲** or **▼** button.
- 8 Press the **MENU** () button.
Result: The options available in the **Time** group are displayed again.
- 9 Press the **▲** or **▼** button to select **Off Timer**. Press the **ENTER** () button.
Result: The **Off Timer** menu is displayed.
- 10 Set the **Off Timer** in the same way for **On Timer** setting. (step 6 ~ 7)

➤ Auto Power Off

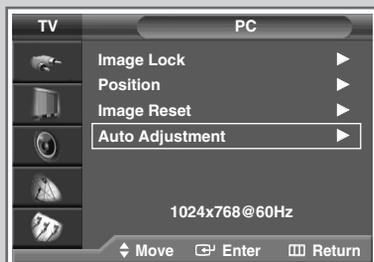
Auto power off will automatically turn the TV off if you do not operate any controls within 3 hours after the TV is turned on by the timer. This function is available in the timer "On" mode only and will prevent a leakage accident or overheating caused by your TV being left on too long.



Auto Screen Adjustment in PC Mode

➤ Preset to the PC mode by using the **PC** button.

The frequency and position of the PC screen can be automatically adjusted.



Auto Adjustment in progress.
Please Wait

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.

- 3 Press the **ENTER** () button.

- 4 Press the **▲** or **▼** button to select **PC**. Press the **ENTER** () button.
Result: The options available in the **PC** group are displayed.

- 5 Press the **▲** or **▼** button to select **Auto Adjustment**. Press the **ENTER** () button to reset the image.
Result: The message **Auto Adjustment in progress. Please wait** will be displayed.

Setting the Image Lock in PC Mode

➤ Preset to the PC mode by using the **PC** button.

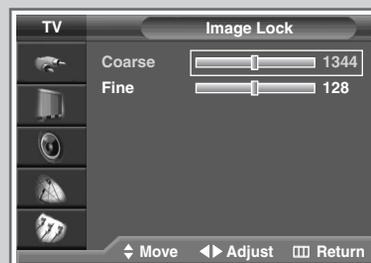
- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **PC**. Press the **ENTER** () button.
Result: The options available in the **PC** group are displayed.
- 5 Press the **▲** or **▼** button to select **Image Lock**. Press the **ENTER** () button.
Result: The options available in the **Image Lock** group are displayed.

If vertical patterns appear on the PC screen, adjust the frequency (Coarse).

- 6 Press the **▲** or **▼** button to select **Coarse**. Press the **ENTER** () button.
- 7 Press the **◀** or **▶** button to adjust the frequency.

Fine tune the PC screen for improved picture quality.

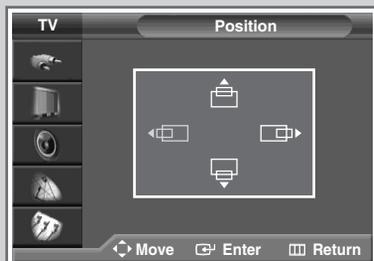
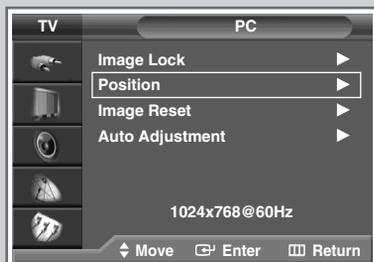
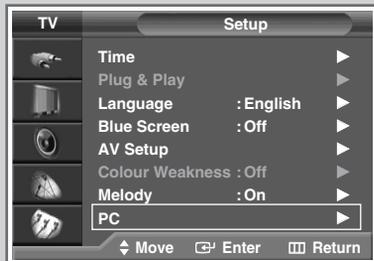
- 8 Press the **▲** or **▼** button to select **Fine**.
- 9 Press the **◀** or **▶** button to fine tune the picture.
- 10 Press the **ENTER** () button to confirm your choice.



Setting the Screen Position in PC Mode

➤ Preset to the PC mode by using the **PC** button.

Adjust the PC's screen positioning if it does not fit the TV screen.



- 1 Press the **MENU** () button.
Result: The main menu is displayed.
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.
- 3 Press the **ENTER** () button.
- 4 Press the **▲** or **▼** button to select **PC**. Press the **ENTER** () button.
Result: The options available in the **PC** group are displayed.
- 5 Press the **▲** or **▼** button to select **Position**. Press the **ENTER** () button.
- 6 Adjust the position by using the **▲**, **▼**, **◀**, or **▶** button.
- 7 Press the **ENTER** () button to confirm your choice.

Initializing the Screen Settings in PC Mode

➤ Preset to the PC mode by using the **PC** button.

Use this function to return the screen settings to the default values.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.

- 3 Press the **ENTER** () button.

- 4 Press the **▲** or **▼** button to select **PC**. Press the **ENTER** () button.
Result: The options available in the **PC** group are displayed.

- 5 Press the **▲** or **▼** button to select **Image Reset**. Press the **ENTER** () button to reset the image.
Result: The message **Image Reset has Completed.** will be displayed.

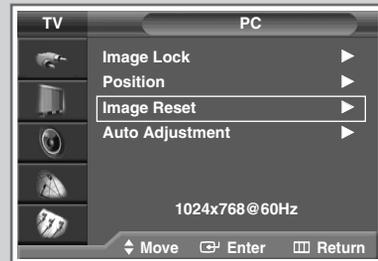
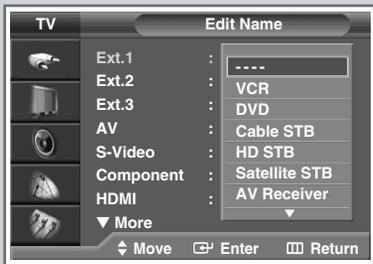


Image Reset has Completed.

Viewing an External Signal Source



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

- 1 Press the **MENU** () button.
Result: The options available in the **Input** group are displayed.

- 2 Press the **ENTER** () button.
Result: **Source List** is selected.

- 3 Press the **ENTER** () button again.

- 4 Press the **▲** or **▼** button to select the signal source, then press the **ENTER** () button.
 - ◆ When you connect a piece of equipment to the TV, you can choose between the following sets of jacks : **Ext.1**, **Ext.2**, **Ext.3**, **Component**, **HDMI**, **DVI**, or **PC** on the TV's rear panel, and **AV** or **S-Video** on the TV's side panel.
 - ◆ You can select these options simply by pressing the **SOURCE** () button. If you change the external source while viewing, it might take a short period of time for pictures to be switched.

- 5 Press the **MENU** () button.
Result: The options available in the **Input** group are displayed again.

- 6 Press the **▲** or **▼** button to select **Edit Name**. Press the **ENTER** () button.

- 7 Press the **▲** or **▼** button to select the external source to be edited. Press the **ENTER** () button.
Result: The available device names are listed.
VCR - DVD - Cable STB - HD STB - Satellite STB - AV Receiver - DVD Receiver - Game - Camcorder - DVD Combo - DHR (DVD HDD Recorder) - PC.

- 8 Select the required device by pressing the **▲** or **▼** button.

- 9 Press the **ENTER** () button to confirm your choice.

Redirecting an Input to the External Output

Your television enables you to choose which audio/video signals are output to the external connector.

- 1 Press the **MENU** () button.
Result: The main menu is displayed.

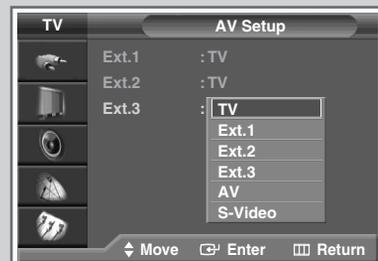
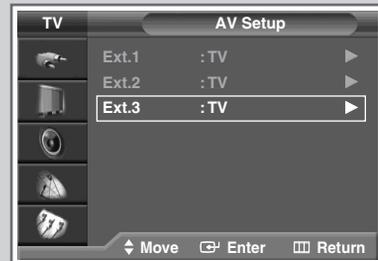
- 2 Press the **▲** or **▼** button to select **Setup**.
Result: The options available in the **Setup** group are displayed.

- 3 Press the **ENTER** () button.

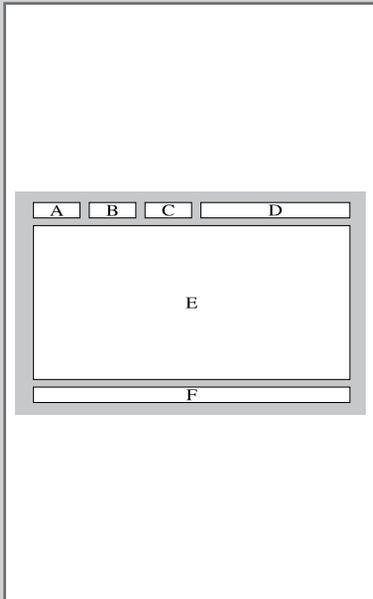
- 4 Press the **▲** or **▼** button to select **AV Setup**. Press the **ENTER** () button.
Result: The **AV Setup** menu is displayed with the **Ext.3** selected.

- 5 Press the **ENTER** () button. Select the source to be directed to the output of **Ext.3** by pressing the **▲** or **▼** button.
 - **Ext.1** : Default (**TV**)
 - Ext.2** : Default (**TV**)
(The default value of the current mode will appear.)
 - Ext.3** : Variable (**TV**, **Ext.1**, **Ext.2**, **Ext.3**, **AV**, or **S-Video**)

- 6 Press the **ENTER** () button to confirm your choice.



Teletext Feature



Most television channels provide written information services via teletext. Information provided includes:

- ◆ *Television programme times*
- ◆ *News bulletins and weather forecasts*
- ◆ *Sports results*
- ◆ *Travel information*

This information is divided into numbered pages (see diagram).

Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

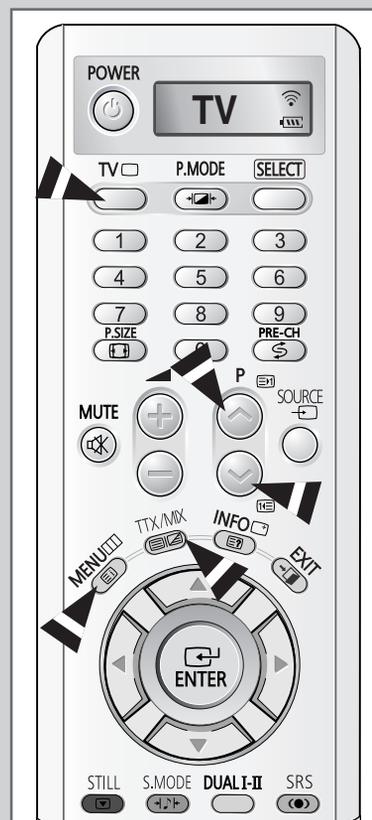
- Teletext information is often divided into several pages displayed in sequence, which can be accessed by:
- ◆ Entering the page number
 - ◆ Selecting a title in a list
 - ◆ Selecting a coloured heading (FASTEXT system)

Displaying Teletext Information

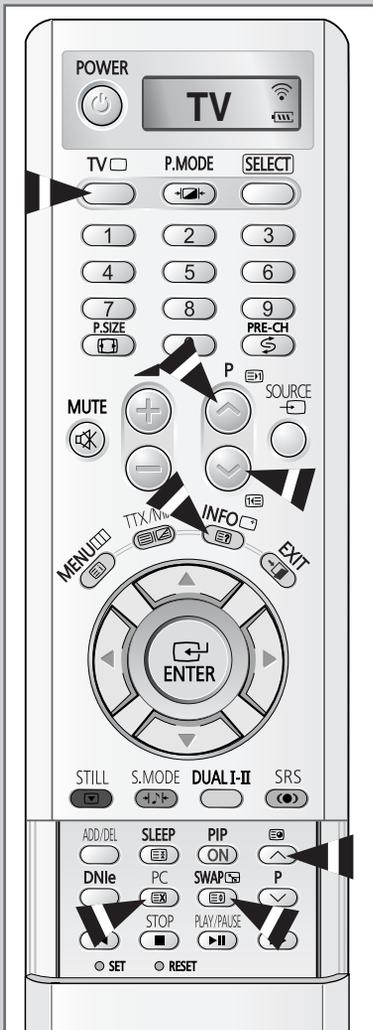
You can display teletext information at any time on your television.

- For teletext information to be displayed correctly, channel reception must be stable; otherwise:
 - ◆ Information may be missing
 - ◆ Some pages may not be displayed

- 1 Select the channel providing the teletext service using the **P** or **TV** button.
- 2 Press the **TTX/MIX** () button to activate the teletext mode.
Result: The contents page is displayed. It can be redisplayed at any time by pressing the **INDEX** () button.
- 3 Press the **TTX/MIX** () button again.
Result: The screen will be split into two. This double teletext feature lets you view the actual broadcast and teletext information separately on the screen.
- 4 If you wish to display the actual broadcast at the same time as the teletext page, press the **TTX/MIX** () button again.
- 5 Press the **TV** () button to exit from the teletext display.



Selecting Display Options



When you have displayed a teletext page, you can select various options to suit your requirements.

To display...	Press the...
◆ Hidden text (answers to quiz games, for example)	[?] (reveal)
◆ The normal screen	[?] (reveal) again
◆ A secondary page	[•] (sub-page)
◆ The broadcast when searching for a page	[EX] (cancel)
◆ The next page	[▶] (page up)
◆ The previous page	[◀] (page down)
◆ Double-size letters in the: <ul style="list-style-type: none"> • Upper half of the screen • Lower half of the screen 	[size] (size) <ul style="list-style-type: none"> • Once • Twice
◆ Normal screen	• Three times

➤ To return to the normal display after using the reveal or size feature, press the TV (□) button.

Selecting a Teletext Page

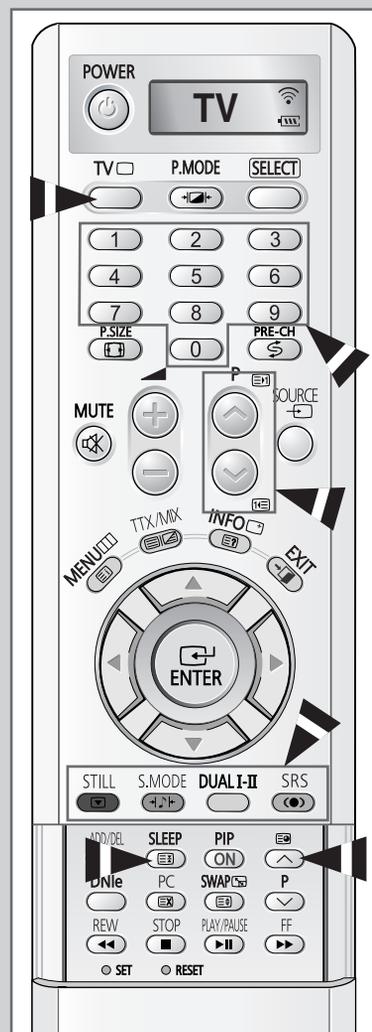
You can enter the page number directly by pressing the number buttons on the remote control.

- 1 Enter the three-digit page number given in the content by pressing the corresponding number buttons.

Result: The current page counter is increased by one and the page is then displayed. If the selected page is linked with several secondary pages, the secondary pages are displayed in sequence. To freeze the display on a given page, press the  (hold). Press it again to resume.
- 2 If the FASTEXT system is used by a broadcasting company, the different topics covered on a teletext page are colour-coded and can be selected by pressing the coloured buttons on the remote control. Press the coloured button corresponding to the topic that you wish to select; the available topics are given in the status line.

Result: The page is displayed with other coloured information that can be selected in the same way.
- 3 To display the previous or next page, press the corresponding coloured button.
- 4 To display the sub-page, see the following steps.
 - ◆ Press the  (sub-page) button.

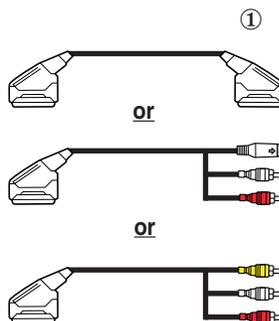
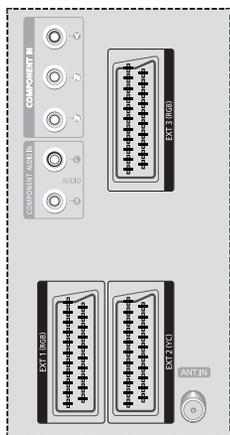
Result: The available sub-pages appear.
 - ◆ Select the required sub-page. Sub-pages can be scrolled by pressing the  or  button.
- 5 When you have finished, press the TV () button to return to your normal broadcast.



Connecting to External Input/Output

EXT 1 is used for equipment with an RGB output, such as video game devices or video disc players.

TV Rear View



- ① This end can be fitted with:
 - ◆ A SCART connector
 - ◆ An S-Video connector and two audio RCA connectors (L+R); **EXT 2**
 - ◆ Three RCA connectors (VIDEO + AUDIO-L and R)
- ② If you have a second VCR and wish to copy cassette tapes, connect the source VCR to **EXT 1** and the target VCR to **EXT 2** so that you can redirect the signal from **EXT 1** to **EXT 2**.
- ③ If you have a decoder, connect the decoder to the VCR and the VCR to the television.
- ④ When you wish to record a programme, connect the receiver to **EXT 1** and the VCR to **EXT 2** so that you can redirect the signal from **EXT 1** to **EXT 2**.



Whenever you connect an audio or video system to your television, ensure that all elements are switched off.

Refer to the documentation supplied with your equipment for detailed connection instructions and associated safety precautions.

Connecting to the RCA Input

The RCA (**VIDEO** + **AUDIO-L** and **R**) connectors are used for equipment, such as camcorders, video disc players, and some video game devices.

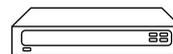
TV Side View



Camcorder



Video game device



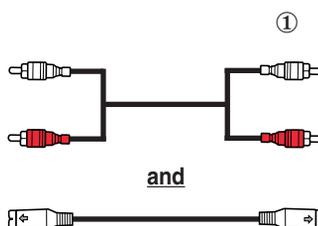
Video disc player



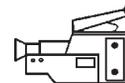
Connecting to the S-Video Input

The **S-VIDEO** and **AUDIO-L** and **R** connectors are used for equipment with an S-Video output, such as a camcorder or VCR.

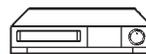
TV Side View



Camcorder



VCR



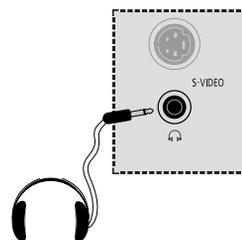
① To play pictures and sound, both the **S-VIDEO** and **AUDIO-L** and **R** connectors must be used.

Connecting Headphones

You can connect a set of headphones to your television if you wish to watch a television programme without disturbing the other people in the room.

- Prolonged use of headphones at a high volume may damage your hearing.

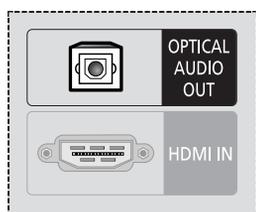
TV Side View



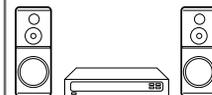
Connecting to the Digital Audio Input

The **OPTICAL AUDIO OUT** connector is used for equipment with digital in (to take digital sound). But the optical out is available only when you use the HDMI digital in.

TV Rear View



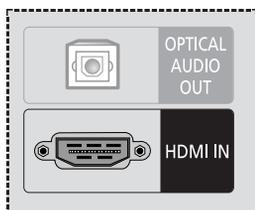
Home Theater



Connecting to the HDMI Input

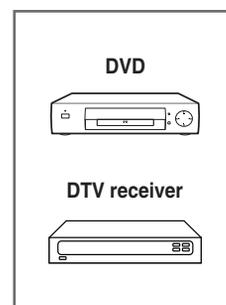
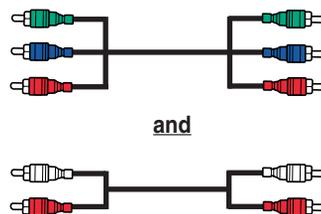
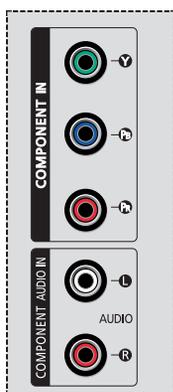
The **HDMI IN** connector is used for equipment with a HDMI out.

TV Rear View



Connecting to the Component Input

TV Rear View

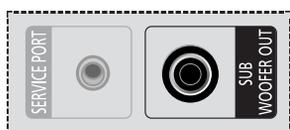


➤ The **COMPONENT IN** and **COMPONENT AUDIO IN** connectors are used for equipment with a DVD or DTV receiver out. (480i, 480p, 576i, 576p, 720p, 1080i, 1080p)

Connecting to the Active Sub Woofer Speaker

The **SUB WOOFER OUT** connector is used for active sub woofer speaker with a woofer in.

TV Rear View



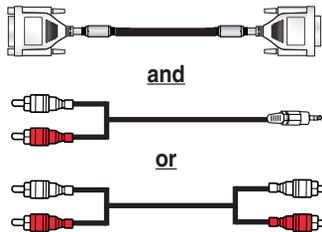
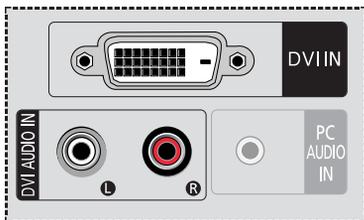
Active Sub Woofer Speaker



Connecting to the DVI Input

The **DVI IN** (Digital Visual Interface) and **DVI AUDIO IN-L** and **R** connectors are used for equipment with a DVI out.

TV Rear View



Personal Computer



DVD

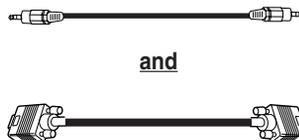
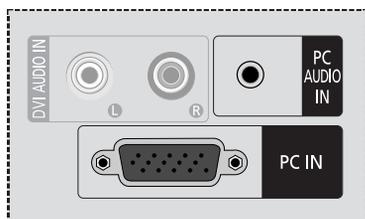


- ◆ If there is a DVI port, connect a DVI-D video cable (supports digital signals only) instead of a PC video cable for better picture quality.
- ◆ Refer to the picture above for connecting a PC audio cable if you connect a DVI-D video cable.
- ◆ You cannot use a DVI-I video cable (supports analog signals also). You must use a DVI-D video cable (supports digital signals only).
- ◆ If you connect the PC audio to the **DVI AUDIO IN** jack on the TV, the sound is heard from the TV speakers.
- ◆ DVI-D video cable and DVI audio cable are all sold separately.
- ◆ When viewing the PC with a DVI video cable connected, make sure the source is set to DVI.

Connecting to the PC(RGB) Input

The RGB (Video) and AUDIO connectors are used for interfacing with your PC.

TV Rear View



Personal Computer



Setting up Your PC Software (Windows only)

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 Samsung Dealer.)



- 1 Right click the mouse on the Windows Desktop, then click on **Properties**. The **Display Properties** will be displayed.



- 2 Click on **Settings**, then set the display mode with reference to the Display Modes Table. You do not need to change the colours settings.
- 3 Click on **Advanced**. A new settings dialog box will be displayed.
- 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**.



- 5 Press the **OK** button, close the window, then press the **OK** button on the **Display Properties** window. Automatic re-booting may commence at this moment.
- 6 Shutdown the PC, and connect it to your TV (see page 63).

- ◆ The actual screens on your PC may look different, depending on your particular version of Windows and the type of your PC.
- ◆ When you use your TV as a PC monitor, it supports Colours up to 32 bits.
- ◆ In this case, the display on the TV may look different depending on your particular version of Windows or the PC manufacturer.
- ◆ When connecting a PC (including the DVI connection), you must set it to the display settings that are supported by the TV. Otherwise, the message **Out Of Range** will be displayed.

Input Mode (PC/DVI)

Both screen position and size will vary depending on the type of PC monitor and its resolution.
The table below shows all of the display modes that are supported:

Mode	Resolution (Dot x Line)	Vertical frequency (Hz)	Horizontal frequency (kHz)	Vertical polarity	Horizontal polarity
IBM	640 x 350	70.086	31.469	N	N
	640 x 480	59.940	31.469	N	N
	720 x 400	70.087	31.469	P	N
VESA	640 x 480	72.809	37.861	N	N
		75.000	37.500	N	N
	800 x 600	56.250	35.156	P/N	P/N
		60.317	37.897	P	P
		72.188	48.077	P	P
		75.000	46.875	P	P
	1024 x 768	60.004	48.363	N	N
		70.069	56.476	N	N
		75.029	60.023	P	P
	1028 x 1024	60.020	63.981	P	P
		75.025	79.976	P	P
	1920 x 1080	59.988	66.647	N	P

(N: Negative / P: Positive)

Checklist Before Connecting to a PC

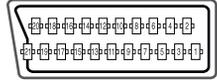
- ◆ Adjust the PC display setup to the resolution and frequency values that are supported by the TV.
- ◆ Please read the user's manual provided with the PC (Graphic Card & Sound Card).
- ◆ Do not supply power to either device until all connections are complete. Supplying power in the middle of connecting may cause damage to the product.
- ◆ Check the terminal types for the PC's graphic card.

Notes

- ◆ The modes table conforms to the regulations of IBM/VESA and is prepared based on analog input standards.
- ◆ The mode for DVI is the same as those for the PC.
- ◆ The optimal resolution is 1920 x 1080 @ 60Hz.
- ◆ The optimal timing per each mode is the vertical frequency 60Hz.

Pin Configurations

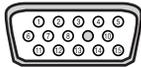
SCART Connector (EXT 1/EXT 2/EXT 3)



➤ Pins 5, 7, 9, 11, 13, 15, and 16 are used for RGB processing and are only wired on the **EXT 1**, **EXT 2**, or **EXT 3** connector.

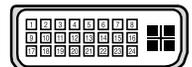
Pin	Signal	Pin	Signal
1	Audio output R	12	-
2	Audio input R	13	Video chassis return (RGB red)
3	Audio output L	14	-
4	Audio chassis return	15	RGB red input
5	Video chassis return (RGB blue)	16	Blanking signal (RGB switching)
6	Audio input L	17	Video chassis return
7	RGB blue input	18	Blanking signal ground
8	Switching voltage	19	Video output
9	Video chassis return (RGB green)	20	Video input
10	AV-Link (Ext 1)	21	Screening/chassis return
11	RGB green input		

PC Input Connector (15Pin)



Pin	PC IN
1	Red (R)
2	Green (G)
3	Blue (B)
4	Grounding
5	Grounding (DDC)
6	Red (R) Grounding
7	Green (G) Grounding
8	Blue (B) Grounding
9	Reserved
10	Sync Grounding
11	Grounding
12	Data (DDC)
13	Horizontal sync.
14	Vertical sync.
15	Clock (DDC)

DVI Input Connector (24Pin)



Pin	Signal
1	T.M.D.S. Data2-
2	T.M.D.S. Data2+
3	T.M.D.S. Data2/4 Shield
4	T.M.D.S. Data4-
5	T.M.D.S. Data4+
6	Clock (DDC)
7	Data (DDC)
8	Not Connected
9	T.M.D.S. Data1-
10	T.M.D.S. Data1+
11	T.M.D.S. Data1/3 Shield
12	T.M.D.S. Data3-
13	T.M.D.S. Data3+
14	+5V Power
15	5V Grounding
16	Hot Plug Detect
17	T.M.D.S. Data0-
18	T.M.D.S. Data0+
19	T.M.D.S. Data0/5 Shield
20	T.M.D.S. Data5-
21	T.M.D.S. Data5+
22	T.M.D.S. Clock Shield
23	T.M.D.S. Clock+
24	T.M.D.S. Clock-

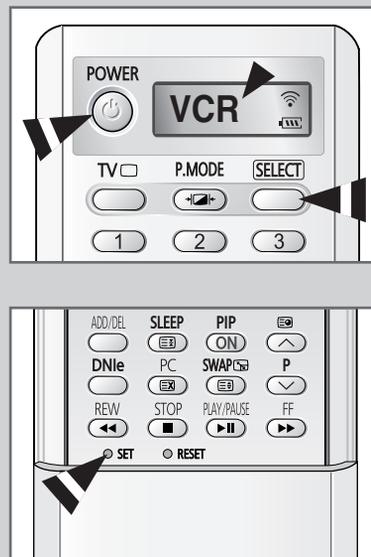
Programming the Remote Control for Other Components

Your TV comes equipped with a universal remote control. In addition to controlling the TV, the universal remote control can also operate a VCR, Cable box (CATV), DVD player, and Set-Top Box made by Samsung (even if your VCR, Cable box, and DVD player are made by manufacturers other than Samsung).

➤ The remote control might not be compatible with all VCRs, DVD players, and Cable boxes.

- 1 Turn off your VCR (Cable box or DVD player).
- 2 Press the **SELECT** button to switch the remote control to the **VCR (CATV or DVD)** mode.
 - The remote control has five modes : **TV**, **VCR**, **CATV**, **DVD**, and **STB**.
- 3 Press the **SET** button.
- 4 Enter 3 digits of the VCR (Cable box or DVD player) code listed on the next page for your VCR (Cable box or DVD player).

Example: To enter code "6", press 0, 0, and 6.
To enter code "76", press 0, 7, and 6.
- 5 Press the **POWER** (⏻) button. Your VCR (Cable box or DVD player) should turn on. If it turns on, your remote control is now set correctly.
 - If it does not turn on, repeat the steps above, but try one of the other codes listed for your particular brand.
- 6 Once your remote control is set up, press the **SELECT** button any time you want to use the remote control to operate the VCR (Cable box or DVD player).
 - ◆ When your remote control is in **VCR**, **CATV**, **DVD**, or **STB** mode, the volume buttons still control your television's volume.
 - ◆ When your remote control is in **TV** mode, the VCR or DVD player control buttons (backward, stop, play/pause, and fast forward) still operate your VCR or DVD player.



Programming the Remote Control for Other Components (continued)

VCR Remote Control Codes

Admiral	020	Marantz	007, 008, 018, 021, 026, 036, 037, 062
Aiwa	025	Marta	006
Akai	004, 027, 032	MEI	021
Audio Dynamics	007, 026	Memorex	006, 021, 024, 025
Bell&Howell	018	MGA	034
Broksonic	022	Midland	005
Candle	002, 003, 006, 008, 015, 055	Minolta	019, 041
Canon	021, 056	Mitsubishi	019, 034, 041, 046
Citizen	002, 003, 006, 008, 015, 055	Montgomery Ward	020
Colorlyme	007	MTC	002, 025
Craig	002, 024	Multitech	002, 005, 025, 038
Curtis Mathes	002, 007, 008, 017, 021, 025, 056, 064, 066	NEC	007, 008, 018, 026, 037, 062, 064
Daewoo	003, 010, 011, 012, 013, 014, 015, 016	Optimus	020
DBX	007, 026	Panasonic	021, 056, 071, 072
Dimensia	017	Pentax	019, 041
Dynatech	034	Pentex Research	008
Emerson	001, 003, 006, 021, 022, 025, 030, 032, 034, 040, 047, 050, 052, 060, 063, 065, 066, 067, 069	Philco	021, 036, 056, 059
Fisher	018, 024, 028, 029, 048, 051, 061	Philips	021, 036
Funai	025	Pioneer	019, 026, 039, 053
General Electric	002, 005, 017, 021, 056	Portland	015, 049, 055
Go Video	002	PROSCAN	017
LG (Goldstar)	006, 007, 008, 009, 010	Quartz	018
Harman Kardon	007	Quasar	021, 056
Hitachi	019, 025, 041, 042	Radio Shack/Realistic	006, 018, 020, 021, 024, 025, 029, 034, 048, 056
Instant Replay	021	RCA	002, 017, 019, 021, 035, 041, 043, 057, 068
JC Penny	002, 007, 018, 019, 021, 026, 037, 041, 054, 056	Samsung	000, 001, 002, 003, 004, 005
JVC	007, 008, 018, 021, 026, 037	Sansui	026
Kenwood	007, 008, 018, 026, 037	Sanyo	018, 024
KLH	070	Scott	003, 047, 052, 067
Lloyd	025	Sears	006, 018, 019, 024, 028, 029, 041, 048, 051
Logik	038	Sharp	020, 034, 045, 015
LXI	025	Shimom	027, 033, 038, 058
Magnavox	021, 036, 056, 059	Signature	025
		Sony	027, 033, 044

Programming the Remote Control for Other Components (continued)

VCR Remote Control Codes (continued)

Sylvania	021, 025, 036, 056, 059	Totevision	002, 006
Symphonic	025	Unitech	002
Tandy	018, 025	Vector Research	007, 026
Tashika	006	Victor	026
Tatung	037	Video Concepts	007, 026
Teac	025, 037, 068	Videosonic	002
Technics	021	Wards	002, 003, 006, 019, 020, 021, 024, 025, 034, 038, 041
Teknika	006, 021, 025, 031		
TMK	066	Yamaha	007, 008, 018, 026, 037
Toshiba	003, 019, 029, 051, 052	Zenith	023, 027, 033, 073

Cable Box (CATV) Remote Control Codes

Anvision	017, 018	Regency	015, 023
GI	041	SA	042, 043
Hamlin	003, 024, 031	Samsung	000, 001, 002, 003, 004, 005, 006, 007
Hitachi	025, 030	Scientific Atlanta	042, 043
Jerrold	038, 039	Sprucer	022
Macom	025, 030	Stargate 2000	036
Magnavox	019, 023, 028	Sylvania	016
Oak	026	Texscan	016
Panasonic	003, 022, 027, 037, 044	Tocom	032
Philips	019, 021, 023, 028	Universal	033, 034
Pioneer	004, 018, 020, 044	Viewstar	019, 021, 023, 028
RCA	014, 022, 040	Wamer amex	046
Regal	003	Zenith	017, 029, 035, 037, 045

DVD Remote Control Codes

Samsung	000, 001	LG (Goldstar)	006
JVC	002	Sony	007
PROSCAN/RCA	003	Denon	008
Panasonic	005	Curtis Mathes	009

Troubleshooting: Before Contacting Service Personnel

Before contacting Samsung after-sales service, perform the following simple checks.

If you cannot solve the problem using the instructions below, note the model and serial number of the television and contact your local dealer.

No sound or picture	<ul style="list-style-type: none"> ◆ Check that the mains lead has been connected to a wall socket. ◆ Check that you have pressed the "⏻" button (On/Off) and the POWER (⏻) button. ◆ Check the picture contrast and brightness settings. ◆ Check the volume.
Normal picture but no sound	<ul style="list-style-type: none"> ◆ Check the volume. ◆ Check whether the volume MUTE (🔇) button on the remote control has been pressed.
No picture or black and white picture	<ul style="list-style-type: none"> ◆ Adjust the colour settings. ◆ Check that the broadcast system selected is correct.
Sound and picture interference	<ul style="list-style-type: none"> ◆ Try to identify the electrical appliance that is affecting the television, then move it further away. ◆ Plug your television into a different mains socket.
Blurred or snowy picture, distorted sound	<ul style="list-style-type: none"> ◆ Check the direction, location and connections of your aerial. This interference often occurs due to the use of an indoor aerial.
Remote control malfunctions	<ul style="list-style-type: none"> ◆ Replace the remote control batteries. ◆ Clean the upper edge of the remote control (transmission window). ◆ Check the battery terminals.

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

For example, the number of TFT LCD sub pixels that is contained in this product are 6,220,800.

Technical and Environmental Specifications

Model	LW46G15W
Panel	
Size	46" Diagonal
Display Size	1018.08 (H)x572.67 (V)mm
Type	a-si TFT active matrix
Pixel Pitch	0.17675 (H) x 0.53025 (V)mm
Viewing Angle	170/170 (H/V)
Frequency	
Horizontal	30 ~ 68 kHz
Vertical	56 ~ 85 Hz
Display Color	16,777,216 colour
Resolution	
Maximum	1920 x 1080 @ 60Hz
Input Signal	
Sync.	H/V Separate, TTL, P.or N.
Video Signal	0.7 Vp-p @ 75 ohm
TV	
Colour System	PAL/SECAM/NTSC 4.43
Sound System	B/G, D/K, I, L
Video	
Colour System	PAL/NTSC/SECAM
Video System	CVBS, S-VHS, RGB
SCART 1/2/3	
Video Input/Output	1.0 Vp-p @ 75ohm
RGB Input	0.7 Vp-p @ 75 ohm
Audio Input/ Output	500mV rms
Component	
Video In	1.0 Vp-p @75 ohm
Audio In	500mV rms
Power Supply	
Input	AC 100~240V, 60/50 Hz \pm 3Hz
Power Consumption	
Maximum	350 W
Power Saving	< 1.0 W
Dimensions (W x D x H)	
Body	1374 X144.5 X 688 mm
With Stand	1374 X 402 X 786 mm
Weight	
Body	37 kg
With stand	47 kg

- AFTER SALES SERVICE

- Do not hesitate to contact your retailer or service agent if a change in the performance of your product indicates that a faulty condition may be present.

