



DIGITAL TELEVISION

Owner's Instructions

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

ON-SCREEN MENUS TELETEXT (Option)

Register your product at www.samsung.com/global/register
Record your Model and Serial number here for future reference.

▪ Model _____ ▪ Serial No. _____

Important Warranty Information Regarding Television Format Viewing

Standard screen format televisions (4:3, the aspect ratio of the screen width to height) are primarily designed to view standard format full-motion video. The images displayed on them should primarily be in the standard 4:3 ratio format and constantly moving. Displaying stationary graphics and images on screen, such as the dark top and bottom letterbox bars (wide screen pictures), should be limited to no more than 15% of the total television viewing per week.

Wide screen format televisions (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature, and constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on non-expanded standard format television video and programming, should be limited to no more than 15% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying any stationary images that exceed the above guidelines can cause uneven aging of picture tubes (CRTs) that leave subtle, but permanent burned-in ghost images in the television picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On television models that offer picture sizing features, use these controls to view the different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven CRT aging as a result of format selection and use, as well as other burned-in images, is not covered by your Samsung limited warranty.

Any functions related to Digital TV (DVB) will only work in countries or areas where DVB-T (MPEG2) digital terrestrial signals are broadcasted. Please confirm with your local dealer if you can receive DVB-T signals. Although this TV set follows the DVB-T specification, maintaining compatibility with the future coming DVB-T digital terrestrial broadcasts is not guaranteed. Several functions may not be available in some countries.

Contents

General Information

- ◆ Important Warranty Information Regarding Television Format Viewing 2
- ◆ Checking Parts..... 4
- ◆ Control Panel 4
- ◆ Connection Panel..... 5
- ◆ Viewing the Remote Control 7

Operation

- ◆ Switching Your Television On and Off 9
- ◆ Viewing the Menus..... 9
- ◆ Plug & Play Feature 10
- ◆ Viewing External Signal Sources 12
- ◆ Editing Device Names..... 13

Channel Control

- ◆ Storing Channels Automatically 13
- ◆ Storing Channels Manually 14
- ◆ Adding Channels..... 15
- ◆ Sorting the Stored Channels..... 16
- ◆ Assigning Names to Channels..... 16

Picture Control

- ◆ Changing the Picture Standard 17
- ◆ Customizing the Picture Settings 17
- ◆ Selecting the Picture Size 18
- ◆ Digital NR..... 18

Sound Control

- ◆ Sound Features 19
- ◆ Selecting the Sound Mode (depending on the model)..... 20

Function Description

- ◆ Time Features 21
- ◆ Child Lock 22
- ◆ Language / Blue Screen / Melody 23

Using the DTV Feature

- ◆ Previewing the DTV Menu System 24
- ◆ Displaying Programme Information..... 25
- ◆ Operating the DTV Menu 26

Appendix

- ◆ Teletext Feature (depending on the model).. 36
- ◆ Troubleshooting 37

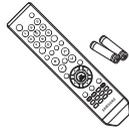
Symbols



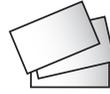
Checking Parts



Owner's Instructions



Remote Control/
AAA Batteries



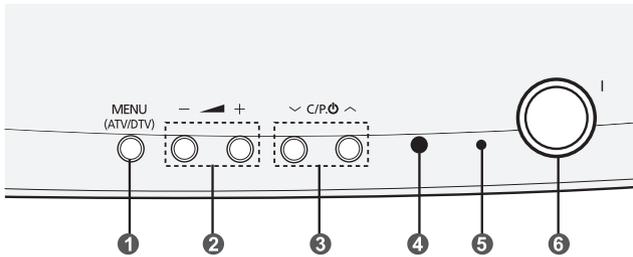
Warranty Card/Registration
Card/
Safety Guide Manual



Cloth-Clean

Control Panel

Front Panel

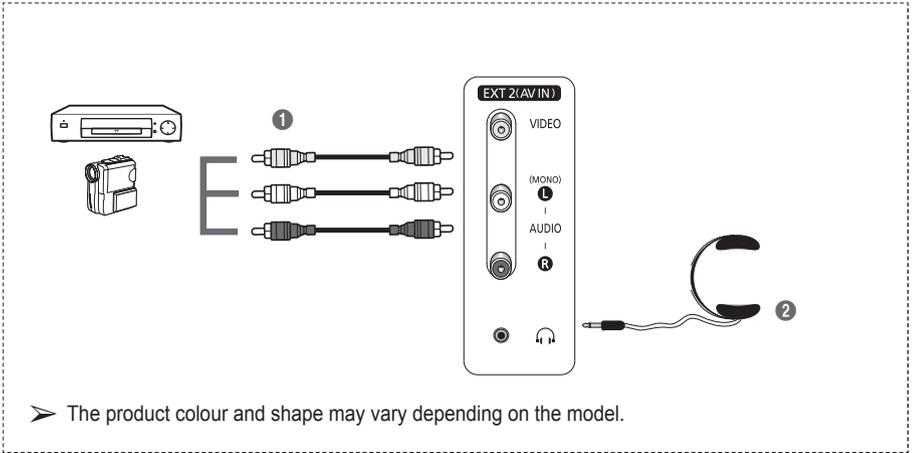


➤ The product colour and shape may vary depending on the model.

- 1 MENU**
Press to see the on-screen menu of your TV's features.
➤ Press the **MENU** button in DTV mode to display the DTV menu.
The analog menu appears when you press the **MENU** button again.
To dismiss the menu, press the **MENU** button once again.
- 2 - ▲ +**
Press to increase or decrease the volume.
In the on-screen menu, use the - ▲ + buttons as you use the ◀ and ▶ buttons on the remote control and also use decrease and increase buttons as the functions of return and enter respectively.
- 3 ∨ C/P. ⏻ ^**
Press to change channels. In the on-screen menu, use the ∨ C/P. ⏻ ^ buttons as you use the ▲ and ▼ buttons on the remote control.
- 4 Remote Control Sensor**
Aim the remote control towards this spot on the TV.
- 5 Power Indicator**
Blinks and turns off when the power is on and lights up in stand-by mode.
- 6 ⏻ (Power) button**
Press to turn the TV on and off.
If the TV was turned off by using the **POWER** button on the front panel, you will not be able to turn on the TV by using a remote control.

Connection Panel

Side Panel



➤ The product colour and shape may vary depending on the model.

1 EXT 2(AV IN)

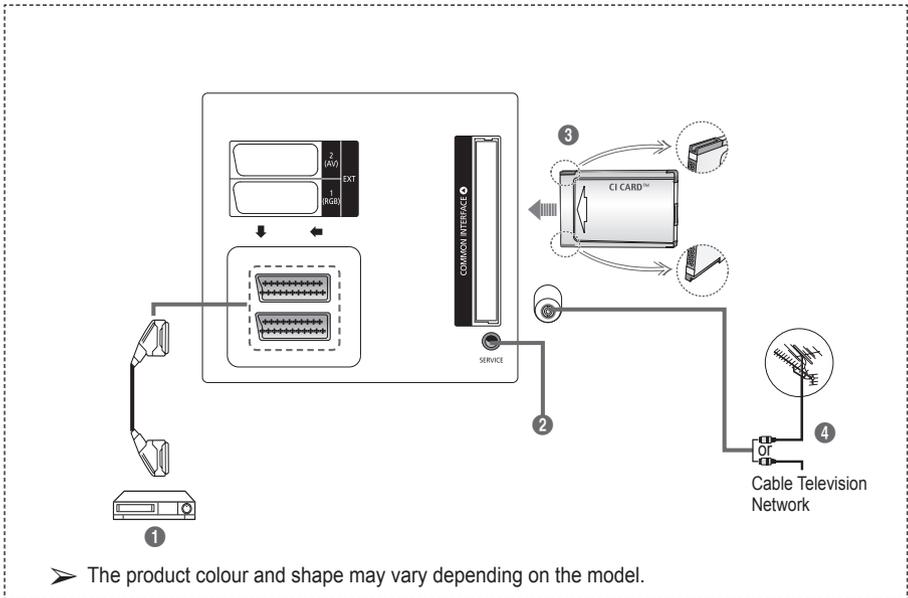
Video and audio inputs for external devices, such as a camcorder or VCR.

2 Headphones jack

You can connect a set of headphones 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.

Rear Panel



- ◆ Whenever you connect an audio or video system to your set, ensure that all elements are switched off.
- ◆ When connecting an external device, match the colour of the connection terminal to the cable.

1 EXT 1, EXT 2

Inputs or outputs for external devices, such as VCR, DVD, video game device or video disc players.

Input/Output Specification

Connector	Input			Output
	Video	Audio(L/R)	RGB	Video + Audio(L/R)
EXT 1	✓	✓	✓	Only TV or DTV output is available.
EXT 2	✓	✓		AV output is available.

2 SERVICE

- Connector for service.
- Connect the serial jack between the electro-motion wall mount bracket and your TV when you want to adjust the TV viewing angle using your remote control.

3 COMMON INTERFACE Slot

Insert CI (Common Interface) card into the slot. (refer to page 35)

- When not inserting "CI CARD" in some channels, "Scramble Signal" is displayed on the screen.
- The pairing information containing a telephone number, CI CARD ID, Host ID, and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the channel information configuration has finished, the message "Updating Completed" is displayed, indicating that the channel list is now updated.

➤ Insert the CI-Card in the direction marked on it.

4 Connecting to an Aerial or Cable Television Network

Connect the aerial or network input cable to the 75 Ω coaxial socket.

To view television channels correctly, a signal must be received by the set from one of the sources: an outdoor aerial, cable television network, or satellite network. 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.

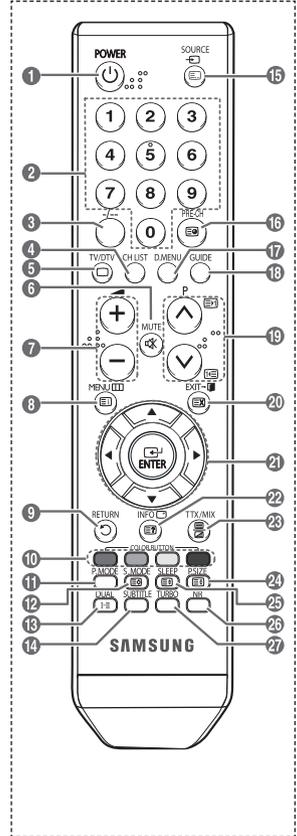
Viewing the Remote Control

- ◆ This is a special remote control for the visually impaired persons, and has Braille points on the Power, Channel, and Volume buttons.
- ◆ The performance of the remote control may be affected by bright light.

- 1 POWER button (turns the TV on and off)
- 2 Number buttons for direct channel access
- 3 One/Two-digit channel selection
- 4 Channel control button (Refer to page 15) (Only in DTV signal)
- 5 Selects the TV and DTV mode directly
- 6 Temporary sound switch-off
- 7 ⊕ Volume increase
⊖ Volume decrease
- 8 Displays the main on-screen menu
- 9 Returns to the previous menu
- 11 Picture effect selection (Refer to page 17)
- 12 Sound effect selection
- 13 Sound mode selection
- 14 Digital subtitle display
- 15 Available source selection
- 16 Previous channel
- 17 DTV menu display
- 18 Electronic Program Guide (EPG) display
- 19 ⌂ Next channel
⌂ Previous channel
- 20 Exit the on-screen menu
- 21 Control the cursor in the menu
- 22 Use to see information on the current broadcast
- 24 Picture size selection
- 25 Automatic Power-off
- 26 Digital NR on/off
- 27 Turbo sound

Teletext Functions

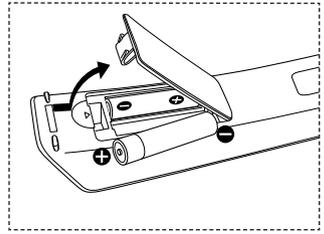
- (Refer to page 36)
- 5 Exit from the teletext display (depending on the model)
 - 8 Teletext index
 - 10 Fastext topic selection
 - 12 Teletext store
 - 15 Teletext mode selection (LIST/FLOF)
 - 16 Teletext sub page
 - 19 P ⌂ : Teletext next page
P ⌂ : Teletext previous page
 - 20 Teletext cancel
 - 22 Teletext reveal
 - 23 Teletext display/mix both teletext information and the normal broadcast
 - 24 Teletext hold
 - 25 Teletext size



Continued...

Installing Batteries in the Remote Control

- 1 Lift the cover at the back of the remote control upward as shown in the figure.
 - 2 Install two AAA size batteries.
 - ◆ Make sure to match the “+” and “-” ends of the batteries with the diagram inside the compartment.
 - ◆ Do not mix battery types, i.e. alkaline and manganese.
 - 3 Close the cover as shown in the figure.
 - Remove the batteries and store them in a cool and dry place if you won't be using the remote control for a long time. The remote control can be used up to about 23 feet from the TV. (Assuming typical TV usage, the batteries last for about one year.)
- If the remote control doesn't work! Check the following:
1. Is the TV power on?
 2. Are the plus and minus ends of the batteries reversed?
 3. Are the batteries drained?
 4. Is there a power cut, or is the power cord unplugged?
 5. Is there a special fluorescent light or a neon sign nearby?



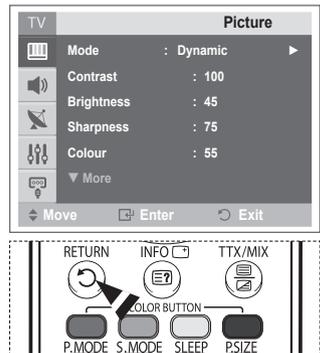
Switching Your Television On and Off

The main lead is attached to the rear of the television.

- 1 Plug the main lead into an appropriate socket.
 - The main voltage is indicated on the rear of the television and the frequency is 50 or 60Hz.
- 2 Press the **I** (Power) button (On/Off) on the front of the television or press the **POWER** button on the remote control to switch the television on. The programme that you were watching last is reselected automatically. If you have not yet stored any channels, no clear picture appears. Refer to "Storing Channels Automatically" on page 13 or "Storing Channels Manually" on page 14.
 - If the television is initially powered on, several basic customer settings proceed automatically. Refer to "Plug & Play Feature" on page 10.
- 3 To switch the television off, press the **I** (Power) button (On/Off) on the front of the television or press the **POWER** button on the remote control.
- 4 To switch the TV on, press the **I** (Power) button (On/Off) on the front of the TV or press the **POWER** button or number buttons on the remote control.

Viewing the Menu

- 1 Press the **MENU** button.
The main menu is displayed on the screen.
Its left side has five icons: **Picture**, **Sound**, **Channel**, **Setup**, and **Input**.
- 2 Press the **▲** or **▼** button to select one of the icons.
Press the **ENTER** button to access the icon's sub-menu.
- 3 Press the **▲** or **▼** button to move to items in the menu.
Press the **ENTER** button to enter items in the menu.
- 4 Press the **▲/▼/◀/▶** button to change the selected items.
Press the **RETURN** button to return to the previous menu.
- 5 Press the **EXIT** button to exit from the menu.



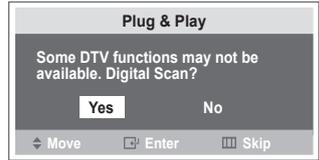
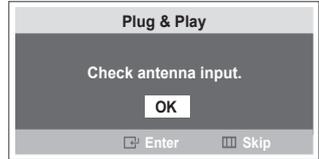
Plug & Play Feature

When the television is initially powered on, several basic customer settings proceed automatically and subsequently.

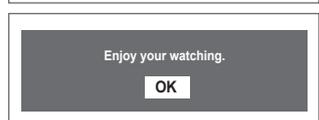
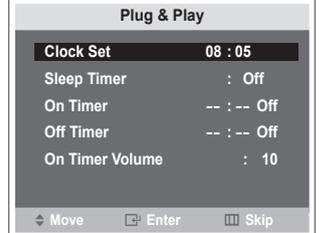
The following settings are available.

- ☛ If you accidentally select the wrong country for your TV, the characters on the screen may be wrongly displayed.
 - ☛ Any functions related to Digital TV (DVB) will only work in countries or areas where DVB-T (MPEG2) digital terrestrial signals are broadcasted. Please confirm with your local dealer if you can receive DVB-T signals. Although this TV set follows the DVB-T specification, maintaining compatibility with the future coming DVB-T digital terrestrial broadcasts is not guaranteed. Several functions may not be available in some countries.
- 1 If the television is in standby mode, press the **POWER** button on the remote control. The message **Start Plug & Play** is displayed. Press the **ENTER** button.
 - 2 The **Language** menu will automatically appear after several seconds.
 - 3 Select the appropriate language by pressing the **▲** or **▼** button. Press the **ENTER** button. The message **Select Home Mode when installing this TV at home.** is displayed.
 - 4 Press the **◀** or **▶** button to select **SHOP** or **HOME**, then press the **ENTER** button. The message to check the connected status of the antenna is displayed.
 - The default selection is **HOME**.
 - We recommend setting the TV to Home mode for the best picture in your home environment.
 - Shop mode is only intended for use in retail environments.
 - If the unit is accidentally set to Shop mode, and you want to return to Dynamic (Home) mode, press the Volume button and then hold down the **MENU** button for five seconds on the TV panel.
 - 5 Make sure that the antenna is connected to the TV. Press the **ENTER** button. The **Country** menu is displayed.
 - 6 Select your country or area by pressing the **▲** or **▼** button. Press the **ENTER** button. The message **Some DTV functions may not be available. Digitally Scan?** is displayed.
 - This OSD is concerned for all countries except for the following countries: France, Germany, Italy, Netherlands, Spain, Switzerland, United Kingdom, Austria, Sweden, Finland, Denmark

If your country supports the DTV functions, the message is not displayed. Then you can follow the instructions from step 12. When the local service provider does not support DTV broadcasting but you choose a DTV supporting country, it enters the DTV Plug & Play but DTV functions may not work properly. When **No** is selected, follow the instructions from step 7 to 10. When **Yes** is selected, follow the instructions from step 11.

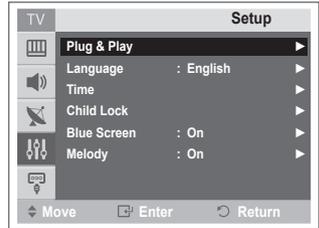


- 7 Select **No** by pressing the ◀ or ▶ button, then press the **ENTER** button. **Auto Store** menu is displayed.
- 8 Press the **ENTER** button to start search the channels. The channel search will start and end automatically. After all the available channels are stored, **Clock Set** menu is automatically displayed. Press the **ENTER** button.
 - To stop the search before it has finished, press the **ENTER** button with **Stop** selected.
- 9 Press the ◀ or ▶ button to select Hour or Minute. Set these by pressing the ▲ or ▼ button.
- 10 Press the **ENTER** button to confirm your setting. The message **Enjoy your viewing** is displayed. When you have finished, press the **ENTER** button.
 - Even if the **ENTER** button is not pressed, the message will automatically disappear after several seconds.
- 11 Select **Yes** by pressing the ◀ or ▶ button, then press the **ENTER** button. **Auto Store** menu is displayed.
- 12 Press the **ENTER** button to start search the analog channels. The analog channel search will start and end automatically. After all the available analog channels are stored, the screen for searching digital channels is automatically displayed.
 - To stop the search before it has finished, press the **ENTER** button with **Stop** selected.
- 13 Press the **ENTER** button to start search the digital channels. The digital channel search will start and end automatically. After all the available digital channels are stored, the screen to select a time zone is displayed depending on the country.
 - To stop the search before it has finished, press the **ENTER** button with **Stop** selected.
 - If the DTV channel is updated, the Source in the source list of the Input menu is automatically changed to DTV.
 - For detailed descriptions about DTV channel update, refer to page 26 of this manual.
- 14 Press the ▲ or ▼ button to select required time zone, then press the **ENTER** button. The screen for setting the time is displayed. Press the **ENTER** button.
- 15 You can set the **Month**, **Day**, **Year**, **Hour**, or **Min** directly by pressing the numeric buttons on the remote control.
 - You can set the Hour or Minute directly by pressing the numeric buttons on the remote control.
- 16 Press the **ENTER** button to confirm your setting. The message **Enjoy your watching** is displayed. When you have finished, press the **ENTER** button.
 - Even if the **ENTER** button is not pressed, the message will automatically disappear after several seconds.



If you want to reset this feature ...

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Setup**, then press the **ENTER** button.
- 3 Press the **ENTER** button again to select **Plug & Play**.
The message **Start Plug & Play** is displayed.

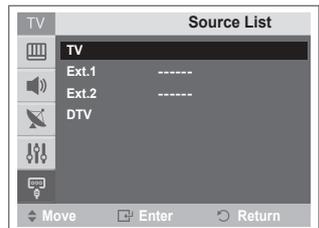
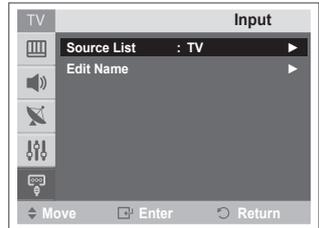


Viewing External Signal Sources

You can switch between viewing signals from connected equipment, such as a VCR, DVD, Set-Top Box, and the TV source (broadcast or cable).

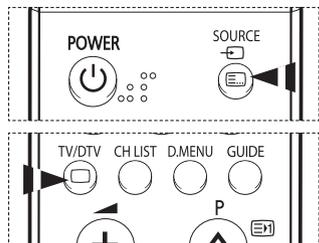
- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Input**, then press the **ENTER** button.
- 3 Press the **ENTER** button again to select **Source List**.
- 4 Press the **▲** or **▼** button to select the signal source, then press the **ENTER** button.

Available signal sources: **TV**, **Ext.1**, **Ext.2 (EXT2 (AV))** on the rear panel or **EXT 2(AV IN)** on the side panel), **DTV**



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

➤ To watch television programme again, press the **TV/DTV** button and select the channel number required.



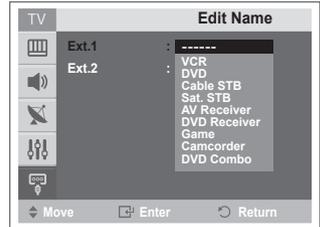
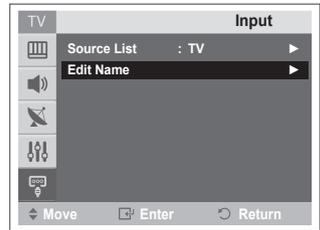
Editing Device Names

You can give a name to the external source.

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Input**, then press the **ENTER** button.
- 3 Press the **▲** or **▼** button to select **Edit Name**, then press the **ENTER** button.
- 4 Press the **▲** or **▼** button to select the external source to be edited, then press the **ENTER** button.
- 5 Select the required device by pressing **▲** or **▼**, then press the **ENTER** button.

Available device names: **VCR, DVD, Cable STB, Sat. STB, AV Receiver, DVD Receiver, Game, Camcorder, DVD Combo**

- 6 Press the **EXIT** button to exit.



Storing Channels Automatically

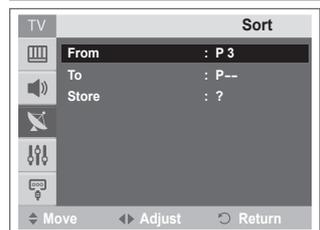
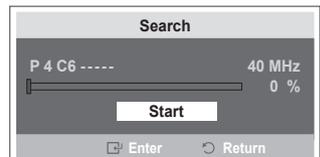
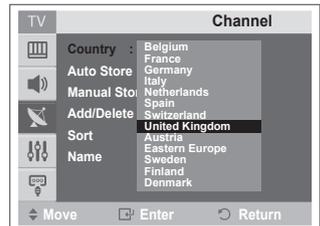
➤ Not available in DTV or external input mode.

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 to display the menu.
- 2 Press the **▲** or **▼** button to select **Channel**, then press the **ENTER** button.
- 3 Press the **ENTER** button again. The available countries are listed.
- 4 Select your country by pressing the **▲** or **▼** button, then press the **ENTER** button.
 - Even though you have changed the country setting in this menu, the country setting for DTV is not changed. Use the Plug & Play function to change the country setting for DTV. (Refer to Pages 10 to 11)
- 5 Press the **▲** or **▼** button to select **Auto Store**, then press the **ENTER** button.
- 6 Press the **ENTER** button again to start the search. The search will end automatically.
 - To stop the search before it has finished, press the **MENU** or the **ENTER** button.
- 7 When searching and storing are completed, the **Sort** menu is displayed.

- To sort the stored channels into the desired numerical order, go to step 4 of the "Sorting the Stored Channels" procedure on page 16.
- To exit from the channel store function without sorting the channels, press the **MENU** button repeatedly until the menus disappear.



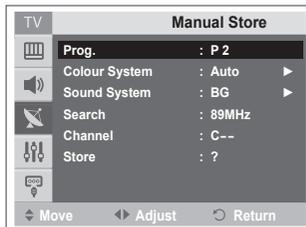
Storing Channels Manually

➤ Not available in DTV or external input mode.

You can store 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 to display the menu.
 - 2 Press the **▲** or **▼** button to select **Channel**, then press the **ENTER** button.
 - 3 Press the **▲** or **▼** button to select **Manual Store**, then press the **ENTER** button.
 - 4 Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.
 - 5 When you are satisfied with your setting, press the **ENTER** button.
 - 6 Press the **EXIT** button to exit.
- ◆ **Prog.** (Programme number to be assigned to a channel)
 - Press the **◀** or **▶** button until you find the correct number.
 - You can also select the channel number directly by pressing the numeric buttons (0~9).
 - ◆ **Colour System: Auto/PAL/SECAM/NTSC4.43**
 - Press the **▲** or **▼** button to select the required colour standard.
 - ◆ **Sound System: BG/DK/I/L**
 - Press the **▲** or **▼** button to select the required sound standard.
 - ◆ **Search** (When you do not know the channel numbers)
 - Press the **ENTER** button to start the search.
 - The tuner scans the frequency range until the first channel or the channel that you selected is received on the screen.
 - ◆ **Channel** (When you know the number of the channel to be stored)
 - Press the **▲** or **▼** button to select **C** (Air channel) or **S** (Cable channel).
 - Press the **▶** button, then press the **▲** or **▼** button to select the required number.
 - You can also select the channel number directly by pressing the numeric buttons (0~9).
 - If there is abnormal sound or no sound, reselect the sound standard required.
 - ◆ **Store** (When you store the channel and associated programme number)
 - Set to **OK** by pressing the **ENTER** button.
- Channel mode**
- ◆ **P** (Programme mode): When completing tuning, the broadcasting stations in your area have been assigned to position numbers from P00 to P99. You can select a channel by entering the position number in this mode.
 - ◆ **C** (Air channel mode): You can select a channel by entering the assigned number to 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.



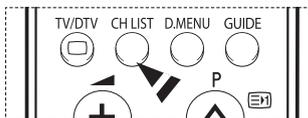
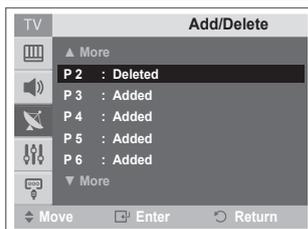
Adding Channels

➤ Not available in DTV or external input mode.

Using the **Add/Delete**, you can conveniently add or delete channels.

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Channel**, then press the **ENTER** button.
- 3 Press the **▲** or **▼** button to select **Add/Delete**, then press the **ENTER** button.
- 4 Press the **▲** or **▼** button to select the channel to add or erase. If necessary, select **Added** or **Deleted** by pressing the **ENTER** button.
- 5 Repeat Step 4 for each channel to be added or erased.

➤ You can select these options simply by pressing the **CH LIST** button on the remote control. (Only in DTV signal)



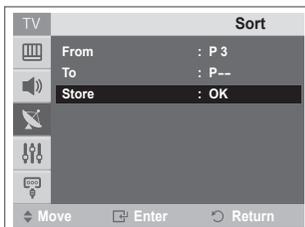
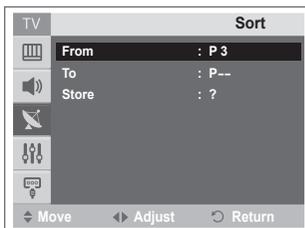
Sorting the Stored Channels

➤ Not available in DTV or external input mode.

This operation allows you to change the programme numbers of the stored channels.

This operation may be necessary after using the auto store.

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Channel**, then press the **ENTER** button.
- 3 Press the **▲** or **▼** button to select **Sort**, then press the **ENTER** button.
- 4 Select the channel number that you wish to change by pressing the **◀** or **▶** button repeatedly.
- 5 Press the **▲** or **▼** button to select **To**. Select the new channel number which you wish to identify by pressing the **◀** or **▶** button repeatedly.
- 6 Press the **▲** or **▼** button to select **Store**. Select **OK** to confirm the exchange of channel numbers by pressing the **ENTER** button. The selected channel is exchanged with the one previously stored to the chosen number.
- 7 For all the channels to move to the required channel numbers, repeat steps 4 to 6 after selecting the **From** by pressing the **▲** or **▼** button.
- 8 Press the **EXIT** button to exit.

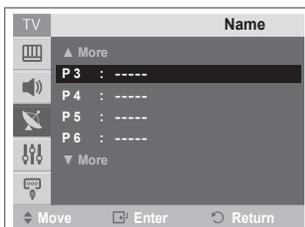
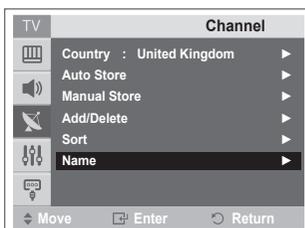


Assigning Names to Channels

➤ Not available in DTV or external input mode.

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

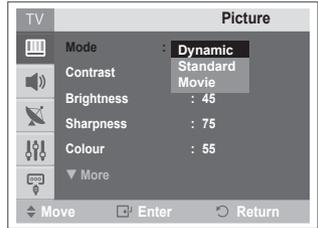
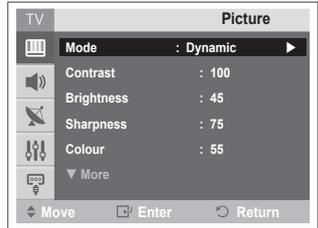
- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Channel**, then press the **ENTER** button.
- 3 Press the **▲** or **▼** button to select **Name**, then press the **ENTER** button.
- 4 Press the **▲** or **▼** button to select the channel to be assigned to a new name, then press the **ENTER** button.
- 5 Press the **▲** or **▼** button to select a letter, a number, or a symbol (Results in this sequence: A~Z, 0~9, +, -, *, /, blank). Move on to the previous or next letter by pressing the **◀** or **▶** button.
- 6 Repeat steps 4 to 5 for each channel to be assigned to a new name.
- 7 Press the **EXIT** button to exit.



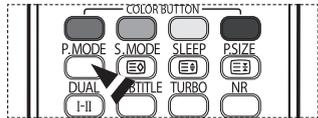
Changing the Picture Standard

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

- 1 Press the **MENU** button to display the menu.
- 2 Press the **ENTER** button to select **Picture**.
- 3 Press the **ENTER** button again to select **Mode**.
- 4 Select the required mode by pressing the **▲** or **▼** button, then press the **ENTER** button.
Available modes: **Dynamic**, **Standard**, **Movie**
 - The settings values may vary depending on the input source. (ex. RF or Video)
- 5 Press the **EXIT** button to exit.



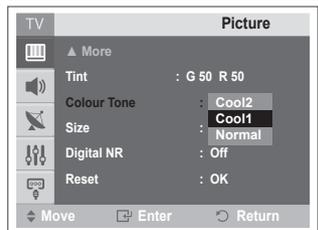
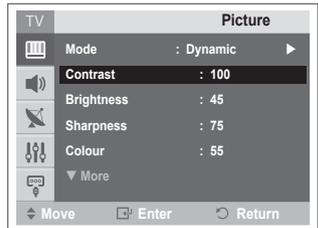
- You can select these options simply by pressing the **P.MODE** button on the remote control.
- ♦ Choose **Dynamic** for viewing the TV during the day or when there is bright light in the room.
- ♦ Choose **Standard** for general TV watching mode.
- ♦ Choose **Movie** when viewing the movie.



Customizing the Picture Settings

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

- 1 Press the **MENU** button to display the menu.
 - 2 Press the **ENTER** button to select **Picture**.
 - 3 Press the **ENTER** button again to select **Mode**.
 - 4 Select the required mode by pressing the **▲** or **▼** button, then press the **ENTER** button.
Available modes: **Dynamic**, **Standard**, **Movie**
 - 5 Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.
 - 6 When you are satisfied with your setting, press the **ENTER** button.
 - 7 Press the **EXIT** button to exit.
- ♦ **Contrast – Brightness – Sharpness – Colour – Tint**
 - In TV, AV modes of the PAL system, you cannot use the Tint Function.
 - Press the **◀** or **▶** button until you reach the optimal setting.
 - ♦ **Colour Tone: Cool2/Cool1/Normal/Warm1/Warm2**
 - When the picture mode is set to **Dynamic** or **Standard**, **Warm1** and **Warm2** cannot be selected.
 - ♦ **Reset: Cancel/OK**
 - Select **OK**. You can return to the factory defaults picture settings.
 - The reset function is set for each picture mode and colour tone.



Selecting the Picture Size

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

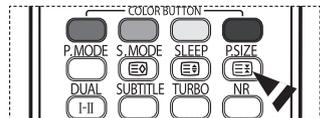
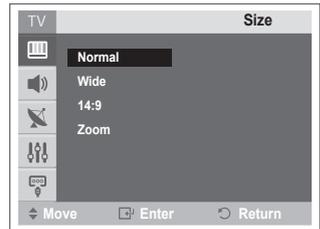
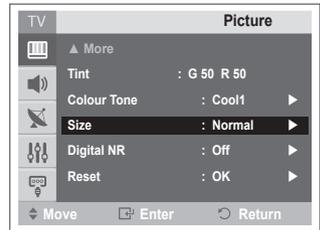
- 1 Press the **MENU** button to display the menu.
- 2 Press the **ENTER** button to select **Picture**.
- 3 Press the **▲** or **▼** button to select **Size**, then press the **ENTER** button.
- 4 Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.

Available options: **Normal, Wide, 14:9, Zoom**

- ◆ **Normal** : Sets the picture to normal mode.
- ◆ **Wide** : Expands and pulls up the picture from 4:3 to 16:9 ratio.
- ◆ **14:9** : Sets the picture to 14:9 wide mode.
- ◆ **Zoom** : Magnify the size of the picture vertically on screen.
 - You can use Zoom function only in the broadcast signal that WSS(Wide Screen Service) is input.

- 5 Press the **EXIT** button to exit.

- You can change the picture size simply by pressing the **P.SIZE** button on the remote control.



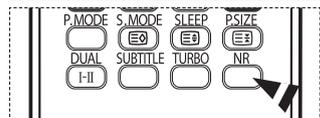
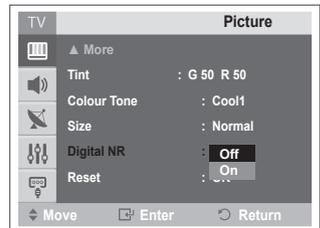
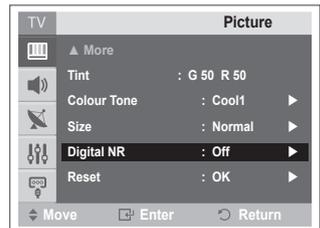
Digital NR

- 1 Press the **MENU** button to display the menu.
- 2 Press the **ENTER** button to select **Picture**.
- 3 Press the **▲** or **▼** button to select **Digital NR**, then press the **ENTER** button.
- 4 Select **Off** or **On** by pressing the **▲** or **▼** button, then press the **ENTER** button.
- 5 Press the **EXIT** button to exit.

◆ Digital NR: Off/On

If the signal received by the television is weak, you can activate this feature to reduce any static and ghosting that may appear on the screen.

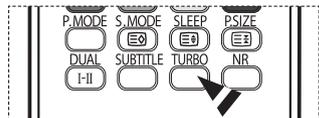
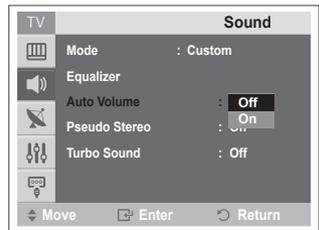
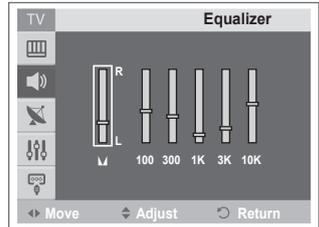
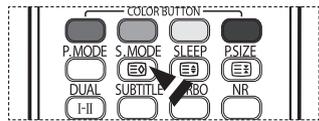
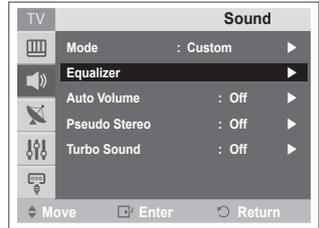
- You can select these options simply by pressing the **NR** button on the remote control.



Sound Features

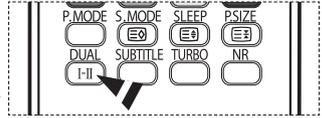
- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Sound**, then press the **ENTER** button.
- 3 Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.
Available options: **Mode**, **Equalizer**, **Auto Volume**, **Pseudo Stereo**, **Turbo Sound**
- 4 When you are satisfied with your setting, press the **ENTER** button.
- 5 Press the **EXIT** button to exit.

- ◆ **Mode: Standard/Music/Movie/Speech/Custom**
You can select the type of special sound effect to be used when watching a given broadcast.
➤ You can select these options simply by pressing the **S.MODE** button on the remote control.
- ◆ **Equalizer: Balance/100/300/1K/3K/10K**
The television has several settings which allow you to control the sound quality.
➤ If you make any changes to these settings, the sound mode is automatically switched to **Custom**.
- ◆ **Auto Volume: Off/On**
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.
- ◆ **Pseudo Stereo: Off/On**
Pseudo Stereo feature converts a monaural sound signal into two identical left and right channels. Once the **Pseudo Stereo** is set to On or Off, these settings apply to the sound effects such as **Standard**, **Music**, **Movie**, and **Speech**.
- ◆ **Turbo Sound: Off/On**
This feature suitably emphasizes both higher and lower bands of sound (and includes other effects). You can enjoy more magnificent and dynamic sound when watching music, movie or other channels.
➤ You can select these options simply by pressing the **TURBO** button on the remote control.



Selecting the Sound Mode (depending on the model)

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 (Normal)
	NICAM Stereo	NICAM stereo	↔	Mono (Normal)
	NICAM DUAL-I/II	NICAM dual-1	→ NICAM dual-2 →	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 **Mono**.
- ◆ If the stereo signal is weak and automatic switching occurs, switch to **Mono**.

Time Features

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Setup**, then press the **ENTER** button.
- 3 Press the **▲** or **▼** button to select **Time**, then press the **ENTER** button.
- 4 Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.

Available options: **Clock Set, Sleep Timer, On Timer, Off Timer, On Timer Volume**

- 5 When you are satisfied with your setting, press the **ENTER** button.
- 6 Press the **EXIT** button to exit.

◆ Clock Set

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

- Press the **◀** or **▶** button to select **Hour** or **Minute**. Set these by pressing the **▲** or **▼** button.
- In the event of a power interruption or the set being turned off at the supply, the settings for the Clock will be lost.

◆ Sleep Timer

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

- Select the preset time interval (**Off, 30 min, 60 min, 90 min, 120 min, 150 min, or 180 min**) for staying on by pressing the **◀** or **▶** button.
- You can select these options simply by pressing the **SLEEP** button on the remote control. If the sleep timer is not yet set, **Off** is displayed. If it is already set, the remaining time before which the television switches to standby mode is displayed.

◆ On Timer, Off Timer

You can set the On/Off timers so that the television will switch on or off automatically at the time you select.

☞ You must set the clock first.

- Press the **◀** or **▶** button to select the required item below. Press the **▲** or **▼** button to adjust to the setting satisfied.

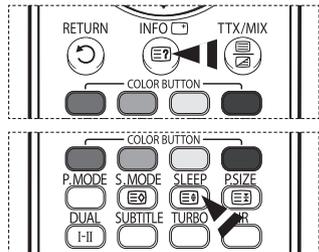
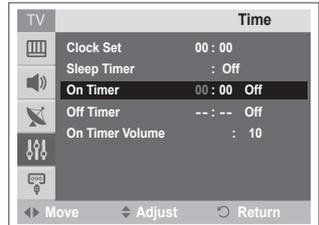
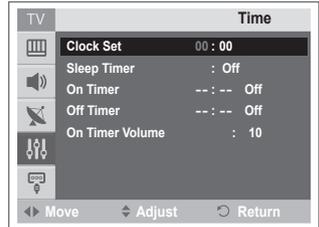
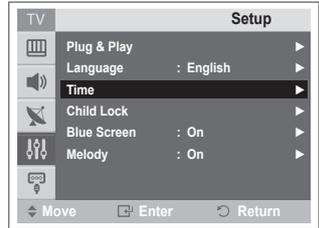
On Timer : Select hour, minute, and **On/Off**. (To activate timer with the setting satisfied, set to **On**.)

Off Timer : Select hour, minute, and **On/Off**. (To activate timer with the setting satisfied, set to **On**.)

On Timer Volume : Select the required volume level.

☞ Auto Power Off

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



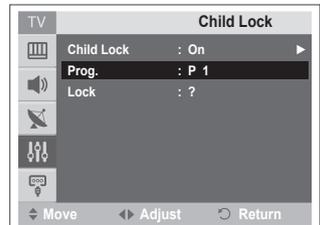
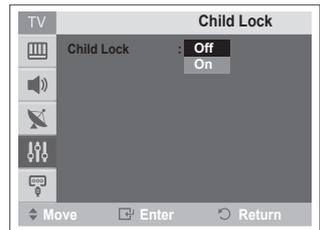
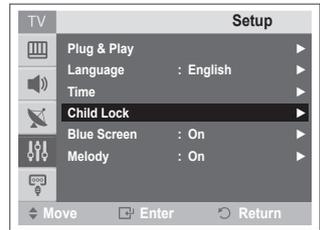
Child Lock

➤ Not available in DTV mode.

This feature allows you to lock the television so that it cannot be switched on via the front panel. It can, however, still be switched on via the remote control. By keeping the remote control away from unauthorised users, such as children, you can prevent them from watching unsuitable programme.

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Setup**, then press the **ENTER** button.
- 3 Press the **▲** or **▼** button to select **Child Lock**, then press the **ENTER** button.
- 4 Press the **ENTER** button again.
- 5 Press the **▲** or **▼** button to select the **On**
➤ If you want to unlock a channel, set to **Off**.
- 6 Press the **ENTER** button.
- 7 Press the **▲** or **▼** button to select the **Prog.**. Select the number of the channel to be locked by pressing the **◀** or **▶** button.
- 8 Press the **◀** or **▶** button to select **Lock**.
- 9 Press the **ENTER** button.
Locked is displayed.
- 10 Press the **EXIT** button to exit.

➤ If any channel is locked, you can not enter the Channel menu by using the control buttons on the television, and the message "Not Available" is displayed. You can access by using the remote control only.



Language / Blue Screen / Melody

- 1 Press the **MENU** button to display the menu.
- 2 Press the **▲** or **▼** button to select **Setup**, then press the **ENTER** button.
- 3 Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.
Available options: **Language**, **Blue Screen**, **Melody**
- 4 When you are satisfied with your setting, press the **ENTER** button.
- 5 Press the **EXIT** button to exit.

◆ Language

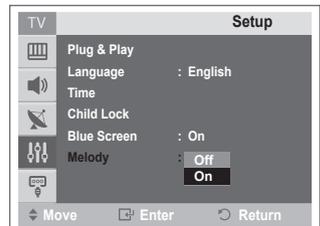
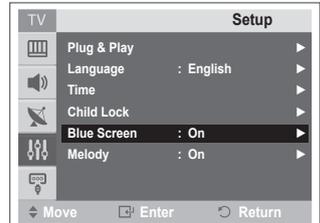
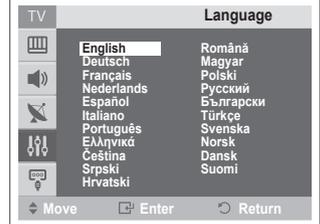
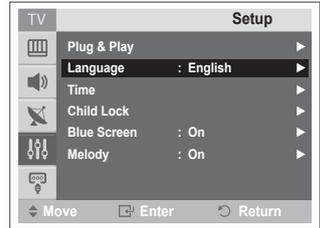
It is variable depending on the model. When you start using the television for the first time, you must select the language which will be used for displaying menus and indications.

◆ Blue Screen: On/Off

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 to Off.

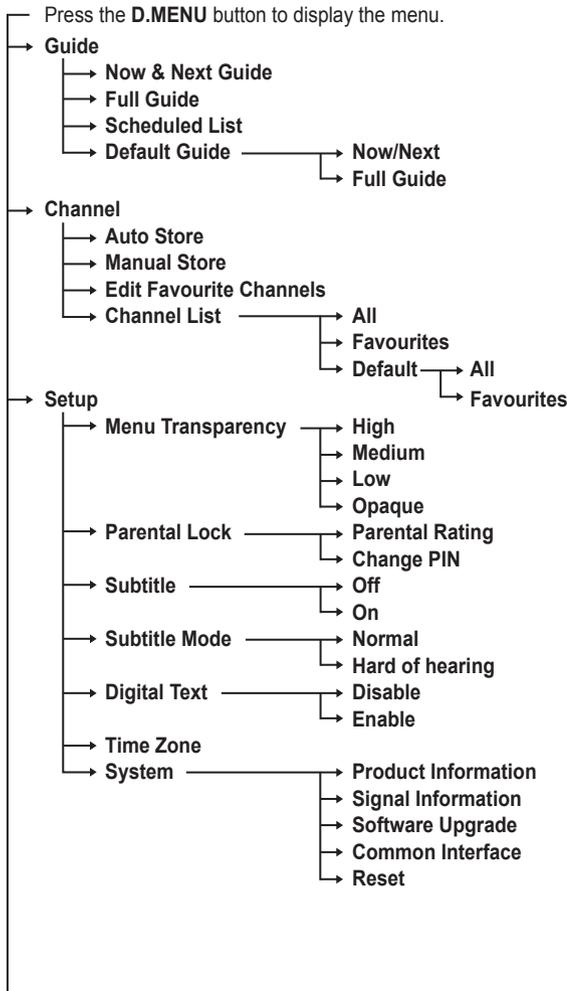
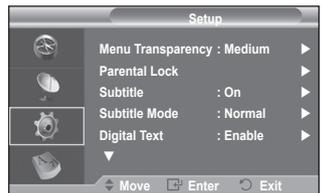
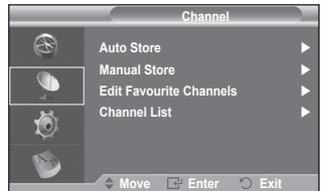
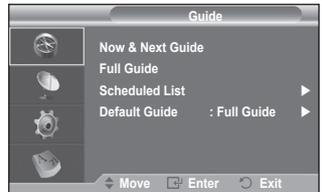
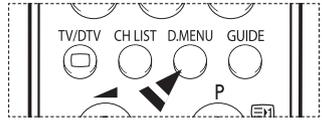
◆ Melody: Off/On

The TV power on/off melody sound can be adjusted.

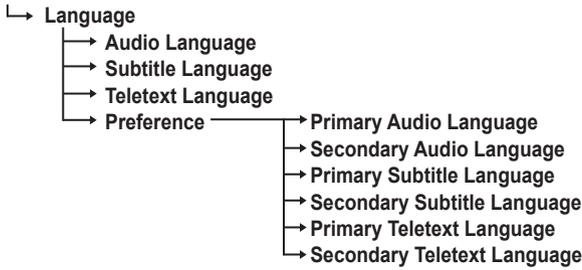


Previewing the DTV Menu System

- ◆ The company does not guarantee the normal operation of the DTV menu for countries other than the supported countries (France, Germany, Italy, Netherlands, Spain, Switzerland, United Kingdom, Austria, Sweden, Finland, Denmark) because only these country standards are supported. In addition, when the country of the broadcast stream differs from the country selected by the current user, the string appearing in the channel banner, Info, Guide, Channel List, etc. may not be displayed properly.
- ◆ Available in DTV mode. Preset to the DTV mode by using the **TV/DTV** button on your remote control. To help you navigate around the on-screen menu system and adjust the various settings available, refer to the following illustration.



Continued...

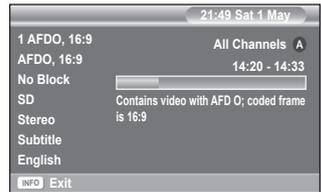


- The sub-items of the CI Menu may vary depending on the CAM model. (refer to page 35)
- DOLBY DIGITAL SOUND format from the broadcast signal is not supported.

Displaying Programme Information

While viewing a channel, additional information about the current programme may be displayed.

- ◆ While viewing a programme, press the **INFO** button. The programme information is displayed.
 - The information is displayed:
 - Parental Rating
 - Video Type: SD, HD, Radio
 - Audio Type: Mono, Stereo, Dual, Dolby Digital
 - Existence of Teletext or DVB Subtitle
 - Audio Language
 - To exit from banner information, press the **INFO** button.



Operating the DTV Menu

Viewing the DTV Menu

After installing your antenna system and TV with appropriate connectors.

- ◆ Plug in the AC main power and switch on the TV.
- ◆ Press the **D.MENU** button to bring up the DTV menu. The main menu appears on the screen. Its left side has four icons: **Guide**, **Channel**, **Setup**, and **Language**.

1. Channel

This menu consists of 4 sub-menus:

Auto Store, **Manual Store**, **Edit Favourite Channels**, and **Channel List**.

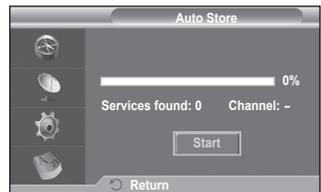
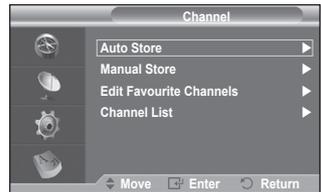
- ◆ Press the **▲** or **▼** button to select **Channel**, then press the **ENTER** button. The Channel menu is displayed.



1.1 Auto Store

You can update the channel list when the broadcaster adds new services or if you move the TV to a new location.

- ◆ Press the **ENTER** button to select **Auto Store**. Press the **ENTER** button again to start the search. When it has finished, the number of scanned services will be displayed.
 - The existing favourite channel list will not be deleted when the channel list is updated.
 - To stop the scan before it has finished, press the **ENTER** button with **Stop** selected.
- If the signal status is poor, the message **No service found! Check the aerial connection.** is displayed.



1.2 Manual Store

You can specify the channel for a fast channel search.

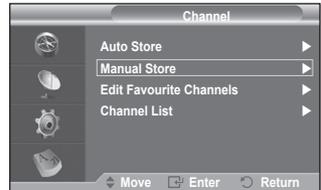
◆ Channel

Press the **▲**, **▼** or numeric buttons (0~9) to select a channel.

The available channels are 5~10 and 21~69.

The corresponding frequency for the selected channel is automatically set.

- ◆ Press the red button to start the scan for digital services. When it has finished, channels are updated in the channel list.
- You can input by pressing the button on the remote control.
- You can not change only frequency and when changing a channel the Frequency will be automatically changed.



Continued...

1.3 Edit Favourite Channels

You can edit your favourite channels using the colour buttons.

➤ In the case of DTV mode, **OK** or **Select** can be used as the **ENTER** button.

- ◆ Press the red button in the Edit Favourite Channels menu to display all currently stored channels.
- ◆ Press the ▲ or ▼ button to select a channel you want. Press the **ENTER** button. A "★" icon is shown next to the selected channel and the channel will be added to the favourites list.
 - ◆ To undo, press the **ENTER** button again.
 - ◆ **Select All**: Select all channels currently displayed.
 - ◆ **Select None**: Deselect all selected channels.
 - ◆ **Preview**: Displays (a) currently selected channel(s).
- If The Favourite Channels settings have been completed.

◆ Add

You can use this function when one or more favourite channels have been selected.

- Press the red button in the **Edit Favourite Channels** menu. To add more channels, refer to the previous section.
- To add all channels to the favourites channel list, press the red button.
- To remove all channels, press the green button.
- **Preview**: Displays (a) currently selected channel(s).
- Press the **CH LIST** button to display the favourite channel list.

◆ Renumber

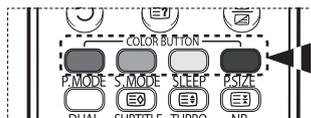
- In the Edit Favourite Channels menu, press the ▲ or ▼ button to select the required channel.
- Press the green button.
 - The space for entering the number is a blank.
- Enter the new channel number. Press **ENTER** button to store or **RETURN** button to cancel.
 - Press the ◀ button to delete an entered digit.
 - If you enter a number already assigned to another channel, the number is assigned to the selected channel and the previous number assigned to the selected channel is assigned to the other channel.
 - That is, the two numbers are exchanged.
 - The favorite channels are automatically sorted in ascending order of channel numbers.

◆ Preview

- In the **Edit Favourite Channels** menu, press the ▲ or ▼ button to select the channel to be previewed.
- Press the yellow button. Displays currently selected channel.

◆ Delete

- In the **Edit Favourite Channels** menu, press the ▲ or ▼ button to select the channel to be deleted from the favourite channels list.
- Press the blue button. The selected channel and number will be deleted.
- To add a deleted channel back in to the favourite channel list, see **Add**.



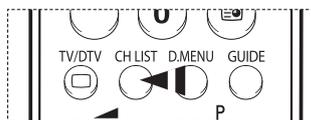
Continued...

1.4 Channel List

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

- ◆ Press the ▲ or ▼ button to select **Channel List**, then press the **ENTER** button.
 - It can be displayed simply by pressing the **CH LIST** button.
- ◆ Press the yellow button to toggle between your favourite channels and all channels.

Your favourite channels are only displayed if they were previously set in the **Edit Favourite Channels menu** (refer to page 27).
- ◆ Press the red or green button to display the previous or next channel list page.
- ◆ Press the ▲ or ▼ button to select a channel to be tuned, then press the **ENTER** button.
 - The channel number, name and an icon are displayed in the top left corner while changing the channel. The channel number and name are displayed if the channel is one of the all channels, and a ★ icon if the channel is one of the favourite channels.
- ◆ Press the blue button to toggle between your TV, Radio, Data/Other and All.
- ◆ Press the **CH LIST** button to exit from the channel List.



2. Guide

This menu consists of 4 sub-menus:

Now & Next Guide, Full Guide, Scheduled List, and Default Guide.

2.1 Now & Next Guide / Full Guide

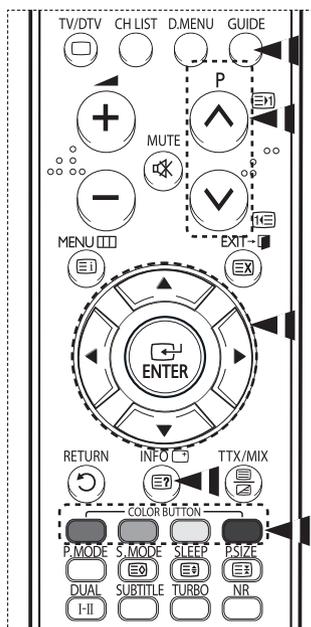
The EPG (Electronic Programme Guide) information is provided by the broadcasters. Programme entries may appear blank or out of date as a result of the information broadcast on a given channel.

The display will dynamically update as soon as new information becomes available.

- **Now & Next Guide**

For the six channels indicated in the left-hand column, displays the Current programme and the Next programme information.
- **Full Guide**

Displays the programme information as time ordered One hour segments. Two hours of programme information is displayed which may be scrolled forwards or backwards in time.
- ◆ Press the ▲ or ▼ button to select **Now & Next Guide** or **Full Guide**. Press the **ENTER** button. The selected guide menu is displayed.
 - Press the red button to toggle between **Now & Next Guide** or **Full Guide**.
 - Press the green button to display **Favourites** or **All Channels** list.
 - Press the yellow button to scrolls backwards quickly (24 hours).
 - Press the blue button to scrolls forwards quickly (24 hours).
 - You can also display the guide menu simply by pressing the **GUIDE** button.
- ◆ To watch a programme in the EPG list, press the ▲/▼/◀/▶ button to select a programme of your choice, then press the **ENTER** button.
 - If the next programme is selected, it is scheduled with the clock icon displayed. If the **ENTER** button is pressed again, the scheduling is canceled with the clock icon gone. For details about scheduling programmes, refer to the section.



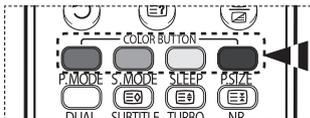
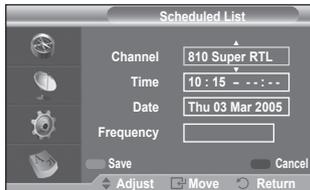
Continued...

- ◆ To view programme information, press the ▲/▼/◀/▶ button to select a programme of your choice, then press the **INFO** button.
 - ◆ Information such as the channel number, programme title and running time, status bar, and brief summary of the highlighted programme will be displayed in the top right corner of the screen. If there is a lengthy summary, "... " will be displayed, press the **INFO** button for the full summary text.
 - ◆ Six channels are displayed. To scroll between channels, move to a channel using the ▲ or ▼ button. To display page by page, use the P◀ or ▶ button.

2.2 Scheduled List

If you make a scheduled viewing list of programmes you may like to see, the channel will be automatically switched to the scheduled programme at the scheduled time even if you are watching another programme.

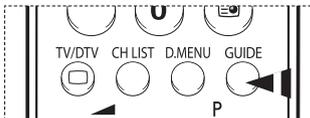
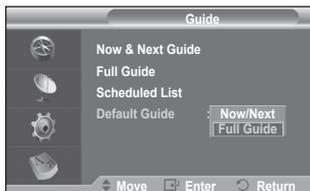
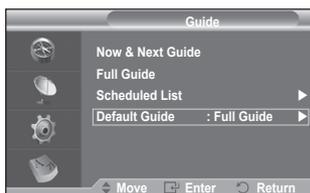
- ◆ Press the red button to add a new programme. The menu for adding a programme is displayed with **Channel** selected.
- ◆ Press the ▲/▼ and **ENTER** buttons to set the required channel, time, date, and frequency. When you are satisfied with your settings, save the adjusted schedule by pressing the red button.
- ◆ If you want to edit the scheduled programme, select a programme by pressing the ▲ or ▼ button, then press the green button. If necessary, select the programme to be deleted by pressing the ▲ or ▼ button, then press the blue button.
 - When watching analog TV, the reserved DTV channel cannot be changed. The channel is only changed automatically to the reserved channel when you are watching DTV.
 - Scheduling programme only functions with the television already turned on, and not from standby mode. For details about switching the television on and off automatically, refer to page 9.



2.3 Default Guide

You can preset the default guide style.

- ◆ Press the ▲ or ▼ button to select the required option (**Now/Next** or **Full Guide**), then press the **ENTER** button. The selected option for default guide is displayed on the EPG menu and the channel list appears.



Continued...

2.4 All Channels and Favourite Channels

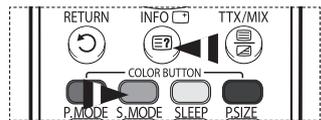
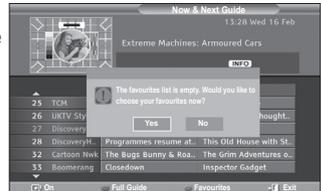
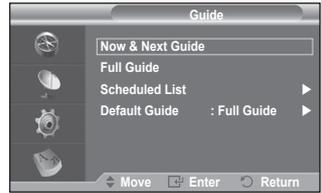
In the EPG menu, you can display all channels or favourite channels.

- ◆ Press the green button repeatedly to toggle between the all and favourite channels list.

When the favourite channel list has not been set up:

- The message **The favourite list is empty. Would you like to choose your favourite now?** is displayed.
- Select **Yes**. The **Edit Favourite Channels** menu is displayed. If you select **No**, all channels will remain unchanged.
- To edit the favourite channels, refer to page 27 for more details.

- ◆ **All Channels** is the list of channels that have been scanned by the channel list update. All channels are displayed in the all channel mode.
 - ◆ **Favourites** (favourite channels) is the list of channels that has been set in the **Edit Favourite Channels** menu (refer to page 27).
 - ◆ When there is no channel information, the message **No Data** will be displayed and you will not be able to change the channel even if you press the **ENTER** button.
- When the message **No Data** appears and you cannot change the channel, press the channel number directly using the numeric buttons.



3. Language

This menu consists of 4 sub-menus:

Audio Language, Subtitle Language, Teletext Language, and Preference.



3.1 Audio Language / Subtitle Language / Teletext Language

You can change the default value for subtitle, audio and teletext languages.

- ◆ Press the **▲** or **▼** button to select required menu (**Audio Language, Subtitle Language, or Teletext Language**), then press the **ENTER** button. The options of the selected menu are displayed.

Continued...

3.2 Preference

This menu consists of 6 sub-menus:

Primary Audio Language, Secondary Audio Language, Primary Subtitle Language, Secondary Subtitle Language, Primary Teletext Language, and Secondary Teletext Language.

Using this feature, users can select one of the languages (**English, German, Italian, Swedish, French, Welsh, Gaelic, Irish, Danish, Finnish, Norwegian, Spanish, Czech, and Greek**). The language selected here is the default when the user selects a channel.

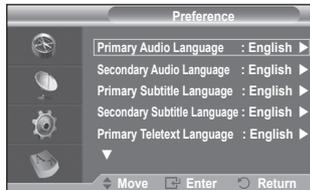
- ◆ Press the ▲ or ▼ button to select required menu (**Primary Audio Language, Secondary Audio Language, Primary Subtitle Language, Secondary Subtitle Language, Primary Teletext Language, or Secondary Teletext Language**), then press the ENTER button.

The options of the selected menu are displayed.

- ◆ Press the ▲ or ▼ button to select required option (**English, German, Italian, Swedish, French, Welsh, Gaelic, Irish, Danish, Finnish, Norwegian, Spanish, Czech, or Greek**), then press the ENTER button.

- ◆ If you change the language setting, the **Audio Language, Subtitle Language, and Teletext Language** of the Language menu (refer to page 30) are automatically changed to the selected language.

- ◆ The **Audio Language, Subtitle Language, and Teletext Language** of the Language menu show a list of languages supported by the current channel and the selection is highlighted. If you change this language setting, the new selection is only valid for the current channel. The changed setting does not change the setting of the **Primary Audio Language, Primary Subtitle Language, or Primary Teletext Language** of the **Preference** menu.



Continued...

4. Setup

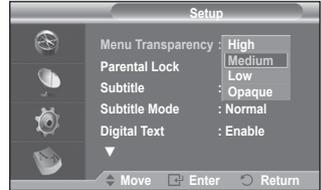
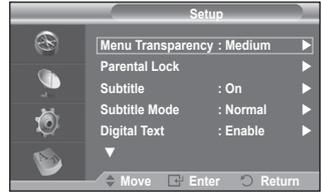
This menu consists of 8 sub-menus:

Menu Transparency, Parental Lock, Subtitle, Subtitle Mode, Digital Text, Time Zone, and System.

4.1 Menu Transparency

You can set the translucency of the on-screen menu.

- ◆ Press the ▲ or ▼ button to select required option (**High, Medium, Low, or Opaque**), then press the **ENTER** button.

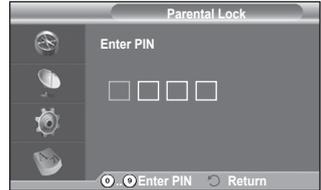
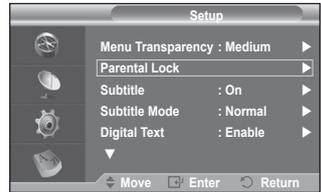


4.2 Parental Lock

This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programmes by a 4-digit PIN (Personal Identification Number) code that is defined by the user.

The on-screen menu will instruct you to assign a PIN code (you can change it later, if necessary).

- ◆ Enter your current 4-digit PIN code by using the numeric buttons (0~9). The **Parental Lock** menu is displayed with the **Parental Rating** selected.
 - ◆ The default PIN code for a new TV set is **0000**.
 - ◆ If you enter an invalid PIN code, the message **Invalid PIN code. Please try again.** is displayed.
- ◆ Press the **ENTER** button. Press the ▲ or ▼ button to select the age rating you want to lock out, then press the **ENTER** button.
- ◆ If you want to change the PIN code, press the ▲ or ▼ button to select **Change PIN**, then press the **ENTER** button.
 - Enter your new PIN code by using the numeric buttons (0~9). The message **Confirm New PIN** is displayed.
 - Re-enter your new PIN code to confirm by using the numeric buttons (0~9). The message **Your PIN code has been changed successfully.** is displayed.
- If you forget the PIN code, press the remote control buttons in the following sequence, which resets the PIN to **0-0-0-0**: **POWER (Off) → MUTE → 8 → 2 → 4 → POWER (On)**.



Continued...

4.3 Subtitle / Subtitle Mode / Digital Text

You can use various settings to suit your personal preferences.

- ◆ Press the ▲ or ▼ button to select required menu (**Subtitle**, **Subtitle Mode** or **Digital Text**), then press the **ENTER** button. The options of the selected menu are displayed.

- ◆ Press the ▲ or ▼ button to select required option, then press the **ENTER** button.

- **Subtitle : On / Off**

- You can select these options simply by pressing the **SUBTITLE** button on the remote control.

- **Subtitle Mode : Normal (basic subtitle) / Hard of hearing** (subtitle for a hearing-impaired person)

- If the programme you are watching does not support the **Hard of hearing** function, **Normal** automatically activates even though **Hard of hearing** mode is selected.

- **Digital Text : Enable / Disable (UK only)**

- If the programme is broadcast with digital text, this feature is enabled.

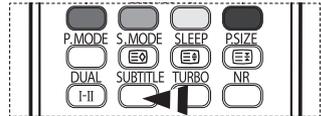
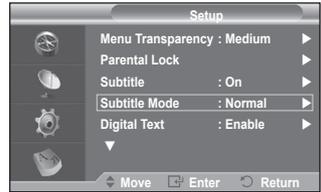
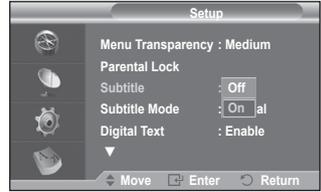
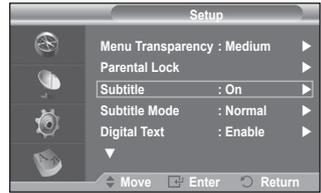
- **MHEG (Multimedia and Hypermedia Information Coding Experts Group)?**

An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele-education, tele-conferencing, digital libraries and network games.

4.4 Time Zone (Spain only)

You can select the time zone where you are located.

- This menu is only enabled when you select a country supported by the time zone.



Continued...

4.5 System

This menu consists of 5 sub-menus:

Product Information, Signal Information, Software Upgrade, Common Interface, and Reset.

- Product Information

You can view your product information. For service or repair, please contact a Samsung approved dealer.

- ◆ Press the **ENTER** button with **Product Information** selected. The product information menu is displayed.
 - **Software Version / Firmware Version**

- Signal Information

You can get information about the signal status.

- ◆ Press the **ENTER** button with **Signal Information** selected. The technical information for signal status is displayed.
 - **Service / Service ID / Multiplex / Network / Bit error level / Signal Strength**

- Software Upgrade (Option)

To keep your product up-to-date with new digital television features then software upgrades are periodically broadcast as part of the normal television signal. It will automatically detect these signals and display the software upgrade banner. You are given the option to install the upgrade.

◆ Software Information

Press the **ENTER** button, then the current software version is shown. To display the software version information, press the **ENTER** button again.

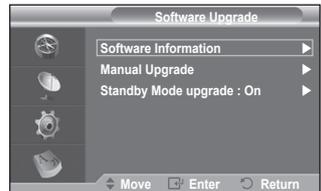
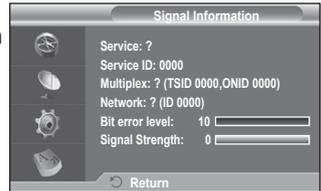
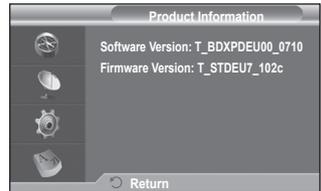
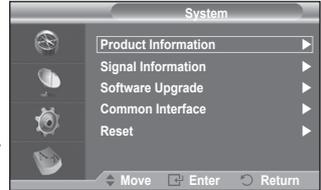
◆ Manual Upgrade

Press the **ENTER** button to search for new software from the currently broadcasting channels.

◆ Standby Mode upgrade : On / Off

Press the **ENTER** button. To continue software upgrade with master power on, Select **On** by pressing the **▲** or **▼** button.

45 minutes after entering standby mode, a manual upgrade is automatically conducted. Since the power of the unit is turned on internally, the screen may be on slightly for the PDP product. This phenomenon may continue for more than 1 hour until the software upgrade is completed.



Continued...

- **Common Interface**

◆ **Installing the CI Card**

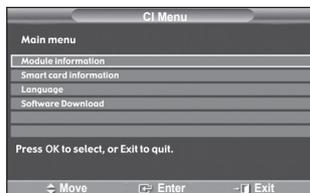
- Purchase the CI CAM module by visiting your nearest dealer or by phone.
- Insert the CI CARD into the CAM in the direction of the arrow until it fits.
- Insert the CAM with the CI CARD installed into the common interface slot.
 - Insert the CAM in the direction of the arrow, right up to the end so that it is parallel with the slot.
- Check if you can see a picture on a scrambled signal channel.
 - You can install the CAM anytime whether the TV is ON or OFF.



◆ **Application Info.**

This contains information on CAM inserted in the CI slot and displays it.

- Press the **ENTER** button to display the information for your application.



◆ **CI Menu**

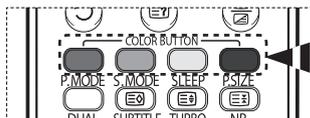
This helps the user select an item from the CAM-supported menu.

- Press the **ENTER** button. The options of the selected menu are displayed. Press the **▲** or **▼** button to select the required option, then press the **ENTER** button.
 - Select the CI Menu based on the PC Card menu.

- **Reset**

You can reset the values stored to the factory default values.

- The Reset operation deletes all channel information and user preferences returning all values to their default factory state.
- ◆ Press the **ENTER** button with **Reset** selected. The **Enter PIN** is displayed.
- ◆ Enter your current 4-digit PIN code by using the numeric buttons (0~9). The warning message is displayed. All values will be reset by pressing the coloured buttons (red, green, yellow, and blue) in turn.
 - The default PIN of a new TV set is "0-0-0-0".
 - When PIN is changed in Child Lock, the PIN for resetting automatically changes.
- ◆ When reset is complete, it operates DTV Plug & Play (DTV Auto Store, Time Zone-depending on the country, Time Setting) and exits from the digital TV mode without changing to the analog TV mode. (Refer to pages 10 to 11)

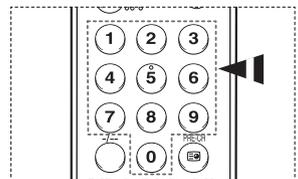
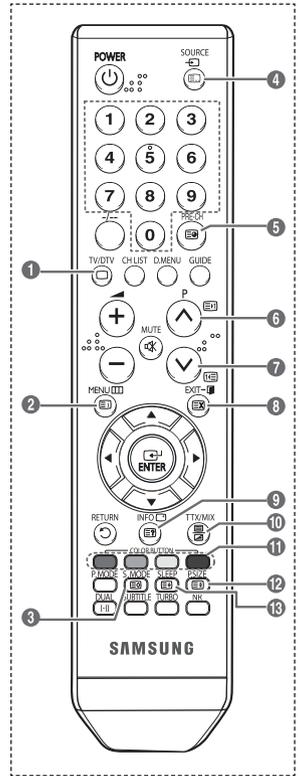


Teletext Feature (depending on the model)

Most television stations provide written information services via teletext. The index page of the teletext service gives you information on how to use the service. In addition, you can select various options to suit your requirements by using the remote control buttons.

For teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

- 1 **TV/DTV**
Exit from the teletext display (depending on the model)
- 2 **Index**
Used to display the index (contents) page at any time while you are viewing teletext.
- 3 **Store**
Used to store the teletext pages.
- 4 **Mode**
Press to select the teletext mode (LIST/FLOF).
If you press it in the LIST mode, it switches into the List save mode. In the List save mode, you can save teletext page into list using the Store (store) button.
- 5 **Sub-page**
Used to display the available sub-page.
- 6 **Page up**
Used to display the next teletext page.
- 7 **Page down**
Used to display the previous teletext page.
- 8 **Cancel**
Used to display the broadcast when searching for a page.
- 9 **Reveal**
Used to display the hidden text (answers to quiz games, for example). To display normal screen, press it again.
- 10 **Teletext on/mix**
Press to activate teletext mode after selecting the channel providing the teletext service. Press it twice to overlap the teletext with the current broadcasting screen.
- 11 **Coloured buttons (red/green/yellow/blue)**
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. Press one of them corresponding to the required. The page is displayed with other coloured information that can be selected in the same way.
To display the previous or next page, press the corresponding coloured button.
- 12 **Hold**
Used to hold the display on a given page if the selected page is linked with several secondary pages which follow on automatically. To resume, press it again.
- 13 **Size**
Press to display the double-size letters in the upper half of the screen. For lower half of the screen, press it again.
To display normal screen, press it once again.



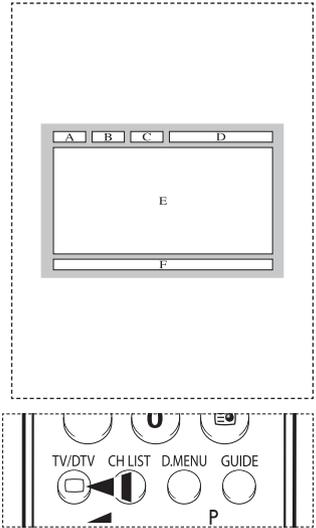
You can change teletext pages by pressing the numeric buttons on the remote control.

Continued...

The teletext pages are organized according to six categories:

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 between 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)
- Press the **TV/DTV** button to exit from the teletext display.



Troubleshooting

Before contacting the 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

- ◆ Check that the mains lead has been connected to a wall socket.
- ◆ Check that you have pressed the **I** (Power) button (On/Off) on the front panel or press the **POWER** button on the remote control.
- ◆ Check the picture contrast and brightness settings.
- ◆ Check the volume.
- ◆ Check if Internal Mute is set to ON.

Normal picture but no sound

- ◆ Check the volume.
- ◆ Check whether the volume **MUTE** button on the remote control has been pressed.

No picture or black and white picture

- ◆ Adjust the colour settings.
- ◆ Check that the broadcast system selected is correct.

Sound and picture interference

- ◆ Try to identify the electrical appliance that is affecting the television, then move it further away.
- ◆ Plug the television into a different main socket.

Blurred or snowy picture, distorted sound

- ◆ Check the direction, location and connections of your aerial.
This interference often occurs due to the use of an indoor aerial.

Remote control malfunctions

- ◆ Replace the remote control batteries.
- ◆ Clean the upper edge of the remote control (transmission window).
- ◆ Check that the “+” and “-” ends of the batteries are inserted correctly.
- ◆ Check that the batteries are drained.

- ◆ This product uses parts of the software from the Independent JPEG Group.
- ◆ This product uses parts of the software owned by the Freetype Project (www.freetype.org).
- ◆ This product uses some software programs which are distributed under the GPL/LGPL license. Accordingly, the following GPL and LGPL software source codes that have been used in this product can be provided after asking to vdswmanager@samsung.com.
GPL software: Linux Kernel, Busybox, Binutils LGPL software: Glibc, libusb, libphoto2

The GNU General Public License (GPL)

Version 2, June 1991

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Preamble

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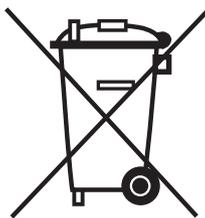
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