



Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

Important Warranty Information Regarding Television Format Viewing

See the warranty card for more information on warranty terms.

Wide screen format LED Displays (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 the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark sidebars on non- expanded standard format television video and programming, should be limited to no more than 5% 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 stationary images that exceed the above guidelines can cause uneven aging of LED Displays that leave subtle, but permanent burned-in ghost images in the LED picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On LED models that offer picture sizing features, use these controls to view different formats as a full screen picture. Be careful in the selection and duration of television formats you use for viewing. Uneven LED aging as a result of format selection and use, as well as burned-in images, are not covered by your Samsung limited warranty.

SAMSUNG ELECTRONICS NORTH AMERICAN LIMITED WARRANTY STATEMENT

Subject to the requirements, conditions, exclusions and limitations of the original Limited Warranty supplied with Samsung Electronics (SAMSUNG) products, and the requirements, conditions, exclusions and limitations contained herein, SAMSUNG will additionally provide Warranty Repair Service in the United States on SAMSUNG products purchased in Canada, and in Canada on SAMSUNG products purchased in the United States, for the warranty period originally specified, and to the Original Purchaser only. The above described warranty repairs must be performed by a SAMSUNG Authorized Service Center. Along with this Statement, the Original Limited Warranty Statement and a dated Bill of Sale as Proof of Purchase must be presented to the Service Center.



BN98-04214B-01

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To add channels to the **Added Channels** list, follow these steps:

- Select one or more channels in the **All Channels** list using the **▲/▼** buttons and the Yellow Select button on your remote.
- Press the **TOOLS** button on your remote. The Tools menu appears.
- Select **Add** in the Tools menu, and then press the ENTER button.
- All deleted channels will be shown on the **All Channels** list. You add channels back to the **Added Channels** list on the **All Channels** list.
- A gray-colored channel indicates the channel has been deleted from the **Added Channels** list.
- The **Add** menu option only appears for deleted channels.

■ **Add to Favorite/Delete from Favorite:** Lets you add channels to and delete channels from your **Favorites** list.

To add channels to the **Favorites** list, follow these steps:

- Select one or more channels in the **All Channels** list using the **▲/▼** buttons and the Yellow Select button on your remote.
 - Press the **TOOLS** button on your remote. The Tools menu appears.
 - Select **Add to Favorite** in the Tools menu, and then press the ENTER button.
- To delete channels from the **Favorites** list, follow these steps:
- Select one or more channels in the **Favorite** Channels list using the **▲/▼** buttons and the Yellow Select button on your remote.
 - Press the **TOOLS** button on your remote. The Tools menu appears.
 - Select **Delete from Favorite** in the Tools menu, and then press the ENTER button.

■ **Timer Viewing:** You can schedule a channel to be displayed automatically at a set time, even when you are watching another channel. You must set the current time first in the **Time > Clock** function to use **Time Viewing**.

To schedule a channel, follow these steps:

- Select a channel in the **Added Channels** list using the **▲/▼** buttons and the Yellow Select button on your remote.
 - Press the **TOOLS** button on your remote. The Tools menu appears.
 - Select **Time Viewing** in the Tools menu, and then press the ENTER button. The Time Viewing screen appears.
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- Use the **◀/▶** buttons to move from entry field to entry field and the **▲/▼** buttons to change the entries. When numbers are displayed, you can also enter numbers directly using the number keypad on your remote.

- If you select **Everyday** or **Every Week**, the date you select in the Date field becomes the start date for your scheduled viewing. For **Everyday**, the TV will turn on every day, at the time you selected, starting from that date. For **Everyweek**, the TV will turn on every week, on the same day of the week as the start date you selected, at the time you selected, from that day on. If you select **Once**, the TV will turn on once, on the date and time you selected.
- Press the ENTER button on your remote when done.
- Only **Added Channels** can be scheduled.
- Scheduled programs and channels are displayed in the **Programmed List**.
- When you select a digital channel, press the **▶** button to view the digital program list. If you highlight a program in the list, and then press the ENTER (Schedule) button, you set **Timer Viewing** for that program directly.

- **Select All:** Select all the channels in the displayed channel list.
- **Deselect All:** Deselect all the selected displayed channels.
 - You can only select **Deselect All** when one or more channels are selected.
- **Channel Name Edit:** Analog channels only. Lets you assign a name of up to five characters to an analog channel. For example, **Hist, Food, Golf**, etc. This makes it easier to find and select a channel.
- **Auto Program:** See **Auto Program** under Memorizing Channels.
- 🔍 **Programmed List (on the Channel List Screen)**

The **Programmed List** displays the channels and programs you have scheduled for viewing using the **Time Viewing** function. You can view, modify, or delete a show you have scheduled using the functions on the **Programmed List** screen Tools menu.

Programmed List Screen Tools Menu

- **Change Info:** Change the scheduling information for a show or channel you have scheduled.
- To change the information, follow these steps:
- Select the **Programmed** List icon on the left side of the **Channel List** screen, and then press the ENTER button.
 - On the **Programmed** List screen, select the show or channel entry you want to change, and then press the **TOOLS** button. The Tools Menu appears.
 - Select **Change Info**, and then press the ENTER button. The **Time Viewing** screen appears.
 - Use the **◀/▶** buttons to move from entry field to entry field and the **▲/▼** buttons to change the entries. When numbers are displayed, you can also enter numbers directly using the number keypad on your remote.
 - Press the ENTER button when done.
- **Cancel Schedules:** Cancel a show or channel you have scheduled.

- To cancel a scheduled show or channel, follow these steps:
- Select the **Programmed** List icon on the left side of the **Channel List** screen, and then press the ENTER button.
 - On the **Programmed** List screen, select the show or channel entry you want to cancel, and then press the **TOOLS** button. The Tools Menu appears.
 - Select **Cancel Schedules**, and then press the ENTER button. The **Cancel Schedule** screen appears.
 - Select **OK**, and then press the ENTER button.

The On Screen Menus

Your TV has two kinds of menus, the Main menu and the various Tools menus. The Main menu gives you access to most or all of the menu options available on your TV. The Tools menus display a selected number of frequently used menu options that change depending on the screen you are viewing. A Tools menu symbol (🔍) in the lower right side of the screen indicates that a Tools menu is available.

The Main menu has seven primary categories:

- Picture
- Sound
- Channel
- Setup
- Input
- Application
- Support

To view the Main menu, press the MENU button on your remote. To view a Tools menu, press the TOOLS button on your remote.

- 🔍 The menu options that appear in the Main menu depend on the Source you have selected. For example, if you have selected the HDMI source, the Channel category will not appear. To see the Channel category, you must first select TV in the Source List.

The Menu options are presented below, arranged by Main menu categories. A Tools button symbol (🔍) next to an option name indicates the option is also available in one of the Tools menus.

Picture Menu

Mode **TOOLS**

Select your preferred picture mode.

- 🔍 When your TV is connected to a PC, you can only select **Entertain** and **Standard**.

- **Dynamic:** Brightens the screen. Suitable for a bright room.
- **Standard:** Suitable for a normal room.
- **Movie:** Darkens the screen, making it less glary. Suitable for watching movies in a darkened room.
- **Entertain:** Sharpens the picture. Suitable for games.
 - 🔍 Only available when the TV is connected to a PC.

Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

- **Backlight:** Adjusts the brightness of the screen by adjusting the brightness of the individual pixels.
- **Contrast:** Increases or decreases the contrast between dark and light areas of the picture.
- **Brightness:** Adjusts the brightness of the screen. Not as effective as Backlight.
- **Sharpness:** Sharpens or dulls the edges of objects.
- **Color:** Adjusts the color saturation. The higher the Color setting, the more intense the color. Low settings remove color and the picture becomes black, white and gray.
- **Tint:** Adjusts the amount of green and red in the picture. As you increase the amount of green, the amount of red decreases and vice versa.
- 🔍 When the TV is connected to a PC, you can only make changes to **Light, Contrast, Brightness, and Sharpness**.

■ **Information:** Display the information for a show or channel you have scheduled. You can also change the schedule Information.

- Select the **Programmed** List icon on the left side of the **Channel List** screen, and then press the ENTER button.
- On the **Programmed** List screen, select the show or channel entry you want information for, and then press the **TOOLS** button. The Tools Menu appears.
- Select **Information**, and then press the ENTER button. The **Time Viewing** information screen appears.
- Select **Change Info** and press the ENTER button to change information, or select **Close** and press the ENTER button to close the Information screen.

■ **Select All / Deselect All:** You can select or deselect all channels in the channel list.

Other Channel Menu Functions

Channel Mode (Added Channels/Favorite Channels)

Lets you select the channel list displayed when you press the **▲CHV** (Channel) button on your remote. For example, if you select Favorite Channels, you will only see Favorite channels when you press the **▲CHV** button.

Fine Tune

Analog channels only.
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, fine tune the channel manually.

- 🔍 Select the channel, and then select **Fine Tune**.
- 🔍 Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.
- 🔍 To reset fine-tuning, select the channel, select **Fine Tune**, and then select **Reset** on the **Fine Tune** screen.

Setup Menu

Plug & Play

Lets you re-run the **Plug & Play** initial setup procedure. For instructions, see your Quick Start Guide.

Language

- Set the menu language.
- 🔍 Choose between **English, Español, and Français**.

Setting the Time

- 🔍 The time you set will appear when you press the INFO button.
 - **Clock:** Set the clock so you can use the various timer features of the TV.
 - 🔍 If you disconnect the power cord, you have to set the clock again.
- Use the **◀/▶** buttons to move to the field under **Music** or the field under **Photo**, and then press the ENTER button. The TV displays a single folder (the Root folder) and the type or name of the device.

Input Source	Picture Size
ATV, AV, Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3
DTV (1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)	16:9, Wide Fit, 4:3, Screen Fit

- Available in **Standard** and **Movie** mode only.
- Compared to previous models, new Samsung TVs offer a more precise picture with more precise controls.
 - 🔍 When your TV is connected to a PC, you can only make changes to **Gamma** and **White Balance**.
- **Color Space (Auto / Native):** Auto automatically matches the range of colors available to create pictures in the color range of the video source. Native provides a color range wider than the color range of the video source.
- **White Balance:** Adjusts the color temperature of the picture so that white objects look white (instead of, for example, slightly pink or slightly yellow) and the overall color of the picture looks natural.
 - 🔍 **R-Offset / G-Offset / B-Offset:** Adjusts each color's (red, green, blue) darkness.
 - 🔍 **R-Gain / G-Gain / B-Gain:** Adjusts each color's (red, green, blue) brightness.
 - 🔍 **Reset:** Resets the **White Balance** to it's default settings.
- 🔍 The menu options that appear in the Main menu depend on the Source you have selected. For example, if you have selected the HDMI source, the Channel category will not appear. To see the Channel category, you must first select TV in the Source List.
- **Gamma:** Adjusts the primary color intensity.
- **Dynamic Contrast (Off / Low / Medium / High):** Adjusts the screen contrast.
- **Black Tone (Off / Dark / Darker / Darkest):** Selects the black level to adjust the screen depth. Darker settings make blacks look darker.
- **Flesh Tone:** Adjusts the amount of red in skin tones.
- **Motion Lighting (Off / On):** When on, the TV automatically adjusts the brightness of the screen in response to the brightness of the room. In bright light, the screen brightens. In dim light, the screen dims.
 - 🔍 Available in **Standard** mode only.

Picture Reset

🔍 When the TV is connected to a PC, you can only make changes to the **Color Tone, Size** and **HDMI Black Level**.

- **Color Tone (Cool / Standard / Warm1 / Warm2):** Cool makes the picture bluer (cooler). Warm 1 and Warm 2 make the picture redder (warmer).
 - 🔍 **Warm1** and **Warm2** are deactivated when the picture mode is set to **Dynamic**.
- **Size:** Set the size and aspect ratio of the picture on the screen. Your cable box or satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use the TVs 16:9 mode most of the time.
- **Zoom1:** Provides moderate magnification of the picture. Sides, top, and bottom are cut off.
- **Zoom2:** Provides larger magnification of the picture. Sides, top, and bottom are cut off.
- **Wide Fit:** Enlarges the aspect ratio of the picture so the picture fits the entire screen.
- 4:3: Sets the picture to the old, 4:3 format and puts black or gray borders on the right and left of the picture.
 - 🔍 Do not watch your TV in the 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which is not covered by the warranty.

Equalizer

- Available in Standard sound mode only.
- **Balance L/R:** Adjusts the balance between the right and left speaker.
 - **100Hz / 300Hz / 1KHz / 3KHz / 10KHz (Bandwidth Adjustment):** Adjusts the loudness of specific bandwidth frequencies.
 - **Reset:** Resets the equalizer to its default settings.

SRS TruSurround HD (On/Off)

- Available in Standard sound mode only.
- SRS TruSurround HD is a patented SRS technology that solves the problem of playing 5.1 multichannel content through 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.
- 🔍 You can adjust and store settings for each external device you have connected to an input on the TV. Picture Sizes available by Input Source are listed below:

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To set the clock, follow these steps:

- Select **Setup >Time > Clock**.
- Press ENTER and select **Auto** or **Manual**, and then press ENTER again.
 - If you selected **Auto:** The TV will automatically download the correct time from a digital channel.
 - Select **Time Zone**, and then press the ENTER button. Use the **▲/▼** buttons to select your **Time Zone**, and then press ENTER.
 - Select DST (Daylight Savings Time), and then press ENTER. Select **On** if you want to turn the DST adjustment on and off manually. Select **Off** to turn off the DST adjustment. Select **Auto** if you want the TV to adjust to DST automatically. Press ENTER when done.
 - **DST and Time Zone** function are only available when the **Clock Mode** is set to **Auto**.

- 🔍 If there are no folders on your device, press the **Yellow** select button to select the Root folder, and then press the RETURN button. The Timer screen re-appears.
- 3. Use the **▲/▼** buttons to highlight a folder that contains music or photos, and then press the **Yellow** select button to select the folder.
- 4. Press the RETURN button. The Timer screen re-appears.

- **Repeat:** Select **Once, Everyday, Mon-Fri, Mon-Sat, Sat-Sun** or **Manual**. If you select **Manual**, you can select the days you want to activate the timer by using the **◀/▶** buttons to highlight the day, and then pressing the ENTER button. To unselect a day, highlight it, and then press the ENTER button.
- When you finished making all your selections on the Timer screen, press either the ENTER or RETURN button.

When you finished making all your selections on the Timer screen, press either the ENTER or RETURN button.

■ **Change PIN:** The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them in **Enter New PIN** fields. Re-enter the same 4 digits in **Confirm New PIN** fields. When the Change PIN screen disappears, press the OK button. The TV has memorized your new PIN.

■ **Game Mode (On/Off)**

When you connect a game console such as a PlayStation™ or Xbox™ to your TV, you can enjoy a more realistic gaming experience by turning on the **Game Mode** function.

- 🔍 Precautions and limitations for game mode:
 - Before you disconnect the game console and connect another external device, set **Game Mode to Off** in the setup menu.
 - If you display the TV menu in **Game Mode**, the screen shakes slightly.
- 🔍 **Game Mode** is not available when the input source is set to **TV**.
- 🔍 After connecting the game console, set **Game Mode to On**. You may notice slightly reduced picture quality.

■ **Program Rating Lock** is not available in **HDMI** or **Component** mode.

🔍 The default PIN number of a new TV set is "0-0-0-0". You can set your own PIN using the **Change PIN** function.

■ **Program Rating Lock** Menu functions for the first time, the PIN input screen appears. Enter 0-0-0-0. The PIN screen and the **Program Rating Lock** Menu appears. Every time you access the **Program Rating Lock** functions, the PIN screen will appear and you must enter a PIN.

When the Rating Lock screen appears, select **Program Rating Lock**, and then press ENTER. Select **On**, and then press the ENTER key again. Depending on what type of programs or movies you want to block, select one of the options on the screen, and then press the ENTER button. The options are listed below:

- **TV Parental Guidelines:** You can block TV programs based on their ratings. This function allows you to control what your children are watching.
- **MPAA Rating:** You can block movies based on their MPAA ratings. The Motion Picture Association of America (MPAA) has implemented a rating system that provides parents or guardians with advanced information on which films are appropriate for children.
- **Canadian English:** You can block TV programs based on their Anglophone Canadian ratings.
- **Canadian French:** You can block TV programs based on their French Canadian ratings.
- **Downloadable U.S. Rating:** Parental restriction information can be used while watching DTV channels.

- 🔍 The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.
- 🔍 The media may not be playing smoothly when using the device lower than USB 2.0.
 - Use the **◀/▶** buttons to move to the field under **Music** or the field under **Photo**, and then press the ENTER button. The TV displays a single folder (the Root folder) and the type or name of the device.

Preferred Language

Digital channels only.
Digital-TV broadcasts can transmit many audio tracks simultaneously (for example, simultaneous translations of a program into foreign languages).

- 🔍 You can only select a language from among the ones being broadcast.

Multi-Track Sound (MTS)

- Analog channels only.
- **Mono:** Select for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.
 - **Stereo:** Select for channels that are broadcasting in stereo.
 - **SAP:** Select to listen to the Separate Audio Program, which is usually a foreign-language translation.
 - 🔍 Depending on the program being broadcast, you can listen to **Mono, Stereo** or **SAP**.

Auto Volume

Because each station has its own broadcasting conditions, the volume may fluctuate each time you change the channel. This feature automatically adjusts the volume of a channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

SPDIF Output

The SPDIF (Sony Philips Digital InterFace) outputs an uncompressed digital audio signal when you connect the digital audio jack on the back of the TV to a digital audio in jack on a receiver or home theater.

- **Audio Format (PCM/Dolby Digital):** You can select the Digital Audio output (SPDIF) format. The available Digital Audio output format may differ depending on the input source.
 - 🔍 By connecting the TV to a receiver or home theater with **Dolby Digital** and 5.1ch speakers and selecting **Dolby Digital**, you can maximize your interactive 3D sound experience.

■ **Audio Delay:** Lets you correct timing mismatches between the audio track and the video when you are watching the TV and listening to digital audio output from the TV through an external device such as an AV receiver. When you select **Audio Delay**, a slider appears. Use the left and right arrow buttons to adjust the slider. Press ENTER when done (0ms ~ 250ms).

Speaker Settings

- **Speaker Select (External Speaker / TV Speaker)**
- If you are listening to the sound track of a broadcast or movie through an external receiver, you may hear a sound echo caused by the difference in decoding speed between the TV's speakers and the speakers attached to your audio receiver. If this occurs, set the TV to **External Speaker**.
- 🔍 When you set **Speaker Select to External Speaker**, the TV's speakers are turned off. You will hear sound through the external speakers only. When you set **Speaker Select to TV Speaker** both the TV's speakers and the external speakers are on. You will hear sound through both.
 - 🔍 When **Speaker Select** is set to **External Speaker**, the **VOLUME** and **MUTE** buttons will not operate and the sound settings will be limited.
 - 🔍 If there is no video signal, both the TV's speakers and the external speakers will be mute.

Sound Reset

- **Reset All:** Resets all sound settings to the factory defaults.

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Locking/Blocking Programs or Movies

You lock or block programs and/or movies in essentially the same way for each option. Each option displays a grid or table. All the tables have ratings listed on the left. The TV Parental Guidelines option also has kinds of content listed on the top: ALL: Lock all TV ratings. / FV: Fantasy Violence / V: Violence / S: Sexual situation / L: Adult Language / D: Sexually Suggestive Dialog.

To lock/block movies or shows with certain ratings and/or kinds of content, click the square next to the rating and/or under the kind of content. A lock appears. To unlock/unblock, click the square again. When you click a low rating, all the ratings above it will also display locks. You can also Allow All or Lock All. When done, press the RETURN button on your remote.

- **Change PIN:** The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them in **Enter New PIN** fields. Re-enter the same 4 digits in **Confirm New PIN** fields. When the Change PIN screen disappears, press the OK button. The TV has memorized your new PIN.
- 🔍 If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to "0-0-0-0": POWER (off) → MUTE → 8 → 2 → 4 → POWER (on)

■ **Game Mode (On/Off)**

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 - Before you disconnect the game console and connect another external device, set **Game Mode to Off** in the setup menu.
 - If you display the TV menu in **Game Mode**, the screen shakes slightly.
- 🔍 **Game Mode** is not available when the input source is set to **TV**.
- 🔍 After connecting the game console, set **Game Mode to On**. You may notice slightly reduced picture quality.

Caption

(On-Screen Text Dialogue)

- **Caption:** You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.
- 🔍 The **Caption** feature does not work in **Component** or **HDMI** mode.
- **Caption Mode:** You can select the desired caption mode.

Default / CC1-CC4 / Text1-Text4: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

Default / Service1-Service6 / CC1-CC4 / Text1-Text4: (Digital channels only) The Digital Captions function works with digital channels.

- 🔍 **Service1-6** may not be available in digital caption mode depending on the broadcast.

- **Digital Caption Options:** (Digital channels only)

- **Size:** Options include Default, Small, Standard and Large. The default is Standard.
- **Font Style:** Options include Default and Styles 0 to 7. The default is Style 0.
- **Foreground Color:** Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan. You can change the color of the letters. The default is White.

Channel Menu

Memorizing Channels

When you first set up your TV using **Plug & Play**, the TV memorized the channels that were available over the air or through your cable system and added them to the **Channel List**. The **Antenna** and **Auto Program** functions described below let you re-run the channel memorization function without having to re-run the **Plug & Play** procedure.

Antenna (Air / Cable)

Before your television can memorize the available channels, you must select your TV's signal source, **Air** (using an antenna) or **Cable**. Select Menu >Channel > **Antenna** > **Air** or **Cable**. After you have selected the signal source, go on to the **Auto Program**

