

SAMSUNG

LED TV

user manual

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

Wide screen format LED Displays with aspect ratios of 16:9 (the ratio of the screen width to screen height) are primarily designed to display 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 crawls, 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 sting 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 and the Original Limited Warranty Statement, a dated Bill of Sale as Proof of Purchase must be presented to the Service Center. Transportation to and from the Service Center is the responsibility of the purchaser. Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product. Exclusions include, but are not limited to, any that the wall outlet and power plug are readily accessible.

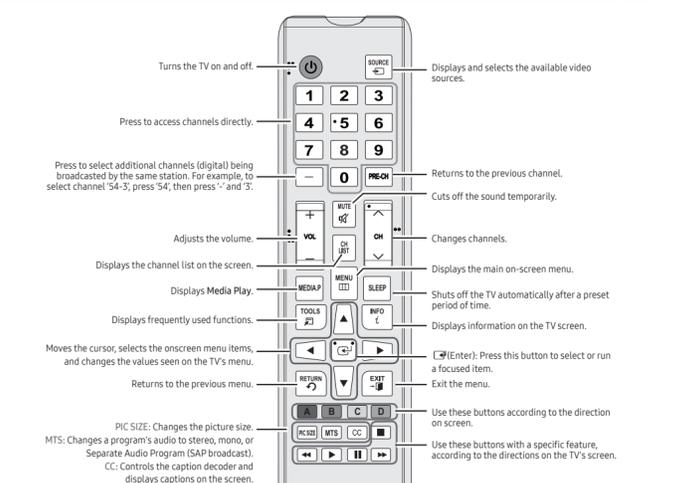
Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Country	CANADA	U.S.A
Address	Samsung Electronics Canada Inc. 2050 Terry Road West Mississauga, Ontario L5N 0B9 Canada	Samsung Electronics America, Inc. 85 Challenger Road Ridgefield, NJ 07640
Customer Care Center	1-800-SAMSUNG (726-7864)	
Web Site	www.samsung.com/ca/support (English) www.samsung.com/ca_fr/support (French)	www.samsung.com/us/support

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Remote Control



The button names above may differ from the actual names. Some buttons on the remote control may not be available. This remote control has Braille points on the Power, Channel, Volume, and Enter buttons and can be used by visually impaired persons.

Display Modes (HDMI/DVI Input)

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
IBM	640 x 350	31.469	70.086	25.175	-/+
	720 x 400	31.469	70.087	28.322	-/+
MAC	640 x 480	35.000	66.667	30.240	-/-
	832 x 624	49.726	74.551	57.284	-/-
VESA DMT	640 x 480	31.469	59.940	25.175	-/+
	640 x 480	37.861	72.809	31.500	-/-
800 x 600	640 x 480	37.500	75.000	31.500	-/+
	800 x 600	37.879	60.317	40.000	+/+
800 x 600	800 x 600	48.077	72.788	50.000	+/+
	800 x 600	46.875	75.000	49.500	+/+
1024 x 768	1024 x 768	48.363	60.004	65.000	-/-
	1024 x 768	56.476	70.069	75.000	-/+
1024 x 768	1024 x 768	60.023	75.029	78.750	+/+
	1280 x 720	45.000	60.000	34.250	+/+
1366 x 768	47.712	59.790	85.500	+/+	

NOTE

- Use the remote control within 23 feet from TV.
- Bright light may affect the performance of the remote control. Avoid use when nearby fluorescent lights or neon signs.
- The Color and shape may vary depending on the model.

Important Safety Instructions

Warning! Important Safety Instructions

(Please read the Safety Instructions before using your TV.)

CAUTION
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

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

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

This symbol indicates that this product has included important literature concerning operation and maintenance.

Class II product: This symbol indicates that a safety connection to electrical earth (ground) is not required.

AC voltage: Rated voltage marked with this symbol is AC voltage.

DC voltage: Rated voltage marked with this symbol is DC voltage.

Caution. Consult instructions for use: This symbol instructs the user to consult the user manual for further safety related information.

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus and to protect it from overheating, these slots and openings must never be blocked or covered.

- Do not place this apparatus in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- Do not place this apparatus near or over a radiator or heat register, or where it is exposed to direct sunlight.
- Do not place vessels (vases etc.) containing water on this apparatus, as this can result in a fire or electric shock.
- Do not expose this apparatus to rain or place it near water (near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.). If this apparatus accidentally gets wet, unplug it and contact an authorized dealer immediately.
- This apparatus uses batteries. In your community, there might be environmental regulations that require you to dispose of these batteries properly. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords, or adapters beyond their capacity, since this can result in fire or electric shock.
- Power-supply cords should be placed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at the plug end, at wall outlets, and at the point where they exit from the appliance.
- To protect this apparatus from a lightning storm, or when left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure that the voltage designation of the DC adaptor corresponds to the local electrical supply.
- Never insert anything metallic into the open parts of this apparatus. This may cause a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Be sure to plug in the power cord until it is firmly seated. When unplugging the power cord from a wall outlet, always pull on the power cord's plug. Never unplug it by pulling on the power cord. Do not touch the power cord with wet hands.
- If this apparatus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.
- Be sure to pull the power plug out of the outlet if the TV is to remain unused or if you are to leave the house for an extended period of time (especially when children, elderly, or disabled people will be left alone in the house).
- Accumulated dust can cause an electric shock, an electric leakage, or a fire by causing the power cord to generate sparks and heat or by causing the insulation to deteriorate.
- Be sure to contact an authorized Samsung service center for information if you intend to install your TV in a location with heavy dust, high or low temperatures, high humidity, chemical substances, or where it will operate 24 hours a day such as in an airport, a train station, etc. Failure to do so may lead to serious damage to your TV.
- Use only a properly grounded plug and wall outlet.
- An improper ground may cause electric shock or equipment damage. (Class I Equipment only.)
- To turn off this apparatus completely, disconnect it from the wall outlet. To ensure you can unplug this apparatus quickly if necessary, make sure that the wall outlet and power plug are readily accessible.
- Store the accessories (batteries, etc.) in a location safely out of the reach of children.
- Do not drop or strike the product. If the product is damaged, disconnect the power cord and contact a Samsung service center.
- To clean this apparatus, unplug the power cord from the wall outlet and wipe the product with a soft, dry cloth. Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air fresheners, lubricants, or detergents. These chemicals can damage the appearance of the TV or erase the printing on the product.
- Do not expose this apparatus to dripping or splashing.
- Do not dispose of batteries in a fire.
- Do not short-circuit, disassemble, or overheat the batteries.
- There is danger of an explosion if you replace the batteries used in the remote with the wrong type of battery. Replace only with the same or equivalent type.

WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES AND OTHER ITEMS WITH OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

Use care when touching the TV after it has been on for some time. Some parts can be warm to the touch.

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 on-screen functions 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 (T) 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
- 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 (TOOLS) next to an option name indicates the option is also available in one of the Tools menus.

Picture Menu

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 normal room brightness.
- Movie:** Darkens the screen, making it less gray. 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 (G/R):** 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 Backlight, Contrast, Brightness, and Sharpness.

Picture Options

- 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 / Warm):** Cool makes the picture bluer (cooler). Warm makes the picture redder (warmer).
- Warm is 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 TV's 16:9 mode most of the time. 16:9 Sets the picture to the 16:9 wide screen format. 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. The borders displayed on the left, right, and center of the screen in 4:3 format can cause image retention (screen burn) which is not covered by the warranty.
- 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.

Auto Volume

Automatically adjusts the volume level when you change video sources or content so the level remains the same.

Speaker Select

When 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.

Getting Started

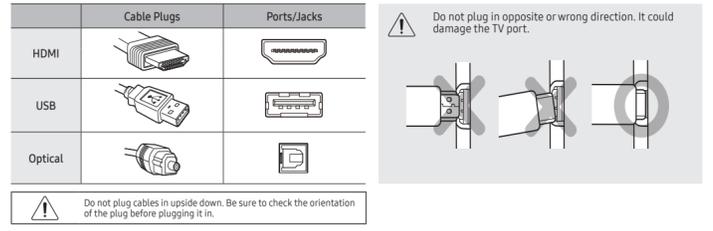
Accessories

- Remote Control & Batteries (AAA x 2)
- Warranty Card / Regulatory Guide
- Owner's Instructions
- Power Cord
- Wall Mount Adapter (4EA)
- AC/DC Adapter

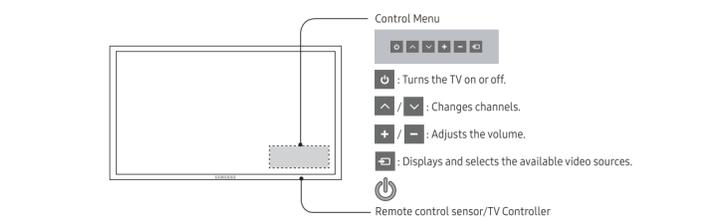


Input Cables (Sold Separately)

Make sure you have the correct cable before plugging it in. Illustrations of common plugs and jacks are shown below.



TV Controller



- The product color and shape may vary depending on the model.
- You cannot input the numbers by pressing the TV's controller.
- If you press it first, the control menu appears. You can select the function by pressing and holding the TV's controller.
- With the TV's Controller, you cannot perform other operations except for turning the TV on or off, changing the channel, adjusting the volume, and switching the input source.

Plug & Play (Initial Setup)

When you turn the TV on for the first time, a sequence of screens and on-screen prompts will assist you in configuring the TV's basic settings. Press the POWER button. Plug & Play is available only when the input source is set to TV. Set the initial setup following instructions that the TV guides.

Connecting the power cord and antenna. (refer to 'Connections')

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)

Analogue 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.

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:** You can select the Digital Audio output (SPDIF) format. The available Digital Audio output (SPDIF) format may differ depending on the input source.
- 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 adjust the Audio Delay, a slider appears. Use the left and right arrow buttons to select the slider. Press ENTER when done (0ms - 250ms).

Visually Impaired

(digital channels only)

Add a verbal description to the main audio to help the visually impaired.

Dolby Digital Comp

Sets Dolby Digital compression mode.

HDMI Audio Format

You can select the HDMI Audio format. The available HDMI Audio format may differ depending on the input source.

Sound Reset

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

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 function.

Selecting the signal source using the Antenna function also determines the signal source the TV is tuned to. For example, if you receive your TV signal over the air, and you select Cable, you will see only snow. You must select Air to see a picture.

Display Icons Used in the Channel List Screens

Icons	Meaning
✓	A selected channel.
★	A Favorite channel.
⌂	A reserved program.
⌂	A program currently being broadcast.

Auto Program

The Auto Program function memorizes all channels that are available over the air or through your cable system and adds them to the Channel List. If you are using a cable or satellite box, you do not need to run the Auto Program function.

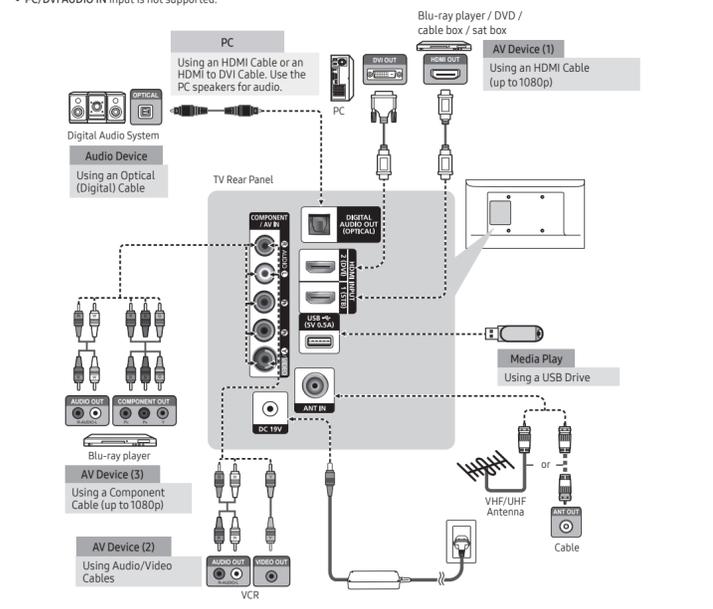
When you set Speaker Select to External Speaker, the TV's speakers are turned off. You will hear sound through the external speakers only. When you set Speaker Select to TV Speaker both the TV's speakers and the external speakers are on. You will hear sound through both.

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.

Connections

- For the best picture and audio quality, connect digital devices using an HDMI cable.
- If you connect an external device to the TV that uses an older version of HDMI, the video and audio may not work. If this occurs, ask the manufacturer of the device about the HDMI version and, if it is out of date, request an upgrade.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- PC/DVI AUDIO IN input is not supported.
- For an HDMI to DVI cable connection, you must use the HDMI IN 2 (DVI) port.
- Connecting through the HDMI cable may not be supported depending on the PC.
- If an HDMI to DVI cable is connected to the HDMI IN 2 (DVI) port, the audio does not work.
- For Set-top box connection using HDMI cable, we highly recommend you to connect the HDMI IN 1 (STB) port.



Input Menu

Source List

Use to select TV or other external input sources such as DVD / Blu-ray players / cable box / STB satellite receiver connected to the TV.

- Press the SOURCE button.
- Select a desired external input source.
- TV / AV / Component / HDMI1 / HDMI2/DVI** You can only choose external devices that are connected to the TV. In the Source List, connected inputs are highlighted.

How to use Edit Name

Edit Name lets you associate a device name to an input source, making it easier to select a source. To access Edit Name, enter the Input menu, and then select Edit Name. Select the name of the device from the drop down next to the name of the input jack it is connected to. For example, if your Blu-ray player is connected to HDMI 2, select Blu-ray player from the drop down next to HDMI 2.

- If you have connected a PC to the HDMI IN 1 (DVI) port with an HDMI cable, you should select PC mode in Edit Name.
- If you have connected a PC to the HDMI IN 2 (DVI) port with an HDMI to DVI cable, you should select DVI PC mode in Edit Name.
- If you have connected an AV device to the HDMI IN 2 (DVI) port with an HDMI to DVI cable, you should select DVI mode in Edit Name.

Channel List Tools Menu

The Channel List Tools menu contains most of the functions you can use on the All Channels, Added Channels, and Favorite Channels List screens. To view, select your TV screen, select a channel, and then press the TOOLS button.

Add / Delete: Delete a channel from or add a channel to the Added Channels list. To delete channels from the Added Channels list, follow these steps:

- Select one or more channels 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 Delete in the Tools menu, and then press the ENTER button.

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 to Favorite in the Tools menu, and then press the ENTER button.

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 Favorite Channels list.

To add channels to the Favorite Channels 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 Add to Favorite in the Tools menu, and then press the ENTER button.

To delete channels from the Favorite Channels 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 Timer 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 Timer Viewing in the Tools menu, and then press the ENTER button.

Channel List Screens icons are listed on the left side. Select an icon using the ▲/▼ buttons to view each list.

- All Channels:** Shows all currently available channels including those you deleted from the Added Channels list.
- Add Channels:** Shows all Added Channels. These are the channels that appear when you press the CH button.
- Favorites:** Shows all favorite channels.
- Programmed:** Shows all channels and programs currently scheduled using Timer Viewing.
- Remote control buttons active on the Channel List screen.
 - Green (Zoom): Enlarges or shrinks a channel number.
 - Yellow (Select): Move the cursor to a channel. Press the Yellow button to select the channel. A ✓ mark appears. Repeat to select additional channels. Then, open the Tools menu and apply a function to the channels you selected.
 - Tools (Tools): Displays the Channel List Tools menu. (The Tools menus may differ depending on the situation.)
- If you use a cable box or satellite box, you cannot use the Channel List or the Channel List functions.

Setup Menu

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

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.

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. Press ENTER when done.
- The DST and Time Zone functions are only available when the Clock Mode is set to Auto.

- You selected Manual.**
 - The **Clock Set** screen appears. Use the **▲▼** buttons to change the values in each field or use the number buttons to enter the values directly. Use the **◀▶** buttons to move from field to field. When done with all the fields, press **ENTER** .
 - Available only when **Clock Mode** is set to **Manual**.
- Sleep Timer** 
 - Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).
 - To cancel the **Sleep Timer**, select **Off**.

Timer 1 / Timer 2 / Timer 3

- Turns the TV on or off automatically at times and days you select. You can set three different on/off timer settings.
 - You must set the clock first.
- On Time / Off Time:** Set the hour, minute, am/pm, and Activate/inactivate fields for the **On time** and **Off Time**. Use the **◀▶** buttons to move from field to field. Use the **▲▼** buttons to change the values in each field. To activate the timer with the setting you have chosen, set the **Activate/Inactivate field to Activate**.
- Volume:** Set the desired loudness.
- Contents:** To select what will be turned on when the timer setting is activated. You can set the TV to turn on a specific channel or play back contents such as photo or audio files.
 - Use the **◀▶** buttons to move to the Contents field, and then press the **ENTER**  button. The Contents screen appears. Use the **◀▶** buttons to move from field to field. Use the **▲▼** buttons to change the values in each field.
- TV/USB- Select TV or USB. The USB device must be connected to your TV before you can select USB.
- Antenna- Displays the current antenna source, Air or Cable.
- Channel- If you have selected TV, select the desired channel.
- Music/Photo- If you have selected USB, follow these steps to select a folder containing MP3 (Music) or JPEG (Photo) files on the USB device:
 - The maximum number of files the TV can display, including sub folders, in one folder of a USB storage device is 1000.
 - The media may not play smoothly if you use a USB device rated 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.
- Press the **ENTER**  button. A list of folders on the device appears.
 - 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 TV screen re-appears.
- Repeat:** Select **Once**. Every day, **Mon-Fri** or **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.

Other Features Voice Guide (On/Off)

- You can activate voice guides that describe the menu options aloud to aid the visually impaired.
- Repeat:** Select **Once**. **Everyday**, **Mon-Fri** or **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.

- Voice Guide:** Enable or disable the Voice Guide feature. Voice Guide is provided in the current language.
- Volume:** Set the volume of the voice guide.
- Pitch:** Set the pitch of the voice guide.
- Speed:** Set the speed of the voice guide.

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.

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Troubleshooting

If the TV seems to have a problem, first review this list of possible problems and solution. If none of these troubleshooting tips apply, visit [samsung.com](#), then click on [Support](#), or call Samsung customer service at 1-800-SAMSUNG.

Problem	Possible Solution
Flickering and Dimming	<ul style="list-style-type: none">If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficiency features such as the Energy Saving feature. Follow the steps below with your remote to turn these features off or on. <ul style="list-style-type: none">Energy saving - MENU → Setup → Eco Solution → Energy Saving → Select Settings
Component Connections / Screen Color	<ul style="list-style-type: none">If you find that the color on your Samsung television's screen is not correct or black and white, first run a Self Diagnosis Test on the TV to make sure there are no device issues. <ul style="list-style-type: none">Self Diagnosis - User Menu → Support → Self Diagnosis → Picture Test If the test is ok, try making sure: <ul style="list-style-type: none">Your connections are all consistent. For example, if you've used the AV In jack on your TV, make sure you have used the AV Out jack on your video source. Try making sure you have connected to the correct jacks. For example, if you use the Component jacks, labeled Pb, Pr, and Y, to connect your TV and video source, make sure you have connected the blue Pb jack on the video source to the blue Pb jack on the TV, the red Pr jack on the source to the red Pr jack on the TV, etc.
Screen Brightness	<ul style="list-style-type: none">If you find that the colors on your Samsung TV are correct but just a little too dark or bright, there are some settings you should check before calling for a repair. <ul style="list-style-type: none">Backlight, Contrast, Brightness, Sharpness, Color, Tint and so on. Go to "Picture" in the Menu, and then try adjusting these options.
Unwanted Powering off	<ul style="list-style-type: none">If your Samsung TV appears to turn off by itself, there may be an issue with either your Timer settings or your Eco friendly No Signal Power Off feature. <ul style="list-style-type: none">First make sure the Sleep Timer is not accidentally set. The Sleep Timer lets you fall asleep with the TV still on knowing that it will turn off after a certain period of time and not waste energy. <ul style="list-style-type: none">Sleep Timer : User Menu → Setup → Time → Sleep Timer If the Sleep Timer is not activated, you may have engaged the No Signal Power Off or Auto Power Off feature. <ul style="list-style-type: none">No Signal Power Off : User Menu → Setup → Eco Solution → No Signal Power Auto Power Off : User Menu → Setup → Eco Solution → Auto Power Off
Trouble Powering On	<ul style="list-style-type: none">Before you turn the TV on, find the red light on the right or left bottom of your TV. Press the power on button on the TV or remote and the light should blink about 5 times before the TV turns on. <ul style="list-style-type: none">If you find that you are having trouble powering on your Samsung television, there are a number of things to check before making a call to the service department. <ul style="list-style-type: none">If you happen to be using the TV as a monitor and the stand-by light only blinks for a few seconds when you press the power button, your PC is in sleep mode. To take your PC out of sleep mode, press a key on your keyboard or move the mouse. Then try turning your TV on. If you're sure your power cord, remote control, or PC are functioning properly, you may be having a cable issue. If you have a cable or satellite box, your TV may appear to be off because the cable or satellite box is not outputting a signal. To test the signal output of your cable or satellite box, press the guide or info button on the cable or satellite box remote control. If the screen displays the guide or info data, the problem is caused by the box.
Stand Assembly	<ul style="list-style-type: none">If you have any trouble assembling the stand, refer to "Install the Stand" in the Start Up or Stand Installation Guide.
Cannot find a channel	<ul style="list-style-type: none">Re-run Plug & Play or run Auto Program. (go to MENU - Channel - Auto Program)
Poor Picture	<ul style="list-style-type: none">First, perform the Picture Test and to see if your TV is displaying the test image properly. Go to MENU - Support - Self Diagnosis - Picture Test <ul style="list-style-type: none">If the test image is properly displayed, the poor picture may be caused by the source or signal. <ul style="list-style-type: none">If you have an analog cable/satellite box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Cable/Satellite subscribers: Try HD channels from the channel line up. Air/Cable Antenna connection: Try HD channels after running Auto Program. <ul style="list-style-type: none">Many HD channels broadcast up scaled SD (Standard Definition) content. The picture quality of up scaled SD content is low. Adjust the Cable/Set top box video output resolution to 1080i or 720p. Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in sports and action movies. A weak signal can cause picture distortion. This is not a TV problem. Mobile phones used close to the TV (within 3.3ft) may cause noise in the content and analog and digital channels.
The picture is distorted has macroblock error, small block, dots, pixelization.	<ul style="list-style-type: none">If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen.
The color is wrong or missing.	<ul style="list-style-type: none">Adjust the Picture options in the TV menu. (go to Picture Mode / Color / Brightness / Sharpness) Adjust the Energy Saving option in the TV menu. (go to MENU - Setup - Eco Solution - Energy Saving) Try resetting the picture to the default picture settings. (go to MENU - Picture - Picture Reset)
There is poor color or brightness.	<ul style="list-style-type: none">Adjust the Picture options in the TV menu. (go to Picture Mode / Color / Brightness / Sharpness) Adjust the Energy Saving option in the TV menu. (go to MENU - Setup - Eco Solution - Energy Saving) Try resetting the picture to the default picture settings. (go to MENU - Picture - Picture Reset)

Program Rating Lock

The Program Rating Lock feature lets you block programs you've determined are inappropriate for your children based on the program's ratings. To access the Program Rating Lock feature and make any changes, you must enter a PIN (personal identification number). To watch a blocked program, you also enter the same PIN.

- 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.

How it Works

When you access the Program Rating Lock Menu functions for the first time, the PIN input screen appears. Enter 0-0-0-0. The PIN screen closes 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.
- 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.
- Undesirable U.S. Rating:** You can use parental restriction information while watching DV/Blocks.

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 across the top: All Lock, All TV ratings, /V, 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, 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:** Select **Change PIN** and the **Change PIN** screen appears. Choose any 4 digits for your PIN, and then enter them in the Enter New PIN fields. Re-enter the same 4 digits in the Confirm New PIN fields. When the Change PIN screen disappears, press the OK button. The TV has memorized your new PIN.
- Parental Guidelines:** Select the remote-control buttons in the following sequence, which powers the pin to "0-0-0-0": POWER (on) → MUTE → 8 → 2 → 4 → POWER (on)

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 / CCI-CCA / Text1-Text2:** (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 / CCI-CCA / Text1-Text2:** (Digital channels only) The Digital caption 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.
 - Background Color: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta, and Cyan. You can change the background color of the captions. The default is Black.
 - Foreground Opacity: This adjusts the opacity of text. Options include Default, Transparent, Translucent, Solid, and Flashing.
 - Background Opacity: This adjusts the opacity of the caption background. Options include Default, Transparent, Translucent, Solid, and Flashing.
- Return to Default:** This option sets Size, Font Style, Foreground Color, Background Color, Foreground Opacity, and Background Opacity to its default.
- Digital Caption Options** are available only when you can select **Default and Service1** - **Service6** in **Caption Mode**.
- The foreground and Background cannot be set to the same color.

Boot Logo

Enable or disable the display of the Samsung logo when you turn on the TV.

Energy Saving

- Energy Saving (Off / Low / Medium / High):** Lets you adjust the brightness of the TV to reduce power consumption.
- No Signal Power Off (Off / 15 min. / 30 min. / 60 min.):** Sets how quickly the TV switches to standby mode, if no picture is being received.
- Disabled** when an attached PC is in power saving mode.
- Auto Power Off (Off / On):** When Auto Power Off is set to **On**, the TV will automatically turn off when no user operation is detected for 4 hours.

Application Menu

Enjoy photos, music, and/or movie files saved on a USB Mass Storage Class (MSC) device.



Connecting a USB Device

- Turn on your TV.
- Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV. A pop up window appears.
- Press the MEDIA.P button on your remote. The **Media Play** menu appears.

Using the Media Play Menu

To open **Media Play** in the Menu, follow these steps:

- Press the **MENU** button. Then, press the **▲** or **▼** button to select **Applications** on the left, and then press the **ENTER**  button.
- Press the **▲** or **▼** button to select **Media Play (USB)**, and then press the **ENTER**  button.
- Press the **◀** or **▶** button to select an icon (**Videos, Music, Photos, Settings**), and then press the **ENTER**  button.
 - Media Play** might not work properly with unlicensed multimedia files. Read the list below before using Media Play (USB).
 - The file system supports FAT16, FAT32, and NTFS.
 - Certain types of USB Digital camera and audio devices may not be compatible with this TV.
 - Media Play** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Built-Only Transport device. Examples of MSC are Thumb drives and Flash Card Readers. Devices should be connected directly to the TV's USB port. USB HDD is not supported.
 - Before connecting your device to the TV, please back up your files to prevent file damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
 - A USB device that requires high power (more than 0.5A) may not be supported.
 - Do not disconnect the USB device while it is loading.
 - The higher the resolution of the image, the longer it takes to display on the screen.
 - The maximum supported JPEG resolution is 15360 x 8640 pixels.
 - If a file is corrupted or the TV does not support the file type, the "Not Supported File Format" message is displayed.
 - The TV cannot play MP3 files with DRM that have been downloaded from a for-pay site. Digital Rights Management (DRM) is a technology that supports the creation, distribution, and management of digital content in an integrated and comprehensive way, including protecting the rights and interests of content providers, preventing illegal copying of contents, and managing billing and settlements.
 - PTP (Picture to Picture) devices are not supported.
 - If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.

File Extension	Container	Video Codec	Resolution	Frame rate(sps)	Bit Rate (Mbps)	Audio Codec
*.avi		Motion JPEG	640x480		8	Dolby Digital LPCM
*.xsub	AVI	XSub				Dolby Digital LPCM
*.sami		SAMI				
*.subrip		Subrip				
*.subviewer		Subviewer				
*.micro	DVD	Micro DVD				
*.ssa		SubStation Alpha				
*.ass		Advanced SubStation Alpha				

File Extension	Container	Video Codec	Resolution	Frame rate(sps)	Bit Rate (Mbps)	Audio Codec
*.h264	MPEG4	H.264 BP7 MP4/H.264 AAC				Dolby Digital LPCM
*.mp4	ASF	H.264 BP7 MP4/H.264 AAC				ADPCM (DMA, MS)
*.mov	MKV	MKV				WMA
*.mpg	3GP	Divx 3.11 / 4 / S / S				HE-AAC
*.mpg	MPEG	Divx 3.11 / 4 / S / S	1920x1080	MAX 30		WMA
*.mpeg	3GP	Divx 3.11 / 4 / S / S				Dolby Digital Plus
*.ts	FLV	MPEG4 SP7 ASP				MPEG(MP3)
*.flv	VOB	VOB				DTS (Core, LBR)
*.trp	PS	PS				G.711A (Low, u-Law)
*.mov	TS	Window Media Video (V9VC1)				MPEG2
*.divx		MPEG2				
*.dat		MPEG1				

Auto Protection Time

- Auto Protection Time (Off / 2 hours / 4 hours / 8 hours / 10 hours):** If the screen remains idle with a still image for a certain period of time you define, the screen saver is activated to prevent the formation of ghost images on the screen.
 - If the TV has no input during the time period set in **Auto Protection Time**, the Screen saver will run.
 - The power-saving mode of some external hard disk drives may be released automatically when you connect them to the TV.
 - If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.

- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted, or a file in the list is not played, connect the USB device to a PC, format the device, and check the connection.
- If a file you deleted from the PC is still found when you run **Media Play**, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.
- Photos** only supports the sequential jpeg format.
- The **Videos** option does not support the scene search and thumbnail functions.
- If the number of files and folders saved on a USB storage device is over approximately 4000, the files and folders may not appear and some folders may not open.
- The maximum displayed number of files, including sub folders, in one folder of a USB storage device is 1000.
- The media may not play smoothly if you use a USB device rated lower than USB 2.0.

Videos

- In the **Media Play** menu, press the **◀** or **▶** button to select **Videos**, and then press the **ENTER**  button.
- Press the **◀▶**/**▲▼** buttons to select a video in the file list.
- Press the **ENTER**  button.

- The file name is displayed on the top of the screen with the playing time.
 - If video time information is unknown, playing time and the progress bar are not displayed.
 - During video playback, you can search using the **◀** and **▶** buttons.
- In this mode, you can play movie clips contained in a game, but you cannot play the game itself.

- Supported Subtitle Formats
 - External

Name	File extension
MPEG-4 Timeed text	.txt
SAMI	.srt
Subrip	.sub
Subviewer	.sub
Micro DVD	Sub or txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
 - Internal

Name	Container	Format
XSub	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
Subrip	MKV	Text Format
MPEG-4 Timeed text	MP4	Text Format

File Extension	Container	Video Codec	Resolution	Frame rate(sps)	Bit Rate (Mbps)	Audio Codec
*.avi		Motion JPEG	640x480		8	Dolby Digital LPCM
*.xsub	AVI	XSub				Dolby Digital LPCM
*.sami		SAMI				
*.subrip		Subrip				
*.subviewer		Subviewer				
*.micro	DVD	Micro DVD				
*.ssa		SubStation Alpha				
*.ass		Advanced SubStation Alpha				
*.h264	MPEG4	H.264 BP7 MP4/H.264 AAC				Dolby Digital LPCM
*.mp4	ASF	H.264 BP7 MP4/H.264 AAC				ADPCM (DMA, MS)
*.mov	MKV	MKV				WMA
*.mpg	3GP	Divx 3.11 / 4 / S / S				HE-AAC
*.mpg	MPEG	Divx 3.11 / 4 / S / S	1920x1080	MAX 30		WMA
*.mpeg	3GP	Divx 3.11 / 4 / S / S				Dolby Digital Plus
*.ts	FLV	MPEG4 SP7 ASP				MPEG(MP3)
*.flv	VOB	VOB				DTS (Core, LBR)
*.trp	PS	PS				G.711A (Low, u-Law)
*.mov	TS	Window Media Video (V9VC1)				MPEG2
*.divx		MPEG2				
*.dat		MPEG1				
*.webm	WebM	Vp8	1920x1080	6-30	20	Vorbis

- Supported Video Formats

Other Restrictions

- Codes may not play a video properly if there is a problem with the content.
- Video content will not play or will not play correctly if there is an error in the content or container.
- Sound or video may not work if they have bit rates/frame rates above the TV's compatibility ratings.
- If the index table contains an error, the Seek (Jump) function will not work.
- When the TV is playing video over a network connection, the video may not play smoothly because of data transmission speeds.
- Some USB/digital camera devices may not be compatible with the TV.
- When the TV is displaying a video at a bit rate of 10 Mbps or higher, the menu screens may be played a slowly.

Video Decoder	Supports up to H.264, Level 4.1 <p>H.264 FMO / ASO / RS, VCI / AP/L4 are not supported. GMC 2ar above is not supported.</p>
Audio Decoder	WMA 10 Pro supports up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported. <p>QCELD and AMR NB/WB are not supported. Vorbis is supported for up to 2 channels. Dolby Digital Plus is supported for up to 5.1 channels. The DTS LBR code is only available for MKV / MP4 / TS containers.</p>

Music

- In the **Media Play** menu, press the **◀** or **▶** button to select **Music**, and then press the **ENTER**  button.
- Press the **◀▶**/**▲▼** buttons to select the desired Music in the file list.
- Press the **ENTER**  button or **(Play)** button.
 - During music playback, you can search using the **◀** and **▶** button.
 - (REW)** and **(FF)** buttons do not function during play.
 - Media Play** only displays files with an MP3 or PCM file extension. Other file extensions are not displayed, even if they are saved on the same USB device.
 - If the sound is abnormal when the TV plays MP3 files, adjust the **Equalizer in the Sound menu**. (An over-modulated MP3 file may cause a sound problem.)

Photos

- In the **Media Play** menu, press the **◀** or **▶** button to select **Photos**, then press the **ENTER**  button.
- Press the **◀▶**/**▲▼** buttons to select a photo in the file list.
- Press the **ENTER**  button or **(Play)** button.

- NOTE**
 - While a photo list is displayed, press the **(Play)** / **ENTER**  button on the remote control to start a slide show.
 - All files in the file list section will be displayed in the slide show.
 - During the slide show, files are displayed in order.
 - During the slide show, you can adjust the slide show speed using **(REW)** or **(FF)** button.
 - You can zoom into images in full screen mode.
 - Media Play** plays Music files automatically during a Slide Show if **Background Music** is set to **On**.
 - You cannot change the **Mode** in **Background Music** until the **Background Music** file has finished loading.</