



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 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 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 originally specified provisions for in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables.

For the location of a SAMSUNG Authorized Service Center, please call toll-free: - in the United States: 1-800-SAMSUNG (1-800-726-7864) - in Canada: 1-800-SAMSUNG



Warning! Important Safety Instructions

Please read the safety instructions below before installing and using the product.

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.

- Do not touch 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 cover the slots and openings with a cloth or other materials.
- Do not block the slots and openings by placing this apparatus on a bed, sofa, rug or other similar surface.
- 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 a vessel containing water (vases etc.) on this apparatus, as this can result in a risk of 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.
- Make sure to pull out the power cord from the outlet before cleaning.
- This apparatus uses batteries. In your community, there might be regulations that require you to dispose of these batteries properly to protect the environment. 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 routed 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, where connected to adapters, and at the point where they exit from the apparatus.
- To protect this apparatus from a lightning storm, or when it is 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 the voltage designation of the DC adaptor corresponds to the local electrical supply (depending on the model).
- Never insert anything metallic into the open parts of this apparatus. Doing so may create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Make sure to plug the power cord in until it is firmly inserted. Pull on the plug, not the cord, when removing the power cord from the outlet. 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 cause the insulation to deteriorate.
- Be sure to contact an authorized service center, when installing your set in a location with heavy dust, high or low temperatures, high humidity, chemical substances or where it will operate for 24 hours a day such as in an airport, a train station, etc. Failure to do so may cause serious damage to your set.
- Use only a properly grounded plug and receptacle.
 - An improper ground may cause electric shock or equipment damage. (Class I Equipment only)
- To turn off the apparatus completely, you must pull the power plug out of the wall socket. Consequently, the power plug should be readily accessible at all times.
- Do not allow children to handle onto the product.
- Store the accessories (batteries, etc.) in a location safely out of the reach of children.
- Do not install the product in an unstable location such as a shaky shelf, a slanted floor, or a location exposed to vibration.
- Do not drop or impart a shock to the product. If the product is damaged, disconnect the power cord and contact a service center.
- To clean the product, unplug the power cord from the power outlet and wipe the product using a soft cloth dipped in a small amount of water. Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent. This may damage the appearance or erase the printing on the product.
- Do not expose the apparatus to dripping or splashing.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble, or overheat the batteries.
- There is a danger of explosion if you replace the batteries with the wrong type of battery. Replace only with the same or equivalent type.
- WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

Channel Menu

Seeing Channels

Channel List

Add, delete or set Favorite channels and use the program guide for digital broadcasts. Select a channel in the **All Channels**, **Added Channels**, **Favorite** or **Programmed** screen by pressing the **▲/▼** buttons, and pressing the **ENTER** button. Then you can watch the selected channel.

- All Channels:** Shows all currently available channels.
- ▲/▼ Added Channels:** Shows all added channels.
- ♥ Favorite:** Shows all favorite channels.
- 📺 Programmed:** Shows all currently reserved programs.

Using the remote control buttons with the **Channel List**

- Green (Zoom):** Enlarges or shrinks a channel number.
- Yellow (Select):** Selects multiple channel lists. Select desired channels and press the Yellow button to set all the selected channels at the same time. The **✓** mark appears to the left of the selected channels.
- Tools:** Displays the **Channel List** option menu. (The Options menu may differ depending on the situation.)

Channel Status Display icons

- A channel selected.
- ♥ A channel set as a Favorite.
- 📺 A reserved program.
- 📺 A program currently being broadcast.

Antenna (Switch to Cable / Switch to Air)

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an Air or a Cable system).

Auto Program

When selecting the Cable TV system: Selects the cable system. **STD, SRC** and **IRC** identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point, the signal source has been selected.

After all the available channels are stored, it starts to remove scrambled channels. The **Auto Program** menu then reappears.

Press the **ENTER** button to stop the channel store during **Auto Program**.

How to Stop Auto Programming

- Press the **ENTER** button.
- A message will ask **Stop Auto Program?** Select **Yes** by pressing the **▲** or **▶** button.
- Press the **ENTER** button.

Other Features

Clear Scrambled Channel

This function filters out scrambled channels after **Auto Program** is completed. This process may take up to 20-30 minutes.

Press the **ENTER** button to stop the **Clear Scrambled Channel**.

This function is only available in **Cable** mode.

Channel List

Channel List Option Menu

Set each channel using the **Channel List** menu options. Option menu items may differ depending on the channel status.

- Add / Delete:** Delete or add a channel to display the channels you want.
 - All deleted channels will be shown on the **All Channels** menu.
 - A gray-colored channel indicates the channel has been deleted.
 - The **Add** menu only appears for deleted channels.
 - Delete a channel from the **Added Channels** or **Favorite** menu in the same manner.
- Add to Favorite / Delete from Favorite:** Set channels you watch frequently as Favorites.
- Timer Viewing:** You can set a desired channel to be displayed automatically at the set time, even when you are watching another channel. Set the current time first to use this function.
 - Only memorized channels can be reserved.
 - Reserved programs will be displayed in the **Programmed** menu.
 - When a digital channel is selected, press the **Next Program** button to view the digital program. If you select the **ENTER** button to view the digital program, you can set **Timer (Schedule)** button on the next program, you can set **Timer Viewing** directly.
- Channel Name Edit:** (analog channels only) Assign your own channel name.
- Select All:** Select all the channels in the **Channel List**.
- Deselect All:** Deselect all the selected channels.
 - You can only select **Deselect All** when one or more channels are selected.
- Auto Program:** Scans for a channel automatically and stores in the TV.

Programmed

(in Channel List)

Channel List → **Programmed** → **TOOLS**

You can view, modify or delete a show you have reserved to watch.

- Change Info:** Change a show you have reserved to watch.
- Cancel Schedules:** Cancel a show you have reserved to watch.
- Information:** Display a show you have reserved to watch. (You can also change the reservation information.)
- Select All / Deselect All:** You can select or deselect all channels in the channel list.

Channel Mode

Change the channel mode directly between **Added Channels** and **Favorite Channels**.

The **Favorite Channels** is enabled only when you set **Add to Favorite**.

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.

Fine tuned channels that have been saved are marked with an asterisk on the right-hand side of the channel number in the channel name.

To reset the fine-tuning, select **Reset**.

Getting Started

Accessories

- Remote Control & Batteries (AAA x 2)
- Warranty Card / Regulatory Guide
- Owner's Instructions
- Power Cord
- Cable Guide

Input Cables (Sold Separately)

- Audio
- Composite (AV)
- Component
- Coaxial (RF)
- HDMI
- HDMI-DVI

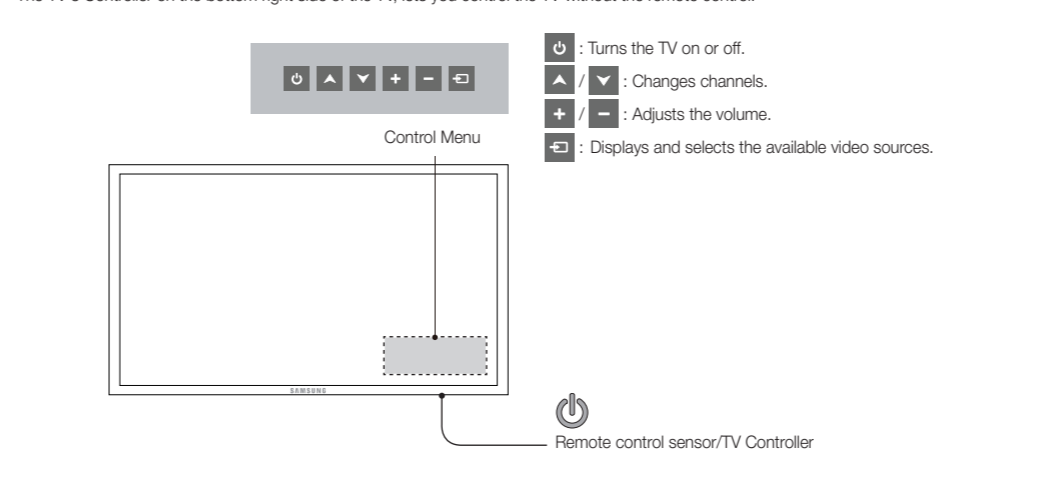
Make sure you have the correct cable before plugging it in. Illustrations of common plugs and jacks are shown below.

Cable Plugs	Ports/Jacks
HDMI	
USB	
Optical	

Do not plug in opposite or wrong direction. It could damage the TV port.

Do not plug cables in upside down. Be sure to check the orientation of the plug before plugging it in.

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')

Picture Menu

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

- When the signal is weak, try other options until the best picture is displayed.

HDMI Black Level: Selects the black level on the screen to adjust the screen depth.

- Available only in **HDMI** mode (RGB signals).

Film Mode: Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.

- Available in **ATV, DTV**(interface), **AV, COMPONENT** (480i / 1080i) and **HDMI** (480i / 1080i).

Motion Lighting: 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.

Picture Reset

Resets your current picture mode to its default settings.

- Reset Picture Mode:** Returns all picture values in the currently selected mode to the default settings.

Sound Menu

Mode (TOOLS)

Select your preferred picture type.

- When connecting a PC, you can only select **Entertain** and **Standard**.
- Dynamic:** Suitable for a bright room.
- Standard:** Suitable for a normal environment.
- Movie:** Suitable for watching movies in a dark room.
- Entertain:** Suitable for watching movies and games.
 - Only available when connecting a PC.

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

Your television has several setting options for picture quality control.

- When connecting a PC, you can only make changes to **Backlight**, **Contrast**, **Brightness** and **Sharpness**.

Picture Options

- When connecting a PC, you can only make changes to the **Color Tone**, **Size**, and **HDMI Black Level**.
- Color Tone**
 - Warm** will be deactivated when the picture mode is **Dynamic**.
 - Size:** Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.
- 16:9:** Sets the picture to 16:9 wide mode.
 - Zoom1:** Use for moderate magnification.
 - Zoom2:** Use for a stronger magnification.
 - Wide Fit:** Enlarges the aspect ratio of the picture to fit the entire screen.
- 4:3:** Sets the picture to basic (4:3) mode.
 - Do not watch in 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 are not covered by the warranty.
- Screen Fit:** (DTV) Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.
- HD (High Definition):** 16:9 - 1080i/1080p (1920x1080), 720p (1920x720)
- Settings can be adjusted and stored for each external device you have connected to an input on the TV.
- Picture Sizes available by Input Source:

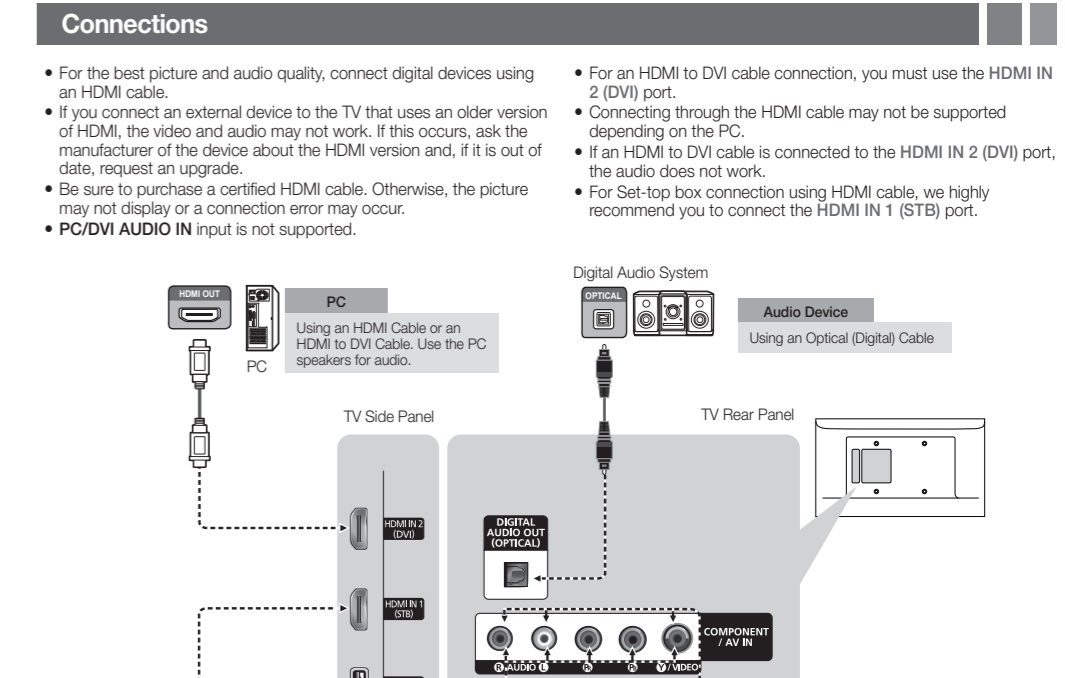
Input Source	Picture Size
ATV, AV, Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3
DTV (1080i), Component (1080i)	16:9, Wide Fit, 4:3, Screen Fit
(1920x1080), HDMI (720p, 1080i, 1080p)	16:9, Wide Fit, 4:3, Screen Fit

Custom: Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.

Preferred Language

Digital-TV broadcasts are capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages).

You can only select a language from among the ones being broadcasted.



Changing the Input Source

Source List

Use to select TV or an external input source such as a DVD player / Blu-ray player / cable box / STB satellite receiver.

- Press the **SOURCE** button.
- Select a desired external input source.

TV / AV / Component / HDMI / HDMI2/DVI

- You can only choose external devices that are connected to the TV. In the **Source List**, connected inputs will be highlighted.

How to use Edit Name

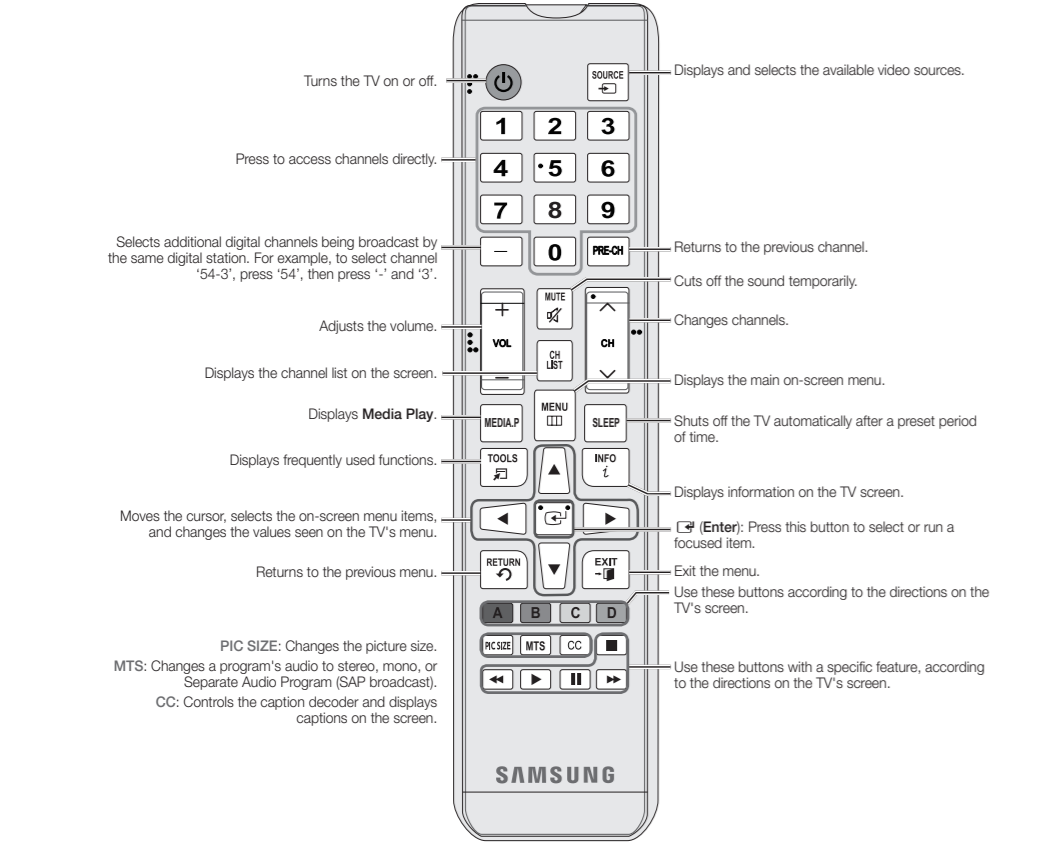
Edit Name lets you associate a device name to an input source. To access **Edit Name**, press the **TOOLS** button in **Source List**. Name the device connected to the input jacks to make your input source selection easier.

- When connecting a PC to the **HDMI IN (2/DVI)** port with **HDMI** cable, you should set the TV to **PC** mode under **Edit Name**.
- When connecting a PC to the **HDMI IN (2/DVI)** port with **HDMI** to **DVI** cable, you should set the TV to **DVI PC** mode under **Edit Name**.
- When connecting an AV device to the **HDMI IN (2/DVI)** port with **HDMI** to **DVI** cable, you should set the TV to **DVI** mode under **Edit Name**.

Information

You can see detailed information about the connected external device.

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)

Optimal resolution: 1920 x 1080/60Hz

Mode	Resolution	Horizontal Frequency (Hz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)	1920 x 1080
IBM	640 x 350	31.465	70.085	25.175	-/+	✓
	720 x 400	31.465	70.087	28.322	-/+	✓
	640 x 480	35.000	68.681	30.240	-/+	✓
MAC	800 x 625	49.725	74.551	57.284	-/+	✓
	1152 x 870	68.681	75.062	100.000	-/+	✓
	640 x 480	31.465	69.940	25.175	-/+	✓
	640 x 480	37.861	70.800	31.500	-/+	✓
	640 x 480	37.500	75.000	31.500	-/+	✓
	800 x 600	37.875	69.317	40.000	-/+	✓
	800 x 600	48.077	72.188	60.000	-/+	✓
	800 x 600	48.875	75.000	49.500	-/+	✓
	1024 x 768	48.363	60.004	65.000	-/+	✓
	1024 x 768	56.478	70.080	70.000	-/+	✓
	1024 x 768	60.023	75.020	78.750	-/+	✓
VESA DMT	1152 x 864	67.500	75.000	108.000	-/+	✓
	1280 x 720	45.000	60.000	74.250	-/+	✓
	1280 x 800	49.725	69.810	83.500	-/+	✓
	1280 x 1024	63.981	60.000	108.000	-/+	✓
	1280 x 1024	75.078	75.020	135.000	-/+	✓
	1360 x 768	47.712	59.700	65.500	-/+	✓
	1440 x 900	58.005	69.887	105.500	-/+	✓
	1600 x 900FH	60.000	60.000	108.000	-/+	✓
	1680 x 1050	65.280	69.884	145.250	-/+	✓
	1920 x 1080	67.500	60.000	148.500	-/+	✓

Installing batteries (Battery size: AAA)

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.

