



SERIES 8
8000

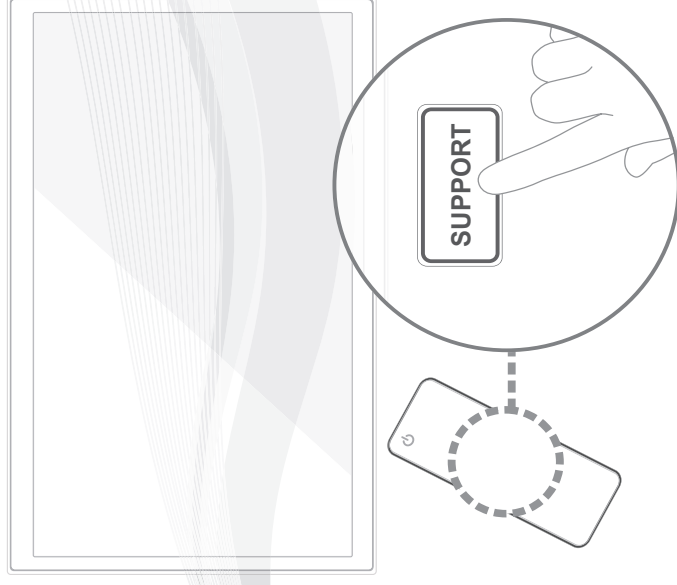
Contact SAMSUNG WORLD WIDE

If you have any questions or comments about Your Samsung TV, please contact the SAMSUNG customer care center.

Country	Customer Care Center ☎	Web Site	Address
CANADA	1-800-SAMSUNG (726-7864)	www.samsung.com/ca (English) www.samsung.com/ca_fr (French)	Samsung Electronics Canada Inc., Customer Service 55 Standish Court Mississauga, Ontario L5R 4B2 Canada
U.S.A	1-800-SAMSUNG (726-7864)	www.samsung.com	Samsung Electronics America, Inc. 85 Challenger Road Ridgely Park, NJ 07660

LED TV

user manual



Thank you for purchasing this Samsung product.
To receive more complete service, please register
your product at

www.samsung.com/register

Model _____ Serial No. _____

If you have any questions, please call us at 1-800-SAMSUNG (1-800-726-7864) for assistance.



BN68-04495A-02

A detailed User's Manual is built into your TV. For more information about how to view this e-Manual see page 48.

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

Important Warranty Information Regarding

 See the warranty card for more information on warranty terms.

Wide screen format LED Displays (with 16:9 aspect ratios, the 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, with the images constantly in motion. Displaying stationary graphics and images on the 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 about the television formats you select and the length of time you view them. 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. 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.

Excluded, but not limited to, are 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

Still image warning

Avoid displaying still images (such as jpeg picture files), still image elements (such as TV channel logos, stock or news bars at the screen bottom etc.), or programs in panorama or 4:3 image format on the screen. Constantly displaying still pictures can cause image burn-in on the LED screen, which will affect image quality. To reduce risk of this effect, please follow the recommendations below:

- Avoid displaying the same TV channel for long periods.
- Always try to display any image in full screen. Use the TV set's picture format menu for the best possible match.
- Reduce brightness and contrast to avoid the appearance of after-images.
- Use all TV features designed to reduce image retention and screen burn. Refer to the e-Manual for details.

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List of Features

- **3D:** This exciting new feature enables you to view 3D content.
- **SMART HUB:** Your gateway to all your content, integrated in one place.
 - Provides diverse entertainment choices.
 - Lets you control your entertainment life with an easy-to-use, user friendly user interface.
 - Gives you easy access to diverse apps, with more being added every day.
 - Lets you customize your TV by grouping and sorting apps to your taste.
- **AllShare Play:** Lets you access, view, or play photos, videos, or music located on USB devices, digital cameras, cell phones, and PCs. PCs and cell phones can be accessed wirelessly, through your wireless network.
- **Anynet+ (HDMI-CEC):** Allows you to control all connected Samsung devices that support Anynet+ with your Samsung TV's remote.
- **e-Manual:** Provides a detailed, on-screen user's manual that's built into your TV. (page 48)
- **SMART Interaction:** Using this function, you can access and control menu options and functions using speech or motions. (page 26)

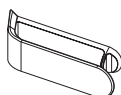
Accessories and Cables

- ✎ Please make sure the following items are included with your TV. If any items are missing, contact your dealer.
- ✎ The items' colors and shapes may vary depending on the model.
- ✎ Make sure that there are no accessories hidden behind or under packing materials after you open the box.

- | | |
|--|---|
| <ul style="list-style-type: none"> • Smart Touch Control (AA59-00626A) & Batteries (AA x 2) • IR Blaster (BN96-22897A) & Batteries (AA x 4) • Remote Control (AA59-00637A) & Batteries (AAA x 2) • User Manual | <ul style="list-style-type: none"> • Cleaning Cloth (BN63-01798B) • Warranty Card / Safety Guide • 3D Active Glasses • Power Cord |
|--|---|



AV Adapter
(BN39-01154H)

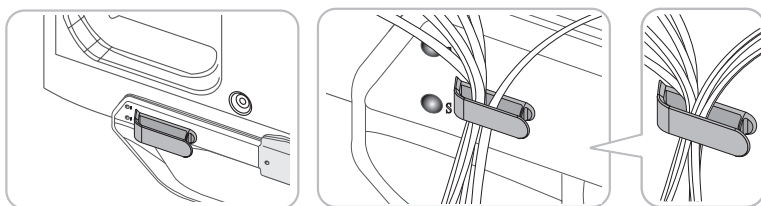


Holder-Wire stand
(BN61-08391A)



Holder-Ring x 4
(BN96-18153A)

Assembling the Stand Wire Holder



Input Cables (Sold Separately)

You will need one or more of these cables to connect your TV to your antenna or cable outlet and your peripheral devices (Blu-ray players, DVD players, etc.)

To purchase the RS232 cable, contact www.SamsungParts.com.



RS232 (AA39-00311A)



HDMI



HDMI-DVI



Audio




Component

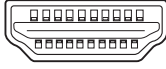
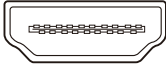
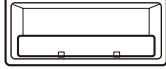





Composite (AV)



Coaxial (RF)

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

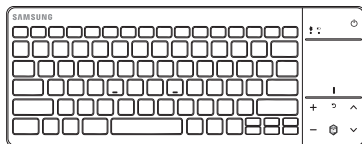
	Cable Plugs	Ports / Jacks
HDMI		
USB		
Optical		



Warning

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

Wireless Keyboard (Sold Separately)

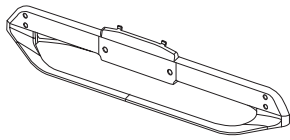


Wireless Keyboard

Installing the Stand

Stand Parts:

A



Stand x 1

B



Screws x 6 (46 inches only)

C



Screws x 6 (55, 60 and 65 inches only)

Follow the steps below to connect the TV to the stand. For more detailed instructions, see the separate stand installation guide.

1

A

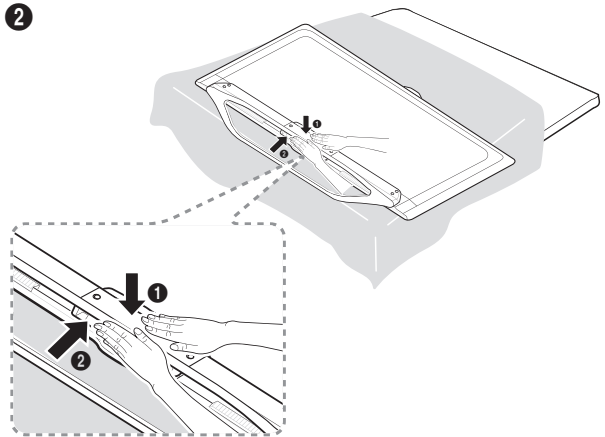


ATTENTION

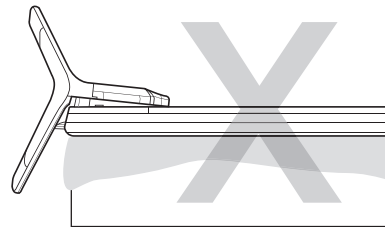
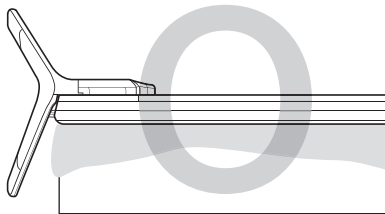


Place a soft cloth over a table to protect the TV, and then place the TV on the cloth screen side down.

2



3

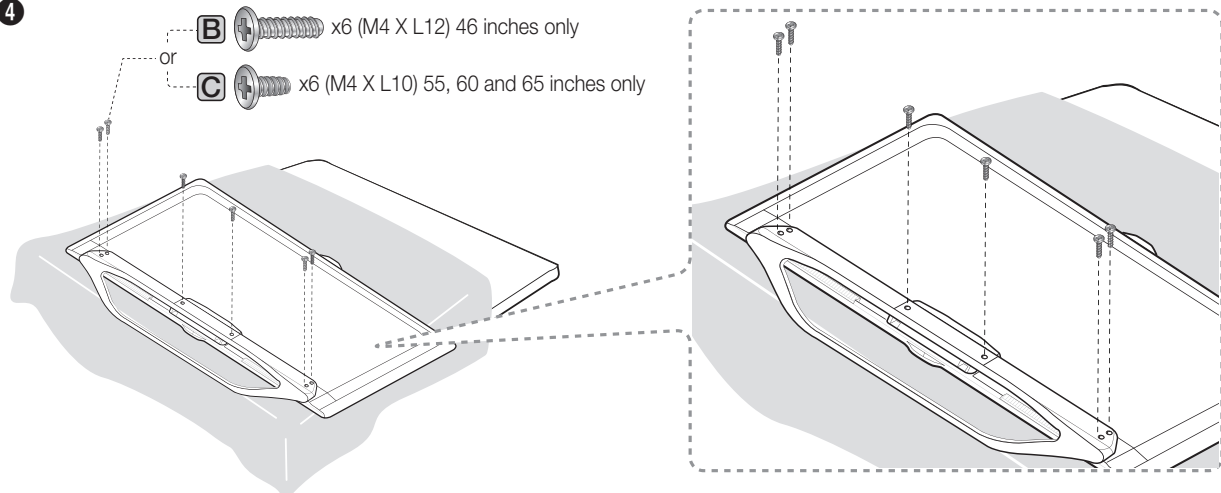


4

B  x6 (M4 X L12) 46 inches only

or

C  x6 (M4 X L10) 55, 60 and 65 inches only



 **NOTE**

- Make sure to distinguish between the front and back of each component when assembling them.
- Make sure that at least two people lift and move the TV.
- Stand the product up before you tighten the screws. If you tighten the screws with the TV lying down, it may lean to one side when you stand it up.

 **Do not insert your fingers into the stand base slot of the TV when installing the stand base.**

Installing the Wall Mount (Optional)



Wall or Ceiling Mounting

If you mount this product on a wall, it should be mounted only as recommended by the manufacturer. Unless it is correctly mounted, the product may slide or fall, causing serious injury to a child or adult, and serious damage to the product.


Installing the Wall Mount Kit

The wall mount kit (sold separately) lets you mount the TV on the wall.

For detailed information about installing the wall mount, see the instructions provided with the wall mount. We recommend you contact a technician for assistance when installing the wall mount bracket. We do not advise you to do it yourself. Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

To order the wall mount kit, contact Samsung Customer Care at 1-800-SAMSUNG (1-800-726-7864).

VESA Wall Mount Kit Notes and Specifications

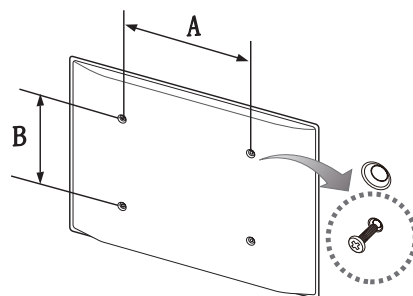
 Install your wall mount on a solid wall perpendicular to the floor. Before attaching the wall mount to surfaces other than plaster board, please contact your nearest dealer for additional information. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury.


 **NOTE**

- Standard dimensions for wall mount kits are shown in the table below.
- Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not use screws that are longer than the standard length or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the TV set.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.

- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the TV at more than a 15 degree tilt.
- Always have two people mount the TV on a wall.

Product Family	TV size in inches	VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
LED-TV	26	100 X 100	M4	4
	32 – 40	200 X 200	M6	
	46 – 65	400 X 400	M8	

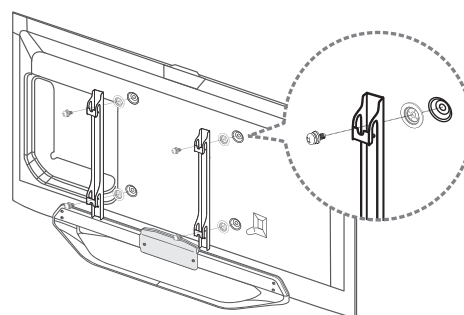


 Remove the screws in the mounting holes before you install the wall mount.

	Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.
---	--

Installing a Wall Mount from Another Manufacturer

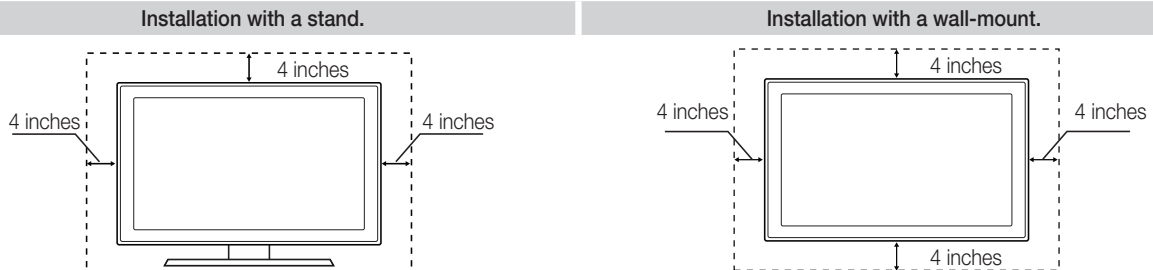
To install a wall-mount from another manufacturer, use the Holder-Ring.



Providing Proper Ventilation for Your TV

When you install your TV, maintain a distance of at least 4 inches between the TV and other objects (walls, cabinet sides, etc.) to ensure proper ventilation. Failing to maintain proper ventilation may result in a fire or a problem with the product caused by an increase in its internal temperature.

- ✎ Whether you install your TV using a stand or a wall-mount, we strongly recommend you use parts provided by Samsung Electronics only.
 - If you use parts provided by another manufacturer, it may cause difficulties with the product or result in injury caused by the product falling.




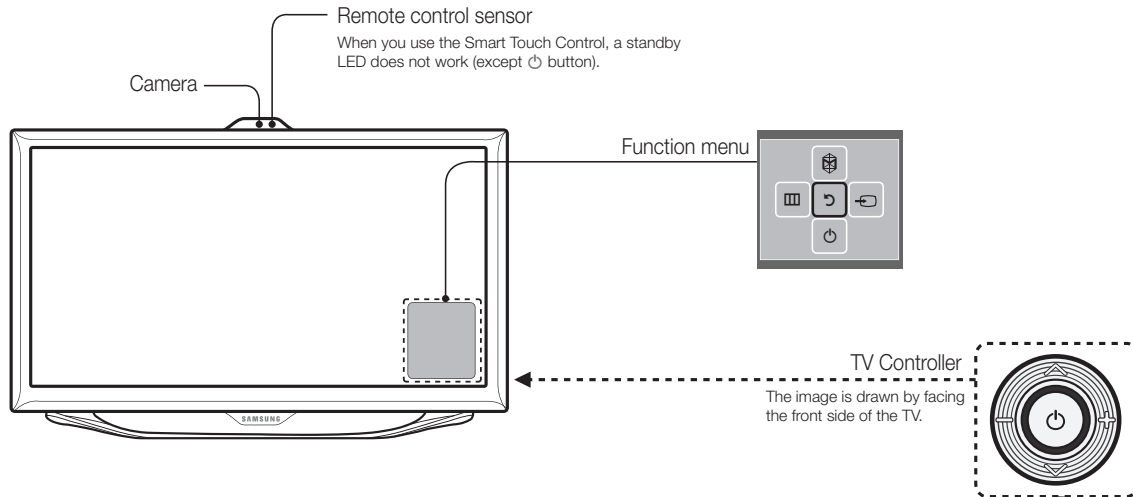
Other Warnings




- ✎ The actual appearance of the TV may differ from the images in this manual, depending on the model.
- ✎ Be careful when you touch the TV. Some parts can be somewhat hot.

Using the TV's Controller (Panel Key)

The TV's Controller, a small joy stick like button on the rear right side of the TV, lets you control the TV without the remote control.

 The product color and shape may vary depending on the model.



-  Follow these instructions facing the front of your TV.
-  When selecting the function by moving the controller to the up/down/left/right directions, be sure not to press the controller. If you press it first, you cannot operate it to move the up/down/left/right directions.
-  When you use a TV camera, you should check whether a tape attached or not in rear of the TV camera, and then you can use a TV camera after adjust a camera angle. When you don't want to use a TV camera, we recommend to use after a camera lens fixes to upwards. In this case, **Face recognition** and **Motion Control** are not available.

Power on	Turn the TV on by pressing the Controller when the TV is in standby mode.
Adjusting the volume	Adjust the volume by moving the Controller from side to side when the power is on.
Selecting a channel	Select a channel by moving the Controller upwards and downwards when the power is on.
Using the Function menu	To view and use the Function menu, press and release the Controller when the power is on. To close the Function menu, press and release the Controller again.
Selecting the SMART HUB (📺)	With the Function menu visible, select SMART HUB (📺) by moving the Controller upwards. The SMART HUB main screen appears. Select an application by moving the Controller, and then pressing the Controller.

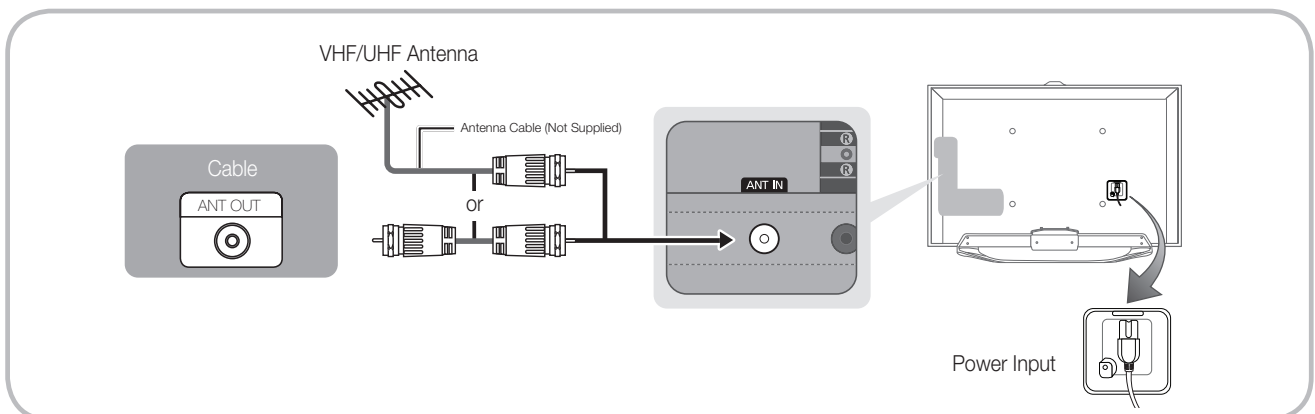
Selecting the MENU (III)	With the Function menu visible, select the MENU (III) by moving the Controller to the left. The OSD (On Screen Display) Menu appears. Select an option by moving the Controller to the right. Move the Controller to the right or left, or upwards and downwards to make additional selections. To change a parameter, select it, and then press the Controller.
Selecting a Source (→)	With the Function menu visible, open the Source (→) list by moving the Controller to the right. The Source list screen appears. To select a source, move the Controller upwards and downwards. When the source you want is highlighted, press the Controller.
Power Off (⏻)	With the Function menu visible, select Power Off (⏻) by moving the Controller downwards, and then press the Controller.

🔧 To close the **Menu**, **Smart Hub**, or **Source**, press the Controller for more than 1 second.

Standby mode

Your TV enters Standby mode when you turn it off and continues to consume a small amount of electric power. To be safe and to decrease power consumption, do not leave your TV in standby mode for long periods of time (when you are away on vacation, for example). It is best to unplug the power cord.

Connecting the Power Cord and the Antenna or Cable Connection

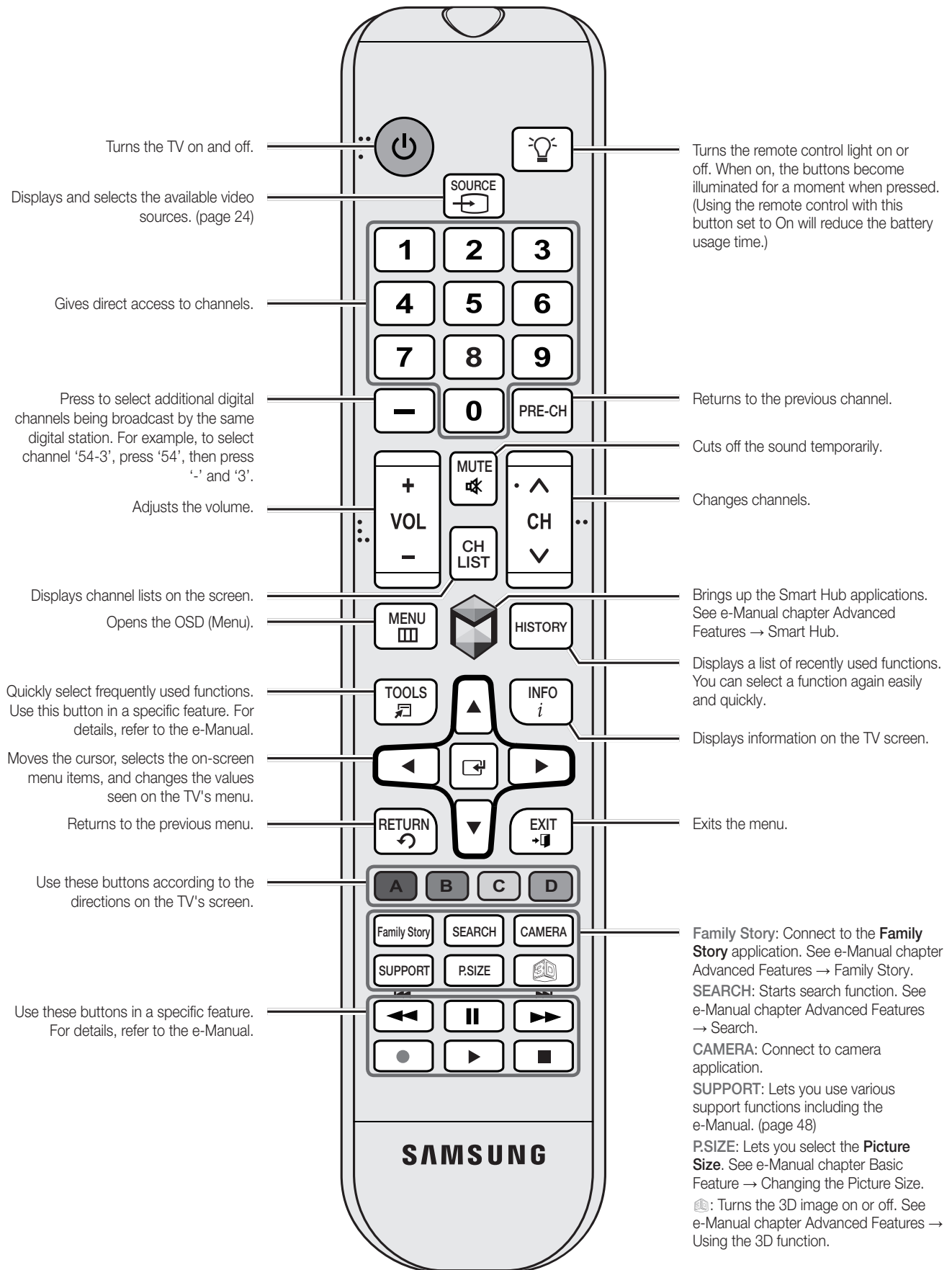


- 🔧 Plug the power cord into a wall outlet only after you have made all other connections.
- 🔧 If you are connecting your TV to a cable or satellite box using HDMI, Component, or Composite connections, you do not need to connect the ANT IN jack to an antenna or a cable connection.
- 🔧 Use caution when you move or swivel the TV if the antenna cable is tightly connected. You could break the antenna jack off the TV.

The Standard Remote Control

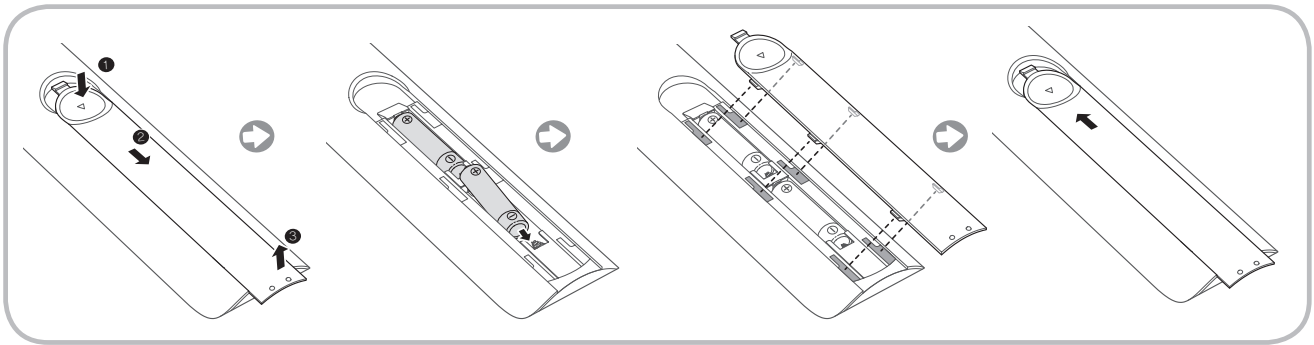
Learn where the function buttons are on your remote. Especially note **SOURCE**, **MUTE**, **VOL**, **CH**, **MENU**, **TOOLS**, **INFO**, **CH LIST**, **RETURN**, and **EXIT**.


- This remote control has Braille points on the Power, Channel, and Volume buttons and can be used by visually impaired persons.



Installing batteries (Battery size: AAA)

Match the polarity of the batteries to the symbols in the battery compartment.



 Your TV also comes with a Smart Touch Control. For information about the Smart Touch Control, see page 39.

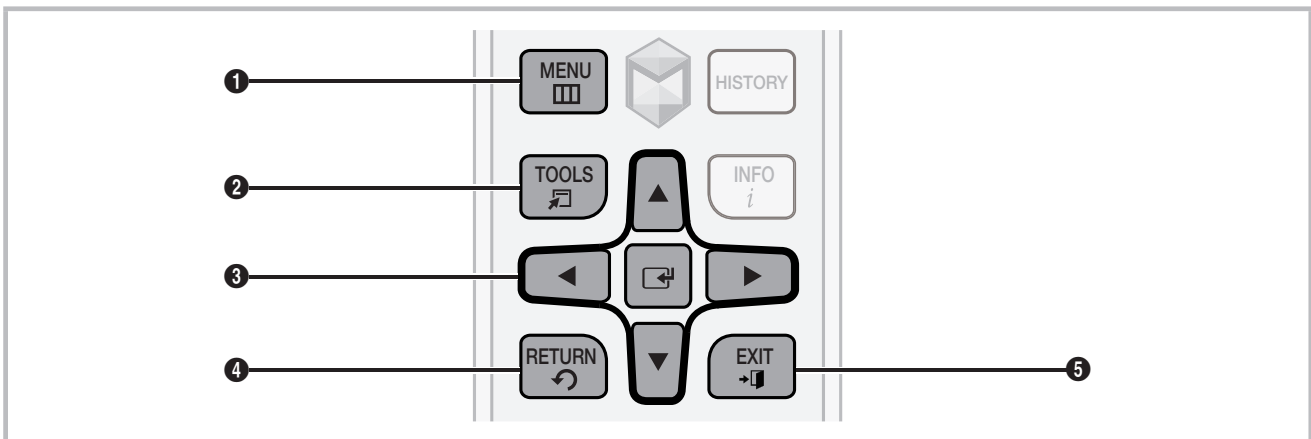
NOTE

- Install the batteries so that the polarity of the batteries (+/-) matches the illustration in the battery compartment.
- Use the remote control within 23 feet of the TV.
- Bright light may affect the performance of the remote control. Avoid using it near fluorescent lights or neon signs.
- The color and shape of the remote may vary depending on the model.

How to Navigate Menus

Your TV's Main and Tools menus contains functions that let you control the TV's features. For example, in the Main menu you can change the size and configuration of the picture, its brightness, its contrast and so on. There are also functions that let you control the TV's sound, channel configuration, energy use, and a host of other features. To access the main, on-screen menu, press the **MENU** button on your remote. To access Tools menus, press the **TOOLS** button. Tools menus are available when the **TOOLS** menu icon is displayed on the bottom right of the screen.

The illustration below displays the buttons on the standard remote you use to navigate the menus and select and adjust different functions. For information about using the Smart Touch Control, see page 39.




- 1 **MENU** button: Displays the main on-screen menu.
- 2 **TOOLS** button: Displays the Tools menus when available.
- 3 **Enter** and Direction buttons: Use the Direction buttons to move the cursor and highlight an item. Use the Enter button to select an item or confirm the setting.
- 4 **RETURN** button: Returns to the previous menu.
- 5 **EXIT** button: Exits the on-screen menu.






How to Operate the Main Menu (OSD - On Screen Display) Using the Standard Remote




The access steps may differ depending on the menu option you select.

1	MENU	The main menu options appear on the screen: Picture, Sound, Channel, Network, System, Support.
2	▲ / ▼	Select a main menu option on the left side of the screen with the ▲ or ▼ button.
3	Enter	Press Enter to access the sub-menus.
4	▲ / ▼	Select the desired submenu with the ▲ or ▼ button.
5	▲ / ▼ / ◀ / ▶	Adjust the value of an item with the ◀, ▶, ▲, or ▼ button. The adjustment in the OSD may differ depending on the selected menu.
6	Enter	Press Enter to confirm the selection.
7	EXIT	Press EXIT .

Configuring the Basic Settings in 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. Plug the power cord into a wall outlet, and then press the  button to turn on the TV.

-  Use the standard remote to run the Initial Setup.
-  **Setup** is available only when the input source is set to TV. See "Changing the Input Source" (page 24).
-  To return to the previous step in the **Setup** sequence, select **Previous**.
-  If you are not using a cable box or satellite box, make sure you have connected the TV to an antenna or cable connection before you turn on the TV. See page 12 for instructions.
-  If you want to configure a wired network connection during **Setup**, make sure you've connected a LAN cable to your TV. See pages 36 for instructions. If you want to configure a wireless network connection during **Setup**, make sure your wireless modem or router is on and working.

- | | | |
|----------|--|---|
| 1 | Menu Language:
Select a Language. | After you press the  button, the Start screen appears. Select Next to continue. The Menu Language screen appears. Select the menu language you want using your remote, and then select Next . The TV will display on-screen menus using the language you select beginning with the next step in the Setup process. |
| 2 | Use Mode: Select the Home Use Mode. | On the Use Mode screen, select the Home Use using your remote, and then select Next . The Network Settings screen appears.
 Store Demo is for retail environments only. If you select Store Demo , some functions will not work, and the TV will reset all functions to their factory default after a certain period of time. For more information about Store Demo , go to the end of this section. |
| 3 | Network Settings:
Configure the network settings.
 To configure later, select Skip . You can set up the network connection later using the on-screen Network menu. | To configure your network settings, select Next using your remote, and then go to 3A - Wireless Network or 3B - Wired Network on the next page.
If you do not know your network configuration information or want to configure the settings later, or do not have a network, select Skip , and then go to 5 - Auto Program (1) on page 18.
To configure network settings later, refer to "Setting up the Wired or Wireless Network" in the e-Manual or see the Network Connection sections in this manual (pages 35 and 37). |

3A

Wireless Network

1. The TV searches for and then displays all the wireless networks within range. When done, it displays a list of the networks. In the list of networks, move the Highlight to select a network, and then select **Next**. If the selected network requires a Security Key, the Security Key screen appears.
 -  If you have a WPS(PBC) compatible router, select **WPS(PBC)** instead, and then follow the directions on the screen. When done, go to Step 4.
2. Enter your network security key or WPS PIN using your remote.
 -  Enter numbers and letters using your remote.
 - If you are using the standard remote, you can enter numbers by pressing the number buttons on the remote.
 - To enter a letter, move the Highlight to the letter, and then select it. You can enter numbers in the same fashion if you choose.
 -  To display capital letters (or redisplay small letters if capital letters are displayed), select **Caps** or **Shift**.
 -  To display symbols and punctuation, select 1★. To redisplay letters, select 1★ again.
3. When done, select **Next** if you have entered a security key or **WPS PIN** if you have entered a WPS PIN.
4. The TV checks the wireless connection. If the connection is successful, the **You are connected to the Internet. If you have any problems using online services, please contact your Internet Service Provider.** message appears. Select **Next**, and then go to 4 **Software Upgrade** Step.
 -  If the connection fails, select **Previous**, repeat Step 1 and 2, carefully re-enter your security key or WPS PIN, then repeat Steps 3 and 4. If it fails again, select **Next** on the "Connection Failed" screen, and then go to 5 - **Auto Program** (1) on the next page. Configure your network later through **Network Settings** in the TV's Menu. For more information, refer to "Setting up the Wired or Wireless Network" in the e-Manual or see the Network Connection sections in this manual (pages 35 and 37).


3B

Wired Network





The TV checks the network connection, then displays the **You are connected to the Internet. If you have any problems using online services, please contact your Internet Service Provider.** message appears. Select **Next**. The **Software Upgrade** screen appears.

4

Software Upgrade:
Update the software to the latest version.

 To update later, select **Skip**.

When **Network Settings** is complete, your TV will check for a new software version automatically. If new software is available, the TV downloads and installs the new software. When the download is complete, select **Next**.

-  If you want to upgrade later, select **Skip**. For more information, refer to **Software Update** (Preference Features → Support Menu) in the e-Manual.
-  This may take some time, depending on your network status.
-  You can only upgrade software if your TV has an active network connection.
-  If no new update software is available, a no new updates message appears on the screen. Select **OK**.

5

Auto Program (1):
Select where your TV signal comes from.

Select the appropriate option for your TV using your remote, and then select **Next**.

- **Yes, I need to.:** Select if you have an antenna or a cable connection without a set-top box. If you select this option, go to 6 - **Auto Program (2)** Step.
- **No, I don't need to.:** Select if you have a satellite or cable set-top box. You do not need to run **Auto Program**. If you select this option, go to 8 - **Clock** on the next page.

6

Auto Program (2):
Select the search options.


1. Select **Air** or **Cable** using your remote. A check appears on your selection. When done, select **Next**. You can check both if you have both connected.
2. If you selected **Air**, go to 7 - **Auto Program (3)**.
3. If you selected **Cable**, you'll go to the cable system screen. Select **Digital Cable System**. The option window appears. Select the correct cable signal format; **STD**, **HRC**, or **IRC**. Most cable systems use **STD** (Standard). Repeat the same process with **Analog Cable System**.
4. When done, select **Next**.




7

Auto Program (3):
Channel memorization

Channel memorization starts. Channel memorization can take up to 45 minutes, depending on your cable system.

For more information, refer to **Auto Program** (Channel Menu → Memorizing Channels) in the e-Manual.

-  Select **Stop** at any time to halt the memorization process.

8	Clock: Set the Clock.	<p>Select Auto or Manual, and then select Next.</p> <p> If you selected No, I don't need to. in 5 - Auto Program (1), you can only set the current time and date manually, using your remote.</p> <p>Auto</p> <p>If you selected Auto, the TV will automatically download the correct time from a digital channel. The Time Zone screen will appear. Select your Time Zone, and then select Next. The DST (Daylight Savings Time) screen will appear. The DST function sets the time ahead one hour to adjust the clock for Daylight Savings Time. Select On if you want to turn the DST adjustment on. Select Off to turn off the DST adjustment. You can also turn the DST function on through the TV's on screen menu (Menu → System → Time → Clock → DST).</p> <p>Manual</p> <p>If you selected Manual, you'll go to the Clock screen. Select Date or Time. You can set the current date and time using your remote. When done setting the Date and Time, select Next.</p>
9	Voice and Motion Control: Setting the Voice and Motion Control function.	<p>You can turn the Voice and Motion Control function on or off. Select Off or On, and then select Next.</p>
10	Setup: Complete	<p>Review the Setup data, and then select Close to finish.</p> <p> The completed settings are displayed.</p>
11	Set the Universal Remote.	<ol style="list-style-type: none"> 1. Turn on the POWER button on the bottom of the IR Blaster, and then press the PAIRING button. 2. Select Yes to start the Universal Remote Setup. <p> For more detailed information about the Universal Remote Setup, refer to "Setting up the Universal Remote Control" section in the manual (page 45).</p>

If You Want to Rerun Setup...

Menu → **System** → **Setup**

If You Want to Turn the Store Demo Mode On or Off.

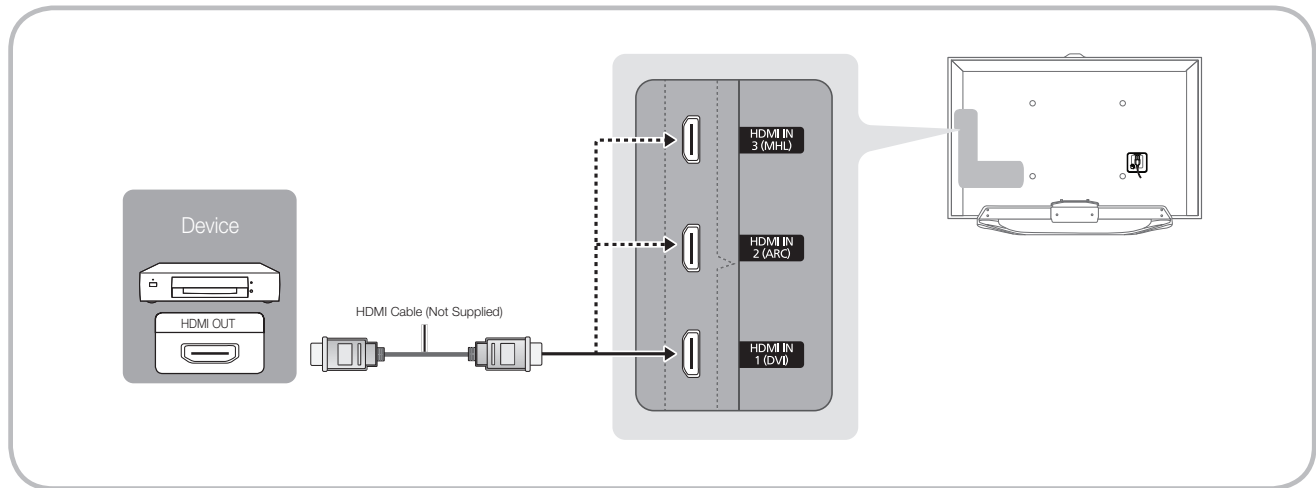
To set or unset **Store Demo** mode outside of **Setup**, press and release the Controller when the power is on. The Function menu screen appears. Push the Controller to the left (to **MENU** (III)) and hold for more than 5 seconds. The **Store Demo** mode is set. To cancel **Store Demo**, bring up the Function menu using the Controller, push the Controller to the right (to **Source** (→)) and hold for more than 5 seconds. See page 11 for information about the Controller.

Connecting to AV Devices (Blu-ray Players, DVD Players, etc.)

Using an HDMI Cable for an HD connection (up to 1080p, HD digital signals)

For the best quality HD picture, we recommend using an HDMI connection.

Use with DVD players, Blu-ray players, HD cable boxes, and HD Set-Top-Box satellite receivers.

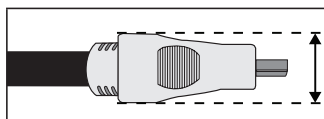


HDMI IN 1 (DVI), HDMI IN 2 (ARC), HDMI IN 3 (MHL)

- For the best picture and audio quality, connect digital devices to the TV using HDMI cables.
- An HDMI cable supports digital video and audio signals, and does not require an audio cable.
 - To connect the TV to a digital device that does not support HDMI output, use an HDMI to DVI cable and audio cables.
- 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.
- We recommend using a basic high-speed HDMI cable or an HDMI cable that is Ethernet compatible. Note that this product does not support the Ethernet function via HDMI.
- This product supports the 3D and ARC (Audio Return Channel) functions via an HDMI cable. Note that the ARC function is supported by the **HDMI IN 2 (ARC)** port only.
 - If **3D Auto View** is set to **On**, some functions such as SMART HUB may be disabled. In this case, set **3D Auto View** or **3D Mode** to **Off**.
- The ARC function allows digital audio to output via the **HDMI IN 2 (ARC)** port on the TV. It can be enabled only when the TV is connected with an audio receiver that supports the ARC function.

- This product supports the Mobile High-Definition Link (MHL) function via an HDMI-MHL cable. Note that the MHL function is supported by the **HDMI IN 3 (MHL)** port only.
- The MHL function lets you display a mobile device's screen via the **HDMI IN 3 (MHL)** port on the TV. It can be enabled only when the TV is connected with a mobile device that supports the MHL function. For more detailed information, see "Using the MHL function" in e-Manual.
- When you use MHL devices via a MHL cable, **Picture Size** is set to **Screen Fit** automatically. But if you use MHL devices via an HDMI cable, **Picture Size** is not set to **Screen Fit** automatically. To view an original size, select **Screen Fit** in the **Picture Size** menu (**Menu** → **Picture** → **Picture Size**).
- If you use MHL devices via an HDMI cable, The TV will be recognized as the HDMI input. In this case, the TV may work differently than when you use MHL devices via a MHL cable.

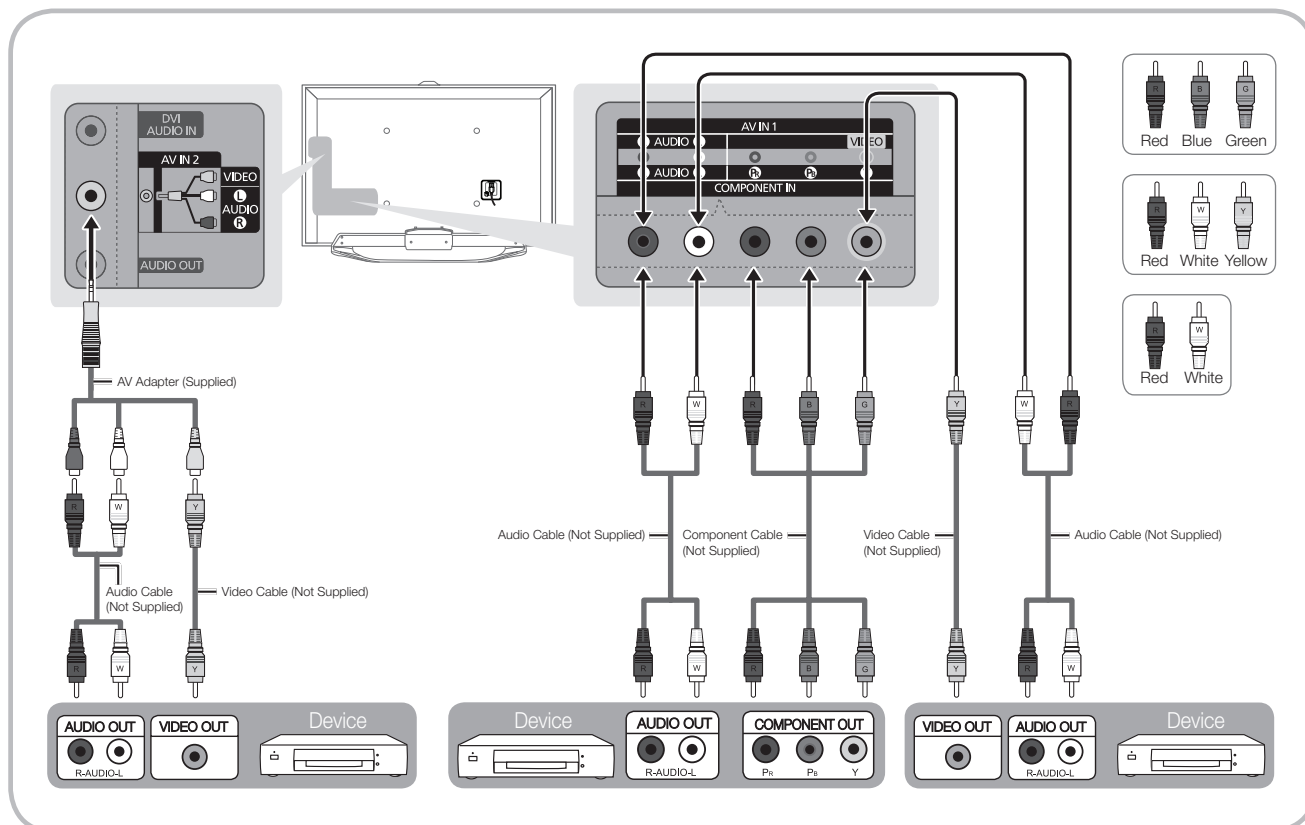
📎 For the best cable connection to this product, use cables no thicker than the cable illustrated below:



- Maximum thickness - 0.55 inches (14mm)

Using a Component Cable (up to 1080p HD signals) or an Audio/Video Cable (480i analog signals only)

Use with DVD players, Blu-ray players, cable boxes, STB satellite receivers, VCRs.

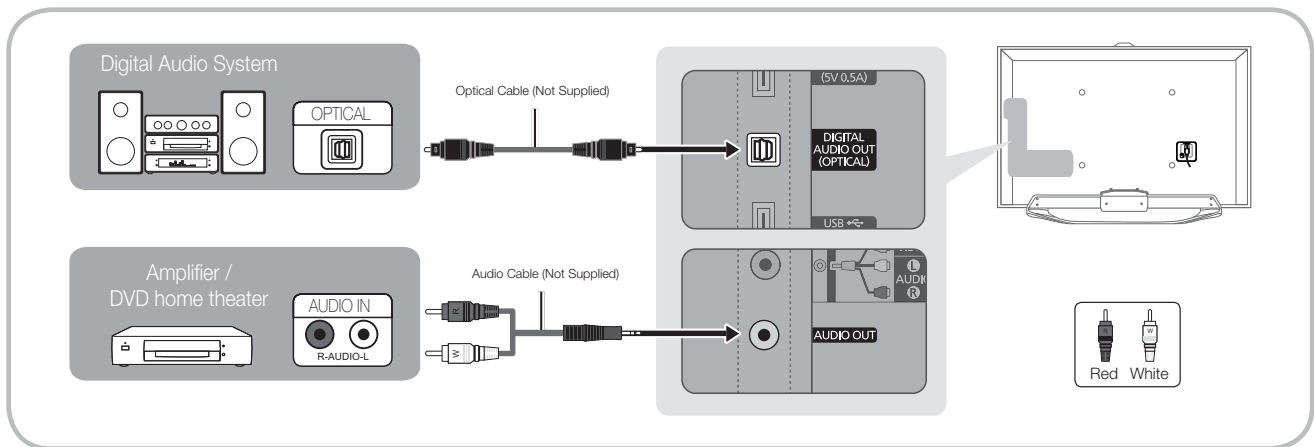


- 📎 For better picture quality, we recommend the Component connection over the A/V connection.
- 📎 When you connect a Video cable to **AV IN 1**, the color of the **AV IN 1 [VIDEO]** jack (green) will not match the video cable (yellow).

Connecting to Audio Devices

Using an Optical (Digital) Cable Connection and a Standard Stereo Cable Connection

Use with Digital Audio Systems, Amplifiers, and Home Theaters.



DIGITAL AUDIO OUT (OPTICAL)

- When you connect a Digital Audio System to the **DIGITAL AUDIO OUT (OPTICAL)** jack, decrease the volume of both the TV and the system.
- 5.1 CH (channel) audio is available when you connect the TV to an external device supporting 5.1 CH.
- When the receiver (or home theater) is set to on, you can hear sound output from the TV's optical jack. When the TV is receiving a DTV signal, the TV will send 5.1 CH sound to the home theater receiver. When the source is a digital component such as a DVD player / Blu-ray player / cable box / STB (Set-Top-Box) satellite receiver and you connected it to the TV via HDMI, you will only hear 2 CH audio from the home theater receiver. If you want to hear 5.1 CH audio, connect the digital audio out jack from your DVD / Blu-ray player / cable box / STB satellite receiver directly to an amplifier or home theater.

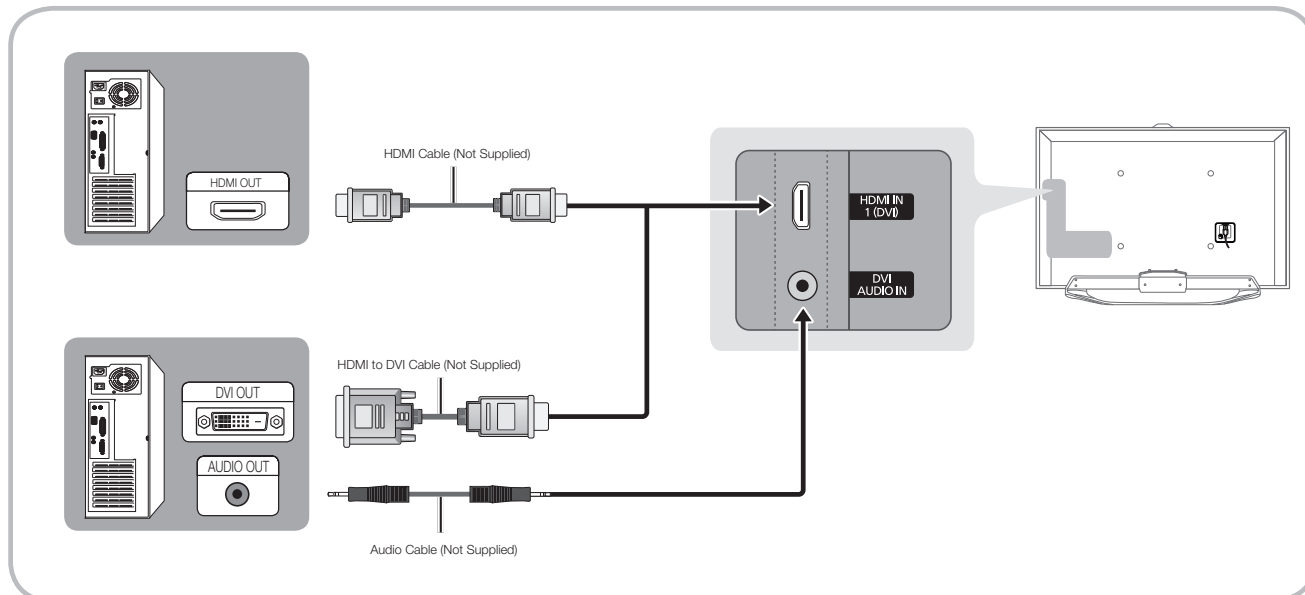
AUDIO OUT: Connects to the audio input jacks on your amplifier/DVD home theater.

- When connecting, use the appropriate connector.
- When you connect an audio amplifier to the **AUDIO OUT** jacks, decrease the volume of the TV and adjust the volume level with the amplifier's volume control.

Connecting to a PC

Using an HDMI cable or an HDMI to DVI cable

- ✎ Your PC may not support an HDMI connection.
- ✎ Use your PC speakers for audio.

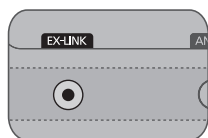


The optimal resolution is 1920 X 1080 @ 60 Hz. See the Display Resolution page for all available resolutions (page 58).

NOTE

- For an HDMI to DVI cable connection, you must use the **HDMI IN 1 (DVI)** jack.
- For PCs with DVI video out jacks, use an HDMI to DVI cable to connect the DVI out on the PC to the **HDMI IN 1 (DVI)** jack on the TV. Use the PC's speakers for audio.
- PC (D-Sub) input is not supported.

The EX-Link Cable Connection




The **EX-LINK** connection is for service only.



Source


→ Source

When you are watching TV and you want to watch a movie on your DVD player or Blu-ray player or switch to your cable box or STB satellite receiver, you need to change the Source.

■ TV / HDMI1/DVI / HDMI2 / HDMI3 / AV1 / AV2 / Component

1. Press the  button on your remote. The **Smart Hub** screen appears.
2. Select **Source**. The **Source** screen appears.
3. Select a desired external input source.


 Alternatively, you can access the **Source** screen by selecting the **SOURCE**  button on your standard remote or selecting **Source** with the Smart Touch Control (see page 39).


 You can only choose external devices that are connected to the TV. In the displayed **Source** list, connected inputs are highlighted.

How to Use Edit Name

Edit Name lets you associate a device name to an input source. To access **Edit Name**, open the **Tools** menu when the **Source** list is displayed. The following selections appear under **Edit Name**:

■ **VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI Devices / TV / IPTV / Blu-ray / HD DVD / DMA**: Select an input jack, and then select the name of the device connected to that jack from the list that appears. For example, if you have your Blu-ray player attached to **HDMI IN 2 (ARC)**, select **Blu-ray** for that input.

 If you connect a PC to the **HDMI IN 1 (DVI)** port with an HDMI cable, assign **PC** to **HDMI1/DVI** in **Edit Name**.

 If you connect a PC to the **HDMI IN 1 (DVI)** port with an HDMI to DVI cable, assign **DVI PC** to **HDMI1/DVI** in **Edit Name**.

 If you connect an AV device to the **HDMI IN 1 (DVI)** port with an HDMI to DVI cable, assign **DVI Devices** to **HDMI1/DVI** in **Edit Name**.

Information

You can see detailed information about the selected external device.

Refresh

If the external devices are not displayed in the **Source** list, open the **Tools** menu, select **Refresh**, and then search for the connected devices.

 Alternatively, you can refresh the **Source** list by selecting **A** using your remote.

Using Smart Hub

Smart Hub provides easy, on-screen access to five functions that let you manage and access channels, set favorite channels, access photos, videos, or music on USB devices, cameras, and PCs, select video sources, and set the TV to turn on automatically when a show you want to watch is on. The five functions are listed below:

- **Channel:** Lets you manage channels, select favorite channels, add channels to and delete channels from the **Added Ch.** list (the channels that appear when you press the **▼ CH ▲** button.)
- **Web Browser:** Lets you browse the Internet.
- **Schedule Manager:** Lets you schedule shows and channels for viewing.
- **Source:** Lets you select a connected external video source to view.
- **AllShare Play:** Lets you access, view, or play photos, videos, or music located on USB devices, digital cameras, cell phones, and PCs. PCs and cell phones can be accessed wirelessly, through your wireless network.

Smart Hub also provides an easy-to-use gateway to a host of on-line media and entertainment including apps from the Samsung Apps store, streaming videos and movies, kids sites, and more.

 To access **Smart Hub**, press the  button on your remote.

 For more information about **Smart Hub**, see the e-Manual.

Using this function, you can access and control menu options and functions using speech, motions or face recognition.

SMART INTERACTION DISCLAIMER

- **Face Recognition Log-in**

In order for Face recognition to function, a thumbnail image of your face will be stored in your TV for logging-in purposes.

Logging into the Smart Hub using Face recognition may be less secure than using an ID and password.

- **TV Camera Usage**

Before using the TV Camera, you should be aware that under some circumstances and under certain legal conditions your misuse of the TV Camera can result in legal liability for you, and that you may be subject to the obligations of local privacy laws regarding protection of individuals with regard to the processing of personal data and on the free movement of such data, and possible other laws (including criminal laws) regulating camera surveillance both in the workplace and elsewhere. By using the TV Camera, you agree that you will not use the camera (i) in locations where cameras are generally prohibited (such as bathrooms, locker rooms or changing rooms), (ii) in any manner that will result in an invasion of a person's privacy or (iii) in violation of any applicable laws, regulations or statutes.

You should check to see whether there is a sticker attached to the rear of the TV Camera.

In order to adjust the TV Camera angle, you must first remove the sticker.

When you are finished using and don't want to use the TV Camera anymore, we recommend rotating the TV Camera lens and tucking it into the bezel of the TV. This will prevent any inadvertent and unintentional TV Camera functionalities and Face Recognition and Motion Control will not be functional.

- **Motion Control**

Motion Control works with the built-in TV Camera so it is important that you are within the sightline of the TV Camera. Performance will vary depending on the lighting conditions in your surrounding environment.

We recommend performing the **Motion Control Environment Test** (as described below) prior to using **Motion Control** to ensure that the TV Camera will be able to see you.

- **Voice Control and Voice Text Input**

We recommend using the Smart Touch Control for **Voice Control** and Voice Text Input functionalities.

Voice Control and Voice Text Input are not available in all languages, dialects or regions.

Performance will vary depending on the language chosen, your pronunciation of such language, the volume of your voice and ambient noise levels in your surrounding area.

We recommend performing the **Voice Control Environment Test** (as described below) prior to using **Voice Control** or Voice Text Input to test the level and clarity of your voice and the ambient sounds in your surrounding area.

Voice Text Input requires express agreement with both Samsung's voice privacy notice and a third party's voice privacy policy.

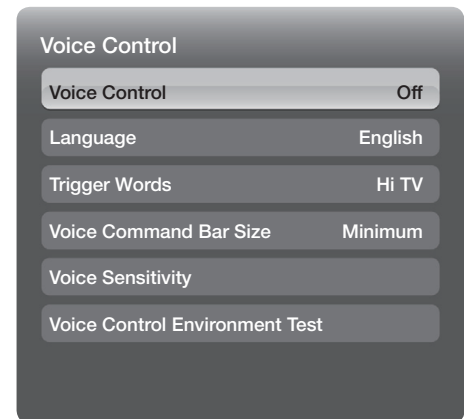
The Voice Text Input function enables users to enter text with users' voice without using the remote control or the mouse or keyboard connected to the TV. This function is useful when using search function, web browser, and other applications that require text input.

Voice Control

Menu → System → Voice and Motion Control → Voice Control

Voice Control lets you activate and access certain menus and functions on your Smart TV with the sound of your voice.

- For accurate voice recognition, refer to the Standard Voice Command list at the Samsung web site.
- To improve the accuracy and performance of **Voice Control**, you must pronounce words and phrases clearly and correctly in the language you selected in **Language**.
- Ambient noise may cause **Voice Control** to malfunction. Your surrounding ambient noise levels should be below 40dB.



You can either speak directly to the TV using the built in microphone, or use the **VOICE** button on your Smart Touch Control and speak into the microphone on the remote. To activate **Voice Control** say the Trigger words “Hi TV” or “Smart TV”. This will bring up the Voice Command Bar.

- We recommend using the **Voice Control** function via the microphone attached to your TV from within 13 ft of your TV.
- When you use microphone attached to your TV, your voice may not be recognized because of ambient noise in your surrounding environment or other factors. If this occurs, try using the microphone on your Smart Touch Control by pressing the **VOICE** button on your Smart Touch Control.
- The **VOICE** button on your remote is always activated.

If you want to use the TV's microphone, turn on the preference in System settings. (**System** → **Voice and Motion Control** → **Voice Control**)

- When using the microphone on your Smart Touch Control, speak a voice command using your normal speaking voice into the microphone on your Smart Touch Control. The optimum distance from your face should be approximately 0.3 – 0.4 feet. If the volume of your voice is too high or low, your voice command may not be recognized by your Smart Touch Control. The optimum volume level is approximately 60dB.

■ Voice Control

Turns the **Voice Control** function on or off.

■ Language

Select the recognition language you want to use.

■ Trigger Words

You can select the **Trigger Words** to enable **Voice Control** functionality.

In most cases it will either be “Hi TV” or “Smart TV”. Please check your TV settings to confirm.

Speaking the words, “Hi TV” or “Smart TV” will bring up the Voice Command Bar.

■ Voice Command Bar Size

Set the Voice Command Bar mode to **Minimum** or **Full**. **Minimum** displays the least number of phrases you can use. **Full** displays a complete list of phrases.

The Voice Command Bar will list the various voice commands that are available.

There are several options which may vary depending on the source, feature or function running in the background.

■ Voice Sensitivity

You can configure the sensitivity of Voice Recognition.


- **Echo Level:** Select howling levels. This setting will adjust your TV's responsiveness based on echoing and reverberation in your surrounding environment.
- **Recognition responsiveness:** Select the responsiveness level of Voice recognition.

■ Voice Control Environment Test

To run the **Voice Control Environment Test**, to be sure the room your TV is in will work properly with Voice Controls. Sit or stand no more than 13 feet away in front of the TV. Choose **Start** to begin the **Voice Control Environment Test**. While remaining quiet select **Next** to conduct the **Noise Test**. This measures the ambient noise in the room.

 The ambient noise in your room should be below 40 decibels for **Voice Control** to work properly.

Mic & Speaker Test: Select **Start** with your remote to begin the **Mic & Speaker Test**. A melody will play on your TV during this test. This measures the noise in the room against the volume of your TV speakers.

 If you have external speakers connected this test may not run properly. Be sure to use the TV's internal speakers.







Voice Control Test: The **Voice Control Test** measures the volume and clarity of your voice. During this test you will need to say the phrase on the screen with a loud and clear voice. Select **Start** to begin. The TV will play the phrase you said, and then it will wait for you to repeat it.

You will have [TWENTY] seconds to complete the test. Repeat the phrase with a loud and clear voice. When the TV recognizes you it will show the Voice Control Test Complete screen. Select **OK** to finish.


Voice Control is now enabled and configured on your Samsung Smart TV.

To disable **Voice Control** go to the **Voice Control** menu, choose **Voice Control** and select **Off**.

To use the Voice Control function, follow these steps:

1. Speak the **Trigger Words** that you selected into the microphone embedded in the TV or press the **VOICE**  button on your remote. The TV displays the Voice Command Bar.
 -  When you use **Voice Control**, the volume is set to 5 by default.
 2. Say a word or phrase listed in the Voice Command Bar.
 -  Pronounce the word or phrase clearly and correctly in the language you selected in **Language**.
 3. Wait until recognition is complete, and then say the next command in the same fashion.
 -  To exit the **Voice Control** mode, speak the **Trigger Words** or "Cancel" using the TV's microphone, or press the **RETURN**  button.
-  Please note that in some cases, if your **Voice Control** function is set to **On**, your TV may be inadvertently turned on by ambient noise in your surrounding area. If this is a concern for you, you should turn **Off** the **Voice Control** functionality.






Using the Voice Text Input Mode

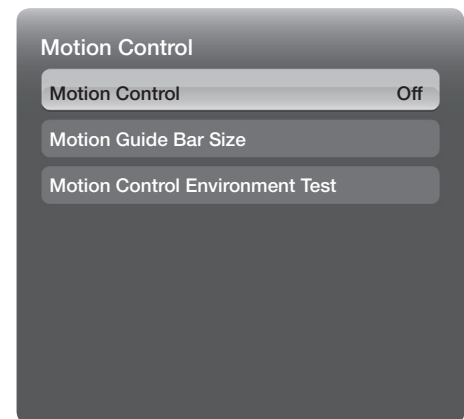
1. Say "Search All" while in **Voice Control** mode.
 2. Say the word or phrase you wish to search for.
 3. The TV executes the spoken function.
-  Voice Text Input Mode performance may vary depending on the language spoken, your pronunciation, the volume of your voice and your surrounding environment, including ambient noise levels.

Motion Control

Menu → System → Voice and Motion Control → Motion Control

Motion Control works with the Smart TVs built-in camera and allows you to use motion to open apps in Smart Hub, navigate web pages, and control certain TV functions.

-  **Motion Control** function can be affected by your posture, your hand position, or ambient brightness conditions.
-  Some applications may not support **Motion Control**.
-  You may experience physical fatigue when you use the **Motion Control** for extended periods.
-  When you use **Motion Control**, please avoid direct sunlight.
-  We recommend using **Motion Control** function within about 5 – 13 ft with your TV. The TV Camera's recognition range may differ depending on the angle of camera or other conditions.



Because **Motion Control** works with the built-in camera on top of the Smart TV, it is important that you are within the sightline of the TV Camera and nothing is obstructing its view of you. If the TV Camera is facing too high, or too low, you can adjust it using the dial on the back of the TV. **Motion Control** works best in a well lit room. For best results, be sure the light in the room is illuminating the front of you. The TV Camera is looking for movement, so there should be contrast between you and the background. Before using **Motion Control** recommended to run a **Motion Control Environment Test** (as described below) which measures the ambient light in the room, and ensures the built-in TV Camera is able to see you. (**System** → **Voice and Motion Control** → **Motion Control** → **Motion Control Environment Test**).

■ **Motion Control**

Turns the **Motion Control** function on or off.

■ **Motion Guide Bar Size**

Sets the **Motion Guide Bar Size** mode between **Minimum** or **Full**.

■ **Motion Control Environment Test**

Brightness Test: In order for Motion Controls to work there must be sufficient light in the room. The **Brightness Test** measures the ambient light in the room. Stand or sit no more than 13 feet away from your TV and select the start option. The **Brightness Test** will begin and should take about 10 seconds. If there is not sufficient light in the room you will get a prompt that reads Brightness Test failed. This means that it is too dark for **Motion Control** to see your movements. It is suggested that you increase the brightness in your room. Also, check the angle of the camera to be sure it is facing out at you. Rotate the camera angle dial located on the back of the camera. After checking these things, select retest. If there is enough light in the room the prompt will read Brightness Test complete. This means there is enough light in the room for Motion Controls to work properly. (Appropriate ambient brightness: 50 – 500 Lux)

 Avoid positioning the TV Camera directly into sunlight or any other illuminating light source.

Camera Angle Test: This will help determine whether the TV Camera can see you in order to use **Motion Control**. Stand or sit in front of your TV so that you can see yourself in the rectangle on the screen. If the camera is facing too high, or too low you can adjust it using the camera angle dial located on the back of the camera. Now, with your TV remote in one hand, select **Start**. With your other hand, wave slowly left to right at the TV. Be sure your hand is flat and your palm is facing directly at the TV. Wave your entire hand and arm in a deliberate manner, and not simply a flicking of the wrist. This is the best way for the TV to recognize your hand. When the Camera Angle test is complete, a cursor will appear on the screen.

Motion Control is now enabled and configured on your Samsung Smart TV.

To disable **Motion Control**, open the **Motion Control** Menu, select **Motion Control** and choose **Off**.

To use the Motion Control function, follow these steps:

1. With **Motion Control** configured and activated, stand or sit in front of your TV. Make sure your hand is flat and palm is directly toward the TV wave three or four times side to side in a deliberate manner. When the TV recognizes you, the arrow cursor will appear on the screen. You are now able to control the TV with motion.
 - ✎ If you drop your hand out of range of the TV camera **Motion Control** will close. Simply raise your hand within 3 seconds to reactivate **Motion Control**.
2. Control the TV using your hands.
 - ✎ While using the **Motion Control**, if you use other devices (i.e. remote control, keyboard, etc.), **Motion Control** closes.

-  **Pointing Navigation**

Moves the cursor to the position you want.

- **Action:** Spread your hand and guide the cursor to position you want.

-  **Run / Select**

Selects an item or executes a command that is indicated by the cursor or is highlighted.

- **Action:** Clench your fist.

-  **Return**

Return to the previous menu.

- **Action:** Spread your hand and rotate counterclockwise.

- **Channel / Volume Control**

Changes the channel or adjust the volume.

- ✎ To increase or decrease the volume, move the cursor to hover over the **+** or **-** Volume button. The cursor will turn blue and a small circle will appear indicating you can now control this function. Simply close your hand to make a fist and open it again. The volume will increase or decrease one number every time you do this. Or hold the volume control by keeping your fist clenched. These same actions can control the channel up and down feature.

-  **Scroll**

Scroll the page in the direction you want.

- ✎ Some applications may not support this function.

On the web page of your choice, simply move the cursor to the top or bottom or far left or right of the screen, the page will automatically scroll on the direction of your move.

Those are just some of the ways you can use **Motion Control** with Smart Interaction on your 2012 Samsung Smart TV.

Face recognition


 → **Tools** → **Settings** → **Account Manager** → **Change account information**


Enable or disable the Face recognition function.


Face recognition lets you register your face with your Samsung account so that you can log into your Smart Hub account using the Face recognition function without inputting your account ID or your account password.

 You can register your face to only one account.

To register your face in your Samsung account, follow these steps:

-  To use this function, you must log into **Smart Hub**. If you don't have a **Samsung Account**, you should create one before using this function. To create your **Samsung Account**, refer to “Creating an Account” (Advanced Features → Smart Hub) in the e-Manual.
1. On the **Smart Hub** screen, open the **Tools** menu using your Smart Touch Control, and then select **Settings**.
 2. Select **Account Manager**. The **Account Manager** screen appears.
 3. Select **Change account information**. The **Change account information** screen appears.
 4. Select **Register Face**. A pop-up message appears. If you agree to use Face recognition, select **OK**. A QWERTY Keyboard screen appears.
 5. For security purposes you may be prompted to enter your password. When done, Select **OK**. Now your TV Camera will activate.
 6. Position yourself so your face is in the center of the red face recognition circle. If the camera is facing too high, or too low you can adjust it using the camera angle dial located on the back of the camera. When your face is properly aligned, the red circle will turn green. Hold in place for a second. When complete a prompt will appear letting you know your face was registered for the associated Samsung Account.

 If Face recognition fails, select **Retry** and then try again.
 7. If successful, your face is now registered with your Samsung account. The Continue to Register Service window will appear.

 To close the window, select **OK**. You can register services later using **Link to other accounts** in the **Smart Hub** menu (**Settings** → **Account Manager** → **Link to other accounts**).

To log in to your Samsung account using Face recognition, follow these steps:

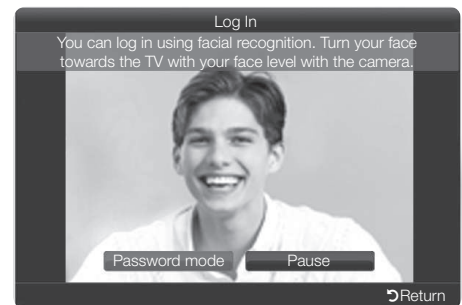
✎ If you use Face recognition to log into **Smart Hub**, it may be less secure than logging in with an ID and password.

1. With the **Smart Hub** screen displayed, select **A** using your remote. The **Samsung Account** screen appears.



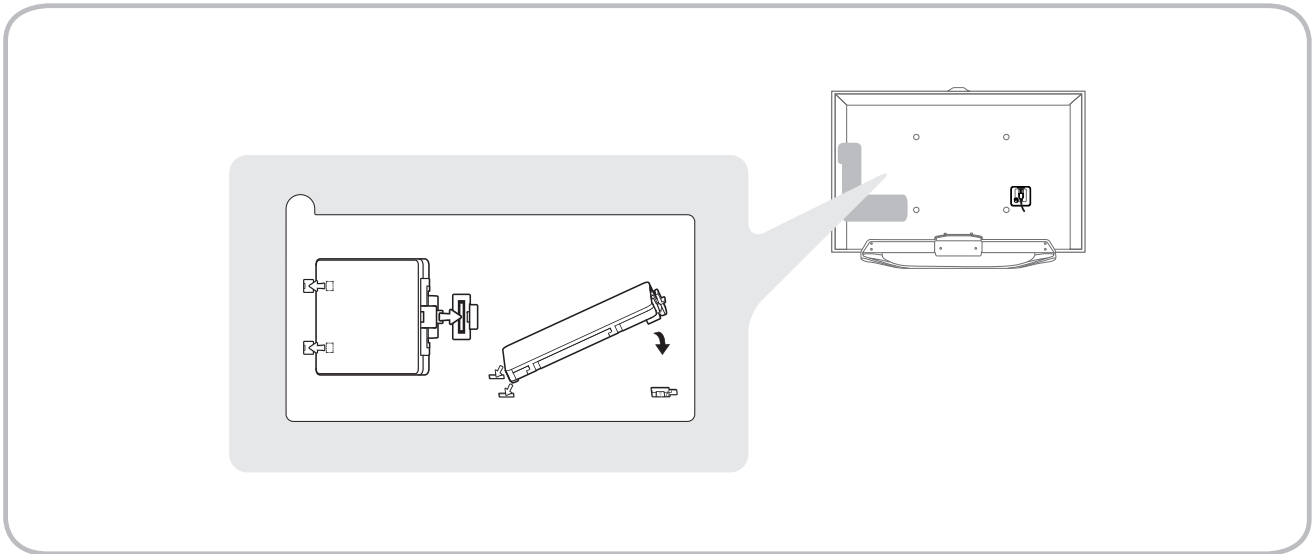
2. Select **Face Recognition Mode**. The Face recognition screen appears.

✎ To return to the **Samsung Account** screen, select **Password mode**.



3. The TV starts Face recognition. Face the front of the TV screen. Try to hold still.
 - ✎ A green circle indicates a registered face. A red circle indicates an unregistered face.
 - ✎ If the TV fails to recognize your face, try again.
4. Once the TV recognizes your face, it will log you into your Samsung account automatically.
 - ✎ If the TV recognizes two or more registered faces, the Samsung account list appears. Select your account to log in.
 - ✎ If your face is unregistered, you can register your face in your Samsung account. Follow steps 4 through 5 in the “To register your face to your Samsung account:” procedure above.
 - ✎ If you have no account, you can create one. For more detailed information, refer to “Creating an Account” (Advanced Features → Smart Hub) in the e-Manual.
 - ✎ Although you are using the Face recognition function, if you set to enter password on the **Change account information** screen, you should enter your Samsung account password.

The Evolution Kit Slot (Kit Sold Separately)



This socket is designed to accept an extension device called the Evolution Kit. The Evolution Kit enables the TV to run a variety of the latest applications for a better user experience.

The Evolution Kit, which may not be available depending on the product, will be sold separately in 2013 or later.

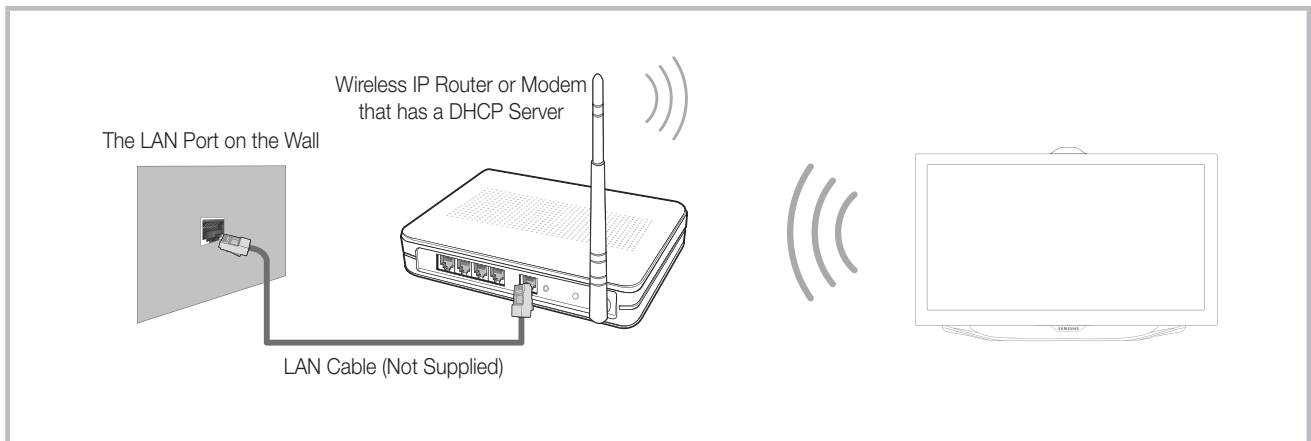
Connecting to a Network

You can set up your TV so that it can access SMART TV applications through your local area network (LAN) using a wired or wireless connection.

- ✎ After you have “physically” connected your TV to your network, you must configure the network connection to complete the process. You can configure the connection during the Initial Setup process (see page 16) or after the Initial Setup process, through the TV's menu (see page 37).

Network Connection - Wireless

You can connect your TV to your local area network (LAN) through a standard wireless router or modem.



This TV supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. If you play video using IEEE 802.11a, b, or g, the video may not play smoothly.

Most wireless network systems incorporate a security system that requires devices that access the network through an access point or AP (typically a wireless router or modem) to transmit an encrypted security code called an access key.

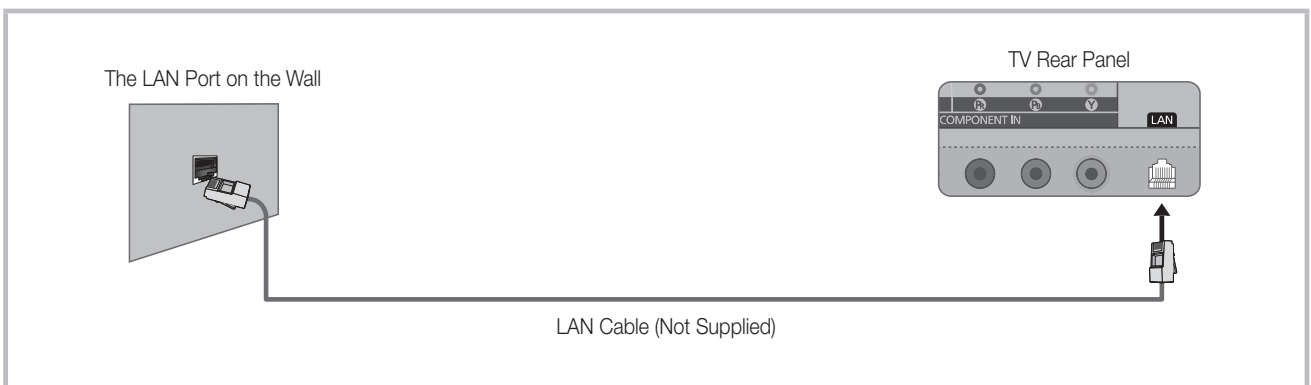
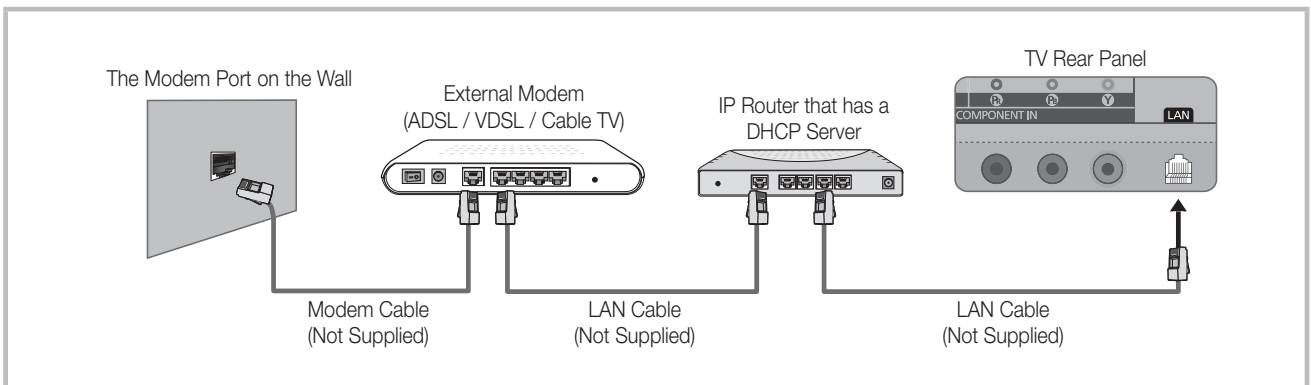
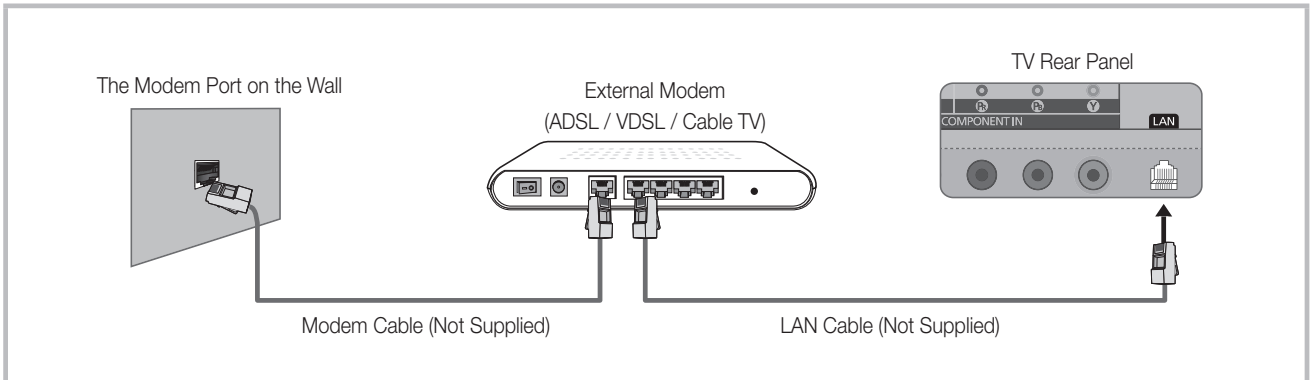
Your TV is compatible with the following security protocols:

- Authentication Mode: OPEN, SHARED, WPAPSK, WPA2PSK
- Encryption Type: WEP, TKIP, AES

If you select Pure High-throughput (Greenfield) 802.11n mode and the Encryption type is set to WEP or TKIP on your AP or wireless router, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.

Network Connection - Wired

There are three main ways to connect your TV to your network using cable, depending on your network setup. They are illustrated starting below:



- 🔗 The TV does not support network speeds less than or equal to 10Mbps.
- 🔗 Use Cat 5 or 6 (STP Type*) cable for the connection. (*Shielded Twisted Pair)

Configuring Network Connections

After you have run the initial setup, you can configure or reconfigure the network connections through the TV's menu.

Configuring a Wireless Network Connection

The instructions below are for networks that use the Dynamic Host Configuration Protocol (DHCP) to configure network connections automatically. Most wireless networks use DHCP. If you have a Static IP network, see the e-Manual for configuration instructions.



To configure the network connection for a network that uses DHCP, follow these steps:

1. Connect your TV to your network as shown in the illustration on page 35.
2. Turn on your TV, and then go to the **Network Settings** screen. (**Menu** → **Network** → **Network Settings**)
3. Select **Start**. The Network function searches for available wireless networks. When done, it displays a list of the available networks.
4. In the list of networks, move the highlight to select a network, and then select **Next**.
 - ✎ If you have a WPS(PBC) compatible router, select **WPS(PBC)** instead, and then follow the directions on the screen.
5. Enter your network security key or WPS PIN using your remote.
 - ✎ Enter numbers and letters using your remote.
 - If you are using the standard remote, you can enter numbers by pressing the number buttons on your remote.
 - To enter a letter, move the Highlight to the letter, and then select it. You can enter numbers in the same fashion if you choose.
 - ✎ To display capital letters (or redisplay small letters if capital letters are displayed), select **Caps** or **Shift**.
 - ✎ To display symbols and punctuation, select 1★. To redisplay letters, select 1★ again.
6. When done, select **Next** if you have entered a security key or **WPS PIN** if you have entered a WPS PIN.
7. The TV checks the wireless connection. If the connection is successful, the "**You are connected to the Internet. If you have any problems using online services, please contact your Internet Service Provider.**" message appears. Select **Next** using your remote.
 - ✎ For more detailed information, see "Setting up the Wireless Network" in the e-Manual.
 - ✎ If you want to configure the connection manually, select **IP Settings** on the Network Connection screen. Set **IP Setting** to **Enter manually**, and then enter the **IP Address**, **Subnet Mask**, **Gateway**, and **DNS Server** manually.

Configuring a Wired Network Connection

Most home networks use the Dynamic Host Configuration Protocol (DHCP) to configure network connections. Home networks that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your TV needs to access the Internet so you don't have to enter them manually. If you have a Static IP network, see your user's manual for configuration instructions.

To configure the network connection for a wired network that uses DHCP, follow these steps:

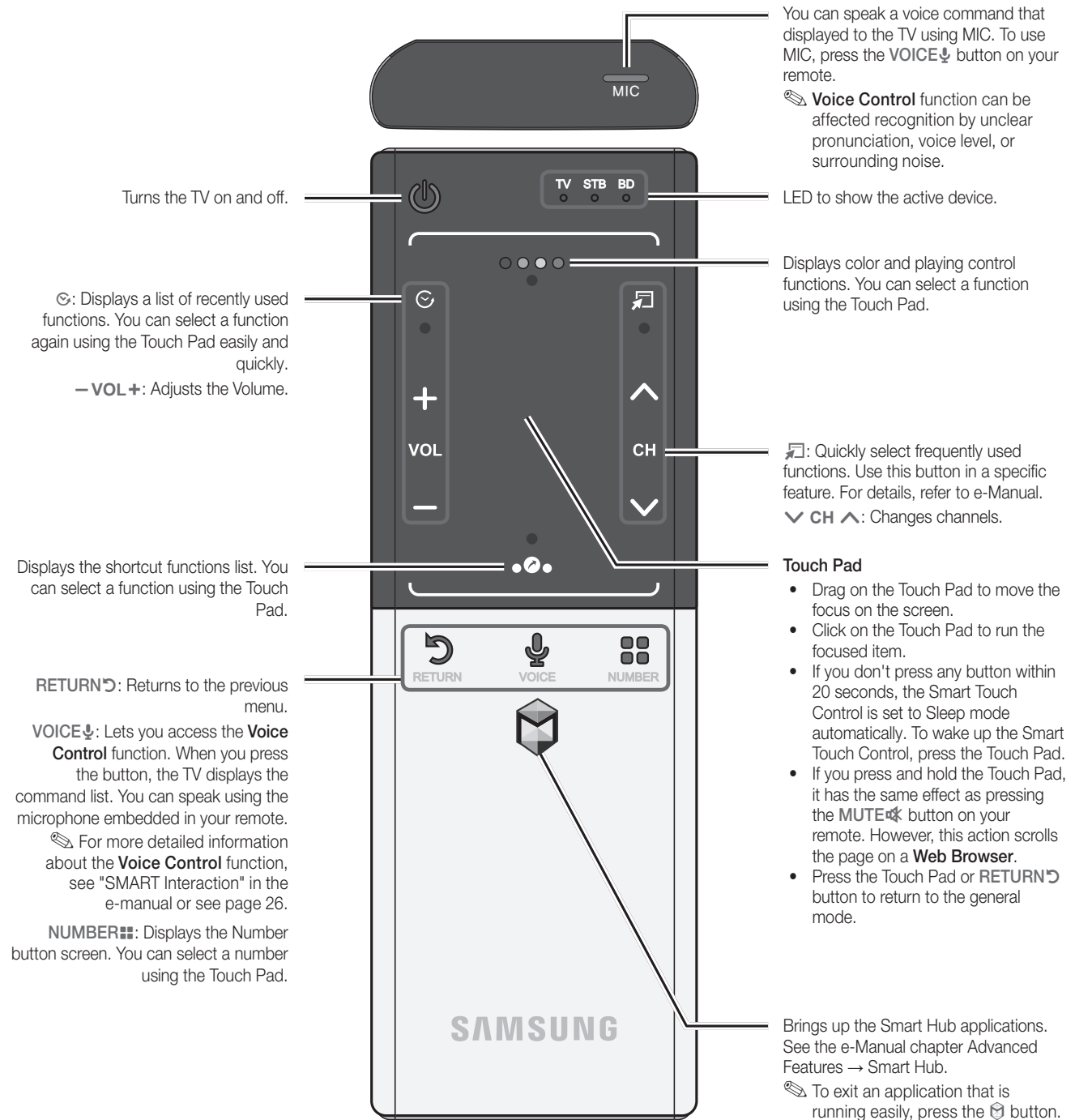
1. Connect your TV to your network as shown in one of the illustrations on page 36.
 2. Turn on your TV, and then go to the **Network Settings** screen. (**Menu** → **Network** → **Network Settings**)
 3. Select **Start**.
 4. The Network Connection screen appears, and verifies the network connection. When the connection has been verified, the **"You are connected to the Internet. If you have any problems using online services, please contact your Internet Service Provider."** message appears. Network set up is completed.
-  If your TV cannot acquire network the connection values automatically or if you want to set the connection manually, select **IP Settings** on the network connection screen. Set **IP Setting** to **Enter manually**, and then enter the **IP Address**, **Subnet Mask**, **Gateway**, and **DNS Server** manually.
-  For more detailed information, refer to "Setting up the Wired Network" in the e-Manual.

The Smart Touch Control

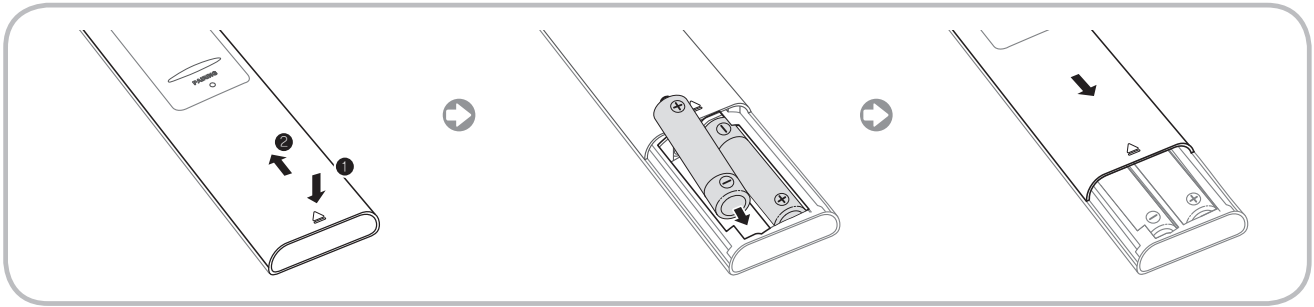
Improved user convenience has been provided so that you can switch the channel and adjust the volume with just your fingertips while focusing on the TV screen. In addition, the built-in Touch Pad removes the need for a mouse when you change the menu settings and search for something on the Internet.

For more detailed information about Smart Touch Control, see "Using the Smart Touch Control" in e-Manual.

Smart Touch Control



Installing batteries (Battery size : AA)

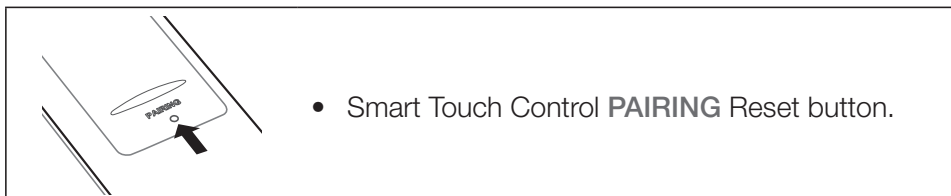


1. Press the back of the remote at the very bottom with both thumbs, and then slide the battery cover up in the direction of the arrow.
2. Install two batteries so that the polarity of the batteries (+/-) matches the illustration in the battery compartment.
3. Slide the cover down in the direction of the arrow to close the battery cover.

Initial Pairing for Smart Touch Control

After you have run the Initial Setup on your TV, you should connect your Smart Touch Control to your TV.

1. Point the Smart Touch Control toward the IR sensor of the TV and press any key on the Smart Touch Control.
 2. The connection icon appears at the bottom left of the screen and the Smart Touch Control is automatically connected to the TV.
- 📌 If you want to perform the pairing process again, press the reset button in the center of the back cover using a pin or the tip of an unbent paper clip. The Smart Touch Control will be initialized.



Calibrating the Touch Pad

To calibrate the Touch Pad on the Smart Touch Control, follow these steps:

1. Press the **NUMBER** button for 3 seconds. The calibration starts.
 2. When done, all the LEDs on the top of the Smart Touch Control blink twice simultaneously.
- 📌 While calibrating, don't touch the Touch Pad.
- 📌 If the Touch Pad loses accuracy, re-calibrate the Touch Pad by repeating Steps 1 and 2.