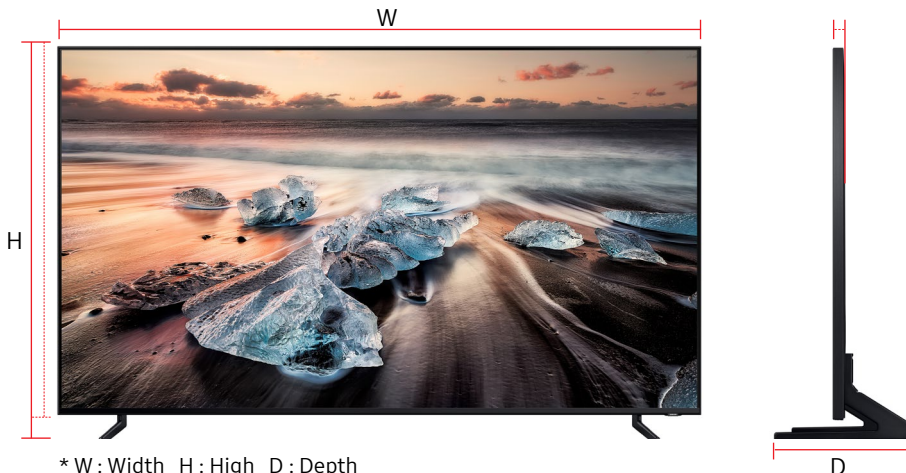


2. Product Specifications

2-1. Product information

Model	QN**Q900RAF		
Front View	 * W : Width H : High D : Depth		
Detail View			
Color	Front : BLACK / Stand : BLACK		
Dimensions (W x H x D)	85"	Body	75.0 x 43.1 x 1.4 inches (1905.2 x 1094.2 x 36.3 mm)
		With Stand	75.0 x 45.5 x 15.7 inches (1905.2 x 1155.6 x 398.6 mm)
Weight	85"	Without Stand	123.7 lbs (56.1 kg)
		With Stand	127.2 lbs (57.7 kg)

2-2. Product specification



NOTE

Design and specifications are subject to change without prior notice.

Last Update Date : 2018.03.28

Item		QN65Q9FNAFXZA
General Information	Product	QLED
	Series	Q
	Country	UNITED STATES
Display	Screen Size	85"
	Resolution	7,680 x 4,320
	Ultra Black	Ultra Black Elite
	Screen Curvature	N/A
	10 bit Support	Yes
Video	Picture Engine	Neurocessor Elite
	Motion Rate	240
	HDR (High Dynamic Range)	Q HDR 8K
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Q Constrast Elite Max
	Color	Q Color
	Viewing Angle	Q Viewing Angle
	Micro Dimming	Supreme UHD Dimming
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Sound Output (RMS)	60W
	Speaker Type	4.2CH
	Woofer	Yes
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Samsung SMART TV	Smart
	Bixby	US English
	Voice Interaction	US English, Spanish, French
	TV Plus	Yes(US only, Channel)

Item		QN65Q9FNAFXZA
Smart Service	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Universal Guide	Yes(US Only)
Convergence	TV to Mobile - Mirroring	Yes
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Easy Setup	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	Yes
Tuner/Broadcasting	Digital Broadcasting	ATSC/ClearQAM
	Analog Tuner	Yes
Connectivity	HDMI	4
	USB	3
	Component In (Y/Pb/Pr)	N/A
	Composite In (AV)	N/A
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	1
	CI Slot	N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	Solid Q
	Bezel Type	3 Bezel-less
	Front Color	Black
	Light Effect (Deco)	N/A
	Stand Type	Simple
	Swivel (Left/Right)	N/A
Additional Feature	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A

2. Product specifications

Item		QN65Q9FNAFXZA
Additional Feature	Ambient Mode	Yes
	Accessibility	Learn menu screen(US English)/ SeeColors/ Negative colors/ Grayscale/ Caption moving/ Voice Guide(US English)/ Enlarge/ High
	Digital Clean View	Yes
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	Connect Share™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	EPG	Yes
	Game Mode	Yes (Auto Game Mode, Game Motion Plus)
	OSD Language	English, Spanish, French
	BT HID Built-in	Yes
	USB HID Support	Yes
	Teletext (TTX)	N/A
	V-Chip	Yes
	IPv6 Support	Yes
	MBR Support	Yes
	Ultra Clean View	N/A
Eco Feature	Eco Sensor	Yes
	Energy Star	N/A
Power	Power Supply	AC110-120V 50/60Hz
	Power Consumption (Max)	625.8
	Power Consumption (Stand-by)	0.5
	Power Consumption (Typical)	255

2-3. Other specification

■ Specifications

Item	QN75Q9FNAF
LCD Panel	QLED 120Hz
Scanning Frequency	"Horizontal : 270KHz(TYP) Vertical : 120Hz(TYP)"
Display Colors	"16.7M(True Display) 1.07B(Dithered 10bit)"
Maximum resolution	"Horizontal : 7680 Pixels Vertical : 4320 Pixels"
Input Signal	Analog 0.7 Vp-p $\pm$ 5% positive at 75 Ω , internally terminated
Input Sync Signal	H/V Separate, TTL, P. or N.
Maximum Pixel Clock rate	76.5MHz * 4 (Typ 74.25MHz *4)
AC Power Voltage & Frequency	AC110-120V 50/60Hz
TV System	Tuning : Frequency Synthesize (Refer to detailed Frequency Table)
	System : ATSC & NTSC-M
	Sound : Dolby Digital Plus
Audio Spec.	"MAX Internal Audio Output Power : 60W (Main : 20W, Woofer:20W, Twitter : 20W)"

■ Environmental Considerations

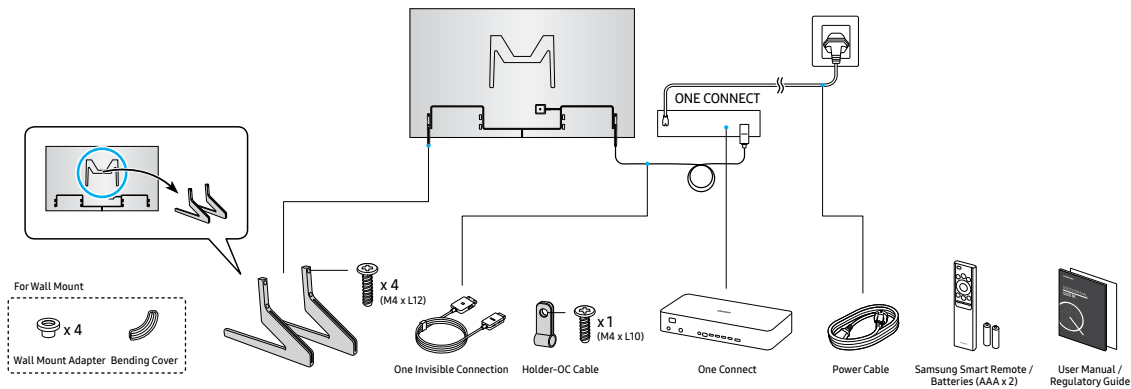
Operating Temperature	50°F to 104°F (10°C to 40°C)
Operating Humidity	10% to 80%, non-condensing
Storage Temperature	-4°F to 113°F (-20°C to 45°C)
Storage Humidity	5% to 95%, non-condensing

2-4. Accessories



NOTE

- The items' colors and shapes may vary depending on the model.
- Cables not included in the package contents can be purchased separately.
- The part code for some accessories may differ depending on your region.
- The provided accessories may vary depending on the model.



Product	Code. No	Product	Code. No
• One Connect	BN91-20383C	• One Invisible Connection	BN39-02436A
• Power Cable	3903-001086	• Samsung Smart Remote	BN59-01300*
• Batteries (AAA x 2)	4301-000103	• User Manual	BN68-09305A
• Regulatory Guide	BN68-08114Q		

■ For Wall Mount

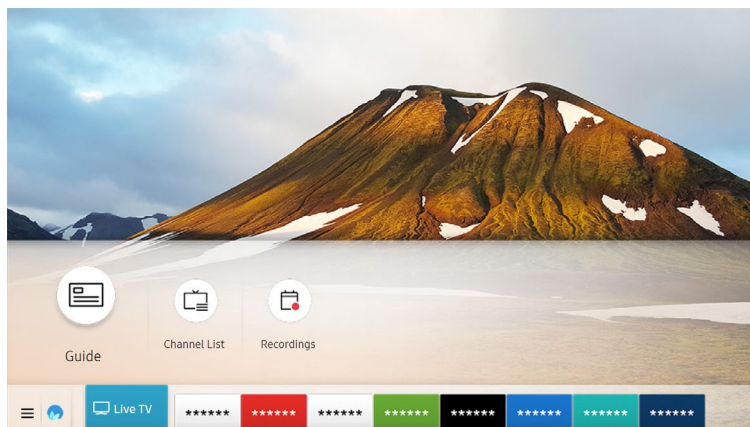
Product	Code. No	Product	Code. No
• Wall Mount Adapter (4 EA)	BN96-48057A	• Bending Cover	BN61-15791A

2-5. NEW Key Features

2-5-1. 2018' New UI

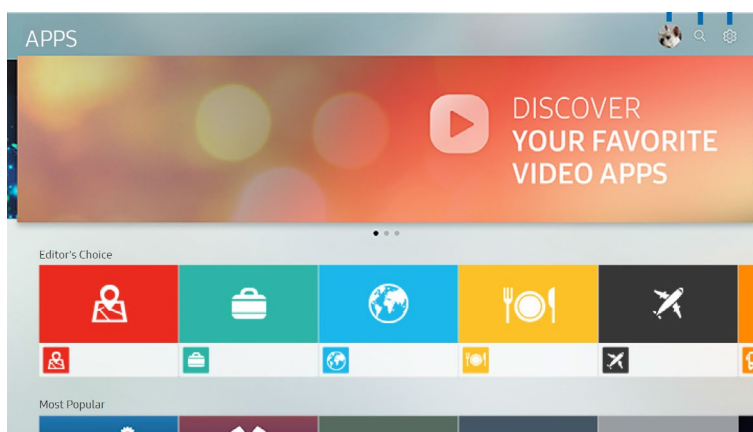
■ Viewing Broadcast Information at a Glance

See an overview of each channel's program lineup.



■ Using the APPS Service

You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

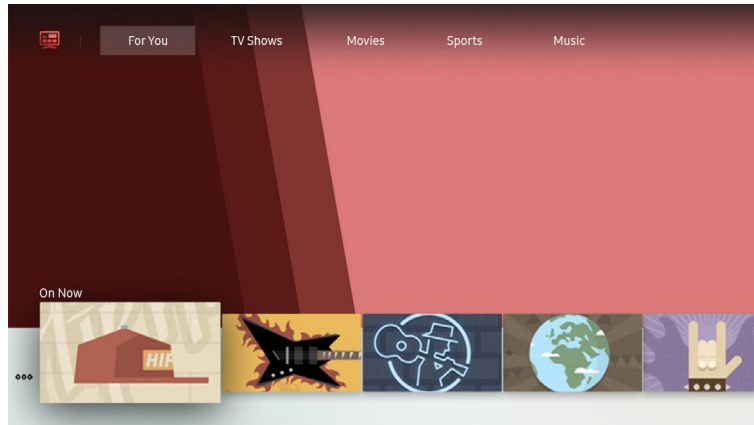


NOTE

- Actual product and remote control may differ from image shown.

■ Using the Universal Guide App

Search for and enjoy content such as TV shows, dramas, movies, sports broadcasts, and music.



NOTE

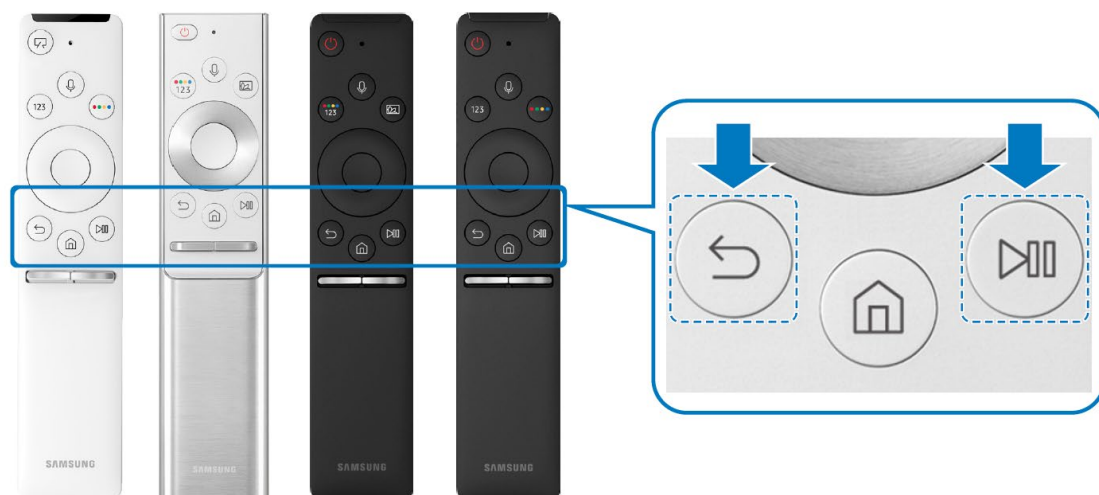
- Actual product and remote control may differ from image shown.

2-5-2. Quick Guides

Pair the TV with the Samsung Smart Remote.

■ Connecting to the Samsung Smart Remote

Connect the Samsung Smart Remote to your TV to operate the TV.



When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the  and  buttons simultaneously for 3 seconds or more.



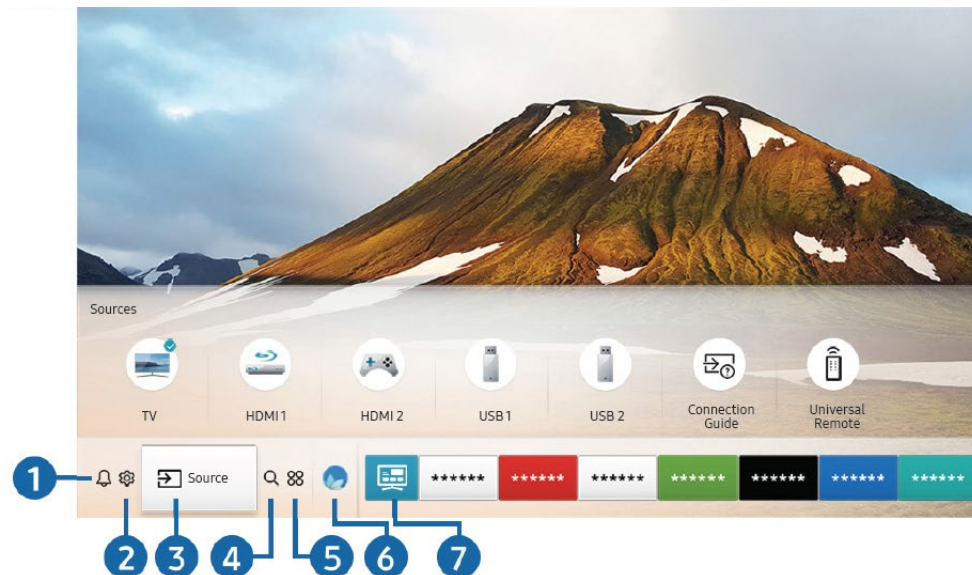
NOTE

- The images, buttons, and functions of the Samsung Smart Remote may differ with the model.
- The Samsung Smart Remote may not be supported depending on the model or geographical area.

■ Using Smart Hub

Connect to Smart Hub for apps, games, movies, and more.

Enjoy the multiple functions provided by **Smart Hub** simultaneously on a single screen.



NOTE

- The image on your TV may differ from the image above depending on your model and geographical area.

When you press the  button on your remote control, you can use the following functions and features.

1 Notification

You can view a list of notifications for all events that occur on your TV. A notification appears on the screen when it is time to broadcast a scheduled program or when an event occurs on a registered device.

- For more information, refer to "[Displaying the Home Screen.](#)"
-

2 Settings

When the focus is moved to the  icon, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons.

3 Settings

You can select an external device connected to the TV.

- For more information, refer to "[Switching between external devices connected to the TV.](#)"

4 Search

You can search data for channels, programs, movie titles, and apps from Smart Hub.

- To use this feature, the TV must be connected to the Internet.

5 APPS

You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

- To use this feature, the TV must be connected to the Internet.
- For more information, refer to ["Using the APPS Service."](#)

6 Ambient Mode

In **Ambient Mode**, you can view beautiful screens, various visual information, and notifications while the TV screen is turned off.

To enter **Ambient Mode**, press the  button. To return to the TV mode, press the  or  button. To shut off the TV, press the  button.

If you press the  button when the TV is turned off, the TV turns on in **Ambient Mode**.

- If you use a remote control other than the Samsung Smart Remote, there may be restrictions to entering Ambient Mode.
- Because this function is a QLED TV-specific function, it may not be supported depending on the model.
- For more information about the **Ambient Mode**, refer to ["Using the Ambient Mode."](#)

7 Universal Guide

Universal Guide is an app that allows you to search for and enjoy content such as TV shows, dramas, movies, sports broadcasts, and music being provided by other apps.

- For more information about the **Universal Guide**, refer to ["Using the Universal Guide App."](#)
- Images may look blurry depending on the service provider's circumstances.
- This function may not be supported depending on the model or geographical area.

■ Using Bixby

Speak into the microphone on your Samsung Smart Remote to control your TV.



NOTE

- This function may not be supported depending on the model or geographical area.
- The supported language may differ depending on the geographical area.

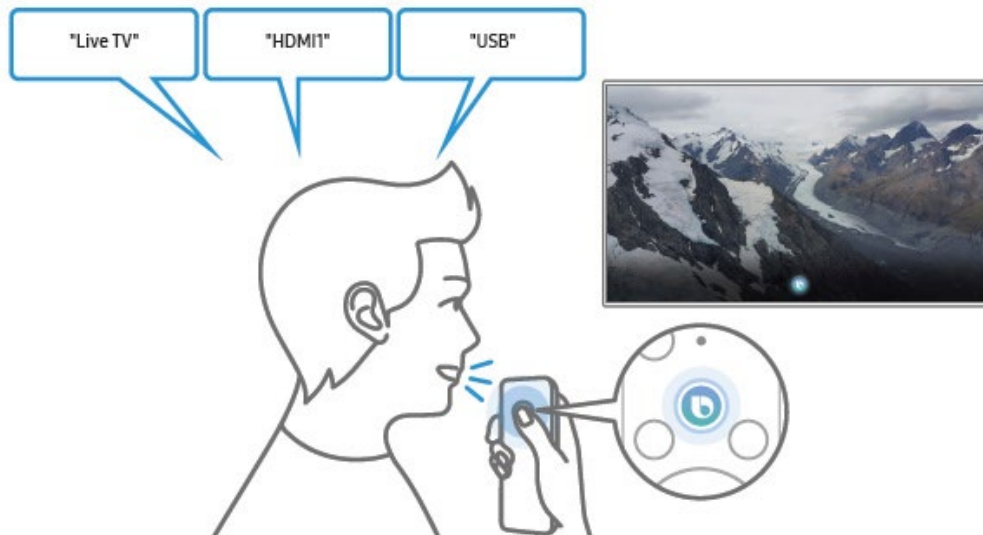
Running Bixby

Press and hold the  button on your Samsung Smart Remote, say a command, and then release the  button. The TV recognizes the voice command.



NOTE

- To view the [Bixby](#) guide, press the  button once. When you press the  button for the first time, the [Using Bixby](#) button appears at the bottom of the screen. Press the Select button. The [Using Bixby](#) popup window appears and a tutorial on using [Bixby](#) is shown. When you press the  button, the [Enter My Bixby](#) button appears at the bottom of the screen. Press the Select button to go to the [My Bixby](#) screen.

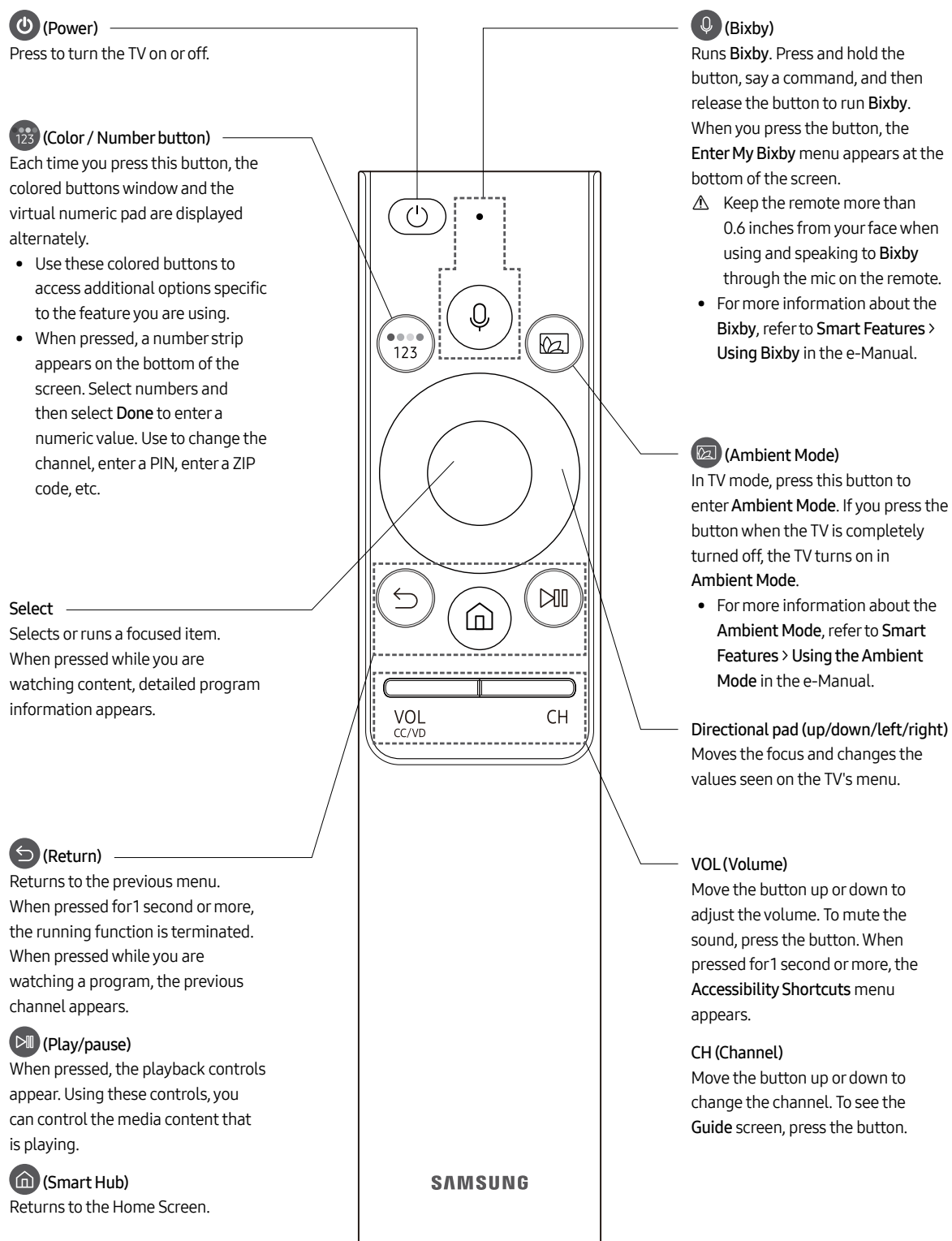


2-5-3. The Samsung Smart Remote

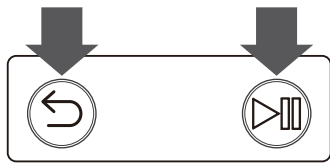


NOTE

- The images, buttons, and functions of the Samsung Smart Remote may differ depending on the model.

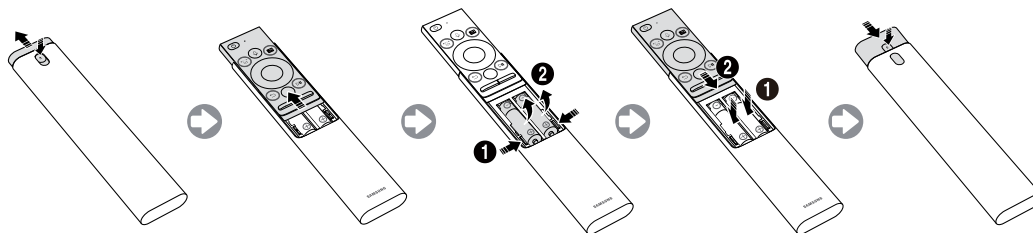


■ Pairing the TV to the Samsung Smart Remote



When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the buttons labeled  and  as shown in the figure on the left simultaneously for 3 seconds or more.

■ Installing batteries into the Samsung Smart Remote



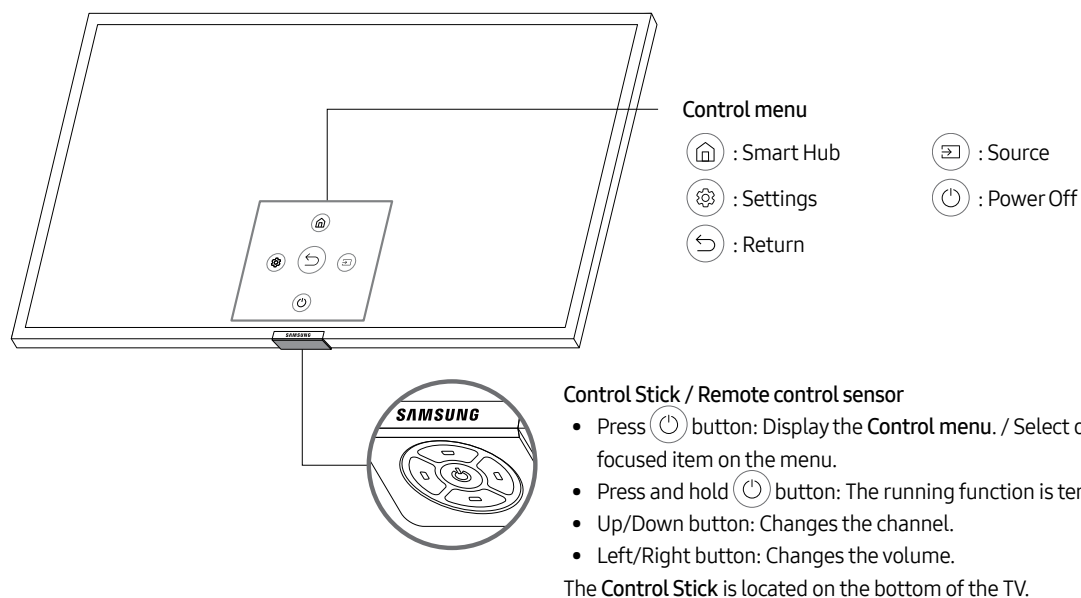
1. Press the  button at the top rear of the Samsung Smart Remote. The body will pop out slightly from the body cover.
 2. Turn the remote over, and then slide the body of the remote upwards until the battery compartment is revealed.
 3. If there are batteries in the remote, press the  and  buttons on both sides of the battery compartment to remove the existing batteries.
 4. Insert two new batteries (1.5V AAA type) into the battery compartment making sure that the batteries' polarities (+, -) are oriented correctly. When done, slide the body of the remote until it is nearly in its original position.
 5. Turn the remote over, press and hold the  button on the top rear, and then slide the body of the remote down into place.
- Alkaline batteries are recommended for longer battery life.

2-5-4. Using the TV Controller

You can use the Control Stick on the bottom of the TV instead of the remote control to control most of the functions of your TV. While watching TV, you can change the channel by pressing the up and down directional buttons on the Control Stick or adjust the volume by pressing the left and right directional buttons. Press the  button on the Control Stick to display the Control menu.

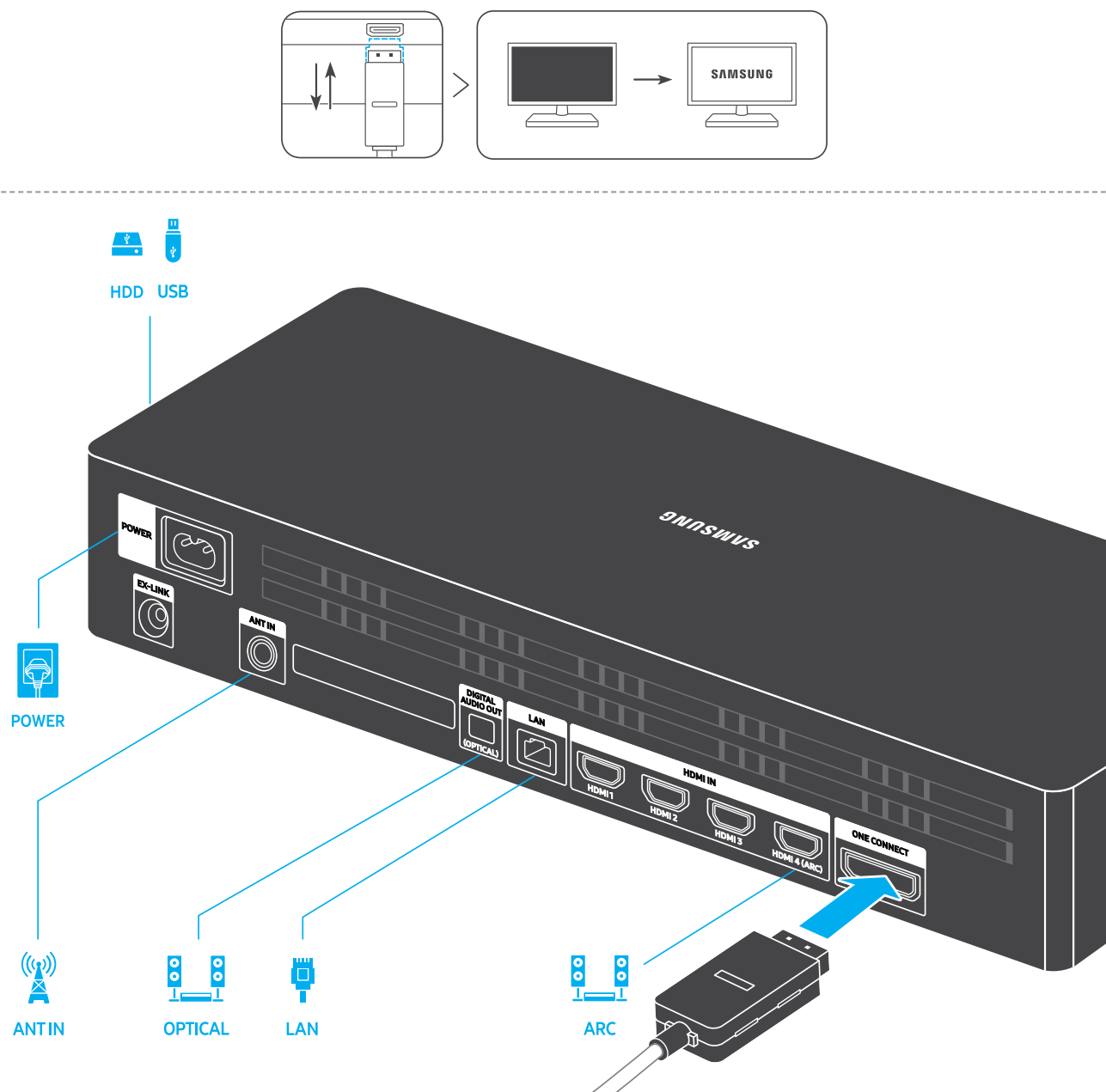
To run an item on the menu, press the directional buttons on the Control Stick to move the focus to the item, and then press the  button on the Control Stick.

- The screen may dim if the protective film on the SAMSUNG logo or the bottom of the TV is not detached. Please remove the protective film.



2-5-5. Rear View & One Connect

The TV turns off when the One Invisible Connection cable is disconnected, and turns on when it is connected.



2-6. HDMI UHD Color

■ Viewing UHD videos

-  >  **Settings** > **General** > **External Device Manager** > **HDMI UHD Color**

If an external UHD player is connected to the TV, use the HDMI UHD Color function to convert the TV's HDMI connector to a mode optimized for the UHD 50P/60P signals.

- When you select the HDMI connector you want to use for **HDMI UHD Color**, and then press the Select button to set the **HDMI UHD Color** function to **On**, the TV screen flickers.
- The HDMI connection with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0 input signals, while the HDMI connection with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2 input signals. For more information, refer to "Supported Resolutions for UHD Input Signals."
- When you connect the TV to an external device that supports only the UHD 24 or 30 Hz frequency or any FHD frequency, the **HDMI UHD Color** function may not be available. In this case, set **HDMI UHD Color** to **Off**.

■ Using HDMI black level

-  >  **Settings** > **General** > **External Device Manager** > **HDMI Black Level**

Use HDMI Black Level to adjust the black level to compensate for low black levels, low contrast, or dull colors generated by external devices connected to the TV via an HDMI cable.

- This function is only available when the input signal connected to the TV via an HDMI connector is set to RGB444.

2-7. Supported Formats

■ Supported external subtitles

Name	Format
MPEG-4 Timed text	.txt
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
SMPTE-TT Text	.xml

■ Supported internal subtitles

Name	Format
Xsub	AVI
SubStation Alpha	MKV
Advanced SubStation Alpha	MKV
SubRip	MKV
VobSub	MKV
MPEG-4 Timed text	MP4
TTML in smooth streaming	MP4
SMPTE-TT Text	MP4
SMPTE-TT PNG	MP4

■ Supported image formats and resolutions

File extension	Format	Resolution
*jpg *jpeg	JPEG	15360 x 8640
*png	PNG	4096 x 4096
*bmp	BMP	4096 x 4096
*mpo	MPO	15360 x 8640

■ Supported music formats and codecs

File extension	Format	Codec	Note
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac	MPEG4	AAC	
*.flac	FLAC	FLAC	Supports up to 2 channels
*.ogg	OGG	Vorbis	Supports up to 2 channels
*.wma	WMA	WMA	WMA is supported up to 10 Pro 5.1 channels, M2 profile. WMA1, WMA lossless / Voice are not supported.
*.wav	wav	wav	
*.mid *.midi	midi	midi	Supports type 0 and type 1. Seek is not supported. Supports USB device only.
*.ape	ape	ape	
*.aif *.aiff	AIFF	AIFF	
*.m4a	ALAC	ALAC	

■ Other Restrictions

- Codecs may not function properly if there is a problem with the content.
- Video content does not play or does not play correctly if there is an error in the content or container.
- Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility ratings.
- If the Index Table is has an error, the Seek (Jump) function will not work.
- When playing video over a network connection, the video may not play smoothly because of data transmission speeds.
- Some USB/digital camera devices may not be compatible with the TV.
- HEVC codec is only available in MKV / MP4 / TS containers.
- The MVC codec is supported partly.

■ Video decoders

- H.264 UHD is supported up to Level 5.1, and H.264 FHD is supported up to Level 4.1. (TV does not support FMO/ASO/RS)
- HEVC UHD is supported up to Level 5.1.
- VC1 AP L4 is not supported.
- GMC 2 or above is not supported.

■ Audio decoders

- WMA is supported up to 10 Pro 5.1 channels, M2 profile.
- WMA1, WMA lossless / Voice are not supported.
- QCELP and AMR NB/WB are not supported.
- Vorbis is supported for up to 5.1 channels.
- Dolby Digital Plus is supported for up to 5.1 channels.
- The supported sample rates are 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, and 48 KHz, and differ with the codec.