SAMSUNG

User Manual

S24AM50* S27AM50* S32AM50* S32AM70* S43AM70*

The colour and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.
The contents of this manual are subject to change without notice to improve quality.
An administration fee may be charged in the following situations:

(a) An engineer is called out at your request, but it is found that the product has no defect (i.e., where the user manual has not been read).

(b) You bring the unit to a repair centre, but it is found that the product has no defect (i.e., where the user manual has not been read).

You will be informed of the administration fee amount before a technician visits.

© Samsung
Samsung owns the copyright for this manual.
Use or reproduction of this manual in parts or entirety without the authorization of Samsung is prohibited.
Trademarks other than that of Samsung are owned by their respective owners.

Contents

Before Using the Product

Safety Precautions

6 Electricity and Safety

7 Installation

8 Operation

Cleaning

Correct posture to use the product

Preparations

Installation

12 Attaching the Stand

15 Precautions for moving the product

16 Checking the space around the product

17 Adjusting the Product Tilt

18 Anti-theft Lock

19 Wall Mount Kit Specifications (VESA)

Control Panel

Connections

Ports

Tidying Up the Connected Cables

Connection Guide

Connecting to the Internet

28 Checking the Internet connection status

28 Establishing a wireless Internet connection

29 Resetting Your Network

29 Turning on the product with a mobile device

29 Changing the name of the product

Screen Sharing (Smart View) with your Mobile Device

30 Using the Tap View

30 Enabling the Tap View

Switching between external devices connected to the product

31 Editing the name and icon of an external device

32 Enabling the Auto Source Switch+

32 Using additional functions

Connection Notes

33 Connection notes for HDMI

34 Connection notes for USB Type-C

34 Connection notes for computers

34 Connection notes for mobile devices

Remote Control and Peripherals

About the Samsung Smart Remote

39 Connecting the Samsung Smart Remote to the product

Using Anynet+ (HDMI-CEC)

40 Connecting an external device through Anynet+ and using their menus

40 Read before connecting an Anynet+ (HDMI-CEC) device

Controlling the product with a Keyboard, Mouse, or Gamepad

41 Connecting a USB keyboard, mouse, or gamepad

41 Connecting a Bluetooth keyboard, mouse, or gamepad

42 Using the keyboard and mouse

43 Setting up the input devices

Entering Text using the On-Screen Virtual Keyboard

Smart Features

Using Smart Hub

46 Displaying the Home Screen

51 Launching Smart Hub automatically

51 Launching the last used app automatically

51 Testing Smart Hub connections

51 Resetting Smart Hub

Using a Samsung account

52 Signing in to a Samsung account

52 Creating a new account

53 Managing your Samsung account

Using Remote Access

54 Connecting a Remote PC

57 Playing Multimedia Content on a Remote PC

58 Using Screen Sharing (Wireless)

58 Using Samsung DeX

58 Using Office 365

58 Adding the Cloud Service

59 Using Cloud Service

Using the Apps Service

61 Installing an app

61 Launching an app

62 Managing installed apps

Playing pictures/video/music

65 Playing multimedia content on a PC or mobile device

65 Playing multimedia content on a USB device

65 Listening to your mobile device sound through the speaker using Sound Mirroring

66 Buttons and functions available while playing multimedia content

69 Using Bixby

Picture and Sound

Adjusting the Picture Quality

74 Choosing a picture mode

74 Setting a Eye Care

75 Configuring advanced picture settings

Setting the Viewing Environment for External Devices

76 Using Input Signal Plus

76 Using HDMI Black Level

Changing the Picture Size and Position

77 Changing the picture size settings

77 Filling the picture in the screen

77 Adjusting the picture position

Configuring a Sound Mode and Expert Settings

78 Choosing a sound mode

78 Configuring advanced sound settings

Using the Sound Support Functions

80 Selecting speakers

80 Listening to the product through Bluetooth devices

81 Listening to the product through a Samsung audio device that supports the Wi-Fi function

System and Support

Using the Time Functions and the Timers

82 Adjusting the clock for DST and time zone

83 Changing the current time

83 Setting the clock manually

83 Using the sleep timer

83 Turning off the product using the off timer

83 Using the Standby Mode Timer

Using the Auto Protection Time and Energy Saving Functions

84 Setting the Auto Protection Time

84 Reducing the energy consumption of the product

Updating the Software

85 Updating through the Internet

85 Updating through a USB device

85 Updating the product automatically

Audio and Video Functions for the Visually or Hearing Impaired

86 Running the accessibility functions

86 Running Accessibility Shortcuts

86 Enabling voice guides for the visually impaired

87 Changing the volume, speed, pitch, and the product background volume of the Voice Guide

87 The product screen is turned off but audio continues

87 White text on black background (high contrast)

87 Enabling audio for the video description function

87 Setting the screen to black and white

87 Enlarging the font (for the visually impaired)

88 Showing captions

88 Splitting the caption

88 Selecting the caption language

88 Setting the digital caption related options

89 Listening to the product through Bluetooth devices (for the hearing impaired)

89 Configuring the repeat settings for remote control buttons

90 Using Voice Assistants on the product

Using Other Functions

91 Changing the menu language

91 Setting up a password

91 Selecting Usage or Retail Mode

92 Managing External Devices

92 Using AirPlay

92 Restoring the product to the factory settings

Precautions and Notes

Read Before Using Apps

Read Before Using the Internet Function

95 Read before setting up a wireless Internet connection

Read Before Playing Photo, Video, or Music Files

96 Limitations to the use of photo, video, and music files

97 Supported subtitles

98 Supported image formats and resolutions

98 Supported music formats and codecs

99 Supported video codecs

Read After Installing the product

101 Picture sizes and input signals

102 Installing an anti-theft lock

Supported Resolutions for UHD Input Signals

102 If Input Signal Plus is set to Off

102 If Input Signal Plus is set to On

Read Before Connecting a Computer (Supported Resolutions)

103 VESA DMT

105 VESA CVT

Supported Resolutions for Video Signals

106 CTA-861

107 List of graphic cards supporting HDR10

Read Before Using Bluetooth Devices

108 Restrictions on using Bluetooth

Installing the Software

Easy Setting Box

109 Restrictions and Problems with the Installation

109 System Requirements

Driver Installation

Troubleshooting

Picture Issues

110 Testing the picture

Sound and Noise Issues

114 Testing the sound

External Device Connectivity Issues

Network Issues

Anynet+ (HDMI-CEC) Issues

Remote Control Issues

Apps

Media Files

Voice Assistant Issues

Other issues

Diagnosing product operational issues

Getting Support

126 Getting support through Remote Management

126 Finding the contact information for service

Q & A

Specifications

General

Appendix

Responsibility for the Pay Service (Cost to Customers)

130 Not a product defect

130 A Product damage caused by customer’s fault

131 Others

Licences

WEEE

133 Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

133 Correct disposal of batteries in this product

Before Using the Product

Safety Precautions

Warning

A serious or fatal injury may result if instructions are not followed.

Caution

Personal injury or damage to properties may result if instructions are not followed.

<table>
<tr><td colspan="4">CAUTION</td></tr>
<tr><td colspan="4">RISK OF ELECTRIC SHOCK. DO NOT OPEN.</td></tr>
<tr><td colspan="4">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.</td></tr>
<tr><td></td><td>This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.</td><td></td><td>AC voltage: Rated voltage marked with this symbol is AC voltage.</td></tr>
<tr><td></td><td>This symbol indicates that this product has included important literature concerning operation and maintenance.</td><td></td><td>DC voltage: Rated voltage marked with this symbol is DC voltage.</td></tr>
<tr><td></td><td>Class II product: This symbol indicates that a safety connection to electrical earth (ground) is not required. If this symbol is not present on a product with a mains lead, the product MUST have a reliable connection to protective earth (ground).</td><td></td><td>Caution. Consult instructions for use: This symbol instructs the user to consult the user manual for further safety related information.</td></tr>
</table>

Electricity and Safety

Warning

- Do not use a damaged power cord or plug, or a loose power socket.
- Do not use multiple products with a single power socket.
- Do not touch the power plug with wet hands.
- Insert the power plug all the way in so it is not loose.
- Connect the power plug to a grounded power socket (type 1 insulated devices only).

- Do not bend or pull the power cord with force. Be careful not to leave the power cord under a heavy object.
- Do not place the power cord or product near heat sources.
- Clean any dust around the pins of the power plug or the power socket with a dry cloth.

Caution

- Do not disconnect the power cord while the product is being used.
- Only use the power cord provided with your product by Samsung. Do not use the power cord with other products.
- Keep the power socket where the power cord is connected unobstructed.
  - The power cord must be disconnected to cut off power to the product when an issue occurs.
- Hold the plug when disconnecting the power cord from the power socket.

Installation

Warning

- DO NOT PLACE CANDLES, INSECT REPELLANTS OR CIGARETTES ON TOP OF THE PRODUCT. DO NOT INSTALL THE PRODUCT NEAR HEAT SOURCES.
- Keep the plastic packaging out of the reach of children.
  - Children may suffocate.
- Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.)
  - The product may fall and become damaged and/or cause an injury.
  - Using the product in an area with excess vibration may damage the product or cause a fire.
- Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.
- Do not expose the product to direct sunlight, heat, or a hot object such as a stove.
  - The product lifespan may be reduced or a fire may result.
- Do not install the product within the reach of young children.
  - The product may fall and injure children.
- Edible oil (such as soybean oil) may damage or distort the product. Keep the product away from oil pollution. And do not install or use the product in the kitchen or near the kitchen stove.

Caution

- Do not drop the product while moving.
- Do not set down the product on its front.
- When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding.
  - The product may fall and become damaged and/or cause an injury.
  - Install the product only on cabinets or shelves of the right size.
- Set down the product gently.
  - Product failure or personal injury may result.
- Installing the product in an unusual place (a place exposed to a lot of fine dust, chemical substances, extreme temperatures or a significant presence of moisture, or a place where the product will operate continuously for an extended period of time) may seriously affect its performance.
  - Be sure to consult Samsung Customer Service Centre if you want to install the product at such a place.
- Before assembling the product, place the product down on a flat and stable surface so that the screen is facing downwards.

Operation

Warning

- There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.
  - Contact Samsung Customer Service Centre for repairs.
- To move the product, first disconnect all the cables from it, including the power cable.
- If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact Samsung Customer Service Centre.
- Do not let children hang from the product or climb on top of it.
  - Children may become injured or seriously harmed.
- If the product is dropped or the outer case is damaged, turn off the power and disconnect the power cord. Then contact Samsung Customer Service Centre.
  - Continued use can result in a fire or electric shock.

- Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.
  - The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.
- During a lightning or thunderstorm, power off the product and remove the power cable.
- Do not drop objects on the product or apply impact.
- Do not move the product by pulling the power cord or any cable.
- If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.
- Do not lift or move the product by pulling the power cord or any cable.
- Do not use or keep combustible spray or an inflammable substance near the product.
- Ensure the vents are not blocked by tablecloths or curtains.
  - An increased internal temperature may cause a fire.
- Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).
  - Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Centre.
- Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.
  - Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Centre.

Caution

- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
  - Set the screen to power-saving mode or moving-picture screen saver when not using the product for an extended period of time.
- Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc).
  - Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.
- Use the product at the recommended resolution and frequency.
  - Your eyesight may deteriorate.

- Do not hold the product upside-down or move it by holding the stand.
  - The product may fall and become damaged or cause an injury.
- Looking at the screen too close for an extended period of time can deteriorate your eyesight.
- Do not use humidifiers or stoves around the product.
- Rest your eyes for more than 5 minutes or look at distance objects for every 1 hour of product use.
- Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.
- Store small accessories out of the reach of children.
- Exercise caution when adjusting the product angle or stand height.
  - Your hand or finger may get stuck and injured.
  - Tilting the product at an excessive angle may cause the product to fall and an injury may result.
- Do not place heavy objects on the product.
  - Product failure or personal injury may result.

Cleaning

High-glossy models can develop white stains on the surface if an ultrasonic wave humidifier is used nearby.

Contact your nearest Samsung Customer Service Centre if you want to clean the inside of the product (Service fee will be charged.)

Do not press the product screen with hands or other objects. There is a risk of damaging the screen.

Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.

Take the following steps when cleaning.

1. Power off the product and PC.
2. Disconnect the power cord from the product.

Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.

3. Wipe the product with a clean, soft and dry cloth.
   Wet a soft cloth in water, wing it out well, and then use the cloth to wipe the exterior of the product clean.
   - Do not apply a cleaning agent that contains alcohol, solvent, or surfactant to the product.
   - Do not spray water or detergent directly on the product.
4. Connect the power cord to the product when cleaning is finished.
5. Power on the product and PC.

Correct posture to use the product



Use the product in the correct posture as follows:

- Straighten your back.
- Allow a distance of 45 to 50cm between your eye and the screen, and look slightly downward at the screen.
- Keep your eyes directly in front of the screen.
- Adjust the angle so light does not reflect on the screen.
- Keep your forearms perpendicular to your upper arms and level with the back of your hands.
- Keep your elbows at about a right angle.
- Adjust the height of the product so you can keep your knees bent at 90 degrees or more, your heels attached to the floor, and your arms lower than your heart.
- Do the Eye excercises or blink frequently, then eye fatigue will be relieved.

Preparations

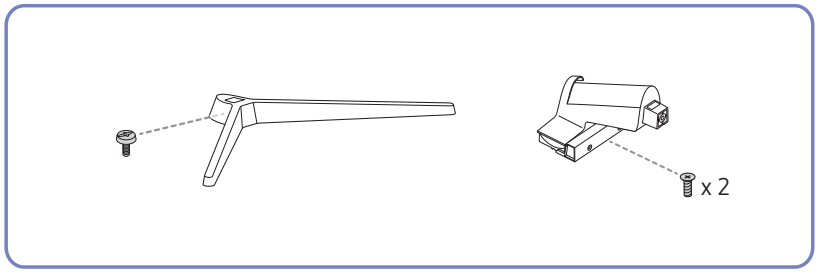
Installation

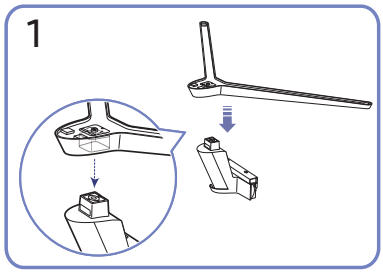
Attaching the Stand

Before assembling the product, place the product down on a flat and stable surface so that the screen is facing downwards.

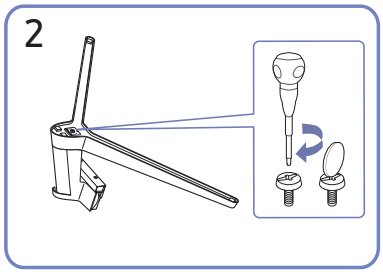
Disassembly is the reverse order of assembly.

S24AM50*

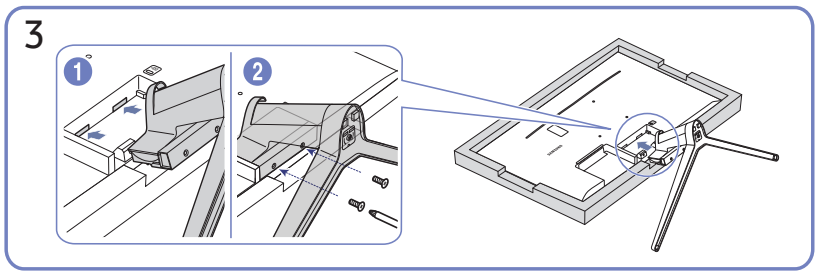




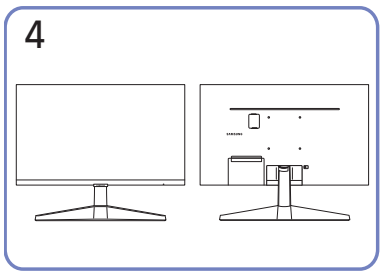
Put the stand base onto the stand neck as the direction shown in the figure. Check that the stand neck is firmly connected.



Tightly fasten the connecting screw at the bottom of the stand base.

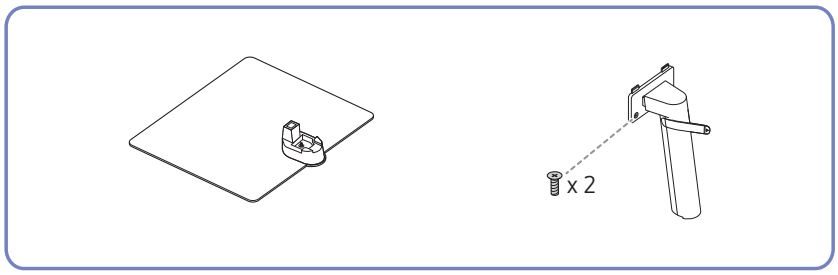


Place a soft cloth over the table to protect the product and place the product onto the cloth so that the front of the product is facing downwards. Push the assembled stand into the main body in the direction of the arrow as shown in the figure. Tightly fasten the connecting screw at the bottom of the main body.

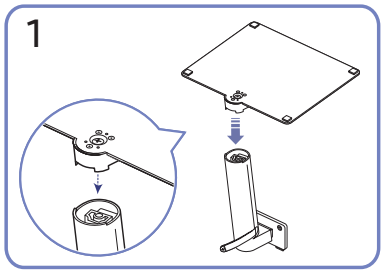


Stand assembly is complete.

S27AM50* / S32AM50* / S32AM70*

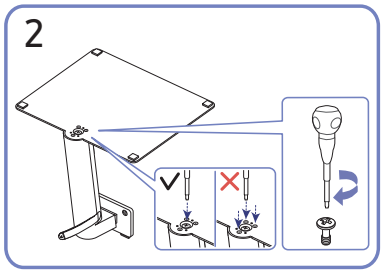


1



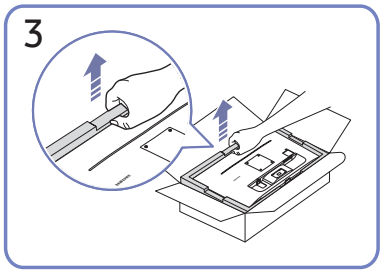
Put the stand base onto the stand neck as the direction shown in the figure. Check that the stand neck is firmly connected.

2



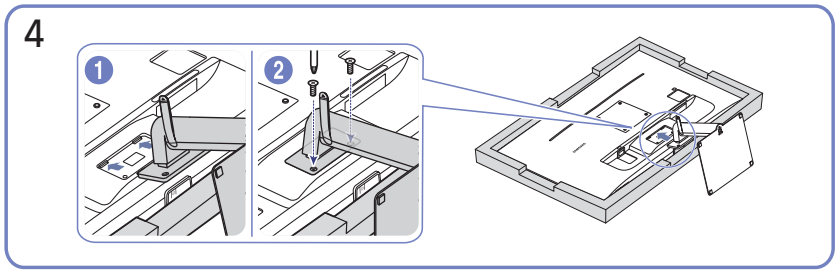
Tightly fasten the connecting screw at the bottom of the stand base. Fasten the large screw in the middle for assembly.

3



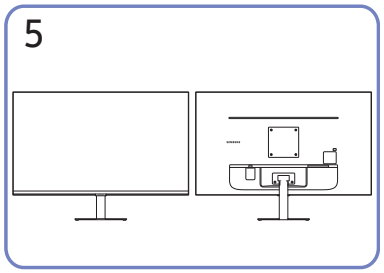
As shown in the figure, remove the product and foam cushion, and then place the product on the table with its front side facing the floor.

4



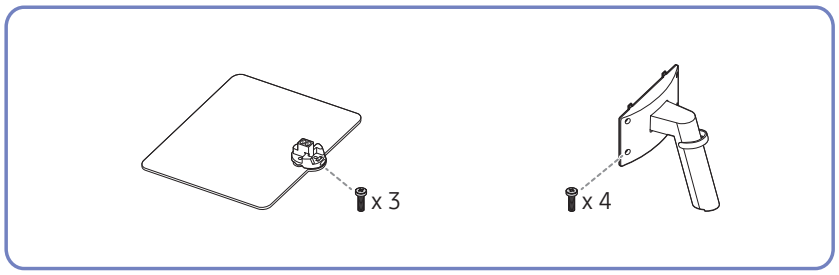
Push the assembled stand into the main body in the direction of the arrow as shown in the figure. Tightly fasten the connecting screw at the bottom of the main body.

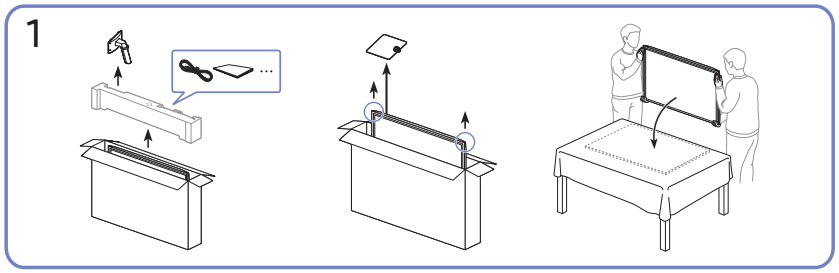
5



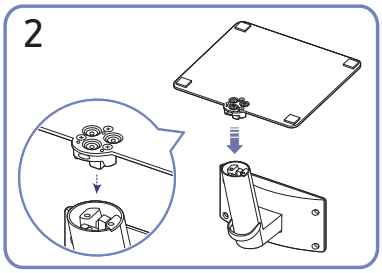
Stand assembly is complete.

S43AM70*

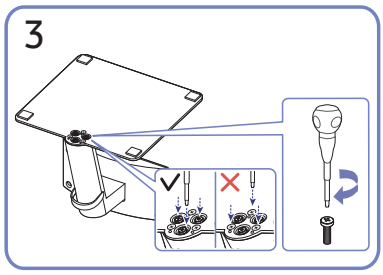




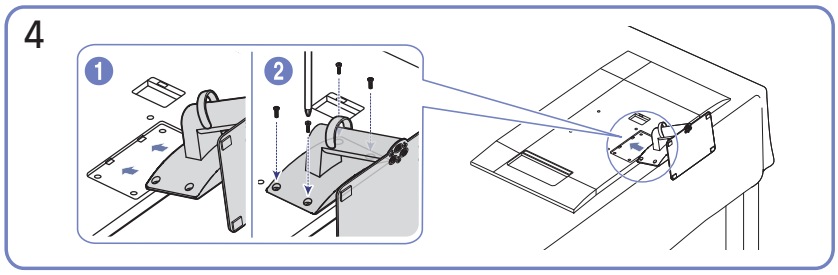
As shown in the figure, remove the product and foam cushion, and then place the product on the table with its front side facing the floor.



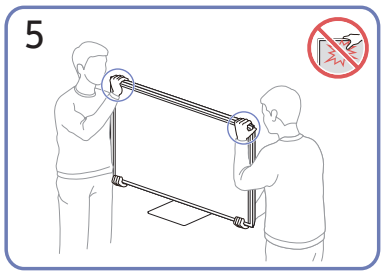
Put the stand base onto the stand neck as the direction shown in the figure. Check that the stand neck is firmly connected.



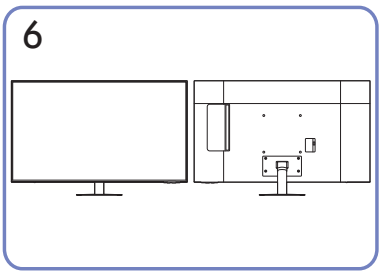
Tightly fasten the connecting screw at the bottom of the stand base.



Push the assembled stand into the main body in the direction of the arrow as shown in the figure. Tightly fasten the connecting screw at the bottom of the main body.



Stand up the monitor as shown in the figure.

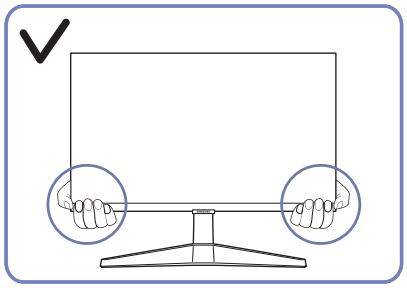


Stand assembly is complete.

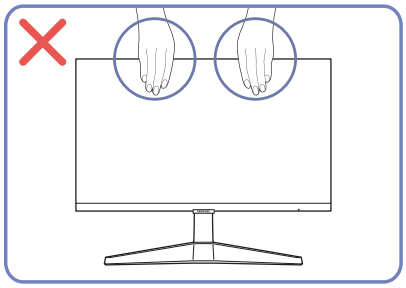
- Hold the lower corners or edges of the product when moving it.
- Do not directly apply pressure on the screen.
- Do not hold the screen when moving the product.
- Do not hold the product upside down only by the stand.

Precautions for moving the product

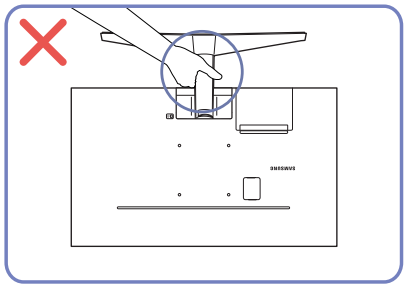
S24AM50*



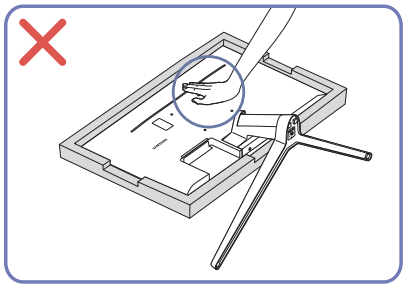
- Hold the lower corners or edges of the product when moving it.



- Do not directly apply pressure on the screen.
- Do not hold the screen when moving the product.

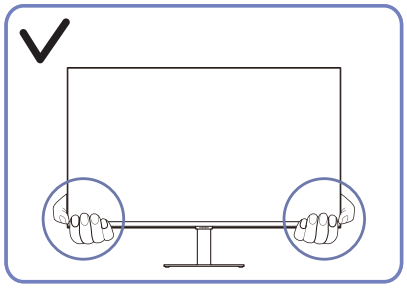


- Do not hold the product upside down only by the stand.

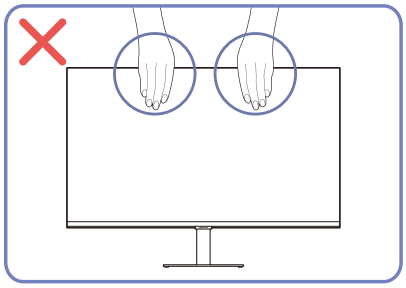


- Do not press down on the product. There is a risk of damaging the product.

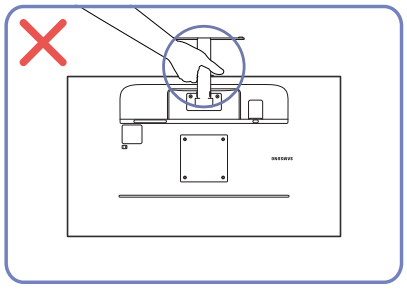
S27AM50* / S32AM50* / S32AM70*



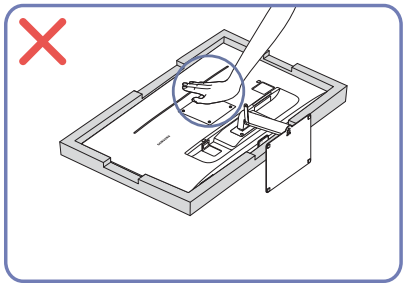
- Hold the lower corners or edges of the product when moving it.



- Do not directly apply pressure on the screen.
- Do not hold the screen when moving the product.



- Do not hold the product upside down only by the stand.



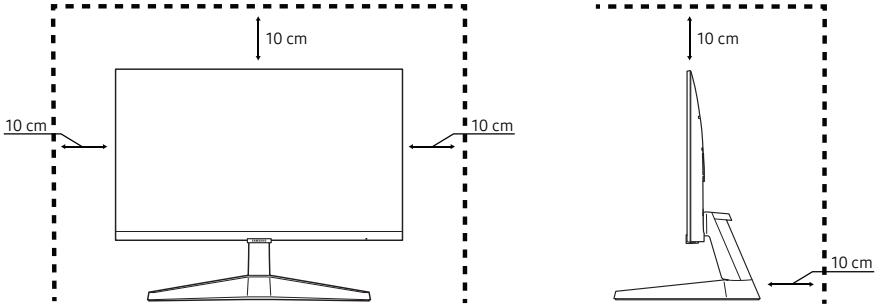
- Do not press down on the product. There is a risk of damaging the product.

Checking the space around the product

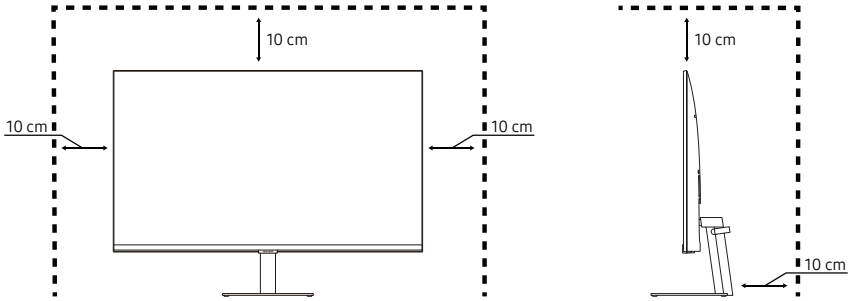
Make sure to have enough space for ventilation when placing the product. An internal temperature rise may cause fire and damage the product. Maintain enough space around the product as shown in the diagram when installing the product.

The exterior may differ depending on the product.

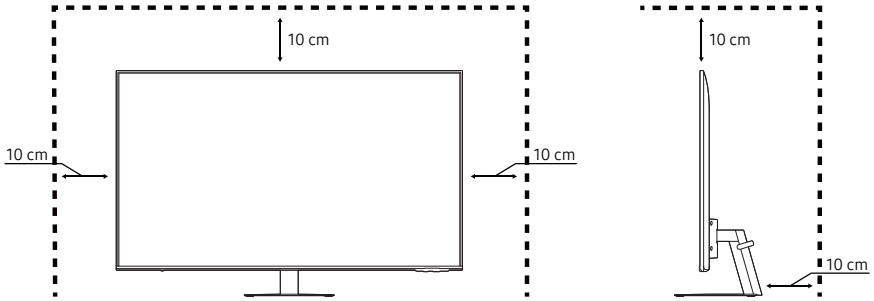
S24AM50*



S27AM50* / S32AM50* / S32AM70*



S43AM70*

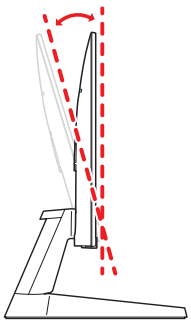


Adjusting the Product Tilt

The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

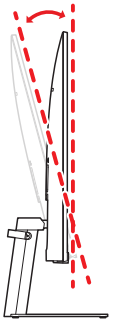
S24AM50*

-4.0° (±2.0°) ~ 18.0° (±2.0°)



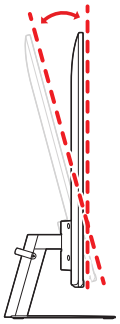
S27AM50* / S32AM50* / S32AM70*

-2.0° (±2.0°) ~ 22.0° (±2.0°)

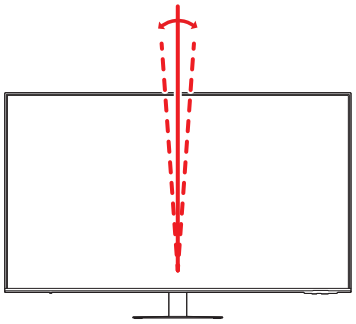


S43AM70*

-2.0° (±2.0°) ~ 20.0° (±2.0°)



-2.0° (±1.0°) ~ 2.0° (±1.0°)



- The product tilt can be adjusted.
- Hold the lower part of the product and adjust the tilt carefully.

Anti-theft Lock

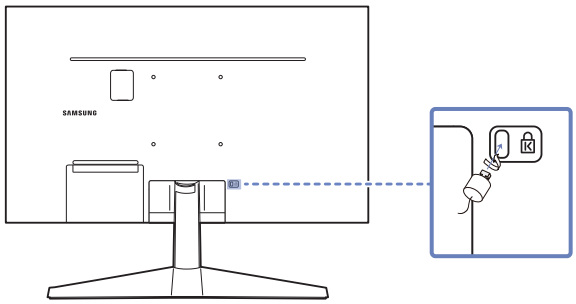
An anti-theft lock allows you to use the product securely even in public places.

The locking device shape and locking method depend on the manufacturer. Refer to the manuals provided with your anti-theft locking device for details.

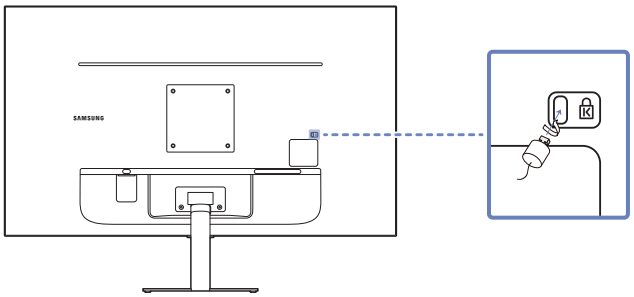
S24AM50* / S27AM50* / S32AM50* / S32AM70* model only.

To lock an anti-theft locking device:

S24AM50*



S27AM50* / S32AM50* / S32AM70*



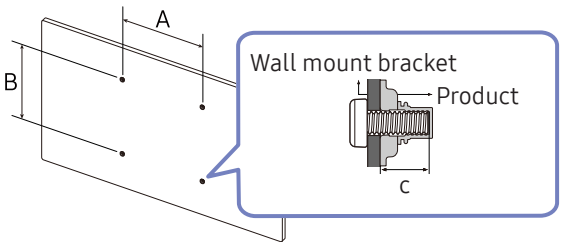
1. Fix the cable of your anti-theft locking device to a heavy object such as a desk.
2. Put one end of the cable through the loop on the other end.
3. Insert the locking device into the anti-theft lock slot at the back of the product.
4. Lock the locking device.
   - An anti-theft locking device can be purchased separately.
   - Refer to the manuals provided with your anti-theft locking device for details.
   - Anti-theft locking devices can be purchased at electronics retailers or online.

Wall Mount Kit Specifications (VESA)

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 product on a slanted wall, it may fall and result in severe personal injury. Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.

- 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 product.
- 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 product at more than a 15 degree tilt.
- Standard dimensions for wall mount kits are shown in the table below.

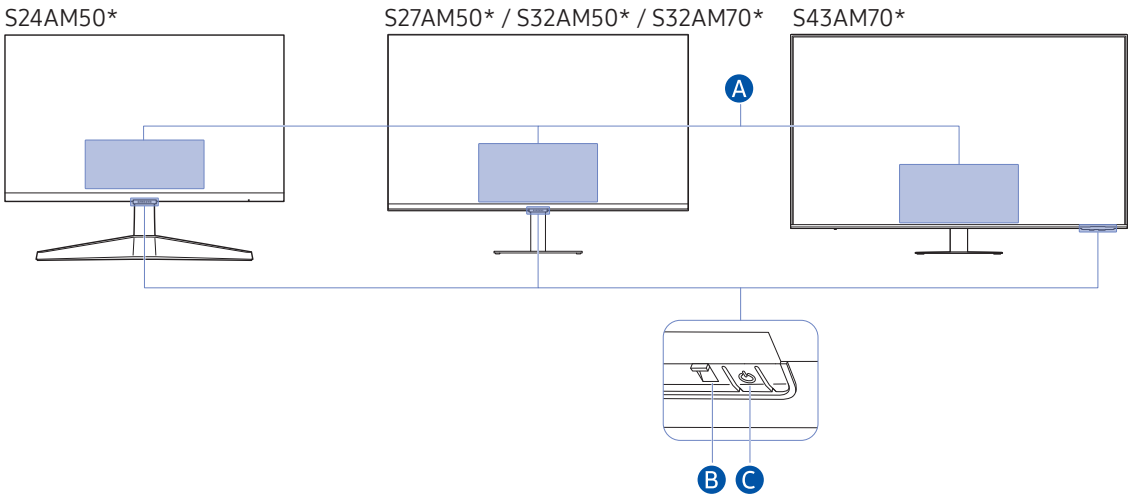
Model name	VESA screw hole specs (A * B) in millimeters	C	Standard Screw	Quantity
S24AM50*	100 x 100	7.8~9.8 mm	M4	4 EA
S27AM50* S32AM50* S32AM70*	100 x 100	7.0~10.0 mm	M4	4 EA
S43AM70*	200 x 200	11.0~13.0 mm	M8	4 EA



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

Control Panel

You can turn on the product with the Power button at the bottom of the product, and then use the Control menu. The Control menu appears when the Power button is pressed while the product is On.



A Control menu

- Power Off: Turns off the product.
- SOURCE: Change the SOURCE.
- Volume Up / Volume Down: Adjust Volume.
- Channel Up / Channel Down: Change the Channel.

  The functions related to the broadcast and channel are available only in some apps or external devices.

B Power indicator

- The LED turns on when the product is turned off.
- The LED blinks when the product enters the standby mode.

  When 60 seconds elapses with no signal, the product enters the standby mode. In standby mode, the screen turns on again when any signal is input or any button is pressed on the remote control.
- The colour and shape of parts may differ from what is shown.
- The screen may dim if the protective film on the SAMSUNG logo or the bottom of the product is not detached. Please remove the protective film.
- When using the buttons (excluding Power) on the Samsung Smart Remote, the receiver LED does not blink.

C Power button / Remote control sensor

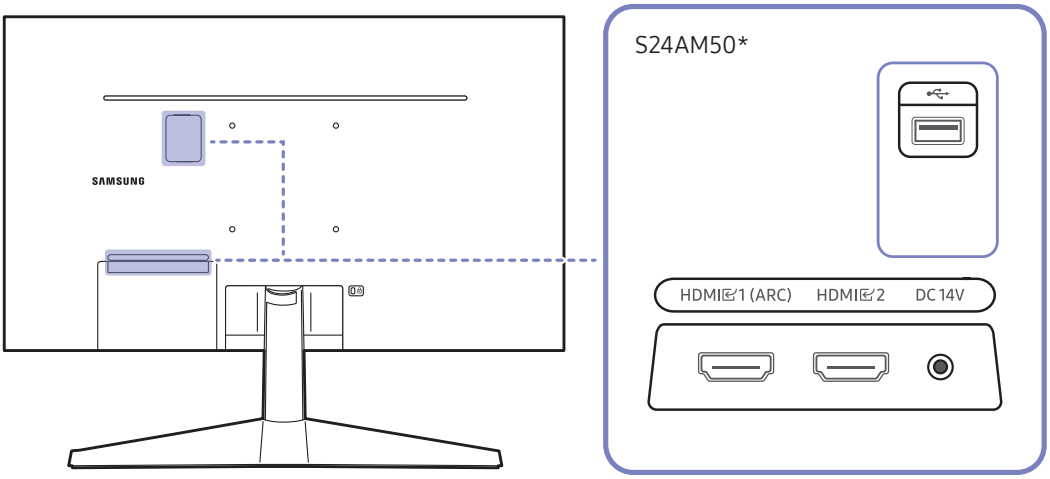
- Short press: Moves to another item.
- Long press: Selects the current item.

Connections

Using various connectors, you can also connect external devices.

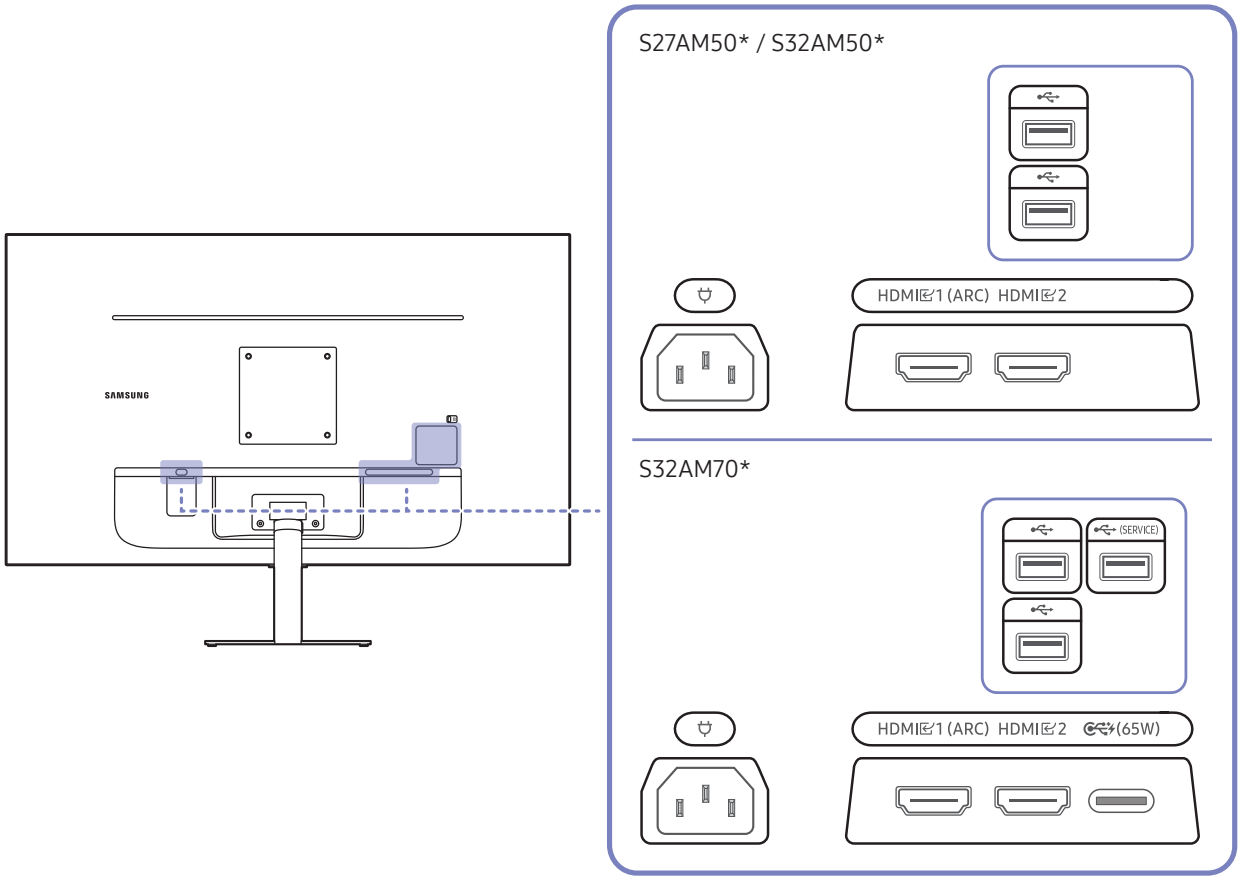
Ports

The functions available may vary depending on the product model. The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality. Refer to the actual product.



Port	Description
HDMI⇦1 (ARC) HDMI⇦2	Connects to a source device using an HDMI cable or HDMI-DVI cable.
⇦	Connect to a USB device.
DC 14V	Connects to the AC/DC adapter.

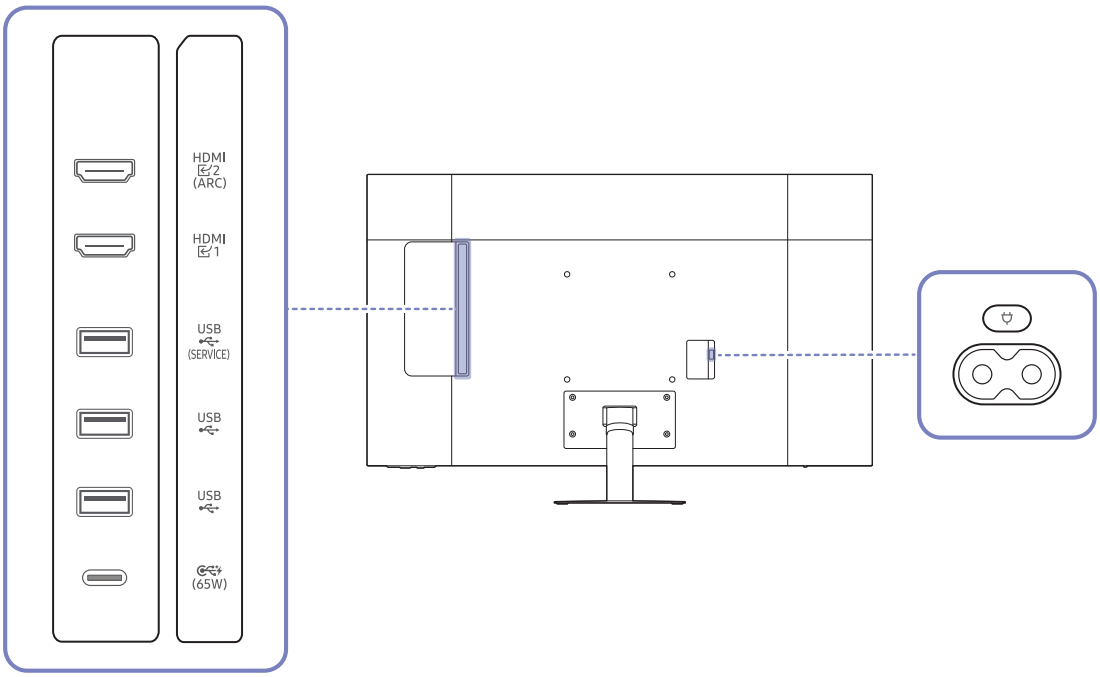
For more information about connection to an external device, refer to > Source > Connection Guide.



Port	Description
HDMI⇦1 (ARC) HDMI⇦2	Connects to a source device using an HDMI cable or HDMI-DVI cable.
⇦	Connect to a USB device.
⇦ (SERVICE)	• Connect to a USB device. • Used to update the software. This function is available only in M7 series.
⇦(65W)	• Connects to a source device using a USB Type-C cable. Compatible with a USB cable version 3.1 Gen2. Lower version cables are not support video input function(Displayport ALT). • The USB Type-C port can be connected to a notebook or mobile device for charging. This function is available only in M7 series.
⏻	Connect the power cord for product.

For more information about connection to an external device, refer to ⌂ > Source > Connection Guide.

S43AM70*



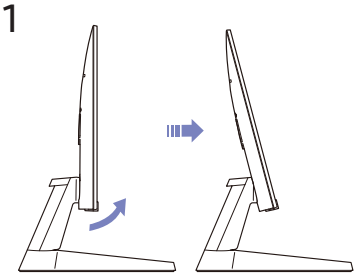
Port	Description
HDMI 1 HDMI 2 (ARC)	Connects to a source device using an HDMI cable or HDMI-DVI cable.
USB (SERVICE)	• Connect to a USB device. • Used to update the software. This function is available only in M7 series.
USB	Connect to a USB device.
(65W)	• Connects to a source device using a USB Type-C cable. Compatible with a USB cable version 3.1 Gen2. Lower version cables are not support video input function(Displayport ALT). • The USB Type-C port can be connected to a notebook or mobile device for charging. This function is available only in M7 series.
	Connect the power cord for product.

For more information about connection to an external device, refer to > Source > Connection Guide.

Tidying Up the Connected Cables

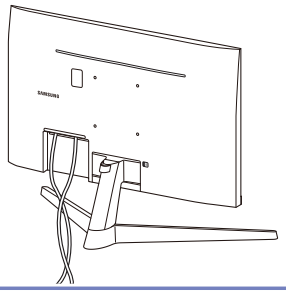
S24AM50*

1



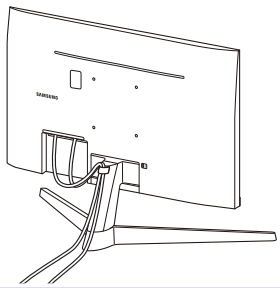
Tilt the display, as shown in the figure.

2



Connect the corresponding cables.

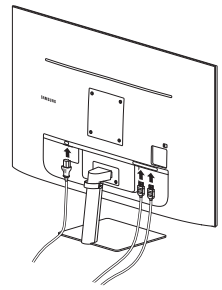
3



Put both cables in the cable holder on the stand (HOLDER-STAND CABLE) to organise the cables, as shown in the figure. Assembly is complete.

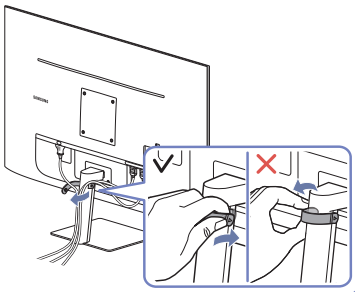
S27AM50* / S32AM50* / S32AM70*

1



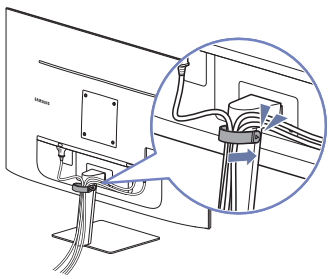
Connect the corresponding cables.

2



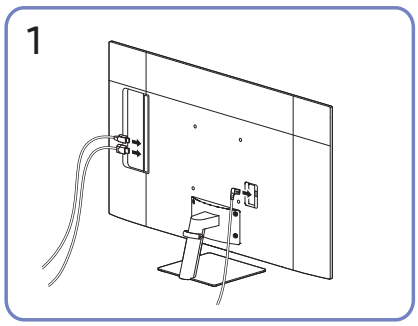
Pull the right side of the HOLDER-STAND CABLE to remove from the stand. The right side of the cable can be damaged when pulled forcibly.

3

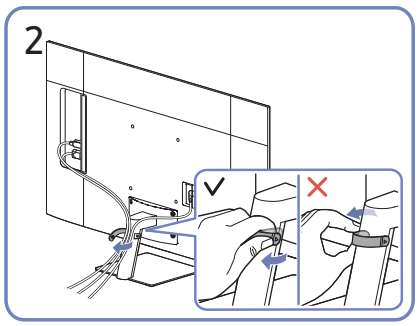


Put both cables in the cable holder on the stand (HOLDER-STAND CABLE) to organise the cables, as shown in the figure. Assembly is complete.

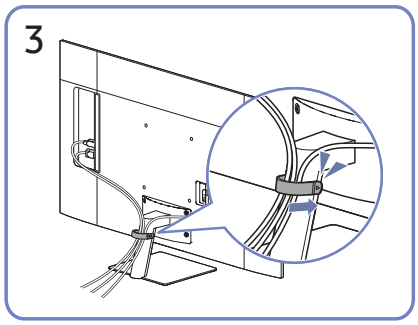
S43AM70*



Connect the corresponding cables.



Pull the right side of the HOLDER-STAND CABLE to remove from the stand. The right side of the cable can be damaged when pulled forcibly.



Put both cables in the cable holder on the stand (HOLDER-STAND CABLE) to organise the cables, as shown in the figure. Assembly is complete.

Connection Guide

You can view detailed information about external devices that can be connected to the product.

> Source > Connection Guide

It shows you how to connect various external devices, such as video devices, game consoles, and PCs using pictures. If you select the connection method and an external device, the connection details appear.

- Audio Device: HDMI (ARC), Bluetooth, Wi-Fi, Wi-Fi Speaker Surround Setup, HDMI Troubleshooting

  HDMI (ARC) is supported by some models. Check the HDMI port name of the purchased product's model.

- Video Device: HDMI, HDMI Troubleshooting
- Smartphone: Screen Sharing (Smart View), SmartThings, Apple AirPlay, Tap View, Samsung DeX
- PC: HDMI, USB-C, Screen Sharing (Wireless), Apple AirPlay, HDMI Troubleshooting
- Input Device: Remote control, Keyboard, Mouse, USB Gamepad, Bluetooth Device
- Game Console: HDMI, HDMI Troubleshooting
- External Storage: USB Flash Drive, Hard Disk Drive (HDD)

The connection method and available external devices may differ depending on the model.

Using HDMI Troubleshooting, you can check the connection to HDMI cable and external devices (takes approximately 2 minutes).

Connecting to the Internet

You can get access to the Internet through your product.

Checking the Internet connection status

Home > Settings > General > Network > Network Status

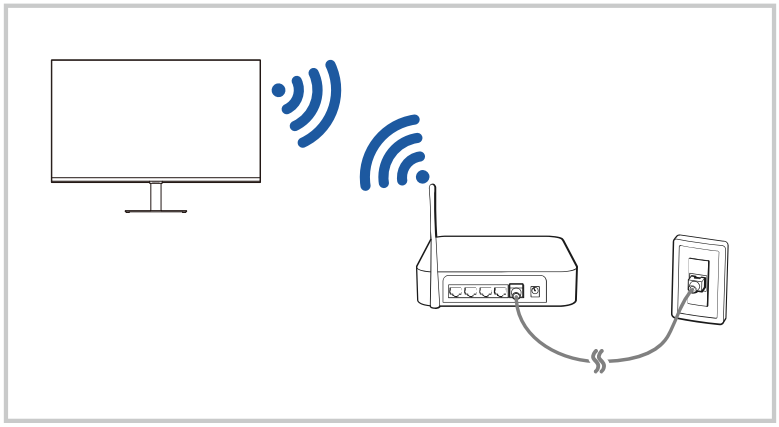
View the current network and Internet status.

Establishing a wireless Internet connection

Home > Settings > General > Network > Open Network Settings

Configure network settings to connect to an available network.

Make sure that you have the wireless access point's SSID (name) and password settings before attempting to connect. The network name (SSID) and security key are available on the wireless access point's configuration screen. See the wireless access point's user manual for more information.



- The image on your product may differ from the image above depending on the model and geographical area.
- If no wireless access point is found, select **Add Network** at the bottom of the list and enter the network name (SSID).
- If your wireless access point has a WPS or PBC button, select **Use WPS** at the bottom of the list, and then push the WPS or PBC button on your access point within 2 minutes. The product will connect automatically.
- To view or delete previously connected network names (SSIDs), move the focus to **Manage Saved Networks**, and then press the Select button.

Resetting Your Network

Settings > General > Network > Reset Network

Restore the network settings to the factory default.

Turning on the product with a mobile device

Settings > General > Network > Expert Settings > Power On with Mobile

You can turn on the product using a mobile device connected to the same network as the product.

This function is available with a mobile device connected to the product through the SmartThings app or the Apple AirPlay function.

Changing the name of the product

Settings > General > System Manager > Device Name

You can change the name of the product on the network. Select User Input at the bottom of the list and change the name.

Screen Sharing (Smart View) with your Mobile Device

You can watch the screen of your mobile device on the product screen through Smart View or Tap View.

For information on how to share the screen with your mobile device, refer to > Source > Connection Guide > Smartphone > Screen Sharing (Smart View).

- To turn off Screen Sharing (Smart View), disconnect the mobile device or press the button on the remote control.
- Using the Smart View menu on your mobile device, you can change the settings such as aspect ratio.
- Use AirPlay if you are an iPhone or iPad user. For more information, refer to > Source > Connection Guide > Smartphone > Apple AirPlay.

Using the Tap View

By tapping the mobile device on your product, you can watch mobile device's screen through the product screen.

This function may not be supported depending on the model.

This function is available in Samsung mobile devices with Android 8.1 or higher.

1. Enable Tap View on your mobile device.

   For more information about configuration, refer to 'Enabling the Tap View' below for how to set.

2. Turn on the screen of your mobile device.
3. Tap your mobile device on the product. The product screen switches to mobile device's screen.
4. Watch mobile device's screen on the product screen.

This function enables mirroring (Smart View) by detecting vibrations generated when you tap the mobile device on the product.

Be sure to tap away from the product screen and bezel corners. It may scratch or break the product or mobile device screen.

We recommend using your mobile device with the cover in place and lightly tap it on any external edge of the product.

Enabling the Tap View

Enable Tap View in the SmartThings app.

Depending on the SmartThings app version, you may need to register the product with your mobile device.

1. Launch the SmartThings app on your mobile device.
2. Select Settings (>) in SmartThings app on your mobile device.
3. Set the Tap View to on.

   Upon connection for the first time, select Allow on a pop-up window of the product.

Switching between external devices connected to the product

You can switch between product programmes and the content of external devices.

> Source

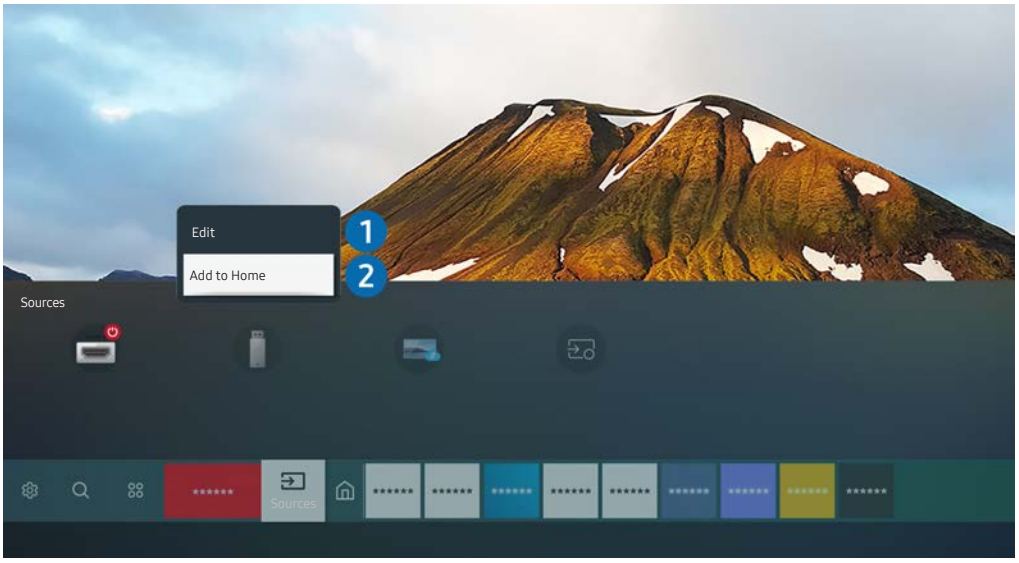
When you select a connected external device on the Source screen, the output of the selected device is displayed on the product's screen.

- On the standard remote control, press the SOURCE button.
- When a USB device is connected to the USB port, a pop-up message appears that lets you switch easily to the media content listed on the device.
- This function may not be supported depending on the device and geographical area.

Editing the name and icon of an external device

> Source

You can change the port name for a connected external device or add it to the Home Screen.



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

1. Move the focus to a connected external device.
2. Press the up directional button. The following functions become available:
   - Available functions may differ depending on the port type.

1 Edit

You can rename the input ports and change the device icons.

2 Add to Home

You can add the port of an external device to the Home Screen for quick switching.

Enabling the Auto Source Switch+

Settings > General > System Manager > Auto Source Switch+

The screen of a new source appears automatically.

Using additional functions

You can use the following features on the Source screen.

- Remote Access

  Use the product to access your PC via remote PC or Screen Sharing (Wireless).

  For more information, refer to "Using Remote Access."

- Connection Guide

  Displays device connection instructions.

  For more information, refer to "Connection Guide."

- Samsung TV Plus

  While the product is connected to the Internet, you can watch popular programmes or highlights for each theme through a virtual channel at any time. As with regular channels, the product provides the daily programme schedules for Samsung TV Plus.

  This function may not be supported depending on the model or geographical area.

Connection Notes

When connecting an external device, note the following:

The number of connectors, and their names and locations may differ with the model.

Refer to the external device's operating manual when connecting it to the product. The number of external device connectors, and their names and locations may differ with the manufacturer.

Connection notes for HDMI

- The following types of HDMI cables are recommended:
  - High Speed HDMI Cable
  - High Speed HDMI Cable with Ethernet
  - Premium High Speed HDMI Cable
  - Premium High Speed HDMI Cable with Ethernet
  - Ultra High Speed HDMI Cable
- Use an HDMI cable with a thickness of 0.66 inches (17 mm) or less.
- Using a non-certified HDMI cable may result in a blank screen or a connection error.
- Some HDMI cables and devices may not be compatible with the product due to different HDMI specifications.
- This product does not support HDMI Ethernet Channel. Ethernet is a Local Area Network (LAN) built with coaxial cables standardised by the IEEE.
- Use a cable shorter than 10 feet (3 m) to get the best UHD viewing quality.
- Many computer graphics adaptors do not have HDMI ports, but have DVI or DisplayPort ports instead. If your PC does not support HDMI video out, connect your PC with a DVI to HDMI or HDMI to DisplayPort cable.
- When the product is connected to an external device, such as a DVD/BD player or a set-top box via HDMI, power sync mode will be automatically activated. In the power sync mode, the product continues to detect and connect external devices via HDMI cable. This function can be deactivated by removing the HDMI cable of the connected device.

  This function may not be supported depending on the model.

Connection notes for USB Type-C

This function is available only in M7 series.

- Check the bandwidth of your USB Type-C cable whether it is available. The output may not be adequate depending on the cable specification and condition.
- Do not quickly connect or disconnect the connector and power cable, because it requires some time.
- Due to the compatibility issue, the function may not be available when any Thunderbolt device is connected using a cable.
- When charging with a USB Type-C cable, malfunction may occur depending on the device type. In this case, use the provided charger or consult the manufacturer of the device.

Connection notes for computers

- For the resolutions supported by the product, refer to "Read Before Connecting a Computer (Supported Resolutions)."
- If you want to connect your PC and product wirelessly, both of them must be connected to each other on the same network.
- When sharing content with other network-based devices, such as those in an IP (Internet Protocol) storage system, sharing may not be supported due to the network's configuration, quality, or functionality, for example, if the network has an NAS (Network-Attached Storage) device.

Connection notes for mobile devices

- To use the Smart View function, the mobile device must support a mirroring function, such as Screen Mirroring or Smart View. To check whether your mobile device supports the mirroring function, refer to the mobile device's user manual.
- To use Wi-Fi Direct, the mobile device must support the Wi-Fi Direct function. To check whether your mobile device supports Wi-Fi Direct function, refer to the mobile device's user manual.
- The mobile device and your product must be connected to each other on the same network.
- Use AirPlay if you are an iPhone or iPad user. For more information, refer to > Source > Connection Guide > Smartphone > Apple AirPlay.

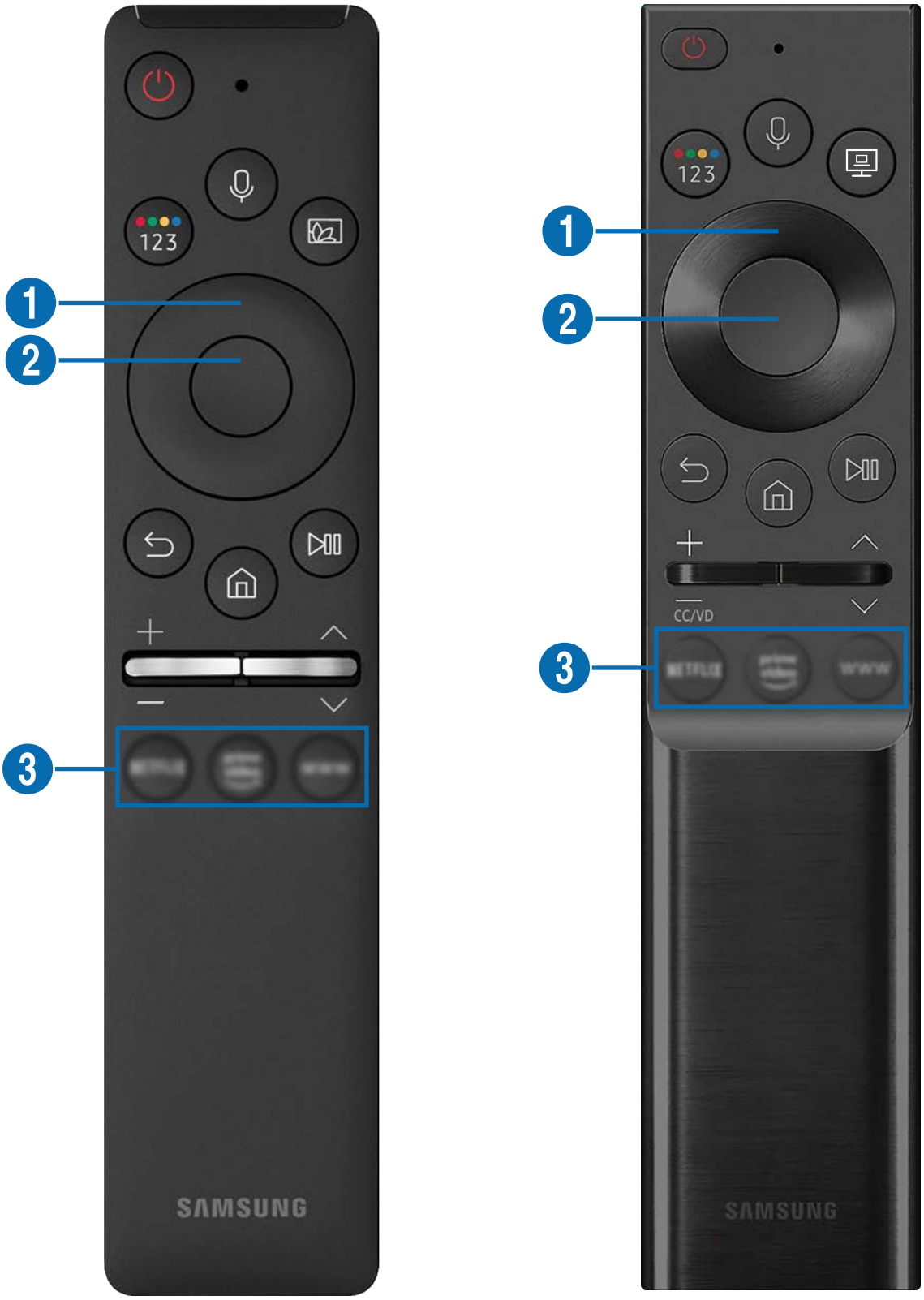
  This function may not be supported depending on the model.
- The video or audio may stop intermittently, depending on network conditions.
- When sharing content with other network-based devices, such as those in an IP (Internet Protocol) storage system, sharing may not be supported due to the network's configuration, quality, or functionality, for example, if the network has an NAS (Network-Attached Storage) device.

Remote Control and Peripherals

You can control product operations with your Samsung Smart Remote. Pair external devices such as a keyboard for ease of use.

About the Samsung Smart Remote

Learn about the buttons on the Samsung Smart Remote.



About the Samsung Smart Remote

Learn about the buttons on the Samsung Smart Remote.



Button	Description
(Power)	Turns the product on or off.
(Voice Assistant)	Runs Voice Assistant. Press and hold the button, say a command, and then release the button to run Voice Assistant. The supported Voice Assistant's languages and features may differ by geographical region. This function may not be supported depending on the model or geographical area.
(Colour / Number button)	Each time you press this button, the coloured buttons window and the virtual numeric pad are displayed alternately. • Use this button to access additional options that are specific to the feature in use. • Press to bring up the virtual numeric pad on the screen. Use the numeric keypad to enter numeric values. Select numbers and then select Done to enter a numeric value. Use to change the channel, enter a PIN, enter a ZIP code, etc.
(Picture Mode)	Changes the Picture Mode. This function may not be supported depending on the model or geographical area.
(Remote Access)	You can use the product to access your PC via Remote PC, Screen Sharing (Wireless) or Cloud Service. This function may not be supported depending on the model or geographical area.
1 Directional button (up/down/ left/right)	Moves the focus.
2 Select	Selects or runs a focused item. When pressed while you are watching a broadcast programme, detailed programme information appears.

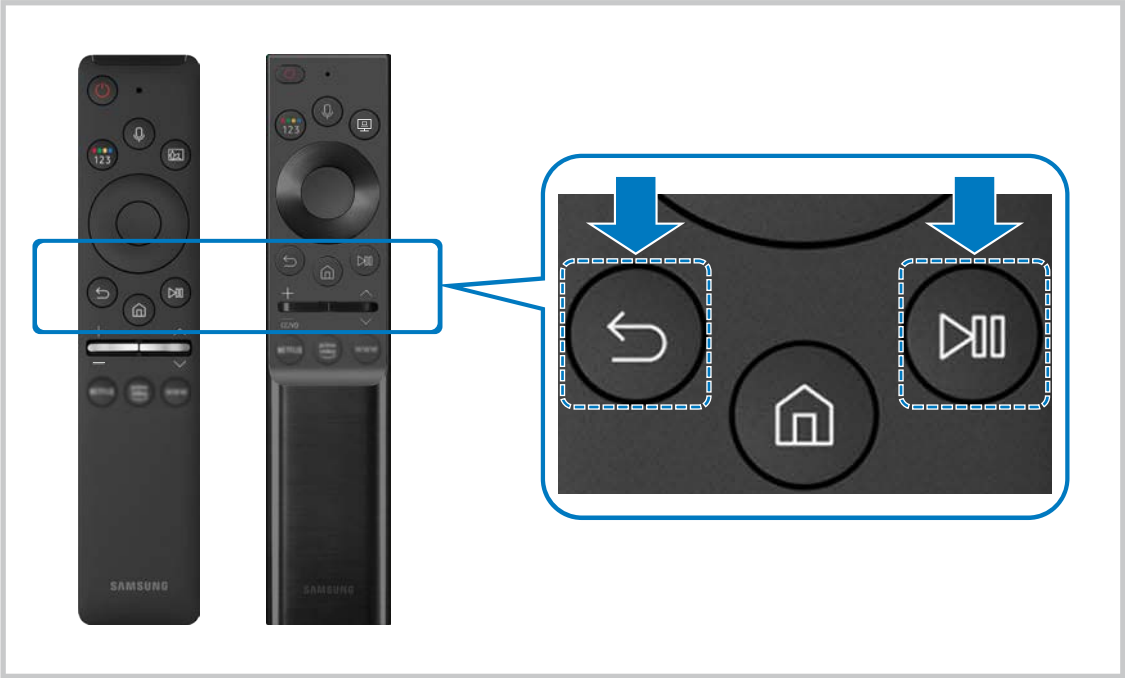
Button	Description
(Return)	Press to return to the previous menu. When pressed for 1 second or more, the running function is terminated. When pressed while you are watching a programme, the previous channel appears.
(Smart Hub)	Press to return to the Home Screen.
(Play/pause)	When pressed, the playback controls appear. Using these controls, you can control the media content that is playing. Press the button to use the recording or Timeshift function while watching the broadcast.
+ / — (Volume)	Move the button up or down to adjust the volume. To mute the sound, press the button. When pressed for 1 second or more, the Accessibility Shortcuts appears.
∧ / ∨ (Channel)	Move the button up or down to change the channel. To see the Guide screen, press the button. When pressed for 1 second or more, the Channel List screen appears. Press and hold the button up or down to quickly change the channel.
(Launch app button)	Launch the app indicated by the button. This function may not be supported depending on the model or geographical area.

- In standby mode, press any button on the remote control to turn on the screen.
- The functions related to the broadcast and channel are available only in some apps or external devices.
- Use the Samsung Smart Remote less than 6 m from the product. The usable distance may vary with the wireless environmental conditions.
- The images, buttons and functions of the Samsung Smart Remote may differ with the model or geographical area.
- To use the Samsung Smart Remote to control a compatible external device that does support HDMI-CEC (Anynet+), connect the device to an HDMI port on the product using an HDMI cable. For more information, refer to "Using Anynet+ (HDMI-CEC)".

Connecting the Samsung Smart Remote to the product

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

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



- The images, buttons and functions of the Samsung Smart Remote may differ with the model or geographical area.
- For more information about the Samsung Smart Remote, refer to “About the Samsung Smart Remote”.
- S24AM50* models are not supported.

Using Anynet+ (HDMI-CEC)

Control an external device connected via Anynet+ (HDMI-CEC) with the remote control.

You can use the product's remote control to control external devices that are connected to the product by an HDMI cable and that support Anynet+ (HDMI-CEC). Note that you can only set up and operate Anynet+ (HDMI-CEC) with the remote control.

Connecting an external device through Anynet+ and using their menus

Settings > General > External Device Manager > Anynet+ (HDMI-CEC)

1. Set Anynet+ (HDMI-CEC) to On.
2. Connect an HDMI-CEC-compliant device to the product.
3. Turn on the connected external device.

The device is automatically connected to the product. After the connection process is finished, you can access the menu of the connected device using your product remote and control the device.

- The connecting process can take up to 2 minutes to complete.

Read before connecting an Anynet+ (HDMI-CEC) device

- Anynet+ (HDMI-CEC)-enabled devices must be connected to the product with an HDMI cable. Note that some HDMI cables may not support Anynet+ (HDMI-CEC).
- Anynet+ cannot be used to control external devices that do not support HDMI-CEC.
- The product remote control may not work under certain circumstances. If this occurs, set up the device as an Anynet+ (HDMI-CEC)-enabled device again.
- Anynet+ (HDMI-CEC) works only with external devices that support HDMI-CEC, and only when those devices are either in standby mode or turned on.
- Anynet+ (HDMI-CEC) can control up to 12 compliant external devices (up to 3 of the same type) except for home theatres. Anynet+ (HDMI-CEC) can control only one home theatre system.
- To listen to 5.1 channel audio from an external device, connect the device to the product via an HDMI cable.

Controlling the product with a Keyboard, Mouse, or Gamepad

Connecting a keyboard, mouse, or gamepad to make it easier to control the product.

Settings > General > External Device Manager > Input Device Manager

You can connect a keyboard, mouse, or gamepad to make it easier to control the product.

Connecting a USB keyboard, mouse, or gamepad

Plug the keyboard, mouse or gamepad cable into the USB port.

- If you connect a mouse, it is available only in the Internet app and Remote Access function.
- XInput USB gamepads are supported.
- For more information, refer to Input Device in Connection Guide (> Source > Connection Guide > Input Device).

Connecting a Bluetooth keyboard, mouse, or gamepad

Settings > General > External Device Manager > Input Device Manager > Bluetooth Device List

- If your device was not detected, position the keyboard close to the product, and then select Refresh. The product scans for available devices again.
- If you connect a mouse, it is available only in the Internet app.
- For more information, refer to the Bluetooth device's user manual.
- This function may not be supported depending on the model or geographical area.

Using the keyboard and mouse

Button	Description
Directional keys	Use to navigate the menu, or move the focus to highlight items on the Home Screen.
Windows key	Displays the product settings
Enter key	Selects or runs a focused item
ESC key	Returns to the previous screen
F1 / F2 / F3 / F4 key	Colour buttons — / / /
F5 key	Displays the Home Screen
F6 key	Displays the Source screen
F7 key	Displays the Channel List
F8 key	Mutes the sound
F9 / F10 key	Adjusts the volume
F11 / F12 key	Changes the channel
Page Up / Page Down	Scrolls a web page displayed by the Internet app.
Left-click	Available only in the Internet app. You can click a menu or link to start a function as you do on a PC.
Right-click	Available only in the Internet app. You can use the following functions: The options displayed in the menu may differ depending on the selected item. • Open • Open Link in New Tab • Enable Scroll Mode

The key operation may differ depending on some apps or the keyboard.

Setting up the input devices

Settings > General > External Device Manager > Input Device Manager

- Keyboard Settings

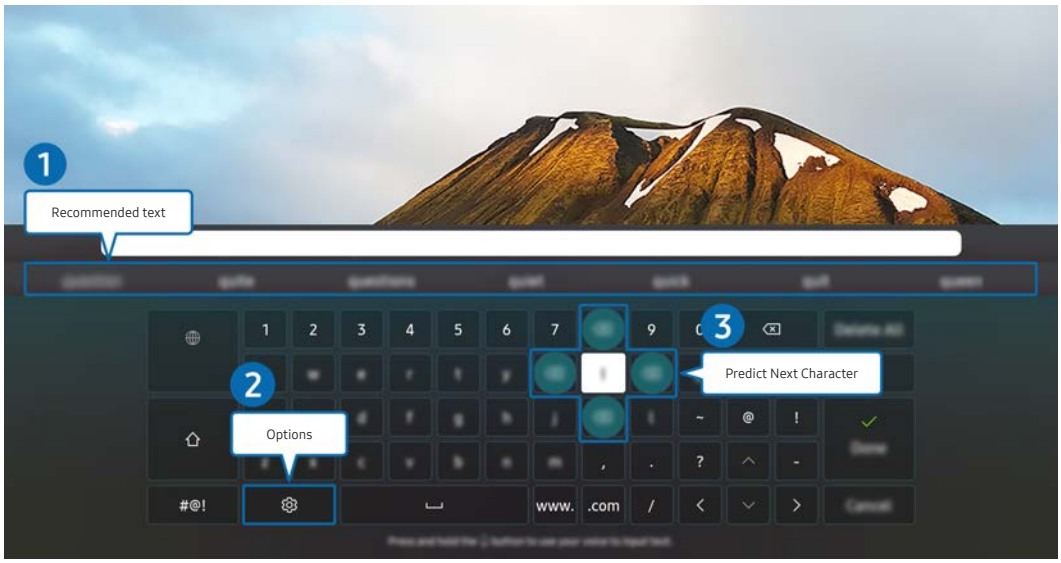
  You can set up the keyboard with the Keyboard Language and Keyboard Type functions.

- Mouse Settings

  You can set up the mouse with the Primary Button and Pointer Speed functions.

Entering Text using the On-Screen Virtual Keyboard

Use the virtual keyboard to enter text on your product.



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

1 Recommended text

When you type a word you want to use as a search term, this function displays related suggestions from which you can choose one.

❷ Options

Select ⚙ on the virtual keyboard screen. The following options are available:

The options available may differ depending on the function running currently.

- Recommended text
- Reset Recommended Text Memory
- Accented Character Preview
- Predict Next Character (when using direction buttons)
- Language

❸ Predict Next Character

Each time you type a character on the virtual keyboard, the next characters predicted to be typed are displayed. You can use the directional buttons on the remote control to select one.

Smart Features

You can enjoy various apps with Smart Hub.

Using Smart Hub

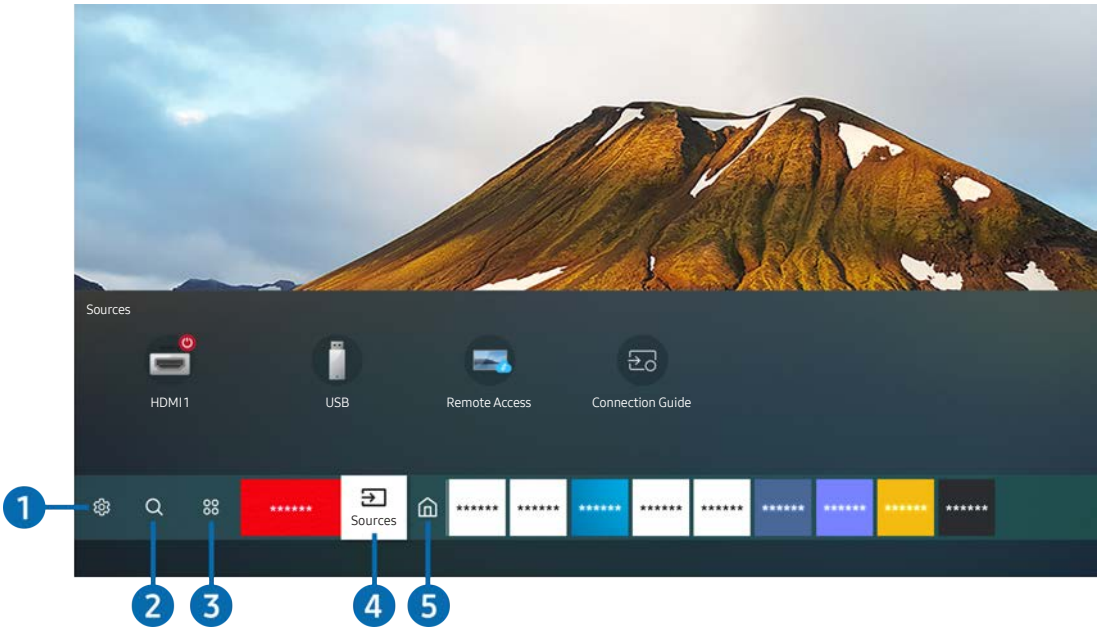
View descriptions of Smart Hub's basic functions.

From Smart Hub, you can use the Internet search function, install and use various apps, view photos and videos, or listen to music stored on external storage devices, and perform more functions.

- Some Smart Hub services are paid services.
- To use Smart Hub, the product must be connected to the Internet.
- Some Smart Hub features may not be supported depending on the service provider, language, or geographical area.
- Smart Hub service outages can be caused by disruptions in your Internet service.
- To use Smart Hub, you must agree to the Smart Hub service agreement and the collection and use of personal information. Without giving consent, you cannot use the additional features and services. You can view the entire text of the Terms & Privacy by navigating to > Settings > Terms & Privacy.
- If you want to stop using Smart Hub, you can cancel the agreement. To cancel the Smart Hub service agreement, select Reset Smart Hub (> Settings > Support > Device Care > Self Diagnosis > Reset Smart Hub).

Displaying the Home Screen

Press the button.



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

On the Home Screen, you can easily run the apps you have used previously or frequently. The apps can also be moved or deleted from the screen.

1 Settings

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

- Picture Mode

  You can select the picture mode that provides the best viewing experience. To change the picture mode, press the Select button. To make fine adjustments, press the up directional button, and then select Picture Setup.

- Sound Mode

  You can select a sound mode to optimise your listening experience. To change the sound mode, press the Select button. To make fine adjustments, press the up directional button, and then select Equalizer Setup.

- Sound Output

  You can select which speakers the product uses for audio output. To change the audio output, press the Select button. To connect to a Bluetooth speaker, press the up directional button, and then select Bluetooth Speaker List.

  Connecting Bluetooth speaker may not be supported depending on the model or geographical area.

- **Game Mode**

  You can enable game mode to optimise the product's settings for playing video games with a gaming console, such as a PlayStation™, Xbox™, or Nintendo Switch™. To turn Game Mode on or off, press the Select button.

  > For more information, refer to "Setting the Viewing Environment for External Devices."

  > This function is only available when an external input source is being used.

  > This function may not be supported depending on the model.

- **Ultrawide Game View**

  You can change the aspect ratio of the game screen to Wide for immersive gaming.

  > Ultrawide Game View is only available on source devices which support 21:9 outputs, and may function differently depending on the game or content being viewed.

  > When the Ultrawide Game View is turned on or off for the first time, the setting for Multiple displays may need to be adjusted.

- **Eye Saver Mode**

  Set to an optimum picture quality suitable for eye relaxation.

- **Caption**

  You can watch broadcasts with captions. To activate or deactivate the Caption function, press the Select button. To run Accessibility Shortcuts, press the up directional button, and then select Accessibility Shortcuts.

  > This function may not be supported depending on the model or geographical area.

- **Sleep Timer**

  You can have the product automatically turn off at a specific time. To change the sleep time, press the Select button. To set the specific time at which the product turns off automatically, press the up directional button, and then select Set Up Off Timer.

- **Network**

  You can view the current network and Internet status. Press the up directional button, and then select Network Status or Network Settings.

- **Color Tone**

  You can select a colour tone suitable for your viewing preferences. To change to a colour tone that you want, press the Select button.

- Picture Clarity

  You can optimise pictures that contain a lot of motions. To turn this function on or off, press the Select button. To set the detailed options, press the up directional button, and then select Picture Clarity Settings.

- Digital Output Audio Format

  You can select an output format for digital audio. Note that the Dolby Digital+ option is only available via HDMI (eARC) for external devices that support the Dolby Digital+ format.

  HDMI (ARC) is supported by some models. Check the HDMI port name of the purchased product's model.

  This function may not be supported depending on the model or geographical area.

- Device Care

  You can run Device Care to diagnose and optimise your product. Device Care can also check and optimise the product's storage. If any problem is found, the product can call for technical support.

- All Settings

  Display the Settings menu.

This function may not be supported depending on the model or geographical area.

2 Search

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

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

This function may not be supported depending on the model.

3 Apps

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

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

For more information, refer to "Using the Apps Service."

4 Source

You can select an external device connected to the product.

For more information, refer to “Switching between external devices connected to the product.”

5 Home

This menu appears first when you press the button. Then you can quickly access Samsung Account, Notification, or Privacy Choices.

- Samsung Account

  Go to the Samsung Account screen to create a new account or sign out of your account.

  For more information, refer to "Using a Samsung account."

- Notification

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

  If you move the focus to Notification, and then press the Select button, a notification window appears on the right and the following functions are available:

  – Delete All

    You can delete all your notifications.

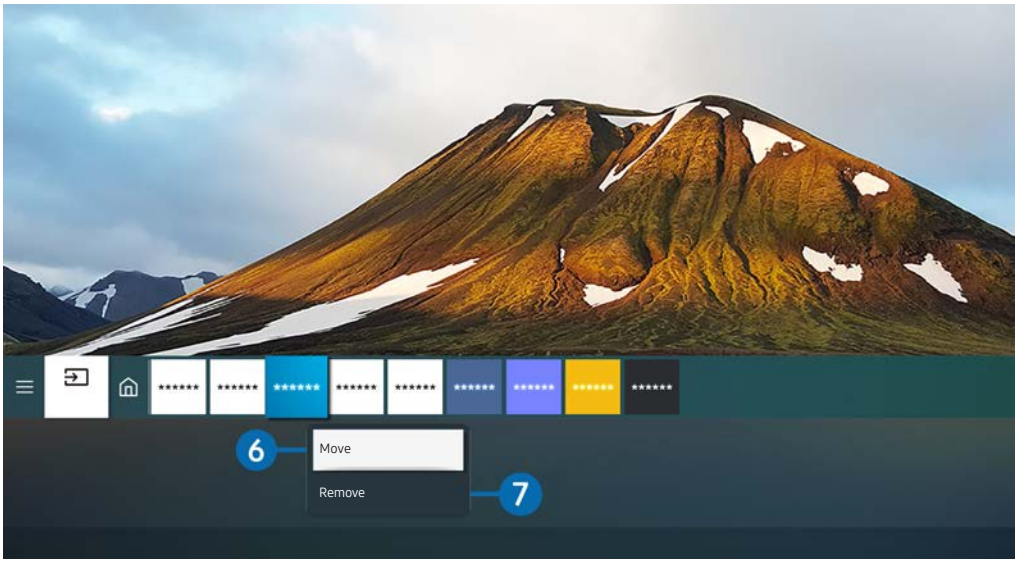
  – Settings

    You can select services you want to be notified about.

    When you select Allow sound, notifications are displayed with a notification sound.

- Privacy Choices

  You can view and set the privacy policy for Smart Hub and various other services.



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

6 Moving an item on the Home Screen

Move the focus to the app you want to move, press and hold the Select button on the remote control, and then select Move in option menu. Move the app to the desired position by pressing the left or right directional button, and then press the Select button. The selected app is moved on the Home screen.

7 Removing an item on the Home Screen

Move the focus to the app you want to delete, press and hold the Select button on the remote control, and then select Remove in option menu. The selected app is deleted.

You can add the apps you want to use often to the Home Screen using Apps. To add your favourite apps to the Home Screen, refer to "Managing installed apps."

Launching Smart Hub automatically

Settings > General > Smart Features > Autorun Smart Hub

When you set Autorun Smart Hub to on, the product displays the Home Screen automatically when you turn the product on. You can turn this function on or off. Press the Select button at the current menu.

Launching the last used app automatically

Settings > General > Smart Features > Autorun Last App

If Autorun Last App is set to on, the last used app is automatically run when you turn on the product. You can turn this function on or off. Press the Select button at the current menu.

This function may not be supported depending on the app.

Testing Smart Hub connections

Settings > Support > Device Care > Self Diagnosis > Smart Hub Connection Test

Resetting Smart Hub

Settings > Support > Device Care > Self Diagnosis > Reset Smart Hub

You can reset the Smart Hub settings. To reset Smart Hub, enter the PIN. The default PIN is "0000". You can set the PIN in Settings > General > System Manager > Change PIN.

Using a Samsung account

Create and manage your own Samsung account.

Settings > General > System Manager > Samsung Account

You can view the entire text of the Terms & Policy in > Settings > General > System Manager > Samsung Account > My Account > Terms & Conditions, Privacy Policy after logging in to your Samsung account.

You can create a Samsung account at http://account.samsung.com. Once you have an account, you can use the same ID on both the product and the Samsung website.

Signing in to a Samsung account

Settings > General > System Manager > Samsung Account > Sign In

Creating a new account

Settings > General > System Manager > Samsung Account > Create Account

You can also create a Samsung account at https://account.samsung.com.

Managing your Samsung account

Settings > General > System Manager > Samsung Account > My Account

When you sign in to your Samsung account, you can use the following functions:

- Sign Out

  When multiple people share the product, you can sign out of your account to prevent others from seeing it.

  To sign out of your Samsung Account (> Settings > General > System Manager > Samsung Account), move the focus to your account's icon, and then press the Select button. When a pop-up window appears, select Sign Out.

- Edit Profile

  You can edit your account information.

  To protect personal information, enter Edit Profile and then Sign-in Method is set to Profile image selection and password entry (High security).

  If you want the product to log you into your account automatically whenever you turn on the product, click Stay Signed In.

- Payment Info

  You can view or manage your payment information.

- Back up

  You can back up the product settings to your Samsung Cloud storage. When resetting or replacing the product, you can also restore its settings with the backed-up settings.

- Sync Internet

  Once you sign in to your Samsung account and configure the Sync Internet settings, you can share the favourites and website bookmarks that you registered on other devices.

- Remove Account

  You can delete an account from the product. Although you have deleted your Samsung account from the product, you are not unsubscribed. To unsubscribe from your Samsung Account, visit the Samsung Accounts website (http://account.samsung.com).

- Terms & Conditions, Privacy Policy

  You can view the user agreement and privacy policy.

  For more information about the terms and conditions, privacy policy, select View Details.

Using Remote Access

Use the product to access your PC via Remote PC, Screen Sharing (Wireless) or Cloud Service.

Source > Remote Access

You can use the product to access your PC via Remote PC, Screen Sharing (Wireless) or Cloud Service.

For easy computer use, connect a keyboard and a mouse to your product in advance.



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

Connecting a Remote PC

Provides **Remote Desktop Connection (RDP)** for remotely connecting to a PC running on Windows and **Virtual Network Computing (VNC)** for a PC running on Mac. To remotely connect to a PC, you must enter the IP address of the remote PC or select a saved profile. Enter a correct username and password and select a correct protocol. If there is any computer that can be accessed via the same network, the found IP and protocol are displayed.

To register a frequently used PC, move the focus to Manage User Profiles, and then press the Select button. When a pop-up window appears, select Add, and then enter the PC information.

When your PC enters in power saving mode, connection is not available. It is recommended to cancel the power saving mode.

1. Configure your computer’s settings to use the Remote Access function.

   Remote connection to a PC running on Windows via the RDP protocol is only supported for Windows 7 or later. And the operating system must be a Professional or higher edition.

   Remote connection to a PC running on Mac via the VNC protocol is only supported for Mac OS X 10.5 or later.

   - Windows OS:

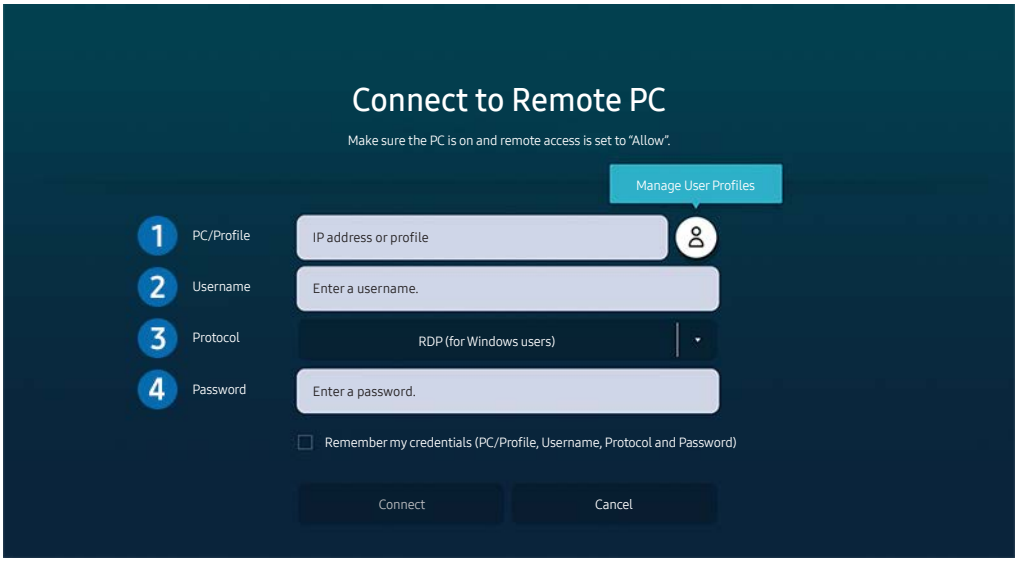
     1) Right-click the **My Computer** icon on Desktop or Windows Explorer and then click **Properties**.
     2) Click **Advanced System Settings**. The **System Properties** window appears.
     3) Click the **Remote** tab and then select the **Allow Remote Assistance connections to this computer**.

   - Mac OS:

     1) Select **Menu** > **System** > **Preferences** and then click **Sharing**.
     2) Select the **Screen Sharing** and **Remote Login** check box.
     3) Run the resolution changing app downloaded from App Store and then change the resolution to 1440 x 900 or lower.

        If you do not change the resolution in Mac OS, the previous image may appear while connecting a remote computer.

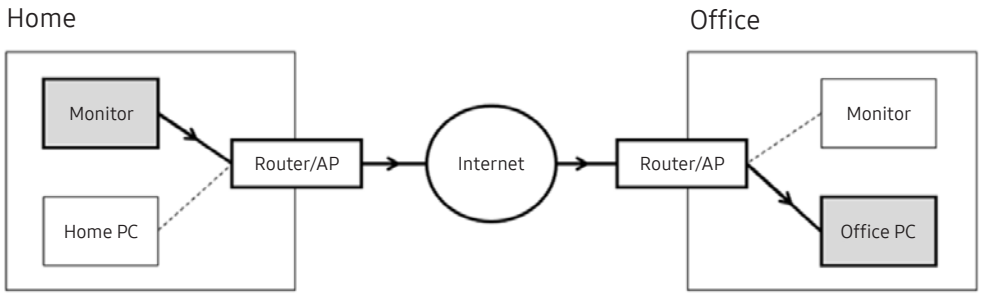
2. Enter the required settings for connecting the computer remotely.



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

1 Enter the IP address of the PC you want to connect to.

- In case of Windows, when the computer to connect is within the same network (router/AP), run "cmd" command in **Settings** > **Network and Internet** > **View Network properties** or in **Start** > **Run**, and then run "ipconfig" to check the IPv4 address of the computer.
- In case of Mac, you can check the **IP** address in **Settings** > **Remote Access**.
- When the product and computer are not within the same network, it is required to know the public IP and configure the router and AP. Check whether the router connected to the computer supports port forwarding. When the company provides additional security features such as firewall, seek help from a security officer.



2 Enter the of the computer.

How to check the **Username**: **Control Panel** > **User Account Control** in Windows, **System Preferences** > **Users & Groups** in Mac.

3 Select the Protocol for the computer's OS. (Windows: RDP, Mac: VNC)

4 Enter the password for the login account.

For use of PIN, do not enter PIN but the specified password of the computer.

Playing Multimedia Content on a Remote PC

When you move the mouse cursor to the top of the screen after accessing a remote computer, the top bar appears. When the sharing folder icon is clicked in the top bar, the folders shared on Windows or Mac OS appear. You can play back any media content in a folder.

For more information, refer to "Playing pictures/video/music."

To use this function, the folder sharing option on the computer to access must have been enabled as shown below:

- Windows OS:
    1. Run Windows Explorer and then move to the folder to share.
    2. Right-click the folder and then click **Properties**.
    3. After the **Properties** window appears, click the **Sharing** tab and then click **Advanced Sharing**.
    4. After the **Advanced Sharing** window appears, select the **Share this folder** check box.
- Mac OS:
    1. Select **Menu** > **System Preferences** and then click **Sharing**.
    2. Select the **File Sharing** check box.
    3. To add a folder to share, click the Add+ button at the bottom.
    4. Select a folder and then click Add+.

When playing a video file via a remote computer, the screen or sound breaking may be encountered.

Using Screen Sharing (Wireless)

Follow the instructions on the screen to adjust the PC settings and wirelessly connect the product to the PC.

- This function is only available for PCs that support wireless screen sharing.
- This function is supported by Windows 10.
- You can connect AirPlay in Mac.

Using Samsung DeX

Samsung DeX can be connected from the product via wireless network.

When the mobile device does not appear on the screen, select Mobile Connection Guide and then follow the screen instructions.

- This function is available only on mobile devices that support the wireless Samsung DeX.

Using Office 365

You can read or create a document after accessing the Office 365 website.

- Run the browser in full-screen mode.
- URL modification is impossible in the Office 365 page.

Adding the Cloud Service

Select the Add Cloud Service icon. Use the bookmarking function of the browser, you can add or delete the cloud service link to or from Remote Access.

- To add the cloud service, you must be signed in to your Samsung account.
- The number of cloud services that can be added to Remote Access is limited.

Using Cloud Service

You can access the cloud service by selecting the cloud service icon added to Remote Access.

- The screen on the web page may differ from that of a computer.
- You can copy or paste any text. Some image formats are supported.
- For easy and secured login in Cloud Service, Remote Access Pass is additionally supported as well as Samsung Pass.

  Setting Samsung Pass or Remote Access Pass.

  Set Samsung Pass or Remote Access Pass to Use in > Source > Remote Access > Run the Remote Access browser (Additionally select Office 365 or Add Cloud Service) > Internet Menu > Settings.

  Remote Access Pass allows you to easily manage the cloud service ID and password without biometric authentication on mobile devices. For this purpose, you must be signed in to your Samsung account. The password is encrypted to be safely stored on your product.

  However, the log in to Remote Access Pass may not work depending on the site policy.
- To securely access the cloud service, you can use the browser's automatic shutdown or clear the history logs.
- Before accessing the cloud service, refer to "Read Before Using the Internet Function."

The cloud service supports the following keyboard shortcuts:

- F1: Returns to Remote Access's Home screen.
- F8: Mutes the sound.
- F9/F10: Adjusts the volume.
- F11: Switches between full screen or default screen.

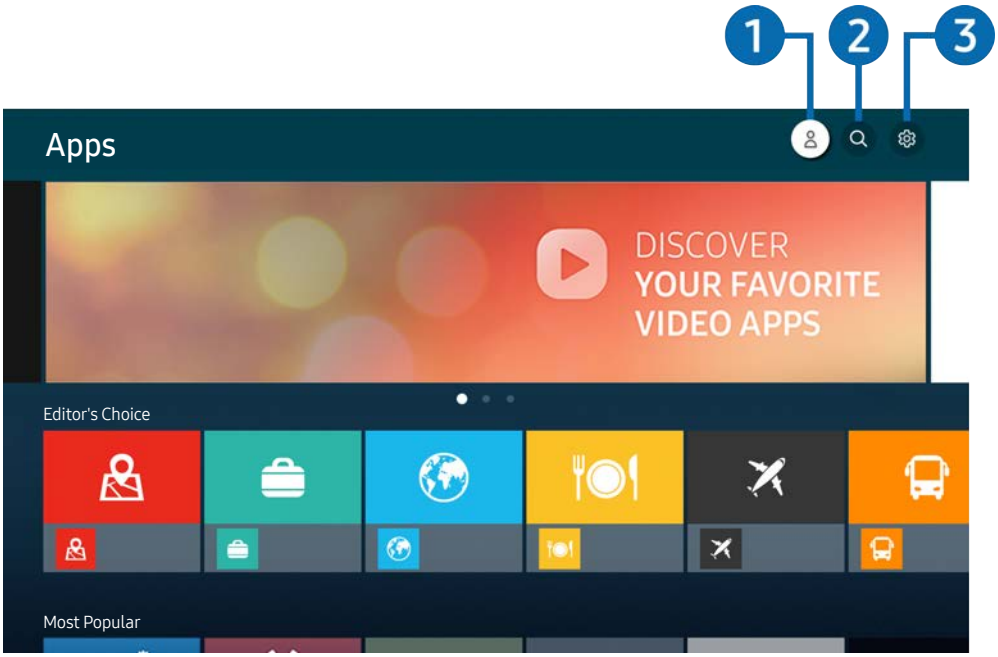
Using the Apps Service

Download and run various apps from Smart Hub.

> Apps

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

- To use this feature, the product must be connected to the Internet.
- When Smart Hub is launched for the first time, the default apps are automatically installed. The default apps may differ depending on the geographical area.



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

1 Samsung Account

Go to the Samsung Account screen to create a new account or sign out of your account.

- If you are signed out of your Samsung account, select Sign In to sign in.
- If you want to download new apps using Apps, first sign in to your Samsung account.

2 App Search

You can search for available apps.

3 Settings

You can manage the installed apps.

Installing an app

1. Move to the app you want to install, and then press the Select button. The detailed information screen appears.
2. Select Install. When the installation is complete, the Open menu appears.
3. Select Open to run the app immediately.

You can view installed apps on the Settings screen.

If the product's internal memory is insufficient, you can install some specific apps on a USB device.

You can run an app installed on a USB device only when the USB device is connected to the product. If the USB device is disconnected while an app is running, the app is terminated.

You cannot run an app installed on a USB device on a PC or another product.

Launching an app

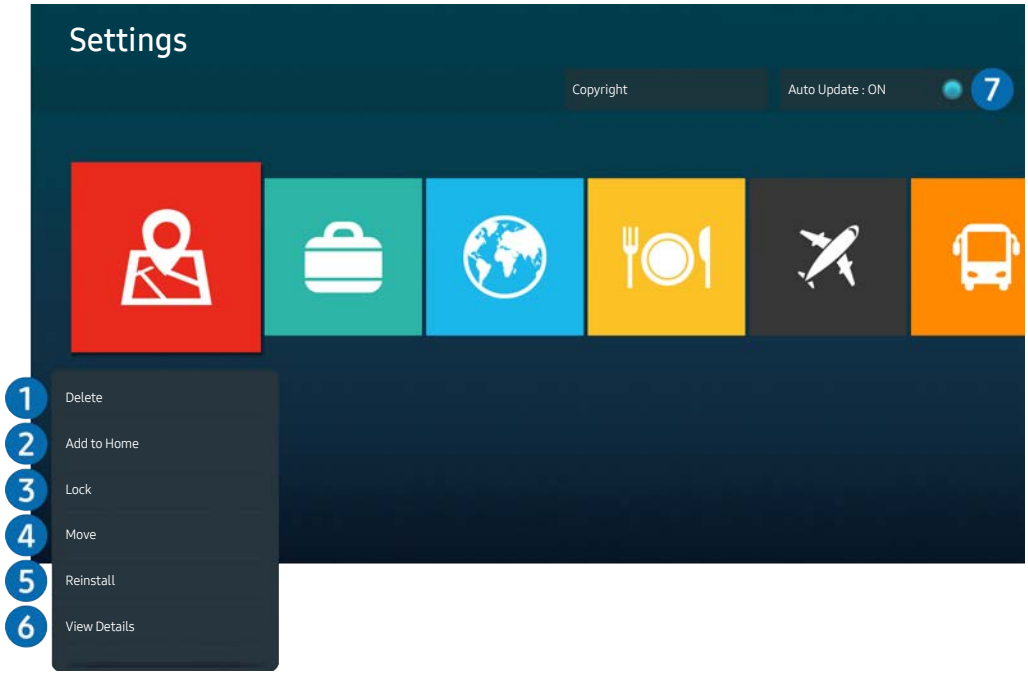
You can run the app desired from Downloaded App.

The icons below appear within the selected app's icon and indicate the following:

- : The app is installed on a USB device.
- : The app has a password.
- : The app needs to be updated.
- : The app supports the mirroring function.

Managing installed apps

Select Settings on Apps. You can manage installed apps.



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

1 Removing an app

1. Select an app to delete.
2. Select Delete.

The selected app is deleted.

Ensure that the related app data is also removed when you remove an app.

Standard apps cannot be uninstalled.

2 Adding apps to the Home Screen

1. Select an app to add.
2. Select Add to Home.
3. After the Home Screen appears, move the selected app to the desired location.
4. Press the Select button.

The selected app is added to the Home Screen.

If the selected app is already added to the Home Screen, this function is disabled.

3 Locking and unlocking apps

1. Select an app to lock or unlock.
2. Select Lock/Unlock.

The selected app is locked or unlocked.

To lock or unlock an app, enter the PIN. The default PIN is "0000." You can set the PIN in > Settings > General > System Manager > Change PIN.

4 Moving apps

1. Select an app to move.
2. Select Move.
3. Move the app to the desired location.
4. Press the Select button.

The selected app is moved.

This function may not be supported depending on the model or geographical area.

5 Reinstalling an app

1. Select the app to install again.
2. Select Reinstall.

Reinstallation starts.

6 Checking the app information details

1. Select the app to check.
2. Select View Details.

The app information screen appears.

You can rate an app on the View Details screen.

7 Automatically updating apps

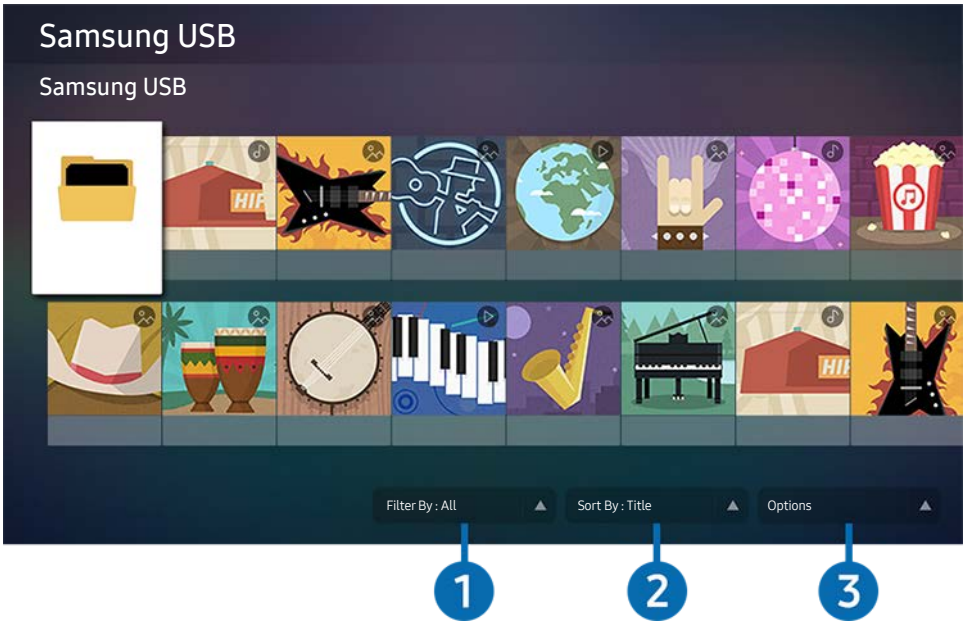
To automatically update the installed apps, set Auto Update to ON.

Automatic update is enabled only when the product is connected to the Internet.

Playing pictures/video/music

Play media content stored on your USB devices, mobile devices, cameras, PCs, etc.

Home > Source > Connected Device



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

You can play media content saved on storage devices, such as USB devices, mobile devices, and cameras on the product.

You cannot play media content if the content or the storage device is not supported by the product. For more information, refer to "Read Before Playing Photo, Video, or Music Files."

Backup important files before connecting a USB device. Samsung is not responsible for damaged or lost files.

You can use the following functions on the media content list screen of a storage device.

1 Filter By

Filters the media content by type of media.

2 Sort By

Sorts the content list by Title or Date.

This function may not be supported depending on the type of external device.

3 Options

Deletes or plays the selected media content in the media content list. When you select Refresh, the content list is reloaded.

Playing multimedia content on a PC or mobile device

1. Select a device with media content in > Source. The media content list in the device appears.
2. Select a media content item from the list.

The selected content is played.

The content may not be played depending on the encoding method or file format. Furthermore, several functions may be restricted.

Content on devices connected to the product via your network may not play smoothly due to network communication problems. If this occurs, use a USB device.

Playing multimedia content on a USB device

1. Connect a USB device to the USB port.
2. When a pop-up message appears on the screen, select Browse to easily move to the list of multimedia content stored on the device.

   If a USB device that contains the content you want to play is already connected to the product, select the USB device in the > Source screen.

3. Select a content item to play from the list.

The selected content is played.

Listening to your mobile device sound through the speaker using Sound Mirroring

1. Search for and connect to your product from the (Bluetooth) device list on your mobile device.
2. Select media content to play on your mobile device.

The selected media is played through the speaker.

If the product and the sound bar are connected wirelessly, the operation may be restricted.

This function may not be supported depending on the model or geographical area.

Buttons and functions available while playing multimedia content

Press the Select button while playing any video, or photo content. The following buttons appear.

The provided buttons and functions may not be supported depending on the model or geographical area.

The available buttons and functions may differ with the content you are viewing or playing.

- Pause, Play

  Pauses or plays the multimedia content.

- Jump Backward, Jump Forward

  Press the up directional button to move the focus to the playback control bar, and then select the left or right directional button in the playback control bar to move backward or forward by 10 seconds in the video.

- Move to a specific playback section, move up the focus on the playback bar, and then select one of the five thumbnails.

  This function may not be supported depending on the file format.

- Stop

  Stop the contents being played.

- Previous / Next

  Displays the previous or the next multimedia content file.

- Rewind / Fast Forward

  You can use the following functions when the video is paused. Note that with the video paused, the product does not play audio.

  – Slow Rewind or Slow Forward: Allows you to play a video slowly backward or forward by selecting the ◀◀ or ▶▶ option. There are 3 playback speeds. To change the playback speed, press the option repeatedly. To return to normal speed, select the ▶ option or press the ▶ button.

- Repeat

  Plays the current multimedia content repeatedly or all multimedia content files in the same folder repeatedly.

- Shuffle

  Plays music files in random order.

- **Picture Off**

  Plays music files with the screen off.

- **Fit to screen**

  Fits a photo to the screen.

- **Rotate left** / **Rotate right**

  Rotates a photo left or right.

- **Zoom**

  Zooms in a photo.

- **Background Music**

  Pauses or resumes the background music while the product displays photos.

  This function is available after enabling the **Background Music** option.

- **Options**

  The available options may differ with the model and content.

Function	Description
Slideshow Speed	Sets the slideshow speed. If there is only one image file in the USB device, the slide show is not played.
Slideshow Effect	Applies transition effects to the slide show. If there is only one image file in the USB device, the slide show is not played.
Background Music	Plays background music as you set in the pop-up window while the product displays photos. The music files must be saved in the same USB device as the photo files. To pause the background music, select **Background Music** on the playback screen bottom.
Subtitles	You can set the detailed subtitle options, such as the language, sync, size, and colour. If subtitles are not displayed correctly, check the encoding setting.
Rotate	Rotates the video.
Audio Language	Changes the audio language. This function is only available if the video supports multi-track sound.
Information	Displays detailed information about the current multimedia content.

Using Bixby

Set Voice Assistant to Bixby. Speak into the microphone on your Samsung Smart Remote or product to control your product.

- This function is available only if Voice Assistant is set to Bixby. (> Settings > General > Voice > Voice Assistant)
- Bixby is available only when the product is connected to the Internet.
- To use Bixby, you must register and sign in to your Samsung account. Some functions may not be supported if you are not signed in to your Samsung account.
- Bixby only supports some languages, and the supported functions may differ depending on the geographical area.
- Bixby may not be supported depending on the model or geographical area.

Starting Bixby with voice

You can immediately start a conversation with Bixby by saying “Hi, Bixby.” Say “Hi, Bixby”, and the Bixby icon at the bottom of the product screen is activated in Listen mode. Continue speaking.

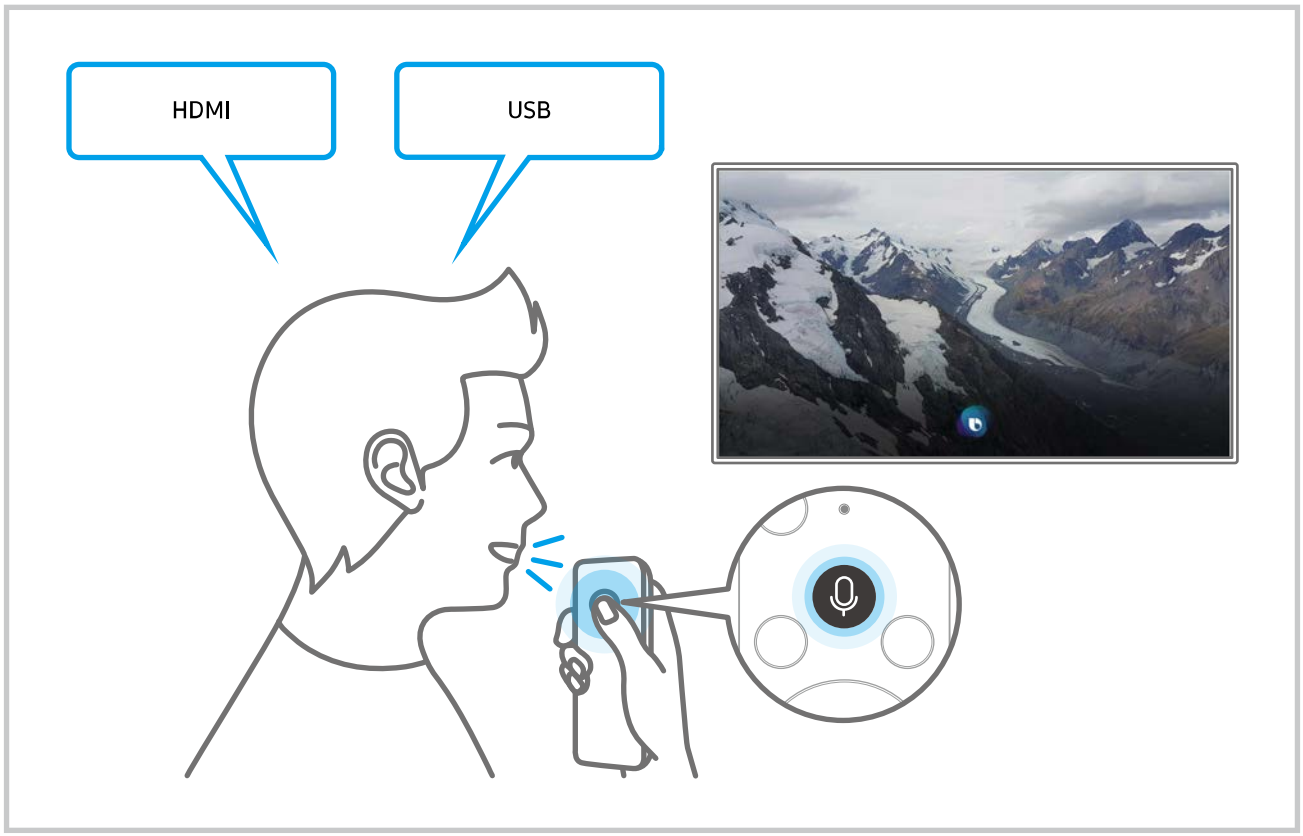
- For best results, you need to be within 10 feet (3-4 m) of your product. For more information, refer to “Voice Assistant Issues”
- These functions may not be supported depending on the model or geographical area.

Starting Bixby using buttons on the Samsung Smart Remote

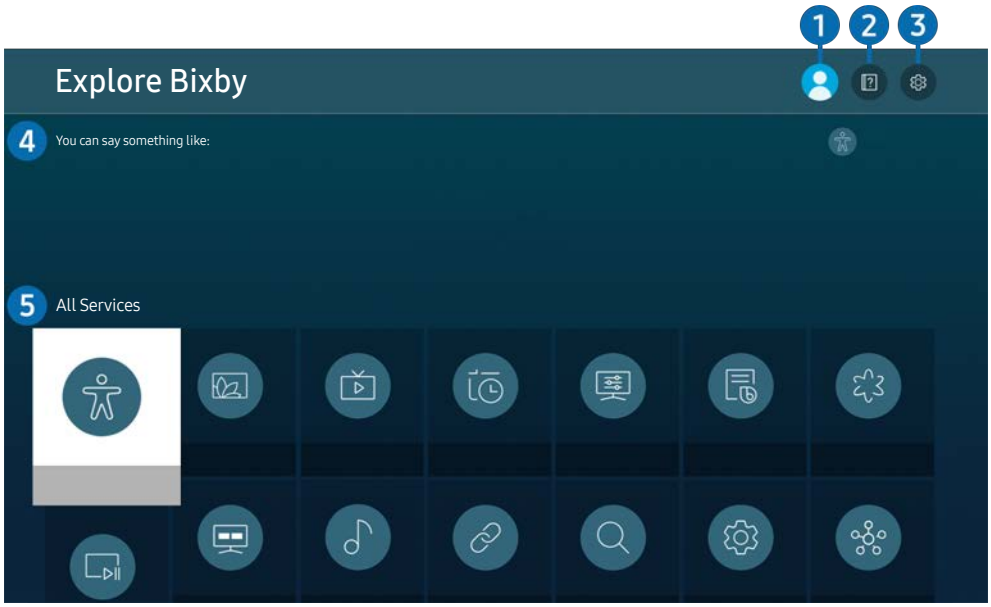
You can have conversation with Bixby using the Samsung Smart Remote buttons. Press and hold the button on your Samsung Smart Remote, say a command, and then release the button.

To view the Bixby guide, press the button once:

- When you press the button, the Explore Now button appears at the bottom of the screen. Press the Select button to go to the Explore Bixby screen.



Learning about the Explore Bixby Screen



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

1 My Profile

Log out after going to the My Profile screen.

If you are signed out of your Samsung account, select My Profile to sign in.

These functions can be set in Bixby Voice settings (> Settings > General > Voice > Bixby Voice settings).

2 Tutorials

The pop-up window on using Bixby appears.

3 Settings

You can change the settings for using Bixby.

These functions may not be supported depending on the model or geographical area.

These functions can be set in Bixby Voice settings (> Settings > General > Voice > Bixby Voice settings).

- **Language**

  You can change Bixby's language.

  The languages of the product and other apps will not change.

  Bixby only supports some languages.

- **Voice response**

  You can change or turn off Bixby's voice.

  This function may not be supported depending on the language selected for Bixby.

- **Voice Wake-up**

  You can set to call Bixby to respond to your voice. If Bixby does not respond to your voice, turn on the Voice Wake-up function, and then try again (> Explore Now > Settings > General > Voice Wake-up).

  This function can be used only when the sound sensor at the bottom of the product is active.

  For best results, you need to be within 10 feet (3-4 m) of your product. For more information, refer to "Voice Assistant Issues"

  The Voice Wake-up function may not be supported depending on the model or geographical area.

- **Sound feedback**

  Play a sound when Bixby starts and stops listening.

  This function may not be supported depending on the model.

- **Privacy**

  You can permit or prohibit Bixby from utilizing your personal information when you are using Bixby services.

- **About Bixby Voice**

  Displays the detailed terms and conditions.

4 Recommended commands

Displays recommended commands you can use to control the product with Bixby given the current context.

If you do not want to see the recommended commands, set Voice Hint to Off (> Settings > General > Voice > Voice Hint).

5 All Services

You can learn the voice commands that let you use Bixby in various situations. Use the directional buttons to move to the desired command, and then press the Select button. You can operate the product with various voice commands.

Read Before Using Bixby

- The supported voice interaction languages and features may differ depending on the geographical area.
- If the language set differs from the language of your country, some features are not available.
- Bixby is available only when the product is connected to the Internet.
- Even if the product is connected to the Internet, there may be no response due to a Bixby server error.
- The existing functional specifications may be changed if Bixby is updated.
- Bixby is available only on product that support it and come with remote controls that have a microphone.
- Symbols including "-" and special characters are not supported. Consequently, if a word or sentence contains numeric values or symbols, the function may not operate properly.
- Searched results may not provide complete results.
- You may be required to pay for some apps. Consequently, you may encounter a service application or contract.
- To use the voice text input function and the search function, you must consent to provisions allowing third parties to collect and use your voice data.
- To use the Bixby function, you must:
  - Agree to Smart Hub's Terms of Use.
  - Agree to a guidance regarding the collection and use of personal information for the Smart Hub service.
  - Consent to the collection and use of personal information for the voice interaction-based service.

Provisions for using Bixby

- The voice interaction rate differs with the volume/tone, pronunciation, and ambient sound environment (product sound and ambient noise).

Picture and Sound

You can change the settings for the picture and the sound according to your preference.

Adjusting the Picture Quality

Change the Picture Mode and adjust Expert Settings.

Choosing a picture mode

Home > Settings > Picture > Picture Mode

You can select the Picture Mode that provides the best viewing experience.

Available Picture Mode may differ depending on the external device.

- Dynamic

  Makes the picture brighter and clearer in bright viewing environments.

- Standard

  Is the default mode suitable for general viewing environments.

- Natural
- Movie
- FILMMAKER MODE

Setting a Eye Care

Home > Settings > Picture > Eye Care

- Adaptive Picture
- Eye Saver Mode

Configuring advanced picture settings

Settings > Picture > Expert Settings

Configure the screen settings to your taste by using the following functions:

Some Expert Settings features may not be supported depending on the PC input, source devices connection, using Apps and Eye Care operation.

- Brightness

  To use the flicker free function in M70, be sure to set the brightness to 25 or higher.

- Contrast
- Sharpness
- Color
- Tint (G/R)
- Apply Picture Settings
- Picture Clarity Settings

  When LED Clear Motion is set to On, the screen appears darker than when it is Off.

  This function may not be supported depending on the model.

- Contrast Enhancer
- Film Mode

  This function is only available when the input signal is product, AV, Component (480i, 1080i), or HDMI (1080i).

- Color Tone
- White Balance
- Gamma
- Shadow Detail
- RGB Only Mode

  This function may not be supported depending on the model.

- Color Space Settings
- Reset Picture

Setting the Viewing Environment for External Devices

You can optimise the product for viewing specific video formats.

Using Input Signal Plus

Settings > General > External Device Manager > Input Signal Plus

Expands the input signal range for HDMI, USB-C connections.

- When you select the HDMI connector you want to use for **Input Signal Plus**, and then press the Select button to set the **Input Signal Plus** function to **On**, the product screen may flicker.
- When you connect the product to an external device that supports only the UHD 24 Hz or UHD 30 Hz frequency, or any FHD frequency, the **Input Signal Plus** function may not be available. In this case, turn off the **Input Signal Plus** function.
- For more information, refer to "Supported Resolutions for UHD Input Signals."
- This function may not be supported depending on the model or geographical area.

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 colours generated by external devices connected to the product via an HDMI cable.

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

Changing the Picture Size and Position

Change the picture size and position for your product.

Changing the picture size settings

Settings > Picture > Picture Size Settings > Picture Size

You can adjust the current screen size for viewing.

Supported picture sizes differ with the input signal. For more information, refer to "Picture sizes and input signals."

Filling the picture in the screen

Settings > Picture > Picture Size Settings > Fit to Screen

This function may not be supported depending on the Picture Size setting.

Adjusting the picture position

Settings > Picture > Picture Size Settings > Zoom and Position

This function is available only if Picture Size is set to Custom.

Configuring a Sound Mode and Expert Settings

Change the Sound Mode and adjust Expert Settings.

Choosing a sound mode

> Settings > Sound > Sound Mode

You can select the available sound mode that you prefer for a content type or your listening environment.

When an external device is connected, Sound Mode may change accordingly.

This function may not be supported depending on the model.

Configuring advanced sound settings

> Settings > Sound > Expert Settings

You can personalise the sound quality by adjusting the following settings.

- Balance
- Equalizer

  This function is not available when the Sound Mode function is set to Adaptive Sound or Amplify.

  The name and properties of this function may appear differently depending on the connected external device.
- Digital Output Audio Format

  Select the digital audio output format. If you select the Auto option, the audio device outputs automatically in a supported format.

  If you select the Pass-Through option, audio data is output with no processing.

- Dolby Atmos Compatibility

  You can set the product to allow Dolby Digital+ with Atmos streams that are input from external devices.

  Set to On if the audio device connected via HDMI (ARC) supports Dolby Atmos. The product screen may flicker when this function is turned on or off.

  If this function is on, set Digital Output Audio Format to Auto.

- Auto Volume

  Automatically adjusts the sound to a certain level when changing channels or switching to another external input.

- Sound Feedback

- Reset Sound

Using the Sound Support Functions

Configure the sound settings for your product.

Selecting speakers

Settings > Sound > Sound Output

You can select which speakers the product uses for audio output.

- External speakers may not be controlled with the remote control. When an external speaker is enabled, some sound menus are not supported.
- Refer to the sound bar's user manual when connecting it to the product.

Listening to the product through Bluetooth devices

Settings > Sound > Sound Output > Bluetooth Speaker List

You can connect Bluetooth audio devices to the product. They must be paired using the product's Bluetooth function. Refer to the user manual for your audio device such as Bluetooth speaker, sound bar, and headphones for detailed connection and usage.

- If the product fails to find a Bluetooth audio device, place the device closer to the product, and then select **Refresh**.
- When you turn on a paired Bluetooth audio device, the product detects it automatically, and then displays a pop-up window. Use this pop-up window to activate or deactivate the Bluetooth audio device.
- The sound quality may be affected by the condition of the Bluetooth connection.
- Before using a Bluetooth audio device, refer to "Read Before Using Bluetooth Devices."
- This function may not be supported depending on the model.

Listening to the product through a Samsung audio device that supports the Wi-Fi function

For more information about how to connect and use a Samsung audio device that supports the Wi-Fi function, refer to its user manual.

Settings > Sound > Wi-Fi Speaker Surround Setup

If you've connected one or more Samsung wireless audio devices that support the Wi-Fi function to the product, you can create an optimal sound set up by configuring the surround effect settings. You can select any of the surround sound configurations, with or without a sound bar.

A surround sound configuration can be used if all of the following conditions are met:

- Two or more Samsung wireless speakers of the same type must be connected to the same wireless network.
- The Samsung audio devices that support the Wi-Fi function must be connected to the same wireless network as the product.

Surround sound configurations with a sound bar may not be supported depending on the product.

If you activate the Screen Mirroring function while using Samsung audio devices that support the Wi-Fi function, the Wi-Fi connection is disconnected.

Mismatched video and audio lip-syncing may occur depending on the device type.

System and Support

You can configure system and support settings, such as clock, timers, energy usage and software updates.

Using the Time Functions and the Timers

Set the current time and use the timer function.

Settings > General > System Manager > Time

You can set the Clock Set manually or automatically. Once the Clock is set, you can view the current time on the product anytime.

You must set the clock in the following cases:

- The power cable is disconnected and then connected.
- The Clock Mode is changed from Auto to Manual.
- The product is not connected to the Internet.

Adjusting the clock for DST and time zone

Settings > General > System Manager > Time > Clock

Sets the right time by setting Daylight Savings Time (DST) and your local time zone.

- Time Zone

  Selects your time zone.

  This function is only available when the Clock Mode is set to Auto.

  This function may not be supported depending on the model or geographical area.

- DST

  Automatically adjusts for Daylight Saving Time (DST).

  This function is only available when the Clock Mode is set to Auto.

Changing the current time

Settings > General > System Manager > Time > Clock Set

Time Offset adjusts the time through a network connection.

This function is available only when Clock Mode is set to Auto, the product fails to receive time information through normal broadcast signals, and the product is connected to the Internet through a local area network.

Setting the clock manually

Settings > General > System Manager > Time > Clock Set

You can set the date and time.

Using the sleep timer

Settings > General > System Manager > Time > Sleep Timer

You can use this function to automatically shut off the product after a pre-set period of time. You can set the sleep timer for up to 180 minutes after which it will turn off the product.

This function may not be supported in some viewing modes.

Turning off the product using the off timer

Settings > General > System Manager > Time > Off Timer

You can set Off Timer to shut off the product automatically at a specific time. Off Timer is only available if the Clock has been set.

To use this function, first set the Clock Set (> Settings > General > System Manager > Time > Clock Set).

This function may not be supported in some viewing modes.

Using the Standby Mode Timer

Settings > General > System Manager > Time > Standby Mode Timer

Choose your Standby Mode time. After the set time has elapsed, your screen will go into Standby Mode automatically.

This function may not be supported in some viewing modes.

This function may not be supported depending on the model or geographical area.

Using the Auto Protection Time and Energy Saving Functions

Set the Auto Protection Time and reduce the product's energy consumption.

Setting the Auto Protection Time

Home > Settings > General > System Manager > Auto Protection Time

Activate a screensaver when your product displays a still image for 2 hours or more.

This function may not be supported in some viewing modes.

Reducing the energy consumption of the product

Home > Settings > General > Eco Solution

You can adjust the brightness level of the product reduce overall power consumption, and prevent overheating.

This function may not be supported depending on the model.

- Ambient Light Detection

  Automatically adjusts the brightness level of the product, according to the ambient light level, to reduce power consumption. If Ambient Light Detection has adjusted the screen brightness to a too bright or dark level, you can select Minimum Brightness to manually adjust the minimum screen brightness.

- Minimum Brightness

  When Ambient Light Detection is turned on, you can manually adjust the minimum brightness of the product screen. This function acts only when the value is less than the setting in Home > Settings > Picture > Expert Settings > Brightness.

- Power Saving Mode

  Adjust the brightness settings to reduce the product's power consumption.

- Motion Lighting

  Adjusts the brightness in response to on-screen movements to reduce power consumption.

- Auto Power Off

  Automatically turns off the product to reduce unnecessary power consumption if the Controller and the remote control are not used for the set period of time.

Updating the Software

View your software version and update it if necessary.

⚠ DO NOT turn off the product's power until the update is complete. The product will turn off and on automatically after completing the software update. Video and audio settings may be reset to their defaults after a software update.

Settings > Support > Software Update

Updating through the Internet

Settings > Support > Software Update > Update Now

Updating from the Internet requires an active Internet connection.

Updating through a USB device

Settings > Support > Software Update > Update Now

After downloading the update file from the Samsung website and storing it on a USB device, connect the USB device to the product to update.

To update using a USB device, download the update package from Samsung.com to your computer. Then, save the update package in the USB device's top-level folder. Otherwise, the product will not be able to locate the update package.

Updating the product automatically

Settings > Support > Software Update > Auto Update

If the product is connected to the Internet, you can have the product's software update itself automatically while you are watching the product. When the background update is completed, it is applied the next time the product is turned on.

If you agree to the Smart Hub terms and conditions, Auto Update is set to On automatically. If you want this function disabled, use the Select button to turn it off.

This function may take a longer time if another network function is running concurrently.

This function requires an Internet connection.

Audio and Video Functions for the Visually or Hearing Impaired

You can configure the functions for the visually or hearing impaired.

Running the accessibility functions

Settings > General > Accessibility

Running Accessibility Shortcuts

The Accessibility Shortcuts provide easy access to the accessibility functions. To display the Accessibility Shortcuts, press the CC/VD button or press and hold the MUTE button for 1 second or more. You can easily turn on or turn off the functions, such as Voice Guide, Picture Off, Video Description, Caption, High Contrast, Enlarge, Multi-output Audio, Slow Button Repeat, Accessibility Settings, etc.

- On the Samsung Smart Remote, press and hold the + / — (Volume) button for 1 second or more.
- Even if the Voice Guide is set to Off or muted, the voice guide for Accessibility Shortcuts is enabled.
- The shortcut menus may not appear depending on the model or geographical area.

Enabling voice guides for the visually impaired

Settings > General > Accessibility > Voice Guide Settings

You can activate voice guides that describe the menu options aloud to aid the visually impaired. To activate this function, set Voice Guide to On. With Voice Guide on, the product provides voice guides for channel change, volume adjust, information on current and upcoming programmes, schedule viewing, other product functions, and various content in the Internet, and in Search.

You can go to Voice Guide, and then press the Select button to turn the function on or off.

- The Voice Guide is provided in the language that is specified on the product Language. However, some languages are not supported by Voice Guide even though they are listed in the product Language. English is always supported.
- For more information about the product Language settings, refer to "Changing the menu language."

Changing the volume, speed, pitch, and the product background volume of the Voice Guide

You can configure the volume, speed, pitch, and the product background volume of the voice guide.

The product screen is turned off but audio continues

> Settings > General > Accessibility > Picture Off

Turn off the product screen and provide only sound to reduce overall power consumption. When you press a button on the remote control other than Volume and Power while the screen is off, the product screen turns back on.

White text on black background (high contrast)

> Settings > General > Accessibility > High Contrast

You can change Smart Hub and setting menu screens to white text on a black background and change the transparent product menus to opaque automatically so that text can be more easily read.

If High Contrast is on, some Accessibility menus are not available.

Enabling audio for the video description function

> Settings > General > Accessibility > Video Description

You can activate an audio guide that provides an audio description of video scenes for the visually impaired. This function is only available with broadcasts that provide this service.

Setting the screen to black and white

> Settings > General > Accessibility > Grayscale

You can change the colour of the product screen to black and white to sharpen blurred edges caused by colours.

If Grayscale is on, some Accessibility menus are not available.

This function may not be supported depending on the model or geographical area.

Enlarging the font (for the visually impaired)

> Settings > General > Accessibility > Enlarge

You can enlarge the size of the font on the screen. To activate, set Enlarge to On.

Showing captions

Settings > General > Accessibility > Caption Settings

Set Caption to On to watch programmes with the captions displayed.

Captions are not displayed by programmes that do not support captions.

This function has no relationship with the features for controlling subtitles of DVD or Blu-ray players. To control DVD or Blu-ray subtitles, use the subtitle feature of the DVD or Blu-ray player and the player's remote control.

Splitting the caption

Settings > General > Accessibility > Caption Settings > Separate Closed Caption

You can display the caption in the area separated from the broadcast screen.

Selecting the caption language

Settings > General > Accessibility > Caption Settings > Caption Mode

- Default / CC1 ~ CC4 / Text1 ~ Text4

  Operates in when a signal is supplied from an external device to the product. (Depending on the broadcast signal, the analogue caption function may or may not work with digital channels.)

- Default / Service1 ~ Service6 / CC1 ~ CC4 / Text1 ~ Text4

  Works with digital channels. These functions may not be available in digital caption mode depending on the broadcast.

Setting the digital caption related options

Settings > General > Accessibility > Caption Settings > Digital Caption Options

You can change the font colour, background colour, size settings, and position, etc.

The foreground and background colours and opacity settings cannot be the same.

The Position function is activated only for programmes that support broadcast captions.

Listening to the product through Bluetooth devices (for the hearing impaired)

Settings > General > Accessibility > Multi-output Audio

You can turn on both the product speaker and Bluetooth headphone at the same time. When this function is active, you can set the volume of the Bluetooth headphone higher than the volume of the product speaker.

This function may not be supported depending on the model.

When you connect the Bluetooth headphone to the product, Multi-output Audio is activated. For more information, refer to "Listening to the product through Bluetooth devices."

Configuring the repeat settings for remote control buttons

Settings > General > Accessibility > Remote Button Repeat Settings

You can configure the operation speed of the remote control buttons so that they slow down when you continually press and hold them. First, set Slow Button Repeat to On, and then adjust the operation speed in Repeat Interval.

Using Voice Assistants on the product

You can change the settings of a Voice Assistant after selecting it.

This function may not be supported depending on the model or geographical area.

Select the Voice Assistant

Settings > General > Voice > Voice Assistant

Select which Voice Assistant you would like to help control your product.

To use this function, the product must be connected to the Internet.

This function may not be supported depending on the model or geographical area.

Voice Assistant only supports some languages, and the supported functions may differ depending on the geographical area.

The Voice Wake-up function may not be supported depending on the model, Voice Assistant or geographical area.

- Bixby / Google Assistant

  To use the Voice Assistant, follow the instructions on the product screen to enable the selected Voice Assistant.

  To change the settings for Voice Assistant, run the Settings menu under each Voice Assistant (> Settings > General > Voice > Voice Assistant).

  To enable the Settings menus for each Voice Assistant, log in each Voice Assistant.

  For an example of Voice command, see the Settings menus for each Voice Assistant.

Using Other Functions

You can view other functions.

Changing the menu language

Settings > General > System Manager > Language

Setting up a password

Settings > General > System Manager > Change PIN

The PIN input window appears. Enter a PIN. Enter it again to confirm it. The default PIN is "0000."

If you forget your PIN, you can reset it with your remote control. With the product turned on, press the following buttons on the remote control in the order shown to reset the PIN to "0000."

On the Samsung Smart Remote: Press +/— (Volume) button. > Volume Up > > Volume Down > > Volume Up > .

Selecting Usage or Retail Mode

Settings > General > System Manager > Usage Mode

You can set the product for retail environments by setting Usage Mode to Retail Mode.

For all other uses, select Home Mode.

Use Retail Mode only in a store. With Retail Mode, some functions are disabled, and the product settings automatically reset after a preset amount of time.

This function may not be supported depending on the model.

Managing External Devices

Settings > General > External Device Manager > Device Connect Manager

When you connect external devices, such as mobile devices or tablets connected to the same network as the product so you can share content, you can view the list of allowed devices and connected devices.

- Access Notification

  Set whether to display a notification when an external device such as a mobile device or tablet attempts to connect to the product.

- Device List

  Manage a list of external devices registered to the product.

Using AirPlay

Settings > General > Apple AirPlay Settings

You can use AirPlay to view content from your iPhone, iPad, or Mac on the product screen.

This function may not be supported depending on the model.

Restoring the product to the factory settings

Settings > General > Reset

You can restore all product settings to the factory defaults.

For more information on Reset, refer to the user manual that came with the product.

Precautions and Notes

You can get instructions and information that you must read after installation.

Read Before Using Apps

Read this information before using Apps.

- If you want to download new apps using Apps, first sign in to your Samsung account.
- Due to the product characteristics featured on Samsung Smart Hub, as well as limitations in available content, certain features, applications, and services may not be available on all devices or in all territories. Visit http://www.samsung.com for more information on specific device information and content availability. Services and content availability are subject to change without prior notice.
- Samsung takes no legal responsibility whatsoever for any interruption of app services caused by the service provider for any reason.
- Application services may be provided in English only and available content may differ with the geographical area.
- For more information about applications, visit the applicable service provider's website.
- An unstable Internet connection may cause delays or interruptions. In addition, applications may terminate automatically depending on the network environment. If this occurs, check your Internet connection and try again.
- Application services and updates may become unavailable.
- Application content is subject to change by the service provider without prior notice.
- Specific services may differ with the version of the application installed on the product.
- An application's functionality may change in future versions of the application. If this occurs, run the application's tutorial or visit the service provider's website.
- Depending on the service provider's policies, certain applications may not support multitasking.

Read Before Using the Internet Function

Read this information before using the Internet function.

- File download is not supported.
- The Internet function may not be able to access certain websites, including websites operated by certain companies.
- The product does not support playback of flash videos.
- E-commerce for online purchases is not supported.
- ActiveX is not supported.
- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
- The response to remote commands and the resulting on-screen display may be delayed while a web page is loading.
- Loading a web page may be delayed or suspended completely depending on the status of the participating systems.
- Copy and paste operations are not supported.
- When composing an email or a simple message, certain functions such as the font size and colour selection may not be available.
- There is a limit to the number of bookmarks and the size of the log file that can be saved.
- The number of windows that can be opened concurrently is limited.
- Web browsing speed will differ with the network environment.
- Browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
- Depending on the types of video/audio codecs supported, you may not be able to play certain HTML5 video and audio files.
- Video sources from PC-optimised streaming service providers may not play properly on our proprietary Internet browser.

Read before setting up a wireless Internet connection

Precautions for wireless Internet

- This product supports the IEEE 802.11 a /b /g /n /ac communication protocols. Samsung recommends using IEEE 802.11n. Video files stored on a device connected to the product via a Home Network may not play back smoothly.

  Some of the IEEE 802.11 communication protocols may not be supported depending on the model or geographical area.

- To use wireless Internet, the product must be connected to a wireless access point or modem. If the wireless access point supports DHCP, the product can use a DHCP or static IP address to connect to the wireless network.

- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a password using characters and numbers. This password is then needed to connect to a security-enabled access point.

Wireless security protocols

The product only supports the following wireless network security protocols. The product cannot connect to non-certified wireless access point.

- Authentication Modes: WEP, WPAPSK, WPA2PSK

- Encryption Types: WEP, TKIP, AES

In compliance with the Wi-Fi certification specifications, Samsung product’s do not support WEP or TKIP security encryption in networks running in the 802.11n mode. If the wireless access point supports WPS (Wi-Fi Protected Setup), you can connect the product to your network using PBC (Push Button Configuration) or a PIN (Personal Identification Number). WPS automatically configures the SSID and WPA key settings.

Read Before Playing Photo, Video, or Music Files

Read this information before playing media content.

Limitations to the use of photo, video, and music files

- The product supports Mass Storage Class (MSC) USB devices only. MSC is a class designation for mass storage devices. Types of MSC devices include external hard drives, flash card readers, and digital cameras. (USB hubs are not supported.) These kinds of devices must be connected directly to the USB port. The product may not be able to recognise a USB device or read the files on the device if it is connected with a USB extension cable. Do not disconnect USB devices while they are transferring files.
- Certain digital cameras and audio devices may not be compatible with the product.
- The product supports the FAT, exFAT, and NTFS file systems.
- In the media contents list, the product can display up to 1,000 files per folder. If the USB device contains more than 8,000 files and folders, however, some files and folders might not be accessible.
- Certain files, depending on how they are encoded, may not play on the product.
- Certain files are not supported on all models.

Supported subtitles

Subtitle formats

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

Video formats with subtitles

Name	Container
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 9024
*.png	PNG	4096 x 4096
*.bmp	BMP	4096 x 4096
*.mpo	MPO	15360 x 8640

The MPO format is supported partly.

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. WMA lossless audio is 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	

Supported video codecs

<table>
<tr><th>File format</th><th>Container</th><th>Video codecs</th><th>Resolution</th><th>Frame rate (fps)</th><th>Bitrate (Mbps)</th><th>Audio codecs</th></tr>
<tr><td rowspan="14">*.avi
*.mkv
*.asf
*.wmv
*.mp4
*.mov
*.3gp
*.vro
*.mpg
*.mpeg
*.ts
*.tp
*.trp
*.flv
*.vob
*.svi
*.m2ts
*.mts</td><td rowspan="14">AVI
MKV
ASF
MP4
3GP
MOV
FLV
VRO
VOB
PS
TS
SVAF</td><td>H.264 BP/MP/HP</td><td rowspan="2">3840 x 2160</td><td>3840 x 2160: 30
1920 x 1080: 60</td><td>50</td><td rowspan="14">Dolby Digital
LPCM
ADPCM(IMA, MS)
AAC
HE-AAC
WMA
Dolby Digital+
MPEG(MP3)
AC-4
G.711(A-Law, µ-Law)
OPUS</td></tr>
<tr><td>HEVC (H.265 - Main, Main10)</td><td>60</td><td>50</td></tr>
<tr><td>Motion JPEG</td><td rowspan="11">1920 x 1080</td><td rowspan="6">60</td><td rowspan="11">20</td></tr>
<tr><td>MVC</td></tr>
<tr><td>MPEG4 SP/ASP</td></tr>
<tr><td>Window Media Video v9 (VC1)</td></tr>
<tr><td>MPEG2</td></tr>
<tr><td>MPEG1</td></tr>
<tr><td>Microsoft MPEG-4 v1, v2, v3</td><td rowspan="5">30</td></tr>
<tr><td>Window Media Video v7 (WMV1), v8 (WMV2)</td></tr>
<tr><td>H.263 Sorrenson</td></tr>
<tr><td>VP6</td></tr>
<tr><td>AV1</td><td>3840 x 2160</td><td>60</td><td>40</td></tr>
<tr><td rowspan="3">*.webm</td><td rowspan="3">WebM</td><td>VP8</td><td>1920 x 1080</td><td>60</td><td>20</td><td rowspan="3">Vorbis</td></tr>
<tr><td>VP9 (Profile 0, profile 2 supported)</td><td>3840 x 2160</td><td>60</td><td>50</td></tr>
<tr><td>AV1</td><td>3840 x 2160</td><td>60</td><td>40</td></tr>
<tr><td>*.rmvb</td><td>RMVB</td><td>RV8/9/10 (RV30/40)</td><td>1920 x 1080</td><td>60</td><td>20</td><td>RealAudio 6</td></tr>
</table>

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 DivX'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 product.
- 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 (product does not support FMO / ASO / RS).
- HEVC UHD is supported up to Level 5.1, and HEVC FHD is supported up to Level 4.1.
- 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+ 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.

Read After Installing the product

Read this information after installing the product.

Picture sizes and input signals

The Picture Size is applied to the current source. The applied Picture Size will remain in effect whenever you select that source unless you change them.

Input signal	Picture size
HDMI (720p)	16:9 Standard, Custom, 4:3 Screen Size
HDMI (1080i, 1080p)	16:9 Standard, Custom, 4:3 Screen Size
*HDMI (3840 x 2160p)	16:9 Standard, Custom
**HDMI (1920 x 800p @ 60 Hz)	21:9 Wide Screen, ultrawide game view in Game Mode
*HDMI (3840 x 1600p @ 60 Hz)	21:9 Wide Screen, ultrawide game view in Game Mode
USB (720p)	16:9 Standard, Custom, 4:3 Screen Size
USB (1080i/p @ 60 Hz)	16:9 Standard, Custom, 4:3 Screen Size
*USB (3840 x 2160p @ 24/30 Hz)	16:9 Standard, Custom
*USB (3840 x 2160p @ 60 Hz)	16:9 Standard, Custom
*USB Type-C (720p)	16:9 Standard, Custom, 4:3 Screen Size
*USB Type-C (1080p @ 60 Hz)	16:9 Standard, Custom, 4:3 Screen Size
*USB Type-C (3840 x 1600p @ 60 Hz)	21:9 Wide Screen, ultrawide game view in Game Mode
*USB Type-C (3840 x 2160p @ 60 Hz)	16:9 Standard, Custom

*: This input signal is supported by M7 series.

**: This input signal is supported by M5 series.

The input ports for external devices may differ depending on the model and geographical area.

Available Picture Mode may differ depending on the external device.

When the screen size cannot be changed to 21:9 Wide Screen or Ultrawide Game View, the screen resolution on the external device needs to be changed.

Ultrawide Game View is only available on source devices which support 21:9 outputs, and may function differently depending on the game or content being viewed. To check whether Ultrawide Game View is available, activate this function and then check that the display resolution can be set to 3840 x 1600.

Installing an anti-theft lock

An anti-theft lock is a physical device that can be used to protect the product against theft. Look for the lock slot on the back of the product. The slot has a icon next to it. To use the lock, wrap the lock cable around an object that is too heavy to carry and then thread it through the product's lock slot. The lock is sold separately. The method of using an anti-theft lock may differ for each model. Refer to the lock's user manual for more information.

This function may not be supported depending on the model or geographical area.

Supported Resolutions for UHD Input Signals

Check the supported resolution for UHD input signals.

- Resolution: 3840 x 2160p

This function is supported by M7 series.

If Input Signal Plus is set to Off

Frame rate (fps)	Color Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
50 / 60	8 bit	-	-	-	O

If Input Signal Plus is set to On

Frame rate (fps)	Color Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
50 / 60	8 bit	O	O	O	O
	10 bit	-	-	O	O

For USB-C, YCbCr 4:2:0 is not supported.

Read Before Connecting a Computer (Supported Resolutions)

Check the resolutions supported for PC input signals.

When you connect your product to a computer, set the computer's video card to one of the standard resolutions listed in the tables below or on the next pages. The product will automatically adjust to the resolution you choose. Note that the optimal and recommended resolutions are 3840 x 2160 at 60 Hz (M7 series) and 1920 x 1080 at 60 Hz (M5 series). Choosing a resolution not included in the tables can result in a blank screen or just the remote control sensor turning on. Refer to the user manual of your graphics card for compatible resolutions.

The native resolution is 3840 x 2160 at 60 Hz with the Input Signal Plus set to On. The native resolution is 3840 x 2160 at 30 Hz with the Input Signal Plus set to Off.

VESA DMT

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)	Port	
						HDMI	USB Type-C
640 x 480	60 Hz	31.469	59.940	25.175	- / -	O	O
640 x 480	73 Hz	37.861	72.809	31.500	- / -	O	O
640 x 480	75 Hz	37.500	75.000	31.500	- / -	O	O
800 x 600	60 Hz	37.879	60.317	40.000	+ / +	O	O
800 x 600	72 Hz	48.077	72.188	50.000	+ / +	O	O
800 x 600	75 Hz	46.875	75.000	49.500	+ / +	O	O
1024 x 768	60 Hz	48.363	60.004	65.000	- / -	O	O
1024 x 768	70 Hz	56.476	70.069	75.000	- / -	O	O
1024 x 768	75 Hz	60.023	75.029	78.750	+ / +	O	O
1152 x 864	75 Hz	67.500	75.000	108.000	+ / +	O	O
**1280 x 720	60 Hz	45.000	60.000	74.250	+ / +	O	-
1280 x 800	60 Hz	49.702	59.810	83.500	- / +	O	O
1280 x 1024	60 Hz	63.981	60.020	108.000	+ / +	O	O
1280 x 1024	75 Hz	79.976	75.025	135.000	+ / +	O	O

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)	Port	
						HDMI	USB Type-C
**1366 x 768	60 Hz	47.720	59.799	84.750	- / +	O	-
1440 x 900	60 Hz	55.935	59.887	106.500	- / +	O	O
1600 x 900	60 Hz	60.000	60.000	108.000	+ / +	O	O
1680 x 1050	60 Hz	65.290	59.954	146.250	- / +	O	O
1920 x 1080	60 Hz	67.500	60.000	148.500	+ / +	O	O

**: This input signal is supported by M5 series.

VESA CVT

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)	Port	
						HDMI	USB Type-C
**1920 x 800	60 Hz	49.761	59.881	125.000	- / +	O	-
*2560 x 1440	60 Hz	88.787	59.951	241.500	+ / -	O	O
*3840 x 1600	30 Hz	48.859	29.975	246.250	- / +	-	O
*3840 x 1600	60 Hz	99.419	59.963	521.750	- / +	O	O
*3840 x 2160	24 Hz	52.593	23.993	266.750	- / +	O	-
*3840 x 2160	25 Hz	54.786	24.971	278.750	- / +	O	-
*3840 x 2160	30 Hz	65.956	29.980	338.750	- / +	O	O
*3840 x 2160	60 Hz	134.177	59.981	712.750	- / +	O	O

*: This input signal is supported by M7 series.

**: This input signal is supported by M5 series.

Supported Resolutions for Video Signals

Check the resolutions supported for video signals.

CTA-861

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)	Port	
						HDMI	USB Type-C
720 (1440) x 576i	50 Hz	15.625	50.000	27.000	- / -	O	-
720 (1440) x 480i	60 Hz	15.734	59.940	27.000	- / -	O	-
720 x 576	50 Hz	31.250	50.000	27.000	- / -	O	-
720 x 480	60 Hz	31.469	59.940	27.000	- / -	O	-
1280 x 720	50 Hz	37.500	50.000	74.250	+ / +	O	O
**1280 x 720	60 Hz	45.000	60.000	74.250	+ / +	O	-
1920 x 1080i	50 Hz	28.125	50.000	74.250	+ / +	O	-
1920 x 1080i	60 Hz	33.750	60.000	74.250	+ / +	O	-
1920 x 1080	24 Hz	27.000	24.000	74.250	+ / +	O	-
1920 x 1080	25 Hz	28.125	25.000	74.250	+ / +	O	-
1920 x 1080	30 Hz	33.750	30.000	74.250	+ / +	O	-
1920 x 1080	50 Hz	56.250	50.000	148.500	+ / +	O	O
1920 x 1080	60 Hz	67.500	60.000	148.500	+ / +	O	O
*3840 x 2160	24 Hz	54.000	24.000	297.000	+ / +	O	-
*3840 x 2160	25 Hz	56.250	25.000	297.000	+ / +	O	-
*3840 x 2160	30 Hz	67.500	30.000	297.000	+ / +	O	O
*3840 x 2160	50 Hz	112.500	50.000	594.000	+ / +	O	O
*3840 x 2160	60 Hz	135.000	60.000	594.000	+ / +	O	O

*: This input signal is supported by M7 series.

**: This input signal is supported by M5 series.

List of graphic cards supporting HDR10

HDR10 is accessible only on Windows 10 systems equipped with graphic cards that support Play Ready 3.0 Digital Rights Management (for protected HDR content). Use graphic cards listed below for HDR10.

- NVIDIA GeForce 1000 series or higher
- AMD Radeon™ RX 400 series or higher
- Intel UHD Graphics 600 series or higher

Graphic cards that support hardware-accelerated 10-bit video decoding for HDR video codecs are recommended.

Read Before Using Bluetooth Devices

Read this information before using a Bluetooth device.

This function may not be supported depending on the model or geographical area.

Restrictions on using Bluetooth

- You can't use Bluetooth devices and the Wi-Fi Speaker Surround Setup feature simultaneously.
- Compatibility issues may occur, depending on the Bluetooth device (A Mobile exclusive headphone may not be available, depending on the environment).
- Lip-sync errors may occur.
- The product and Bluetooth device may disconnect, depending on the distance between them.
- A Bluetooth device may hum or malfunction:
  - When a part of your body is in contact with the receiving/transmitting system of the Bluetooth device or the product.
  - When the device is subject to electrical variation from obstructions caused by a wall, corner, or office partitioning.
  - When the device is exposed to electrical interference from same frequency-band devices including medical equipment, microwave ovens, and wireless LANs.
- If the problem persists, we recommend you use a wired connection.
  - HDMI (ARC) port

Installing the Software

Easy Setting Box

Easy Setting Box

Easy Setting Box enables users to use the product by partitioning multiple sections.

To install the latest version of Easy Setting Box, download it from the Samsung website (http://www.samsung.com).

- The software may not work properly if you do not restart the PC after the installation.
- The Easy Setting Box icon may not appear depending on the PC system and the product specifications.
- If the shortcut icon does not appear, press the F5 key.

Restrictions and Problems with the Installation

The Easy Setting Box installation may be affected by the Graphics Card, Motherboard and the Networking Environment.

System Requirements

OS	Hardware
• Windows 7 32Bit/64Bit • Windows 8 32Bit/64Bit • Windows 8.1 32Bit/64Bit • Windows 10 32Bit/64Bit	• At least 32MB of memory • At least 60MB of free space on the hard disk drive

Driver Installation

To install the latest version of the product driver, download it from the Samsung website (http://www.samsung.com).

- You can set the optimum resolution and frequency for this product by installing the corresponding drivers.

Troubleshooting

If you have a problem with your product, you can access various solutions while watching product. If your problem is not addressed in the Troubleshooting section or contact the Samsung Call Centre.

Picture Issues

When the product has trouble with the picture, these steps may help resolve the problem.

Testing the picture

Settings > Support > Device Care > Self Diagnosis > Picture Test

Before you review the list of problems and solutions below, use Picture Test to determine if the problem is caused by the product. Picture Test displays a high definition picture you can examine for flaws or faults.

The problem	Try this!
Flickering and Dimming	If your product is flickering or dimming sporadically, you may need to disable some of the energy efficiency features. Disable Ambient Light Detection, Power Saving Mode, Motion Lighting, or Contrast Enhancer. • Settings > General > Eco Solution > Ambient Light Detection • Settings > General > Eco Solution > Power Saving Mode • Settings > General > Eco Solution > Motion Lighting • Settings > Picture > Expert Settings > Contrast Enhancer Run Picture Test. When the tested image quality is normal, check the signal of the connected device. • Settings > Support > Device Care > Self Diagnosis > Picture Test
Component Connections and Screen Colour	If the colour on your product screen is not correct or the black and white colours are off, run Picture Test. • Settings > Support > Device Care > Self Diagnosis > Picture Test

The problem	Try this!
Screen Brightness	If the colours on your product are correct but just a little too dark or bright, try adjusting the following settings first. • > Settings > Picture > Expert Settings > Contrast • > Settings > Picture > Expert Settings > Brightness • > Settings > Picture > Expert Settings > Sharpness • > Settings > Picture > Expert Settings > Color • > Settings > Picture > Expert Settings > Tint (G/R)
Blurring, or Juddering	If you notice blurring or juddering on the screen, use the Picture Clarity Settings function to resolve the issue. • > Settings > Picture > Expert Settings > Picture Clarity Settings
Unwanted Powering Off	If your product appears to turn off by itself, try disabling some of the product's energy efficiency functions. See if Sleep Timer has been enabled. The Sleep Timer automatically turns the product off after a specified period of time. • > Settings > General > System Manager > Time > Sleep Timer If the Sleep Timer has not been enabled, see if Auto Power Off, Off Timer or Standby Mode Timer has been enabled and disable it. • > Settings > General > Eco Solution > Auto Power Off • > Settings > General > System Manager > Time > Off Timer • > Settings > General > System Manager > Time > Standby Mode Timer
Problems Powering On	If you are having problems powering on your product, there are a number of things to check before calling the service department. Confirm that the product's power cord is connected correctly at both ends and that the remote control is operating normally.
The picture is distorted	The compression of video content may cause picture distortions, especially in fast moving pictures from sports programmes and action movies. If the signal reception is weak or poor, screen distortion may be visible but it is not a malfunction. Mobile phones used close to the product (within 3.2 ft) may cause noise on analogue and digital channels.

The problem	Try this!
The colour is poor or the picture is not bright enough	Go to Picture and then adjust the Picture Mode, Brightness, Sharpness, and Color settings. • > Settings > Picture > Picture Mode • > Settings > Picture > Expert Settings > Brightness • > Settings > Picture > Expert Settings > Sharpness • > Settings > Picture > Expert Settings > Color See if Power Saving Mode has been enabled. • > Settings > General > Eco Solution > Power Saving Mode Try resetting the picture. • > Settings > Picture > Expert Settings > Reset Picture
There is a dotted line on the edge of the screen	Change Picture Size Settings to 16:9 Standard. • > Settings > Picture > Picture Size Settings > 16:9 Standard
The Caption function in the product menu is deactivated	When an external device is connected with an HDMI or Component cable, the Caption function is unavailable. Adjust the caption setting on the external device.
Captions appear on the product screen	Turn off the Caption function in Caption Settings. • > Settings > General > Accessibility > Caption Settings > Caption
The HDR of the connected external device turns off	Expand the reception range of the corresponding HDMI input signal in Input Signal Plus. • > Settings > General > External Device Manager > Input Signal Plus If an input source is connected to the USB Type-C port, the HDR function is not supported even if Input Signal Plus is selected.
Blank spaces are found on all four sides of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.	The blank spaces found on the screen have nothing to do with the product. Blank spaces on the screen are caused by the PC or graphics card. To resolve the problem, adjust the screen size in the HDMI or DVI settings for the graphics card. If the graphics card settings menu does not have an option to adjust the screen size, update the graphics card driver to the latest version. (Please contact the graphics card or PC manufacturer for further details about how to adjust the screen settings.)

The problem	Try this!
The power LED is off. The screen will not switch on.	Check that the power cable is connected properly. If a problem occurs with the product screen, run Self Diagnosis to check that the product is working properly.
The images on the screen look distorted.	Check the cable connection to the product.
The screen is not clear. The screen is blurry.	Set the resolution and frequency to the recommended level.
The screen appears unstable and shaky. There are shadows or ghost images left on the screen.	Check that the resolution and frequency for the PC are within the range of resolution and frequency compatible with the product. Next, if required, change the settings, referring to Standard Signal Mode Table in this manual and the Information menu on the product.
There is no image on the screen and the power LED blinks every 0.5 to 1 second.	The product is operating in standby mode. Press any key on the keyboard or move the mouse to return to normal operating mode.
Text is blurry.	If using a Windows OS (e.g. Windows 7, Windows 8, Windows 8.1 or Windows 10): Go to **Control Panel** → **Fonts** → **Adjust ClearType text** and change **Turn on ClearType**.

- If the test picture does not appear or there is noise or distortion, the product may have a problem. Contact Samsung's Call Centre for assistance.
- If the test picture is displayed properly, there may be a problem with an external device. Please check the connections.
- If the problem persists, check the Signal Information or refer to the external device's user manual.

Sound and Noise Issues

When the product has difficulties with sound, these steps may help resolve the problem.

Testing the sound

Settings > Support > Device Care > Self Diagnosis > Sound Test

If the product plays the Sound Test melody without distortion, there may be a problem with an external device or the broadcast signal's strength.

The problem	Try this!
How can I connect an audio device to the product?	The connection method may differ depending on the audio device, such as HDMI (ARC), Bluetooth, and Wi-Fi. For more information about how to connect an audio device, run Connection Guide. • Source > Connection Guide > Audio Device
There is no sound or the sound is too low at maximum volume.	Check the volume control of your product, and then check the volume control of the external device (cable box or satellite box, DVD, Blu-ray, etc.) connected to your product. Check the cable connection between an external device and the product and then try cable connection again.
The picture is good but there is no sound.	Set Sound Output to Device Speaker. • Settings > Sound > Sound Output If you are using an external device, check the device's audio output option. For example, you may need to change your cable box's audio option to HDMI if the box connected to your product is using an HDMI cable. To listen to computer sound, connect an external speaker to the computer's audio output connector. If your product has a headphone jack, make sure there is nothing plugged into it. Reboot the connected device by disconnecting and then reconnecting the device's power cable. With a set-top box or cable box, check the cable connection and reboot the external device. When the symptom persists, contact your service provider.
No sound is heard.	Check whether Digital Output Audio Format is set to Pass-Through. If you select the Pass-Through option to use an AV receiver that does not support Dolby Digital+, no sound is output with Dolby Digital+ content. It is recommended to set Digital Output Audio Format to Auto when the connected receiver supports only the limited audio formats. • Settings > Sound > Expert Settings > Digital Output Audio Format > Auto
The speakers are making an odd sound.	Run Sound Test. • Settings > Support > Device Care > Self Diagnosis > Sound Test Make sure that the audio cable is connected to the correct audio output connector on the external device.

The problem	Try this!
The sound is interrupted.	The sound may frequently be interrupted when a Bluetooth speaker is used. Make sure that the Bluetooth speaker and the wireless access point are on a straight line, and the Bluetooth speaker is placed as close as possible to the product. To minimise interruptions, we recommend a wireless access point that uses a 5 GHz frequency. When the symptom persists, it is recommended to use wired connection such as HDMI ARC.
Whenever a function is used on the product voices the activity. The product explains in voice-over the video scenes displayed on the screen.	Turn off the Voice Guide function in Voice Guide Settings. • > Settings > General > Accessibility > Voice Guide Settings > Voice Guide
The product audio is not being played through the AV receiver.	Check the A/V receiver's power supply and its settings.
The sound is not heard clearly.	Change to an appropriate sound mode. • > Settings > Sound > Sound Mode This function may not be supported depending on the model.
The volume of the external device cannot be adjusted.	Check the cable connection between the product and the external device. When connecting an external speaker such as home theatre via HDMI, make sure it is connected to the HDMI (ARC) port on the product. Make sure that the > Settings > General > External Device Manager > Anynet+ (HDMI-CEC) is active on your product.
I want to turn off and on the product and audio device at the same time.	When you connect the Samsung Soundbar to the product via Bluetooth, the power turns off and on together. It may not be supported depending on the Samsung Soundbar model. When you connect an audio device that supports HDMI ARC to the HDMI (ARC) port on the product, the power turns off and on together.

External Device Connectivity Issues

When the product has difficulties connecting to external devices such as a PC, game console, or mobile device, these steps may help resolve the problem.

The problem	Try this!
The "Mode Not Supported" message appears.	Adjust the output resolution of the external device to a resolution supported by the product.
The video is OK but there is no audio.	If you are using an HDMI connection, check the audio output setting on your PC. If you are using a DVI to HDMI cable, a separate audio cable is required. To listen to the computer sound, connect external speakers to the audio output connection of the computer.
I want to connect to a PC and mobile device via screen mirroring.	To wirelessly connect the product to your PC, read the instructions at PC > Screen Sharing (Wireless) in Connection Guide, and then try to connect. • > Source > Connection Guide > PC > Screen Sharing (Wireless) Confirm that the product and your PC are connected to the same network. To wirelessly connect the product to your mobile device, read the instructions at Smartphone > Screen Sharing (Smart View) in Connection Guide, and then try to connect. • > Source > Connection Guide > Smartphone > Screen Sharing (Smart View) If the product has difficulties connecting to your PC or mobile device due to surrounding radio interferences, change the frequency of the wireless access band, and then try to connect.
No screen appears when connecting the product to an external device.	For more information about how to connect an external device, run Connection Guide. • > Source > Connection Guide Make sure that the external device is connected securely and turned on. Move to Sources to switch to other input sources. • > Source > Sources Using HDMI Troubleshooting, you can check the connection to HDMI cable and external devices (takes approximately 2 minutes). • > Source > Connection Guide > Video Device > HDMI Troubleshooting When using a set-top box or cable box, check the broadcast signals or the network that is connected to the external device.

The problem	Try this!
The PC screen does not appear or it flickers.	When the PC screen does not appear or the PC is not recognised, check the power supply of the PC and then reconnect the HDMI cable between the PC and product. When the symptom persists, check that the PC is in Sleep mode. When the set resolution is not matched, the screen may flicker. For the PC supported resolution, see 'Read Before Connecting a Computer (Supported Resolutions).'
A beeping sound is heard when my PC is booting.	If a beeping sound is heard when your PC is booting, have your PC serviced.
A special key on the keyboard or mouse is entered automatically.	If the product is connected to a USB Type-C port and then a keyboard or mouse is connected to the USB port of the product, it may cause malfunction due to USB packet handling errors of the graphic card. If any error occurs, it is recommended to contact the graphic card manufacturer or to connect the keyboard or mouse directly to the computer’s motherboard.

Network Issues

When the product has difficulties connecting to the Internet, these steps may help resolve the problem.

Settings > Support > Device Care > Self Diagnosis > Smart Hub Connection Test

If the product has trouble with network connection or product services, check the Smart Hub connection status.

The problem	Try this!
Wireless network connection failed. Unable to connect to a wireless access point.	Make sure that no items that can generate electromagnetic interferences are placed between the product and the wireless/wired access point. Check if the access point is turned on. If it is on, turn it off, wait 1 or 2 minutes, and then turn it on. Enter the correct password if required. If the wireless connection fails, connect the product to the access point via a LAN cable. If the product can connect to the Internet normally via the wired connection, there might be a problem with the access point. In this case, try using a different access point.
Wired network connection failed.	Check if the LAN cable is plugged in on both ends. If it is plugged in, check if the access point is turned on. If it is on, turn it off, wait 1 or 2 minutes, and then turn it on.
Auto IP configuration failed. Unable to connect to the network.	Check if the LAN cable is plugged in on both ends. If it is plugged in, check if the access point is turned on. If the access point is on, turn it off, wait 1 or 2 minutes, and then turn it on. Disconnect and then reconnect the power cable of the product, or press and hold the power button for 3 seconds.
Connected to a local network, but not to the Internet.	1. Check if the Internet LAN cable is connected to the access point's external LAN port. 2. Check the DNS setting in IP Settings. – Settings > General > Network > Network Status > IP Settings
Network setup is completed, but unable to connect to the Internet.	If the problem persists, contact your Internet service provider.

Wired networks are not supported by some models.

Anynet+ (HDMI-CEC) Issues

When Anynet+ (HDMI-CEC) isn't working, these steps may help resolve the problem.

The problem	Try this!
What is Anynet+?	You can use the product's remote control to control external devices that support Anynet+ (HDMI-CEC) and that are connected to the product via an HDMI cable. For example, if a connected external device supports Anynet+, you can have the connected device turn on or off when you turn the product on or off.
Anynet+ does not work.	Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. Check if the power cord of the Anynet+ device is properly connected. Check the cable connections of the Anynet+ device. Go to Anynet+ (HDMI-CEC) and see if Anynet+ (HDMI-CEC) has been set to On. • > Settings > General > External Device Manager > Anynet+ (HDMI-CEC)
I want to exit Anynet+. It is inconvenient to turn on other devices because the product also turns on. It is inconvenient because the connected devices (e.g. set-top box) turn off together.	To turn off the Anynet+ function of a device connected to the product, turn off the Anynet+ (HDMI-CEC) function of the device. • > Settings > General > External Device Manager > Anynet+ (HDMI-CEC) When Anynet+ (HDMI-CEC) is turned off, the sound bar connected via the HDMI (ARC) port does not turn off and on together with the product. To prevent a specific device connected to the product from turning off automatically, turn off the HDMI-CEC function on a specific device connected to the product.

The problem	Try this!
The message "Connecting to Anynet+ device..." or "Disconnecting from Anynet+ device" appears on the screen.	You cannot use the remote control when the product is configuring Anynet+ or switching to the product viewing screen. Use the remote control after the product has completed the Anynet+ configuration or has switched to the product viewing screen.
The Anynet+ device won't play.	You cannot use the play function when Reset is in progress.
The connected device is not displayed.	Check whether the device supports Anynet+. Anynet+ devices must be connected to the product using an HDMI cable. Make sure the device is connected to your product with an HDMI cable. Some HDMI cables may not support Anynet+. Check whether the HDMI cable is properly connected. Go to Anynet+ (HDMI-CEC) and see if Anynet+ (HDMI-CEC) has been set to On. • > Settings > General > External Device Manager > Anynet+ (HDMI-CEC)

Remote Control Issues

When the remote control isn't working, these steps may help resolve the problem.

The problem	Try this!
The remote control does not work.	The connection between the remote control and the product may be lost. Point the Samsung Smart Remote at the front of the product, and then press and hold the and buttons simultaneously for 3 seconds or more. Also, if the remote control is not working or slow, the batteries might be low or dead. If this is the case, replace the batteries. Alkaline batteries are recommended for longer battery life. • Charge the remote control by using the solar cell or the USB port(C-type) on the bottom. • If the remote control has batteries, replace them with new ones.
External devices cannot be operated with the product remote control.	Check the cable connection between the product and external devices.
When I turn on the product with the remote control, another device is also turned on.	The infrared remote controls provided by Samsung are compatible each other. However, note that multiple devices can be activated at the same time. If you do not want this happening, use the SmartThings app to manipulate each product.

Apps

When apps aren’t working, these steps may help resolve the problem.

The problem	Try this!
I launched an app, but it's in a different language. How can I change the language?	Languages supported by an app may be different from the product Language set in the menu. The ability to change the language depends on the app's provider.
The app does not work properly. Its image quality is poor.	Check the network connection. When the network speed is slow, the app may not work or its image quality may be poor. The services of your application are not provided by the product but by the application service provider. Refer to the Help section on the application service provider's website.

Media Files

When files don’t play, this may help resolve the problem.

The problem	Try this!
Some files are interrupted during playback.	This problem may occur with unsupported files or high-bitrate files. Most files can be played back, but some files may not play smoothly.
Some files can't be played.	Some files that use an unsupported codec may not be played back. Make sure that the codec is supported by the product. For more information, refer to "Read Before Playing Photo, Video, or Music Files."

Voice Assistant Issues

When the Voice Assistant isn't working, these steps may help resolve the problem.

This function may not be supported depending on the model or geographical area.

The Voice Wake-up function may not be supported depending on the model, Voice Assistant or geographical area.

The problem	Try this!
The voice commands do not work well.	Voice commands may differ depending on the Voice Assistant. Refer to the command examples for each Voice Assistant. • Bixby: > Explore Now • Google Assistant: > Settings > General > Voice > Google Assistant Settings
Bixby answers automatically.	The product may recognise an ambient noise or everyday conversation as a call to Voice Assistant. Turn off the Voice Wake-up function or set the Wake-Up Sensitivity to Low. • > Explore Now > Settings > Voice Wake-up
I spoke "Hi, Bixby" but Bixby does not answer.	When the product is far from you or the ambient noise is so loud, the product may be unable to recognise your voice. • For best results, you need to be within 10 feet (3-4 m) of your product. Please look at your product screen and speak. Turn on the Voice Wake-up function. • > Explore Now > Settings > Voice Wake-up
Voice recognition does not work with the Samsung Smart Remote unlike other features. There is no response even if the voice entry button is pressed.	The connection between the remote control and the product may be lost. Try pairing the remote control with the product. Point the Samsung Smart Remote at the front of the product, and then press and hold the and buttons simultaneously for 3 seconds or more. Also, if the remote control does not work properly or its response is very slow, the battery might be low or dead. • Charge the remote control by using the solar cell or the USB port(C-type) on the bottom. • If the remote control has batteries, replace them with new ones.
During voice recognition, the heavy load message appears and the function does not work.	Unplug and then plug the product power cable and then try again after 1 minute and 30 seconds. It may take a while if the voice recognition server is being inspected.
I want to see weather information of the desired area.	Say with the area name included.

Other issues

Use these procedures to resolve other issues that may occur in relation to the product.

The problem	Try this!
The product is hot.	Watching product for an extended period of time causes the panel to generate heat. The heat from the panel is dissipated through internal vents running along the top of the product. The bottom, however, may feel hot to the touch after extended use. Children watching product need constant adult supervision to prevent them from touching the product. This heat, however, is not a defect and does not affect the product's functionality.
The product smells like plastic.	This smell is normal and will dissipate over time.
The product is tilted to the side.	Remove the base stand from the product and reassemble it.
The stand is wobbly or crooked.	Refer to the Quick Setup Guide and make sure that the stand is assembled correctly.
The settings are lost after 5 minutes or every time the product is turned off.	If Usage Mode is set to Retail Mode, the product's audio and video settings are automatically reset every 5 minutes. Change Usage Mode to Home Mode. • > Settings > General > System Manager > Usage Mode
A POP (product's internal banner ad) appears on the screen.	Change Usage Mode to Home Mode. • > Settings > General > System Manager > Usage Mode
The product is making a popping noise.	The expansion and contraction of the product's outer casing may cause a popping noise. This does not indicate a product malfunction. The product is safe to use.

The problem	Try this!
The product is making a humming noise.	Your product utilises high-speed switching circuits and high levels of electrical current. Depending on the product's brightness level, the product may seem slightly noisier than a conventional product. Your product has undergone strict quality control procedures that meet our demanding performance and reliability requirements. Some noise coming from the product is considered normal and is not an acceptable cause for an exchange or refund.
The software update over the Internet has failed.	Check the network connection status. • > Settings > General > Network > Network Status If the product is not connected to a network, connect it to a network. The upgrade stops if you already have the latest software version.
The product narrates the screen events in voice-over.	To turn off Voice Guide, move the focus from Accessibility Shortcuts to Voice Guide and then press the Select button. You can turn on or off Voice Guide. To run Accessibility Shortcuts, see the following: • Press and hold the Volume button on your Samsung Smart Remote. • > Settings > General > Accessibility > Voice Guide Settings > Voice Guide

Diagnosing product operational issues

You can diagnose issues with your product and Smart Hub and run reset functions.

Settings > Support > Device Care > Self Diagnosis

You can use the Picture Test to help diagnose video issues and the Sound Test to diagnose sound issues. You can also view signal strength information for over-the-air digital signals, test the Smart Hub Internet connection, and run the Smart Hub and product factory reset functions.

- Picture Test
- Sound Test
- HDMI Troubleshooting
- Signal Information
- Smart Hub Connection Test
- Reset Smart Hub

The problem	Try this!
Cannot select Signal Information in Self Diagnosis.	Verify that the current channel is a digital channel. Signal Information is only available for digital channels. • Settings > Support > Device Care > Self Diagnosis > Signal Information
Reset Smart Hub	Resets all Smart Hub settings to their factory defaults and deletes all information related to Samsung accounts, linked service accounts, Smart Hub service agreements, and Smart Hub applications. • Settings > Support > Device Care > Self Diagnosis > Reset Smart Hub
Reset picture	Resets current picture settings to the default settings. • Settings > Picture > Expert Settings > Reset Picture
Reset sound	Resets current sound settings to the default settings. • Settings > Sound > Expert Settings > Reset Sound

Getting Support

Get help directly from Samsung if you have a problem with your product.

Getting support through Remote Management

Settings > Support > Remote Management

After consenting to our service agreement, you can use Remote Management to access Remote Support and have a Samsung service technician diagnose your product, correct problems, and update your product's software remotely via the web. You can also turn Remote Management on and off.

This function requires an Internet connection.

Finding the contact information for service

Settings > Support > About Monitor

You can view the address of the Samsung website, the call centre phone number, your product's model number, your product's software version, Open Source Licence and other information you may need to get service support from a Samsung call agent or the Samsung website.

You can also view information by scanning the QR code of your product.

You can also start this function by pressing and holding the button for 5 or more seconds. Continue holding the button until the customer information pop-up window appears.

Q & A

Refer to the user manual for your PC or graphics card for further instructions on adjustment.

The problem	Try this!
How can I change the frequency?	Set the frequency on your graphics card. • Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Screen Resolution** → **Advanced settings** → **Monitor**, and adjust **Screen Refresh Rate** under **Monitor settings**. • Windows 8(Windows 8.1): Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Display** → **Screen Resolution** → **Advanced settings** → **Monitor**, and adjust **Refresh rate** under **Monitor settings**. • Windows 10: Go to **Settings** → **System** → **Display** → **Advanced display settings** → **Display adapter properties** → **Monitor**, and adjust **Screen refresh rate** under **Monitor settings**.
How can I change the resolution?	• Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Screen Resolution** → **Adjust Resolution**. • Windows 8(Windows 8.1): Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust Resolution**, and adjust the resolution. • Windows 10: Go to **Settings** → **System** → **Display** → **Advanced display settings**, and adjust the resolution.
How do I set power-saving mode?	• Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Personalization** → **Screen Saver Settings** → **Power options** or BIOS SETUP on the PC. • Windows 8(Windows 8.1): Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** → **Power options** or BIOS SETUP on the PC. • Windows 10: Go to **Settings** → **Personalization** → **Lock screen** → **Screen timeout settings** → **Power & sleep** or BIOS SETUP on the PC.

Specifications

General

Model Name		S24AM50*	S27AM50*	S32AM50*
Size		24 Class (23.8 Inches / 60.4 cm)	27 Class (27.0 Inches / 68.6 cm)	32 Class (31.5 Inches / 80.1 cm)
Display area		527.04 mm (H) x 296.46 mm (V)	597.888 mm (H) x 336.312 mm (V)	698.4 mm (H) x 392.85 mm (V)
Pixel Pitch		0.2745 mm (H) x 0.2745 mm (V)	0.3114 mm (H) x 0.3114 mm (V)	0.36375 mm (H) x 0.36375 mm (V)
Maximum Pixel Frequency		95.5 MHz	94 MHz	96 MHz
Synchronization (PANEL Spec)	Horizontal Frequency	-	-	-
	Vertical Frequency	48 ~ 75 Hz		
Resolution	Optimum Resolution	1920 x 1080 @ 60 Hz		
	Maximum Resolution	1920 x 1080 @ 60 Hz		

Model Name		S32AM70*	S43AM70*
Size		32 Class (31.5 Inches / 80.0 cm)	43 Class (42.5 Inches / 107.9 cm)
Display area		697.306 mm (H) x 392.234 mm (V)	941.184 mm (H) x 529.416 mm (V)
Pixel Pitch		0.18159 mm (H) x 0.18159 mm (V)	0.2451 mm (H) x 0.2451 mm (V)
Maximum Pixel Frequency		597.08 MHz	594 MHz
Synchronization (PANEL Spec)	Horizontal Frequency	147.78 kHz ~ 148.38 kHz	135 kHz ~ 141.42 kHz
	Vertical Frequency	60 Hz	
Resolution	Optimum Resolution	3840 x 2160 @ 60 Hz	
	Maximum Resolution	3840 x 2160 @ 60 Hz	

Power Supply	AC100-240V~ 50/60Hz Refer to the label at the back of the product as the standard voltage can vary in different countries. Based on the AC voltage of the adapter. For the DC voltage of the product, refer to the product label. (S24AM50* model only.)
Signal connectors	HDMI USB USB Type-C (This function is available only in M7 series.)
Environmental conditions	Operating Temperature: 10 °C – 40 °C (50 °F – 104 °F) Humidity: 10 % – 80 %, non-condensing
	Storage Temperature: -20 °C – 45 °C (-4 °F – 113 °F) Humidity: 5 % – 95 %, non-condensing

- Plug-and-Play

  This product can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the product and PC system optimises the product settings. Product installation takes place automatically. However, you can customise the installation settings if desired.

- Panel Dots (Pixels)

  Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the LCD panel. This does not affect product performance.

- The specifications are subject to change without notice to improve quality.

- For detailed device specifications, visit the Samsung website.

- (Europe only)

  To access energy labelling information about this product on the European Product Registry for Energy Labelling (EPREL), go to https://eprel.ec.europa.eu/qr/******

  where ****** is the product's EPREL registration number. You can find the registration number on the rating label of your product.

- (Turkey only)

  To access the energy labelling information of the model:

  (1) Go to https://www.samsung.com/global/ecodesign_energy

  (2) Get the model identifier from the energy label of the product and type it in the search box

  (3) Energy labelling information can be found

Appendix

Responsibility for the Pay Service (Cost to Customers)

When the service is requested, in spite of in warranty, we may charge you for a visit from a service technician in the following cases.

Not a product defect

Cleaning of the product, Adjustment, Explanation, Re-installation and etc.

- If a service technician is requested to give instructions on how to use product or simply adjusts options without disassembling product.
- If a defect is caused by external environmental factors (Internet, Antenna, Wired Signal, etc.)
- If a product is reinstalled or devices are connected additionally after installing the purchased product for the first time.
- If a product is reinstalled to move to a different spot or to move to a different house.
- If the customer requests instructions on how to use another company's product.
- If customer requests instructions on how to use the network or another company's Programmeme.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

- External impact or drop.
- Use of supplies or separately sold product unspecified by Samsung.
- Repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co., Ltd.
- Remodeling or repairing the product by customer.
- Using it with incorrect voltage or non-authorised electrical connections.
- Not following the "cautions" in User Manual.

Others

- If product fails by natural disaster. (lightning, fire, earthquake, flood damage, etc)
- If consumable components are all used up. (Battery, Toner, Fluorescent lights, Head, Vibrator, Lamp, Filter, Ribbon, etc.)

If customer requests a service in case the product has no defect, service fee may be charged. So please read User Manual first.

Licences

Check the licence information and trademarks applied in your product.

DOLBY AUDIO™

Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.

Open Source License Notice

To send inquiries and requests for questions regarding open sources, contact Samsung Open Source (http://opensource.samsung.com)

HEVC Advance™
Covered by Patents at patentlist.hevcadvance.com

WEEE

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)



(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product



(Applicable in countries with separate collection systems)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.