

# E-MANUAL

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Model	C 1 N -	
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Licence

Glossary

# **Using Smart Hub**

### Connecting to the Internet

(MENU/123) > MENU > Network > Network Settings

Connect the TV to the Internet wired or wirelessly.



Actual menu screen may differ depending on the TV model.

### Setting up Smart Hub

(MENU/123) > MENU > Smart Hub > Open Smart Hub

Select Open Smart Hub to activate Smart Hub. When you start Smart Hub for the first time, the Set Up Smart Hub screen appears. Follow the instructions on the screen to configure the required settings and complete the setup.



Actual menu screen may differ depending on the TV model.

### **Using Smart Hub**

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

- Actual menu screen may differ depending on the TV model.
- For more information, refer to "Smart Hub".

# Controlling the TV with Your Voice

# **Setting up Voice Recognition**

(MENU/123) > MENU > System > Voice Recognition

Finish the settings required for voice recognition, such as the language to use and whether to use **Use TV Voice**.





Your TV's menu may differ from the image above, depending on the model,

### Controlling the TV with your voice

Press and hold the MENU/123 button on the Samsung Smart Control or say "Hi TV" to the TV's built-in microphone. (for 9900 series) The Voice Recognition screen appears. When the icon appears on the screen, speak commands slowly, in a moderately loud voice, into the microphone on the Samsung Smart Control.



- Your TV's menu may differ from the image above, depending on the model.
- This function is only available on certain models in specific geographical areas.
- For more information, refer to "TV Control using your Voice".

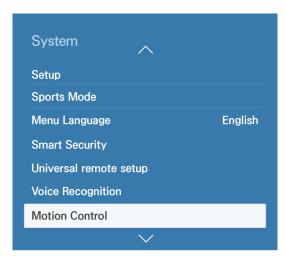
# Controlling the TV with Your Motion

### **Setting up Motion Control**

Availability depends on the specific model and area.

### (MENU/123) > MENU > System > Motion Control

Perform Motion Control Environment Test, then finish the settings required to run motion control, such as how to adjust Pointer Speed and whether to show Animated Motion Guide,



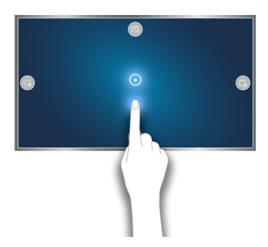


Your TV's menu may differ from the image above, depending on the model.

### Controlling the TV using motions

### (MENU/123) > MENU > System > Motion Control > Motion Control

- 1. Set Motion Control to On.
- 2. Face the TV camera, raise your hand to a comfortable position, and then move your index finger to the left or right slowly with it fully extended upwards.
- 3. Move your hand left or right slowly to move the pointer to a function.
- 4. Curl your index finger down to select a function, and then raise it again to run the selected function.





- Your TV's menu may differ from the image above, depending on the model.
- This function is only available on certain models in specific geographical areas.
- Motion Control is available in either direction control or motion pointing mode.
- 9800 models need to be connected to the TV camera in order to use Motion Control.
- For more information, refer to "TV Control using Motions".

# **Using the Samsung Smart Control**

### Operating the TV with the POINTER button



Actual menu screen may differ depending on the TV model.

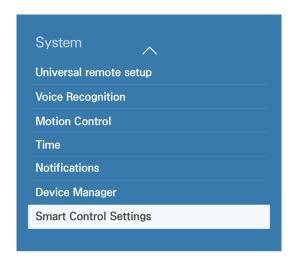
Place a finger on the **POINTER** button and move the Samsung Smart Control. The pointer on the screen moves in the direction you moved the Samsung Smart Control. Move the pointer to one of the following icons on the screen, and then press the **POINTER** button.

- Bisplays the On-Screen Remote.
- G: Allows you to adjust the volume or select speakers.
- Displays the channel list.
- launches Smart Hub.

# Setting up the Samsung Smart Control

(MENU/123) > MENU > System > Smart Control Settings

Set Motion Sensitivity and Firmware Update of the Samsung Smart Control.





Your TV's menu may differ from the image above, depending on the model.

### Pairing the TV to the Samsung Smart Control

When you turn on the TV, the Samsung Smart Control is paired to the TV automatically. To re-pair it to the TV, press the ① and ② buttons on the Samsung Smart Control simultaneously for 3 seconds or more.



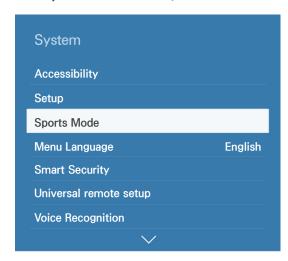
Actual menu screen may differ depends on the specific model and area.

# Improving the Viewing Experience of Sports Events

### **Activating Sports Mode**

(MENU/123) > MENU > System > Sports Mode

Set Sports Mode to On.



Your TV's menu may differ from the image above, depending on the model.

### Using the functions available in sports mode

Set **Sports Mode** to **On**, and then press the Enter button on the remote control. Select a function to run.



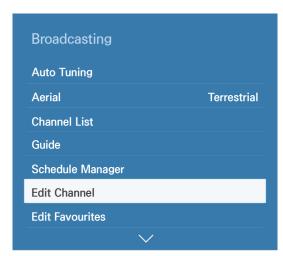


- For more information, refer to "Adding Realism to Sports".
- Actual menu screen may differ depends on the specific model and area.

# **Editing Channels**

### Running the Edit Channel function

(MENU/123) > MENU > Broadcasting > Edit Channel





Your TV's menu may differ from the image above, depending on the model.

### Rearranging or deleting channels

(MENU/123) > MENU > Broadcasting > Edit Channel > Change Number or Delete

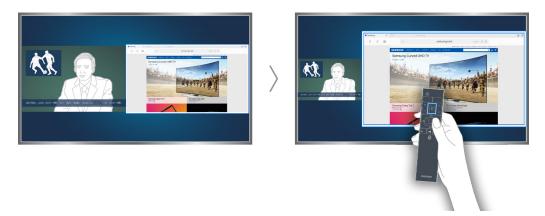
You can rearrange the order of channels or delete channels. To change the order of a channel, select it and then select **Change Number**. To delete a channel, select it and then select **Delete**.



Actual menu screen may differ depends on the specific model and area.

# Playing Multiple Screens

You can surf the web or run an app while viewing the TV. You can change the size of each screen by dragging the circle in the middle of the screen to the left or right.



- For more information, refer to "Viewing Multiple Screens or Features with Multi-Link Screen".
- Actual menu screen may differ depends on the specific model and area.

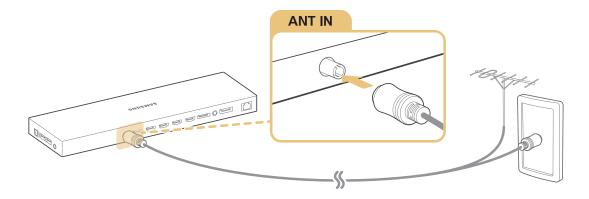
### **Aerial Connection**

Before connecting any external devices and cables to the TV, first verify the model number. A sticker containing the model number is attached to the back of the TV. The connection method varies depending on the model.

An aerial must be connected to the TV in order to receive broadcast signals.

- An aerial connection is not necessary when a cable box is used.
- Actual pictures may differ depends on the specific model and area.

Connect the cable from an aerial or cable outlet to the One Connect's ANT IN connector as shown in the diagram below,



# Connecting to the Internet

### **Establishing a Wired Internet Connection**

Connecting the TV to the Internet gives you access to online services and SMART features, and lets you update the TV's software quickly and easily through the Internet.

Actual pictures may differ depends on the specific model and area,

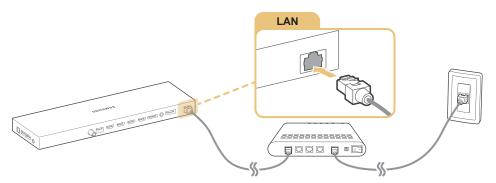
### Connecting a LAN Cable

Use a LAN cable.

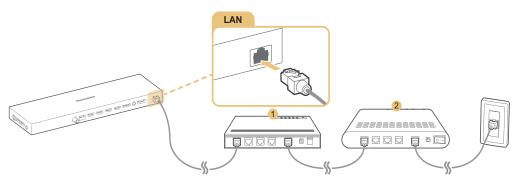
- The TV will not be able to connect to the Internet if the network speed is below 10Mbps,
- Use Cat 7 LAN cables to link your TV to the Internet Access Points,

There are three ways to connect the TV to your Internet Access Points. Using Cat 7 cables, connect the One Connect's LAN port to the Access Points as shown in one of the following illustrations.

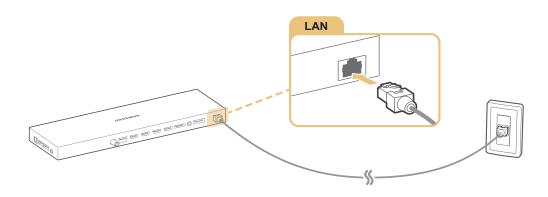
External Modem



• 1 IP Router + 2 External Modem



Wall-mounted LAN Outlet



### Connecting to a Wired Internet Network Automatically

### (MENU/123) > MENU > Network > Network Settings (Try Now)

Automatically connect to an available network.

- 1. Set the **Network Type** to **Wired**, and then press ...
- 2. The TV attempts to connect to an available network. Once successful, you will see a confirmation message. Select **OK**. If the attempt fails, try again, or connect manually.

### Connecting to a Wired Internet Network Manually

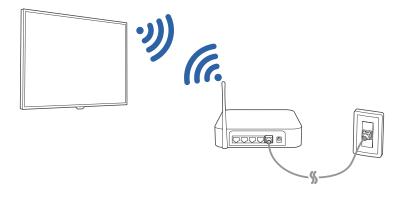
### (MENU/123) > MENU > Network > Network Settings

With networks that require a static IP address, you will need to enter the IP address, subnet mask, gateway, and DNS values manually to connect to the network. To get these values, contact your Internet Service Provider (ISP).

- Refer to the "Dynamic versus Static IP Addresses" section for more information on dynamic IP and static IP addresses.
- 1. Set the **Network Type** to **Wired**, and then press ...
- Select Stop when the TV attempts to connect to the network. Once the network connection has been interrupted, select IP Settings.
- 3. In the IP Settings screen, set the IP setting to Enter manually, enter the IP Address, Subnet Mask, Gateway, and DNS Server values, and then select OK.
  - Use one of the following methods to enter the numerical values.
    - Set the numbers using the ▲ and ▼ buttons on screen.
    - Place a finger on the **POINTER** button and move the Samsung Smart Control. The pointer on the screen moves to the frame you want. Press the **POINTER** button to select numbers. Only use for Samsung Smart Control.
    - For general remote control, enter the numbers directly. (Availability depends on the specific model and area,)
- 4. The TV attempts to connect to the network again using the specified settings. A confirmation message appears once a connection is established. Select **OK**.
  - The network connection speed may differ depending on the DNS server settings.
  - For details on the DNS server settings, contact your Internet service provider (ISP).

### **Establishing a Wireless Internet Connection**

Connecting the TV to the Internet gives you access to online services and SMART features, and lets you update the TV's software quickly and easily through the Internet.



### Connecting to a Wireless Internet Network Automatically

### (MENU/123) > MENU > Network > Network Settings

Connect the TV to the Internet via a wireless router. Make sure you have the wireless router's SSID (name) and security key settings before attempting to connect. The security key can be found on the wireless router's configuration screen.

- On the Network Settings screen, set Network Type to Wireless. The TV automatically displays a list of available wireless networks.
- Select a network (SSID). If the network you want doesn't appear in the list, select Add Network, and enter the network's SSID manually.
- Enter the security key and select Done. If the selected network is not security-enabled, the TV attempts to connect right away.
- 4. A network connection will be attempted. Once a connection is established, the TV displays a confirmation message. Select **OK**. If the attempt fails, try again, or connect manually.

### Connecting to a Wireless Internet Network Manually

### (MENU/123) > MENU > Network > Network Settings

With networks that require a static IP address, you will need to enter the IP address, subnet mask, gateway and DNS values manually to connect to the network. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP).

- Refer to the "Dynamic versus Static IP Addresses" section for more information on dynamic IP and static IP addresses.
- 1. Setting the Network Type to Wireless automatically displays a list of available wireless networks.
- 2. Select the network (SSID) you want to connect to. If the wireless router doesn't appear in the list, select Add Network, and enter the network's SSID manually.
- Enter the security key and select OK. If the selected network is not security-enabled, the TV attempts to connect right away.
- Select Stop when the TV attempts to connect to the network. Once the network connection has been interrupted, select IP Settings.
- 5. In the IP Settings screen, set the IP setting to Enter manually, enter the IP Address, Subnet Mask, Gateway, and DNS Server values, and then select OK.
  - Use one of the following methods to enter the numerical values.
    - Set the numbers using the ▲ and ▼ buttons on screen.
    - Place a finger on the **POINTER** button and move the Samsung Smart Control. The pointer on the screen moves to the frame you want. Press the **POINTER** button to select numbers. Only use for Samsung Smart Control.
    - For general remote control, enter the numbers directly. (Availability depends on the specific model and area.)
- 6. The TV attempts to connect to the network again using the specified settings. A confirmation message appears once a connection is established. Select **OK**.
  - The network connection speed may differ depending on the DNS server settings.
  - For details on the DNS server settings, contact the Internet service provider (ISP).

### Connecting to a Wireless Internet Network with WPS

### (MENU/123) > MENU > Network > Network Settings

With wireless routers that support WPS (Wi-Fi Protected Setup) or PBC (Push Button Configuration), it's possible to press a button on the router to connect the TV to the Internet.

- This functionality is not available with wireless routers that do not support WPS. Check to see if your wireless router supports WPS.
- 1. Setting the Network Type to Wireless automatically displays a list of available wireless networks.
- Select WPS(PBC) and then press the WPS or PBC button located on the wireless router within two minutes.
- The TV exchanges the network name (SSID) and security key automatically and then attempts to connect to the Internet. A confirmation message appears once a connection is established. Select OK.

# **Troubleshooting Internet Connectivity Issues**

### Troubleshooting Wired Internet Connectivity Issues (Try Now)



### No network cable found

Make sure the network cable is plugged in. If it is connected, make sure the router is turned on. If it is on, try turning it off and on again.

### IP auto setting failed

Do the following or configure the IP Settings manually.

- 1. Ensure that the DHCP server is enabled on the router and reset the router,
- 2. If this does not work, contact your Internet Service Provider for more information.

### Unable to connect to the network

Do the following:

- 1. Check all IP Settings.
- 2. Ensure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
- 3. If this does not work, contact your Internet Service Provider for more information.

### Connected to a local network, but not to the Internet

- 1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
- 2. Check the DNS values in the IP Settings.
- 3. If the problem persists, contact your Internet Service Provider.

### Network setup is complete, but unable to connect to the Internet

If the problem persists, contact your Internet Service Provider,

### **Troubleshooting Wireless Internet Connectivity Issues**

### Wireless network connection failed

Selected wireless router not found. Go to Network Settings and select the correct router.

### Unable to connect to a wireless router

### Check the following:

- 1. Check if the router is turned on, If it is, turn it off and on again,
- 2. Enter the correct security key if required.

### IP auto setting failed

Do the following or configure the IP Settings manually.

- 1. Make sure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
- 2. Enter the correct security key if required.
- 3. If this does not work, contact your Internet Service Provider for more information,

### Unable to connect to the network

Do the following:

- 1. Check all IP Settings.
- Enter the correct security key if required.
- 3. If this does not work, contact your Internet Service Provider for more information.

### Connected to a local network, but not to the Internet

- 1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
- 2. Check the DNS values in the IP Settings.
- 3. If the problem persists, contact your Internet Service Provider,

### Network setup is complete, but unable to connect to the Internet

If the problem persists, contact your Internet Service Provider.

# **Checking the Internet Connection Status**

(MENU/123) > MENU > Network > Network Status (ry Now



Actual menu screen may differ depending on the TV model.

View the current network and Internet status.

### **Video Device Connection**

Your TV has a variety of connectors for video input from external devices such as cable boxes, Blu-ray players, DVD players, camcorders, and gaming consoles. Below is a list of featured connectors shown in descending order of picture quality.

- HDMI
- Component
- Composite (AV)

Connect a video device to the TV via an HDMI connector for the best picture quality. If the device does not have an HDMI connector, try a component connector to get the next best picture quality.

- The number of connectors and their names and locations may vary depending on the model,
- Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may vary depending on the manufacturer.

### **HDMI Connection**

The following types of HDMI cables are recommended:

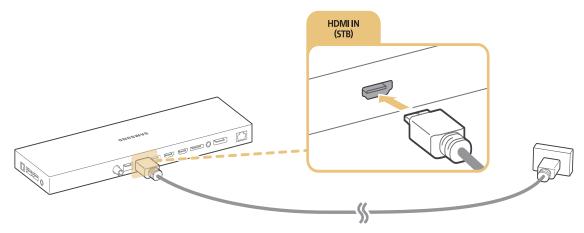
- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet

### HDMI cables have certain requirements:

- Use an HDMI cable with a thickness of 14 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 TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel, Ethernet is a LAN (Local Area Network) built with coaxial cables standardised by the IEEE.
- Use cable shorter than 3M to get the next best UHD 60P viewing quality.
- ## HDCP 2.2 can only use the HDMI(MHL) port, HDCP is short for 'High-bandwidth Digital Content Protection' and is for video copyright protection.
- Many computer graphics adaptors do not have HDMI ports, but have DVI ports instead. If your computer graphics adaptor has a DVI port, use an HDMI-to-DVI cable to connect the computer to the TV. For more information, refer to "Connecting with the HDMI-to-DVI Port".
- If you are using an HDMI adapter, the TV recognises the signal as an HDMI signal and may respond differently than it would to an MHL-to-HDMI cable connection.
- Certain functions such as Smart Hub may not be available if the Source is set to HDMI and 3D Auto View is set to On. If this is the case, set 3D Auto View or 3D Mode to Off.

Refer to the diagram and connect the HDMI cable to the video device's HDMI OUT connector and the One Connect's HDMI IN 1 (STB) connector.

The number of connectors and their names and locations may vary depending on the model.

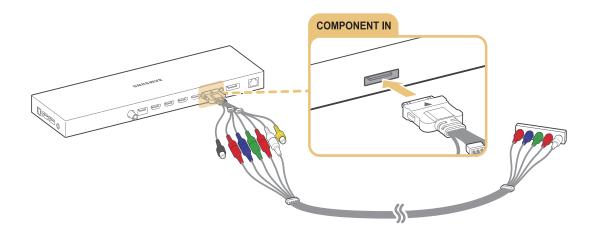


Once the connection has been made, you will be able to select the connected external device using the SOURCE button.

### **Component Connection**

Refer to the diagram and connect the Component cable to the One Connect's COMPONENT IN connectors and the device's COMPONENT OUT connectors. Make sure the cable colours match the connector colours.

- Note: When pulling out the plug that connects the One Connect component input connector, please press and hold the snap button on the plug instead of directly pulling the plug out!
- The number of connectors and their names and locations may vary depending on the model.



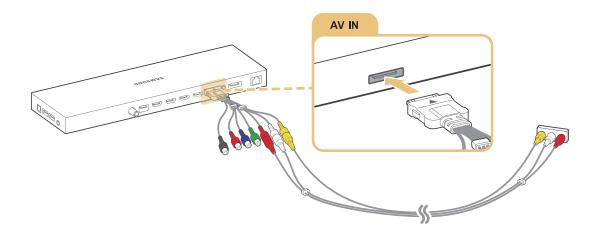
Once the connection has been made, you will be able to select the connected external device using the SOURCE button.

### **AV Connection**

Refer to the diagram and connect the AV cable to the One Connect's AV input connectors and the device's AV output connectors.

If you are using the One Connect's AV IN connectors, refer to the diagram and connect the device's audio and video output to the TV. Make sure the cable colours match the connector colours.

The number of connectors and their names and locations may vary depending on the model.



### TV Audio through the External Speakers

Your TV has a variety of connectors for audio input from devices such as Blu-ray players and DVD players and for audio output to such devices as amplifiers. The connectors are listed below.

- ARC (Audio Return Channel)
- Digital Audio (Optical)
- Audio (Analogue)

There are several issues to bear in mind when using audio input:

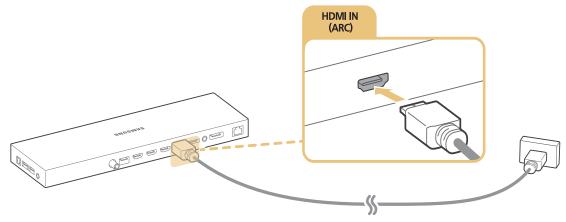
- For better audio quality, it is a good idea to use an AV receiver.
- The number of connectors and their names and locations may vary depending on the model.
- Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may vary depending on the manufacturer.

### **HDMI (ARC) Connection**

ARC (Audio Return Channel) enables digital sound output using just an HDMI cable. However, ARC is only available through the HDMI IN 4 (ARC) port and only when the TV is connected to an ARC-enabled AV receiver.

- Some models may not support ARC.
- The number of connectors and their names and locations may vary depending on the model.

Connect an HDMI cable to the One Connect's HDMI IN 4 (ARC) connector and the device's HDMI OUT connector.



Some features such as Smart Hub may not be available if the Source is set to HDMI and 3D Auto View is set to On. If this is the case, set 3D Auto View or 3D Mode to Off.

### **Digital Audio (Optical) Connection**

Connecting an AV receiver to the TV via a digital audio (optical) connector lets you listen to digital audio.

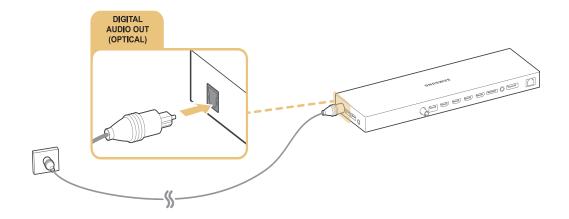
Connecting a device using an optical cable does not automatically turn off the TV speakers. To turn off the TV's speakers, set Speaker Select (Sound > Speaker Settings > Speaker Select) to something other than TV Speaker,

Adjust the audio device's volume using its remote control.

- An unusual noise coming from the audio device while you are using it may indicate a problem with the audio device itself. If this occurs, ask for assistance from the audio device manufacturer.
- Digital audio is only available with 5.1-channel broadcasts.
- Only use headphones with a 3-conductor TRS type jack.
- The headphone volume and the TV volume are adjusted independently of each other.
- While the headphone is connected, the TV speakers are muted and certain **Sound** options are deactivated.

Refer to the diagram and connect the optical cable to the One Connect's DIGITAL AUDIO OUT(OPTICAL) connector and the device's DIGITAL AUDIO IN(OPTICAL) connector.

The number of connectors and their names and locations may vary depending on the model.



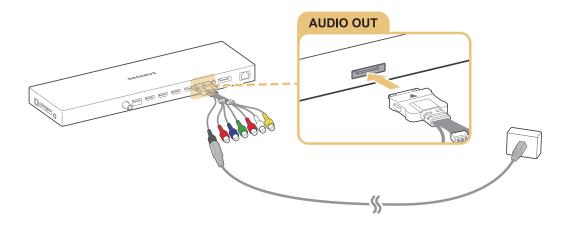
### **Audio Output Connection**

Availability depends on the specific model and area.

Confirm the TV model code first please, before you connect any external device to TV. You can check TV model code on the label of TV set back. Steps of connection may vary depending on the models.

The connector's name and place may vary depending on the models.

Refer to the diagram and connect the audio cable to One Connect's AUDIO OUT connector and the device's AUDIO IN connector.



# Connecting to a Computer

You can directly connect a computer to the TV or to the network to view the computer screen or content on the TV. Connect the computer to the TV as follows.

### Connecting via HDMI Port

You can connect the computer to the TV using the HDMI cable to display the computer screen on the TV.

### Connecting with the HDMI (DVI) Port

You can connect a computer to the TV by connecting the computer's DVI port to the TV's HDMI port with the DVI to HDMI cable to display the computer screen on the TV.

### · Connecting via Samsung Link

Quickly access the photo, video and music files saved on a computer on which Samsung Link software is installed, even if you do not connect the TV directly to the computer.

### Connecting via Home Network (DLNA)

Quickly access the photo, video and music files saved on a computer by connecting the TV and the computer to the same router or AP.

### Connection notes for computers

- For the resolutions supported by the TV, refer to "Computer Connection Precautions".
- As long as file sharing is activated, unauthorised access may occur. When you do not need to access data, disable file sharing.
- Your PC and Smart TV must be connected on the same network.

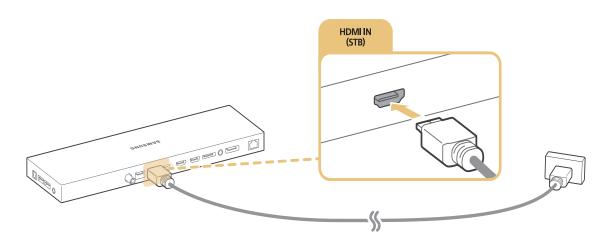
### Connecting via HDMI Port

For HDMI connection, one of the following HDMI cable types is recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet
- Use an HDMI cable with a thickness of 14 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 TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel, Ethernet is a LAN (Local Area Network) built on coaxial cables standardised by the IEEE.
- Use cable shorter than 3M to get the next best UHD 60P viewing quality.
- ## HDCP 2,2 can only use the HDMI(MHL) port, HDCP is short for 'High-bandwidth Digital Content Protection' and is for video copyright protection.
- Some computers do not support HDMI interface, depending on its graphics adapter specifications. In this case, use a DVI-to-HDMI cable to connect the computer to the TV.

Refer to the diagram and connect the HDMI cable to the external video device's HDMI OUT connector and the One Connect's HDMI IN 1 (STB) connector,

The number of connectors and their names and locations may vary depending on the model,



Once the connection has been made, you will be able to select the connected external device using the SOURCE button.

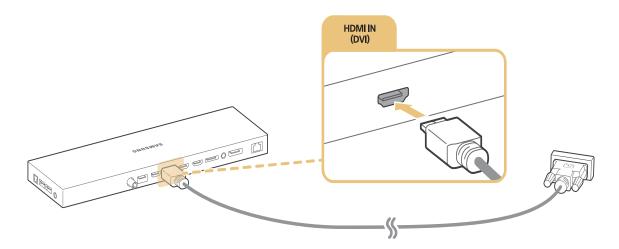
### Connecting with the HDMI-to-DVI Port

If the graphics adapter of your computer does not support HDMI interface, connect the computer to the TV with the DVI (Digital Visual Interactive) to HDMI cable. However, DVI-to-HDMI connection is supported by the HDMI port for DVI only and does not support audio signal transmission. To listen to the computer sound, connect the external speaker to the computer's audio output connector.

For information on resolutions supported by the TV, refer to "Computer Connection Precautions".

Refer to the diagram and connect the DVI to HDMI cable to the One Connect's HDMI IN 2 (DVI) port and the computer's DVI OUT port.

The number of connectors and their names and locations may vary depending on the model,



Once the connection has been made, press the **SOURCE** button on virtual remote control to select the connected external device.

### Connecting via Samsung Link

Quickly access photo, video and music files saved on a computer with Samsung Link software installed. Also, use Samsung Link to play and view the content of a computer that has been registered to Samsung Link under your Samsung account, even if the computer and the TV are not connected to the same router or AP.

- 1. Visit the Samsung content and service portal (http://link.samsung.com) on a computer and sign into your Samsung account.
  - To install Samsung Link desktop software, you will need to first sign into your Samsung account. If you don't have a Samsung account, create one first.
- Install Samsung Link desktop software. When the installation is complete, the computer will be registered to Samsung Link.
- 3. Specify the folder you wish to link to the TV. You can view and play photo, video and music files contained in the specified folder on the TV screen,
  - For more information on using Samsung Link desktop software, refer to the software's Help section,

### Connecting via Home Network (DLNA)

Quickly access and view/play photo, video and music files from a computer on the TV screen.

- 1. Connect the TV and the computer to the same router or AP. A home network will be configured once the two connections are established.
  - Home Network (DLNA) enables content-sharing between the TV, computers and mobile devices connected to the same wired or wireless router,
- From the computer, select [Control Panel] > [Network and Internet] > [Network and Sharing Centre] > [Change advanced sharing settings] and select [Choose media streaming options...] to activate media streaming.
- 3. From the list, set TV to [Allowed].
- 4. Launch Windows Media Player from the computer, select [Settings] > [Library Management] and then add the location where the photo, video and music files are saved to view/play the files on the TV screen.
  - It will be possible to view/play on the screen files moved to Windows Media Player's default folder.
  - As long as File Sharing is activated, unauthorised access may be allowed. Disable File Sharing if data access is not required.

# Connecting with a Mobile Device

Connect mobile device such as a smartphone or tablet to the TV directly or indirectly over a shared network and display the mobile device screen or content on the TV screen. Connect the mobile device to the TV as follows.

#### Connecting with MHL-to-HDMI Cable

Connect the mobile device's USB port to the TV's HDMI port with the MHL-to-HDMI cable to view the mobile device screen on the TV.

#### Mobile Device Screen on TV (Screen Mirroring)

Wirelessly connect the TV to the mobile device with the mirroring function to view the mobile device's screen on the TV.

This option is available only with mobile devices that support mirroring.

#### • Connecting Mobile Devices without a Wireless Router (Wi-Fi Direct)

Wi-Fi Direct enables you to connect the TV to a mobile device without a router or AP. Quickly access and play photo, video and music files from a connected mobile device on the TV screen.

This option is available only with mobile devices that support Wi-Fi Direct.

#### Connecting via Samsung Link

Samsung Link enables you to play photo, video and music files from a Samsung Link-enabled mobile device without having to manually connect the device to the TV.

#### Connecting via Home Network (DLNA)

View/play on the TV photo, video and music files from a mobile device connected to the same router or AP as the TV.

#### Connecting via Smart View

Install and run the Smart View app on your mobile device, and connect it to the TV in the same network. However, Smart View does not work when this function is in use.

## Connection notes for mobile devices

- To use the Screen Mirroring function, the mobile device must support a mirroring function such as AllShare Cast or Screen Mirroring. To check whether your mobile device supports the mirroring function, please visit the mobile device manufacturer's website.
- To use Wi-Fi Direct, the mobile device must support the Wi-Fi Direct function. Please check if your mobile device supports Wi-Fi Direct.
- The video or audio may intermittently stop depending on network conditions.

## Connecting with MHL-to-HDMI Cable

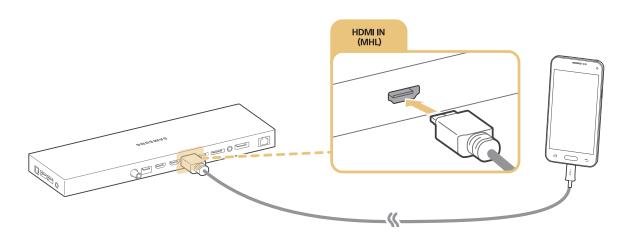
Your TV supports MHL (Mobile High-definition Link) via an MHL cable, MHL enables viewing and playing video, image, and audio files from mobile devices on the TV. However, MHL is only available through the TV's HDMI IN (MHL) port and only when used in conjunction with an MHL-enabled mobile device.

For information on configuring MHL on your mobile device, refer to the device's User Manual.

- Connecting an MHL-to-HDMI cable automatically switches **Picture Size** to **Fit to screen**. This setting will not change automatically if you are using an HDMI adapter. In this case, change the setting manually in the menu.
- If you are using an HDMI cable, the TV recognises the signal as an HDMI signal and may respond differently than it would to an MHL-to-HDMI cable connection.
- Use cable shorter than 3M to get the next best UHD 60P viewing quality.
- ## HDCP 2,2 can only use the HDMI(MHL) port, HDCP is short for 'High-bandwidth Digital Content Protection' and is for video copyright protection.

Refer to the diagram and connect the MHL-to-HDMI cable to the One Connect's HDMI IN 3 (MHL) port and the mobile device's USB port.

The number of connectors and their names and locations may vary depending on the model,



Once the connection has been made, you will be able to select the connected external device using the SOURCE button.

## **Using Screen Mirroring**

## (MENU/123) > MENU > Network > Screen Mirroring (ry Now)

You can wirelessly connect a mirroring-enabled mobile device to the TV and play the video and audio files stored on the device on the TV. Mirroring refers to the function that plays the video and audio files located on a mobile device on a TV and on the mobile device simultaneously.

## Connecting via a mobile device

- Launch Screen Mirroring function on your mobile device. The mobile device searches for available devices to connect to.
- 2. Select the TV from the list. The TV automatically allows the connection and the device connects.
- 3. Select Allow to connect the mobile device.
  - All previously allowed mobile devices will automatically connect without needing approval,
  - If you select **Deny**, the device cannot connect. To change the connection status of a denied device, select (**MENU/123**) > **MENU** > **Network** > **Multimedia Device Manager**, select the device, and select **Allow**.

## Connecting by automatically allowing the connection

- Select (MENU/123) > MENU > Network > Screen Mirroring. You can also start screen mirroring
  by pressing the SOURCE button on your remote and selecting Screen Mirroring from the list at
  the top of the screen.
- 2. Launch Screen Mirroring function on your mobile device. The mobile device searches for available devices to connect to.
- 3. Select the TV from the list. The TV automatically allows the connection and the device connects.
  - If the mobile device cannot connect, turn off and on the TV and mobile device.

#### Managing the connection status of previously connected mobile devices

- Select (MENU/123) > MENU > Network > Multimedia Device Manager. The TV displays a list
  of devices that have previously connected to the TV or have tried to connect to the TV and been
  denied. The status of the connection (Allow/Deny) is also displayed.
- 2. Select a device.
- 3. Select connection type or delete the device from the list.
- This function is only available if the devices have previously connected to the TV or have previously attempted to connect and been denied,

# Connecting Mobile Devices without a Wireless Router (Wi-Fi Direct)

#### (MENU/123) > MENU > Network > Wi-Fi Direct

Wi-Fi Direct lets you connect mobile devices directly to your TV using wireless technology. After connecting a device to the TV using Wi-Fi Direct, it will be possible to view/play video, photo, and music files from the device on the TV.

- The mobile device must support Wi-Fi Direct, Make sure the mobile device you intend to use supports Wi-Fi Direct
- Enable Wi-Fi Direct on the mobile device and then launch Wi-Fi Direct. The TV automatically scans for and displays a list of available devices. The TV's name also appears on the mobile device.
- 2. Select the device from the list to initiate a connection. If a connection request is made by the TV, a permission message appears on the mobile device and vice versa.
- 3. Allow the connection, This completes the connection process.

## Connecting via Smart View

By installing and running the Smart View app on the mobile device, you can view the device screen on the TV, or play the device's multimedia content (videos, photos, and music) on the TV.

However, Smart View does not work when this function is in use.

Go to Google Play, and search for and install Smart View on your mobile device. Smart View is a crossplatform multi-screen app that enables you to load the TV screen on a mobile device, share multimedia contents between two devices, and control the TV remotely. For more information, refer to the Smart View manual.

## Connecting via Samsung Link

Samsung Link enables you to view/play photo, video and music files from a Samsung Link-enabled mobile device with ease, Also, use Samsung Link to play and view the content of a mobile device that has been registered to Samsung Link under your Samsung account, even if the mobile device and the TV are not connected to the same router or AP.

- 1. Run the Samsung Link app on the mobile device and then sign in with your Samsung account.
  - To use Samsung Link, you have to sign in with a Samsung account, If you don't have a Samsung account, create one first.
- 2. Quickly access and play photo, video and music files from the mobile device running Samsung Link app under your Samsung account.
  - For more information on using the Samsung Link app, refer to the Help section of the manual.

## Connecting via Home Network (DLNA)

View/play photo, video and music files from a mobile device on the TV.

- Connect both the TV and the mobile device to the same router or AP. A home network will be configured once the connections are established.
  - Home Network (DLNA) enables content-sharing between the TV, computers and mobile devices connected to the same wired or wireless router.
- 2. Enable File Sharing on the mobile device. The mobile device's shared content can be viewed/ played on the TV.
  - As long as File Sharing is activated, unauthorised access may be allowed. Disable File Sharing if data access is not required.

## Name of TV on Network

(MENU/123) > MENU > Network > Device Name (Try Now)



Choose or enter a TV name to be displayed on the network.

- 1. Select Device Name from the Network menu, A list will appear,
- 2. Choose a name from the list. Alternatively, select User Input to enter a name manually. You can view the specified TV name on the network.

# Input Signal Selection

You can select a connected external device using the SOURCE button.

Connector names may vary depending on the model.

The following options are available in the Source List screen:

#### Options

Select a port connected to an external device, and press and hold Enter button or press the vbutton. The following functions are available:

- Available options for each connector may vary.
- Edit Name: Rename devices connected to the TV for easier identification of external sources.
   For example, you can designate a computer connected to the TV via an HDMI-DVI cable as DVI PC. Alternatively, simply designate a computer connected to the TV via an HDMI cable as PC. You can also designate an AV device connected to the TV via an HDMI-DVI cable as DVI Devices.
- Information: View detailed information about the connected devices.
- Anynet+ (HDMI-CEC): Displays a list of Anynet+ (HDMI-CEC)-compliant devices that are connected to the TV.
  - This option is only available with Anynet+ (HDMI-CEC) set to On.
- Format Device: Formats USB recording devices connected to the TV.
  - This option is only available when a USB device has been selected.
- Remove USB Device: Used to safely remove a USB device connected to the TV.
  - This option is only available when a USB device has been selected.
- Edit Device Type: Changes the types of the external devices. Select an external device to change.
- Remove Source Thumbnail: Deletes an external device from a source.

#### Universal remote setup

Select Universal remote setup on the screen to configure the universal remote function. By configuring a universal remote control, you can control cable boxes, Blu-ray players, home theatres, and other external devices using a single remote control.

Availability depends on the specific model and area.

## **Connection Notes!**

- The number of connectors and their names and locations may vary depending on the model.
- Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may vary depending on the manufacturer.

# Inserting Batteries into Samsung Smart Control

To use Samsung Smart Control, first refer to the figure below and insert batteries into the unit.

- Colours and shape may vary depending on the model.
- Availability depends on the specific model and area,



- Gently pull on the battery cover's notch and then remove the cover completely once it comes loose.
- 2. Insert 2 AA alkaline batteries, making sure to align the positive and negative polarities correctly.
- 3. Place the battery cover on the remote control and insert the top part of the cover into the remote control.
- 4. Press the catches on both sides of the battery cover in the order shown so that the cover is completely attached to the remote control.

## When you see this alarm icon on the screen

Following alarm icon indicates Samsung Smart Control's batteries are low. If the alarm icon pops up, replace the batteries. Samsung recommends using alkaline batteries for a longer operating life.



<Low Battery Alarm Icon>

Actual menu screen may differ depending on the TV model.

# **Pairing Samsung Smart Control**

To control the TV with Samsung Smart Control, you need to pair Samsung Smart Control to the TV via Bluetooth.

- Samsung Smart Control can only be paired to a single TV.
- 1. Point Samsung Smart Control at the remote control sensor of the TV and press the 🖰 button to turn the TV on.
  - Remote control receiver's location may vary depending on the model.
- 2. The Bluetooth icon will appear on the screen as shown below. The TV will then attempt to connect to the Samsung Smart Control unit automatically.



<Connection attempt and completion icons>

Actual menu screen may differ depending on the TV model.

## **Reconnecting Samsung Smart Control**

If the Samsung Smart Control stops operating or works abnormally, replace the batteries as this may be due to insufficient battery power,

If the problem persists, the Samsung Smart Control restore pairing with the TV.

- 1. Press RETURN button and EXTRA button simultaneously for 3 seconds.
  - You must place the Samsung Smart Control approximately 30cm ~ 40cm away from the TV and ensure it is pointing towards the remote control receiver.
- 2. Connection image is appeared on the screen. And then, Samsung Smart Control is connecting to TV automatically.



Actual menu screen may differ depending on the TV model.

# **About the Samsung Smart Control**

Samsung Smart Control makes it even easier and more convenient to use the TV. Pressing the MENU/123 button displays a virtual remote control that allows you to easily enter digits, control content, and activate functions on the screen.

We recommend using Samsung Smart Control at a distance of less than 6m. Effective range may vary depending on wireless environment conditions.



Colours and shape may vary depending on the model.

Button	Description
☑ / AD	Press this button to mute the sound temporarily.  Press and hold this button to bring up Accessibility Shortcuts that enables or disables Accessibility (MENU > System > Accessibility) menus.
SOURCE	Changes the source.
MENU/123	Displays the On-Screen Remote Control on the TV's screen. Press and hold this button to run the Voice Recognition function. When the microphone icon appears on the screen, say a voice command into the microphone. Say "Help" to learn about basic usage and voice commands.  For more information, refer to "Displaying the Remote Control on the Screen (virtual remote control)".
+	Changes the volume.
POINTER	Place a finger on the POINTER button and move the Samsung Smart Control. The pointer on the screen moves in the direction you moved the Samsung Smart Control. Press the POINTER button to select or run a focused item.
<b>∧</b> P∨	Changes the channel.
^, <b>∨</b> , <b>⟨</b> , <b>&gt;</b>	Moves the focus, and changes the values seen on the TV's menu.
Enter	Selects or runs a focused item.  Press and hold this button to launch Guide while you are watching the TV.
RETURN / EXIT	Returns to the previous menu or channel.  Press and hold to exit the currently running function on the TV's screen.
<b>▶.II</b>	Controls the content when playing the media content such as movie, picture, or music.
EXTRA	Displays related information about the current programme.  This function may vary depending on the different regions/countries.
SMART HUB	Launches Smart Hub applications.

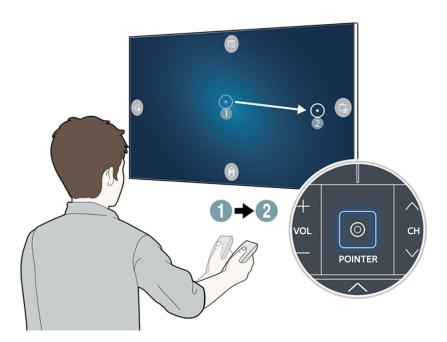
# **Using the Samsung Smart Control**

## Operating the TV with the POINTER button

The Samsung Smart Control has a motion sensor (gyro sensor) that allows you to easily control the TV by holding and moving the Samsung Smart Control.

After placing a finger on the touchpad, a pointer appears on the screen. Hold and move the Samsung Smart Control. The pointer moves the same way the Samsung Smart Control is moved. It's also possible to scroll up and down on scrollable screens.

- If you remove the finger from touchpad, the screen pointer disappears.
- Navigate to (MENU/123) > MENU > System > Smart Control Settings, and select Motion Sensitivity to adjust the pointer speed.
- If the **Voice Guide** is set to **On**, the Samsung Smart Control's motion sensor(gyro sensor) does not work. To use the Samsung Smart Control's motion sensor, set the **Voice Guide** to **Off**.
- Actual menu screen may differ depends on the specific model and area.



Actual menu screen may differ depending on the TV model.

## Operating the TV with the directional buttons and the Enter button

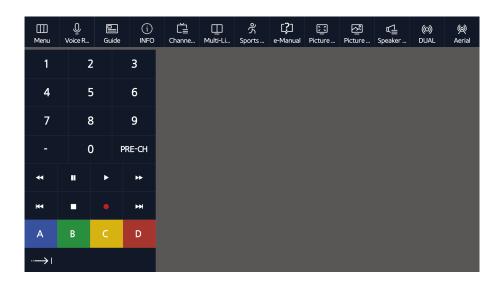
Press the directional buttons (up, down, left, and right) to move the pointer, focus, or cursor in the direction you want or change a setting shown on the focused item. Press the Enter button to select an item or run a focused item. Press and hold the Enter button to view the guide while watching the TV.

- To adjust the pointer speed, select (MENU/123) > MENU > System > Smart Control Settings > Motion Sensitivity. (Try Now)
- To use the Samsung Smart Control's motion sensor, set Voice Guide to Off.
- To view a tutorial that shows how to use the POINTER button, select (MENU/123) > MENU > Support > Smart Control Tutorial. Try Now

# Displaying the Remote Control on the Screen (virtual remote control)

You can display and use the On-Screen Remote on the TV's screen by pressing the MENU/123 button on the Samsung Smart Control.

The virtual remote control buttons may vary depending on the TV's current status.



Button	Description
1 2 3 4 5 6 7 8 9 - 0 PRE-CH	You can directly enter the channel number to switch to that channel. Select Pre-CH to return to the previous channel.
44 II	Controls the item when you are playing a video, photo or music file or watching a recorded programme. You can also use the buttons to control the content on an external device.
A, B, C, D	Use frequently used functions while watching TV. In addition, you can use additional functions that may vary depending on the currently running function.
Move Number Pad to the Right / Move Number Pad to the Left	Moves the number pad to the left or right.
Menu	Displays the menu on the screen.
Source	Show TV source menu.
Voice Recognition	Enter voice recognition function.
Guide	Enter guide function.
INFO	Displays information about the current program or content.
Channel List	Launch the Channel List.

Button	Description
Multi-Link Screen	You can split the TV screen and use various functions such as watching TV, surfing the web, watching video, and so on.
Sports Mode	Turn the Sports Mode on or off.
Picture Size	Change the picture size.
Picture Mode	Change the picture mode.
Speaker List	Select the speakers which you want to use to listen to the TV's sound. To set this option, external speakers must be connected to the TV.
DUAL	When you press the Dual I II button the first time, the current dual mode is displayed on the screen. Press the Dual I II button again to change the dual mode.
Aerial	Choose your preferred method of receiving digital broadcasts.
Subtitle	Control the subtitle of the video.  This option works only when the video supports subtitles display.
3D	Turn the 3D effect on or off.
Sleep Timer	Use sleep timer.
TOOLS	Displays the Tools' menu on the screen.
e-Manual	Launch the e-manual.
Power	Turn the TV on and off.

The On-Screen Remote buttons may differ with the TV features or functions.

The On-Screen Remote buttons may differ with the TV model.

To change the positions of the buttons on the first row, press and hold the Enter button

# Controlling External Devices with the TV Remote (Universal remote setup)

## (MENU/123) > MENU > System > Universal remote setup (ry Now)

Availability depends on the specific model and area.

The universal remote control feature lets you control cable boxes, Blu-ray players, home theatres, and other external devices connected to the TV using the TV's remote control.

- You can also use the Anynet+ (HDMI-CEC) function to operate some external Samsung devices with your TV's remote control without any additional setup. Refer to the "Using Anynet+ (HDMI-CEC)" section for more information
- Certain external devices connected to the TV may not support the universal remote feature.

## Setting Up the Universal Remote Control

- 1. Turn on the external device you want to control with the universal remote function.
- 2. Press the SOURCE button on your remote to bring up the Source screen,
- 3. Select the Universal remote setup.
  - You can also start Universal remote setup through the TV's menu, Select System > Universal remote setup.
- 4. Follow the directions on the screen to complete the set up and register the device. The directions will be different, depending on the device you want to control.
  - If the external device does not respond after being registered, register it again using its model number.
  - The TV memorises both the external device and the connection (HDMI 1, HDMI 2, etc.) the device is connected to.
- 5. Once set up is complete and you have confirmed that you can use the TV remote to control the device, disconnect the IR extender cable from the TV and set it aside. If you ran set up using the Samsung Smart Control. You can now control the device directly with the Samsung Smart Control.

## **Universal Remote Features**

- 1. Press SOURCE to go to the Source screeen.
- 2. Select **Universal remote setup** from the top of the screen. This initiates the universal remote setup process.
- 3. Select an external registered device on the Universal remote setup screen. The following options are available:

#### Use Home Cinema

Listen to the audio from the external device through the connected home theater.

#### Link Set-top Box

Listen to the audio from the set-top box through the home theater that is connected to the TV.

#### Link Blu-ray Player

Listen to the audio from the Blu-ray player through the home theater that is connected to the TV.

# Controlling the TV with a Keyboard

(MENU/123) > MENU > System > Device Manager > Keyboard Settings (Try Now

You can use a keyboard to control the TV.

Certain models do not support USB HID class keyboards.

## Connecting a Keyboard

### Connecting a USB Keyboard

Plug the keyboard cable into the One Connect's USB port. A connection message appears on the screen,

## Connecting a Bluetooth Keyboard

- Availability depends on the specific model and area.
- 1. Place the Bluetooth keyboard into the standby status.
  - Refer to the keyboard manual for information on putting the keyboard into the standby status,
- Select System > Device Manager > Keyboard Settings > Add Bluetooth Keyboard. The Add Bluetooth Keyboard screen will appear and automatically scan for available keyboards. Try Now
  - If your keyboard was not detected, position the keyboard close to the TV and then select **Refresh**. This initiates a scan for available keyboards again,
- Select the Bluetooth keyboard from the scan list and then select Pair and connect. A number appears on the screen.
- 4. Enter the number on the Bluetooth keyboard.
  - Select **Yes** to change the keyboard's options or **No** to leave them as they are.

# Using the Keyboard

Use the following remote features with the USB or Bluetooth keyboard connected to the TV.

Keyboard	Remote Control Functions
Arrow Keys	Move the Focus
Windows Key	Open the Menu
Menu List Key	Open the On-Screen Remote
Enter Key	Select Item/Run Item
ESC	RETURN button
Number Keys	Enter Numbers
Page up / Page down	Scroll web browser pages up and down
F1	A
F2	В
F3	C
F4	D
F5	*
F6	SOURCE
F7	Launch the Channel List
F8	☑ button
F9 / F10	Volume button
F11 / F12	Channel button

The Options menu depends on the context.

## Input Languages, Keyboard Type, and Switch Language Key

Select System > Device Manager > Keyboard Settings > Keyboard Options, Try Now

The following options are available:

Keyboard Language

If the keyboard supports multiple languages, choose which language you want to use from the list

Keyboard type

Specify the type of language selected under **Keyboard Language**.

The Keyboard type list varies depending on which language was selected under Keyboard Language.

Switch Input Language

If the keyboard supports multiple languages, choose from the list which key to use to switch between languages.

# Controlling the TV with a Mouse

(MENU/123) > MENU > System > Device Manager > Mouse Settings (Try Now)

This TV can be operated with ease using a mouse instead of a remote control,

Certain models do not support USB HID class mice.

## Connecting a Mouse

#### Connecting a USB Mouse

Plug the mouse cable into the One Connect's USB port, A connection message appears on the screen,

## Connecting a Bluetooth Mouse

- Availability depends on the specific model and area.
- 1. Place the Bluetooth mouse in standby status,
  - Refer to the mouse manual for information on putting the mouse in standby status,
- 2. Select System > Device Manager > Mouse Settings > Add Bluetooth Mouse. The Add Bluetooth Mouse screen will appear and automatically scan for available mice. Try Now
- Select the Bluetooth mouse from the scanned list, and then select Pair and connect. This pairs the Bluetooth mouse with the TV.

## Using the Mouse

Once a USB or Bluetooth mouse is connected to the TV, a pointer will appear on the TV's screen. You can use this pointer to control the TV as you would a computer.

· Selecting and Running an Item

Left-click on the mouse.

• Displaying the Volume, Mute, and Channel Buttons

Select the volume/channel icon on the screen while watching TV. Use the onscreen buttons to adjust the volume or switch the channel,

Select the volume/channel icon again to hide the buttons.

Scrolling the TV Menu or Screen

Move the mouse wheel up or down. This scrolls the TV menu or screen up/down.

• Exiting the TV Menu or Feature

Left-click on the mouse at the blank place. Or choose RETURN. This closes the menu.

## **Changing Mouse Buttons and Pointer Speed**

Select System > Device Manager > Mouse Settings > Mouse Options, (Try Now)

The following options are available:

Primary Button

Choose which (left or right) button to use to select and run items.

Pointer Speed

Adjust the movement speed of the pointer that appears on the screen.

# **Entering Text Using QWERTY**

A QWERTY keypad appears when you need to enter text (entering the network password, logging into your Samsung account, etc.), allowing you to enter text using your remote control.

## **Using Additional Functions**

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

#### Recommend text

Enable/disable the Recommended Text feature. Enabling the Recommend text feature allows you to quickly enter text starting with the characters you typed in by displaying recommended words. To enter the word "Internet," for example, all you have to do is enter "In" and select the word "Internet" from the list of recommended words. The word is memorised so that you can enter the same text again more easily.

#### Reset recommended text data

Delete both the recommended words and the memorised words to clear the list.

#### • Predict Next Letter

Enable/disable the Text Prediction feature. Enabling the Text Prediction feature eliminates the need to find and select individual character keys. To enter the word "Internet," for example, select "I". A predicted word will then appear next to the I key. Simply select the predicted word to enter "Internet".

This feature is limited to words that have previously been added to the dictionary.

# Viewing Multiple Screens or Features with Multi-Link Screen

#### (MENU/123) > MENU > Picture > Open Multi-Link Screen

You can search the Web, use apps, and much more simultaneously while watching TV.

## **Using Multi-Link Screen**

### Learning the basic functions

#### Changing the channel and volume of a Multi-Link Screen

To change the channels of a Multi-Link Screen, press the channel buttons while you are watching the TV. To adjust the volume of a Multi-Link Screen, move to the screen to adjust the volume, and then press the volume buttons.

#### Changing the web browser and apps

While you are using a **Multi-Link Screen**, the recently used web browser or apps are displayed at the right side of the screen. You can change these apps to others by using the **Smart Hub**.

Availability depends on the specific model and area.

#### Changing the size of a Multi-Link Screen

You can change the size of a Multi-Link screen. Move the focus to the screen you want to resize, and then use the up or down directional button. Alternatively, drag the line in the middle of the screen to the left or right. To display the focused Multi-Link screen in full screen mode, select

#### Selecting a speaker device for a Multi-Link Screen

Place a finger on the POINTER button, and then select the Volume icon at the left side of the TV's screen. Select Multi-Link Screen from the speaker device list. Select a speaker device, either TV Speaker or Bluetooth Headphones, for each Multi-Link Screen.

On the standard remote control, press the TOOLS button and select Speaker List in the Tools menu. Select Custom to set the speaker type for the left or right speaker.

#### Read before using Multi-Link Screen

- Before using Multi-Link Screen, make sure the TV is connected to the Internet.
- UHD content and channels cannot be viewed simultaneously.
- Certain TV features and apps may not be supported by Multi-Link Screen. If this is the case, exit from Multi-Link Screen and then use the feature.
- You can hear the selected audio while you are using the Multi-Link Screen and you can hear the other screen's audio through the Bluetooth headphones.
- The Timeshift function is not available when Multi-Link Screen is running. For more information, refer to "Using Timeshift."

## **Smart Hub**

#### (MENU/123) > MENU > Smart Hub > Open Smart Hub (Try Now)

Select opening the Smart Hub, the Mini Smart Hub interface will appear. Place a finger on the POINTER button to display the pointer on the screen. You can choose the item you want. With Smart Hub, you can surf the web, download apps, and stay in touch with family and friends through social networking services. In addition, you can use photo, video, and music files stored on external storage devices.

- Some Smart Hub services are paid services. To purchase such a service, the service provider account or Samsung Apps TV account (Samsung account) is required.
- Make sure the TV is connected to the Internet. The TV must be connected to the Internet in order to use Smart Hub.
- Some features of Smart Hub require an Internet connection and may not be available depending on the service provider, language, or region.
- To use Smart Hub, you must agree to the end user agreement and privacy policy. Otherwise, you will not be able to access the features and services related to them. You can view the entire content of the Terms & Policy by navigating to (MENU/123) > MENU > Smart Hub > Terms & Policy. If you don't wish to use Smart Hub anymore, you can withdraw the agreement. Try Now

Usability depends on the specific model and local region,

## **Testing Smart Hub connections**

(MENU/123) > MENU > Support > Self Diagnosis > Smart Hub Connection Test (Try Now)

If Smart Hub is not functioning, navigate to (MENU/123) > MENU > Support > Self Diagnosis > Smart Hub Connection Test. Diagnose the problem by checking the internet connection, your ISP, the Samsung server and the Samsung Apps panels.

After completing the test, if Smart Hub continues to have problems, contact your Internet Service Provider or a Samsung Contact Centre.

## Launching Smart Hub automatically

(MENU/123) > MENU > Smart Hub > Auto-Start Settings > Smart Hub

You can start Smart Hub automatically when you turn on the TV.

(MENU/123) > MENU > Smart Hub > Auto-Start Settings > Channel-bound Apps & Ticker

You can select whether or not to automatically turn on the channel-bound apps or ticker services. The channels that support this function will provide you with additional information or services.

To use this feature, make sure that an app supporting the Ticker and channel-bound function is installed on the TV.

## Using the Smart Hub Tutorial

(MENU/123) > MENU > Support > Smart Hub Tutorial

From the **Support** menu, select **Smart Hub Tutorial**. This will familiarize yourself with the basics of Smart Hub and panels,

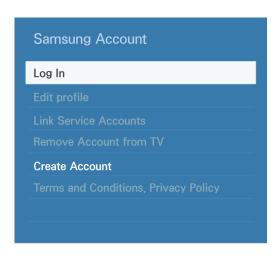
## **Resetting Smart Hub**

(MENU/123) > MENU > Smart Hub > Reset Smart Hub (Try Now)

You can remove the Samsung accounts saved in the TV and everything linked to them, including apps.

- Some of the Smart Hub services are for pay services. To use a for pay service, you must have an account with the service provider or a Samsung account. For more information, refer to "Using Smart Hub with Samsung Account".
- To use this feature, the TV must be connected to the Internet.
- Some Smart Hub features may not be available depending on the service provider, language, or region.
- Smart Hub service outages can be caused by disruptions in your Internet service.
- To use Smart Hub, you must agree to the end user agreement and privacy policy. Otherwise, you will not be able to access the features and services associated with them. You can view the entire text of the Terms & Policy by navigating to MENU > Smart Hub > Terms & Policy. If you want to stop using Smart Hub, you can cancel the agreement.
- To view help information about Smart Hub, select the button.

# Using Smart Hub with Samsung Account



Actual menu screen may differ depending on the TV model.

## **Creating a Samsung Account**

(MENU/123) > MENU > Smart Hub > Samsung Account (Try Now)

Some Smart Hub services are paid services. To purchase such a service, the service provider account or Samsung Apps TV account (Samsung account) is required.

You can create a Samsung Account using your email address.

- To create a Samsung Account, you must agree to the Samsung Account end user agreement and privacy policy. Otherwise, you cannot create a Samsung Account. You can view the entire content of the agreement by navigating to (MENU/123) > MENU > Smart Hub > Samsung Account > Terms and Conditions, Privacy Policy. If you don't wish to use a Samsung Account anymore, you can withdraw the agreement.
- Once a Samsung Account has been created, a confirmation email will be sent to the email address you entered as your ID. Open the confirmation email and click the confirmation button to finalize the Samsung Account setup process,

## Creating a Samsung Account using Sign Up Samsung Account Menu

- 1. Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account > Create Account and select Create a Samsung account.
- 2. Agree Samsung account Terms & Conditions and Privacy Policy and press \( \) button.
- Create a Samsung Account according to the instructions on the Create Account screen.
   Once a Samsung Account is created, you will be automatically logged in to Smart Hub.

## Creating a Samsung Account using a Facebook Account

Availability depends on the specific model and area.

# (MENU/123) > MENU > Smart Hub > Samsung Account > Create Account > Create a Samsung account using Facebook

Enter your Facebook ID and password, and then follow the on-screen instructions to complete account setup. Once a Samsung account is created, you are automatically signed in to your Samsung account.

Samsung account and Facebook account are automatically linked when you create a Samsung account with your Facebook account.

## Signing into Samsung Account

(MENU/123) > MENU > Smart Hub > Samsung Account > Log In

## Logging into and Saving a Samsung Account

If you haven't logged into your Samsung Account on the TV, you must save your Samsung Account on the TV.

- 1. Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account and select Log In.
- 2. Select  $\oplus$  and select Sign In on the Sign In screen.
- 3. Enter your ID and password and then select Sign In.
  - Check the Sign me in automatically option if you wish to log into Smart Hub automatically.
  - If you forgot your password, select **Reset password** to receive password reset instructions via email.
- Select an image to be used as the profile picture. The Samsung Account has been saved on the TV.
- 5. Select **Done** to log into your Samsung Account.

### Easily Logging Into Your Samsung Account Saved on the TV

- 1. Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account and select Log In.
- 2. Choose your Samsung Account on the Sign In screen and select Sign In.
- Using the login method configured for the selected Samsung Account, log into your Samsung Account,

## Linking My Samsung and App Accounts

#### (MENU/123) > MENU > Smart Hub > Samsung Account > Link Service Accounts

Linking your Samsung Account to accounts of apps installed on the TV lets you automatically log into your linked app accounts when you log into your Samsung Account. For example, you can download the Facebook app and link your Facebook account to your Samsung Account. In this case, logging into your Samsung Account then automatically logs you into your Facebook account as well.

- To use Link Service Accounts, you must first log into your Samsung Account.
- Availability depends on the specific model and area.

## Linking an App Account

- Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account and select Link Service Accounts, A list of apps that can be linked to your Samsung Account is shown.
- 2. Select an app from the list. The Link to other accounts window appears on the screen.
- 3. Enter the current ID and password of the app to log in. When the login is complete, the app account is linked to the Samsung Account.

## Disconnecting a Linked Account

- Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account, select Link Service Accounts, Select an app to unlink,
- 2. A confirmation dialog box appears. Select Yes to unlink the app.

## Changing and Adding Information to Samsung Account

(MENU/123) > MENU > Smart Hub > Samsung Account

Using the Samsung Account menu, you can manage your Samsung Account.

- To change the account information, you must be logged into your Samsung Account.
- 1. Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account and select Edit profile.
- 2. Enter the password and then select **Done**. The edit profile screen appears.

The profile editing screen provides the following features.

• Changing Profile Image

If you select picture on the login screen, you can change the profile image.

• Registering Your Face to Samsung Account

If you select picture on the login screen, you can register your face to your Samsung Account. The registered face is used by the Sign-in Method.

Choosing a Samsung Account Login Method for TV

Select Sign-in Method on the login screen and choose a login method. You can determine how to log into the TV with the saved Samsung Account.

Setting Auto Login

Check the Sign me in automatically option if you wish to log into Smart Hub automatically

• Entering Basic User Information

You can enter your given name, surname, and date of birth.

Receiving e-mail about Samsung services

You can determine whether to receive e-mail about Samsung services. Containing the latest information.

## Deleting All Samsung Accounts from the TV

(MENU/123) > MENU > Smart Hub > Samsung Account > Remove Accounts from TV

Navigate to (MENU/123) > MENU > Smart Hub > Samsung Account and select Remove Accounts

from TV. The account and password information saved on the TV is deleted, and the account
information of any linked apps are also deleted.

To delete your account information, you must be signed in with your Samsung Account.

# Using the NewsON Panel

#### > Featured > NewsON



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region,

**NewsON** provides a real-world service that informs users of news and weather-related information in one place without the need for a newspaper, smartphone, or computer.

NewsON users can find daily information on a wide variety of topics in a smart and convenient way. Updated in real time, NewsON informs users of the latest headlines, top stories, popular issues, and weather forecasts.

## News

News articles are updated in real time. Simply select an article on the screen. The selected article will be displayed on the screen in details.

For longer articles, press ∧ or ∨ button on the remote control to scroll the screen.

To move to a different article, press < or > button on the remote control.

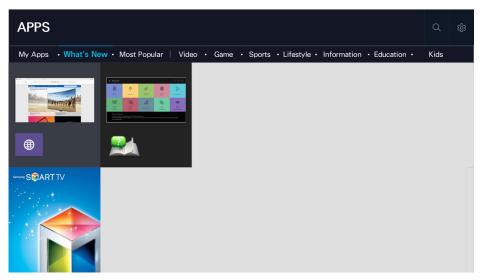
You can use POINTER on remote control to choose the item you want.

## Weather

Weather information is provided for major cities of the user's country. Select a weather-related item on the screen. The selected item will be displayed in details.

# Using SAMSUNG APPS Service

#### > Featured > APPS



- Actual menu screen may differ depending on the TV model.
- This service or some of functions of it may be not available in some countries or region,

Smart Hub offers a variety of free and paid news, sports, weather, and gaming content you can install directly on your TV the same way as you would on a smartphone or tablet.

- Before you use **SAMSUNG APPS**, make sure the TV is connected to the Internet. Your TV must be connected to the Internet in order to use **SAMSUNG APPS**.
- Launching Smart Hub for the first time installs the default apps automatically. The default apps may differ depending on the region.

## **Using Pop-Up Menu Functions**

Move the focus to an app and press and hold the Enter button. You can use the following functions:

- Delete
- More
- Reinstall
- The pop-up menu may differ with the apps.

## Installing an App

## Installing an app quickly

Select a category on the APPS screen.

Move the focus to an app, and then press and hold the Enter button. The context-sensitive menu appears.

Select **Download**. The selected app is installed on the TV.

- You can view installed apps on the APPS screen.
- You can also, install the app from detailed information screen.
- When the TV's internal memory is insufficient, you can install an app on a USB device.
- You can run an app installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected during an app is running, the app is terminated.
- You cannot run the app installed on the USB device on a PC or another TV.

## Launching an app

You can launch an app by selecting an app on the **Apps** screen. The icons below appear in the selected apps and indicate the following:

- III: The app is installed on a USB device.
- • The app has a password.
- 2 : The app is installed.

## Removing an app from the TV

Select an app to remove on the APPS screen and press and hold the Enter button to confirm it, If you want to remove multiple apps, select all the apps to delete and select Options from the top of the screen, and then select Delete My Apps.

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

## Locking and unlocking apps

Select apps to lock or unlock on the APPS screen and select Options from the top of the screen, and then select Lock/Unlock My Apps. All selected apps are locked or unlocked.

## Updating apps

Select Options > Update Apps on the APPS screen. The TV searches for app updates, and then displays the list. After scanning, you can update some apps or all apps.

## Rearranging apps

Select Options on the APPS screen, and then select Sort By to sort the apps by date, time or others.

## Rating purchased apps

You can set the star score by using the left or right directional button on the detailed information screen.

# Using other app features and functions

(MENU/123) > MENU > Smart Hub > Auto-Start Settings > Channel-bound Apps & Ticker

You can configure additional app features and functions.

### Using channel bound apps

You can receive the information on TV programmes and other relevant services while viewing TV by using an app installed on the TV and linked to a specific channel.



This function is only available when an app supporting Channel-bound Apps & Ticker is installed on the TV.

## **Default Apps**

#### e-Manual

The embedded e-manual contains information.

# Using the web browser

You can surf the Internet on the TV in the same manner as you would using a PC - even while watching a TV programme using PIP. Select **Help** to view the information of the Internet web browser.

- For a more convenient web browsing experience, use a keyboard and mouse.
- The browsing page may differ from that on a PC.
- This function is not supported in some area or country,

## **Browsing preferences**

Select ≡. Configure the browsing settings to meet your needs or convenience.

#### Bookmarks

Move to the **Bookmarks** screen. On this screen, add the current page to Bookmarks, or move, edit, or delete a bookmarked page.

#### History

Easily access visited pages by navigating the History screen.

#### Zoom

Zoom in or out of the current web page.

#### View Certificates

You can view the certificate about the site.

#### Settings

You can use the following contents in settings.

#### General

Hides taps or menu bars automatically after a period of inactivity, or resets all user settings.

The bookmarks or browsing histories that you made will not be reset.

#### Home Page

Sets the homepage when you launch the web browser.

#### Search Engine

Searches for information that you entered and display the result web pages.

#### Privacy & Security

Prevents you from accessing inappropriate web pages or sets not to save the browsing history.

#### Blocked pages

Blocks or unblocks pages. You can manage a list of pages to block.

#### Approved pages

Limits to use only the page that you have approved. To use this option, set a password. You can add or remove the approved pages.

#### Encoding

Set the encoding to Auto, or selects an encoding method from the list.

#### About

Views the current version of Web Browser.

#### Help

This will familiarise yourself with the basics of Web Browser,

#### Command and Status Bar at a Glance

Open the Web Browser to display the command and status bar at the top of the screen. The following items are available:

• < Back

Move to the previous page.

• Forward

Move to the next page.

Home Page

Move to the main screen.

Address Bar

Check the address of the current page, or enter a web page address to move to the page.

Stop

Reload the current page or stop reloading the current page.

• Add to Bookmark

Add the current page to Bookmarks.

Search

Make a keyword search using the user-specified search engine.

To change the search engine, select the icon and then select a search engine in the Set Search Engine menu,

X Close

Exit Web Browser.

New Tab

Open a new tab.

## Removing an App from the TV

Note that if an app is removed, the data related to the app is also deleted.

Select an app to remove on the APPS screen and press and hold the Enter button to show a pop-up menu. Select delete. If you want to remove multiple apps, select **Options** from the top of the screen and select all the apps to delete, and then select **Delete**.

## Locking and unlocking apps

Select apps to lock or unlock on the APPS screen and select Options from the top of the screen, and then select Lock/Unlock My Apps. All selected apps are locked or unlocked.

## Rearranging apps

Select Options on the APPS screen, and then select Sort By to sort the apps by date, time or others

## Rating/Reviewing an App

On the detailed app information screen, you can rate the app or send a review to the app developer.

To rate or review an app, you must log into your Samsung Account. You can only rate or review apps that you have purchased or downloaded with your Samsung Account.

## **Updating an App**

- 1. On the **SAMSUNG APPS** screen, move to the app you wish to update.
- 2. Press and hold the Enter button, A pop-up menu appears.
- 3. On the pop-up menu on the screen, select Update Apps. A pop-up window appears.
- 4. Select all the apps you wish to update and then select **Update**. All the selected apps are updated to the latest versions.

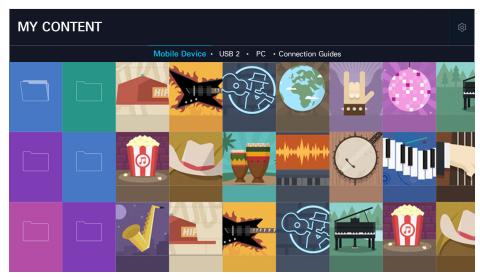
## **Setting Auto App Update**

#### (MENU/123) > MENU > Smart Hub > App Auto Update

To update apps automatically, navigate to (MENU/123) > MENU > Smart Hub > App Auto Update and set App Auto Update to On. The apps installed on the TV are automatically updated as updates become available.

## Using the MY CONTENT Service

> Featured > MY CONTENT (Try Now



Screen images may differ by model.

You can play the media content saved on the storage devices, such as a USB device, mobile device, and camera, in the TV. When you connect a storage device to the TV, the TV displays a tab with the name of the connected device. Select the tab to confirm the content saved on the storage device.

- You cannot play media content if the content or the storage device is not supported by the TV. For more information, refer to "Photo, Video, and Music File Limitations".
- Backup important files before connecting a USB device. Samsung is not responsible for damaged or lost files.

## Read before playing media content

- To connect the TV to a computer, refer to "Connecting to a Computer".
- To connect the TV to a mobile device, refer to "Connecting with a Mobile Device".
- To connect the TV to a USB or external storage device, connect the device to the TV's USB port,

## Playing multimedia content in a computer or mobile device

Before connecting to a computer or mobile device, configure the network settings.

### Connecting with a computer or mobile device

### > MY CONTENT

To play multimedia content located on a computer or mobile device on the TV, you must allow the connection with the computer or mobile device on the TV.

- 1. Connect a computer or mobile device. The TV displays the device's name and lists the media contents in the device.
- 2. Select the media content to play from the list. The selected media content plays.
- 3. To stop playing media contents, press the button or RETURN button.
- Alternatively, move to the media content you want to play, and then press the button to play the content.
- To connect a computer through your home network, refer to "Connecting to a Computer",
- To connect a mobile device through Smart View 2.0, refer to "Connecting with a Mobile Device".
- The content shared by a computer or a mobile device may not be played depending on the encoding type and file format of the content.
- The content may not be played smoothly depending on the network status. If this occurs, transfer the content to a USB storage device, and then play the content from the device.

### Playing media content saved on a USB device

- Select MY CONTENT. The USB devices connected to the TV are listed.
- 2. Select the media content to play from the list. The selected media content plays.
- 3. To stop playing media contents, press the button on virtual remote control or RETURN button.
- While video with UHD-level resolution is being played, Motion Control is not available,
- Alternatively, if you select a USB device on the **Source** screen, the TV jumps to the **MY CONTENT** screen automatically.

### Safely Removing a USB Device

- 1. Press the **SOURCE** button. The Source screen appears.
- 2. Select the USB device to remove and press and hold the Enter button.
- 3. Select Remove USB Device in the list.

## Buttons and functions available while viewing photos

Press the Enter button while viewing photos to display available options. You can also view the thumbnails of photos saved on the TV while viewing photos. The options disappear when you press the **RETURN** button.

• Pause / Play

Start or stop the slideshow, Using slideshow, you can play all the photos in a folder one by one.

Previous / Next

View the previous or the next photo.

Settings

Function	Description
Slideshow Speed	Sets the slideshow speed.
Slideshow Effect	Applies transition effects for the slide show.
Rotate and Zoom	Zooms in by up to a factor of 4. Rotates the photo.
Background Music	Plays background music while the TV displays photos.  The music files must be saved in the same USB device as the photo file.  When background music plays, the music icon appears on the screen. Using the music icon, you can pause the current music file or play another music file.
Speaker List	Gives you a choice of which speakers to play the background music through. TV Speaker: Plays the background music through the TV speakers.  Audio Out: Plays the background music through the external speakers.  Speaker Settings: Plays the background music through a speaker that you want.  Sound Mode: Changes the sound mode during playback when you play the music through the TV speakers.
Sound Mode	Changes the sound mode setting.  This mode is supported only when background music is playing.
Picture Mode	Changes the picture mode setting.
Information	Displays detailed information about the current photo.

### Buttons and functions available while viewing videos

Press the Enter button while viewing videos to display available options. Preview images of the frames at the same time intervals are displayed so that you can move to a specific frame easily. The options disappear when you press the **RETURN** button,

### • Pause / Play

Pauses or plays the video. You can use the following functions when the video is paused. With the video paused, the TV does not play audio.

- Step: Scans the paused video one frame at a time by pressing the **■** button.
- Slow Motion: Plays the video in slow playback speed (1/8, 1/4, 1/2) by pressing the ▶ button.

#### Rewind / Fast Forward

Rewinds or fast forwards the video. To increase the rewind or fast forward speed up to 3 times faster than normal, select the button repeatedly. To restore normal playback speed, press the ▶ button.

#### Previous / Next

Plays the previous or next video. Press the I button twice to play the previous video. Press the I button once starts the current video from the beginning.

Press the |>> | button to play the next video.

#### Repeat

Plays the current file repeatedly or all files in the same folder repeatedly.

### Settings

Function	Description
Picture Size	Changes the size of the screen. The supported picture sizes differ with the video.
Subtitle	Controls the subtitles of the video. Subtitle: Turns the subtitles on or off. Language: Sets the subtitle language. Sync: Adjusts the synchronisation when the video and the subtitles are not synchronised. Reset Sync: Resets the subtitle synchronisation adjustment to 0. Size: Changes the font size for the subtitles. Encoding: Changes the encoding language when the subtitles are displayed incorrectly.
Rotate	Rotates the video.
Picture Mode	Changes the Picture Mode setting.
Speaker List	TV Speaker: Plays the video sound through the TV speakers. Audio Out: Plays the video sound through the external speakers. Speaker Settings: Plays the TV sound through a speaker that you want. Sound Mode: Changes the video sound mode during playback when you play the video sound through the TV speakers. (Sound > Sound Mode)
Sound Mode	Changes the Sound Mode setting.
Audio Language	Selects a audio language. This function is only available when the video supports multi-track sound.
Information	Displays detailed information about the video.

## Buttons and functions available while playing music

#### Pause / Play

Pauses or resumes the music.

#### Previous / Next

Plays the previous or next music file. Press the I◀ button twice to play the previous music file. Press the I◀ button once starts the current music file from the beginning.

Press the button to play the next music file.

#### Repeat

Plays the current music file repeatedly or all music files in the same folder repeatedly.

#### Shuffle

Plays the music files in random order,

#### Speaker List

- TV Speaker: Plays the music through the TV speakers.
- Audio Out: Plays the music through the external speakers.
- Speaker Settings: Plays the music through a speaker that you want.
- Sound Mode: Changes the sound mode during playback when you play the music through the TV speakers. (Sound > Sound Mode)

#### Screen Off

Plays the music files only with the screen off.

## Listening to music in HD quality

You can enjoy HD music in HD native quality. Move to MY CONTENT service and select a music file to play in HD quality.

- Set HD Audio ((MENU/123) > MENU > Sound > Additional Settings > HD Audio) to On before playing HD Audio format.
- HD icon is displayed next to HD music files in the playlist.
- Select the music file, and then select ► to play it.
- When you set **HD Audio** mode to **Off** during playback, the next music file is played with standard audio signals.
- When you play an HD music file while the **Multi-Link Screen** is running, **Multi-Link Screen** is automatically terminated.
- Standard audio signals are sampled at 48 kHz while HD audio signals are sampled at 96 kHz.
- Some S/PDIF receivers may not be compatible. For such incompatible receivers, deactivate **HD Audio** mode and use normal audio mode instead.
- Some external audio players connected via HDMI, Bluetooth, or Wi-Fi networks are not able to play the HD audio signals.

### Functions on the media content list screen

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

Filter By

Filters the media content to display the type of media you want.

Sort By

Sorts the content list. The sorting methods change depending on the type of content you have selected.

This function is not available when Filter By is set to All,

Delete

Deletes the recorded media content from the media content list.

This function is not available when Filter By is set to All.

Play Selected

Plays the selected media content from the media content list.

This function is not available when **Filter By** is set to **All**.

## Listening to 3D Audio in 3D Mode

(MENU/123) > MENU > Sound > 3D Audio (Try Now)

3D audio technology provides immersive sound that matches the pop-up effect of 3D video by using perspective in the audio depth control.

Only available in 3D mode.

## **Resetting All Sound Settings**

(MENU/123) > MENU > Sound > Reset Sound (Try Now)

Use to reset all sound settings to the factory defaults.

## TV Control using your Voice

#### (MENU/123) > MENU > System > Voice Recognition (Try Now)

You can access and select certain menu options and functions using voice commands. For more effective voice recognition, speak slowly and clearly in the language specified in the System > Voice Recognition > Language option.

- Voice recognition is classified into two: interactive voice recognition that enables conversational instructions, and imperative voice recognition where only pre-defined instructions are used. Smart Hub setup, and time settings, as well as the user's agreement on the use terms. Trying the interactive voice recognition without completing any of these requirements will display a notification pop-up. Follow the onscreen instructions and complete the necessary settings. The imperative voice recognition is available regardless of the interactive voice recognition settings. Use only "pre-defined commands" in the imperative voice recognition mode.
- Please read through the instructions before using voice recognition. For more information, refer to "Read Before Using Voice, Motion, or Face Recognition".

You can run Voice Recognition in two modes:

- The short distance recognition mode that uses the microphone built into the Samsung Smart control:
  - Press the MENU/123 button, and then select Voice Recognition.
  - Or, press and hold the MENU/123 button.
- The long distance recognition mode that uses the TV's built in microphone:
  - Look at the TV screen, and then say a command, for example, "Hi TV".
    - This function is only supported for the 9900 series model.
    - 9900 models may not recognise your voice with the TV's built-in microphone because of the noise surrounding the TV camera and microphone. In this case, use the short distance recognition mode: Press and hold the MENU/123 button and say the command 4 to 6 inches from the microphone on the Samsung Smart Control. The optimal volume for voice commands is between 75 dB and 80 dB.

## **Using Voice Recognition Tutorial**

(MENU/123) > MENU > Support > Voice Recognition Tutorial (Try Now)

This lets you familiarize yourself with the basics of Voice Recognition. From the Support menu, run Voice Recognition.

## **Enabling Voice Recognition**

- 1. Press and hold the MENU/123 button on the Samsung Smart Control. The microphone icon appears on the screen when Voice Recognition is enabled.
- Say a command. You can use voice recognition to operate the TV whin you are watching the TV or other videos.
  - Say the command from 10cm to 15cm away from the microphone on the Samsung Smart Control. Voice commands may not be recognised properly if you speak too softly or loudly. The optimal volume for voice commands is between 75dB and 80dB.

### **Learning Voice Recognition Basics**

· Moving the focus

Say "Left", "Right", "Up", or "Down" to move the focus. However, these commands can only be used in situations when the focus can be moved.

Selecting an item

Say "Select" to confirm the selection.

All Voice Commands

Say "Help" to display the complete list of voice commands, organised by category. Say the name of a category.

Deactivating Voice Recognition

Say "Close", or press the RETURN button to terminate voice recognition.

The TV recognises predefined voice commands only, and the voice commands may differ from the manual depending on the version.

### **Changing Voice Recognition Language**

(MENU/123) > MENU > System > Voice Recognition > Language (Try Now)

Navigate to (MENU/123) > MENU > System > Voice Recognition > Language, and select a preferred language from the list. Now you can use voice recognition in the specified language.

Interactive voice recognition is not available in some languages. If this is the case, choose a different language.

### Adding or deleting trigger words

#### (MENU/123) > MENU > System > Voice Recognition > Trigger Word

You can add or delete trigger words. A trigger word is a word or phrase that you say to start the Voice Recognition function. To add a new trigger word to the list, select Add Trigger Words. To remove a trigger word from the list, select it and then select Delete Trigger Words.

### Testing noise around the TV's built-in microphone (For 9900 Series)

#### (MENU/123) > MENU > System > Voice Recognition > Voice Recognition Environment Test

This test determines how well Voice Recognition will work in the TV's current environment. Perform the Voice Recognition Environment test before using Voice Recognition to make sure it functions properly.

- 1. Run Voice Recognition Environment Test and stand within 3.5m of the TV.
- 2. Select **Start** to measure the ambient noise. If the ambient noise level is suitable, the test will continue to the next step. If this part of the test fails, remain quiet and try again.
- 3. Say the command loudly and clearly within 30 seconds. If the TV successfully recognises your voice, the test continues to the next step. If this part of the test fails, try again. This test is designed to measure the volume and clarity of your voice.
- 4. Measure the volume and clarity of your voice. Say "Hi TV," and then say the command on the TV's screen loudly and clearly within 30 seconds. If the TV successfully recognises your voice, the test continues to the next step, If this part of the test fails, try again,

# Checking ambient noise and illumination (Voice and motion recognition environment Check)

#### (MENU/123) > MENU > Support > Self Diagnosis > Voice & Motion Control Environment Check

You can test the ambient noise and brightness levels affecting the TV camera and microphone to ensure that they are suitable for voice and motion recognition use.

## **Using Voice Recognition Interactively**

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Availability depends on the specific model and area.

Voice recognition allows you to set up access VODs, search and launch applications, and execute various other commands using voice commands and without having to remember specific commands or keywords. Saying "Set the sleep timer for 30 minutes", for example, instructs the TV to turn off after 30 minutes (Sleep Timer).

Activate voice recognition and say a command, See the examples below:

When you don't know which channel a specific programme is on:

```
"Watch **** (Title)". / "Play **** (Title)". / "Run **** (Title)"
```

When you want to find a specific programme or content item:

```
"*** (Title)"
```

• When you want to know various daily information:

```
"What's the weather in *** (place name)." / "What is the *** (company) stock price?"
```

When you want to operate the TV:

```
"Volume ** (level)"
```

### **Enabling/Disabling TV Voice**

Enable/disable the TV's voice responses to your voice recognition commands. Navigate to (MENU/123) > MENU > System > Voice Recognition menu and select Use TV Voice.

### **Enabling TV Voice in Selected Voice Gender**

Navigate to (MENU/123) > MENU > System > Voice Recognition > Voice Gender, and select a voice gender. Enjoy the TV voice in the selected voice gender. Try Now

## TV Control using Motions

Availability depends on the specific model and area.

(MENU/123) > MENU > System > Motion Control (ry Now

Motion Control is not available.

- When you are playing UHD-level video saved on a USB device
- When you are viewing the digital channel with UHD-level resolution

It's possible to use motion commands to change channels, adjust the volume, and control the pointer while searching the web using Smart Hub.

- Please note, that not all apps support Motion Control.
- Please read through the instructions before using voice recognition. For more information, refer to "Read Before Using Voice, Motion, or Face Recognition".
- Motion Control is not available while voice recognition is activated.
- ♠ 9800 model must be connected to the optional TV camera to use this function. The optional TV camera must be connected to the dedicated USB port at the back of the TV. Other USB ports do not support the TV camera or Motion Control.

## Using the TV camera

(MENU/123) > MENU > System > Smart Security > Settings > Camera

Set Camera to On to use the TV camera.

## Testing Ambient Illumination Using the TV Camera

(MENU/123) > MENU > System > Motion Control > Motion Control Environment Test (Try Now)

Run this test before using Motion Control to ensure proper functionality.

- Initiate the Motion Control Environment Test, and select Start 1.5m to 4m away from the TV. If
  the light is reflected onto the TV's screen, or there are moving objects in the background, the
  motion may not be properly recognised by the TV.
- 2. Face the TV camera, and follow the onscreen instructions to raise your hand from a comfortable position with the index finger spreading upwards, and move it left or right slowly. A pointer appears on the screen when the TV recognises the action. If the recognition fails, change the hand position and try again.

#### Checking Illumination (Motion Control Environment Check)

(MENU/123) > MENU > Support > Self Diagnosis > Voice & Motion Control Environment Check Navigate to (MENU/123) > MENU > Support > Self Diagnosis menu and select Motion Control Environment Check. This function measures the illumination levels around the built-in camera and microphone of the TV to check if they are suitable for motion control use.

## **Activating Motion Control**

### (MENU/123) > MENU > System > Motion Control > Motion Control (Try Now

To enable Motion Control, face the TV camera and raise your hand from a comfortable position with the index finger spreading upwards, and move it left or right slowly. When your hand is successfully recognised by the TV camera, Motion Control is activated and a pointer appears on the screen.

- If Motion Control is activated, a pop-up window appears and guides you through basic use of Motion Control.
- Moving your hand out of the range of the TV camera deactivates Motion Control. To reactivate Motion Control, simply raise your hand towards the TV camera within 3 seconds.
- The recognition may be terminated if the index finger does not fully spread out or is moved too fast.

#### **Using Motion Control Tutorial**

### (MENU/123) > MENU > Support > Motion Control Tutorial (Try Now

This lets you familiarize yourself with the basics of using Motion Control. From the **Support** menu, run **Motion Control Tutorial**.



If Motion Control is activated, a pop-up window appears and guides you through basic use of Motion Control.

### **Learning Motion Control Basics**

The following basic motion control commands are available:

### Moving the pointer



Moving your hand moves the pointer accordingly,

### Selecting an item



Fold and then spread your index finger as if clicking on a mouse. You can select a TV menu or run a function. Keeping your index finger folded is like holding down the remote control button.

### Moving around pages or content



Make a circle with your hand in the counterclockwise direction to move to the previous or next content, or move around pages.

### Returning to the previous menu



Make a large counterclockwise circle with your hand to return to the previous menu.

A small circle may not be recognised by the TV.

### Displaying the context-sensitive menu



On the Smart Hub screen, fold your index finger for more than 1 second and spread it out. This displays the selected item's context menu.



The screen's option menu differs depending on the selected lists.

### Scrolling the screen



Fold down your index finger and then move it to the left, right, up, or down to scroll the TV screen.

### **Using Like function**



With Motion Control, inactive, raise and hold your thumb for 2 seconds toward the TV camera. You can automatically add Facebook's Like function. However, this is only available in Facebook.

### **Showing and Hiding Animated Motion Guide**

Navigate to (MENU/123) > MENU > System > Motion Control, and select Animated Motion Guide from the menu. Now you can display an animated guide when Motion Control is activated. Try Now

### **Adjusting Pointer Speed**

Navigate to (MENU/123) > MENU > System > Motion Control > Pointer Speed, and select a pointer speed. (Try Now)

## Changing the motion control screen layout

## Displaying and using the motion control icons on the TV screen

You can display the following screen icons by activating motion control while watching the TV. Select an icon to perform the associated action or function.

Actual menu screen may differ depends on the specific model and area.





Direction Control Mode

Motion Pointing Mode

Icon	Description
	Displays the On-Screen Remote.
	Displays the channel list or information about the current programme.
	Launches Smart Hub.
[17]	Allows you to adjust the volume or select the speakers to use.
+ + + + + + + + + + + + + + + + + + + +	Allows you to adjust the volume, change the current channel, or change the motion control layout in Motion Pointing mode.

## Showing the hidden icons on Smart Hub

The motion control icons disappear when there is no user action on Smart Hub for 2 or more seconds. To show the hidden icons, move the pointer to the top or right side of the screen. The green areas as shown in the figure appear. Wait for 1 second. The icons reappear.

Actual menu screen may differ depends on the specific model and area.



lcon	Description
	Direction Control
( )	Motion Pointing

## Signing in with Face Recognition

Availability depends on the specific model and area.

Users can register their faces using the TV camera, and sign in with their Samsung accounts through Face Recognition. One face may be registered per account. Depending on the ambient illumination level and/or shadows over the face, the TV may have difficulty recognising the user's face.

Please read through the instructions before using Face Recognition. For more information, refer to "Read Before Using Voice, Motion, or Face Recognition".

To enable Face Recognition, first connect the optional TV camera to the TV.

#### ⚠ The optional TV camera must be connected to the dedicated USB port at the back of the TV.

TV need to be connected to the TV camera in order to use Face Recognition. The optional TV camera must be connected to the dedicated USB port at the back of the TV. Other USB ports do not support the TV camera or Face Recognition.

## Registering Your Face to Your Samsung Account

Register your face to your Samsung Account to allow the TV to recognise you by your face. Create a new account if you do not already have one.

- First, you must sign in with your Samsung Account.
- Navigate to Edit profile (Smart Hub > Samsung Account > Edit profile) and select Register face in the account information screen.
  - To register your face using the Virtual Remote panel, press MENU/123 to select your active Samsung Account and then select Edit profile.
- 2. Read the information displayed in the pop-up window, select **OK**, and then enter the account password.
- 3. On the face registration screen, select **Take picture** and then align your face with the dotted red line displayed on the screen. The dotted line will turn green once your face is recognised.
  - Your entire face must be visible to the camera, Make sure the face is brightly lit. Shadows prevent the camera from recognising your face accurately.
  - Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
  - Check the box to add password entry to the sign-in process using Facial Recognition for additional security. Select Try Again to try again.
- On the Samsung Account information screen, select Save. This completes the face registration process.

## Changing your login method of face recognition

(MENU/123) > MENU > Smart Hub > Samsung Account > Edit profile

You can change the log in method to face recognition. To change the log in method, follow these steps:

- 1. Enter your password, and then select **Done**.
- On the Edit Profile screen, select Sign-in Method. In the drop down list that appears, select Face Recognition.
- 3. Select Done.

## Signing in to a Samsung account using face recognition

(MENU/123) > MENU > Smart Hub > Samsung Account > Edit profile

To log in using Face Recognition, follow these steps:

- 1. Select your Samsung account,
- 2. If you have set the Samsung account sign in option to Face Recognition, the TV automatically recognises your face. If recognition fails, try again.
  - Your entire face must be visible to the camera, Avoid shadows over your face. Shadows prevent the camera from recognising your face accurately.
  - Keep your expression as neutral as possible. In addition, keep your mouth closed as neutral as possible.
  - Once recognition succeeds, the TV logs in to Smart Hub automatically. If the TV recognises two or more registered faces, a list of corresponding accounts appears. Select the appropriate account, If the TV detects an unregistered face, it displays "Unregistered" on the screen.

## Digital Broadcast Information at a Glance

(MENU/123) > MENU > Broadcasting > Guide (ry Now) (ry Now)

The Guide provides an overview of each digital channel's programme lineup. You can check the programme schedules and set up a **Schedule Viewing** or **Schedule Recording**.

Press MENU/123 to display virtual remote control on screen and press GUIDE to launch the guide.

The information in the Guide is for digital channels only. Analogue channels are not supported.

To view the Guide, you must first set the TV's clock (MENU > System > Time > Clock),

## Using the Guide

To access the **Guide** functions after launching the **Guide**, press and hold the Enter button on the remote control. A popup window listing the following functions appears.

Navigating the Programme Schedule

Press to the ••, >> button on virtual button to navigate the programme schedule by 24 hours. You can only view the future programme schedule.

It is available for moving the page using the ∧, ∨ button.

Move to the programme schedule and then press and hold the Touchpad/Enter button. The following options are available:

Changing the Channel List

If you select Channel Filter, you can change the channels displayed in the channel lists.

Moving to the Schedule Manager

You can move to the **Schedule Manager** screen.

Adding Favourites

Click Edit Favourite Channels to add the selected programme to the Favourites.

Viewing Detailed Information

View detailed information about the selected programme. The programme information may vary depending on the type of incoming signal and may not be available at all for certain programmes.

- Select a current programme on another channel and select View Details to Watch or Record the programme,
- Select an upcoming programme and select View Details for Schedule Viewing or Schedule Recording.
  - You can only view programmes scheduled after the current time.

## Checking the Current Programme Info

While watching TV, select INFO on virtual remote control to view information about the current programme.

- In order to view the programme info, you must first set the TV's clock. Set the Clock (System > Time > Clock).
- The programme information may vary depending on the type of incoming signal and may not be available at all for certain programmes.

In addition, select \( \lambda \) and \( \rangle \) button to view information about the next programme and set up a \( \rangle \) **Schedule Viewing** or **Schedule Recording** for the upcoming programme, select that programme.

You can also enter Schedule Viewing or Schedule Recording by the following path Menu > Broadcasting > Schedule Manager.

## **Changing the Broadcast Signal**

(MENU/123) > MENU > Broadcasting > Aerial

Choose your preferred method of receiving digital broadcasts.

This function is not needed if your TV is connected to a cable or satellite box.

## Digital Signal Info and Strength

(MENU/123) > MENU > Support > Self Diagnosis > Signal Information (Try Now)

Select Support > Self Diagnosis > Signal Information. Displays the digital channel's signal information and strength.

- If your TV is attached to a separate, over-the-air antenna, you can use the signal strength information to adjust the antenna for increased signal strength and improved HD channel reception.
- This is only available for digital channels.

## **Recording Programmes**

You can record current and upcoming programmes using a USB device instead of a video recorder,

However, this is only available for digital channels. The icon appears next to programmes and channels for which a **Schedule Recording** has been set.

- We recommend a USB hard disk drive with a minimum speed of 5,400rpm for TV recording. USB memory sticks are not supported.
- Read all precautions before using recording.

## **Recording Programmes**

You can record current and upcoming programmes.

### **Instant Recording**

Press the • on virtual remote control button to begin recording the current programme right away.

### The Instant and Schedule Recording options from the Guide

Select a current programme from the Guide and then select Record.

You can instantly start recording the programme. Alternatively, select a programme that will air in the future.

### The Instant and Schedule Recording options from the Programme Info

Select Enter button to display information about the current programme. In the information screen, select a programme that is currently airing to start recording it right away. Alternatively, press <, > button and select a programme that will air in the future to record it.

#### The Schedule Recording option on a Specified Date and Time

- 1. Select Broadcasting > Schedule Manager.
- Select Schedule from the Schedule Manager to bring up a pop-up menu, Select Schedule Recording.
- Specify the Aerial, Channel, Repeat, Start Time, and End Time options for the programme you
  want to record, and then select OK to finish.

### Buttons and Functions Available While Recording a Programme

Press Touchpad/Enter button while recording a programme. The following buttons will appear as well as the recording progress bar,

#### Information

This displays detailed information about the programme being recorded.

The programme information may differ depending on the broadcasting signal and may not be available at all for certain programmes.

#### • Recording Time

You can select the recording time.

• Stop Recording / Go to Live TV

You can stop recording. / Shift viewing to live TV.

## Managing the Schedule Recording List

(MENU/123) > MENU > Broadcasting > Schedule Manager

You can change the settings of scheduled recording sessions or cancel scheduled sessions altogether,

### **Deleting Schedule Recording Sessions**

You can delete scheduled recording sessions.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager, A pop-up window appears,
- 3. Select **Delete**. This cancels the selected recording session.

### **Editing Schedule Recording Sessions**

You can change the settings of scheduled recording sessions.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select Edit and change the settings of the selected session.
- 4. Once finished, select OK. This applies the changes you made to the selected recording session.

## **Viewing Recorded Programmes**

- 1. Press SOURCE button,
- 2. Select a USB recording device. A list of recordings appears.
- 3. Select a recording file from the list or select ▶ to play the selected file.

### Available Buttons and Features while Playing Recordings

Press Enter, Playback controls will appear. To hide the controls, press RETURN.

Buttons that appear are different depending on the file being played.

#### Zoom

You can pause the current file (recorded programme) and zoom in any sections of the screen.

Press the A button for easier use.

You can only use this function for programmes recorded in **Sports Mode**.

#### Stop

Stop playback of the file (recorded programme).

#### Pause / Play

Pause the file (recorded broadcast) or resume if already paused.

When the video is paused, you can use the following functions. However, audio will not be heard while the video is paused.

- Step: Press | to scan through a video one frame at a time.
- Slow Motion: The ➤ button plays the video back at 1/2 the normal speed.
  - Buttons that appear differ with the file being played.

#### Rewind / Fast Forward

Rewind or Fast Forward the recording file (recorded programme). Repeatedly select the button to make the rewind/fast forward speed faster by up to 5 times. To restore normal playback speed, press the ▶ button.

Fast Forward is not available while you are watching a programme that is currently being broadcast.

#### Previous / Next

To play the previous file (recorded programme), press I◀ twice. Selecting I◀ once reloads the current video from the beginning.

To play the next file (recorded programme), press >> 1.

This function is not available when the programme is recorded in Sports Mode.

#### Highlights Player

Select Highlights Player to view highlights from the current recording.

This feature is only available for programmes that were recorded in **Sports Mode** and along with highlight data have been saved.

#### Live TV

This function enables the PIP feature so that you can watch a live programme through PIP.

- Channels cannot be changed.
- You can only use this function for programmes recorded in **Sports Mode**.

### • Settings

Function	Description
Subtitle Settings	Subtitle: Turn the subtitles On or Off. Subtitle Language: Used to change the language.  This option works only when the video supports subtitles display.
Picture Size	Used to change the size of the screen. The supported picture sizes vary depending on the video.
Picture Mode	Change the Picture Mode setting.
Sound Mode	Used to change the Sound Mode.
Speaker List	Choose a speaker to play the audio.  This function is only available when you have a home theatre or receiver connected to the TV.
Audio Language	Choose a desired audio language. This option works only when the video supports multi-track sound.
Information	Displays detailed information about the current file.

## **Managing Recorded Files**

- 1. Press SOURCE button.
- 2. Select a USB recording device. A list of recordings appears.
- This function is only available on certain models in specific geographical areas.

### **Saved File List Features**

• Sorting the Saved File List

Sorting with **Sort By**: Select **Sort By** at the top of the screen and then select a viewing mode. The list is sorted based on the selected viewing mode.

Sorting with Filter: Select Filter at the top of the screen and then select a filter. The list is refreshed to only show files that match the selected filter.

Other options

Function	Description
Play Selected	Select files from the file list and then select Play. You can create a playlist.
Delete	Deletes recording files. Select the files and then select Delete. This deletes all selected files.

## Setting Up a Schedule Viewing

Configure the TV to show a specific channel or programme at a specific time and date. The 🐸 icon appears next to programmes that have been configured for a Schedule Viewing.

To set up a Schedule Viewing, you must first set the TV's clock, Go to Clock (System > Time > Clock).

## Setting Up Schedule Viewing

### **Digital Channel Schedule Viewing**

You can set up Schedule Viewing for programmes on digital channels on the following screens:

- The Guide Screen
  - Select an upcoming programme from the Guide to set up a Schedule Viewing for it.
- The Programme Info Screen

Select INFO on virtual remote control to display information about the current programme. From the programme information screen, select right button to view information about the next programme, and press Enter, to set up a Schedule Viewing or Schedule Recording for the upcoming programme.

### **Analogue Channel Schedule Viewing**

### (MENU/123) > MENU > Broadcasting > Schedule Manager (Try Now)

The Schedule Viewing function for programmes on analogue channels can be set up by specifying the time and date.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select Schedule from the Schedule Manager to bring up a pop-up menu, Select Schedule
- 3. Specify the Source, Channel, Repeat, and Start Time options for the programme you want to watch and then select OK to finish.

## Managing the Schedule Viewing List

### (MENU/123) > MENU > Broadcasting > Schedule Manager

You can change the settings of Schedule Viewing sessions or cancel scheduled sessions altogether.

You can set up a maximum total of 30 Schedule Viewing and Schedule Recording entries.

### **Deleting Schedule Viewing Sessions**

You can delete **Schedule Viewing** sessions.

- 1. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select **Delete**. This cancels the selected viewing session.

### **Editing Schedule Viewing Sessions**

- You can change the settings of Schedule Viewing sessions. Select Broadcasting > Schedule Manager.
- 2. Select a session from the Schedule Manager. A pop-up window appears.
- 3. Select Edit and change the settings of the selected session.
- 4. Once finished, select OK. This applies the changes you made to the selected recording session.

## **Using Timeshift**

Timeshift lets you pause and rewind live TV as you would a DVD. Timeshift is only available for digital channels and activating Timeshift disables the Broadcasting option.

Read all precautions before using the Timeshift function. For more information, refer to "Before Using the Recording and Timeshift Functions"

This function is only available on certain models in specific geographical areas,

#### Timeshift requirements:

- A USB recording device must be connected to the TV in order to use Timeshift.
- We recommend a USB hard disk drive with a minimum speed of 5,400rpm for use with the TV's Timeshift feature, USB memory sticks are not supported.
- Read all precautions before using the Timeshift function.

Press ▶ while watching TV to activate the **Timeshift** function. This activates **Timeshift** and displays a progress bar and the following buttons at the top of the screen:

#### Information

Displays detailed information about the current programme.

- The programme information may vary depending on the type of incoming signal and may not be available at all for certain programmes.
- This button is only available while watching a live programme.

#### Go to Live TV / Stop Timeshift

Watches the live TV or Exits the Timeshift.

#### Pause

Pauses the screen.

The following features are available while paused. However, audio is not supported while the video is paused.

- Step: II Scans through a video one frame at a time.
- Slow Playback: Select ◄ / ▶ to play the video back at 1/2 the normal speed.

#### Rewind / Fast Forward

Slows down or speeds up playback by a factor of up to 5. To restore the normal playback speed, press ▶.

Fast Forward cannot be used while watching the Current Programme.

#### Channel List

Displays the channel list.

#### Tools

You can launch the **Tools** menu. Open the **Tools** menu to access the context menus available in Timeshift mode.

## **Using the Channel List**

### (MENU/123) > MENU > Broadcasting > Channel List (ry Now)

Launch the **Channel List** while watching TV to change channels or to see what's on other channels. Press and hold the Touchpad/Enter button. To launch the **Channel List**.

Select a channel from the **Channel List** to jump to it right away. To quickly scroll through the list, use the channel up/down buttons. This moves the focus one page at a time.

The Channel List screen contains the following icons:

– **A** : An analogue channel

A favourites channel

A locked channel

#### Using Options

Press \ button. The following options are available:

#### History

Displays a list of channels that you viewed recently.

#### Add a New List

Allows you to creating a new channel list by adding channels from a favourites list, analogue, or your interested category.

#### Favourites 1 ~ Favourites 5

Displays the selected channel list. You can add or remove channels to or from the list.

#### Options

The following options are available:

Function	Description
Aerial	Choose between Terrestrial, Cable.
Sorting	Sort the list by Channel Number or by Name. (Digital channels only)
Edit Channel Lists	You can edit your channel lists. Allows you to rearrange the order of channels in the channel list or remove channels from the channel list.
Edit Channel	You can remove or rename the channels.
Edit Favourites	Designate favourites channels.

### Changing to Favourites

Press > button to select Favourites 1 through Favourites 5. This shows the selected list's channels. However, a Favourites list can only be selected if it contains at least one favourites channel. If you haven't created a Favourites list yet, you need to create one first.

## Registering, Removing, and Editing Channels

### (MENU/123) > MENU > Broadcasting > Edit Channel (Try Now)

Remove channels from the index of channel restore removed channels, and rename analogue channels. The **Edit Channel** screen icons indicate the following:

• **A** : An analogue channel

A favourites channel

A locked channel

## Registering and Removing Channels

(MENU/123) > MENU > Broadcasting > Edit Channel

### **Removing Registered Channels**

Remove registered channels from the index.

- Select the channels you want to remove. Unselect channels by choosing them again. To select all
  the channels, select Options from the bottom of the screen and then select Select All from the
  list.
- Once you have made your selection, select Delete from the bottom of the screen to remove the selected channels.

## **Editing Registered Channels**

#### (MENU/123) > MENU > Broadcasting > Edit Channel

Select **Options** at the bottom of the screen to access the following options. However, the available options may vary depending on the broadcast signal.

#### Select All / Deselect All

Selects or deselects all channels displayed in the Edit Channel screen.

#### Sorting

(Digital channels only)

Change the list ordered by Channel Name or Number,

#### Aerial

Choose between Terrestrial, Cable.

#### Category

If you select a Category, its channels appear in the list among the TV's channels.

#### Edit Favourites

Organize favourites lists to find favourite channels and switch between channels more easily,

#### Rename channel

Rename Analogue Channels, The new name can be up to 5 characters long,

#### Channel Info

Check the information of the channel.

#### Information

View detailed information about the current programme.

## **Enabling/Disabling Password Protection on Channels**

### (MENU/123) > MENU > Broadcasting > Edit Channel

You can lock channels you don't want your children to view.

To enable password protection, set Channel Lock to On. First, navigate to (MENU/123) > MENU > Broadcasting > Channel Lock and set it to On.

## Locking/Unlocking Channels

Select channels from the **Edit Channel** screen and then select **Lock** or **Unlock** at the bottom of the screen. When the password entry window appears, enter the password. This locks or unlocks the selected channels.

## **Creating a Personal Favourites List**

#### (MENU/123) > MENU > Broadcasting > Edit Favourites (Try Now)

You can designate frequently watched channels as favourites. Favourites channels are highlighted in the Edit Channel and Channel List screens with the ♥ symbol. You can create up to 5 favourites channel lists.

## Registering a Channel as Favourites

### Registering the Current Channel as a Favourites

Add the current channel to a Favourites list.

- While watching a TV channel, press the MENU/123 button on Samsung Smart control and choose Channel List on virtual remote control.
- 2. Select Edit Favourites from the list
- 3. Select the Favourites lists you want, and then select OK.
  - You can select more than one Favourites list.
- 4. Select OK again. The TV has added the current channel to the Favourites list(s) that you selected.

### Registering Multiple Channels as Favourites

It's possible to register multiple channels as favourites at the same time.

- 1. Select Broadcasting > Edit Favourites.
- Select Category from the bottom of the screen to change the channel list to the one containing that channels you want to register.
  - Recently Viewed and Most Viewed are only available if they contain channels,
- 3. Select the channels from the list in the middle of the screen.
- 4. Select Change Fav. and then change the Favourites 1 to the Favourites 5 you want to use.
- 5. Select Add.

## **Viewing Favourites List Channels Only**

It's possible to flip through Favourites list channels using only the channel up/down buttons.

- A Favourites list can only be selected if it contains at least one favourites channel.
- 1. Run Channel List, (Broadcasting > Channel List).
- 2. Press > button to select Favourites 1 through Favourites 5.
- Choose a channel from the selected Favourites list. This changes the channels and Channel List changes to the selected Favourites channel.

## **Editing a Favourites List**

#### (MENU/123) > MENU > Broadcasting > Edit Favourites

You can rename and edit Favourites lists.

### Using the Edit Favourites screen menu items

Select Options from the bottom of the Edit Favourites screen to access the following options:

Select All / Deselect All

You can select all channels. / You can cancel the channels you selected.

Copy to Favourites

Copy channels from one favourites channels list to another.

This can only be used when the focus has selected a channel registered to a Favourites list.

Rename Favourites

Rename an existing favourites channels list.

This can only be used when the focus has selected a channel registered to a Favourites list.

Sorting

Change the list ordered by Channel Name or Number. This function is not available on analogue channel.

Aerial

Choose between Terrestrial, Cable.

Edit Channel

You can manage the channels saved on the TV.

Information

View detailed information about the current programme.

### Removing Registered Channels from a Favourites List

Remove channels from a favourites channels list.

- 1. Select Change Fav. at the bottom of the screen and then change the Favourites list to the Favourites list you want to use.
- 2. Select the channels you want to remove from the selected Favourites list.
- 3. Select Delete.

### Rearranging a Favourites List

Rearrange the order of the channels in a Favourites Channels List.

- 1. Select Change Fav. at the bottom of the screen and then change the Favourites list to the Favourites list you want to use.
- 2. From the selected Favourites list, select the channels you want to rearrange.
- 3. Select Change order from the bottom of the screen and then rearrange the selected channels. Press Enter button to finish,

### Renaming a Favourites List

Rename an existing favourites channels list.

- Select Change Fav. at the bottom of the screen and then change the Favourites list to the Favourites list you want to use.
- 2. From the selected Favourites list, select the channels you want to rename.
- 3. Select Options. A list appears.
- 4. Select Rename Favourites from the list. A pop-up window appears. Rename the list in the pop-up window. The new name can be up to 20 characters long.

### Copying a Favourites List to a Different Favourites List

Copy channels from one favourites channels list to another.

- 1. Select Change Fav. and then change the Favourites list on the side of the screen to the Favourites list you want to use.
- From the Favourites list displayed on the side of the screen, select all the channels you want to copy.
- 3. Select Options. A list appears.
- 4. Select Copy to Favourites from the list, A pop-up window appears,
- 5. From the pop-up window that appears on the screen, select the Favourites lists you want to copy the selected channels to. This copies the selected channels to the selected Favourites lists.
  - Copy to Favourites is only available when there are channels in the Favourites list.

# **Adding Realism to Sports**

(MENU/123) > MENU > System > Sports Mode (Try Now)

**Sports Mode** enables optimal picture and sound settings for sports events, making them appear and sound as if you were actually there. In addition, it will be possible to use video recording and time shift functions at the same time while watching a sports event and manually or automatically designated highlight scenes if a recording device is connected to the TV when you are using **Sports Mode**.

- For more information about recording a programme and using a recording device, refer to the "Recording Programmes" section.
- For more information about the "Time Shift" feature, refer to the "Using Timeshift" section,

# **Enabling Sports Mode**

(MENU/123) > MENU > System > Sports Mode > Sports Mode

Select System > Sports Mode and then set Sports Mode to On. Picture and sound settings of the TV are automatically optimised for sports events.

- Enabling Sports Mode changes the Picture Mode to Stadium and the Sound Mode to Stadium, and disables some Picture and Sound menus.
- Press Sports Mode button on virtual remote control on screen while watching TV to activate/deactivate Sports Mode.

# **Extracting Highlights Automatically**

(MENU/123) > MENU > System > Sports Mode > Auto Highlights (Try Now)

Select System > Sports Mode and set the Auto Highlights to On. You can set the TV to automatically save highlights without user intervention.

However, Auto Highlights is not available with these TV operations:

- Recording two channels simultaneously
- While Auto Description is active
- Switching the input signal using the SOURCE button
- When 3D mode is active
- The Auto Highlights performance depends on the signal characteristics.
- It is advisable to use **Auto Highlights** only while watching a soccer/football game. Using this for other sporting events may display irrelevant picture frames.

# **Functions Available in Sports Mode**

Press Enter button. The following buttons will appear,

#### Zoom

You can pause the current video and zoom in on any section of the screen. Pan the zoomed-in image using  $\land$ ,  $\lor$ ,  $\lt$ ,  $\flat$  buttons.

To launch this function easily, select or press the A button.

- This function is not available when Data Service is active.
- You cannot use this function when watching a 3D channel or when PIP or MY CONTENT is active.

### Manual Highlight

Pressing this button saves 10 seconds of video leading up to that point and 10 seconds of video that follows as a highlight.

- This function can also be accessed using the **B** button,
- Available only while recording is in progress.
- Also possible to configure the TV to automatically save highlights without user intervention. Select System > Sports Mode and then set Auto Highlights to On.

#### Stop Recording

Use this button while watching a live programme to stop recording it.

Available only when recording is in progress,

#### Record

Start recording the sports event being watched.

This function is only available when the recording function is supported.

#### Recording Time

You can edit recording time.

### Stop Recording

You can stop the recording.

#### Highlights Player

Use **Highlights Player** to view manually or automatically saved highlight segments of the recording.

However, Highlights Player is not available with these TV operations:

- Recording two channels simultaneously
- While Auto Description is active
- Switching the input signal using the SOURCE button
- When 3D mode is active
- This function is only available when a recording is in progress.
- This function is only available while you are watching a recorded programme.
- Available only when recording is in progress.

### · Watch Live TV at the same time

Select while viewing a recorded programme to watch live TV on a PIP window, Press once more to exit PIP mode.

However, Watch Live TV at the same time is not available with these TV operations:

- · Recording two channels simultaneously
- While Auto Description is active
- Switching the input signal using the SOURCE button
- When 3D mode is active
- This function is only available when a recording is in progress.
- This function is only available while you are watching a recorded programme.

# Viewing a Sports Event Recorded in Sports Mode

View recorded sports events using the USB Drive option in the MY CONTENT screen,

For more information, refer to "Viewing Recorded Programmes".

# **TV-Viewing Support Features**

# **Showing Subtitles**

### (MENU/123) > MENU > System > Accessibility > Subtitle

Show subtitles. Subtitles will be displayed when watching a broadcast that supports subtitles. Switches subtitles **On** or **Off**.

- Subtitles may not be displayed by programmes that do not support subtitles.
- Press and hold the \$\infty\$ button on the Samsung Smart Control to turn on or off **Subtitle**.
- DVD subtitles are only available if the DVD player is connected to an external input connector.
  - Subtitle Mode

Set the subtitle mode.

Subtitle Language

Set the subtitle language.

The TV cannot control or modify DVD or Blu-ray subtitles. To control DVD or Blu-ray subtitles, use the subtitle feature of the DVD or Blu-ray player and the player's remote control.

# **Subtitle Options**

### (MENU/123) > MENU > System > Accessibility > Subtitle

Select a subtitle mode. The list of modes may vary depending on the broadcast,

• Primary Subtitle

Set the primary subtitle language.

Secondary Subtitle

Set the secondary subtitle language.

# **PIP Broadcast Viewing**

### (MENU/123) > MENU > Picture > PIP (Try Now)

Use the PIP (Picture-In-Picture) function to watch TV in a small window while also watching images from an external source such as a DVD player, a Blu-ray player, or a computer in the background.

Select Picture > PIP to display the PIP settings window. This settings window contains the following options:

#### PIP

Activates/deactivates PIP.

#### Aerial

Select the PIP sub-picture broadcast signal.

#### Channel

Select the PIP sub-picture channel.

#### Size

Select the PIP sub-picture size,

#### Position

Select the PIP sub-picture position.

#### Sound Select

Select the audio source.

#### PIP restrictions:

- PIP cannot be used while Smart Hub or 3D is active.
- Turning off the TV automatically disables PIP.
- Playing a game or using the karaoke feature on the main screen can result in lower PIP picture quality.
- For PIP to work, the main screen's source must be Component or HDMI and the input resolution must be less than Full HD (FHD 1080p). The sub picture supports TV source only.
- The PIP window supports digital channels only.

# Scanning for Available Channels

(MENU/123) > MENU > Broadcasting > Auto Tuning (Try Now)

Automatically scans and indexes all channels received through the TV's antenna input connector.

If there are saved channels, this feature deletes the existing list and then saves the newly scanned channels.

If the TV is connected to a cable box, you do not need to do this.

- 1. Select Broadcasting > Auto Tuning.
- Select Start when prompted. This initiates the Auto Programme function. The process can take up to 30 minutes to complete.
  - Auto Tuning

Scans for channels automatically and stores them in the TV's memory.

• Cable Search Option (when the aerial was set to Cable)

Availability depends on the specific model and area.

Sets additional search options such as the frequency and symbol rate for a cable network search.

# Selecting the Broadcast Audio Options

(MENU/123) > MENU > Broadcasting > Audio Options (ry Now

Audio Language

(Digital channels only)

Change the default value for audio languages.

Primary Audio: Set the primary audio language.

Secondary Audio: Set the secondary audio language.

The available language may differ depending on the broadcast.

Audio Format

(Digital channels only)

Change a desired audio format. The supported audio format may vary depending on the broadcast programme.

# **Audio Description**

(MENU/123) > MENU > System > Accessibility > Audio Description

(Not available in all locations) (Digital channels only)

This function handles the Audio Stream for the AD (Audio Description) which is sent along with the Main audio from the broadcaster,

Audio Description: Turn the audio description function on or off,

Volume: Adjust the audio description volume.

# **Using the Channel Settings**

(MENU/123) > MENU > Broadcasting > Channel Settings

# **Manual Tuning**

(MENU/123) > MENU > Broadcasting > Channel Settings > Manual Tuning (Try Now)

Scans for a channel manually and stores in the TV.

If a channel is locked using the Channel Lock function, the PIN input window appears.

This function depends on the country and region.

### When Aerial Source is set to Terrestrial or Cable

• Digital Channel Tuning

Scans for a digital channel.

- 1. Select the New.
  - **When selecting Aerial** → Terrestrial: Channel, Frequency, Bandwidth
  - When selecting Aerial → Cable: Frequency, Modulation, Symbol Rate
  - Availability depends on the specific model and area.
- 2. Select the Search, When scanning has finished, a channel is updated in the channel list,

Analogue Channel Tuning

Scans for an analogue channel.

- 1. Select the New.
- 2. Set the Programme, Colour System, Sound System, Channel and Search.
- 3. Select the Store. When scanning has finished, a channel is updated in the channel list.

#### Channel mode

• P (programme mode)

When tuning is complete, the broadcasting stations in your area have been assigned to position numbers from P0 to P99. You can select a channel by entering the position number in this mode.

C (aerial channel mode) / S or Z (cable channel mode)

These two modes allow you to select a channel by entering the assigned number for each aerial broadcasting station or cable channel.

# Fine-Tuning the Screen

(MENU/123) > MENU > Broadcasting > Channel Settings > Fine Tune (Try Now)



Analogue pictures can become shaky and full of noise. If this happens, you can fine-tune the signal and/or reduce noise to clear up the picture.

- 1. Select Broadcasting > Fine Tune. An adjustment bar appears on the screen.
- Make adjustments using the Samsung Smart Control until the picture clears up and then select Save or Close, Select Reset to reset the Fine-Tune operation.

# Reading digital text

(MENU/123) > MENU > Broadcasting > Channel Settings > Digital Text

You can use this function when you watch a broadcast that includes both text and multimedia content,

- The Digital Text function may not be supported depending on the region.
- If the programme broadcasts with digital text, this feature is enabled. MHEG (Multimedia and Hypermedia Information Coding Experts Group): An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), teleeducation, tele-conferencing, digital libraries and network games.

# Changing the Picture Mode and Adjusting the Picture Quality

# Choosing the Right Picture Mode for the Viewing Environment

(MENU/123) > MENU > Picture > Picture Mode (Try Now)

The following picture modes utilize different contrast and brightness settings to provide the best viewing experience for the environment.

- When connected to a PC via an HDMI / HDMI-DVI cable, only the **Standard** and **Entertain** modes can be chosen.
- Picture Mode will be unavailable in Sports Mode.

#### Dynamic

If the ambient lighting is too bright and makes the screen blurry, use this mode to make the picture clearer,

#### Standard

This is the default mode suitable for most environments.

#### Natural

This mode is useful for reducing eye strain.

#### Movie

Appropriate for darkened rooms, for watching movies, and when experiencing eye fatigue. Darkens the screen and reduces glare.

#### Entertain

Sharpens images for a more dynamic viewing experience.

This mode is only available when connected to a computer via an HDMI / HDMI-DVI cable.

#### Stadium

When you turn Sports Mode (MENU > System > Sports Mode) to On, Picture Mode is set to Stadium automatically to configure the picture settings suitable to sports events.

# Adjusting the Picture Quality for Each Picture Mode

(MENU/123) > MENU > Picture > Backlight, Contrast, Brightness, Sharpness, Colour or Tint (G/R)

Select one of the settings to display its slide bar. Change the adjustment value using  $\langle , \rangle$ . Change the item using  $\langle , \rangle$ . Adjusted values are applied to the current source and picture mode.

The Colour and Tint (G/R) settings cannot be adjusted when the TV is connected to a computer via an HDMI / HDMI-DVI cable.

Choose a Picture Mode and then adjust the settings.

Backlight (Try Now)

Adjusts the brightness of individual pixels. Decreasing the brightness reduces power consumption.

Contrast (Try Now)

Adjusts the screen contrast.

Brightness (Try Now)

Adjusts the overall brightness,

Sharpness (Try Now)

Sharpens or dulls the edges of objects.

Colour (Try Now)

Adjusts the overall colour saturation.

• Tint (G/R) (Try Now

Adjusts the ratio of green to red. Increase the green value to saturate the greens and the red value to saturate the reds.

- Adjusted values are saved by the TV for the current source and picture mode, and remain in effect each time the source and picture mode are selected. Consequently, the TV can have different picture settings for each external source.
- The Colour and Tint (G/R) settings cannot be adjusted when the TV is connected to a computer via an HDMI-to-DVI cable.

### Applying the Current Picture Settings to Other Input Sources

#### (MENU/123) > MENU > Picture > Apply Picture Mode (Try Now)

You can apply the picture quality setting that you configured for the TV to all external devices connected to the TV or to the current source only.

To apply the setting to all external devices connected to the TV, select **All Sources**. To apply the setting to the current input only, select **Current Source**.

# Fine-Tuning Each Picture Mode (Advanced Settings)

(MENU/123) > MENU > Picture > Advanced Settings (ry Now

Select Picture > Advanced Settings to fine-tune how images are displayed on the TV screen for each Picture Mode.

- Advanced Settings is only available when the Picture Mode is set to Standard or Movie.
- When the TV is connected to a computer via an HDMI-DVI cable, only White Balance and Gamma can be adjusted.

Choose a Picture Mode and then adjust the settings.

Dynamic Contrast (Try Now)

Automatically adjusts the screen contrast. Use this option to achieve the optimal contrast setting.

Black Tone (Try Now)

Adjusts the black colour depth.

Flesh Tone (Try Now)

Darkens or lightens skin tones.

RGB Only Mode Try Now

Adjusts the red, green, and blue levels individually.

Colour Space (Try Now)

Adjusts the range of colours that can be displayed on screen. Auto automatically adjusts the colour space depending on the input signal. Native applies a range that is wider than the input signal. Custom allows you to adjust the colour space manually.

### • White Balance (Try Now)

Adjust the colour temperature of the picture to make white objects look white, and the overall picture appear natural.

**2 Point**: Adjust each of the 3 colour's luminosity with the offset menu and the brightness with the gain menu. To restore the default values, select **Reset**.

10 Point: Adjust the white balance by adjusting the brightness of each of the 10 sections of red, green, and blue colours of the input signal. To choose a section, select a desired section in Level field.

You can use the 10 Point function only when the Picture Mode is set to Movie. Some external devices may not support this.

### Gamma (Try Now)

Adjusts the primary colour intensity.

# Adjusting the Picture for Easier Viewing (Picture Options)

(MENU/123) > MENU > Picture > Picture Options (Try Now)

Select Picture > Picture Options to make additional adjustments for an easier viewing experience.

When the TV is connected to a computer via an HDMI-DVI cable, only Colour Tone can be adjusted.

Choose a Picture Mode and then adjust the settings.

Colour Tone (Try Now)

Adjusts the colour tone. The setting is applied on an individual **Picture Mode** basis. When a **Picture Mode** is changed, the corresponding setting will be applied automatically.

- If the Picture Mode is set to Dynamic, you will only be able to choose Cool or Standard.
- Digital Clean View (Try Now)

Reduces static and ghosting caused by a weak signal. Selecting **Auto Visualisation** displays the signal strength at the bottom the screen. Green indicates the best possible signal.

- Auto Visualisation available for analogue channels only.
- MPEG Noise Filter (Try Now)

Reduces MPEG noise and improves video quality,

HDMI Black Level (Try Now)

Some external devices connected to the TV via an HDMI cable can have issues, such as low black level, low contrast, and dull colours. Use HDMI Black Level to adjust the black level to compensate.

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

#### HDMI UHD Color (Try Now)

Allows you to set the HDMI UHD Color mode to On or Off for each HDMI connector on the TV. When set to On, the TV optimises processing of UHD 50P/60P signals.

To configure the HDMI UHD Color mode for each HDMI connector, turn off the power of the external devices and disconnect the HDMI cables connected to the TV. Then, select this function, and then follow the on-screen instructions.

- Make sure that the HDMI cable is not connected to the TV. The **HDMI UHD Color** settings will be completed only if the HDMI cable is not connected to the HDMI connector.
- After setting the HDMI connector to **On**, it takes some time to complete the conversion,
- If the HDMI connector with **HDMI UHD Color** enabled is connected to a device that does not support UHD content, the device may not operate properly. If this is the case, set **HDMI UHD Color** for the HDMI connector to **Off**.
- Each HDMI connector can be individually optimised for **HDMI UHD Color**. However, **HDMI UHD Color** is available only with a video source featuring the UHD 50P/60P 4:4:4 and 4:2:2 specifications.
- The HDMI connector with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0, while the HDMI connector with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2.
- Before setting up this mode, you need to unplug the HDMI cable from TV.

### Film Mode (Try Now)

Optimises the picture quality for movies. Select this mode for watching movies.

This feature is only available when watching TV or when the input signal is AV, Component (480i, 1080i), or HDMI (1080i).

### Auto Motion Plus (Try Now)

Availability depends on the specific model and area,

Removes blurring and judder from scenes with rapid movement. If you select **Custom**, you can configure **Blur Reduction** and **Judder Reduction** manually and set **LED Clear Motion** on for a sharper LED image.

- The Info screen on your TV displays the resolution and frequency of the incoming signal (60Hz), but not the frequency the TV is generating for the image it is displaying by using **Auto Motion Plus** function.
- If noise occurs on the screen, please set up the Auto Motion Plus to Off. If Auto Motion Plus is Custom, you can set up the Blur Reduction, Judder Reduction, LED Clear Motion and Reset manually.

Blur Reduction: Adjusts the blur reduction level from video sources,

Judder Reduction: Adjusts the judder reduction level from video sources when playing films.

**LED Clear Motion:** Removes drag from fast scenes with a lot of movement to provide a clear picture.

- If LED Clear Motion is On at 60Hz video signal, the screen may flicker,
- When LED Clear Motion is On, the screen appears darker than when it is Off.

Reset: Reset the custom settings to the factory defaults.

- If you have **Auto Motion Plus** on, and then bring up the INFO screen, the INFO screen displays the resolution and frequency of the incoming video signal (60Hz). This frequency is not the same as the frequency of the picture the TV is displaying when **Auto Motion Plus** is on.
- Analogue Clean View: Reduce the diagonal noise in the picture, caused by the crosstalk of signals.

#### Smart LED

This controls the brightness of individual areas on screen to maximum contrast automatically.

This function is not supported depending on the region or model.

# Viewing in 3D

### (MENU/123) > MENU > Picture > 3D (Try Now)

The 3D option lets you view 3D media content and broadcasts. You will need to wear Samsung 3D Active Glasses to play 3D content. IR-type Samsung 3D Active Glasses and third-party 3D glasses are not supported.

- E-manual cannot be used when TV is set in 3D mode.
- Carefully read the health and safety information concerning 3D viewing before viewing 3D content. Refer to the "3D Precautions" section for more information.
- Whether 3D video is displayed in true HD is usually determined by the quality of the content.

# Starting 3D

- 1. Play 3D content or turn on a channel that's showing a 3D broadcast.
- 2. Put the Samsung 3D glasses on and then select 3D, 3D viewing is enabled.

The ideal viewing distance is three times the height of the screen or more. 3D images may not appear if you do not adhere to the recommended viewing angle or distance.

The 3D feature may not work properly if there is another 3D product or an electronic device running nearby. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.

The left and right 3D images may initially overlap when the TV is turned on. It takes a moment for the display to optimise for the overlapping to go away.

There are several restrictions when using 3D TV:

- Launching Smart Hub automatically disables 3D mode.
- PIP cannot be used.
- Certain Picture options are disabled.

# Changing the 3D Mode

(MENU/123) > MENU > Picture > 3D > 3D Mode Try Now

- 1. Launch 3D and then select 3D Mode under Picture > 3D.
- Choose from the 3D modes that appear on the screen. Supported 3D Mode may vary depending on the 3D content.
  - **3D Mode** is automatically configured for most 3D content.

The following **3D Mode** is available. However, mode availability may vary depending on the **3D** content's format.

- The supported resolutions vary for each mode, Refer to the "Supported Resolutions for each 3D Mode" section for more information,
  - Off (Off)

Deactivates 3D viewing.

• (2D → 3D)

Converts normal images to 3D images.

Some formats do not support this mode.

# Adjusting the 3D Effect

(MENU/123) > MENU > Picture > 3D

Configure the viewpoint, depth, and other 3D settings for a custom viewing experience.

Adjusting the 3D perspective

Select Picture > 3D > 3D Perspective. Use the adjustment bar shown on the screen to adjust the perspective. Try Now

· Adjusting the 3D Depth

Select Picture > 3D > 3D Depth. Use the adjustment bar shown on the screen to adjust the depth,

This option cannot be used if 3D mode is set to (L/R) or (T/B).

• Reversing the Left/Right 3D Images

Select Picture > 3D > L/R Change. This option is used to reverse the left and right images. (IV)

Displaying 3D Content in 2D

Select Picture > 3D > 3D → 2D. This option is used to enable 2D viewing of 3D content. Try Now

This function is not available if 3D mode is set to (Normal) or (Off).

Automatically Turning on 3D if 3D Content is Detected

Select Picture > 3D > 3D Auto View. Use 3D Auto View to set the TV to automatically activate 3D mode when 3D content or a 3D broadcast is detected. If 3D Auto View is set to Auto1/Auto2, a window confirming 3D activation will be displayed. 3D is activated once confirmed. Try Now

3D is not displayed while certain applications are running. To watch the TV in 3D mode, exit the application.

Optimise overall 3D picture clarity

Select Picture > 3D > 3D Optimization. This option is used to optimise overall 3D picture clarity.

Try Now

# **Picture Support Functions**

# **Changing the Picture Size and Position**

### **Choosing the Right Screen Size**

### (MENU/123) > MENU > Picture > Picture Size > Picture Size (Try Now)

You can change the size of pictures displayed on the TV screen.

- Supported screen sizes vary depending on the input signal. Refer to the "Picture Sizes and Input Signals" section for more information about supported screen sizes.
- The Picture Size option is not available for images in the UHD resolution because the supported screen size is fixed.
  - 16:9

Set the picture to the 16:9 wide-screen format.

#### Zoom

Magnifies the 16:9 wide pictures vertically to fit the screen size. A magnified picture can be moved up and down.

#### Custom

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

### 4:3

Sets the picture to basic 4:3 mode.

⚠ Do not leave the TV in 4:3 mode for an extended period. The dark borders displayed on the left and right / top and bottom of the screen may cause image retention. This phenomenon can appear on LED TV. This is not covered by the warranty.

### Changing the picture size automatically

#### (MENU/123) > MENU > Picture > Picture Size > Auto Wide

You can make the TV change the picture size automatically in accordance with the input signal.

Availability depends on the specific model and area.

### Changing the picture size in 4:3 or Screen Fit mode

#### (MENU/123) > MENU > Picture > Picture Size > 4:3 Screen Size

You can select a picture size suitable for your geographical area while you are watching TV in the 4:3 or Fit to screen mode. The supported screen sizes differ with the country and this function allows you to adjust the picture size in this case.

- The 4:3 mode is not available when an external device is connected to the TV via a Component connector or an HDMI connector,
- Availability depends on the specific model and area.

## Fitting to the picture size

#### (MENU/123) > MENU > Picture > Picture Size > Fit to screen

You can make the TV fit the full picture without any cutoff to the picture size set by you,

### Adjusting the Screen Position

### (MENU/123) > MENU > Picture > Picture Size > Zoom/Position or Position (Try Now)

Adjusts the screen position.

This option is only available with Picture Size set to Zoom, or Custom. When the TV is tuned to a digital channel, the screen position cannot be adjusted if the Picture Size is set to Fit to screen.

- The Picture Size option is not available for images in the UHD resolution be cause the supported screen size is fixed
- To adjust the screen's position, select Picture > Picture Size > Zoom/Position or Position. A
  pop-up window appears.
- 2. Select **Zoom** or **Position** again from the pop-up window,
- Adjust the screen. Once done, select Zoom or Position and then Close. Select Reset to reset the screen position.

# Listening to Audio Only with the Screen Turned Off (Picture Off)

(MENU/123) > MENU > Picture > Picture Off (Try Now)

Turns off the screen and plays audio through the speakers only. To turn the screen back on, press any button other than the TV and VOLUME buttons.

# Resetting the Picture Mode Settings

(MENU/123) > MENU > Picture > Reset Picture (Try Now)

Use this option to reset the current **Picture Mode** to its factory settings. This does not affect the settings of other Picture Modes,

# Changing the Sound Mode and Using Sound Effects

# Choosing the Right Sound Mode for the Environment

(MENU/123) > MENU > Sound > Sound Mode (Try Now)

Sound modes apply preset adjustments to the sound output, optimised for different viewing and listening circumstances.

Ine sou

The sound modes cannot be used when you are listening to audio through external speakers.

#### Standard

This is the normal sound mode.

#### Music

This mode emphasizes normal music instead of voice.

#### Movie

This mode is calibrated to provide the best sound for movies.

#### Clear Voice

This mode emphasizes voice.

#### Amplify

This mode increases the overall intensity of high-frequency sounds for a better listening experience. It is designed for hearing-impaired listeners.

#### Stadium

Setting Sports Mode (System > Sports Mode) to On automatically configures Sound Mode to Stadium for a more realistic viewing experience.

- Stadium cannot be selected by the user.
- This function is not available when you are listening to audio through external speakers.

# **Using Sound Effects**

(MENU/123) > MENU > Sound > Sound Effect (Try Now)

Use sound effects to alter how the TV projects sound.

#### Restrictions:

- Sound effects can only be used with the Sound Mode set to Standard.
- Sound effects cannot be used when you are listening to audio through external speakers.

Choose a Sound Effect and then adjust the settings.

Virtual Surround (Try Now)

Produces sound that will make you feel like you are sitting in a movie theatre or concert hall.

• Dialog Clarity (Try Now

Increases voice intensity to make dialog clearer,

Balance (Try Now)

Allows you to adjust the sound settings of the left and right speakers for a better sound balance. To restore the defaults, select **Reset**.

Equaliser (Try Now)

Lets you adjust the speaker balance and make bandwidth adjustments. Select **Reset** to reset the settings.

- This function is not available when you are listening to audio through external speakers,
- This function is only available when **Sound Mode** is set to **Standard**.

# **Customising Sound (Sound Customiser)**

(MENU/123) > MENU > Sound > Sound Customiser (Try Now)

**Sound Customiser** lets you calibrate the TV for optimal sound quality based on your hearing capabilities and the ambient conditions,

### **Customising Sound**

### (MENU/123) > MENU > Sound > Sound Customiser > Add Custom Sound (Try Now)

- Customise sound in a guiet environment to ensure accurate measurements.
- 1. Select Sound > Sound Customiser > Add Custom Sound.
- 2. Select Start to preview a test tone. Select Next.
- 3. A 6-step test will start. During each stage, select Yes when you can hear the test tone. If you want to listen to it again, select No. Once the test is complete, you can compare the original sound to the calibrated sound.
- 4. Select Next and enter a name for the calibrated sound profile. Once the settings have been saved, you will be able to play TV sound that has been optimised for the user's sense of hearing and the ambient environment.

### Using a Custom Sound Profile

(MENU/123) > MENU > Sound > Sound Customiser > Custom Sound Profile (Try Now (Try Now )) If there are multiple Custom Sounds, simply choose the one you want to use,

- 1. Select Sound > Sound Customiser > Custom Sound Profile.
- Select a Custom Sound Profile from the list.

### **Renaming and Deleting Custom Sound Profiles**

(MENU/123) > MENU > Sound > Sound Customiser > Manage Custom Sound (Try Now)

Rename or delete custom sound profiles.

- Custom Sound Profile must contain a Custom Sound Profile.
- 1. Select Sound > Sound Customiser > Custom Sound Profile.
- 2. Choose a Custom Sound Profile you want to rename or delete.
- Select Sound > Sound Customiser > Manage Custom Sound. This brings up the Manage Custom Sound window,
- 4. Select a Custom Sound Profile you want to rename or delete and then select Rename or Delete. Selecting Rename brings up the on-screen keyboard. Use the keyboard to change the name. Delete the selected Custom Sound Profile.

### Modifying a Custom Sound

(MENU/123) > MENU > Sound > Sound Customiser > Edit Custom Sound (Try Now)

Modify the sound settings of a Custom Sound profile.

- Select Sound > Sound Customiser > Edit Custom Sound and then select the Custom Sound you
  want to edit from the pop-up window.
- 2. Select Preview to listen to the preview test tone, and then select Next. Select Next.
- A 6-step test will start. During each stage, select Yes when you can hear the test tone. If you
  want to listen to it again, select No. Once the test is complete, you can compare the original
  sound to the calibrated sound.
- 4. Select Next and enter a name for the calibrated sound profile. Once the settings have been saved, you will be able to enjoy TV sound that has been optimised for the your sense of hearing and the ambient environment.

# **Sound Support Functions**

# **Selecting Speakers**

(MENU/123) > MENU > Sound > Speaker Settings > Speaker Select (Try Now)

This lets you choose which speakers the TV uses for audio output. To listen to the audio through the speakers of a connected receiver or home theatre only, select Receiver or Audio Out, To listen to audio through the TV's speakers and the speakers of a connected AV receiver or home theatre simultaneously, select TV Speaker. If this causes an echo effect, choose any speaker option other than TV Speaker to mute the TV speakers, or turn off the receiver or home theatre.

Using external speakers alone disables the volume button and the mute function. In addition, certain Sound options will also be disabled.

# Designating the TV's Installation Type

(MENU/123) > MENU > Sound > Speaker Settings > TV Installation Type

Specify the TV's installation type. Choose between Wall Mount and Stand to optimise the TV's sound automatically,

# Listening to TV Sound through Samsung Bluetooth Audio

(MENU/123) > MENU > Sound > Speaker Settings > TV Speaker / TV SoundConnect / Bluetooth headphone List

Connect the TV to a Samsung audio device for a richer, clearer sound.

This option is only available for Samsung audio devices that support SoundShare.

Pair the Samsung audio device using the TV's Bluetooth function, Refer to the Samsung audio device's operating manual for more information on pairing.

#### Add New Device

Enables/disables SoundShare. The connection signals from new devices are ignored if Add New Device is set to Off.

- This function is only available for Samsung audio devices that support TV SoundConnect,
- TV SoundConnect, Surround, and Bluetooth Headphones can't be used simultaneously.

### Samsung Audio Device List

Displays a list of paired Samsung audio devices, Select a device to display its menu options, You can activate/deactivate the audio device or remove it from the list.

#### Bluetooth headphone List

Sound > Speaker Settings > Bluetooth headphone List

Listen to the audio through bluetooth headphones.

#### Multi-output Audio

(MENU/123) > MENU > Sound > Speaker Settings > Multi-output Audio

Allows you to listen to audio through the TV's speakers and the connected headphones simultaneously,

# Setting up Multiroom Speakers

### (MENU/123) > MENU > Sound > Speaker Settings > Multiroom Link Settings

#### Multiroom Link Settings

Set up speakers that are connected via your home network.

The Multiroom Link function is not available on all model.

#### Settings

Sets the Samsung Multiroom Link compatible speaker(s) to one of the following options.

#### Surround

Select this option when you want to enjoy a surround system using multiple Samsung Multiroom Link compatible speakers in a single space or room.

#### SoundBar+Surround

Select this option when you want to enjoy a surround sound system by connecting a soundbar and two speakers to the TV in one space or room.

#### Volume Level

Adjusts the volume of the speakers selected in the list,

#### Speaker Test

Sends a test sound to each speaker to make sure that your Multiroom Link system works properly.

#### Edit Name

Allows you to give a name to each speaker,

- The Multiroom Link function is only available when at least one Samsung Multiroom Link compatible speaker is connected to the TV.
- The Multiroom Link function is deactivated when you activate Screen Mirroring.
- The networked speakers may disconnect on their own, depending on your network environment.
- The sound quality may be affected by the condition of your wireless network.
- Audio and video may become out of sync depending on your TV model.
- The audio from the secondary device(s) may lag behind the audio and video of the main device which is playing the source content.
- You can hear the selected audio while the Multi-Link Screen is playing.
- For more information, refer to the Multiroom Link manual on the Samsung web site. (www.samsung.com > SUPPORT > Firmware Manuals & Downloads)

# **Enabling the Sound (Additional Settings)**

(MENU/123) > MENU > Sound > Additional Settings (Try Now)

Configure additional settings for optimum audio output,

### DTV Audio Level (Try Now)

(Digital channels only)

The TV cannot freely control the volume of the digital audio that it sends to the AV receiver. Use this to set the digital audio volume at a comfortable level.

- According to the type of broadcast signal, MPEG / HE-AAC can be adjusted between -10dB and 0dB.
- To increase or decrease the volume, adjust between the range 0 and -10 respectively,

#### HDMI Audio Format

Set the preferred HDMI Audio Input Format.

#### Audio Format, Audio Delay

This Smart TV is SPDIF-enabled. The Sony Philips Digital Interface (SPDIF) provides digital audio output to speakers and various digital devices, including A/V Receivers and home theatres.

### **Audio Format (Try Now**

Selects the Digital Audio output (SPDIF) format. The available Digital Audio output (SPDIF) formats may vary depending on the input source.

### Audio Delay (Try Now

This setting helps correct timing mismatches between the audio and video tracks when you are watching TV and listening to audio through a digital audio device. Enabling the feature displays a slide bar that you can use to adjust the delay by up to 250ms.

#### Dolby Digital Comp (Try Now)

Some digital TV programmes provide 5.1-channel Dolby audio. This TV converts Dolby audio to stereo audio so that it can play the sound through the TV's speakers. There are two methods to choose from. RF is for better sound at lower volumes, and Line is for higher volumes.

#### HD Audio

Listen to the audio from the TV in HD quality.

- Standard audio signals are sampled at 48 kHz while HD audio signals are sampled at 96 kHz.
- Some S/PDIF receivers may not be compatible. For such incompatible receivers, deactivate **HD Audio** and use normal audio mode instead.
- The HD audio signals available on the TV are not available on external audio players connected via HDMI, Bluetooth, or Wi-Fi networks.

#### Auto Volume (Try Now)

When you change channels, video sources, or content, **Auto Volume** automatically adjusts the TV's volume level so that the volume level remains the same for all sources. For example, if you switch from a streaming video application to a Blu-ray player or a favourite TV channel, **Auto Volume** can modify the volume up to 12db to equalise the sound.

The Auto Volume function has two settings: Normal and Night. Normal applies a normal level of volume adjustment. Night applies a slightly lower volume level and is ideal for late-night TV viewing. If you want to use the volume control of a connected source device to control the sound, deactivate the Auto Volume function. When you use the Auto Volume function with a source device, the device's volume control may not function properly.

# Setting the Time and Using the Timer

# **Setting the Current Time**

(MENU/123) > MENU > System > Time > Clock (Try Now)

Set the clock manually or automatically. Once the clock has been set, you can select the INFO button on virtual remote control to check the current time.

The clock must be reset every time the power is disconnected.

### Setting the Clock using Digital Broadcast Info

### (MENU/123) > MENU > System > Time > Clock > Clock Mode (Try Now)

Set Clock Mode to Auto. The TV automatically downloads the correct time from a digital channel. To enable this option, the TV's Antenna jack must be connected to either an antenna or a cable output and must be receiving digital broadcasts. The accuracy of the time information received may vary depending on the channel and signal. If your TV is connected to a set-top-box using HDMI or Component connections, you must set the time manually.

### If the Clock is Wrong in Auto Mode

#### (MENU/123) > MENU > System > Time > Clock > Time Offset (Try Now

If the time set automatically is incorrect, you can offset the clock in 1-hour increments by as much as -/+ 12 hours. Select System > Time > Clock > Time Offset and offset the clock to the correct time.

- Time Offset adjusts the time through network connections and is only available if the Clock is set to Auto and the TV is connected to the Internet though a local area network.
- Time Offset will adjust the time if the TV fails to receive time information through normal digital broadcast signals.

### **Setting the Clock Manually**

#### (MENU/123) MENU > System > Time > Clock > Clock Set (Try Now)

Manually enter the time. Set Clock Mode to Manual and then select Clock Set to enter the current time and date.

Clock Set: Set the current Date and Time.

# **Using the Timers**

### Using the Sleep Timer

### (MENU/123) > MENU > System > Time > Sleep Timer (Try Now)

This automatically shuts off the TV after a preconfigured period of time. Select System > Time > Sleep Timer. You can set the timer up to 180 minutes in 30-minute increments.

### Turning On the TV using On Timer

### (MENU/123) > MENU > System > Time > On Timer (Try Now)

Set the On Timer so that the TV turns on automatically at a chosen time. Select System > Time > On Timer. The timer configuration window appears. Configure the following settings:

The On Timer is only available if the Clock has been set,

#### Setup

Specify the dates and the duration. Use Manual to specify the days of the week.

#### Time

Set the time that the TV turns on automatically.

#### Volume

Specify the volume when the TV turns on.

#### Source

Select the signal source from the list. Specify the channel or source to be displayed when the TV turns on. To specify a USB device, a USB device must first be connected to the TV. To play media from an HDMI or Component source such as a DVD player or Blu-ray player, the device must already be turned on, and playing the media when the TV is turned on.

#### Aerial

Set the **Source** to **TV** to select a broadcast signal.

#### Channel

Set the **Source** to **TV** to select a channel.

#### Music / Photo

Set the **Source** to **USB** to choose a USB folder that contains music or photo files. Selecting both music and image files plays the music files and displays the images at the same time.

#### Restrictions:

- If the folder that you choose has sub-folders, you can select a sub-folder in the same fashion.
- This feature will not function properly if the selected USB device does not contain media files or a folder has not been specified.
- The slideshow will not start if there is only one image file on the USB device.
- Folders with long names cannot be selected.
- Always use different folder names for multiple USB devices.
- Use a USB memory stick or multi-card reader. The On Timer may not work with certain battery-powered USB devices, MP3 players, or PMPs because the TV may take too long to recognise the device.

### Turning Off the TV Using Off Timer

### (MENU/123) > MENU > System > Time > Off Timer (Try Now)

Set the **Off Timer** to turn the TV off automatically at a specific time. Select **System > Time > Off Timer**. The timer configuration window appears. Configure the following settings:

The Off Timer is only available if the Clock has been set,

#### Setup

Specify the dates and the duration. Use Manual to specify the days of the week.

### Time

Set the time that the TV turns off automatically.

# Using the Screen Burn Protection and Energy Saving Features

# **Preventing Screen Burn**

(MENU/123) > MENU > System > Auto Protection Time (ry Now)

Still images can leave burned-in after-images on the screen if left for a long time. Use Screen Burn Protection to protect the screen. Select System > Auto Protection Time and then choose a time setting from the list. If a still image is shown on the screen for longer than the time you selected, the TV will automatically activate Screen Burn Protection to prevent burned-in after- images that may damage the screen.

# **Using Energy Saving Features**

(MENU/123) > MENU > System > Eco Solution (Try Now)

Eco Solution adjusts the TV's brightness level and prevents overheating to reduce overall power consumption.

Energy Saving (Try Now)

Select a brightness setting from the list to reduce the TV's power consumption.

Eco Sensor Try Now

Automatically adjusts the TV's brightness level based on the ambient light level to reduce the TV's power consumption. If the Eco Sensor has adjusted the screen's brightness level, you can manually adjust the screen's minimum brightness level by adjusting the Min. Backlight. Changing the Picture menu's Backlight setting while Eco Sensor is running automatically disables Eco Sensor.

- When the Eco Sensor is set to On, the screen is darker than usual.
- No Signal Power Off Try Now

Select a time from the list. If no signal is received for the specified duration, the TV automatically cuts off the power to reduce power consumption.

Auto Power Off Try Now

If the TV remains turned on for four hours without any user input, the TV will automatically turn off to prevent overheating.

Motion Lighting (Try Now)

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

- This function is only available when Picture Mode is set to Standard,
- This function is not available when the TV is in the 3D mode.

# Using Anynet+ (HDMI-CEC)

Use Anynet+ (HDMI-CEC) to control all external devices that support HDMI-CEC using just the TV's remote control. Note that Anynet+ (HDMI-CEC) only works with the TV's remote control and not with the panel keys.

You can configure the TV's universal remote function to control third-party cable boxes, Blu-ray players, and home theatres that do not support HDMI-CEC using the TV's remote control.

For more information, refer to "Controlling External Devices with the TV Remote (Universal Remote Setup)".

#### **Anynet+ Requirements:**

- Anynet+ cannot be used to control external devices that do not support HDMI-CEC.
- Anynet+ devices must be connected to the TV using an HDMI cable. Some HDMI cables may not support Anynet+ (HDMI-CEC). In this case, you will need to replace the HDMI cable.
- The TV remote control may not function under certain circumstances. If this occurs select the Anynet+ device again.
- Anynet+ (HDMI-CEC) only works 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 compatible external devices (up to 3 of the same type). With home theatre systems, however, the number of systems that can be controlled is limited to one.
- To listen to 5.1-channel audio from an external device, connect the device to the TV via an HDMI cable and the device's digital audio output connector directly to the home theatre system.
- A home theatre system that has been connected to the TV using an HDMI cable and an optical cable supports 2-channel audio only, 5.1-channel audio is, however, available for digital broadcasts with 5.1-channel audio.

# Setting Up Anynet+ (HDMI-CEC)

(MENU/123) > MENU > System > Anynet+ (HDMI-CEC) (Try Now

Anynet+ (HDMI-CEC) (Try Now)

Enables/disables Anynet+ (HDMI-CEC). Set to Off to disable all Anynet+ related features. Set to On to enable all Anynet+ (HDMI-CEC) related features.

Auto Turn Off (Try Now)

When set to Yes, turns off Anynet+ (HDMI-CEC) compatible external devices when the TV is turned off,

Some Anynet+ (HDMI-CEC) compatible devices do not support this feature.

Search for Devices (Try Now)

Search for Anynet+ (HDMI-CEC) compatible devices.

# Using Anynet+ (HDMI-CEC)

### Selecting an External Device

- Connect the device to the TV, and then press the SOURCE button to display the Source screen.
   Press the MENU/123 button on the Samsung Smart Control, then select SOURCE on the On-Screen Remote.
- Select Anynet+ (HDMI-CEC) from the list, The Select Device screen appears.
- 3. Select a device and wait for the switch to take place. This process may take up to 2 minutes to complete and cannot be cancelled once started.

### Accessing the External Device's Menu

Once the TV has switched over to the selected device, you can access the device's menu using the TV's remote control.

Press the MENU/123 button on the Samsung Smart Control, then select SOURCE on the On-Screen Remote. On the Source screen, select the device, and then press and hold the Enter button. Select Anynet+ (HDMI-CEC) from the list.

The following list appears, though it may differ based on the external device:

Anynet+ (HDMI-CEC)

Displays a list of HDMI-CEC-compliant devices connected to the TV. Select View TV to exit Anynet+ (HDMI-CEC), and start watching TV. To switch to the screen of an external device, simply select that respective device.

• (Connected Device) Menu

Display the menu of the connected device. If the target device is a DVD player, the DVD menu is shown.

(Connected Device) Tools

Displays a list of frequently-used functions available for the device. If the target device is a DVD player, the DVD playback menu is shown.

- Some external devices may not support this option.
- (Connected Device) Title Menu

Display the connected device's title menu. If the target device is a DVD player, the DVD title menu is shown.

Some external devices may not support this option.

# Using the e-Manual

# Launching the e-Manual

### (MENU/123) > MENU > Support > e-Manual

The embedded e-manual contains information.

- You can also download a copy of the e-manual from Samsung's website, and read it on your computer or print it out.
- Yellow words indicate a menu item; white bold words indicate remote control buttons. Arrows are used to indicate the menu path. (Example: Picture > Picture Mode)
- 1. Select e-Manual, The e-Manual loads,
- 2. Select a category from the side of the screen. Once a selection has been made, the contents of the selected category appear.
- 3. Select an item from the list, This opens the e-manual on the corresponding page,

### If a description doesn't fit on a single screen

You can scroll pages in one of the following ways.

- Position the focus on the // / buttons showing on the screen.
- Press the ∧, ∨ buttons on Samsung Smart Control to use the scrolling function.

### Additional e-Manual Features

### Loading Pages using Keywords

Select **Search** from the side of the screen to bring up the search screen. Enter a search term and then select **Done**. Select an item from the search results to load the corresponding page.

#### Loading Pages from the Index Page

Select Index from the side of the screen to bring up the index screen. Select a keyword from the list to navigate to the relevant page.

#### Using History to Load Previously Read Pages

Select Recent pages from the side of the screen. A list of previously read pages is shown. Select a page. The e-Manual jumps to the selected page.

#### Accessing the Menu from the e-Manual (Try Now)

Select (Try Now) on a feature-description to directly move to the corresponding menu and try out the feature.

If you want to read an e-Manual entry on a specific screen menu feature, press the MENU/123 button and select e-Manual using Samsung Smart Control.

Certain menu options cannot be used.

#### **Loading Reference Pages**

Select (Link) from the side of a feature-description page to access the corresponding reference page.

## Updating the e-Manual to the Latest Version

You can update the e-Manual in the same way as updating apps.

- 1. Press \$\rightarrow\$, then tap on the Touchpad or Enter button, to load the SAMSUNG APPS screen.
- 2. Press and hold the Touchpad/Enter button. The Options menu appears.
- 3. From the Options menu on the screen, select **Update Apps**. A pop-up window appears. You can update the e-Manual to the latest version.
  - Update Apps is shown on the screen only when an update is required.
- 4. Select e-Manual in the pop-up window and then select Update. You can update the e-Manual to the latest version.

## **Updating the Software**

(MENU/123) > MENU > Support > Software Update (ry Now)

Check your TV's software version and upgrade it if necessary.

If the TV is connected to the Internet, TV is set to update software automatically. If you don't want to update it automatically, set Auto update (Software Update > Auto update) to Off.

## **Updating Software over the Internet**

(MENU/123) > MENU > Support > Software Update > Update now (ry Now)

Select Support > Software Update > Update now. An online upgrade downloads and installs the upgrade software directly from the Internet,

- This option requires an Internet connection.
- ▲ DO NOT turn off the TV's power until the upgrade is complete. The TV will turn off and on
  automatically after completing the software upgrade. All video and audio settings return to the
  default settings after a software upgrade.

#### Updating Software using a USB connection

(MENU/123) > MENU > Support > Software Update > Update now

- 1. Visit Samsung's website on a computer and download the update package to a USB device.
  - Save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.
- Connect the USB device with the update package to the TV.
- Select Support > Software Update > Update now. The software is updated using the update package on the USB device.
- ▲ DO NOT turn off the TV's power until the upgrade is complete. The TV will turn off and on
  automatically after completing the software upgrade. All video and audio settings return to the
  default settings after a software upgrade.

## **Enabling Automatic Software Updates**

#### (MENU/123) > MENU > Support > Software Update > Auto Update

If the TV is connected to the Internet, the **Auto Update** option upgrades the TV's software while it is in Standby Mode. In Standby Mode, the TV appears to be turned off, but still has access to the Internet. This allows the TV to upgrade itself automatically while it is not in use.

- This option requires an Internet connection.
- This function may take a longer time if a different networking function is running concurrently,

Because the TV's internal processes are operating, the screen may emit a faint glow, and this may continue for more than 1 hour until the software download is complete.

If you agree to the Smart Hub terms and conditions, Auto Update will be set to On, If you don't want the TV's software updated automatically, set Auto Update (Support > Software Update > Auto Update) to Off.

- 1. Select Support > Software Update > Auto Update.
- 2. Specify when you want the upgrade to take place. The TV will connect to the server at the specified time, download the update package, and upgrade its own software.

## Protecting the TV from Hacking and malicious code

(MENU/123) > MENU > System > Smart Security (Try Now)

When the TV is connected to the Internet, it is vulnerable to hacks and malicious code. **Smart Security** protects the TV and storage media connected to the TV from such threats.

## Checking the TV and Connected Storage Media

(MENU/123) > MENU > System > Smart Security > Scan (Try Now)

Navigate to (MENU/123) > MENU > System > Smart Security and select Scan. This scans the TV and connected media for the presence of malicious code. If no malicious code is detected, a notification window appears on the screen.

#### If malicious code is detected

If malicious code was found, the results of the scan will appear on the screen. This result window displays all malicious code found, and provides options to either quarantine the code or allow them to continue.

- 1. Select all malicious code to quarantine or allow.
- Select Isolate or Block. This moves the selected malicious code to the Isolated List or Blocked List.
  - The Isolated List displays all guarantined malicious codes. You can try to cure the codes.
  - The Blocked List displays all blocked malicious code. You can also quarantine or allow codes from this list

#### Configuring additional functions in Smart Security Settings

(MENU/123) > MENU > System > Smart Security > Settings (Try Now)

Antivirus

Monitors the TV in real-time to prevent virus from infecting the TV.

Network Security

Protects the TV from hacking to minimize a leak of private information.

Camera

Turn the TV camera on or off.

Microphone

Turn the TV microphone on or off.

Auto Scan

Makes the TV automatically scan itself and connected storage media when it is turned on.

Auto Isolate

Adds malicious codes found during the scanning process to the Isolated List automatically,

## **Using Other Functions**

Running the accessibility functions quickly.

You can use the Accessibility Shortcuts menu to quickly run the accessibility functions for the impaired. Press and hold the  $\checkmark$  button on the Samsung Smart Control, the pop window will show up. Even if Voice Guide is set to Off or the Mute mode is activated, you can run the Voice Guide function from the Accessibility Shortcuts menu.

## **Enabling Voice Guide for the Visually Impaired**

This service or some of functions of it may be not available in some countries or region.

#### (MENU/123) > MENU > System > Accessibility > Voice Guide (Try Now)

Voice Guide provides guiding information in voice to aid the visually impaired to use the TV more conveniently. Enabling this option provides voice guide regarding focus change, channel change, volume change, and various other TV statues.

Navigate to (MENU/123) > MENU > System > Accessibility > Voice Guide and set Voice Guide to On.

- The Voice Guide is only provided in the language set in the Menu Language (System > Menu Language). However, some of the languages are not supported by Voice Guide even though they are listed in the Voice Guide screen. If this is the case, choose a different language.
- To change the speaker's gender for the Voice Guide option, navigate to (MENU/123) > MENU > System > Voice Recognition > Use TV Voice and change the Voice Gender option.

The Voice Guide will give information for the following functions on the TV.

- Some sub-functions or function menus may not provide Voice Guide. In this case, the TV will tell you that Voice Guide is not provided.
  - Change Channels
  - Changing TV Volume
  - Programme Info Window (Information)
  - Channel List
  - Source
  - Guide
  - Voice Recognition
  - TV' menu

#### Changing the Volume, Speed and Pitch of Voice Guide

Navigate to (MENU/123) > MENU > System > Accessibility and then select Voice Guide. Using the following functions, you can configure the Voice Guide feature's volume, speed, and level settings.

Volume

Change the Voice Guide option's volume level.

The Voice Guide volume may vary depending on the TV volume setting.

Pitch

Adjust the pitch of Voice Guide,

Speed

Change the Voice Guide option's tempo.

#### **Enabling the High Contrast**

(MENU/123) > MENU > System > Accessibility > High Contrast (Try Now)

Navigate to (MENU/123) > MENU > System > Accessibility and set the High Contrast option to On. This option changes major service screens to white text on black background or change the transparent TV menus to opaque so that text can be more easily read.

Press and hold the MUTE button on the Samsung Smart Control to turn on or off High Contrast,

## Adjusting the Menu Transparency

(MENU/123) > MENU > System > Accessibility > Menu Transparency (Try Now)

Navigate to (MENU/123) > MENU > System > Accessibility and adjust the opacity level. Adjust the menu's transparency.

When the High Contrast (System > Accessibility > High Contrast) setting is set to On, menu display is automatically set to opaque and you cannot change the Menu Transparency settings.

## **Expanding the Highlighted Item**

(MENU/123) > MENU > System > Accessibility > Enlarge (Try Now)

Navigate to (MENU/123) > MENU > System > Accessibility and set Enlarge to On. Set whether or not to enlarge the highlighted item.

## Learning about the remote control (for the visually impaired)

(MENU/123) > MENU > System > Accessibility > Learn About your Remote Control (Try Now)

This function helps individuals with a visual impairment to learn the positions of the buttons on the remote control. When this function is activated, press a button on the remote control and the TV tells you its name. To exit Learn About your Remote Control, press the RETURN button twice.

This function is only available on certain models in specific geographical areas.

#### Using Multi-output Audio

(MENU/123) > MENU > System > Accessibility > Multi-output Audio (ry Now

TV sound will be played simultaneously through the TV's internal speakers and connected Bluetooth headphones.

# Listening to the TV through Bluetooth headphones (for the audibly impaired)

(MENU/123) > MENU > Sound > Speaker Settings > Bluetooth Headphones

You can turn on both of the TV speaker and Bluetooth headphones at the same time. The audibly impaired can adjust the TV volume to control audio from the Bluetooth headphones.

## Changing the Menu Language

(MENU/123) > MENU > System > Menu Language (Try Now)

Select System > Menu Language and then choose a language from the list. Use this option to change the menu language.

## Setting Up a Password

(MENU/123) > MENU > System > Change PIN (Try Now)

Set a PIN (Personal Identification Number) to lock channels, reset the TV, and change the TV settings.

- 1. Select System > Change PIN. The PIN input window appears.
- 2. Enter a PIN, The default PIN is 0000,
- 3. Enter a new PIN and then enter it again to confirm it. The PIN change is complete.
  - If you forget your PIN, you can reset it using the Samsung Smart Control, With the TV turned on, press the following buttons on the remote to reset the PIN to 0000:  $\checkmark$   $\rightarrow$  +  $\rightarrow$  RETURN  $\rightarrow$   $\rightarrow$  RETURN  $\rightarrow$  +  $\rightarrow$  RETURN. + is the Volume Up button. is the Volume Down button. The  $\checkmark$  button is on the left side of the remote.
  - For the Standard Remote Control: In Standby mode:  $MUTE \rightarrow 8 \rightarrow 2 \rightarrow 4 \rightarrow \bigcirc$  (ON)

#### **Enabling Game Mode**

(MENU/123) > MENU > System > General > Game Mode (ry Now)

Game Mode optimises the TV's settings for playing video games on a gaming console such as  $PlayStation^{TM}$  or  $Xbox^{TM}$ .

#### Requirements:

- Game Mode cannot be used for normal TV viewing.
- Connect the gaming console before enabling Game Mode. Otherwise, the picture quality may suffer.
- The screen may shake a little.
- Enabling Game Mode automatically sets the Picture Mode to Standard and the Sound Mode to Movie.
- To use a different external device, first disconnect the game console and disable Game Mode.

## **Enjoying Rich Colours and Superior Picture Quality (BD Wise)**

(MENU/123) > MENU > System > General > BD Wise Try Now

Connecting a Samsung DVD player, Blu-ray player, or home theatre system that supports **BD Wise** enables the richest colours and best possible picture quality. Enabling BD Wise automatically optimises the TV's resolution.

This feature is only available when the external device is connected via an HDMI cable,

## **Enabling/Disabling Sound Feedback**

(MENU/123) > MENU > System > General > Sound Feedback (Try Now)

Sound Feedback provides audio cues as you navigate through menus and select menu options,

## Locking/Unlocking the Panel Keys

(MENU/123) > MENU > System > General > Panel Lock (ry Now

Use to lock and unlock the TV's front panel buttons,

#### Showing/Hiding the Samsung Logo while Booting

(MENU/123) > MENU > System > General > Boot Logo (Try Now)

Use to enable or disable the Samsung logo display that appears when the TV starts up.

This function is not available when **Samsung Instant On** is set to **On**.

#### **Enabling the TV to Boot Faster**

(MENU/123) > MENU > System > General > Samsung Instant On (Try Now)

Enable or disable the functionality that enables your TV to turn on quickly.

Availability depends on the specific model and area.

## **Enabling/Disabling the Front Indicators**

(MENU/123) > MENU > System > General > Light Effect (Try Now)

Use to turn the indicators on the front of the TV on/off. Turning the Light Effect off reduces the TV's power consumption.

- The colour of the TV's light may vary depending on the model,
- Availability depends on the specific model and area.

## **Removing Flicker**

(MENU/123) > MENU > System > General > Anti Flicker

Remove flickering by adjusting camera power-line frequency.

## **UHD Evolution Kit Backup**

#### (MENU/123) > MENU > System > UHD Evolution Kit Backup (Try Now)

Upgrade your Samsung TV with the 2016 Evolution Kit for more benefits. However, this upgrade requires backing up and converting existing data in your TV and apps accordingly to ensure they remain on the upgraded device.

- 1. Connect a USB storage device to the TV.
- In the System menu, select UHD Evolution Kit Backup. The UHD Evolution Kit Backup screen appears.
- 3. Select Start. Data in the TV will be backed up to the USB storage.
  - Do not turn the TV off or unplug the power cable of the TV during this backup.
  - Do not disconnect the USB storage device during this backup.
- 4. When complete, select Done.

# Registering the TV as a DivX-Certified Device (Watching Paid DivX Movies)

#### (MENU/123) > MENU > System > DivX® Video On Demand

Viewing DivX® DRM-protected DivX movies on the TV first requires registration of the TV as a DivX-certified device.

- DRM ("Digital rights management") Digital Rights Management is a digital security measure designed to protect copyright.
- You can watch personally-created and free DivX content without registering the TV.
- Visit the DivX website (http://www.divx.com) and log into your user account before registering the TV as a DivX-certified device. If you do not have an account, please create one.
- Select System > DivX® Video On Demand. A window with a registration code appears on the screen.
- 2. Visit the DivX website on a computer and click [Register Your Device] under [Support] from the top menu,
- 3. Enter the registration code shown on the TV's screen in the [Enter your registration code] field.
- 4. Enter the TV's name in the [Name your device] field and then select [NEXT].
- 5. Click [DOWNLOAD] and save the [device\_name.divx] file.
- 6. Transfer the [device\_name.divx] file from the computer onto a USB device and then plug the USB device into the TV.
- 7. Play the [device\_name.divx] file on the TV to register the TV as a DivX-certified device.

## Restoring the TV to the Factory Settings

(MENU/123) > MENU > Support > Self Diagnosis > Reset (ry Now)

This option restores all TV settings (excluding the Internet) to the factory defaults.

- 1. Select Support > Self Diagnosis > Reset. The Security PIN entry window appears on the screen.
- 2. Enter the Security PIN and then select **Yes**. All settings are then reset. The TV turns off and on again automatically, and then displays the **Setup** screen.
  - For more information on Setup, refer to the user manual that came with the TV.

## Turning the TV into a Display Model (for retail stores)

(MENU/123) > MENU > Support > Use Mode (Try Now)

Select Support > Use Mode > Store Demo. This turns the TV into a display model for use in a retail environment.

- For all other uses, select **Home Use**.
- Store Demo should be used in retail environments only. With Store Demo, certain functions are disabled and the TV automatically resets itself after a certain amount of time.

## **Getting Support**

## Support through Remote Management

(MENU/123) > MENU > Support > Remote Management (ry Now

If you need assistance with your TV, you can use this feature to let Samsung Electronics diagnose your TV remotely. You will need to read and agree to the service agreement before using this feature. A Samsung Electronics technician will then diagnose, repair, and update your TV remotely.



This option requires an Internet connection.

#### What Does Remote Service Do?

Samsung Remote Support service offers you one-on-one support with a Samsung Technician who can remotely.

- Diagnose your TV
- Adjust the TV settings for you
- Perform a factory reset your TV
- Install recommended firmware updates

#### How Does it Work?

Having a Samsung Tech remotely service your TV is easy.



Call the Samsung Contact Centre and ask for remote support.



Open the menu on your TV and go to the Support section.



Select Remote Management, and then read and agree to the service agreements. When the PIN screen appears, provide the PIN number to the agent.



The agent accesses your TV.

## Finding the Information You Need for Service

#### (MENU/123) > MENU > Support > Contact Samsung

Use this option to find the support service website's address and contact number, your TV's model number, your TV's software version, the Smart Hub info, and other information you need to receive the service support.



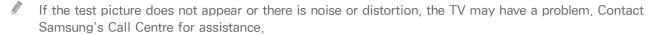
Press A to view the open source licence.

## There is a problem with the screen

## **Testing the Picture**

#### (MENU/123) > MENU > Support > Self Diagnosis > Picture Test (Try Now)

Before you review the list of problems and solutions below, run the Picture Test to determine if the problem is caused by the TV. The Picture Test displays a high definition picture you can examine for flaws or faults. If the test picture does not appear or there is noise or distortion, the TV 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 strength or refer to the external device's user manual.



If the test picture is displayed properly, there may be a problem with the external device. Please check the connections, If the problem persists, check the signal strength or refer to the external device's user manual,

The Problem	Try this!			
Flickering and Dimming	If your Samsung Television is flickering or dimming sporadically, you may need to disable some of the energy efficiency features. Disable Energy Saving (System > Eco Solution > Energy Saving) or Eco Sensor (System > Eco Solution > Eco Sensor).			
Component Connections/Screen Colour	If the colour on your Samsung television screen is not correct or the black and white colours are off, run Picture Test (Support > Self Diagnosis > Picture Test). If the test results indicate that the problem is not caused by the TV, do the following:  • Confirm that the TV's video input connectors are connected to the correct external device video output connectors.  • Check the other connections as well. If the TV is connected to an external device via a component cable, confirm that the Pb, Pr, and Y jacks are plugged into their proper connectors.			
Screen Brightness	If the colours on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first.  • Go to the Picture menu and adjust the Backlight, Contrast, Brightness, Sharpness, Colour, and Tint (G/R) settings.			
Auto Motion Plus/Blur	If you notice ghosting or blurring on the screen, use the Auto Motion Plus option (Picture > Picture Options > Auto Motion Plus) to resolve the issue.			
Unwanted Powering Off	If your Samsung TV appears to turn off by itself, try disabling some of the TV's energy efficiency features. See if Sleep Timer (System > Time > Sleep Timer) has been enabled. The Sleep Timer automatically turns the TV off after a specified period of time. If the Sleep Timer has not been enabled, see if No Signal Power Off (System > Eco Solution > No Signal Power Off) or Auto Power Off (System > Eco Solution > Auto Power Off) has been enabled and disable them.			
Problems Powering On	When the TV is turned on, the remote control receiver flashes 5 times before the screen turns on. If you are having problems powering on your Samsung television, there are a number of things to check before calling the service department. Confirm that the TV's power cord is connected correctly at both ends and that the remote control is operating normally. Make sure that the antenna cable or cable TV cable is firmly connected. If you have a cable box confirm that it is plugged in and turned on.			
Unable to find a Channel	Launch Setup (System > Setup) or Auto Tuning (Broadcasting > Auto Tuning).  If your TV is not connected to a cable box, run Setup (System > Setup) or Auto Tuning (Broadcasting > Auto Tuning).			
The TV image does not look as good as it did in the store.	Store displays are all tuned to digital, HD (high definition) channels. If you have an analogue cable/set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Many HD channels are upscaled from SD (Standard Definition) content. Look for a channel that is broadcasting true HD content.  • Cable Subscribers: Try HD channels from the channel lineup.  • Terrestrial/Cable Aerial Connection: Try HD channels after running the Auto Tuning function.  Adjust the cable box's video output resolution to 1080i or 720p.			
The picture is distorted.	The compression of video content may cause picture distortions, especially in fast moving pictures from sports programmes and action movies.  A weak or bad quality signal can cause picture distortions. This is not an issue with the TV.  Mobile phones used close to the TV (within 1 m) may cause noise in analogue and digital channels.			

The Problem	Try this!		
The colour is wrong or missing.	If you're using a Component connection, make sure that the Component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.		
The colour is poor or the picture is not bright enough.	Go to the Picture menu and then adjust the Picture Mode, Brightness, Sharpness, and Colour settings.  See if Energy Saving (System > Eco Sensor > Energy Saving) has been enabled.  Try resetting the picture. (Picture > Reset Picture)		
There is a dotted line on the edge of the screen.	If the Picture Size has been set to Fit to screen, change the setting to 16:9. Change the cable box resolution.		
The picture is black and white.	If you are using AV composite input, connect the video cable (yellow) to the TV's green component jack.		
When changing channels, the picture freezes or is distorted or delayed.	If the TV is connected to a cable box, try to reset the box. (Disconnect and then reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes.)  Set the output resolution of the cable box to 1080i or 720p.		

## I can't hear the sound clearly

## **Testing the Sound**

#### (MENU/123) > MENU > Support > Self Diagnosis > Sound Test (Try Now)

Before you review the list of problems and solutions below, make sure that the **Speaker Select** menu item is set to **TV Speaker**, and then listen to the speakers again. If the TV still does not play audio, run the Sound Test. The **Sound Test** uses a built-in melody to check for sound problems. If the TV does not play sound during the **Sound Test**, or the sound is distorted, there may be a problem with the TV. Contact Samsung's Call Centre for assistance. If the TV plays the Sound Test melody without distortion, there may be a problem with an external device. Please check the connections. If the problem persists, refer to the external device's user manual.

- If you can't hear the melody or there is a problem, make sure Sound > Speaker Settings > Speaker Select is set to TV Speaker and then try again. If the problem persists, there may be a problem with the TV. Contact Samsung's Call Centre for assistance.
- If the melody is played, there may be a problem with the external device. Please check the connections. If the problem persists, refer to the external device's user manual.

The Problem	Try this!	
There is no sound or the sound is too low at maximum volume.	Check the volume control of the device (cable box, DVD, Blu-ray, etc.) connected to your TV.	
The picture is good but there is no sound.	Set Sound > Speaker Settings > Speaker Select to TV Speaker.  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 TV is using an HDMI cable.)  To listen to the computer sound, connect the external speaker to the computer's audio output connector.  If your TV 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.	
The speakers are making an odd sound.	Make sure that the audio cable is connected to the correct audio output connector on the external device. For antenna or cable connections, check the signal information. A low signal level may cause sound distortions. Run Sound Test (Support > Self Diagnosis > Sound Test).	

## I can't see 3D images clearly

## **Testing 3D Picture Quality**

(MENU/123) > MENU > Support > Self Diagnosis > 3D Picture Test (ry Now

If you have not paired your 3D glasses with the TV, pair them first. To test 3D picture quality, the TV and the 3D glasses must have been paired.

Put on the 3D glasses, navigate to (MENU/123) > MENU > Support > Self Diagnosis and select 3D Picture Test. The 3D Picture Test displays a high definition picture to examine the 3D screen for flaws or faults. If the test fails to identify a problem, there may be a problem with an external device or the signal strength.

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

The Problem	Try this!		
The 3D glasses are not working correctly.	Make sure the glasses are powered on. The 3D feature may not work properly if there is another 3D product or an electronic device running nearby. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.		
I can't see 3D images clearly.	The ideal viewing distance is three times or more the height of the screen. We also recommend watching 3D content with your eyes level with the screen.		
The batteries in the 3D glasses are flat.	Turn off the 3D glasses when they are not in use. If you leave the 3D glasses or the battery lifespan is shortened.		

## There is a problem with the broadcast

The Problem	Try this!		
The TV is not receiving all channels.	<ul> <li>If your TV is not connected to a cable box:</li> <li>Confirm that the coaxial cable is securely connected to the TV.</li> <li>If you are using an antenna, verify it is positioned correctly and the all the connections are secure.</li> <li>Run Setup (System &gt; Setup) or Auto Tuning (Broadcasting &gt; Auto Tuning).</li> </ul>		
There are no captions with digital channels.	Go to Subtitle (System > Accessibility > Subtitle) and change the Subtitle Mode.  Some channels may not have caption data.		
The picture is distorted.	The compression of the video content may cause picture distortions. This is especially true with fast moving pictures from sports programmes and action movies.  A weak signal can cause picture distortions. This is not a problem with the 1		

# The computer won't connect

The Problem	Try this!	
The "Mode Not Supported" message appears.	Set your PC's output resolution so it matches a resolution supported by the TV.	
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.	

## I can't connect to the Internet

The Problem	Try this!	
The wireless network connection failed.	Make sure the TV is connected to a wireless IP router. Confirm your wireless modem/router is on and connected to the Internet.	
The software update over the Internet has failed.	Check the network connection status.  If the TV is not connected to a network, connect to a network.  The upgrade stops if you already have the latest software version.	

# The Schedule Recording/Timeshift function isn't working

The Problem	Try this!		
The TV cannot recognise the USB device or the Format Device, Check Device and Device Performance Test functions fail.	Refer to the USB device's manual and see if data can be stored on it. Check if the USB device is in a locked state.  Check if the USB device was formatted when it was connected to a computer. Formatting a USB device after connecting it to the TV may result in a formatting failure. If Device Performance Test or Format Device has failed, there may be a problem with the USB device or its specifications. Try using a different USB device.		
There is a message saying I need to format the USB Drive.	Check if the USB device is in a locked state. Use the USB recovery function to recover the USB device.		
Schedule Recording cannot be used.	Check if there is a USB device connected to the TV.  Check if the channel is a digital channel that can be recorded. Recording will automatically stop if the signal becomes too weak. The Timeshift function will not work if there isn't enough storage space on the USB device.		
I get a performance test failure message and then Schedule Recording and the Timeshift operation stops working.	This problem can occur when using a low-performance USB Drive that does not support recording. A USB hard drive with a speed of 5,400rpm or above is recommended. A USB memory stick is not supported.		

# Anynet+ (HDMI-CEC) isn't working

The Problem	Try this!		
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 System and see if Anynet+ (HDMI-CEC) has been set to On. Check whether the TV remote control is in TV mode. Check whether the remote control is Anynet+ compatible. Anynet+ may not function when certain functions are operational. (Channel Search, Smart Hub, set up, etc.) If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.		
I want to start Anynet+.	Check if the Anynet+ device is properly connected to the TV and then navigate to the System menu to see if Anynet+ (HDMI-CEC) is set to On.		
I want to exit Anynet+.	Select View TV from the Anynet+ menu. Select a non-Anynet+ device from the Source list.		
The message "Connecting to Anynet+ device" or "Disconnecting from Anynet+ device" appears on the screen.	You cannot use the remote control when you are configuring Anynet+ or switching to a viewing mode. Use the remote control after the TV has completed the Anynet+ configuration or has switched to a viewing mode.		
The Anynet+ device won't play.	You cannot use the play function when Setup is in progress.		
The connected device is not displayed.	Check whether the device supports Anynet+. Check whether the HDMI cable is properly connected. Go to System and see if Anynet+ (HDMI-CEC) has been set to On. Scan for Anynet+ devices again. Anynet+ devices must be connected to the TV using an HDMI cable. Make sure the device is connected to your TV with an HDMI cable. Some HDMI cables may not support Anynet+. If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please scan for the device again.		
The TV audio is not being played through the receiver.	Connect an optical cable to the TV and the receiver.  ARC enables digital sound to be outputted via the HDMI (ARC) port.  However, ARC is only available when the TV is connected to an audio receiver that supports ARC.		

# I am having trouble launching/using apps

The Problem	Try this!	
I launched an app, but it's in English. How can I change the language?	Languages supported by the app may be different from the user interface language. The ability to change the language depends on the service provider.	
My application is not working.	Check with the service provider. Refer to the help section on the application service provider's website.	

# My file won't play

The Problem	Try this!	
Some files can't be played.	This problem may occur with high-bitrate files. Most files can be played back, but you might experience problems with high-bitrate files.	

## I want to reset the TV

Reset	Path	Description
Reset Settings	Support > Self Diagnosis > Reset	Reset Picture, Sound, Channel, Smart Hub, and all other settings except for the network settings to their factory default settings.
Resetting Smart Hub	Smart Hub > Reset Smart Hub	Reset all saved information relating to Samsung accounts and linked service accounts, as well as Smart Hub service agreements and applications.

# **Other Issues**

The Problem	Try this!					
The TV is hot.	Watching TV 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 TV. The bottom, however, may feel hot to the touch after extended use. Children watching TV need constant adult supervision to prevent them from touching the TV. This heat, however, is not a defect and does not affect the TV functionality.					
The picture won't display in full screen.	HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content.  Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV.  Adjust the picture size options on your external device or set the TV to full screen.					
The "Mode Not Supported" message appears.	The output resolution of the attached device is not supported by the TV. Check the supported resolutions of the TV and adjust the external device's output resolution accordingly.					
The Subtitle item in the TV menu is grayed out.	You cannot select the Subtitle menu if you have selected a source connected to the TV via HDMI or Component connections. To view subtitle, turn on the external device's subtitle function.					
The TV smells of plastic.	This smell is normal and will dissipate over time.					
The Signal Information option under Self Diagnosis isn't activated.	Verify that the current channel is a digital channel. The Signal Information is only available for digital channels.					
The TV is tilted to the side.	Remove the base stand from the TV and reassemble it.					
The Broadcasting option has been deactivated.	Broadcasting is only available when the Source is set to TV. The Broadcasting menu cannot be accessed while watching TV using a cable box. Certain Broadcasting menus cannot be accessed while recording or while the TimeShift operation is in progress.					

The Problem	Try this!
The settings are lost after 5 minutes or every time the TV is turned off.	If the Use Mode is set to Store Demo, the TV's audio and video settings are automatically reset every 5 minutes.  Change the Use Mode (Support > Use Mode) to Home Use.
There is an intermittent loss of audio or video.	Check the cable connections and reconnect them. Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If you are mounting the TV to a wall, we recommend using cables with 90-degree connectors.
There are small particles on the TV's bezel.	This is part of the product's design and is not a defect.
The PIP menu is not available.	PIP functionality is only available when you are using an HDMI or Component source.
A POP (TV's internal banner ad) appears on the screen.	Change the Use Mode (Support > Use Mode) to Home Use.
The TV is making a popping noise.	The expansion and contraction of the TV's outer casing may cause a popping noise. This does not indicate a product malfunction. The TV is safe to use.
The TV is making a humming noise.	Your TV utilizes high-speed switching circuits and high levels of electrical current. Depending on the TV's brightness level, the TV may seem slightly noisier than a conventional TV. Your TV has undergone strict quality control procedures that meet our demanding performance and reliability requirements. Some noise coming from the TV is considered normal and is not an acceptable cause for an exchange or refund.

## Before Using the Recording and Timeshift Functions

Availability depends on the specific model and area.

#### Before Using the Recording and Schedule Recording Functions

- To set up a Schedule Recording, you must first set the TV's clock. Set the Clock (System > Time > Clock).
  - You can set up a maximum total of 30 Schedule Viewing and Schedule Recording entries.
- Recordings are DRM-protected and therefore cannot be played back on a computer or on a different TV. In addition, these files cannot be played back on your TV if its video circuit has been replaced.
- A USB hard drive with a speed of 5,400rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks are not supported.
- The total recording capacity may vary depending on the amount of available hard drive space and the recording quality level.
- Schedule Recording requires at least 100MB of free space on the USB storage device. Recording
  will stop if the available storage space falls below 50MB while recording is in progress.
- If the available storage space falls below 500MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum recording time is 360 minutes.
- A video is played according to the TV settings.
- If the input signal is changed while recording is in progress, the screen will go blank until the change is made. In this case, recording will resume, but
   will not be available.
- Device Performance Test must be performed on the USB storage device connected to the TV before a recording can be made. To perform the Device Performance Test, select USB Drive in the MY CONTENT panel and then select the recording device. When you make a recording on the Guide or Programme Info screen, if the USB storage device has failed in the Device Performance Test, the Format Device and Device Performance Test are performed again.
- When using the Record or Schedule Recording function, the actual recording may start a second or two later than the specified time.
- If the Schedule Recording function is operating while a recording is being made on an HDMI-CEC external device, the priority is given to the Schedule Recording.
- Connecting a recording device to the TV automatically deletes abnormally saved recording files.
- If the Off Timer or Auto Power Off has been set, the TV will overide these settings, continue to record, and turn off after the recording has ended.

#### **Before the Using Timeshift Function**

- A USB hard drive with a speed of 5,400rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks or flash drives are not supported.
- The total recording capacity may vary depending on the amount of available hard drive space and the recording quality level.
- If the available storage space falls below 500MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum amount of time available for the Timeshift function is 90 minutes.
- The Timeshift function is not available for locked channels.
- A time-shifted video is played according to the TV settings.
- Before the Timeshift function can be used, the <u>Device Performance Test</u> must be performed on the USB storage device connected to the TV. To perform the <u>Device Performance Test</u>, select <u>USB Drive</u> in the <u>MY CONTENT</u> panel and then select the recording device.
- The Timeshift function may be terminated automatically once it reaches its maximum capacity.
- The Timeshift function requires at least 1.5GB of free space available on the USB storage device.
- Launching an app, switching to an analogue channel, or changing the TV to a mode that does not support the Timeshift function automatically terminates the Timeshift function. The Timeshift operation will resume if the TV is changed back to a digital channel again.

## S-Recommendation Disclaimer



Availability depends on the specific model and area.

#### S Recommendation with Voice Interaction

#### Recommendation given to common speech commands

Voice Interaction limited to the official language of the country of purchase. Performance may vary based on content availability, clarity and volume of your voice, and ambient noise levels. Strong regional accents may not be recognised.

Certain Samsung Smart TV features may not be available without express consent to the collection and use of personal information.

Certain features within S Recommendation require internet access and may not be available based on service provider, language, dialect and region.

Visit www.samsung.com for more information about service operator compatibility.

Actual remote control may differ from image shown.

#### S Recommendation

#### Content recommendations to fit your TV viewing preferences

Certain Samsung Smart TV features may not be available without express consent to the collection and use of personal information.

Certain features within S Recommendation require internet access and may not be available based on service provider, language, dialect and region.

Visit www,samsung.com for more information about service operator compatibility,

Actual remote control may differ from image shown.

## **Before Using 3D Viewing Mode**

#### 3D Precautions

#### 

- In 3D viewing mode, the screen may flicker under florescent lighting (50Hz ~ 60Hz) or threewave lighting.
  - If this occurs, turn off the lighting or adjust it to a low level.
- When you switch the picture mode from 3D view, the 3D view mode turns off, and the 3D glasses no longer provide a 3D view.
  - When you turn off 3D mode, the 3D glasses also turn off in a few moments.
- If you are watching TV with 3D glasses and you lie on your side, the picture may look darker or may not be visible.
- If the 3D glasses are defective or damaged, they cannot be repaired and need to be exchanged for a new pair. The repair service is free of charge within the warranty period. Note that the warranty does not cover damage caused by the user.
- The actual 3D effect may be experienced differently depending on the viewer. The 3D effect may
  not be experienced by persons who has a large difference of vision between the left and right
  eyes,
- In 3D viewing mode, watch TV within the recommended distance.
  - The 3D functionality of the glasses may not work properly if you move out of the recommended range for about 3 seconds or more.
  - If you stay outside the recommended range, the 3D glasses lose wireless wireless communications with the TV. If this occurs, the 3D display turns off and, a few seconds later the glasses turn off.
- The 3D glasses may not work properly if there are any nearby active 3D devices or electronic
  or wireless communication devices (for example, a device that uses the 2.4GHz frequency range
  such as a microwave or AP). If this occurs, move the devices away from the 3D glasses.
- The Samsung Multi View 3D Glasses may not work properly near metal objects or near an
  electromagnetic field. If this occurs, move the metal objects or the electromagnetic device away
  from the 3D glasses.
- The vividness of the image may degraded if you watch a 3D movie in a location exposed to direct sunlight or illumination.
- The temples of the 3D glasses do not fold. Do not attempt to fold the temples. You can damage the 3D glasses.

- When watching 3D content for an extended period of time without averting your eyes, the 3D glasses may turn off automatically.
- Take off the 3D glasses and put them on again if they do not work in 3D viewing mode first.

#### **△** Caution

3D Health and Safety Information Users are required to read the following information before using 3D.

- A supervising adult should check on any children watching 3D TV regularly. Children experiencing eye fatigue, headaches, dizziness, and/or nausea while viewing 3D TV should stop watching immediately.
- Do not use the 3D glasses for any purpose other than their intended purpose. Do not use them as general eyeglasses, sunglasses, or protective goggles.
- Some users may feel dizzy, nauseous, or experience headaches in the 3D or Samsung Multi View function. If you experience any of these symptoms, stop watching the 3D item, remove the 3D glasses, and rest.
- An extended period of watching TV in 3D viewing mode may cause eye fatigue. In this case, stop watching 3D immediately, take off the 3D glasses, and allow your eyes to rest.
- Do not use the 3D function or 3D glasses while walking or moving around. Using 3D mode
  or wearing 3D glasses while moving around may result in injury due to walking into objects,
  tripping and/or falling.
- Wearing the 3D glasses and lying on your side while watching TV may damage the temples of the 3D glasses.
- The temples of the 3D glasses are unfolded. This may damage the 3D glasses.
- Because the 3D glasses react to acceleration, repeatedly shaking the 3D glasses may consume the battery faster than normal.

#### **⚠** Safety Precautions

The following information is designed to ensure the user's safety and prevent property damage. Read the information carefully.

- Do not expose the product to direct sunlight or a hot or humid environment. Failure to do so may result in fire or a product malfunction.
- Do not apply force to the lenses of the 3D glasses. Do not drop or bend the product. This may result in a product malfunction.
- Keep the 3D glasses and accessories out of the reach of children so that they do not swallow them. If they swallow them, consult a doctor immediately.
- Do not spray water or detergent directly onto the product to clean it. This may result in fire, electric shock, damage to the exterior, and/or the removal of the markings.
- Do not apply chemicals containing alcohol, solvent, or surfactant such as wax, benzene, thinner, pesticide, air freshener, lubricant, or cleaner to the product. These chemicals may cause the product's exterior to become discoloured or cracked, or labels or instructions to be removed. Use only a soft cloth made from superfine fibers or cotton flannels for cleaning the product as the surface or the lenses can easily crack. Because the product is easily scratched by a foreign substance, make sure to dust off the cloth before using it.
- Do not sleep while wearing the 3D glasses. Wearing the 3D glasses while sleeping may damage them.
- Do not disassemble, repair, or modify the 3D glasses yourself. Do not use a product that is damaged.
- Take care that you do not injure your eyes with the edges of the frame of the 3D glasses when wearing them.
- Put the 3D glasses on and take them off with both hands.
- Use only approved batteries, and make sure to insert the batteries in the correct polarities. If the
  batteries are inserted in the wrong polarities, the batteries may explode or leak internally, which
  may result in fire, injury, or contaminate the environment.
- Swallowing the cylindrical (button type) battery can cause serious damage to your internal organs, If this happens, contact a doctor immediately.
- Keep old batteries out of the reach of children to prevent children from swallowing them. If they
  swallow them, consult a doctor immediately.

# Supported Resolutions for each 3D Mode

• These specifications apply to the 16:9 display ratio only.

## **HDMI**

• 3D Mode: • (L/R), 🛔 (T/B)

Resolution	Frequency (Hz)	
1280 x 720p	50 / 60	
1920 x 1080i	50 / 60	
1920 x 1080p	24 / 25 / 30 / 50 / 60	
3840 x 2160p	24 / 25 / 30 / 50 / 60	

• 3D Mode: (Horizontal Line), (Vertical Line), (Pixel), (Frame)

Resolution	Frequency (Hz)	
1280 x 720p	50 / 60	
1920 x 1080i	50 / 60	
1920 x 1080p	25 / 30	

## Component

Resolution	Frequency (Hz)	
1280 x 720p	59.94 / 60	
1920 x 1080i	59.94 / 60	
1920 x 1080p	23.98 / 24 / 29.97 / 30 / 59.94 / 60	

## **Digital Channel**

Resolution	Frequency (Hz)	
1280 x 720p	59.94 / 60	
1920 x 1080i	59.94 / 60	

#### Videos/Photos

Refer to the "Photo, Video, and Music File Limitations" section.

#### Computer via HDMI Cable

The optimal resolution for computers connected to the TV via an HDMI cable is  $1920 \times 1080$ . If you select another resolution, the TV may not display 3D images correctly and may not be able to display the computer video in full screen.

## **Supported Resolutions for UHD**

• Resolution: 3840 x 2160p, 4096 x 2160p

The HDMI connector with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0, while the HDMI connector with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2.

#### If HDMI UHD Color 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
24 / 25 / 30	8 bit	О	О	О	-
50 / 60	8 bit	_	_	_	0

#### If HDMI UHD Color 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
24 / 25 / 30	8 bit	О	0	0	-
	10 bit	0	О	0	-
	12 bit	0	0	0	-
50 / 60	8 bit	0	0	0	0
	10 bit	-	-	0	0
	12 bit	-	-	0	0

## Read Before Using Voice, Motion, or Face Recognition

## Precautions for Voice, Motion, and Face Recognition

#### **Face Recognition**

- This product saves thumbnail images of users' faces for use during the Face Login.
- Logging into the Smart Hub via Face Recognition may be less secure than logging in using an ID and password.

#### Using the TV Camera

- Under some circumstances and under certain legal conditions, the use/misuse of the TV camera
  may result in illegal actions. There may be obligations under local privacy laws regarding the
  protection of individuals concerning personal data and on the free movement of such data, and
  possibly other laws including criminal laws regulating camera surveillance both in the workplace
  and elsewhere.
- By using the TV camera, users agree that it will not be used (i) in locations where cameras are generally prohibited (such as bathrooms, locker rooms or changing rooms), (ii) in any manner that will result in an invasion of a person's privacy, or (iii) in violation of any applicable laws, regulations or statutes.
- If you are using a camera, first check the back for a sticker,
- Remove the sticker cover before adjusting the angle of the TV camera.
- When you are no longer using the camera, rotate the lens downward and secure it in place. This
  prevents any inadvertent or unintentional camera operation,

#### **Motion Control**

- Motion Control uses the camera. For Motion Control to work, you must be within the camera's
  recognition range. The camera's recognition range varies depending on the ambient light level
  and other factors.
- Run the Motion Control Environment Test before using Motion Control to determine the camera's recognition range.
- You may experience physical fatigue when using Motion Control for extended periods

#### **Voice Recognition**

- For the best voice recognition experience, we recommend that you use a Samsung Smart Control.
- Voice recognition does not support signs such as the minus (-) symbol and special characters, neither a word nor sentence that contains numbers or signs. It may be not available for certain languages or dialects, or in some areas. It also differs in performance depending on the selected language, pronunciation, voice sound level, and ambient noise.
- Voice Text Input requires that you agree to any third-party app's voice privacy policy and that you provide Samsung with the your MAC address and other private information.
- Voice Text Input lets you enter text using voice commands instead of a mouse, keyboard, or remote control. This feature is particularly useful for searching, browsing the web, and using applications.
- You must agree to the following privacy notices before using Interactive voice recognition:
  - Voice Recognition Privacy Notice and Nuance Privacy Notice

### Requirements for Using Voice, Motion, or Face Recognition

### Requirements for Using Voice Recognition

- Voice recognition and the Turn TV On voice command should be used within 4m of the TV.
  - Availability depends on the specific model and area.
- The voice recognition rate varies depending on the volume/tone, pronunciation, and ambient sound environment (TV sound and ambient noise).
- Say the command 1.2m to 1.8m from the microphone on the Samsung Smart Control. The optimal volume for voice commands is between 75 dB and 80 dB.

### Requirements for Using Motion Recognition

- Before using motion recognition, make sure the TV's camera has been turned on.
- Be sure to use Motion Control within recommended distances:
  - TV Camera (Built-in): between 1.5m and 3.5m
  - TV Camera (Sold Separately): between 1.5m and 4m
- The actual recognition range may vary depending on the camera angle and other factors.
- Adjust the camera's angle using the wheel on the back of the camera. Do not point the camera
  directly at the sun or any other light source or obstruct its view.
- For the camera to recognise movement, you have to stand out from the background.
- The appropriate ambient brightness is 50 to 500 lux. (100 Lux: Bathroom, 400 Lux: Living Room)
- Avoid direct sunlight when using Motion Control.
- Run the Motion Control Environment Test to assess the camera's recognition range before using Motion Control.

### Requirements for using Face Recognition

- Be sure to use Motion Control within recommended distances:
  - TV Camera (Built-in): between 1.5m and 3.5m
  - TV Camera (Sold Separately): between 1,5m and 4m
- The actual recognition range may vary depending on the camera angle and other factors.
- The appropriate ambient brightness is 50 to 500 lux. (100 Lux: Bathroom, 400 Lux: Living Room)
- Face Recognition can recognise up to 5 different users at a time.
- The TV may have difficulty recognising twins and people with similar faces as two different individuals.
- Note the following when using Face Recognition:
  - Do not cover your face with a hat, a pair of sunglasses, or your hair.
  - Your entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognising your face accurately
  - Keep your expression as neutral as possible. In addition, keep your mouth closed and as neutral as possible.
  - When you log into your Samsung account, your facial expression must be the same as the facial expression you had when you registered. Facial expression you had during the registration process.

# Read Before Using SAMSUNG APPS

- Due to the product characteristics featured on the 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. Some Smart Hub features may also require additional peripheral devices or membership fees. 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 Electronics 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 vary depending on the 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 vary depending on the version of the application installed on the TV.
- 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.

# Web Browser Restrictions (Some countries/areas don't support Web Browser)

- 1. The browsing screen may differ from the one on your computer,
- 2. The web browser is not compatible with Java applications.
- You cannot download files. If you attempt to download a file, you will receive an error message instead.
- 4. The web browser may not be able to access certain websites.
- 5. Playing Flash videos may be restricted.
- 6. E-commerce for online purchases is not supported.
- 7. With websites that have scrollable windows, scrolling a window can result in corrupted characters.
- 8. ActiveX is not supported.
- 9. Certain options are not accessible in Link Browsing mode. (Switch to Pointer Browsing to activate those options.)
- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
- 11. The response to remote commands and the resulting on-screen display may be delayed while a webpage is loading.
- 12. Loading a webpage may be delayed or suspended completely with certain operating systems.
- 13. The copy and paste operations are not supported.
- 14. When composing an email or a simple message, certain functions such as the font size and colour selection may not be available.
- 15. There is a limit to the number of bookmarks and the size of the log file that can be saved.
- 16. The number of windows that can be opened concurrently varies depending on the search conditions and the TV model.

- 17. The web browsing speed will vary depending on the network environment.
- 18. Playing embedded video automatically disables PIP. Video playback may not commence after PIP is disabled. In this case, you will have to reload the page.
- 19. The web browser supports .mp3 audio files only.
- 20. If the Clock (System > Time > Clock) has not been set, the browsing history will not be saved.
- 21. The browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
- 22. Depending on the types of video/audio codecs supported, it might not be possible to play certain video and audio files while playing Flash content.
- 23. Video sources from PC-optimised streaming service providers may not play properly on our proprietary web browser.
- 24. Using the on-screen QWERTY keyboard automatically disables PIP. (Except when entering a URL.)

# Photo, Video, and Music File Limitations

- The TV supports MSC (Mass Storage Class) USB devices only. MSC is a class designation
  for mass USB Drives. 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 TV's USB port. The TV may not be able to recognise the USB device or read the
  files on the device if it is connected to the TV via a USB extension cable. Do not disconnect the
  USB device while transferring files.
- When connecting an external hard drive, use the USB 3.0 (5V 1.0A) port. We recommend that you use an external hard drive with its own power adapter.
- Certain digital cameras and audio devices may not be compatible with the TV.
- If there are multiple USB devices connected to the TV, the TV might not be able to recognise some or all the devices. USB devices that use high-power input (500mA or 5V) may not be supported.
- The TV supports the FAT, exFAT, and NTFS file systems.
- After sorting files in the Folder view mode, the TV can display up to 1000 files per folder. If the USB device contains more than 8,000 files and folders, however, some files and folders might not be accessible.
- The PTP (pier to pier) connection mode is available only for digital cameras. If you connect a smartphone or tablet to the TV using PTP mode, the TV will not recognise it.
- Be sure to connect a USB or external Hard Drive, supporting USB 3.0, to the USB 3.0 port.
- Certain files, depending on how they were encoded, may not play on the TV.
- Certain files are not available depending on the model.

# **Supported External Subtitles**

Certain files, depending on how they were encoded, may not play on the TV.

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

# **Supported Internal Subtitles**

Certain files, depending on how they were encoded, may not play on the TV.

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**

Certain files, depending on how they were encoded, may not play on the TV.

File extension	Format	Resoltuion
*.jpg *.jpeg	JPEG	15360×8640
*.png	PNG	4096×4096
*.bmp	BMP	4096×4096
*.mpo	MPO	15360×8640

# **Supported Music Formats and Codecs**

Certain files, depending on how they were encoded, may not play on the TV.

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	Supports up to 10 Pro 5.1 channels WMA lossless audio is not supported Supports up to the M2 profile
*.wav	wav	wav	
*.mid *.midi	midi	midi	Supports type 0 and type 1 "Seek" not supported Available only on USB storage devices
*.ape	ape	ape	NonSmart not supported
*.aif *.aiff	AIFF	AIFF	
*.m4a	ALAC	ALAC	

# **Supported Video Codecs**

Certain files, depending on how they were encoded, may not play on the TV.

File format	Container	Video codecs	Resolution	Frame rate (fps)	Bitrate (Mbps)	Audio codecs		
		H.264 BP/MP/HP		4096X2160: 30 3840X2160: 60	60			
		HEVC (H.265 - Main, Main10, Main4:2:2 10)	4096×2160	4096×2160	4096×2160	60	80	
*.avi *.mkv		Motion JPEG		30	80			
*.asf *.wmv		MVC						
*.mp4 *.mov	AVI MKV	DivX 3.11 / 4 / 5 / 6						
*.3gp *.vro	ASF MP4	MPEG4 SP/ASP		60		Dolby Digital  LPCM		
*.mpg *.mpeg *.ts	3GP MOV FLV	Window Media Video v9(VC1)	1920×1080	1920×1080			ADPCM(IMA, MS) AAC HE-AAC	
*.tp *.trp	VRO VOB	MPEG2			1920×1080		20	WMA Dolby Digital Plus
*.mov *.flv	PS TS	MPEG1				MPEG(MP3) DTS(Core, LBR)		
*.vob *.svi	SVAF	Microsoft MPEG-4 v1, v2, v3					G.711(A-Law, μ-Law)	
*.m2ts *.mts		Window Media Video v7(WMV1) ,v8(WMV2)		30				
*.divx		H.263 Sorrenson						
		VP6						
*.webm	WebM	VP8	1920×1080	60	20	Vorbis		
		VP9 4096×2160		4096X2160: 30 3840X2160: 60	40			
*.rmvb	RMVB	RV8/9/10 (RV30/40)	1920×1080	60	20	RealAudio 6		

### Other Restrictions

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

### Video Decoders

- H.264 FHD is supported up to Level 4.1. (does not support FMO/ASO/RS)
- H.264 UHD is supported up to Level 5.1.
- HEVC FHD is supported up to Level 4.1, and HEVC UHD is supported up to Level 5.1.
- VC1 AP L4 is not supported.
- All video codecs excluding WMV v7, v8, MSMPEG4 v3, MVC, and VP6:

Below 1280x720: 60 frame max

Above 1280x720: 30 frame max

- GMC 2 or above is not supported.
- Supports SVAF Top/Bottom, Side by Side, and Left/Right view sequence type (2ES) only.
- Supports BD MVC specs only.

### **Audio Decoders**

- WMA is supported up to 5.1 channels. Supports up to the M2 profile. This does not support WMA lossless audio.
- QCELP and AMR NB/WB are not supported.
- Vorbis is supported for up to 5.1 channels.
- Dolby Digital Plus is supported for up to 5.1 channels.
- The DTS LBR codec is only available for MKV / MP4 /TS containers.
- The supported sample rates are 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, and 48 KHz, and differ by the codec.

# Restrictions

### Restrictions to PIP (Picture-in-Picture)

- PIP cannot be used while Smart Hub or 3D is active.
- Turning off the TV automatically disables PIP.
- Playing a game or using the karaoke feature on the main screen can result in lower PIP picture quality.
- PIP is not supported in UHD source.

1 Tuner model	MAIN TV					
PIP	DTV	ATV	HDMI	AV	SCART IN	Component
DTV	X	X	0	X	X	0
ATV	X	X	0	X	X	0

This function is dependent on the specific model and area.

# Read After Installing the TV

# Picture Sizes and Input Signals

Input signal	Picture size
Analogue channel / Composite	16:9, Zoom1, Zoom2, 4:3
Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3
Component (720p)	16:9, Wide Fit, 4:3
Component (1080i, 1080p)	16:9, Wide Fit, 4:3, Fit to screen
Digital channel (720p)	16:9, Wide Fit, 4:3, Smart View 2
Digital channel (1080i, 1080p)	16:9, Wide Fit, 4:3, Fit to screen, Smart View 2
HDMI (720p, 1080i, 1080p)	16:9, Wide Fit, 4:3, Fit to screen, Smart View 1, Smart View 2
HDMI (3840 x 2160p)	Fit to screen
HDMI (4096 x 2160p)	16:9, Fit to screen

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

The Picture Size option is not available for images in the UHD resolution because the supported screen size is fixed,

### Installing an Anti-Theft Kensington Lock

A Kensington Lock is a physical device that can be used to protect the TV against theft. Look for the Kensington slot on the back of the TV. The slot has a ker 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 TV's Kensington slot. The lock is sold separately.

The method of using a Kensington Lock may differ for each TV model. Refer to the Kensington Lock manual for more information.

### Read Before Setting Up a Wireless Internet Connection

### **Wireless Internet Precautions**

- This TV supports the IEEE 802.11a/b/g /n communication protocols. Samsung recommends using IEEE 802.11n. Video files stored on a device connected to the TV via DLNA may not play back smoothly.
- To use wireless Internet, the TV must be connected to a wireless router or modem. If the wireless router supports DHCP, the TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel that is not currently in use for the wireless router. If the channel set for the
  wireless router is currently being used by another device, the result is usually interference and/or
  a communications failure.
- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a security key using characters and numbers. This security key is then needed to connect to a security-enabled AP.

### Wireless Security Protocols

The TV only supports the following wireless network security protocols and is unable to connect to non-certified wireless routers:

- Authentication Modes: WEP, WPAPSK, WPA2PSK
- Encryption Types: WEP, TKIP, AES

In compliance with the newest Wi-Fi certification specifications, Samsung TVs do not support WEP or TKIP security encryption in networks running in the 802,11n mode.

If the wireless router supports WPS (Wi-Fi Protected Setup), you can connect the TV to your network using PBC (Push Button Configuration) or a PIN (Personal Identification Number), WPS automatically configures the SSID and WPA key settings.

The TV cannot connect to non-certified wireless routers.

# **Computer Connection Precautions**

When you connect your TV to a computer, set the computer's video card to one of the standard resolutions listed in the tables below or on the next page. The TV will automatically adjust to the resolution you choose. Note that the optimal and recommended resolution is 1920 x1080.

Choosing a resolution not included in the tables can result in a blank screen or just the power indicator turning on. Refer to the user manual of your graphics card for compatible resolutions.

### **IBM**

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720 x 400	70 Hz	31,469	70,087	28,322	- / +

### **MAC**

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
640 x 480	67 Hz	35,000	66,667	30.240	- / -
832 x 624	75 Hz	49,726	74,551	57.284	- / -
1152 x 870	75 Hz	68,681	75,062	100,000	- / -

# **VESA DMT**

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
640 x 480	60 Hz	31,469	59.940	25,175	- / -
640 x 480	72 Hz	37,861	72,809	31,500	- / -
640 x 480	75 Hz	37.500	75,000	31,500	- / -
800 x 600	60 Hz	37,879	60,317	40.000	+ / +
800 x 600	72 Hz	48.077	72,188	50,000	+ / +
800 x 600	75 Hz	46,875	75.000	49,500	+ / +
1024 x 768	60 Hz	48,363	60.004	65,000	- / -
1024 x 768	70 Hz	56.476	70,069	75,000	- / -
1024 x 768	75 Hz	60,023	75.029	78,750	+ / +
1152 x 864	75 Hz	67.500	75,000	108,000	+ / +
1280 x 720	60 Hz	45.000	60,000	74,250	+ / +
1280 x 800	60 Hz	49.702	59,810	83,500	-/+
1280 x 1024	60 Hz	63,981	60,020	108,000	+ / +
1280 x 1024	75 Hz	79.976	75,025	135,000	+ / +
1366 x 768	60 Hz	47,712	59.790	85,500	+ / +
1440 × 900	60 Hz	55,935	59,887	106,500	- / +
1600 x 900RB	60 Hz	60,000	60,000	108,000	+ / +
1680 x 1050	60 Hz	65,290	59,954	146,250	- / +
1920 × 1080	60 Hz	67.500	60.000	148.500	+ / +

# Supported Resolutions for Video Signals

# **CEA-861**

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720(1440) × 576i	50 Hz	15,625	50,000	27.000	- / -
720(1440) x 480i	60 Hz	15,734	59,940	27.000	- / -
720 x 576	50 Hz	31,250	50,000	27.000	- / -
720 x 480	60 Hz	31,469	59.940	27.000	- / -
1280 x 720	50 Hz	37.500	50,000	74.250	+ / +
1280 x 720	60 Hz	45.000	60,000	74.250	+ / +
1920 x 1080i	50 Hz	28,125	50,000	74.250	+ / +
1920 x 1080i	60 Hz	33,750	60,000	74.250	+ / +
1920 x 1080	24 Hz	27.000	24.000	74.250	+ / +
1920 x 1080	25 Hz	28,125	25,000	74.250	+ / +
1920 x 1080	30 Hz	33,750	30,000	74.250	+ / +
1920 x 1080	50 Hz	56,250	50,000	148,500	+ / +
1920 x 1080	60 Hz	67,500	60,000	148,500	+ / +
3840 x 2160	24 Hz	54.000	24.000	297.000	+ / +
3840 x 2160	25 Hz	56,250	25,000	297.000	+ / +
3840 x 2160	30 Hz	67.500	30,000	297.000	+ / +
3840 x 2160	50 Hz	112,500	50,000	594.000	+ / +
3840 x 2160	60 Hz	135,000	60,000	594.000	+ / +
4096 x 2160	24 Hz	54.000	24.000	297.000	+ / +
4096 x 2160	25 Hz	56.250	25,000	297.000	+ / +
4096 x 2160	30 Hz	67.500	30,000	297,000	+ / +
4096 x 2160	50 Hz	112,500	50,000	594.000	+ / +
4096 × 2160	60 Hz	135,000	60,000	594.000	+ / +

# Read Before Using Bluetooth Devices

# Restrictions on using Bluetooth

- The Samsung Bluetooth Speaker is only available when a device is supporting TV SoundConnect.
- You can't use Bluetooth Devices, Speaker Select (MENU > Sound > Speaker Settings > Speaker Select) and Surround features simultaneously.
- Compatibility issues may occur, depending on the Bluetooth Devices. (A Mobile exclusive headphone may not be available, depending on the environment.)
- Sync issues may occur, depending on the Bluetooth Devices.
- The TV and Bluetooth Devices 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 TV.
  - 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, be sure to use a Digital Sound Output (Optical) port or HDMI (ARC) port.

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# Glossary

### 480i/480p/720p/1080i/1080p

Generally refers to the number of effective scanning lines that determines the screen's resolution. There are two scanning methods: interlaced and progressive.

#### Scanning

Sequential projection of pixels to form images. The higher the number of pixels, the clearer and more vivid the images.

#### - Progressive

A sequential scanning method that scans every line, one after another,

#### Interlaced

A staggered scanning method that scans every other line until the end of the screen and then fills in the remaining lines.

Example) If the number of horizontal scan lines is 480i

Scans 240 lines from start to finish and then scans the remaining 240 lines for a total of 480 lines.

\* General differences between 480i and 480p are as follows:

	480i	480p
Horizontal Frequency	15.75Khz	31,5Khz
FPS	30	60
Lines on Screen	480	480

### • ARC (Audio Return Channel)

Generally, a separate RCA or optical cable needs to be connected in order for the TV audio to be heard through an AV receiver. With receivers that support ARC, however, digital audio can be transmitted via the HDMI cable only.

### • DVI (Digital Visual Interface)

Connecting the TV's DVI connector to a computer's DVI connector via an HDMI-to-DVI cable lets you use the TV as a computer monitor. However, HDMI-to-DVI cables deliver video signals only. You must connect a set of speakers to the computer using a separate cable to hear the computer's audio.

### HDMI (High Definition Multimedia Interface)

HDMI is a method of transmitting both video and audio signals via a single cable.

#### Dynamic versus Static IP Addresses

If the network requires a dynamic IP address, use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway and DNS values the TV needs to access the Internet, so they do not have to be entered manually. Most home networks use a dynamic IP address.

If the network requires a static IP address, enter the IP address, subnet mask, gateway, and DNS values manually when setting up the network connection. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP).

If the network requires a static IP address, use an ADSL modem that supports DHCP. ADSL modems that support DHCP also allow static IP addresses.

#### Ethernet

Ethernet is a LAN (Local Area Network) that uses coaxial cables standardised by the IEEE.

#### Component Connection

Component connections are mostly used for game consoles and transmit the video signal by splitting it into a luminance signal (Y) and two colour signals (Pb and Pr). The connector is marked as [Component IN]\_(Pr, Pb, Y) on the back of the TV. On some devices, it is sometimes marked as Cr, Cb, Y. Cb and Cr are the digital conversions of the Pb and Pr signals.

The connectors are normally colour-coded red (R), blue (B), and green (G) and offer the best picture quality possible for an analogue connection.