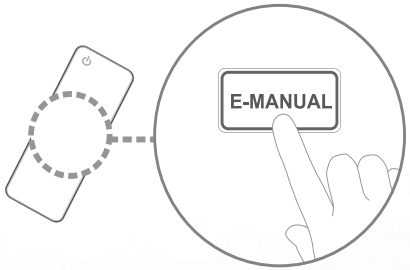
SAMSUNG

E-MANUAL



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Model _____ Serial No. _____

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❑ Using the Channel Menu

Press the **SMART HUB** button to select the menu you want to use. Each screen will be displayed.

- The displayed image may differ depending on the model.

Schedule Manager

SMART HUB → **Schedule Manager** → ENTER

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

Using the Timer Viewing

You can set a desired channel to be displayed automatically at the intended time. Set the current time first to use this function.

1. Press the ENTER button to add programme to schedule manually. The **Timer Viewing** screen appears.
2. Press the ◀ / ▶ / ▲ / ▼ buttons to set the **Channel**, **Repeat**, or **Start Time**.
   - **Channel**: Select the desired channel.

- **Repeat**: Select **Once**, **Manual**, **Sat~Sun**, **Mon~Fri** or **Everyday** to set at your convenience. If you select **Manual**, you can set the day you want.

  The ✓ mark indicates the date is selected.

- **Date**: you can set the desired date.

  It is available when you select **Once** in **Repeat**.

- **Start Time**: You can set the start time you want.

Only memorised channels can be reserved.

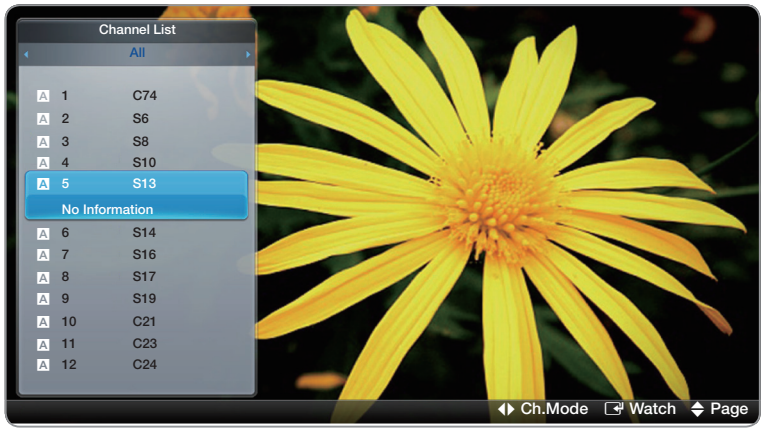
On the **Information** screen, you can change or cancel a reserved information. Select a reserved programme, and then press the ENTER button to open the **Information** screen.

- **Cancel Schedules**: Cancel a show you have reserved to watch.
- **Edit**: Change a show you have reserved to watch.
- **Return**: Return to the previous screen.

Channel List

You can view all the channel searched.

When you press the **CH LIST** button on the remote control, **Channel List** screen will be displayed at once.



- The displayed image may differ depending on the model.

Using the operation buttons with the **Channel List**.

- ◀ ▶ (**Ch.Mode**): Move to the type of channels you want to display on the **Channel List** screen. (**All**, **Favourites 1~5**)
- (**Watch** / **Information**): Watches the channel you select. / Displays details of the selected programme.
- (**Page**): Move to next or previous page.

Channel

SMART HUB → **Channel** → ENTER

Delete added channels or set favourites channels and use the programme guide for digital broadcasts. Select a channel in the **All Channels** screen. Change the antenna, or channel settings using the menus in the top right corner of the screen.

- **Edit Mode**: Delete channels assigned to **Favourite**. Refer to “Using the Favourite Channels” for details on how to assign a channel to favourite.

  Select All: Select all the channels.

  To Select all the files in the current page, select **Select All** at the top of the page, and press ENTER.

Using the TOOLS button with the Channel

- **Edit Favourites**: Set channels you watch frequently as favourite.

  Refer to “Using the Favourite Channels” for details on how to assign a channel to favourite.

- **Lock** / **Unlock**: Lock a channel so that the channel cannot be selected and viewed.

  NOTE

  - This function is available only when the **Channel Lock** is set to **On**.
  - The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”. Change the PIN using the **Change PIN** option.

- **Edit Channel Name**: Assign your own channel name.

  ✎ This function may not be supported depending on the region.

- **Edit Channel Number**: Edit the number by pressing the number buttons desired.

  ✎ This function may not be supported depending on the region.

- **Delete**: Delete a channel to display the channels you want.

Channel Status Display Icons

Icon	Operations
A	An analogue channel.
✓	A channel selected.
★	A channel set as a **Favourites 1-5**.
🔒	A locked channel.

❑ Using the Favourite Channels

■ Favourites

SMART HUB → **Favourites** → ENTER

Shows all favourite channels.

- View all of your favourite channels. If you want to change the favourite group among **Favourites 1-5**, move the cursor to group name. And then press the ENTER button to change the group you want.

  The "★" symbol wil be displayed and the channel will be set as a favourites channels.

Change the view mode, antenna, sorting type or edit item using the menus in the top right corner of the screen.

View Mode: You can change a view mode between **Text** mode or **Thumbnail** mode.

Sorting: Sorts by Title or category.

Edit Mode: Delete item assigned to **Favourites**.

How to assign a channel to favourite

1. On the **Channel** screen, select a channel and press the **TOOLS** button.

   If you want to add mulitple channels, use the **Edit Mode** menu in the top right corner of the **Channel** screen.

2. Add or delete a channel in the favourites channels groups you want among 1, 2, 3, 4 and 5.

   One or more groups can be selected.

   The ✓ mark appears to the left of the selected files.

3. After you have changed the settings, the channel list for each group can be viewed in favourites channels.

❑ Memorising Channels

MENU → Channel → ENTER

■ Area

You can change the area for channels.

Auto Tuning

Scans for a channel automatically and stores in the TV. Select the antenna source to memorise.

- Automatically allocated programme numbers may not correspond to actual or desired programme numbers. If a channel is locked using the **Child Lock** function, the PIN input window appears.

Manual Tuning

Scans for a channel manually and stores in the TV.

- If a channel is locked using the **Child Lock** function, the PIN input window appears.
- This function may not be supported depending on the region.

- **Edit Channel**: Scans for a channel.

  1. Press the ◀ / ▶ button to select **New**.
  2. Set the **Programme**, **Colour System**, **Sound System**, **Channel** and **Search**.
  3. Press the ▼ button to select **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** (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.

❑ Other Features

MENU → Channel → ENTER

■ Fine Tune

If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually. Scroll to the left or right until the image is clear.

- Settings are applied to the channel you're currently watching.
- Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.
- To reset the fine-tuning, select **Reset**.

❑ Changing the Preset Picture Mode

MENU → Picture → Picture Mode → ENTER

■ Picture Mode

Select your preferred picture type.

When connecting a PC, you can only make changes to the Standard and Entertain.

- Dynamic: Suitable for a bright room.
- Standard: Suitable for a normal environment.
- Natural for LED TV / Relax for PDP TV: Suitable for reducing eye strain.
- Movie: Suitable for watching movies in a dark room.
- Entertain : Suitable for watching movies and games.

  It is only available when connecting a PC.

❑ Adjusting Picture Settings

MENU → Picture → ENTER

■ **Backlight** for LED TV / **Cell Light** for PDP TV / **Contrast** / **Brightness** / **Sharpness** / **Colour** / **Tint (G/R)**

Your television has several setting options for picture quality control.

- In analogue **TV**, **AV** modes of the PAL system, the **Tint (G/R)** function is not available.
- When connecting a PC, you can only make changes to **Backlight** for LED TV, **Cell Light** for PDP TV, **Contrast**, **Brightness** and **Sharpness**.
- Settings can be adjusted and stored for each external device connected to the TV.

❑ Changing the Picture Size

MENU → Picture → Screen Adjustment → ENTER

■ Screen Adjustment

- **Picture Size**: Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.
  - **16:9**: Adjusts the picture size to 16:9 for DVDs or wide broadcasting.
  - **Wide Zoom**: Magnifies the picture size more than 4:3.

    Adjusts the **Position** by using ▲, ▼ buttons.

– **Zoom**: Magnifies the 16:9 wide pictures vertically to fit the screen size.

  ✎ Adjusts the **Zoom** / **Position** by using ▲, ▼ button.

– **4:3**: The default setting for a movie or normal broadcasting.

  ✎ Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and centre of the screen may cause image retention(screen burn) which are not covered by the warranty.

– **Screen Fit**: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.

– **Smart View 1**: Reduces the 16:9 picture by 50%. for LED TV

– **Smart View 2**: Reduces the 16:9 picture by 25%. for LED TV

Smart View 1/2 is enabled only in HDMI mode.

The picture size can vary depending on the input resolution when content is played using **Videos** under **Smart Hub**.

NOTE

- Depending on the input source, the picture size options may vary.
- The available items may differ depending on the selected mode.
- In PC mode, only **16:9** and **4:3** modes can be adjusted.
- Settings can be adjusted and stored for each external device connected to an input on the TV.

Input Source	Picture Size
ATV, AV	16:9, Wide Zoom, Zoom, 4:3
Component (480i, 480p, 576i, 576p)	16:9, Wide Zoom, Zoom, 4:3
Component (720p, 1080i, 1080p)	16:9, Wide Zoom, Zoom, 4:3, Screen Fit
HDMI (720p, 1080i, 1080p)	16:9, Wide Zoom, Zoom, 4:3, Screen Fit Smart View 1 for LED TV, Smart View 2 for LED TV
PC	16:9, 4:3

- If you use the **Screen Fit** function with HDMI 720p input, 1 line will be cut at the top, bottom, left and right as in the overscan function.

❑ Changing the Picture Options

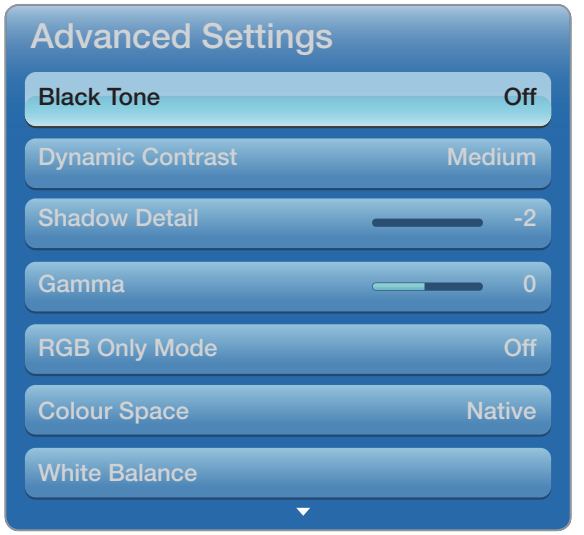
■ Advanced Settings

MENU → Picture → Advanced Settings → ENTER

Advanced Settings are available in Standard / Movie mode.

You can adjust the detailed setting for the screen including colour and contrast.

When connecting a PC, you can only make changes to Gamma and White Balance.



- The displayed image may differ depending on the model.

- **Black Tone** (**Off** / **Dark** / **Darker** / **Darkest**): Select the black level to adjust the screen depth.
- **Dynamic Contrast** (**Off** / **Low** / **Medium** / **High**): Adjust the screen contrast.
- **Shadow Detail** (**-2~+2**) for LED TV: Increase the brightness of dark images.
- **Gamma**: Adjust the primary colour intensity.
- **Expert Pattern** (**Off** / **Pattern1** / **Pattern2**) for PDP TV: By running the **Expert Pattern** function, the picture can be calibrated without a generator or filter. If the OSD menu disappears or a menu other than the Picture menu is opened, the calibration is saved and the **Expert Pattern** window disappears.

  ✎ While the **Expert Pattern** is running, sound is not outputted.

  ✎ Only enabled on Component / HDMI modes.

- **RGB Only Mode** (**Off** / **Red** / **Green** / **Blue**): Displays the **Red**, **Green** and **Blue** colour for making fine adjustments to the hue and saturation.
- **Colour Space** (**Auto** / **Native** / **Custom** for PDP TV): Adjust the range of colours available to create the image.

  ✎ To adjust **Colour**, **Red**, **Green**, **Blue** and **Reset**, set **Colour Space** to **Custom**.

- **White Balance**: Adjust the colour temperature for a more natural picture.

  R-Offset / **G-Offset** / **B-Offset**: Adjust each colour's (red, green, blue) darkness.

  R-Gain / **G-Gain** / **B-Gain**: Adjust each colour's (red, green, blue) brightness.

  Reset: Resets the White Balance to it's default settings.

- **10p White Balance** (**Off** / **On**) for PDP TV: Controls the white balance in 10 point interval by adjusting the red, green, and blue brightness.

  Available when the picture mode is set to Movie and when the external input is set to all input.

  Some external devices may not support this function.

  Interval: Select interval to adjust.

  Red: Adjust the red level.

  Green: Adjust the green level.

  Blue: Adjust the blue level.

  Reset: Resets the **10p White Balance** to its default settings.

- **Flesh Tone**: Emphasize pink “Flesh Tone.”
- **Edge Enhancement** (**Off** / **On**): Emphasize object boundaries.

- **Motion Lighting** (**Off** / **On**): Reduce power consumption by brightness control.

  ✎ When changing a setting value of **Cell Light** for PDP TV, **Contrast**, **Motion Lightning** will be set to **Off**.

- **xvYCC** (**Off** / **On**) for PDP TV: Setting the **xvYCC** mode on increases detail and colour space when watching movies from an external device (e.g. DVD player) connected to the HDMI or Component IN jacks.

  ✎ Available when the picture mode is set to **Movie** and when the external input is set to HDMI or Component.

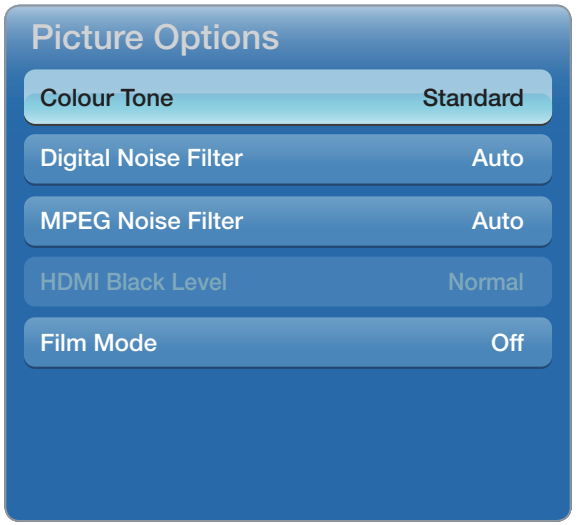
  ✎ Some external devices may not support this function.

- **LED Motion Plus** (**Off** / **On**) for LED TV: Removes drag from fast scenes with a lot of movement to provide a clear picture.

Picture Options

MENU → Picture → Picture Options → ENTER

When connecting a PC, you can only make changes to the Colour Tone.



- Colour Tone (Cool / Standard / Warm1 / Warm2)

  Warm1 or Warm2 will be deactivated when the picture mode is Dynamic.

  Settings can be adjusted and stored for each external device connected to an input on the TV.

- Digital Noise Filter (Off / Low / Medium / High / Auto / Auto Visualisation / Demo): When the broadcast signal is weak, some static and ghosting may appear. Select one of the options until the best picture is displayed.

  Auto Visualisation: When changing analogue channels, displays the intensity of the current signal and defines the screen noise filter.

- **MPEG Noise Filter** (**Off** / **Low** / **Medium** / **High** / **Auto**): Reduces MPEG noise to provide improved picture quality.
- **HDMI Black Level** (**Low** / **Normal**): Selects the black level on the screen to adjust the screen depth.

  ✎ Available only in HDMI mode (RGB signals).
- **Film Mode** (**Off** / **Auto1** / **Auto2** / **Cinema Smooth** for PDP TV): Sets the TV to automatically sense and process film signals from all sources and adjust the picture for optimum quality. The **Cinema Smooth** function is only activated when HDMI 24Hz signal is inputted.

  ✎ Available in TV, AV, COMPONENT (480i / 1080i) and HDMI (1080i).

■ Reset Picture (Yes / No)

Resets your current picture mode to its default settings.

❑ Setting up the TV with Your PC

Set the input source to PC.

■ Auto Adjustment TOOLS

MENU → Picture → Auto Adjustment → ENTER

Adjust frequency values/positions and fine tune the settings automatically.

Not available when connecting with an HDMI to DVI cable.

PC Screen Adjustment

MENU → Picture → Screen Adjustment → PC Screen Adjustment → ENTER

- Coarse / Fine: Removes or reduces picture noise. If the noise is not removed by Fine-tuning alone, then adjust the frequency as best as possible (Coarse) and Fine-tune again. After the noise has been reduced, readjust the picture so that it is aligned to the centre of screen.
- Position: Adjust the PC screen position with direction button (▲ / ▼ / ◀ / ▶).
- Image Reset: Resets the image to default settings.

Using Your TV as a Computer (PC) Display

Setting Up Your PC Software (Based on Windows XP)

Depending on the version of Windows and the video card, the actual screens on your PC may differ in which case the same basic set-up information will almost always be applied. (If not, contact your computer manufacturer or Samsung Dealer.)

1. Click on “Control Panel” on the Windows start menu.
2. Click on “Appearance and Themes” in the “Control Panel” window and a display dialog-box will appear.
3. Click on “Display” and a display dialog box will appear.
4. Navigate to the “Settings” tab on the display dialog-box.
   - The correct size setting (resolution) [Optimum: 1920 X 1080 pixels]
   - If a vertical-frequency option exists on your display settings dialog box, the correct value is “60” or “60 Hz”. Otherwise, just click “OK” and exit the dialog box.

❑ Changing the Preset Sound Mode

MENU → Sound → Sound Mode → ENTER

■ Sound Mode TOOLS

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.

If **Speaker Select** is set to **External Speaker**, **Sound Mode** is disabled.

❑ Adjusting Sound Settings

MENU → Sound → Sound Effect → ENTER

■ Sound Effect

If Speaker Select is set to External Speaker, Sound Effect is disabled.

Available only when Sound Mode is set to Standard.

- SRS TruSurround HD (Off / On)

  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF (Head Related Transfer Function) technology.

- SRS TruDialog (Off / On)

  This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

- **Equalizer**

  Adjusts the sound mode.

  Balance L/R: Adjusts the balance between the right and left speaker.

  100Hz / **300Hz** / **1kHz** / **3kHz** / **10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.

  Reset: Resets the equalizer to its default settings.

SPDIF Output

SPDIF (Sony Philips Digital InterFace) is used to provide digital sound, reducing interference going to speakers and various digital devices such as a DVD player.

- **Audio Format**: You can select the Digital Audio output (SPDIF) format.

  ✎ The available Digital Audio output(SPDIF) format may differ depending on the input source.

- **Audio Delay**: Correct audio-video sync problems, when watching TV or video, and when listening to digital audio output using an external device such as an AV receiver (0ms ~ 250ms).

Speaker Settings

- **Speaker Select** (**External Speaker** / **TV Speaker**)

  A sound echo may occur due to a difference in decoding speed between the main speaker and the audio receiver. In this case, set the TV to **External Speaker**.

  ✎ When **Speaker Select** is set to **External Speaker**, the volume and **MUTE** buttons will not operate and the sound settings will be limited.

  ✎ When **Speaker Select** is set to **External Speaker**.

  - **TV Speaker**: **Off**, **External Speaker**: **On**

  ✎ When **Speaker Select** is set to **TV Speaker**.

  - **TV Speaker**: **On**, **External Speaker**: **On**

  ✎ If there is no video signal, both speakers will be mute.

- **Headphones** for LED TV: You can connect your headphones to the headphones output on your set. While the headphones are connected, the sound from the built-in speakers will be disabled.
  - Sound function may be restricted when connecting headphones to the TV.
  - Headphone volume and TV volume are adjusted separately.
- If there is No Video Signal both TV speaker and Headphone will be mute.

- **Auto Volume** (**Off** / **Normal** / **Night**)

  To equalize the volume level on each channel, set to **Normal**.

  Night: This mode provides an improved sound experience compared to **Normal** mode, making almost no noise. It is useful at night.

  - To use the volume control of a connected source device, set **Auto Volume** to **Off**. A change to the volume control of the connected source device may not be applied if **Auto Volume** is set to **Normal** or **Night**.

■ Reset Sound (Yes / No)

Reset all sound settings to the factory defaults.

❑ Selecting the Sound Mode TOOLS

When you set to **Dual I-II**, the current sound mode is displayed on the screen.

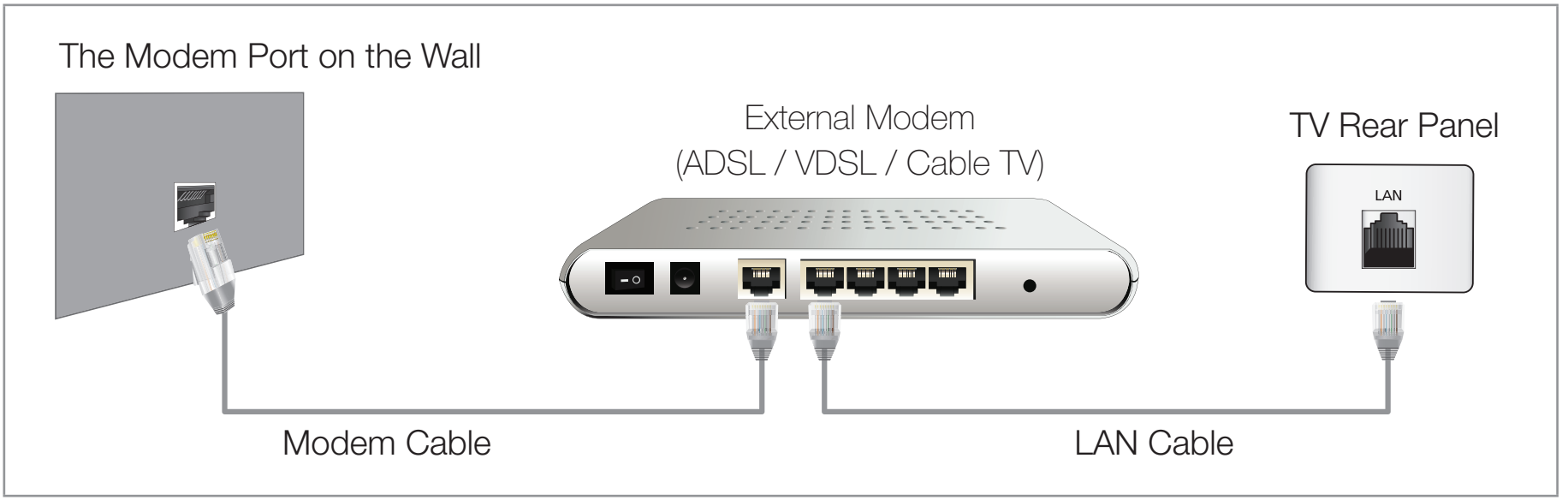
	Audio Type	DUAL I-II	Default
A2 Stereo	Mono	MONO	Automatic change
	Stereo	STEREO ↔ MONO	
	Dual	DUAL I ↔ DUAL II	DUAL I
NICAM Stereo	Mono	MONO	Automatic change
	Stereo	MONO ↔ STEREO	
	Dual	MONO → DUAL I ↖ DUAL II ↙	DUAL I

- If the stereo signal is weak and an automatic switching occurs, then switch to the mono.
- Only activated in stereo sound signal.
- Only available when the **Source** is set to **TV**.

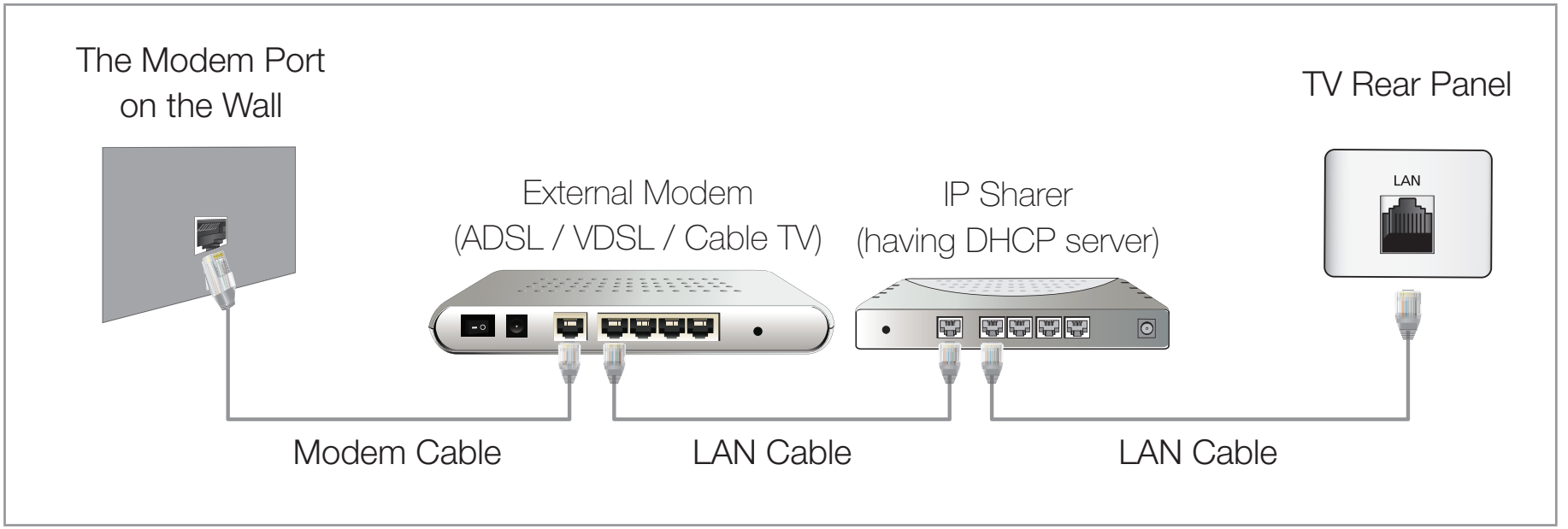
❑ Connecting to a Wired Network

You can attach your TV to your LAN using cable in three ways:

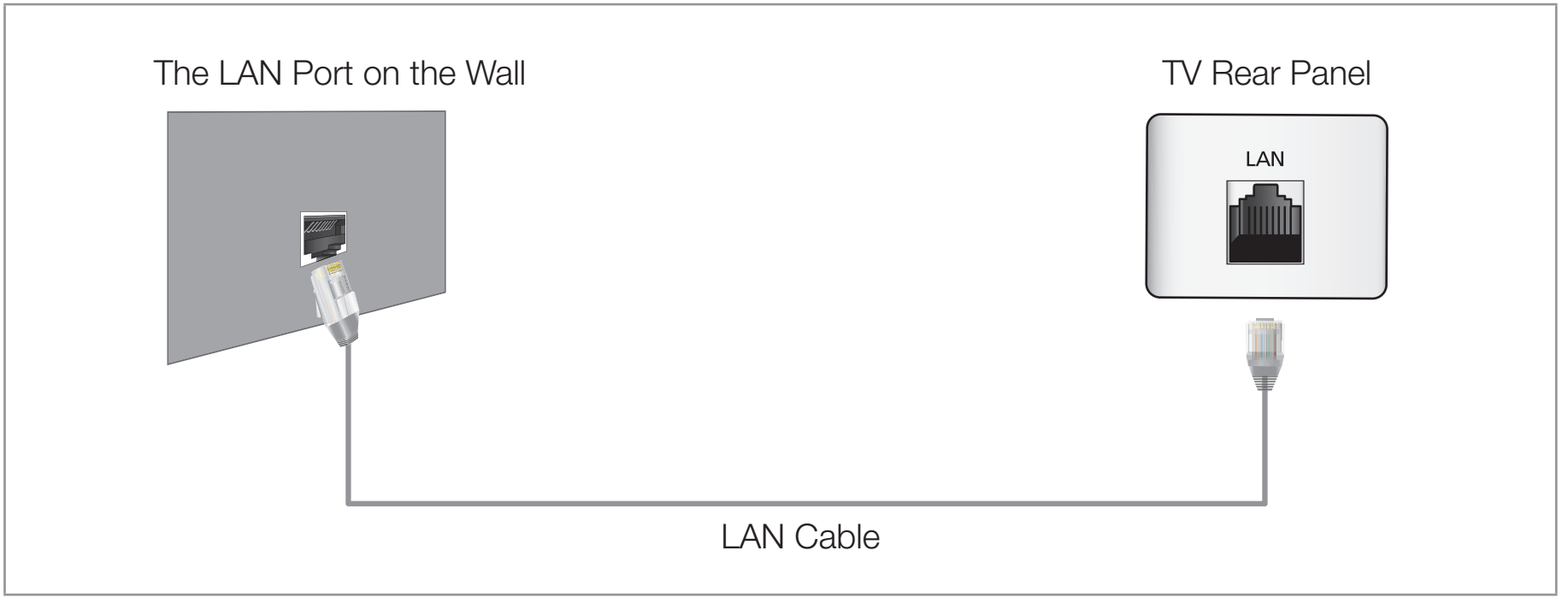
- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to an external modem using a LAN cable. See the diagram below.



- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to a IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.



- Depending on how your network is configured, you may be able to attach your TV to your LAN by connecting the LAN port on the back of your TV directly to a network wall outlet using a LAN cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.



- If you have a Dynamic Network, you should use an ADSL modem or router that supports Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your TV needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks.

  Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your TV's Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP). If you have a Windows computer, you can also get these values through your computer.

  ✎ You can use ADSL modems that support DHCP if your network requires a Static IP address. ADSL modems that support DHCP also let you use Static IP addresses.

Network Settings

MENU → Network → Network Settings → ENTER

Set the network connection to use various Internet services such as SMART HUB, AllShare™ and perform software upgrade.

Network Status

MENU → Network → Network Status → ENTER

You can check the current network and Internet status.

AllShare Settings

MENU → Network → AllShare Settings → ENTER

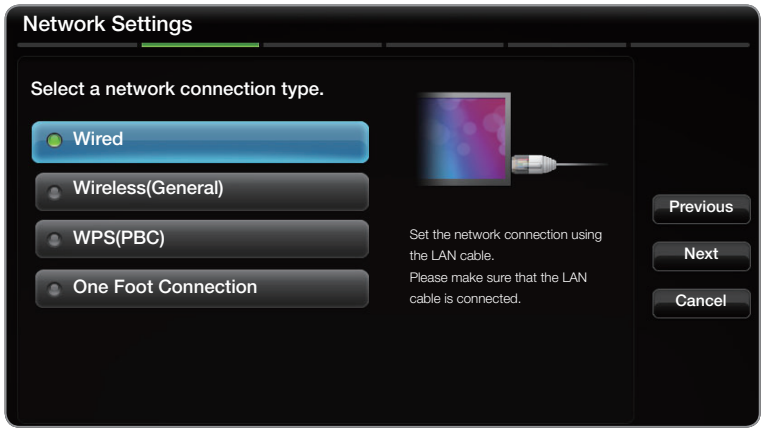
Selects whether to use media functions on the network.

■ Network Setup (Auto)

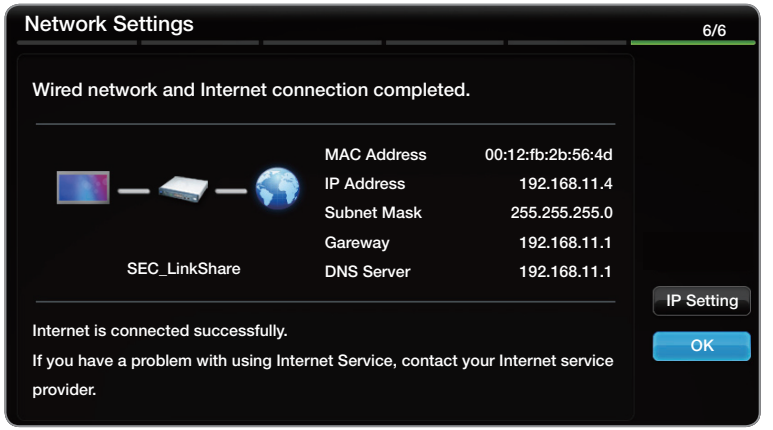
Use the Automatic Network Setup when connecting your TV to a network that supports DHCP. To set up your TV's cable network connection automatically, follow these steps:

How to set up automatically

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **Wired**.
3. The network test screen appears, and network setting is done.



- If it fails to set automatically, check the connection of LAN port.
- If you cannot find network connection values or if you want to set connection manually, set it to Manual. Refer to following “How to set up manually”.



■ Network Settings (Manual)

Use the Manual Network Setup when connecting your TV to a network that requires a Static IP address.

Getting the Network Connection Values

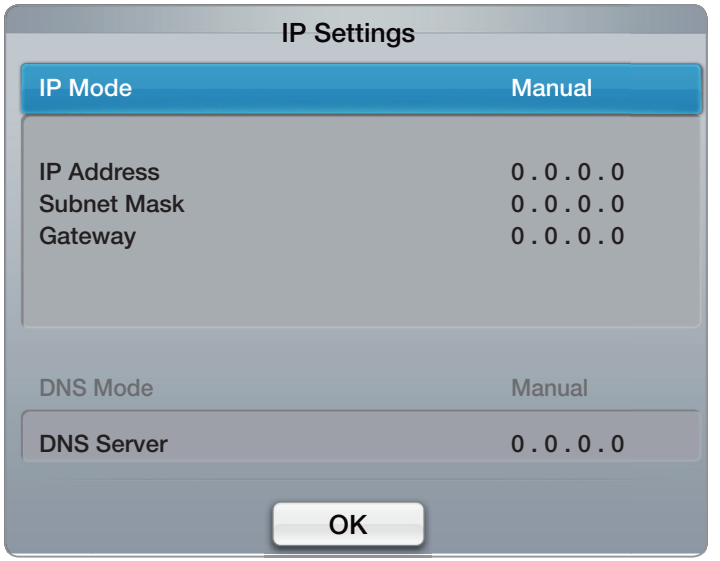
To get the Network connection values on most Windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your TV's cable network connection manually, follow these steps:

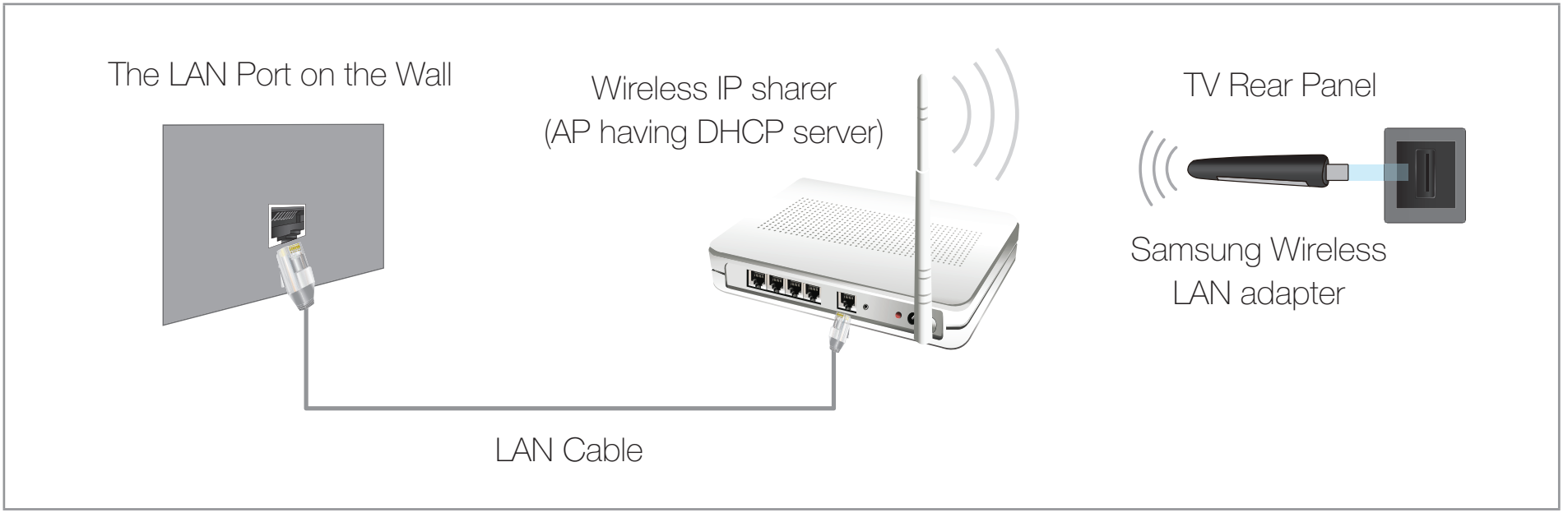
1. Follow Steps 1 through 2 in the "How to set up automatically" procedure.
2. Select the **IP Settings** on network test screen.
3. Set **IP Mode** to **Manual**.
4. Press the ▼ button on your remote to go to the **IP Address**.



5. Enter the **IP Address, Subnet Mask, Gateway**, and **DNS Server** values. Use the number buttons on your remote to enter numbers and the arrow buttons to move from one entry field to another.
6. When done, select the **OK**.
7. The network test screen appears, and network setting is done.

❑ Connecting to a Wireless Network for LED TV

To connect your TV to your network wireless, you need a wireless router or modem and a Samsung Wireless LAN Adapter (WIS09ABGN, WIS09ABGN2, WIS10ABGN), which you connect to your TV's back or side panel USB port. See the illustration below.



Samsung's Wireless LAN adapter is sold separately and is offered by selected retailers, Ecommerce sites and Samsungparts.com. Samsung's Wireless LAN adapter supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play video over a IEEE 802.11b/g connection, the video may not play smoothly.

NOTE

- You must use the "Samsung Wireless LAN Adapter" (WIS09ABGN, WIS09ABGN2, WIS10ABGN) to use a wireless network.
- Samsung Wireless LAN Adapter and The USB extension Cable are sold separately and are offered by select retailers, Ecommerce sites and Samsungparts.com.

- To use a wireless network, your TV must be connected to a wireless IP sharer (either a router or a modem). If the wireless IP sharer supports DHCP, your TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.
- If you apply a security system other than the systems listed below, it will not work with the TV.

- If Pure High-throughput (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) for your AP, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.
- If your AP supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.
- If your router, modem, or device is not certified, it may not connect to the TV via the “Samsung Wireless LAN Adapter.”
- Ensure the TV is turned on before you connect the Samsung Wireless LAN Adapter.

- Connection Methods: You can setup the wireless network connection on six ways.
  - Auto Setup (Using the Auto Network Search function)
  - Manual Setup
  - **WPS(PBC)**
  - **One Foot Connection**
  - **Plug & Access**
- The Samsung Wireless LAN Adapter may not be recognized when using a connection via a USB hub or via a USB extension cable other than the cable supplied.

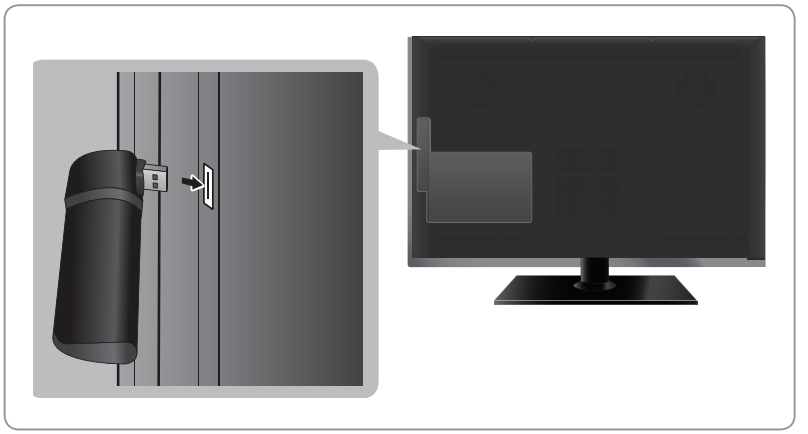
Notice

The picture may appear corrupted or have static for some channels when the TV is connected to the Samsung Wireless LAN Adapter. In such a case, establish a connection using one of the following methods or connect the Samsung Wireless LAN Adapter using a USB cable in a place that is not affected by radio interference.

- Method 1: Connect using the USB right angle adapter

  To connect the Samsung Wireless LAN Adapter using the USB right angle adapter, follow these steps:

  1. Connect the USB right angle adapter to the Samsung Wireless LAN Adapter.
  2. Connect the other end of the right angle adapter to the **USB 1 (HDD)** port.

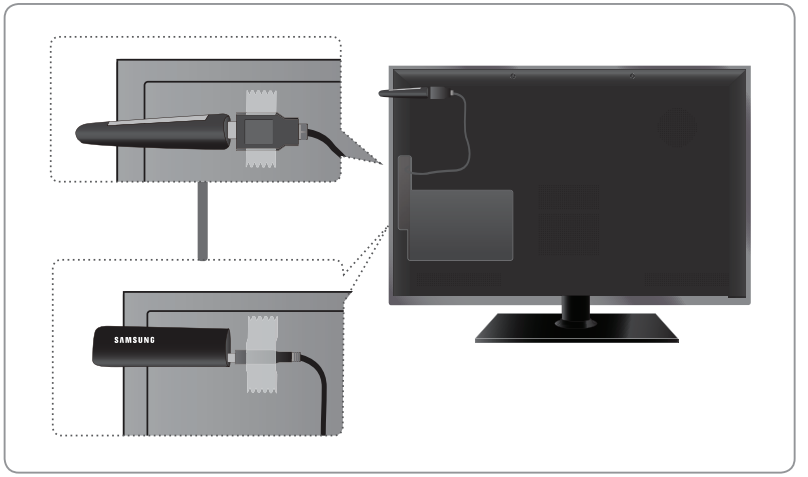


- The displayed image may differ depending on the model.

- Method 2: Connect via an extension cable

  To reconnect the Samsung Wireless LAN Adapter using the extension cable, follow these steps:

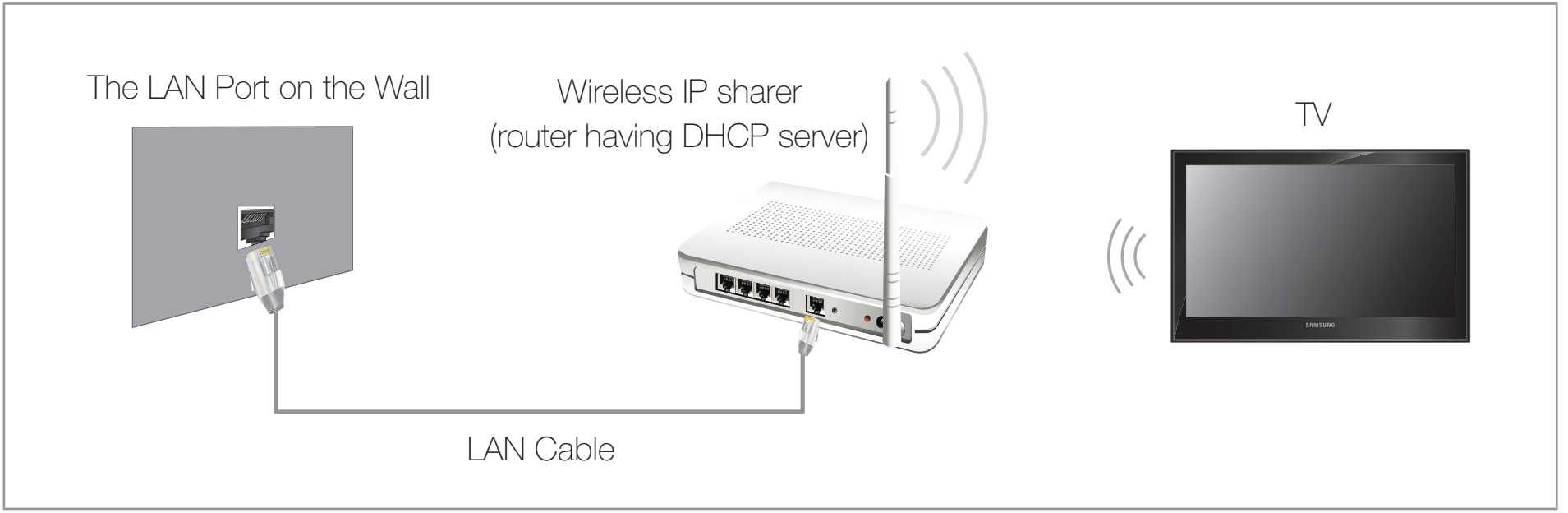
  1. Connect the extension cable to the **USB 1 (HDD)** port.
  2. Connect the extension cable and Samsung Wireless LAN Adapter.
  3. Attach the Samsung Wireless LAN Adapter to the back of the TV near the top, using double-sided adhesive tape.



- The displayed image may differ depending on the model.

❑ Connecting to a Wireless Network for PDP TV

To connect your TV to your network wireless, you can use a wireless network to use the Samsung Wireless LAN adapter where is built-in the TV.



Samsung Wireless LAN adapter supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play video over a IEEE 802.11b/g connection, the video may not play smoothly.

NOTE

- To use a wireless network, your TV must be connected to a wireless IP sharer (either a router or a modem). If the wireless IP sharer supports DHCP, your TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.
- If you apply a security system other than the systems listed below, it will not work with the TV.

- If Pure High-throughput (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) for your AP, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.
- If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.
- If your router, modem, or device is not certified, it may not connect to the TV.
- Ensure the TV is turned on before you connect the Samsung Wireless LAN adapter.

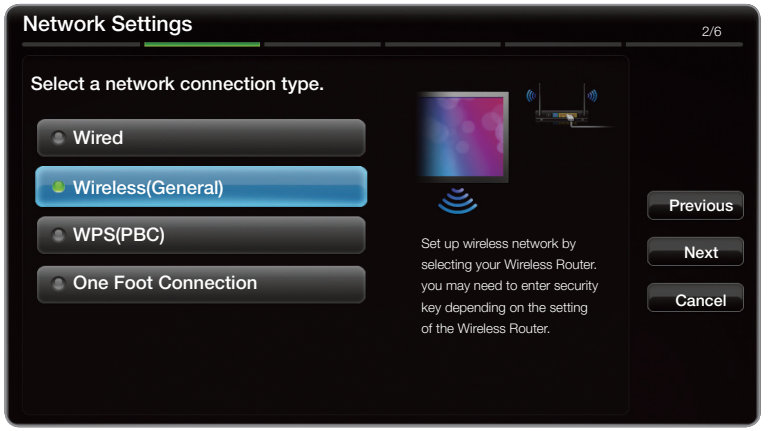
- Connection Methods: You can setup the wireless network connection on five ways.
  - Auto Setup (Using the Auto Network Search function)
  - Manual Setup
  - **PBC (WPS)**
  - **One Foot Connection**
  - **Plug & Access**

Network Setup (Auto)

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security Key. The Security Key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network. If you use this method of setting up the network connection, and have a Security Key for your wireless network, you will have to enter the Pass Phrase during the setup process.

How to set up automatically

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **Wireless**.



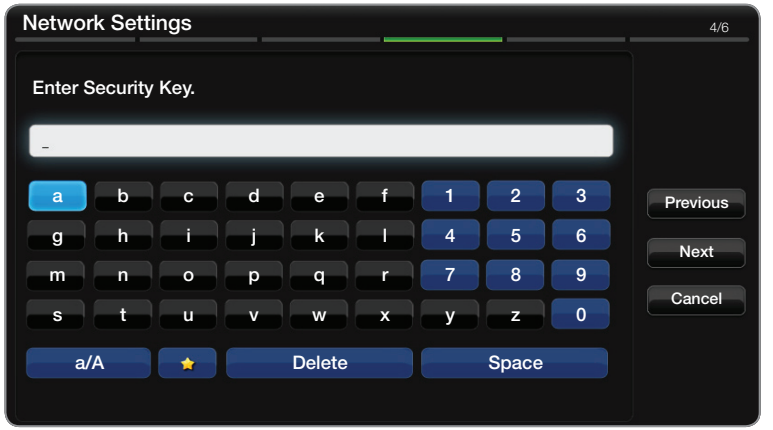
3. The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.

4. In the list of networks, press the ▲ or ▼ button to select a network, and then press the ENTER button.

   If the Wireless Router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct **Network Name (SSID)** and **Security key** to establish the connection.

5. If the **Security** screen pop-up appears, go to step 6. If you select the AP which does not have security, go to step 10.

6. If the AP has security, enter the Security key(Security or PIN), then select **Next**.



- When you enter the Security key(Security or PIN), use ▲ / ▼ / ◀ / ▶ buttons on your remote to select number/ characters.
- You should be able to find the Pass Phrase on one of the set up screens you used to set up your router or modem.

7. The network connection screen appears, and network setting is done.

- If it fails to set Security key(Security or PIN), select **Reset** or **IP Settings**.
- If you want to set connection manually, select the **IP Settings**. Refer to following “How to set up manually”.

■ Network Setup (Manual)

Use the Manual **Network Setup** when connecting your TV to a network that requires a Static IP address.

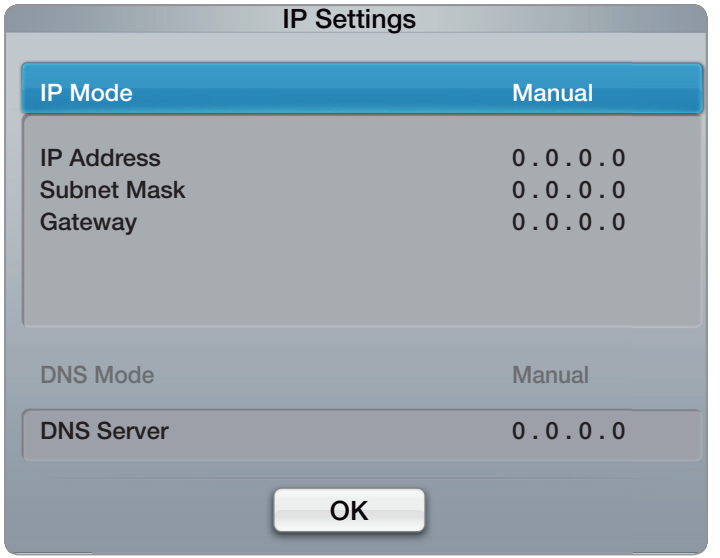
Getting the Network Connection Values

To get the Network connection values on most Windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your TV's cable network connection manually, follow these steps:



1. Follow Steps 1 through 2 in the "How to set up automatically" procedure.
2. Select the **IP Settings** on network test screen.
3. Set **IP Mode** to **Manual**.
4. Press the ▼ button on your remote to go to the first entry field.
5. Enter the **IP Address, Subnet Mask, Gateway**, and **DNS Server** values. Use the number buttons on your remote to enter numbers and the arrow buttons to move from one entry field to another.
6. When done, select the **OK**.
7. The network connection screen appears, and network setting is done.

Network Setup (WPS(PBC))

How to set up using WPS(PBC)

If your router has a WPS(PBC) button, follow these steps:

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **WPS(PBC)**.
3. Press the **WPS(PBC)** button on your router within 2 minutes. Your TV automatically acquires all the network setting values it needs and connects to your network.
4. The network test screen appears, and network setting is done.

Network Settings (One Foot Connection)

The **One Foot Connection** make you easy to connect samsung TV and samsung wireless router by placing samsung wireless router within 1foot(25cm) from samsung TV. If your wireless router does not support **One Foot Connection**, you must connect using one of the other methods.

- You can check for equipment that supports **One Foot Connection** on www.samsung.com.

How to set up using One Foot Connection

Turn on the power of wireless router and TV.

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **One Foot Connection**.
3. Place the wireless router in parallel with the Samsung Wireless LAN Adapter giving a gap no larger than 25cm.

4. Wait until the connection is automatically established.

5. The network connection screen appears, and network setting is done.

6. Place the wireless router in a desired location.

   If the wireless router settings change or you install a new AP, you must perform the **One Foot Connection** procedure again, beginning from Step 1.

■ Network Setting (Plug & Access)

Plug & Access function make you easy to connect samsung TV and samsung wireless router by using USB memory stick. If your wireless router does not support **Plug & Access**, you must connect using one of the other methods.

✎ You can check for equipment that supports **Plug & Access** on www.samsung.com.

How to set up using Plug & Access function

Turn on the power of wireless router and TV.

1. Insert USB memory stick into our Samsung wireless router and checking wireless router's LED status (blinking → on).
2. Then take USB memory out and insert it into Samsung TV.
3. Wait until the connection is automatically established.

   ✎ If **Plug & Access** does not connect your TV to your wireless router, a pop-up window appears on the screen notifying you of the failure. If you want to try using **Plug & Access** a gain, reset the wireless router, disconnect the Samsung Wireless LAN Adapter and then try again from Step 1. You can also choose one of the other connection setup methods.

4. The network connection screen appears, and network setting is done.

5. Place the wireless router in a desired location.

   ✎ If the wireless router settings change or you install a new wireless router, you must perform the **Plug & Access** procedure again, beginning from Step 1.

Priority QOS

Samsung wireless Router is optimized HD AV streaming for Samsung DTV

This is our product's distinctive function.

Samsung wireless Router can be connected with many devices, such as laptop, mobile phone, BD player etc.

In case of connecting Samsung TV to Samsung wireless Router while other devices are connected, Samsung wireless Router will give Samsung TV a priority connection than other devices.

This function ensures the best streaming contents and throughput speed.

- Make your TV faster by giving priority bandwidth to your TV (on/off optional).
- By giving priority to Samsung TVs, enjoy HD content without buffering.
- Connection speed may vary based on the network environment.

■ Network Setup (Ad-Hoc)

You can connect to a mobile device supporting Ad-hoc without an AP through the "Samsung Wireless LAN Adapter". When connecting mobile device, you can use files on device or connect internet using AllShare or Multimedia function.

How to set up using WPS(PBC)

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **Wireless**.

3. When finished searching a mobile device, set the **Network Name(SSID)** and Security key of the device, and then connect the network.

- If network does not operate normally, check the **Network Name (SSID)** and Security key again. An incorrect Security key may cause a malfunction.
- If a device is connected once, it is displayed in Network Setting list. When you connect it again, you can find it in network setting list.

If Your TV Fails to Connect to the Internet

Your TV may not be able to connect to the Internet because your ISP has permanently registered the MAC address (a unique identifying number) of your PC or modem, which it then authenticates each time you connect to the Internet as a way of preventing unauthorized access. As your TV has a different MAC address, your ISP can not authenticate its MAC address, and your TV can not connect.

To resolve this problem, ask your ISP about the procedures required to connect devices other than a PC (such as your TV) to the Internet.

If your Internet service provider requires an ID or password to connect to the Internet, your TV may not be able to connect to the Internet. If this is the case, you must enter your ID or password when connecting to the Internet.

The internet connection may fail because of a firewall problem. If this is the case, contact your Internet service provider.

If you cannot connect to the Internet even after you have followed the procedures of your Internet service provider, please contact Samsung Electronics at 1-800-SAMSUNG.

❑ Setting the Time

MENU → System → ENTER

■ Time

- **Clock**: Setting the clock is for using various timer features of the TV.

  The current time will appear every time you press the **INFO** button.

  If you disconnect the power cord, you have to set the clock again.

  – **Clock Set**: Set the **Date** and **Time**.

    You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

Using the Sleep Timer

MENU → System → Time → ENTER

- Sleep Timer TOOLS: Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

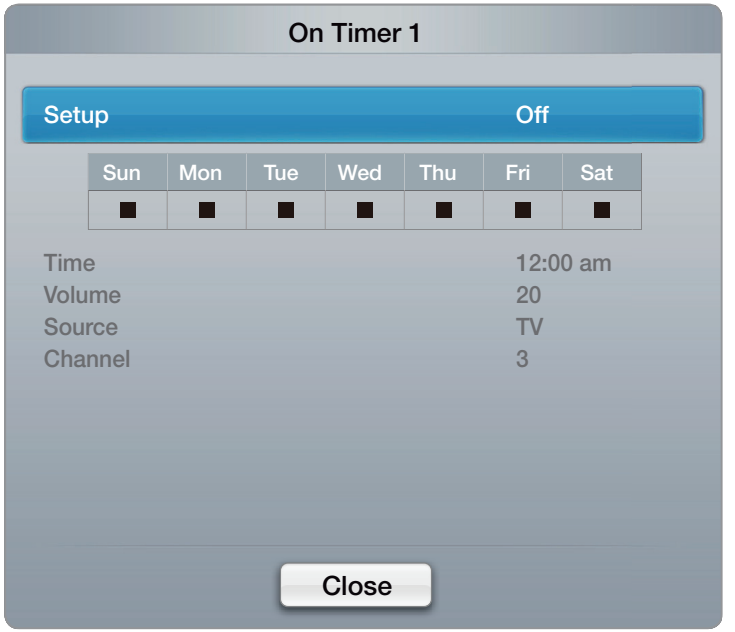
  To cancel Sleep Timer, select Off.

Setting the On / Off Timer

MENU → System → Time → ENTER

- **On Timer 1** / **On Timer 2** / **On Timer 3**: Three different on timer settings can be made. You must set the clock first.

  Setup: Select **Off, Once, Everyday, Mon~Fri, Mon~Sat, Sat~Sun** or **Manual** to set at you convenience. If you select **Manual**, you can set up the day you want to activate the timer.



  The ✓ mark indicates the days you've selected.

  Time: Set the hour and minute.

Volume: Set the desired volume level.

Source: Select **TV** or **USB** content to be played when the TV is turned on automatically. (**USB** can be selected only when a USB device is connected to the TV)

Channel (when the **Source** is set to **TV**): Select the desired channel.

Music / **Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files to be played when the TV is turned on automatically.

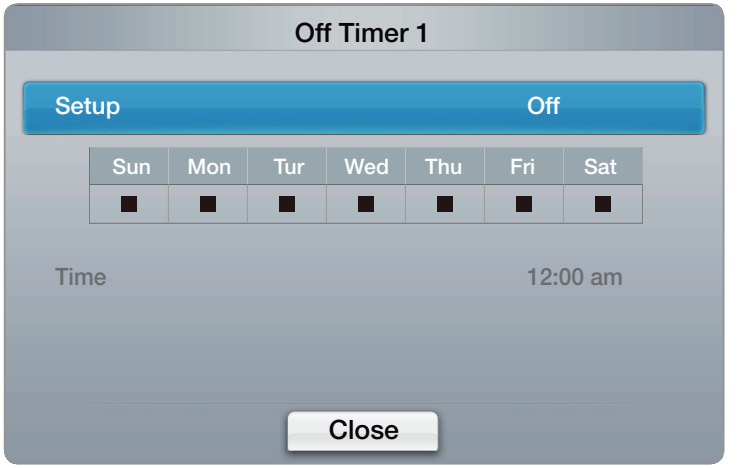
- **Auto Power Off** (available only when the TV is turned on by Timer): The TV will be automatically turned off after 4 hours of being left idle to prevent overheating.

  NOTE

  - If there is no music file on the USB device or the folder containing a music file is not selected, the Timer function does not operate correctly.
  - When there is only one photo file in the USB, the Slide Show will not play.
  - If a folder name is too long, the folder cannot be selected.
  - Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.

- It is recommended that you use a USB memory stick and a multi card reader when using **On Timer**. The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because these devices take a long time to be recognized.

- **Off Timer 1** / **Off Timer 2** / **Off Timer 3**: Three different off timer settings can be made. You must set the clock first.



  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at you convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  ✎ The ✓ mark indicates the days you've selected.

  Time: Set the hour and minute.

❑ Locking Programme

MENU → System → Security → ENTER

■ Security

The PIN input screen appears, Enter your 4 digit PIN number.

- **Channel Lock** (**Off** / **On**): Lock channels in **Channel Manager**, to prevent unauthorized users, such as children, from watching unsuitable programme.

  Available only when the **Source** is set to **TV**.

- **Change PIN**: The **Change PIN** screen will appear. Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Re-enter the same 4 digits in **Confirm New PIN**. When the Confirm screen disappears, press the **Close** button. The TV has memorised your new PIN.

  If you forget the PIN code, press the remote control buttons in the following sequence in Standby mode, which resets the PIN to “0-0-0-0”: MUTE → 8 → 2 → 4 → POWER (on).

❑ Economical Solutions

■ Eco Solution

MENU → System → Eco Solution → ENTER

- **Energy Saving** (**Off** / **Low** / **Medium** / **High** / **Picture Off** TOOLS): This adjusts the brightness of the TV in order to reduce power consumption. If you select **Picture Off**, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.
- **Eco Sensor** (**Off** / **On**): To enhance your power savings; the picture settings will automatically adapt to the light in the room.

  If you adjust the **Backlight** / **Cell Light**, the **Eco Sensor** will be set to **Off**.

  Min. Backlight for LED TV / **Min Cell Light** for PDP TV: When **Eco sensor** is **On**, the minimum screen brightness can be adjusted manually.

  If **Eco Sensor** is **On**, the display brightness may change (become slightly darker or brighter) depending on the surrounding light intensity.

- **No-Signal Power Off** (**Off** / **15 min** / **30 min** / **60 min**): To avoid unnecessary energy consumption, set how long you want the TV to remain on if it's not receiving a signal.

  ✎ Disabled when the PC is in power saving mode.

- **Auto Power Off** (**Off** / **On**): The TV will be automatically turned off after 4 hours of being left idle to prevent overheating.

❑ Other Features

■ Menu Language

MENU → System → Menu Language → ENTER

Set the menu language.

1. Select Menu Language and press the ENTER button.
2. Choose desired language and press the ENTER button.

■ Auto Protection Time (Off / 2 hours / 4 hours / 8 hours / 10 hours)

for LED TV

If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Screen Burn Protection for PDP TV

To reduce the possibility of screen burn, this unit is equipped with screen burn prevention technology. The Time setting allows you to programme the time between movement of the picture in minutes.

- **Pixel Shift** (**Off** / **On**): Using this function, you can minutely move pixels on the PDP in horizontal or vertical direction to minimize after image on the screen.

  Optimum condition for pixel shift

	Item	TV/AV/Component/HDMI/PC
Horizontal	0~4	4
Vertical	0~4	4
Time (minute)	1~4 min	4 min

- The **Pixel Shift** value may differ depending on the monitor size (inches) and mode.
- This function is not available in the **Screen Fit** mode.

- **Auto Protection Time** (**Off** / **10 min** / **20 min** / **40 min** / **1 hour**): If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Scrolling: This function removes after-images on the screen by moving all the pixels on the PDP according to a pattern. Use this function when there are remaining after images or symbols on the screen, especially when you displayed a still image on the screen for a long time.

- The after-image removal function has to be executed for a long time (approximately 1 hour) to effectively remove after-images on the screen. If the after-image is not removed after performing the function, repeat the function again.
- Press any key on the remote control to cancel this feature.

Side Grey (**Light** / **Dark**): When you watch TV with the screen ratio set to 4:3, the screen is prevented from any damage by adjusting the white balance on both extreme left and right sides.

General

- **Game Mode** (**Off** / **On**): When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

  NOTE

  - Precautions and limitations for game mode
    - To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
    - If you display the TV menu in **Game Mode**, the screen shakes slightly.
  - **Game Mode** is not available when the input source is set to TV or PC.
  - After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.

- If **Game Mode** is **On**:
  - **Picture** mode is set to **Standard** and **Sound** mode is set to **Movie**.

- **BD Wise** for PDP TV (**Off** / **On**): Provides the optimal picture quality for Samsung DVD, Blu-ray and Home Theatre products which support **BD Wise**. When **BD Wise** is turned **On**, the picture mode is automatically changed to the optimal resolution.

  ✎ Available when connecting Samsung products that support **BD Wise** through a HDMI cable.

- **Boot Logo** (**Off** / **On**): Display Samsung logo when the TV is turned on.
- **TV Name**: Sets the TV name so you can find it easily on a mobile device.

  ✎ If you select User Input, you can type on the TV using the OSK (On Screen Keyboard).

Anynet+(HDMI-CEC)

For details on set up options, refer to the “What is Anynet+?” instructions.

DivX® Video On Demand

Shows the registration code authorized for the TV. If you connect to the DivX web site and register, you can download the VOD registration file. If you play the VOD registration using Smart Hub, the registration is completed.

For more information on DivX® VOD, visit “http://vod.divx.com”.

■ Network Remote Control (On / Off)

Turn on/off or give permission to Samsung mobile phones devices. You must have a Samsung Mobile phone/device which supports Wireless Remote Control. For more details, refer to each device's manual.

❑ Picture In Picture (PIP)

■ PIP TOOLS

You can watch the TV tuner and one external video source simultaneously. PIP (Picture-in-Picture) does not function in the same mode.

MENU → System → PIP → ENTER

NOTE

- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the TV off while watching in **PIP** mode, the PIP window will disappear.
- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.
- While **SMART HUB** or **Channel Lock** is in operation, the **PIP** function cannot be used.

PIP settings

Main picture	Sub picture
Component, HDMI, PC	TV, AV

- **PIP** (**Off** / **On**): Activate or deactivate the PIP function.
- **Source** (**TV** / **AV**): You can select a source of the subpicture.
- **Channel**: Select the channel for the sub-screen.
- **Size** (/): Select a size for the sub-picture.
- **Position** (/ / /): Select a position for the sub-picture.
- **Sound Select** (**Main** / **Sub**): You can choose the desired sound (**Main** / **Sub**) in **PIP** mode.

❑ Support

MENU → Support → ENTER

■ e-Manual

You can read the introduction and instructions about the TV features stored in your TV.

For the detailed information about e-Manual Screen, refer to “How to view the e-Manual”.

Self Diagnosis

Self Diagnosis might take few seconds, this is part of the normal operation of the TV.

- **Picture Test** (**Yes** / **No**): Use to check for picture problems.
- **Sound Test** (**Yes** / **No**): Use the built-in melody sound to check for sound problems.

  If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV Speaker** in the **Sound** menu.

  The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

- **Troubleshooting**: If the TV seems to have a problem, refer to this description.

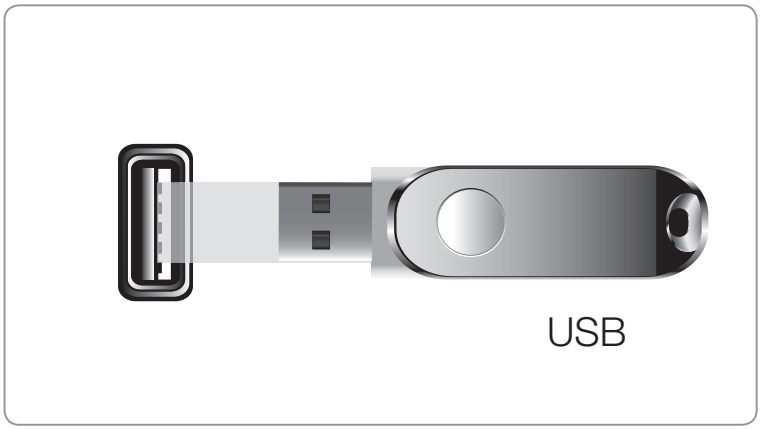
  ✎ If none of these troubleshooting tips apply, contact the Samsung customer service centre.

■ Software Upgrade

Software Upgrade can be performed via a broadcasting signal or by network connection or downloading the latest firmware from “www.samsung.com,” to a USB memory device.

Current Version the software already installed in the TV.

✎ Software is represented as ‘Year/Month/Day_Version’.



- The displayed image may differ depending on the model.

Installing the Latest Version

- **By USB**: Insert a USB drive containing the firmware upgrade file, downloaded from “www.samsung.com,” into the TV. Please be careful not to disconnect the power or remove the USB drive until upgrades are complete. The TV will be turned off and on automatically after completing the firmware upgrade. When software is upgraded, video and audio settings you have made will return to their default settings. We advise you to to write down your settings so that you can easily reset them after the upgrade.

- **By Online**: Upgrade the software using the Internet.

  ✎ First, configure your network. For detailed procedures on using the Network Setup, refer to the "**Network Settings**" instructions.

  ✎ If the internet connection doesn't operate properly, the connection may be broken. Please retry downloading. If the problem persists, download and upgrade by USB.

- **Alternative Software** (backup): If there is an issue with the new firmware and it is affecting operation, you can change the software to the previous version.

  ✎ If the software was changed, existing software is displayed.

- **Standby Mode Upgrade (Off / On)**: A manual upgrade will be automatically performed at selected time. Since the power of the unit is turned on internally, the screen may be turned on slightly for the product. This phenomenon may continue for more than 1 hour until the software upgrade is complete.

■ Contact Samsung

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centres, and how to download products and software.

❑ Using the 3D function for PDP TV

MENU → Picture → 3D → ENTER

■ 3D

This exciting new feature enables you to view 3D content. In order to fully enjoy this feature, you must purchase a pair of Samsung 3D Active Glasses to view 3D video. Samsung 3D Active Glasses are sold separately. For more detailed purchasing information, contact the retailer where you purchased this TV.

IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D PICTURES.

Read and understand the following safety information before using the TV's 3D function.

⚠ WARNING

- Some viewers may experience discomfort while viewing 3D TV such as dizziness, nausea and headaches. If you experience any such symptom, stop viewing 3D TV, remove 3D Active Glasses and rest.
- Watching 3D images for an extended period of time may cause eye strain. If you feel eye strain, stop viewing 3D TV, remove your 3D Active Glasses and rest.

- A responsible adult should frequently check on children who are using the 3D function. If there are any reports of tired eyes, headaches, dizziness, or nausea, have the child stop viewing 3D TV and rest.
- Do not use the 3D Active Glasses for other purposes (such as general eyeglasses, sunglasses, protective goggles, etc.)
- Do not use the 3D function or 3D Active Glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may result in injuries due to running into objects, tripping, and/or falling.

- **3D Mode**: Select the 3D input format.

  ✎ If you want to feel the 3D effect fully, please wear the 3D Active Glasses first, and then select 3D Mode from the list below that provides the best 3D viewing experience.

  ✎ When watching 3D images, turn on 3D Active Glasses.

3D Mode		Operation
	Off	Turns the 3D function off.
	2D → 3D	Changes a 2D image to 3D.
	Side by Side	Displays two images next to each other.
	Top & Bottom	Displays one image above another.

- Some file format may not supported the “2D → 3D.”
- “Side by Side” and “Top & Bottom” are available when the resolution is 720p, 1080i and 1080p in DTV, HDMI and USB mode or when set to PC and the PC is connected through an HDMI/DVI cable.

- **3D Perspective** (**-5** ~ **+5**): Adjust overall 3D perspective of on-screen image.
- **Depth** (**0**~**10**): Adjust overall depth.
- **L/R Change** (**L/R Image** / **R/L Image**): Swap the left and right pictures.
- **3D** → **2D** (**Off** / **On**): Displays the image for the left eye only.
  - This function is deactivated when **3D Mode** set to “2D → 3D” or **Off**.

Support resolution (16:9 only)

Resolution	Frequency (Hz)
1280 x 720p	50 / 60 Hz
1920 x 1080i	50 / 60 Hz
1920 x 1080p	24 / 30 / 50 / 60 Hz Resolution

Resolution supported for HDMI PC mode

The resolution for HDMI PC mode is optimized to 1920 x 1080 input.
An input resolution other than 1920 x 1080 may not be displayed properly in 3D display or full screen mode.

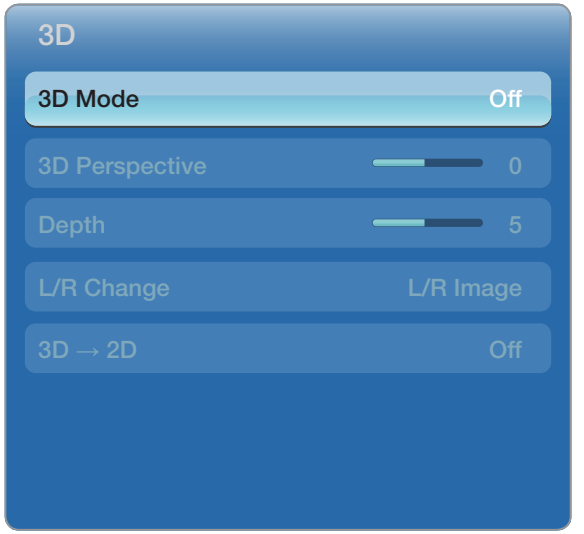
How to watch the 3D image

- Method

  Some 3D modes may not be available depending on the format of the image source.

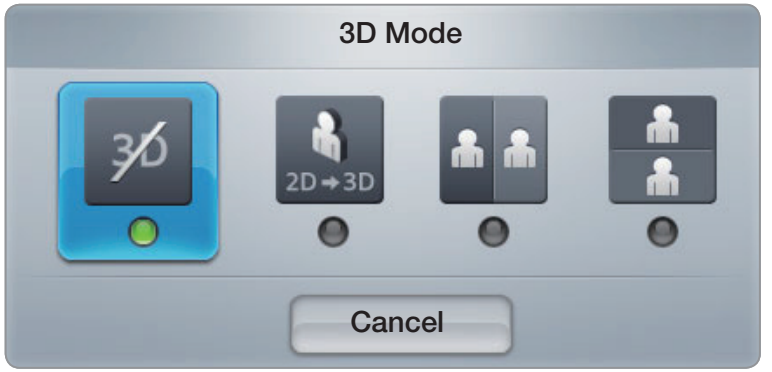
  To watch in 3D, wear 3D Active Glasses and press the power button on the glasses.

  1. Press the MENU button on your remote, use the ▲ or ▼ button to select Picture, and then press the ENTER button.
  2. Use the ▲ or ▼ button to select 3D, and then press the ENTER button.



3. Use the ▲ or ▼ button to select **3D Mode**, and then press the ENTER button.

4. Using the ◀ or ▶ buttons on your remote control, select the **3D Mode** of the image you want to view.



- The displayed image may differ depending on the model.

Supported formats and operating specifications for Standard HDMI 3D

The 3D formats indicated below are recommended by the HDMI association and must be supported.

Source signal format	Standard HDMI 1.4 3D
1920x1080p@24Hz x 2	1920x2205p@24Hz
1280x720p@50Hz x 2	1280x1470p@50Hz

Before using 3D function...

NOTE

- **3D Mode** is set to **Off** automatically when accessing **Smart Hub** or **e-Manual** functions.
- **3D Mode** is set to memorised configuration value automatically, when changing the input source.
- Some **Picture** functions are disabled in **3D** mode.
- **PIP** is not supported in **3D** mode.

- 3D Active Glasses from Samsung's previous product (IR type) or other manufacturers not be supported.
- When the TV is initially powered on, may take some time until the 3D display is optimized.
- The 3D Active Glasses may not work properly if there is any other 3D product or electronic devices turned on near the glasses or TV. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.

- Be sure to stay within the viewing angle and optimum TV viewing distance when watching 3D pictures. Otherwise, you may not be able to enjoy proper 3D effects.
- The ideal viewing distance should be three times or more the height of the screen. We recommend sitting with viewer's eyes on a level with the screen.

❑ Getting Started with Smart Hub

Smart Hub brings useful and entertaining contents and services directly from the web to your TV.

The Gateway to all content integrated in one place

- The displayed image may differ depending on the model.

- It's all integrated to guide you to easier and diverse entertainment choices
- Control your entertainment life with easy and simple user friendly UI
- Access to diverse Apps that are adding up every day
- Customize your TV, by App grouping & sorting to your taste

Screen Display

Exit: Exits the SMART HUB.

Application service: You can experience various service by provided samsung.

Recommended Applications: Displays the recommended service by Samsung. You are not able to add or delete a service in this list.

Installed Applications list: Displays the installed applications in the TV.

TV Screen: Displays the current input source screen.

Information: Displays notices, new applications, and advertisements brought to you by Samsung product introductions.

Controls:

- A Red (**Login**): To log in to **Smart Hub**.
- B Green (**Sort by**): To sort the applications by category.
- C Yellow (**Edit Mode**): You can edit the applications (such as move, making folder).
- D Blue (**Settings**): Edit and configure applications and Smart Hub settings.

The colour buttons may work differently depending on the application.

NOTE

- Configure the network settings before using **Smart Hub**. For more information, refer to "**Network Settings**".
- Unsupported fonts within the provider's content will not display normally.
- Slow responses and/or interruptions may occur, depending on your network conditions.
- Depending on the region, English may be the only language supported for application services.
- This feature is not available in some locations.

- If you experience a problem using an application, please contact the content provider.
- According to circumstances of the contents provider, an application's updates or the application itself may be discontinued.
- Depending on your country's regulations, some applications may have limited service or not be supported.

Starting Smart Hub the First Time

To start Smart Hub for the first time, follow these steps :

1. The **General Disclaimer** screen appears. Press the ◀ / ▶ buttons to select Agree, then press the ENTER button.

   Screens can take a few seconds to appear.

2 The Internet Privacy Policy screen appears. Press the ◀ / ▶ buttons to select Agree, then press the ENTER button.

3. The Service Update screen appears and installs a number of services and applications. When done, it closes. The applications and services downloaded are displayed on the Smart Hub screen. This may take some time.

   Smart Hub may close momentarily during the installation process.

   A number of screens may appear after installation. You can press the ENTER button to close them or let them close on their own.

4. To start an application, press the ▲ / ▼ / ◀ / ▶ buttons to highlight a application, then press the ENTER button.

Account Login

For an application with multiple accounts, select ▼ to access the different accounts.

- For a more enjoyable application experience, register and log in to your account.
- For instructions on creating an account, refer to “How to create an **Smart TV ID**”.

1. Press the Red button in the **Smart Hub** home page.
2. Select ▼ by pressing the ▲ / ▼ / ◀ / ▶ button. The account list appears.
   - If you want to create an account, select **Create Account** then the create account OSD window will appear.
3. Select the desired **Smart TV ID**, and the press the ENTER button.
4. After selecting **Smart TV ID**, enter the **Password** using the remote control.
   - When login succeeds, **Smart TV ID** will be displayed on the screen.

How to create a Smart TV ID

Before creating a **Smart TV ID**, you should download the application first on the **Samsung Apps**.

1. Press the Red button. The Login screen appears.
2. Select **Create Account**. The **Create Account** screen will appear.
3. Press the ENTER button to enter a new **Smart TV ID**. The Keypad screen will appear.
4. Using the keypad screen, enter a **Smart TV ID**.

   A **Smart TV ID** must be created in “sample@sample.com” form.

Using the Keypad

Pressing the button on the remote while you are using the Screen Keypad enables you to change the text fields to lower case, capitalized case, upper case, numbers and icons.

Using the Green B button on the remote control to change the input mode. (T9/ABC)

You can use this Screen Keypad in a several **Smart Hub** applications.

Method 1: Using keypad of ABC type.

4-1. For example, suppose that you want to input “105Chang”.

4-2. Press the button on the remote 3 times to change the input mode from lower case to numbers.

4-3. Press the **1**, **0** and **5** button in numerical order.

4-4. Press the button on the remote 4 times to change the input mode from numbers to upper case.

4-5. Press the 2 button on the remote 3 times to input C.

4-6. Press the button on the remote 3 times to change the input mode from upper case to lower case.

4-7. Press buttons on the remote to input the rest of “Chang”. When done, press the ENTER button.

Method 2: Using the Keypad of T9 type.

4-1 For example, suppose that you want to input “105Chang”

4-2 Press the button on the remote 3 times to change the input mode from lower case to numbers.

4-3 Press the 1, 0 and 5 button in numerical order.

4-4 Press the button on the remote 4 times to change the input mode from numbers to upper case.

4-5 Press numbers in sequence: 2, 4, 2, 6, 4. A window will appear displaying a list of words that can be entered using the selected numbers. Select “Chang” from the list.

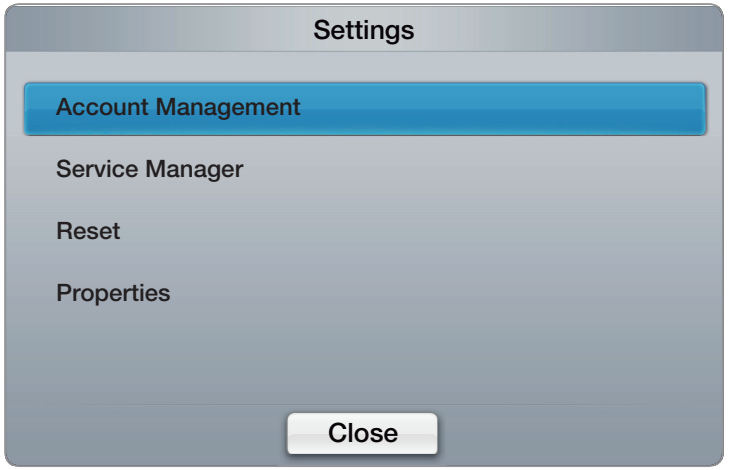
If “Chang” cannot be found in the list, select + to create your own dictionary. Add your own word to your dictionary

5. Using the remote control, enter the **Password**.
   - Password must be 6~12 words.
   - You can delete the entered character using the **PRE-CH** button.
   - Using the ◄◄ (REW) or ►► (FF) button, you can select icon you want to enter in icon keypad screen.
6. Account created. You can use the services provided by all users of your Samsung TV with a single login by linking the users' account to the TV ID. If you want to register a service site ID, select **Yes**. Service Site list will appear on the screen.
7. Select Register of the Service Site you want, then press the **ENTER** button.
8. Using number buttons, enter your application site ID and password. Then press the **ENTER** button.
9. Registered successfully. If you add another service site, select **Yes**. then press the **ENTER** button, go to step 5.
10. When completed, select **OK**. Then press the **ENTER** button.

❑ Setting up Smart Hub

■ Settings

Configure **Smart Hub** settings from this screen. Highlight **Settings** using the ▲ and ▼ buttons and press the ENTER button.



- **Account Management**

  Register Service Account: Register login information for service sites.

  Change Password: Change account password.

  Remove From TV Account List: Delete an account from the list of accounts.

  Deactivate Account: Withdraw membership from **Smart Hub**.

- **Service Manager**

Ticker Autorun (**Off** / **On** for LED TV / **Social TV** for PDP TV): You can set **Ticker Autorun** to come on when powering on the TV.

- The **Ticker** function allows you to view content from the current input source and ticker data at the same time.
- Depending on your country, **Ticker** application may have a different service or not be supported.

Channel Bound Service (**Off** / **On**): Some channels support applications as an Internet data service, allowing you to access the Internet service while watching TV.

- Only available if supported by the broadcaster

- **Reset**: Resets **Smart Hub** settings to factory default settings. If you want reset **Smart Hub**, Enter password.

  ✎ The default password set is “0-0-0-0.”

  ✎ If you forget the password you created, press the following sequence of remote control buttons to reset the password to “0-0-0-0”: **POWER** (off) → **MUTE** → **8** → **2** → **4** → **POWER** (on).

- **Properties**

  More: Display information about **Smart Hub**.

  Terms of Service Agreement: Display the **Terms of Service Agreement**.

❑ Using the Samsung Apps

■ Samsung Apps

Samsung Apps is a store for downloading applications to be used on Samsung TV/AV equipment.

Users can enjoy a variety of contents such as videos, music, photos, games, useful information etc. using the downloaded applications.

Additional applications will be available in the future.

Using the colour buttons with the **Samsung Apps**.

- A Red (**Login**): To log in to the internet service.
- B Green (**List View** / **Thumbnail View**): To change the view mode.
- ◀◀ ▶▶ **Page**: Move to previous or next page.
- ↩ **Return**: Moves to previous menu.

- The displayed image may differ depending on the model.

Using the Samsung Apps by category

The following categories are available:

- **What's New?**: Displays newly registered applications.
- **Video**: Displays various video media such as movies, TV shows and short length videos.
- **Game**: Displays various games such as sudoku and chess.
- **Sports**: Displays various sports media such as match information, images and short length video.
- **Lifestyle**: Includes various lifestyle media services such as music, personal photo management tools and social networking such as Facebook and Twitter.

- **Information**: Includes various information services such as news, stocks and weather.
- **Other**: Includes other miscellaneous services.
- **My Account**: Displays the application list and your cyber cash balance.

  ✎ Starting in the middle of 2010 (US and Korea only), you can purchase cyber-cash for buying applications through tv.samsung.com.
- **Help**: If you have questions about **Smart Hub**, check this section first.

[Legal Statement]

Due to the various capabilities of products featuring the Samsung Smart Hub - Content Service, as well as limitations in the available content, certain features, applications, and services may not be available on all devices or in all territories.

Some features on Smart Hub may also require additional peripheral devices or membership fees that are sold separately. Please visit http://www.samsung.com for more information on specific device information and content availability. The services and availability of content through Smart Hub are subject to change from time to time without prior notice.

❑ Troubleshooting for SMART HUB

Problem	Possible Solution
Some application contents only appear in English. How can I change the language?	The Application content language may be different from the application user interface language. The ability to change the language depends on the service provider.
Some application services do not work.	Check with the service provider. Refer to the help website for application service provider information.
When a network error occurs, I can only use the setting menu.	If network connection doesn't work, your service might be limited, as all functions except the setting menu are needed to connect to the internet.

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❑ For PDP TV

Some functions may not be supported depending on the country.

Features

Search All

Easily search and access content from diverse sources (e.g. applications, Your Video, AllShare).

Social TV

Share your TV viewing experience with your friends via social networking service (SNS).

Your Video

Enjoy your movie wathing with a customized video on demand (VOD) recommendation service.

* This feature is limited to certain regions

❑ About AllShare™

AllShare™ connects your TV and compatible Samsung mobile phones/ devices through a network. You can play media contents including videos, photos and music saved on your mobile phones or the other devices (such as your PC) by controlling them on the TV via the network.

✎ For more information, visit “www.samsung.com” or contact the Samsung call centre. Mobile devices may need additional software installation. For details, refer to each device’s user’s guide.

- If your Samsung TV connects to a non-Samsung DLNA server, a compatibility issue may occur during video playback.
- By connecting your Samsung TV to a network via AllShare™, you can use Samsung's original functions as follows:
  - Playback of various video formats (DivX, MP4, 3GPP, AVI, ASF, MKV, etc.)
  - Video thumbnail feature
  - Bookmark function (to resume video playback)
  - Auto-chaptering (scene navigation)
  - Digital content management
  - Compatibility with various subtitle formats (SRT, SMI, SUB, TXT, TTXT)
  - Search with file names
  - And many others
- To use the original DLNA functions of Samsung fully, it is recommended that you use the AllShare™ software provided with your TV.

❑ Setting Up AllShare™

MENU → Network → AllShare Settings → ENTER

■ AllShare Settings

- **Media** (**On** / **Off**): Enables or disables the media function. When the media function is on, Media contents play can be controlled by a mobile phone or other devices that support DLNA DMC.

Media

Shows a list of mobile phones or connected devices which have been set up with this TV for using the **Media** function.

The **Media** function is available in all devices which support DLNA DMC.

- **Allowed** / **Denied**: Allows/Blocks the the devices.
- **Delete**: Deletes the devices from the list.

  This function only deletes the name of the device from the list. If the deleted device is turned on or tries to connect to the TV, it may appear on the list again.

Using the Media Function

An alarm window appears informing the user that the media contents (videos, photos, music) sent from a mobile phone will be displayed on your TV. The contents are played automatically 3 seconds after the alarm window appears. If you press the **RETURN** or **EXIT** button when the alarm window appears, the media contents are not played.

NOTE

- If the media function executes for the first time, the warning popup window appears. Press the **ENTER** button to select **Allow**, then you can use **Media** function on that device.

- To turn off the media contents transmission from the mobile phone, set **Media** to **Off** in the **AllShare Settings**.
- Contents may not be played on your TV depending on their resolution and format.
- The ENTER and ◀ / ▶ buttons may not work depending on the type of media content.
- Using the mobile device, you can control the media playing. For details, refer to each mobile's user's guide.

What is Anynet+? TOOLS

Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+ with your Samsung TV's remote. The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.

NOTE

- You can only control Anynet+ devices using the TV remote control, not the buttons on the TV.
- The TV remote control may not work under certain conditions. If this occurs, reselect the Anynet+ device.
- The Anynet+ functions do not operate with other manufacturers' products.

For the method of connecting external devices , refer to the supported user manual.

NOTE

- Connect the Optical cable between the **DIGITAL AUDIO OUT (OPTICAL)** jack on your TV and the Digital Audio Input on the Home Theatre.
- When following the connection above, the Optical jack only outputs 2 channel audio. You will only hear sound from the Home Theatre's Front, Left and Right speakers and the subwoofer. If you want to hear 5.1 channel audio, connect the **DIGITAL AUDIO OUT (OPTICAL)** jack on the DVD / Satellite Box (i.e. Anynet Device 1 or 2) directly to the Amplifier or Home Theatre, not the TV.

- You can connect only one Home Theatre.
- You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the standby or on status.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

Anynet+ Menu

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the TV.

Anynet+ Menu	Description
View TV	Changes Anynet+ mode to TV broadcast mode.
Device List	Shows the Anynet+ device list.
(device_name) MENU	Shows the connected device menus. E.g. If a DVD recorder is connected, the disc menu of the DVD recorder will appear.
(device_name) INFO	Shows the tools menu of the connected device. E.g. If a DVD recorder is connected, the play menu of the DVD recorder will appear. Depending on the device, this menu may not be available.

Anynet+ Menu	Description
(device_name) CONTENT	Shows the title menu of the connected device. E.g. If a DVD recorder is connected, the title menu of the DVD recorder will appear. Depending on the device, this menu may not be available.
Receiver	Sound is played through the receiver.

❑ Setting Up Anynet+

MENU → System → Anynet+ (HDMI-CEC) → ENTER

■ Anynet+ (HDMI-CEC) (Off / On)

To use the Anynet+ Function, Anynet+ (HDMI-CEC) must be set to On.

When the Anynet+ (HDMI-CEC) function is disabled, all the Anynet+ related operations are deactivated.

■ Auto Turn Off (No / Yes)

Setting an Anynet+ Device to turn off automatically when the TV is turned off.

If Auto Turn Off is set to Yes, running external devices will turn off at the same time as the TV powers off.

May not be enabled depending on the device.

❑ Switching between Anynet+ Devices

1. Press the TOOLS button to select **Anynet+ (HDMI-CEC)**. And then press the ENTER button to select **Device List**.

   ✎ If you cannot find a device you want, select **Refresh** to refresh the list.

2. Select a device and press the ENTER button. You can switch to the selected device.

   ✎ The **Device List** menu will only appear when you set **Anynet+ (HDMI-CEC)** to **On** in the **System** menu.

   - Switching to the selected device may take up to 2 minutes. You cannot cancel the operation during the switching operation.
   - If you have selected external input mode by pressing the SOURCE button, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the **Device List**.

❑ Listening through a Receiver

You can listen to sound through a receiver (i.e Home Theatre) instead of the **TV Speaker**.

1. Select **Receiver** and set to **On**.
2. Press the **EXIT** button to exit.

- If your receiver supports audio only, it may not appear in the device list.
- The receiver will work when you have properly connected the optical in jack of the receiver to the **DIGITAL AUDIO OUT (OPTICAL)** jack of the TV.
- When the receiver (i.e Home Theatre) is set to On, you can hear sound output from the TV's Optical jack. When the TV is displaying a DTV (aerial) signal, the TV will send out 5.1 channel sound to the receiver. When the source is a digital component such as a DVD and is connected to the TV via HDMI, only 2 channel sound will be heard from the receiver.

❑ Troubleshooting for Anynet+

Problem	Possible Solution
Anynet+ does not work.	• Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. • Only one receiver (home theatre) can be connected. • Check if the Anynet+ device power cord is properly connected. • Check the Anynet+ device's Video/Audio/HDMI cable connections. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ setup menu. • Check whether the TV remote control is in TV mode. • Check whether the remote control is Anynet+ compatible. • Anynet+ doesn't work in certain situations. (Searching channels, operating **Smart Hub** or **Plug & Play** (initial setup), etc.) • When connecting or removing the HDMI cable, please make sure to search devices again or turn your TV off and on again. • Check if the Anynet+ Function of Anynet+ device is set on.

I want to start Anynet+.	• Check if the Anynet+ device is properly connected to the TV and check if the **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ Setup menu. • Press the **TOOLS** button to display the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	• Select **View TV** in the Anynet+ menu. • Press the **SOURCE** button on the TV remote control and select a non- Anynet+ device.
The message “Connecting to Anynet+ device...” appears on the screen.	• You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. • Use the remote control when the Anynet+ setting or switching to view mode is complete.
The Anynet+ device does not play.	• You cannot use the play function when **Plug & Play** (initial setup) is in progress.

The connected device is not displayed.	• Check whether or not the device supports Anynet+ functions. • Check whether or not the HDMI cable is properly connected. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ setup menu. • Search Anynet+ devices again. • You can connect an Anynet+ device using the HDMI cable only. Some HDMI cables may not support Anynet+ functions. • If connection is terminated because there has been a power interruption or the HDMI cable has been disconnected, please repeat the device scan.
The TV sound is not output through the receiver.	• Connect the optical cable between TV and the receiver.

❑ Using the Smart Hub

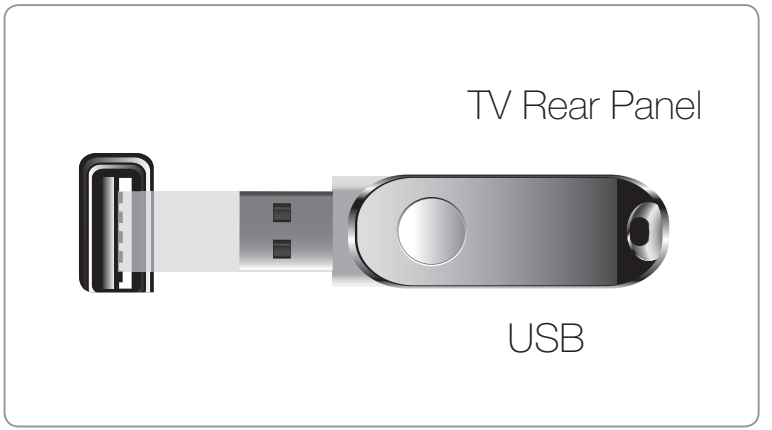
Enjoy photos, music and/or movie files saved on a USB Mass Storage Class (MSC) device.

1. Press the **SMART HUB** button.
2. Press the ▼ or ▲ button to select desired menu (**Videos**, **Photos**, **Music**), then press the ENTER button.

- The displayed image may differ depending on the model.

❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and/or movie files to the **USB** port on the back or side panel of the TV.
3. When USB is connected to the TV, popup window appears. Then you can select **Connected Device**.



- The displayed image may differ depending on the model.

If an external USB device connected to the TV's USB port draws an excessive amount of current from the port, the message "USB Power overload" appears on the screen. This is not a problem with the TV, which provides the standard current from its USB ports, but a problem with the external device. Please contact the manufacturer of the device for support.

❑ Connecting to the PC through network

You can play pictures, music and videos saved on your PC through a network connection in the **SMART HUB** mode.

1. For more information on how to configure your network, refer to “Network Menu”.
   - You are recommended to locate both TV and PC in same subnet. The first 3 parts of the subnet address of the TV and the PC IP addresses should be the same and only the last part (the host address) should be changed. (e.g. IP Address: 123.456.789.**)
2. Using a LAN cable, connect between the external modem and the PC onto which the AllShare PC Software will be installed.
   - You can connect the TV to the PC directly without connecting it through a Sharer (Router).

- Functions that are not supported when connecting to a PC through a network:
  - The **Background Music On** and **Background Music Setting** functions.
  - Sorting files by preference in the **Photos**, **Music**, and **Videos** folders.
  - The ◀◀ (REW) or ▶▶ (FF) button while a movie is playing.
- Divx DRM, Multi-audio, embedded captions are not supported.
- AllShare PC Software should be permitted by the firewall programme on your PC.
- The ✓ mark indicates the days you've selected.

- When you use **Smart Hub** mode through a network connection, depending on the functions of the provided server:
  - The sorting method may vary.
  - The **Scene Search** function may not be supported.
  - The **Resume**, which resumes playing of a video, may not be supported.
    - The **Resume** function does not support multiple users. (It will have only memorised the point where the most recent user stopped playing.)
  - The ◀ or ▶ button may not work depending on the content information.
- You may experience file stuttering while playing a video in **Smart Hub** through a network connection.

Before using Smart Hub functions...

- It might not work properly with unlicenced multimedia files.
- Need-to-Know List before using **Smart Hub**
  - MTP (Media Transfer Protocol) is not supported.
  - The file system supports FAT16, FAT32 and NTFS.
  - Certain types of USB Digital camera and audio devices may not be compatible with this TV.
  - **Smart Hub** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers and USB HDD (USB HUB are not supported). Devices should be connected directly to the TV's USB port.

- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- Connect a USB HDD to the dedicated **USB 1 (HDD)** port.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360X8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- If the files are sorted by **Folder View**, up to 1000 files can be displayed in each folder.
- If the number of files and folders saved on a USB storage device is approximately over 8000, the files and folders may not appear and some folders may not be opened.

- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- If more than 2 PTP devices are connected, you can only use one at a time.
- If more than two MSC devices are connected, some of them may not be recognized. A USB device that requires high power (more than 500mA or 5V) may not be supported.
- If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.

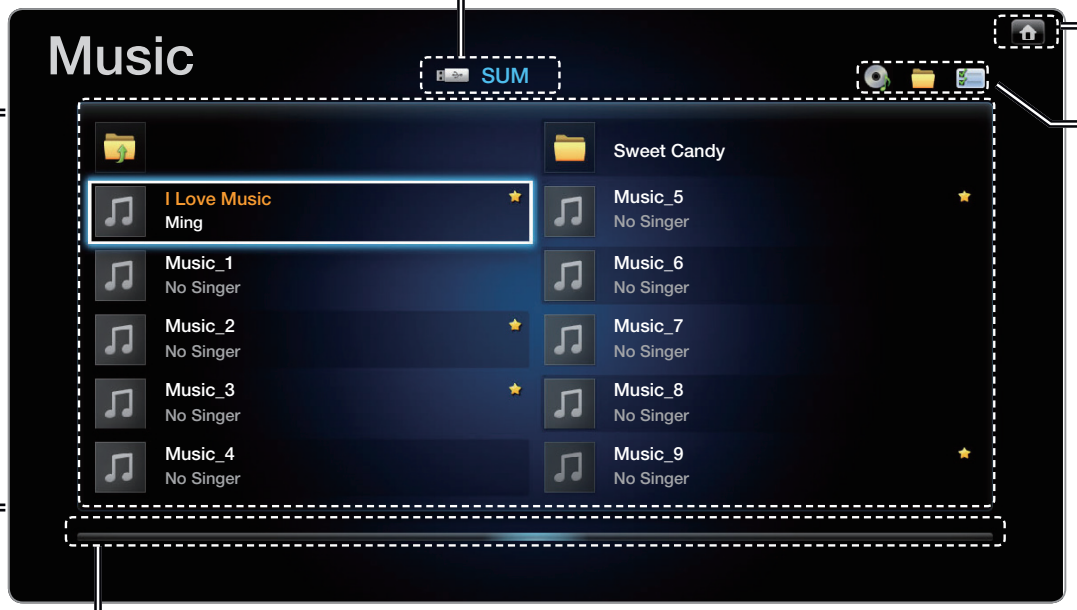
- If the TV has been no input during time set in **Auto Protection Time**, the Screensaver will run.
- The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when **Smart Hub** is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.

Screen Display

Move to the file you desired using the ◀ / ▶ / ▲ / ▼ buttons and then press the ENTER or ▶ (Play) button. The file is played.

Device name: Displays a connected device name.

File List Section: You can confirm the files and groups that is sorted by each category.



Home: Return to content home

Change Contents/Device: Changes the content type or connected device.

Sorting: Displays sorting standard. Sorting standard is different depending on the contents.

Edit Mode: Select and play multiple files or assign them to My Playlist. This function is available only for Music.

Moves to another page containing a list of files.

Playing Video

1. Press the ◀/▶/▲/▼ button to select the desired file in the file list.
2. Press the ENTER button or ▶ (Play) button.
   - The selected file is displayed on the top with its playing time.
   - If video time information is unknown, play time and progress bar are not displayed.
   - During playing the video, you can search using the ◀ and ▶ button.
   - You can use ◀◀ (REW) and ▶▶ (FF) buttons during playback.

- Supported Subtitle Formats

Name	File extension	Format
MPEG-4 time-based text	.ttxt	XML
SAMI	.smi	HTML
SubRip	.srt	string-based
SubViewer	.sub	string-based
Micro DVD	.sub or .txt	string-based

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv	AVI MKV	Divx 3.11 / 4.x / 5.1 / 6.0	1920x1080	6 ~ 30	8	MP3 / AC3 / LPCM / ADPCM / DTS Core
		H.264 BP / MP / HP	1920x1080	6 ~ 30	25	
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	800x600	6 ~ 30	8	
*.asf	ASF	Divx 3.11 / 4.x / 5.1 / 6.0	1920x1080	6 ~ 30	8	MP3 / AC3 / LPCM / ADPCM / WMA
		H.264 BP / MP / HP	1920x1080	6 ~ 30	25	
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	800x600	6 ~ 30	8	
*.wmv	ASF	Window Media Video v9	1920x1080	6 ~ 30	25	WMA
*.mp4	MP4	H.264 BP / MP / HP	1920x1080	6 ~ 30	25	MP3 / ADPCM / AAC
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.3gp	3GPP	H.264 BP / MP / HP	1920x1080	6 ~ 30	25	ADPCM / AAC / HE-AAC
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
*.vro	VRO VOB	MPEG1	1920x1080	24 / 25 / 30	30	AC3 / MPEG / LPCM
		MPEG2	1920x1080	24 / 25 / 30	30	
*.mpg *.mpeg	PS	MPEG1	1920x1080	24 / 25 / 30	30	AC3 / MPEG / LPCM / AAC
		MPEG2	1920x1080	24 / 25 / 30	30	
		H.264	1920x1080	6 ~ 30	25	
*.ts *.tp *.trp	TS	MPEG2	1920x1080	24 / 25 / 30	30	AC3 / AAC / MP3 / DD+ / HE-AAC
		H.264	1920x1080	6 ~ 30	25	
		VC1	1920x1080	6 ~ 30	25	

This part is just supported by the models of China and HongKong.

*.rmvb	RMVB	RV 3.0 / RV 4.0	1920x1080	30	10	RealAudio 6, 9, 10

Other Restrictions

NOTE

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bitrate/frame rate above the compatible Frame/sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- You may experience file stuttering while playing a video through a network connection.
- Video content can not be played, if there are many contents in one file.
- Some USB/digital camera devices may not be compatible with the player.

Video Decoder	Audio Decoder
• Supports up to H.264 Level 4.1 • H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. • MPEG4 SP, ASP: – Below 1280 x 720: 60 frame max – Above 1280 x 720: 30 frame max • GMC is not supported.	• Supports up to WMA 7, 8, 9 STD / PRO • WMA Lossless, Voice Lossless and Voice are not supported. • WMA sampling rate 22050Hz mono is not supported.

Playing movie file continuously (Resume Play)

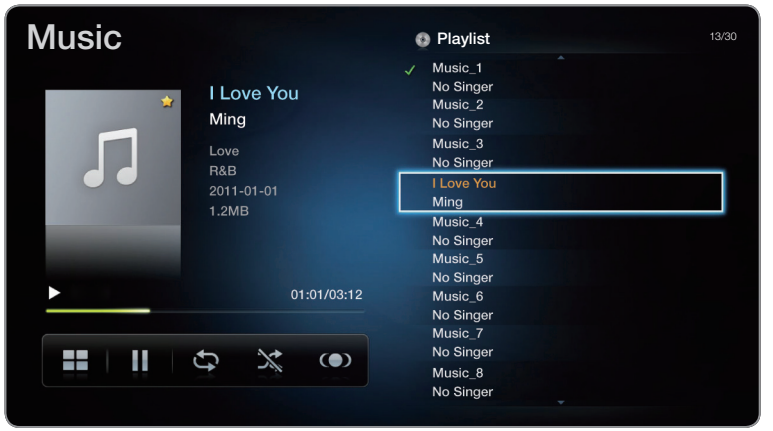
If you exit the playing **Videos** function, it can be played later from the point where it was stopped.

- The **Resume** function does not support multiple users. (It will have only memorised the point where the most recent user stopped playing.)

1. Select the movie file you want to play continuously by pressing the ◀ or ▶ button to select itfrom the file list section.
2. Press the ▶ (Play) / ENTER button.
   - A triangle icon will appear on the progress bar when the playback starts.
3. Press the TOOLS button, and then select **Resume**. The Movie will begin to play from where it was stopped.

Music

Playing Music



1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired music file in the file list.
2. Press the ENTER button or ▶ (Play) button.
   - During playing the music, you can search using the ◀◀ (REW) and ▶▶ (FF) button.

Only displays the files with MP3 extension.
Other file extensions are not displayed, even if they are saved on the same USB device.

If the sound is abnormal when playing MP3 files, adjust the Equalizer in the Sound menu. (An over-modulated MP3 file may cause a sound problem.)

Creating My Playlist

1. On the **Music** screen in the **Smart Hub** menu, press the ◀ / ▶ / ▲ / ▼ button to select **Edit Mode**, and then press the ENTER button.
2. Press the ◀ / ▶ / ▲ / ▼ button to select the tracks you want to add and press the ENTER button.
   - The check box appears to the left of the selected files.
   - To select all the files in the current page, select **Select All** at the top.
3. Press the ◀ / ▶ / ▲ / ▼ button to select **Add to My Playlist**,
   - Note that selecting **Clear My Playlist** will return **My Playlist** to the default playlist.

4. Press the ENTER button. The message "**Selected items added to My Playlist.**" is displayed.

5. The newly created or updated playlist will be in the main **Music** page.

Playing My Playlist

Select the **My Playlist** folder and it will play automatically. Press the ▲ or ▼ button to select a different music file within the play list.

To delete a file from **My Playlist**, select the recycle bin icon next to the file you want to delete by using the direction buttons. The file will be deleted from **My Playlist**.

Playing the selected music files

1. On the **Music** screen in the **Smart Hub** menu, press the ◀ / ▶ / ▲ / ▼ button to select **Edit Mode**, and then press the ENTER button.
2. Press the ◀ / ▶ / ▲ / ▼ button to select the desired music file in the file list, and then ENTER button.

   NOTE

   - The check box mark appears to the left of the selected files.
   - To select all the files in the current page, select **Select All** at the top.
   - To cancel a selection, press the ENTER button again.
3. Press the ◀ / ▶ / ▲ / ▼ button to select **Play**. The selected music files will be play.

Photos

Viewing a Photo (or Slide Show)

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired file in the file list.
2. Press the ENTER button.
   - When you press the ▶ (Play) button in the file list, slide show will be started immediately.
   - All files in the file list section will be displayed in the slide show.
   - During the slide show, files are displayed in order from currently being shown.

- The displayed image may differ depending on the model.

Music files can be automatically played during the slide show if the **Background Music** is set to **On**.

The **Background Music On** cannot be changed until the BGM has finished loading.

❑ Smart Hub - Additional Function

Sorting the file list

To sort files in the file list, select the Sorting by using the ◀ / ▶ / ▲ / ▼ button. And then press the ENTER button.

Category	Operations	Videos	Music	Photos
Folder View	Displays the whole folder. You can view the file name and thumbnail by selecting the folder.	✓	✓	✓
Title	Sorts and displays the file title in Symbol/Number/ Alphabet/Special order.	✓	✓	✓
Latest Date	Sorts and shows files by the latest date.	✓		✓
Earliest Date	Sorts and shows files by the earliest date.	✓		✓

Category	Operations	Videos	Music	Photos
Artist	Sorts the music file by artist in alphabetical order.		✓	
Album	Sorts the music file by album in alphabetical order.		✓	
Genre	Sorts music files by the genre.		✓	
Monthly	Sorts and shows photo files by month.			✓

Videos / Music / Photos Play Option menu

During playback using Videos or Photos function, press the **TOOLS** button.

The following functions are enabled during playback.

Category	Operations	Videos	Music	Photos
List	Return to the file list.	✓	✓	✓
Previous / Next	Go to previous / next photo file.			✓
Shuffle	You can play the music sequentially or randomly.		✓	
Resume	A movie file will begin to play from where it was stopped.	✓		
Title Search	You can move directly to another Title.	✓		

Category	Operations	Videos	Music	Photos
Time Search	You can search the movie using ◀ and ▶ buttons at intervals of 1 minute.	✓		
Subtitle	You can view a subtitle. You can select a specific language if the subtitle file contains multiple languages.	✓		
Repeat Mode	You can play movie and music files repeatedly.	✓	✓	
Picture Size	You can adjust the picture size to your preference.	✓		
Picture Mode	You can change the **Picture Mode**.	✓		✓
Sound Mode	You can change the **Sound Mode**.	✓	✓	✓
Subtitle Setting	Displays the **Subtitle Setting**. You can set up a subtitle option.	✓		✓
Play / Pause	You can start or stop a slide show. Alternatively, the ▶ (Play) or ❚❚ (Pause) button on the remote can be used.	✓	✓	

Category	Operations	Videos	Music	Photos
Start Slide Show / Stop Slide Show	You can start or stop a slide show.			✓
Slide Show Speed	You can select the slide show speed during the slide show. Alternatively, the ◀◀ (Rew) or ▶▶ (FF) button on the remote can be used.			✓
Background Music On	You can start or stop a background music.			✓
Background Music Setting	You can set and select background music when watching a photo file or slide show.			✓
Zoom	You can zoom into images in full screen mode.			✓
Rotate	You can rotate images.			✓

- To view detailed INFO about the selected device, press the INFO button.
- To view detailed INFO about the selected file, press the INFO button.

❑ Troubleshooting

If you have any questions about the TV, first refer to this list. If none of these troubleshooting tips apply, please visit “www. samsung.com,” then click on Support, or contact the call centre listed on the back-cover of this manual.

Issues	Solutions and Explanations
Picture Quality	First of all, please perform the Picture Test and confirm that your TV is properly displaying test image. (go to MENU - Support - Self Diagnosis - Picture Test) If the test image is properly displayed, the poor picture may caused by the source or signal.

Issues	Solutions and Explanations
The TV image does not look as good as it did in the store.	• 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. • Cable/Satellite subscribers: Try HD stations from the channel line up. • Antenna connection: Try HD stations after performing Auto programme. Many HD channels are up scaled from SD(Standard Definition) contents. • Adjust the Cable/Set top box video output resolution to 1080i or 720p. • Make sure you are watching the TV at the minimum recommended distance based on the size and definition of the signal.
The picture is distorted: macro block error, small block, dots, pixelization	• Compression of video contents may cause picture distortion especially in fast moving pictures such as sports and action movies. • Low signal level or bad quality can cause picture distortion. This is not a TV issue. • Mobile phones used close to the TV (cca up to 1m) may cause noise in picture on analogue and digital TV.

Issues	Solutions and Explanations
Colour is wrong or missing.	• If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.
There is poor colour or brightness.	• Adjust the **Picture** options in the TV menu (go to **Picture Mode** / **Colour** / **Brightness** / **Sharpness**) • Adjust **Energy Saving** option in the TV menu (go to MENU – **System** – **Eco Solution** – **Energy Saving**) • Try resetting the picture to view the default picture settings (go to MENU - **Picture** - **Reset Picture**)
There is a dotted line on the edge of the screen.	• If the picture size is set to **Screen Fit**, change it to **16:9**. • Change cable/satellite box resolution.
The picture is black and white.	• If you are using an AV composite input, connect the video cable (yellow) to the Green jack of component input 1 on the TV.
When changing channels, the picture freezes or is distorted or delayed.	• If connected with a cable box, please try to reset the cable box. 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.

Issues	Solutions and Explanations
3D for PDP TV	
The 3D Active Glasses may not work properly if there is any other 3D product or electronic devices turned on near the glasses or TV.	• If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.
You may notice a small amount of screen flickering when watching 3D images in poor light conditions (from a strobe light, etc.), or under a fluorescent lamp (50Hz ~ 60Hz) or 3 wavelength lamp.	• If so, dim the light or turn the lamp off.
The ideal viewing distance should be three times or more the height of the screen.	• We recommend sitting with viewer's eyes on a level with the screen.
If you leave 3D glasses on, battery lifespan is shortened.	• Turn off 3D glasses while not using them.

Issues	Solutions and Explanations
Sound Quality	First of all, please perform the **Sound Test** to confirm that your TV audio is properly operating. (go to MENU - **Support** - **Self Diagnosis** - **Sound Test**) If the audio is **OK**, the sound problem may caused by the source or signal.
There is no sound or the sound is too low at maximum volume.	• Please check the volume the of external device connected to your TV.
The picture is good but there is no sound.	• Set the Speaker Select option to **TV Speaker** in the sound menu. • If you are using an external device, make sure the audio cables are connected to the correct audio input jacks on the TV. • If you are using an external device, check the device's audio output option (ex. you may need to change your cable box's audio option to HDMI when you have a HDMI connected to your TV). • If you are using a DVI to HDMI cable, a separate audio cable is required. • If your TV has a headphone jack, make sure there is nothing plugged into it.

Issues	Solutions and Explanations
The speakers are making an inappropriate noise.	• Check the cable connections. Make sure a video cable is not connected to an audio input. • For antenna or cable connections, check the signal strength. Low signal level may cause sound distortion.
No Picture, No Video	
The TV turns off automatically.	• Ensure the **Sleep Timer** is set to **Off** in the Setup menu. • If your PC is connected to the TV, check your PC power settings. • Make sure the AC power cord is plugged in securely to the wall outlet and the TV. • When watching TV from an antenna or cable connection, the TV will turn off after 10 ~ 15 minutes if there is no signal.

Issues	Solutions and Explanations
RF(Cable/Antenna) Connection	
The TV is not receiving all channels.	• Make sure the Antenna cable is connected securely. • Please try Plug & Play (Initial setup) to add available channels to the channel list. Go to **MENU** - **System** - **Plug & Play** (Initial setup) and wait for all available channels to be stored. • Verify the Antenna is positioned correctly.
The picture is distorted: macro block error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially with fast moving pictures such as sports and action movies. • A low signal can cause picture distortion. This is not a TV issue.

Issues	Solutions and Explanations
PC Connection	
A “Mode Not Supported” message appears.	• Set your PC’s output resolution so it matches the resolutions supported by the TV.
“PC” is always shown on the source list, even if a PC is not connected.	• This is normal; “PC” is always shown on the source list, regardless of whether a PC is connected.
The video is OK but there is no audio.	• If you are using an HDMI connection, check the audio output setting on your PC.
Network Connection	
The wireless network connection failed.	• The Samsung Wireless USB dongle is required to use a wireless network. • Make sure the Network Connection is set to **Wireless**. • Make sure the TV is connected to a wireless IP sharer (router).
Software Upgrade over the network fails.	• Try network test in **Network** menu. • If you have latest SW version, SW upgrade will not proceed.

Issues	Solutions and Explanations
Others	
Purple/green rolling horizontal bars and buzzing noise from the TV speakers with Component cable connection.	• Remove the left and right audio connections from the set-top-box. If the buzzing stops, this indicates that the set-top-box has a grounding issue. Replace the Component video cables with an HDMI connection.
Plasma TV is making humming noise. for PDP TV	• Plasma TVs typically make a soft humming sound. This is normal. It's caused by the electrical charges that are used to create the images on the screen. • If the humming sound is loud, you may have set the brightness on the TV too high. Try setting the brightness lower. • You can also have loud humming if the back of your Plasma TV is too close to a wall or other hard surface. Also try rerouting your connection cables. • Improper installation of wall mount can create excessive noise.

Issues	Solutions and Explanations
The picture won't display in full screen.	• HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents. • Black bars on the top and bottom will appear during movies that have aspect ratios different from your TV. • Adjust the picture size options on your external device or TV to full screen.
Image Retention (Burn In) Issue. for PDP TV	• To minimize the possibility of screen burn, this unit is equipped with screen burn reduction technology. Pixel Shift technology enables you to set picture movement up / down (Vertical Line) and side to side (Horizontal Dot).

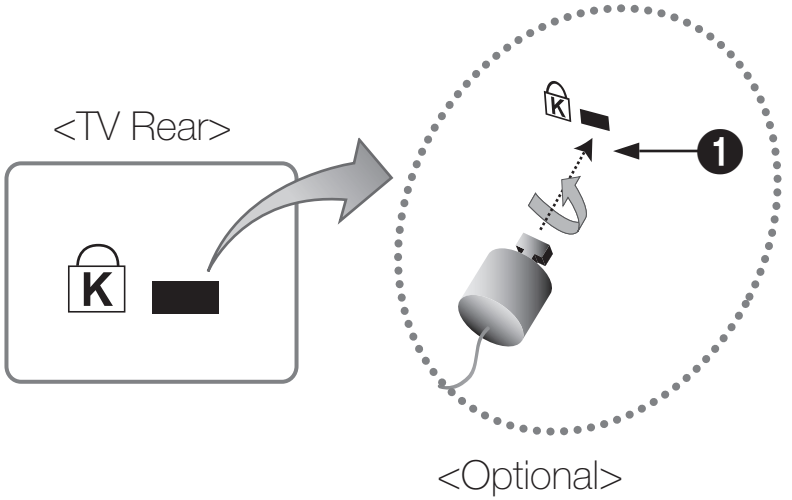
Issues	Solutions and Explanations
A “Mode Not Supported” message appears.	• Check the supported resolution of the TV, and adjust the external device’s output resolution accordingly. Refer to the resolution settings in the user manual.
There is a plastic smell from the TV.	• This smell is normal and will dissipate over time.
The TV **Signal Information** is unavailable in the Self Diagnosis Test menu.	• This function is only available with digital channels from an Antenna / RF/Coax connection.
The TV is tilted to the side.	• Remove the base stand from the TV and reassemble it.
The channel menu is greyed out. (unavailable)	• The **Channel** menu is only available when the TV source is selected.

Issues	Solutions and Explanations
Your settings are lost after 30 minutes or every time the TV is turned off.	• If the TV is in the **Store Demo** mode, it will reset audio and picture settings every 30 minutes. Change the settings from **Store Demo** mode to **Home Use** mode in the Plug & Play (Initial setup) procedure. Press the SOURCE button to select TV mode, and go to MENU → **System** → **Plug & Play** (Initial setup) → ENTER.
You have 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 mounting the TV to the wall, we recommend using cables with 90 degree connectors.
You see small particles when you look closely at the edge of the frame of the TV.	• 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 a HDMI, PC or components source.
POP (TV's internal banner ad) appears on the screen.	• Select **Home Use** under **Plug & Play** mode. For details, refer to **Plug & Play** Feature.

Issues	Solutions and Explanations
The message “Scramble signal” or “Weak Signal/No Signal” appears.	• If you are using a CAM CARD (CI/CI+), check that it is installed into the common interface slot. • If there is still a problem, pull the CAM CARD out of the TV and insert it into the slot again.
You turned the TV off 45 minutes ago, and it turned on again.	• It is normal. The TV operates the OTA (Over The Aerial) function itself to upgrade firmware downloaded whilst your watching TV.
There are recurrent picture/ sound issues.	• Check and change the signal/source.
A reaction may occur between the rubber cushion pads on the base stand and the top finish of some furniture.	• To prevent this, use felt pads on any surface of the TV that comes in direct contact with furniture.

❑ Anti-theft Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for additional information on proper use.



Please find a "🔒" icon on the rear of the TV. A Kensington slot is beside the "🔒" icon.

To lock the product, follow these steps:

1. Wrap the Kensington Lock cable around a large, stationary object such as desk or chair.
2. Slide the end of the cable with the lock attached through the looped end of the Kensington Lock cable.
3. Insert the locking device into the Kensington slot on the product ❶.
4. Lock the lock.

- These are general instructions. For exact instructions, see the User manual supplied with the locking device.
- The locking device has to be purchased separately.
- The location of the Kensington slot may be different depending on the TV model.

❑ Analogue Channel Teletext Feature

The index page of the Teletext service gives you information on how to use the service. For Teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

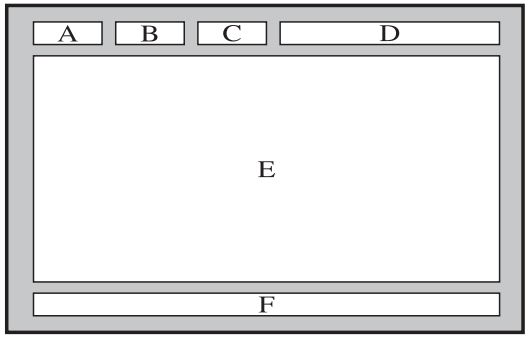
✎ You can change Teletext pages by pressing the numeric buttons on the remote control.

(Teletext on/mix/off)	Activates the Teletext mode for the current channel. Press the button twice to overlap the Teletext mode with the current broadcasting screen. Press it one more time to exit teletext.
(store)	Stores the Teletext pages.
(size)	Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.
(hold)	Holds the display at the current page, in the case that there are several secondary pages that follow automaticially. To undo, press it again.

Colour buttons (red, green, yellow, blue)	If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colour-coded and can be selected by pressing the coloured buttons. Press the colour corresponding to the topic of your choice. A new colourcoded page is displayed. Items can be selected in the same way. To display the previous or next page, press the corresponding coloured button.
(mode)	Selects the Teletext mode (LIST/ FLOF).If pressed during LIST mode, switches the mode to List save mode. In List save mode, you can save a Teletext page into a list using the (store) button.
(sub-page)(size)	Displays the available sub-page.

(hold)	Holds the display at the current page, in the case that there are several secondary pages that follow automaticially. To undo, press it again.
(page up)	Displays the next Teletext page.
(page down)	Displays the previous Teletext page.

Typical Teletext page



Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

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