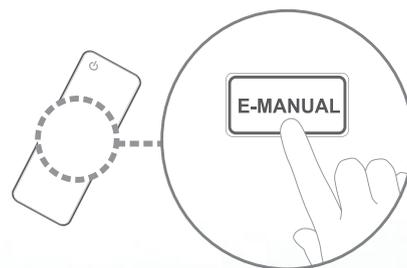




E-MANUAL



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

Model _____ Serial No. _____

Contents

Channel Setting

- Using the INFO button (Now & Next guide) 1
- Memorizing channels 2
- Using the Channel menu 6
- Locking Programme 19
- Other Features 21

Basic Features

- Changing the Preset Picture Mode 32
- Adjusting Picture Settings 33
- Changing the Picture Options 41
- Changing the Preset Sound Mode 51
- Adjusting Sound Settings 52
- Selecting the Sound Mode 59

Preference Features

- Executing initial setup 60
- Setting the Time 61
- Using the Sleep Timer 63
- Setting the On / Off Timer 64
- Economical Solutions 69
- Other Features 71

Advanced Features

- Using the Source List 78
- Connecting a USB Device 79
- Using the Media Contents 85
- Playing the Photos / Videos / Music 87
- Using the 3D function 95

Other Information

- Viewing the e-Manual 102
- Using the Self Diagnosis 103
- Updating the Software 105
- Changing the Use Mode 107
- Viewing the Contact Samsung 108
- Using the Sports Mode 109
- Using the Satellite System 110
- Using the Wireless Network 118
- Using the Wired Network 131
- Managing the Network Connected Devices 138
- Using the DLNA Functions 141

❑ Using the INFO button (Now & Next guide)

The display identifies the current channel and the status of certain audio-video settings.

The Now & Next guide shows daily TV programme information for each channel according to the broadcasting time.

📖 When you press the **INFO** button, a channel information banner will appear on the top of the screen. And then press the **ENTER**  button, you can see the details of the programme.

- Scroll ◀, ▶ to view information for a desired programme while watching the current channel.
- Scroll ▲, ▼ to view information for other channels.

☐ Memorizing channels

■ Aerial

☞ **MENU**  → **Broadcasting** → **Aerial** → **ENTER** 

Before your television can begin memorising the available channels, you must specify the type of signal source that is connected to the TV.

■ Auto Tuning

(depending on the country)

 **MENU**  → **Broadcasting** → **Auto Tuning** → **ENTER** 

 Automatically allocated programme numbers may not correspond to actual or desired programme numbers. If a channel is locked, the PIN input window appears.

- **Auto Tuning**

Aerial (Air / Cable): Select the aerial source to memorise.

 When selecting **Air**, scans for a channel automatically and stores in the TV.

Channel Type (Digital & Analogue / Digital / Analogue): Select the channel source to memorise.

When selecting **Cable** → **Digital & Analogue, Digital or Analogue**

- **Operator Selection** (depending on the country): Selects a provider of cable services.
- **Search Mode**: Scans for all channels with active broadcast stations and stores them in the TV.
 -  If you select **Quick**, you can set up the **Network**, **Network ID**, **Frequency**, **Modulation** and **Symbol Rate** manually by pressing the button on the remote control.
- **Network**: Selects the **Network ID** setting mode among **Auto** or **Manual**.
 - **Network ID**: When **Network** is **Manual**, you can set up **Network ID** using the numeric buttons.

- **Frequency:** Displays the frequency for the channel (differs in each country).
- **Modulation:** Displays available modulation values.
- **Symbol Rate:** Displays available symbol rates.
- **Cable Search Option**
(depending on the country & cable channels only)
Sets additional search options such as the frequency and symbol rate for a cable network search.
Start Frequency / Stop Frequency: Set the start or stop frequency (differs in each country).
Symbol Rate: Displays available symbol rates.
Modulation: Displays available modulation values.

□ Using the Channel menu

 MENU  → Broadcasting → Channel List → ENTER 

■ Channel List

The **Channel List** contains the channels your TV displays when you press the channel button. You can view channel information, **All**, **TV**, **Radio**, **Data/Other**, **Analogue** or **Favourites 1-5**.

Press **▶ (Mode)** button to change the channel mode, or press **◀ (Sorting)** button to change the channel order according to channel number or name on the list.

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

Channel Sorting

- **Number / Name:** Arranges the channel order according to channel number or name on the list.

Channel Mode

- **Air / Cable:** Switches to **Air** or **Cable**.
- **Edit Favourites:** Set channels you watch frequently as favourites.
 - 📖 For detailed information about using **Edit Favourites**, refer to “**Edit Favourites**”.
- **Favourites 1-5:** Shows all favourite channels, arranged in up to five groups. Each group has a separate screen.
 - 📖 The TV displays **Favourites 1-5** only if you have added favourites using **Edit Favourites**.

- **All**: Shows all currently available channels.
- **TV**: Shows all currently available TV channels.
- **Radio**: Shows all currently radio channels.
- **Data/Other**: Shows all currently available MHP or other channels.
- **Analogue**: Shows all currently available analogue channels.



■ Guide

 **MENU**  → **Broadcasting** → **Guide** → **ENTER** 

The EPG (Electronic Programme Guide) information is provided by broadcasters. Using programme schedules provided by broadcasters, you can specify programmes you want to watch in advance so that the channel automatically changes to the selected programme channel at the specified time. Programme entries may appear blank or out of date depending on a channel status.

- **A** Red (**Quick Nav**): Viewing the TV programmes on the list quickly using ▲/▼/◀/▶ buttons.
- **B** Green (**Channel Category**): Select the type of channels you want to display.
- **C** Yellow (**Schedule Manager**): Moves to the reserved programmes in **Schedule Manager**.

■ Schedule Manager

 **MENU**  → **Broadcasting** → **Schedule Manager** → **ENTER** 

You can set a desired channel to be displayed automatically at the intended time. In addition, you can view, modify or delete a channel you have reserved to watch.

 You must set the current time first using the **Time** → **Clock** function in the **System** menu to use this function.

1. Press the **Schedule** on the **Schedule Manager** screen. The **Schedule Viewing** menu appears.
2. Press the **▲/▼/◀/▶** buttons to set each option menu.
 - **Aerial**: Select the desired broadcasting signal.
 - **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 day you've 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.

 If you want to edit or cancel a reserved schedule, select the reserved schedule on **Schedule Manager**. Then press the **ENTER**  button and select the **Edit** or **Delete**.

■ Edit Channel

 **MENU**  → **Broadcasting** → **Edit Channel** → **ENTER** 

You can edit or delete channels.

1. Go to **Edit Channel** screen.
2. Press the ▲/▼ buttons to select the desired channel, then press the **ENTER**  button. The (✓) mark indicates the channel you've selected.
 -  You can select more than one channel.
 -  Press the **ENTER**  again to deselect the channel.



Using the coloured and function buttons with the **Edit Channel**.

- **A** Red (**Change Number**): Changes channel order on the channel list.
- **B** Green (**Lock / Unlock**): Lock a channel so that the channel cannot be selected and viewed. / Unlock the channel that you locked.
 -  This function is available only when the **Channel Lock** is set to **On**.
 -  The PIN input screen appears. Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.
- **C** Yellow (**Delete**): Deletes a channel from the channel list.



-  Blue (**Select All / Deselect All**): Selects or deselects all channels at once.
-  (**Go To**): Goes to channel directly by pressing numbers (0~9).
-  (**Page**): Move to previous or next page.
-  (**Done**): Completes changing the channel order.
-  (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
 - **Sorting** (digital channels only): Changes the list ordered by channel number or channel name.
 - **Aerial**: Select the desired broadcasting signal.

- **Category:** Change the channel mode to **All**, **TV**, **Radio**, **Data/Other**, **Analogue**, **Recently Viewed**, **Most Viewed**. The selected channel mode is displayed.
- **Edit Favourites:** Go to **Edit Favourites** screen directly.
- **Rename channel** (analogue channels only): Assign a name of up to five characters to a channel. For example, Food, Golf, etc. This makes it easier to find and select the channel.
- **Channel Info:** Display details of the selected channel.
- **Information:** Display details of the selected programme.

■ Edit Favourites **TOOLS**

 **MENU**  → **Broadcasting** → **Edit Favourites** → **ENTER** 

You can add, edit or delete favourite channels.

1. Go to **Edit Favourites** screen.
2. Press the ▲/▼ buttons to select the desired channel, and then press **ENTER**  button.
3. Choose a specific favourite list among **Favourites 1-5** using **B** (**Change Fav.**) button, and then press the **C** (**Add**) button. The selected channel has been added in **Favourites 1-5**.

 One favourite channel can be added in several of favourites among **Favourites 1-5**.



Using the coloured and function buttons with the **Edit Favourites**.

- **A** Red (**Category / Change order**)
 - **Category**: Changes the channel mode to **All, TV, Radio, Analogue, Data/Other, Recently Viewed, Most Viewed**. The selected channel mode is displayed.
 - **Change order**: Changes the favourite channel order.
 -  (**Done**): Completes changing the channel order.
- **B** Green (**Change Fav.**): Changes favourite list among **Favourites 1-5**.
- **C** Yellow (**Add / Delete**)
 - **Add**: Adds selected channels to **Favourites 1-5**.
 - **Delete**: Deletes the favourite channel from **Favourites 1-5**.
- **D** Blue (**Select All / Deselect All**): Selects or deselects all channels at once.

-  (**Go To**): Goes to channel directly by pressing numbers (0~9).
-  (**Page**): Move to previous or next page.
-  (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
 - **Copy to favourites**: Edit the selected favourite channel in **Favourites 1-5**. You can add or delete from favourite list.
 - **Rename Favourites**: Assign your own favourite channel name.
 - **Aerial**: Select the desired broadcasting signal.
 - **Edit Channel**: Go to **Edit Channel** screen directly.
 - **Information**: Display details of the selected programme.

❑ Locking Programme

■ Programme Rating Lock

(depending on the country)

 **MENU**  → **Broadcasting** → **Programme Rating Lock** → **ENTER** 

Prevent unauthorized users, such as children, from watching unsuitable programme with a user-defined 4-digit PIN code. If the selected channel is locked, the “” symbol will be displayed.

 The items of **Programme Rating Lock** differs depending on the country.

■ Channel Lock

 **MENU**  → **Broadcasting** → **Channel Lock** → **ENTER** 

Lock channels in Channel menu to prevent unauthorized users, such as children, from watching unsuitable programme.

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

❏ Other Features

■ Channel Settings

 **MENU**  → **Broadcasting** → **Channel Settings** → **ENTER** 

- **Country (Area)**

(depending on the country)

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

Digital Channel: Change the country for digital channels.

Analogue Channel: Change the country for analogue channels.

- **Manual Tuning**

Scans for a channel manually and stores in the TV.



If a channel is locked, the PIN input window appears.



According to the channel source, **Manual Tuning** may be supported.

- **Digital Channel Tuning:** Scans for a digital channel manually and stores in the TV. Press the **New** button to search the digital channels. When scanning has finished, a channel is updated in the channel list.
 - When selecting **Aerial** → **Air: Channel, Frequency, Bandwidth**
 - When selecting **Aerial** → **Cable: Frequency, Modulation, Symbol Rate**

- **Analogue Channel Tuning:** Scans for an analogue channel. Press the **New** button to search the channels by adjusting the **Programme**, **Colour System**, **Sound System**, **Channel**, **Search**.



Channel mode

- **P** (programme mode): When tuning is complete, the broadcasting stations in your area have been assigned to the 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.

- **Fine Tune**

(analogue channels only)

If the signal is weak or distorted, fine tune the channel manually.

 Fine tuned channels are marked with an asterisk “*”.

 To reset the fine-tuning, select **Reset**.

- **Transfer Channel List**

(depending on the country)

Imports or exports the channel map. You should connect a USB storage to use this function.

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

 Supported file systems are FAT and exFAT.

- **Delete CAM Operator Profile:** Selects the CAM operator to delete.

■ Subtitle **TOOLS**

 **MENU**  → **Broadcasting** → **Subtitle** → **ENTER** 

Use this menu to set the **Subtitle** mode.

- **Subtitle**: Switches subtitles on or off.
- **Subtitle Mode**: Sets the subtitle mode.
- **Subtitle Language**: Sets the subtitle language.
 -  If the programme you are watching does not support the **Hearing Impaired** function, **Normal** automatically activates even if the **Hearing Impaired** mode is selected.
 -  English is the default in cases where the selected language is unavailable in the broadcast.
- **Primary Subtitle**: Sets the primary subtitle.
- **Secondary Subtitle**: Sets the secondary subtitle.

■ Audio Options

(digital channels only)

 **MENU**  → **Broadcasting** → **Audio Options** → **ENTER** 

- **Audio Language** 

Change the default value for audio languages.

Primary Audio / Secondary Audio: You can set the primary or secondary audio.

 The available language may differ depending on the broadcast.

- **Audio Format**

When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the TV Speaker function.



Audio Format option may differ depending on the broadcast. 5.1ch Dolby digital sound is only available when connecting an external speaker through an optical cable.

- **Audio Description** (not available in all locations)

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

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

Volume: Adjust the audio description volume.

■ Teletext Language

(depending on the country)

 **MENU**  → **Broadcasting** → **Teletext Language** → **ENTER** 

- **Teletext Language**

-  English is the default in cases where the selected language is unavailable in the broadcast.

- **Primary Teletext / Secondary Teletext**

-  **Primary Teletext** and **Secondary Teletext** may not be supported in some locations.

■ Digital Text

(UK only)

 **MENU**  → **Broadcasting** → **Digital Text** → **ENTER** 

If the programme broadcasts with digital text, this feature is enabled.

MHEG (Multimedia and Hypermedia Information Coding Experts Group)

An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele education, teleconferencing, digital libraries and network games.

■ Common Interface

 **MENU**  → **Broadcasting** → **Common Interface** → **ENTER** 

- **CI Menu:** This enables the user to select from the CAM-provided menu. Select the CI Menu based on the menu PC Card.
- **CAM video transcoding:** You can configure the setting to transcode the video codec from the CAM automatically. Turn it **Off** if you do not want to use it.
 -  You must use a CAM that supports transcoding the video codec.

- **Application Info:** View information on the CAM inserted into the CI slot and on the “CI or CI+ CARD” which is inserted into the CAM. You can install the CAM anytime whether the TV is on or off.
 1. Purchase a CI CAM module at your nearest dealer or by phone.
 2. Firmly insert the “CI or CI+ CARD” into the CAM in the direction of the arrow.
 3. Insert the CAM with the “CI or CI+ CARD” into the common interface slot, in the direction of the arrow so that it aligns parallel with the slot.
 4. Check if you can see a picture on a scrambled signal channel.

❑ Changing the Preset Picture Mode

■ Picture Mode **TOOLS**

 **MENU**  → **Picture** → **Picture Mode** → **ENTER** 

Select your preferred picture type.

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

- **Dynamic**: Suitable for a bright room.
- **Standard**: Suitable for a normal environment.
- **Natural** **for LED 6 series**: 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

■ Samsung MagicAngle for LED 19", 22" models

 MENU  → Picture → Samsung MagicAngle → ENTER 

Adjust screen viewing Angle to optimize screen quality according to your viewing position.

- **Samsung MagicAngle:** When viewing the screen at an angle from below or above by setting the appropriate mode for each position, you can obtain a similar picture quality as viewing the screen directly from the front.

Off: Select when viewing from the front position.

Lean Back Mode: Select when viewing from a slightly lower position.

Standing Mode: Select when viewing from the upper position.

- **Mode:** Adjust screen viewing angle.

 When **Samsung MagicAngle** is set to **Lean Back Mode** or **Standing Mode**, **Gamma** is not available.

■ 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.

NOTE

- In analogue **TV**, **Ext.**, **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.
- Lowering picture brightness reduces power consumption.

■ Picture Size

 **MENU**  → **Picture** → **Picture Size** → **ENTER** 

Set the various picture options such as picture size and aspect ratio.

 The available items may differ depending on the selected mode.

 Depending on the input source, the picture size options may vary.

- **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.

Auto Wide: Automatically adjusts the picture size to the **16:9** aspect ratio.

16:9: Sets the picture to 16:9 wide mode.

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** or **Position** by using ▲, ▼ button.

4:3: Sets the picture to basic (4:3) mode.

 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 **for LED 6 series**: Reduces original screen by 50%.

Smart View 2 **for LED 6 series**: Reduces original screen by 25%.



NOTE

- **Smart View 1** is enabled only in HDMI mode.
- **Smart View 2** is enabled only in DTV and HDMI modes.
- The picture size can vary depending on the input resolution when content is played using **Videos** under **Media Play**.
- **Zoom/Position**: Adjust the picture size and position. It is only available in **Zoom**.
- **Position**: Adjust the picture position. It is only available in **Screen Fit** or **Wide Zoom**.



NOTE

- After selecting **Screen Fit** in HDMI (1080i / 1080p) or Component (1080i / 1080p) mode, you may need to centre the picture:
 1. Select the **Position**. Press the **ENTER**  button.
 2. Press the **▲**, **▼**, **◀** or **▶** button to move the picture.
- If you want to reset the position you adjusted, select **Reset** in the **Position** screen. The picture will be set to its default position.
- 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.
- **4:3 Screen Size**: Available only when picture size is set to **Auto Wide**. You can determine the desired picture size at the 4:3 WSS (Wide Screen Service) size or the original size. Each European country requires different picture size.

■ PIP **TOOLS**

 **MENU**  → **Picture** → **PIP** → **ENTER** 

You can watch the TV tuner and one external video source simultaneously. For example, if you have a cable box connected to the Cable In jack, you can use **PIP** to watch programs from the cable box and watch a movie from a Blu-ray player attached to the HDMI In jack.

NOTE

- 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.

- PIP settings

Main picture	Sub picture
Component, HDMI	TV

- **PIP**: Activate or deactivate the PIP function.
- **Aerial**: Select either **Air** or **Cable** as the input source for the sub-screen.
- **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**: You can choose the desired sound in **PIP** mode.

❑ Changing the Picture Options

■ Advanced Settings

 **MENU**  → **Picture** → **Advanced Settings** → **ENTER** 

(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 the **White Balance** and **Gamma**.

- **Dynamic Contrast**: Adjust the screen contrast.
- **Black Tone**: Select the black level to adjust the screen depth.
- **Flesh Tone**: Adjust the flesh tone colour.

- **RGB Only Mode:** Displays the Red, Green and Blue colour for making fine adjustments to the hue and saturation.
- **Colour Space:** Adjust the range of colours available to create the image.
 To adjust **Colour**, **Red**, **Green**, **Blue** and **Reset**, set **Colour Space** to **Custom**. **for PDP TV / LED 6 series**
- **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 its default settings.

- **10p White Balance** **for PDP TV / LED 6 series**: 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.

- **Gamma**: Adjust the primary colour intensity.

- **Expert Pattern** **for PDP TV / LED 6 series**: 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 mode.
- **Motion Lighting**: Reduce power consumption by brightness control adapted motion.
 - ☞ This function is not supported in **3D** mode. **for PDP 4900 / LED 6 series**
 - ☞ Only available in **Standard** mode.
 - ☞ When changing a setting value of **Backlight** **for LED TV** / **Cell Light** **for PDP TV**, **Brightness** or **Contrast**, **Motion Lighting** will be set to **Off**.

■ Picture Options

 **MENU**  → **Picture** → **Picture Options** → **ENTER** 

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

- **Colour Tone**

 **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 Clean View**: If the broadcast signal received by your TV is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.

 When the signal is weak, try other options until the best picture is displayed.

Auto Visualisation: When changing analogue channels, displays signal strength.



Only available for analogue channels.



When the **INFO** button is pressed, the signal strength bar is displayed.



When bar is green, you are receiving the best possible signal.

- **MPEG Noise Filter:** Reduces MPEG noise to provide improved picture quality.
- **HDMI Black Level:** Selects the black level on the screen to adjust the screen depth.
 -  Available only in **HDMI** mode (RGB signals).

- **Film Mode:** 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. **for PDP TV**
 - ☞ Available in TV mode and external input mode which supports SD (480i / 576i) and HD (1080i) except in PC mode.
 - ☞ If the screen does not seem natural, change its option to **Off / Auto1 / Auto2** in **Film Mode**.

- **Motion Plus** **for LED 6 series**: Removes drag from fast scenes with a lot of movement to provide a clearer picture.
 - ☞ The Info screen on your TV displays the resolution and frequency of the incoming signal (60Hz), but not the frequency the TV is generating for the image it is displaying by using **Motion Plus** function.
 - ☞ If noise occurs on the screen, please set up the **Motion Plus** to **Off**. If **Motion Plus** is **Custom**, you can set up the **Blur Reduction**, **Judder Reduction** or **Reset** manually.
 - ☞ If **Motion Plus** is **Demo**, you can compare the difference of on and off modes.

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

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

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

-  It will be deactivated when the picture mode is set to **Natural**.
-  The screen may become slightly darker when you play **LED Clear Motion**.

Reset: Reset the custom settings.

- **Black Optimiser** **for PDP TV**: Realizes of the black colour deeply and expands the contrast ratio.
 -  When connecting a PC, it will be set to off and deactivated.
 -  When the TV is operating other applications, it will be deactivated. (ex. Media Play, PIP, Teletext)

■ **Picture Off** **TOOLS**

 **MENU**  → **Picture** → **Picture Off** → **ENTER** 

The screen is turned off but the sound remains on. Press any button except volume button to turn on the screen.

■ **Reset Picture**

 **MENU**  → **Picture** → **Reset Picture** → **ENTER** 

Resets your current picture mode to its default settings.

❑ Changing the Preset Sound Mode

■ Sound Mode

 **MENU**  → **Sound** → **Sound Mode** → **ENTER** 

- **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

■ Sound Effect

(standard sound mode only)

 **MENU**  **Sound**  **Sound Effect**  **ENTER** 

- **DTS TruSurround**

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

- **DTS TruDialog**

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

- **Equaliser**

Use Equaliser to customize sound setting for each speaker.

Balance: 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 equaliser to its default settings.

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

■ **3D Audio** **for PDP 4900 / LED 6 series**

 **MENU**  → **Sound** → **3D Audio** → **ENTER** 

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

 Available in only when watching 3D image.

■ Speaker Settings

 **MENU**  → **Sound** → **Speaker Settings** → **ENTER** 

- **Speaker Select** **TOOLS** 

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.

- **Auto Volume**

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 on the source device connected to the TV, set **Auto Volume** to **Off** on the TV. Otherwise, a change to the volume control of the source device may not be applied.

■ Additional Settings

 **MENU**  → **Sound** → **Additional Settings** → **ENTER** 

- **DTV Audio Level** (digital channels only): This function allows you to reduce the disparity of a voice signal (which is one of the signals received during a digital TV broadcast) to a desired level.
 -  According to the type of broadcast signal, **MPEG / HE-AAC** can be adjusted between -10dB and 0dB.
 -  To increase or decrease the volume, adjust between the range 0 and -10 respectively.

- **Digital Audio Out:** Digital Audio out 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 format. The available Digital Audio output format may differ depending on the input source.

 By connecting to 5.1ch speakers in a Dolby Digital setup, maximize your interactive 3D sound experience.

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).

- **Dolby Digital Comp:** This function minimizes signal disparity between a dolby digital signal and a voice signal (i.e. MPEG Audio, HE-AAC, ATV Sound).

 Select **Line** to obtain dynamic sound, and **RF** to reduce the difference between loud and soft sounds at night time.

Line: Set the output level for signals greater or less than -31dB (reference) to either -20dB or -31dB.

RF: Set the output level for signals greater or less than -20dB (reference) to either -10dB or -20dB.

Reset Sound

 **MENU**  → **Sound** → **Reset Sound** → **ENTER** 

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**.

❑ Executing initial setup

■ Setup

 **MENU**  → **System** → **Setup** → **ENTER** 

Configure the channels and the time when setting up the TV for the first time or when resetting the unit.

 Execute the initial setup following instructions that the TV guides.

□ Setting the Time

■ Time

 **MENU**  → **System** → **Time** → **ENTER** 

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

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

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

Clock Mode: Set up the current time manually or automatically.

- **Auto**: Set the current time automatically using the time from a digital channel.

 The aerial must be connected in order to set the time automatically.

- **Manual**: Set the current time manually.

 Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

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

-  Available only when **Clock Mode** is set to **Manual**.
-  You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

Time Zone (depending on the country): Select your time zone.

-  This function is only available when the **Clock Mode** is set to **Auto**.
-  When selecting **Manual** in **Time Zone**, **GMT** and **DST** will be activated.

Time Offset (depending on the country) **for PDP 4900 Series**: Adjusts the time when your TV receives the time information via Internet. Set the right time by selecting an offset.

-  The current time will be set through a network, if the TV fails to receive the time information including the broadcast signal from TV stations. (ex: Watching TV via set-top box, Satellite receiver, or etc)

❑ Using the Sleep Timer

 MENU  → System → Time → Sleep Timer → ENTER 

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

 Use the ▲/▼ buttons to select a period of time, and then press ENTER . To cancel the **Sleep Timer**, select **Off**.

❑ Setting the On / Off Timer

 **MENU**  → **System** → **Time** → **On Timer** <or> **Off Timer** → **ENTER** 

- **On Timer**: You can set up three separate **On Timer** configurations. (**On Timer 1**, **On Timer 2**, **On Timer 3**)

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

 The ✓ mark indicates the day you've selected.

Time: Set the hour and minute.

Volume: Set the desired volume level.

Source: To select the source of the content that will play when the TV turns on. You can:

- Select **TV** and have the TV display a specific air or cable channel.
 - Select **USB** and have the TV play back photo or audio files from a USB device.
 - Select a source on your TV that you have connected a set-top box to, and have the TV display a channel from the set-top box.
-  The USB device must be connected to your TV before you can select **USB**.



If you select a source other than **TV** or **USB**, you must:

- Have a cable or satellite set-top box attached to that source
- Set the set-top box to the channel you want to watch when the TV goes on
- Leave the set-top box turned on.



When you select a source other than **TV** or **USB**, the Aerial and Channel options will disappear.

Aerial (when the **Source** is set to **TV**): Select **ATV** or **DTV**.

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.

- 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 device, 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**: You can set up three separate **Off Timer** configurations. (**Off Timer 1**, **Off Timer 2**, **Off Timer 3**)

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

 The ✓ mark indicates the day you've selected.

Time: Set the hour and minute.

□ Economical Solutions

■ Eco Solution

 **MENU**  → **System** → **Eco Solution** → **ENTER** 

- **Energy Saving**: This adjusts the brightness of the TV in order to reduce power consumption.
- **Eco Sensor** **for PDP TV / LED 6 series**: To enhance your power savings; the picture settings will automatically adapt to the light in the room.

 If you adjust the **Backlight** **for LED TV** / **Cell Light** **for PDP TV**, 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:** 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:** The TV will be automatically turned off when no user operation is received for 4 hours.
 - ☒ If the **Auto Power Off** option is set to **Off**, the TV will stay on even if no operations are performed on the TV.

❏ Other Features

■ Menu Language

 **MENU**  → **System** → **Menu Language** → **ENTER** 

Set the menu language.

■ Auto Protection Time **for LED TV**

 **MENU**  → **System** → **Auto Protection Time** → **ENTER** 

◀ 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**

 **MENU**  → **System** → **Screen Burn Protection** → **ENTER** 

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

Your TV also has the following additional screen burn protection functions:

- **Pixel Shift**
- **Auto Protection Time**
- **Scrolling**
- **Side Grey**

- **Pixel Shift:** Using this function, you can set the TV to move pixels minutely on the PDP screen in a horizontal or vertical direction to minimize after images on the screen.

 Available Pixel Shift Settings and Optimum Settings

	Item	TV / HDMI
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:** If the screen displays a still image for a certain period of time you define, the TV activates the screen saver to prevent the formation of burnt in ghost images on the screen.

- **Scrolling**: This function removes after-images on the screen by illuminating all the pixels on the PDP according to a pattern. Use this function when there are 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 you apply the function, repeat the function again.



Press any key on the remote control to cancel this feature.

- **Side Grey**: When you watch TV with the screen ratio set to 4:3, using the **Side Grey** function can prevent damage to the edges of the screen by adjusting the white balance on the extreme left and right sides.

■ General

 **MENU**  → **System** → **General** → **ENTER** 

- **Game Mode**: 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 in **TV** mode.
- 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**.
- **Panel Lock**: Lock or unlock all the keys on the panel.
- **Boot Logo**: Display Samsung logo when the TV is turned on.

■ Change PIN

 **MENU**  → **System** → **Change PIN** → **ENTER** 

Change your password required to set up the TV.

 The PIN input screen appears before the setup screen.

 Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

■ DivX® Video On Demand

 **MENU**  → **System** → **DivX® Video On Demand** → **ENTER** 

Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 10-digit registration code, you can download the VOD activation file.

Once you play it using **Videos**, the registration is completed.

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

□ Using the Source List

■ Source List

 **MENU**  → **Applications** → **Source List** → **ENTER** 

 When you press the **SOURCE** button, **Source** screen will be displayed at once.

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

 For the detailed information, refer to “Changing the Input Source” in User Manual.

❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and movie files to the USB port on the side of the TV.
3. When USB is connected to the TV, popup window appears. You can select the **Photos**, **Videos** or **Music** directly.

 It might not work properly with unlicensed multimedia files.

 Need-to-Know List before using Media Contents

- MTP (Media Transfer Protocol) is not supported.
- Supported file systems are FAT and exFAT.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- Media Contents only supports sequential jpeg format.
- Media Contents 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 (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.
- The HDD (Hard Disk Drive) connected to USB is not supported.
- 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 15360 x 8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- The scene search and thumbnail functions are not supported in the **Videos**.

- 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.
- PTP connection mode is fully available only with digital cameras. When connecting a smartphone or tablet to the TV using PTP mode, it may not be recognized.
- A USB device that requires high power (more than 500mA or 5V) may not be supported.
- If the TV has been no input during time set in **Auto Protection Time**, the screen saver 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 Media Contents is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.
- If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

Disconnecting a USB Device

1. Press the **SOURCE** button.
 2. Select a desired USB device, and then press the **TOOLS** button. The **Tools** menu appears.
 3. Select **Disconnect USB Device**, and then wait until the selected USB device is disconnected. You can remove a USB device from the TV.
-  To remove a USB device from the TV, we recommend use **Disconnect USB Device** function.

□ Using the Media Contents

 **MENU**  → **Applications** → **Media Play** → **ENTER** 

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

1. Press the **MEDIA.P** button.
2. Press  button to select desired menu (**Photos**, **Videos**, **Music**), then press the **ENTER**  button.
3. Press  button to select desired device, then press the **ENTER**  button again.
4. Press the  button to select the desired file in the list, then press the **ENTER**  button or  (Play) button.

Playing the selected files

1. Press the ▲ button to select **Options** at the top of each main screen and select **Play Selected**.
2. Select the desired files.
 -  The check box appears to the left of the selected files.
 -  Press **ENTER**  button again to deselect the file.
3. Press the ▲ button to select **Play**.
 -  You can select or deselect all files pressing the **Select All / Deselect All**.

❑ Playing the Photos / Videos / Music

During playing a file, press the ▲/▼/◀/▶ button to select the desired menu.

- ☞ When the option menu is not displayed, press the **TOOLS** button or **ENTER**  button.
- ☞ You can also use  /  /  /  /  buttons on the remote control during playback.
- ☞ If you press the **INFO** button during playback, you can view the playback information.

Playback menu

Button	Operation	Photos	Videos	Music
	Previous / Next	•		
	Start Slide Show / Stop Slide Show	•		
	Play / Pause	Mini Player*	•	•
	Previous / Next	Mini Player*	•	•
	Rewind / Fast forward		•	•

* When setting the **Background Music** to **Mini Player** in **Photos**, these buttons appear.

Setting menu

● Photos

Button	Operation	
	Slideshow Settings	You can set the Speed and Effects during the slide show.
	Zoom	You can zoom into images in full screen mode.
	Rotate	You can rotate images in full screen mode.
	Background Music / Mini Player	You can set background music when watching a slide show. / You can control simple playback menus.
	Settings	Picture Mode / Sound Mode: You can adjust the picture or sound setting. Information: You can see detailed information about the played file.

-  During the slide show, all files in the file list will be displayed in order.
-  When you press the  (Play) button (or  button → **Options** → **Slide Show**) in the file list, slide show will be started immediately.
-  During the slide show, you can adjust the slide show speed using  (REW) or  (FF) button.
- Supported Photo Formats
 -  For the details, refer to “Specifications” in User Manual.

● Videos

Button	Operation	
	Search	<p>Search Titles: You can move the other file directly.</p> <p>Search Time Bar: You can search the video using ◀ and ▶ button at one minute interval or entering the number directly.</p> <p> It may not be supported depending on the input source.</p>
	Repeat Mode	You can play movie files repeatedly.
	Picture Size	You can adjust the picture size to your preference.
	Settings	<p>Subtitle Settings: You can play the video with subtitles. This function only works if the subtitles are the same file name as the video.</p> <p>Picture Mode / Sound Mode: You can adjust the picture or sound setting.</p> <p>Audio Language: You can change the audio language if the video has more than one language.</p> <p>Information: You can see detailed information about the played file.</p>

-  If video time information is unknown, play time and progress bar are not displayed.
-  In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.
- Supported Subtitle / Video Formats
 -  For the details, refer to “Specifications” in User Manual.

● Music

Button	Operation	
	Repeat	You can play music files repeatedly.
	Shuffle	You can play the music randomly.
	Sound Mode	You can adjust the sound setting.

-  Only displays the files with supported music file extension. Other file extensions are not displayed, even if they are saved on the same USB device.
-  If the sound is abnormal when playing music files, adjust the **Equaliser** in the **Sound** menu. (An over-modulated music file may cause a sound problem.)
- Supported Music Formats
 -  For the details, refer to “Specifications” in User Manual.

Setting the Encoding language

Set the encoding language if the text is not supported.

1. Press the ▲ button to select **Options** at the top of music main screen and select **Encoding**.
2. Select the desired encoding language.

□ Using the 3D function

for PDP 4900 / LED 6 series

Viewing TV using the 3D function

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.

Before using 3D function...

- 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.
- If you can not play 3D videos in some of the BD players, take out the disk from player and put it again, or restart the BD player.

3D

 **MENU**  → **Picture** → **3D** → **ENTER** 

This exciting new feature enables you to view 3D content.

-  "Full HD 3D Glasses™" Logo indicates compatibility between display products and 3D Glasses which are compliant with the "Full HD 3D Glasses™" format, and does not indicate picture quality of display products.
-  Some 3D modes may not be available depending on the format of the image source.
-  When you watch 3D images under flickering lighting such as a fluorescent lamp (50Hz ~ 60Hz) or a 3 wavelength lamp, you may notice some screen flickering. If this occurs, dim or turn off the light.

- **3D Mode**

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.

	3D Mode	Operation
	Off	Turns the 3D function off.
	2D → 3D	Changes a 2D image to 3D.  Some file format may not be supported.
	Side by Side	Displays two images next to each other.
	Top & Bottom	Displays one image above another.

-  **3D Mode** is set to Off automatically when you access **Media Play** or **e-Manual** functions.
-  **3D Mode** is set to memorised configuration value automatically, when changing the input source.

- **3D Perspective:** Adjust overall 3D perspective of on-screen image.
- **Depth:** Adjust overall depth.
- **L/R Change:** Swap the left and right pictures.
- **3D → 2D:** Displays the image for the left eye only.

 This function is deactivated when 3D Mode set to “” or “”.

Support resolution (16:9 only)

- HDMI

Source	Resolution	Frequency (Hz)
	1280 x 720p	50 / 59.94 / 60 Hz
	1920 x 1080i	50 / 59.94 / 60 Hz
	1920 x 1080p	23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60 Hz
Frame Packing	1280 x 720p	50 / 59.94 / 60 Hz
	1920 x 1080i	50 / 59.94 / 60 Hz
	1920 x 1080p	23.98 / 24 / 25 / 29.97 / 30 Hz

- Components & DTV

Source	Resolution	Frequency (Hz)
Components	1280 x 720p	50 / 59.94 / 60 Hz
	1920 x 1080i	50 / 59.94 / 60 Hz
	1920 x 1080p	23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60 Hz
DTV	1280 x 720p	50 / 59.94 / 60 Hz
	1920 x 1080i	50 / 59.94 / 60 Hz
	1920 x 1080p	25 Hz

- Videos / Photos (In **Media Play**)

For the details, refer to “Specifications” in User Manual.

□ Viewing the e-Manual

■ e-Manual

 **MENU**  → **Support** → **e-Manual** → **ENTER** 

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 use the e-Manual” in User Manual.

□ Using the Self Diagnosis

■ Self Diagnosis

 **MENU**  → **Support** → **Self Diagnosis** → **ENTER** 

- **Self Diagnosis** might take few seconds, this is part of the normal operation of the TV.
 - **Picture Test**: Use to check for picture problems.
 - **Sound Test**: 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.

- **Signal Information** (digital channels only): HDTV channel's reception quality is either perfect or the channels are unavailable. Adjust your aerial to increase signal strength.
- **Reset**: Reset all settings to the factory defaults except network settings.
 -  The PIN input screen appears before the setup screen.
 -  Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

□ Updating the Software

■ Software Update

 **MENU**  → **Support** → **Software Update** → **ENTER** 

The **Software Update** menu lets you upgrade your TV's software to the latest version.

Current version: This is the software version already installed in the TV.

 When software is upgraded, video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

- **Update now**

- 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.

- By Channel: Upgrade the software using the broadcasting signal.

-  If the function is selected during the software transmission period, software will be automatically searched and downloaded.

-  The time required to download the software is determined by the signal status.

- **Auto update**: 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.

❏ Changing the Use Mode

■ Use Mode

 **MENU**  → **Support** → **Use Mode** → **ENTER** 

Select the **Use Mode** suitable for your place. We strongly recommend you select **Home Use**.

- **Home Use:** **Home Use** is the default setting.
- **Store Demo:** **Store Demo** is for retail environments only. If you select **Store Demo**, some functions will not work, and the picture settings will be reset every 30 minutes.

□ Viewing the Contact Samsung

■ Contact Samsung

 **MENU**  → **Support** → **Contact Samsung** → **ENTER** 

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 Sports Mode

■ Sports Mode **TOOLS**

 **MENU**  → **Applications** → **Sports Mode** → **ENTER** 

This mode provides optimized condition for watching sports games.

 When the sports mode is on, the picture and sound modes are set to **Stadium** automatically.

 If you turn the TV off while watching **Sports Mode**, the **Sports Mode** will be disable.

□ Using the Satellite System

for LED 6170 series

- Auto Tuning

 MENU  → Broadcasting → Auto Tuning → ENTER 

When Aerial Source is set to Satellite

- **Channel Type:** Select the Channel Type to memorise.
- **Satellite:** Selects the satellite to scan. The option may differ depending on country.
- **Scan Mode:** Select a scan mode for the selected satellite.
- **Re-initialise:** Selects the scanning mode of the selected satellite.
 -  This function is available after connecting to satellite aerial and set the channels.
- **Search Mode:** Sets search mode using up/down buttons.

- **Manual Tuning**

 **MENU**  → **Broadcasting** → **Channel Settings** → **Manual Tuning** →
ENTER 

Scan Satellite

Transponder: Selects the transponder using the up/down buttons.

Scan Mode: Selects either free or all channels to store.

Network Search: Select to search network or not.

Signal Quality: Display the current status of broadcasting signal.

 Information on a satellite and its transponder is subject to change depending on the broadcasting conditions.

 When setting is completed, move to **Search** and press the **ENTER**  button. Channel scan is started.

- **Satellite System**

 **MENU**  → **Broadcasting** → **Channel Settings** → **Satellite System** → **ENTER** 

The PIN input screen appears. Enter your 4 digit PIN number. **Satellite System** is available when **Aerial** is set to **Satellite**. Before running **Auto Tuning**, set **Satellite System**. Then channel scan is run normally.

- **Satellite Selection:** You can choose the satellites for this TV.
- **LNB Power:** Enables or disables the power supply for the LNB.

- **LNB Settings:** Configures the outdoor equipment.



It is available when **LNB Power** is set to **On**.

Satellite: Selects the satellite for receiving digital broadcasts.

Transponder: Selects a transponder from the list or adds a new transponder.

DiSEqC Mode: Selects DiSEqC mode for the selected LNB.

Lower LNB Oscillators: Sets the LNB oscillators to a lower frequency.

Upper LNB Oscillators: Sets the LNB oscillators to a higher frequency.

Tone 22 kHz: Selects the Tone 22 kHz depending on the LNB type. For a universal LNB it should be **Auto**.

Signal Quality: Display the current status of broadcasting signal.

- **SatCR/Unicable Settings:** Configure single cable installation.

 SatCR is short for satellite channel router.

 This function may not support depending on the country.

SatCR/Unicable: Enables or disable single cable installation support.

- **Positioner Settings:** Configures the aerial positioner.

 It is available when **LNB Power** is set to **On**.

Positioner: Enables or disables the positioned control.

Positioner Type: Sets the positioned type between **DiSEqC 1.2** and **USALS**(Universal Satellite Automatic Location System).

- **My Longitude:** Sets the longitude for my location.
- **My Latitude:** Sets the latitude for my location.
- **Satellite Longitude Settings:** Sets the longitude of user defined satellites.

User Mode: Sets the position of satellite aerial according to each satellite. If you store the current position of satellite aerial according to a certain satellite, when the signal of that satellite is needed, the satellite aerial can be moved to pre-populated position.

- **Satellite:** Selects the satellite to set the position for.
- **Transponder:** Selects a transponder from the list for signal reception.
- **Moving Mode:** Selects the movement mode between discrete and continuous movement.
- **Step Size:** Adjusts the step size degrees for the aerial rotation. It is available when **Moving Mode** is set to **Step**.

- **Go To Stored Position:** Rotates the aerial to the stored satellite position.
- **Aerial Position:** Adjusts and stores the aerial position for the selected satellite.
- **Store Current Position:** Stores current position as the selected positioner limit.
- **Signal Quality:** Display the current status of broadcasting signal.



Installer Mode: Sets limits to the scope of movement of satellite aerial or reset the position. Generally, installation guide uses this function.

- **Limit Position:** Selects the direction of the positioner Limit.
- **Aerial Position:** Adjusts and stores the aerial position for the selected satellite.
- **Store Current Position:** Stores the current position as the selected positioner Limit.
- **Go to zero:** Moves the aerial to the reference position.
- **Reset positioner limit:** Allows the aerial to rotate over the full arc.
- **Reset all settings:** All satellite settings will be reset to the initial values.

□ Using the Wireless Network

for PDP 4900 series

Using wireless IP sharer (router or modem), you can connect your TV to the wireless network.

 For detailed settings for wireless network connection, refer to the User Manual.

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.

- You need to change the wireless router's security settings to AES. WEP security settings don't support WPS Connection.
- If HIGH PURE THROUGHPUT (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP for your wireless router, 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.

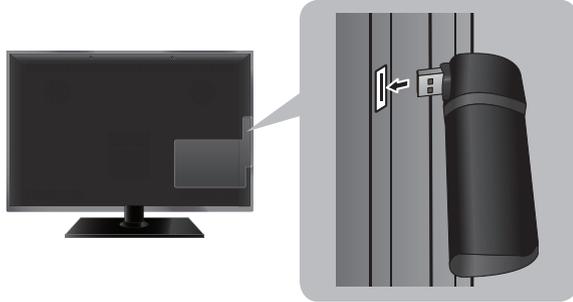
- If your router, modem, or device is not certified, it may not connect to the TV via the “Samsung Wireless LAN Adapter”.
- Connection Methods: You can setup the wireless network connection like below.
 - Auto Setup (Using the Auto Network Search function)
 - Manual Setup
 - **WPS(PBC)**
 - **Wi-Fi Direct**

- Ensure the TV is turned off before you connect the Samsung Wireless LAN Adapter.
- 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.
- You must use the “Samsung Wireless LAN Adapter” (WIS12ABGNX, WIS09ABGNX) to use a wireless network. Samsung Wireless LAN Adapter and the USB extension Cable are sold separately and are offered by select retailers and Ecommerce sites.

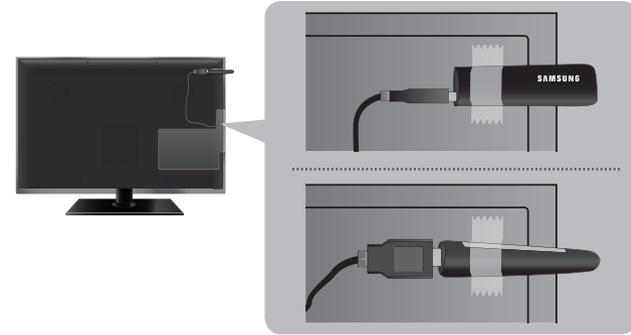
How to connect the Samsung Wireless LAN Adapter

- 1 Connect using the USB right angle adapter.
- 2 Connect via an extension cable

1



2



-  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, connect the Samsung Wireless LAN Adapter using a USB cable in a place that is not affected by radio interference.
-  The position of port may differ depending on the model.

■ Network Status

 **MENU**  → **Network** → **Network Status** → **ENTER** 

You can check the current network and Internet status.

■ Network Settings

 **MENU**  → **Network** → **Network Settings** → **ENTER** 

Set the network connection to use AllShare™.

 The Internet can't be used other than content sharing via AllShare™.

■ Auto Network Setup

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 wireless 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.

 When connecting Samsung Wireless LAN Adapter, the screen pop-up appears directly to set wireless network.

1. Go to **Network Settings** screen.
(**Network** → **Network Settings**)
2. The Network function searches for available wireless networks. When done, it displays a list of the available networks.
3. In the list of networks, press the ▲ or ▼ button to select a network, and then press **ENTER**  button.
 -  If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct network name and Security key to establish the connection.
4. If the Security screen pop-up appears, go to step 6. The wireless router which does not have wireless security, go to step 7.

5. Enter the security key using ▲/▼/◀/▶ buttons, and then select **Done**.
 -  You can also enter numbers by pressing the number buttons
 -  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.
6. The network connection screen appears, and network setting is done.
 -  If it fails to set Security key (Security or PIN), select **Retry** or **IP Settings**.
 -  If you want to set connection manually, select the **IP Settings**. Refer to following “How to set up manually”.
 -  If you select **Change Network**, you can select other wireless networks.

How to set up WPS(PBC)

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

1. The Network function searches for available wireless networks. When done, it displays a list of the available networks.
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 connection screen appears, and network setting is done.

■ Manual Network Setup

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

 You can find the network connection values in control panel of Windows computers.

How to set up manually

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

1. Select the **IP Settings** on network connection screen.

 When it fails to connect the network automatically, the **IP Settings** is available to select.

2. Set **IP setting** to **Enter manually**.

3. Move to each field using ▲/▼/◀/▶ buttons. Enter the network connection values, and then select **OK**.

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

The check list for wireless network connection failure

When wireless network connection failed, try to apply the following information to each issue.

Issues	Solutions and Explanations
Wireless network connection failed.	<ul style="list-style-type: none">• No wireless router selected. Go to Network Settings to select your router.• Samsung Wireless LAN adapter is required to use a wireless network.• Make sure the TV is connected to a wireless IP sharer (Router).
IP auto setting failed.	<ul style="list-style-type: none">• Try the following to set your IP address automatically or set your IP address manually by selecting IP Settings.• Ensure DHCP server is enabled on router and unplug and re-plug-in the router.• Check if you need to enter a security key to use the router.• Contact your Internet Service Provider for more information.

Issues	Solutions and Explanations
Unable to connect to wireless router.	<ul style="list-style-type: none"> • Check that the router is turned on, and if it is on, try turning it off and on again. • Check if you need to enter a security key to use the router.
Unable to connect to the network.	<ul style="list-style-type: none"> • Check if your IP address is set correctly in IP Settings. • Check if you need to enter a security key to use the router. • Contact your Internet Service Provider for more information.
Connected to your local network, but cannot connect to the Internet.	<ul style="list-style-type: none"> • Check your Internet LAN cable is connected correctly to LAN port of router. • Check the DNS settings in IP Settings. • If the problem persists, contact your Internet Service Provider to access the Internet.
Network setup complete, but cannot connect to the Internet.	<ul style="list-style-type: none"> • Confirm that your router is connected to the Internet. • If the problem persists, contact your Internet Service Provider to access the Internet.

❑ Using the Wired Network

UK only

■ Wired Network Connection

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

- Connecting the LAN port on your TV to an external modem
 - Connecting the LAN port on your TV to a IP Sharer which is connected to an external modem
 - Connecting the LAN port on your TV directly to a network wall outlet
 - 📖 To use this way, wall outlet is attached to a modem or router elsewhere in your house.
- 📖 For detailed settings for wired network connection, refer to the User Manual.

- If your network requires a Dynamic IP address, 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 use a Dynamic IP address. 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 Setup

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:

1. Go to **Network Status** screen.

(**Network** → **Network Status**)

2. You can check the connected status on the screen.

 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:

1. Select the **IP Settings** on **Network Status** screen.

 When it fails to connect the network automatically, the **IP Settings** is available to select.

2. Set **IP setting** to **Enter manually**.

3. Move to each field using ▲/▼/◀/▶ buttons. Enter the network connection values, and then select **OK**.

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

The check list for wired network connection failure

When wired network connection failed, try to apply the following information to each issue.

Issues	Solutions and Explanations
No network cable found.	<ul style="list-style-type: none">• Check that your network cable is plugged in.• If it is connected, make sure that the router is turned on; if it is on, try turning it off and on again.
IP auto setting failed.	<p>Try the following to set your IP address automatically or set your IP address manually by selecting IP Settings.</p> <ul style="list-style-type: none">• Ensure DHCP server is enabled on router and unplug and re-plug-in the router.• Contact your Internet Service Provider for more information.

Issues	Solutions and Explanations
Unable to connect to the network.	<ul style="list-style-type: none">• Check if your IP address is set correctly in IP Settings.• Contact your Internet Service Provider for more information.
Connected to your local network, but cannot connect to the Internet.	<ul style="list-style-type: none">• Check your Internet LAN cable is connected correctly to LAN port of router.• Check the DNS settings in IP Settings.• If the problem persists, contact your Internet Service Provider to access the Internet.
Network setup complete, but cannot connect to the Internet.	<ul style="list-style-type: none">• Confirm that your router is connected to the Internet.• If the problem persists, contact your Internet Service Provider to access the Internet.

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.

❑ Managing the Network Connected Devices

for PDP 4900 series

■ Wi-Fi Direct

 **MENU**  **Network**  **Wi-Fi Direct**  **ENTER** 

Set to connect the TV to wireless mobile devices. Using this function, you can connect wireless mobile devices with your TV directly without a wireless router.

 You can use this function when connecting the Samsung Wireless LAN Adapter.

 It only supports **Media Play** function.

 It may not be supported depending on the mobile device.

How to connect the device to your TV using Wi-Fi Direct function

-  Using this function, you must turn on Wi-Fi Direct function on your device.
1. Go to **Wi-Fi Direct** screen. The TV starts to search devices.
(**Network** → **Wi-Fi Direct**)
 2. Select the desired device, and then press the **ENTER**  button.
 3. When connection message appears on your device, let you allow it. Your TV automatically acquires all the network setting values it needs and connects to your network.
-  If you want to disconnect the device, select the connected device, and press the **ENTER**  button to select **Disconnect**.

■ AllShare Settings

 **MENU**  → **Network** → **AllShare Settings** → **ENTER** 

Set whether to allow a network connected device like a smartphone or tablet to share content or control TV using an application downloaded on your mobile device. For details, refer to the “Using the AllShare Settings function”.

■ Device Name

 **MENU**  → **Network** → **Device Name** → **ENTER** 

Change the TV’s name.

 When selecting **User Input**, you can key in a name for your TV manually. Use **▲/▼/◀/▶** buttons to select characters, and then select **Done**.

❑ Using the DLNA Functions

for PDP 4900 series

 This model only supports DLNA functions in AllShare™.

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.

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

 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.)
 - Bookmark function (to resume video playback)
 - Auto-chaptering (scene navigation)
 - Digital content management
 - Compatibility with various subtitle formats (SRT, SMI, SUB, TXT, TTXT)
 - 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.

Playing the media contents saved on the devices

1. Connect the mobile phone or other devices which support AllShare™ function, and then play the media contents of each device. The popup screen appears on the bottom of your TV.
2. Select the **Allow** to accept the connected devices. The media contents of the devices can be playing on your TV.
 -  You can find the allowed devices on the **AllShare Settings**.

Using the **Media Play** function, play the media contents of the devices connected to DLNA function.

1. Press the **MEDIA.P** button to select **Media Play**.
2. Press **▲/▼** button to select desired menu (**Videos**, **Photos**, **Music**), then press the **ENTER**  button.
3. When the DLNA device is selected, press the **ENTER**  button again.
4. Press the **▲/▼/◀/▶** button to select the desired file.
5. Press the **ENTER**  button.



NOTE

- 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.



Using the AllShare Settings function

 **MENU**  → **Network** → **AllShare Settings** → **Content Sharing** →
ENTER 

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

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

- **Allow / Deny**: Allows/Blocks the devices.
- **Delete**: Deletes the devices from the list.

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

Connecting to the PC through network

You can play pictures, music and videos saved on your PC through a network connection in the **Media Play** mode over your TV.

 If you want to use **Media Play** to play files saved on your PC over your TV, you should download “AllShare PC Software” and users manual from “www.samsung.com”.

1. For more information on how to configure your network, refer to the “**Network Settings**”.
 - You are recommended to locate both TV and PC in same subnet. The first 3 parts of the IP address of the TV and PC should be the same and only the last part (the host address) should be changed. (e.g. IP Address: 123.456.789.**)

2. Connect the PC on which you will install or have installed AllShare PC software and your TV to the same network.

 Functions that are not supported when connecting to a PC through a network:

- Background music when watching a slide show.
- The  (REW) or  (FF) button while a movie is playing.

 The DivX DRM, Multi-audio, embedded caption does not supported.

 AllShare PC Software should be permitted by the firewall programme on your PC.

- ✎ When you use **Media Play** mode through a network connection, according to functions of the provided server:
 - The sorting method may vary.
 - The ◀◀ (REW), ▶▶ (FF) or || (Pause) buttons may not work depending on the content information.
- ✎ When playing the video through network, it may not work depending on the network status. When you play video over a network connection, the video may not be played smoothly.