❑ Memorizing channels

■ 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.

❑ 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 or Favourites 1-5.

Press ►(Mode) button to change the channel mode.

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

Channel Mode

- **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.

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 Set 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.
   - 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.
  - (**Done**): Completes changing the channel order.
- B Green (**Delete**): Deletes a channel from the channel list.
- C Yellow (**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.

- D Blue (**Select All / Deselect All**): Selects or deselects all channels at once.
- 0~9 (**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.
  - **Category**: Change the channel mode to **All**, **Recently Viewed**, **Most Viewed**. The selected channel mode is displayed.

- **Edit Favourites**: Go to **Edit Favourites** screen directly.
- **Rename channel**: 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

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 D (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**, **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 (**Select All / Deselect All**): Selects or deselects all channels at once.
- D Blue (**Add / Delete**)
  - **Add**: Adds selected channels to **Favourites 1-5**.
  - **Delete**: Deletes the favourite channel from **Favourites 1-5**.
- 0~9 (**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**: Copy the selected favourite channel in **Favourites 1-5**. You can add from other favourite list.
  - **Rename Favourites**: Assign your own favourite channel name.
  - **Edit Channel**: Go to **Edit Channel** screen directly.
  - **Information**: Display details of the selected programme.

❑ Other Features

■ Channel Settings

MENU → Broadcasting → Channel Settings → ENTER

- Area (depending on the country)
  You can change the desired area.
- 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.

  1. Press the New button.
  2. Set the Programme, Colour System, Sound System, Channel and Search.
  3. Press the Store button. 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 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 or Z (cable channel mode) (depending on the country): These two modes allow you to select a channel by entering the assigned number for each aerial broadcasting station or cable channel.

- **Fine Tune**

  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 NTFS.

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.

❑ 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 5 series 32 inches above models : 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

■ 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, 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 TOOLS: 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: 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 5 series 32 inches above models : Reduces original screen by 50%.

Smart View 2 for LED 5 series 32 inches above models : 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.

- The available items may differ depending on the selected mode.
- When connecting a PC, 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.
- 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.

Input Source	Picture Size
ATV/AV	**16:9**, **Wide Zoom**, **Zoom**, **4:3**
Component(480i, 480p, 576i, 576p, 720p)	**16:9**, **Wide Zoom**, **Zoom**, **4:3**
Component(1080i, 1080p)	**16:9**, **Wide Zoom**, **Zoom**, **4:3**, **Screen Fit**
HDMI(720p, 1080i, 1080p)	**16:9**, **Wide Zoom**, **Zoom**, **4:3**, **Screen Fit**

PIP

MENU → Picture → PIP → ENTER

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

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 / AV

- **PIP**: Activate or deactivate the PIP function.
- **Source**: Select the 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**.

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

  2 point: Controls the white balance in 2 point interval by adjusting the red, green, and blue brightness.

  - **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.

10 point 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.

  - **Level**: Select level to adjust.
  - **Red**: Adjust the red level.
  - **Green**: Adjust the green level.
  - **Blue**: Adjust the blue level.
  - **Reset**: Resets the **10 point White Balance** to its default settings.

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

- **Motion Lighting**: Reduce power consumption by brightness control adapted motion.
  - This function is not supported in **3D** mode. for PDP 4900
  - 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: 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**.

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

- The screen may become slightly darker when you play **LED Clear Motion**.

Reset: Reset the custom settings.

- **Analogue Clean View**: Reduces diagonal noise in picture caused by the crosstalk of signals.
- **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

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

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.

Digital Audio Out

MENU → Sound → Digital Audio Out → ENTER

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).

Reset Sound

MENU → Sound → Reset Sound → ENTER

Reset all sound settings to the factory defaults.

❑ Selecting the Sound Mode

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 Set: Set the Date and Time.
  - You can set the Date and Time directly by pressing the number buttons on the remote control.
- Time Offset 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 TOOLS: 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** Channel options will disappear.

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 5 series 32 inches above models : 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. Auto Protection 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 Settix

	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 unlicenced 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.
- 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 recognised.
- Connect a USB HDD to the dedicated USB (HDD 5V 1A) port. More than 2TB USB HDD is not supported. **for LED 4100, 5100 series**
- A USB device that requires high power (more than 500mA or 5V) may not be supported. The HDD (Hard Disk Drive) connected to USB is not supported. **for PDP TV**
- 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 ►/II/■/◄◄/►► 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.

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

- 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

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	Off	Turns the 3D function off.
2D→3D	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 " 2D→3D " or " Off ".

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.
- 3D Picture Test for PDP 4900: Use to check for 3D 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.

- **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.

❑ 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 Soccer Mode / Sports Mode / Cricket Mode

■ Soccer Mode / Sports Mode / Cricket Mode

(depending on the country)

MENU → Applications → Soccer Mode / Sports Mode / Cricket Mode → ENTER

This mode provides optimized condition for watching sports games.

When the Soccer Mode / Sports Mode / Cricket Mode is on, the picture and sound modes are set to Stadium automatically.

If you turn the TV off while watching Soccer Mode / Sports Mode / Cricket Mode, the Soccer Mode / Sports Mode / Cricket Mode will be disable.

❑ Using the Screen&Sound Capture function

■ Screen&Sound Capture

MENU → Applications → Screen&Sound Capture → ENTER

This function provides capture screen or record an audio from the TV screen being viewing. Additionally, you can save the capture image and record audio on the USB device connected the TV. This function provides the TV screen you watched capture image and record audio.

- Screen&Sound Capture are for personal use only, not for commercial purpose and/or communication to the public.
- The user may not use those features to capture pictures and/or audios without prior approval from the copyright owners and/or to use it unlawfully.
- Samsung does not accept responsibility for any misuse of the service.

- **Screen&Sound Capture** TOOLS: Turn the **Screen&Sound Capture** function on or off.
- **Default Capture Device**: You can set the default device for saving captured image files and recorded audio files.

This function is only available when the USB device is connected the TV.

If the **Screen&Sound Capture** function is running, this function is not available.

Capturing the Screen

1. To capture the screen while watching TV, press C. This captures the screen. It may take 2 to 3 seconds to capture the screen.
2. Once captured, the image is saved as a .jpg file to the USB device connected to the TV. Thumbnails of captured images are then displayed on the screen.

   Select the thumbnail screen to view the saved images on Media Play.

Recording Audio

1. Press D. This records audio in real-time.
   - A popup window will appear on the screen while recording is in progress. The popup window displays the duration of the recording.
2. To stop recording, press D. The recording is stored as a .wav file on the USB device connected to the TV. Thumbnails of the audio recordings are then shown on the screen.
   - Select the thumbnail screen to play the saved audio files on Media Play.
   - You cannot change the channel or source to an external device. To change the channel or the source to an external device, first stop recording audio.

Restrictions

- A USB device must be connected to the TV in order to use it.
- **Screen&Sound Capture** can only be used if there is more than 5MB free space available on the USB device connected to the TV.
- Do not turn off the TV or disconnect the USB device while using **Screen&Sound Capture**. The file might not be saved or play if you do so.
- If the strength of the broadcast signal decreases or the signal is dropped altogether while using **Screen&Sound Capture**, the concerned file might not be saved or play.

- Images captured while watching the TV in 3D are stored as 2D images.
- **Screen&Sound Capture** cannot be used under the following circumstances:
  - While **Media Play** is running
  - While using **PIP**
  - No signal
  - Scrambled channels
  - Service Not Available channels
  - Parental Lock channels

❑ Using the Network

for PDP 4900 series

For the details, you can find an additional web manual on our website "www.samsung.com".

❑ Managing the Network Connected Devices

for PDP 4900 series

For the details, you can find an additional web manual on our website "www.samsung.com".

❑ Using the DLNA Functions

for PDP 4900 series

For the details, you can find an additional web manual on our website "www.samsung.com".