

SAMSUNG

Plasma TV

user manual

SERIES 4+

Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

### User Instructions

- Screen Image retention**  
Do not display a still image (such as on a video game) on the plasma display panel for more than several minutes as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, reduce the degree of brightness and contrast of the screen when displaying a still image.
- Heat on the top of the Plasma TV**  
The top side of the product may be hot after long periods of use as heat dissipates from the panel through the vent hole in the upper part of the product. This is normal and does not indicate any defect or operation failure of the product. However, children should be prevented from touching the upper part of the product.
- The product is making a "cracking" noise.**  
A "cracking" noise may occur when the product contracts or expands due to a change in the surrounding environment such as temperature or humidity. This is normal and not a defect of the unit.
- Cell Defects**  
The PDP uses a panel consisting of 2,350,000(H-level) to 6,221,000(H-level) pixels which require sophisticated technology to produce. However, there may be a few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.
- Avoid operating the TV at temperatures below 41°F (5°C)**
- A still image displayed too long may cause permanent damage to the PDP Panel.**

Watching the Plasma TV in 4:3 format for a long period of time may leave traces of borders displayed on the left, right and centre of the screen caused by the difference of light emission on the screen. Playing a DVD or a game console may cause similar effects to the screen.  
Damages caused by the above effect are not covered by the Warranty.

- After-images on the Screen.**  
Displaying still images from Video games for longer than a certain period of time may produce partial after-images.  
To prevent this effect, reduce the "brightness" and "contrast" when displaying still images for a long time.
- Warranty**  
Warranty does not cover any damage caused by image retention.  
Burn-in is not covered by the warranty.

### For India Only

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

For more information on safe disposal and recycling visit our website [www.samsung.com/in](http://www.samsung.com/in) or contact our Helpline numbers - 18002668282, 18003000822.

### Contact SAMSUNG WORLD WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.

Country	Customer Care Centre	Web Site
AUSTRALIA	1300 362 603	<a href="http://www.samsung.com/au">www.samsung.com/au</a>
NEW ZEALAND	0800 SAMSUNG (800 726 786)	<a href="http://www.samsung.com/nz">www.samsung.com/nz</a>
CHINA	400-810-5658	<a href="http://www.samsung.com">www.samsung.com</a>
HONG KONG	(852) 3698 4698	<a href="http://www.samsung.com/hk">www.samsung.com/hk</a> (Chinese)
INDIA	1800 3000 8282 1800 266 8282	<a href="http://www.samsung.com/in">www.samsung.com/in</a>
INDONESIA	0800-112-8888 (Toll Free) (021) 56997777	<a href="http://www.samsung.com/id">www.samsung.com/id</a>
JAPAN	0120-327-527	<a href="http://www.samsung.com">www.samsung.com</a>
MALAYSIA	1800-89-9999	<a href="http://www.samsung.com/my">www.samsung.com/my</a>
PHILIPPINES	1-800-10-7267864 [P.D.T] 1-800-8-7267864 [Globe landline and Mobile] 02-4222111 [Other landline]	<a href="http://www.samsung.com/ph">www.samsung.com/ph</a>
SINGAPORE	1800-SAMSUNG(726-7864)	<a href="http://www.samsung.com/sg">www.samsung.com/sg</a>
THAILAND	0-2689-3232, 1800-39-3232	<a href="http://www.samsung.com/th">www.samsung.com/th</a>
TAIWAN	0800-32-9999	<a href="http://www.samsung.com/tw">www.samsung.com/tw</a>
VIETNAM	1 800 568 869	<a href="http://www.samsung.com">www.samsung.com</a>
GEORGIA	0-800-555-555	<a href="http://www.samsung.com">www.samsung.com</a>
ARMENIA	0-800-05-555	<a href="http://www.samsung.com">www.samsung.com</a>
AZERBAIJAN	088-55-55-555	<a href="http://www.samsung.com">www.samsung.com</a>
UZBEKISTAN	8-10-800-500-55-500	<a href="http://www.samsung.com">www.samsung.com</a>
KYRGYZSTAN	00-800-500-55-500	<a href="http://www.samsung.com">www.samsung.com</a>
TADJIKISTAN	8-10-800-500-55-500	<a href="http://www.samsung.com">www.samsung.com</a>
MONGOLIA	+7-800-555-55-55	<a href="http://www.samsung.com">www.samsung.com</a>
BELARUS	810-800-500-55-500	<a href="http://www.samsung.com">www.samsung.com</a>
MOLDOVA	0-800-614-40	<a href="http://www.samsung.com">www.samsung.com</a>
ALGERIA	0800 100 100	<a href="http://www.samsung.com/n_afica">www.samsung.com/n_afica</a>
PAKISTAN	0800-Samsung (72678)	<a href="http://www.samsung.com/pk/">www.samsung.com/pk/</a>
TUNISA	90-1000-12	<a href="http://www.samsung.com/n_afica">www.samsung.com/n_afica</a>

For personal and non-commercial use only.  
Usage is subject to following the guidelines in the User Manual and may not be available in all regions.

### Important Safety Instructions

SAMSUNG

Warning! Important Safety Instructions

(Please read the safety instructions below before installing and using the product.)

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.

This symbol indicates that important literature concerning operation and maintenance has been included with this product.

- The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.
  - Do not cover the slots and openings with a cloth or other materials.
  - Do not block the slots and openings by placing this apparatus on a bed, sofa, rug or other similar surface.
  - Do not place this apparatus in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- Do not place this apparatus near or over a radiator or heat register, or where it is exposed to direct sunlight.
- Do not place a vessel containing water (vases etc.) on this apparatus, as this can result in a risk of fire or electric shock.
- Do not expose the apparatus to rain or place it near water (near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool etc.). If this apparatus accidentally gets wet, unplug it and contact an authorized dealer immediately.
- Make sure to pull out the power cord from the outlet before cleaning.
- This apparatus uses batteries. In your community, there might be regulations that require you to dispose of these batteries properly to protect the environment. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords, or adapters beyond their capacity, since this can result in fire or electric shock.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at the plug end, where connected to adapters, and at the point where they exit from the apparatus.
- To protect this apparatus from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure the voltage designation of the DC adaptor corresponds to the local electrical supply (depending on the model).
- Never insert anything metallic into the open parts of this apparatus. Doing so may create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Make sure to plug the power cord in until it is firmly inserted. Pull on the plug, not the cord, when removing the power cord from the outlet. Do not touch the power cord with wet hands.
- If this apparatus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.
- Be sure to plug the power plug out of the outlet if the TV is to remain unused or if you are to leave the house for an extended period of time (especially when children, elderly or disabled people will be left alone in the house).
  - Accumulated dust can cause an electric shock, an electric leakage, or a fire by causing the power cord to generate sparks and heat, or cause the insulation to deteriorate.
- Be sure to contact an authorized service center, when installing your set in a location with heavy dust, high or low temperatures, high humidity, chemical substances or where it will operate for 24 hours a day such as in an airport, a train station, etc. Failure to do so may cause serious damage to your set.
- Use only a properly grounded plug and receptacle.
  - An improper ground may cause electric shock or equipment damage. (Class I Equipment only.)
- To turn off the apparatus completely, you must pull the power plug out of the wall socket. Consequently, the power plug should be readily accessible at all times.
- Do not allow children to hang onto the product.
- Store the accessories (batteries, etc.) in a location safely out of the reach of children.
- Do not install the product in an unstable location such as a shelf, self, a slanted floor, or a location exposed to vibration.
- Do not drop or impart a shock to the product. If the product is damaged, disconnect the power cord and contact a service center.
- To clean the product, unplug the power cord from the power outlet and wipe the product using a soft, dry cloth. Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticides, air freshener, lubricant or detergent. This may damage the appearance or erase the printing on the product.
- Do not expose the apparatus to dripping or splashing.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble, or overheat the batteries.
- Do not short circuit, disassemble, or overheat the batteries.
- There is a danger of explosion if you replace the batteries with the wrong type of battery. Replace only with the same or equivalent type.
- WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

### Getting Started

#### Accessories

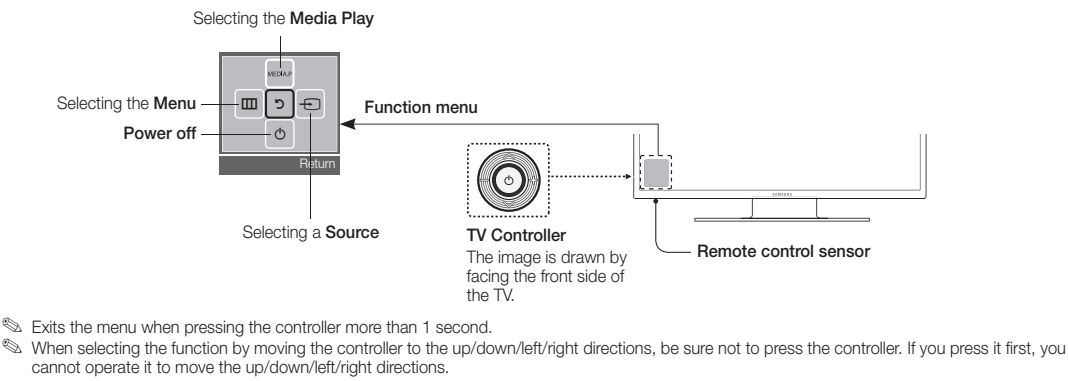
- Remote Control & Batteries (AAA x2)
- Owner's Instructions
- Warranty Card / Regulatory Guide (Not available in some locations)
- Power Cord

#### Input Cables (Sold Separately)

- Composite (AV)
- Coaxial (FF)
- Component
- HDMI

#### TV Controller (Panel Key)

The TV's Controller, a small joy stick like button on the rear left side of the TV, lets you control the TV without the remote control.



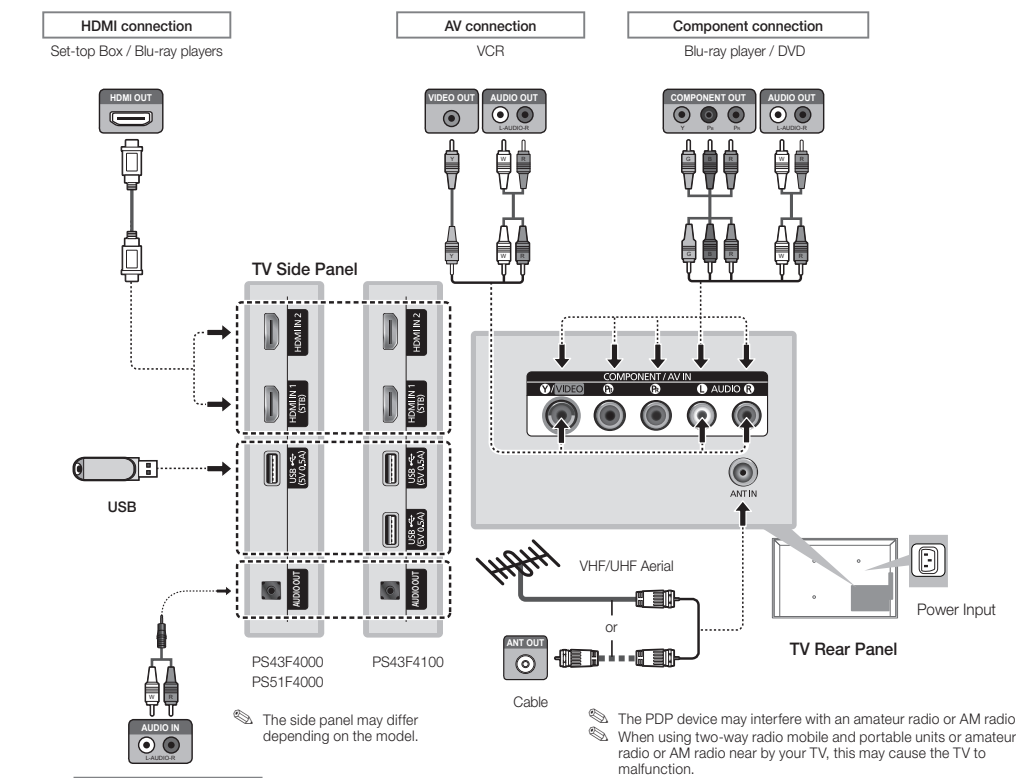
- Exits the menu when pressing the controller more than 1 second.
- When selecting the function by moving the controller to the up/down/left/right directions, be sure not to press the controller. If you press it first, you cannot operate it to move the up/down/left/right directions.

#### Setup (Initial Setup)

When you turn the TV on for the first time, a sequence of on-screen prompts will assist in configuring basic settings. Press the POWER button. Set the initial setup following instructions that the TV guides.  
Connecting the power cord and aerial. (refer to 'Connections')

### Connections

- For better picture and audio quality, connect to a digital device using an HDMI cable.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the TV. If such a problem occurs, ask the manufacturer of the external device about the HDMI version and, if out of date, request an upgrade.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- For set-top box connection using HDMI cable, we highly recommend you to connect the HDMI IN 1(STB) port.
- The TV model is not allowed for PC connection (distortion or incorrect picture displaying can appear).



### Changing the Input Source

#### Source List

Use to select TV or other external input sources such as DVD / Blu-ray players / cable box / STB satellite receiver connected to the TV.  
1. Press the SOURCE button.

- Select a desired external input source.
- TV / HDMI1 / HDMI2 / AV / Component**
- You can only choose external devices that are connected to the TV. In the **Source**, connected inputs are highlighted.

#### How to use Edit Name

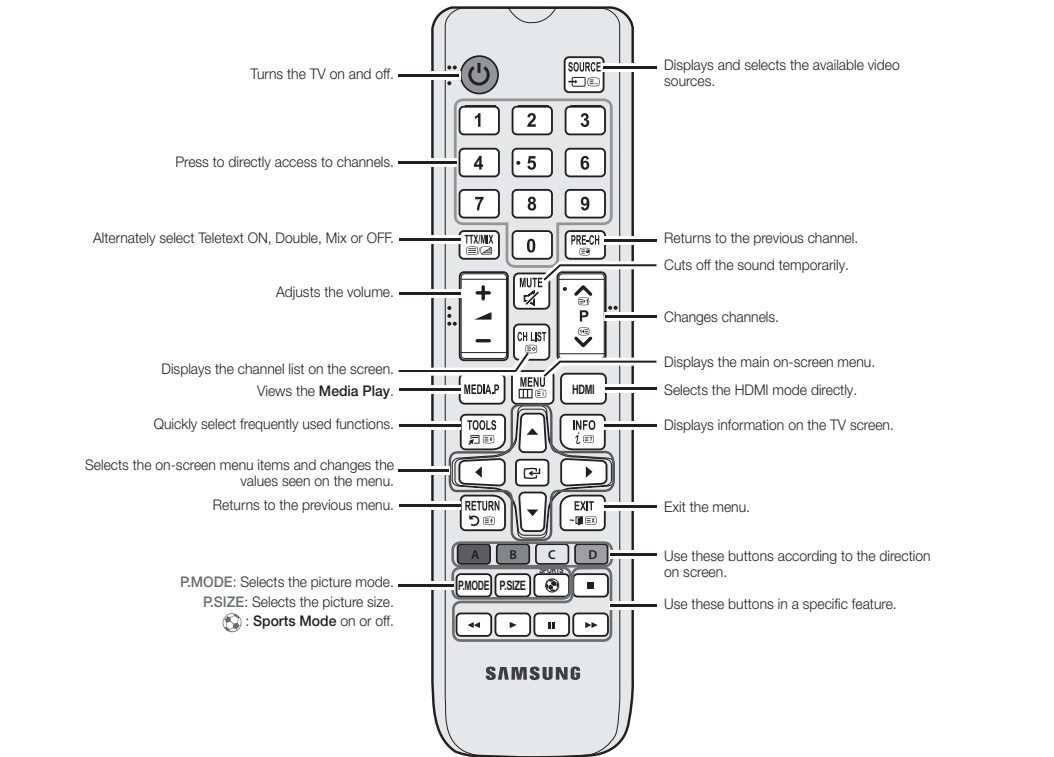
**Edit Name** lets you associate a device name to an input source. To access **Edit Name**, press the **TOOLS** button in **Source List**. Name the device connected to the input jacks to make your input source selection easier.

#### Information

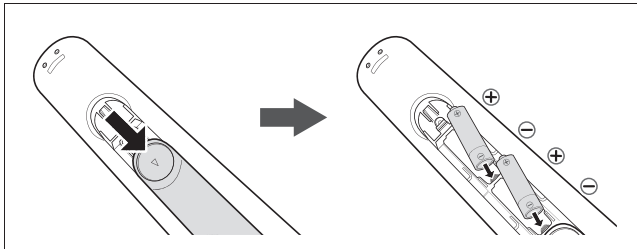
You can see detailed information about the selected external device.

### Remote Control

This remote control has Braille points on the Power, Channel, and Volume buttons and can be used by visually impaired persons.



#### Installing batteries (Battery size: AAA)



- NOTE**
- Use the remote control within 23 feet from TV.
- Bright light may affect the performance of the remote control. Avoid using nearby special fluorescent light or neon signs.
- The Colour and shape may vary depending on the model.

### Broadcasting Menu

#### Memorizing channels

##### Auto Tuning

(depending on the country)  
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

##### 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

- 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.
- Press the **Schedule** on the **Schedule Manager** screen. The **Schedule Viewing** menu appears.
  - 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.
- 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

- You can edit or delete channels.
  - Go to **Edit Channel** screen.
  - 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

- [Red] (Change Number):** Changes channel order on the channel list.
  - [Done]:** Completes changing the channel order.
- [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.
- [Yellow] (Delete):** Deletes a channel from the channel list.
- [Blue] (Select All / Deselect All):** Selects or deselects all channels at once.
- [Go To] (Go To):** Goes to channel directly by pressing numbers (0-9).
- [Page] (Page):** Move to previous or next page.
- [Tools] (Tools):** Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
  - Category:** Changes 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 [TOOLS]

- You can add, edit or delete favourite channels.
  - Go to **Edit Favourites** screen.
  - Press the **► [▲] ▼** buttons to select the desired channel, and then press **ENTER [↵]** button.
  - Choose a specific favourite list among **Favourites 1-5** using **[Change Fav]** button, and then press the **[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

- [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.
- [Green] (Change Fav):** Changes favourite list among **Favourites 1-5**.
- [Yellow] (Add / Delete)**
  - Add:** Adds selected channels to **Favourites 1-5**.
  - Delete:** Deletes the favourite channel from **Favourites 1-5**.
- [Blue] (Select All / Deselect All):** Selects or deselects all channels at once.
- [Go To] (Go To):** Goes to channel directly by pressing numbers (0-9).
- [Page] (Page):** Move to previous or next page.
- [Tools] (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

- 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**.
  - 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 exFAT.

#### Channel Lock

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**.

### Picture Menu

#### Changing the Preset Picture Mode

##### Picture Mode [TOOLS]

- Select your preferred picture type.
  - Dynamic:** Suitable for a bright room.
  - Standard:** Suitable for a normal environment.
  - Movie:** Suitable for watching movies in a dark room.

#### Adjusting Picture Settings

- Cell Light / Contrast / Brightness / Sharpness / Colour / Tint (G/R)**  
Your television has several setting options for picture quality control.
  - In analogue **TV**, AV modes of the PAL system, the **Tint (G/R)** function is not available.
  - Settings can be adjusted and stored for each external device connected to the TV.
  - Lowering picture brightness reduces power consumption.

##### Picture Size

- 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.

- 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**.
  - The available items may differ depending on the selected mode.
  - 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

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

- 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 (Main / Sub) in PIP mode.

#### Changing the Picture Options

##### Advanced Settings

- (available in **Standard / Movie** mode)
  - You can adjust the detailed setting for the screen including colour and contrast.
- 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.
- 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-Offset / G-Offset / B-Offset:** Adjust each colour's (red, green, blue) brightness.
- R-Gain / G-Gain / B-Gain:** Adjust each colour's (red, green, blue) brightness.
- Reset:** Resets the **White Balance** to its default settings.
- Gamma:** Adjust the primary colour intensity.
- Motion Lighting:** Reduce power consumption by brightness control adapted motion.
  - Only available in **Standard** mode.
  - When changing a setting value of **Cell Light**, **Brightness** or **Contrast**, **Motion Lighting** will be set to **Off**.

#### Picture Options

- 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.
- MPEG Noise Filter:** Reduces MPEG noise to provide improved picture quality.
  - When bar is green, you are receiving the best possible signal.
- HDMI Black Level:** Selects the black level on the screen to adjust the screen depth.
- Film Mode:** Sets the TV to automatically sense and process film signals from all sources and adjust the picture for optimum quality.
  - Available in TV mode and external input mode which supports SD (480i / 576i) and HD (1080i).
  - If the screen does not seem natural, change its option to **Off / Auto1 / Auto2** in **Film Mode**.
- Analog Clean View:** Reduces diagonal noise in picture caused by the crosstalk of signals.

##### Picture Off

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

##### Reset Picture

Resets your current picture mode to its default settings.

### Sound Menu

#### Changing the Preset Sound Mode

##### Sound Mode

- 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.



## Adjusting Sound Settings

### Sound Effect

(standard sound mode only)

■ **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.

■ **Equalizer:** Use Equalizer 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 equalizer to its default settings.

### Speaker Settings

■ **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.

☞ 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.

### Reset Sound

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	<b>Mono</b>	Automatic change
	Stereo	<b>Stereo -- Mono</b>	
	Dual	<b>Dual I -- Dual II</b>	
NICAM Stereo	Mono	<b>Mono</b>	Automatic change
	Stereo	<b>Stereo -- Mono</b>	
	Dual	<b>Mono -- Dual I / Dual II</b>	

☞ If the stereo signal is weak and an automatic switching, occurs, then switch to the mono.

☞ Only available in stereo sound signal.

☞ Only available when the **Source** is set to **TV**.

## System Menu

## Executing initial setup

### Setup

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.

☞ Enter your 4-digit PIN, the default of which is 0-0-0-0.

## Setting the Time

### Time

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.

## 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**.

## On Timer / Off Timer

■ **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 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 recognised.

■ **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.

## Other Features

### Menu Language

Set the menu language.

### Eco Solution

■ **Energy Saving:** This adjusts the brightness of the TV in order to reduce power consumption.

■ **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.

■ **Auto Power Off:** The TV will be automatically turned off when no 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.

## Screen Burn Protection

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:** 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

**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.

☞ It might not work properly with unlicensed multimedia files.

☞ Need-to-Know List before using Media Play

• 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 Play only supports sequential jpeg format.

• Media Play 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 deletion.

• 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 recognised.

■ **Game Mode:** When connecting to a game console such as PlayStation™3 or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

☞ 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

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

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>.

## Application Menu

## Using the Source List

### Source List

☞ 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".

## Using the Media Play

### 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 Play

• 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 Play only supports sequential jpeg format.

• Media Play 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 deletion.

• 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 recognised.

• 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 recognised or the files on the device may not be read.

• If a USB device connected to the TV is not recognised, the list of files on the device is computed 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 Play 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.

☞ To remove a USB device from the TV, we recommend use **Disconnect USB Device** function.

## Using the Media Play

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
<b>◀ ▶</b>	Previous / Next	•	•	•
<b>▶▶ ▶▶</b>	Start Slide Show / Stop Slide Show	•	•	•
	Play / Pause	•	•	•
<b>◀ ▶</b>	Previous / Next	•	•	•
<b>◀ ▶</b>	Rewind / Fast forward	•	•	•

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

## Setting menu

### Photos

Button	Operation
<b>▶▶ ▶▶</b>	<b>Slideshow Settings</b> You can set the <b>Speed</b> and <b>Effects</b> during the slide show.
<b>◀ ▶</b>	<b>Zoom</b> You can zoom into images in full screen mode.
<b>◀ ▶</b>	<b>Rotate</b> You can rotate images in full screen mode.
<b>▶▶ ▶▶</b>	<b>Background Music / Mini Player</b> You can set background music when watching a slide show. / You can control simple playback menus.
<b>▶▶ ▶▶</b>	<b>Settings</b> <b>Picture Mode / Sound Mode:</b> You can adjust the picture or sound setting. <b>Information:</b> 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 **▶▶** (Faster) button.

## Supported Photo Formats

File Extension	Type	Resolution
*.jpg / *.jpeg	JPEG	15360 X 8640
*.bmp	BMP	4096 X 4096
*.mpo	MPO	15360 X 8640

☞ The MPO type file does not support Zoom, Rotate and Slide Show Effect functions.

## Videos

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

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi / *.avi / *.wmv / *.asf / *.3gp / *.mp4 / *.m2v / *.mpeg / *.vob / *.ts / *.divx / *.avi	AVI / MKV / ASF / MP4 / MOV / VRO / MPEG2 / TS	DivX 3.11a / x.5 / x.6 / MPEG4 SP / H.264 (SP) / H.264 / Motion JPEG / Window Media Video v9 / MPEG2 / MPEG1	1920 x 1080	6-30	30	AC3 / LPCM / ADPCM / AAC (AAC, AAC+) / HE-AAC / WMA / DD+ / MPEG (MP3)
*.wmv	WebM	Vp8			20	Vorbis

## Other Restrictions

• Video content will not play, or not play correctly, if there is an error in the content or the container.

• Sound or video may not work if the contents have a standard bit rate/frame rate above the compatible Frame/sec listed in the table.

• If the Index Table is in error, the Seek (Lump) function is not supported.

• Some USB/digital camera devices may not be compatible with the player.

• The menu can be displayed late if the video is over 10Mbps(bit rate).

Video decoder	Audio decoder
• Supports up to H.264, Level 4.1 (PMV) ASO/RS are not supported.)	• WMA 10 Pro supports up to 5.1 channel audio.
• Frame rate	• WMA lossless audio is not supported.
– Below 1280 x 720: 60 frame max	• Vorbis supports up to 2ch.
– Above 1280 x 720: 30 frame max	• DD+ supports up to 5.1 channel.
• VC1 AP L4 is not supported.	
• GMC 2 or higher is not supported.	