

SyncMaster

SERIES **9** | TA950

LED TV MONITOR

(MFM TV)

user manual

imagine the possibilities

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



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.

Still image warning

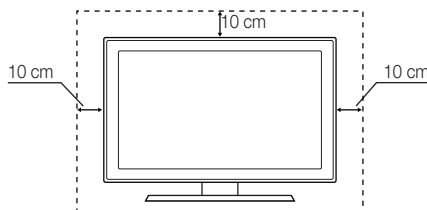
Avoid displaying still images (like jpeg picture files) or still image element (like TV programme logo, panorama or 4:3 image format, stock or news bar at screen bottom etc.) on the screen. Constant displaying of still picture can cause ghosting of screen, which will affect image quality. To reduce risk of this effect, please follow below recommendations:

- Avoid displaying the same TV channel for long periods.
- Always try to display any image on full screen, use TV set picture format menu for best possible match.
- Reduce brightness and contrast values to minimum required to achieve desired picture quality, exceeded values may speed up the burnout process.
- Frequently use all TV features designed to reduce image retention and screen burnout, refer to proper user manual section for details.

Securing the Installation Space

Keep the required distances between the product and other objects (e.g. walls) to ensure proper ventilation. Failing to do so may result in fire or a problem with the product due to an increase in the internal temperature. Install the product so the required distances shown in the figure are kept.

 The appearance may differ depending on the product.



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Check the Symbol!

TOOLS 



This function can be used by pressing the TOOLS button on the remote control.



Note



Step by Step Guide

Getting Started

Safety Precautions

Icons used for safety precautions



WARNING

Failing to follow the precautions marked with this sign may result in a serious injury or even a fatality.



CAUTION

Failing to follow the precautions marked with this sign may result in a personal injury or property damage.



Do not perform.



Must be followed.

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.



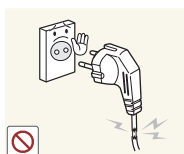
This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Power Related

The following images are for your reference and may differ depending on models and countries.



Warning



Avoid using a damaged power cord or plug or a loose power outlet.

- Otherwise, it may result in electric shock or fire.



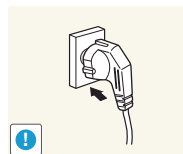
Avoid connecting multiple electric appliances to a single wall outlet.

- Otherwise, it may result in fire due to overheating of the wall outlet.



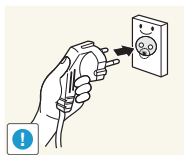
Avoid plugging in or unplugging the power supply with wet hands.

- Otherwise, it may result in electric shock.



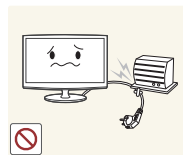
Plug the power plug in firmly.

- Otherwise, it may result in fire.



Make sure to connect the power cord to a grounded wall outlet (for insulation class 1 equipment only).

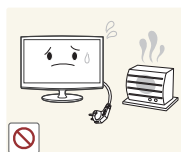
- Otherwise, it may result in electric shock or injury.



Avoid bending or twisting the power cord excessively and avoid placing heavy objects on the cord.

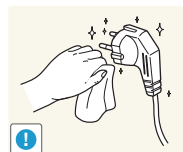
- Otherwise, it may result in electric shock or fire due to a damaged power cord.

Getting Started



Keep the power cord and the product away from a heater.

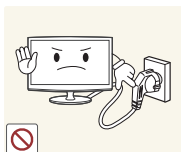
- Otherwise, it may result in electric shock or fire.



If the pins of the power plug or the wall outlet are covered in dust, clean it using a dry cloth.

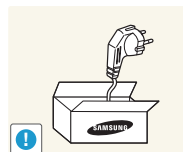
- Otherwise, it may result in fire.

Caution



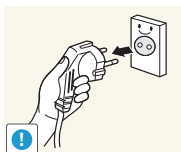
Avoid unplugging the power plug while the product is operating.

- Otherwise, it may damage the product due to electric shock.



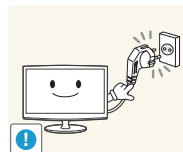
Make sure to use only the power cord supplied by our company. In addition, do not use the power cord of another electric appliance.

- Otherwise, it may result in electric shock or fire.



When unplugging the power plug from the wall outlet, make sure to hold it by the plug and not by the cord.

- Otherwise, it may result in electric shock or fire.



Connect the power plug to a wall outlet that can be easily reached.

- When a problem occurs with the product, you must unplug the power plug to cut the power off completely. You cannot cut the power off completely using only the power button on the product.

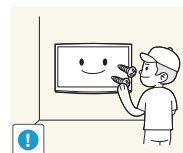
Installation Related

Warning



Avoid placing burning candles, mosquito repellent or cigarettes on the product.

- Otherwise, it may result in fire.



Ask an installation engineer or relevant company to install the product onto the wall.

- Otherwise, it may result in injury.
- Make sure to use the specified wall mount.



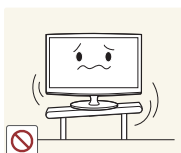
Avoid installing the product in a badly-ventilated location such as inside a bookshelf or closet.

- Otherwise, it may result in fire due to internal over-heating.



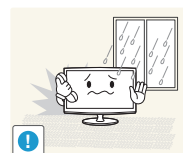
Keep the plastic bags used to pack the product away from children.

- If children place the plastic bags over their heads, they may suffocate.



Avoid installing the product in a location that is unstable or exposed to excessive vibration such as on an unstable or slanted shelf.

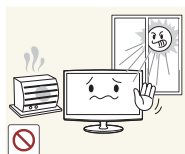
- The product may fall and this may result in damage to the product or injury.
- If you use the product in a location exposed to excessive vibrations, it may result in a problem with the product or fire.



Avoid installing the product in a location exposed to dust, moisture (sauna), oil, smoke or water (rain drops) and installing it within a vehicle.

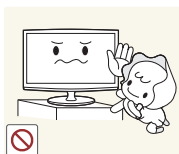
- This may result in electric shock or fire.

Getting Started



Avoid installing the product in a location exposed to direct sunlight and installing the product near a heat source such as a fireplace or heater.

- This may shorten the product life cycle or cause fire.



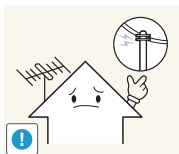
Avoid installing the product where children may reach it.

- If a child touches the product, the product may fall and this may result in injury.
- Since the front part is heavier, install the product on a flat and stable surface.



Bend the outdoor antenna cable downwards at the location where it comes in the house so that rainwater does not flow in.

- If rainwater enters the product, it may result in electric shock or fire.

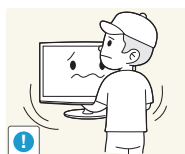


Install the antenna far away from any high voltage cables.

- If the antenna touches or falls onto a high voltage cable, it may result in electric shock or fire.

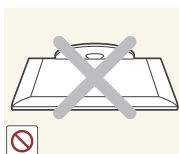


Caution



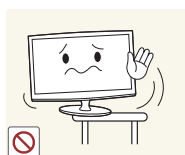
Do not let the product drop while moving it.

- This may result in a problem with the product or injury.



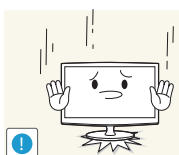
Do not place the product face down on the floor.

- This may damage the panel of the product.



When installing the product on a console or shelf, make sure that the front of the product does not protrude out of the console or shelf.

- Otherwise, this may cause the product to fall off and result in a malfunction or injury.
- Make sure to use a cabinet or shelf suitable to the size of the product.



When putting the product down, handle it gently.

- Otherwise, it may result in a problem with the product or injury.



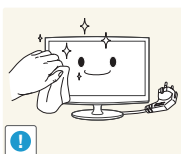
If the product is installed in a location where the operating conditions vary considerably, a serious quality problem may occur due to the surrounding environment. In this case, install the product only after consulting one of our service engineers about the matter.

- Places exposed to microscopic dust, chemicals, too high or low temperature, high humidity, airports or stations where the product is continuously used.

Getting Started

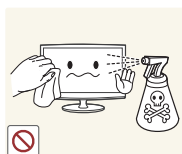
Cleaning Related

Warning



Before cleaning the product, unplug the power cord.

- Otherwise, it may result in electric shock or fire.



When cleaning the product, do not spray water directly over the product parts.

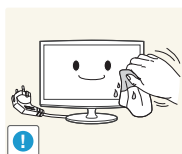
- Make sure that water does not enter the product.
- Otherwise, it may result in fire, electric shock or a problem with the product.

Caution



Avoid spraying cleansing agent directly onto the product.

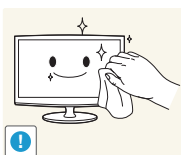
- This may result in discoloration or cracking of the exterior of the product or the panel coming off.



When cleaning the product, disconnect the power cord and clean the product with the supplied cleaning cloth.

- Avoid using chemicals such as wax, benzene, alcohol, thinner, mosquito-repellent, fragrance, lubrication or cleansing agent when cleaning the product.

This may result in the exterior being deformed or the print being removed.



If you can't get the product clean with just the supplied cloth, use a soft, damp cloth with a "monitor-exclusive cleansing agent" and wipe the product with it.

- If no monitor-exclusive cleansing agent is available, dilute a cleansing agent with water at a ratio of 1:10 before cleaning the product.



Since the exterior of the product is easily scratched, be sure to use the supplied cleansing cloth.

Usage Related

Warning



Since a high voltage runs through the product, never disassemble, repair or modify the product yourself.

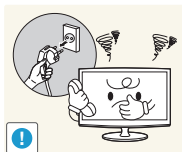
- Otherwise, it may result in fire or electric shock.
- If the product needs to be fixed, contact a service centre.



To move the product, turn the power off and unplug the power cord, the antenna cable and any other wires connected to the product.

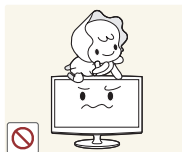
- Otherwise, it may result in electric shock or fire due to the damaged power cord.

Getting Started



If the product generates a strange noise, a burning smell, or smoke, unplug the power plug immediately and contact a service centre.

- Otherwise, it may result in electric shock or fire.



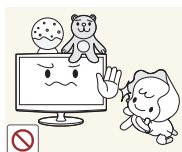
Avoid letting children hang or climb onto the product.

- Otherwise, it may result in the product falling and this may result in injury or death.



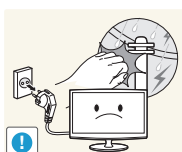
If you drop the product or the case is damaged, turn the power off and unplug the power cord. Contact a service centre.

- Otherwise, it may result in fire or electric shock.



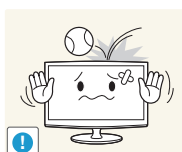
Avoid placing objects such as toys and cookies on top of the product.

- If a child hangs over the product to grab an object, the object or the product may fall and this may result in injury or even death.



When thunder or lightning occurs, unplug the power cord and under no circumstance touch the antenna cable as this is dangerous.

- Otherwise, it may result in electric shock or fire.



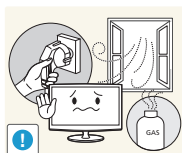
Avoid dropping an object over the product or cause impact to the product.

- Otherwise, it may result in electric shock or fire.



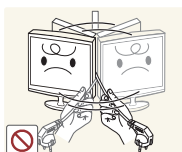
Avoid moving the product by pulling the power cord or antenna cable.

- Otherwise, it may result in electric shock, fire or a problem with the product due to damage to the cable.



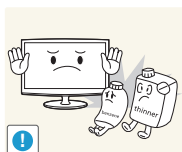
When a gas leak occurs, do not touch the product or the power plug and ventilate immediately.

- A spark may result in an explosion or fire.
- During a thunder or lightning storm, do not touch the power cord or antenna cable.



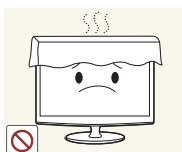
Avoid lifting up or moving the product by holding only the power cord or signal cable.

- Otherwise, it may result in electric shock, fire or a problem with the product due to damage to the cable.



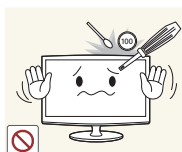
Avoid using or placing inflammable spray or objects near the product.

- This may result in an explosion or fire.



Take care not to block the vent by a table cloth or curtain.

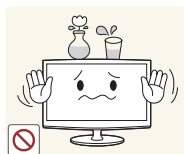
- Otherwise, it may result in fire due to internal overheating.



Avoid inserting metal objects such as chopsticks, coins or hairpins, or inflammable objects into the product (the vents, ports, etc).

- If water or substances enters the product, turn the power off, unplug the power cord and contact a service centre.
- Otherwise, it may result in a problem with the product, electric shock or fire.

Getting Started



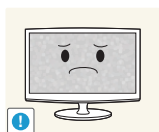
Avoid placing a liquid container such as a vase, flowerpot, beverage, cosmetics or drugs, or a metal object over the product.

- If water or substances enter the product, turn the power off, unplug the power cord and contact a service centre.
- Otherwise, it may result in a problem with the product, electric shock or fire.



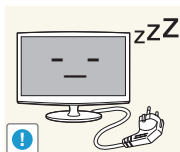
Do not press down hard on the product. The product may become deformed or damaged.

Caution



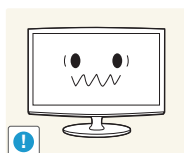
Displaying a still image for a long time may create a persistent image or stain on the screen.

- If you do not use the product for a long time, use the power-saving mode or set the screensaver to the moving picture mode.



When not using the product for a long time such as leaving your home, unplug the power cord from the wall outlet.

- Otherwise, it may cause dust accumulation and result in fire caused by overheating or short circuit or result in an electric shock.



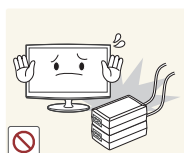
Set the appropriate resolution and frequency for the product.

- Otherwise, it may result in eye strain.



Avoid turning the product upside down or move the product holding only the stand.

- This may cause the product to fall, resulting in damage to the product or injury.



Do not place the adapter on top of another adapter.

- Otherwise, it may result in fire.



Keep power adaptor away from any other heat source.

- Otherwise, it may result in fire.



Remove the vinyl cover of the adapter before using the adaptor.

- Otherwise, it may result in fire.

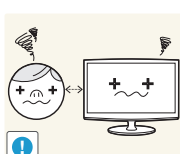


Always keep power adaptor in well-ventilated area.



Be careful that adaptor should not be in contact with water and therefore not be wet.

- This may cause a malfunction, electric shock or fire. Do not use adaptor by the waterside or outside particularly when it rains or snows. Be careful that adaptor should not be wet while cleaning floor with water.



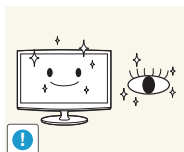
Watching the product from too close a distance continuously may damage your eyesight.

Getting Started



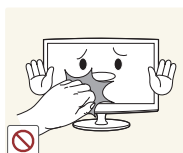
Avoid using a humidifier or cooker near the product.

- Otherwise, it may result in electric shock or fire.

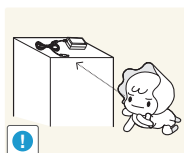


It is important to give your eyes some rest (5 minutes every hour) when viewing the product screen for long periods of time.

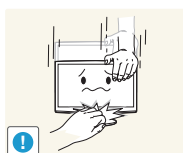
- This will alleviate any eye strain.



Since the display panel is hot after using it for a long time, do not touch the product.

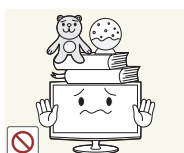


Keep the small accessories in a location out of the reach of children.



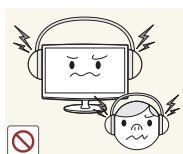
Take care when adjusting the angle of the product or the height of the stand.

- If your hand or finger is caught, you may be injured.
- If the product is tilted excessively, the product may fall and this may result in injury.



Avoid placing a heavy object over the product.

- Otherwise, it may result in a problem with the product or injury.



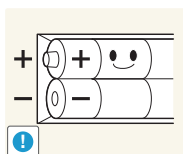
When using headphones or earphones, do not turn the volume too high.

- Having the sound too loud may damage your hearing.



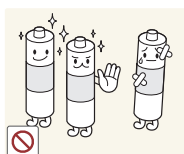
Be careful that children do not place the batteries in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

- If children have had the battery in their mouths, consult your doctor immediately.



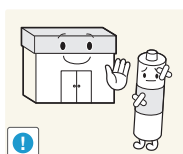
When replacing the batteries, insert them with right polarity (+, -).

- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.



Use only specified standard batteries. Do not use new and used batteries together.

- This may cause a battery to break or leak and may cause fire, injury, or contamination (damage).



The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

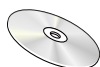
- The customer can return used or rechargeable batteries to a nearby public recycling centre or to a store selling the same type of the battery or rechargeable battery.

Getting Started

Accessories

- ✎ Please make sure the following items are included with your TV. If any items are missing, contact your dealer.
- ✎ The items' colours and shapes may vary depending on the models.
- ✎ Cables not included in the package contents can be purchased separately.
- ✎ Check if there is no accessory hidden behind packing materials when you open the box.

- Remote Control & Batteries (AAA x 2)
- Warranty Card / Safety Guide (Not available in some locations)
- Cable Holder
- Cleaning Cloth
- Power Cord / DC-Adapter



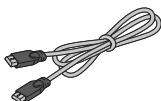
- User Manual



- Quick Setup Guide



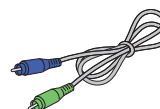
- 3D Active Glasses & Battery(CR2025) 1EA / User Manual



- HDMI Cable

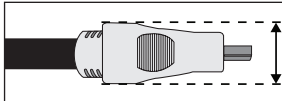


- AV/Component Adapter



- Stereo Cable


- ✎ For best cable connection to this product, be sure to use cables with a maximum thickness as below:

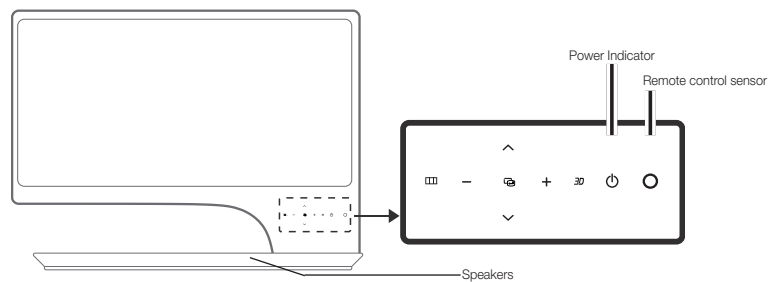















- Maximum thickness - 0.55 inches (14mm)

Getting Started

Viewing the Control Panel

 The product colour and shape may vary depending on the model.




 (Menu)	Displays an on-screen menu, the OSD (on screen display) of your TV's features.
 (Source)	Toggles between all the available input sources. In the on-screen menu, use this button as you would use the ENTER  button on the remote control.
 (Volume)	Adjusts the volume. In the OSD, use the + and - buttons as you would use the  and  buttons on the remote control.
 (Channel)	Changes the channels. In the OSD, use the  and  buttons as you would use the  and  buttons on the remote control.
	Turns the 3D image on or off.
 (Power)	Turns the TV on or off.
Power Indicator	Blinks and turns off when the power is on and lights up in standby mode.
Remote control sensor	Aim the remote control towards this spot on the TV.
Speakers	-

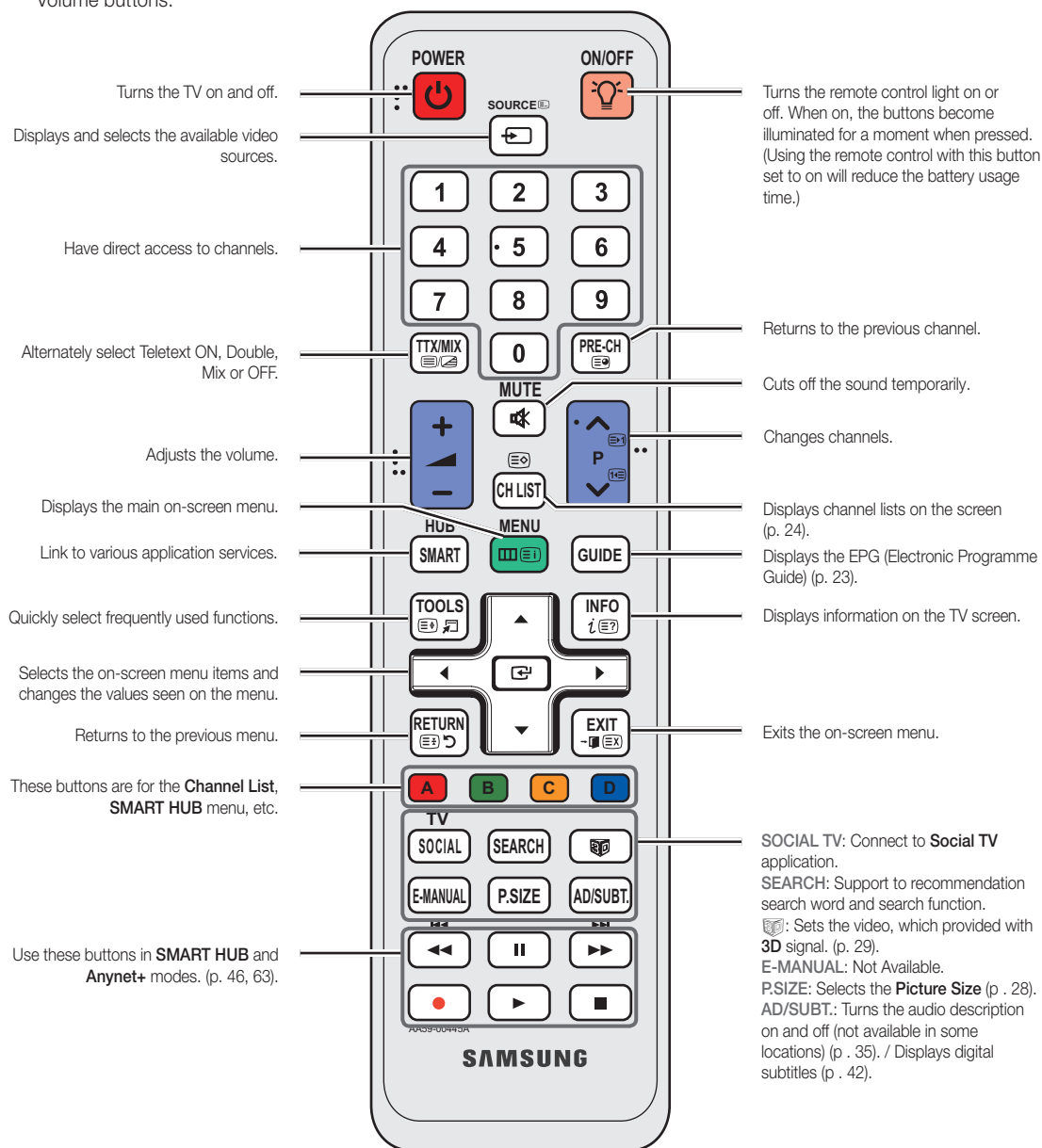
Standby mode

Do not leave your TV in standby mode for long periods of time (when you are away on a holiday, for example). A small amount of electric power is still consumed even when the power button is turned off. It is best to unplug the power cord.

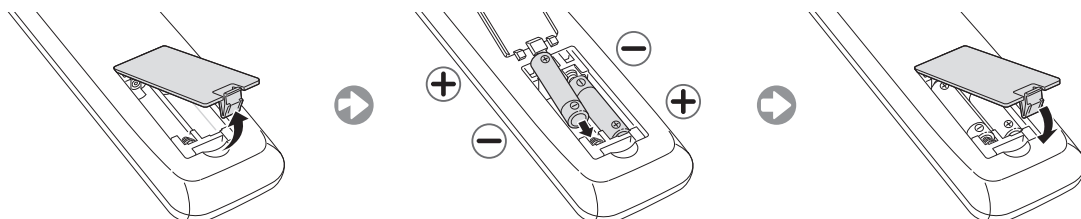
Getting Started

Viewing the Remote Control

 This is a special remote control for the visually impaired persons and has Braille points on the Power, Channel and Volume buttons.



Installing batteries (Battery size: AAA)

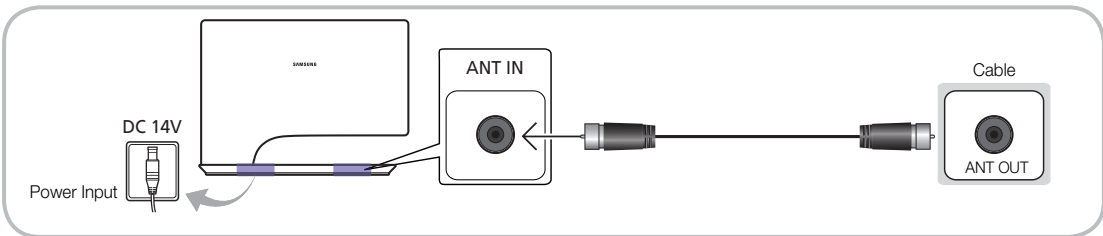


Connections

Connecting to an Antenna

When the TV is initially powered on, basic settings proceed automatically.

Preset: Connecting the mains and antenna.



Plug & Play (Initial Setup)

When the TV is initially powered on, a sequence of on-screen prompts will assist in configuring basic settings. Press the **POWER** button. **Plug & Play** is available only when the Input **Source** is set to **TV**.

Before turning on the TV, make sure the antenna cable is connected.

1	Wired/Wireless network connection	Set up your network connection. Press the ENTER button to start.
2	Setting up the Network	Set up your network connection. Press the ENTER button to start. If you do not know your network set up information or want to set to it later, select Skip . You can set up the network connection later using the Network menu.
3	Selecting the usage mode	Press the ◀ or ▶ button, then press the ENTER button. Select the Home Use mode. Store Demo mode is for retail environments. To return the unit's settings from Store Demo to Home Use (standard): Press the volume button on the TV. When you see the volume OSD, press and hold MENU for 5 sec. <ul style="list-style-type: none"> • Store Demo is only for shop display. If you select it, several functions are not able to use. Please select Home Use when you watch at home.
4	Select Country	Press the ▲ or ▼ button, then press the ENTER button. Select the appropriate country.
5	Setting the Clock Mode	Set the Clock Mode automatically or manually. <ul style="list-style-type: none"> • Auto: Allows you to select a time zone. Press the ▲ or ▼ button to highlight the time zone for your local area. Press the ENTER button. (Australia only) • Manual: Allows you to manually set the current date and time.
6	Selecting search options for auto tuning	Select the channel source to memorise among Digital & Analogue / Digital / Analogue . Press the ENTER button at any time to interrupt the memorisation process.
7	Enjoy your TV.	If you want to watch a broadcast programme, select Close . If you want to enjoy the Smart Hub , select the Smart Hub .

If You Want to Reset This Feature...

Select **System - Plug & Play** (Initial Setup). Enter your 4 digit PIN number. The default PIN number is "0-0-0-0". If you want to change the PIN number, use the **Change PIN** function.

You should do **Plug & Play** (**MENU** → **System**) again at home although you did in shop.

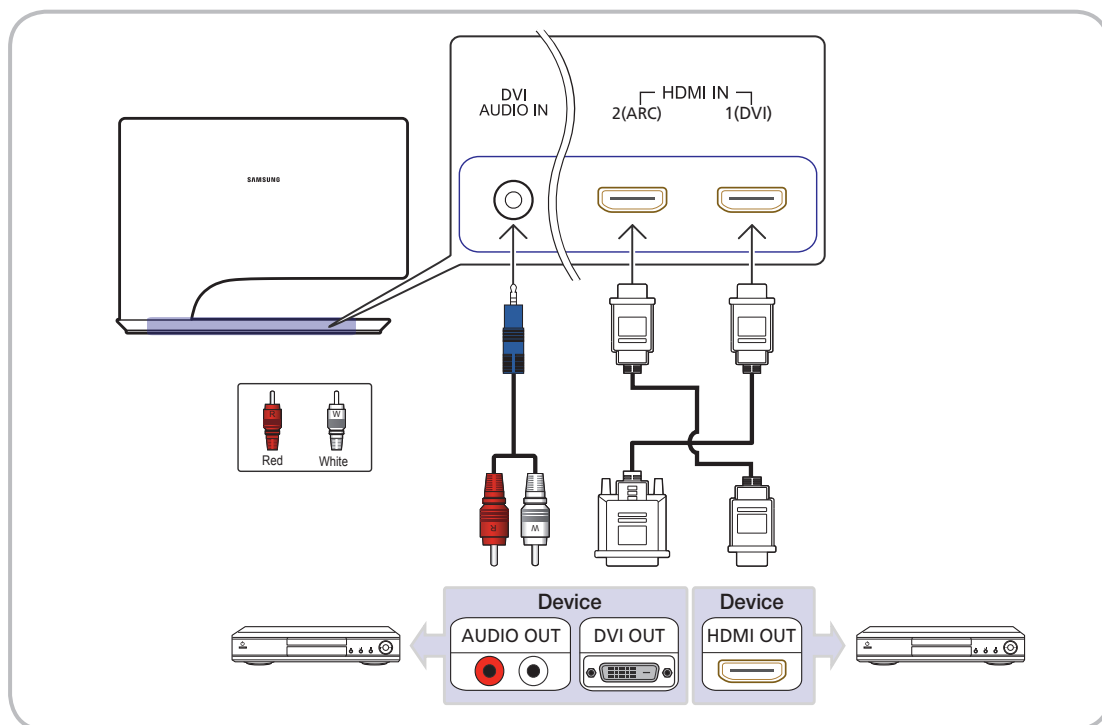
If you forget the PIN code, press the remote control buttons in the following sequence in Standby mode, which resets the PIN to "0-0-0-0": **POWER** (off) → **MUTE** → 8 → 2 → 4 → **POWER** (on).

Connections

Connecting to an AV Device

Connection using an HDMI or HDMI/DVI cable

Available devices: DVD, Blu-ray player, HD cable box, HD STB (Set-Top-Box) satellite receiver, VCR



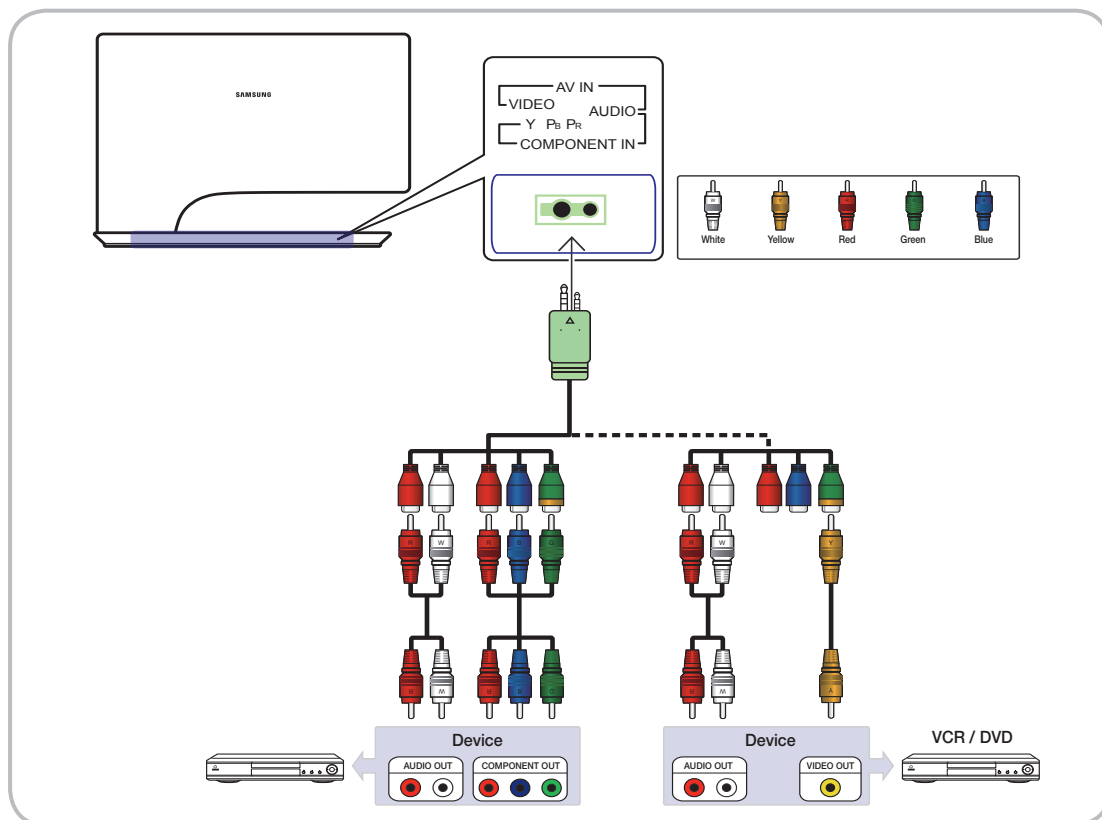
HDMI IN 1 (DVI), 2 (ARC) / DVI AUDIO IN

- Connecting the product to a digital device using an HDMI cable will improve the picture and sound quality.
- The HDMI cable does not require an additional audio cable as it supports digital video and audio signals.
 - A digital device that is not compatible with HDMI output can be connected using an HDMI/DVI cable and an audio 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 use an HDMI cable with a thickness of 14 mm or less.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
 - This TV supports the 3D and ARC (Audio Return Channel) functions. Note that the ARC function is only available when a cable is connected to the **HDMI IN 2 (ARC)** port.
- The ARC function can be used to output digital sound via the **HDMI IN 2 (ARC)** port and is only available when the TV is connected to an audio receiver that is compatible with the ARC function.
- Default **Edit Name** of **HDMI IN 1 (DVI)** terminal of this model is **DVI PC** for PC connection. When connecting to a AV device such as DVD or Blu-ray, it is required to change the **Edit Name** to the name of the connected device. (p. 20)

Connections

Using a Component (up to 1080p) or an Audio/Video (480i only)

Available devices: DVD, Blu-ray player, HD cable box, HD STB (Set-Top-Box) satellite receiver, VCR



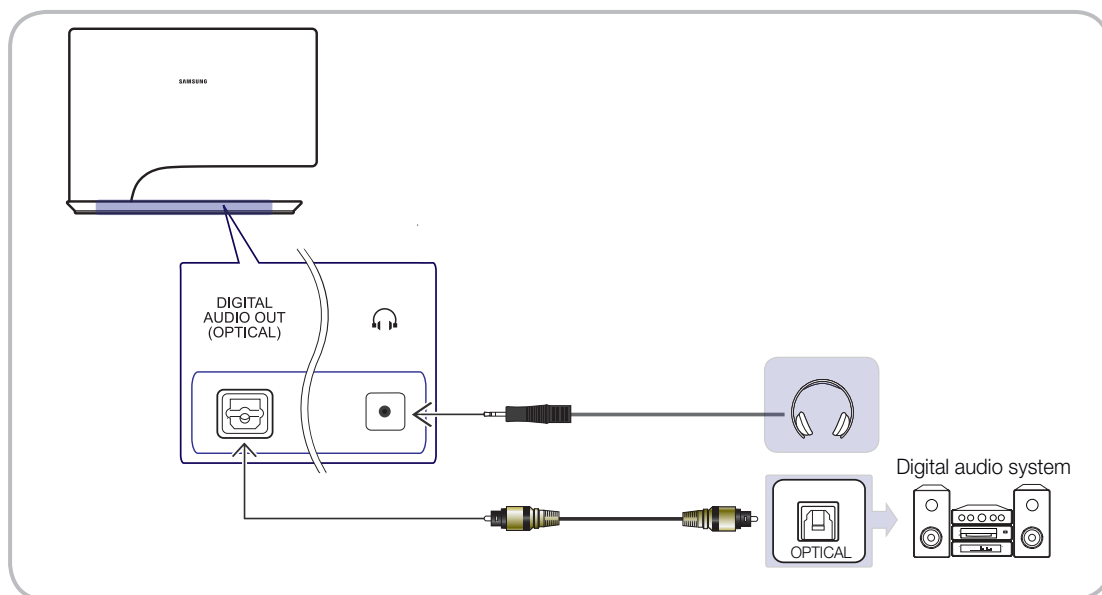
- When connecting to AV IN, the colour of the AV IN [VIDEO] jack (green) will not match the video cable (yellow).
- To obtain the best picture quality, the Component connection is recommended over the A/V connection.

Connections

Connecting to an Audio Device

Using an Optical (Digital) or a Headphone Connection

Available devices: digital audio system, amplifier, DVD home theatre, PC



DIGITAL AUDIO OUT (OPTICAL)

- When a Digital Audio System is connected to the **DIGITAL AUDIO OUT (OPTICAL)** jack, decrease the volume of both the TV and the system.
- 5.1 CH (channel) audio is available when the TV is connected to an external device supporting 5.1 CH.
- When the receiver (home theatre) is set to on, you can hear sound output from the TV's optical jack. When the TV is receiving a DTV signal, the TV will send 5.1 CH sound to the home theatre receiver. When the source is a digital component such as a DVD / Blu-ray player / cable box / STB (Set-Top-Box) satellite receiver and is connected to the TV via HDMI, only 2 CH audio will be heard from the home theatre receiver. If you want to hear 5.1 CH audio, connect the digital audio out jack from your DVD / Blu-ray player / cable box / STB satellite receiver directly to an amplifier or home theatre.


Headphones : You can connect your headphones to the headphones output on your set. While the headphones are connected, the sound from the built-in speakers will be disabled.

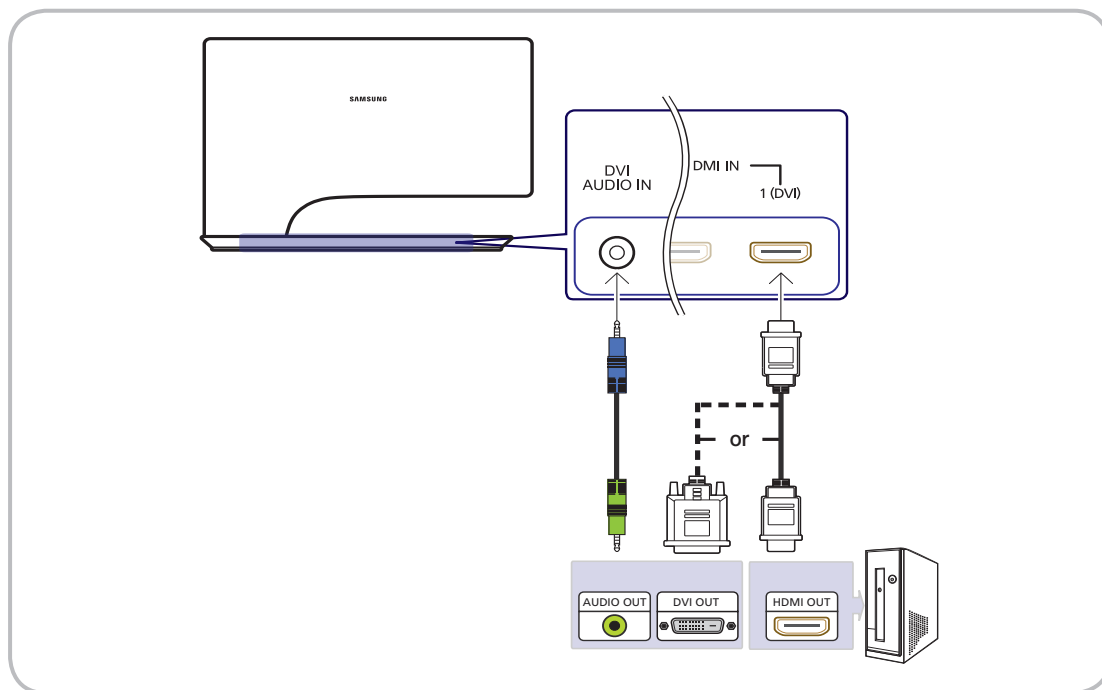
- Sound function may be restricted when connecting headphones to the TV.
- Headphone volume and TV volume are adjusted separately.





Connections

Connecting to a PC

Connection using an HDMI or HDMI/DVI cable

 Connecting through the HDMI cable may not be supported depending on the PC.



-  A PC should be connected via the **HDMI IN 1 (DVI)** port.
-  If a non-standard video format is selected, the TV may not operate normally.
-  The interlaced scan mode is not supported.
-  This product offers a game driver (**SyncMaster 3D Game Launcher (TriDef 3D)**) that allows you to play PC games with dynamic 3D images. Install the **SyncMaster 3D Game Launcher (TriDef 3D)** software provided on a CD.
 - After installing the software, you can enjoy the 3D effect by using the 3D function on this product.
 - For details about how to use **SyncMaster 3D Game Launcher (TriDef 3D)**, refer to the "Online Help" for the software.

SERVICE




Connector for service only.

Connections

Compatible PC resolutions (when the PC is connected to the HDMI IN 1 (DVI) port)

If a signal that belongs to one of the following standard signal modes is transmitted from the PC, the TV screen will automatically be adjusted. If a signal outside of the standard signal modes is transmitted from the PC, the TV screen may go blank and only the power indicator may turn on. To resolve this issue, adjust the resolution according to the following table, referring to the user guide for the graphics card.

Mode	Resolution		Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
IBM	640 x 350	70Hz	31.469	70.086	25.175	+/-
VESA DMT	640 x 480	60Hz	31.469	59.940	25.175	-/-
MAC	640 x 480	67Hz	35.000	66.667	30.240	-/-
VESA DMT	640 x 480	72Hz	37.861	72.809	31.500	-/-
		75Hz	37.500	75.000	31.500	-/-
IBM	720 x 400	70Hz	31.469	70.087	28.322	-/+
VESA DMT	800 x 600	56Hz	35.156	56.250	36.000	+/+
VESA DMT	800 x 600	60Hz	37.879	60.317	40.000	+/+
VESA DMT	800 x 600	72Hz	48.077	72.188	50.000	+/+
		75Hz	46.875	75.000	49.500	+/+
MAC	832 x 624	75Hz	49.726	74.551	57.284	-/-
VESA DMT	1024 x 768	60Hz	48.363	60.004	65.000	-/-
		70Hz	56.476	70.069	75.000	-/-
VESA DMT	1024 x 768	75Hz	60.023	75.029	78.750	+/+
VESA DMT	1152 x 864	75Hz	67.500	75.000	108.000	+/+
MAC	1152 x 870	75Hz	68.681	75.062	100.000	-/-
VESA DMT	1280 x 800	60Hz	49.702	59.810	83.500	-/+
	1280 x 960	60Hz	60.000	60.000	108.000	+/+
VESA DMT	1280 x 1024	60Hz	63.981	60.020	108.000	+/+
VESA DMT	1280 x 1024	75Hz	79.976	75.025	135.000	+/+
	1360 x 768	60Hz	47.712	60.015	85.500	+/+
	1440 x 900	60Hz	55.935	59.887	106.500	-/+
		75Hz	70.635	74.984	136.750	-/+
	1680 x 1050	60Hz	65.290	59.954	146.250	-/+
VESA DMT	1920 x 1080	60Hz	67.500	60.000	148.500	+/+

 The above display settings table observes the IBM/VESA requirements and has been prepared based on an analogue input source.

 The optimum display resolution is 1920x1080@60Hz. The optimum Timing mode is a vertical resolution of 60 Hz.

Connections


Changing the Input Source

Source

 **SOURCE** → **ENTER** 

Use to select TV or an external input sources such as a DVD / Blu-ray player / cable box / STB satellite receiver.

■ **TV / HDMI1/DVI / HDMI2 / AV / Component / USB / AllShare**

 In the **Source**, connected inputs will be highlighted.

SOURCE 





Edit Name

 **SOURCE** → **TOOLS** → **Edit Name**

In the **Source**, press the **TOOLS** button, and then you can set an external input sources name you want.

■ **VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI Devices / TV / IPTV / Blu-ray / HD DVD / DMA:**
Name the device connected to the input jacks to make your input source selection easier

 When connecting a PC to the **HDMI IN 1(DVI)** port with HDMI cable, you should set the TV to **PC** mode under **Edit Name**.

 When connecting a PC to the **HDMI IN 1(DVI)** port with HDMI to DVI cable, you should set the TV to **DVI PC** mode under **Edit Name**.

 When connecting an AV devices to the **HDMI IN 1(DVI)** port with HDMI to DVI cable, you should set the TV to **DVI Devices** mode under **Edit Name**.

Edit Favourites

 **SOURCE** → **TOOLS** → **Edit Favourites**

In the **Source**, press the **TOOLS** button to select **Edit Favourites**. You can set an external input source to Favourites.

Information

 **SOURCE** → **TOOLS** → **Information**

You can see detailed information about the selected external device.

Refresh

 **SOURCE** → **TOOLS** → **Refresh**

In the **Source**, If the external devices are not displayed, press the **TOOLS** button to select **Refresh**. Search for connected devices.

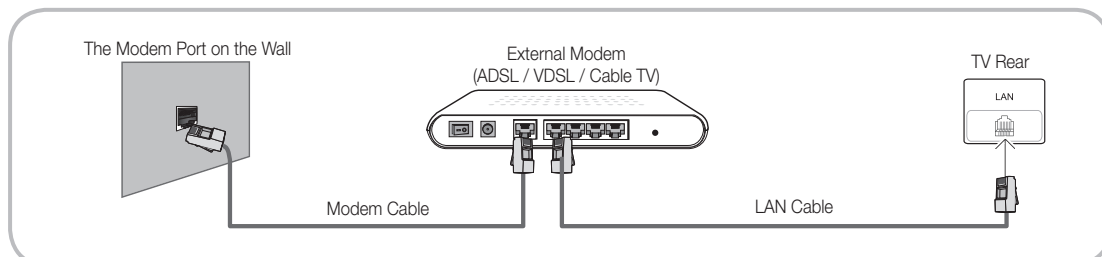
Connections

Network Connection

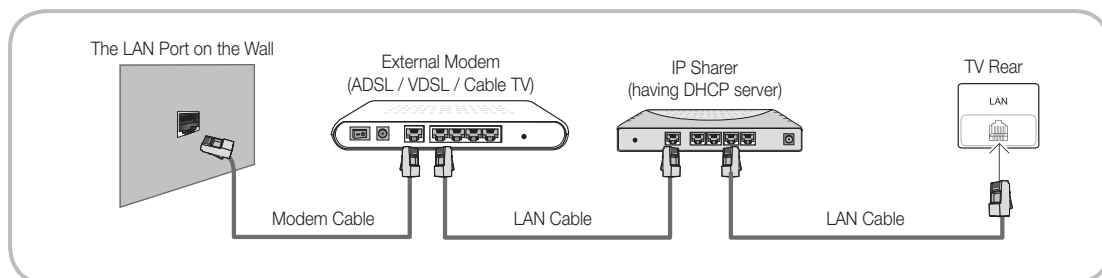
Connecting to a Wired Network

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

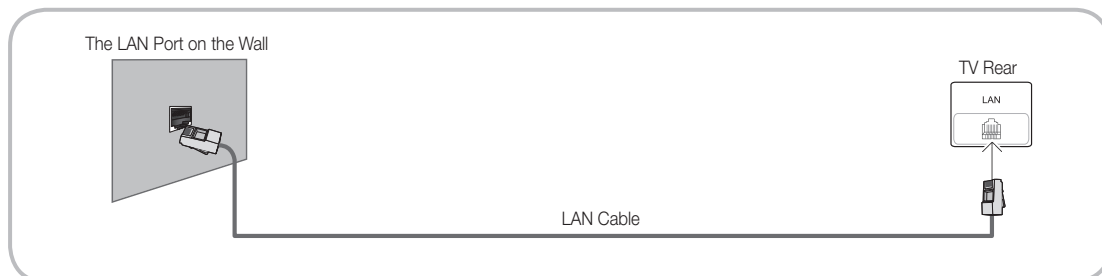
- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to an external modem using a LAN cable. See the diagram below.



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



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

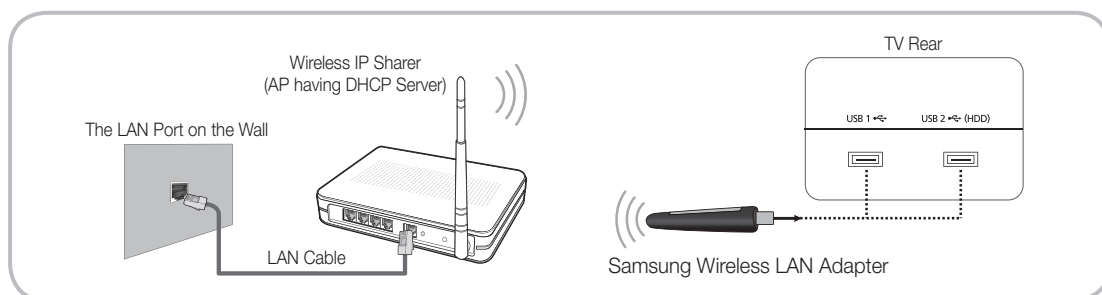


- If you have a Dynamic Network, you should use an ADSL modem or router that supports Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your TV needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks. Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your TV's Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP). If you have a Windows computer, you can also get these values through your computer.
- 🔧 You can use ADSL modems that support DHCP if your network requires a Static IP address. ADSL modems that support DHCP also let you use Static IP addresses.
- 🔧 It is not supported when the network speed is under 10 Mbps.

Connections


Connecting to a Wireless Network

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



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

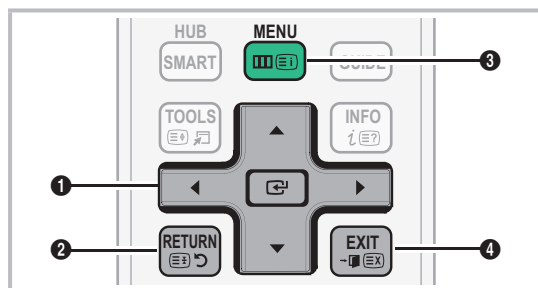
NOTE

- You must use the "Samsung Wireless LAN adapter" (WIS09ABGN, WIS09ABGN2, WIS10ABGN) to use a wireless network.
- Samsung Wireless LAN adapter and The USB extension Cable are sold separately and are offered by select retailers, Ecommerce sites and Samsungparts.com.
- To use a wireless network, your TV must be connected to a wireless IP sharer (either a router or a modem). If the wireless IP sharer supports DHCP, your TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.
- If you apply a security system other than the systems listed below, it will not work with the TV.
 -  If Pure High-throughput (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) for your wireless router, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.
- If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.
- If your router, modem, or device is not certified, it may not connect to the TV via the "Samsung Wireless LAN adapter."
- Connection Methods: You can setup the wireless network connection on five ways.
 - Auto Setup (Using the Auto Network Search function)
 - Manual Setup
 - **WPS (PBC)**
 - **One Foot Connection**
 - **Plug & Access**
- The TV may not recognize the Samsung Wireless LAN adapter if you connect it to the TV with a USB hub or USB extension cable other than the cable supplied with the TV.

Basic Features

How to Navigate Menus

Before using the TV, follow the steps below to learn how to navigate the menu and select and adjust different functions.



- 1 **ENTER** / Direction button: Move the cursor and select an item. Confirm the setting.
- 2 **RETURN** button: Returns to the previous menu.
- 3 **MENU** button: Displays the main on-screen menu.
- 4 **EXIT** button: Exits the on-screen menu.

How to Operate the OSD (On Screen Display)

The access step may differ depending on the selected menu.

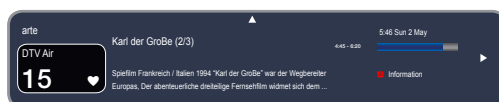
- | | | |
|---|--------------|--|
| 1 | MENU | The main menu options appear on the screen:
Picture, Sound, Channel, Network, System, Support. |
| 2 | ▲ / ▼ | Select an icon with the ▲ or ▼ button. |
| 3 | ENTER | Press ENTER to access the sub-menu. |
| 4 | ▲ / ▼ | Select the desired submenu with the ▲ or ▼ button. |
| 5 | ◀ / ▶ | Adjust the value of an item with the ◀ or ▶ button. The adjustment in the OSD may differ depending on the selected menu. |
| 6 | ENTER | Press ENTER to complete the configuration. |
| 7 | EXIT | Press EXIT . |

Using the INFO button (Now & Next guide)

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

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

- Scroll **◀, ▶** to view information for a desired programme while watching the current channel.
- Scroll **▲, ▼** to view information for other channels. If you want to move to the currently selected channel, press the **ENTER** button.



Using the Channel Menu

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



- The displayed image may differ depending on the model.

Guide

SMART HUB → **Guide** → **ENTER**

(depending on the country)

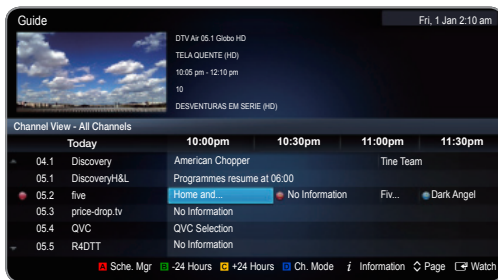
The EPG (Electronic Programme Guide) information is provided by broadcasters. Using programme schedules provided by broadcasters, you can specify programmes you want to watch in advance so that the channel automatically changes to the selected programme channel at the specified time. Programme entries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

In New Zealand, if **Digital Text** is set to **Enable**, the EPG (Electronic Programme Guide) will work.



Basic Features

Using Channel View



- The displayed image may differ depending on the model.
- **A** Red (**Sche. Mgr**) : Displays the **Schedule Manager**.
- **B** Green (**-24 Hours**): Viewing the list of programmes to be broadcasted before 24 hours.
- **C** Yellow (**+24 Hours**): Viewing the list of programmes to be broadcasted after 24 hours.
- **D** Blue (**Ch. Mode**): Select the type of channels you want to display on the **Channel View** window.
- **i** (**Information**): Displays details of the selected programme.
- **Page** (**Page**): Move to next or previous page.
- **Watch / Schedule** (**Watch / Schedule**)
 - When selecting the current programme, you can watch the selected programme.
 - When selecting the future programme, you can reserve to watch the selected programme. To cancel the schedule, press the **ENTER** button again and select **Cancel Schedules**.

Schedule Manager

SMART HUB → **Schedule Manager** → **ENTER**

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

Using the Timer Viewing

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

1. On the **Smart Hub** screen, press the **ENTER** button to select **Schedule Manager**. The **Schedule Manager** screen will be displayed.
2. Press the **ENTER** button to add programme to schedule manually. A pop up screen will appear. Press the **Left** or **Right** button to select **Timer Viewing**.
3. Press the **Left** / **Right** / **Up** / **Down** buttons to set the **Antenna**, **Channel**, **Repeat**, **Date** or **Start Time**.
 - **Antenna**: Select the desired antenna source.
 - **Channel**: Select the desired channel.

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

The **✓** mark indicates the date you've selected.

- **Date**: you can set desired date.
 - It is available when you select **Once** in **Repeat**.

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

Only memorised channels can be reserved.

On the **Information** screen, you can change or cancel a reserved information.

- **Cancel Schedules**: Cancel a show you have reserved to watch.

- **Edit**: Change a show you have reserved to watch.

- **Return**: Return to the previous screen.

Channel List

You can view all the channel searched.

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



- The displayed image may differ depending on the model.

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

- **A** Red (**Antenna**): Switches to **Air** or **Cable**.

- **C** Yellow (**Programme View / Channel View**): Displays the programme when digital channel is selected. Returns to the channel view.

- **Left / Right** (**Ch. Mode / Channel**): Move to the type of channels you want to display on the **Channel List** screen. (**All**, **TV**, **Radio**, **Data/Other**, **Analogue**, **Favourites 1 - 5**)



- **Watch** (**Watch**): Watches the channel you select.

- **Page** (**Page**): Move to next or previous page.

Basic Features



How to use Timer Viewing in Channel List (digital channels only)

When you set the **Timer Viewing** in **Channel List**, you can only set the programme in **Programme View**.

1. Press the **CH LIST** button, then select a desired digital channel.
2. Press the  (**Programme View**) button.
3. Press the  /  buttons to select the desired programme, then press the  (**Information**) button.
4. Select **Timer Viewing**, then press the **ENTER**  button when done.















 If you want to cancel **Timer Viewing**, follow steps 1 through 3. Select **Cancel Schedules**.


Using the Channel


 **SMART HUB** → **Channel** → **ENTER** 

Channel

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







-  **Antenna**: Toggles among **Air** or **Cable**. The option may differ depending on country.
-  **Sort**: Sorting **By Channel Number** or **By Channel Name**.
-  **Edit Mode**: Deletes channels assigned to **Favourites**. Refer to "Using the Favourite Channels" for details on how to assign a channel to Favourite.
 1. Select the  **Edit Mode** icon on the upper right of your screen, and then press the **ENTER**  button.
 2. Press the  /  /  /  buttons to select a channel as a Favourite, and then press **ENTER** . A check appears to the left of the channel.
 -  You can select more than one channel.
 -  Pressing **ENTER**  again deselects the channel.
 3. Select **Edit Favourites** at the bottom of your screen, and then press **ENTER**  button. The **Edit Favourites** pop-up appears.


4. Highlight a group on the Favourites list, and then press **ENTER** .

 The **Edit Favourites** screen has five groups (Favourites 1, Favourites 2, etc.). You can add a Favourite channel to any one of the groups. Select a group using the up and down arrows on your remote.


5. Select **OK**, press **ENTER** , and then press **ENTER**  again.



- Using **Edit Mode** to Delete a Channel from the Channel List.

1. Select the **Edit Mode** icon on the upper right of your screen, and then press the **ENTER**  button.
2. Press the  /  /  /  buttons to select a channel, and then press **ENTER** . A check appears to the left of the channel.

 You can select more than one channel.

 Pressing **ENTER**  again deselects the channel.

3. Select **Delete** at the bottom of your screen, and then press **ENTER** . A pop-up appears asking if you want to delete the item.

4. Select **OK**, press **ENTER** , and then press **ENTER**  again. The channel is deleted from the **Channel List**.


- **Select All**: Select all the channels or deselect all the selected channels in the **Channel** menu.





Basic Features


Using the **TOOLS** button with the **Channel**

- **Upcoming Programme** (digital channels only): View details on the programme being aired on a selected digital channel.
- **Edit Favourites**: Set channels you watch frequently as favourites.
 1. Select the **Edit Favourites**, then press the **ENTER** button.
 2. Press the **ENTER** button to select **Favourites 1 - 5**, then press the **OK** button.






 One favourite channel can be added in several of favourite channels among **Favourites 1 - 5**.
- **Lock / Unlock**: Lock a channel so that the channel cannot be selected and viewed.

 This function is available only when the **Channel Lock** is set to **On**.

 The PIN input screen appears. Enter your 4-digit PIN, the default of which is "0-0-0-0". Change the PIN using the **Change PIN** option.
- **Edit Channel Name** (analogue channels only): Assign your own channel name.
- **Edit Channel Number**: Edit the number by pressing the number buttons desired.

 Some area may not be able to support **Edit Channel Name** and **Edit Channel Number** function.
- **Delete**: Delete a channel to display the channels you want.

Channel Status Display Icons


Icons	Operations
	An analogue channel.
	A channel selected.
	A channel set as a Favourites 1-5 .
	A locked channel.
	A reserved programme.

Using the favourite Channels

 **SMART HUB** → **Favourites** → **ENTER** button


Shows all favourite channels.


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


 The "★" symbol will be displayed and the channel will be set as a favourite.

How to assign a channel to favourite (in Channel)

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

 If you want to add multiple channels, use the **Edit Mode** menu in the top right corner of the **Channel** screen.
2. Add or delete a channel in the favourite groups you want among 1, 2, 3, 4 and 5.

 One or more groups can be selected.

 The ✓ mark appears to the left of the selected files.
3. After you have changed the settings, the channel list for each group can be viewed in favourite channels.

Basic Features

Channel Menu

Retuning Channels

 **MENU**  → **Channel** → **ENTER** 

Antenna (Air / Cable)


(depending on the country)

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

Country

You can change the country. The PIN input screen appears. Enter your 4 digit PIN number.


Auto Tuning

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


- **Digital & Analogue / Digital / Analogue:** Select the channel source to memorise.

Manual Tuning

Scans for a channel manually and stores in the TV.

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

- **Digital Channel Tuning:** Scans for a digital channel.

1. Press the **▲ / ▼ / ◀ / ▶** button to select **New**.
2. Set the **Channel, Frequency** and **Bandwidth**.
 -  **Bandwidth** is not supported in Australia.
3. Press the **▼** button to select **Search**. When scanning has finished, a channel is updated in the channel list.

- **Analogue Channel Tuning:** Scans for an analogue channel.

1. Press the **▲ / ▼ / ◀ / ▶** button to select **New**.
2. Set the **Programme, Colour System, Sound System, Channel** and **Search**.
3. Press the **▼** button to select **Store**. When scanning has finished, a channel is updated in the channel list.

 **Channel mode**

- **P** (programme mode): When tuning is complete, the broadcasting stations in your area have been assigned to position numbers from P0 to P99. You can select a channel by entering the position number in this mode.
- **C** (aerial channel mode) / **S** (cable channel mode): These two modes allow you to select a channel by entering the assigned number for each aerial broadcasting station or cable channel.

Transfer Channel List

(depending on the country)

The PIN input screen appears. Enter your 4 digit PIN number. Imports or exports the channel map. You should connect a USB storage to use this function.

- **Import from USB:** Import channel list from USB.
- **Export to USB:** Export channel list to USB. this function is available when USB is connected.

Edit Channel Number (Disable / Enable)




(New Zealand only)

Edit the number by pressing the number buttons desired.

Fine Tune

(analogue channels only)




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

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

Basic Features


Picture Menu

Changing the Preset Picture Mode


 MENU  → Picture → Picture Mode → ENTER 

Picture Mode

Select your preferred picture type.

 In **HDMI1/DVI** mode (when a PC is connected), **Picture Mode** can be set to **Standard** or **Entertain** only.

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

 Available in **HDMI1/DVI** mode (when a PC is connected) only.


Adjusting Picture Settings

 MENU  → Picture → ENTER 

Samsung MagicAngle

This feature allows you to see optimal screen quality according to your viewing position. When viewing the screen at an angle from below, above or the side of the product, by setting the appropriate mode for each position you can obtain a similar picture quality as viewing the screen directly from the front.

- **Off:** Select when viewing from the front position.
Lean back mode: Select when viewing from a slightly lower position.
Standing Mode: Select when viewing from the upper position.
- **Mode (1-10):** Determines the amount of adjustment. Numbers closer to 10 are best for lower viewing positions.

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

Backlight / 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.
- In **HDMI1/DVI** mode (when a PC is connected), only **Backlight**, **Contrast**, **Brightness** and **Sharpness** are available for adjustment.
- Settings can be adjusted and stored for each external device connected to the TV.

Screen Adjustment


- **Picture Size:** Your cable box / satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.




Auto Wide (New Zealand, Singapore only): Automatically adjusts the picture size to the 16:9 aspect ratio.

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


Wide Zoom: Magnifies the picture size more than 4:3.

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


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

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

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

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


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

 Adjusts the **Position** by using ▲ / ▼ / ◀ / ▶ button.

Smart View 1: Reduces the 16:9 picture by 50%.



Smart View 2: Reduces the 16:9 picture by 75%.

 **Smart View 1**, **Smart View 2** is enabled only in **HDMI** mode.

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

Basic Features

NOTE

- Depending on the input source, the picture size options may vary.
- The available items may differ depending on the selected mode.
- In **HDMI1/DVI** mode (when a PC is connected), **16:9** and **4:3** modes are available.
- 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.
- When Double (, ) mode has been set in PIP, the picture size cannot be set.

Input Source	Picture Size
ATV, AV, Component (480i, 480p)	Auto Wide, 16:9, Zoom, 4:3
HDMI (720p, 1080i, 1080p)	Smart View 1
DTV (1080i), HDMI (720p, 1080i, 1080p)	Smart View 2
DTV (1080i), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)	16:9, 4:3, Wide Zoom, Screen Fit
HDMI1/DVI (when a PC is connected)	16:9, 4:3

- **4:3 Screen Size (16:9 / Wide Zoom / Zoom / 4:3)**
: (New Zealand, Singapore only) Available only when picture size is set to **Auto Wide**. You can determine the desired picture size at the 4:3 WSS (Wide Screen Service) size or the original size.

 Not available in HDMI/DVI, Component or HDMI mode.

Using the 3D function

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

IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D PICTURES.

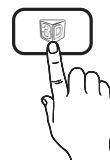
Read and understand the following safety information before using the TV's 3D function.




⚠ WARNING

- Some viewers may experience dizziness, nausea, or headache when viewing 3D video. If this occurs, stop viewing 3D TV immediately, take off the 3D glasses, and rest.
- Watching 3D video for an extended period of time may cause eye fatigue. If eye fatigue occurs, stop viewing 3D TV immediately, take off the 3D glasses, and rest.
- Children need to be checked frequently by adults when using the 3D function. If your child shows any symptom such as eye fatigue, headache, dizziness, or nausea, have the child stop watching 3D TV immediately 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 glasses while moving. You may trip or fall and become injured.


3D





This feature allows you to view 3D content such as 3D broadcasts or movies. You can view 3D content using (SyncMaster-dedicated) Samsung 3D glasses.








-  You can purchase SyncMaster-dedicated 3D glasses (model name: SSG-M3750CR) separately. Contact the dealer you purchased the product from for details about purchasing the 3D glasses.
-  The product may not be compatible with 3D glasses other than the model specified above.
-  Power off the 3D glasses when not in use. Otherwise, the battery lifespan will decrease.




Basic Features

- **3D Mode:** Select the 3D input format.
 Put on the 3D glasses, and select a 3D mode that offers the best 3D effect from the following 3D modes under **3D Mode**.

3D Mode	Functions
	Off Turns the 3D function off.
	2D → 3D Changes a 2D image to 3D.
	Left / Right Displays the left and right images overlapping each other to allow you to experience the 3D effect.
	Top & Bottom

 Some file formats may not support .

 The  and  modes are only available when a PC is connected via the **HDMI IN 1 (DVI)** port or when the resolution of the content from a DTV broadcast, a source device connected via the HDMI port, or a USB storage device connected is 720p, 1080i or 1080p.




- **3D Perspective (-5 ~ +5):** Adjust overall 3D perspective of on-screen image.
- **Depth (1~10):** Adjust overall depth.
- **L/R Change (L/R Image / R/L Image):** Swap the left and right pictures.
- **3D → 2D (Off / On):** Displays the image for the left eye only.
 This function is deactivated when **3D Mode** set to  or .

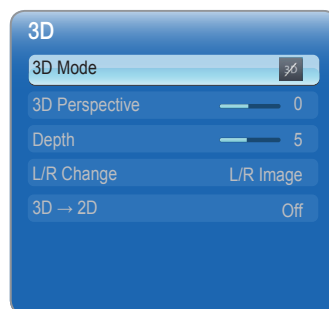
How to watch the 3D images

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

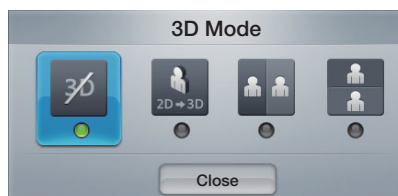
 To watch in 3D, wear 3D Active Glasses and press the power button on the glasses.

To select a 3D mode, follow these steps:


1. **MENU** button → ▲ / ▼ button → **Picture** → **ENTER** 
2. ▲ / ▼ button → **3D** → **ENTER** 
3. ▲ / ▼ button → **3D Mode** → **ENTER** 
4. ◀ / ▶ button → Select a mode from **3D Mode**.



- The displayed image may differ depending on the model.



Standard HDMI-compatible formats

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

Source signal format	Standard HDMI 1.4 3D
1920x1080p @24Hz	1920x2205p @24Hz
1280x720p @60Hz	1820x1470p @60Hz
1280x720p @50Hz	1280x1470p @50Hz

 For the Standard HDMI 3D format with 24Hz, the TV is optimized as follows:

- To optimize the resolution of a video: Select **Off**, **Clear** or **Standard** in **Motion Plus** mode.
- To view a natural video without shaking: Select **Smooth** or configure **Custom** in **Motion Plus** mode.



Resolution compatible with PC input (connected via the HDMI IN 1 (DVI) port)

PC input is optimized for video in 1920 x 1080 resolution. Videos with a resolution other than 1920 x 1080 will not be viewable in 3D or full screen mode.

Basic Features

Playing a 3D Game on a PC

First, install the **SyncMaster 3D Game Launcher (TriDef 3D)** software.

-  **SyncMaster 3D Game Launcher (TriDef 3D)** is a game driver that allows you to play PC games in 3D.
1. Set your monitor as the default monitor for the PC.
 2. Install the **SyncMaster 3D Game Launcher (TriDef 3D)** software provided on a CD.
 - Follow the instructions displayed on the screen.
 - You can also download the programme from www.tridef.com/syncmaster and install it.
 3. Select Start -> All Programs -> **TriDef 3D**, and run **SyncMaster 3D Game Launcher (TriDef 3D)**.
 4. Press the "Search" button. Compatible games will be added to **SyncMaster 3D Game Launcher (TriDef 3D)**. You can also add games using the following methods.
 - Drag the shortcut icon or execution file of a game on the desktop into the **SyncMaster 3D Game Launcher (TriDef 3D)** window.
 - Go to "File" and select "Add Games..."
 5. Activate the 3D function on the product, and enjoy the game wearing the 3D Active Glasses.
 6. Play the game wearing 3D glasses.
 Refer to the user guide for the 3D glasses for details about how to use 3D glasses.


NOTE

- For **details** about how to use **TriDef 3D Games for SyncMaster**, see "Online Help" provided in the **TriDef 3D Games for SyncMaster** programme.
- Refer to "Online Help" for PC system requirements and details about how to use **SyncMaster 3D Game Launcher (TriDef 3D)**.
- A game whose system requirements exceed the PC cannot be started.
- The minimum PC system requirements may vary depending on the 3D game.
- For details, refer to the home page or user guide for the 3D game you want to play.
- **SyncMaster 3D Game Launcher (TriDef 3D)** does not support PCs that are based on Macintosh or Linux operating systems.
- Further Information
 - For further details about **TriDef 3D Games for SyncMaster (TriDef 3D)**, contact **DDD USA Inc.** (www.tridef.com).
 - For further details about the product, contact **Samsung Electronics**.


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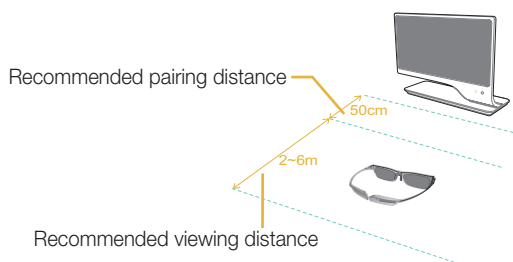
Precautions when viewing 3D video

NOTE

- The 3D effect may be experienced differently depending on the viewer. You may not notice the 3D effect at all if you have a prescription for one eye that is very different from the other eye.
- When viewing a 3D video under a fluorescent lamp or 3-wavelength lamp, you may notice a small amount of screen flickering.
- Interference may cause the 3D glasses to malfunction if there is any other 3D product or electromagnetic device (a microwave or a device that uses 2.4 Ghz-bandwidth frequency such as an Internet router) turned on nearby. Even if the 3D function works properly, it is best to remove other electromagnetic devices or wireless communications devices nearby.
- Visually-sensitive viewers may notice a slight screen flickering when viewing bright images in 50 Hz 3D video.
- As the TV turns on, the left and right sides of 3D pictures may overlap more than usual. It may take time until the picture quality is optimized.
- **3D Mode** will automatically deactivate when the channel or input source is changed or when **Smart Hub** is accessed.
- The **PIP** function is not available when a 3D video is playing.
- The **Picture** icon under **Smart Hub** will only be enabled in  mode.
- Some **Picture** functions are disabled in **3D mode**.

Before using 3D function...

-  Recommended 3D operating distance



Recommended viewing distance	2~6m (6 to 19.5 ft)
Recommended pairing distance	2~6m (6 to 19.5 ft)

NOTE

- 3D mode is automatically disabled in following cases:
 - when changing a channel or the input source, or accessing My Contents or **Smart Hub**.
- Some **Picture** functions are disabled in **3D mode**.
- PIP is not supported in **3D mode**.

Basic Features

Changing the Picture Options

Advanced Settings

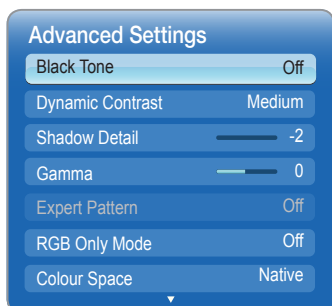


MENU → Picture → Advanced Settings → ENTER

(Advanced Settings are available in **Standard** / **Movie** mode)

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

In **HDMI1/DVI** mode (when a PC is connected), only **Gamma** and **White Balance** are available.



- **Black Tone (Off / Dark / Darker / Darkest):** Select the black level to adjust the screen depth.
- **Dynamic Contrast (Off / Low / Medium / High):** Adjust the screen contrast.
- **Shadow Detail (-2~+2):** Increase the brightness of dark images.
- **Gamma:** Adjust the primary colour intensity.
- **Expert Pattern (Off / Pattern1 / Pattern2):** By running the **Expert Pattern** function, the picture can be calibrated without a generator or filter. If the OSD menu disappears or a menu other than the Picture menu is opened, the calibration is saved and the **Expert Pattern** window disappears.
 - While the **Expert Pattern** is running, sound is not outputted.
 - Only enabled on DTV, Component / HDMI models.
- **RGB Only Mode (Off / Red / Green / Blue):** Displays the **Red**, **Green** and **Blue** colour for making fine adjustments to the hue and saturation.

- **Colour Space (Auto / Native / Custom):** Adjust the range of colours available to create the image.

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

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

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

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

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

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

Available when the **Picture Mode** is set to **Movie** and when the external input is set to all input.

Some external devices may not support this function.

Interval: Select interval to adjust.

Red: Adjust the red level.

Green: Adjust the green level.

Blue: Adjust the blue level.

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

- **Flesh Tone:** Emphasize pink "Flesh Tone."
- **Edge Enhancement (Off / On):** Emphasize object boundaries.
- **Motion Lighting (Off / On):** Reduce power consumption by brightness control.
 - 3D** is not supported.

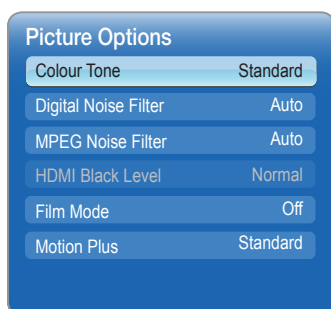
Basic Features

Picture Options



MENU → Picture → Picture Options
→ ENTER

- In **HDMI1/DVI** mode (when a PC is connected), only **Colour Tone** is available.



- **Colour Tone (Cool / Standard / Warm1 / Warm2)**
 - Warm1** or **Warm2** will be deactivated when the **Picture Mode** is **Dynamic**.
 - Settings can be adjusted and stored for each external device connected to an input on the TV.
- **Digital Noise Filter (Off / Low / Medium / High / Auto / Auto Visualisation):** If the broadcast signal received by your TV is weak, you can activate the **Digital Noise Filter** 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 bar is green, you are receiving the best possible signal.
- **MPEG Noise Filter (Off / Low / Medium / High / Auto):** Reduces MPEG noise to provide improved picture quality.
 - Not available in **HDMI1/DVI** mode (when a PC is connected).
- **HDMI Black Level (Normal / Low):** Selects the black level on the screen to adjust the screen depth.
 - Available only in HDMI mode.

- **Film Mode (Off / Auto1 / Auto2):** Sets the TV to automatically sense and process film signals from all sources and adjust the picture for optimum quality.
 - Available in TV, AV, COMPONENT (480i / 1080i) and HDMI (480i / 1080i).
- **Motion Plus (Off / Clear / Standard / Smooth / Custom / Demo):** Removes drag from fast scenes with a lot of movement to provide a clearer picture.
 - The Info screen on your TV displays the resolution and frequency of the incoming signal (60Hz), but not the frequency the TV is generating for the image it is displaying by using **Motion Plus** function.
 - If noise occurs on the screen, please set up the **Motion Plus** to **Off**. If **Motion Plus** is **Custom**, you can set up the **Blur Reduction**, **Judder Reduction** or **Reset** manually.
 - If **Motion Plus** is **Demo**, you can compare the difference of on and off modes.

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

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

Reset: Reset the custom settings.

Reset Picture (Yes / No)

Resets your current picture mode to its default settings.

Setting up the TV with Your PC

Using Your TV as a Computer (PC) Display

Setting Up Your PC Software (Based on Windows XP)

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

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

Basic Features

Maintaining the Correct Posture when Using this Product



Maintain the correct posture when using this product.

- Straighten your back.
- Keep a distance of 45~50 cm (15~19 inches) from your eyes to the screen. Look down at the screen and face the screen forwards.
- Adjust the angle of the product so that light is not reflected onto the screen.
- Keep your elbow at a right angle and keep your arm level with the back of your hand.
- Keep your elbow at a right angle.
- Place your heels flat on the ground while keeping your knees at an angle of 90 degrees or higher and maintain the position of your arm so that your arm is below your heart.

Sound Menu

Changing the Preset Sound Mode

MENU → Sound → Sound Mode → ENTER

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.

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

Adjusting Sound Settings

MENU → Sound → Sound Effect → ENTER

Sound Effect

(standard sound mode only)

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

■ **SRS TruSurround HD (Off / On)**

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

■ **SRS TruDialog (Off / On)**

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

■ **SRS CS Headphone (Off / On)** : You can hear virtual 5.1ch surround sound over the headphones.




■ **Equalizer**

Adjusts the sound balance, bass and treble for the left and right speakers as required.

- **Balance L/R:** Adjusts the balance between the right and left speaker.
- **100Hz / 300Hz / 1kHz / 3kHz / 10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
- **Reset:** Resets the equalizer to its default settings.

Basic Features

Sound Systems, Etc.

 MENU  → Sound → ENTER 

3D Audio (Off / Low / Medium / High)

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.

Broadcast Audio Options

(digital channels only)


■ Audio Language

Change the default value for audio languages.

 The available language may differ depending on the broadcast.

■ Audio Format


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

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

■ Audio Description

(not available in all locations)

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

 **Audio Description (Off / On):** Turn the audio description function on or off.


 **Volume:** Adjust the audio description volume.



Additional Settings

(digital channels only)


■ **DTV Audio Level (MPEG / HE-AAC):** This function allows you to reduce the disparity of a voice signal (which is one of the signals received during a digital TV broadcast) to a desired level.

 According to the type of broadcast signal, **MPEG / HE-AAC** can be adjusted between -10dB and 0dB.

 To increase or decrease the volume, adjust between the range 0 and -10 respectively.


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

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

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

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

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


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


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

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

Speaker Settings

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

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

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

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

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

• **TV Speaker: On, External Speaker: On**

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

■ **Auto Volume (Off / Normal / Night):** To equalize the volume level on each channel, set to **Normal**.

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

Reset Sound (Yes / No)

Reset all sound settings to the factory defaults.

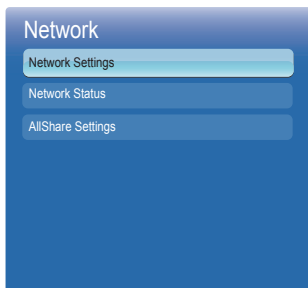
Basic Features

Network Menu

Network Settings



MENU → Network → Network Settings → ENTER



- The displayed image may differ depending on the model.

Set the network connection to use various Internet services such as **Smart Hub**, **AllShare** and perform software upgrades.

Network Status



MENU → Network → Network Status → ENTER

You can check the current network and Internet status.

AllShare Settings



MENU → Network → AllShare Settings → ENTER

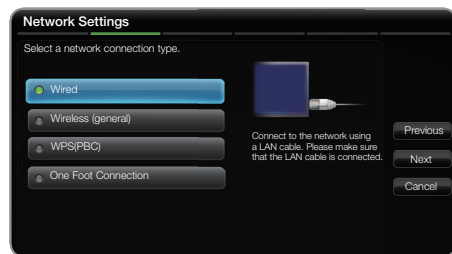
Selects whether to use the call arrivals text message contents, and schedules set on the network.

Wired

☐ Network Settings (Auto)

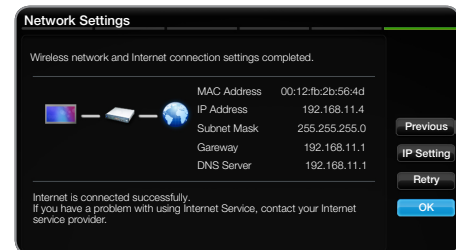
Use the automatic **Network Settings** when connecting your TV to a network that supports DHCP. To set up your TV's cable network connection automatically, follow these steps:

How to set up automatically



- The displayed image may differ depending on the model.

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



If it fails to set up automatically, check the connection of LAN port.

If you cannot find network connection values or if you want to set connection manually, set it to Manual. Refer to following "How to set up manually".

☐ Network Settings (Manual)

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

Getting the Network Connection Values

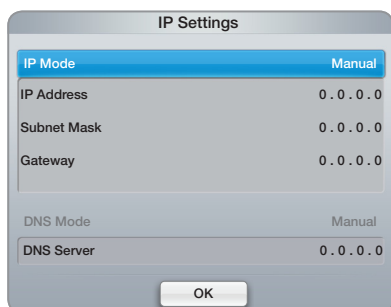
To get the Network connection values on most Windows computers, follow these steps:

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

Basic Features

How to set up manually

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



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

Wireless

□ Network Settings (Auto)

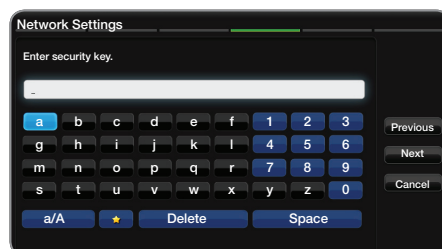
Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security Key. The **Security Key** is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you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

How to set up automatically



- The displayed image may differ depending on the model.

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **Wireless (general)**.
3. The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.
4. In the list of networks, press the ▲ or ▼ button to select a network, and then press the ENTER [↵] button.
 - ✎ If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct **Network Name (SSID)** and **Security key** to establish the connection.
5. If the **Security** screen pop-up appears, go to step 6. If you select the wireless router which does not have security, go to step 7.
6. If the wireless router has security, enter the Security key(Security or PIN), then select **Next**.



- ✎ When you enter the **Security key(Security or PIN)**, use ▲ / ▼ / ◀ / ▶ buttons on your remote to select number/characters.
 - ✎ You should be able to find the Pass Phrase on one of the set up screens you used to set up your router or modem.
7. The network connection screen appears, and network setting is done.
 - ✎ If it fails to set **Security key(Security or PIN)**, select **Reset** or **IP Settings**.
 - ✎ If you want to set connection manually, select the **IP Settings**. Refer to following "How to set up manually".

Basic Features

□ Network Settings (Manual)

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

Getting the Network Connection Values

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

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

How to set up manually

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

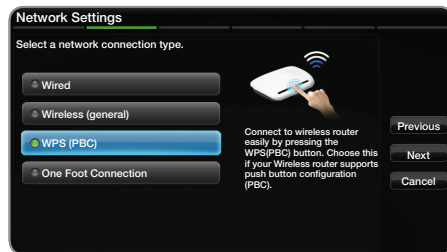
IP Settings	
IP Mode	Manual
IP Address	0 . 0 . 0 . 0
Subnet Mask	0 . 0 . 0 . 0
Gateway	0 . 0 . 0 . 0
DNS Mode Manual	
DNS Server	0 . 0 . 0 . 0
OK	

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

WPS(PBC)

How to set up using WPS(PBC)

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



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

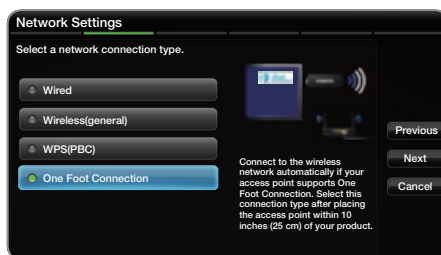
One Foot Connection

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

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



How to set up using One Foot Connection

Turn on the power of wireless router and TV.




1. Go to **Network Setting** screen. To enter it, follow the directions of **Network Setting**.
2. Select the **One Foot Connection**.

Basic Features

3. Place the wireless router in parallel with the Samsung Wireless LAN adapter giving a gap no larger than 25cm.
 If **One Foot Connection** does not connect your TV to your Router, a pop-up window appears on the screen notifying you of the failure. If you want to try using **One Foot Connection** again, reset the wireless router, disconnect the Samsung Wireless LAN adapter and then try again from Step 1. You can also choose one of the other connection setup methods.
4. The network connection screen appears, and network setting is done.
5. Place the wireless router in a desired location.
 If the wireless router settings change or you install a new wireless router, you must perform the **One Foot Connection** procedure again, beginning from Step 1.



Plug & Access

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

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

How to set up using Plug & Access function

Turn on the power of wireless router and TV.

1. Insert USB memory stick into our Samsung wireless router and checking wireless router's LED status (Blinking → On).
2. Then take USB memory out and insert it into Samsung TV.
3. Wait until the connection is automatically established.
 If **Plug & Access** does not connect your TV to your wireless router a pop-up window appears on the screen notifying you of the failure. If you want to try using **Plug & Access** again, reset the wireless router disconnect the Samsung Wireless LAN adapter and then try again from Step 1. You can also choose one of the other connection setup methods.
4. The network connection screen appears, and network setting is done.
5. Place the wireless router in a desired location.
 If the wireless router settings change or you install a new wireless router you must perform the **Plug & Access** procedure again, beginning from Step 1.

Priority QOS

Samsung wireless Router is optimized HD AV streaming for Samsung DTV

This is our product's distinctive function.

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

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








This function ensures the best streaming contents and throughput speed.

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

Ad-Hoc Network Setup

You can connect to a mobile device supporting Ad-hoc without an wireless router through the "Samsung Wireless LAN adapter". When connected to a mobile device, you can use files on the device or connect to the Internet using the AllShare or Multimedia function.

How to set up using WPS(PBC)

1. Go to **Network Settings** screen. (MENU  → **Network** → **Network Settings** → ENTER ).
2. Select **Wireless (General)**, and press ENTER , then press ENTER  again.
3. Select **Ad hoc**. The message "**Ad hoc service supports a direct connection with Wi-Fi compatible devices like a cell phone or PC. The existing network system may have limited functionality. Do you want to change the network connection?**" is displayed.
4. Select **OK**, and press ENTER . The TV searches for the mobile device.
5. When the TV finishes searching for mobile devices, input the generated **Network Name (SSID)** and **Security Key** into the device you want to connect.
 If network does not operate normally, check the **Network Name (SSID)** and Security key again. An incorrect Security key may cause a malfunction.
 If a device is connected once, it is displayed in the Network Setting list. When you connect to it again, you can find it in the List.

Basic Features

If Your TV Fails to Connect to the Internet

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

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

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

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

If you cannot connect to the Internet even after you have followed the procedures suggested by your Internet service provider, please contact a Samsung Electronics dealer or customer service centre.

System Menu


Setting the Time

 MENU  → System → Time → ENTER 



Time

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


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


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

Clock Mode (Auto / Manual)


- **Auto:** Set the current time automatically using the time from a digital channel.
 -  The antenna must be connected in order to set the time automatically.
- **Manual:** Set the current time manually.
 -  Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

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



 Available only when **Clock Mode** is set to **Manual**.

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

Time Zone (Australia only): Set the time zone to **GMT**.

 This function is only available when the **Clock Mode** is set to **Auto**.

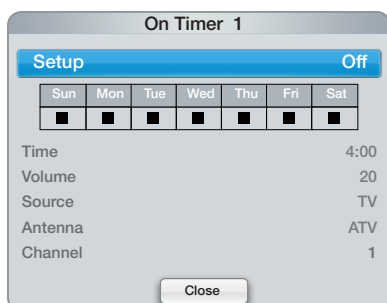
Using the Sleep Timer

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

Basic Features

Setting the On / Off Timer

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



The 'On Timer 1' setup screen has a title bar 'On Timer 1' and a 'Setup' button. Below it is a row of seven checkboxes for days of the week: Sun, Mon, Tue, Wed, Thu, Fri, Sat. The 'Sun' checkbox is checked with a black square. Below the checkboxes are fields for 'Time' (4:00), 'Volume' (20), 'Source' (TV), 'Antenna' (ATV), and 'Channel' (1). A 'Close' button is at the bottom.

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 date you've selected.

Time: Set the hour and minute.

Volume: Set the desired volume level.

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

Antenna (when the **Source** is set to **TV**): Select the desired antenna source.

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

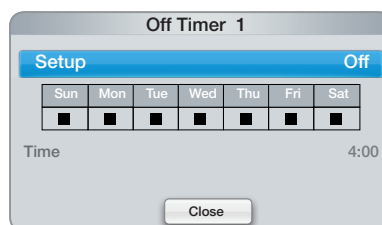
Music / Photo (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files to be played when the TV is turned on automatically.

NOTE

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

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

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






The 'Off Timer 1' setup screen has a title bar 'Off Timer 1' and a 'Setup' button. Below it is a row of seven checkboxes for days of the week: Sun, Mon, Tue, Wed, Thu, Fri, Sat. The 'Sun' checkbox is checked with a black square. Below the checkboxes is a field for 'Time' (4:00). A 'Close' button is at the bottom.

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 date you've selected.

Time: Set the hour and minute.

Economical Solutions



 MENU  → System → Eco Solution → ENTER 

Eco Solution

- **Energy Saving (Off / Low / Medium / High / Picture Off)** : This adjusts the brightness of the TV in order to reduce power consumption. If you select **Picture Off**, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.
- **No-Signal Power Off (Off / 15 min / 30 min / 60 min):** To avoid unnecessary energy consumption, set how long you want the TV to remain on if it's not receiving a signal.
 Disabled when a PC connected to the **HDMI1/DVI** port is in power-saving mode.
- **Auto Power Off (Off / On):** Saves power by turning TV off automatically when no user operation is received for 4 hours.

Basic Features

Locking Programmes


 MENU  → System → Security → ENTER 

Security

 The PIN input screen appears before the setup screen.

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

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


- **Program Rating Lock** (depending on the country): Prevent unauthorized users, such as children, from watching unsuitable programme with a user-defined 4-digit PIN code. If selected channel is locked, the “” symbol will be displayed.

Allow All: Unlock All TV ratings.




- **Change PIN:** The **Change PIN** screen will appear. Choose any 4 digits for your PIN and enter them. Change your personal ID number required to set up the TV. Re-enter the same 4 digits. When the Confirm screen disappears, your PIN has been memorised.

How to watch a restricted channel



If the TV is tuned to a restricted channel, the **Program Rating Lock** will block it. The screen will go blank and the following message will appear: This channel is blocked by **Program Rating Lock**. Please enter the PIN to unblock.

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

Other Features

 MENU  → System → ENTER 


Language


- **Teletext Language:** Set a desired language for teletext.
 -  English is the default in cases where the selected language is unavailable in the broadcast.
- **Preference (Primary Audio Language / Secondary Audio Language / Primary Subtitle Language / Secondary Subtitle Language / Primary Teletext Language / Secondary Teletext Language):** Select a language, which will be the default language when a channel is selected.
 -  The **Teletext Language** menu may not be displayed in countries that do not support TTX.

Subtitle

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

- **Subtitle (Off / On):** Switches subtitles on or off.
- **Subtitle Mode (Normal / Hearing Impaired):** Sets the subtitle mode.
- **Subtitle Language:** Sets the subtitle language.

 If the programme you are watching does not support the **Hearing Impaired** function, **Preferred** automatically activates even if the **Hearing Impaired** mode is selected.

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



Digital Text (Disable / Enable)

(New Zealand only)

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

Auto Protection Time

- **Off / 2 hours / 4 hours / 8 hours / 10 hours:** 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.

Basic Features

General

- **Max. Power Saving (Off / On):** Turns off the TV to reduce power consumption after the PC has been left idle for a specified period of time.
 - ✎ Available only when the **HDMI1/DVI** port is connected to a PC.
- **Game Mode (Off / On):** When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.
 - ✎ **NOTE**
 - Precautions and limitations for game mode
 - To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
 - If you display the TV menu in **Game Mode**, the screen shakes slightly.
 - **Game Mode** is not available in **TV** mode or **HDMI1/DVI** mode (when a PC is connected).
 - After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
 - If **Game Mode** is **On**:
 - **Picture** mode is set to **Standard** and **Sound** mode is set to **Movie**.
- **BD Wise (Off / On):** Provides the optimal picture quality for Samsung DVD, Blu-ray and Home Theatre products which support **BD Wise**. When **BD Wise** is turned **On**, the picture mode is automatically changed to the optimal resolution.
 - ✎ Available when connecting Samsung products that support **BD Wise** through a HDMI cable.
- **Boot Logo (Off / On):** Display Samsung logo when the TV is turned on.
- **TV Name:** Sets the TV name so you can find it easily on a mobile device.
 - ✎ If you select User Input, you can type on the TV using the OSK (On Screen Keyboard).

Anynet+

For details on set up options, refer to the "Anynet+ (HDMI-CEC)" instructions. (p. 63)

DivX® Video On Demand

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

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

Network Remote Control (Off / On)

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

Picture In Picture (PIP)

 **MENU**  → **System** → **PIP** → **ENTER** 











PIP

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

✎ NOTE

- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the TV off while watching in **PIP** mode, the PIP window will disappear.
- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.
- While **SMART HUB** is in operation the **PIP** function cannot be used.
- **PIP** is not available in **3D** mode.
- PIP settings

Main picture	Sub picture
Component, HDMI1/DVI, HDMI2	TV


- **PIP (Off / On):** Activate or deactivate the PIP function.
- **Channel:** Select the channel for the sub-screen.
- **Size** ( /  /  / ): Select a size for the sub-picture.
- **Position** ( /  /  / ): Select a position for the sub-picture.
 - ✎ In Double ( / ) mode, **Position** cannot be selected.
- **Sound Select (Main / Sub):** You can choose the desired sound (**Main / Sub**) in **PIP** mode.

Basic Features



Support Menu

 MENU  → Support → ENTER 


Self Diagnosis

-  **Self Diagnosis** might take few seconds, this is part of the normal operation of the TV
- **Picture Test (Yes / No):** Use to check for picture problems.

Yes: If the test pattern does not appear or there is noise in the test pattern, select **Yes**. There may be a problem with the TV. Contact Samsung's Call Centre for assistance.

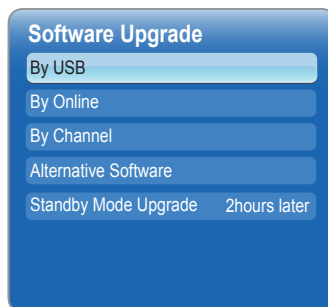
No: If the test pattern is properly displayed, select **No**. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.
- **Sound Test (Yes / No):** Use the built-in melody sound to check for sound problems.
 -  If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV Speaker** in the **Sound** menu.
 -  The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

Yes: If you can hear sound only from one speaker or not at all during the sound test, select **Yes**. There may be a problem with the TV. Contact Samsung's Call Centre for assistance.


No: If you can hear sound from the speakers, select **No**. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.
- **Signal Information:** (digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.
- **Troubleshooting:** If the TV seems to have a problem, refer to this description.
 -  If none of these troubleshooting tips apply, contact the Samsung customer service centre.

Software Upgrade

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





Installing the Latest Version

- **By USB:** Insert a USB drive containing the firmware upgrade file, downloaded from "www.samsung.com". Please be careful not to disconnect the power or remove the USB drive until upgrades are complete. The TV will be turned off and on automatically after completing the firmware upgrade. When software is upgraded, video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.
- **By Online:** Upgrade the software using the Internet.
 -  First, configure your network. For detailed procedures on using the Network Setup, refer to the "Network Connection" instructions.
 -  If the internet connection doesn't operate properly, the connection may be broken. Please retry downloading. If the problem persists, download by USB and upgrade.



Basic Features

- **By Channel:** Upgrade the software using the broadcasting signal.
 -  If the function is selected during the software transmission period, software will be automatically searched and downloaded.
 -  The time required to download the software is determined by the signal status.
- **Alternative Software (backup):** Displays the software version downloaded through **By Online**. During the software upgrading, When the Upgrade will discontinue from last step, this function be activated.
- **Standby Mode Upgrade (Off / 1 hour later / 2 hours later / 00:00 / 02:00 / 12:00 / 14:00):** A manual upgrade will be automatically performed at selected time. Since the power of the unit is turned on internally, the screen may be turned on slightly for the product. This phenomenon may continue for more than 1 hour until the software upgrade is complete.

Contact Samsung

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

Smart Hub

Smart Hub lets you connect to the Internet and enjoy variety of Internet and multimedia contents.

Advanced Features

Getting Started with Smart Hub

Features



Search All

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



Your Video

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

- This feature is limited to certain regions



Social TV

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

Smart Hub

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

The Gateway to all content integrated in one place

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



- The displayed image may differ depending on the model.

Screen Display

You can search for various types of content that can be used on your TV. Enter a keyword to search for media, various applications, or online information that you can use on the TV.

TV Screen: Displays the current channel.



Samsung Apps : You can download various for pay or free-of-charge application services.

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

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

Controls:

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

The colour buttons may work differently depending on the application.

Advanced Features

NOTE

- Configure the network setting before using **Smart Hub**. For more information, refer to **Network Settings**.
- Unsupported fonts within the provider's content will not display normally.
- Slow responses and/or interruptions may occur, depending on your network conditions.
- Depending on the region, English may be the only language supported for application services.
- This feature is not available in some locations.
- If you experience a problem using a application, please contact the content provider.
- According to circumstances of the contents provider, an application's updates or the application itself may be discontinued.
- Depending on your country's regulations, some applications may have limited service or not be supported.

Account Login

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

For a more enjoyable application experience, register and log in to your account.

For instructions on creating an account, refer to "How to create an **Smart TV ID**".

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



How to create a Smart TV ID

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

1. Press the Red (A) button. The Login screen appears.
2. Select **Create Account**. The **Create Account** screen will appear.
3. Press the ENTER button to enter a new **Smart TV ID**. The Keypad screen will appear.
4. Using the keypad screen, enter a **Smart TV ID**.
 - ✎ A **Smart TV ID** must be created in "sample@sample.com" form.

Using the Keypad

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

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

You can change the language by using the TOOLS button.








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

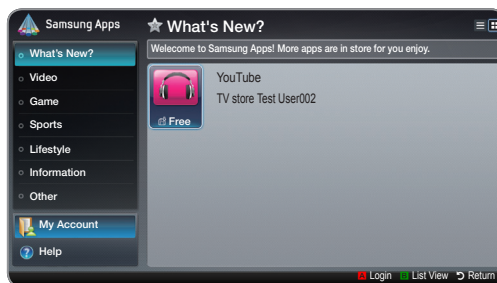
Method 1: Here is how to input characters using keypad of ABC type.

- 4-1. For example, suppose that you want to input "105Chang".
- 4-2. Press the TTX/MIX button on the remote 3 times to change the input mode from lower case to numbers.
- 4-3. Press the 1, 0 and 5 button in numerical order.
- 4-4. Press the TTX/MIX button on the remote 4 times to change the input mode from numbers to upper case.
- 4-5. Press the 2 button on the remote 3 times to input C.
- 4-6. Press the TTX/MIX button on the remote 3 times to change the input mode from upper case to lower case.
- 4-7. Press buttons on the remote to input the rest of "Chang". When done, press the ENTER button.

Advanced Features

Method 2: Using the Keypad of T9 type.

- 4-1. For example, suppose that you want to input "105Chang".
- 4-2. Press the **TTX/MIX** button on the remote 3 times to change the input mode from lower case to numbers.
- 4-3. Press the 1, 0 and 5 button in numerical order.
- 4-4. Press the **TTX/MIX** button on the remote 3 times to change the input mode from numbers to capitalized case.
- 4-5. Press numbers in sequence: 2, 4, 2, 6, 4. A window will appear displaying a list of words that can be entered using the selected numbers. Select "chang" from the list.
-  If "Chang" cannot be found in the list, select + to create your own dictionary. Add your own word to your dictionary.
5. Using the remote control, enter the **Password**.
 - Password must be 6~12 words.
 - You can delete the entered character using the **PRE-CH** button.
 - Using the  (REW) or  (FF) button, you can select icon you want to enter in icon keypad screen.
6. Account created. You can use the services provided by all users of your Samsung TV with a single login by linking the users' account to the TV ID. If you want to register a service site ID, select **Register**. Service Site list will appear on the screen.
 -  If you want to register service later, select **Register Later**.
7. Select **Register** of the Service Site you want, then press the **ENTER**  button.
8. Using number buttons, enter your application site ID and password. When done, select **OK**.
9. Registered successfully. If you add another service site, select Yes, then press the **ENTER**  button, go to step 7.
10. When completed, select **OK**. Then press the **ENTER**  button.





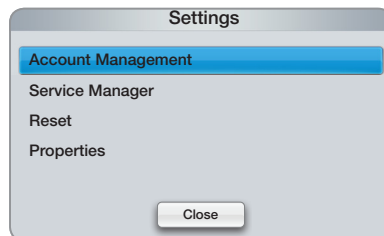
Setting up Smart Hub

■ Settings

Configure **Smart Hub** settings from this screen.


Highlight **Settings** using the  and  buttons and press the **ENTER**  button.

- **Account Management**
 - Register Service Account:** Register login information for service sites.
 - Change Password:** Change account password.
 - Remove from TV Account List:** Delete an account from the list of accounts.
 - Deactivate Account:** Withdraw membership from **Smart Hub**.
- **Service Manager**
 - Ticker Autorun:** You can set **Ticker Autorun** to come on when powering on the TV.
 -  The **Ticker** application provides useful News, Weather, and Stock Market information. The **Ticker** application on **Smart Hub** must be downloaded to use this feature.
 -  Depending on your country, **Ticker** application may have a different service or not be supported.



Advanced Features

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

 Only available if supported by the broadcaster

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

- **Properties**

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

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

Using the Smart Hub service

■ Samsung Apps

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

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


Additional applications will be available in the future.

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

- **A Red (Login):** To log in to the internet service.
- **B Green (List View / Thumbnail View):** To change the view mode.
- **D Blue (Sort by):** To sort the applications by **Recommended, Most downloaded, Most recent** or **Name**.
- **Orange (Return):** Moves to previous menu.

Using the Samsung Apps by category

The following categories are available:

- **What's New?:** Displays newly registered applications.
- **Video:** Displays various video media such as movies, TV shows and short length videos.
- **Game:** Displays various games such as sudoku and chess.
- **Sports:** Displays various sports media such as match information, images and short length video.
- **Lifestyle:** Includes various lifestyle media services such as music, personal photo management tools and social networking such as Facebook and Twitter.
- **Information:** Includes various information services such as news, stocks and weather.
- **Other:** Includes other miscellaneous services.
- **My Account:** Displays the application list and your cyber cash balance.
 -  Starting in the middle of 2010 (US and Korea only), you can purchase cyber-cash for buying applications through tv.samsung.com.
- **Help:** If you have questions about **Smart Hub**, check this section first.

[Legal Statement]

Due to the various capabilities of products featuring the Samsung Smart Hub - Content Service, as well as limitations in the available content, certain features, applications, and services may not be available on all devices or in all territories. Some features on Smart Hub may also require additional peripheral devices or membership fees that are sold separately. Please visit <http://www.samsung.com> for more information on specific device information and content availability. The services and availability of content through Smart Hub are subject to change from time to time without prior notice.

Advanced Features

Troubleshooting for SMART HUB

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

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Advanced Features

Using the Smart Hub

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

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



- The displayed image may differ depending on the model.






Connecting a USB Device

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





Connecting to the PC through network

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

1. For more information on how to configure your network, refer to "Network Connection".
 - You are recommended to locate both TV and PC in same subnet. The first 3 parts of the subnet address of the TV and the PC IP addresses should be the same and only the last part (the host address) should be changed. (e.g. IP Address: 123.456.789.**)
 2. Using a LAN cable, connect between the external modem and the PC onto which the AllShare PC Software programme will be installed.
 - You can connect the TV to the PC directly without connecting it through a Sharer (Router).
-  Functions that are not supported when connecting to a PC through a network:
- The **Background Music** and **Background Music Setting** functions.
 - Sorting files by preference in the **Photos, Music, and Videos** folders.
 - The **REW** or **FF** button while a movie is playing.
-  DivX DRM, Multi-audio, embedded captions are not supported.
-  AllShare PC Software should be permitted by the firewall programme on your PC.
-  When you use media contents mode through a network connection, depending on the functions of the provided server:
- The sorting method may vary.
 - The **Scene Search** function may not be supported.
 - The **Resume**, which resumes playing of a video, may not be supported.
 - The **Resume** function does not support multiple users. (It will have only memorised the point where the most recent user stopped playing.)
 - The **◀** or **▶** button may not work depending on the content information.
-  You may experience file stuttering while playing a video in media contents through a network connection.

Advanced Features

Before using media contents functions...

-  It might not work properly with unlicensed multimedia files.
-  Need-to-Know List before using media contents
 - MTP (Media Transfer Protocol) is not supported.
 - The file system supports FAT16, FAT32 and NTFS. Note that the supported maximum file size is 2GB for FAT16 and 4GB for FAT32.
 - Certain types of USB Digital camera and audio devices may not be compatible with this TV.
 - 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 and USB HDD (USB HUB are not supported). Devices should be connected directly to the TV's USB port.
 - Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
 - Connect a USB HDD to the dedicated **USB 2 (HDD)** port.
 - Do not disconnect the USB device while it is loading.
 - The higher the resolution of the image, the longer it takes to display on the screen.
 - The maximum supported JPEG resolution is 15360X8640 pixels.
 - For unsupported or corrupted files, the "Not Supported File Format" message is displayed.
 - If the files are sorted by **Folder View**, up to 1000 files can be displayed in each folder.
 - MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
 - If more than 2 PTP devices are connected, you can only use one at a time.
 - If more than two MSC devices are connected, some of them may not be recognized. A USB device that requires high power (more than 500mA or 5V) may not be supported.
 - If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.
 - If the TV has been no input during time set in **Auto Protection Time**, the Screensaver will run.
 - The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.
 - If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
 - If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
 - If a file deleted from the PC is still found when media contents is run, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.

Advanced Features

Screen Display

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



Recorded TV

■ Timeshift Function

You can pause a live TV or start watching the TV programme from the beginning point you started **Timeshift** function.

Start Timeshift function with PAUSE button

1. When you are watching a TV channel, press the **PAUSE** button.
2. The image of TV programme will be paused, and then **Timeshift** bar will appear. Live TV is displayed on the left side of **Timeshift** bar.



- The displayed image may differ depending on the model.

Start Timeshift function with PLAY button

1. When you are watching a TV channel, press the **PLAY** button.
2. The **Timeshift** function starts and the **Timeshift** bar will appear. Live TV is displayed on the left side of **Timeshift** bar.




- The displayed image may differ depending on the model.

Advanced Features

Timeshift information





























You can see current information about **Timeshift** function.

1. Press the **ENTER**  button on your remote while **Timeshift** function is enabled.
2. **Timeshift** bar appears as below.
 - **Timeshift** Screen

Mode Display : Shows current states of Timeshift function. The past icon appears when current scene is the previous





Playback control button during Timeshift function is enabled.

- Each time press the **SEARCH** (, ) button, the playback speed change as follows. (1 2 → 6 7 / 1 2 → 6 7)
-  button: Jump to - 20 sec from current position
-  button: Jump to + 20 sec from current position
-  (PAUSE) button : Pause the scene while keeping **Timeshift** operation.
 - In pause () mode, press the **SEARCH** (, ) button. If you press the **SEARCH** (, ) button, the playback speed is reduced to (1/8 (1/4 (1/2 / (1/8 (1/4 (1/2.
-  (STOP) button : If you are watching the past scene, playback point will jump to the same scene with Live TV. If you are watching the same scene with Live TV, the **Timeshift** function will be stopped.
- In pause mode, press the **PAUSE** () button. Each time the **PAUSE** () button is pressed, a new frame will be appear.
- To return to normal speed playback, press the **PLAY** () button.


NOTE


- The product does not play sound in Stop mode.
- Stop motion operates only in the forward direction.

To stop Timeshift

1. If **Timeshift** bar is not in  (PAUSE) or PAST mode, press  (STOP) button.
2. Select **YES** button and press **ENTER**  button to stop **Timeshift**.
3. If the **Timeshift** bar is in  (PAUSE) or PAST mode, **Timeshift** mode will be changed into Live TV when you press  (STOP) button first time.

To use the recording or **Timeshift** function, the connected USB device must be available for recording. Device format is recommended to use USB HDD.

 During the Device formatting, do not disconnect the device while formatting is in progress. If you format the device, all files will be deleted.

 Before formatting 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.





Advanced Features

■ Timer Recording (in Schedule Manager)

 SMART HUB → Schedule Manager → ENTER 

Allows you to make a reservation to record a programme scheduled for broadcast. Set the current time first to use this function.




Using the Timer Recording function (digital channels only)

1. Press the ENTER  button to select **Schedule Manager**. The **Schedule Manager** screen will be displayed.
2. Press the ENTER  button to add manual booking. A pop up screen will appear.
3. Press the ◀ or ▶ button to select the **Timer Recording**.
 -  We recommend using a USB HDD with at least 5 400 rpm, but a USB HDD of RAID type is not supported.
 -  A USB storage device cannot record until it completes the **Device Performance Test**.
4. Press the ◀ / ▶ / ▲ / ▼ buttons to set the **Antenna, Channel, Repeat, Start Time** or **End Time**.

To record a current broadcasting programme

Allows you to record a programme currently being broadcasted.

Set the current time first to use this function.

1. When you watch a broadcast programme, press the  (REC) button on the remote to record. A pop up window will appear.
 -  We recommend using a USB HDD with at least 5 400 rpm, but a USB HDD of RAID type is not supported.
 -  A USB storage device cannot record until it completes the **Device Performance Test**.
2. Select **Length** to set up the recording time, and then select **OK**.

Using the Timeshift function

If you missed a live broadcast, you can see from the recorded broadcast using this feature.

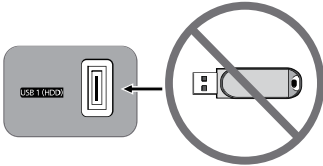
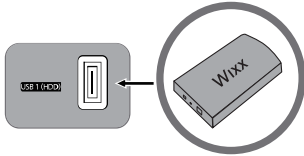
1. When you watch a broadcast programme, press the  (Play) button on the remote to start the **Timeshift** function.
2. If you want to stop the **Timeshift** function, press the  (Stop) button on the remote.

NOTE

- The **Timeshift** mode operates for a maximum of 90 minutes.
- After the **Timeshift** mode function has run for the maximum time, the time information will be fixed to "00:00:00."
- The **Timeshift** function is not supported for analogue channels.
- The **Timeshift** functions are disabled for channels locked with **Channel Lock**.



Connect a USB device before using the Timeshift and Recorded TV functions.

 Recorded videos are DRM (digital rights management) protected and cannot be played on a PC or other TVs. Note that files saved on the TV cannot be used after the main board is changed.

Connecting a USB device	
	
Do not use a USB memory stick. We do not support a USB memory stick.	We recommend using a USB HDD with at least 5 400 rpm, but a USB HDD of RAID type is not supported.

Advanced Features

NOTE

- To use the Timeshift mode or the Recorded TV function, a connected USB device must be execute the Device Format function to proper form for recording.
 - During the device formatting, do not disconnect the device while formatting is in progress. If you format the device, all files will be deleted.
 - Before formatting 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.
- Recorded videos are DRM (digital rights managements) protected and cannot be played on a PC or other TVs. Note that files saved on the TV cannot be used after the main board is changed.
- If the 10M free memory space limit of the USB storage device is reached, the current recording process will be closed.
- We recommend using a USB HDD with at least 5 400 rpm, but a USB HDD of RAID type is not supported.
- The availability of both recording and the **Timeshift** function may differ depending on picture quality and the free space on the hard disk drive.
- Note that if you have paused the recording the TV will automatically resume playback.
- If the 5% free memory space limit of the USB storage device is reached, the current recording process will be closed.
- When recording is performed by both the PVR (Personal Video Recorder) function and a device that supports the HDMI-CEC feature, recording by the PVR function takes precedence.
- During a playback or the **Timeshift**, the picture will be displayed according to the display settings of the TV.
- If you change the input source during recording, the screen will go blank until the change is completed.
- If the USB device has failed the **Device Performance Test**, the USB device must go through the **Device Format** and **Device Performance Test** again before you record with the **Guide** or **Channel**.
- The **Timeshift** functions can only be used with a USB storage device that completed the **Device Performance Test**.
- If you attempt the recording or **Timeshift** function with a device that did not have the **Device Performance Test**, the function will not start.
- If you press  (REC) on the remote control while the **Channel** screen is being displayed or record with **Timer Recording**, the TV may start or stop recording 1 or 2 seconds later than you intended due to the time needed to process the command.
- If a USB device dedicated to recording is connected, existing **Timeshift** or recording files that were saved abnormally will automatically be deleted.
- If you switch to external input mode during recording, the recording will continue but the  (REC) button will be disabled.
- If any function that turns off the TV (**Sleep Timer**, **Off timer**, etc.) is set for a time that conflicts with recording, the TV will be turned off once the recording is complete.

Playing Recorded TV Programme

1. Press the  /  /  /  button to select the desired file in the file list.
2. Press the ENTER  button or  (Play) button.
 - The selected file is displayed on the top with its playing time.
 - During playing the recorded TV programme, you can search using the  and  button.
 - You can use  (REW) and  (FF) buttons during playback.

Device Management

Manage external devices. You can manage options such as device format, checking device, Device performance test and default device.

- **Device format:** Format the device.
- **Checking device:** Checks for errors on the device.
- **Device Performance Test:** Test the recording performance of the device.
- **Default Recording Device:** Select default recording device.
- **Device Information:** Show the device information
 - **Device Type, Device Name, Used Space, Available Space, Recordable Time, Total Space, Progress bar.**

Advanced Features

Videos

Playing Video

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired file in the file list.

2. Press the ENTER button or ▶ (Play) button.

- The selected file is displayed on the top with its playing time.
- If video time information is unknown, play time and progress bar are not displayed.
- During playing the video, you can search using the ◀ and ▶ button.
- You can use ⏮ (REW) and ⏭ (FF) buttons during playback.

 In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.



- Supported Subtitle Formats

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

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv	AVI MKV	DivX 3.11 / 4.x / 5.1 / 6.0	1920x1080	6 ~ 30	8	MP3 / AC3 / LPCM / ADPCM / DTS Core
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP / MP / HP	1920x1080	6 ~ 30	25	
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	1920x1080	6 ~ 30	8	
*.asf	ASF	DivX 3.11 / 4.x / 5.1 / 6.0	1920x1080	6 ~ 30	8	MP3 / AC3 / LPCM / ADPCM / WMA
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP / MP / HP	1920x1080	6 ~ 30	25	
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	800x600	6 ~ 30	8	
*.wmv	ASF	Window Media Video v9	1920x1080	6 ~ 30	25	WMA
*.mp4	MP4	H.264 BP / MP / HP	1920x1080	6 ~ 30	25	MP3 / ADPCM / AAC
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		XVID	1920x1080	6 ~ 30	8	
*.3gp	3GPP	H.264 BP / MP / HP	1920x1080	6 ~ 30	25	ADPCM / AAC / HE- AAC
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
*.vro *.vob	VRO VOB	MPEG1	352x288	24 / 25 / 30	30	AC3 / MPEG / LPCM
		MPEG2	1920x1080	24 / 25 / 30	30	
*.mpg *.mpeg	PS	MPEG1	352x288	24 / 25 / 30	30	AC3 / MPEG / LPCM / AAC
		MPEG2	1920x1080	24 / 25 / 30	30	
		H.264	1920x1080	6 ~ 30	25	

Advanced Features

*.ts *.tp *.trp	TS	MPEG2	1920x1080	24 / 25 / 30	30	AC3 / AAC / MP3 / DD+ / HE-AAC
		H.264	1920x1080	6 ~ 30	25	
		VC1	1920x1080	6 ~ 30	25	

Other Restrictions


NOTE

- If there are problems with the contents of a codec, the codec will not be supported.
- If the information for a Container is incorrect and the file is in error, the Container will not be able to play correctly.
- Sound or video may not work if the contents have a standard bitrate/frame rate above the compatible Frame/sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- You may experience file stuttering while playing a video through a network connection.


Video Decoder	Audio Decoder
<ul style="list-style-type: none"> • Supports up to H.264, Level 4.1 • H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. • XVID, MPEG4 SP, ASP: <ul style="list-style-type: none"> – Below 1280 x 720: 60 frame max – Above 1280 x 720: 30 frame max • GMC 2 over is not supported. 	<ul style="list-style-type: none"> • Supports up to WMA 7, 8, 9, STD • WMA 9 PRO does not support 2 channel excess multi channel or lossless audio. • WMA sampling rate 22050Hz mono is not supported.

■ Playing movie file continuously (Resume Play)

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

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

1. Select the movie file you want to play continuously by pressing the ◀ or ▶ button to select it from the file list section.
2. Press the  (Play) / ENTER  button.

 A triangle icon will appear on the progress bar when the playback starts.

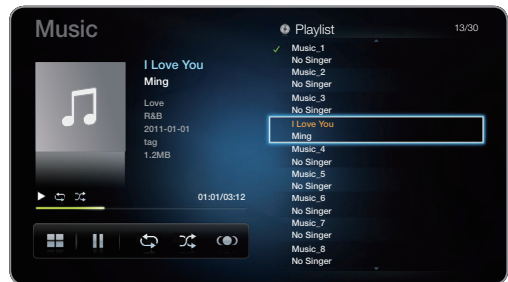
3. Press the **TOOLS** button, and then select **Resume**. The Movie will begin to play from where it was stopped.

Advanced Features

Music

Playing Music

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired music file in the file list.
2. Press the ENTER button or ▶ (Play) button.
 - During playing the music, you can search using the ◀◀ (FF) and ▶▶ (REW) button.
 - ✎ Only displays the files with MP3 and PCM 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 MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)



Creating My Playlist

1. On the **Music** screen in the **Smart Hub** menu, press the ◀ / ▶ / ▲ / ▼ button to select **Edit Mode**, and then press the ENTER button.
2. Press the ◀ / ▶ / ▲ / ▼ button to select the tracks you want to add and press the ENTER button.
 - ✎ The ✓ mark appears to the left of the selected files.
 - ✎ To select all the files in the current page, select **Select All** at the top.
3. Press the ◀ / ▶ / ▲ / ▼ button to select **Add to My Playlist**.
 - ✎ Note that selecting **My Playlist** Initialize will return **My Playlist** to the default playlist.
4. Press the ENTER button. The message **Selected items added to My Playlist.** is displayed.
5. The newly created or updated playlist will be in the main **Music** page.

Playing My Playlist

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

- ✎ To delete a file from **My Playlist**, select the recycle bin icon next to the file you want to delete by using the direction buttons.


Playing the selected music files


1. On the **Music** screen in the **Smart Hub** menu, press the ◀ / ▶ / ▲ / ▼ button to select **Edit Mode**, and then press the ENTER button.
2. Press the ◀ / ▶ / ▲ / ▼ button to select the desired music file in the file list, and then ENTER button.
 - ✎ **NOTE**
 - The check box mark appears to the left of the selected files.
 - To select all the files in the current page, select **Select All** at the top.
 - To cancel a selection, press the ENTER button again.
3. Press the ◀ / ▶ / ▲ / ▼ button to select **Play**. The selected music files will be play.

Advanced Features

Photos

Viewing a Photo (or Slide Show)

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

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

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



Smart Hub - Additional Function

Sorting the file list









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

Category	Operations	Recorded TV	Videos	Music	Photos
Default	Default is sorted by Title without Group	▼			
Folder View	Displays the whole folder. You can view the file name and thumbnail by selecting the folder.		▼	▼	▼
Title	Sorts and displays the file title in Symbol/Number/Alphabet/Special order.	▼	▼	▼	▼
Latest Date	Sorts and shows files by the latest date.	▼	▼		▼
Earliest Date	Sorts and shows files by the earliest date.	▼	▼		▼
Artist	Sorts the music file by artist in alphabetical order.			▼	
Album	Sorts the music file by album in alphabetical order.			▼	
Genre	Sorts music files by the genre.			▼	
Monthly	Sorts and shows photo files by month.				▼
Weekly	Sorts the recorded files by week.	▼			
Channel	Sorts the recorded files by channel name.	▼			

Advanced Features

Videos/Music/Photos Play Option menu

The following functions are enabled during playback.

Category	Operations	Recorded TV	Videos	Music	Photos
List	Return to the file list.	▼	▼	▼	▼
Resume / Play continuously	A movie file will begin to play from where it was stopped.	▼	▼		
Play / Pause	You can start or pause a video or music file. Alternatively, the  (Play) or  (Pause) button on the remote can be used.		▼	▼	
Set Section Repeat	You can set up the function to repeat some section. You can also watch some section you want to.	▼			
Edit Favourites	Set files you watch frequently as favourites.	▼			
Scene Search	You can use the Scene Search function during playback to view or start a movie from the scene of your choice.	▼	▼		
Title Search	You can move directly to another Title.	▼	▼		
Time Search	You can search the movie using  and  buttons at intervals of 1 minute.	▼	▼		
Repeat Mode	You can play movie and music files repeatedly.	▼	▼	▼	
Shuffle Mode	You can play the music sequentially or randomly.			▼	
Picture Size	You can adjust the picture size to your preference.		▼		
Sound Mode	You can change the Sound Mode .	▼	▼	▼	▼
Picture Mode	You can change the Picture Mode .	▼	▼		▼
Subtitle	You can view a subtitle. You can select a specific language if the subtitle file contains multiple languages.	▼	▼		
Previous / Next	Go to previous / next photo file.				▼
Subtitle Setting	Displays the Subtitle Setting . You can set up a subtitle option.	▼	▼		
Start Slide Show / Stop Slide Show	You can start or stop a slide show. Alternatively, the  or  button on the remote can be used.				▼
Slide Show Speed	You can select the slide show speed during the slide show. Alternatively, the  or  button on the remote can be used.				▼
Slide Show Effect	You can set various slide show effects.				▼
Background Music On / Off	You can start or stop a background music.				▼
Background Music Setting	You can set and select background music when watching a photo file or slide show.				▼
Zoom	You can zoom into images in full screen mode.				▼
Rotate	You can rotate images.				▼


 Pressing the **INFO** button while a device name is selected will display information about the selected device name.

 Pressing the **INFO** button while a file is selected will display information about the selected file.

Advanced Features


About AllShare™

AllShare™ connects your TV and compatible Samsung mobile phones/ devices through a network. On your TV, you can view call arrivals, SMS messages and schedules set on your mobile phones. In addition, you can play media contents including videos, photos and music saved on your mobile phones or the other devices (such as your PC) by controlling them on the TV via the network. Additionally, you can use your TV for browsing web pages in your mobile phones.

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

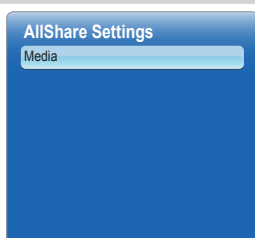
Setting Up AllShare™



MENU → Network → AllShare Settings → ENTER 

AllShare Settings


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




- The displayed image may differ depending on the model.

Media

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

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



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

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

Using the Media Function

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

NOTE

- If the media function executes for the first time, the warning popup window appears. Press the **ENTER**  button to select **Allow**, then you can use **Media** function on that device.
- To turn off the media contents transmission from the mobile phone, set **Media** to **Off** in the **AllShare Settings**.
- Contents may not be played on your TV depending on their resolution and format.
- The **ENTER**  and **◀ / ▶** buttons may not work depending on the type of media content.
- Using the mobile device, you can control the media playing. For details, refer to each mobile's user's guide.

Advanced Features

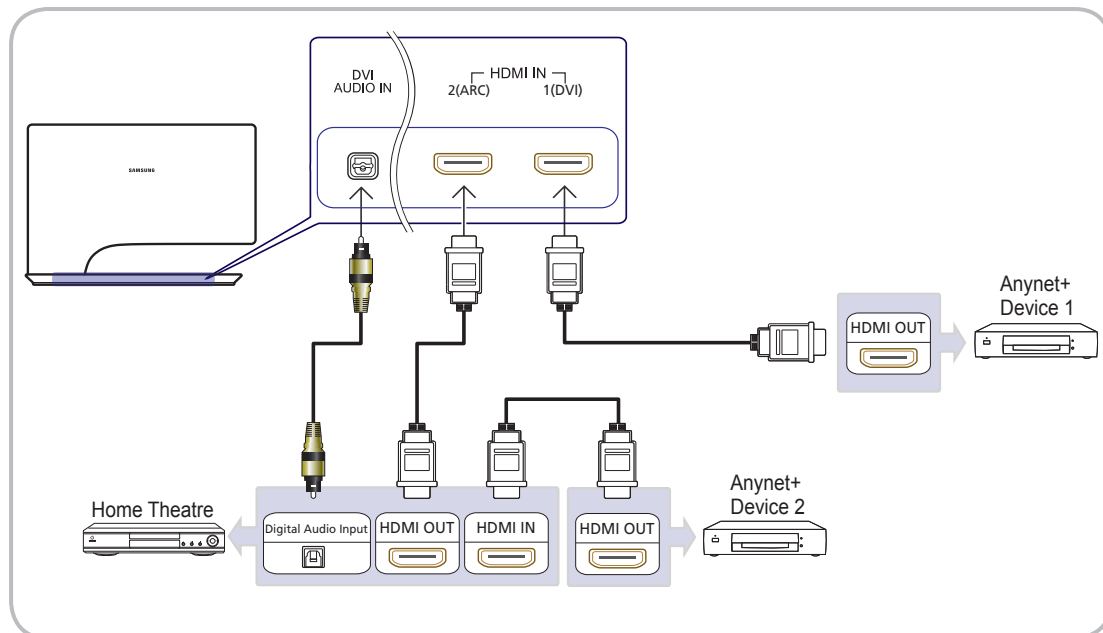
Anynet+

What is Anynet+?

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

- You can only control Anynet+ devices using the TV remote control, not the buttons on the TV.
- The TV remote control may not work under certain conditions. If this occurs, reselect the Anynet+ device.
- The Anynet+ functions do not operate with other manufacturers' products.
- For the method of connecting external devices, refer to the supported user manual.

To connect to Home Theatre



1. Connect the **HDMI IN (1(DVI), 2(ARC))** jack on the TV and the **HDMI OUT** jack of the corresponding Anynet+ device using an HDMI cable.
2. Connect the **HDMI IN** jack of the home theatre and the **HDMI OUT** jack of the corresponding Anynet+ device using an HDMI cable.



NOTE

- Connect the Optical cable between the **DIGITAL AUDIO OUT (OPTICAL)** jack on your TV and the Digital Audio Input on the Home Theatre.
- When following the connection above, the Optical jack only outputs 2 channel audio. You will only hear sound from the Home Theatre's Front, Left and Right speakers and the subwoofer. If you want to hear 5.1 channel audio, connect the **DIGITAL AUDIO OUT (OPTICAL)** jack on the DVD / Satellite Box (i.e. Anynet Device 1 or 2) directly to the Amplifier or Home Theatre, not the TV.
- You can connect only one Home Theatre.
- You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the standby or on status.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

Advanced Features

Anynet+ Menu

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

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

If more than one recording device is connected, they are displayed as (*recorder) and if only one recording device is connected, it will be represented as (*device_name).


Setting Up Anynet+




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

■ Anynet+ (HDMI-CEC) (Off / On)

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


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


■ Auto Turn Off (No / Yes): Setting an Anynet+ Device to turn off automatically when the TV is turned off.

 If **Auto Turn Off** is set to **Yes**, running external devices will turn off at the same time as the TV powers off. However, a device may not turn off if recording is in progress.


 May not be enabled depending on the device.

Switching between Anynet+ Devices

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

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

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

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




- Switching to the selected device may take up to 2 minutes. You cannot cancel the operation during the switching operation.

- If you have selected external input mode by pressing the **SOURCE** button, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the **Device List**.

Advanced Features



■ Listening through a Receiver

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

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

Using the ARC function

You can listen to sound through a receiver connected using an HDMI cable without the need for a separate optical cable.

1. Select **Receiver** and set to **On**.
2. Press the **EXIT** button to exit.
 -  To use the ARC function, a receiver which supports the HDMI-CEC and ARC features must be connected to the **HDMI IN 2 (ARC)** port.
 -  To disable the ARC function, set the **Receiver** to **Off**. Even if the TV transmits the ARC signal continuously, the receiver will be blocked from receiving the signal.

Advanced Features

Troubleshooting for Anynet+








Problem	Possible Solution
Anynet+ does not work.	<ul style="list-style-type: none"> Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. Only one receiver (home theatre) can be connected. Check if the Anynet+ device power cord is properly connected. Check the Anynet+ device's Video/Audio/HDMI cable connections. Check whether Anynet+ (HDMI-CEC) is set to On in the Anynet+ setup menu. Check whether the TV remote control is in TV mode. Check whether the remote control is Anynet+ compatible. Anynet+ doesn't work in certain situations. (Searching channels, operating Smart Hub or Plug & Play (initial setup), etc.) When connecting or removing the HDMI cable, please make sure to search devices again or turn your TV off and on again. Check if the Anynet+ Function of Anynet+ device is set on.
I want to start Anynet+.	<ul style="list-style-type: none"> Check if the Anynet+ device is properly connected to the TV and check if the Anynet+ (HDMI-CEC) is set to On in the Anynet+ Setup menu. Press the TOOLS button to display the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	<ul style="list-style-type: none"> Select View TV in the Anynet+ menu. Press the SOURCE button on the TV remote control and select a device other than Anynet+ devices. Press ▲P▼, and PRE-CH to change the TV mode. (Note that the channel button operates only when a tuner-embedded Anynet+ device is not connected.)
The message "Connecting to Anynet+ device..." appears on the screen.	<ul style="list-style-type: none"> You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. Use the remote control when the Anynet+ setting or switching to view mode is complete.
The Anynet+ device does not play.	<ul style="list-style-type: none"> You cannot use the play function when Plug & Play (Initial setup) is in progress.
The connected device is not displayed.	<ul style="list-style-type: none"> Check whether or not the device supports Anynet+ functions. Check whether or not the HDMI cable is properly connected. Check whether Anynet+ (HDMI-CEC) is set to On in the Anynet+ setup menu. Search Anynet+ devices again. You can connect an Anynet+ device using the HDMI cable only. Some HDMI cables may not support Anynet+ functions. If connection is terminated because there has been a power interruption or the HDMI cable has been disconnected, please repeat the device scan.
The TV sound is not output through the receiver.	<ul style="list-style-type: none"> Connect the optical cable between TV and the receiver. The ARC function enables digital output of sound using the HDMI IN 2 (ARC) port and can only be operated when the TV is connected to an audio receiver that supports the ARC function.

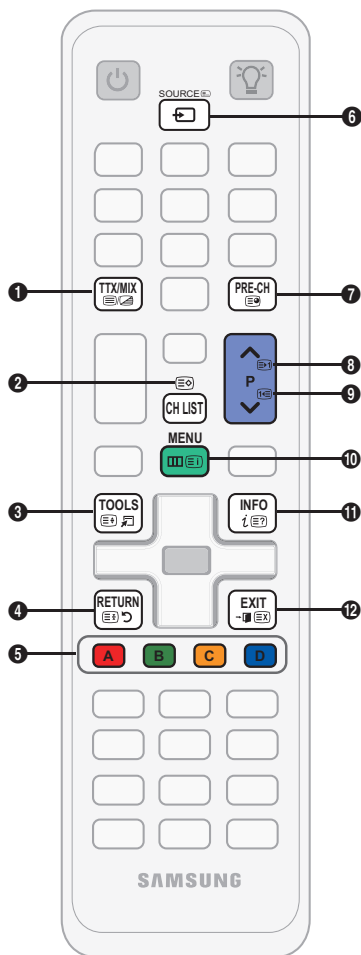
Other Information






Analogue Channel Teletext Feature

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

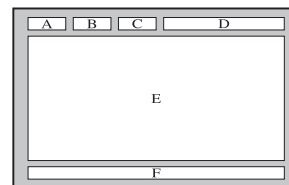
 You can change Teletext pages by pressing the numeric buttons on the remote control.

- 1  (Teletext on/mix/off): Activates the Teletext mode for the current channel. Press the button twice to overlap the Teletext mode with the current broadcasting screen. Press it one more time to exit teletext.
- 2  (store): Stores the Teletext pages.
- 3  (size): Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.
- 4  (hold): Holds the display at the current page, in the case that there are several secondary pages that follow automatically. To undo, press it again.
- 5 Colour buttons (red, green, yellow, blue): If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colour-coded and can be selected by pressing the coloured buttons. Press the colour corresponding to the topic of your choice. A new colour-coded page is displayed. Items can be selected in the same way. To display the previous or next page, press the corresponding coloured button.
- 6  (mode): Selects the Teletext mode (LIST/ FLOF).
If pressed during LIST mode, switches the mode to List save mode. In List save mode, you can save a Teletext page into a list using the  (store) button.
- 7  (sub-page): Displays the available sub-page.



- 8  (page up): Displays the next Teletext page.
- 9  (page down): Displays the previous Teletext page.
- 10  (index): Displays the index (contents) page at any time while you are viewing Teletext.
- 11  (reveal): Displays the hidden text (answers to quiz games, for example). To display the normal screen, press it again.
- 12  (cancel): Shrinks the Teletext display to overlap with the current broadcast.

Typical Teletext page

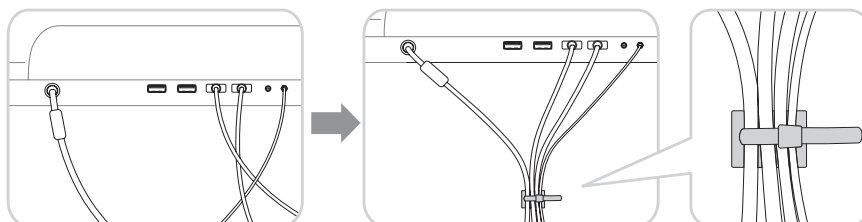


Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

Other Information

Assembling the Cables

Use the Cable Holder to hide the cables behind the stand.



The colour and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

Anti-theft Kensington Lock

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

Please find a “” icon on the rear of the TV. A kensington slot is beside the “” icon.

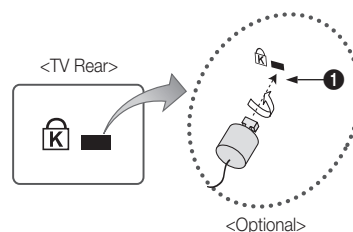
To lock the product, follow these steps:

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

These are general instructions. For exact instructions, see the User manual supplied with the locking device.

The locking device has to be purchased separately.

The location of the Kensington slot may be different depending on the TV model.



- The displayed image may differ depending on the model.

Other Information

Troubleshooting


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

Issues	Solutions and Explanations
PC Connection	
A Mode Not Supported message appears.	<ul style="list-style-type: none"> Set your PC's output resolution and frequency so they match the resolutions supported by the TV (p. 19).
PC is always shown on the source list, even if a PC is not connected.	<ul style="list-style-type: none"> This is normal; "PC" is always shown on the source list, regardless of whether a PC is connected.
The video is OK but there is no audio.	<ul style="list-style-type: none"> If you are using a HDMI connection, check the audio output setting on your PC.
Picture Quality	<p>First of all, please perform the Picture Test and confirm that your TV is properly displaying test image. (go to MENU - Support - Self Diagnosis - Picture Test) (p. 44)</p> <p>If the test image is properly displayed, the poor picture may caused by the source or signal.</p>
The TV image does not look as good as it did in the store.	<ul style="list-style-type: none"> If you have an analogue cable/set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Cable/Satellite subscribers: Try HD stations from the channel line up. Antenna connection: Try HD stations after performing Auto programme. Many HD channels are up scaled from SD(Standard Definition) contents. Adjust the Cable/Set top box video output resolution to 1080i or 720p. Make sure you are watching the TV at the minimum recommended distance based on the size and definition of the signal.
The picture is distorted: macro block error, small block, dots, pixelization	<ul style="list-style-type: none"> Compression of video contents may cause picture distortion especially in fast moving pictures such as sports and action movies. Low signal level or bad quality can cause picture distortion. This is not a TV issue. Mobile phones used close to the TV (cca up to 1m) may cause noise in picture on analogue and digital TV.
Colour is wrong or missing.	<ul style="list-style-type: none"> If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.
There is poor colour or brightness.	<ul style="list-style-type: none"> Adjust the Picture options in the TV menu. (go to Picture Mode / Colour / Brightness / Sharpness) (p. 28) Adjust Energy Saving option in the TV menu. (go to MENU - System - Eco Solution - Energy Saving) (p. 41) Try resetting the picture to view the default picture settings. (go to MENU - Picture - Reset Picture) (p. 33)
There is a dotted line on the edge of the screen.	<ul style="list-style-type: none"> If the picture size is set to Screen Fit, change it to 16:9 (p. 28). Change cable/set top box resolution.
The picture is black and white.	<ul style="list-style-type: none"> If you are using an AV composite input, connect the video cable (yellow) to the Green jack of component input 1 on the TV.
When changing channels, the picture freezes or is distorted or delayed.	<ul style="list-style-type: none"> If connected with a cable box, please try to reset the cable box. Reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes. Set the output resolution of the cable box to 1080i or 720p.
3D	
The 3D Active Glasses are not working correctly	<ul style="list-style-type: none"> Make sure the glasses are turned on. 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.
The screen seems to flicker slightly when you watch 3D images.	<ul style="list-style-type: none"> You may notice a small amount of screen flickering when watching 3D images under a fluorescent lamp (50Hz ~ 60Hz), a 3 wavelength lamp, or a strobe light. If this occurs, dim the light or turn it off entirely.
The 3D images don't look quite right.	<ul style="list-style-type: none"> The ideal viewing distance is three times or more the height of the screen. We also recommend sitting with viewer's eyes on a level with the screen
The batteries in the 3D glasses don't last	<ul style="list-style-type: none"> Turn off 3D glasses while not using them. If you leave 3D glasses on, battery lifespan is shortened

Other Information


Issues	Solutions and Explanations
Sound Quality	First of all, please perform the Sound Test to confirm that your TV audio is properly operating. (go to MENU - Support - Self Diagnosis - Sound Test) (p. 44) If the audio is OK , the sound problem may caused by the source or signal.
There is no sound or the sound is too low at maximum volume.	<ul style="list-style-type: none"> Please check the volume the of external device connected to your TV.
The picture is good but there is no sound.	<ul style="list-style-type: none"> Set the Speaker Select option to TV Speaker in the sound menu (p. 35). If you are using an external device, make sure the audio cables are connected to the correct audio input jacks on the TV. If you are using an external device, check the device's audio output option (ex. you may need to change your cable box's audio option to HDMI when you have a HDMI connected to your TV). If you are using a DVI to HDMI cable, a separate audio cable is required. If your TV has a headphone jack, make sure there is nothing plugged into it.
The speakers are making an inappropriate noise.	<ul style="list-style-type: none"> Check the cable connections. Make sure a video cable is not connected to an audio input. For antenna or cable connections, check the signal strength. Low signal level may cause sound distortion.
No Picture, No Video	
The TV won't turn on.	<ul style="list-style-type: none"> Make sure the AC power cord is securely plugged in to the wall outlet and the TV. Make sure the wall outlet is working. Try pressing the POWER button on the TV to make sure the problem is not the remote. If the TV turns on, refer to "The remote control does not work" below.
The TV turns off automatically.	<ul style="list-style-type: none"> Ensure the Sleep Timer is set to Off in the System menu (p. 40). If your PC is connected to the TV, check your PC power settings. Make sure the AC power cord is plugged in securely to the wall outlet and the TV. When watching TV from an antenna or cable connection, the TV will turn off after 10 ~ 15 minutes if there is no signal.
There is no picture/Video.	<ul style="list-style-type: none"> Check cable connections (remove and reconnect all cables connected to the TV and external devices). Set your external devices' (Cable/Set top Box, DVD, Blu-ray etc) video outputs to match the connections to the TV input. For example, if an external device's output is HDMI, it should be connect to an HDMI input on the TV. Make sure your connected devices are powered on. Be sure to select the TV's correct source by pressing the SOURCE button on the TV remote.
RF(Cable/Antenna) Connection	
The TV is not receiving all channels.	<ul style="list-style-type: none"> Make sure the Antenna cable is connected securely. Please try Plug & Play (Initial setup) to add available channels to the channel list. Go to MENU - System - Plug & Play (Initial setup) and wait for all available channels to be stored (p. 14). Verify the Antenna is positioned correctly.
The picture is distorted: macro block error small block, dots, pixelization	<ul style="list-style-type: none"> Compression of video contents may cause picture distortion, especially with fast moving pictures such as sports and action movies. A low signal can cause picture distortion. This is not a TV issue.
Network Connection	
The wireless network connection failed.	<ul style="list-style-type: none"> The Samsung Wireless USB dongle is required to use a wireless network. Make sure the Network Connection is set to Wireless. Make sure the TV is connected to a wireless IP sharer (router).
Software Upgrade over the network fails.	<ul style="list-style-type: none"> Run Network Test in the Network menu to confirm the connection. If you have the latest Software (SW) version, the SW upgrade will not proceed.
Recording / Timeshift	
The USB device is not recognized or a Device Format , Checking Device or Device Performance Test fails.	<ul style="list-style-type: none"> See the manual for the USB device to check that the USB device supports recording. If the USB device has a lock, ensure it is off. Check that the USB device can be formatted when connected to the PC. Connect the USB to the TV and format it. (Formatting may fail intermittently.) If a Device Performance Test or formatting failed, it means that there is a problem with the USB hardware or the performance of the USB hardware is too low.

Other Information

Issues	Solutions and Explanations
A message prompts me to format a USB device that has been working well.	<ul style="list-style-type: none"> • If the USB device has a lock, ensure it is off. • Recover the USB device using the recovery function in Checking Device.
The recording function does not work.	<ul style="list-style-type: none"> • Check that a USB device is connected. • Check that the channel is a recordable digital channel. • If the signal is weak or does not exist, the recording function will automatically be closed. • The TV will not record if the USB device has no free memory space. Check that this is not the case.
Timeshift Mode does not work.	<ul style="list-style-type: none"> • Check that a USB device is connected. • Radio channels and analogue broadcasts are not supported. • Data broadcast channels are not supported. • If the signal is weak or does not exist, the Timeshift Mode function will automatically be closed. • Timeshift Mode cannot be performed if the USB device has no free memory space. Check that this is not the case.
A message indicates a performance test failure, and the recording and Timeshift Mode functions do not work.	<ul style="list-style-type: none"> • These problems may occur if you use a low-performance USB device that does not support recording. We recommend using a USB HDD with at least 5 400 rpm, but a USB HDD of RAID type is not supported.
A scheduled recording has failed.	<ul style="list-style-type: none"> • A scheduled recording is disabled for certain operations (formatting, performance test, error checking, deleting) that access the file system of a USB device. • If there is no USB device connected, the TV will not record even if the scheduled time is reached. • The TV will not record if the USB device has no free memory space. Check that this is not the case. • If you record a channel locked with Program Rating Lock, the PIN input window will appear when you try to play back the recording.
Several recording devices are connected but the TV stopped recording.	<ul style="list-style-type: none"> • If multiple recording devices are connected and the device set as Default Recording Device has no free memory space, the recording function will be closed. Attempt recording again. The device with the most free memory space will automatically be set as Default Recording Device and the TV will start recording.
Others	
The picture won't display in full screen.	<ul style="list-style-type: none"> • HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents. • Black bars on the top and bottom will appear during movies that have aspect ratios different from your TV. • Adjust the picture size options on your external device or TV to full screen.
The remote control does not work.	<ul style="list-style-type: none"> • Replace the remote control batteries with the poles (+/-) in the right direction. • Clean the sensor's transmission window on the remote. • Try pointing the remote directly at the TV from 5-6 feet away.
The cable/set top box remote control doesn't turn the TV on or off, or adjust the volume.	<ul style="list-style-type: none"> • Programme the Cable/Set top box remote control to operate the TV. Refer to the Cable/Set user manual for the SAMSUNG TV code.
A Mode Not Supported message appears.	<ul style="list-style-type: none"> • Check the supported resolution of the TV, and adjust the external device's output resolution accordingly (p. 19).
There is a plastic smell from the TV.	<ul style="list-style-type: none"> • This smell is normal and will dissipate over time.
The TV Signal Information is unavailable in the Self Diagnostic Test menu.	<ul style="list-style-type: none"> • This function is only available with digital channels from an Antenna / RF/Coax connection (p. 44).
The TV is tilted to the side.	<ul style="list-style-type: none"> • Remove the base stand from the TV and reassemble it.
There are difficulties assembling the stand base.	<ul style="list-style-type: none"> • Make sure the TV is placed on a flat surface. If you can not remove the screws from the TV, use a magnetized screw driver.
The channel menu is greyed out. (unavailable)	<ul style="list-style-type: none"> • The Channel menu is only available when the TV source is selected.
Your settings are lost after 30 minutes or every time the TV is turned off.	<ul style="list-style-type: none"> • If the TV is in the Store Demo mode, it will reset audio and picture settings every 30 minutes. Change the settings from Store Demo mode to Home Use mode in the Plug & Play (Initial setup) procedure. Press the SOURCE button to select TV mode, and go to MENU → System → Plug & Play (Initial setup) → ENTER  (p. 14).

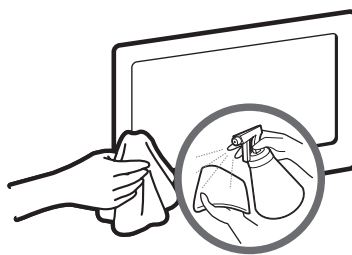
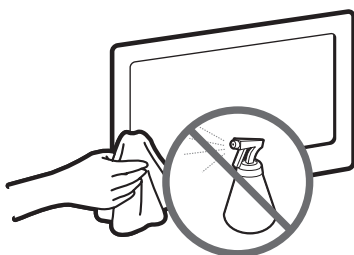
Other Information

Issues	Solutions and Explanations
You have intermittent loss of audio or video.	<ul style="list-style-type: none"> Check the cable connections and reconnect them. Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If mounting the TV to the wall, we recommend using cables with 90 degree connectors.
You see small particles when you look closely at the edge of the frame of the TV.	<ul style="list-style-type: none"> This is part of the product's design and is not a defect.
The PIP menu is not available.	<ul style="list-style-type: none"> PIP functionality is only available when you are using a HDMI, PC or components source (p. 43).
The message "Scramble signal" or "Weak Signal/No Signal" appears.	<ul style="list-style-type: none"> If you are using a CAM CARD (CI/CI+), check that it is installed into the common interface slot. If there is still a problem, pull the CAM CARD out of the TV and insert it into the slot again.
You turned the TV off 45 minutes ago, and it turned on again.	<ul style="list-style-type: none"> It is normal. The TV operates the OTA (Over The Aerial) function itself to upgrade firmware downloaded whilst your watching TV.
There are recurrent picture/sound issues.	<ul style="list-style-type: none"> Check and change the signal/source.
A reaction may occur between the rubber cushion pads on the base stand and the top finish of some furniture.	<ul style="list-style-type: none"> To prevent this, use felt pads on any surface of the TV that comes in direct contact with furniture.

 This panel uses a panel consisting of sub 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.

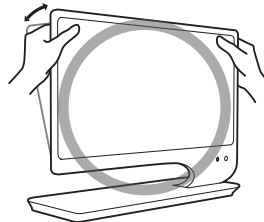
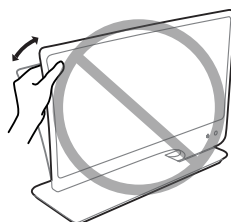
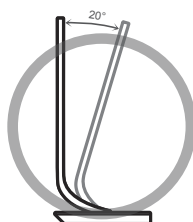
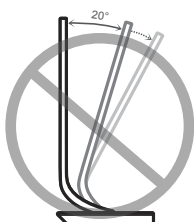
Storage and Maintenance

 If you attached some stickers on the TV screen, it remains some debris after removing the sticker. Please clean it to watch TV.



Do not spray water or a cleaning agent directly onto the product. Any liquid that goes into the product may cause a failure, fire, or electric shock.


Clean the product with a soft cloth dapped in a small amount of water.



Other Information

Licence



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ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.
Covered by one or more of the following U.S. patents : 7,295,673; 7,460,668; 7,515,710; 7,519,274

Open source licence notice

In the case of using open source software, Open Source licence are available on the product menu. Open Source Licence Notice is written only English.

Other Information

Specifications

Environmental considerations	Operating	Temperature : 50°F ~ 104°F (10°C ~ 40°C) Humidity : 10 % ~ 80 %, non-condensing
	Storage	Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Humidity : 5 % ~ 95 %, non-condensing
Tilt		-1°(±1°) ~ 20°(±1°)
Model Name		T27A950
Screen Size (Diagonal)		27 inches(68cm)
Display Resolution		1920x1080@60Hz
Sound(Output)		7W x 2
Dimensions (WxHxD)		621.0 x 474.0 x 185.5 mm
Weight		6.5 kg

NOTE

- Design and specifications are subject to change without prior notice.
- For information about power supply, and more about power consumption, refer to the label attached to the product.
- Some models may not be available for purchase depending on the region.
- If there is no power cut-off switch, the power consumption is "0" only when the power cord is disconnected.
- DPM(Display Power Management) Function does not work if you used in conjunction with the **HDMI IN 1 (DVI)** port of this product.

Other Information

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**Contact SAMSUNG WORLDWIDE**

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	www.samsung.com
NEW ZEALAND	0800 SAMSUNG (0800 726 786)	www.samsung.com
SINGAPORE	1800-SAMSUNG (726-7864)	www.samsung.com