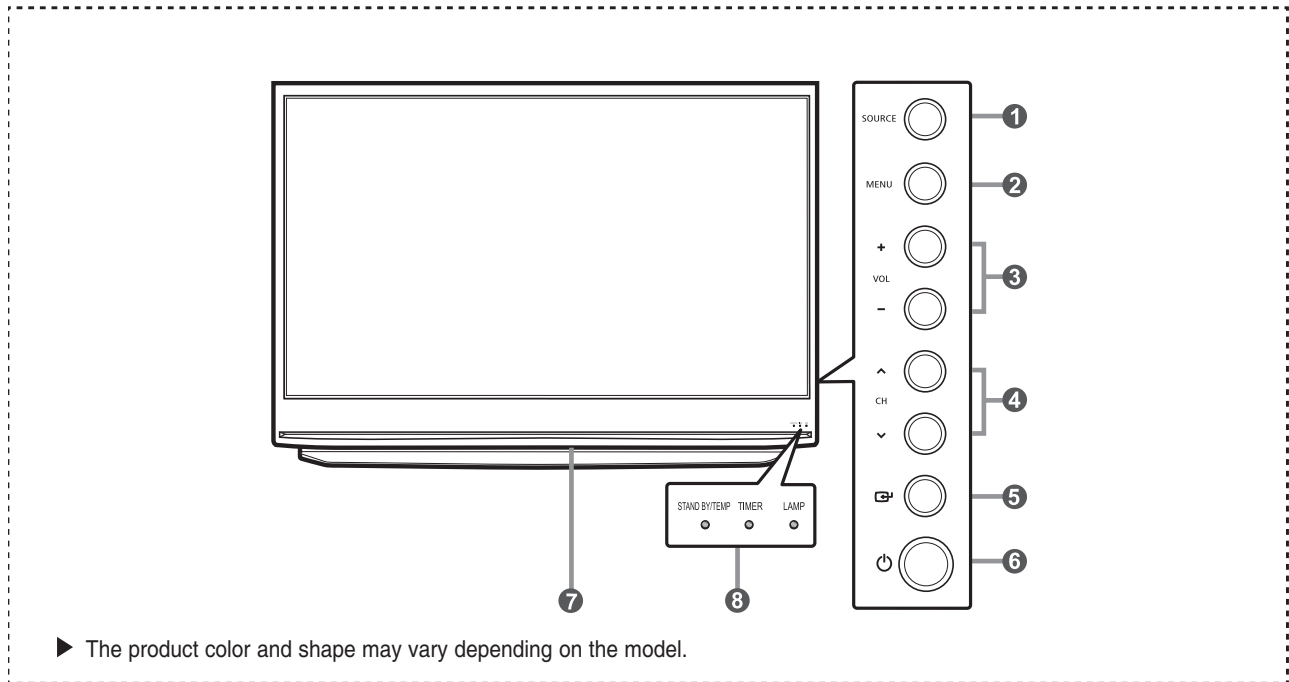



11. Operation Instruction & Installation

11-1 Product Features and Functions

11-1-1 Right side buttons

The buttons on the right side panel control your TV's basic features, including the on-screen menu system. To use the more advanced features, you must use the remote control.

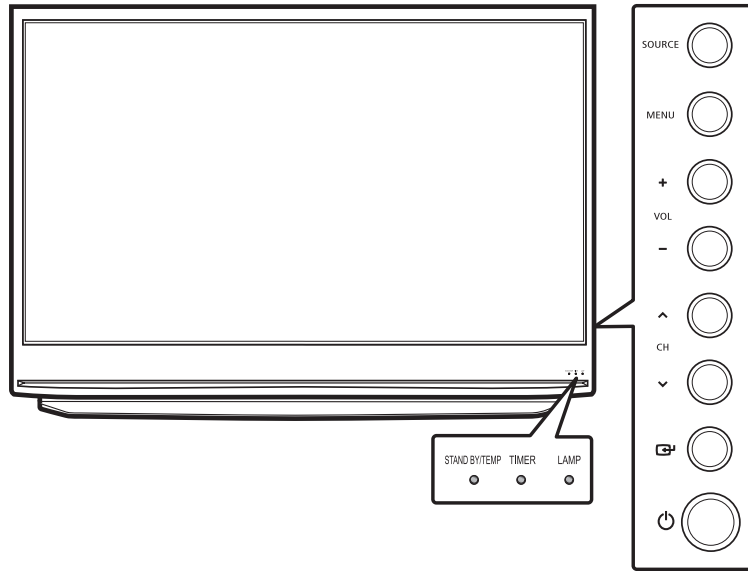


- | | |
|---|--|
| <p>1 SOURCE
Toggles between all the available input sources (TV, AV1, AV2, S-Video1, S-Video2, Component1, Component2, PC, HDMI1, HDMI2, or HDMI/DVI3).</p> <p>2 MENU
Press to see an on-screen menu of your TV's features.</p> <p>3 + VOL -
Press to increase or decrease the volume.
In the on-screen menu, use the + VOL - buttons as you would use the ◀ and ▶ buttons on the remote control.</p> <p>4 ^ CH v
Press to change channels.
In the on-screen menu, use the ^ CH v buttons as you would use the ▲ and ▼ buttons on the remote control.</p> | <p>5  (ENTER)
Press to confirm a selection.</p> <p>6 POWER
Press to turn the TV on and off.</p> <p>7 Remote Control Sensor
Aim the remote control towards this spot on the TV.

Indicator Lights
Blinks and turns off when the power is on and lights up in stand-by mode.</p> |
|---|--|
-
- You can use the channel selection buttons to switch on the TV when it is in standby mode depending on the model.
 - When using the on-screen menu the volume adjustment and channel selection buttons have the same function as the ▲ / ▼ / ◀ / ▶ buttons on the remote control.
 - If the remote control no longer works or you have lost it, you can use controls on the panel of the TV.

11-1-2 Front Panel LED Indicators

The three lights on the front panel indicate the status of your TV.



Indicator Light Key

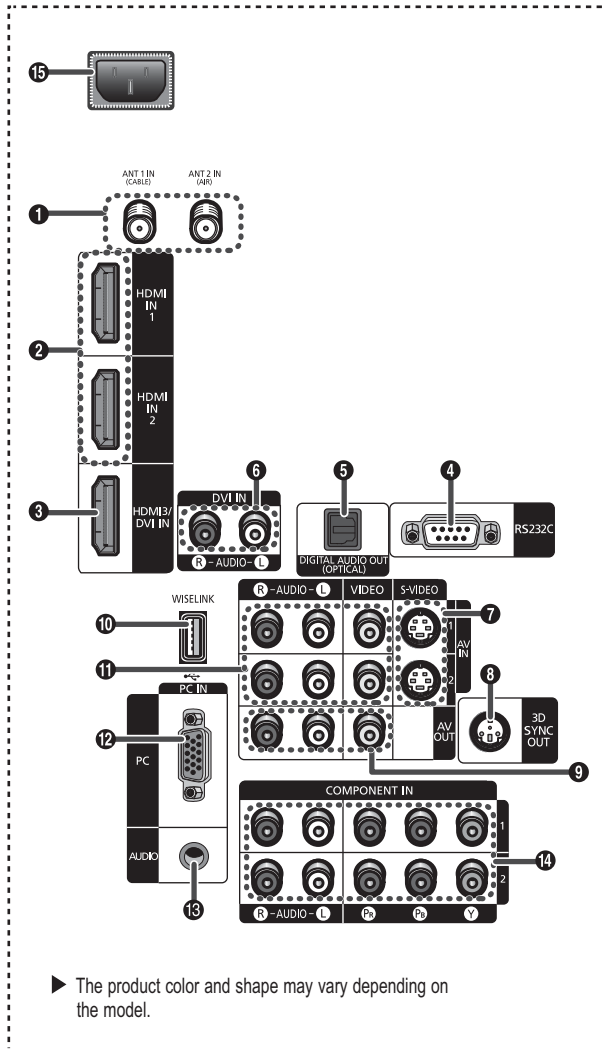
- : Light is On
- ◐ : Light is Blinking
- : Light is Off

TIMER	LAMP	STAND BY/TEMP	Indication
○	○	●	Standby state.
○	◐	○	The picture will automatically appear in about 15 seconds.
●	◐	○	Auto Timer ON/OFF has been set and the set will automatically be turned on in about 15 seconds.
◐	○	◐	A cooling fan inside the set is not operating normally.
○	◐	◐	Lamp cover on the rear of the set is not properly shut.
○	○	◐	Check if the ventilation hole on the rear of the set is blocked, because if the inner temperature is too high, the power will shut off.
◐	◐	◐	Lamp may be defective. Please contact a certified technician.

- It takes about 30 seconds for the TV to warm up, so normal brightness may not appear immediately.
- The TV has a fan to keep the inside lamp from overheating. You'll occasionally hear it working.

11-1-3 Side Panel Jacks

Use the rear panel jacks to connect components such as a VCR. You can connect different components such as VCRs, Set-Top Box and a DVD player etc., because there are two sets of video input jacks and two sets of component video input jacks on the rear panel of your TV. For more information, see "Connections".



① ANT 1 IN (CABLE)/ANT 2 IN (AIR)

75Ω Coaxial connector for Air/Cable Network.

② HDMI IN 1/HDMI IN 2

Connect to the HDMI jack of a device with HDMI output.

③ HDMI3/DVI IN

Connect to the HDMI jack of a device with HDMI output. This input can also be used as a DVI connection with separate analog audio inputs. An optional HDMI/DVI cable will be necessary to make this connection. When using an optional HDMI/DVI adapter, the DVI analog audio inputs on your TV allow you to receive left and right audio from your DVI device.

④ RS232C

For service only.

⑤ DIGITAL AUDIO OUT (OPTICAL)

Connect to a Digital Audio component.

⑥ DVI IN (AUDIO-L/R)

Connect to the DVI audio output jack of an external device.

⑦ S-VIDEO (AV IN 1, 2)

Video input for external devices with an S-Video output, such as a Camcorder or VCR.

⑧ 3D SYNC OUT

Connect to 3D IR Emitter.

⑨ VIDEO/AUDIO OUT-L/R (AV OUT)

Video/Audio outputs for external devices.

⑩ WISELINK

Connect an USB mass storage device to view photo files (JPEG) and play audio files (MP3).

⑪ VIDEO/AUDIO-L/R (AV IN 1, 2)

Video input for external devices, such as a Camcorder or VCR.

⑫ PC IN

Connect to the video output jack on your PC.

⑬ PC AUDIO IN

Connect to the audio output jack on your PC.

⑭ COMPONENT IN 1, 2


Video (Y/PB/PR) and audio (L-AUDIO-R) component inputs.

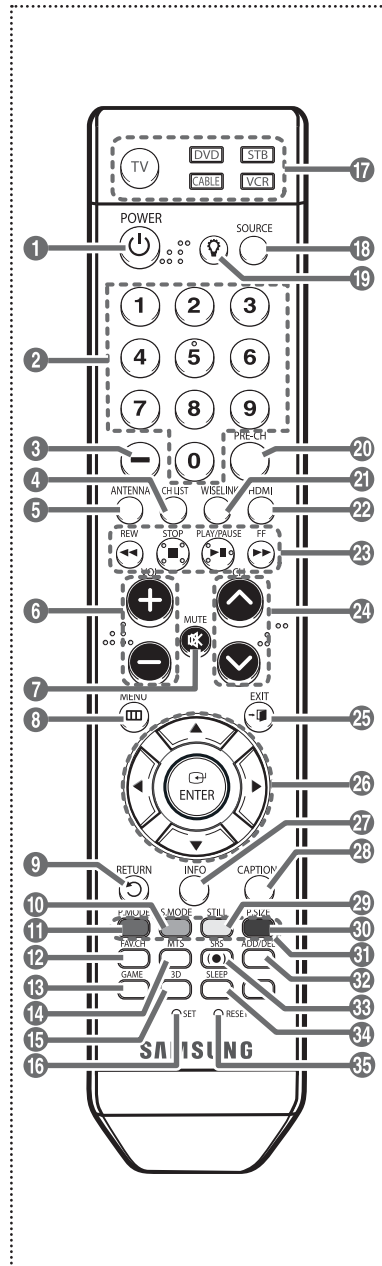
⑮ POWER IN

Connect the supplied power cord.

11-1-4 Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote control, always point it directly at the TV. You can also use your remote control to operate your VCR, Cable box, DVD player or Samsung Set-Top Box.

1. **POWER**
Turns the TV on and off.
2. **Numeric Buttons**
Press to directly select a channel.
3. **-**
Press to select additional channels being broadcast by the same station. For example, to select channel "54-3", press "54", then press "-" and "3".
4. **CH LIST**
Used to display Channel Lists on the screen.
5. **ANTENNA**
Press to select "Air" or "Cable".
6. **VOL +, VOL -**
Press to increase or decrease the volume.
7. **MUTE**
Press to temporarily cut off the sound.
8. **MENU**
Displays the main on-screen menu.
9. **RETURN**
Returns to the previous menu.
10. **S.MODE**
Press to select the sound mode.
11. **P.MODE**
Press to select the picture mode.
12. **FAV.CH**
Press to switch to your favorite channels.
13. **GAME**
Press to select the Theater Game mode except for the TV mode.
14. **MTS**
Press to choose Stereo, Mono or Separate Audio Program (SAP broadcast).
15. **3D**
Press to select the 3D mode.
16. **SET**
Sets the remote to control your TV, VCR, Cable, DVD, or Set-Top Box.
17. **TV, DVD, STB, CABLE, VCR**
Press to operate your TV, DVD, STB, CABLE (box), or VCR.
18. **SOURCE**
Press to display all of the available video sources.
19. **☾**
Press to activate the backlight of the VOL, CH and the active source button (TV, DVD, CABLE, STB, VCR) on the remote control.
20. **PRE-CH**
Tunes to the previous channel.
21. **WISELINK**
This function enables you to view and play photo (JPEG) and audio files (MP3) from an external device.
22. **HDMI**
Selects the HDMI mode directly.
23. **VCR/DVD Functions**
 - Rewind
 - Stop
 - Play/Pause
 - Fast Forward
24. **CH ^ ,CH v**
Press to change channels.
25. **EXIT**
Press to exit from the menu.
26. **UP ▲/DOWN ▼/LEFT ◀/RIGHT ▶/ENTER** 
Use to select on-screen menu items and change menu values.
27. **INFO**
Press to display information on the TV screen.
28. **CAPTION**
Controls the caption decoder.
29. **STILL**
Press to stop the action during a particular scene.
Press again to resume normal video.
30. **P.SIZE**
Press to change the screen size.
31. **Color buttons**
Press to add or delete channels and to store channels to the favorite channel list in the **Channel List** menu.
32. **ADD/DEL**
Use to store and delete channels to/from memory.
33. **SRS**
Selects SRS TruSurround XT mode.



34. SLEEP

Press to select a preset time interval for automatic shut off.

35. RESET

When your remote control does not work, change the batteries and press the RESET button for 2-3 seconds before use.

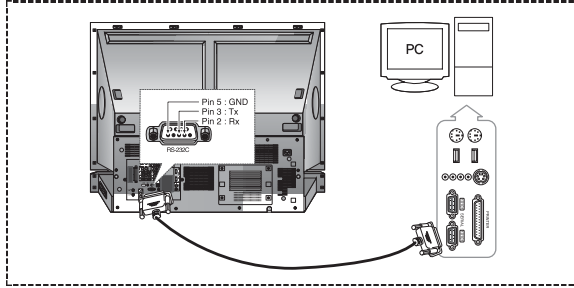
NOTES

- * The performance of the remote control may be affected by bright light.
- * This is a special remote control for the visually impaired persons, and has Braille points on the POWER, Channel, Volume, STOP, and PLAY/PAUSE buttons.

11-2 New Features

11-2-1 RS-232C

Connect the DLP DTV using the serial port.



Do not disconnect or connect the RS-232C cable while the Computer or the DLP TV is operating. It may cause serious damage to the Computer or the DLP TV.

If the PC is not properly configured, the RS-232C connection may not work properly. For further details, refer to the Computer's product documentation.

Serial Port Settings

Specification	RS-232C
Bit Rate	19200 bps
Data Bits	8 bits
Parity	None
Stop Bits	1 bit
Flow Control	None

Serial Communication Protocol

Command Packet Structure [7bytes]

0x08	0x22	Cmd1	Cmd2	Cmd3	Value	CS
------	------	------	------	------	-------	----

- ◆ A command packet consists of 7 bytes in total.
- ◆ The two bytes 0x08 and 0x22 signify that the packet is for serial communication.
- ◆ The following 4 bytes represent a pre-defined command that can be defined by the user.
- ◆ The last byte is the checksum which checks the validity of the current packet.

Header [2 Byte]: Pre-defined values fixed to 0x08 and 0x22.

Cmd1 [1 Byte]: The first value of the code defined in the command list (Hexadecimal)

Cmd2 [1 Byte]: The second value of the code defined in the command list (Hexadecimal)

Cmd3 [1 Byte]: The third value of the code defined in the command list (Hexadecimal)

Value [1 Byte]: Input parameter for the command (Default: 0) (Hexadecimal)

CS [1 Byte]: Checksum (the 2's complement of the sum of all the values except for the CS value.)

Response Packet Structure [3 Bytes]

◆ Success			◆ Fail		
0x03	0x0C	0xF1	0x03	0x0C	0xFF

When the received packet from an external device has a valid value, a Success packet is sent. Otherwise, a Fail packet is sent.

A Fail packet is sent if:

- ◆ The received packet length is not equal to 7 bytes.
- ◆ The 2 byte packet header value is not equal to 0x08, 0x22.
- ◆ The checksum is incorrect.

Failure detection by an external device

An external device classifies the packet as Fail if it does not receive a Success packet within 100ms.

Communication Sequence

- ◆ PC
Creates a command packet and sends it through RS232C.
- ◆ DLP DTV
Receives a packet and parses the packet.
Determines whether it is a success or fail, and transmits the Ack packet to the PC.
Controls the DLP DTV with the parsed command.
- ◆ PC
Waits for the Ack packet.
Prepares the next command, if a Success packet arrives immediately.