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

Warning

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN.

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

Class II product : This symbol indicates that a safety connection to electrical earth (ground) is not required.

AC voltage : Rated voltage marked with this symbol is AC voltage.

DC voltage : Rated voltage marked with this symbol is DC voltage.

Caution: Consult instructions for use : This symbol instructs the user to consult the user manual for further safety related information.

- Do not expose this apparatus to rain or place it near water (near a bathtub, washbowl, kitchen sink, or pool, etc.). If this apparatus accidentally gets wet, unplug it and contact an authorized dealer immediately.
- This apparatus uses batteries. In your community, there might be environmental regulations that require you to dispose of these batteries properly. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords, or adaptors beyond their capacity, since this can result in fire or electric shock.
- Route power-supply cords so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at the plug end, at wall outlets, and the point where they exit from the apparatus.
- To protect this apparatus from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure the voltage designation of the DC adaptor corresponds to the local electrical supply.
- Never insert anything metallic into the open parts of this apparatus. Doing so may create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.

• The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.
  - Do not place this apparatus in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
  - Do not place this apparatus near or over a radiator or heat register, or where it is exposed to direct sunlight.
  - Do not place vessels (vases etc.) containing water on this apparatus. A water spill can cause a fire or electric shock.
• Make sure to plug the power cord in until it is firmly seated. When unplugging the power cord from a wall outlet, always pull on the power cord’s plug. Never unplug by pulling on the power cord. Do not touch the power cord with wet hands.

• If this apparatus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.

• Maintenance of Cabinet.
  - Before connecting other components to this product, be sure to turn them off.
  - If you move your product suddenly from a cold place to a warm place, condensation may occur on the operating parts and lens and cause abnormal disc playback. If this occurs, unplug the product, wait for two hours, and then connect the plug to the power outlet. Then, insert the disc, and try to play back again.

• Be sure to pull the power plug out of the outlet if the product is to remain unused or if you are leaving the house for an extended period of time (especially when children, elderly, or disabled people will be left alone in the house).
  - Accumulated dust can cause an electric shock, an electric leakage, or a fire by causing the power cord to generate sparks and heat or the insulation to deteriorate.

• Contact an authorized service center for information if you intend to install your product in a location with heavy dust, high or low temperatures, high humidity, chemical substances, or where it will operate 24 hours a day such as in an airport, a train station, etc. Failing to do so may lead to serious damage to your product.

• Use only a properly grounded plug and wall outlet.
  - An improper ground may cause electric shock or equipment damage. (Class 1 Equipment only)

• To turn this apparatus off completely, you must disconnect it from the wall outlet. Consequently, the wall outlet and power plug must be readily accessible at all times.

• Do not allow children to hang on the product.

• Do not install the product in an unstable location such as a shaky self, a slanted floor, or a location exposed to vibration.

• Do not drop or strike the product. If the product is damaged, disconnect the power cord and contact a Samsung service center.

• To clean this apparatus, unplug the power cord from the wall outlet and wipe the product using a soft, dry cloth. Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air fresheners, lubricants, or detergent. These chemicals can damage the appearance of the product or erase the printing on the product.

• Do not expose this apparatus to dripping or splashing. Do not put objects filled with liquids, such as vases on the apparatus.

• Do not dispose of batteries in a fire.

• Do not plug multiple electric devices into the same wall socket. Overloading a socket can cause it to overheat, resulting in a fire.

• There is danger of an explosion if you replace the batteries used in the remote with the wrong type of battery. Replace only with the same or equivalent type.

• WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES AND OTHER ITEMS WITH OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

• WARNING
  - This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
  - To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.
FCC NOTE (for U.S.A)

Class B FCC Statement
The included module(s) has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:
- Reorienting or relocating the receiving antenna.
- Increasing the separation between the equipment and receiver.
- Connecting the equipment to an outlet that is on a different circuit than the radio or TV.
- Consulting the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated so there is at least 8 inches (20 cm) between the radiator and your body. This device and its antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC Caution:
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

CLASS 1 LASER product
This Compact Disc player is classified as a CLASS 1 LASER product. Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
Complies with 21CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

DANGER:
- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. (FDA 21 CFR)

CAUTION:
- CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO THE BEAM. (IEC 60825-1)
- THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HERIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN THE COVER. DO NOT REPAIR THE PRODUCT YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

NOTE:
- If the Region number of an Ultra HD Blu-ray Disc/Blu-ray Disc/DVD does not correspond to the Region number of this product, the product cannot play the disc.
Precautions

Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below.

Keep these operating instructions handy for future reference.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including AV receivers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug.
   A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where it exits the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
# Contents

## SAFETY INFORMATION
- 2 Warning
- 5 Precautions
- 5 Important Safety Instructions

## GETTING STARTED
- 8 Accessories
- 9 Front and Right Side Panel
- 10 Rear Panel
- 11 Remote Control
- 11 Tour of the Remote Control

## CONNECTIONS
- 13 Connecting to a TV
- 15 Connecting to an Audio Device
  - 15 Method 1 Connecting to an HDMI (HDR) compatible Soundbar / AV receiver that supports pass through
  - 15 Method 2 Connecting to Bluetooth headphones via Bluetooth
  - 15 Method 3 Connecting to an HDMI compatible Soundbar / AV receiver that does not support pass through
  - 15 Method 4 Connecting to a Soundbar / AV receiver with a Digital Optical Cable
- 17 Connecting to a Mobile Device
  - 17 Method 1 Connecting to Mobile Device via Bluetooth
  - 17 Method 2 Connecting to Mobile Device via Wi-Fi (Smart View)
  - 18 Method 3 Connecting to Mobile Device via Wi-Fi (Blu-ray to Mobile)
- 18 Connecting to a Network Router
  - 18 Wireless Network
  - 19 Wired Network

## SETTINGS
- 20 The Initial Settings Procedure
- 20 The Home Screen
- 21 Accessing the Settings Screen
- 21 Buttons on the Remote Control Used for the Settings Menu
- 22 Settings Menu Functions
  - 22 Picture
  - 22 Sound
  - 23 General
  - 25 Support
- 26 Networks and the Internet
- 26 Configuring Your Network Connection
- 29 Upgrading Software
- 30 Update Now
- 30 Auto Update
MEDIA PLAY

31 Playing Commercial Discs
31 Disc Storage & Management
31 Playing Photos, Videos, and Music (Multimedia)
31 Playing Media Content Saved on a USB Device
32 Playing Media Content Saved in a Computer
32 Playing a Disc with User Recorded Content
33 Controlling Video Playback
33 Buttons on the Remote Control used for Video Playback
34 Using the On-screen Menu during Playback of a Video
36 Using the Sort By & Options Menus
36 Controlling Music Playback
36 Buttons on the Remote Control used for Music Playback
37 Using the Options Menu During Playback
37 Using the Sort By & Options Menus on a File Screen
37 Repeating Tracks on an Audio CD
37 Shuffling Tracks on an Audio CD
37 Creating a Playlist from an Audio CD
38 Playing Photo Contents
38 Using the On-screen Menu during Playback of a Photo File
39 Using the Sort By & Options Menus

NETWORK SERVICES

40 Creating a Samsung Account
41 Before Using Apps
41 Using Apps
41 The APPS Screen at a Glance
42 Starting an Application
43 Using the Internet
44 The Web Browser window at a Glance
46 Using the Browser Menu
47 Linking Your Internet Service Accounts to the Product
47 BD-LIVE™

APPENDIX

48 Additional Information
48 Notes
50 Resolution according to the contents type
51 Digital Output Selection
52 Troubleshooting
55 Disc and Format Compatibility
55 Disc types and contents your product can play
55 Disc types your product cannot play
56 Region Code
56 Logos of Discs the product can play
57 Supported Formats
57 Compliance and Compatibility Notice
62 Copy Protection
62 Network Service Disclaimer
63 Licenses
64 Specifications
## Getting Started

### Accessories

Check for the supplied accessories shown below.

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batteries (AA Size)</td>
<td>4301-000101</td>
</tr>
<tr>
<td>Power Cable</td>
<td>3903-001117</td>
</tr>
<tr>
<td>User Manual</td>
<td>AK68-02648A</td>
</tr>
<tr>
<td>Remote Control</td>
<td>AK59-00180A</td>
</tr>
</tbody>
</table>
Front and Right Side Panel

- **POWER BUTTON**
- **OPEN/CLOSE BUTTON**
- **POWER INDICATOR**
  - Red: Power off
  - Green: Power on
- **Green blinking:** Remote control or Front Key input, Software update.
- **DISPLAY**
- **DISC TRAY**
- **REMOTE CONTROL SENSOR**
- **Wi-Fi/BT ANTENNA**
  - Do not place any object near or in front of the antenna to ensure proper operation.
- **USB HOST**
  - Ensure there is sufficient space around the right side of the main unit so you can connect a USB device.

### NOTES
- To upgrade the product’s software through the **USB HOST** jack, you must use a USB memory stick.
- When the product displays an Ultra HD Blu-ray or standard Blu-ray Disc’s menu, you cannot start the movie by pressing the **POWER** button on the remote control. To play the movie, you must select Play Movie or Start in the disc’s menu, and then press the **OK** button on the remote control.
Getting Started

Rear Panel

<table>
<thead>
<tr>
<th>POWER</th>
<th>DIGITAL AUDIO OUT</th>
<th>LAN</th>
<th>HDMI OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. MAIN: outputs audio and video.
2. SUB: outputs audio only.

NOTE:
- To use the Anynet+ (HDMI-CEC) function, connect an HDMI cable to the HDMI 1 terminal. If you connect the cable to the HDMI 2 terminal, the Anynet+ (HDMI-CEC) function will not be available.
Remote Control

| NOTE |
| Previous BD-Player remote controls may not be compatible with this player.

Tour of the Remote Control

- **TV**
  - Turns the TV on and off.

- **Press to open and close the disc tray.**

- **Use to display the number, color or information keypad on the screen.**
  - The color buttons are used both for menus on the player and also several Ultra HD Blu-ray Disc or Blu-ray Disc functions.

- **(OK)**
  - Use to select menu items.

- **(Up/Down/Left/Right)**
  - Move the cursor up, down, left, or right.

- **Return to the previous menu.**

- **Display the home screen.**

- **TV volume adjustment.**

- **After setup, allows you to set the input source on your TV.**

- **Use to enter the disc menu.**

- **Use to enter the Popup menu.**

- **Press to use the Tools menu.**

- **Press to play disc or files.**

- **Press to pause playing.**

- **Press to search backwards or forwards.**

- **Press to skip chapters.**

- **Press to stop a disc or file.**

Inserting Batteries (AA Battery x2)

Slide the battery cover in the direction of the arrow until it is completely removed.

Insert 2 AA batteries (1.5V) in the correct +/- polarity configuration. Slide the battery cover back into position.
Using Remote Control Buttons to Enter TV Codes

1. Press and hold the TV Power button.

2. While holding the TV Power button, press the buttons on the remote that correspond to a two-digit TV Code from the list below. Use the illustration to the right as a guide.

For example: To enter 01, press the TOOLS button and then press the 123 button. Note that some TV brands have more than one 2-digit code. If the first code does not work, try the next.

**TV Control Codes**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMSUNG</td>
<td>01, 02, 03, 04, 05, 06, 07, 08, 09</td>
</tr>
<tr>
<td>AIWA</td>
<td>82</td>
</tr>
<tr>
<td>ANAM</td>
<td>10, 11, 12, 13, 14, 15, 16, 17, 18</td>
</tr>
<tr>
<td>BANG &amp; OLUFSEN</td>
<td>57</td>
</tr>
<tr>
<td>BLAUPUNKT</td>
<td>71</td>
</tr>
<tr>
<td>BRANDT</td>
<td>73</td>
</tr>
<tr>
<td>BRIONVEGA</td>
<td>57</td>
</tr>
<tr>
<td>CGE</td>
<td>52</td>
</tr>
<tr>
<td>CONTINENTAL EDISON</td>
<td>75</td>
</tr>
<tr>
<td>DAEWOO</td>
<td>19, 20, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34</td>
</tr>
<tr>
<td>EMERSON</td>
<td>64</td>
</tr>
<tr>
<td>FERGUSON</td>
<td>73</td>
</tr>
<tr>
<td>FINLUX</td>
<td>06, 49, 57</td>
</tr>
<tr>
<td>FORMENTI</td>
<td>57</td>
</tr>
<tr>
<td>FUJITSU</td>
<td>84</td>
</tr>
<tr>
<td>GRADIENTE</td>
<td>70</td>
</tr>
<tr>
<td>GRUNDIG</td>
<td>49, 52, 71</td>
</tr>
<tr>
<td>HITACHI</td>
<td>60, 72, 73, 75</td>
</tr>
<tr>
<td>IMPERIAL</td>
<td>52</td>
</tr>
<tr>
<td>JVC</td>
<td>61, 79</td>
</tr>
<tr>
<td>LG</td>
<td>06, 19, 20, 21, 22, 23, 78</td>
</tr>
<tr>
<td>LOEWE</td>
<td>06, 69</td>
</tr>
<tr>
<td>LOEWE OPTA</td>
<td>06, 57</td>
</tr>
<tr>
<td>MAGNAVOX</td>
<td>40</td>
</tr>
<tr>
<td>METZ</td>
<td>57</td>
</tr>
<tr>
<td>MITSUBISHI</td>
<td>06, 48, 62, 65</td>
</tr>
<tr>
<td>MIVAR</td>
<td>52, 77</td>
</tr>
<tr>
<td>NEC</td>
<td>83</td>
</tr>
<tr>
<td>NEWSAN</td>
<td>68</td>
</tr>
<tr>
<td>NOBLEX</td>
<td>66</td>
</tr>
<tr>
<td>NOKIA</td>
<td>74</td>
</tr>
<tr>
<td>NORDMENDE</td>
<td>72, 73, 75</td>
</tr>
<tr>
<td>PANASONIC</td>
<td>13, 53, 54, 74, 75</td>
</tr>
<tr>
<td>PHILIPS</td>
<td>06, 56, 57</td>
</tr>
<tr>
<td>PHONOLA</td>
<td>72, 73, 75</td>
</tr>
<tr>
<td>PIONEER</td>
<td>58, 59, 73, 74</td>
</tr>
<tr>
<td>RADIOLA</td>
<td>06, 56</td>
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<tr>
<td>RADIOMARELLI</td>
<td>57</td>
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<tr>
<td>RCA</td>
<td>45, 46</td>
</tr>
<tr>
<td>REX</td>
<td>74</td>
</tr>
<tr>
<td>SABA</td>
<td>57, 72, 73, 74, 75</td>
</tr>
<tr>
<td>SALORA</td>
<td>74</td>
</tr>
<tr>
<td>SANYO</td>
<td>41, 42, 43, 44, 48</td>
</tr>
<tr>
<td>SCHNEIDER</td>
<td>06</td>
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<tr>
<td>SELECO</td>
<td>74</td>
</tr>
<tr>
<td>SHARP</td>
<td>36, 39, 39, 39, 48</td>
</tr>
<tr>
<td>SIEMENS</td>
<td>71</td>
</tr>
<tr>
<td>SINGER</td>
<td>57</td>
</tr>
<tr>
<td>SINUDYNE</td>
<td>57</td>
</tr>
<tr>
<td>SONY</td>
<td>35, 48</td>
</tr>
<tr>
<td>TELEAVA</td>
<td>73</td>
</tr>
<tr>
<td>TELEFUNKEN</td>
<td>67, 73, 75, 76</td>
</tr>
<tr>
<td>THOMSON</td>
<td>72, 73, 75</td>
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<tr>
<td>THOMSON ASIA</td>
<td>80, 81</td>
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<tr>
<td>TOSHIBA</td>
<td>47, 48, 49, 50, 51, 52</td>
</tr>
<tr>
<td>WEGA</td>
<td>57</td>
</tr>
<tr>
<td>YOKO</td>
<td>06</td>
</tr>
<tr>
<td>ZENITH</td>
<td>63</td>
</tr>
</tbody>
</table>
Connecting to a TV

Connect an HDMI cable (not supplied) from the **HDMI OUT** jack on the back of the product to the **HDMI IN** jack on your TV.

- Do not connect the power cord to the wall outlet until you have made all the other connections.
- When you change the connections, turn off all devices before you start.

| NOTES |

- Optimum picture quality is automatically obtained (**HDMI UHD Color** - **On**) when the player is connected to a Samsung UHD TV.

- To use the **Anynet+ (HDMI-CEC)** function, connect the HDMI cable to the HDMI 1 terminal. If you connect the cable to the HDMI 2 terminal, the **Anynet+ (HDMI-CEC)** function will not be available.
  - The HDMI 2 terminal does not output a video signal.

- If you use an HDMI-to-DVI cable to connect to your display device, you must also connect the **DIGITAL AUDIO OUT** on the product to an audio system to hear audio.

- An HDMI to HDMI cable outputs digital video and audio, so you don’t need to connect an audio cable.

- Depending on your TV, certain HDMI output resolutions may not work. Please refer to the user manual of your TV.

- When you connect the product to your TV using an HDMI cable or to a new TV, and then turn it on for the first time, the product automatically sets the HDMI output resolution to the highest supported by the TV.

- A long HDMI cable may cause screen noise. If this occurs, set **HDMI Deep Color** to **Off** in the menu.

- To view video in the HDMI 720p, 1080p, or 2160p output mode, you must use a high speed (category 2) HDMI cable.
Connections

- HDMI outputs only a pure digital signal to the TV. If your TV does not support HDCP (High-bandwidth Digital Content Protection), random noise appears on the screen.

- If your TV does not support HDCP (High-bandwidth Digital Content Protection) version 2.2, some Ultra HD Blu-ray titles may play at the 1080p resolution.
  - This action is regulated by the Ultra HD Blu-ray Disc content’s copyright protection standard according to the producer’s intention to avoid infringing the copyright.
  - To view video from a Ultra HD Blu-ray Disc at its original resolution, connect the HDMI cable to an HDMI input port on the TV that supports HDCP 2.2.
  - To check whether the TV supports HDCP 2.2, check the HDMI port on the back of the TV or refer to the TV user’s manual.

- This product supports the HDR function. (HDR: High Dynamic Range is a technique used to reproduce a greater dynamic range of luminosity than is possible with conventional imaging devices.)
  - To take advantage of the HDR function, you need HDR content, a TV supporting HDR, and a high-speed HDMI cable.
  - Connect the player to an HDMI input terminal on the TV that supports the HDR function using the high speed HDMI cable.
  - Use the TV’s menu to activate the HDR related function. For further information, refer to the TV’s user manual.
Connecting to an Audio Device

You can connect this product to an audio system using the methods illustrated below.
- Do not connect the power cord to the wall outlet until you have made all the other connections.
- When you change the connections, turn off all devices before you start.

**Method 1** Connecting to an HDMI (HDR) compatible Soundbar / AV receiver that supports pass through

- Connect an HDMI cable (not supplied) from the **HDMI OUT 1** jack on the back of the product to the **HDMI IN** jack on your receiver. Connect another HDMI cable from the **HDMI OUT** jack of your receiver to the **HDMI IN** jack of your TV.
- Your receiver must have 4K pass through capability to pass through UHD video content.

![Diagram showing connections](image)

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>If AACS 2.0 was applied to the contents that you want to play, the contents may not be displayed on the screen depending on the AV receiver connected. For more detailed information, refer to the user manual of your AV receiver.</td>
</tr>
</tbody>
</table>

**Method 2** Connecting to Bluetooth headphones via Bluetooth

- Connect the main unit to Bluetooth headphones via Bluetooth. Use the main unit to set the sound output to the Bluetooth headphones, and then listen to the sound via the headphones.

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>To use this function, <strong>Sound Mirroring</strong> should be <strong>Off</strong> in the <strong>Settings</strong> menu. (Default : <strong>Off</strong>)</td>
</tr>
</tbody>
</table>

![Bluetooth connection diagram](image)
### Method 3 Connecting to an HDMI compatible Soundbar / AV receiver that does not support pass through

- Connect an HDMI cable (not supplied) from the HDMI OUT 1 jack on the back of the product to the HDMI IN jack on your TV. Connect another HDMI cable from the HDMI OUT 2 jack on the product to the HDMI IN jack on your receiver.

### Method 4 Connecting to a Soundbar / AV receiver with a Digital Optical Cable

- Using a digital Optical cable (not supplied), connect the DIGITAL AUDIO OUT jack on the product to the DIGITAL AUDIO IN jack of the receiver.
- You will hear sound only through the front two speakers with Digital Output set to PCM.

| CAUTION |

- Do not connect the HDMI OUT 1 and HDMI OUT 2 terminals of the product together with an HDMI cable.

| NOTE |

- If you connect a receiver to the player's DIGITAL AUDIO OUT port, the receiver's audio reproduction may not synchronize with that of the TV.
Connecting to a Mobile Device

**Method 1 Connecting to Mobile Device via Bluetooth**

Connect a mobile device to the player via Bluetooth to play music from the mobile device.

1. Use an HDMI or optical cable to connect the player to a receiver or audio device.

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music from the mobile device will not be audible if the cable used to connect the player is not an HDMI or optical cable.</td>
</tr>
</tbody>
</table>

2. On the Home screen, select **Settings > Sound**, and then set **Sound Mirroring** to **On**. (Default: **Off**)

3. Find the player’s device name. (Navigate to **Settings > General > System Manager > Device Name**.)

4. On the mobile device, use the Bluetooth app to search for the player’s device name. Select the player’s device name to connect to the player via Bluetooth.

5. When a connection is established, play music from the mobile device. Music is played via the receiver or audio device connected to the player.

**Method 2 Connecting to Mobile Device via Wi-Fi (Smart View)**

The **Smart View** function lets you view the screen of your mobile device or Android tablet on a TV that you have connected to the player.

1. On the Home screen, select **Source**, and then press the Up button.

2. Select **Connection Guide**, and then press the (OK) button.

3. Launch **Smart View** on your mobile device.

4. On your mobile device, find the name of the player in the list of available devices, and then select it.

5. The TV displays a connecting message (for example, Connecting to Android_92gb...) and then displays the connected message.

6. In a few moments, the screen of your device appears on the TV screen.

7. To stop **Smart View**, press (Return) on the remote control or exit **Smart View**.

<table>
<thead>
<tr>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you are using the <strong>Smart View</strong> function, video stuttering or audio dropouts may occur, depending on your environment.</td>
</tr>
<tr>
<td>Bluetooth transmissions can interfere with the Smart View signal. Before using the <strong>Smart View</strong> function, we strongly recommend that you turn off the Bluetooth function on your mobile device or smart device (tablet, etc.).</td>
</tr>
<tr>
<td>If your wireless router (Wi-Fi) uses a DFS channel, you cannot use this function. Contact your Internet service provider for details.</td>
</tr>
</tbody>
</table>
Connections

Method 3 Connecting to Mobile Device via Wi-Fi (Blu-ray to Mobile)

The Blu-ray to mobile function lets you view the content your player is playing on a mobile device or Android tablet that you have connected to the player.

1. On the player, get the player’s device name. (Navigate to Settings > General > System Manager > Device Name.)
2. Start Samsung Connect on the mobile device. In the list that appears, find the player’s device name. (You may need to run Scan for Devices.)
3. Select the player’s device name. In the drop down list that appears below it, select “TV to mobile device” (or “BD to mobile device”).
4. The mobile device displays a connecting message. The TV displays a permission request. Select Allow using the player’s remote.

| NOTE |
- After you select Allow the first time, you will not need to select Allow again unless you cancel permission.
5. In a few moments, the content being played by the player appears on the mobile device’s screen.
6. To stop the Blu-ray to mobile function, press ↪ (Return) on the mobile device twice.

| NOTES |
- Samsung Connect can be referred to as ‘Blu-ray to Mobile’, depending on the mobile device model. (Supported by Samsung only.)
- If your wireless router (Wi-Fi) uses a DFS channel, you cannot use this function. Contact your Internet service provider for details.

Connecting to a Network Router

You can connect your product to your network router using one of the methods illustrated below. The connection can be wireless or wired.

Wireless Network

| NOTES |
- If your wireless router supports DHCP, this product can use a DHCP or static IP address to connect to the wireless network.
- Set your wireless router to Infrastructure mode. Ad-hoc mode is not supported.
- The product supports only the following wireless security key protocols:
  - WEP (OPEN/SHARED), WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES)
- Select a channel on the wireless router that is not currently being used. If the channel set for the wireless router is currently being used by another device nearby, it will result in interference and communication failure.
- If you select the Pure High-throughput (Greenfield) 802.11n mode and set the Encryption type on your router to WEP, TKIP or TKIP-AES (WPS2Mixed), the product will not support a connection in compliance with new Wi-Fi certification specifications.
Wireless LAN, by its nature, may cause interference, depending on the operating conditions (router performance, distance, obstacles, interference by other radio devices, etc.).

**Wired Network**

<table>
<thead>
<tr>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your router or your Internet Service Provider’s policies may prevent the product from accessing Samsung’s software update server. If this occurs, contact your Internet Service Provider (ISP) for more information.</td>
</tr>
<tr>
<td>DSL users, please use a router to make a network connection.</td>
</tr>
<tr>
<td>Use Cat 7 (<em>STP Type) cable for the connection. (</em> Shielded Twisted Pair)</td>
</tr>
</tbody>
</table>
The Initial Settings Procedure

- The Home screen will not appear if you do not configure the initial settings.
- The OSD (On Screen Display) may change in this product after you upgrade the software version.
- The access steps may differ depending on the menu you selected.

After you have connected the product to your TV, turn on the TV and product. When you turn on the product the first time, the product’s Initial Settings screen appears on the TV. The Initial Settings procedure lets you set the On Screen Display (OSD) and menu languages, the aspect ratio (screen size), and network configuration, and connect the player to the Internet. Follow the directions on the screen.

| NOTES |
- If you skip Network Setup during the Initial Settings procedure, you can configure your network settings later. See “Configuring Your Network Connection” on pages 26–29 for instructions.
- If you want to display the Initial Settings screen again and make changes, select Settings > General > Start Setup in the Home screen or select Settings > Support > Reset. (See page 25)
- If you want to use the Anynet+ (HDMI-CEC) function, please follow the instructions below.
  1) Connect the product to an Anynet+ (HDMI-CEC)-compliant Samsung TV using an HDMI Cable.
  2) Set the Anynet+ (HDMI-CEC) feature to On in both the TV and the product.
  3) Set the player to the Initial Settings Procedure.

The Home Screen

- **Settings** : Opens the product’s menu. In the menu, you can set various functions to suit your personal preferences. When you move focus to the Settings menu, the Quick Settings menu appears. Use the menu to customize various options, such as Picture Mode, Fit Screen Size, Sound Output, Audio Output Format, and Network.
- **Source** : Select an inserted disc or USB storage device, a connected network device, or Smart View.
- **Search** : Lets you search for content in Apps and YouTube by entering corresponding search words.
- **APPS** : Access various for pay or free-of-charge applications.

| 1 | Disc : Displays the selected source. |
| 2 | Downloaded Apps : Displays downloaded apps. Apps displayed here can be deleted, edited, or rearranged, if necessary. |
| 3 | You can access the Internet. |
| 4 | Use the Add to Home option to add frequently used menu items to the bottom of the Home screen. |
| NOTE |

- If you leave the player in the stop mode for more than 5 minutes without using it, a screen saver will appear on your TV. If the player is left in the screen saver mode for more than 15 minutes, the power will automatically turn off.

Accessing the Settings Screen

1. Select **Settings** on the Home screen, and then press (OK) button. The **Settings** screen appears.

2. To access the menus, sub-menus, and options on the **Settings** screen, please refer to the remote control illustration in the next column.

Buttons on the Remote Control Used for the Settings Menu

- **(OK) button**: Press to activate the currently selected item or confirm a setting.
- **(Up/Down/Left/Right) buttons**: Press to move the cursor or select an item.
- **(Return) button**: Press to return to the previous menu.
- **(Home) button**: Press to move to the Home screen.

Detailed Function Information

Each Settings function, menu item, and individual option is explained in detail on-screen. To view an explanation, use the **Up/Down/Left/Right** buttons to select the function, menu item, or option. The explanation will usually appear on the right side of the screen.

A short description of each Settings function starts on the next page. Additional information on some of the functions is also in the Appendix of this manual.
Settings

Settings Menu Functions

Picture

TV Aspect Ratio
Lets you adjust the output of the product to the screen size and screen format of your TV.

Resolution
Set the output resolution of the HDMI video signal to Auto, 2160p, 1080p, 720p, or 480p.
The number indicates the number of lines of video per frame. Generally, the more lines, the higher the quality.

Movie Frame (24p)
If the product is connected to a 24p compatible TV, setting the Movie Frame (24p) feature to Auto lets the product adjust its HDMI output to 24 frames per second automatically for improved picture quality.
- You can enjoy the Movie Frame (24p) feature only on a TV supporting this frame rate.
- The Movie Frame (24p) feature becomes active only if the player is playing 24 frame rate contents.
- Movie Frame is only available when the product is in the HDMI 1080p or 2160p output resolution modes.

Fit Screen Size
Set the screen to the optimal size.

HDMI Color Format
Lets you set the color space format for the HDMI output so that it matches the capabilities of the connected device (TV, monitor, etc). The screen goes black momentarily after you have selected a format.

HDMI Deep Color
Lets you set the product to output HDMI video with Deep Color. Deep Color provides more accurate color reproduction with greater color depth.

HDR to SDR
Lets you set the gamma level when watching video converted from HDR to SDR.

Sound

Sound Output
Lets you select which speakers are active. Select an audio device from the list.

Wi-Fi Speaker Surround Setup
Connect the Samsung Soundbar to wireless speakers via Wi-Fi to configure a stereo or surround sound system.

| NOTE |
- If your wireless router (Wi-Fi) uses a DFS channel, you cannot make a surround connection using Wi-Fi. Contact your Internet service provider for details.

Audio Output Format
Lets you select the digital audio output format (HDMI) that is suitable for your AV Receiver.

| NOTE |
- If the player is connected to an ATMOS Soundbar with Auto on, the sound option automatically switches to Bitstream.

Audio Output Format (Optical)
Lets you select the digital audio output format (Optical) that is suitable for your AV Receiver.
PCM Downsampling

Lets you choose to have 96kHz PCM signals downsampled to 48kHz before they are outputted to an amplifier. Turn on PCM Downsampling if the amplifier or receiver is not compatible with 96kHz signal.

Dynamic Range Control

Lets you apply dynamic range control to Dolby Digital, Dolby Digital Plus, and Dolby TrueHD audio.

✓ Auto : Automatically controls the dynamic range of Dolby TrueHD audio, based on information in the Dolby TrueHD soundtrack. Also turns dynamic range control on for Dolby Digital and Dolby Digital Plus.
✓ Off : Leaves the dynamic range uncompressed, letting you hear the original sound.
✓ On : Turns dynamic range control on for all three Dolby formats. Quieter sounds are made louder and the volume of loud sounds is reduced.

Downmixing Mode

Lets you select the multi-channel downmix method that is compatible with your stereo system. You can choose to have the product downmix to normal stereo or to surround compatible stereo.

DTS Neo:6 Mode

You can enjoy multichannel sound via HDMI output from a 2 channel audio source.

Audio Sync

In some cases, when the product is connected to a digital TV, the audio signal may not synchronize with the video signal. If this occurs, adjust the audio delay time to match the video signal.
- You can set the audio delay time between 0 ms and 240 ms. Adjust it to the optimal setting.

| NOTES |
- The audio delay time you specify may not be exact depending on the content played.
- This function can be used when playing Optical Disc format contents.

Sound Mirroring

If your player is connected to a receiver or Soundbar via HDMI or Optical, you can share audio originating on a mobile device and listen to the audio on the speakers of the connected receiver or Soundbar.

General

Network

✓ Network Status : Lets you check the current network and Internet status.
✓ Network Settings : Configure the network connection so you can enjoy various features such as Internet services, and perform Software Updates.
✓ BD-Live Settings : Set various BD-Live functions. BD-Live allows you to access extra features available on some Ultra HD Blu-ray Discs or Blu-ray Discs if you are connected to the Internet.
  - BD-Live Internet Connection : Lets you fully allow, partly allow, or prohibit a BD-Live Internet connection.
  - BD Data Management : Manage BD data downloaded from a BD-Live service or Ultra HD Blu-ray Disc/Blu-ray Disc.

| NOTE |
- To use BD-Live Settings function, connect the USB storage device first, and then select it from the BD Data Management menu.
You can change the options listed below to match your preferences.

Language: You can select the language you prefer for the Onscreen menu, disc menu, audio, subtitles, etc.
- The language you select for the disc menu, disc audio, or subtitles will only appear if it is supported on the disc.

Device Name: Lets you input a name for the product that will identify it on your network.

View Notifications: You can view the list of event messages generated by the player.

Samsung Account: Create and manage your own Samsung account. To create a Samsung account select: Settings > General > System Manager > Samsung Account > Create Account. Some of the Smart Hub services are paid services.

Security: The default security PIN is 0000. Enter the default PIN to access the security function if you haven’t created your own PIN. After you have accessed the security function for the first time, change the PIN using the Change PIN function.
- BD Parental Rating: Prevents playback of Ultra HD Blu-ray Discs or Blu-ray Discs with a rating equal to or above a specific age rating you have set unless you enter the PIN.
- DVD Parental Rating: Prevents playback of DVDs with a rating above a specific numerical rating you have set unless you enter the PIN.
- Change PIN: Change the 4-digit PIN used to access security functions.

If you forget your PIN:
1. Remove any disc or USB storage device.

2. Press and hold the ▲ (Open/Close) button on the front panel for 5 seconds or more. The initialization message appears on the screen, and the power will turn off automatically. When you turn your product on again, all the settings will be reset.

WoL/WoWLAN: Turn on or turn off the WOL (Wake on LAN) or WoWLAN (Wake on Wireless LAN) function.

External Device Manager

Anynet+ (HDMI-CEC): Anynet+ is a convenient function that offers linked operations with other Samsung products that have the Anynet+ feature and lets you control those products with one Samsung TV remote. To operate this function, you must connect this product to an Anynet+ Samsung TV using an HDMI cable.

Keyboard Manager: Set the language and type for a keyboard connected via USB.

NOTES
- You can use the keyboard only when a QWERTY keyboard screen or window appears in the Web Browser.
- Some USB HID keyboards and mice may not be compatible with this player.
- Some HID keyboard keys may not work.
- Wired USB keyboards are not supported.
- Some applications may not be supported.
- If a wireless HID Keyboard does not operate because of interference, move the keyboard closer to the player.

Device Connect Manager: Lets you control which devices on your network, such as mobile device and tablets, can share content with this player.
Allowing a Connection with a Mobile Device
To play the media content stored on a mobile device, you must allow the connection between the mobile device and the product.
Navigate to Settings > General > External Device Manager > Device Connect Manager > Device list. The mobile devices connected to the same network as the product are listed.

1. Select content to play from the mobile device. (Refer to "Connecting to a Mobile Device" on page 17.)

| NOTE |
- Smart View can be referred to as Screen Mirroring or Miracast, depending on the mobile device manufacturer.

2. A notification message appears at the top of the TV screen when the mobile device attempts to connect to the player. Select Allow. You can only play media files from devices that have been allowed to connect to the product.

| NOTE |
- If you do not want to display a notification message when a mobile device attempts to connect, set Device Connect Manager > Access Notification to Off.

3. Play content from the mobile device.

4. The TV connected to the player displays content files saved on the mobile device.

| NOTE |
- If you switch the mobile device screen during playback, connection to the product is terminated.

Accessibility

✓ Voice Guide Settings: You can activate voice guides that describe the menu options aloud to aid the visually impaired.
✓ Caption Settings: The function is used for VOD playback that supports closed caption display. Use it to change the displayed caption’s font color and size.

| NOTES |
- This function does not work with VOD services that don’t support closed caption display.
- For certain VOD services, the function’s settings may not be applied.
✓ High Contrast: Set up the background and font in high contrast color in Apps (Smart Hub) and Multimedia.
✓ Enlarge: Set whether to enlarge the highlighted item in Apps (Smart Hub) and Multimedia.

Start Setup
Lets you re-run the Initial Settings procedure.

Support

Software Update
This menu allows you to upgrade the product’s software for performance improvements or additional services.

Reset Smart Hub
Resets all Smart Hub settings to their default settings. To use, you must enter the security PIN. The default security PIN is 0000.

Reset
Resets all settings to their default settings except for the network and Smart Hub settings, and then starts the Setup function. To use, you must enter the security PIN. The default security PIN is 0000.
Remote Management

When activated, lets Samsung Call Center agents diagnose and fix problems with this player remotely. Requires an active Internet connection.

| NOTES |
- Remote Management service might not be available in some countries.
- To use Remote Management:
  1. Call the Samsung Contact Center and ask for remote support.
  2. Open the player’s menu on your TV and go to the Support section.
  3. Select Remote Management, and then read and agree to the service agreements. When the PIN screen appears, provide the PIN number to the agent.
  4. The agent accesses this player.

About This Device

Provides contact information for assistance with your product.

Terms & Policy

You must review and agree to both the App Terms & Conditions and the privacy policy to use App services.

Networks and the Internet

When you connect this product to a network, you can use network based applications and functions such as Smart Hub and BD-LIVE, and upgrade the product’s software through the network connection. For more information about accessing and using Internet services, see the Network Services chapter of this manual on pages 40–47. Instructions for configuring the network connection start below.

Configuring Your Network Connection

Before you begin, determine if your IP address is static or dynamic. (Most are dynamic.) If it is dynamic, and you have a wired or wireless network, we recommend using the Automatic configuration procedures described below.

If you are connecting to a wired network, connect the product to your router using a LAN cable before you start the configuration procedure. If you are connecting to a wireless network, disconnect any wired network connections before you begin.

| NOTE |
Use Quick Settings > Network on the Home screen to simplify the network configuration process.

To begin configuring your network connection, follow these steps:

Wired Network

1. In the Home screen, select Settings, and then press the (OK) button.
2. Select General, and then press the (OK) button.
3. Select Network, and then press the (OK) button.
4. Select Network Settings, and then press the (OK) button.
5. Select Wired in the Network Type screen, and then press the (OK) button.
6. The product detects the wired connection, verifies the network connection, and then connects to the network.

7. Press the (OK) button.

Wireless - Automatic

1. In the Home screen, select Settings, and then press the (OK) button.
2. Select General, and then press the (OK) button.
3. Select Network, and then press the (OK) button.
4. Select Network Settings, and then press the (OK) button.
5. Select Wireless in the Network Type screen, and then press the (OK) button.

6. Select the desired network, and then press the (OK) button.

7. Repeat Steps 5 and 6 until you have filled in all parameters.

NOTE

- You can get the Network parameters from your Internet provider.
- Alternatively, select Add Network at the bottom of the wireless network list to establish a connection. This method can be used when you know the SSID (name) of the wireless router.

Wireless - Manual

If you have a static IP address or the Automatic procedure does not work, you'll need to set the Network Settings values manually.

Follow Steps 1 through 3 in Wired - Automatic, and then follow these steps:

1. Select Network Status. The product searches for a network, and then displays the connection failed message.
2. On the bottom of the screen, select IP Settings, and then press the (OK) button. The IP Settings screen appears.
3. Select the IP Settings field, and then press the (OK) button.
4. Select Enter manually in the IP Settings field, and then press the (OK) button.
5. Select a parameter to enter (IP Address, for example), and then press the (OK) button. Use the Up/Down buttons on the remote control to enter the numbers for the parameter. Use the Left/Right buttons on the remote control to move from entry field to entry field within a parameter. When done with one parameter, press the (OK) button.
6. Press the Up or Down button to move to another parameter, and then enter the numbers for that parameter following the instructions in Step 5.
7. Repeat Steps 5 and 6 until you have filled in all parameters.
7. On the Security screen, enter your network's Security Code or Pass Phrase. Enter letters by selecting a letter with an arrow button, and then pressing \( \text{OK} \) button.

| NOTE |
- To view the password as you enter it, use the arrow buttons to select Show Password on the right side, and then press \( \text{OK} \) button.

8. When finished, select Done and then press the \( \text{OK} \) button. The product verifies the network connection and then connects to the network.

9. When verification is complete, select OK, and then press the \( \text{OK} \) button.

| NOTE |
- You should be able to find the Security Code or Pass Phrase on one of the set up screens you used to set up your router or modem.

**Wireless - Manual**

If you have a static IP address or the Automatic procedure does not work, you’ll need to set the Network Settings values manually.

1. Follow the directions in Wireless - Automatic through Step 6.

2. The product searches for a network, and then displays the connection failed message.

3. On the bottom of the screen, select IP Settings, and then press the \( \text{OK} \) button. The IP Settings screen appears.

4. Select the IP Settings field, and then press the \( \text{OK} \) button.

5. Select Enter manually in the IP Settings field, and then press the \( \text{OK} \) button.

6. Select a parameter to enter (IP Address, for example), and then press the \( \text{OK} \) button. Use the Left/Right buttons on the remote control to enter the numbers for the parameter. Use the Left/Right/\( \text{OK} \) buttons on the remote control to move from entry field to entry field within a parameter. When done with one parameter, select Done.

7. Press the Up or Down button to move to another parameter, and then enter the numbers for that parameter following the instructions in Step 6.

8. Repeat Steps 6 and 7 until you have filled in all parameters.

| NOTE |
- You can get the Network parameters from your Internet provider.

9. When finished, select OK, and then press the \( \text{OK} \) button. The Security Screen appears.

10. On the Security screen, enter your network's Security Code or Pass Phrase. Enter letters by selecting a letter with the Up/Down/Left/Right buttons, and then press the \( \text{OK} \) button.

11. When finished, select Done at the right of the screen, and then press the \( \text{OK} \) button. The product verifies the network connection and then connects to the network.

12. After the product verifies the network, select OK, and then press the \( \text{OK} \) button.

**WPS(PBC)**

1. In the Home screen, select Settings, and then press the \( \text{OK} \) button.

2. Select General, and then press the \( \text{OK} \) button.

3. Select Network, and then press the \( \text{OK} \) button.

4. Select Network Settings, and then press the \( \text{OK} \) button.

5. Select Wireless in the Network Type screen, and then press the \( \text{OK} \) button. The product searches for and then displays a list of the available networks.

6. Press the Down button on your remote, and then press the \( \text{OK} \) button to select Use WPS. The "Press the WPS or PBC button on your wireless router within the next two minutes." message appears.
7. Press the WPS or PBC button on your router within two minutes. Your product automatically acquires all the network settings values it needs and connects to your network.

**WPS(PIN)**

Before you begin, open the router's setup menu on your PC and access the screen with the **WPS PIN** entry field.

1. In the Home screen, select **Settings**, and then press the OK button.
2. Select **General**, and then press the OK button.
3. Select **Network**, and then press the OK button.
4. Select **Network Settings**, and then press the OK button.
5. Select **Wireless** in the **Network Type** screen, and then press the OK button. The product searches for and then displays a list of the available networks.
6. Select the desired network, and then press the OK button.
7. Select the **WPS(PIN)**, and then press the OK button. The PIN pop-up appears.
8. Enter the PIN into the **WPS PIN** entry field in the router’s Set Up screen, and then save the screen.

**NOTES |**
- Contact the manufacturer of the router for instructions explaining how to access the router’s set up screens or refer to the router’s user’s manual.
- For a WPS connection, set your wireless router’s security encryption method to AES. WPS connections do not support WEP security encryption.

### Upgrading Software

This menu allows you to upgrade the product’s software for performance improvements or additional services.

- Never turn the product off or back on manually during the update process.

1. In the Home screen, select **Settings**, and then press the OK button.
2. Select **Support**, and then press the OK button.
3. Select **Software Update**, and then press the OK button.
4. To download update software and update now, select **Update Now**, and then press the OK button.
5. To let the product download update software automatically when available, select **Auto Update**, and then press the OK button. See “Auto Update” in the next column for details.

**NOTES |**
- The upgrade is complete when the product turns off, and then turns on again by itself.
- Samsung Electronics takes no legal responsibility for any product malfunction caused by an unstable Internet connection or consumer negligence during a Software Update.
- If you want to cancel the upgrade while the upgrade software is downloading, press the OK button.
Update Now

1. Select Support > Software Update > Update Now.
2. An online update function downloads and installs the update software directly from the Internet.
   - This option requires an Internet connection.

| NOTES |
- When the system update is done, check the software details in the Product Information section of the Contact Samsung screen.
- Do not turn off the product during the Software Update. It may cause the product to malfunction.

Auto Update

You can set the Auto Update function so that the product downloads new upgrade software when it is in Auto Update mode. This allows the product to download upgrade software automatically, when you are not using it.

1. Press the Up/Down buttons to select Auto Update, and then press the (OK) button.
2. The function turns on or off each time the (OK) button is pressed.

| NOTE |
- To use the Auto Update function, your product must be connected to the Internet.

Update by USB

To upgrade by USB, follow these steps:

2. Click SUPPORT on the top right of the page.
3. Enter the product’s model number into the search field displayed on the screen. As you enter the model number, a drop down will display products that match the model number.
4. Click your product’s model number in the drop down list.

5. On the page that appears, scroll down to Product info.
6. Find Upgrade File(USB type) under Downloads.
7. Click DOWNLOAD.
8. On the page that appears, click CONTINUE.
9. The “End User License Agreement and Privacy Policy” window appears. If you agree, select the checkbox and click I ACCEPT. The download begins.
10. When the download is done, unzip the zip archive to your computer. You should have a single folder with the same name as the zip file.
11. Copy the folder to the top level folder of a USB flash drive.
12. Make sure no disc is inserted in the product, and then insert the USB flash drive into the USB port of the product.
13. In the product’s menu, go to Settings > Support > Software Update.
14. Select Update Now.
15. The product searches for the software on the USB drive. When it finds the software, the Update Request pop-up appears.
16. Select (OK). The product upgrades the software, turns off, and then turns on automatically.

| NOTES |
- There should be no disc in the product when you upgrade the software using the USB jack.
- When the system upgrade is done, check the software details in the Product Information section of the Contact Samsung screen.
- Do not turn off the product during the Software Update. It may cause the product to malfunction.
- Software Updates using the USB jack must be performed with a USB flash memory stick only.
Your Ultra HD Blu-ray Player can play content located on Ultra HD Blu-ray/Blu-ray/DVD/CD discs, USB devices, PCs, and on the Web. To play content located on your PC, you must connect the PC and the product to your network.

### Playing Commercial Discs

1. Press the ▲ button to open the disc tray.
2. Place a disc gently into the disc tray with the disc’s label facing up.
3. Press the ▲ button to close the disc tray. Playback starts automatically.
4. If playback does not start automatically, press the ▲ (Home) button, select **Play Disc** of the Home screen, and then press the ● (OK) button on the remote.

### Disc Storage & Management

- **Holding Discs**
  - Fingerprints or scratches on a disc may reduce sound and picture quality or cause skipping.
  - Avoid touching the surface of a disc where data has been recorded.
  - Hold the disc by the edges so that fingerprints will not get on the surface.
  - Do not stick paper or tape on the disc.

- **Cleaning Discs**
  - If you get fingerprints or dirt on a disc, clean it with a mild detergent diluted in water and wipe with a soft cloth.
  - When cleaning, wipe gently from the inside to the outside of the disc.

- **Disc Storage**
  - Do not keep in direct sunlight.
  - Keep in a cool ventilated area.
  - Keep in a clean protective jacket and store vertically.

### Playing Photos, Videos, and Music (Multimedia)

You can play media content saved on a USB device, or computer on the product.

<table>
<thead>
<tr>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ You cannot play media content if the content or the storage device is not supported by the product.</td>
</tr>
<tr>
<td>▶ Backup important files before connecting a USB device. Samsung is not responsible for damaged or lost files.</td>
</tr>
</tbody>
</table>

### Playing Media Content Saved on a USB Device

1. Connect your USB device to the product.
2. Press the ▲ (Home) button. Select ▶ (Source), and then **USB Storage**. The folders and files in the USB device are listed.
3. Select the media content you want to play from the list. The media content plays.
4. To exit, press the ■ (Stop) button or ◄ (Return) button.

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ When connected to a USB device, the screen displays a message at the top. To view content files on the USB device, select <strong>Browse</strong>.</td>
</tr>
</tbody>
</table>
**Media Play**

### Playing Media Content Saved in a Computer

You can play media content on the product that is stored on a computer connected to the same network as the product.

**NOTES**
- To play content on a computer, make sure that home network mode is enabled on the computer.
- The content shared by a computer may not play depending on the encoding type and file format of the content. In addition, some functions may not be available.
- The media content may not play smoothly depending on the network status. If the content does not play smoothly, transfer the content to a USB device, connect the USB device to the player, and then play the content from the USB device.

1. Connect your PC and the player to the same network.
2. Press the (Home) button. Select (Source), and then User's PC. The folders and files in your PC are listed.
3. Select the media content you want to play from the list. The media content plays.
4. To exit, press the (Stop) button or (Return) button.

**NOTE**
- Playing UHD BD content may require a network connection. Depending on the network environment and the status of the Contents Server (Studio), playback may not be successful.

### Playing a Disc with User Recorded Content

You can play multimedia files you have recorded on Blu-ray, DVD, or CD discs.

1. Place a user recorded disc into the disc tray with the disc's label facing up, and then close the tray.
2. Press the (Home) button. Select (Source), and then Disc. The folders and files in the disc are listed.

**NOTE**
- Even though the product will display folders for all content types, it will only display files of the Content Type you selected in the Filter By menu. For example, if you selected Music, you will only be able to see music files. You can change this selection by returning to the Filter By menu.

3. A screen appears listing the contents of the disc. Depending on how the contents are arranged, you will see either folders, individual files, or both.
4. If necessary, use the Up/Down/Left/Right buttons to select a folder, and then press the (OK) button.
5. Use the Up/Down/Left/Right buttons to select a file to view or play, and then press the (OK) button.
6. Press the (Return) button one or more times to exit a current screen, exit a folder, or to return to the Home screen.
7. Go to pages 33–39 for instructions that explain how to control playback of videos, music, and pictures on a disc.
Controlling Video Playback

You can control the playback of video content located on a Disc, USB, or PC. Depending on the disc or contents, some of the functions described in this manual may not be available.

Buttons on the Remote Control used for Video Playback

### To use the disc menu, popup menu, or title list

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISC MENU button</td>
<td>During playback, press this button to display the Disc menu.</td>
</tr>
<tr>
<td>POP UP /MENU button</td>
<td>During playback, press this button to display the Popup menu.</td>
</tr>
</tbody>
</table>

### Playback related buttons

The product does not play sound in Search, or Step mode.

- To return to normal speed playback, press the 
  button.

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>button</td>
<td>Stops playback.</td>
</tr>
</tbody>
</table>
| Fast Motion Play | During playback, press the 
  or button. Each time you press the 
  or button, the playback speed will change. |
| Slow Motion Play | In pause mode, press the button. Each time you press the button, the playback speed will change. |
| Skip Motion Play | During playback, press the or button. Each time you press the or button, the disc moves to the previous or next chapter or file. |
Using the On-screen Menu during Playback of a Video

Use the Up/Down/Left/Right buttons to select each function and then press the (OK) button.

Displaying optional menus

When playing a disc: Press TOOLS on the remote control.
When playing a video file or a 360° video file: Press (OK) on the remote control, and then select on the screen.

| NOTE |
- Available optional menus differ by disc or file format. Refer to the table below.

<table>
<thead>
<tr>
<th>Optional Menu</th>
<th>Description</th>
<th>Menu Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>Lets you view a video’s information.</td>
<td>Disc</td>
</tr>
<tr>
<td>Play from the Beginning</td>
<td>Select to return to the beginning of the movie, and then press the (OK) button.</td>
<td>Disc</td>
</tr>
<tr>
<td>Select Scene</td>
<td>- Search Titles: If there is more than one movie on the disc or device, select to start a different title.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>1. Select Search Titles, and then press the (OK) button.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>2. Use the Up/Down buttons to select a title, and then press the (OK) button.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>- Search Chapters: Select to play the chapter of your choice.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>1. Select Search Chapters, and then press the (OK) button.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>2. Use the Up/Down buttons to select a chapter, and then press the (OK) button.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>- Search Time Bar: Select to play the movie from a selected time point.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>1. Select Search Time Bar, and then press the (OK) button.</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td>2. Using the Left/Right buttons, enter the time point you want to go to.</td>
<td>Disc</td>
</tr>
<tr>
<td>Optional Menu</td>
<td>Description</td>
<td>Menu Availability</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Select Scene</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeat Mode</td>
<td>Lets you repeat a title, chapter, or specific section.</td>
<td>O</td>
</tr>
<tr>
<td>Picture Mode</td>
<td>Lets you set the picture mode.</td>
<td>O O O</td>
</tr>
<tr>
<td></td>
<td>- <strong>Dynamic</strong>: Increases sharpness and brightness.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Standard</strong>: Choose this setting for most viewing applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Movie</strong>: The best setting for watching movies.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>User</strong>: Lets you adjust the sharpness and noise reduction function respectively.</td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td>Use to set the desired audio language.</td>
<td>O</td>
</tr>
<tr>
<td>Audio Sync</td>
<td>Select to adjust the audio sync.</td>
<td>O O O</td>
</tr>
<tr>
<td>Subtitle</td>
<td>Use to set the desired subtitle language.</td>
<td>O</td>
</tr>
<tr>
<td>Angle</td>
<td>Lets you view a scene from another angle. The Angle option displays the number of angles available to view. When an Ultra HD Blu-ray Disc/Blu-ray Disc/DVD contains multiple angles of a particular scene, you can change to another angle.</td>
<td>O</td>
</tr>
<tr>
<td>Rotate</td>
<td>You can rotate the screen clockwise or counterclockwise by 90 degrees.</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Video files with high bitrates of 20Mbps or more strain the product’s capabilities and may stop playing during playback.</td>
</tr>
</tbody>
</table>
Using the Sort By & Options Menus

Using the Sort By Menu
On a file screen containing video files, select **Sort By**, and then press the (OK) button. Arrange folders or files in order by **Date** or **Title**.

Using the Options Menu
On a file screen containing video files, select **Options**, and then press the (OK) button.

<table>
<thead>
<tr>
<th>Play Selected</th>
<th>Refresh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lets you select specific files to play. It works essentially the same for all media.</td>
<td>Refreshes the files and folders list from the media or storage device.</td>
</tr>
</tbody>
</table>

Buttons on the Remote Control used for Music Playback

1. ■ button : Stops a track.
2. ▶ button : Plays/Pauses a track.
3. Fast Play (Audio CD [CD-DA] only)
   During playback, press the ◀ or ▶ button.
   Each time you press the ◀ or ▶ button, the playback speed will change.
4. ◀▶ buttons : Move to the previous/next track.

Controlling Music Playback

You can control the playback of music content located on a Disc, USB, or PC.
Depending on the disc or contents, some of the functions described in this manual may not be available.
Using the Options Menu During Playback

On the music file playback screen, use the Up/Down/Left/Right buttons to select the and then press the (OK) button.

| Play Selected | Lets you create a playlist by selecting specific tracks to play. It works essentially the same way for all media. See "Creating a Playlist from an Audio CD" on page 37. |
| Information | Select to see the Contents information. |

| NOTE | Depending on the disc or storage device, the menu may differ. |

Using the Sort By & Options Menus on a File Screen

Using the Sort By Menu

On a file screen containing music files, select Sort By, and then press the (OK) button. Arrange folders or files in order by Date or Title.

Using the Options Menu

On a file screen containing music files, select Options, and then press the (OK) button.

| Play Selected | Lets you select specific files to play. It works essentially the same for all media. See the "Repeating Tracks on an Audio CD" on page 37. |
| Refresh | Refreshes the files and folders list from the media or storage device. |

Repeating Tracks on an Audio CD

You can set the product to repeat tracks on an audio CD (CD-DA/MP3).

1. On the Playback screen, use the Up/Down/Left/Right buttons to select in the lower left corner of the screen, and then press the (OK) button.

2. Use the Up/Down buttons to select the repeat mode you want - Off, One Song, or All - and then press the (OK) button.

Shuffling Tracks on an Audio CD

You can set the product to play tracks on an audio CD (CD-DA/MP3) at random.

1. On the Playback screen, use the Up/Down/Left/Right buttons to select in the lower left corner of the screen, and then press the (OK) button.

2. Use the Up/Down buttons to set the Shuffle mode On or Off, and then press the (OK) button.

Creating a Playlist from an Audio CD

1. With the Playback screen displayed, select the and then press the (OK) button. The Settings menu appears.

2. Use the Up/Down buttons to select Play Selected, and then press the (OK) button.

3. Use the Up/Down buttons to select a track, and then press the (OK) button. A check appears to the left of the track.
4. Repeat Step 3 to select and check additional tracks.

5. To remove a track from the list, move to the track, and then press the \( \text{OK} \) button again.
The check on the track is removed.

6. When done, press the \( \text{Up/Down} \) buttons to select \text{Done}, and then press the \( \text{OK} \) button. The Music Playback screen reappears listing only the tracks you checked. The selected tracks play automatically.

| NOTES |
- You can create a playlist with up to 99 tracks on Audio CDs (CD-DA).
- On the Selection Play screen, you can also choose \text{Select All}, \text{Deselect All}, and \text{Cancel}.
  - Use \text{Select All} to select all tracks. This cancels your individual track selections. When you press the \( \text{Return} \) button on your remote control or select the \text{Done} button, and then press the \( \text{OK} \) button, all tracks will appear on the Music Playback screen, and the product will begin to play all tracks from Track 001.
  - Use \text{Deselect All} to deselect all selected tracks at once. Then, select individual tracks or use \text{Select All} to select all the tracks, and then press the \( \text{Return} \) button on your remote control. If you do not use \text{Select All} or select individual tracks, the Playlist will not change.
  - \text{Cancel} cancels any changes you made on the Play Select screen. When you return to the Playback screen, the Playlist will be unchanged.

## Playing Photo Contents

You can play photo contents located on a DVD, USB, or PC.

### Using the On-screen Menu during Playback of a Photo File

Use the \( \text{Up/Down/Left/Right} \) buttons to select each function and then press the \( \text{OK} \) button. To display the \text{Options} menu during playback or in pause mode, press the \text{TOOLS} button. Alternatively, use the \( \text{Up/Down/Left/Right} \) buttons to select \( \text{Options} \) and then press the \( \text{OK} \) button.

<table>
<thead>
<tr>
<th>360 Mode</th>
<th>Plays 360° photo content.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen Fit</td>
<td>Resizes photos to fit the screen.</td>
</tr>
<tr>
<td>Zoom</td>
<td>Select to enlarge the current picture. (Enlarge up to 4 times)</td>
</tr>
<tr>
<td>Rotate Left</td>
<td>This will rotate the picture counterclockwise.</td>
</tr>
<tr>
<td>Rotate Right</td>
<td>This will rotate the picture clockwise.</td>
</tr>
<tr>
<td>Slideshow Speed</td>
<td>Select to set the slide show speed.</td>
</tr>
<tr>
<td>Slideshow Effect</td>
<td>Select to set the slide show effect.</td>
</tr>
<tr>
<td>Background Music</td>
<td>Select to listen to music while viewing a slide show.</td>
</tr>
<tr>
<td>Information</td>
<td>Select to see the Contents information.</td>
</tr>
</tbody>
</table>

| NOTE |
- The number of music files available from external devices will differ depending on the device.

| NOTES |
- Depending on the disc or storage device, the menu may differ.
To enable the **Background Music** function, the photo file must be on the same storage media as the music file. Note that the sound quality can be affected by the bitrate of the MP3 file, the size of the photo, and the encoding method.

### Using the Sort By & Options Menus

#### Using the Sort By Menu

On a file screen containing photo files, select **Sort By**, and then press the **OK** button. Arrange folders or files in order by **Date** or **Title**.

#### Using the Options Menu

On a file screen containing photo files, select **Options**, and then press the **OK** button.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Play Selected</strong></td>
<td>Lets you select specific files to play. It works essentially the same for all media. See &quot;Creating a Playlist from an Audio CD&quot; on page 37.</td>
</tr>
<tr>
<td><strong>Refresh</strong></td>
<td>Refreshes the files and folders list from the media or storage device.</td>
</tr>
</tbody>
</table>
Network Services

You can enjoy various network services such as streaming video or on-line apps by connecting the product to your network.

To use network services, you must first:

1. Connect the player to a network. (See page 18)
2. Configure the network settings. (See pages 26–29)

Creating a Samsung Account

Create a Samsung account so you can take advantage of all Samsung has to offer on line. Set up accounts for each household member so each member can access their own accounts on Facebook, Twitter, etc. You also need a Samsung account if you want to download for-pay apps and rent movies.

| NOTE |
- The terms of agreement screen appears if you skipped Smart Hub terms of agreement at the initial settings stage. Agree to all the terms and then follow the steps shown below.

1. On the Home screen, press the [APPS]. The Samsung Account screen appears.
2. On the Samsung Account screen, select Create Account, and then press the [OK] button.
3. Only users over 14 years can create a Samsung account. When a window asking if you are eligible, select Yes and press the [OK] button. The Samsung account Terms & Conditions, Privacy Policy screen appears.
4. Press the [OK] button to agree, press the Right button, and then press the [OK] button. The Create Account screen appears.
5. Select the ID field, and then press the [OK] button. The keyboard pop-up appears.

6. Enter your e-mail address using the keyboard. Use the arrow buttons to move from character to character. Press [OK] to select a character. Select the ◁ on the left to enter capitals. Select the #@! to enter additional symbols.
7. When finished, select the Next on the keyboard, and then press the [OK] button. When a window confirming that the ID is valid appears, press the [OK] button. The Create Account screen reappears. Enter the password, use the directional keys on the remote control to select Done, and then press the [OK] button.
8. Press the [OK] button again to display the next page.
9. Enter your first name, and last name in the same fashion.
10. Select the Date of Birth field, and then select numbers using the up and down arrow buttons or by pressing numbers on your remote. After filling in the required input fields, select Next and press the [OK] button.

When creation of your Samsung account is complete, you are automatically logged in via the new account.

| NOTES |
- Samsung sends a confirming e-mail to the address you entered. You must open the e-mail and respond as requested to finalize your account.
- To manage your Samsung account, use the Samsung Account > My Account menu items.
Before Using Apps

If you haven’t set up Smart Hub, when you use Apps for the first time, the product will ask you to perform the Smart Hub set up procedure.

1. On the Home screen, select APPS, and then press the (OK) button.
2. If you haven’t set up Smart Hub, the Smart Hub Terms of Agreement and Privacy Policy screen appears.
3. To view details before agreeing to the terms of agreement, select View All and press the (OK) button.

| NOTE |
› You do not need to consent to the Supplemental Privacy Notice, but one or more Smart Hub features or functions may not be available if you do not.

4. Select I agree to all, and then press the (OK) button. The Setup Complete screen appears. Press the (OK) button.

Using Apps

You can download applications from the Internet, and access various applications and view them on your TV. To access some applications, you need to have a Samsung account.

| NOTE |
› For some 4K streaming service Apps (Netflix, Amazon, etc.), the use of the 4K service is enabled if the TV supports HDCP 2.2. If the TV (or the connected HDMI terminal) does not support HDCP 2.2, the 4K category will not be displayed.

The APPS Screen at a Glance

The APPS screen displays a list of a variety of apps. Use the list to download apps with ease.

1. Download a video app to play video.
2. Log in with your Samsung account. Use a variety of Samsung-provided functions. If you do not have a Samsung account, create one here.
3. Enter the name of a specific app to search for it.
4. Configure settings for a downloaded app.
5. Available apps are displayed at the bottom. Use the Up/Down/Left/Right buttons to download or use a desired app.

The first time you open the APPS screen, the Ultra HD Blu-ray Player automatically downloads a group of free apps. Once these apps have been downloaded, they appear on the Downloaded App list.
Network Services

Downloading an App

1. Use the Up/Down buttons to move to Editor’s Choice, Most Popular, Group Content, or Genre. If you have moved to Group Content or Genre, press the (OK) button to select the desired category or genre.

2. Use the Up/Down/Left/Right buttons to move to the app you want to download, and then press the (OK) button. The Detail Information screen for the app appears.

   NOTE
   - Apps already installed show “Installed” in the app thumbnail.

3. Select Install on the screen, and then press the (OK) button. Install changes to Cancel and the app begins to download.

4. If you want to cancel the download, select Cancel, and then press the (OK) button.

5. When the download is complete, Cancel changes to Open. Select Open, and then press the (OK) button to start the application. Alternately, press the (Return) button until the APPS screen reappears. The app you downloaded will be displayed on the Downloaded App list.

   NOTES
   - To add the installed app to the bottom of the Home screen, select Add to Home on the installation complete screen.
   - If the App cannot be downloaded due to insufficient remaining internal memory, connect a USB storage device and try again.

Starting an Application

1. On the Home screen, select APPS, and then press the (OK) button.

2. On the APPS screen, use the Up/Down buttons to move to Downloaded App. Use the Left/Right buttons to move to the desired app, and then press the (OK) button. The app starts.

The Settings Menu

Use the Up/Down/Left/Right buttons to move to Settings in the top right of the APPS screen, and then press the (OK) button.

Auto Update

Turn on or turn off the automatic app update option. Select Auto Update in the top right of the Settings screen, and then press the (OK) button. The option turns On or Off each time the button is pressed.

Delete

1. On the Settings screen, select the app to delete.

2. Select Delete, and then press the (OK) button.

Add to Home

1. On the Settings screen, select the app to be added to the Home screen.

2. Select Add to Home, and then press the (OK) button.

3. At the bottom of the screen, use the Left/Right buttons to specify the location of the app to add, and then press the (OK) button.
Lock/Unlock
This function blocks access to an app unless you enter your PIN. Unlock removes the lock.

1. On the Settings screen, select the app to be locked.
2. Select Lock/Unlock, and then press the (OK) button. Enter your PIN. A check appears next to the app.

| NOTE |
- To unlock apps, follow essentially the same directions, but select apps that have locks.

Move
1. On the Settings screen, select the app to be moved.
2. Select Move, and then press the (OK) button.
3. Use the Left/Right buttons to move the app.
4. When the app is where you want it, press the (OK).

Reinstall
1. On the Settings screen, select the app to be reinstalled.
2. Select Reinstall, and then press the (OK) button. The app is reinstalled. Reinstallation may take a few minutes.

View Details
1. On the Settings screen, select the app you want to view details for.
2. Select View Details, and then press the (OK) button. The detailed information page for the app appears.

Using the Internet
You can access the Internet using the Internet application.
Select Internet on the Home screen, and then press the (OK) button.

| NOTES |
- The Web Browser is not compatible with Java applications.
- If you attempt to download a file, and the file cannot be saved, an error message will appear.
- E-commerce (purchasing products online) is not supported.
- ActiveX is not supported.
- Access may be blocked to some websites or to web browsers operated by certain businesses.
- Playing Flash videos is not supported.
# The Web Browser window at a Glance

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Current Tab: Shows the current screen name. To delete the tab, click the X next to the tab name.</td>
</tr>
<tr>
<td>2</td>
<td>Open new tab: Opens a new web browser tab.</td>
</tr>
<tr>
<td>3</td>
<td>Open New Secret Tab: Opens a new browser tab in Security Mode.</td>
</tr>
<tr>
<td>4</td>
<td>Featured: Shows recommended websites.</td>
</tr>
<tr>
<td>5</td>
<td>Most visited: Shows frequently visited websites.</td>
</tr>
<tr>
<td>6</td>
<td>Bookmarks: Shows a list of bookmarks. You can also select an existing bookmark, and edit and delete bookmarks.</td>
</tr>
<tr>
<td>7</td>
<td>Open Tabs: Shows a list of your open tabs and the tabs opened in another web browser logged in using the same account.</td>
</tr>
</tbody>
</table>

The Control Panel, which runs across the top of the screen, has a series of icons which start a number of useful functions.

- `<` : Moves to the previous page.
- `>` : Moves to the next web page.
- `:` Moves to the Home screen of the Web Browser.

- `http://www.samsung.com` : Use the on-screen keyboard pop-up to enter a URL or keyword to search for specific information. See "Using the Keyboard Pop-up" on page 45.
- `:` Reloads the current page so that it is refreshed on the screen.
- `:` Adds the current page to your bookmarks.
- `-`: Lets you enlarge or shrink the screen by various percentages.

- `:` Lets you configure the Browser’s settings. See *Using the Browser Menu* on page 46.

- ``: The Samsung Account page appears.

- `X`: Closes the Web Browser.
Using the Keyboard Pop-up

When you click the [ ] or access a data or text entry field, and then press the (OK) button, the keyboard pop-up appears.

To use the keyboard pop-up with your remote, follow these steps:

1. Use the Up/Down/Left/Right buttons on your remote to move the highlight to a letter or number of your choice.
2. Press the (OK) button to enter the letter or number into the entry field.
3. To access capital letters, move the highlight to the key on the top left, and then press the (OK) button. Press the (OK) button again with the key highlighted to access lowercase letters again. When the on-screen keyboard pops up, press the button on the remote control to switch between uppercase and lowercase modes.
4. To access symbols and additional punctuation marks, highlight the #@! on the left, and then press the (OK) button.
5. To delete a character you entered, move the highlight to the , and then press the (OK) button.
6. To delete all the characters you entered, move the highlight to Delete All, and then press the (OK) button.
7. When finished entering, move the highlight to Done, and then press the (OK) button.

| NOTE |
- Characters that can be displayed using the keyboard depend on the selected language.

1. Use the Up/Down/Left/Right buttons on your remote to move the highlight to a letter or number of your choice.
2. Press the (OK) button to enter the letter or number into the entry field.
3. To access capital letters, move the highlight to the key on the top left, and then press the (OK) button. Press the (OK) button again with the key highlighted to access lowercase letters again. When the on-screen keyboard pops up, press the button on the remote control to switch between uppercase and lowercase modes.
4. To access symbols and additional punctuation marks, highlight the #@! on the left, and then press the (OK) button.
5. To delete a character you entered, move the highlight to the , and then press the (OK) button.
6. To delete all the characters you entered, move the highlight to Delete All, and then press the (OK) button.
7. When finished entering, move the highlight to Done, and then press the (OK) button.

**Options on the Keyboard Pop-Up**

To access the keyboard pop-up options, highlight the on the bottom left of the keyboard, and then press the (OK) button.

**Reset Recommended Text Memory**

Reset erases the Samsung Keyboard’s memory. Select Reset to erase everything that the Samsung Keyboard has learned about your writing style, including any new words you have used.

**Predict Next Character (when using direction buttons)**

The keyboard predicts the next letter as you enter letters. The predictions appear in a ring around the letter you have just entered. You can select a predicted letter or move to another letter. You can turn this function on or off.

**Language**

Select the language for the keyboard. You can select English, French, Russian, etc.
Network Services

Using the Browser Menu

The menu contains functions that control how the browser operates and browser security functions. To open the menu, highlight the (Menu) icon, and then press the (OK) button. To select an option in the menu, highlight the option, and then press the (OK) button.

- **History**: Displays a list of visited websites. To delete the list, click Remove All.
- **Desktop View**: You can turn on or turn off Desktop View.
- **View Certificates**: Shows the certificate information of the current Web Site.
- **Settings**
  - **General**: Logging in with your Samsung account to sync the main unit with other devices. You can share bookmarks and view tabs that are opened in the other devices.
  - **Sync and View Tabs and Bookmarks Across Devices**: Automatically hides the tabs and toolbar.
  - **Pop-up Blocker**: Blocks pop-up windows.
  - **Reset Settings**: You can reset all web browser settings to their factory defaults. Your Bookmarks and History won't be affected.

- **Home Page**: You can set the Browser’s home page.
- **Search Engine**: You can set the desired Search Engine.
- **Privacy & Security**
  - **Do Not Track**: Deters websites from tracking you.
  - **Delete History**: Deletes your entire browsing history.
  - **JavaScript**: Allows all sites to run JavaScript for a better browsing experience.
  - **Delete browsing data**: Deletes all browsing data such as cookies, cached images, and data. Your Bookmarks and History won't be affected.
- **Parental Lock**: Enable web access only to pages that you have approved.
  - **Parental Lock PIN**: Set a PIN for managing the Parental lock. Click Set PIN to set the PIN.
  - **List of Approved Pages**: Lets you approve specific pages or remove Approved pages.
- **Encoding**: You can set the encoding setting for web pages to automatic or select the encoding format manually from a list.
- **About**: Provides basic information about the operation of the Web Browser.

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
</table>
- Depending on the web site, some of the Settings functions may not be activated. Functions that are not activated are greyed out and cannot be used.
Linking Your Internet Service Accounts to the Product

The Link Service Accounts function lets you link your product to your accounts with Internet services such as Pandora so that the product can log you in to the service automatically when you start the app for that service.

Register your account by going to HOME → APPS → Sign in → Create with Facebook.

BD-LIVE™

Once the product is connected to your network, you can enjoy various movie-related service content available on BD-LIVE compliant discs.

1. Attach a USB flash memory drive to the USB jack on the right side of the product, and then check its remaining memory. The memory device must have at least 1GB of free space to accommodate the BD-LIVE services.

2. Select Settings on the Home screen, and then press the (OK) button.

3. Select General, and then press the (OK) button.

4. Select Network, and then press the (OK) button.

5. Select BD-Live Settings, and then press the (OK) button.

6. Select BD Data Management, and then press the (OK) button.

7. Select Select Device, and then press the (OK) button.

8. Select USB Storage, and then press the (OK) button.

9. Insert an Ultra HD Blu-ray Disc or Blu-ray Disc that supports BD-LIVE.

10. Select an item from the list of BD-LIVE service contents provided by the disc manufacturer.

| NOTE |

- The way you use BD-LIVE and the provided contents may differ, depending on the disc manufacturer.
**TV Aspect Ratio**

- Depending on the disc type, some aspect ratios may not be available.
- If you select an aspect ratio and option that is different than the aspect ratio of your TV screen, the picture might appear to be distorted.
- If you select the **16:9 Original**, your TV may display 4:3 Pillarbox (black bars on the sides of the picture).

**Digital Output**

- Be sure to select the correct Digital Output or you will hear no sound or just loud noise.
- If the HDMI device (AV receiver, TV) is not compatible with compressed formats (Dolby Digital, DTS), the audio signal outputs as PCM.
- Regular DVDs do not have BONUSVIEW audio and Navigation Sound Effects.
- Some Ultra HD Blu-ray Discs and standard Blu-ray Discs do not have BONUSVIEW audio and Navigation Sound Effects.
- The Digital Output setup does not affect the HDMI audio output to your TV. It affects the optical and HDMI audio output when your product is connected to an AV receiver.
- If you play MPEG audio soundtracks, the audio signal outputs as PCM regardless of your Digital Output selections (PCM or Bitstream).

**PCM Downsampling**

- Even when **PCM Downsampling** is set to off, some discs will only output downsampled audio through the optical digital output.
- HDMI
  - If your TV is not compatible with compressed multi-channel formats (Dolby Digital, DTS), the product may output PCM 2ch downmixed audio even though you selected Bitstream (either Reencoded or Unprocessed) in the setup menu.
  - If your TV is not compatible with PCM sampling rates over 48kHz, the product will output at 48kHz.

**BD-Live Internet Connection**

- What is a valid certificate?
  When the product uses BD-LIVE to send the disc data and a request to the server to certify the disc, the server uses the transmitted data to check if the disc is valid and sends the certificate back to the product.
- The Internet connection may be restricted while you are using BD-LIVE contents.
### BD Data Management
- In the external memory mode, disc playback may be stopped if you disconnect the USB device in the middle of playback.
- Only those USB devices formatted in the FAT file system (DOS 8.3 volume label) are supported. We recommend you use USB devices that support the USB 2.0 protocol with 4 MB/sec or faster read/write speed.
- The Resume Play function may not work after you format the storage device.
- The total memory available to BD Data Management may differ, depending on conditions.

### Anynet+ (HDMI-CEC)
- Depending on your TV, certain HDMI output resolutions may not work. Please refer to the user manual of your TV.
- This function is not available if the HDMI cable does not support CEC.
- If your Samsung TV has an Anynet+ logo, then it supports the Anynet+ function.

### Media Play
#### Selecting the Audio Language
- The **Left/Right** indicator will not appear on the screen if the BONUSVIEW section does not contain any BONUSVIEW audio settings.
- The languages available through the Audio Language function depend on the languages that are encoded on the disc. This function or certain languages may not be available.
- Some Ultra HD Blu-ray Discs and standard Blu-ray Discs may allow you to select either the PCM or Dolby Digital audio soundtrack in English.

#### Selecting the Subtitle Language
- Depending on the Ultra HD Blu-ray Disc/Blu-ray Disc/DVD Disc, you may be able to change the subtitle language in the Disc Menu. Press the **DISC MENU** button.
- This function depends on the selection of subtitles that are encoded on the disc and may not be available on all Ultra HD Blu-ray Discs/Blu-ray Discs/ DVDs.
- Information about the main feature BONUSVIEW mode will also appear if the Ultra HD Blu-ray Disc or Blu-ray Disc has a BONUSVIEW section.
- This function changes both the primary and secondary subtitles at the same time.
- The total number of primary and secondary subtitles, respectively, is displayed.
# Appendix

## Resolution according to the contents type

<table>
<thead>
<tr>
<th>Setup</th>
<th>Contents Type</th>
<th>Ultra HD Blu-ray Disc/Blu-ray Disc</th>
<th>E-contents/Digital contents</th>
<th>DVD Disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movie Frame(24p) * 2160p, 1080p only</td>
<td>Disc Content</td>
<td>Auto 2160p(1080p)@24 2160p(1080p)@60</td>
<td>Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
</tr>
<tr>
<td>Streaming Content</td>
<td>Auto 2160p(1080p)@60</td>
<td>2160p(1080p)@24</td>
<td>2160p(1080p)@60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>Auto</td>
<td>Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
<td>Max.Resolution of TV input</td>
</tr>
<tr>
<td></td>
<td>2160p</td>
<td>2160p@60</td>
<td>2160p@60</td>
<td>2160p@60</td>
</tr>
<tr>
<td></td>
<td>1080p</td>
<td>1080p@60</td>
<td>1080p@60</td>
<td>1080p@60</td>
</tr>
<tr>
<td></td>
<td>720p</td>
<td>720p@60</td>
<td>720p@60</td>
<td>720p@60</td>
</tr>
<tr>
<td></td>
<td>480p</td>
<td>480p@60</td>
<td>480p@60</td>
<td>480p@60</td>
</tr>
</tbody>
</table>

### NOTES

- If the TV you connected to the product does not support Movie Frame or the resolution you selected, the message "If no pictures are shown after selecting 'Yes', please wait for 15 seconds to return to the previous resolution. Do you want to change the resolution?" appears. If you select Yes, the TV’s screen will go blank for 15 seconds, and then the resolution will revert to the previous resolution automatically.

- If the screen stays blank after you have changed the resolution, remove all discs, and then press and hold the ▲ (Open/Close) button on the front of the product for more than 5 seconds. The initialization message appears on the screen and the player turns off automatically. When you turn your product on again, all the settings will be reset. Run the Initial Settings procedure again. Then, go to Settings > Picture > Resolution in the Menu, and select the correct resolution for your TV.

- When you run the Initial Settings procedure, re-select the language and aspect ratio (screen size and format) only. Resetting does not affect your network settings, so you should be able to skip Network Setup and Software Update.

- When the factory default settings are restored, all stored user BD data is deleted.

- An Ultra HD Blu-ray Disc or standard Blu-ray Disc must have the 24 frame feature for the product to use the Movie Frame (24p) mode.
## Digital Output Selection

<table>
<thead>
<tr>
<th>Setup</th>
<th>PCM</th>
<th>Bitstream (Unprocessed)</th>
<th>Bitstream (Re-encoded DTS)</th>
<th>Bitstream (Re-encoded Dolby D)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connection</strong></td>
<td><strong>HDMI</strong></td>
<td><strong>Optical</strong></td>
<td><strong>HDMI</strong></td>
<td><strong>Optical</strong></td>
</tr>
<tr>
<td>PCM</td>
<td>Up to PCM 7.1ch</td>
<td>PCM 2ch</td>
<td>PCM</td>
<td>PCM 2ch</td>
</tr>
<tr>
<td>Dolby Digital</td>
<td>Up to PCM 7.1ch</td>
<td>PCM 2ch</td>
<td>Dolby Digital</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>Dolby Digital Plus</td>
<td>Up to PCM 7.1ch</td>
<td>PCM 2ch</td>
<td>Dolby Digital Plus</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>Dolby TrueHD</td>
<td>Up to PCM 7.1ch</td>
<td>PCM 2ch</td>
<td>Dolby TrueHD</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>DTS</td>
<td>Up to PCM 6.1ch</td>
<td>PCM 2ch</td>
<td>DTS</td>
<td>DTS</td>
</tr>
<tr>
<td>DTS-HD High Resolution Audio</td>
<td>Up to PCM 7.1ch</td>
<td>PCM 2ch</td>
<td>DTS-HD High Resolution Audio</td>
<td>DTS</td>
</tr>
<tr>
<td>DTS-HD Master Audio</td>
<td>Up to PCM 7.1ch</td>
<td>PCM 2ch</td>
<td>DTS-HD Master Audio</td>
<td>DTS</td>
</tr>
<tr>
<td><strong>Audio Stream on DVD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCM</td>
<td>PCM 2ch</td>
<td>PCM 2ch</td>
<td>PCM 2ch</td>
<td>PCM 2ch</td>
</tr>
<tr>
<td>Dolby Digital</td>
<td>Up to PCM 5.1ch</td>
<td>PCM 2ch</td>
<td>Dolby Digital</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>DTS</td>
<td>Up to PCM 6.1ch</td>
<td>PCM 2ch</td>
<td>DTS</td>
<td>DTS</td>
</tr>
<tr>
<td><strong>Definition for Ultra HD Blu-ray Disc/Blu-ray Disc</strong></td>
<td><strong>Any</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decodes the main feature audio and BONUSVIEW audio stream together into PCM audio and adds Navigation Sound Effects.</td>
<td>Outputs only the main feature audio stream so that your AV receiver can decode the audio bitstream. You will not hear BONUSVIEW audio or Navigation Sound Effects.</td>
<td>Decodes the main feature audio and BONUSVIEW audio stream together into PCM audio and adds Navigation Sound Effects, then re-encodes the PCM audio into DTS bitstream.</td>
<td>Decodes the main feature audio and BONUSVIEW audio stream together into PCM audio and adds Navigation Sound Effects, then re-encodes the PCM audio into Dolby Digital bitstream or PCM.</td>
</tr>
</tbody>
</table>

* If the Source Stream is 2ch or mono, *Re-encoded Dolby D* Settings are not applied. Output will be PCM 2ch.

* If Audio Output is set to Auto, the player automatically switches to the proper format from the four listed above.

Ultra HD Blu-ray Discs and standard Blu-ray Discs may include three audio streams:
- Main Feature Audio: The audio soundtrack of the main feature.
- BONUSVIEW audio: An additional soundtrack such as the director or actor’s commentary.
- Navigation Sound Effects: When you choose some menu navigation functions, Navigation Sound Effects may sound. Navigation Sound Effects are different on each Ultra HD Blu-ray Disc/Blu-ray Disc.
Refer to the table below if this product does not function properly. If the problem you are experiencing is not listed below or if the instructions below do not help, turn off the product, disconnect the power cord, and contact Samsung Electronics at 1-800-SAMSUNG (1-800-726-7864).

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>SOLUTION</th>
</tr>
</thead>
</table>
| No operation can be performed with the remote control. | • Check the batteries in the remote control. They may need replacing.  
• Operate the remote control at a distance of no more than 20 feet from the product.  
• Remove the batteries and hold down one or more buttons for several minutes to drain the microprocessor inside the remote control to reset it. Reinstall the batteries and try to operate the remote control again. |
| The disc does not play.                          | • Ensure that the disc is installed with the label side facing up.  
• Check the region number of the Ultra HD Blu-ray Disc/Blu-ray Disc/DVD. |
| The disc Menu does not appear.                   | • Confirm that the disc has disc menus.                                                                                                  |
| The prohibition message appears on the screen.  | • This message appears when an invalid button is pressed.  
• The Ultra HD Blu-ray Disc/Blu-ray Disc/DVD’s software doesn’t support the feature (e.g., angles).  
• You’ve requested a title or chapter number or search time that is out of range. |
| Play mode differs from the Setup Menu selection. | • Some of the functions selected in the Setup Menu may not work properly if the disc is not encoded with the corresponding function.         |
| The screen ratio cannot be changed.             | • The Screen Ratio on your Ultra HD Blu-ray Disc/Blu-ray Disc/DVD Disc is fixed and cannot be changed.  
• This is not a problem with the product.                                                                 |
| No audio.                                        | • Make sure you have selected the correct Digital Output in the Audio Options Menu.                                                         |
| The screen is blank.                            | • If the HDMI output is set to a resolution your TV cannot support (for example, 1080p), you may not see a picture on your TV.  
• Press the ▲ (Open/Close) button (on the front panel) for more than 5 seconds with no disc inside. The initialization message appears on the screen, and the player turns off automatically. When you turn your product on again, all the settings will be reset.  
• When the factory default settings are restored, all stored user BD data will be deleted. |
<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forgot password.</td>
<td>• Press the ▲ (Open/Close) button (on the front panel) for more than 5 seconds with no disc inside. The initialization message appears on the screen, and the player turns off automatically. When you turn your product on again, all the settings will be reset. Don't use this unless absolutely necessary. • When the factory default settings are restored, all stored user BD data will be deleted.</td>
</tr>
<tr>
<td>The picture is noisy or distorted.</td>
<td>• Make sure that the disc is not dirty or scratched. • Clean the disc.</td>
</tr>
<tr>
<td>No HDMI output.</td>
<td>• Check the connection between the TV and the HDMI jack of the product.</td>
</tr>
<tr>
<td></td>
<td>• Check if your TV supports the 480p, 720p, 1080p, or 2160p HDMI input resolution.</td>
</tr>
<tr>
<td></td>
<td>• To view video in the HDMI 720p, 1080p, or 2160p output mode, you must use a high speed (category 2) HDMI cable.</td>
</tr>
<tr>
<td>Abnormal HDMI output appears on the screen.</td>
<td>• If random noise appears on the screen, it means that TV does not support HDCP (High-bandwidth Digital Content Protection).</td>
</tr>
<tr>
<td>If you experience other problems.</td>
<td>• Go to the table of contents and find the section of the user manual that contains information about the feature you are having the problem with, and then follow the procedure again. • If you still cannot resolve the problem, please contact your nearest Samsung authorized service center.</td>
</tr>
<tr>
<td><strong>Play Multimedia on network devices</strong></td>
<td></td>
</tr>
<tr>
<td>You can see folders shared on network devices, but cannot see the files.</td>
<td>• The multimedia list only shows Video, Photo, and Music files. Other types of files are not displayed.</td>
</tr>
<tr>
<td>Video plays intermittently.</td>
<td>• Check if the network is stable. • Check if the network cable is properly connected and if the network is not overloaded.</td>
</tr>
<tr>
<td>The Network connection between the product and the PC is unstable.</td>
<td>• IP addresses within the same subnetwork should be unique. If they are not, IP interference can cause this phenomenon. • Check if you have a firewall enabled. If so, disable the firewall function.</td>
</tr>
<tr>
<td>PROBLEM</td>
<td>SOLUTION</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| **BD-LIVE** | Test whether the network connection is working using the **Network Status** function. (See page 23)  
Check whether a USB memory device is connected to the product.  
The memory device must have at least 1GB of free space to accommodate the BD-LIVE service.  
You can check the available size in **BD Data Management**.  
(See page 23)  
See if the **BD-Live Internet Connection** option is set to **Allow(All)**.  
If all above fails, contact the content provider or update the product to the latest firmware. |
| **When using the BD-LIVE service, an error occurs.** | The memory device must have at least 1GB of free space to accommodate the BD-LIVE service.  
You can check the available size in **BD Data Management**.  
(See page 23) |

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>- When the factory default settings are restored, all stored user BD data will be deleted.</td>
</tr>
</tbody>
</table>
# Disc and Format Compatibility

## Disc types and contents your product can play

<table>
<thead>
<tr>
<th>Media</th>
<th>Disc Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIDEO</td>
<td>Ultra HD Blu-ray Disc</td>
<td>Ultra HD BD-ROM format.</td>
</tr>
<tr>
<td></td>
<td>Blu-ray Disc</td>
<td>BD-ROM format</td>
</tr>
<tr>
<td></td>
<td>DVD-VIDEO</td>
<td>DVD-VIDEO, recorded DVD+RW/DVD-RW(V)/DVD-R/+R that have been recorded and finalized, or a USB storage media containing MKV, MP4 contents.</td>
</tr>
<tr>
<td>MUSIC</td>
<td>CD-RW/-R, DVD-RW/-R, CDDA, BD-RE/-R</td>
<td>Audio CD (CD-DA), music recorded on CD-RW/-R, DVD-RW/-R, BD-RE/-R or a USB storage media containing MP3 or WMA contents.</td>
</tr>
</tbody>
</table>

### NOTES
- The product may not play certain CD-RW/-R and DVD-R because of the disc type or recording conditions.
- If a DVD-RW/-R has not been recorded properly in DVD video format, it will not be playable.
- Your product will not play content that has been recorded on a DVD-R at a bit-rate that exceeds 10 Mbps.
- Your product will not play content that has been recorded on a BD-R or USB device at a bitrate that exceeds 25 Mbps.
- Playback may not work for some types of discs, or when you use specific functions, such as angle change and aspect ratio adjustment. Information about the discs is written in detail on the disc box. Please refer to this if necessary.
- When you play a BD-J title, loading may take longer than a normal title. Also, some functions may perform slowly.

## Disc types your product cannot play

- HD DVD
- DVD-ROM/PD/MV, etc
- DVD-RAM
- Super Audio CD (except CD layer)
- DVD-RW (VR mode)
- CVD/CD-ROM/CDV/CD-G/CD-I/LD (CD-Gs play audio only, not graphics.)
- 3.9 GB DVD-R for Authoring.
## Region Code

Both products and discs are coded by region. These regional codes must match for a disc to play. If the codes do not match, the disc will not play. The region number for this product is displayed on the rear panel of the product.

<table>
<thead>
<tr>
<th>Disc Type</th>
<th>Region Code</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blu-ray Disc</strong></td>
<td><strong>A</strong></td>
<td>North America, Central America, South America, Korea, Japan, Taiwan, Hong Kong and South East Asia.</td>
</tr>
<tr>
<td></td>
<td><strong>B</strong></td>
<td>Europe, Greenland, French territories, Middle East, Africa, Australia and New Zealand.</td>
</tr>
<tr>
<td></td>
<td><strong>C</strong></td>
<td>India, China, Russia, Central and South Asia.</td>
</tr>
<tr>
<td><strong>DVD-VIDEO</strong></td>
<td><strong>1</strong></td>
<td>The U.S., U.S. territories and Canada</td>
</tr>
<tr>
<td></td>
<td><strong>2</strong></td>
<td>Europe, Japan, the Middle East, Egypt, Africa, Greenland</td>
</tr>
<tr>
<td></td>
<td><strong>3</strong></td>
<td>Taiwan, Korea, the Philippines, Indonesia, Hong Kong</td>
</tr>
<tr>
<td></td>
<td><strong>4</strong></td>
<td>Mexico, South America, Central America, Australia, New Zealand, Pacific Islands, Caribbean</td>
</tr>
<tr>
<td></td>
<td><strong>5</strong></td>
<td>Russia, Eastern Europe, India, North Korea, Mongolia</td>
</tr>
<tr>
<td></td>
<td><strong>6</strong></td>
<td>China</td>
</tr>
</tbody>
</table>

### Logos of Discs the product can play

- **Blu-ray Disc**
- **BD-LIVE™**
- **ULTRA HD Blu-ray Disc**
- **NTSC** (NTSC broadcast system in U.S.A, Canada, Korea, Japan)
- **HEVC** (Covered by Patents at patentlist.hevcadvance.com)
### Supported Formats

#### Supported Video File Formats

<table>
<thead>
<tr>
<th>File Extension</th>
<th>Container</th>
<th>Video Codec</th>
<th>Resolution</th>
<th>Frame rate (fps)</th>
<th>Bit rate (Mbps)</th>
<th>Audio Codec</th>
</tr>
</thead>
<tbody>
<tr>
<td>*.avi</td>
<td>AVI</td>
<td>H.264 BP/MP/HP</td>
<td>4096x2160</td>
<td>4096X2160:60</td>
<td>60</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>*.mkv</td>
<td>MKV</td>
<td>HEVC (H.265 - Main, Main10)</td>
<td>3840X2160:60</td>
<td>60</td>
<td>80</td>
<td>ADPCM (IMA, MS)</td>
</tr>
<tr>
<td>*.asf</td>
<td>ASF</td>
<td>Motion JPEG</td>
<td>3840x2160</td>
<td>30</td>
<td>80</td>
<td>AAC</td>
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<tr>
<td>*.wmv</td>
<td>MP4</td>
<td>MVC</td>
<td>1920x1080</td>
<td>60</td>
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<td>HE-AAC</td>
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<tr>
<td>*.mp4</td>
<td>MP4</td>
<td>DivX 3.11 / 4 / 5 / 6</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
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<tr>
<td>*.3gp</td>
<td>3GP</td>
<td>MPEG4 SP/ASP</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td>DD+</td>
</tr>
<tr>
<td>*.vro</td>
<td>MOV</td>
<td>Window Media Video v9(VC1)</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td>MPEG(MP3)</td>
</tr>
<tr>
<td>*.mpg</td>
<td>FLV</td>
<td>MPEG2</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td>DTS (Core, LBR)</td>
</tr>
<tr>
<td>*.mpeg</td>
<td>VRO</td>
<td>Microsoft MPEG-4</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td>G.711 (A-Law, μ-Law)</td>
</tr>
<tr>
<td>*.ts</td>
<td>VOB</td>
<td>H 263 Sorrenson</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td>Vorbis</td>
</tr>
<tr>
<td>*.ts</td>
<td>PS</td>
<td>VP6</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td>RealAudio 6</td>
</tr>
<tr>
<td>*.sva</td>
<td>TS</td>
<td>VP8</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td></td>
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<tr>
<td>*.sva</td>
<td>SVAF</td>
<td>VP9</td>
<td>4096x2160</td>
<td>4096X2160:60</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>*.rmvb</td>
<td>WebM</td>
<td>RV8/9/10 (RV30/40)</td>
<td>1920x1080</td>
<td>60</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

*File Extensions and Container Properties are listed for reference purposes only. For a comprehensive list, please consult the official documentation.*
Limitations
- Even when a file is encoded by a supported codec listed in the Video File Support table, the file might not play if its content has a problem.
- Normal playback is not guaranteed if the file’s container information is wrong or the file itself is corrupted.
- Playing back contents having higher rates than the base bit rate/frame rate may cause stuttering sound or video.
- The Seek (Jump) function is not available if the file’s index table is damaged.
- When you playback a file remotely through a network connection, video playback may stutter depending on the network conditions.
- Some USB/Digital camera devices may not be compatible with the product.
- HEVC codec is supported only for MKV, MP4 and TS containers.
- The DivX codec is not supported by models made for the U.S. or Canada.

Video decoder
- Supports up to H.264 Level 4.1. (Does not support FMO/ASO/RS)
- Does not support VC1/AP/L4.
- CODECs except for WMV v7, v8, MSMPEG4 v3, MVC, VP6
  1) Below 1280 x 720 : 60 frames max.
  2) Above 1280 x 720 : 30 frames max.
- Does not support GMC 2 or higher.
- Supports SVAF Top/Bottom, Side by Side, Left/Right view sequence type(2 ES)
- Supports BD MVC Spec.

Audio decoder
- Supports WMA 10 PRO (Up to 5.1ch).
- Does not support WMA lossless audio.
- Also supports the M2 profile.
- The RealAudio 10 lossless format is not supported by models made for China and Hong Kong.
- Does not support QCELP/AMR NB/WB.
- Supports vorbis (Up to 2ch).
- Supports DD+ (Up to 7.1ch)
- The DTS LBR codec is supported only for MKV / MP4 / TS containers.

| NOTE |
- Some MKV and MP4 format discs may not play, depending on their video resolution and frame rate.

Supported Subtitle File Formats

<table>
<thead>
<tr>
<th>Name</th>
<th>File Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>External</td>
<td></td>
</tr>
<tr>
<td>MPEG-4 Timed text</td>
<td>.txt</td>
</tr>
<tr>
<td>SAMI</td>
<td>.smi</td>
</tr>
<tr>
<td>SubRip</td>
<td>.srt</td>
</tr>
<tr>
<td>SubViewer</td>
<td>.sub</td>
</tr>
<tr>
<td>Micro DVD</td>
<td>.sub or .txt</td>
</tr>
<tr>
<td>SubStation Alpha</td>
<td>.ssa</td>
</tr>
<tr>
<td>Advanced SubStation</td>
<td>.ass</td>
</tr>
<tr>
<td>Powerdivx</td>
<td>.psb</td>
</tr>
<tr>
<td>SMPTE-TT Text</td>
<td>.xml</td>
</tr>
<tr>
<td>Xsub</td>
<td>AVI</td>
</tr>
<tr>
<td>SubStation Alpha</td>
<td>MKV</td>
</tr>
<tr>
<td>Advanced SubStation</td>
<td>MKV</td>
</tr>
<tr>
<td>SubRip</td>
<td>MKV</td>
</tr>
<tr>
<td>VobSub</td>
<td>MKV</td>
</tr>
<tr>
<td>MPEG-4 Timed text</td>
<td>MP4</td>
</tr>
<tr>
<td>TTML in smooth streaming</td>
<td>MP4</td>
</tr>
<tr>
<td>SMPTE-TT TEXT</td>
<td>MP4</td>
</tr>
<tr>
<td>SMPTE-TT PNG</td>
<td>MP4</td>
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</table>
### Supported Music File Formats

<table>
<thead>
<tr>
<th>File Extension</th>
<th>Type</th>
<th>Codec</th>
<th>Support Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>*.mp3</td>
<td>MPEG</td>
<td>MPEG1 Audio Layer 3</td>
<td>-</td>
</tr>
<tr>
<td>*.m4a</td>
<td>MPEG4</td>
<td>AAC</td>
<td>-</td>
</tr>
<tr>
<td>*.mpa</td>
<td>FLAC</td>
<td>FLAC</td>
<td>24bit/192kHz</td>
</tr>
<tr>
<td>*.aac</td>
<td>OGG</td>
<td>Vorbis</td>
<td>Supports up to two channels.</td>
</tr>
<tr>
<td>*.flac</td>
<td>WMA</td>
<td>WMA</td>
<td>For WMA 10 Pro supports up to M2 profile and 5.1 channels. WMA lossless audio is not supported.</td>
</tr>
<tr>
<td>*.wav</td>
<td>wav</td>
<td>wav</td>
<td>-</td>
</tr>
<tr>
<td>*.mid</td>
<td>midi</td>
<td>midi</td>
<td>Type 0, type 1 and Seek is not supported. Only available with USB.</td>
</tr>
<tr>
<td>*.ape</td>
<td>ape</td>
<td>ape</td>
<td>-</td>
</tr>
<tr>
<td>*.aif</td>
<td>AIFF</td>
<td>AIFF</td>
<td>-</td>
</tr>
<tr>
<td>*.m4a</td>
<td>ALAC</td>
<td>ALAC</td>
<td>-</td>
</tr>
</tbody>
</table>

### Supported Picture File Formats

<table>
<thead>
<tr>
<th>File Extension</th>
<th>Type</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>*.jpg</td>
<td>JPEG</td>
<td>15360x8640</td>
</tr>
<tr>
<td>*.jpeg</td>
<td>JPEG</td>
<td>4096x4096</td>
</tr>
<tr>
<td>*.png</td>
<td>PNG</td>
<td>4096x4096</td>
</tr>
<tr>
<td>*.bmp</td>
<td>BMP</td>
<td>4096x4096</td>
</tr>
</tbody>
</table>

### Notes on the USB connection

- This player supports USB storage media, MP3 players, digital cameras, and USB card readers.
- Some USB/digital camera devices may not be compatible with the player.
- This player supports the FAT16, FAT32, and NTFS file systems.
- Connect USB devices directly to the player’s USB port. Connecting through a USB cable may cause compatibility problems.
- Inserting more than one memory device into a multi-card reader may cause the reader to operate improperly.
- The player does not support the PTP (Peer to Peer) protocol.
- Do not disconnect a USB device while it is transferring or recording data.
- The bigger the image resolution, the longer the image takes to display.
- This player cannot play MP3 files with DRM (Digital Rights Management) downloaded from commercial sites.
- This player only supports video that is under 30fps (frame rate).
- This player only supports USB Mass Storage Class (MSC) devices such as thumb drives and USB HDD. (HUB is not supported.)
- Certain USB HDD Devices, multi-card readers and thumb drives may not be compatible with this player.
- If some USB devices require excessive power, they may be limited by the circuit safety device.
• If playback from a USB HDD is unstable, provide additional power by plugging the HDD into a wall socket. If the problem continues, contact the USB HDD manufacturer.
• SAMSUNG is not responsible for any data file damage or data loss.
• This player does not support NTFS compressed, sparse, or encrypted files.
  - You can repair or format a USB device on your Desktop PC. (MS-Windows OS only)

AVCHD (Advanced Video Codec High Definition)
• This player can play back AVCHD format discs. These discs are normally recorded and used in camcorders.
• The AVCHD format is a high definition digital video camera format.
• The MPEG-4 AVC/H.264 format compresses images with greater efficiency than the conventional image compressing format.
• Some AVCHD discs use the "x.v.Color" format. This player can play back AVCHD discs that use "x.v.Color" format.
• "x.v.Color" is a trademark of Sony Corporation.
• "AVCHD" and the AVCHD logo are trademarks of Matsushita Electronic Industrial Co., Ltd. and Sony Corporation.

| NOTES |
• Some AVCHD format discs may not play, depending on the recording conditions. AVCHD format discs need to be finalized.
• "x.v.Color" offers a wider color range than normal DVD camcorder discs.
Compliance and Compatibility Notice

NOT ALL discs are compatible

- Subject to the restrictions described below and those noted throughout this Manual, including the Disc Type and Characteristics section of this user manual, disc types that can be played are: pre-recorded commercial Ultra HD BD-ROM, BD-ROM, DVD-VIDEO, and Audio CD (CD-DA); BD-RE/-R, DVD-RW/-R; and CD-RW/-R.
- Discs other than the above cannot and/or are not intended to be played by this player. And some of the above discs may not play due to one or more reasons provided below.
- Samsung cannot assure that this player will play every disc bearing the Ultra HD BD-ROM, BD-ROM, BD-RE/-R, DVD-VIDEO, DVD-RW/-R, DVD+RW/+R and CD-RW/-R logos, and this player may not respond to all operating commands or operate all features of every disc. These and other disc compatibility and player operation issues with new and existing format discs are possible because:
  - Ultra HD Blu-ray/Blu-ray is a new and evolving format and this player may not operate all features of Ultra HD Blu-ray Discs/Blu-ray Discs because some features may be optional, additional features may have been added to the Ultra HD Blu-ray Disc/Blu-ray Disc format after the production of this player, and certain available features may be subject to delayed availability;
  - not all new and existing disc format versions are supported by this player;
  - new and existing disc formats may be revised, changed, updated, improved and/or supplemented;
  - some discs are produced in a manner that allows specific or limited operation of certain features during playback;
  - some features may be optional, additional features may have been added after the production of this player or certain available features may be subject to delayed availability;
  - some discs bearing the Ultra HD BD-ROM, BD-ROM, BD-RE/-R, DVD-VIDEO, DVD-RW/-R, DVD+RW/+R and CD-RW/-R logos may still be non-standardized discs;
  - problems and errors can occur during the creation of Ultra HD Blu-ray Disc, Blu-ray Disc, or DVD disc software and/or during the manufacture of discs;
  - this player operates differently than a standard DVD player and other AV equipment for reasons noted throughout this user manual and for other reason(s) discovered and posted by the SAMSUNG customer care center.

- If you encounter disc compatibility or player operation problems, please contact the SAMSUNG customer care center.
You can also contact the SAMSUNG customer care center for possible updates for this player.
- For additional information on playback restrictions and disc compatibility, refer to the Precautions, Before Reading the user manual, Disc Types and Characteristics, and Before Playing sections of this user manual.

- For product progressive scan output: CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO ‘STANDARD DEFINITION’ OUTPUT. IF THERE ARE QUESTIONS REGARDING YOUR TV SET’S COMPATIBILITY WITH THIS PRODUCT, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.
Copy Protection

- Because AACS (Advanced Access Content System) is approved as content protection system for Ultra HD Blu-ray Disc and Blu-ray Disc format, similar to use of CSS (Content Scramble System) for DVD format, certain restrictions are imposed on playback, analog signal output, etc., of AACS protected contents.
  The operation of this product and restrictions on this product may vary depending on your time of purchase as those restrictions may be adopted and/or changed by AACS after the production of this product. Furthermore, BD-ROM Mark and BD+ are additionally used as content protection systems for Ultra HD Blu-ray Disc and Blu-ray Disc formats, which imposes certain restrictions including playback restrictions for BD-ROM Mark and/or BD+ protected contents. To obtain additional information on AACS, BD-ROM Mark, BD+, or this product, please contact the SAMSUNG customer care center.
- Many Ultra HD Blu-ray Discs/Blu-ray Discs/DVDs are encoded with copy protection. Because of this, you should only connect this player directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected Ultra HD Blu-ray Discs/Blu-ray Discs/DVDs.
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### Specifications

<table>
<thead>
<tr>
<th>General</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>4.2 lbs (1.9 kg)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>16.0 (W) X 1.8 (H) X 8.9 (D) inches</td>
</tr>
<tr>
<td></td>
<td>(406.0 (W) X 45.0 (H) X 225.6 (D) mm)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>+41°F to +95°F (+5°C to +35°C)</td>
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<tr>
<td>Operating Humidity Range</td>
<td>10 % to 75 %</td>
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</table>

<table>
<thead>
<tr>
<th>USB</th>
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</thead>
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<td>Type A</td>
<td>USB 2.0</td>
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<tr>
<td>DC output</td>
<td>5V 500mA Max.</td>
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<table>
<thead>
<tr>
<th>HDMI1</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Video</td>
<td>2160p, 1080p, 720p, 480p</td>
</tr>
<tr>
<td>Audio</td>
<td>PCM, Bitstream</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>HDMI2</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Audio</td>
<td>PCM, Bitstream</td>
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</table>

<table>
<thead>
<tr>
<th>Audio Output</th>
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<tbody>
<tr>
<td>Digital Audio Output</td>
<td>Optical</td>
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<table>
<thead>
<tr>
<th>Network</th>
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</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>100BASE - TX Terminal</td>
</tr>
<tr>
<td>Wireless LAN</td>
<td>Built-in (802.11 ac (2x2))</td>
</tr>
<tr>
<td>Security</td>
<td>WEP (OPEN/SHARED)</td>
</tr>
<tr>
<td></td>
<td>WPA-PSK (TKIP/AES)</td>
</tr>
<tr>
<td></td>
<td>WPA2-PSK (TKIP/AES)</td>
</tr>
<tr>
<td>WPS(PBC)</td>
<td>Supported</td>
</tr>
</tbody>
</table>

- Network speeds equal to or below 10Mbps are not supported.
- Design and specifications are subject to change without prior notice.
- For information about the power supply and power consumption, refer to the label attached to the product.
- Weight and dimensions are approximate.
- Dispose unwanted electronics through an approved recycler.
- To find the nearest recycling location, go to our website: www.samsung.com/recyclingdirect or call, (877) 278 - 0799.
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