Owner's Manual

DLP PROJECTOR

Please read the safety information carefully before using the product.

PF80G

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This device meets the EMC requirements for home appliances (Class B) and is intended for home usage. This device can be used in all regions.

⚠ NOTE

• Image shown may differ from your projector.
• Your projector's OSD (On Screen Display) may differ slightly from that shown in this manual.

SAFETY INSTRUCTIONS

Please take note of the safety instructions to prevent any potential accident or misuse of the projector.

• Safety precautions are given in two forms, i.e. Warning and Caution as detailed below.

⚠ **WARNING**: Failure to follow the instructions may cause serious injury and even death.
⚠ **CAUTION**: Failure to follow the instructions may cause injury to persons or damage to the product.

• Read the owner's manual carefully and keep it to hand.

WARNING/CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING/CAUTION

- TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

Read these instructions.
Keep these instructions.
Heed all warnings.
Follow all instructions.

Indoor Installation

⚠ WARNING

• Do not use the projector outside and do not expose the product to any humidity or water.
  - Since the product is not waterproof, this may result in a fire or electric shock.
• Do not place the projector in direct sunlight or near heat sources such as radiators, fires, stoves, etc.
  - This may result in fire.
• Do not place flammable materials such as aerosols near the projector.
  - This may result in fire.
• Do not allow children to cling to or climb up to the projector.
  - This may cause the projector to fall, causing injury or death.
• Do not install the product in a place with no ventilation (e.g., on a bookshelf or in a closet) or on a carpet or cushion.
  - This may result in fire due to the increase in internal temperature.
• Do not place the product close to sources of steam, oil or oil mist, such as humidifiers and kitchen counters.
  - Failure to do so may result in fire, electric shock, or corrosion.
• Do not install the product onto a wall or ceiling that is close to sources of oil or oil mist.
  - The product may be damaged and fall, resulting in serious injury.

• Do not place the projector where it might be exposed to dust.
  - This may result in fire.
• Do not use the projector in a damp place such as a bathroom where it is likely to get wet.
  - This may result in fire or electric shock.
• Do not allow a tablecloth or curtain to block the air vent.
  - This may result in fire due to the increase in the internal temperature.
• Ensure good ventilation around the projector. The distance between the projector and the wall should be at least 30 cm.
  - This will prevent fire due to the increase in the internal temperature.

⚠ CAUTION

• When placing the projector on a table or shelf, be careful not to put it near the edge.
  - The projector could fall due to balance problems, which may cause personal injury or damage to the product. Make sure to use the projector cabinet or stand that fits the projector.
• When moving the projector, make sure to switch it off and remove the power plug and cords.
  - The power cord may be damaged, resulting in fire or electric shock.
• Do not place the projector on an unstable or vibrating surface such as a wobbly shelf or a slope.
  - It may fall and cause injury.

• Be careful not to tip the projector over when connecting external devices to the projector.
 - This may cause personal injury or damage to the projector.

Power

⚠ WARNING

• The grounding wire should be connected.
 - Ensure that you connect the grounding cable to avoid electric shock. If it is not possible to ground the unit, have a qualified electrician install a separate circuit breaker. Do not try to ground the projector by connecting it to telephone wires, lightning rods or gas pipes.
• The power plug should be inserted fully into the power outlet.
 - An unstable connection may cause a fire.
• Do not place heavy objects on the power cord.
 - This may result in fire or electric shock.
• Never touch the power plug with wet hands.
 - This may result in electric shock.
• Do not plug too many devices into one multi-power outlet.
 - This may result in fire due to the power outlet overheating.
• Prevent dust from collecting on the power plug pins or outlet.
 - This may result in fire.
• To turn off the main power, remove the power plug, which should be positioned so it is easy to access for operation.

⚠ CAUTION

• Hold the plug firmly when unplugging.
 - A damaged wire may create a fire hazard.
• Ensure the power cord and plug are not damaged, modified, severely bent, twisted, pulled, sandwiched or hot. Do not use the product if the power outlet is loose.
 - This may result in fire or electric shock.
• Keep the power cord away from heating devices.
 - The wire's sheath may melt, which may result in fire or electric shock.
• Place the projector where people will not trip over or tread on the power cord to protect the power cord and plug from any damage.
 - This may result in fire or electric shock.
• Do not turn the projector on or off by plugging in the power plug or unplugging it from the power outlet. (Do not use the power plug as a switch.)
 - This may result in electric shock or damage to the product.
• Do not insert a conductor into the other side of the wall outlet while the power plug is inserted into the wall outlet. In addition, do not touch the power plug immediately after it is disconnected from the wall outlet.
 - This may result in electric shock.
• Only use the official power cord provided by LG Electronics. Do not use other power cords.
 - This may result in fire or electric shock.

When in Use

⚠ **WARNING**

- Do not place anything containing liquid on top of the projector such as a vase, flower pot, cup, cosmetics, or medicine; or ornaments, candles, etc.
  - This may result in fire or electric shock, or cause injury due to falling.
- In the event that there is a heavy impact or the cabinet is damaged, switch it off, unplug it from the power outlet and contact an authorized service center.
  - This may result in electric shock.
- Do not insert pieces of metal such as coins, hairpins or metal debris, nor flammable materials such as paper or matches into the projector.
  - This is to prevent electric shock or fire.
- In the event that liquid or a foreign object falls into the projector, switch it off and unplug it from the power outlet and contact our service center.
  - This may result in fire or electric shock.
- Make sure that a child does not swallow the batteries when you replace the old remote control batteries with new ones. Keep batteries out of reach of children.
  - If a child swallows a battery, consult a doctor immediately.
- Never open any cover on the projector.
  - There is a high risk of electric shock.
- Do not look directly into the lens when the projector is in use.
  - The bright light may damage your eyes.

- When the lamp is on or has just been turned off, avoid touching the air vent or lamp, because these will be very hot.
- If there is a gas leak in the room with the projector, do not touch the projector or power outlet. Open the windows for ventilation.
  - Sparks may cause fire or burns.
- Unplug the power cord from the outlet during a lightning storm.
  - This will prevent shock or damage to the projector.
- Do not use the projector near electronic devices that generate a strong magnetic field.
- Do not put the plastic package used to pack the projector around your head.
  - This may cause suffocation.
- Do not keep your hand on the projector for a long time when it is running.
- When you play a game by connecting a game console to a projector, it is recommended that you maintain a distance of more than four times the diagonal length of the screen.
  - Make sure that the connecting cable is long enough. Otherwise, the product may fall causing personal injury or damage to the product.
- Do not place the projector or its remote control with battery in an extremely high temperature environment.
  - This may result in fire.

⚠ CAUTION

- Do not place heavy objects on the projector.
  - It may fall down and cause personal injury.
- Be careful not to allow any impact to the lens during transport.
- Do not touch the lens of the projector.
  - The lens may be damaged.
- Do not use any sharp tools on the projector such as a knife or hammer, because this may damage the casing.
- In the event that no image appears on the screen or no sound is heard, stop using the projector. Switch off the projector, unplug it from the power outlet and contact our service center.
  - This may result in fire or electric shock.
- Do not drop anything onto the projector or allow anything to bang into the projector.
  - This may cause damage to the projector or personal injury.
- It is recommended that you maintain a distance of more than 5 to 7 times the diagonal length of the screen.
  - If you watch the screen at a close distance for a long time, your eye sight may become worse.
- Do not block the light beam emitted from the projector using a book or other object.
  - Lengthy exposure to the projector beam may result in fire. In addition, the lens may be overheated and damaged by the reflected heat. Disable the AV function to stop projection temporarily or turn off the power.
- Do not start the projector with the volume turned up high.
  - High volume may damage hearing.

Cleaning

⚠ WARNING

- Do not spray the projector with water when cleaning. Make sure water does not flow into the projector.
  - This may result in fire or electric shock.
- When there is smoke or a strange smell coming out from the projector or a foreign object falls into the projector, please switch it off and unplug it from the power outlet and contact our service center.
  - Otherwise, this may result in fire or electric shock.
- Use air spray, a soft cloth or a cotton swab moistened with a lens cleaning chemical or alcohol to remove dust or stains on the front projection lens.

⚠ CAUTION

- Contact your seller or our service center once a year to clean the internal parts of the projector.
  - If you do not clean the projector for a long period of time, dust will accumulate, which may result in fire or damage to the projector.
- When cleaning plastic parts such as the projector case, unplug the power first and wipe with a soft cloth. Do not spray with water or wipe with a wet cloth. Never use glass cleaner, automobile or industrial shiner, abrasives, wax, benzene, or alcohol as these can damage the projector.
  - This can result in fire, electric shock or cause damage to the product (deformation and corrosion).

• Remove the plug from the outlet before cleaning the product.
  - Otherwise, this may result in electric shock.

Others

⚠ WARNING

• When you go out, place the projector out of reach of animals, and remove the power plug from the wall outlet.
  - Using a damaged power cord may result in short circuit or fire.
• Do not use the projector near high-precision electronic devices or those that transmit weak radio signal.
  - This may affect the operation of the product, causing an accident.
• Only a qualified technician can disassemble or modify the projector. For diagnosis, adjustment, or repair, contact your seller or our service center.
  - This may result in fire or electric shock.
• Do not stare directly into lens when in operation, eye damage can occur.
• No user serviceable parts inside unit. High voltage parts can cause shock and even electrocution.
• Proper ventilation required, do not block airflow around unit. Doing so can cause injury and internal overheating.
• To prevent damage to lamp, unit must remain plugged in for approximately 3 minutes after power down to allow for proper cool down (not applicable on LED models).
• Do not touch the lens; doing so can result in burns or damage to lens.

Lens and unit may be HOT during and immediately after use. Use caution when handling unit, allowing for proper cool down.
• Only use a grounded electrical outlet.
• Do not insert anything into or cover up the exhaust vents.
  - This may result in fire or electric shock.
• Follow all maintenance guidelines for optimal use; service only at an authorized service center.
• Lamp contains mercury and as such must be disposed of according to local, state and federal laws (not applicable on LED models).

⚠ CAUTION

• Do not mix new batteries with old ones.
  - Burst or leaking batteries may result in damage or injury.
• Be sure to unplug if the projector is not to be used for a long period.
  - Accumulated dust may result in fire or electric shock due to overheating, ignition, or poor insulation.
• Only use the specified type of battery.
  - Burst or leaking batteries may result in damage or injury.
• Do not charge the battery using any devices other than the one provided with the product.
  - This may result in damage to the battery or fire.
• Dispose of used batteries properly.
  -This may result in explosion or fire. The correct method of disposal may vary depending on your country or region. Dispose of the battery pack as instructed.

- Do not throw or disassemble the battery.
  -This may result in fire or explosion due to damage to the battery.
- Always use batteries approved and certified by LG Electronics.
  - This will prevent damage or fire.
- Store batteries away from metallic objects, such as keys and paper clips.
  -Excess current may cause a rapid increase in temperature, resulting in fire or burns.
- Do not store the batteries near any heat source, such as a heater.
  - This may result in fire or damage to the product.
- Do not store batteries at temperatures higher than 60 °C or in high humidity.
  - This may result in explosion or fire.
- Keep the batteries and remote out of reach of children.
  - This will prevent personal injury or damage to the product.
- Make sure that the battery is installed correctly.
  - This prevent explosion or fire.
- The battery contains lithium-ion, so it must be handled with care.
  - This may result in explosion or fire.
- Make sure you use the same type of batteries for replacement.
- Incorrect battery replacement may cause fire.

Risk Group 2

CAUTION: Hazardous optical radiation may be emitted from this product. Do not stare into the lens at the operating lamp. It may be harmful to your eyes.

CONTENTS

PREPARATION

Accessories

Accessories included with the project are show below. The pictures may differ slightly from the actual product. Accessories are subject to change without prior notice. New accessories may be added or old ones removed.

Remote Control
Two AAA Batteries

Owner's Manual

Power Cord

Composite Gender

Component Gender

Owner's Manual CD
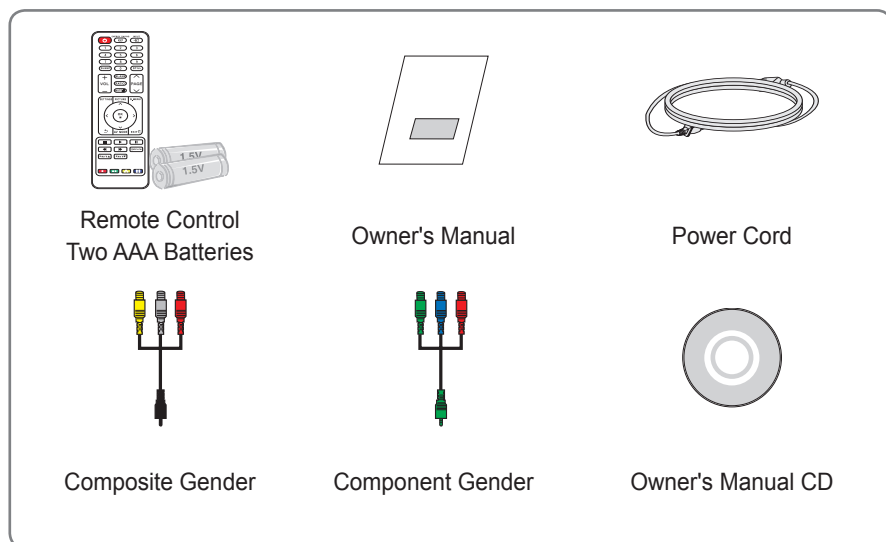
- When connecting an HDMI or USB cable, or connecting a USB flash drive to the HDMI or USB port, use a product that has a width of 18 mm or less and a height of 10 mm or less. If the USB cable or USB flash drive does not fit the USB ports of the projector, use an extension cable that supports USB 2.0.
- Use a certified cable with the HDMI logo attached.
- If you do not use a certified HDMI cable, the screen may not display or a connection error may occur. (Recommended HDMI cable types)
  - High-Speed HDMI®/™ Cable
  - High-Speed HDMI®/™ Cable with Ethernet
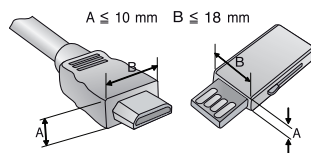
Optional Extras

To purchase optional accessories, visit an electronics store or online shopping site or contact the retail store where you purchased the product. Optional accessories are subject to change without prior notice.
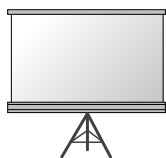
Projection Screen	Tripod	HDMI Cable
Video Cable	Audio Cable	MHL Cable
Optical Cable	LG Audio Device	
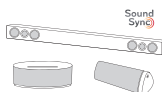
Parts and Components

The projector is manufactured using high-precision technology. You may, however, see tiny black dots and/or bright colored dots (red, blue or green) that continuously appear on the projector screen. This is a normal result of the manufacturing process and does not indicate a malfunction.

Front
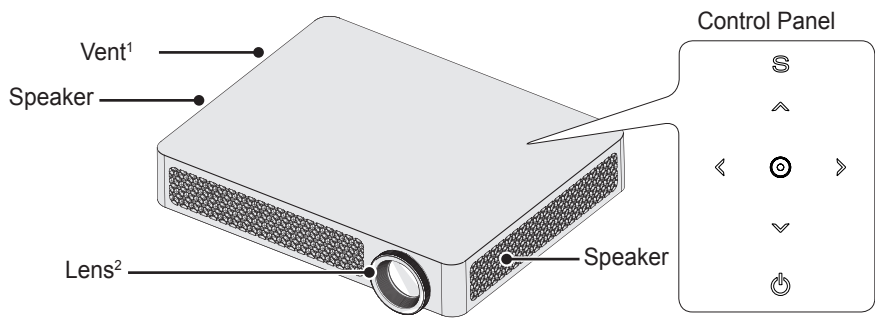
Button	Description
⏻ **(POWER)**	Turns the projector on or off.
S **(MENU)**	Displays or closes the Settings menu.
⟨, ⟩ **(Volume)**	Adjusts the volume level.
⋀, ⋁, ⟨, ⟩	Moves between menus and changes the settings.
◎ **(OK)**	Shows the current mode and saves changes to the settings.

1 Due to the high temperature of vent area, do not get close to the vent area.

2 Do not touch the lens while using the projector. The lens may be damaged.

Back
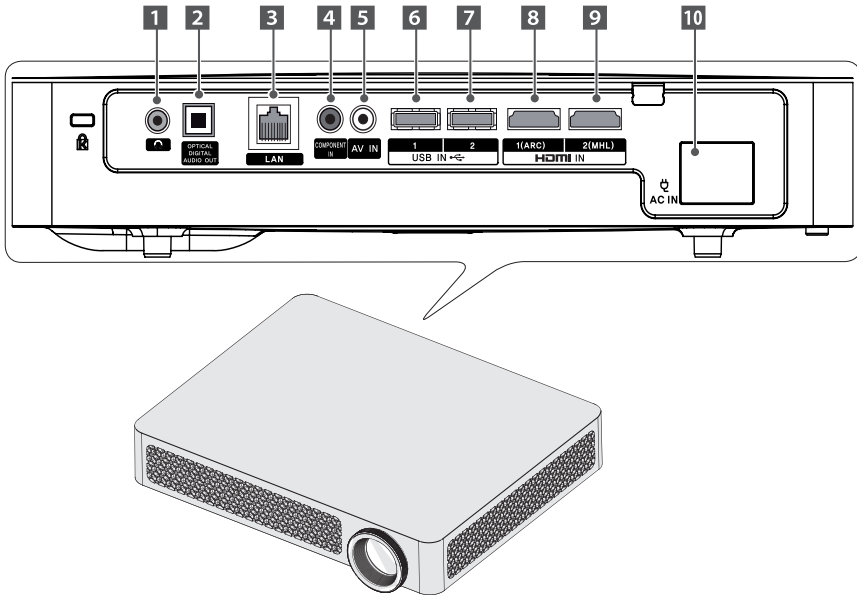
1	∩ **(Headphone Port)**	6	**USB IN 1 Port**
2	**OPTICAL DIGITAL AUDIO OUT Port**	7	**USB IN 2 Port**
3	**LAN Port**	8	**HDMI IN 1(ARC) Port**
4	**COMPONENT IN Port**	9	**HDMI IN 2(MHL) Port**
5	**AV IN Port**	10	**AC IN Port**

Installation

Installation Precautions

• Place the projector in a well-ventilated environment.

 - To prevent internal heat build-up, install the projector in a well-ventilated place.
   Do not place anything near the projector as this may block its air vents. If the air vents are blocked, the internal temperature will increase.
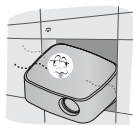
 - Do not place the projector on a carpet or rug. If the vent is on the bottom, use the projector on a solid level surface and ensure the vent is not blocked.

 - Be sure to prevent foreign objects such as paper debris from entering the projector.

 - Leave enough distance (30 cm or more) around the projector.

• Do not place the projector in a hot or humid environment.
   - Do not place the projector in a hot, cold, or humid environment.
• Do not place the projector in a place where it will easily attract dust.
   - This may result in fire.
• Never open any cover on the projector. There is a high risk of electric shock.
• The projector is manufactured using high-precision technology. You may, however, see tiny black dots and/or bright colored dots (red, blue or green) that continuously appear on the projector screen. This is a normal result of the manufacturing process and does not indicate a malfunction.
• The remote control may not work in an environment where a lamp equipped with electronic ballasts or a three-wavelength fluorescent lamp is installed. Replace the lamp with an international standard lamp for the remote control to work normally.
• To adjust the angle of the projector, turn the adjustment legs to the left or right while pressing on the rubber part at the same time.
• To install to the ceiling, attach the ceiling-type bracket to the projector with M4 x 8 mm screws.

Projection Distance per Screen Size

1 Place the projector on a sturdy, level surface, together with the PC or audio/video source.

2 Place the projector an appropriate distance away from the screen. The distance between the projector and the screen determines the actual size of the image.

3 Position the projector so that the lens is at a right angle to the screen. If the projector is not at a right angle, the projected image will look distorted. To correct the distortion, use the Keystone function. (see page 23)

4 Connect the power cord of the projector and the connected device to the wall outlet.

Ratio of upward projection: 100 %
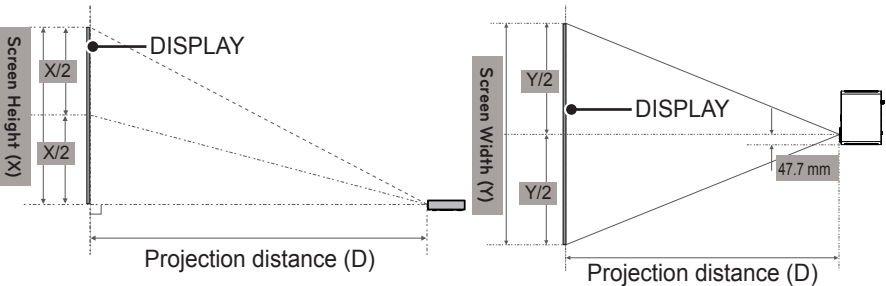
16:9 Ratio			
Screen Size (mm)	Screen Width (Y) (mm)	Screen Height (X) (mm)	Projection Distance (D) (mm)
508	443	249	621
635	553	311	776
762	664	374	932
889	775	436	1087
1016	886	498	1242
1143	996	560	1397
1270	1107	623	1553
1397	1218	685	1708
1524	1328	747	1863
1651	1439	809	2018
1778	1550	872	2174
1905	1660	934	2329
2032	1771	996	2484
2159	1882	1058	2639
2286	1992	1121	2795
2413	2103	1183	2950
2540	2214	1245	3105
2667	2324	1308	3260
2794	2435	1370	3416
2921	2546	1432	3571
3048	2657	1494	3726

How to Install the Projector On a Tripod

- You can install this projector using a camera tripod.
As shown below, you can mount the projector instead of a camera on the tripod.
- When stabilizing the tripod, we recommend using a locking bolt of standard size 4.5 mm or less. The maximum size allowed for the locking bolt is 5.5 mm.
(If it is longer than the maximum allowed size, it may damage the projector.)

Bottom side of the projector

Bolt used to attach the projector

+

⇒

The projector is connected to this part.
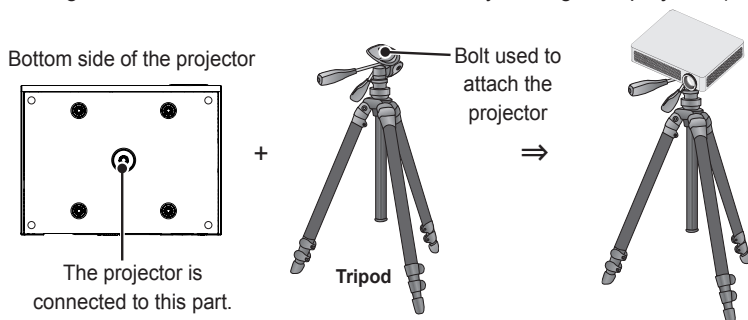
Tripod

⚠ CAUTION

- If you are using a tripod, be careful not to apply external force to the tripod. Doing so may damage the projector.
- Do not place the tripod on an unstable surface.
- Be sure to use a tripod with a maximum load capacity of 3 kg or more.
- To use the projector safely, position the tripod legs so that they are as wide and stable as possible and be sure to securely attach the projector to the tripod.

Kensington Security System

- This projector has a Kensington Security Standard connector. Connect a Kensington Security System cable as shown below.
- For more information on installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.
- The Kensington Security System is an optional accessory.
- What is Kensington? Kensington is a company that provides security systems for laptops and other electronic devices. Website: http://www.kensington.com
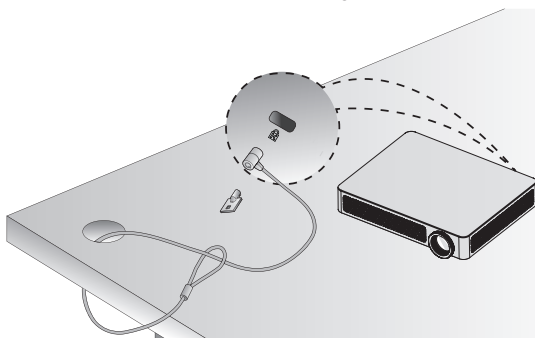
REMOTE CONTROL

Open the lid at the back of the remote control and insert
the batteries as described in the ⊕⊖ instructions.
Use new batteries and do not mix regular or rechargeable
batteries. (1.5 V AAA)
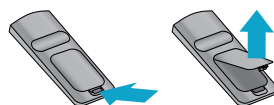
⚠️ **CAUTION**
• Do not mix new batteries with old ones.
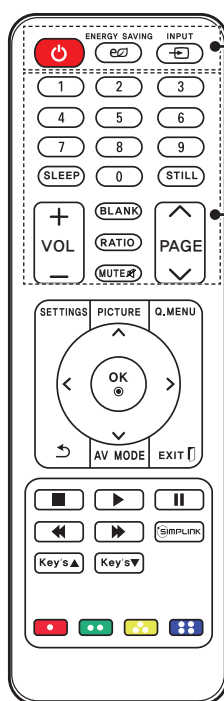
POWER
Turns the projector on or off.

ENERGY SAVING
Reduces power consumption by adjusting peak
screen brightness.

INPUT
Changes the input source.

Number buttons
Enters a number.

SLEEP
Sets the sleep timer.

STILL
Stops the video being played.

VOL +, -
Adjusts the volume level.

BLANK
Blanks the screen.

RATIO
Changes the aspect ratio of the screen
per pressing of the button.

MUTE 🔇
Mutes the sound of the projector.

PAGE ∧, ∨
Moves to the previous/next page.
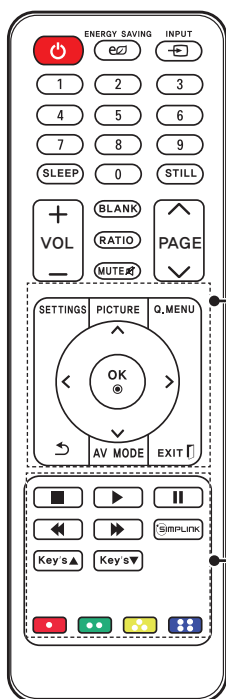
SETTINGS
Displays or closes the Settings menu.
PICTURE
Changes the picture mode per press of the button.
Q.MENU
Allows you to change the settings easily.
Up/Down/Left/Right buttons
Switches between menu functions.
OK ◉
Shows the current mode and saves changes to the settings.
�
Returns to the previous screen.
AV MODE
Selects AV mode for the genre of the program being watched.
EXIT ▯
Exits the menu.

Playback control buttons
Controls the playback of multimedia content on the SmartShare.
ⓢIMPLINK
Allows you to use the SIMPLINK function.
Key's ▲, ▼
Adjusts the Keystone function.
Color buttons
Sets detailed settings or gesture for each menu.

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❶ NOTE

- When using the remote control, the optimal operation range is 6 meters or less (left/right) and within a 30 degree arc of the remote control IR receiver.
- If a cable is connected to the back port, the optimal operating range is 3 meters or less (left/right) and within a 30 degree arc of the remote control IR receiver.
- For seamless operation, do not block the IR receiver.
- When you carry the remote control in the portable bag, make sure that the buttons on the remote control are not pressed by the projector, cables, documents or any other accessories in the bag. Otherwise, it may significantly reduce the battery life.

30 ° 30 °
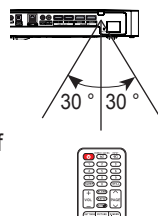
Using the PROJECTOR

Watching Projector

Initial Setup

The menu screen display in this owner's manual is an example to help users understand how to operate the product and may look different from the actual screen.

1 Connect the power cord correctly.

2 After waiting for a moment, press the **POWER** button on the remote control or the control panel.

3 When you turn on the Projector for the first time, a setting screen appears as shown below. Here, you can specify the items required for watching the Projector more easily.

Setting is complete

2 3

Initial settings are complete!
You can use LG Projector.

Language
English

Network
Connected
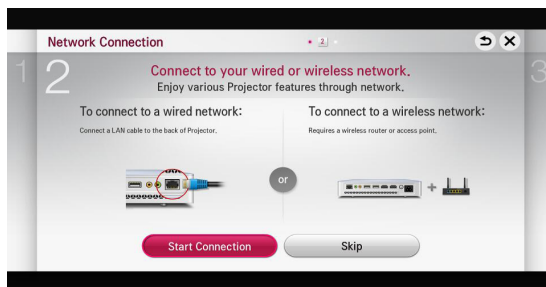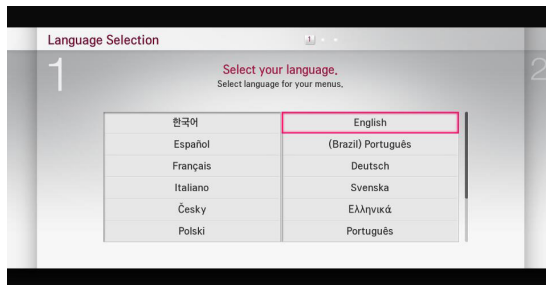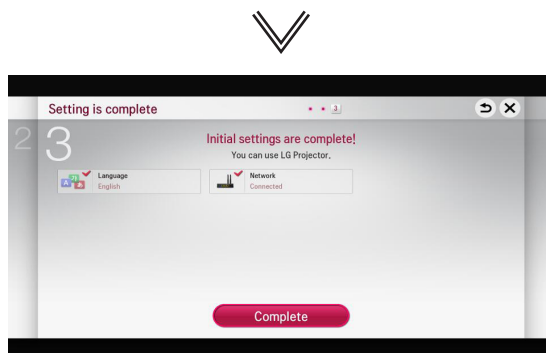
Complete

* The initial settings are completed when you select the settings above.

Focus and Position of the Screen Image

When an image appears on the screen, check if it is in focus and fits the screen properly.
To adjust the focus of the image, rotate the focus ring.

Focus Ring
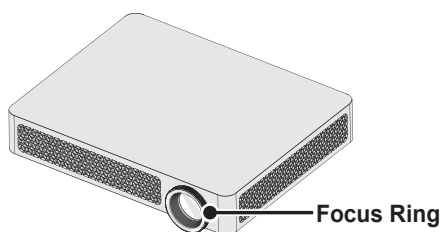
Additional Options

Adjusting Aspect Ratio

• Press the **SETTINGS** button on the remote control. Select **PICTURE** → **Aspect Ratio** to change the aspect ratio.
• You can also use the **Q.MENU** or **RATIO** button.

Menu	Description
16:9	Resizes images to fit the screen width.
Just Scan	Displays video images in the original size without removing parts of the edge of the image. • In HDMI/Component (over 720p) mode, **Just Scan** is available.
Set By Program	Changes the aspect ratio to 4:3 or 16:9 depending on the input video signal.
4:3	Resizes images to the previous standard 4:3.
Zoom	Resizes the image to fit the screen width. The top and bottom parts of the image may be cut off.
Cinema Zoom 1	Choose Cinema Zoom when you want to enlarge the picture in correct proportion.

🛈 NOTE

• Available picture size may differ depending on the input signal.
• The screen aspect ratios on HDMI-PC input are available in 4:3 and 16:9 only.

Using the Keystone Function

To prevent the screen image from becoming trapezoidal, **Keystone** adjusts the top and bottom width of the image if the projector is not set up at a right angle to the screen.
Because the **Keystone** function may cause inferior screen image quality, use this function only when it is not possible to set up the projector at an optimal angle.
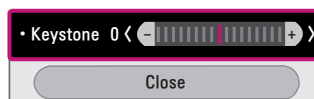
• Keystone 0 ⟨ − ‖‖‖‖‖‖‖‖‖‖‖ + ⟩
Close

1 Press the **Key's ▲** or **Key's ▼** button to adjust the picture.
  • **Keystone** can be adjusted from **-40** to **40**.

2 Press the **OK** button when done.

Changing input device

To select an external input

Selects external input.

- Press the **INPUT** button on the remote control to display the input selection screen.
  - Connected inputs are displayed first. However, **AV** is always activated.
- Select an input signal using the remote control's **INPUT** button to connect the projector to the desired input. You can use the $<$ or $>$ button to switch between all the input modes.
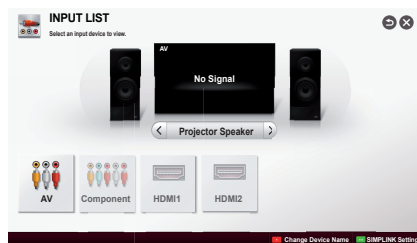
Selecting an Input Label

Displays which devices are connected to which input ports.

1 Press the **INPUT** button on the remote control to display the input selection screen.

2 Press the **red** button.

3 Press the $<$ or $>$ button to go to the desired input and press the **OK** button.

4 Use the $\wedge$, $\vee$, $<$, or $>$ button to select a device name.

To use SIMPLINK

SIMPLINK is a feature that enables you to control and manage various multimedia devices conveniently using the projector remote control only via the SIMPLINK menu.

1 Connect the projector's HDMI IN terminal with SIMPLINK device's HDMI output terminal using HDMI cable. For home theater units with SIMPLINK function, connect HDMI terminals as above and use an optical cable to connect **Optical Digital Audio Out** from the projector to Optical Digital Audio In of the SIMPLINK device.

2 Press the **SIMPLINK** button on the remote control.
The **SIMPLINK** menu window appears.

3 Select **SIMPLINK Setting** on SIMPLINK menu window. **SIMPLINK Setting** window appears.

4 **SIMPLINK Setting** to **On** in **SIMPLINK** setup window.

5 Close **SIMPLINK Setting** window.

6 Press the **SIMPLINK** button on the remote control.
Select the device you want to control in the **SIMPLINK** menu window.

❶ NOTE

• This function only works on devices with the SIMPLINK logo (ˢᴵᴹᴾᴸⁱⁿᵏ). Verify that the external device has a SIMPLINK logo.
• To use the SIMPLINK function, you need to use a high-speed HDMI® cable (with CEC, or Consumer Electronics Control, feature added). High-speed HDMI® cables have the No. 13 pin connected for information exchange between devices.
• Turn on or select the media of a device with home theatre features to see the speaker switch to External Speaker.
• Connect with an Optical cable (sold separately) to use External Speaker.
• Switching to external input causes devices operating with SIMPLINK to stop.
• Use of a third-party device with HDMI-CEC features may cause malfunctions.

Explanation on SIMPLINK features

Menu	Description
Direct Play	Plays the multimedia device on the projector instantly.
Select multimedia device.	Selects the desired device via the SIMPLINK menu to control it from the projector screen instantly.
Disc playback	Manages the multimedia device with the projector remote control.
Power off all devices	If the Auto Power function is set to On in the SIMPLINK settings, turning the projector off will turn the power off on all SIMPLINK-connected devices.
Sync Power on	If the Auto Power function is set to On in the SIMPLINK settings, turning on a SIMPLINK device will turn the projector on.
Speaker	Selects speaker either on the home theatre unit or the projector.

Using the Quick Menu

You can customize frequently used menus.

1 Press the **Q.MENU** button.

2 Press the $<$ or $>$ button to select a menu and press **OK**.

Menu	Description	
Aspect Ratio	Resizes the picture.	
Picture Mode	Changes the picture mode.	
Sound Mode	Sets the sound mode.	
Sleep Timer	Sets the projector to be turned off at the specified time.	
Energy Saving	Reduces power consumption by adjusting peak screen brightness.	
AV Mode	Sets the mode.	
	Mode	
	Off	You can watch using the settings in the video/audio menu.
	Cinema	Change to optimal video/audio settings for movies.
	Game	Change to optimal video/audio settings for games.
USB Device	Allows you to remove a connected USB device in a safe manner.	

3 Press the $\wedge$, $\vee$, $<$, or $>$ button to scroll through the following menus.

To set Sound

To set sound output

To use projector's speakers

Sound is output through the projector speaker.

• Press the **SETTINGS** button on the remote control. Select **SOUND →** **Sound Out → Projector Speaker**.

To use External Speaker

Sound is output through the speaker connected to the optical port. SIMPLINK is supported.

• Press the **SETTINGS** button on the remote control. Select **SOUND →** **Sound Out → External Speaker (Optical/HDMI ARC)** to set up as follows:

Menu	Description
ARC Mode	External audio devices can be connected via High-Speed HDMI® cable without an extra optical audio cable to output SPDIF. It interfaces with SIMPLINK. For an external device that supports ARC (Audio Return Channel), connect it to the **HDMI IN 1(ARC)** port.
Digital Sound Out	Sets up Digital Sound Output.

• Press the **SETTINGS** button on the remote control. Select **SOUND →** **Sound Out → External Speaker (Optical/HDMI ARC) → ARC Mode**.

Menu	Description
Off	Even when the connected ARC-supported external audio device is turned on, audio output is not automatically processed through the external audio device's speakers.
On	If ARC-supported external audio device is turned on, audio output is automatically processed through the external audio device speakers.

NOTE

• Connect to ARC-only terminal when connecting to external devices.
• Use high-speed HDMI® cable when connecting to external devices.
• Use of a third-party device with an ARC function may cause malfunctions.

• Press the **SETTINGS** button on the remote control. Select **SOUND → Sound Out → External Speaker (Optical/HDMI ARC) → Digital Sound Out**.

Item	Sound Input	Digital Sound Out
Auto	MPEG	PCM
	Dolby Digital	Dolby Digital
	Dolby Digital Plus	Dolby Digital
	HE-AAC	Dolby Digital
PCM	All	PCM

To connect and use LG audio device

LG audio device allows you to enjoy rich powerful sound easily.

• **Wired Connection:**
  Press the **SETTINGS** button on the remote control. Select **SOUND → Sound Out → LG Sound Sync (Optical)**.
  Connect LG audio device with the Sound Sync logo to the **OPTICAL DIGITAL AUDIO OUT** port.
• **Wireless Connection:**
  Press the **SETTINGS** button on the remote control. **SOUND → Sound Out → LG Sound Sync (Wireless)**.
  LG audio device with the Sound Sync logo can be connected wirelessly.

🛈 NOTE

• You can use the projector remote control to adjust the volume of the connected device.
• For wireless connection, if the device fails to connect. Check the device power to connect and if the LG Audio device is in a proper operating condition.
• If you select **LG Sound Sync (Wireless)**, devices available for connection are searched and one of searched devices is automatically connected. When a device is connected, its name is shown.
• If two or more devices are detected, the first detected device is connected first. To view more detected devices to connect, press the Show More button.
• If **LG Sound Sync (Wireless)** is being selected and you turn on the projector, it search and try to connect the device which recently connected.

ENTERTAINMENT

To connect network

A wireless or wired network connection is required to use the DLNA function.

One-click network connection

Connects easily to a wired/wireless network.

• Press the **SETTINGS** button on the remote control. **NETWORK →** **Network connection** to connect to an available network automatically. Follow the prompts on the projector.

To connect to a network through Set Expert

For use in special circumstances such as in offices (in cases where a static IP is used).

• Press the **SETTINGS** button on the remote control. Select **NETWORK →** **Network connection**.

1 Select a network connection, either **Wired** or **Wireless**.

2 When connecting via Wi-Fi, use the one of the following network connection methods.

Item	Description
AP List	Connects to the network selected from the AP List.
Enter the SSID	Connects to the wireless AP typed in.
WPS-PBC	Connects easily when the button of a wireless AP supporting PBC is pressed.
WPS-PIN	Connects easily when the PIN of the wireless AP that you wish to connect to is entered in to the AP website.

To use the Wi-Fi Direct function

Wi-Fi Direct is a function that allows your projector to connect with a Wi-Fi Direct device without Internet connection. With **SmartShare™**, you can watch the files stored on a device connected via Wi-Fi Direct.

- Press the **SETTINGS** button on the remote control. Select **NETWORK → Wi-Fi Direct**.

1 Set **Wi-Fi Direct** to **On**. (If you do not use it, please change it to **Off**.)

2 Enable the Wi-Fi Direct settings on the device that you want to connect to.

3 A list of devices that can be connected to the projector is displayed.

4 Select a device to connect.

5 Select **Yes**, when the connection request message appears.

6 If the device that you want to connect accepts the request, **Wi-Fi Direct** is connected.

To use the Miracast™/ Intel's WiDi function

You can view the screen of a device with Miracast™ and Intel's WiDi technologies on your projector. Contact the device manufacturer to find out if the device supports this function.

- Press the **SETTINGS** button on the remote control. Select **NETWORK → Miracast™/Intel's WiDi**.

1 Set **Miracast™/Intel's WiDi** to **On**. (If you do not use it, please change it to **Off**.)

2 Enable the **Miracast™/Intel's WiDi** settings on the device that you want to connect to.

3 A list of devices that can be connected to the projector is displayed.

4 Select a device to connect.

5 Select **Yes**, when the connection request message appears.

6 If the device that you want to connect accepts the request, **Miracast™/ Intel's WiDi** is connected.

- When **Wi-Fi Direct** is set to **Off**, if you set **Miracast™/Intel's WiDi** to **On**, **Wi-Fi Direct** is automatically set to **On**.

- When you set the **Miracast™ / Intel's WiDi** function to **Off**, **Wi-Fi Direct** returns to the previous setting.

🛈 NOTE

- It is recommended to connect a laptop using **Intel's WiDi** within close range.
- Though **Intel's WiDi** can be connected without a wireless router, it is recommended to connect the wireless router first for optimal performance.
- You may not connect your projector to a non-LG Electronics device even when it is detected.
- It is recommended you to connect a device to a 5 GHz router.
- The response rate may vary depending on the user's environment.
- For more information on the device you want to connect to, refer to its owner's manual.

Tips for Network Settings

- Use a standard LAN cable (Cat5 or higher with RJ45 connector, 10 Base-T or 100 Base TX LAN port).
- Resetting your modem can cause network connection problems. To resolve the problem, turn the power off, disconnect and reconnect, and then turn the power back on.
- LG Electronics is not responsible for any network connection problems or any faults, malfunctions and errors caused by an network connection.
- A network connection may not work properly depending on the Internet service provider.
- A DSL modem is required for a DSL service; a cable modem is required for a cable service. Only a limited number of network connections may be available, and projector network setting may not be available depending on your contract with your Internet Service Provider (ISP). (If only one device is allowed per line and the PC is already connected, other devices cannot be used.)
- Wireless networks can be subject to interference from other devices operating at a frequency of 2.4 GHz (wireless phones, Bluetooth devices or microwave ovens). There may also be interference from devices with a frequency of 5 GHz, same as other Wi-Fi devices.

- The surrounding wireless environment can cause the wireless network service to run slowly.
- If you do not turn off the entire local home network, network traffic may occur on some devices.
- For an AP connection, an access point device that supports wireless connection is required and the wireless connection feature must be enabled on the device. Contact your service provider regarding availability of wireless connection on your access point.
- Check the SSID and security settings of the AP for AP connection. Refer to the appropriate documentation for SSID and security settings of the AP.
- Invalid settings on network devices (wired/wireless line sharer, hub) can cause the projector to run slowly or not operate properly. Install the devices correctly according to the appropriate manual and set the network.
- Connection method may differ according to the AP manufacturer.

SMARTSHARE

Before Using

Connecting a USB Device

Connect a USB device (external HDD, USB memory) to the USB port of projector to enjoy the content files stored in the USB device with your projector. You cannot write or delete data in the USB device. Connect a USB flash drive as shown below.
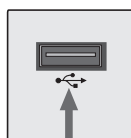
USB Flash Drive

Removing a USB Device

1 Click the **Q.MENU** button.

2 Use the $<$ or $>$ button to move to **USB Device** and press the **OK** button.

3 Select a USB to remove. Wait for confirmation that the USB device has stopped before removing the USB.

> **⚠ NOTE**
>
> • If detached early, an error may occur on the projector or the USB storage device.
> • Once a USB device has been selected for removal, it can no longer be read. Remove the USB storage device and then re-connect it.

Tips for Using a USB Device

- If the USB storage device has a built-in auto recognition program or uses its own driver, it may not work.
- Some USB storage devices may not work or may work incorrectly.
- If you use a USB extension cable, the USB device may not be recognized or may not work properly.
- Use only USB storage devices formatted with the Windows FAT32 or NTFS file system.
- For external USB HDDs, it is recommended that you use devices with a rated voltage of less than 5 V and a rated current of less than 500 mA.
- It is recommended to use a USB hub or hard disk drive with power supplied. (If the power supplied is not enough, the USB storage device may not be detected properly.)
- It is recommended that you use USB flash drives of 32 GB or less and USB HDDs of 2 TB or less.
- If a USB HDD with power-saving function does not work properly, turn the power off and on. For more information, refer to the user manual of the USB HDD.
- Data in USB storage device can be damaged so be sure to back up important files to other devices. Data maintenance is the user's responsibility and the manufacturer is not responsible for data loss.

To use SmartShare™

1 Press the **SETTINGS** button on the remote control.

2 Select **SMART SHARE**.

You can watch the photo, music, video and document on the projector by connecting a USB or home network (DLNA). The photo, music, video and document files of all devices connected to the projector are displayed. (For the document files, only those in the devices connected via USB are displayed.)
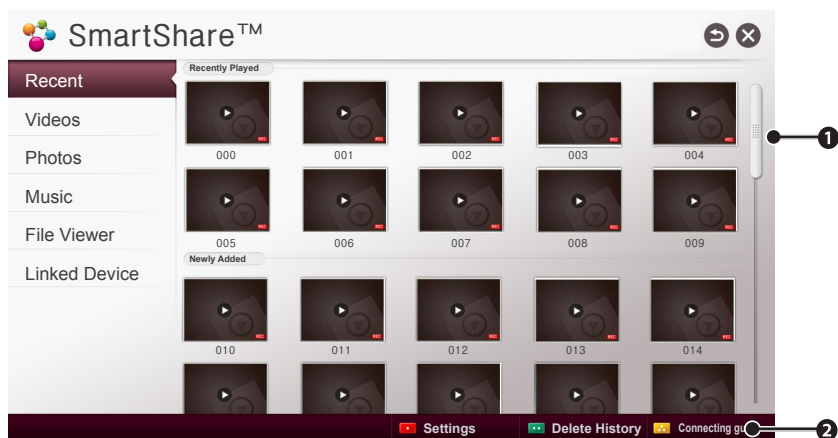
	Description
❶	Displays photo / music / video / document files on all devices connected to the projector.
❷	Shows how to connect PC, smartphone/device, and USB.

Watching the Videos

In the Movie List, you can watch movies stored on the connected USB device.
Controls playback and sets options while viewing videos.

Playing video - warning

- Some subtitles created by users may not work properly.
- The video and subtitle files should be placed in the same folder. For subtitles to display correctly, the video and subtitle files must have the same name.
- Subtitles on an NAS (Network Attached Storage) device may not be supported depending on the manufacturer and model.
- We do not support any stream that contains GMC (Global Motion Compensation) or Qpel (Quarterpel Motion Estimation).
- Only H.264 / AVC profile level 4.1 and lower is supported.
- The file size limit is dependent on the encoding environment.
- It works only the above version of Window Media Audio V2.
- It's not supported AAC Main Profile.
- Video files created by some encoders may not be played back.
- Video files in formats other than the ones specified here may not be played back.
- Playback of video files stored on the USB device that do not support High Speed, may not work properly.
- The projector supports DTS audio codec when the USB/HDMI video file playback.

To control video playback

You can control playback using the following buttons.
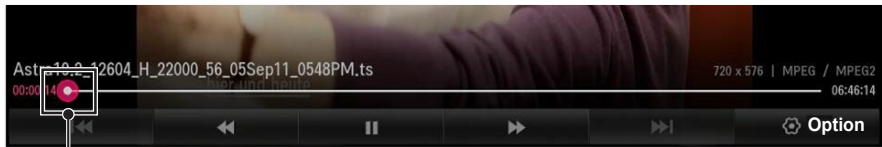
Shows the current playing position. Use the $<$ or $>$ button to move forward or backward.

Item	Description
▶	Resumes normal playback.
‖	Pauses the video player.
	‖ ▶▶ Displays in slow motion.
◀◀ ▶▶	Whenever this button is pressed, the playback speed is increased or decreased by one unit.
◀◀ ▶▶	Plays the previous/next file.
Option	Sets the option.

Viewing the Photos

You can view photos stored on a connected device.

To control photo view

You can control playback using the following buttons.
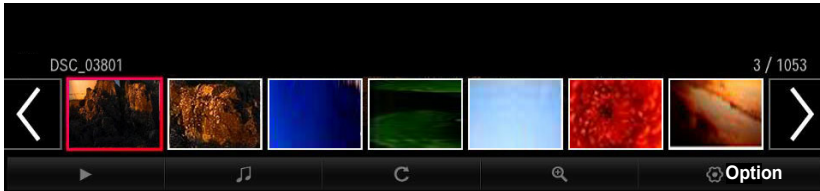
Item	Description
$<, >$	Selects the previous or next photo.
▶	If no picture is selected, all photos in the current folder are displayed in a slide show. If some photos are selected, those photos are displayed in a slide show. • Set **Slide Show Speed** in the **Option** → **Set Photo View.** menu.
♫	You can listen to music while viewing full-size photos. • Set **BGM** in the **Option** → **Set Photo View.** menu.
C	Rotates photos. • Rotates a photo 90 °, 180 °, 270 °, 360 ° clockwise. • Photos cannot be rotated if their width is greater than the height of the maximum supported resolution.
⊕	Enlarges or reduces the photo. Use the **Up/Down/Left/Right** buttons to select a page and press the **OK** button.
Option	A setting popup window will appear.

Listening to Music

You can play audio files stored on the connected device.

To control music playback

You can control playback using the following buttons.

Changes the playing position.
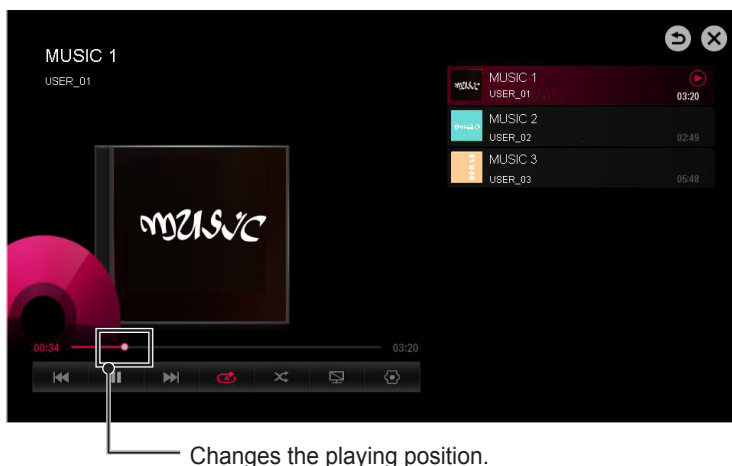
Item	Description
⏮ ⏭	Plays the previous/next file.
❚❚	Pauses the music player.
▶	Resumes normal playback.
⇄	Sets the repeat playback.
⤬	Sets the random playback.
▱	Plays music with the projector screen turned off.
⚙	Sets Option for the music list.

- You can control playback using the ◀◀ , ▶, and ▶▶ keys on a remote control.
- If you use the USB device, time information will be not shown on screen.

Viewing Files

You can see document files stored on a connected device.

Supported File Formats

XLS, DOC, PPT, TXT, XLSX, PPTX, DOCX, PDF
Microsoft Office 97/2000/2002/2003/2007 version
Adobe PDF 1.0/1.1/1.2/1.3/ 1.4 version

- File Viewer realigns a document, so it may look different from what is displayed on a PC.
- For documents that include images, the resolution may look lower during the realigning process.
- If the document is large or has many pages, it may take longer to load.
- Unsupported fonts may be replaced by other fonts.
- The file viewer may not open for Office documents that contain many high resolution images. In that case, reduce the image file size, save it on a USB storage device and run the file viewer again or connect your PC to the projector and open the file on your PC.

Browsing File Viewer

You can control playback using the following buttons.

- Press the **Go Page** button to move to the previous or next page.
- Press the **VOL +, -** button to **zoom** in or **zoom out**.
  - Press the **OK** button.
  - Press the **Up/Down/Left/Right** buttons to move to **Go Page** or **Zoom**.

⌕ [125%]	11.pptx	1 / 2 31 KB
▣ Go Page	⌕ Zoom	⌾ Option	▦ List
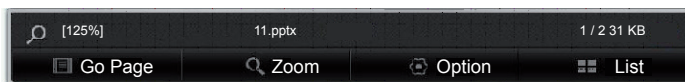
Item	Description
Go Page	Moves to the page you specify.
Zoom	Enlarges or reduces the document.
Option	Sets Option for File Viewer.
List	Returns to a list.

To set SmartShare™ related functions

Press the **SETTINGS** button on the remote control. Select **SMART SHARE** →
Settings.
Changes settings related to SmartShare™ content playback.

Advanced Setting

Item	Description
My Projector Name	Changes the name that appears when searching for the projector from other devices.
Network Status	Checks the network connection.
Wi-Fi Direct	Allows use of wireless connection functions such as Wi-Fi Direct and WiDi.
Auto Play on Receive	Accepts / rejects content transferred from other devices.
DivX(R) VOD	Registers or releases DivX. Checks DivX Registration Code for playing DivX-protected videos. Register at http://vod.divx.com. Uses Registration Code to rent or purchase movies at www. divx.com/vod. • Rented/purchased DivX files cannot be played if the DivX Registration Code of a different device is used. Use only the DivX Registration Code granted to this device. • Converted files not conforming to the DivX Codec Standard may not play or may produce abnormal images and sound.

Delete History

• To delete contents history, press **Delete History** button.
• Use the contents at **Recent** menu.

SmartShare™ supporting file

- Maximum data transfer rate: 20 Mbps(Mega bit per second)
- External subtitle formats supported: *.smi, *.srt, *.sub (MicroDVD, SubViewer 1.0/2.0), *.ass, *.ssa, *.txt (TMPlayer), *.psb(PowerDivX)
- Internal subtitle formats supported: XSUB (supports internal subtitles generated from DivX6)

Subtitle Language

Subtitle Language	Language
Latin1	English, Spanish, French, German, Italian, Swedish, Finnish, Dutch, Portuguese, Danish, Romanian, Norwegian, Albanian, Gaelic, Welsh, Irish, Catalan, Valencian
Latin2	Bosnian, Polish, Croatian, Czech, Slovak, Slovenian, Serbian, Hungarian
Latin4	Estonian, Latvian, Lithuanian
Cyrillic	Bulgarian, Macedonian, Russian, Ukranian, Kazakh
Greek	Greek
Turkish	Turkish
Hebrew	Modern Hebrew
Chinese	Simplified Chinese
Korean	Korean
Arabic	Arabic

Video Supported Codec

Maximum resolution: 1920 x 1080 @ 30p

Extension	Codec	
.asf **.wmv**	**Video**	VC-1 Advanced Profile, VC-1 Simple and Main Profile
	Audio	WMA Standard, WMA 9 Professional
.divx **.avi**	**Video**	DivX3.11, DivX4, DivX5, DivX6, XViD, H.264/AVC, Motion Jpeg, MPEG-4 Part 2
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, LPCM, ADPCM, DTS
.mp4 **.m4v** **.mov**	**Video**	H.264/AVC, MPEG-4 Part 2
	Audio	AAC , MPEG-1 Layer III (MP3)
.3gp **.3g2**	**Video**	H.264/AVC, MPEG-4 Part 2
	Audio	AAC, AMR-NB, AMR-WB
.mkv	**Video**	H.264/AVC
	Audio	HE-AAC, Dolby Digital
.ts **.trp** **.tp** **.mts** **.m2ts**	**Video**	H.264/AVC, MPEG-2, VC-1
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3) Dolby Digital, Dolby Digital Plus, AAC
.vob	**Video**	MPEG-1, MPEG-2
	Audio	Dolby Digital, MPEG-1 Layer I, II, DVD-LPCM
.mpg **.mpeg**	**Video**	MPEG-1, MPEG-2
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III(MP3), AAC

Audio File

File type	Item	Info
mp3	**Bit rate**	32 Kbps to 320 Kbps
	Sample freq.	16 kHz to 48 kHz
	Support	MPEG1, MPEG2, Layer2, Layer3

Available photo file

File type	Item	Profile
2D (jpeg, jpg, jpe)	**JPEG**	Minimum: 64 x 64 Maximum: Normal Type: 15360 (W) x 8640 (H) Progressive Type: 1920 (W) x 1440 (H)

To connect DLNA

DLNA stands for Digital Living Network Alliance, which allows you to enjoy video / music / photo files stored on a PC or server on your Projector via home networking.

To connect a DLNA-authenticated Smartphone

The Projector and the smartphone should be on the same network.

1 Ensure that Wi-Fi is enabled on the smartphone.

2 Install / run the app to share content on the smartphone.

3 Run "Share my mobile phone Content".

4 Select the kind of content (video / music / photo) you wish to play.

5 Select the video, music or photo file to play on the Projector.

6 Select Add to Play List.

7 Select Projector model name on the device you want to play content from. (Projector model name is on the label of the device.)

8 Play ▶ Shows the selected file on Projector.

To connect DLNA DMR (Digital Media Renderer)

If the PC's operating system is Windows 7 or Windows 8 or the DLNA-certified device (e.g. mobile phone) is connected via a network, you can play music / videos / photos on Projector without installing a separate program.

1 Configure Projector and PC on the same network. Configure Windows 7 or Windows 8-installed PC on the network.

2 Right-click the music / video / photo file that you want to play and use the "Remote Playback" feature that comes with Windows 7 or Windows 8.To play content from a device such as a mobile phone, refer to the Owner's Manual for the device.

3 Content will be played on one device only even if more than one Projector or device is connected. Play speed can vary depending on network speed.

To connect DLNA DMP (Digital Media Player)

With a PC having SmartShare™ PC software, music / video / photo files may be replayed on the Projector by linking them via home networking.

1 Configure Projector and PC on the same network. The Projector and each device should be connected through a single access point to enable DLNA service.

2 Install SmartShare™ PC software on the PC from the website. Before installation, close all running programs including firewall and anti-virus programs.

3 The sever should be running in order to watch the shared file on your Projector.

SmartShare™ PC SW Installing & Setting

Install the SmartShare™ PC SW(DLNA) programme on your PC.

1 Download the setup file from the path below in order to use the DLNA function.
http://liu.lge.com/smartshare/release/smartshare.zip

2 Install the downloaded SmartShare™ PC software.

3 You can run the programme when installation is complete.

> 🛈 **NOTE**
>
> • DLNA or Media Link service is only available if projector and other devices are
> connected via a single router.

PC requirement for installing LG SmartShare™

Item	Minimum Specifications	Recommended Specifications
CPU	Intel Pentium4 2.0 G or higher/ AMD Sempron 2000 or higher	Intel Pentium Dual Core or higher/AMD Athlon 64 x 2 or higher
RAM	1 GB or higher	2 GB or higher
VGA	64 MB RAM, 1024 x 768 or higher resolution, and a video card that supports 16 bit or more colors	128 MB RAM, 1024 x 768 or higher resolution, and a video card that supports 16 bit or more colors
Hard Disk Drive	200 MB or higher	
Operating System	Windows XP (Service Pack 2 or later), Windows Vista, Windows 7, Windows 8 I Windows Media Player: 11.0.5721.5280 or higher is recommended	
Network Environment	100 MB Ethernet, Wireless LAN (WLAN) IEEE 802.11g or higher	

• Program speed can be delayed depending on the system performance and the network environment.

In case of a DLNA malfunction

• If the DLNA feature does not work properly, check your network settings.
• A 5-GHz access point is needed to view 1080p videos via DLNA. A 2.4-GHz access point may cause frequent buffering or other problems.
• DLNA may not work properly in the wireless network. It is recommended to connect to the wired network.
• When playing video in DLNA mode, Multi Audio and internal subtitles are not supported.
• If more than one Projector is connected to a single server in DLNA mode, the content may not play depending on server performance.
• Subtitles may not be supported depending on the DLNA device.
• DLNA feature may not work properly depending on the network environment.
• DLNA feature cannot be used with some access points that do not support multicasting. For more information, refer to the access point manual or consult the manufacturer.
• Supported file types may differ depending on DLNA server environment, even for file types supported by the Projector.
• Too many sub-folders and files in one folder may cause malfunction.
• The information about the file from the DLNA server may not be displayed correctly.
• When viewing video subtitles on a DLNA server, we recommend that you use SmartShare™ PC Software.

• If subtitle file is added later, turn off the shared folder and reset.
• DRM file located on a SmartShare PC Software server cannot be played.

CUSTOMIZING SETTINGS

SETTINGS

1 Press the **SETTINGS** button.

2 Use the $\wedge$, $\vee$, $<$, or $>$ button to select the desired item and press the **OK** button.

3 Use the $\wedge$, $\vee$, $<$, or $>$ button to set up the desired item and press the **OK** button.

4 Press the **EXIT** button when completed.

Menu	Description
PICTURE	Adjusts the image quality for optimal viewing.
SOUND	Adjusts the sound quality and volume level.
TIME	Sets the time and time-related features.
OPTION	Customizes the general settings.
NETWORK	Sets the network.
SUPPORT	Shows the projector information.

PICTURE Settings

1 Press the **SETTINGS** button.

2 Use the $\wedge$, $\vee$, $<$, or $>$ button to select **PICTURE** and press the **OK** button.

3 Use the $\wedge$, $\vee$, $<$, or $>$ button to set up the desired item and press the **OK** button.
  - To return to the previous menu, press the ⇆ button.

PICTURE	✕
• 🄴 Energy Saving	: Minimum
• Picture Mode	: Standard
• Contrast	100
• Brightness	50
• Sharpness	20
• Color	60
• Tint	0

The available picture settings are described as follows.

Item	Description	
Energy Saving	Reduces power consumption by adjusting peak screen brightness.	
	Mode	
	Minimum/ Medium/ Maximum	Applies the pre-set **Energy Saving** mode.
Picture Mode	Selects the picture mode optimized for the viewing environment or the programme. You can also customize advanced options for each mode.	
	Mode	
	Vivid	Maximizes the visual effect of video. Heightens contrast, brightness and sharpness to display vivid images.
	Standard	Displays images in standard levels of contrast, brightness and sharpness.
	Cinema	Optimizes the image for a movie.
	Game	Optimizes the image for playing games on fast-moving screens.
	Expert1/2	Menu for adjusting picture quality that allows experts and amateurs to enjoy the best Projector viewing. - **Expert** mode is for picture tuning professionals to control and fine-tune using a specific image. For normal images, the effects may not be dramatic.
Contrast	Adjusts the difference between bright and dark regions of the screen.	
Brightness	Adjusts the overall screen brightness.	
Sharpness	Adjusts the sharpness of the borders between bright and dark. Horizontal and Vertical Sharpness are available only in Expert1/2.	

Item	Description
Color	Adjusts the colours on the screen darker or lighter.
Tint	Adjusts the red/green colour balance.
Advanced Control	Customizes the advanced settings.
Picture Option	Sets optional settings.
Picture Reset	Resets values customized by the user. Each picture mode is reset. Select the picture mode you wish to reset.
Aspect Ratio	Resizes the picture.
Picture Wizard II	Use the remote control and follow the instructions of the Picture Wizard to calibrate and adjust for optimum picture quality without expensive pattern devices or help from a specialist. Follow the instructions to obtain the optimum picture quality.

Advanced Control

Item	Description	
Dynamic Contrast	Adjusts contrast and colour to the optimal level according to the screen's brightness.	
Dynamic Color	Adjusts colours for more natural-looking colours.	
Preferred Color	**Skin Color**	Skin colour spectrum can be separately set to implement the skin colour as defined by the user.
	Grass Color	Natural colour spectrum (meadows, hills, etc.) can be separately set.
	Sky Color	Sky colour is set separately.
Super Resolution	Provides a crystal-clear picture by improving the details in areas where the picture is blurry or unclear.	
Gamma	Sets the gradation curve according to the output of the picture signal in relation to the input signal.	

Expert Control

Item	Description
Dynamic Contrast	Adjusts contrast and colour to the optimal level according to the screen's brightness.
Super Resolution	Provides a crystal-clear picture by improving the details in areas where the picture is blurry or unclear.
Color Gamut	Selects the range of colours that can be expressed. • **Standard**: Displays the original colors of an input signal regardless of the display features. • **Wide**: Makes use of the display's rich colors.
Edge Enhancer	Shows clearer and distinctive yet natural edges of the video.
xvYCC	Displays much richer colors.
Color Filter	Filters a specific colour spectrum in RGB colours to fine-tune colour saturation and hue accurately.
Gamma	Sets the gradation curve according to the output of the picture signal in relation to the input signal.
White Balance	Adjusts white balance. Detailed adjustment is possible as shown below.
	a. Method: 2 points - Pattern: Inner, Outer - Points: Low, High - Red/Green/Blue: Adjustable range -50 to +50. - Apply to all inputs: The values of the **White Balance** is applied to all the input modes. **b. Method: 20 point IRE** - Pattern: Inner, Outer - Institute of Radio Engineers (IRE) is the unit indicating the size of a video signal and can be set to 5, 10, 15, ... 100.You can fine-tune for each setting as shown below. - Red/Green/Blue: The adjustment range is -50 to +50. - Apply to all inputs: The values of the **White Balance** is applied to all the input modes.

Item	Description
Color Management System	Adjusts Red/Green/Blue/Cyan/Magenta/Yellow colors. Allows an expert to adjust the tint using a test pattern. Six colors (Red/Green/Blue/Cyan/Magenta/Yellow) can be selectively adjusted without affecting other colors. You may not see colors change on a normal picture even after adjustment. - Saturation Red/Green/Blue/Yellow/Cyan/Magenta, Tint Red/Green/Blue/Yellow/Cyan/Magenta, Luminance Red/Green/Blue/Yellow/Cyan/Magenta: The adjustment range is -30 to +30 each.

* Depending on input signal or other picture settings, the range of detailed items for adjustment may differ.

Picture Option

Item	Description		
Noise Reduction	Reduces screen noise in the video.		
MPEG Noise Reduction	Eliminates noise generated while creating digital picture signals.		
Black Level	Adjusts the brightness or darkness of the screen to suit the black level of the picture input using the degree of darkness (black level) of the screen.		
Real Cinema	Optimizes the screen for movie viewing.		
TruMotion	Corrects images to display smoother motion sequences.		
	Mode		
	Smooth	De-Judder value is set to 3.	
	Clear	De-Judder value is set to 7.	
	User	De-Judder can be set manually.	
		• **De-Judder**: This function adjusts juddering of the screen.	
Color Temperature	Adjusts the overall color of the screen to suit your preference. You can select **Medium**, **Warm**, **Natural** or **Cool**.		
Peak Mode	Adjusts the brightness to the optimal level for the image. - If the image is mostly white, the brightness level increases. If the image mainly consists of red/green/blue/blue green/magenta/yellow colors, you may not see a change in brightness. - **Peak Mode** is only enabled when **Picture Mode** is set to **Vivid** and **Energy Saving** is set to **Minimum**. - If **Peak Mode** is enabled, **Energy Saving** and **Color Temperature** are disabled.		

* If the video signal is 60 Hz, **TruMotion** may not work.

SOUND Settings

1 Press the **SETTINGS** button.

2 Use the ∧, ∨, <, or > button to select **SOUND** and press the **OK** button.

3 Use the ∧, ∨, <, or > button to set up the desired item and press the **OK** button.
   - To return to the previous menu, press the ⤺ button.

| ⊙ SOUND	✕
🖥	∧
⊙	• Smart Sound Mode : Off
	• Sound Mode : Standard
🕐	• Virtual Surround Plus : Off
	• Clear Voice II : Off
🗂	• Volume Mode
	• Sound Out : Projector Speaker
🌐	• AV Sync. Adjust : Off
⊙	∨

The available sound settings are described as follows.

Item	Description	
Smart Sound Mode	Provides the optimized sound adjusted for each content type.	
	• If the **Smart Sound Mode** function is enabled, **Sound Mode**, **Virtual Surround Plus** and **Clear Voice II** are automatically adjusted.	
Sound Mode	Sets the sound mode.	
	Mode	
	Standard	Suitable for all types of video.
	Music/ Cinema/ Sport/ Game	Sets audio optimized for a specific genre.
	User Setting	Adjusts volume level.
		• **100 Hz/ 300 Hz/ 1 kHz/ 3 kHz/ 10 kHz**: Sets EQ by manual adjustment of sound bands.
		• **Reset**: Resets the equalizer value changed by the user.
Virtual Surround Plus	Provides realistic 5.1 channel stereo sound from two speakers.	
	• If **Clear Voice II** is set to **On**, **Virtual Surround plus** will not be chosen.	
Clear Voice II	Boosts voice clarity.	
Volume Mode	Sets various modes for volume control.	
	Mode	
	Auto Volume	Automatically adjusts the volume level.
	Volume Control	Using a single volume curve may result in an inaudible or loud sound depending on the environment. Adjusts volume levels depending on the time of day (day/night).

Item	Description	
Sound Out	Sets the audio output of the projector.	
	Mode	
	Projector Speaker	Sound is output through the Projector speaker.
	External Speaker (Optical/HDMI ARC)	Sound is output through the speaker connected to the optical port. SIMPLINK is supported. • **ARC Mode**: External audio devices can be connected via High-Speed HDMI® cable without an extra optical audio cable to output SPDIF. It interfaces with SIMPLINK. For an external device that supports ARC (Audio Return Channel), connect it to the **HDMI IN 1(ARC**) port. • **Digital Sound Out**: Sets up **Digital Sound Output**.
	LG Sound Sync (Optical)	Sound is output through an LG audio device connected to the **OPTICAL DIGITAL AUDIO OUT** port.
	LG Sound Sync (Wireless)	Sound is output through a wirelessly connected LG audio device.
	Headphone	Sound is output through headphones. • Headphones are detected and connected automatically when the projector is on.
AV Sync. Adjust	Synchronizes video and audio directly when they do not match. If you set **AV Sync. Adjust** to **On**, you can adjust the sound output (Projector speakers or SPDIF) to the screen image.	
	Mode	
	Projector Speaker	Adjusts the synchronization of the sound from the projector's internal speakers. The **-** button makes the sound output faster and the **+** button slower than the default value.
	Bypass	Sends the natural sound of external devices without any audio delay. Audio may be output before video as it takes time to process video input into the Projector.
Sound Option Setting	**Balance**: Adjusts left/right audio balance.	

TIME Settings

1 Press the **SETTINGS** button.

2 Use the ∧, ∨, <, or > button to select **TIME** and press the **OK** button.

3 Use the ∧, ∨, <, or > button to set up the desired item and press the **OK** button.
- To return to the previous menu, press the ↰ button.
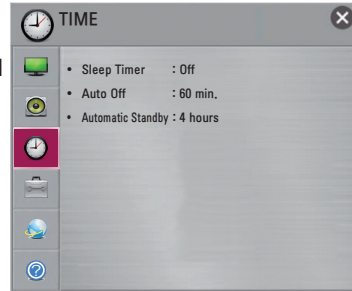
The available time settings are described as follows.

Item	Description
Sleep Timer	Turns off the Projector after a preset number of minutes.
	To cancel the **Sleep Timer**, select **Off**.
Auto Off	If there is no input signal or button press, the projector automatically
	turns off after the preset time has elapsed.
Automatic Standby	If you do not press any button on the projector or remote control for a
	certain period, the projector will automatically switch to standby mode.

OPTION Settings

1 Press the **SETTINGS** button.

2 Use the ∧, ∨, <, or > button to select **OPTION** and press the **OK** button.

3 Use the ∧, ∨, <, or > button to set up the desired item and press the **OK** button.
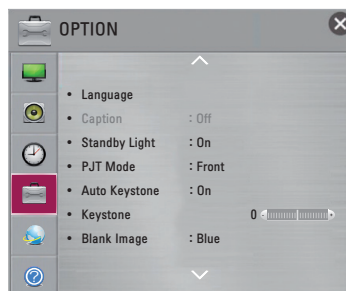   - To return to the previous menu, press the ⤺ button.

```
┌─────────────────────────────────┐
│ 📭  OPTION                    ✕  │
│ 🖵      ︿                        │
│ 🔘   • Language                  │
│ 🕐   • Caption        : Off      │
│      • Standby Light  : On       │
│ 🗀   • PJT Mode       : Front    │
│      • Auto Keystone  : On       │
│ 🔵   • Keystone           0 ▭▭▭▭ │
│      • Blank Image    : Blue     │
│ ❓      ﹀                        │
└─────────────────────────────────┘
```

The available option settings are described as follows.

Item	Description	
Language	Selects a screen menu language.	
Caption	If the language for the AV input is set to Korean, captions can be turned on or off.	
Standby Light	Adjusts the LED button indicator.	
	Item	
	On	When the buttons are touched, their indicators are all turned on at maximum brightness. In standby mode, LED indicators are turned on at 20 % of the maximum brightness.
	Off	When the buttons are touched, their indicators are all turned on at maximum brightness. In standby mode, all LED indicators are turned off.
PJT Mode	This function turns the projected image upside down or flips horizontal.	
Auto Keystone	Auto Keystone provides a rectangular screen image by automatically adjusting the Keystone number when there is a trapezoidal screen image caused by tilting of the projector.	
	Item	
	On	Automatically adjusts the Keystone number.
	Off	Manually adjusts the Keystone number.
Keystone	To prevent the screen image from becoming trapezoidal, Keystone adjusts the top and bottom width of the image if the projector is not set at a right angle to the screen.	
Blank Image	Selects a background for blank Image.	

Item	Description	
Auto Power	Makes the projector turn on automatically When the power code is connected to the projector.	
	Item	
	On	When the power code is connected to the projector, it turns on automatically.
	Off	When the power code is connected to the projector, it goes into standby mode.
High Altitude	If the projector is used at an altitude higher than 1200 meters, turn this on. Otherwise, the projector may overheat or its protection function may be activated. If this happens, turn the projector off and then on again after waiting for several minutes.	
Auto Input Search	Automatically searches for and displays the input signal type when it is received. It is available only with external inputs (RGB, HDMI, AV, and Component).	
Balloon Help	Enables/disables the balloon help.	
Initial Setting	Deletes all optional settings and returns to initial default mode. Once initialization is complete, the projector will turn off and on by itself. • Do not turn off the power during initialization.	

NETWORK Settings

1 Press the **SETTINGS** button.

2 Use the $\wedge$, $\vee$, $<$, or $>$ button to select **NETWORK** and press the **OK** button.

3 Use the $\wedge$, $\vee$, $<$, or $>$ button to set up the desired item and press the **OK** button.
  - To return to the previous menu, press the � button.

NETWORK

- Network Connection
- Network Status
- Wi-Fi Direct
- Miracast™ / Intel's WiDi
- My Projector Name : PF80G-JE

The available network settings are described as follows.

Item	Description
Network Connection	Connects a network.
Network Status	Displays the connection status of the network.
Wi-Fi Direct	Wi-Fi Direct is a function that allows your projector to connect with a Wi-Fi Direct device without Internet connection.
Miracast™ / Intel's WiDi	The **Miracast™** allows you to enjoy video and audio from a portable device through the projector wirelessly. **Intel's WiDi** allows you to view a laptop screen through the projector without a cable.
My Projector Name	Changes the name that appears when searching for the projector from other devices.

SUPPORT

1 Press the **SETTINGS** button.

2 Use the $\wedge$, $\vee$, $<$, or $>$ button to select **SUPPORT** and press the **OK** button.

3 Use the $\wedge$, $\vee$, $<$, or $>$ button to set up the desired item and press the **OK** button.
  - To return to the previous menu, press the � button.
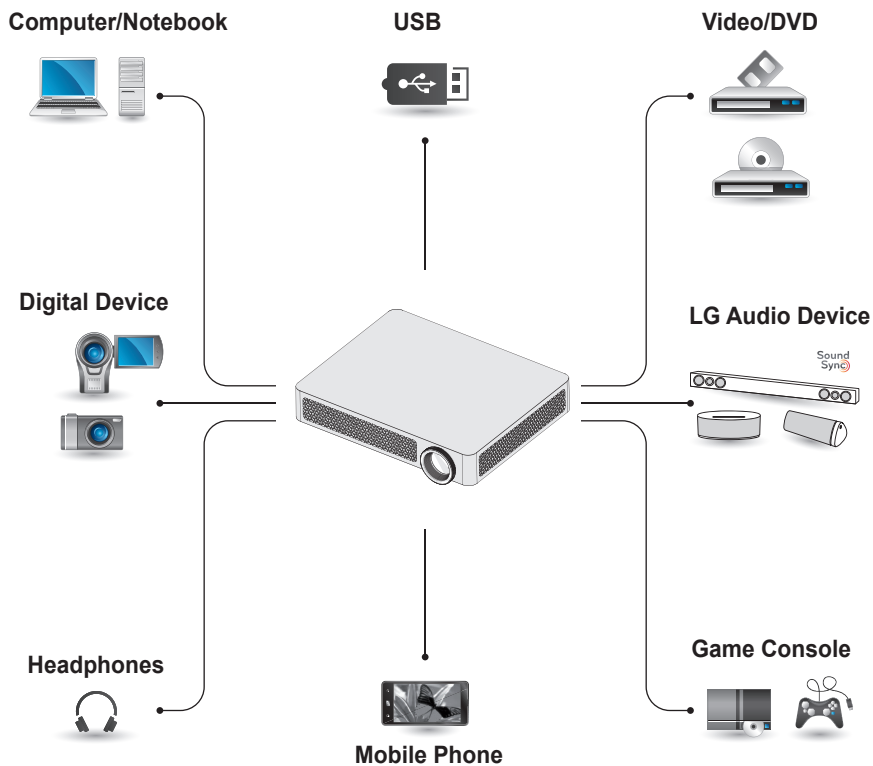

The available support settings are described as follows.

Item	Description
Software Update	Updates to the latest software.
Product/Service Info.	Shows the product/service information.
Self Diagnosis	Troubleshoots functional problems that can arise while using the product.

CONNECTING DEVICES

You can connect various external devices to the projector.

Computer/Notebook   **USB**   **Video/DVD**

Digital Device   **LG Audio Device**

Headphones   **Game Console**

Mobile Phone

HDMI - page 61
Composite (AV) - page 62
Component - page 62
USB Devices - page 32
Headphones - page 63
Digital Amp - page 64
Mobile Phone - page 66

# Connecting to HD Receiver, DVD, or VCR Player, External Devices

Connect an HD receiver, DVD, VCR player, or External Devices to the projector and select an appropriate input mode.

HDMI Connection

With an HDMI cable, you can enjoy high quality picture and sound.
Using a HDMI cable, connect the **HDMI IN 1 (ARC)** port of the projector to the HDMI output port of the device to connect. Both video and audio is output at the same time. You can also use the **HDMI IN 2 (MHL)**.
Press the **INPUT** button on the remote control to select **HDMI**. You can connect with any HDMI input port.


* Optional
Extras
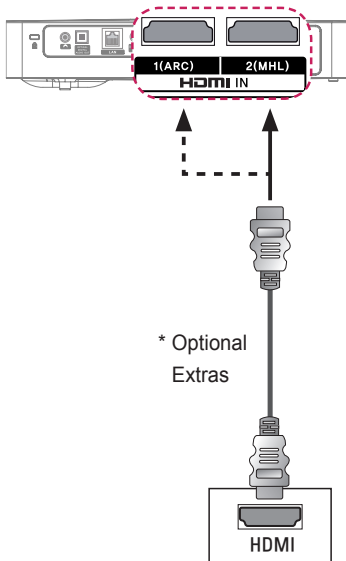
> **NOTE**
>
> **ARC(Audio Return Channel)**
> • External audio devices that support SIMPLINK and ARC must be connected using **HDMI IN 1(ARC)** port.
> • When connected with a high-speed HDMI® cable, external audio devices that support ARC output or SPDIF work with the SIMPLINK function without the need for an additional optical audio cable.

AV Connection

Connect the output ports of an external device and the **AV IN** ports of the projector using an AV cable. Press the **INPUT** button on the remote control to select **AV**.
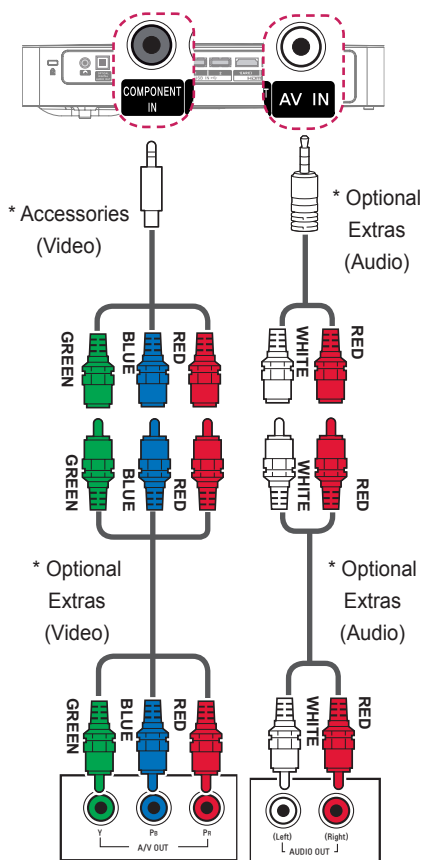Check whether cables of the same color are connected properly.
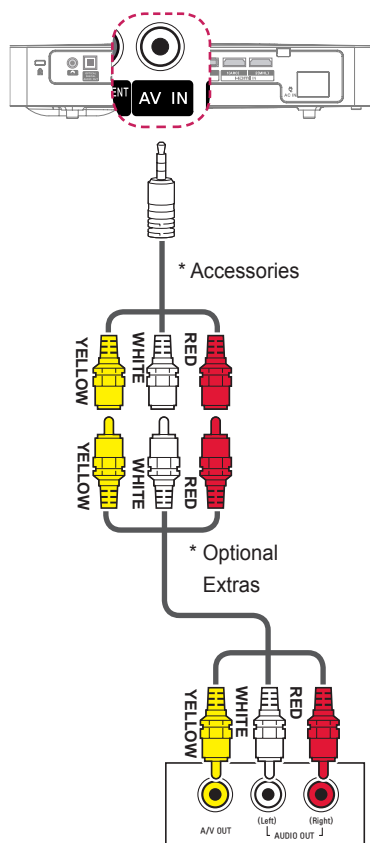
Component Connection

You can enjoy a video by connecting the Component port of an external device to the **COMPONENT IN** port of the projector. Press the **INPUT** button on the remote control to select **Component**.
Check whether cables of the same color are connected properly.

* Accessories
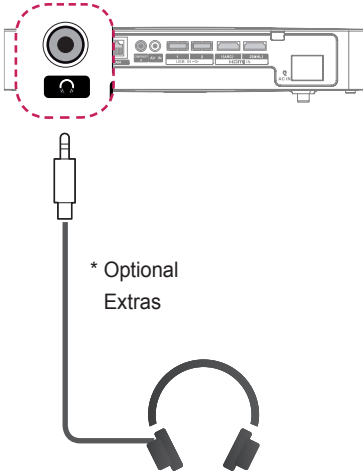
* Optional Extras

* Accessories (Video)

* Optional Extras (Audio)

* Optional Extras (Video)

* Optional Extras (Audio)

Connecting to Headphones

You can listen to the audio through a headphone.

* Optional
  Extras

Connecting a digital amp

Using an optical cable, connect the digital audio input port of a digital amp to the **OPTICAL DIGITAL AUDIO OUT** port of the projector. The output of an amp with a digital converter must be set to the desired audio format. When using a HDMI cable to connect a home theater or when connecting an optical output to an external audio device, set **Sound Out** to **External Speaker (Optical/HDMI ARC)** as shown below. If a projector, home theater, or the speaker of an external audio device is operating at the same time, there will be an echo.

* Optional
Extras

Digital Audio Input
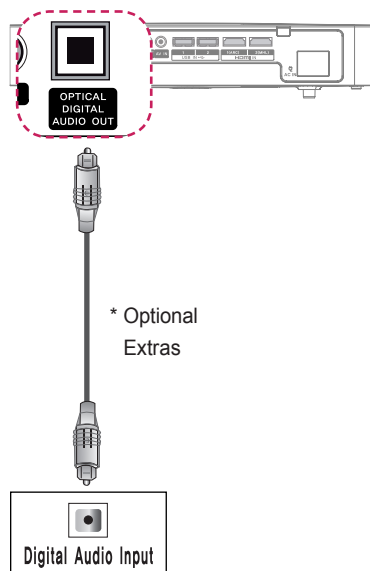
NOTE

- Also, refer to the user manual of the audio device to connect.
- When connecting this product to other devices, make sure to turn off and unplug all the devices.
- The audio output of this product has wide-ranging audio bandwidth, so the receiver volume must be adjusted properly.
  Speakers can be damaged by unexpected high frequencies.
- Connecting the **OPTICAL DIGITAL AUDIO OUT** port of the projector to the digital audio input port of a digital amp and the audio input port of the projector to the analog audio output port of the digital amp can cause sound oscillation due to the closed loop. Remove one of the two connections to prevent this. (This also applies to home theater devices.)

Connecting to PC and Laptop

The projector supports Plug & Play. Your PC will automatically detect the projector and requires no driver installation. You can connect the projector to a laptop to use various functions.

HDMI Connection

Using an HDMI cable, connect the **HDMI IN 1 (ARC)** port of the projector to the HDMI output port of your PC. Both video and audio is output at the same time. You can also use the **HDMI IN 2 (MHL)**.

* Optional Extras
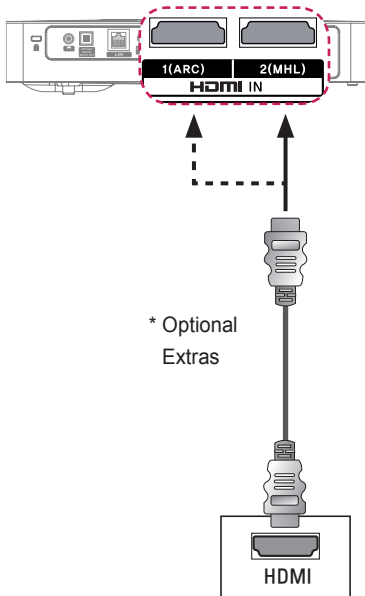
The table below shows examples of switching the output. For more information, refer to the **External Output**, **Connecting to an External Monitor**, or similar sections of the owner's manual of your computer.

Brand	Switching Output
NEC	[Fn]+[F3]
Panasonic	[Fn]+[F3]
Toshiba	[Fn]+[F5]
IBM	[Fn]+[F7]
Sony	[Fn]+[F7]
Fujitsu	[Fn]+[F10]
LG	[Fn]+[F7]
Samsung	[Fn]+[F4]
Macintosh	Adjust the control panel to enable mirroring after start-up.

# Using the mirroring function of a mobile phone

MHL Connection

The Mobile High-definition Link (MHL) is an interface that can connect a mobile phone to the projector and play video and audio from the mobile phone through the projector.
This only applies to products with a HDMI input that supports MHL.
(To find out whether your device is MHL-certified, please contact your device manufacturer.)
For MHL support, check the **HDMI IN 2 (MHL)** port.
Use a dedicated cable for MHL.

* Optional Extras
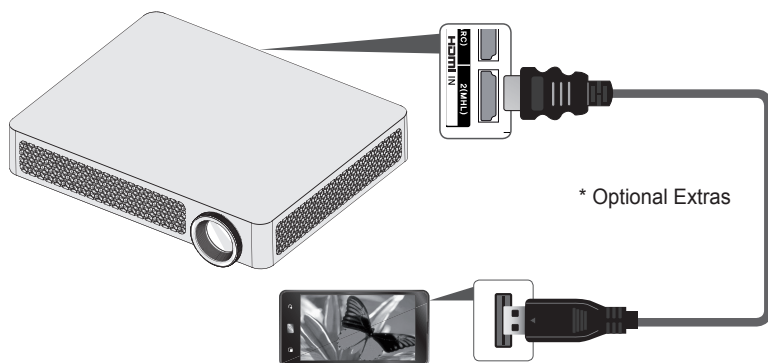
> **NOTE**
>
> • When you connect a mobile phone to the **HDMI IN 2 (MHL)** port, you can see the mobile phone screen through a projector.
>   - This only applies to mobile phones that support MHL.
>   - You can use the remote control for some applications.
> • Disconnect the MHL cable from the projector when:
>   - The MHL function is disabled.
>   - Your mobile device is fully charged in standby mode.

MAINTENANCE

Clean your Projector to keep it in optimal condition.

Cleaning

Cleaning the Lens

If there is any dust or staining on the lens surface, you must clean the lens.
Use an air spray or a cleaning cloth to clean the lens.
To remove dust or stains, use an air spray or apply a small amount of cleaning agent onto a swab or soft cloth to lightly rub the lens.
Please be aware that liquid may flow into the lens if the product is sprayed directly onto the lens.

Cleaning the projector case

To clean the projector case, first unplug the power cord.
To remove dust or stains, use only a dry, lint-free, nonabrasive cloth to polish the lens.
Do not use alcohol, benzene, thinners, or other chemicals, which may damage the case.

INFORMATION

To update projector software

Uses Software Update to check and obtain the latest version.
It is also possible to check manually for available updates.

1 Press the **SETTINGS** button.

2 Select **SUPPORT** and go to **Software Update**.

Item	Description
Software Update	Set it to **On**. If an update is available, a prompt will appear to perform the update.
Automatic update mode	If an update is available, the update automatically starts without prompting.
Check Update Version	Checks the latest update version installed. When a new update is available, the download process can be performed manually.

- When the update starts, the update progress window appears for a short time and disappears.
- The update service to get the latest version is provided through an Internet connection.
- If software is not updated, certain functions may not work properly.

SPECIFICATIONS

Model	PF80G(PF80G-JE)		
Resolution (Pixel)	1920 (Horizontal) × 1080 (Vertical)		
Aspect ratio	16:9 (Horizontal:Vertical)		
Panel size (mm)	16.654		
Projection distance (Video size)	0.63 m to 3.72 m (50.8 cm to 304.8 cm)		
Ratio of upward projection	100 %		
Working range of the remote control	6 m		
POWER	AC 100-240 V~, 50/60 Hz		
Audio output	5 W + 5 W		
Height (mm)	Min. 45.9(without foot), Max. 55.3(without foot), 56.9(with foot)		
Width (mm)	275.0		
Depth (mm)	219.0(without lens), 226.0(with lens)		
Weight (kg)	2.2		
USB Device	5 V, 0.5 A (Max.)		
Operation environment	**Temperature**		
	Operation	0 °C to 40 °C	
	Storage	-20 °C to 60 °C	
	Relative humidity		
	Operation	0 % to 80 %	
	Storage	0 % to 85 %	

* Contents in this manual may be changed without prior notice due to upgrade of product functions.

Supported Monitor Display

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720 x 400	31.469	70.08
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1152 x 864	54.348	60.053
1360 x 768	47.712	60.015
1280 x 1024	63.981	60.02
1920 x 1080	67.5	60

- If an invalid signal is input into the projector, it will not be displayed properly on the screen or a message such as **No Signal** or **Invalid Format** will be displayed.
- The projector supports the DDC1/2B type as the Plug & Play function (Auto-recognition of PC monitor).
- The 1920 x 1080 resolution may not be supported depending on the PC type.

Component Port Connection

Signal	Component
480i / 576i	o
480p / 576p	o
720p / 1080i	o
1080p	o

Supported HDMI/DVI-DTV Mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
480p	31.5	60
	31.469	59.94
576p	31.25	50
720p	37.5	50
	44.96	59.94
	45	60
1080i	28.125	50
	33.716	59.94
	33.75	60
1080p	56.25	50
	67.432	59.94
	67.5	60
	27	24
	26.97	23.976
	28.125	25
	33.75	30
	33.71	29.97

Open Source Software Notice Information

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit http://opensource.lge.com.
In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.
LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to opensource@lge.com.
This offer is valid for three (3) years from the date on which you purchased the product.

LG

Life's Good

The model and serial number of the projector are located on the back or on the side of the projector. Record them below should you ever need service.

MODEL _____

SERIAL _____