



OWNER'S MANUAL

LG CineBeam Laser 4K

DLP Projector

Please read the safety information carefully before using this product.

AU810PB
HU810PW

www.lg.com

P/NO : SAC37813585 (2112-REV01)

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LICENSES

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POWERED BY

QUICKSET[®]

HEVC Advance[™]

Covered by patents at patentlist.accessadvance.com

NOTE

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

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 a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

SAFETY PRECAUTIONS

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

Child injuries can be prevented by following these simple safety precautions.

The precautions should be followed in the same manner when you store or move your existing 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 personal injury or product damage.
- Read the owner's manual carefully and keep it on hand.



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 device.

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 install products including projectors and remote controls in the following places:

- Any place exposed to direct sunlight;
 - Any humid place such as bathroom;
 - Any place near hot objects such as flammables and stoves;
 - Any place where oil, oil mist, and steam can reach such as a worktop or places near a humidifier;
 - Any place where water can splash like a vase or the aquarium;
 - Any place that is dusty or exposed to wind and rain;
 - Any place that is under the air conditioner or is directly exposed to the wind from the air conditioner;
 - Any place near flammable materials such as flammable sprays, etc.; or
 - Any cupboard, bookcase shelf or cabinet without a fixture installed and any place where a pet can access.
- It may cause an electric shock, fire, malfunction, deformation or falling.

Be careful not to drop the projector when connecting an external device.

- It may cause injury or damage to the product.

Keep the following precautions in mind to prevent the temperature rise inside the projector:

- Install the air vents at least 30 cm (11.8 inches) away from the wall.
- Do not install the product in a place where it cannot be ventilated, such as on a bookcase or in a closet.
- Do not install the product on carpet or cushion.
- Make sure that the air vents are not blocked with tablecloths, curtains, etc.
- It may cause a fire.

For places where oil or oil mist can reach, do not install the product on a wall or ceiling.

- The product may be damaged and fall.

Do not allow a child to hang or climb on the installed projector.

- The projector may fall and cause injury or death.

 **CAUTION**

When moving the projector, be sure to turn off the power switch and disconnect the power plug, antenna cable and the connection cord between the devices.

- A failure to do so may cause damage to the projector or the cord, resulting in a fire or electric shock.

Do not install the projector on a shaky shelf, a slanted place, a place subject to vibrations, a place where the projector is not fully supported or on a fabric such as tablecloths.

- It may cause injury as the projector falls or tips over, or it may cause a malfunction of the projector.

To prevent damage to the power cord or plug, do not install the projector where the cord can be walked on.

- It may cause a fire or electric shock.

When installing the projector, do not install it too close to the wall.

- The cable connection may be deteriorated or the projector and its cables may be damaged.

When installing the projector on a cabinet or a shelf, make sure that the front end of the bottom of the projector does not come out.

- The projector may fall due to the unbalance of the center of gravity and cause injury to people or a malfunction.

When in Use

WARNING

When thunder or lightning strikes, unplug the power cord and do not touch the antenna wire.

- It may cause an electric shock.

If there is a gas leak from the gas lines, do not touch the outlet and be sure to vent by opening the window.

- Sparks may be caused and lead to a fire or burns.

When using the product with an external device connected such as a games console, make sure the connection cable is long enough.

- The product may fall over and cause injury or product damage.

Do not scratch or give an impact on the projector with metallic materials or objects.

- It may cause injury to people or damage to the product.

Do not insert metallic objects including coins, hairpins or a piece of iron or flammable objects such as paper or matches into the projector.

- It may cause a fire or electric shock.

When replacing the batteries used for the remote control, be careful not to let children eat them and keep the batteries out of reach of children.

- If a child swallows the battery, consult a doctor immediately.

Keep the plastic wrapping of the product out of the reach of children.

- If a child misuses it, it may suffocate the child.

Do not touch near the vents during the operation or immediately after the power is turned off as they generate intense heat.

- The heat does not indicate a defect or a problem of the projector when it is operating so use it with confidence.

Do not look into the front of the lens when the projector is operating. Strong light is projected from the product which can cause injury to your eyes.

Never try to disassemble or modify the projector yourself. Always seek a qualified service technician or consult your dealer or local Service Center for inspection, adjustment or repairs.

- It may cause a fire or electric shock.

 CAUTION

Do not use any product that uses high voltage electricity near the projector. (e.g. An electric fly swatter)

- It may cause a malfunction.

Do not place any liquid containers such as a vase, pot, cup, cosmetics or medicine, decorations such as candles or any heavy objects on top of the projector.

- Doing so may cause a fire, electric shock and injury due to falling.

The surface of the AC adapter is hot, so be careful not to put the surface against your skin or let the children touch the surface during use. (Except for the models that do not use an adapter)

Do not hold or move the projector upside down by grabbing only the power cord, signal cable, or projection mirror.

- Doing so may damage the product or cause an electric shock or fire.

Even if the projector is turned off with the remote control or the button, the power is not completely cut off if the power cord is plugged in.

If you use headphones or earphones, do not use them at high volume or for a long period of time. (It applies only to the models that support headphones (earphones).)

- Doing so may damage your hearing.

Do not start the projector when the volume is high.

- A loud volume can cause hearing loss.

Do not use or store the projector outdoors for an extended period of time.

Do not touch the projector's lens or give an impact on it.

- It may cause damage to the product.

Do not block the light from the projector lens with a person, book or other objects.

- If the light from the projector shines on an object for a long time, it can cause fire due to the heat of such light. Also, the reflected light can heat the lens and cause damage to the projector.

Do not mix old and new batteries together.

- It may cause battery rupture or fire due to liquid leakage or may cause electrical shock.

When replacing the batteries, make sure that they are properly installed according to the polarities (+, -).

- Battery rupture or leakage may lead to fire, explosion, injury or contamination (damage) of the surrounding area.

Do not expose the batteries to direct sunlight, fireplace, electric heater, high temperature above 60 °C (140 °F), excessively humid places or excessive heat.

- It can cause an explosion or fire.

Do not throw or disassemble the battery.

- It can cause a fire and explosion due to battery damage.

Do not carelessly throw away old batteries.

- It can cause an explosion or fire. The disposal method may vary by country and region. Dispose of it in an appropriate manner.

Risk of fire or explosion if the battery is replaced by an incorrect type.

Supervise children and to never allow them to stare into the projector beam at any distance from the projector.

Use caution when using the remote control for staring the projector while in front of the projection lens.

The user to avoid the use of optical aids such as binoculars or telescopes inside the beam.

Power

WARNING

Make sure the power plug is securely plugged in to prevent it from shaking.

- If the connection is unstable, it may cause a fire.

Do not plug too many devices into one multi-power outlet.

- This may result in fire due to the power outlet overheating.

Do not insert a metal object such as chopsticks into the other end of the power plug while it is plugged into a wall outlet. Also, do not touch the power plug immediately after unplugging it from the outlet.

- It can cause an electric shock.

Connect the power plug to a grounded outlet or multi-tap. (Except for any device without ground connection)

- A failure to do so may cause an electric shock due to a malfunction or electrical short.

Never touch the power plug with wet hands.

- It may cause an electric shock.

Disconnect the power plug from the outlet when you are not using the projector for a long time or absent.

- Dust collects and may cause an electric shock and fire caused by a short circuit due to heat, ignition and insulation/degradation.

The Power Plug is the disconnecting device. In case of an emergency, the Power Plug must remain readily accessible.

If any of the following occurs, it could be a malfunction of the product, so you must immediately turn the projector off, unplug the power cord from the outlet, and contact the service center:

- When the product is damaged;
 - When the product fails;
 - When there is a foreign substance inside the product; or
 - When the product smokes or smells.
- It may cause a fire or electric shock.

**CAUTION**

Do not unplug or plug the power plug from/in the outlet while the power switch is on. (Do not use the power plug as a switch.)

- It may cause a fire or malfunction.

When removing the AC adapter or power cord, be sure to hold the plug part.

- A failure to do so may cause a fire or damage to the product.

Do not damage the AC adapter, power cord or power plug, place heavy objects on them or give an impact on them.

- It may cause a fire, electric shock or damage to the product.

Attach the power cord and AC adapter connected to the projector in a way that they are fully seated.

- Poor contact can cause a malfunction of the product and fire.

If there is dust on the pin part of the power plug or the outlet, clean it thoroughly.

- It may cause a fire.

Keep the power cord away from heat sources.

- The coating of the cord may melt and cause a fire or electric shock.

Use only the authorized power cord or AC adapter supplied by LG Electronics. Do not use any other products.

- It may cause a malfunction of the product, fire or electric shock.

Cleaning

⚠ WARNING

Do not spray water directly onto the projector when cleaning it.

- It may cause a fire or electric shock.

⚠ CAUTION

How to clean the projector

- Disconnect the plug from the outlet before cleaning.
- Do not wipe the optical system (the lens and mirror) immediately after the power is turned off.
- Do not spray the water with a sprayer on the product or wipe the product with a damp cloth.
- Wipe the product gently with a soft cloth.
- Do not use any detergents, automotive or industrial polishes, abrasives, waxes, benzenes or alcohols.
- It may cause a fire, electric shock or damage to the projector (deformation, corrosion, and breakage).

How to clean the lens

- Clean the lens if any dust or smudge appears on the surface of the lens.
- Clean the surface of the lens with an air sprayer or a soft, dry cloth.
- To remove dust or stains on the lens, use a compressed air duster, cotton swab, or soft cloth to gently wipe the lens.
- Never clean the lens when the projector is operating or immediately after the projector is turned off.
- Do not use any detergents, automotive or industrial polishes, abrasives, waxes, benzenes, alcohols, water, etc. on the lens, as they will damage the projector.

Consult your dealer or the service center for cleaning the interior of the product once a year.

- If you do not clean the interior of the projector for a long time while dust collects, it may cause a fire or malfunction.

Laser

WARNING

- You risk being exposed to laser radiation if you manipulate or alter the product in a way not specified in the user manual.
- Be sure not to let infants or people with diseases directly watch the light source.

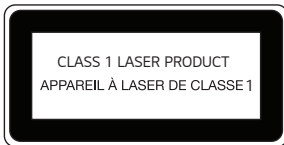
CAUTION

- This product is a class 1 laser device that meets IEC 60825-1.

Built-in laser standard (class 4 laser module)

- Blue
 - Wavelength: 448 nm - 462 nm
 - Light output: approx. 67 W
- Red
 - Wavelength: 636 nm – 642 nm
 - Light output: approx. 2.5 W x 9

Product Laser Class Label



The laser class label of product is attached to the bottom of the product.

PREPARATION

The pictures may differ slightly from the actual product.

Accessories

Accessories included with the projector are show below.

Accessories are subject to change without prior notice.

New accessories may be added or old ones removed.



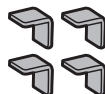
Magic Lighting Remote
Two AA Batteries



Owner's Manual

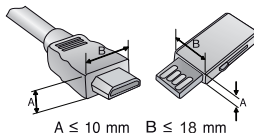


Power cord



Edge guards

- 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 (0.7 inches) or less and a height of 10 mm (0.3 inches) 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.



- When connecting two USB devices at the same time, each one should have bezels less than 8.5 mm (0.3 inches) thick.
- 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)
 - Ultra High Speed HDMI[®]/™ Cable (3 m (9.8 feet) or less)

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.



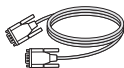
Projection Screen



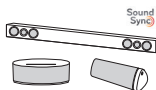
HDMI Cable



Optical Cable



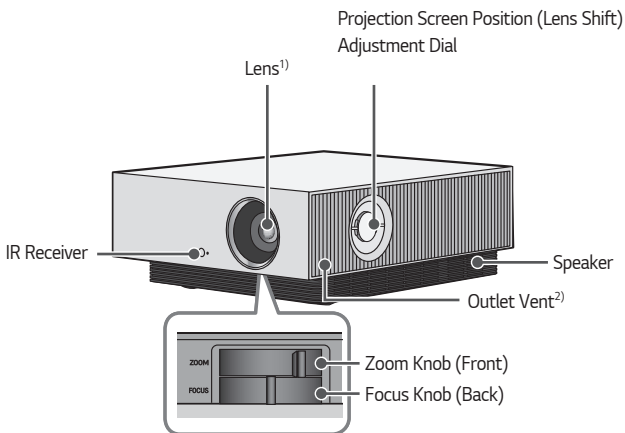
RS-232C Cable¹⁾



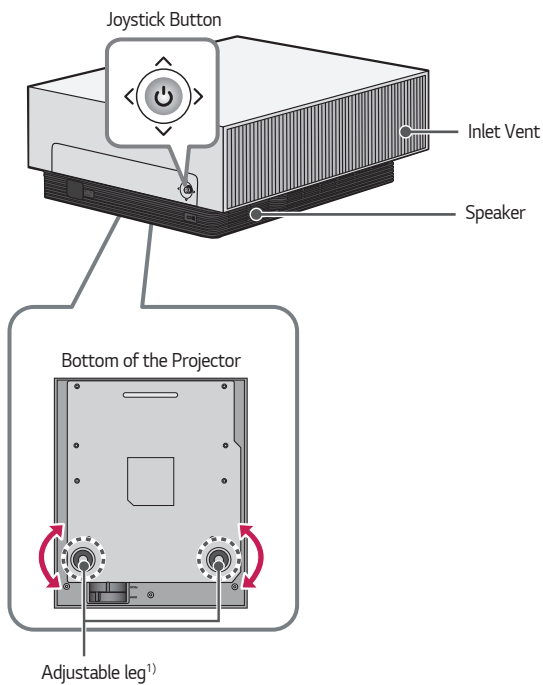
LG Audio Device

1) AU810PB model only

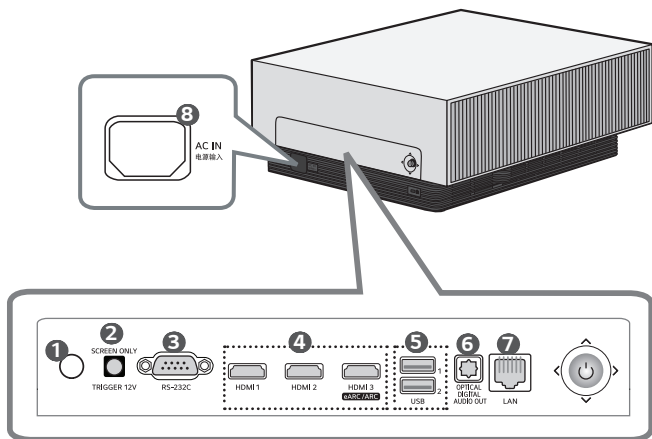
Parts and Components



- 1) Do not touch the lens when using the projector. The lens may be damaged. (Keep lens away from sharp objects.)
- 2) Due to the high temperature of vent area, do not get close to the vent area.



1) Turn the adjustable leg left or right to adjust the angle.



- ① IR Receiver
- ② **TRIGGER 12V** Port
 - Use the trigger terminal only when connecting the screen. Connecting earphones to the trigger terminal may damage the earphones.
 - AU810PB model only
- ③ **RS-232C** Port
 - AU810PB model only
- ④ **HDMI** port
- ⑤ **USB** port
- ⑥ **OPTICAL DIGITAL AUDIO OUT** Port
- ⑦ **LAN** port
- ⑧ **AC IN** 电源输入 (AC IN Port)

Using the Joystick Button

You can operate the projector by pressing the button or moving the joystick left, right, up, or down.

Basic functions



Power On

When the projector is turned off, place your finger on the joystick button, press it once, and release it.



Power Off (Press and Hold)

Press and hold the joystick button for more than 3 seconds while the projector is on.



Volume Control

Place your finger over the joystick button and move it left or right, you can adjust the volume level.



Up/Down/ Left/Right

If you move the joystick up, down, left, or right, you can move the cursor to select the menu items.

! NOTE

- When moving the joystick button up, down, left or right, be careful not to move the button while it is being pressed. The volume may not be adjusted and the cursor may not move when the joystick button is pressed and moved.

Adjusting the menu

When the projector is turned on, press the joystick button one time.

You can adjust the menu items moving the joystick button left, right, up, or down. Move to the desired menu item, and then press the joystick button once to select it.



Turns the power off.



Changes the input source.

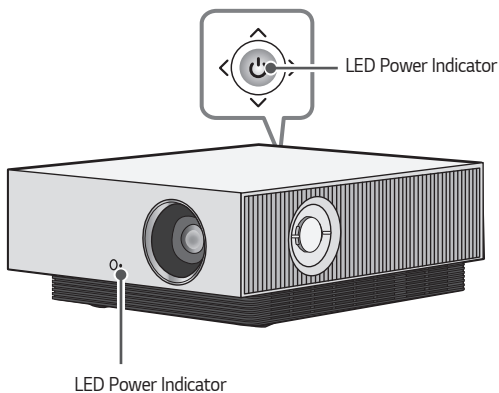


Clears on-screen displays and returns to projector viewing.



Displays the Settings menu.

Projector Status Indicators

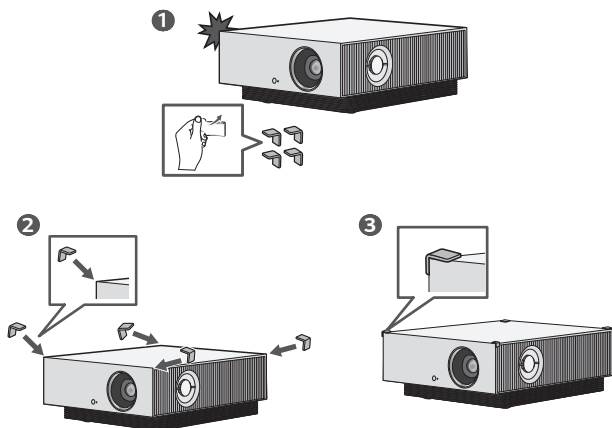


LED Power Indicator	
Red	Power standby state
Red(Blink)	Powering On
Off	The projector is operating with the power on.

INSTALLATION

How to use the edge guards

It prevents any damage to the product and injury when being attached to sharp edges of the product.



Ceiling-Type Installation

WARNING

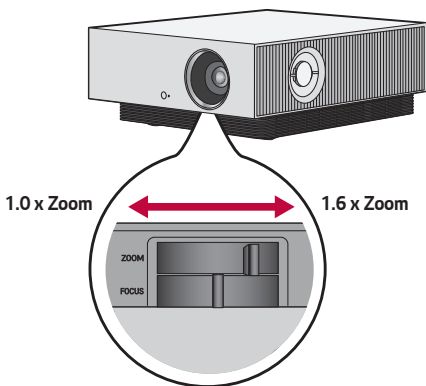
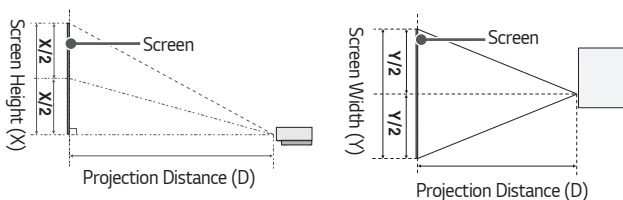
When installing the product on the ceiling, observe the following precautions to prevent the projector from falling:

- Contact the Customer Support Center for installation.
- Do not use adhesive, lubricant, oil, etc. when using the mounting equipment.
- Do not tighten the screws with an excessive force since the projector may fall due to breakage of the screw connection part.
- Standard screw: M6 x 10 mm
- Recommended torque: 5-8 kgf.cm (4.34-6.94 lbf-in)
- A failure to follow the precautions may result in injury or death and product damage due to the fall of the product.

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

Ratio of upward projection: 110%



! NOTE

- If the projected image looks distorted or bent, check to see if the screen is installed properly.

16:9 Aspect Ratio (1.0 x Zoom)							
Screen Size		Screen Width (Y)		Screen Height (X)		Projection Distance (D)	
inches	mm	inches	mm	inches	mm	inches	mm
40	1016.0	34.8	885.5	19.6	498.1	72.4	1840
60	1524.0	52.2	1328.3	29.4	747.2	109.4	2780
80	2032.0	69.7	1771.0	39.2	996.2	146.4	3720
100	2540.0	87.1	2213.8	49.0	1245.3	183.0	4650
120	3048.0	104.5	2656.6	58.8	1494.3	218.1	5540
140	3556.0	122.0	3099.3	68.6	1743.4	256.6	6520
160	4064.0	139.4	3542.1	78.4	1992.4	293.7	7460
180	4572.0	156.8	3984.8	88.2	2241.5	330.3	8390
200	5080.0	174.3	4427.6	98.0	2490.5	367.3	9330
220	5588.0	191.7	4870.4	107.8	2739.6	403.9	10260
240	6096.0	209.1	5313.1	117.6	2988.6	440.9	11200
260	6604.0	226.6	5755.9	127.4	3237.7	477.5	12130
280	7112.0	244.0	6198.6	137.2	3486.7	514.5	13070
300	7620.0	261.4	6641.4	147.0	3735.8	551.1	14000

The projection distance may vary depending on the installation conditions.

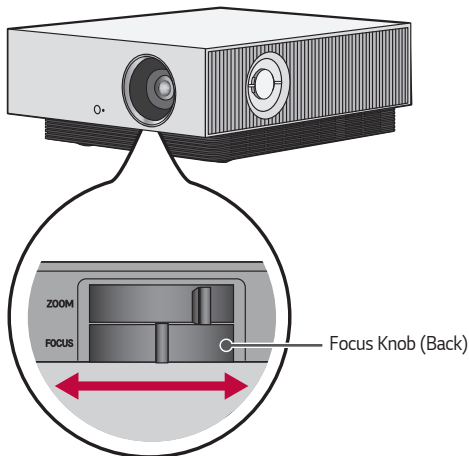
16:9 Aspect Ratio (1.6 x Zoom)							
Screen Size		Screen Width (Y)		Screen Height (X)		Projection Distance (D)	
inches	mm	inches	mm	inches	mm	inches	mm
40	1016.0	34.8	885.5	19.6	498.1	44.4	1130
60	1524.0	52.2	1328.3	29.4	747.2	67.3	1710
80	2032.0	69.7	1771.0	39.2	996.2	90.5	2300
100	2540.0	87.1	2213.8	49.0	1245.3	113.3	2880
120	3048.0	104.5	2656.6	58.8	1494.3	136.2	3460
140	3556.0	122.0	3099.3	68.6	1743.4	159.0	4040
160	4064.0	139.4	3542.1	78.4	1992.4	182.0	4625
180	4572.0	156.8	3984.8	88.2	2241.5	205.1	5210
200	5080.0	174.3	4427.6	98.0	2490.5	227.9	5790
220	5588.0	191.7	4870.4	107.8	2739.6	250.7	6370
240	6096.0	209.1	5313.1	117.6	2988.6	273.6	6950
260	6604.0	226.6	5755.9	127.4	3237.7	296.6	7535
280	7112.0	244.0	6198.6	137.2	3486.7	319.4	8115
300	7620.0	261.4	6641.4	147.0	3735.8	342.5	8700

The projection distance may vary depending on the installation conditions.

Adjusting the Focus of the Projection Screen

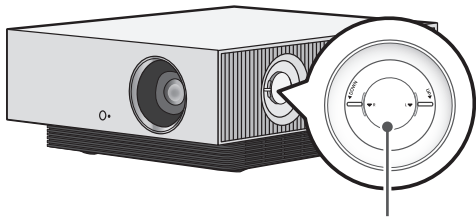
When an image appears on the screen, check if it is in focus and fits the screen properly.

To adjust the focus of the image, slowly adjust the focus knob to the left or right while looking at the top center of the screen. You can adjust the focus most effectively when the left and right screen are balanced. When adjusting the focus on the screen, do not let the product shake.



Adjusting the Position of the Projection Screen

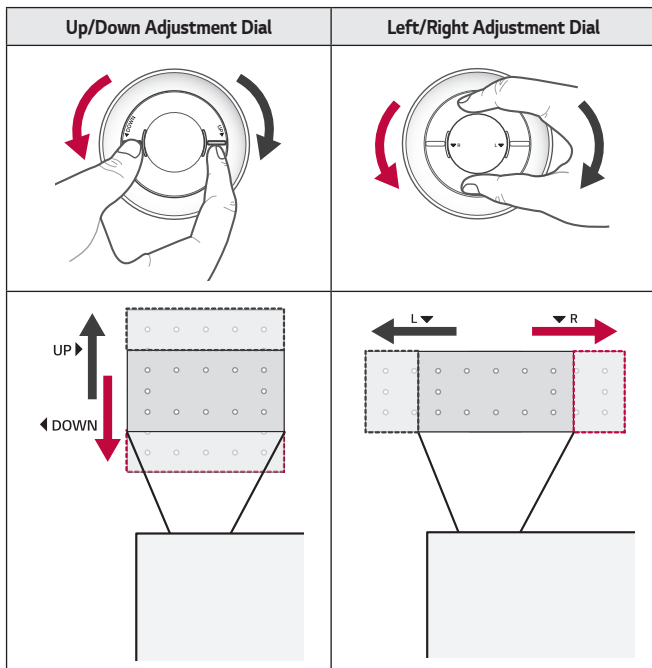
You can use the Projection Screen Position (Lens Shift) Adjustment Dial to adjust the position of the projection screen without moving the projector up, down, left or right. If the projection screen does not align properly on the screen even after adjusting the position of the projection screen using the Projection Screen Position (Lens Shift) Adjustment Dial, use the [Keystone] function.



Projection Screen Position (Lens Shift)
Adjustment Dial

How to Use the Projection Screen Position (Lens Shift) Adjustment Dial

You can use the dial to move the position of the projection screen (lens) without moving the projector.



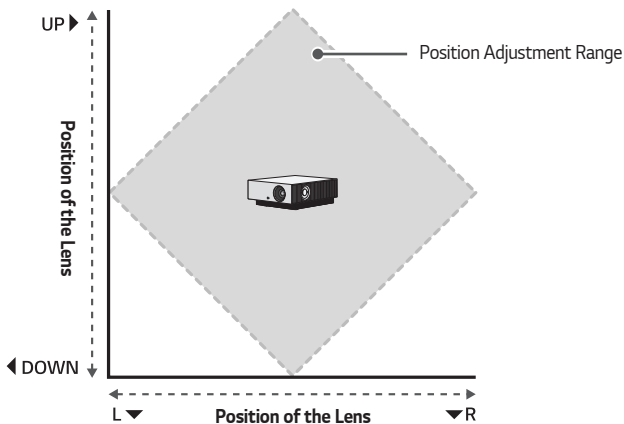
CAUTION

- Clicking sounds while rotating the dial indicates that no further adjustment can be made. Continuing to rotate the dial after reaching the maximum position may cause damage to the dial.

Adjustment Range of the Position of the Projection Screen

The range for moving the position of the projection screen using the Projection Screen Position (Lens Shift) Adjustment Dial is shown below.

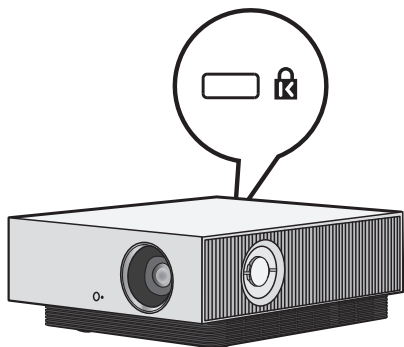
- When the lens position is at its vertical limit (up/down), you cannot move the lens horizontally (left/right).
- When the lens position is at its horizontal limit (left/right), you cannot move the lens vertically (up/down).



Kensington Security System

- This projector has a Kensington Security Standard connector as an anti-theft mechanism. 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 safety systems for laptops and other electronic devices. Website: <http://www.kensington.com>

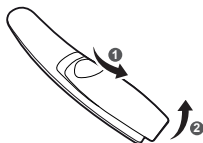


MAGIC LIGHTING REMOTE

- **Depending on country**

If the battery low message appears while using the Projector, replace the batteries.

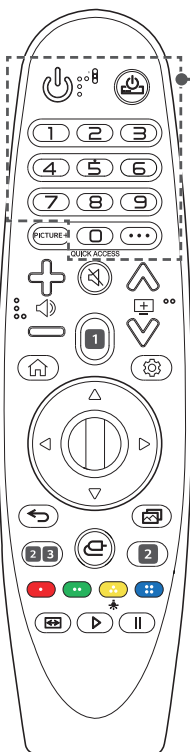
As shown in the figure, press the top of the battery cover and slide it down the cover. Insert two new and identical batteries (1.5 V, AA type) with + and - poles pointing in the correct direction in the remote control.



* : **To use the button, press and hold for more than 3 seconds.**

⚠ CAUTION

- Do not mix new batteries with old ones.



⏻ (POWER)

Turns the Projector on or off.



You can turn your set-top box on or off by adding the set-top box to the universal remote control for your Projector.

Number buttons

Enters numbers.



Accesses the [Quick Help].

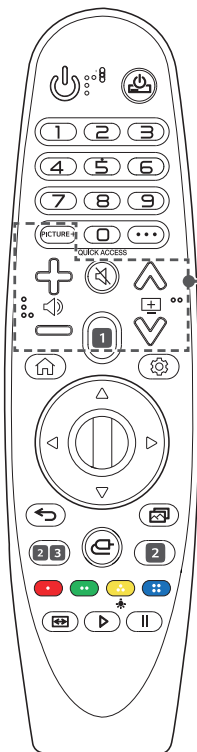
QUICK ACCESS *

Edits QUICK ACCESS.

(QUICK ACCESS is a feature that allows you to enter a specified app directly by pressing and holding the number buttons.)

⋮ (MORE ACTIONS)

Displays more remote control functions.



PICTURE+

The menu appears in the order of [Iris Mode]/[Adaptive Contrast]/[Dynamic Tone Mapping]/[Real Cinema]/[TruMotion].

Depending on the input signal or video mode setting, the menu may deactivate and disappear from the screen.

- [Dynamic Tone Mapping]: When the signal is not HDR10
- [Real Cinema]: When the input signal is not 24Hz/ When [Picture Mode] is [Game]/When set to [TruMotion]
- [TruMotion]: When the input signal is 60Hz/ When [Picture Mode] is [Game]



Adjusts the volume level.



Mutes all sounds.

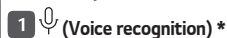


Accesses the [Accessibility] menu.



Network connection is required to use the voice recognition function.

Check for recommended content. (Some recommended services may not be available in some countries.)



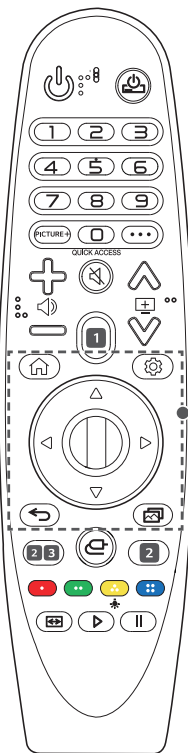
Speak while pressing and holding the button to use the voice recognition feature.



Search for content such as movies and other videos, or perform a web search by entering your search terms in the search box.



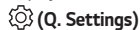
Moves to the previous/next page.



Accesses the Home menu.



Displays the list used previously.



Accesses the Quick Settings.



Displays the [All Settings] menu.



Press the up, down, left or right button to scroll the menu. If you press \triangle ∇ \triangleleft \triangleright buttons while the pointer is in use, the pointer will disappear from the screen and the Magic Lighting Remote will operate like a general remote control. To display the pointer on the screen again, shake the Magic Lighting Remote to the left and right.



Press the center of the Wheel button to select a menu. You can move cursor or menu by using the Wheel button.



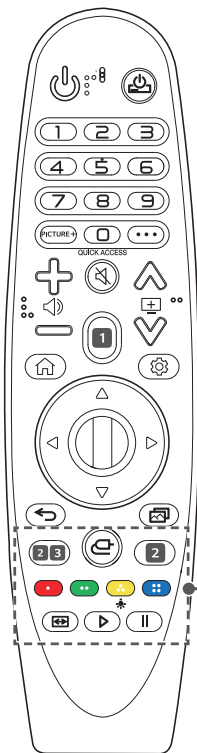
Returns to the previous screen.



Clears on-screen displays and returns to last input viewing.



Changes the [Picture Mode].



2 Streaming Service buttons

Connects to the Video Streaming Service.

3 ((⊞)) (Sound Mode)

Changes the [Sound Mode].

(INPUT)

Changes the input source.

(INPUT) *

Accesses the [Home Dashboard].




These access special functions in some menus.



The remote control buttons light up so that you can use the remote control in the dark.

If the remote control does not move, the pointer disappears and the remote control light turns off in about 5 seconds.

The lighting function is applied when the product is shipped, and if you press and hold the  button for more than 5 seconds, the **(POWER)** button flashes twice and you can turn the lighting function on or off.

(Aspect Ratio)

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


Control buttons (▶, ||)

Controls media contents.





To Register the Magic Lighting Remote

You must pair the Magic Lighting Remote with the projector to use it.

Pair the Magic Lighting Remote prior to use as follows.


- 1 Put batteries into the Magic Lighting Remote and turn the Projector on.
 - 2 Point the Magic Lighting Remote at your projector and press the  **Wheel (OK)** on the remote control.
- If the projector fails to register the Magic Lighting Remote, try again after turning the projector off and back on.

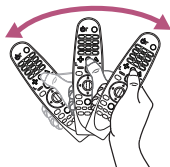
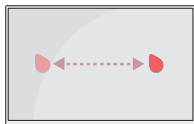
To Re-register the Magic Lighting Remote

- 1 Press the  and  buttons at the same time, for five seconds, to unpair the Magic Lighting Remote with your projector.
 - 2 Press the  **Wheel (OK)** button towards the projector to re-register the Magic Lighting Remote.
- Pressing and holding the  button will let you cancel and re-register Magic Lighting Remote at once.



Using the Magic Lighting Remote

- If you shake the Magic Lighting Remote left and right or turn its wheel while pointing it at the projector, a pointer will appear on the projector screen. If you move the remote control in the direction you want, the pointer follows the movement.

Move the pointer to the location you want and press the  **Wheel (OK)** button to execute the function.



Setting the Pointer of Magic Lighting Remote

- You can set the pointer speed and size you want while it is on the screen.
 →  → [General] → [Additional Settings] → [Pointer Options]
 - [Tracking Speed]: Sets the pointer speed.
 - [Pointer Size]: Selects the pointer size.
- If the pointer has not been used for a certain period of time, it will disappear. When the pointer disappears from the screen, shake the Magic Lighting Remote right and left.
The pointer will disappear if you press the up, down, left, right buttons, and the remote will work as a conventional remote.
- If the pointer is not responding smoothly, you can reset the pointer by moving it to the edge of the screen.
- Use the remote control within the specified range (within 10 m (32.8 feet)). You may experience communication failures when using the device outside the coverage area or if there are obstacles within the coverage area.
- You may experience communication failures depending on the accessories. Devices such as a microwave oven and wireless LAN operate in the same frequency band (2.4 GHz) as the Magic Lighting Remote. This may cause communication failures.
- Impacts can cause the Magic Lighting Remote to malfunction.
- Take care not to bump into nearby furniture, electronic equipment, or other people when using the Magic Lighting Remote.
- The Magic Lighting Remote may not work properly if a wireless router (AP) is within 0.2 m (0.6 feet) of the Projector. Your wireless router should be more than 0.2 m (0.6 feet) away from the Projector.

CONNECTING DEVICES


You can connect various external devices to the projector.

Connecting with a HDMI Cable

Connect an HD receiver, DVD, PC, Notebook, or external devices to the projector and select an appropriate input mode.

With an HDMI cable, you can enjoy high quality picture and sound.


Using a HDMI cable, connect the **HDMI** port of the projector to the HDMI output port of the device to connect. Both video and audio are output at the same time.

-  (**INPUT**) → [Home Dashboard] → [Inputs] → [HDMI 1]/[HDMI 2]/[HDMI 3]



NOTE

ARC (Audio Return Channel)

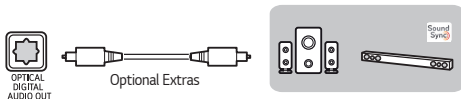
- External audio devices that support SIMPLINK and ARC must be connected using HDMI 3 **eARC/ARC** port. ()
- When connected with a high-speed HDMI® cable, external audio devices that support ARC output or SPDIF work with the SIMPLINK function without the need for an additional optical audio cable.

When connecting PC/laptop

- The projector supports Plug and Play. Your PC will automatically detect the projector and requires no driver installation.

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 [Optical]. If a projector, home theater, or the speaker of an external audio device is operating at the same time, there will be an echo.



! NOTE

- 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 a smart device (smartphone, tablet, etc.)

-  (INPUT) → [Home Dashboard] → [Inputs] → [HDMI 1]/[HDMI 2]/[HDMI 3]
- The picture may look different from the actual product.

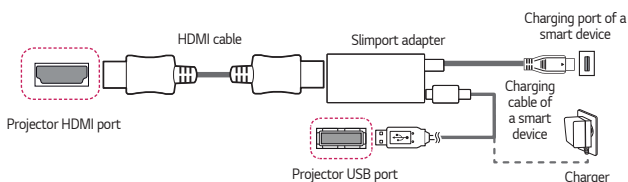
Connect a smart device to the projector using a cable¹⁾ and set the external input of the projector to HDMI. The smart device screen will then be displayed through the projector. You can connect with any HDMI input port.

For model-specific instructions regarding use of the wired connection, please check with the smart device manufacturer.

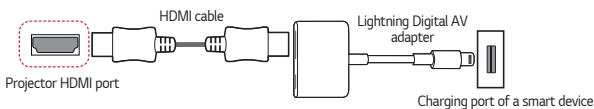
Supported smart devices may change depending on the circumstances of each manufacturer.

1) Examples of how to connect a cable to different smart devices (cable purchased separately).

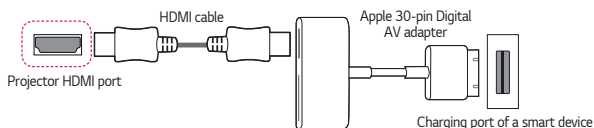
Slimport supported devices



Apple Lightning Digital AV adapter supported devices



Apple 30-pin Digital AV adapter supported devices



SPECIFICATIONS

MODEL	AU810PB (AU810PB-NA) HU810PW (HU810PW-NA)	
Resolution (Pixel)	3840 (Horizontal) x 2160 (Vertical) ¹⁾	
Aspect ratio	16:9 (Horizontal:Vertical)	
Projection distance – Screen size	1130 mm to 8700 mm (44.4 inches to 342.5 inches) – 1016.0 mm to 7620.0 mm (40 inches to 300 inches)	
Ratio of upward projection	110 %	
Ratio of downward projection	-110 %	
Power consumption	300 W	
Power	AC 100 ~ 240 V, 50/60 Hz, 3.0 A	
Audio Output	5 W + 5 W	
Height	145 mm (5.7 inches) (without foot), 151 mm (5.9 inches) (with foot)	
Width	337 mm (13.2 inches)	
Depth	410 mm (16.1 inches)	
Weight	11 kg (24.2 lbs)	
USB Device	5 V, 0.5 A (Max.)	
12 V trigger output²⁾	12 V, 0.2 A (Max.)	
Environment Condition	Temperature	
	Operation	0 °C to 40 °C (32 °F to 104 °F)
	Storage	-20 °C to 60 °C (-4 °F to 140 °F)
	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.

1) 4K UHD resolution with 8.3 million discrete pixels projected by XPR (Expanded Pixel Resolution) video processing.

2) AU810PB model only

HDMI (DTV) Supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 480	31.46	59.94
640 x 480	31.5	60
720 x 480	31.47	59.94
720 x 480	31.5	60
720 x 576	31.25	50
1280 x 720	44.96	59.94
1280 x 720	45	60
1280 x 720	37.5	50
1920 x 1080	28.12	50
1920 x 1080	33.72	59.94
1920 x 1080	33.75	60
1920 x 1080	26.97	23.97
1920 x 1080	27	24
1920 x 1080	33.71	29.97
1920 x 1080	33.75	30
1920 x 1080	56.25	50
1920 x 1080	67.43	59.94
1920 x 1080	67.5	60
1920 x 1080	112.5	100
1920 x 1080	134.86	119.88
1920 x 1080	135	120

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
3840 x 2160	53.95	23.98
3840 x 2160	54	24
3840 x 2160	56.25	25
3840 x 2160	61.43	29.97
3840 x 2160	67.5	30
3840 x 2160	112.5	50
3840 x 2160	134.86	59.94
3840 x 2160	135	60
4096 x 2160	53.95	23.98
4096 x 2160	54	24
4096 x 2160	56.25	25
4096 x 2160	61.43	29.97
4096 x 2160	67.5	30
4096 x 2160	112.5	50
4096 x 2160	134.86	59.94
4096 x 2160	135	60

HDMI (PC) Supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 350	31.46	70.09
720 x 400	31.46	70.08
640 x 480	31.46	59.94
800 x 600	37.87	60.31
1024 x 768	48.36	60
1360 x 768	47.71	60.01
1152 x 864	54.34	60.05
1280 x 1024	63.98	60.02
1920 x 1080	67.5	60
1920 x 1080	134.86	119.88
1920 x 1080	135	120
3840 x 2160	53.95	23.98
3840 x 2160	54	24
3840 x 2160	56.25	25
3840 x 2160	61.43	29.97
3840 x 2160	67.5	30
3840 x 2160	112.5	50
3840 x 2160	134.86	59.94
3840 x 2160	135	60

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
4096 x 2160	53.95	23.98
4096 x 2160	54	24
4096 x 2160	56.25	25
4096 x 2160	61.43	29.97
4096 x 2160	67.5	30
4096 x 2160	112.5	50
4096 x 2160	134.86	59.94
4096 x 2160	135	60
2560 x 1440	88.78	59.95

- 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 and Play function (Auto-recognition of PC monitor).
- 3840 x 2160 is recommended as the best picture quality in the PC mode.

Other specifications







As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015.

Risk Group 2

CAUTION Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eye.

This label is attached to the bottom of the product and language may differ.

SYMBOLS

	Refers to alternating current (AC).
	Refers to direct current (DC).
	Refers to class II equipment.
	Refers to stand-by.
	Refers to "ON" (power).
	Refers to dangerous voltage.

TROUBLESHOOTING

Please check the list below when you experience the following symptoms during use of the product. It may not be a failure.

Checklist for Safety (please check a long-used projector for safety issues.)

Does your device have any of the following issues?

- The projector does not display anything on the screen or output sound when it is turned on.
- The product emits smoke or a burning smell.
- Water or foreign substances are present inside the product.
- Part of the projected image is cut out.
- A strange noise (crackling or sparking sound) regularly occurs from inside the projector.
- The projector still displays the screen or outputs sound when it is turned off.
- There are other errors or failures.

In this case, stop using the product.

- For safety, turn off the power switch and remove the plug from the socket.
- Contact the place of purchase or authorized service center for product inspection.
- Do not attempt to repair the product yourself.

Abnormal behavior

- There is a colored dot (bright dots, dark dots, stationary dots, and/or flickering dots) on the screen.
 - This projector was produced with high precision technology. However, a tiny dark or bright dot may appear on the screen. This is a common occurrence due to the production process, and it does not indicate a functional failure.
- The remote control may not work properly where a lamp with electronic stabilizer or a three-wavelength lamp is installed.
 - In this case, replace the lamp with electronic stabilizer or the three-wavelength lamp with international standard products to ensure the remote control works properly.





ABOUT LG PROJECTOR

Image shown may differ from your projector.

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

[] : the buttons and the text to be displayed on the projector screen.


CONTENTS

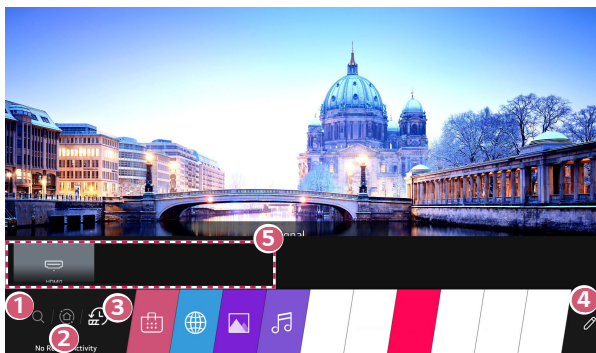
ABOUT LG PROJECTOR	3
HOW TO OPERATE THE PROJECTOR	9
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ABOUT LG PROJECTOR


Home Tutorial

Using the Home feature of the LG Projector

You can open the Home screen by pressing the  button on your remote control. You can combine frequently used apps on a single screen and use whichever you want at any time.



- 1 Launch [Search].
- 2 Move to the [Home Dashboard].
You can select or control a device (mobile, external device, etc.) connected to the projector.

3 Move to the recently used app.
Long-press the  button on the remote control or focus the [Recents].
You can run or close a recently used app in the list provided in the preview area at the top.

4 You can run, move, and delete the apps installed on your projector.






5 Focus on each App area. It provides the preview at the top.
You can check or run useful features of each app and recommended content on the preview without entering into the app.

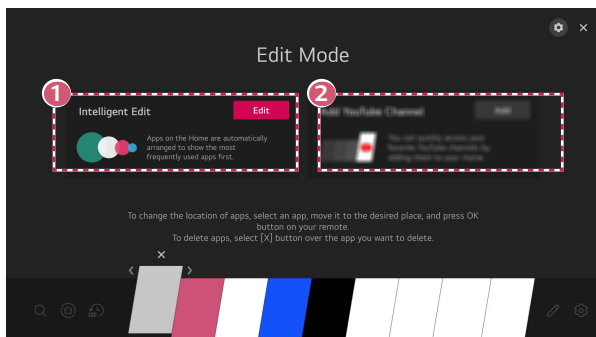
- Some apps may not provide the preview.

- The availability of and access to contents and services in LGE device are subject to change at any time without prior notice.

Manage LG Projector Home

You can view a list of all apps installed on your projector, or change their positions.

- 1** Select the app you want to edit, and press and hold the  **Wheel (OK)** button on the Remote Control. This will activate the app edit mode.
Or you can select the edit button at the far right corner of the Home list to enter the app edit mode.
- 2** To move the app to your desired position, go to the position and press the  **Wheel (OK)** button.
 - You can move as many apps as you wish before exiting the edit mode.
 - You can also move apps with the /  buttons on your remote control.
- 3** After the editing is done, press the  at the top right to exit the app edit mode.
 - The default projector app cannot be deleted.





- 1 You can automatically arrange the app list in the order of most frequently used based on your accumulated app usage pattern.
- 2 You can add your favorite video service channel to the list.
 - This feature is available only when the network is connected.
 - Some models may not be supported.

Network Setting



Network Setting

If you configure settings for the network, you can use various services such as online contents and applications.

Setting a Wired Network

- 1 Connect the LAN port of the projector and the router using a LAN cable. The router should be connected to the Internet beforehand.
- 2 Press the  (**Q. Settings**) button on the remote control and select  → [Connection] → [Network Connection Settings] → [Wired Connection (Ethernet)].
 - If the router supports DHCP, the projector is automatically connected to the network when you connect the projector to the network with a LAN cable.

Setting a Wireless Network

- 1 Turn on the power of the router connected to the Internet.
- 2 Press the  (**Q. Settings**) button on the remote control and select  → [Connection] → [Network Connection Settings] → [Wi-Fi Connection].
- 3 When the network search is complete, the list of networks available for connection is shown.
- 4 Select a network to connect.
If your Wireless Router is password protected, enter the password configured for the router.



Cautions for Network Setup

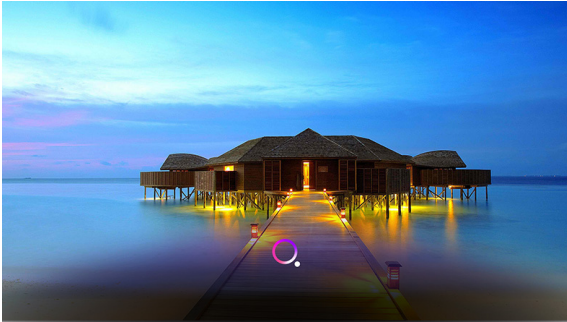
- Use standard LAN cable (connect to Cat7 or higher with RJ45 connector, 10 Base-T, or 100 Base TX LAN port).
- Resetting the modem may fix some network connection problems. Turn the power OFF, disconnect and reconnect it, and then turn the power on to solve the problem.
- LG Electronics is not responsible for any network connection problems or any faults, malfunctions, or errors caused by network connection.
- The network connection may not work properly because of network settings or the Internet service provider.
- DSL service must use a DSL modem; and cable service must use a cable modem. Since only a limited number of network connections may be available, projector network setting may not be used depending on the contract with Internet service provider. (If the contract does not allow more than one device per line, only the already-connected PC may be used.)
- A wireless network can experience interference from other devices that use the 2.4 GHz frequency (wireless phone, Bluetooth device, or microwave oven). Although interference can also happen when using the 5 GHz frequency, it is less likely to occur.
- The wireless environment can make wireless network service run slowly.
- Failure to turn off all local home networks may cause excessive traffic on some devices.
- The access point device must support wireless connections and wireless connection feature must be enabled on the device to have AP (access point) connection. Contact the service provider for availability of wireless connections on the access point.
- Check SSID and security settings of the AP. Refer to the appropriate documentation for SSID and security settings of the AP.
- Invalid settings of network devices (wired/wireless line sharer, hub) can cause the projector to operate slowly or not operate properly. Install the devices correctly according to the appropriate manual and network.
- The connection method may differ depending on the AP manufacturer.





HOW TO OPERATE THE PROJECTOR

Using Projector Functions through Speech



You can easily and quickly access the projector's various functions through speech recognition.

- 1** Press and hold the  (**Voice recognition**) button on the remote control and speak out the function you want to launch or the keyword you want to use for your search.
- 2** Once you release the  (**Voice recognition**) button after your speech input, the corresponding function is launched.



- This feature is available in certain countries only.
- Some models may not be supported.
- Your [Location] must correspond to the language for exact search results. Some function may not be available if your location settings and language settings are different.
- You can change the language in  **(Q. Settings)** →  → [General] → [Language] → [Menu Language].
- The languages available for voice recognition features may be changed in accordance with service operation policy.
- Details of service may vary by model.
- Please note that AI service may be changed, removed or terminated, without notice, by LGE or its third party providers.
- In  **(Q. Settings)** →  → [General] → [AI Service] → [Voice Recognition Help and Settings], you can change the voice-related settings or check the functions available using your voice.

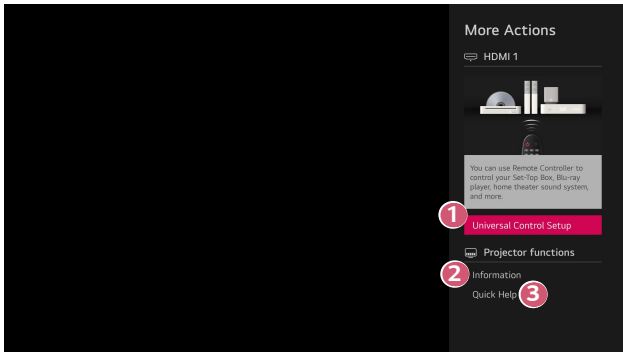
Cautions for Speech Recognition

- Voice recognition requires a Magic Lighting Remote, which may not be supported by certain models.
- To use all speech recognition features, you need to set your regions, etc. Otherwise, you cannot use some features.
- You must have a network connection to use the speech recognition feature.
- If you have a network connection, you need to accept the terms and conditions to use speech recognition.
- To control the set top box connected to the projector with the voice recognition feature, go to  (**Q. Settings**) →  → [Connection] → [Device Connection Settings] → [Universal Control Settings] to set up a universal remote control.
- It is recommended to point the Magic Lighting Remote toward the set top box after the voice input.
- The rate of speech recognition may vary depending on the characteristics of the user (voice volume, pronunciation, accent, and talking speed) and the surroundings (noise and projector volume).
- To achieve accurate recognition of your speech, you must pronounce words in a slow and accurate manner at an appropriate voice volume at a distance of about 10 cm (3.9 inches) away from the Magic Lighting Remote's microphone.
- If your speech is not recognized properly, speech recognition may operate differently than you originally intended.

To View More Features of the Remote Control

You can control more features or external devices connected to your projector by using the buttons displayed on your projector screen.

- 1 Press the **⋮** button on the remote control.
- 2 Using the remote control, select your desired button on [More Actions] displayed on your projector screen.



- 1 You can set up the universal remote control.
 - You need Magic Lighting Remote to use universal remote control function. (The provided remote control differ depending upon model.)
 - 2 External input information is displayed on the screen.
 - 3 When the projector malfunctions, you can get help to solve the problem.
- The types of buttons appearing on the [More Actions] vary, depending on the region and the type of connected device.
 - The configurable items differ depending upon model.

Universal Remote Control

Automatically Setting the Universal Remote Control

When you set up the universal remote control, you can control the peripherals (Blu-ray / DVD player, home theater, set-top box, etc.) with the Magic Lighting Remote rather than using their dedicated remote controls.

Connect the devices to be set to the projector's HDMI input, and turn the power of the device on.

The projector will scan the connected device to automatically set the universal remote control without manual setting.

- After setting the universal remote control, you may need to do some additional user settings.
- It may take several seconds to complete the settings for the universal remote control.
- In some models, you can set the universal remote control only after converting to an input of a connected device.
- Depending on the connected device, the automatic setting feature for universal remote control (automatic device connection) may not be supported.

Manually Setting the Universal Remote Control

If the universal remote control is not automatically set or it is connected to the AV input/Component input, you can manually set it.

1 Select the  (**Q. Settings**) →  → [Connection] → [Device Connection Settings] → [Universal Control Settings].

2 Select the type of the device you want to set.

3 Complete the settings for the universal remote control according to the guidance on the screen.

You can change or cancel the universal remote control settings.

- This feature can only be used with the Magic Lighting Remote. (The provided remote control differ depending upon model.)
- Some models may not be supported.
- AV input/Component input ports are available in certain models only.
- When changing the settings, check that the device to be changed is turned on.
- You can set up the universal remote control with the latest updated information.
- The manual setting feature for universal remote control is not supported for a game console.
- Some buttons may not work depending upon the model of the external device.
- Point the Magic Lighting Remote at the device you want to control. Make sure that there are no objects in front of the device to ensure that the remote control signal is well received.

Launching Apps through [Quick Access]

Using apps quickly and easily with [Quick Access]

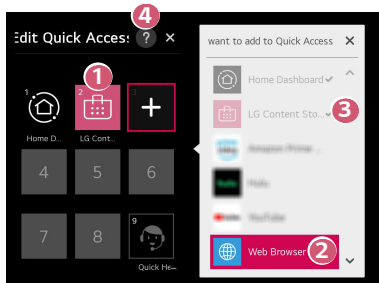
Press and hold a number button on the remote control to open an app or to activate an external input registered to the button.

Setting the [Quick Access]

- 1** Launch the app or input you wish to assign.
- 2** Press and hold the number button (1~8) you want to register.
No. 9 is fixed to [Quick Help].
- 3** When the registration pop-up window appears, select [Yes].
 - If you press and hold a number button that has already been registered, the registered function will be performed.
 - To see the items that can be registered, select a number that has not been registered in the [Edit Quick Access] mode.
 - If you are in a mode where [Quick Access] cannot run, no action will be performed.
 - If you delete a registered app, [Quick Access] will be deregistered as well.

Checking and editing [Quick Access]





Press and hold the number 0 button on the remote control.
The [Quick Access] edit screen appears.



- 1 Selecting a number that has already been registered allows deregistering it.
- 2 When you select a number that has not been registered, items that can be registered will be shown.
- 3 An item that has been registered to a different number is indicated with a check mark.
- 4 You can view a brief instruction for this function.

Using SIMPLINK

You can conveniently control and use various multimedia devices connected through HDMI with the projector's remote control.

- 1** Connect the SIMPLINK HDMI Output port to the projector's HDMI IN port with an HDMI® cable.
- 2** Press the  (**Q. Settings**) button on the remote control and select  → [Connection] → [Device Connection Settings].
- 3** Set [SIMPLINK (HDMI-CEC)] to [On].
- 4** Configure the [Auto Power Sync] settings to [On] or [Off]. (If [Auto Power Sync] is set to [On], turning on a SIMPLINK-linked device will turn the projector on. When you turn off the projector, the device will also be turned off.)
- 5** Turn on the connected device. When the projector automatically connects to the device, the input will switch. If the device is not automatically connected to the projector, click the  button.
 - This feature works only with devices with the  logo. Check for the SIMPLINK logo on the external device. There may be a problem using the device if the device does not meet the required specifications.
 - A high-speed HDMI® cable with CEC (Consumer Electronics Control) function is required to use SIMPLINK. Pin 13 of the high-speed HDMI® cable is used for data transfer between devices.
 - If you want to output sound to the external audio equipment connected through the HDMI® cable, set [SIMPLINK (HDMI-CEC)] to [On].

Supported SIMPLINK Functions**• Instant Play**

When you start a multimedia device, you can immediately watch content from the device on the projector without having to control anything.

• Controlling devices with the projector remote control

Enables the user to control multimedia devices with the projector remote control to watch content.

- The pointer function of the Magic Lighting Remote can be limited.

• Main Power Off

If [Auto Power Sync] is set to [On] in the [Device Connection Settings] settings and the projector is turned off, the devices connected to your projector via SIMPLINK will also be turned off.

- This feature is only available in certain devices.

• Main Power On

If [Auto Power Sync] is set to [On] in the [Device Connection Settings] settings, turning on a SIMPLINK-linked device will turn the projector on.

- If [SIMPLINK (HDMI-CEC)] is set to [Off], [Auto Power Sync] cannot be set to [On].
- Some models may not be supported.

Connecting an Input Device to USB

Using a USB Wired/Wireless Mouse

Connect your mouse to the USB port. Use the mouse to move the pointer on the projector screen and select the menu you want.

- The right button and the special buttons on the mouse do not work.
- When using a wireless USB mouse/keyboard, the experience may be affected by the distance and wireless condition.

Using a USB Wired/Wireless Keyboard

Connect your keyboard to the USB port. You can enter text with the connected keyboard device.

- It is not possible to enter text on some screens.
- It is recommended that you use a product that has been tested for compatibility with LG projectors.
LOGITECH K360, LOGITECH K400, LOGITECH K570, LG Electronics MKS-1200
- You can change the input language by pressing the language switch key or the right Alt key. It can also be changed by pressing the Ctrl key and the Space key at same time.
- Wireless USB keyboard use may be affected by the usage range and the wireless environment.
- To enter text in the text field, use the on-screen keyboard on your projector screen or a USB keyboard.

Using a Gamepad

Connect your gamepad to the USB port on the projector if the game requires a gamepad.

- It is recommended that you use a gamepad that has been tested for compatibility with LG projectors. LOGITECH F310, LOGITECH F510, LOGITECH F710, LOGITECH Rumblepad 2, LOGITECH Cordless Rumblepad 2, LOGITECH Dual Action Gamepad, MICROSOFT Xbox 360 Controller (cable), SONY Playstation(R)3 Controller



HOW TO USE VARIETY OF CONTENTS

Using [LG Content Store]

You can quickly and conveniently browse for TV Shows, Movies, and more to watch immediately. You can also download and use apps from various categories such as education, entertainment, lifestyle, news, and games.

1 Press the  button on the remote control.

2 Launch the [LG Content Store] application.

- Depending on the model, the provided contents may differ or some features may be limited.
- Exercise caution when in used by children. Children may have access to inappropriate online content through this product. You can block inappropriate online content by restricting access to some apps.
 - Configure the settings in  (**Q. Settings**) →  → [General] → [Safety] → [Application Locks].


Recommended Content on the Main Screen

You can view recommendations for the most popular content and apps in each category on the [LG Content Store] main screen. Choose a piece of content to watch it, or choose an app to download it.

- Some models may not be supported.
- This feature is available only when the network is connected.

Installing Apps

You can install various apps on your projector from the [LG Content Store].


- 1** Press the  button on the remote control.
- 2** Launch the [LG Content Store] application.
- 3** Select the [All Apps] category shown at the top of the screen. The list of available apps in the selected category will be shown.
- 4** Select an app to set up from the list.
- 5** Read the details of the app and then press [Install].
- 6** When the installation is complete, you can run the app immediately.
 - Available categories may vary depending on the country or service status.
 - If the storage on your projector is insufficient, you can install the apps by connecting an external memory device.
 - Some USB storage devices may not be supported or may not work properly.
 - USB drivers containing apps from other LG TVs or LG Projectors may not be used.
 - You can delete apps you have downloaded in the [My Apps].

Managing your LG Account

In [Account Management], you can use your email address to create a new LG account.

Content Recommendation

If you are watching the projector using a set-top box, you must complete the setup of the universal remote control to use the recommendation feature normally.



1 Press the  button on the remote control.

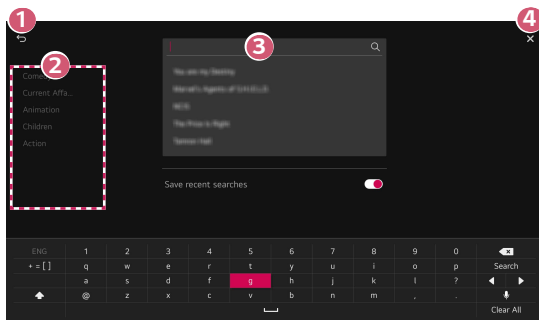
2 Launch .

- Some models may not be supported.
- You must connect to the network to use the recommendation feature.
- The supported services vary depending on countries, so the recommendations may be provided differently.
- The list of the recommendations may be less relevant or irrelevant, depending on the information of the program you are watching.

Search Content

You can receive recommendations for content based on viewing patterns or search by yourself for the content you want.

- 1 Press the  button on the remote control.
- 2 Launch .
- 3 Search for a variety of content and information by typing in your desired search terms.





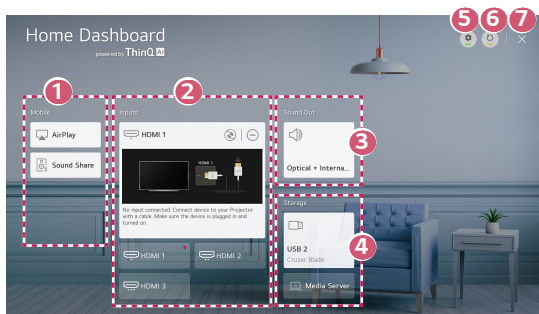
- 1 Returns to the previous screen.
 - 2 Provides a list of content for the selected genre.
 - 3 Enter your desired search term.
 - 4 Exit the search.
- You must connect to the network to use the search feature.
 - Search results may vary depending on the region, network settings, and whether you have agreed to the terms and conditions.

CONNECT OTHER DEVICES

Using [Home Dashboard]

You can select or control a device (mobile, external device, etc.) connected to the projector.

- Press the  button on the remote control and select [Home Dashboard].
- You can also press and hold the  button on the remote control.



- 1 You can play sound from a smart device connected via Bluetooth.
 - 2 You can check and select the external device connected through the external input port or network.
 - 3 The currently selected output speaker is displayed, and you can navigate to the output speaker settings screen.
 - 4 You can view and select the connected storage device.
 - 5 [Edit]: You can edit the name of the device connected to [Inputs] or configure the related settings.
 - 6 It refreshes the device list.
 - 7 Exit the [Home Dashboard].
- The configurable items differ depending upon model.


Share Smartphone Screen

To see the Mobile Device's screen on the projector

- 1** Enable Screen Share mode on the mobile device.
 - 2** Your projector will be displayed in the list of available devices.
 - 3** Select your projector and request connection.
 - 4** Select accept in the connection request popup window.
 - 5** After the connection is established, the projector will display the screen of the connected device.
- For a reliable connection always keep the connected device to your projector updated to the latest OS version.
 - A non-LGE device might not connect even when it is detected.
 - Connect the device to a 5 GHz router because the performance may be affected by your wireless environment.
 - The response rate may vary, depending upon the user's environment.
 - It differs among devices. For more information on the device you want to connect to, refer to its user guide.
 - If connection fails repeatedly, turn off the projector and the device you want to connect to, then turn them back on and try again.

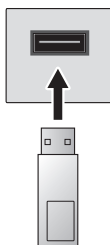
Playing Sound from a Smart Device through the projector's Speakers

Connect a smart device to the projector via Bluetooth to play sound from the smart device through the projector's speakers.

- 1** Turn the smart device's Bluetooth on, then select the projector from the list of devices.
- 2** The projector will be connected to the smart device.
 - If the output speaker is set to [Bluetooth] or has a setup history, the projector may not be detected in the list of smart devices.
 - If the output speaker is set to [Bluetooth], press and hold the  button on the remote control to open [Home Dashboard], and then select [Sound Share] in the mobile area to connect.



Connecting USB

Connect a USB storage device (USB HDD, USB Flash Drive) to the USB port on the projector to enjoy the content files stored on the USB storage device on your projector.



USB Flash Drive


Tips for Using a USB storage device

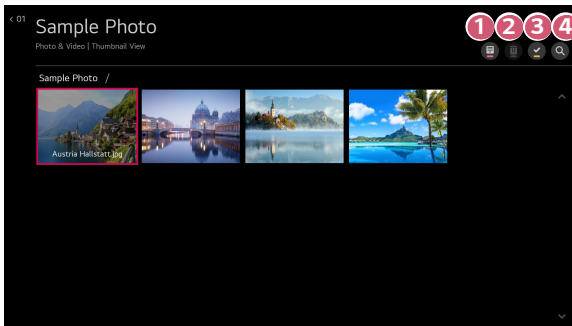
- A USB storage device that has a built-in automatic recognition program or uses its own driver might not be recognizable.
- Some USB storage devices may not be supported or may not work properly.
- If you use a USB extension cable, the USB storage device may not be recognized or may not work properly.
- Please use only USB storage devices formatted with the FAT32 or NTFS file system provided by Windows OS.
- It is recommended that you use an external USB HDD with a rated voltage of 5 V or less and a rated current of 500 mA or less. If you use a device requiring a higher voltage/current than the rated voltage/current, it may not operate properly due to lack of current.
- For USB hubs and USB storage devices, it is recommended to use a type that supplies power by connecting the AC adapter to a power outlet.
- It is recommended that you use a USB stick of 32 GB or less or a USB HDD of 2 TB or less.
- If a USB HDD with power-saving function does not work, turn the hard drive off and on again to make it work properly. See the owner's manual for the USB HDD for more information.
- Data on a USB storage device may be damaged, so it is recommended that you back up any important files. Users are responsible for data management. The manufacturer bears no responsibility.
- Press the  button on the remote control. To remove the USB storage device, press the [Eject] button, which appears at the top when you focus on the USB storage device you want to remove.
If you disconnect the USB storage device without selecting [Eject], an error may occur in your projector or storage device.
- When you connect a USB storage device of a file system not supported by the projector to the USB input port, the format message appears. To use the connected USB storage device, you should format the device first. After format, all the data of USB storage device will be deleted and formatted as NTFS or FAT32 file system.
- Press and hold the  button on your remote control. Select the connected USB from [Home Dashboard] → [Storage] and select the [Format] button to format the USB storage device.
- When connecting a USB storage device, a random file/folder can be created to provide Smart projector services such as the saving and retrieving of thumbnail images.

[Photo & Video]

Viewing Photos and Videos

You can view photos and videos using the [Photo & Video] app.

- 1 Press the  button on the remote control.
- 2 Launch the [Photo & Video] application.
- 3 Select your desired storage device.
- 4 Select and view your desired photo or video.



- 1 Select your desired type of content and viewing method.
 - 2 Select and delete your desired content.
(You cannot delete files that are shared from other devices.)
 - 3 Select the content you want to play. You can only select the same type of content as you first selected.
 - 4 Launch [Search].
- Certain content may not be displayed on the list if the number of all content exceeds 40,000.

Photo Player

Selecting a photo in the [Photo & Video] app runs the photo player. You can view your saved photos.



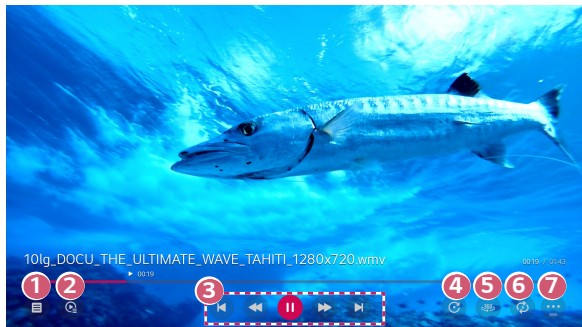
- 1 Returns to the entire content list.
- 2 You can play background music by running the music player.
- 3 You can zoom the photos in/out.
- 4 Starts the slide show.
- 5 Rotates photos.
- 6 360-degree photos can be viewed in 360 degrees.
 - Using the 360° VR Play on a normal photo may distort the image.
 - Some models may not be supported.
- 7 You can set the size of a photo or change the speed and effect of a slide show.
 - Some models may not be supported.

Supported Photo Files

File type	Format	Resolution
jpeg, jpg, jpe	JPEG	Minimum: 64 x 64 Maximum Normal Type: 15360 (W) x 8640 (H) Progressive Type: 1920 (W) x 1440 (H)
png	PNG	Minimum: 64 x 64 Maximum: 5760 (W) x 5760 (H)
bmp	BMP	Minimum: 64 x 64 Maximum: 1920 (W) x 1080 (H)

Video Player

Selecting a video in the [Photo & Video] app runs the video player. You can view your saved videos.



- 1 Returns to the entire content list.
- 2 You can select other content by displaying the playlist while watching a video.
- 3 You can control basic video playback functions.
- 4 Rotates videos.
 - Some models may not be supported.
- 5 360-degree videos can be viewed in 360 degrees.
 - Using the 360° VR Play on a normal video may distort the videos.
 - Some models may not be supported.
- 6 You can do the settings related to play on repeat of the video.
- 7 You can set additional options.

Setting Additional Options



- 1 You can change subtitle settings.
- 2 You can set audio tracks.
- 3 You can set continue watching to resume playing from the last viewed scene.
- 4 Returns to the basic operation screen.

Supported Video Files

Maximum data transfer rate

- Full HD video
H.264 1920 x 1080@60P BP/MP/HP@L4.2 Maximum 40 Mbps
HEVC 1920 x 1080@60P Main/Main10@L4.1 Maximum 40 Mbps
- ULTRA HD video (ULTRA HD model only)
H.264 3840 x 2160@30P BP/MP/HP@L5.1 Maximum 50 Mbps
HEVC 3840 x 2160@60P Main/Main10@L5.1 Maximum 60 Mbps

Supported external subtitles

*smi, *srt, *sub (MicroDVD, SubViewer 1.0/2.0), *ass, *ssa, *txt (TMPlayer), *psb (PowerDivX), *dcs (DLP Cinema)

Supported embedded subtitles format

- Matroska (mkv): Sub Station Alpha (SSA), Advanced Sub Station Alpha (ASS), SRT
- MP4 (mp4): Timed Text

Supported video codecs

Extension	Codec	
asf wmv	Video	VC-1 Advanced Profile (except for WMVA), VC-1 Simple and Main Profiles
	Audio	WMA Standard (except for WMA v1/ WMA Speech)
avi	Video	Xvid (except for 3 warp-point GMC), H.264/AVC, Motion Jpeg, MPEG-4
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, LPCM, ADPCM
mp4 m4v mov	Video	H.264/AVC, MPEG-4, HEVC, AV1
	Audio	Dolby Digital, Dolby Digital Plus, AAC, MPEG-1 Layer III (MP3), Dolby AC-4, MPEG-H 3D Audio
3gp 3g2	Video	H.264/AVC, MPEG-4
	Audio	AAC, AMR-NB, AMR-WB
mkv	Video	MPEG-2, MPEG-4, H.264/AVC, VP8, VP9, HEVC, AV1
	Audio	Dolby Digital, Dolby Digital Plus, AAC, PCM, MPEG-1 Layer I, II, MPEG-1 Layer III (MP3)
ts trp tp mts	Video	H.264/AVC, MPEG-2, HEVC
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, AAC, PCM, Dolby AC-4
mpg mpeg dat	Video	MPEG-1, MPEG-2
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3)
vob	Video	MPEG-1, MPEG-2
	Audio	Dolby Digital, MPEG-1 Layer I, II, DVD-LPCM

- Dolby AC-4, MPEG-H 3D Audio: Some models may not be supported.

Cautions for Video Playback

- Some user-created subtitles may not work properly.
- A video file and its subtitle file must be located in the same folder. For subtitles to be displayed properly, make sure that the video file and the subtitle file have the same name.
- Subtitles on a Network Attached Storage (NAS) device may not be supported depending on the manufacturer and model.
- Streams that include Global Motion Compensation (GMC) and Quarterpel Motion Estimation (Qpel) are not supported.
- ULTRA HD video (ULTRA HD model only): 3840 x 2160, 4096 x 2160
Some HEVC-encoded ULTRA HD videos other than the content officially provided by LG Electronics may not be played.
Some codecs can be supported after a software upgrade.


Extension	Codec	
mkv mp4 ts	Video	H.264/AVC, HEVC
	Audio	Dolby Digital, Dolby Digital Plus, AAC

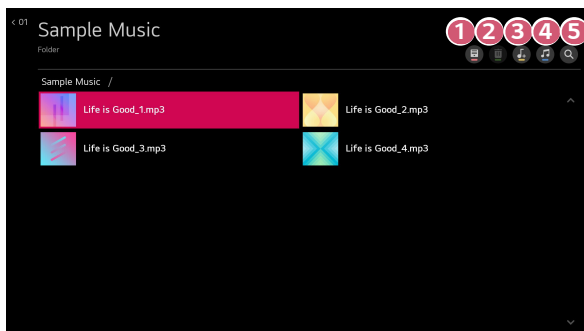
- Only Window Media Audio V7 and later are supported.
- The AAC main profile is not supported.
- Video files created by some encoders may not be played.
- Video files in a different format than specified may not be played properly.
- Video files stored on a USB storage device that does not support High Speed may not be played properly.

[Music]

Playing Music

You can listen to music by using the [Music] app.

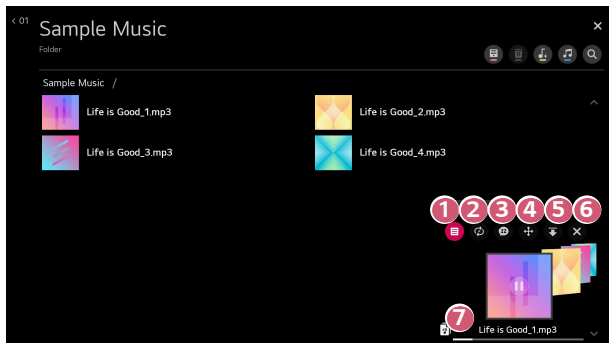
- 1 Press the  button on the remote control.
- 2 Launch the [Music] application.
- 3 Select your desired storage device.
You can select your desired songs from all of your storage devices and add them to [My Playlist].
- 4 Select your desired music content and enjoy it.



- 1 Select the desired type of content list.
- 2 Select and delete your desired content.
(You cannot delete files that are shared from other devices.)
- 3 Select the content to add to My Playlist.
- 4 Open the music player.
- 5 Launch [Search].

Using the Music Player

You can conveniently play music by selecting a saved music file in the [Music] app or selecting the music player icon while playing content in an app such as [Photo & Video].



- 1 You can play music from the selected storage device.
- 2 You can set repeat playback and random playback.
- 3 The configurable items differ depending upon model.
 - 📵 : You can turn the screen off while listening to music or display the music player in full-screen mode.
 - 🔇 : You can listen to music with the screen turned off.

- 4 You can change the position of the music player.
 - 5 You can minimize the music player.
 - 6 This feature closes the music player.
 - 7 Lyrics are available for music files that provide them.
In some music files, you can choose a lyric section and move the playback position.
 - The lyrics feature is only supported on some devices.
 - The lyrics may not be displayed in sync depending on the lyrics data in the music file.
- Reopen your music player by pressing the volume buttons on your remote control.
 - You may not be able to use the music player for some features.

Audio Format

File type	Item	Info
mp3	Bit rate	32 kbps ~ 320 kbps
	Sample freq.	16 kHz ~ 48 kHz
	Support	MPEG-1, MPEG-2
	Channels	mono, stereo
wav	Bit rate	-
	Sample freq.	8 kHz ~ 96 kHz
	Support	PCM
	Channels	mono, stereo
ogg	Bit rate	64 kbps ~ 320 kbps
	Sample freq.	8 kHz ~ 48 kHz
	Support	Vorbis
	Channels	mono, stereo
wma	Bit rate	128 kbps ~ 320 kbps
	Sample freq.	8 kHz ~ 48 kHz
	Support	WMA
	Channels	up to 6 ch
flac	Bit rate	-
	Sample freq.	8 kHz ~ 96 kHz
	Support	FLAC
	Channels	mono, stereo

- The number of supported channels may vary depending upon the sample frequency.

View Computer Files

Connect to a PC Through the Content Sharing Function

Content Share allows you to enjoy videos, music and photos saved on your PC.

Play the content with sharing software on the PC

If you have Windows 7 or later installed on your PC, you can play music, video, photos, etc. on your projector without needing to install a separate program.

- 1** Connect you projector and PC to the same network. PCs installed with Windows 7 or later also need to be connected to a network.
 - 2** Right-click the desired music/video/photo file you wish to play, then select your model using the "Play To" feature built into Windows 7 or later to play the file.
To play on other devices like your mobile phone, refer to the relevant user guide.
- Even when multiple projectors or devices are connected, the selected file is played through only one device. The playback rate may vary depending on the network connection.

Use the SmartShare PC Software to play the content saved on the PC

You can use SmartShare PC Software to connect the music/videos/photos saved on the PC to your home network and play them on your projector.

- 1** Configure the projector and PC installed with SmartShare on the same network.
 - The SmartShare service is only available when the projector and server PC are connected to a single router.
- 2** Download and install SmartShare PC Software from the LG website (www.lg.com). Before installation, exit all programs running on the PC, such as a firewall or an anti-virus software.
- 3** Run SmartShare PC Software and configure the share settings.
- 4** Shared videos and photos are played from the [Photo & Video] app on the projector. Shared music files are played from the [Music] app on the projector.
 - The server should be running in order to watch the shared file on your projector.
 - For information on how to use the SmartShare PC Software, refer to the software's help section.

Matters that require special attention during Content Share

- Check your network settings if the Content Share option does not work properly.
- May not work properly on a wireless network. It is recommended that you connect to a wired network.
- If multiple display devices are connected to one device, the content may not be played properly depending on server performance.
- May not work properly depending on the network environment.
- To watch the 1080p video through Content Share function, a router that uses 5 GHz frequency is required. If a 2.4 GHz router is used, the video may not play properly.
- The Content Share function may not be supported for a router that does not support multi-cast. For more information, refer to the user guide that came with your router or contact the manufacturer.
- Captions are only supported on some connected devices.
- SmartShare PC Software is recommended for reading captions.
- When a subtitle file is added later, disable the shared folder and then enable it again.
- The DRM files in the connected device will not play.
- Even for the file format supported by the projector, the supported file format may differ depending on the connected device environment.
- If there are too many folders or files in a folder, it may not work properly.
- The information on the file imported from the connected device may not be displayed correctly.
- Depending upon the encoding, some streams may not play in Content Sharing mode.

Share Computer Screen

To see the PC screen on the projector

Connect wireless

- 1** Enable Screen Share mode on the PC. Your projector will be displayed in the list of available devices.
 - 2** Select your projector and request connection.
 - 3** After the connection is established, the projector will display the screen of the connected device.
- For a reliable connection always keep the connected device to your projector updated to the latest OS version.
 - It is recommended that you use this function at close range.
 - Though it can be connected without a wireless router, connecting your device to a 5 GHz router is recommended because the performance can be affected by the surrounding wireless environment.
 - The response rate may vary, depending upon the user's environment.
 - It's different from Windows version. For more information on the device you want to connect to, refer to its user guide.
 - If connection fails repeatedly, turn off the projector and the device you want to connect to, then turn them back on and try again.

Connect wired


Connect the PC with projector by HDMI® cable.

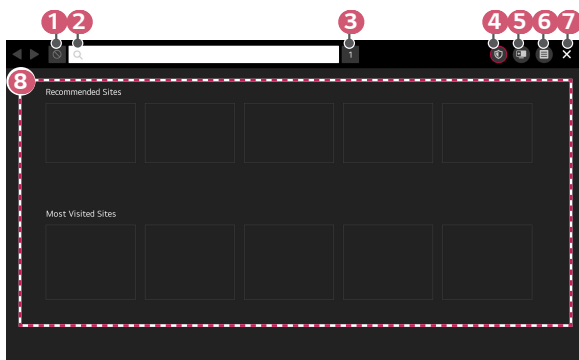
ENJOYING INTERNET


Using the [Web Browser]




You can enter the website when you input the web address on the URL bar.

If you input the search word, it will find the information about search word base on the search engine.


- 1 Press the  button on the remote control.
- 2 Launch the [Web Browser] application.



- 1 You can refresh the web page you are viewing.
- 2 You can type in a web address to navigate to a specific website or enter a search term directly.
- 3 You can view the tabs that are currently open.
- 4 You can block ads within the web page you are viewing.
However, this button is displayed only when  → [Settings] → [Use Block Ads] is set to [On].

- 5 Split the screen to display the projector screen. You can browse web pages while watching projector.
 - 6 You can zoom in or out on the screen while browsing the website.
 [Add to bookmarks]: You can add the website you are currently viewing to your Favorites.
 [History]: You can view and delete the website visit history.
 [Bookmarks]: You can view and delete the list of websites you have added to your Favorites.
 [Settings]: You can change the web browser settings.
 - 7 Exit the [Web Browser].
 - 8 The new tab screen shows a list of [Recommended Sites] and [Most Visited Sites].
 If you do not want to display [Recommended Sites], set the  → [Settings] → [Show Recommended Sites] function to [Off].
 [Recommended Sites] may vary by country and is only available in certain countries.
- The [Web Browser] app on your projector is a browser for projector, so it may work differently than the browser for your PC.
 - Some of the content may not play properly.
 - Flash Plug-in is not supported, and only HTML5 media is supported.
 - Plug-in installation is not supported.
 - Media in formats other than JPEG / PNG / GIF may not be played.
 - Apps may be forced to shut down if the projector runs out of memory.
 - The fonts provided on the projector are used. Depending on the content, characters may look different from PC or mobile browsers.
 - File and font downloads are not supported.
 - Caution is required because malicious or phishing sites are not automatically blocked.
 - Some features may not be supported temporarily due to external factors of the web browser.
 - The website can be accessed through the projector's [Web Browser] app, so care needs to be taken about children's access to harmful online contents. You can lock the [Web Browser] app to prevent access to harmful online contents.
 Configure the settings in  (**Q. Settings**) →  → [General] → [Safety] → [Application Locks].

Changing [Web Browser] Settings

Press  at the top of the screen and select the [Settings].

- [On Startup]
You can set the startup page of the browser to [Open the New Tab page]/ [Continue where I left off]/[Home page:].
- [Search Engines]
You can select the default search engine.
 - Search engine settings may be subject to change without notice based on the supplier's circumstances.
- [Show Recommended Sites]
You can set whether or not to display a list of [Recommended Sites] on the new tab screen.
- [Always Show Address Bar]
When set to [On], the address bar and menu bar area at the top will always be displayed.
- [Private Browsing]
If set to [On], a history of website visits will not be stored.
- [Site Filtering]
You can register websites to block or allow.
[Approved Sites]: You can configure the settings to open the previously registered web pages only.
[Blocked Sites]: You can configure the settings to block specific websites.
 - To use the [Site Filtering] function, you should enter the projector password. The initial password is set as "0000".
- [Pop-up Blocker]
You can block pop-ups using the settings.
- [Do Not Track]
You can request to not leave a history of your visit on the website. The operation may vary depending on the policy of the website.
- [Adaptive Streaming using JavaScript]
The media streaming technology using JavaScript allows you to view video with optimized resolution.
If this is set to [Off], the resolution of the videos played in [Web Browser] is limited to 720p.

- [Cookies Settings]
Enables the website to store and use cookie data.
- [Use Block Ads]
When set to [On], a button will appear in the menu bar area at the top of [Web Browser] to turn the [Use Block Ads] feature on and off. Turning on the [Use Block Ads] feature speeds up page loading by blocking ads included in the website.
- [Automatic Web Browser Issue Report]
When set to [On], if a failure occurs due to insufficient memory (operation delay or malfunction, media playback failure, page loading failure, abnormal shutdown, etc.), the information is automatically sent to the LG Electronics (Korea) Web Browser development team. The submitted information will only be used to improve the Web Browser performance.
- [Clear Browsing Data]
[Clear Cookies]: Deletes cookie data. When deleted, you are logged out of most sites.
[Clear All Browsing Data]: Deletes all browsing history, including cookies.


TOUR LIST OF SETTINGS

The configurable items differ depending upon model.

Quick Settings


Quick Settings

Displays a set of light-weight controls quickly and simply such as [Picture Mode], [Sound Out], [Sleep Timer] and so on.

Press the  (**Q. Settings**) button on the remote control.





- 1 You can set the [Picture Mode].
- 2 You can choose the [Sound Out].
- 3 You can set the [Sleep Timer].
- 4 Move to the [Network Connection Settings] screen.
- 5 You can set the [PJT Mode].
- 6 You can set more options.
- 7 You can add/delete the quick setting items or change their order.

- Press and hold the  (**OK**) on the remote control during configuration to move to the corresponding menu.

[Picture]

[Picture Mode]

 (Q. Settings) →  → [Picture] → [Picture Mode Settings] → [Picture Mode]

Select the picture mode that is best suited to your viewing environment, preferences or video type.

Select a picture mode. You can fine-tune the settings for each mode.

The configurable items differ depending upon model.

Depending upon the input signal, the available picture modes may be different.

When watching online service content, the Picture Mode may be changed to match the content being shown.

When changing [Picture Mode], the aperture of the lens may move and make a sound, which is a normal operation.

When You Use Normal Signals

- [Vivid]
Sharpens the image by increasing the contrast, brightness and sharpness.
- [Standard]
Displays the picture with normal contrast, brightness, and sharpness levels.
- [Cinema]
Optimizes the screen for movies.
- [Sports]
Optimizes the screen for sports games. Sharpens the image of rapid movements such as kicking or throwing a ball.
- [Game]
Optimizes the screen for gameplay.
- [HDR Effect]
This feature lets you enjoy a more dynamic, clearer image by correcting the light and dark areas of the display. This feature provides a realistic image, even when the source image's gradation level is high.
 - If you set [Picture Mode] to [HDR Effect], you will not be able to use some of [Picture Mode Settings].

- [FILMMAKER MODE]
Provides optimized Cinema Picture quality certified by UHD Alliance, the standard setting body for UHD-related technologies.
 - To auto-switch to [FILMMAKER MODE] when a signal that can be operated with this mode is entered, set [FILMMAKER MODE Auto Change] to [On].
- [Brightest]
The screen is displayed at maximum brightness.
- [Expert (Bright Room)]/[Expert (Dark Room)]
This mode is suitable for movies, etc. viewed in a dark environment. [Expert (Dark Room)] has lower color temperature than [Expert (Bright Room)]. Select a mode that is suitable for the movie you are watching.

When You Use the HDR

- [Vivid]
Sharpens the image by increasing the contrast, brightness and sharpness.
- [Standard]
In a normal viewing environment, it opens a screen that can properly show the expressiveness and brightness of HDR.
- [Cinema Home]
The screen appears brighter and clearer than that of the [Cinema] screen.
- [Cinema]
Suitable picture for HDR video signal.
- [Game]
Optimizes the screen for gameplay.
- [FILMMAKER MODE]
Provides optimized Cinema Picture quality certified by UHD Alliance, the standard setting body for UHD-related technologies.
 - To auto-switch to [FILMMAKER MODE] when a signal that can be operated with this mode is entered, set [FILMMAKER MODE Auto Change] to [On].
- [Brightest]
The screen is displayed at maximum brightness.
- If an HDR video signal is input to the models that do not support the HDR technology, normal signal picture mode options will be made available.
- Depending upon the input signal, the available picture modes may be different.
- When watching online service content, the Picture Mode may be changed to match the content being shown.
- [Picture Mode] changes may modify [Energy Saving] settings and it can affect energy consumption. You can change the setting value in the [Energy Saving] mode and the [Picture Mode Settings] → [Picture Options] menu.

[Picture Mode Settings]

 (Q. Settings) →  → [Picture] → [Picture Mode Settings]

This feature allows you to adjust the selected picture mode in detail.



Depending upon the input signal or the selected picture mode, the available options may differ.

The configurable items differ depending upon model.

- [Contrast]
Adjusts the contrast of the bright and dark areas of the picture. The closer to 100, the higher the contrast.
- [Brightness]
Adjusts the overall screen brightness. The closer to 100, the brighter the screen.
- [Sharpness]
Adjusts the sharpness of the image. The closer to 50, the sharper and clearer the image.
- [Color]
Tones down or up the Colors displayed on the screen. The closer to 100, the deeper the Color.
- [Tint]
Adjusts the Color balance between red and green displayed on the screen. The closer to Red 50, the more red the Color will be. The closer to Green 50, the more green the Color will be.
- [Color Temperature]
Adjusts the Color temperature cool/medium/warm.

- [Brightness Optimizer]
The [Brightness Optimizer] function adjusts the display for optimal resolution in accordance with the video and surrounding light conditions. Use [Iris Mode] to optimize the projector brightness according to the surrounding light conditions, and use the [Adaptive Contrast] function to optimize the picture brightness.
 - [Iris Mode]: In dark viewing environments, using the [DarkRoom] mode is recommended for optimally balanced picture quality. In a bright environment, setting to the [BrightRoom] mode opens the projector's Iris, allowing you to enjoy a clearer picture. [User] mode allows precise adjustment of the brightness settings.
 - [Adaptive Contrast]: This feature allows you to achieve high contrast.
- [Apply to All Inputs]
The settings you specify only applies to the currently selected input mode. To apply your current picture settings to all input modes, select [Apply to All Inputs].
- [Reset]
This option will reset the picture settings.
 - You can reset the picture modes separately. Select the picture mode you wish to reset and enable it.

[Advanced Controls]

 (Q. Settings) →  → [Picture] → [Picture Mode Settings] → [Advanced Controls]

Depending upon the input signal or the selected picture mode, the available options may differ.

The configurable items differ depending upon model.

- [Dynamic Contrast]
Corrects the difference between the bright and dark areas of the screen for optimal results depending on the brightness of the picture.
- [Dynamic Tone Mapping]
Suitable contrast settings based on image brightness of the HDR content.
- [Dynamic Color]
Adjusts the Color and saturation of the picture to make the image more Colorful and lively.
- [Color Gamut]
Selects the range of Colors to display.
- [Super Resolution]
Adjusts the resolution to make dim and blurred images clearer.
- [Gamma]
Adjusts the medium brightness of the picture.
Select [Low] for a bright picture, select [High1] or [High2] for a dark picture or select [Medium] for medium brightness. [Expert (Bright Room)]/[Expert (Dark Room)] can be selected from [1.9]/[2.2]/[2.4]/[BT.1886].
– [High2]/[BT.1886] expresses the gradation in ITU-R BT.1886, which is an international standard.

- [White Balance]
Adjusts the overall color temperature of the screen as desired.
 - [Method]: This method is used for fine-tuning the color temperature setting. You can control the color temperature at two points of the bright part and dark part of the video if you select [2 Points], at each point of 10 levels if you select [10 Points IRE], and at each point of 22 levels of the video if you select [22 Points IRE].
 - [Point]: Select screen brightness for color temperature adjustment. If [Method] is set to [2 Points]; use Low to select shadows and High to select highlights.
 - [IRE]: Select screen brightness for color temperature adjustment. When the [Method] is set to [10 Points IRE], you can select the brightness with the 10 levels of brightness. When the [Method] is set to [22 Points IRE], you can select the brightness with the 22 levels of brightness.
 - [Target Luminance]/[Adjusting Luminance]: You can adjust the selected brightness by points.
 - You can do these settings only when the [Picture Mode] is the [Expert (Bright Room)] or the [Expert (Dark Room)] and when the [Method] is set to [10 Points IRE] or [22 Points IRE].
 - [Red]/[Green]/[Blue]: Adjust the color temperature of the selected point. Adjust the intensity of [Red]/[Green]/[Blue] in the range of -50 to 50. You can adjust respective values for the brightness selected in [Point].
- [Color Management System]
This is used when experts control it by using a test pattern. You can control it by selecting areas of six colors ([Red]/[Green]/[Blue]/[Cyan]/[Magenta]/[Yellow]). For normal images, adjustments may not result in noticeable Color changes.
 - [Color]: From [Red]/[Green]/[Blue]/[Cyan]/[Magenta]/[Yellow], select a tone to adjust.
 - [Saturation]/[Tint]/[Luminance]: Adjust the chroma/tint/luminance of the tone in the range of -30 to +30.

[Picture Options]



 (Q. Settings) →  → [Picture] → [Picture Mode Settings] → [Picture Options]

Depending upon the input signal or the selected picture mode, the available options may differ.

The configurable items differ depending upon model.

- [Noise Reduction]
Removes small dots that stand out so as to make the image clean.
- [MPEG Noise Reduction]
Reduces the noise produced during the creation of digital video signals.
- [Smooth Gradation]
It reduces jaggies in the picture for a smooth picture.
- [Black Level]
Adjusts the brightness of the dark parts of images.
 - This feature can be used while watching content through an external input.
- [Real Cinema]
Provides a cinema-like experience.
- [TruMotion]
This feature is available on certain models only.
Optimizes the image quality of fast-moving pictures.
 - [Off]: Turns off the [TruMotion].
 - [Cinema Clear]: Adjusts the shaking of the motion on the screen to make it feel like you are in a movie theater.
 - [Natural]: Sets images with a lot of motions to look natural and clear.
 - [Smooth]: Softens fast-moving pictures.
 - [User]: Sets [TruMotion] manually.
 - [De-Judder]: Adjusts juddering on the screen.
 - The advanced settings can be changed only in [User] mode.

[Aspect Ratio]

 (Q. Settings) →  → [Picture] → [Aspect Ratio Settings] → [Aspect Ratio]

Depending upon the input signal, the available screen sizes may be different.

The configurable items differ depending upon model.



The picture may get distorted while zooming in or out.

Selecting a different screen size from the original size may cause the image to look different.

Depending on the combination of picture format and screen size, the edges may be hidden or shown in black, or both sides of the picture may flicker.

- [16:9]
Displays an aspect ratio of 16:9.
- [Original]
Changes the aspect ratio to 4:3 or 16:9 depending upon the input video signal.
- [4:3]
Displays an aspect ratio of 4:3.
- [Vertical Zoom]
You can adjust the vertical dimension of the screen and align the screen vertically by using [Adjust Zoom Ratio] and [Adjust Screen Position].
- [4-Way Zoom]
You can adjust the horizontal/vertical/diagonal dimensions of the screen and align the screen horizontally/vertically by using [Adjust Zoom Ratio] and [Adjust Screen Position].

[Just Scan]



 **(Q. Settings)** →  → [Picture] → [Aspect Ratio Settings] → [Just Scan]

If you turn this feature [On], you can view the content in the aspect ratio that is in content source. If the edge of the screen is not clean, please turn it [Off].

If set to [Auto], the feature switches between [On] or [Off] status depending on the information contained in the video signal.

- The items that can be selected may vary depending on the current input.

[Energy Saving]



 **(Q. Settings)** →  → [Picture] → [Energy Saving]

Reduces power consumption by adjusting peak screen brightness.

If you use [Energy Saving] function, brightness of your projector will be affected.

- [Minimum]/[Medium]/[Maximum]
Applies the pre-set [Energy Saving] mode.

[HDMI Ultra HD Deep Color]

 (Q. Settings) →  → [Picture] → [Additional Settings] → [HDMI Ultra HD Deep Color]

If the device connected to the HDMI Input Port also supports ULTRA HD Deep Color, your picture may be clearer.

However, if the device doesn't support it, it may not work properly. In that case, change the Projector's ULTRA HD Deep Color setting to [Off].

- Supported Display Resolution
 - On: Supports 4K@60 Hz (4:4:4, 4:2:2, and 4:2:0)
 - Off: Supports 4K@60 Hz (4:2:0)



4K@50/60 Hz Supported Format

Resolution	Frame rate (Hz)	Color Depth/Chroma Sampling		
		8 bit	10 bit	12 bit
3840 × 2160p 4096 × 2160p	50	YCbCr 4:2:0	YCbCr 4:2:0 ¹⁾	
	59.94	YCbCr 4:2:2 ¹⁾		
	60	YCbCr 4:4:4 ¹⁾	-	-
		RGB 4:4:4 ¹⁾	-	-

1) Supported when [HDMI Ultra HD Deep Color] is set to [On].



- Settings are changeable only for the HDMI input currently being used.
- You can specify a different setting for each HDMI port.
- Some models may not be supported.

[Instant Game Response]



 (Q. Settings) →  → [Picture] → [Additional Settings] → [Instant Game Response]

Set the HDMI port connected to the device to be [On] to enjoy games with the optimal video for the game.

However, if the device doesn't support it, it may not work properly.

- Set the [HDMI Ultra HD Deep Color] feature to [On] for the HDMI terminal connected to the gaming device to enable [Instant Game Response].
- It works only when the  (Q. Settings) →  → [Sound] → [Sound Out] is [Internal Projector Speaker].
 - The configurable items differ depending upon model.
- When the [Instant Game Response] is launched, the video may blink temporarily.
- If you turn this feature [On], you cannot change some video settings items.
- Some models may not be supported.



[FILMMAKER MODE Auto Change]

 (Q. Settings) →  → [Picture] → [Additional Settings] → [FILMMAKER MODE Auto Change]

If set to [On], [Picture Mode] will automatically be changed to [FILMMAKER MODE] when a signal that can be operated with [FILMMAKER MODE] is entered.

[Sound]

[Sound Mode]

 (Q. Settings) →  → [Sound] → [Sound Mode Settings] → [Sound Mode]

You can select the most suitable sound mode for each genre.

- [AI Sound]
Automatically optimize sound based on content type.
- [Standard]
Optimizes the sound for all types of content.
- [Cinema]
Optimizes the sound for cinemas.
- [Clear Voice III]
Boosts voice clarity.
- [Sports]
Optimizes the sound for sports.
- [Music]
Optimizes the sound for music.
- [Game]
Optimizes the sound for gameplay.

[Sound Mode Settings]

 (Q. Settings) →  → [Sound] → [Sound Mode Settings]



The configurable items differ depending upon model.

- [Sound Mode]
You can select the most suitable sound mode for each genre.
- [Balance]
You can adjust the volume of the left and right speakers.
- [Ultra Surround]
Enjoy an immersive soundscape with the virtual multi-channel surround sound effect.
 - The option can be enabled if [Sound Mode] is set to [Standard].
- [Equalizer]
You can set the desired sound by adjusting the equalizer directly.
(100 Hz/300 Hz/1 kHz/3 kHz/10 kHz)
 - The option can be enabled if [Sound Mode] is set to [Standard].
- [Reset]
You can reset the sound effect settings.
 - The option can be enabled if [Sound Mode] is set to [Standard].

[Sound Out]

The configurable items differ depending upon model.

- When [Instant Game Response] is set to [On], audio delays may occur if you set [Sound Out] to [Bluetooth]/[HDMI ARC].

Switch to [Internal Projector Speaker] or change  **(Q. Settings)** →  → [Sound] → [Additional Settings] → [HDMI Input Audio Format] to [PCM].

Playing audio through the projector's internal speakers

 **(Q. Settings)** →  → [Sound] → [Sound Out] → [Internal Projector Speaker]


Audio is played through the projector's internal speakers.

Connecting and Using an Audio Device Wirelessly



 (Q. Settings) →  → [Sound] → [Sound Out] → [Bluetooth]

You can connect wirelessly a Bluetooth audio device or a Bluetooth headset to enjoy your projector's sound in richer quality and greater convenience.


Refer to the user manual of the Bluetooth audio device for details on how to connect and use the device.

- Press  to view the connected devices or any devices that can be connected and connect to any one of them.
- [LG Sound Sync] devices will automatically try to connect to the recently used devices when you turn the projector on.
- We recommend that you connect an LG audio device that supports LG Sound Sync, using LG TV mode or LG Sound Sync mode on device.
- Some models may not be supported.
- If the device fails to connect, check the power of the device to connect to and check if the audio device is working properly.
- Depending on the type of the Bluetooth device, the device may not connect correctly or an abnormal behavior may occur such as unsynchronized video and audio. (The mobile-only headsets may not work.)
- Sound may stutter or sound quality may be reduced if:
 - the Bluetooth device is too far from the projector;
 - there are obstacles between the Bluetooth device and the projector; or
 - used together with radio equipment such as a microwave oven or wireless LAN.
- If the [Picture Mode] is set to [Game] and [Sound Out] is set to [Bluetooth], [Picture Mode] changes to [Standard].
- If you continue to experience problems, we recommend using a wired connection. (Optical digital, HDMI (ARC) port)
- Using Bluetooth speakers that support Dual mode/Double mode/2-Channel mode together with the Magic Lighting Remote may limit the speakers' usability.

Connect and Use WiSA Speakers

 (Q. Settings) →  → [Sound] → [Sound Out] → [WiSA Speakers]

You can wirelessly connect the projector to the [WiSA Speakers] to enjoy high-quality sound.

Select  to adjust detailed settings for [WiSA Speakers].

- Some models may not be supported.
- To use the WiSA speakers, you need to connect the exclusive dongle.
- Connection issues between the WiSA Dongle and WiSA Speaker may occur in environments with wireless interference. In this case, contact the speaker manufacturer.
- For more information on the purchase of WiSA authorized products, check on www.wisaassociation.org.

Connect and Use an Audio Device that Supports Optical Digital

 (Q. Settings) →  → [Sound] → [Sound Out] → [Optical]

You can connect an audio device that supports [Optical] to the optical digital audio output port to enjoy your projector's sound in richer quality and greater convenience.

- Only available for models with an optical digital port.
- You can use the projector remote control to adjust the volume of the connected device.

Hearing Sound through an External Audio Device Connected via a HDMI (ARC) Port

 (Q. Settings) →  → [Sound] → [Sound Out] → [HDMI ARC]



Sound from the projector can be output through an external audio device connected via a HDMI (ARC) port.

- Select [HDMI ARC] to automatically turn on SIMPLINK. Once SIMPLINK is turned off, the output speaker settings automatically revert to the default settings for uninterrupted audio output.

Playing audio through the projector's internal speakers and external audio device simultaneously

Audio can be played through multiple devices simultaneously.



- Using [Optical + Internal Projector Speaker]

 (Q. Settings) →  → [Sound] → [Sound Out] → [Optical + Internal Projector Speaker]

Audio is played through the projector's built-in speakers and the audio device connected to the digital optical audio output port simultaneously.

- Only available for models with an optical digital port.

[Auto Volume]

 (Q. Settings) →  → [Sound] → [Additional Settings] → [Auto Volume]

When you set to [On], the volume is automatically adjusted.

[AV Sync Adjustment]

 (Q. Settings) →  → [Sound] → [Additional Settings] → [AV Sync Adjustment]



Adjusts the synchronization of the sound from the speaker that is working.

The closer to (>), the slower the audio output.

If you select the [Bypass], Outputs the sound from external devices without any audio delay. The audio may be output before the video because of the time the projector takes to process the video input.



- The adjustable items vary depending on [Sound Out].

[HDMI Input Audio Format]

 (Q. Settings) →  → [Sound] → [Additional Settings] → [HDMI Input Audio Format]

You can set the audio format for each HDMI input. When the voice delivered through the HDMI port is not synchronized, set it to [PCM].

[LG Sound Sync]

 (Q. Settings) →  → [Sound] → [Additional Settings] → [LG Sound Sync]

Connect the [LG Sound Sync] device to the optical digital input port and set [Sound Out] to [Optical]. By setting this feature to [On], you can adjust the volume of the connected [LG Sound Sync] device using a projector remote control.

- If the auto-power feature of the sound bar that supports [LG Sound Sync] is set to On, the sound bar will be turned on or off together when the projector is turned on or off.

[Digital Sound Out]

 (Q. Settings) →  → [Sound] → [Additional Settings] → [Digital Sound Out]

You can configure the [Digital Sound Out] settings.

- These settings are available only when an [Optical]/[HDMI ARC] is selected.
- When [Pass Through] is enabled, sound effects may not be output.
- The codec output with a device may differ from input signals.

	Sound Input	Digital Sound Output
[PCM]	All	PCM
[Auto] /[Pass Through]	MPEG	PCM
	Dolby Digital	Dolby Digital
	Dolby Digital Plus / Atmos	(Optical) Dolby Digital (HDMI ARC) Dolby Digital Plus / Atmos
	Dolby TrueHD (HDMI only)	(Optical) Dolby Digital (HDMI ARC) Dolby Digital Plus / Atmos (HDMI ARC eARC On) TrueHD ¹⁾
	Dolby Atmos	(HDMI ARC) Atmos ¹⁾
	HE-AAC	Dolby Digital

1) Supported only when [Digital Sound Out] is set to [Pass Through], and the input is set to the HDMI.

- Dolby TrueHD, eARC, Dolby Atmos: Some models may not be supported.

[eARC]

 (Q. Settings) →  → [Sound] → [Additional Settings] → [eARC]

Connect an external audio device that supports eARC via eARC.

- Setting is available when [HDMI ARC] is selected as the output speaker.
- Only available for models with a HDMI eARC port.

[Connection]

[Projector Name]

 (Q. Settings) →  → [Connection] → [Projector Name]

You can use the screen keyboard to set the name for the smart projector to be used on the network.

- Up to 25 characters can be entered using the English alphabet.

[Network Connection Settings]

 (Q. Settings) →  → [Connection] → [Network Connection Settings]

If you configure settings for the network, you can use various services such as online contents and applications.

[Wired Connection (Ethernet)]

Select [Wired Connection (Ethernet)].

If the router connected to the network supports the DHCP feature, connecting the projector and router by wire will automatically connects to the network.

If the automatic setup is not supported, you can select [Edit] to manually set up the network connection.

- The IPv6 setup does not support [Edit].

[Wi-Fi Connection]

Select [Wi-Fi Connection].

If you have set up the projector for a wireless network, you can check and connect to the available wireless Internet networks.

- [Add a Hidden Wireless Network]
If you input the name of network directly, you can add a wireless network.
- [Connect via WPS PBC]
If the wireless router you want to connect to has a Wi-Fi Protected Setup-Push Button Configuration (WPS-PBC) feature, you can easily connect to the wireless router by pressing the WPS-PBC button on the router. Press the wireless router's WPS-PBC button and then press the projector's [Connect] button.
- [Connect via WPS PIN]
This is a method to connect to an access point using a Wi-Fi Protected Setup-Personal Identification Number (WPS-PIN). Select the access point (AP) to which you would like to connect. Enter the PIN displayed on the access point's Wi-Fi device.
- [Advanced Wi-Fi Settings]
Once you connect to a wireless network you can view connection information such as detailed IP address information. In addition, you can change the IP address and DNS server address you want to connect to by pressing the [Edit] button.
 - The IPv6 setup does not support [Edit].

[Device Connection Settings]

 (Q. Settings) →  → [Connection] → [Device Connection Settings]

You can link the information about the devices connected to the projector and configure settings related to operations.

The configurable items differ depending upon model.

- [Auto Device Detection]

It automatically sets to enable you to control the devices connected via the HDMI with the Magic Lighting Remote.
- [SIMPLINK (HDMI-CEC)]

You can conveniently control and use various multimedia devices connected through HDMI with the projector's remote control.
- [Auto Power Sync]

If [Auto Power Sync] is set to [On], turning on a SIMPLINK-linked device will turn the projector on. When you turn off the projector, the device will also be turned off.
- [LG Wireless Keyboard]

This feature enables you to connect a LG wireless keyboard to your device. Turn on the device, set it to pairing mode, and then click [Connect] on your projector screen.

If there is a LG wireless keyboard previously connected, it will be automatically reconnected to your projector once your projector turns on. To disconnect the existing connection, click [Disconnect].

 - Supported keyboard: LG Rolly Keyboard
- [Universal Control Settings]

You can set up the universal remote control.
- [Trigger Out]

Set [Trigger Out] to [On] or [Off].

When you set it to [On], the power of the electric screen is turned on when the projector is turned on, and the power of the electric screen is turned off when the projector is turned off.

 - Connect the mini-jack stereo cable (3.5mm) to the trigger output terminal.
 - Connecting earphones to the trigger terminal may damage the earphones. Be sure to use this function only when connecting the screen.
 - Some models may not be supported.

[Mobile Connection Management]

 (Q. Settings) →  → [Connection] → [Mobile Connection Management]

You can set to use a smart device connected to the projector to control the projector or manage the connection history.

- [Projector On With Mobile]
If [Turn on via Wi-Fi] or [Turn on via Bluetooth] is set to [On], you can turn on your projector using an application that supports [Projector On With Mobile] or see the screen of the application on your projector.
 - The projector should be connected to a network.
 - The projector and the device to be used should be connected to the same network.
 - The [Turn on via Wi-Fi] feature must be used in an app on a smart device that supports the feature.
 - The [Turn on via Bluetooth] feature can only be used with certain LG Electronics smartphones.
 - The projector must be plugged in.
 - To connect for the first time, make sure the device to be used is ready to connect.
 - Some models may not be supported.
- [Screen Share]
By tapping [Screen Share], you can delete the connection history of devices which have been connected to the projector using the Screen Share function.
- [Sound Share]
You can delete the connection history of the smart device that was connected to the projector via Bluetooth.

[General]

[AI Service]



 (Q. Settings) →  → [General] → [AI Service]

You can enable the recommended services based on the usage history.

The configurable items differ depending upon model.

- [AI Sound]

When set to [On], the image quality is automatically optimized for content characteristics based on the algorithms learned with deep learning techniques.

- This setting is only available for Internal Projector Speaker.
- If you set this function to [On],  (Q. Settings) →  → [Sound] → [Sound Mode Settings] → [Sound Mode] is changed to [AI Sound].

- [Voice Recognition Help and Settings]

You can change settings related to the speech recognition features, such as turning [Voice Response] on and off.

- [AI Recommendation]

You can get content recommendations messages according to your content viewing history and app usage history.

- [Content Recommendations]: You can get content recommendations or introductions to new features based on your pattern of viewing content and using apps.
- [Network-Based Personalization Recommendations]: You can get recommendations for viewing history base channels and content through the network.
 - [On]: Get more recommendations through the server.
 - [Off]: We recommend basic contents based on your viewing history.
- [Delete Usage Data]: It resets the content view history and the app usage history. If you reset them, it takes some time to receive recommendations for contents again.



[Language]

 (Q. Settings) →  → [General] → [Language]

You can choose the menu language displayed on the screen.

- [Menu Language]
You can select one of the menu languages to be displayed on the screen.
The language for the speech recognition will be automatically set to selected language for the menu.
 - The speech recognition is only applied to some models.
- [Keyboard Languages]
Select the language to use the on-screen keyboard.

[Location]

 (Q. Settings) →  → [General] → [Location]

You can change the location setting of your projector.

- [Service Area Zip Code]
You can set the detailed location.
- [LG Services Country]
Select the country where you want to access LG's services. Services may vary depending on location.
 - You must set the country manually when you are not connected to the network.



[Time]

 (Q. Settings) →  → [General] → [Time]

You can check or change the time while watching content on the projector.

- [Set Automatically]
Automatically sets the time displayed on the projector screen.
- [Time]/[Date]/[Time Zone]
You can manually set the date and time, etc.



[Sleep Timer]

 (Q. Settings) →  → [General] → [Time] → [Timers] → [Sleep Timer]

Sets the projector to turn off at a specified time.

If you want to disable [Sleep Timer], select [Off].

[Power On Timer]

 (Q. Settings) →  → [General] → [Time] → [Timers] → [Power On Timer]



Set [Power On Timer] to [On].

The projector turns on at the set time.

To use [Power On Timer], set the time correctly.

- [Time]: Set the power-on time.
- [Timer Repeat]: Set the day of the week. Set the option to [None] to operate the feature only once.
- [Input]: Set an external input to display when the power is turned on.
- [Volume]: Set audio volume to use when the power is turned on.

[Power Off Timer]

 (Q. Settings) →  → [General] → [Time] → [Timers] → [Power Off Timer]

Set [Power Off Timer] to [On].

The projector is turned off at the set time.

To use [Power Off Timer], set the time correctly.

- [Time]: Set the time at which to turn the projector off.
- [Timer Repeat]: Set the day of the week. Set the option to [None] to operate the feature only once.

[Auto Off]



 (Q. Settings) →  → [General] → [Time] → [Timers] → [Auto Off]

If there is no input signal or button press, the projector automatically turns off after the preset time has elapsed.

[Safety]

- Set [Safety] to [On].
- The initial password is set as "0000".



Enabling [Application Locks]

 **(Q. Settings)** →  → [General] → [Safety] → [Application Locks] → Choose the app you want

You can lock or unlock the application.



- The lock function is not immediately available for the currently running application.

Enabling [Input Locks]

 **(Q. Settings)** →  → [General] → [Safety] → [Input Locks] → Select the desired external input











You can lock or unlock the Input Locks.

Reset Password

 **(Q. Settings)** →  → [General] → [Safety] → [Reset Password]
Set or change the password for the projector.

Resetting a Lost Password

If you lose the password you set, you can reset it as follows:



- 1** Press the  **(Q. Settings)** button on the remote control and select  → [General] → [Safety].
- 2** Press   →   →   →   on the remote control. The master password input window will appear.
- 3** Enter the numbers "0313" in the master password input window, then press [Enter]. The password will be reset.

[PJT Mode]

 **(Q. Settings)** →  → [General] → [PJT Mode]

This function turns the projected image upside down or flips horizontal.



[Keystone]

 **(Q. Settings)** →  → [General] → [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.

- Some models may not be supported.

[Account Management]**Creating LG Account**

 **(Q. Settings)** →  → [General] → [Account Management] → [LG Account Sign In]



In [Account Management], you can use your email address to create a new LG account. Alternatively, you can create and log in to an LG account using the ID and password of an external service account.

- 1** Select [Create Account]. Read and accept the Terms of Service.
- 2** Enter an ID and a password. Your ID must be your email address.
- 3** Select [OK]. Go to your email to verify your email address. Please verify your email before the time expires.
- 4** If email verification is successful, an LG account is created and you can log in with this account information.
 - Internet connection is required to create an account.
 - You may be restricted from the service depending upon your age.



Managing your LG Account

 **(Q. Settings)** →  → [General] → [Account Management]

You can manage the information of your LG account.

- Select  **(Q. Settings)** →  → [General] → [Account Management] to log in.
- [Personal Information]
 - You can view basic information about the logged in account.
 - You can change the password or press [Edit] to edit your personal information.
 - Some models may not be supported.



[Home Settings]

 (Q. Settings) →  → [General] → [Home Settings]

The configurable items differ depending upon model.



- [Home Auto Launch]
You can set Home to launch automatically when turning on the projector.

[Pointer Options]

 (Q. Settings) →  → [General] → [Additional Settings] → [Pointer Options]

You can set the pointer speed and size you want while it is on the screen.

[Settings Help]

 (Q. Settings) →  → [General] → [Additional Settings] → [Settings Help]



If you select the setting menus, you will see the hints of the settings. Turn on/off description box in settings.

[Menu Transparency]

 (Q. Settings) →  → [General] → [Additional Settings] → [Menu Transparency]

By setting this feature to [On], you can make some of the menus (e.g. Search, etc.) transparent.



[Screen Saver]

 (Q. Settings) →  → [General] → [Additional Settings] → [Screen Saver]

When the currently displayed app has not received any user input for an hour, it will be replaced by a [Screen Saver].

- Setting the [Screen Saver] feature to [Off], maintains the same display for an extended period, which may compromise quality. The compromised screen may not be recoverable.

[No Signal Image]

 **(Q. Settings)** →  → [General] → [Additional Settings] → [No Signal Image]

You can turn on or off the image displayed when there is no signal.

Some models may not be supported.

- [On]
The default image is displayed if there is no signal.
- [Off]
The [No Signal] message is displayed if there is no signal.

[Power Saving Mode]

 **(Q. Settings)** →  → [General] → [Additional Settings] → [Power Saving Mode]

Set power options to reduce energy consumption.

The name of this functions may differ depending on region.

- [Auto Power Off]
Set the projector to turn off automatically when there has been no user input for a specified amount of time.
- [HDD Power Saving Mode]
If you set the mode to [On], the USB HDD connected to the projector will go into power-saving mode when it has been left unattended for an extended period of time.

[Home/Store Mode]



 **(Q. Settings)** →  → [General] → [Additional Settings] → [Home/Store Mode]

You can choose between [Home Mode] and [Store Mode].

To use the projector at home, select [Home Mode].

Select [Store Mode] only when the projector will be displayed in store. The [Store Mode] provide settings optimized for store display.



[Auto Power]

 **(Q. Settings)** →  → [General] → [Additional Settings] → [Auto Power]

Makes the projector turn on automatically when the power cord is connected to the projector.

- [On]
When the power cord is connected to the projector, it turns on automatically.
- [Off]
When the power cord is connected to the projector, it goes into standby mode.

[High Altitude]

 **(Q. Settings)** →  → [General] → [Additional Settings] → [High Altitude]

If the projector is used at an altitude higher than 1200 meters (3937.0 feet), 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.

- Some models may not be supported.

[Accessibility]

[Audio Guidance]

 (Q. Settings) →  → [Accessibility] → [Audio Guidance]

If [Audio Guidance] is set to [On], audio guides will be provided in various situations, such as when you adjust the volume or change settings and input signals.

- [Speed]
Adjust the speed of spoken guide.
- [Volume]
Adjust the volume of spoken guide.
- [Pitch]
Adjust the tone of spoken guide.
- This feature is available on certain languages only.
- Some models may not be supported.
- The configurable items differ depending upon model.
- For visually impaired users.
- Setting the [Audio Guidance] to [On] automatically switches the [Projector Power Sound] (only available on certain models) to [On] as well.

[Projector Power Sound]

 (Q. Settings) →  → [Accessibility] → [Projector Power Sound]

This feature lets you turn on/off the sound effects that you hear when your projector is switched on or off.



- Some models may not be supported.

[High Contrast]

 (Q. Settings) →  → [Accessibility] → [High Contrast]

When this feature is set to [On], it adjusts the background of some of the menus on the screen and font colors to highlight the contrast between the light and dark areas.

[Grayscale]

 (Q. Settings) →  → [Accessibility] → [Grayscale]

You can see the items more clearly by changing the color of the menu provided on the image and screen to black and white. Set to [On].

[Invert Colors]

 (Q. Settings) →  → [Accessibility] → [Invert Colors]

To enhance the visibility of the menus on the screen, you can invert and calibrate certain colors in some menus. Set to [On].

[Support]

[Software Update]

 (Q. Settings) →  → [Support] → [Software Update]

If the software needs to be updated, run Software Update to apply the latest software version for use.



- [Allow Automatic Updates]
If set to [On], updates will be proceeded automatically without asking when there is a new update after a version check.
- [Check for Updates]
When checking for the latest update version, you can perform updates only if an update file of a later version is available. The projector automatically checks your software version but, if necessary, you can perform a manual check.
- The configurable items differ depending upon model.
- The latest version can be obtained via internet connections.
- If software is not updated, certain functions may not work properly.
- In some countries, [Allow Automatic Updates] is not displayed if you are not connected to the internet.

[Projector Information]

 (Q. Settings) →  → [Support] → [Projector Information]

You can check information such as [Model], [Serial Number] and [Device Name].

[Notifications]

 (Q. Settings) →  → [Support] → [Notifications]

You can view all notifications from projector apps and LG service at the same time. You can view and delete each notification message, and directly move to the app or website using notifications that support shortcuts.

[Additional Settings]

 (Q. Settings) →  → [Support] → [Additional Settings]

The configurable items differ depending upon model.

- [Picture Test]
Start the [Picture Test] to check that the video signal output is normal, and then select whether there is an error.
If you have found no problems in the test, then check the connected external device.
- [Sound Test]
Start the [Sound Test] to check that the sound signal output is normal, and then select whether there is an error.
If you have found no problems in the test, then check the connected external device.
 - Sound test is possible by Internal projector Speaker only.
- [User Agreements]
These are the terms and conditions for privacy for the use of Smart projector-related services.
- [Legal Notice]
It's a legal notice for services provided via projector.
- [Open Source Software Notice]
You can view the instructions for each item.
- [Set ID]
For the remote control function for PCs, you can specify a unique number for the projector.

[Reset to Initial Settings]

 (Q. Settings) →  → [Support] → [Reset to Initial Settings]



Return projector to its initial settings. This will revert all settings to their default values.

After reset, the projector will automatically turn off and on.

- If [Safety] is set to [On], you should type the password to [Reset to Initial Settings].
- Do not turn off the power during initialization.
- We recommended that you reset the projector to [Reset to Initial Settings] before you sell it or transfer it to a third party.



TROUBLESHOOTING

Please check the list below when you experience the following symptoms during use of the product. It may not be a failure.

Information on customer service for product problems is available in  (Q. Settings) →  → [Support] on the projector.

Perform Check-up with the [Quick Help].

When the projector malfunctions, you can get help to solve the problem.

Push the  (Q. Settings) button of the remote control to select  → [Support] → [Quick Help].

You can also long-press the number  button of the remote control to run the [Quick Help].

- [Optimization Settings]
You can automatically check the overall status of your projector and view and change the recommended setting values.
- [Check Items]
Select the problematic item, and you can get help to solve the problem.
 - [Self-Diagnosis of Projector Settings]: Select the item that matches the symptom to find instructions that can help you solve the problem.
 - [Check the status of Projector]: You can check your projector's current status for the selected item.
- [LG Remote Service]
You can get help in solving the problem via Remote Service.
 - Some models may not be supported.
- When there is no related content in the [Quick Help], please refer to the Troubleshooting.
- If you still fail to solve the problem, please contact our customer service center.

Abnormal behavior

Power/Remote Control Errors

I cannot turn on the Projector.

- Please make sure your projector power plug is correctly connected to the outlet.
- If you are using a multi-outlet, check if it is working properly. To check whether a power strip is working properly, plug the projector's power plug directly to a wall outlet and observe its operation.
- Try to power on using the button on your projector set.




The screen does not appear for some time after power-on.

- This is because there is a noise-removal process to eliminate any possible noise that may appear during power-on. This does not mean the product is defective.

I cannot turn the projector on with the remote control.

- Please make sure your projector power plug is correctly connected to the outlet.
- Replace the batteries in the remote control. (Use alkaline batteries.)
- Check whether there are any obstacles in front of the projector's remote control sensor. Sound bars or other obstacles placed in front of the projector's lower receiver may obstruct IR signal reception.



The pointer of Magic Lighting Remote does not appear on the screen.

- Hold the remote control towards the projector and long-press  button until the instruction appears. The previously registered remote control is deregistered and then registered again.
- Replace the batteries when you are prompted to do so on your projector screen. (Use alkaline batteries.)
- If  (**Q. Settings**) →  → [Accessibility] → [Audio Guidance] is set to [On], the pointer of the Magic Lighting Remote does not appear. Set [Audio Guidance] to [Off]. (Some models may not be supported.)

The power turns off suddenly.

- Check whether the [Power Off Timer], [Auto Off], or [Auto Power Off] is set.
- There is also a chance that the internal protection circuitry has activated because the internal temperature of the product has risen unusually or excessively.


Screen Problems

First of all, perform a  (Q. Settings) →  → [Support] → [Additional Settings] → [Picture Test] to check for any abnormalities in the projector.

If you are using a set-top box, turn it off, and then turn it back on.

Make sure that the set-top box is correctly connected to your projector.



It says there is no signal on the screen.

- Check if the cable connected to the external device is properly connected to the projector.
- Go to  to choose the connected input.
- Check if your external device, such as set-top box or Blu-ray player, is turned on.



The screen shakes after the momentary appearance of vertical/horizontal lines and net pattern.

- Stop using items such as wireless telephones, hairdryers, electrical drills etc. The problem is caused by high-frequency electronic devices such as another projector or strong electromagnetic sources.





I see vertical lines in all four directions on the screen, or colors are blurred when I try to connect to HDMI.

-  **(Q. Settings)** →  → [Picture] → [Aspect Ratio Settings] → [Just Scan]
Set [Just Scan] to [Off].
[Just Scan] shows you the original image as it is. You may see noise in all four directions on the screen if the signal contains noise.


I don't see anything, or the image keeps flickering when i try to connect the HDMI® cable.

- Check whether your HDMI® cable is compliant with the specifications. You may experience flickering or a blank screen if the HDMI® cable is faulty (bent, broken).
- Make sure that the cable is correctly connected to the port. Bad or loose contact may cause display problems on the screen.
- When using a UHD set-top box, adjust [HDMI Ultra HD Deep Color] in  **(Q. Settings)** →  → [Picture] → [Additional Settings].

The screen looks too dim or dark.

-  **(Q. Settings)** →  → [Picture] → [Picture Mode Settings] → [Picture Mode]
Switch [Picture Mode] to your desired picture mode. ([Standard] etc.) This applies to the current input mode only.
-  **(Q. Settings)** →  → [Picture] → [Energy Saving]
Switch [Energy Saving] to [Minimum].

The screen is in black and white or displaying strange colors.

- Check the input mode or cable connection.
- Go to  to choose the connected input.
- Check the [High Contrast], [Grayscale] and [Invert Colors] settings.



Sound Problems

First of all, perform a  (**Q. Settings**) →  → [Support] → [Additional Settings] → [Sound Test] to check for any abnormalities in the projector.



If you are using a set-top box, turn it off, and then turn it back on.

Make sure that the set-top box is correctly connected to your projector.



The screen is fine, but it does not play any sound.

- If you use a set-top box, there will be no sound if you have set the volume of the set-top box or your projector to 0 or enabled Mute. Set the volume to an appropriate level.
-  (**Q. Settings**) →  → [Sound] → [Sound Out]
Set the [Sound Out] to [Internal Projector Speaker], and then check it once again. If you can hear the sound just fine, you need to set the external speakers connected such as a soundbar.

There is no sound coming from one of the speakers.

-  (**Q. Settings**) →  → [Sound] → [Sound Mode Settings] → [Balance]
Adjust the balance as necessary with the Navigation button in [Balance].

PC Connection Problems



Press and hold the  button on your remote control. Select  → [Edit] located at the top right of [Home Dashboard]. In the edit mode, set the icon of the HDMI terminal connected to the PC to PC to apply the video and aspect ratio settings that are aligned with the PC.

To connect a different device to the same input terminal, you need to set the icon again because the settings of the edit icon will not be automatically restored.

The screen remains blank after it is connected to a PC.

- Check that the PC is properly connected to the projector.
- Turn the projector off and back on using the remote control.
- Restart the PC with the projector on.
- Make sure that the output resolution set on the PC is set to the HDMI-PC supported resolution of the projector.
- To use dual monitors, check that the PC or notebook supports dual-monitor mode.
- Reconnect the high speed HDMI® cable.
- If you have connected the RGB output port of your PC to the HDMI input port or your projector. You need an RGB to HDMI gender.
You will not see anything on the screen if you use an HDMI to RGB gender.

The screen is cut off or moved to one side after it is connected to a PC.

- Set the PC's resolution to one supported by the projector.
- Set the connected HDMI device's name to PC.
Press and hold the  button on your remote control. Select  → [Edit] located at the top right. Change the icon of the HDMI port connected to [Inputs] to PC and select [Save].

The sound does not play when the PC is connected with an HDMI® cable.

- In PC settings, set Control Panel → Sound → Play → LG projector as the default device.
- Consult your manufacturer on whether your graphics card supports HDMI audio output.

[Photo & Video] Movie Playback Problems

For more information about supported files, see “[Photo & Video]”.

I cannot find a file in the [Photo & Video].

- Check that the files on the USB storage device can be read by a PC.
- Check that the file extension is supported.



I get a message saying “This file is not supported” or the sound is playing normally but the video is not.

- Check that the file plays without any problems on a PC’s video player. Also check for file damage.
- Check that the file extension is supported.
- Check that the resolution is supported.
- Check that the video codec is supported.
- Check that the frame rate is supported.

I get a message saying “This audio is not supported” or the video is playing normally but the audio is not.

- Check that the file plays without any problems on a PC’s video player. Also check for file damage.
- Check that the file extension is supported.
- Check that the audio codec is supported.
- Check that the bit rate is supported.
- Check that the sample rate is supported.
- Check that the audio channel separation is supported.

I cannot see the subtitles.





- Check that the file plays without any problems on a PC's video player. Also check for file damage.
- Check that the video and subtitle files have the same name.
- Also check that both the video file and the subtitle file are in the same folder.
- Check that the subtitle file format is supported.
- Check that the language is supported. (You can check the language of the subtitle file by opening the file in the Notepad.)
If subtitles encoding is incorrectly set, subtitles may not be displayed properly. Select  →  in the control panel at the bottom of the video playback screen and change the [CODE PAGE] value.
- If you play a video file stored on another device by using the content sharing feature, subtitles may not be available depending on the program you use.
- Subtitles are not supported if you are playing video through an NAS unit. Consult your NAS manufacturer.

My USB storage device is not recognized when connected.

- Check whether it is a USB storage device supported by the projector.
For details, please refer to "Connecting USB".

Network Connection Problems

You can check the network connection status as shown below.

-  (**Q. Settings**) →  → [Connection] → [Network Connection Settings] → [Wired Connection (Ethernet)]
-  (**Q. Settings**) →  → [Connection] → [Network Connection Settings] → [Wi-Fi Connection] → [Advanced Wi-Fi Settings]





× × × **When X appears next to projector**

- Check the projector or the AP (Router).
- Check the connection status of the projector, AP (Router) and Cable Modem.
- Power off and power on in the following order,
 1. The Cable Modem, wait for the Cable Modem to reset.
 2. The AP (Router), wait for the AP (Router) to reset.
 3. The projector.
- If you want to establish a wired LAN connection check whether an IP address can be obtained from your router properly. If you are setting up your network manually check whether all settings are correct.
- If you want to establish a wireless connection check the following points as well.
 1. Set your router's SSID (network name) or wireless channel.
 2. Set your router's security key.

If you do not know this setting, check the router's instruction manual and the manual provided by the Internet provider. If you are still not sure, contact the router company or the Internet company.
- If you are using a wireless connection, change the SSID (Network name) and wireless channel of AP (Router).
- If you are using a static IP, enter the IP directly.
- Contact internet service provider or AP (Router) companies.

  ×  ×  **When X appears next to Gateway**

- Check the AP (Router) or consult your Internet service provider.
- Unplug the power cord of the AP (Router), Cable Modem, wait 10 seconds. Reapply power.
- Initialize (Reset) on the AP (Router) or Cable Modem.
- Contact internet service provider or AP (Router) companies.
- Check the AP (Router) manufacturer's website to make sure your router has the latest firmware version installed.
- If you do not know this setting, check the router's instruction manual and the manual provided by the Internet provider. If you are still not sure, contact the router company or the Internet company.

  ×  ×  **When X appears next to DNS**

- Check the AP (Router) or consult your Internet service provider.
- Unplug the power cord of the AP (Router), Cable Modem, wait 10 seconds. Reapply power.
- Initialize (Reset) on the AP (Router) or Cable Modem.
- Check that the MAC address of the projector/AP (Router) is registered with your Internet service provider. (The MAC address displayed on the pane of the network status window should be registered with your Internet service provider.)
- If you do not know this setting, check the router's instruction manual and the manual provided by the Internet provider. If you are still not sure, contact the router company or the Internet company.

LG Account Problems

In some countries, access to the website (www.lgappstv.com) may be restricted.

I have already signed up on the projector. Do I still have to sign up again at the website (www.lgappstv.com)?


- You can use the website with the membership information that you used when signing up on projector.
You can use the website by logging in to the website with the ID and password you used when signing up on projector, entering additional information and completing the email verification process.

I forgot my Password. What should I do?

- On the projector's login screen, select the [Forgot Password?] button to go to the find password page. Enter your email address on the find password page, and we'll send you a link to reset your password.
- You can also reset your password in LG Account → Reset Password on the website (www.lgappstv.com).

Internet Browser Problems


Some parts of a particular website are not visible when I am using the Internet.

- The [Web Browser] supports only HTML5 media and not Flash Plug-in.
- The [Web Browser] does not support plug-in installation.
- On the [Web Browser], it may not be possible to play media files in formats other than JPEG/PNG/GIF.
- You cannot save attachments or images.
- If the [Use Block Ads] feature is turned on, the area on the website that appears to show an ad will appear blank. If some of the content of the website is blocked and is not displayed, try setting  → [Settings] → [Use Block Ads] to [Off] in [Web Browser].

The Internet browser automatically shuts down when I visit a website.

- The Internet browser may be forced to shut down if the available memory size is not sufficient to accommodate the image information for a website.

When watching a video in [Web Browser], the video is forced off.

- You may be able to fix this by setting  → [Settings] → [Adaptive Streaming using JavaScript] to [Off] in [Web Browser]. The setting is not applied to tabs that were open before the change, and is only applied to tabs opened after the change.



EXTERNAL CONTROL DEVICE SETUP




Image shown may differ from your projector.







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

[] : the buttons and the text to be displayed on the projector screen.

KEY CODES

The configurable items differ depending upon model.

Code (Hexa)	Function	Note
02	Volume +	R/C Button
03	Volume -	R/C Button
06	> (Right)	R/C Button
07	< (Left)	R/C Button
08	Power	R/C Button
09	Mute	R/C Button
0B	Input	R/C Button
0E	Sleep Timer	R/C Button
10 - 19	* Number Key (0 - 9)	R/C Button
28	 (Back)	R/C Button
40	 (Up)	R/C Button
41	 (Down)	R/C Button
42	My Apps	R/C Button
43	Settings	R/C Button
44	OK	R/C Button
45	Q. Settings	R/C Button
5B	Exit	R/C Button
61	Blue	R/C Button
63	Yellow	R/C Button
71	Green	R/C Button
72	Red	R/C Button
79	Aspect Ratio	R/C Button

Code (Hexa)	Function	Note
7C		R/C Button
7E	SIMPLINK	R/C Button
8E	 (Forward)	R/C Button
8F	 (Rewind)	R/C Button
AA	Info	R/C Button
B0	 (Play)	R/C Button
B1	 (Stop)	R/C Button
BA	 (Pause)	R/C Button
BB	Soccer	R/C Button

EXTERNAL CONTROL DEVICE SETUP

Image shown may differ from your projector.

Operate the projector's functions with a PC by connecting the USB-serial conversion cable / RS-232C input (control & service) terminal.

You have several ways to connect the projector depending on the supported terminals of the model.

- Not all models support the USB-to-serial conversion cable connection.
- RS-232C cable and USB-to-Serial converter cable is not provided.
- The configurable items differ depending upon model.

USB to Serial(RS-232C) converter with USB Cable

USB Type



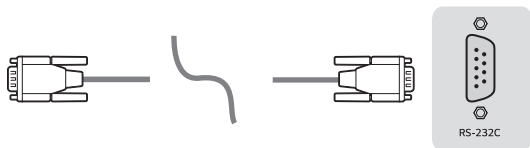
(PC)

(Projector)

- LG Projector supports PL2303 chip-based (Vendor ID: 0x0557, Product ID: 0x2008) USB to serial(RS-232C) converter which is not made nor provided by LG.
- It can be purchased from computer stores that carry accessories for IT support professionals.
- When the USB-serial conversion cable is connected, you cannot control the projector via the RS-232C input.

RS-232C(Serial) With RS-232C(Serial) Cable

DE9(D-Sub 9pin) Type



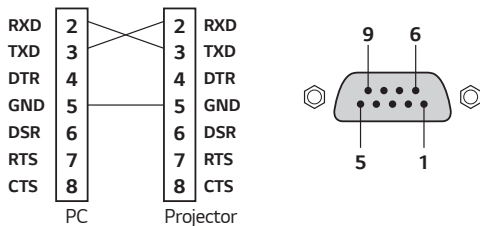
(PC)

(Projector)

- You need to purchase the RS-232C (DE9, D-Sub 9pin female-to-female type) to RS-232C(Serial) cable required for the connection between the PC and the projector, which is specified in the manual.
- The connection interface varies by model.

RS-232C configurations

Figure 1: RS-232 Connection Diagram





* There is no connection to Pin 1 and Pin 9.

Set ID Function

This function allows you to assign a unique ID to the projector to control it remotely from your PC.

See each corresponding page for the actual data structure.

- The configurable items differ depending upon model.

- 1** Press the  (**Q. Settings**) button on your remote control.
- 2** Select  → [Support] → [Additional Settings].
- 3** Selects the desired Set ID from the [Set ID] item.
Select the Set ID value from 1 to 99.

Communication Parameters

- Baud rate: 9600 bps (UART)
- Data length: 8 bits
- Parity bit: None
- Stop bit: 1 bit
- Communication code: ASCII code
- Use a crossed(reverse) cable.

Command reference list

The configurable items differ depending upon model.

	Command1	Command2	Data (Hexadecimal)
01. Power*	k	a	00 - 01
02. [Aspect Ratio]	k	c	(See page 12.)
03. Screen Mute	k	d	(See page 13.)
04. Volume Mute	k	e	00 - 01
05. Volume Control	k	f	00 - 64
06. [Contrast]	k	g	00 - 64
07. [Brightness]	k	h	00 - 64
08. [Color]	k	i	00 - 64
09. [Tint]	k	j	00 - 64
10. [Sharpness]	k	k	00 - 32
11. OSD Select	k	l	00 - 01
12. Remote Control Lock Mode	k	m	00 - 01
13. [Iris Mode]	k	n	00 - 02
14. [Balance]	k	t	00 - 64
15. [Color Temperature]	x	u	00 - 02
16. [Equalizer]	j	v	(See page 17.)
17. [Energy Saving]	j	q	01 - 03
18. Key	m	c	KEY CODES
19. Input select (Main)	x	b	(See page 18.)

* During playing media, all commands except Power (ka) and Key (mc) are not executed and treated as NG.

* With RS-232C cable, projector can communicate "ka command" in power-on or power-off status. but with USB-to-Serial converter cable, the command works only if projector is on.

Transmission / Receiving Protocol

Transmission

(Command1)(Command2)()(Set ID)()(Data)(Cr)

- (Command 1): k, j, m, x
- (Command 2): This command is used to control the projector.
- (Set ID): Use this to select the projector to control, and the ID can be assigned to each projector in [Support] → [Additional Settings] → [Set ID]. Select a value ranging from 1 to 99. By selecting '0' for the Set ID value in the protocol format, you can control all connected projectors.
 - * The value is displayed as base 10 on the OSD menu and used as base 16 (0x00 - 0x63) in the transmission/reception protocol for remote control.
- (DATA): Transmits a setting value (Data) required for the command described previously. (hexadecimal) When the Data 'FF' is sent, the setting value corresponding to the specific command is read (Data read mode).
- (Cr): Carriage return, which is '0x0D' in ASCII code.
- (): Space, which is '0x20' in ASCII code.

OK Acknowledgement

(Command2)()(Set ID)()(OK)(Data)(x)

- When the Data has been successfully received, the projector sends an ACK response signal in the above format. The Data showing the current state is received in the Data read mode. The Data from the PC is simply returned in the Data write mode.

Error Acknowledgement`(Command2)()(Set ID)()(NG)(Data)(x)`

When the set receives an abnormal piece of Data for an unsupported function or there is a communication error, it returns ACK in the format above.

Data 00: Illegal Code

Real data mapping (Hexadecimal → Decimal)

When you enter the (Data) in hexadecimal, refer to following conversion table.

00: Step 0	32: Step 50 (Set ID 50)	FE: Step 254
01: Step 1 (Set ID 1)	33: Step 51 (Set ID 51)	FF: Step 255
...
0A: Step 10 (Set ID 10)	63: Step 99 (Set ID 99)	01 00: Step 256
...
0F: Step 15 (Set ID 15)	C7: Step 199	27 0E: Step 9998
10: Step 16 (Set ID 16)	C8: Step 200	27 0F: Step 9999
...

Commands may work differently depending on model and signal.

01. Power (Command: k a)

- ▶ Controls the *On/Off of the power supply to the projector.

Transmission (k)(a)()(Set ID)()(Data)(Cr)

Data 00: Power Off

01: *Power On

Ack (a)()(Set ID)()(OK/NG)(Data)(x)

- ▶ To Show projector is Power On or *Off

Transmission (k)(a)()(Set ID)()(FF)(Cr)

Ack (a)()(Set ID)()(OK)(Data)(x)

* As with other functions, when all the data is sent to "FF" in the format shown above, Ack's data is sent as the response for the current status corresponding to each function.

* With RS-232C cable, projector can communicate "ka command" in power-on or power-off status. but with USB-to-Serial converter cable, the command works only if projector is on.

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02. [Aspect Ratio] (Command: k c) (Main)

► Adjusts the [Aspect Ratio]. (Main)

You can also adjust [Aspect Ratio] in the [Picture] menu.

Transmission (k)(c)()(Set ID)()(Data)(Cr)

Data

01: [4:3]

02: [16:9]

04: [Vertical Zoom]

05: [4-Way Zoom]

06: [Original]

Ack (c)()(Set ID)()(OK/NG)(Data)(x)

* If the HDMI input mode supports HD resolution, [Original] works.

* Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.

* The configurable items differ depending upon model.

03. Screen Mute (Command: k d)

- To select screen mute on/off.

Transmission (k)(d)()(Set ID)()(Data)(Cr)

Data

00: Screen mute off, Video mute off

01: Screen mute on

10: Video mute on

Ack (d)()(Set ID)()(OK/NG)(Data)(x)

* In case of video mute on only, projector will display On Screen Display(OSD). But, in case of Screen mute on, projector will not display OSD.

04. Volume Mute (Command: k e)

- To control volume mute on/off.

You can also adjust mute using the mute button on remote control.

Transmission (k)(e)()(Set ID)()(Data)(Cr)

Data

00: Volume mute on (Volume off)

01: Volume mute off (Volume on)

Ack (e)()(Set ID)()(OK/NG)(Data)(x)

05. Volume Control (Command: k f)

- To adjust volume.

You can also adjust volume with the volume +, - buttons on remote control.

Transmission (k)(f)()(Set ID)()(Data)(Cr)

Data Min: 00 - Max: 64

Ack (f)()(Set ID)()(OK/NG)(Data)(x)

06. [Contrast] (Command: k g)

- ▶ To adjust screen contrast.

You can also adjust [Contrast] in the [Picture] menu.

Transmission (k)(g)()(Set ID)()(Data)(Cr)

Data Min: 00 - Max: 64

Ack (g)()(Set ID)()(OK/NG)(Data)(x)

07. [Brightness] (Command: k h)

- ▶ To adjust screen brightness.

You can also adjust [Brightness] in the [Picture] menu.

Transmission (k)(h)()(Set ID)()(Data)(Cr)

Data Min: 00 - Max: 64

Ack (h)()(Set ID)()(OK/NG)(Data)(x)

08. [Color] (Command: k i)

- ▶ To adjust the screen color.

You can also adjust [Color] in the [Picture] menu.

Transmission (k)(i)()(Set ID)()(Data)(Cr)

Data Min: 00 - Max: 64

Ack (i)()(Set ID)()(OK/NG)(Data)(x)

09. [Tint] (Command: k j)

- ▶ To adjust the screen tint.

You can also adjust [Tint] in the [Picture] menu.

Transmission (k)(j)()(Set ID)()(Data)(Cr)

Data Red: 00 - Green: 64

Ack (j)()(Set ID)()(OK/NG)(Data)(x)

10. [Sharpness] (Command: k k)

- ▶ To adjust the screen sharpness.

You can also adjust [Sharpness] in the [Picture] menu.

Transmission (k)(k)()(Set ID)()(Data)(Cr)

Data Min: 00 - Max: 32

Ack (k)()(Set ID)()(OK/NG)(Data)(x)

11. OSD Select (Command: k l)

- ▶ Selects the on/off of On-Screen Display (OSD) that shows the control status on the screen.

Transmission (k)(l)()(Set ID)()(Data)(Cr)

Data 00: OSD off

01: OSD on

Ack (l)()(Set ID)()(OK/NG)(Data)(x)

12. Remote Control Lock Mode (Command: k m)

- ▶ To lock the buttons on the projector and remote control.

Transmission (k)(m)()(Set ID)()(Data)(Cr)

Data 00: Lock off

01: Lock on

Ack (m)()(Set ID)()(OK/NG)(Data)(x)

* If you are not using the remote control and projector buttons, use this mode.

When main power is off & on (plug-off and plug-in, after 20 - 30 seconds), external control lock is released.

* In the standby mode (DC off by off timer or 'ka', 'mc' command), and if key lock is on, Projector will not turn on by power on key of IR & Local Key.

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13. [Iris Mode] (Command: k n)

- ▶ To control [Iris Mode].

You can also adjust [Iris Mode] in the [Picture] menu.

Transmission (k)(n)()(Set ID)()(Data)(Cr)

Data

00: [DarkRoom] 01: [Medium]

02: [BrightRoom]

Ack (n)()(Set ID)()(OK/NG)(Data)(x)

14. [Balance] (Command: k t)

- ▶ To adjust balance.

You can also adjust [Balance] in the [Sound] menu.

Transmission (k)(t)()(Set ID)()(Data)(Cr)

Data Min: 00 - Max: 64

Ack (t)()(Set ID)()(OK/NG)(Data)(x)

15. [Color Temperature] (Command: x u)

- ▶ Adjusts the value of color temperature.

You can also adjust [Color Temperature] in the [Picture] menu.

Transmission (x)(u)()(Set ID)()(Data)(Cr)

Data

00: [Warm] 01: [Medium]

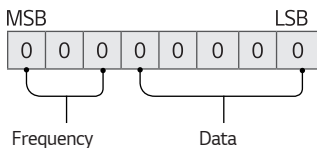
02: [Cool]

Ack (u)()(Set ID)()(OK/NG)(Data)(x)

16. [Equalizer] (Command: j v)

- Adjust EQ of the set.

Transmission (j)(v)()(Set ID)()(Data)(Cr)



7	6	5	Frequency	4	3	2	1	0	Step
0	0	0	1st Band	0	0	0	0	0	0(decimal)
0	0	1	2nd Band	0	0	0	0	1	1(decimal)
0	1	0	3rd Band
0	1	1	4th Band	1	0	0	1	1	19(decimal)
1	0	0	5th Band	1	0	1	0	0	21(decimal)

Ack (v)()(Set ID)()(OK/NG)(Data)(x)

* It depends upon model, and can adjust when sound mode is EQ adjustable value.

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17. [Energy Saving] (Command: j q)

- ▶ Sets the energy saving mode.

You can also adjust [Energy Saving] in the [Picture] menu.

Transmission (j)(q)()(Set ID)()(Data)(Cr)

Data

01: [Minimum]

02: [Medium]

03: [Maximum]

Ack (q)()(Set ID)()(OK/NG)(Data)(x)

18. Key (Command: m c)

- ▶ To send IR remote key code.

Transmission (m)(c)()(Set ID)()(Data)(Cr)

Data: "KEY CODES" on page 2.

Ack (c)()(Set ID)()(OK/NG)(Data)(x)

19. Input select (Command: x b) (Main Picture Input)

- ▶ To select input source for main picture.

Transmission (x)(b)()(Set ID)()(Data)(Cr)

Data

90: [HDMI 1]

91: [HDMI 2]

92: [HDMI 3]

Ack (b)()(Set ID)()(OK/NG)(Data)(x)

* This function depends on model and signal.

