



OWNER'S MANUAL

LG CineBeam

DLP Projector

Please read the safety information carefully before using this product.

PH30N

www.lg.com

P/NO : SAC37813559 (2003-REV00)

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LICENSES

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ENGLISH

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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 this 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.

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 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.

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

- Contact the Customer Support Center for installation.
- Tighten the product by using the mounting equipment and M4 x 8 mm (M6 x 10 mm, 1/4-20UNC x 5.5 mm) screws that are approved by a professional technician.
- 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. (the recommended torque: 5-8 kgf.cm)
- A failure to follow the precautions may result in injury or death and product damage due to the fall of the product.

 **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 failing.

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, 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.

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.

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.



Remote Control
Two AAA Batteries



Owner's Manual

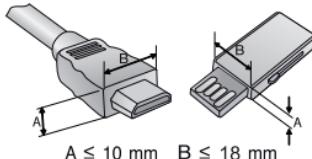


AC-DC Adaptor



Power cord

- When connecting an HDMI or USB cable, or connecting a USB flash drive to the HDMI or USB port, use a product that has a width of 18 mm or less and a height of 10 mm or less. If the USB cable or USB flash drive does not fit the USB ports of the projector, use an extension cable that supports USB 2.0.
- Use a certified cable with the HDMI logo attached.
- If you do not use a certified HDMI cable, the screen may not display or a connection error may occur. (Recommended HDMI cable types)
 - Ultra High Speed HDMI®/™ Cable (3 m 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

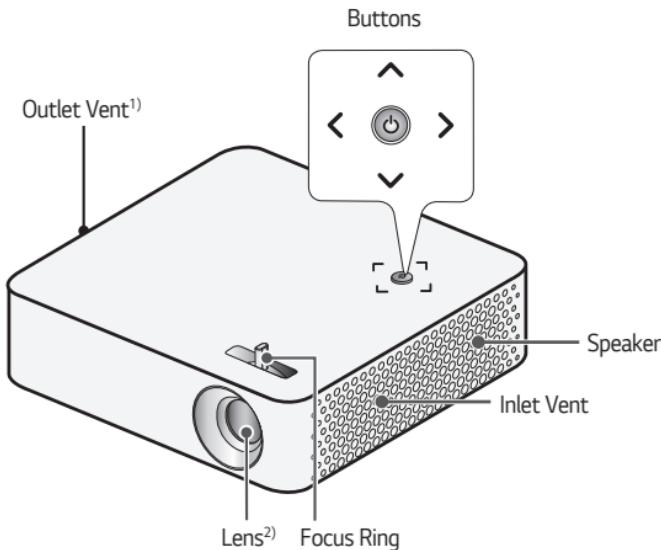


Tripod

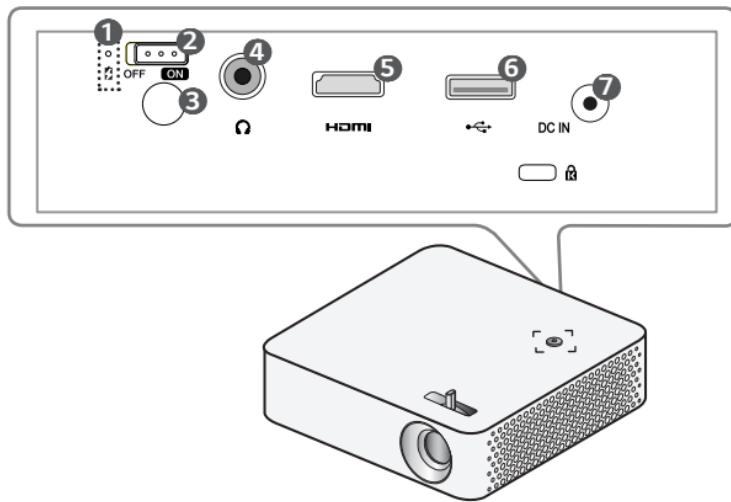


HDMI Cable

Parts and Components



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



- ① **Battery Charge Indicator**
 - Red: Charging
 - Green: Charging complete
- ② **OFF/ON Switch**
 - **ON**: Turns the projector on and the projector goes into Standby mode.
 - **OFF**: Turns the projector off completely.
Place the switch to **OFF** when you move the projector or when you intend not to use the projector for long periods of time.
- ③ **IR Receiver**
- ④ **Φ (Headphone Port)**
- ⑤ **HDMI Port**
- ⑥ **USB (USB port)**
- ⑦ **DC IN Port**

Using the Buttons

You can operate the projector by pressing the button.

Basic functions

**Power On**

Press the Power button once while the projector is off.

**Power Off
(Press and Hold)**

Press and hold the Power button for a few seconds while the projector is on.

^, v, <, >

**Up/Down/
Left/Right**

Sets functions or moves the cursor.

Adjusting the menu

Press the Power button once while the projector is on.

Press the top, bottom, left, and right buttons to move to a menu item. After moving to the desired menu item, press the Power button once to select it.

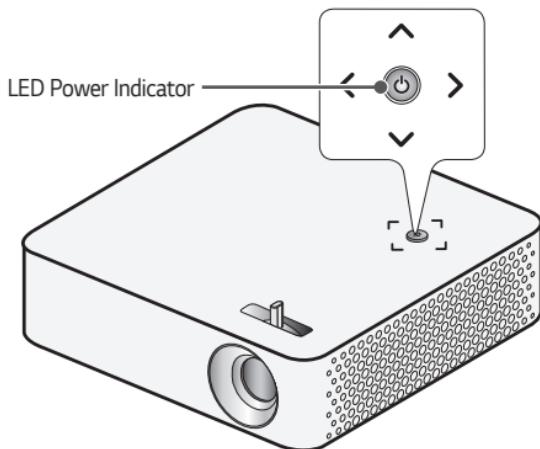
[MENU] Displays the Settings menu.

[INPUT] Changes the input source.

[POWER OFF] Turns the power off.

[CLOSE] Clears on-screen displays and returns to projector viewing.

Projector Status Indicators



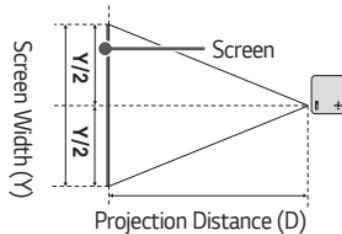
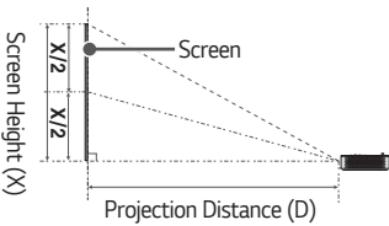
LED Power Indicator	
Red	Power standby state
Off	The projector is operating with the power on.

INSTALLATION

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: 100 %



16:9 Aspect Ratio				
Screen Size		Screen Width (Y)	Screen Height (X)	Projection Distance (D)
inches	mm	mm	mm	mm
25	635	554	311	830
30	762	664	374	996
40	1016	886	498	1328
50	1270	1107	623	1660
60	1524	1328	747	1992
70	1778	1550	872	2324
80	2032	1771	996	2657
90	2286	1992	1121	2989
100	2540	2214	1245	3321

The projection distance may vary depending on the installation conditions.

 **NOTE**

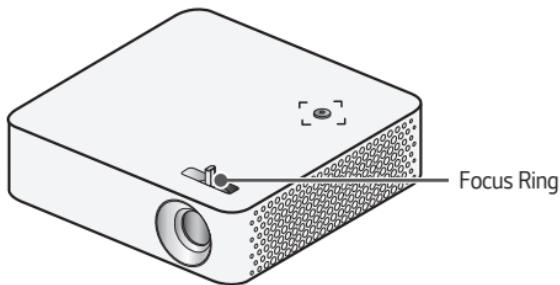
- If the projected image looks distorted or bent, check to see if the screen is installed properly.

Focus of the Screen Image

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

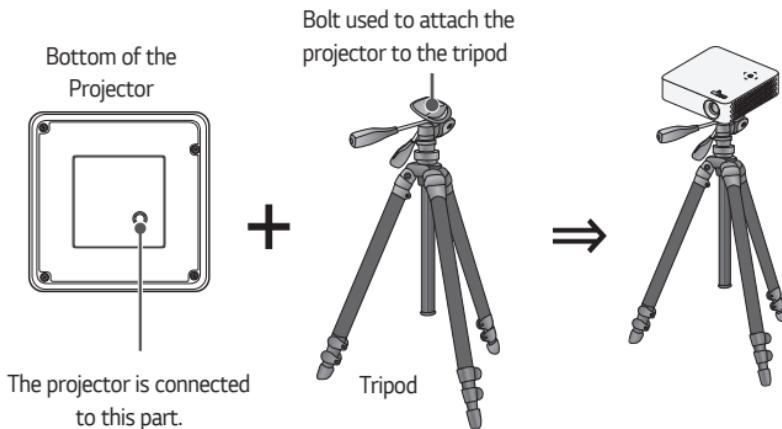
Adjust the focus of the image by rotating the Focus Ring to the left or right.

Make sure the product does not move when adjusting the focus.



How to Install the Projector On a Tripod

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



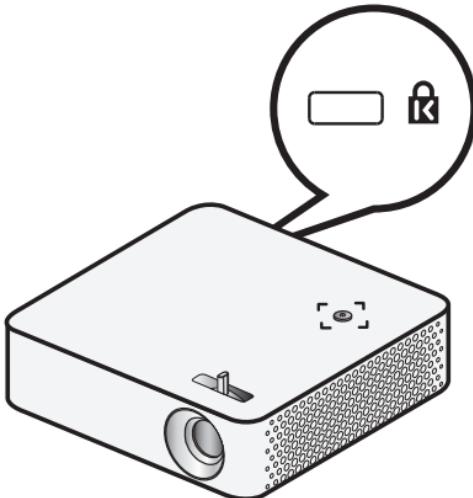
CAUTION

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

Kensington Security System

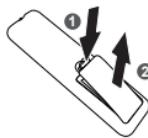
- This projector has a Kensington Security Standard connector as an anti-theft mechanism. Connect a Kensington Security System cable as shown below.
- For more information on installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.
- 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>



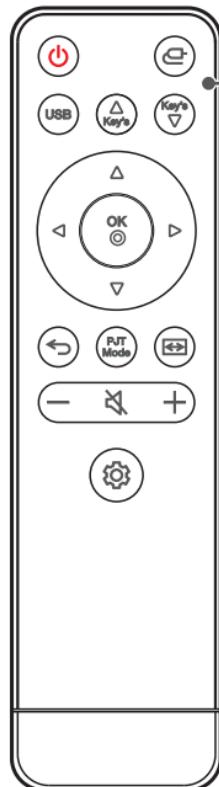
REMOTE CONTROL

Open the battery cover on the back of the remote control and insert the batteries which are specified in the battery room with \oplus/\ominus poles pointing in the correct direction. The new and same type of batteries (1.5 V AAA) must be used.



CAUTION

- Do not mix new batteries with old ones.



(POWER)

Turns the Projector on or off.

(INPUT)

Changes the input source.

USB

Accesses USB mode.

Key's / Key's

Adjusts the Keystone function.

Up/Down/Left/Right buttons

Sets the function or moves the cursor.

OK

Shows the current mode and saves changes to the settings.

(BACK)

Returns to the previous screen.

PJT Mode

Turns the projected image upside down or flips it horizontally.

(RATIO)

Resizes an image.

(Volume)

Adjusts the volume level.

(Mute)

Mutes all sounds.

(Settings)

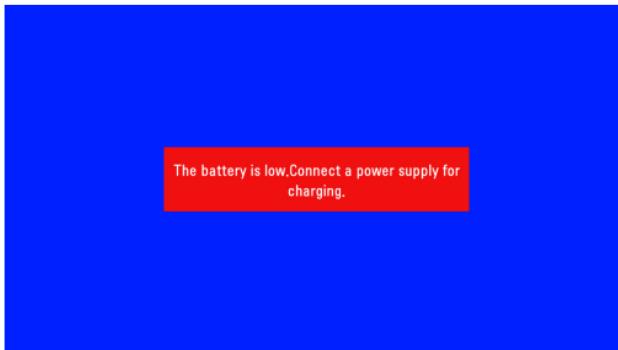
Displays or closes the Settings menu.

 **NOTE**

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

USING THE PROJECTOR

Using The Battery



- It is displayed when the battery is low.
- If the screen shows a low battery message, be sure to charge the battery.



The device powers off due to insufficient battery.

- It is displayed when the battery is running out.
- As your battery is running out, the projector will turn off immediately.
- If the battery runs out, the projector can only be turned on after it has been connected to a power supply.

Battery using time information

Status	Time and Display
Charging	About 2 hours (When in standby and charging)
Usage Hours	Up to 2 hours (Available battery using time up to 2 hours when Energy Saving mode set to Max.)
Battery Level Indicator	 Step 1  Step 2  Step 3  Step 4  Step 5  Full

- If you do not intend to use the projector for a long time, leave the battery charged at 40 % to 50 %.
- The battery is automatically recharged when the projector is connected to a power supply.
- Charge the battery fully when you first use the projector.
- The battery standard usage time given in the manual is based on measurements taken by LG; the actual time may vary depending upon usage.
- Battery usage time may vary depending on broadcast type, operating temperature, period of use, and user preferences.
- As the battery is consumable, its lifetime gradually decreases. When the battery's life is reduced by half, replace it with a new battery from an LG Electronics Customer Support Center.
- Do not charge the battery using any equipment other than that supplied with the product. This may damage the battery or cause a fire.
- Always use a battery that is approved and certified by LG Electronics, Inc. Failure to do so may result in an explosion or fire.
- If the battery is leaking or giving off an odor, discontinue its use immediately and contact LG Electronics Customer Support Center.
- The battery contains lithium-ion, so please handle with care. Failure to do so may result in an explosion or fire.

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) → [HDMI]



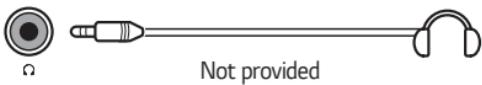
NOTE

Connecting a PC/ Notebook

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

Connecting Headphones

You can listen to the audio through a headphone.



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

-  (INPUT) → [HDMI]
- The picture may look different from the actual product.

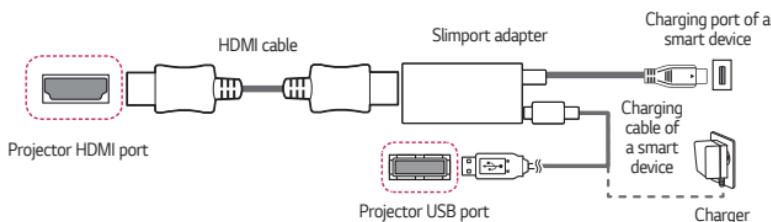
Connect a smart device to the projector using a cable¹⁾ and set the external input of the projector to HDMI. The smart device screen will then be displayed through the projector. You can connect with any HDMI input port.

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

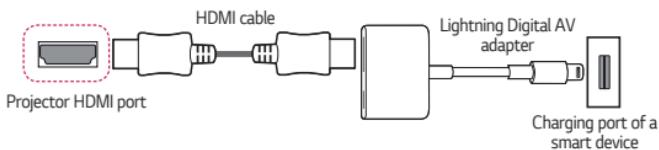
Supported smart devices may change depending on the circumstances of each manufacturer.

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

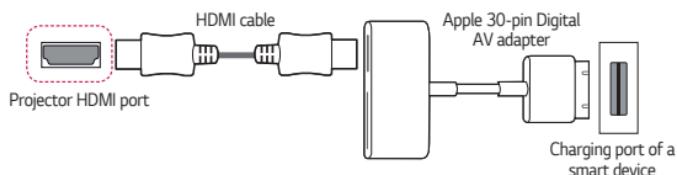
Slimport supported devices



Apple Lightning Digital AV adapter supported devices



Apple 30-pin Digital AV adapter supported devices



SPECIFICATIONS

MODEL	PH30N (PH30N-GL)
Resolution (Pixel)	1280 (Horizontal) x 720 (Vertical)
Aspect ratio	16:9 (Horizontal:Vertical)
Projection distance — Screen Size	830 mm to 3321 mm — 635 mm to 2540 mm (25 inches to 100 inches)
Ratio of upward projection	100 %
Working range of the remote control	6 m (Max.)
Power consumption	48 W
AC-DC Adaptor	Manufacturer: APD Model: DA-48F19
	19 V $\frac{1}{2}$ 2.53 A (Adaptor Input 100-240 V @ 50/60 Hz)
Audio Output	1 W
Height	39.3 mm
Width	129 mm
Depth	129 mm
Weight	513 g
USB Device	5 V, 0.5 A (Max.)
Environment Condition	Temperature
	Operation 0 °C to 40 °C
	Storage -20 °C to 60 °C
	Relative Humidity
	Operation 0 % to 80 %
	Storage 0 % to 85 %

- Use only power supplies listed in the user instructions.
- Contents in this manual may be changed without prior notice due to upgrade of product functions.

HDMI (PC) Supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 350	31.468	70.09
720 x 400	31.469	70.08
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1152 x 864	54.348	60.053
1280 x 720	45.00	60
1280 x 1024	63.981	60.02
1440 x 900	55.935	59.888
1400 x 1050	65.317	59.979
1600 x 900	60	60
1680 x 1050	65.29	59.954
1920 x 1080	67.5	60

- If an invalid signal is input into the projector, it will not be displayed properly on the screen or a message such as [No Signal] will be displayed.
- The projector supports the DDC1/2B type as the Plug and Play function (Auto-recognition of PC monitor).
- It is recommended to set the resolution to 1280 x 720 and then set [Aspect Ratio] to [Just Scan] for the best picture quality in the PC mode.

HDMI (DTV) Supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
480p	31.47	60
	31.47	59.94
	31.50	60
720p	45.00	60.00
	44.96	59.94
1080i	33.75	60.00
	33.72	59.94
1080p	67.500	60
	67.432	59.939
	27.000	24.000
	26.97	23.976
	33.75	30.000
	33.71	29.97

- To provide the best picture quality, a 720p resolution is recommended.

Other specifications

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 coloured 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.

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USING THE PROJECTOR

Watching Projector

Turning on the Projector

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

- 1 Connect the power cord correctly.
- 2 Place the **OFF/ON** switch on the rear port area to **ON** and press the  **(POWER)** button on the projector or on the remote control. (If the switch is placed to **OFF**, the projector will not turn on.)
- 3 In the Language Selection screen, select a language.
- 4 In the [Mode Setting] screen, select the setting mode you want.
Selects [Standard] or [Store Demo]. When in use in home, please select [Standard]. [Store Demo] mode is for store display.
- 5 Select an input signal by using the  **(INPUT)** button on the remote control.
- 6 To turn the projector off, press the  **(POWER)** button.

Additional Options

Adjusting Aspect Ratio

Resize an image to view at its optimal size by pressing  (RATIO) while you are using the projector.

- Press the  (Settings) button on the remote control and select [PICTURE] → [Aspect Ratio].
- Available picture size may differ depending on the input signal.

- [4:3]
Resizes images to the previous standard 4:3.
- [16:9]
Displays an aspect ratio of 16:9.
- [Zoom]
Resizes the image to fit the screen width. The top and bottom parts of the image may be cut off.
- [Cinema Zoom]
Formats an image to the cinemascope ratio, 2.35:1.
It ranges from 1 to 16.
- [Just Scan]
Displays video images in the original size without removing parts of the edge of the image.
 - If you select [Just Scan], you may see image noise at the edge or edges of the screen.
- [Set By Program]
Displays images in the same aspect ratio as the original image.

Using the Keystone Function

To prevent the screen image from becoming trapezoidal, [Keystone] adjusts the top and bottom width of the image if the projector is not set up at a right angle to the screen.

Because the [Keystone] function may cause inferior screen image quality, use this function only when it is not possible to set up the projector at an optimal angle.

- 1 Press the Δ Keyst or ∇ Keyst button to adjust the picture.
 - [Keystone] can be adjusted from **-40** to **40**.
- 2 Press the $\leftarrow\rightarrow$ (BACK) button when done.

Changing Input Device

To select an external input

Selects external input.

The illustration of the menu may differ from the actual screen on the product.

- Press the  (INPUT) button on the remote control to display the input selection screen.
- Select an input signal using the remote control's  (INPUT) button to connect the projector to the desired input.

You can use the  or  button to switch between all the input modes.



ENTERTAINMENT

Using SCREEN SHARE

- 1 Set the external input of the projector to [SCREEN SHARE].
- 2 Enable related SCREEN SHARE function on the device you wish to connect.
- 3 Connect the projector from the search list on the device you wish to connect.
- 4 If the desired device accepts the request, SCREEN SHARE will be started.



NOTE

- When using the SCREEN SHARE function, it is compatible with Miracast supported devices with Windows 10 or higher, but it may not be compatible with some PCs.
- Ice Cream Sandwich, Jellybean, Kitkat, Lollipop, Marshmallow and Nougat versions of LG's Android devices are guaranteed to be compatible.
- When connecting via SCREEN SHARE, place the device close to the projector.
- The response rate and image quality may vary depending upon the user's environment.
- For more information on the device you want to connect to, refer to its owner's manual.
- Some buttons on the remote control may not work in the [SCREEN SHARE] mode.

Setting Up Bluetooth on the Projector

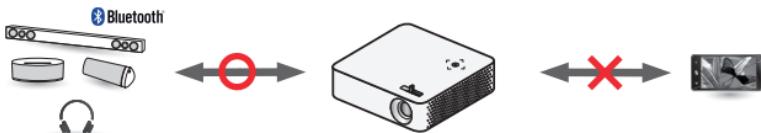
This option is used to output sound from the projector through Bluetooth audio devices.

- Press the  (Settings) button on the remote control, and then set [Bluetooth] to [On] in the [WIRELESS] menu.



NOTE

- The devices that can be connected are as follows: LG BTS1, LG HBS-700, LG HBS-730, LG HBS-800 (Models available for purchase may vary by region.)
- Products from other manufacturers may not be compatible.
- You can use the remote control to adjust the volume of the connected device.
- When connecting devices wirelessly, if the device connection fails, check that the device is connected to a power supply and also check that the Bluetooth audio device is operating properly.
- If [Bluetooth] is turned on, the projector will automatically connect to the last connected Bluetooth device when the projector powers on. (Be sure to check that the last connected Bluetooth device is powered on as well.)
- This projector does not support the LG TV Sound Sync feature. To use products that support the LG TV Sound Sync feature, use the general Bluetooth mode instead of the LG TV mode.
- The Bluetooth function is to connect the product to Bluetooth speakers or Bluetooth headset. You cannot connect the product to a mobile phone through the Bluetooth function.

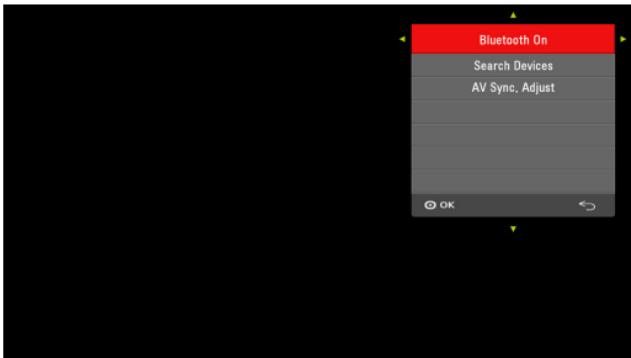


Searching for Bluetooth Devices and Connecting

Go to  (Settings) → [WIRELESS] → [Bluetooth] → [Search Devices] to search for nearby Bluetooth audio devices and then connect any detected devices to the projector. (If the device name is longer than 20 characters, only the first 20 will be displayed.)

1 Set the Bluetooth device to pairing mode and then select [Search Devices].

- If the device has not been detected, check that the device is powered on and in pairing mode.
- The time it takes to search for devices may vary according to the signal strength and the number of devices.



2 When the search is complete, you can select a Bluetooth device and connect to it.

- The time it takes to connect to a device may vary according to the signal strength and the number of devices.



3 When a Bluetooth device is connected, you will hear sound from the projector through the connected device.

- The connected Bluetooth device will be added automatically to the [Search Devices]. Once registered, Bluetooth devices can be connected simply by selecting them from the [Search Devices] without having to search for them.
- Connected devices can only be disconnected from  (Settings) → [WIRELESS] → [Bluetooth] → [Search Devices] → [Detail Info] → [Disconnect].

Connecting or disconnecting bluetooth devices

In **(Settings)** → [WIRELESS] → [Bluetooth] → [Search Devices], Bluetooth devices are shown in the order that they were connected, and the same devices can be reconnected simply by selecting them without having to search for them again.

Connecting

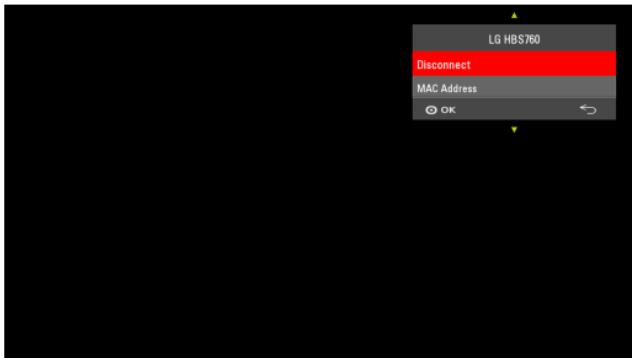
Select a Bluetooth device from the [Search Devices] to connect to it.

- The registered Bluetooth device will attempt to connect automatically depending on the characteristics of the device. (Refer to the manual for the Bluetooth device.)
- The time it takes to connect to a device may vary according to the signal strength and the number of devices.

Disconnecting

Select [Disconnect] to disconnect the device.

- Connected devices can only be disconnected from **(Settings)** → [WIRELESS] → [Bluetooth] → [Search Devices] → [Detail Info] → [Disconnect].



Adjusting AV Sync. Adjust

When a Bluetooth device is connected, go to  (Settings) → [WIRELESS] → [Bluetooth] → [AV Sync. Adjust] to adjust the synchronization between the video and the Bluetooth headset sound.

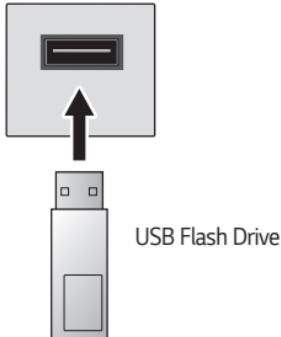
- This feature is only available when a Bluetooth device is connected.
- Audio sync may vary by manufacturer.

MY MEDIA

Before Using

Connecting a USB Device

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



Tips for using a USB device

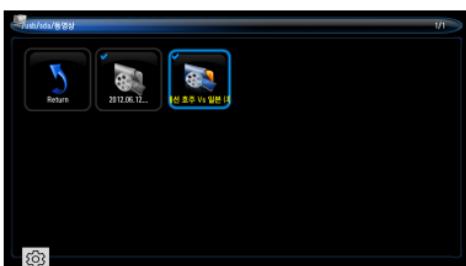
- If the USB storage device has a built-in auto recognition program or uses its own driver, it may not work.
- Some USB storage devices may not work or may work incorrectly.
- If you use a USB extension cable, the USB device may not be recognized or may not work properly.
- Use only USB storage devices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

To Use My Media

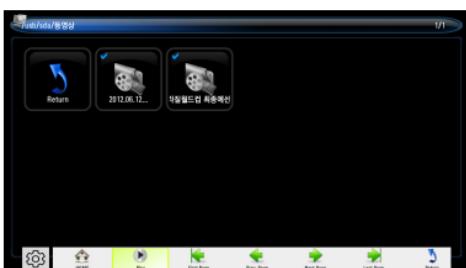
- 1 Connect a USB storage device.
- 2 Press the **USB** button on the remote control to select your desired function, and then press **OK**. Select the  located on the top left of the screen, and then press **OK**.



- 3 Select the files you want to play. (When you select more than one file, they will play in the order they were selected.)



- 4 Press the  (**Settings**) button on the remote control. Use the left or right button on the remote control to select [Play] and press the **OK** button.



- 5 To play a file, select [Play] on the screen, and then press **OK**.

My Media supporting file

- Maximum data transmission rate: 20 Mbps (Mega bit per second)
- External supported subtitle formats: *.smi, *.srt, *.sub (MicroDVD, SubViewer 1.0/2.0), *.ass, *.ssa, *.txt (TMPlayer), *.psb (PowerDivX)
- Internal supported subtitle formats: SRT/ASS/SSA

Video Supported Codec

Maximum: 1920 x 1080 @ 30p (only Motion JPEG 640 x 480 @ 30p)

Extension	Codec	
.asf .wmv	Video	VC-1 Advanced Profile, VC-1 Simple and Main Profiles
	Audio	WMA Standard, WMA 9 Professional
.avi	Video	H.264/AVC
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital
.mp4 .m4v .mov	Video	H.264/AVC, MPEG-4 Part 2
	Audio	AAC
.mkv	Video	H.264/AVC
	Audio	HE-AAC, Dolby Digital
.ts .trp .tp .m2ts	Video	H.264/AVC, MPEG-2, VC-1
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, AAC
.vob	Video	MPEG-1, MPEG-2
	Audio	Dolby Digital, MPEG-1 Layer I, II, DVD-LPCM
.mpg .mpeg	Video	MPEG-1
	Audio	MPEG-1 Layer I, II

Audio File

File type	Item	Info
MP3	Bit rate	32 Kbps to 320 Kbps
	Sampling rate	32 kHz to 48 kHz
AC3	Bit rate	32 kbps to 640 kbps
	Sampling rate	32 kHz, 44.1 kHz, 48 kHz
MPEG	Bit rate	32 kbps to 448 kbps
	Sampling rate	32 kHz to 48 kHz
AAC, HEAAC	Bit rate	24 kbps to 3844 kbps
	Sampling rate	8 kHz to 96 kHz
CDDA	Bit rate	1.44 kbps
	Sampling rate	44.1 kHz
LPCM	Bit rate	1.41 Mbps to 9.6 Mbps
	Sampling rate	Multi-channel: 44.1 kHz, 88.2 kHz / 48 kHz, 96 kHz Stereo: 176.4 kHz, 192 kHz

Available photo file

File type	Item	Info
JPEG	Support File type	Base-line, Progressive
	Picture Size	Minimum: 64 x 64 Maximum: Base-line: 1920 (W) x 1080 (H) Progressive: 1024 (W) x 768 (H)
BMP	Picture Size	Minimum: 64 x 64 Maximum: 9600 (W) x 6400 (H)
PNG	Support File type	Interlace, Non-Interlace
	Picture Size	Minimum: 64 x 64 Maximum: Interlace: 1280 (W) x 800 (H) Non-Interlace: 9600 (W) x 6400 (H)

- BMP and PNG format files may be slower to display than JPEG.

Watching the Videos

In the [MOVIE LIST], you can watch movies stored on the connected USB device.

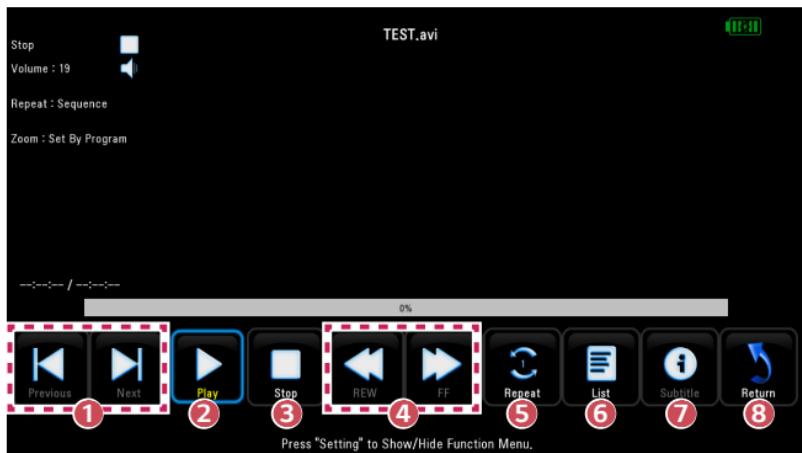
Controls playback and sets options while viewing videos.

Tips for Playing Video Files

- Some subtitles created by users may not work properly.
- The video and subtitle files should be placed in the same folder. For subtitles to display correctly, the video and subtitle files must have the same name.
- We do not support any stream that contains GMC (Global Motion Compensation) or Qpel (Quarterpel Motion Estimation).
- Only H.264/AVC profile level 4.1 and lower is supported.
- Video files that exceed 50 GB (gigabyte) are not supported for playback. The file size limit is dependent on the encoding environment.

Browsing Movie List

Play a video file stored from a connected device.



- ① Plays the previous/next file.
- ② Returns to normal playback and Pauses the media player. (||/▶)
- ③ Stops playing.
- ④ Whenever this button is pressed, the playback speed is changed: x2, x4, x8, x16, x32
- ⑤ Selects repeat play.
 - [One]: Only one file is played repeatedly.
 - [Sequence]: Selected files are played in order.
 - [Random]: Selected files are played randomly.
- ⑥ Play List
- ⑦ [Subtitle]: The subtitle can be turned on or off.
[Subtitle Language]: A character set used for a subtitle can be selected.
- ⑧ Returns to the movie list screen.

Viewing the Photos

In the [PHOTO LIST], you can watch photos stored on the connected USB device.

Supported Photo Files

PHOTO (*.JPEG)

Baseline: 64-pixel (width) x 64-pixel (height) - 1920-pixel (width) x 1080-pixel (height)

Progressive: 64-pixel (width) x 64-pixel (height) - 1024-pixel (width) x 768-pixel (height)

- Only JPEG files are supported.
- Non-supported files are displayed in the form of an icon.
- An error message is displayed for corrupted files or file formats that cannot be played.
- Corrupted files may not be displayed properly.
- It may take some time to view high-resolution images in full screen.

Browsing Photo List

Play a photo file stored from a connected device.



- ① Plays the previous/next file.
- ② Returns to normal playback and Pauses the media player. (||/▶)
- ③ Stops playing.
- ④ Rotates photos.
 - Rotates a photo 90°, 180°, 270°, 360° clockwise.
 - Photos cannot be rotated if their width is greater than the height of the max. supported resolution.
- ⑤ Selects repeat play.
- ⑥ You can listen to music while viewing photos.
 - To launch [BGM], select a file to play from the [MUSIC LIST] in advance and then play a photo file in the [PHOTO LIST].
- ⑦ Play List
- ⑧ Returns to the photo list screen.

Listening to Music

In the [MUSIC LIST], you can play audio stored on the connected USB device.

Supported Music Files

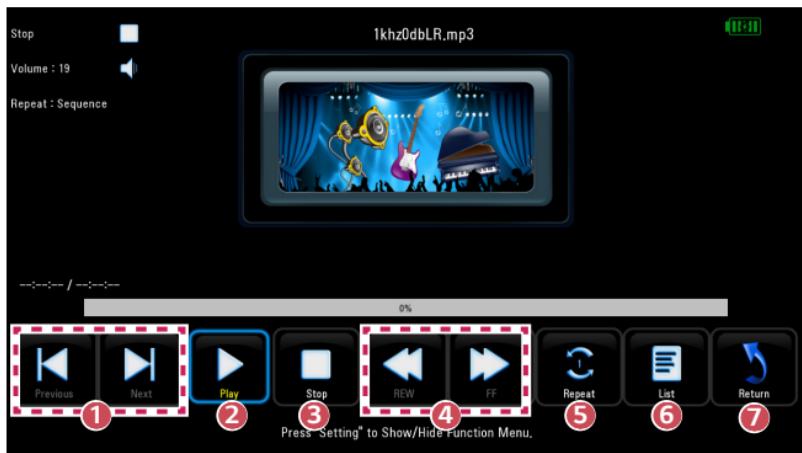
*.MP3

Bit rate range: 32 Kbps to 320 Kbps

- Sampling rate MPEG1 Layer3: 32 kHz, 44.1 kHz, 48 kHz
- Sampling rate MPEG2 Layer3: 16 kHz, 22.05 kHz, 24 kHz

Browsing Music List

You can play audio files stored on the connected device.



- ① Plays the previous/next file.
- ② Returns to normal playback and Pauses the media player. (||/▶)
- ③ Stops playing.
- ④ Whenever this button is pressed, the playback speed is changed: x2, x4, x8, x16, x32
- ⑤ Selects repeat play.
- ⑥ Play List
- ⑦ Returns to the music list screen.

CUSTOMIZING SETTINGS

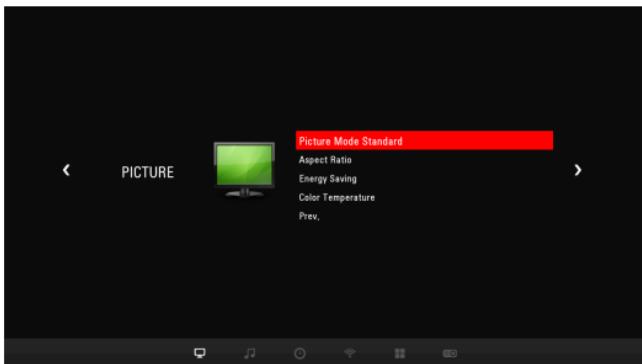
Settings

- Press the  (Settings) button.

[PICTURE]	Adjusts the image quality for optimal viewing.
[AUDIO]	Sets the sound mode.
[TIME]	Sets time-related settings.
[WIRELESS]	Wireless-related features.
[OPTION1]	Customizes the general settings.
[OPTION2]	Customizes the settings related the projector.
[INPUT]	Selects the desired input source.
[MY MEDIA]	Accesses photo, music, and movie files.

PICTURE Settings

- 1 Press the  (Settings) button.
- 2 Use the \triangle , ∇ , \blacktriangleleft , or \blacktriangleright buttons to select [PICTURE] and press the  button.
- 3 Use the \triangle , ∇ , \blacktriangleleft , or \blacktriangleright button to set up the desired item and press the  button.
- 4 To return to the previous menu, press the  (BACK) button.



- [Picture Mode]

Selects the picture mode optimized for the viewing environment or the program.

- [Vivid]

Maximizes the visual effect of video.

Heightens contrast, brightness, and sharpness to display vivid images.

- [Standard]

Displays images in standard levels of contrast, brightness, and sharpness.

- [Cinema]

Optimizes the image for a movie.

- [Expert]

Menu for adjusting picture quality that allows experts and amateurs to enjoy the best projector viewing.

[Expert] mode is for picture tuning professionals to control and fine-tune using a specific image. For normal images, the effects may not be dramatic.

- [Contrast]

Adjusts the difference between bright and dark regions of the screen.

- [Brightness]

Adjusts the overall screen brightness.

- [Color]

Adjusts the intensity of all colors.

- [Sharpness]

Adjusts the sharpness of the borders between bright and dark.

- [Tint]

Adjusts the balance between red and green levels.

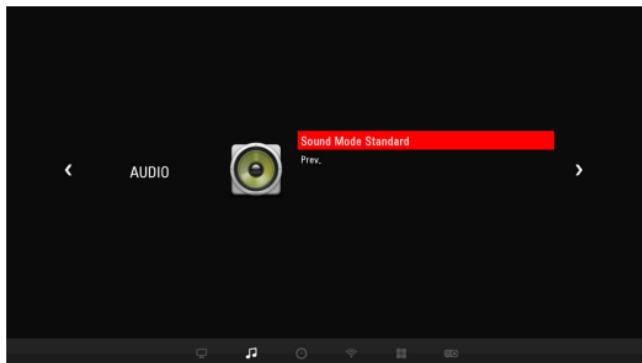
- [Game]

Optimizes the image for playing games on fast-moving screens.

- [Aspect Ratio]
Resizes the picture.
- [Energy Saving]
Reduces power consumption by adjusting peak screen brightness.
 - [Minimum]/[Medium]/[Maximum]
Applies the pre-set [Energy Saving] mode.
- [Color Temperature]
Adjusts the overall color of the screen to suit your preference.
Select [Warm], [Medium], [Cool] or [Natural].

AUDIO Settings

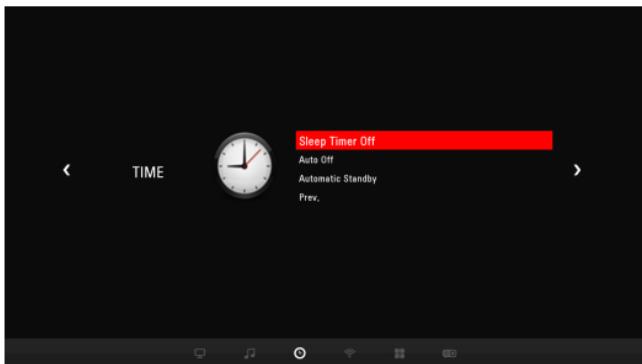
- 1 Press the  (Settings) button.
- 2 Use the , , , or  buttons to select [AUDIO] and press the  button.
- 3 Use the , , , or  button to set up the desired item and press the  button.
- 4 To return to the previous menu, press the  (BACK) button.



- [Sound Mode]
Sets the sound mode.
 - [Standard]
Suitable for all types of video.
 - [Music]/[Cinema]/[Sports]/[Game]
Sets audio optimized for a specific genre.

TIME Settings

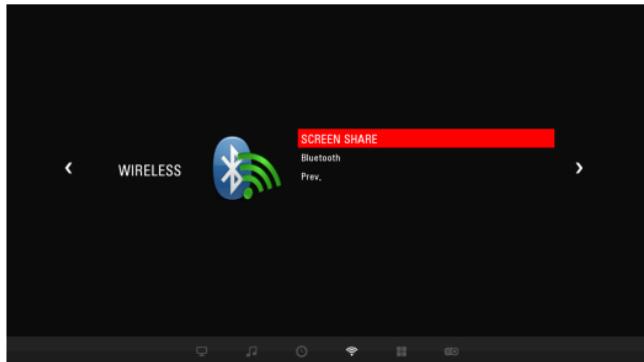
- 1 Press the  (Settings) button.
- 2 Use the , , , or  buttons to select [TIME] and press the  button.
- 3 Use the , , , or  buttons to set up the desired item and press the  button.
- 4 To return to the previous menu, press the  (BACK) button.



- [Sleep Timer]
Turns off the projector after a preset number of minutes.
To cancel the [Sleep Timer], select [Off].
- [Auto Off]
If there is no input signal or button press, the projector automatically turns off after the preset time has elapsed.
- [Automatic Standby]
Turns off the projector automatically after a set period of time if there is no button input on the projector.

WIRELESS Settings

- 1 Press the  (Settings) button.
- 2 Use the , , , or  buttons to select [WIRELESS] and press the  button.
- 3 Use the , , , or  button to set up the desired item and press the  button.
- 4 To return to the previous menu, press the  (BACK) button.



- [SCREEN SHARE]

The SCREEN SHARE displays the screen of the connected device. You can check the [My Device Name].

- [Bluetooth]

Sound is output through the Bluetooth headset. First, set [Bluetooth] to [On].

- [Search Devices]

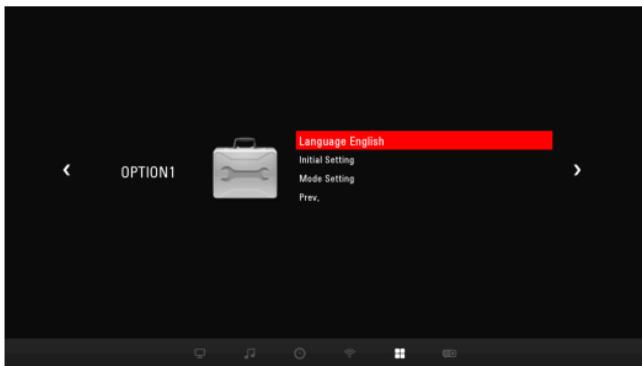
Search for the device to connect to.

- [AV Sync. Adjust]

When the video and the sound are not synchronized correctly, you can manually adjust the synchronization.

OPTION1 Settings

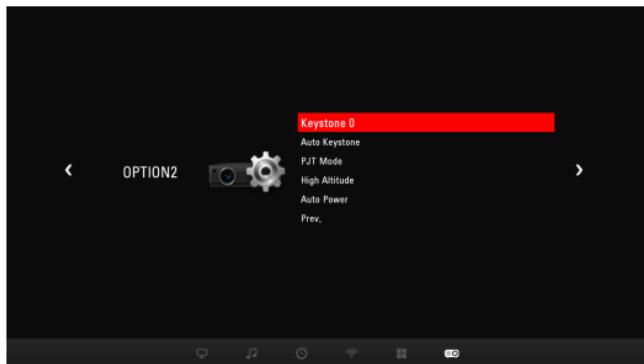
- 1 Press the  (Settings) button.
- 2 Use the , , , or  buttons to select [OPTION1] and press the  button.
- 3 Use the , , , or  buttons to set up the desired item and press the  button.
- 4 To return to the previous menu, press the  (BACK) button.



- [Language]
Selects a desired Menu Language.
- [Initial Setting]
Resets all the projector settings to the factory default. Do not turn off the power during initialization.
- [Mode Setting]
Selects [Standard] or [Store Demo]. When in use in home, please select [Standard]. [Store Demo] mode is for store display.

OPTION2 Settings

- 1 Press the  (Settings) button.
- 2 Use the , , , or  buttons to select [OPTION2] and press the  button.
- 3 Use the , , , or  button to set up the desired item and press the  button.
- 4 To return to the previous menu, press the  (BACK) button.



- [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.

- [Auto Keystone]

[Auto Keystone] provides a rectangular screen image by automatically adjusting the Keystone number when there is a trapezoidal screen image caused by tilting of the projector.

- [On]: Automatically adjusts the Keystone number.

- [Off]: Manually adjusts the Keystone number.

- [PJT Mode]

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

- When the [Auto Keystone] function is set to [On], only the [Front] and [Rear] settings are available.

- [High Altitude]

If the projector is used at an altitude higher than 1200 meters, turn this on.

Otherwise, the projector may overheat or its protection function may be activated. If this happens, turn the projector off and then on again after waiting for several minutes.

- [Auto Power]

Makes the projector turn on automatically when the power cord is connected to the projector. However, battery-equipped models will immediately turn on once the power switch is put to **ON**.

- [On]: When the projector's power switch is put to **ON**, the projector turns on.
- [Off]: When the projector's power switch is put to **ON**, the projector goes into standby mode.

