

# Digital Projector User Manual

EU610ST



V 1.00

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# Warranty and Copyright information

## Limited warranty

BenQ warrants this product against any defects in material and workmanship, under normal usage and storage.

Proof of purchase date will be required with any warranty claim. In the event this product is found to be defective within the warranty period, BenQ's only obligation and your exclusive remedy shall be replacement of any defective parts (labor included). To obtain warranty service, immediately notify the dealer from which you purchased the product of any defects.

Important: The above warranty shall be void if the customer fails to operate the product in accordance with BenQ's written instructions, especially the ambient humidity must be in-between 10% and 90%, temperature in-between 0°C and 35°C, altitude lower than 4920 feet, and avoiding to operate the projector in a dusty environment. This warranty gives you specific legal rights, and you may have other rights which vary from country to country.

For other information, please visit www.BenQ.com.

#### Copyright

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#### Patents

Please go to http://patmarking.benq.com/ for the details on BenQ projector patent coverage.

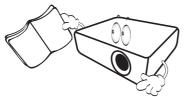
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# Important safety instructions

Your projector is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that you follow the instructions mentioned in this manual and marked on the product.

1. Please read this manual before you operate your projector. Save it for future reference.



2. **Do not look straight at the projector lens during operation.** The intense light beam may damage your eyes.



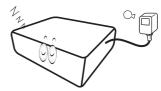
3. Refer servicing to qualified service personnel.



- 4. Always open the lens shutter (if any) or remove the lens cap (if any) when the projector lamp is on.
- 5. The lamp becomes extremely hot during operation. Allow the projector to cool for approximately 45 minutes prior to removing the lamp assembly for replacement.



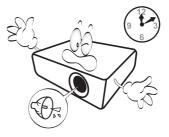
 In some countries, the line voltage is NOT stable. This projector is designed to operate safely within a mains voltage between 100 to 240 volts AC, but could fail if power cuts or surges of ±10 volts occur. In areas where the mains voltage may fluctuate or cut out, it is recommended that you connect your projector through a power stabilizer, surge protector or uninterruptible power supply (UPS).



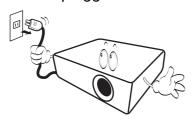
 Do not block the projection lens with any objects when the projector is under operation as this could cause the objects to become heated and deformed or even cause a fire. To temporarily turn off the lamp, use the blank function.



8. Do not operate lamps beyond the rated lamp life. Excessive operation of lamps beyond the rated life could cause them to break on rare occasions.



 Never replace the lamp assembly or any electronic components unless the projector is unplugged.



10. Do not place this product on an unstable cart, stand, or table. The product may fall, sustaining serious damage.



11. Do not attempt to disassemble this projector. There are dangerous high voltages inside which may cause death if you should come into contact with live parts. The only user serviceable part is the lamp which has its own removable cover.

Under no circumstances should you ever undo or remove any other covers. Refer servicing only to suitably qualified professional service personnel.

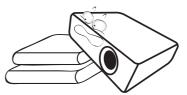


- 12. Do not block the ventilation holes.
  - Do not place this projector on a blanket, bedding or any other soft surface.
  - Do not cover this projector with a cloth or any other item.
  - Do not place inflammables near the projector.



If the ventilation holes are seriously obstructed, overheating inside the projector may result in a fire.

- 13. Always place the projector on a level, horizontal surface during operation.
  - Do not use if tilted at an angle of more than 10 degrees left to right, nor at angle of more than 15 degrees front to back. Using the projector when it is not fully horizontal may cause a malfunction of, or damage to, the lamp.



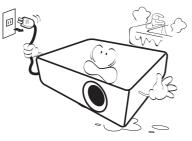
14. Do not stand the projector on end vertically. Doing so may cause the projector to fall over, causing injury or resulting in damage to the projector.



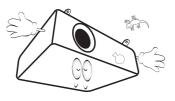
15. Do not step on the projector or place any objects upon it. Besides probable physical damage to the projector, doing so may result in accidents and possible injury.



16. When the projector is under operation, you may sense some heated air and odor from its ventilation grill. It is a normal phenomenon and not a product defect. 17. Do not place liquids near or on the projector. Liquids spilled into the projector may cause it to fail. If the projector does become wet, disconnect it from the power supply's power outlet and call BenQ to have the projector serviced.



18. This product is capable of displaying inverted images for ceiling/wall mount installation.

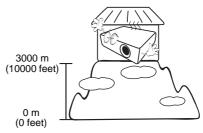


19. This apparatus must be earthed.

- 20. Do not place this projector in any of the following environments.
  - Space that is poorly ventilated or confined. Allow at least 50 cm clearance from walls and free flow of air around the projector.
  - Locations where temperatures may become excessively high, such as the inside of a car with all windows rolled up.
  - Locations where excessive humidity, dust, or cigarette smoke may contaminate optical components, shorten the projector's life span and darken the image.



- Locations near fire alarms
- Locations with an ambient temperature above  $40^\circ\text{C}$  /  $104^\circ\text{F}$
- Locations where the altitudes are higher than 3000 m (10000 feet).



Hg - Lamp contains mercury. Manage in accordance with local disposal laws. See www.lamprecycle.org.

To avoid damaging the DLP chips, never aim a high-power laser beam into the projection lens.

# Risk Group 2

- 1. According to the classification of photobiological safety of light sources and light source systems, this product is Risk Group 2, IEC 62471-5:2015.
- 2. Possibly hazardous optical radiation emitted from this product.
- 3. Do not stare at operating light source. May be harmful to the eyes.
- 4. As with any bright source, do not stare into the direct beam.

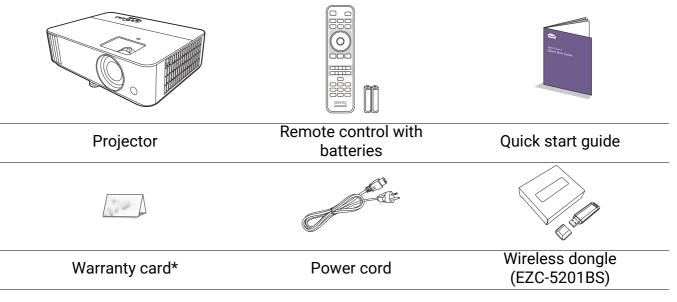


# Introduction

# Shipping contents

Carefully unpack and verify that you have all of the items shown below. If any of these items are missing, please contact your place of purchase.

#### Standard accessories



• The supplied accessories will be suitable for your region, and may differ from those illustrated.

• \*The warranty card is only supplied in some specific regions. Please consult your dealer for detailed information.

#### **Optional accessories**

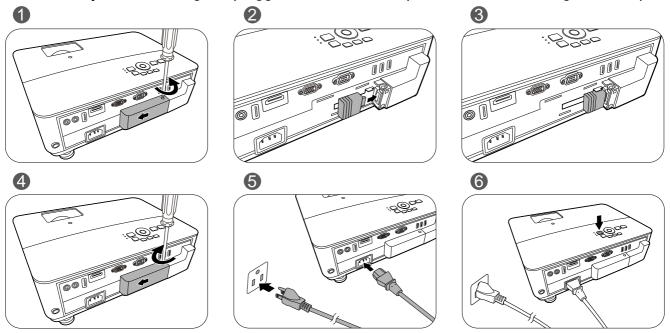
- 1. Spare lamp kit
- 2. 3D glasses

## Replacing the remote control batteries

- 1. Press and open the battery cover, as illustrated.
- 2. Remove the old batteries (if applicable) and install two AAA batteries. Make sure that the positive and negative ends are positioned correctly, as illustrated.
- 3. Replace the battery cover until it clicks into place.
- Avoid leaving the remote control and batteries in an excessive heat or humid environment like the kitchen, bathroom, sauna, sunroom or in a closed car.
- Replace only with the same or equivalent type recommended by the battery manufacturer.
- Dispose of the used batteries according to the manufacturer's instructions and local environment regulations for your region.
- Never throw the batteries into a fire. There may be danger of an explosion.
- If the batteries are dead or if you will not be using the remote control for an extended period of time, remove the batteries to avoid damage to the remote control from possible battery leakage.

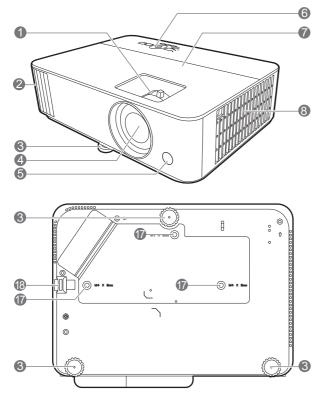
## Installing the wireless dongle

See the illustrations below to install the dongle. Make sure that the dongle cover is installed back correctly after the dongle is plugged. Do not turn the power on with the dongle cover open.

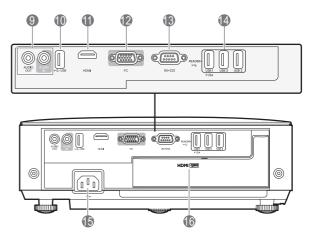


The projector only supports Wi-Fi and/or Bluetooth connections when the wireless dongle (EZC-5201BS) is installed.

# **Projector exterior view**



- 1. Focus ring and zoom ring
- 2. Vent (air exhaust)
- 3. Adjuster feet
- 4. Projection lens
- 5. IR remote sensor
- External control panel (See Controls and functions on page 10.)
- 7. Lamp cover
- 8. Vent (air inlet)
- 9. Audio input jacks Audio output jack



- 10. USB Type A port (service only)
- 11. HDMI input port
- 12. RGB (PC) signal input jack
- 13. RS-232 control port
- 14. USB Type A ports
- 15. AC power jack
- 16. USB Type A port (for wireless dongle)
- 17. Wall mount holes
- 18. Security bar

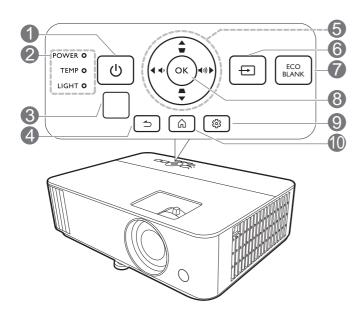
# **Controls and functions**

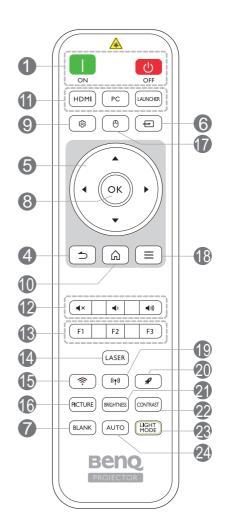
# Projector & Remote control



• All the key presses described in this document are available on the remote control or projector.

• The remote control is without laser pointer in Japan.





No.		When the input source isWhen the input source isBenQ LauncherNOT BenQ Launcher		
1.		Toggles the projector between standby mode and on.		
	🚺 ON/ 🙆 Off			
2.	POWER indicator	(See Indicators on page 94.)		
	light/TEMPerature warning			
	light/LAMP indicator light			
3.	IR remote sensor			
4.	́ (BACK)	Returns to the previous menu, main settings menu or exit the app.	Goes back to previous OSD menu or exits menu settings.	

No.		When the input source is <b>BenQ Launcher</b>	When the input source is NOT <b>BenQ Launcher</b>
5.	Arrow keys (▲, ▼, ◀, ►)	Moves through the menu items or toggle through the available options.	When the On-Screen Display (OSD) menu is activated, these keys are used as directional arrows to select the desired menu items and to make adjustments.
	Keystone keys ( $ riangle$ , $ riangle$ )	(Not available.)	Displays the keystone correction page.
	Volume keys ◀᠈/ ◀୬)	(Not available.)	Decreases or increase the projector volume.
6.		Displays the source selection	n bar.
7.	ECO BLANK, BLANK	Used to hide the screen picture.	
		Do not block the projection lens from projecting as this concluse the blocking object to become heated and deformed even cause a fire.	
8.	OK	Confirms the selected menu item.	Confirms the selected On-Screen Display (OSD) menu item. Turns on or off the
9.	ঞ (MENU)	Enters the <b>Settings</b> menu.	projector's On-Screen Display (OSD) menu.
10.	☆ (HOME)	Returns to the home screen.	(Not available.)
11.	Source selection buttons: HDMI, PC, LAUNCHER	Selects an input source for d	isplay.
12.	<b>▲</b> ×	Toggles projector audio between on and off.	
		Decreases the projector volu	me.
		Increase the projector volum	
13.		Customizes buttons, the default settings allow you to access Wireless Projection (F1) / Video Conference (F2) / File Manager (F3).	(Not available.)
14.	LASER		ht for presentation purposes.
15.	奈 (WiFi)	Enters the <b>Internet</b> menu in <b>Settings</b> .	(Not available.)
16.	PICTURE	Selects an available picture r	node.
17.	🖰 (Cursor)	Activates the cursor function.	(Not available.)
18.	<b>Ξ (Android menu)</b>	Goes to the <b>Settings</b> menu. If app related settings can be called from within the app.	(Not available.)
19.	(۱۳) (Hotspot)	Enters the <b>Hotspot</b> menu in <b>Settings</b> .	(Not available.)

No.		When the input source is <b>BenQ Launcher</b>	When the input source is NOT <b>BenQ Launcher</b>	
20.	ℋ (Clear memory)	Goes into one key speedup (one key empty) mode.	(Not available.)	
21.	BRIGHTNESS	Adjusts brightness.		
22.	CONTRAST	Adjusts contrast.		
23.	LIGHT MODE	Displays the <b>Light Mode</b> menu for selecting a suitable lamp operating mode.		
24.	Αυτο	(Not available.)	Automatically determines the best picture timings for the displayed image when PC signal (analog RGB) is selected.	

#### Operating the LASER pointer

The Laser Pointer is a presentation aid for professionals. It emits red colored light when you press it. The laser beam is visible. It is necessary to press and hold **LASER** for continuous output.

The laser pointer is not a toy. Parents should be mindful of the dangers of laser energy and keep this remote control out of the reach of children.



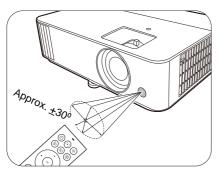
Do not look into the laser light window or shine the laser light beam on yourself or others. See the warning messages on the back of the remote control prior to using it.

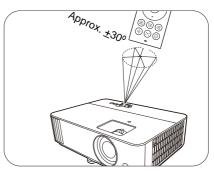
## Remote control effective range

The remote control must be held at an angle within 30 degrees perpendicular to the projector's IR remote control sensor(s) to function correctly. The distance between the remote control and the sensor(s) should not exceed 8 meters (~ 26 feet).

Make sure that there are no obstacles between the remote control and the IR sensor(s) on the projector that might obstruct the infra-red beam.

- Operating the projector from the front
- Operating the projector from the top





# Positioning your projector

# Choosing a location

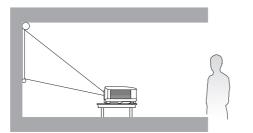
Before choosing an installation location for your projector, take the following factors into consideration:

- Size and position of your screen
- Electrical outlet location
- · Location and distance between the projector and the rest of your equipment

You can install your projector in the following ways.

#### 1. Front Table

Select this location with the projector placed on the table in front of the screen. This is the most common way to position the projector for quick setup and portability.



Select this location with the projector placed

on the table behind the screen. Note that a

special rear projection screen is required.

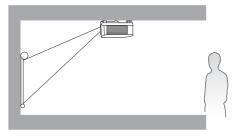
#### 3. Front Ceiling

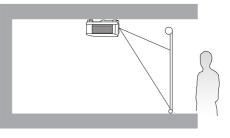
Select this location with the projector suspended upside-down in front of the screen. Purchase the BenQ Projector Ceiling/Wall Mount Kit from your dealer to mount your projector.

#### 4. Rear Ceiling

2. Rear Table

Select this location with the projector suspended upside-down from behind the screen. Note that a special rear projection screen and the BenQ Projector Ceiling/Wall Mount Kit are required for this installation location.





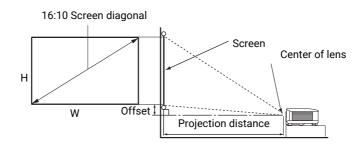
After turning on the projector, go to **Advanced Menu - Settings** > **Projector Installation** > **Projector Installation** and press  $\triangleleft/\triangleright$  to select a setting.

#### Positioning your projector 13

# Obtaining a preferred projected image size

The distance from the projector lens to the screen, the zoom setting (if available), and the video format each factors in the projected image size.

# **Projection dimensions**



#### • The screen aspect ratio is 16:10 and the projected picture is in a 16:10 aspect ratio

Screen size			Proje	ction distance	(mm)		
Diagonal		H (mm)	W (mm)	Min distance	Average	Max distance	Offset (mm)
Inch	mm		<b>vv</b> (11111)	(max. zoom)	Average	(min. zoom)	
60	1524	808	1292	1163	1279	1396	0
70	1778	942	1508	1357	1493	1628	0
80	2032	1077	1723	1551	1706	1861	0
90	2286	1212	1939	1745	1919	2094	0
100	2540	1346	2154	1939	2132	2326	0
110	2794	1481	2369	2132	2346	2559	0
120	3048	1615	2585	2326	2559	2791	0
130	3302	1750	2800	2520	2772	3024	0
140	3556	1885	3015	2714	2985	3257	0
150	3810	2019	3231	2908	3199	3489	0
160	4064	2154	3446	3102	3412	3722	0
170	4318	2289	3662	3295	3625	3955	0
180	4572	2423	3877	3489	3838	4187	0
190	4826	2558	4092	3683	4052	4420	0
200	5080	2692	4308	3877	4265	4652	0

For example, if you are using a 120-inch screen, the recommended projection distance is 2559 mm.

If your measured projection distance is 3200 mm, the closest match in the "Projection distance (mm)" column is 3199 mm. Looking across this row shows that a 150" (about 3.8 m) screen is required.

P B

All measurements are approximate and may vary from the actual sizes.

BenQ recommends that if you intend to permanently install the projector, you should physically test the projection size and distance using the actual projector in situ before you permanently install it, so as to make allowance for this projector's optical characteristics. This will help you determine the exact mounting position so that it best suits your installation location.

# Mounting the projector

If you intend to mount your projector, we strongly recommend that you use a proper fitting BenQ projector mounting kit and that you ensure it is securely and safely installed.

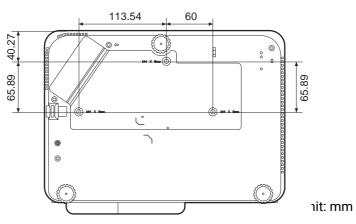
If you use a non-BenQ brand projector mounting kit, there is a safety risk that the projector may fall down due to an improper attachment through the use of the wrong gauge or length screws.

# Before mounting the projector

- Purchase a BenQ projector mounting kit from the place you purchased your BenQ projector.
- BenQ recommends that you also purchase a separate Kensington lock compatible security cable and attach it securely to both the Kensington lock slot on the projector and the base of the mounting bracket. This will perform the secondary role of restraining the projector should its attachment to the mounting bracket become loose.
- Ask your dealer to install the projector for you. Installing the projector on your own may cause it to fall and result in injury.
- Take necessary procedures to prevent the projector from falling off such as during an earthquake.
- The warranty doesn't cover any product damage caused by mounting the projector with a non-BenQ brand projector mounting kit.
- Consider the surrounding temperature where the projector is ceiling/wall mounted. If a heater is used, the temperature around the ceiling/wall may be higher than expected.
- Read the user manual for the mounting kit about the range of torque. Tightening with torque exceeding the recommended range may cause damage to the projector and subsequently falling off.
- Make sure the power outlet is at an accessible height so that you can easily shut down the projector.

# Ceiling/Wall mount installation diagram

Ceiling/Wall mount screw: M4 (Max L = 25 mm; Min L = 20 mm)

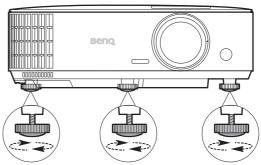


# Adjusting the projected image

# Adjusting the projection angle

If the projector is not placed on a flat surface or the screen and the projector are not perpendicular to each other, the projected image becomes trapezoidal. You can screw the adjuster feet to fine-tune the horizontal angle.

To retract the feet, screw the adjuster feet in a reverse direction.

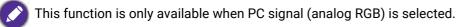


Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes.

# Auto-adjusting the image

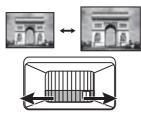
In some cases, you may need to optimize the picture quality. To do this, press **AUTO**. Within 3 seconds, the built-in Intelligent Auto Adjustment function will re-adjust the values of Frequency and Clock to provide the best picture quality.

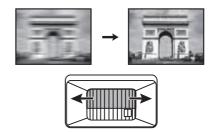
The current source information will be displayed in the corner of the screen for 3 seconds.



# Fine-tuning the image size and clarity

Adjust the projected image to the size that you Sharpen the image by rotating the focus ring. need using the zoom ring.





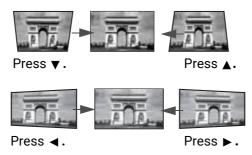
# Correcting keystone

Keystoning refers to the situation where the projected image becomes a trapezoid due to angled projection.

To correct this, besides adjusting the height of the projector, if you want the projector to automatically correct image keystoning, be sure the **Auto Vertical Keystone** function in the **Advanced Menu - Display** menu is **On**.

- 1. Do one of the following steps to display the keystone correction page.
  - Press  $\Box / \Box$  on the projector or remote control.
  - Go to Advanced Menu Display > 2D Keystone and press OK.

After the 2D Keystone correction page displays. To correct keystoning at the top of the image, use ▼. To correct keystoning at the bottom of the image, use ▲. To correct keystoning at the right side of the image, use ◄. To correct keystoning at the left side of the image, use ►.



# Adjusting Corner Fit

You can manually adjust four corners of the image by setting the horizontal and vertical values.

- 1. Go to Advanced menu Display > Corner Fit and press OK.
- 2. Press  $\blacktriangle/ \checkmark / \checkmark / \checkmark$  to select one corner and press **OK**.
- 3. Press  $\blacktriangle/ \lor$  to adjust vertical values.
- 4. Press  $\triangleleft/\triangleright$  to adjust horizontal values.



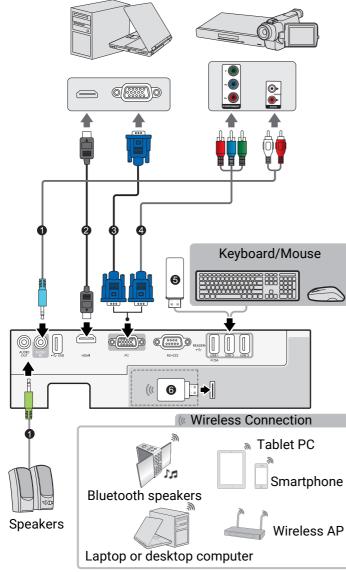
# Connection

When connecting a signal source to the projector, be sure to:

- 1. Turn all equipment off before making any connections.
- 2. Use the correct signal cables for each source.
- 3. Ensure the cables are firmly inserted.

Laptop or desktop computer

A/V device



1	Audio cable	
2	HDMI cableVGA to DVI-A cable	
3	VGA cable	
4	Component Video to VGA (D-Sub) adapter cable	
5	USB flash drive	
6	Wireless dongle	

- In the connections above, some cables may not be included with the projector (see Shipping contents on page 7). They are commercially available from electronics stores.
- The connection illustrations are for reference only. The rear connecting jacks available on the projector vary with each projector model.
- Many notebooks do not turn on their external video ports when connected to a projector. Usually a key combo like FN + function key with a monitor symbol turns the external display on/off. Press FN and the labeled function key simultaneously. Refer to your notebook's documentation to find your notebook's key combination.
- If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.

You need only connect the projector to a video source device using just one of the connecting methods, however each provides a different level of video quality.

Terminal	Picture quality
HDMI	Best
Component Video (through RGB input)	Better

#### Connecting audio

The projector has built-in mono speaker(s) which are designed to provide basic audio functionality accompanying data presentations for business purposes only. They are not designed for, nor intended for stereo audio reproduction use as might be expected in home theater or home cinema applications. Any stereo audio input (if provided), is mixed into a common mono audio output through the projector speaker(s).

The built-in speaker(s) will be muted when the AUDIO OUT jack is connected.



• The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected.

• If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.

#### 20 Starting up the projector

# Starting up the projector

- 1. Plug the power cord. Turn on the power outlet switch (where fitted). The power indicator on the projector lights orange after power has been applied.
- 2. Press () on the projector or () on the remote control to start the projector. The power indicator flashes green and stays green when the projector is on.

The start up procedure takes about 30 seconds. In the later stage of start up, a startup logo is projected.

(If necessary) Rotate the focus ring to adjust the image clearness.

- Please use the original accessories (e.g. power cord) to avoid possible dangers such as electric shock and fire.
- If the projector is still hot from previous activity, it will run the cooling fan for approximately 90 seconds before energizing the lamp.
- 3. If this is the first time you turn on the projector, the setup wizard appears to guide you through setting up the projector. If you have already done this, skip this process.
  - Use the arrow keys  $(\blacktriangle, \triangledown, \triangleleft, \blacktriangleright)$  to move through the menu items.
  - Use **OK** to confirm the selected menu item.
  - Use the back button  $\supset$  to return to the previous menu.
  - Use the menu button  $\equiv$  to skip a menu.

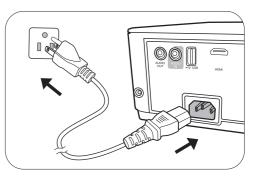
The Setup Wizard screenshots are for reference only and may differ from the actual design.

#### Step 1:

Choosing a **Projector Position**.



Step 2:



#### Choosing a Language.

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		alat fin priotific remain alat 10.7% (100-1000)		
<b>√Bijish</b>	2002	паре	Hivatski	
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Deutsch	B#\$.	Pertugues		
mailano	<b>B</b> 49	Time	Densk	
Escudei	Detmoke	Polaki	Enviropeire .	
Руссини	Nederlands	Magyar		
to liet			OK Continued	

Available languages may vary by the product supplied for your region and may be updated without prior notice.

#### Step 3: Adjusting **Keystone**.



#### Step 4:

Configure the **Wireless Setting** by selecting a wireless network and entering the password.

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LDC9527	(r
EH620 LAB	≙ 👳
Diplini's Plone	6 ⇒
Seriene	<b>a</b> 👘

#### Step 5:

#### Specify Time Zone.

	Time Zone	
GMT+0 (GMT - Dreenwich Mee	n Time)	
GMT+1 (DET: Central Europea	n Time)	
GMT+2 (EET - Eastern Europea	n Time)	
DMT+3 (MSK - Moyonw Time)		
EMT+# (AMT - Armenia Time)		
GMT+S (PKT Pakistan Standa	ed Timei	

#### Step 6:

Read the **Privacy Announcement** and press **OK** to agree with the statement.

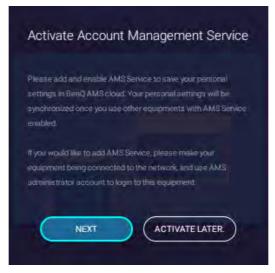
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for partners with respe- are index 5. From there are index of the from there personally about the sec- bard watches sportners for same with the second sec- tor same with the second second the assert's the second second second second second second at an indext private to to same results you must	For you have a logit to screen what type of whitesensore are rease context, when you retract with us and the functionaria. The analysis in contained from again long in the third analysis. Screen which exceeds and the functionarias. The analysis is the contained from again long in the third analysis and an exceeds the functionarias. The analysis is the contained from again long in the long is the contained from again long in the long is the contained from again long in the long is the contained from again long in the long is the long is the long in the long is t
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If at a future time you want to remove your consent to the privacy agreement, you may do so in the **General > About > Privacy Announcement** menu of the **BenQ Launcher Settings** menu. See About on page 66 for more information.

Once you've completed the steps shown above; the projector will ask whether you want to enable the AMS function.

If you are not prompted to enable AMS function, you are recommended to upgrade the firmware to optimize the user experience. See Checking for system update on page 32 for details.



Now you have three ways to work with this projector. Different operations are required depending on your needs.

Scenarios	Available functions	Operations
	The complete <b>BenQ</b> Launcher functions:	
	<ul> <li>AMS service (page 25)</li> </ul>	
Access <b>BenQ</b> <b>Launcher</b> with AMS account	• Wi-Fi connection (page 40)	If you have already successfully registered an
	<ul> <li>Bluetooth connection (page 49)</li> </ul>	administrator account on the AMS website, select <b>NEXT</b> in the pop-up window. See
	<ul> <li>USB storage connection (page 47)</li> </ul>	Binding an AMS administrator account to your projector on page 26, for further instructions.
	• Apps (page 52)	
	<ul> <li>HID connectivity (e.g., mouse and keyboard connection)</li> </ul>	
Access <b>BenQ</b> Launcher without AMS service	All <b>BenQ Launcher</b> functions except AMS service.	If you do not yet have an AMS administrator account, select <b>ACTIVATE LATER</b> in the pop-up window and press <b>OK</b> . The AMS service will be disabled on the projector until you manually enable it via the <b>Settings</b> menu. See Enabling AMS on page 25 for more information on manually enabling the AMS service.
Traditional projector	Wired projection only, without network and HID connectivities	Press the <b>HDMI</b> or <b>PC</b> on the remote control or <b>E</b> ( <b>SOURCE</b> ) and select <b>HDMI</b> or <b>PC/YPbPr</b> .



For more information on how to register for an AMS administrator account, see Before you get started on page 24.

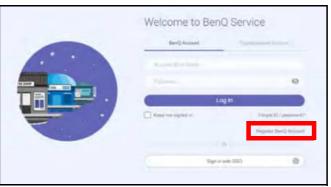
# **Operation (under Launcher source)**

# Before you get started

One of the key features for this projector is its use of the Account Management System (AMS) service which allows you to create and manage individual login accounts for the projector. By using the AMS service you will be able to:

- Customize the projector's workspace for each login
- Access files stored in cloud storage accounts (such as Google Drive, Dropbox, and others) directly from the projector
- Manage authorization for each login, including limiting access to various projector functions.

In order to use the AMS service it is highly recommended that you first register for an AMS administrator account before you begin the initial start-up process for the projector. To register for an AMS account open the BenQ Service website (https://service-portal.benq.com/login) using a Chrome or Firefox browser, click the **Register BenQ Account** link, and proceed with the registration process.



For a full description of the features of the AMS service, including instructions on how to setup and manage accounts, refer to the **AMS User Manual** which you can download at the following URL: https://www.benq.com/en-us/business/index.html > your Projector Model > **Downloads** > **User Manual**.

The images in this document are for reference only. The user interface may be subject to change without prior notice.

# The AMS Service

As mentioned previously, the AMS service is a key feature of this projector that allows you to customize the projector's workspace, access files stored in cloud storage accounts directly from the projector, and manage access to various projector functions based on a user's login.

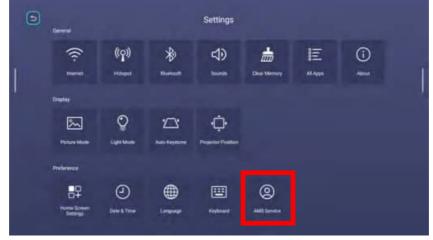
For a full description of the features of the AMS service, including instructions on how to setup and manage accounts, refer to the **AMS User Manual** which you can download at the following URL: https://www.benq.com/en-us/business/index.html > your Projector Model > **Downloads** > **User Manual**.

# Enabling AMS

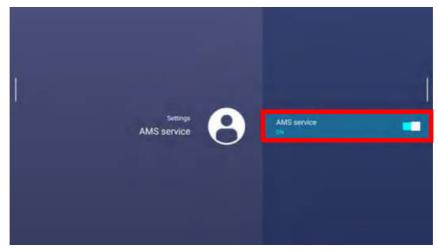
If the AMS service was not enabled in the setup wizard procedure during your initial startup, you will have to manually enable AMS. To manually enable AMS:

- 1. Ensure that you have already created an AMS administrator account. See Before you get started on page 24 for more information on registering for an AMS administrator account.
- 2. Choose one of the following methods:
  - Select the AMS profile icon on the **BenQ Launcher** home screen and press **OK**.
  - Select the **Settings** menu button on the **BenQ Launcher** home screen, and press **OK**. Then select **AMS Service** in the **Preference** section of the **Settings** menu and press **OK**.





3. In the AMS Service screen press OK so that the AMS Service switch is set to On.



Once the AMS function is enabled on your projector, you must bind your AMS administrator account to the projector before you can utilize the AMS service.

## Binding an AMS administrator account to your projector

Once you have enabled the AMS function, the next step is to bind an AMS administrator account to your projector so as to designate a specific administrator for your projector (i.e. to ensure that only one administrator is authorized to manage the projector).



Before binding an administrator account to your projector, you must first ensure that the following conditions are met for your projector:

- You have successfully registered for an AMS administrator account. See Before you get started on page 24 for more information on registering for an AMS administrator account.
- Your projector is connected to a wireless network with Internet access. See Connecting the projector to a wireless network on page 40 for more information on connecting to a wireless network.
- AMS Service is enabled for your projector. See Enabling AMS on page 25 for more information on enabling AMS Service.

After enabling the AMS function, an **Enable AMS Service** window will pop-up, use one of the following ways to bind an administrator account to your projector:

• Scan the QR code shown in the pop-up window with a mobile device connected to the Internet. Then from the mobile device, enter the account ID/E-mail and password for your AMS administrator account and select **Log in**.



• Select the keyboard icon at the bottom right corner of the pop-up window. Then enter the **Username** and **Password** for your AMS administrator account, select **Login** and press **OK**.



• If you do not want to bind an account to the projector select Cancel and press OK.

Once you have submitted your administrator account's login information, a message will appear indicating that you have successfully bound your administrator account to the projector. To double check whether the binding process is successful, you can check the **Device information** menu in the AMS service account menu, see The Account Menu on page 29 for more information.

## **AMS Accounts**

Once your AMS administrator account has been successfully bound to the projector, users can login to an account before they use the projector and depending on the type of account they are using and the settings configured for the account, they will be able to use customized interfaces and designated features, as well as access personal cloud storage.

The following is a list of the types of logins available for the projector:

<u>Administrator</u> – This account must be created/registered via the AMS website and includes full access to the projector's features and **Settings** menus.

<u>User</u> – This account must be created by the administrator via the AMS website and is allowed access to the projector's features and **Settings** menus based on default authorizations and configurations set by the administrator. Users can customize the interface they view on the projector, such as configuring the app shortcuts or linking to personal cloud accounts, by logging into the AMS website and adjusting their preferences.

<u>Guest</u> – This is the default setting when no account has been logged into the projector. It features limited access to the projector's features and **Settings** menus.

## Logging in



Before logging in on your projector, you must first ensure that the following conditions are met for your projector:

- Your projector is connected to a wireless network with Internet access. See Connecting the projector to a wireless network on page 40 for more information on connecting to a wireless network.
- AMS Service is enabled for your projector. See Enabling AMS on page 25 for more information on enabling AMS Service.

To log in to the projector using an AMS account, select the AMS Icon on the bottom-left corner of the **BenQ Launcher** home screen and press **OK**.



Use either one of the following methods to complete the login process:

• Enter the **Username** and **Password** for your AMS account in the **Login** window, and then select **Login** and press **OK**.



• Select **Login with QR Code** in the **Login** window and press **OK**. Scan the QR code that appears with your mobile device and open the link provided to log in via your mobile device.



- You can select **Recent users** in the **Log in** window and press **OK** to select a **Username** from a list of a recently used logins.
- If your projector is not connected to a wireless network with Internet access, only accounts that are listed in the **Available offline accounts** list of the administrator's account menu will be able to login to AMS. See The Account Menu on page 29, for more information on the account menu.

#### The Account Menu

When you are logged into the projector using an AMS account, the bottom-left corner of the **BenQ Launcher** home screen will identify the account that is currently logged in. Select the icon for the account name and press **OK** to open a menu of account related options.



The account menu features the following options:

Network drive	>
Personal settings	>
AMS service	
Available offline accounts	>
Device information	>

Item	Description
Network drive	Opens your personal files via the <b>AMS Files</b> pop-up window, where you can access files stored on the cloud storage account that you've linked to your AMS account, the projector's internal storage, and/or a USB flash drive connected to the <b>USB-1</b> , <b>USB-2</b> , or <b>USB-3</b> port. See AMS Files on page 52 for more information of the features of the <b>AMS Files</b> app.
Personal settings	Allows you to set the amount of idle time before the projector automatically logs you out. The options include <b>10 minutes</b> , <b>20</b> <b>minutes</b> , <b>30 minutes</b> , <b>40 minutes</b> , <b>50 minutes</b> , and <b>60 minutes</b> .
AMS service	Allows you to disable <b>AMS Service</b> .
Available offline accounts	Lists the accounts that are available to login when the projector does not have access to the Internet.
Device information	Lists the information for the administrator account that is bound to the projector, including an option to <b>UNBIND</b> the account from your projector. The <b>UNBIND</b> option only appears for the administrator.
LOGOUT	Logs your account out of the projector.

## Unbinding an administrator account from the projector

In instances when you want to switch an administrator account for the projector, you will have to first unbind the current administrator account from the projector.

To unbind an administrator account:

- 1. Log in on the projector using the **Username** and **Password** for the current administrator. See Logging in on page 28 for more information on how to log in on the projector.
- 2. Enter the account menu. See The Account Menu on page 29 for more information on the account menu.
- 3. Select Device information in the account menu and press OK.

BU_ADMIN	>
Personal settings	>
AMS service	
Available offline accounts	>
Device information	>
LOGOUT	

4. Select UNBIND and press OK.



# Checking for system update

It is suggested that users regularly update their projector with the latest version of the firmware to optimize the user experience. The projector uses Over-the-Air (OTA) updates to install the update file wirelessly.

When a new version is available on the BenQ OTA server, a message will pop up once the projector is connected to a wireless network. You can find the availability of a new firmware version from the notification icon on the lower-part of the **BenQ Launcher** home screen.



Follow the steps below to begin updating the firmware:

1. Select **DOWNLOAD** to download the update file.



2. Once the download is completed, the projector will restart automatically. Do not turn off or unplug the projector before the projector is finished updating and **BenQ Launcher** reappears on the screen.



# **BenQ Launcher**

BenQ Launcher is the projector's operating system that allows you to wirelessly cast your device's screen, create video conferences, play files, run apps, as well as adjust projector settings.



Use the buttons on the projector, the remote control, or connect a USB mouse to the projector's **USB-1**, **USB-2**, or **USB-3** ports to navigate **BenQ Launcher** and operate its functions.

# The BenQ Launcher home screen

Upon initial start up or when **BenQ Launcher** is selected in the input source menu, the projector will display **BenQ Launcher**. If the projector is projecting from an input source (e.g. **HDMI** or **PC**), you can return to **BenQ Launcher** mode by pressing the source button model or the **LAUNCHER** button on the remote control and then selecting **BenQ Launcher** in the input source menu.



When the **Auto Source Search** function is enabled in the **Settings** menu of the projector's OSD menu, the projector will display the **BenQ Launcher** home screen by default every time it is powered on. If the **Auto Source Search** function is disabled, the projector will detect if a signal is available from the input source that was last used and switch to that input source if it is available, if a signal is not available or the projector was set to **BenQ Launcher** during the previous session, the projector will enter the **BenQ Launcher** home screen. See Switching input signal on page 74.



Actual screen may vary based on your **BenQ Launcher** firmware version.

#### The **BenQ Launcher** home screen features eight main components:

No.	Component	Description
1	Status Bar	Icons that display the date/time, device name, and wireless status.
2	Sidebar	A menu of quick navigation buttons. See Using the sidebar on page 38 for more information regarding the sidebar buttons.
3	Main Menu	Shortcuts to the wireless projection, video conferencing, and file manager apps. See Using the Main Menu on page 35 for more information.
4	App Shortcuts	A customizable list of shortcuts for installed apps. See Using the App Shortcuts on page 36 for more information regarding the app shortcuts. No app shortcuts appear on the default home screen. To add app shortcuts to the home screen, use either the <b>Home Screen Settings</b> sub-menu in the <b>Settings</b> menu or the AMS website. See Home Screen Settings on page 68 or refer to the <b>AMS User</b> <b>Manual</b> which you can download at the following URL: https://www.benq.com/en-us/business/index.html > your Projector Model > <b>Downloads &gt; User Manual</b> .
5	Toolbar	Buttons for the input source, all apps, and <b>Settings</b> menu. See Using the Toolbar on page 37 for more information regarding the toolbar.
6	AMS Service Menu	Allows you to log into the projector using your AMS Service account. See The AMS Service on page 25 for more information regarding the AMS Service.
7	Notifications	Indicates when any push notifications from your installed apps are available. See Notifications on page 39 for more information regarding notifications.
8	Eject	Safely ejects any USB flash drives connected to the <b>USB-1</b> , <b>USB-2</b> , and/or <b>USB-3</b> ports.

#### Navigating the BenQ Launcher home screen

- 1. From the **BenQ Launcher** home screen, press ▲/▼/◀/► to select the desired function and press **OK**.
- 2. Follow on-screen instructions for further operations.

#### Inputting text

Various menus within **BenQ Launcher** may require that you input text. You may either connect a keyboard to the **USB-1**, **USB-2**, or **USB-3** port at the rear of the projector or follow the steps below:

- 1. Select the text field where you want to input text.
- 2. Press **OK** and a full alphanumeric keyboard will appear on screen.

- 3. Press ▲/▼/◀/► to navigate the keyboard, and press **OK** to select the letter/key/symbol you want to enter into the text field.
- 4. Press the back button  $\bigcirc$  at anytime to exit out of the keyboard.



Actual keyboard types may vary based on your language preference setting. See Keyboard on page 70 for more information.

#### Using the Main Menu

The Main Menu includes buttons to access the following functions:

- Wireless Projection Launches BenQ's InstaShare2 app for wireless projection. Instructions on projecting from your iOS, Android, or Windows device will appear once the app is launched. See Wireless Projection via the InstaShare2 app on page 43 for more details on projecting wirelessly.
- Video Conference Launches the TeamViewer Meeting app which allows you to create an online video conference.
- File Manager -Launches the AMS Files app to access files stored in the projector's cloud drives linked to the logged in AMS account, USB flash drives connected to the USB-1, USB-2, or USB-3 port, and/or the projector's internal storage. See AMS Files on page 52 for more details.



## Using the App Shortcuts

The App Shortcuts menu is a list of shortcuts for installed apps which can be customized by the user via either the **Home Screen Settings** sub-menu in the **Settings** menu or the AMS service website for AMS login accounts. See Home Screen Settings on page 68 for details on customizing the app shortcuts menu via the **Home Screen Settings** sub-menu, or refer to the **AMS User Manual** which you can download at the following URL:

https://www.benq.com/en-us/business/index.html > your Projector Model > **Downloads** > **User Manual**.



- If **AMS Service** is disabled on the projector, the list of app shortcuts can only be customized via the **Home Screen Settings** sub-menu, and the selected shortcuts will appear on the home screen at all times.
- If **AMS Service** is enabled on the projector, only the list of app shortcuts that are customized for the AMS account that is logged in will appear.



To access all the apps installed on the projector, see All Apps on page 65. For details on how to re-order the shortcuts see Home Screen Settings on page 68.

#### Using the Toolbar

The tool bar features buttons to access the input source menu, the all apps menu, and the **Settings** menu.



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Button	Description
	Select to open the input source menu.
	Select to open the all apps menu. See All Apps on page 65 for more details on the all apps menu.
<b>Q</b>	Select to open the <b>Settings</b> menu. See About the Settings menu on page 60 for more information on the <b>Settings</b> menus

#### The Input Source menu

The input source menu displays the input source options: **USB** (for storage devices connected to the **USB-1**, **USB-2**, or **USB-3** port), **HDMI**, or **VGA**. Select the desired input source and press **OK** to begin viewing video from that source. See Connection on page 18 for more information on connecting input sources.



#### Using the sidebar

For situations where the projector is out of the reach of the user (for example, when the projector is mounted on the ceiling) and as a result the buttons on the projector are not accessible, **BenQ Launcher** features sidebars on both the left and right side of the screen that can be called out at anytime using a USB mouse to access a set of virtual buttons. To call out the sidebar on a screen, click the tabs on the left or right side of the screen.



An HID-protocol device (e.g. a mouse) must be connected to the projector to be able to use the side bar.



The following buttons are included in the sidebar:

lcon	Description
¢3	Select to return to the <b>BenQ Launcher</b> home screen.
Ĵ	Select to go back to the previous screen.
49	Select to open the volume control menu.
·9	Select to edit the recently used apps menu.
CT1	Select to open the input source menu

At the bottom of the sidebar there will also be up to three shortcuts to the most recently used apps.

#### Notifications

The notification button indicates when you have a push notification for one of the apps installed on the projector.



When the notification button features a red dot, select the button and press **OK** to view the message.

Popup Messages	
BenQ User Dashboard New Analysis Data	Ŷ
Notification 0712 Welcome to BenQ	×
AMS Files	~
AMS Files	~

In the Notification menu

- Select an app and press **OK** to view its notification. Press **OK** again to view the full notification in the **Notification** app. See Notification on page 57 for more details.
- Select **Popup Message** and press **OK** to turn off push notifications on the home screen.
- Select **CLEAR ALL** to remove all the notifications in the menu.

## Switching to BenQ Launcher from an input source

When **HDMI** or **PC** is selected in the source menu, the projector will exit the **BenQ Launcher** interface to project video from the input source (e.g. a Blu-Ray/DVD player, set-top box, or PC). The projector will remain outside of the **BenQ Launcher** interface as long as the **HDMI** or **PC** input source is selected or (depending on **Auto Source Search** settings) until the projector is powered off and back on again.

As a result, anytime the user wants to wirelessly cast their device's screen, view media files stored on a flash drive, or run apps, they must return to the **BenQ Launcher** interface. To return to **BenQ Launcher** use one of the following methods:

- Press the LAUNCHER button on the remote control.
- Press the source button 🕀 and then select **BenQ Launcher** in the source menu.

(a) Bang Launcher	
E PC	

- When the **Auto Source Search** function is enabled in the **Settings** menu of the projector's OSD menu, the projector will display the **BenQ Launcher** home screen by default once it is powered on. If the **Auto Source Search** function is disabled, the projector will detect if a signal is available from the input source that was last used and switch to that input source if it is available, if a signal is not available or the projector was set to **BenQ Launcher** during the previous session, the projector will enter the **BenQ Launcher** home screen. See Settings on page 86.
  - The **Auto Source Search** function can only be configured when the projector's input source is set to **HDMI** or **PC**.

## Wireless Connections

#### Connecting the projector to a wireless network

Before you can project wirelessly via the projector, you must first connect the projector to a wireless network. To connect your projector to a wireless network, or to switch wireless networks:



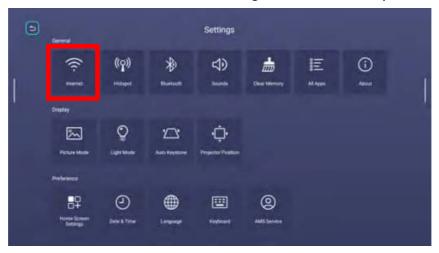
If you have already connected the projector to a wireless network during the setup wizard you may skip the steps in this section.

- 1. Install the provided wireless dongle into the wireless dongle port (see Installing the wireless dongle on page 8).
- 2. Power on the projector (see Starting up the projector on page 20).

3. On the home screen of the **BenQ Launcher** interface select the **Settings** button and press **OK**.



4. Select Internet in the General section of the Settings menu and then press OK.



5. Select WiFi Settings and press OK to enable Wi-Fi.

Settings Internet  Settings Detect connection speed	⇒ Settings		
	1		
		Internet $\widehat{\widehat{\baselines}}$	WiFi Settings
Diagnosis			Diagnosis
Add Network			Add Network

6. Select the SSID for the wireless AP you want to connect to in the **Available Networks** field and press **OK**.



• To connect to a hidden wireless network select **Add Network** and enter the SSID, security setting, and password for the network.

• The list of available wireless networks will be refreshed every 30 seconds. If the desired SSID is not listed please wait for refreshing to complete.

7. If you chose a secured SSID for the first time, a window appears prompting you to enter the appropriate password. Use the virtual keypad to enter the password. After you have entered the password, press **OK** and the projector will automatically connect.

• The password will be stored in the projector's memory. In the future, if you select the same SSID again, you will not be prompted to enter a password unless you delete the SSID from the projector's memory.

- If the password is typed incorrectly, you can select either re-enter the password or press the back button to return to the list of SSIDs.
- 8. Once you have successfully connected to the wireless AP, a wireless connection icon will appear at the status bar of the **BenQ Launcher** interface. You can now connect your devices wirelessly to the projector to cast your device's screen.



If you prefer to rename your projector, you can do so from the InstaShare2 app's settings menu.



#### Wireless Projection via the InstaShare2 app

Before a mobile device can project wirelessly on the projector, the device must first download and install the **InstaShare2** app from their respective app marketplace.

Once the device has installed the **InstaShare2**, select **Wireless Projection** on the home screen of the **BenQ Launcher** interface and then press **OK**.



Before wirelessly projecting on your projector, you must first ensure that your projector is connected to a wireless network with Internet access. See Connecting the projector to a wireless network on page 40 for more information on connecting to a wireless network.



The projector will launch the **InstaShare2** wireless projection app. Select the type of device you want to project wirelessly on the **InstaShare2** main page and then follow the on-screen instructions to begin projecting.



The quality of the wireless projection may depend on the quality of the wireless signal along with the screen mirroring compatibility of the mobile device.

For more information on the **InstaShare2** wireless projection app, refer to the **InstaShare2** user guide which you can download at the following URL:

https://www.benq.com/en-us/business/projector/instashare-2.html.

#### YouTube Broadcast

To connect a mobile device to the projector and broadcast your device's YouTube screen:

- 1. Make sure your projector and the mobile device are connected to the same wireless AP. To connect your projector to a wireless network, see Connecting the projector to a wireless network on page 40.
- 2. Launch the YouTube app on your mobile device.
- 3. On the upper-right corner of your YouTube screen, click the 🔝 icon.
- 4. A list of available devices is displayed. Choose to connect to your projector. The YouTube screen is casting to your projector. Note that options and procedures may vary by app version or OS version. Follow the on-screen instructions to select your projector to cast.
- 5. To end the connection / broadcasting, click the 🔝 icon on the upper-right corner of your device's YouTube screen.

#### Wireless Hotspot

In situations where the projector is out-of-range of a wireless network (for example while on a camping trip), you can configure the projector to act as a wireless hotspot to create a closed network for devices to connect directly to the projector via a wireless connection and to project files from their local storage.



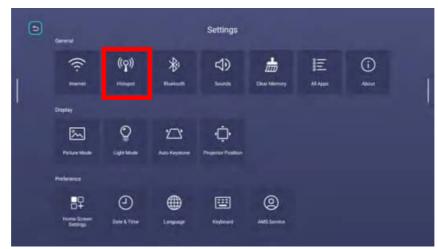
The projector will have no access to the Internet while in wireless hotspot mode.

To create a wireless hotspot:

- 1. Install the provided wireless dongle into the wireless dongle port (see Installing the wireless dongle on page 8).
- 2. Power on the projector (see Starting up the projector on page 20).
- 3. On the home screen of the **BenQ Launcher** interface select the **Settings** button and press **OK**.



4. Select Hotspot and press OK.



5. (Optional) Select **Hotspot Name** and/or **Hotspot Password** and press **OK** to change the name and/or password of the wireless hotspot.

⇒ Settings				
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			Hotspot Name and IF Hotspot Password	

You can only change the Hotspot Name and Hotspot Password when Hotspot is disabled.

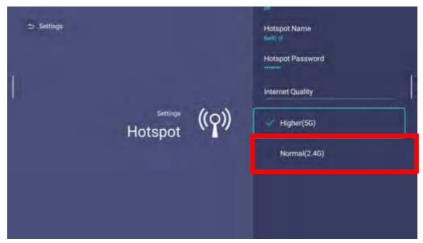
6. Select **Hotspot** and press **OK** to enable wireless hotspot.

🗅 Settings				
I	Settings	സ്ത്ര	Hotspot	
	Hotspot	(( <b>^</b> ))	Show Password	•
			Hotspot Name	
			Hotspot Password	



The projector will have no access to the Internet while in wireless hotspot mode.

- 7. Once wireless hotspot is enabled, use the name shown in the **Hotspot Name** field as the SSID to connect to from your mobile device's wireless menu and use the password entered in the **Hotspot Password** field as the connection password.
- 8. If the wireless hotspot can not be found by your device, select **Normal (2.4G)** under the **Internet Quality** heading.



After the wireless hotspot is set up, follow the corresponding connection instructions described in the previous section to connect to the projector directly and cast your device's screen.

## **External Storage Connections**

#### Connecting a flash drive

Connect a USB-A flash drive to the **USB-1**, **USB-2**, or **USB-3** port at the rear of the projector to play files stored on the flash drive.



• If you want to play media from a flash drive while the projector is set to the **HDMI** or **PC** input source, you must first return to the **BenQ Launcher** interface by pressing the source button ⊕ or the **LAUNCHER** button on the remote control and then selecting **BenQ Launcher**.

- Though each USB port on the projector supports connecting a flash drive the suggested devices to connect for each port is as follows:
   USB-1: Webcam
   USB-2: USB hub-keyboard / mouse
   USB-3: Bluetooth speaker or USB flash drive
- There is a maximum total power consumption limit for the three USB ports. The system will automatically cut off power supply to the USB ports once the power consumption is over 15W. If this happens, remove a device from any of the USB ports to resume power supply. There is no specific port order to be followed.

To play files stored on a flash drive:

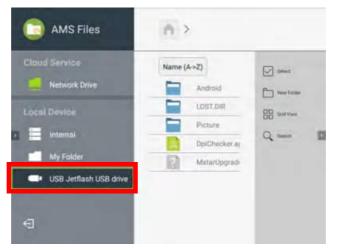
- 1. Connect the USB-A flash drive to the **USB-1**, **USB-2**, or **USB-3** port at the rear of the projector.
- 2. Choose one of the following options:
  - Press the source button 🛨 on the projector or remote control.
  - · Select the source button on the BenQ Launcher home screen and press OK.



3. Select USB in the Source menu and press OK.



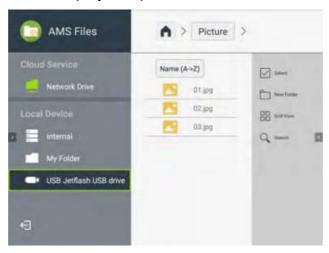
4. The **AMS Files** app will launch. Select the flash drive where the media file you want to play is located in the **Local Device** list and press **OK**.



5. Navigate to the folder where the media file you want to play is located and press **OK**.

C AMS Files	A >		
Cloud Service Network Drive Local Device Local Device My Folder USB Jetflash USB drive	Name (A->Z) Android LOST DBF Picture DpiChecker.a)	Same Same Tanan Hi Gariyan Q	
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6. Select the media file you want to play and press OK.



7. The media file will open in the media player app.

To remove a USB flash drive properly, click 🖳 from the bottom-right corner of the **BenQ Launcher** home screen and select the flash drive from the list. Follow the on-screen instructions to remove.



## **Bluetooth Connections**

When **BenQ Launcher** is selected as the input source, the projector is able to connect to a Bluetooth-enabled speaker or headphones to output audio directly for greater sound, particularly in outdoor settings.



- The projector is only able to output audio via Bluetooth when **BenQ Launcher** is selected as the input source, to output audio to Bluetooth speakers or headphones. For other input sources (**HDMI** or **PC**), connect the Bluetooth speakers or headphones directly to the input source device itself.
- The Bluetooth connection does not support any data transfer as the projector only allows Bluetooth connections for audio output.
- You may not use the projector to broadcast audio from a Bluetooth-enabled mobile device.

#### Pairing/Connecting to a Bluetooth speaker or headphones

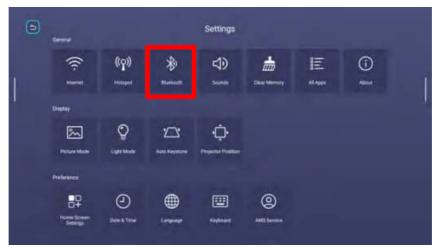
Pairing is the process by which your projector creates a connection to a Bluetooth speaker or headphones for the first time. Once both devices have been successfully paired each device will have the corresponding device's pairing information stored internally and both will be able to connect automatically when they are within an ~5 meter range of each other and Bluetooth is enabled on the projector.

To pair your projector to a Bluetooth speaker or headphones:

- 1. Install the provided wireless dongle into the wireless dongle port (see Installing the wireless dongle on page 8).
- 2. Power on the projector (see Starting up the projector on page 20).
- 3. On the home screen of the **BenQ Launcher** interface select the **Settings** button and press **OK**.



4. Select **Bluetooth** and press **OK**.



5. Select Bluetooth and press OK to enable Bluetooth.

🗅 Settings				
1				1
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			Available Devices 🚥	
			09:00:19:69:0C:F9	O

- 6. Activate Bluetooth-pairing mode on the speaker or headphones.
- 7. Select the speaker or headphones from the **Available Devices** in the **Bluetooth** setting menu and press **OK**.



8. When the projector and speaker or headphones have successfully connected, the device listing in the Bluetooth setting menu will be labeled **Connected**. You can now output the audio from the projector to the speaker or headphone.

Once you have successfully paired your projector with the Bluetooth speaker, pairing information will be stored on both devices and a connection will automatically be made when Bluetooth is enabled on both devices and both devices are within range of each other.



- If you replace the wireless dongle on your projector anytime after you have paired your projector with a Bluetooth device you will need to re-pair your projector to the device in order to create a Bluetooth connection.
- The quality of the Bluetooth transmission may depend on the quality of the Bluetooth signal along with the compatibility of the mobile device.

#### Ending the Bluetooth connection

In cases where you want to disconnect a speaker or headphones from the projector and connect to another speaker or headphones follow the steps below:

- 1. On the home screen of the **BenQ Launcher** interface select the **Settings** button and press **OK**.
- 2. Select **Bluetooth** and press **OK**.
- 3. Select the already connected speaker or headphones from the **My Devices** list in the **Bluetooth** setting menu and press **OK**.
- 4. Confirm that you want to disconnect the speaker or headphones from the projector.
- 5. Activate Bluetooth-pairing mode on the new speaker or headphones.
- 6. Select the new speaker or headphones from the **Available Devices** or **My Devices** list in the **Bluetooth** setting menu and press **OK**.

#### Deactivating the Bluetooth speaker or headphones

To deactivate Bluetooth on the projector so that it no longer outputs its audio to a separate speaker or headphones:

- 1. On the home screen of the **BenQ Launcher** interface select the **Settings** button and press **OK**.
- 2. Select **Bluetooth** and press **OK**.
- 3. Select **Bluetooth** and press **OK** to disable Bluetooth.



## Apps

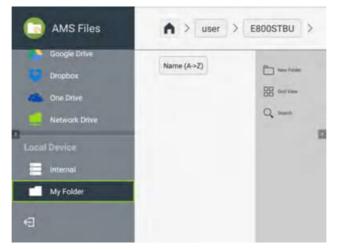
To access all the apps installed on the projector, select the all apps button in the tool bar section of **BenQ Launcher**. Your projector comes pre-installed with the following apps: **AMS Files**, **BenQ App Store**, **BenQ User Dashboard**, **Broadcast Settings**, **DMS Client**, **InstaShare2**, **Notification**, and **WPS Office**.



Certain apps require the use of a mouse and/or keyboard to operate. It is suggested that you connect a mouse and/or keyboard to the projector before opening any apps from the **Shortcut** section.

#### **AMS Files**

The **AMS Files** app allows you to browse, open, and manage files stored on cloud-based storage drives linked to the corresponding AMS login account, the projector's internal storage, or in connected storage devices (e.g. a USB flash drive).



The main menu classifies storage types into three categories:

**Cloud Service** - Allows you to access files stored on cloud-based storage services (e.g. Google Drive, Dropbox, One Drive, etc.) linked to your AMS login account.



• To access cloud-based files your projector must be connected to a wireless network with Internet access and logged in using an AMS account which has a cloud service linked to it. See Linking a cloud storage drive to your AMS login on page 53 for more details.

• A link icon a next to **Google Drive**, **Dropbox**, or **One Drive** in the **AMS Files** menu indicates that the corresponding cloud storage account has been bound to the current AMS login account.

**Network Drive** - Allows you to access files stored on a network-based storage space (e.g. a server). In order to link to the network drive you must first obtain information for the server including domain name, IP address, and login information and enter it into the **Network Drive** menu.

**Local Device** - Allows you to access files stored on the projector's internal drive (either generally or in each AMS login account's personal folder), or on external flash drives connected to the projector's **USB-1**, **USB-2**, or **USB-3**. See Connecting a flash drive on page 47 for details on accessing files on external flash drives.

#### Linking a cloud storage drive to your AMS login

By linking a cloud-based storage drive to your AMS login, you will be able use **USB** to access any files stored on the drive from any device.

To link a cloud storage drive to your AMS login:

- 1. Log into the AMS website using the account you want to link a cloud drive to.
- 2. Click on **Personal Settings** in the sidebar.

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3. Scroll down to the **Cloud Storage** section and click the **LINK** button next to the cloud storage service you want to link to your AMS account.

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	Network Drive (0 drives connected)

4. Enter the sign-in information for your cloud storage account in the sign-in page that opens. Once a cloud storage drive is linked, you can view any file stored on that drive via the **USB** app after logging into your AMS account on the projector. For a full description of the features of the AMS service, including instructions on how to setup and manage accounts, refer to the **AMS User Manual** which you can download at the following URL: https://www.benq.com/en-us/business/index.html > your Projector Model > **Downloads** > **User Manual**.

#### **BenQ App Store**

BenQ App Store allows you to search for, download, and update apps for your projector.



Select one of the icons on the left panel to perform the following functions:

lcon	Description		
Q	Select to use the search bar to search for an app by name.		
	<ul> <li>Select to view a list of apps that feature updates.</li> </ul>		
$\rightarrow$	<ul> <li>Select UPDATE ALL to update all apps listed in the menu.</li> </ul>		
	<ul> <li>Select an individual app and press OK to update that app only.</li> </ul>		
	<ul> <li>Select to browse suggested apps based on category.</li> </ul>		
	<ul> <li>Select an app from the category and press OK to view a basic description of the app and access the download link</li> </ul>		

Certain apps require the use of a mouse and/or keyboard to operate. It is suggested that you connect a mouse and/or keyboard to the projector before downloading any apps from **BenQ App Store**.

#### **BenQ User Dashboard**

**BenQ User Dashboard** allows you to view various statistics and details related to the status of the projector.

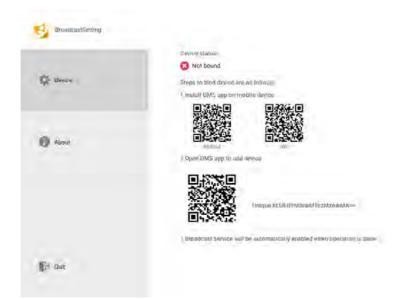


Click on a category in the left panel to view a detailed breakdown:

Home	Displays an overview of the categories below.	
Digital Usage	Displays the usage time for all the apps installed on the projector.	
Internet Quality	Displays statistics for the performance of the projector's Internet connection, including <b>Signal strength</b> and <b>Internet speed</b> .	
Device Health	Displays usage time for the projector's light source.	
Settings	Allows you to check for updates to the <b>BenQ User Dashboard</b> app and enable/disable notifications for it.	

#### **Broadcast Settings**

The projector uses BenQ's DMS app to broadcast announcements or messages. **Broadcast Settings** is an app that helps you get started with the **DMS** app. Use the various QR codes shown in the **Broadcast Settings** screen to either download the **DMS** app or link the projector to a **DMS** account.



For a full description of the features of the **DMS Local** or **DMS Cloud** apps, refer to their respective user manuals which you can download at the following URL: https://www.benq.com/en-us/business/projector/x-sign-broadcast.html.

#### **DMS Client**

**DMS Client** allows you to pair the projector to a **DMS** account for remote management via the **DMS Cloud** app.



You can use the **Unique ID** displayed on the **DMS Client** screen to pair the projector to a **DMS** account while users with the **DMS Cloud** app installed on their mobile device can also scan the QR code to quickly pair the projector to their account.

For a full description of the features of the **DMS Local** or **DMS Cloud** apps, refer to their respective user manuals which you can download at the following URL: https://www.benq.com/en-us/business/support/products/projector/display-management/do wnload.html#tab-anchor.

#### InstaShare2

The **InstaShare2** app is the app that allows users with mobile devices or PCs to wirelessly project on the projector.



For more information on how to wirelessly project via **InstaShare2**, see Wireless Projection via the InstaShare2 app on page 43 or refer to the **InstaShare2** user manual which you can download at the following URL:

https://www.benq.com/en-us/business/projector/instashare-2.html.

#### Notification

The **Notification** app allows you to view full versions of all the recent push notifications for the apps installed on the projector.

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h	Notification UTI2 Heaven is leng		
•	AMS Files		
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•	AMS Files 444 (second AMS Fleetine)		
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•	AMS Files		
	CLEAR ALL	ок	

Once the **Notification** app is open you can perform the following actions:

- Select an app in the side menu to view the full notification.
- Select **Popup Message** and press **OK** to turn off push notifications at the notification section of the **BenQ Launcher** home screen.
- Select **CLEAR ALL** to remove all the notifications in the menu.

#### **WPS Office**

The **WPS Office** app allows you to open document files including PDFs as well as Microsoft Word, PowerPoint and Excel documents.

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To edit a file with WPS Office:

- 1. Open the file using the steps described in Connecting a flash drive on page 47.
- 2. Select **Open** () on the left panel to browse and open a file located in either the projector's internal memory or an external storage device.

Select the function menu on the top panel to access the file format's various functions.

The description below is for a PowerPoint file, the function menus for other file formats will vary.

±J	Double tap to add title
	Double tap to add subtitle

Function	Description	
File	Select to open, save, share, print, and manage your presentations.	
View	Select to change or edit the presentation views.	
Play	Select to start or set up a slide show.	
Edit	Select to edit the content or format of the slides.	
Insert	Select to insert tables, pictures, charts, comments, video, or audio.	
Transitions	Select to apply or adjust the timing of a transition.	

Function	Description	
Pen	Select to write, draw, paint or sketch to the slides.	
Play ( D)	Select to start a slide show.	
Save As ([])	Select to save the presentation file on either the display's internal memory, an external storage device, or cloud storage.	
Undo ( <b>う</b> )	Select to undo an action.	
Redo ( 🔿 )	Select to redo the last action.	
Close (X)	Select to close the presentation file.	
Back (	Select to return to the previous page.	
Next $(\rightarrow)$	Select to go to the next page.	
Exit (	Select to exit WPS Office.	

## Navigating the Settings Menu

#### About the **Settings** menu

To let you make various adjustments or settings on the projector, its wireless connections, and the projected image, **BenQ Launcher** provides a **Settings** menu. Under the **Settings** menu are sub-menus for various settings.

To access the **Settings** menu, in the **BenQ Launcher** home screen select the **Settings** button.



If the projector does not feature the latest version of the firmware, a red dot will appear on the **Settings** icon. In such a circumstance, users can go to the **About** > **Software Update** menu and then select **Update** to start a firmware update. The red dot will disappear when the projector is updated with the latest version of firmware. See Checking for system update on page 32 for more information.

Under the Settings menu there are three subcategories: General, Display, and Preference.



The sub-menus in the **Display** category feature only a partial number of items that adjust your projector's display settings, for a full menu of display related settings enter the OSD settings menu while under the **HDMI** or **PC** input source. See Display on page 84 for a listing of the full **Display** settings.

#### Using the Settings menu

To access the various Settings menus:

- Use the left and right arrow keys  $(\blacktriangleleft/\blacktriangleright)$  to move through the main **Settings** menus.
- Use **OK** to select the desired menu.
- When configuring items within a menu:
- Use the up and down arrow keys  $(\blacktriangle/\nabla)$  to move to the item you want to configure.
- Use left and right arrow keys  $(\blacktriangleleft/\blacktriangleright)$  to toggle through the available options.
- Use OK to enable/disable options or select sub-menu options.
- Use the back button  $\bigcirc$  to return to the main **Settings** menu.
- Use the home button  $\hat{}_{\Omega}$  to return to the **BenQ Launcher** home screen.

When using a USB mouse to navigate the **Settings** menu you can also click the back icon j on the top left corner of each menu to return to the previous page.

#### Internet



WiFi Settings	Enables a wireless network connection for the projector. See Connecting the projector to a wireless network on page 40 for details.
Detect connection speed	Tests the speed of the projector's Internet connection.  This function is only available when <b>WiFi Settings</b> is enabled.
Diagnosis	Diagnoses the status of the projector's Internet connection.  This function is only available when <b>WiFi Settings</b> is enabled.

Add Network	Allows you to add a specific network that may be hidden or undetected in the <b>Available Networks</b> . Once selected you will be prompted to enter the SSID and security settings for the network.
Available Networks	Lists the available wireless access points which the projector can connect to. See Connecting the projector to a wireless network on page 40 for details. This function is only available when <b>WiFi Settings</b> is enabled.

## Hotspot

⇒ Settings				
I	Settings Hotspot	((၇))	Hotspot	•
	incoper		Show Password Hotspot Name Hotspot Password	•

Hotspot	Enables wireless hotspot for the projector, allowing other devices to connect to the projector directly. See Wireless Hotspot on page 44 for details.		
Show Password	Makes the password for the hotspot connection listed in the <b>Hotspot</b> <b>Password</b> visible. When <b>Show Password</b> is disabled, the <b>Hotspot Password</b> will be listed in the menu as a series of asterisks.		
Hotspot Name	Sets the name for the projector's wireless hotspot, which appears in the wireless network list for devices looking to connect directly to the projector.		
Hotspot Password	Sets the password for the projector's wireless hotspot.		
Internet Quality	Sets the frequency for the projector's wireless hotspot signal. Available options include <b>Higher (5G)</b> and <b>Normal (2.4G)</b> .		

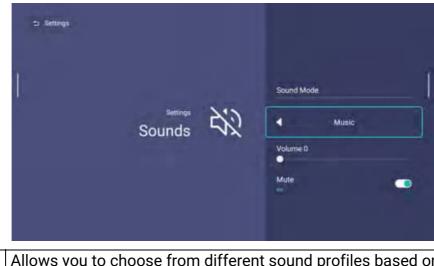
#### Bluetooth



Bluetooth	Enables Bluetooth for the projector, allowing the projector to output its audio to a Bluetooth speaker or headphones.		
Refresh	Refreshes the list of devices.		
My Devices	Lists of previously paired Bluetooth devices.		
Available Devices	Lists the available Bluetooth devices which the projector can pair and connect to.		

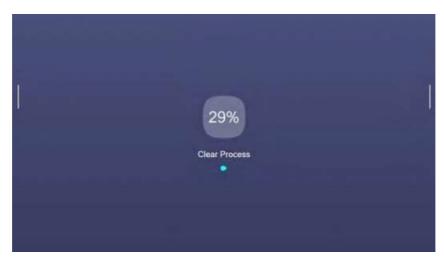
#### Sounds

Г



Sound Mode	Allows you to choose from different sound profiles based on the type of content being broadcast. The available options are <b>Cinema</b> , <b>Music</b> , and <b>Vocal</b> .
Volume	Adjusts the sound level for the projector.
Mute	Disables/Enables audio for the projector.

## **Clear Memory**



Clears out the memory of unnecessary files and boosts available RAM.

#### **All Apps**



Select the **All Apps** menu to access all the apps that have been installed on the projector. Select an app and press **OK** to open the app edit menu. The app edit menu features the following options:

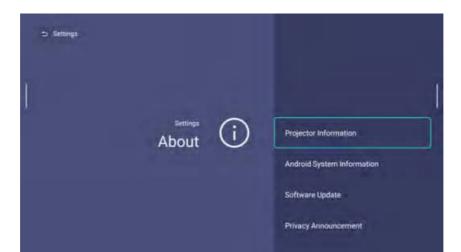
Open	Launches the respective app.
Permission Settings	Opens the respective app's settings menu where you can configure the hardware access permissions for the app.
Uninstall	Uninstalls the respective app.



When **AMS Service** is enabled, **Guest** AMS accounts will not be allowed to change permission settings or uninstall apps in this menu.

#### About

When **AMS Service** is enabled, this menu will not be accessible by **Guest** AMS accounts.



Projector Information	Displays information on the current status of the projector including the current <b>Native Resolution</b> , <b>Picture Mode</b> , <b>Light Mode</b> , <b>Light Usage Time</b> , <b>Firmware Version</b> , and <b>Service Code</b> .
Android System Information	Displays information on the Android operating system including <b>Android Version</b> , <b>RAM</b> , <b>System storage</b> , <b>Internal storage</b> , and <b>MAC address</b> .
Software Update	Allows you to update the Android operating system via an Over-The-Air (OTA) update or a USB flash drive. For more information see Checking for system update on page 32.
Privacy Announcement	Allows you to view and accept or reject BenQ's privacy policy.
Android System Reset	Returns all settings to the factory preset values.

#### **Picture Mode**



The options available for the **Picture Mode** settings menu are the same as the options available in the OSD menu.

#### **Light Mode**



The options available for the **Light Mode** settings menu are the same as the options available in the OSD menu.

#### Auto Keystone



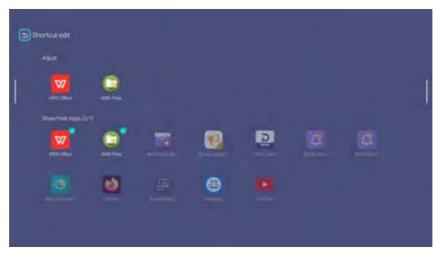
The options available for the **Auto Keystone** settings menu are the same as the options available in the OSD menu.

#### **Projector Position**



The options available for the **Projector Position** settings menu are the same as the options available in the OSD menu.

#### **Home Screen Settings**

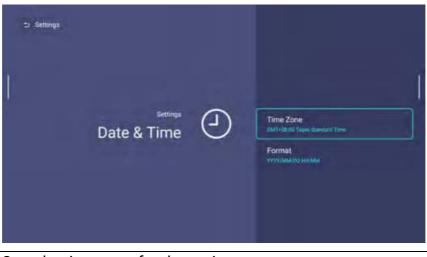


Select **Manual** and press **OK** to enable the user to manually arrange which app shortcuts are to be displayed on the home screen and their sequence.

Once **Manual** is selected, press **OK** on an app in the **Adjust** menu and then press  $\triangleleft / \triangleright$  to adjust the sequence of the apps in the apps shortcuts section. Press **OK** on an app in the **Show/Hide Apps** menu to check (show) or uncheck (hide) its shortcut.

#### Date & Time

- 💉 When AMS Service is enabled, this menu will not be accessible by Guest AMS accounts.
- The projector's date and time information is linked to/synched with the Internet, and cannot be manually set. In instances when the projector does not have access to the Internet, the date and/or time information displayed may be incorrect.



	Sets the time zone for the projector
Time Zone	The <b>Time Zone</b> setting must be set to the correct region for the projector in order for the <b>X-Sign Broadcast</b> app to work correctly.
Format	Sets the date and time format as either <b>HH:MM</b> or <b>YYYY/MM/DD HH:MM</b> .

#### Language

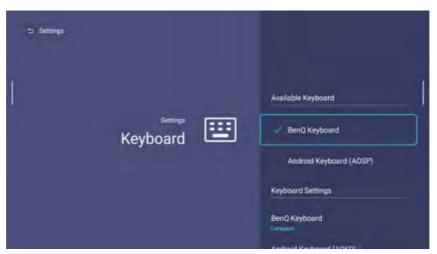
When **AMS Service** is enabled, this menu will not be accessible by **Guest** AMS accounts.



Sets the language for **BenQ Launcher**.

#### Keyboard

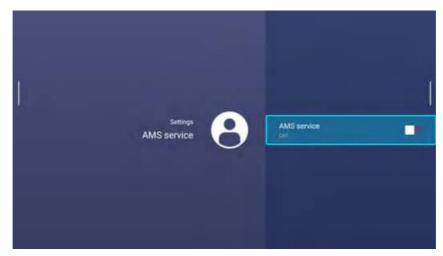
When **AMS Service** is enabled, this menu will not be accessible by **Guest** AMS accounts.



Available Keyboard	Allows you to select from various keyboard interfaces.
Keyboard Settings	Sets the projector's virtual keyboard for inputting text. The available options are <b>BenQ Keyboard</b> and <b>Android keyboard (AOSP)</b> . To input Chinese characters, set the language preference to traditional Chinese or simplified Chinese, and set the keyboard to <b>BenQ Keyboard</b> .

#### **AMS Service**

When **AMS Service** is enabled, this menu will not be accessible by **Guest** or **User** AMS accounts.



Select whether to enable or disable the BenQ Account Management System.

# Operation (under non-Launcher source)

# Using the projector menus under non-Launcher source

When the input signal is **HDMI** or **PC/YPbPr**, you can use 2 types of On-Screen Display (OSD) menus for making various adjustments and settings.

- Basic OSD menu: provides primary menu functions. (See Basic menu on page 75)
- Advanced OSD menu: provides full menu functions. (See Advanced menu on page 76)

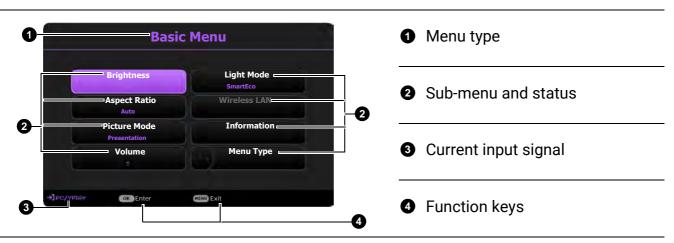
To access the OSD menu, press 🕸 on the projector or remote control.

- Use the arrow keys (▲/▼/◀/►) on the projector or remote control to move through the menu items.
- Use **OK** on the projector or remote control to confirm the selected menu item.

The first time you use the projector (after finishing the initial setup), Basic OSD menu displays.

The OSD screenshots below are for reference only, and may differ from the actual design.

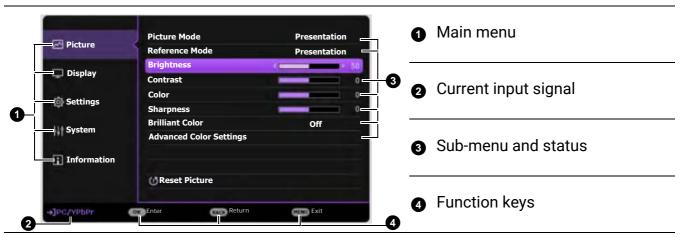
Below is the overview of the **Basic** OSD menu.



If you intend to switch from the **Basic** OSD menu to the **Advanced** OSD menu, follow the instructions below:

- 1. Go to **Basic Menu > Menu Type**.
- 2. Press **OK** and press ▲/▼ to select **Advanced**. Next time when you turn on the projector, you may access the **Advanced** OSD menu by pressing 🕸.

Below is the overview of the **Advanced** OSD menu.



Likewise, when you wish to switch from the **Advanced** OSD menu to the **Basic** OSD menu, follow the instructions below:

- 1. Go to Advanced Menu System > Menu Settings and press OK.
- 2. Select **Menu Type** and **OK**.
- 3. Press ▲/▼ to select **Basic**. Next time when you turn on the projector, you may access the **Basic** OSD menu by pressing 戀.

## Securing the projector

## Using a security cable lock

The projector has to be installed in a safe place to prevent theft. Otherwise, purchase a lock to secure the projector. You can locate a security bar on the bottom side of the projector. See item 18 on page 9.

## Utilizing the password function

#### Setting a password

- 1. Go to **Advanced Menu Settings** > **Security Settings**. Press **OK**. The **Security Settings** page appears.
- 2. Highlight Change Password and press OK.
- 3. The four arrow keys (▲, ►, ▼, ◄) respectively represent 4 digits (1, 2, 3, 4). According to the password you desire to set, press the arrow keys to enter six digits for the password.
- Confirm the new password by re-entering the new password.
   Once the password is set, the OSD menu returns to the Security Settings page.



To activate the Power On Lock function, press ▲/▼
 to highlight Power On Lock and press ◄/► to select On. Input the password again.



• The digits being input will display as asterisks on-screen. Make a note of your selected password and keep it in a safe place in advance or right after the password is entered so that it is available to you should you ever forget it.

• Once a password has been set and the power on lock is activated, the projector cannot be used unless the correct password is entered every time the projector is started.

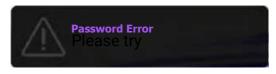
### If you forget the password

If you enter the wrong password, the password error message will appear, and the **Input Current Password** message follows. If you absolutely do not remember the password, you can use the password recall procedure. See Entering the password recall procedure on page 73.

If you enter an incorrect password 5 times in succession, the projector will automatically shut down in a short time.

### Entering the password recall procedure

- 1. Press and hold **AUTO** for 3 seconds. The projector will display a coded number on the screen.
- 2. Write down the number and turn off your projector.
- Seek help from the local BenQ service center to decode the number. You may be required to provide proof of purchase documentation to verify that you are an authorized user of the projector.





### Changing the password

- 1. Go to Advanced Menu Settings > Security Settings > Change Password.
- 2. Press **OK**. The message "Input Current Password" appears.
- 3. Enter the old password.
  - If the password is correct, another message "Input New Password" appears.
  - If the password is incorrect, the password error message will appear, and the message "Input Current Password" appears for your retry. You can press to cancel the change or try another password.
- 4. Enter a new password.
- 5. Confirm the new password by re-entering the new password.

#### Disabling the password function

To disable password protection, go to Advanced Menu - Settings > Security Settings > Power On Lock and press ◀/► to select Off. The message "Input Current Password" appears. Enter the current password.

- If the password is correct, the OSD menu returns to the **Security Settings** page. You will not have to enter the password next time turning on the projector.
- If the password is incorrect, the password error message will appear, and the message "Input Current Password" appears for your retry. You can press to cancel the change or try another password.



Though the password function is disabled, you need to keep the old password in hand should you ever need to re-activate the password function by entering the old password.

## Switching input signal

The projector can be connected to multiple devices at the same time. However, it can only display one full screen at a time. When starting up, the projector automatically searches for the available signals.

When the Advanced Menu - Settings > Auto Source Search menu is **On**, the projector will automatically search for **BenQ** Launcher.



If the **Auto Source Search** function is disabled, the projector will detect if a signal is available from the input source that was last used and switch to that input source if it is available, if a signal is not available or the projector was set to **BenQ Launcher** during the previous session, the projector will enter the **BenQ Launcher** home screen.

To select the source:

- 1. Press 
  →. A source selection bar appears.
- 2. Press  $\blacktriangle/ \forall$  until your desired signal is selected and press **OK**.

Once detected, the selected source information will appear at the corner of the screen for seconds. If there is multiple equipment connected to the projector, repeat steps 1-2 to search for another signal.



For best display picture results, you should select and use an input signal which outputs at the projector's native resolution. Any other resolutions will be scaled by the projector depending upon the "aspect ratio" setting, which may cause some image distortion or loss of picture clarity. See Aspect Ratio on page 79.

### Menu operation

Please note that the on-screen display (OSD) menus vary according to the signal type selected and the projector model you are using.

The menu items are available when the projector detects at least one valid signal. If there is no equipment connected to the projector or no signal detected, limited menu items are accessible.

### Menu System

#### Basic menu

Main menu	Options
Brightness	0~50~100
Aspect Ratio	Auto/4:3/16:9/16:10
Picture Mode	Bright/Presentation/Spreadsheet/Video Conference/(3D)/User 1/User 2
Volume	0~10~20
Light Mode	Normal/ECO/SmartEco/LampSave
	Native Resolution
	Detected Resolution
	Source
	Picture Mode
Information	Light Mode
mormation	3D Format
	Color System
	Light Usage Time
	Firmware Version
	Service Code
Menu Type	Basic/Advanced

### Advanced menu

Picture Mode         Bright/Presentation/Spreadsheet/ Video Conference/(3D)/User 1/User 2           Reference Mode         Bright/Presentation/Spreadsheet/ Video Conference           Brightness         0~50~100           Contrast         -50~0~50           Color         -50~0~50           Tint         -50~0~50           Sharpness         0~15~31           Brilliant Color         0.706f           Brilliant Color         Color Temperature           Tuning         Color Temperature           Temperature         R Gain/B Gain           Tuning         R Offset/6 Offset/B Offset           Advanced Color         Color           Settings         Color           Color         G (Primary Color/Hue/Saturation/Gain)           G (Primary Color/Hue/Saturation/Gain)         G (Primary Color/Hue/Saturation/Gain)           W (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)	Main menu	Sub	omenu	Options
Picture       Brightness       0~50~100         Contrast       -50~0~50         Color       -50~0~50         Tint       -50~0~50         Sharpness       0~15~31         Brilliant Color       0n/Off         Gamma Selection       1.8/2.2/BenQ         Color       Color Temperature         Tuning       R Offset/G Offset/B Offset         Advanced Color Settings       Color         Color Management       R (Primary Color/Hue/Saturation/Gain)         G (Primary Color/Hue/Saturation/Gain)       G (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)       W (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)       W (Primary Color/Hue/Saturation/Gain)         Wall Color       Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30-0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off		Picture Mode		<b>J</b> I
Contrast       -50~0~50         Color       -50~0~50         Tint       -50~0~50         Sharpness       0~15~31         Brilliant Color       On/Off         Brilliant Color       On/Off         Color       Color Temperature         Tuning       R Offset/B Offset/B Offset         Advanced Color       Color       Color/Hue/Saturation/Gain)         Settings       Color       Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)         Wall Color       Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off		Reference Mode		
Color       -50~0~50         Tint       -50~0~50         Sharpness       0~15~31         Brilliant Color       On/Off         Brilliant Color       Color Temperature         R Gain/G Gain/B Gain       Tuning         R Offset/G Offset/B Offset       R Gain/G Gain/B Gain         Advanced Color Settings       Color       Color Temperature         Color Management       R (Primary Color/Hue/Saturation/Gain)       G (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)       C (Primary Color/Hue/Saturation/Gain)         Wall Color       Wall Color       Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Nuto Vertical Keystone       -30~0~30       -30~0~30         Auto Vertical Keystone       On/Off       0m/Off         Torner Fit       0~60       0m/Off		Brightness		0~50~100
Tint       -50~0~50         Sharpness       0~15~31         Brilliant Color       On/Off         Brilliant Color       1.8/2.2/BenQ         Color       Color Temperature         Tuning       R Gain/G Gain/B Gain         Advanced Color       Color         Settings       Color         Color       R Offset/G Offset/B Offset         R Offset/G Offset/B Offset       R Offset/G Offset/B Offset         Advanced Color       Color         Settings       Color         Color       R Offset/G Offset/B Offset         Management       R Offset/G Offset/B Offset         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       M (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)       W (Primary Color/Hue/Saturation/Gai				
Sharpness       0~15~31         Brilliant Color       On/Off         Brilliant Color       Color Temperature         Gamma Selection       1.8/2.2/BenQ         Color       Color Temperature         Temperature       R Gain/G Gain/B Gain         Tuning       R Offset/G Offset/B Offset         Advanced Color       Settings         Color       Color Temperature         R Offset/G Offset/B Offset       R Offset/G Offset/B Offset         B (Primary Color/Hue/Saturation/Gain)       G (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)         C (Primary Color/Hue/Saturation/Gain)       W (Primary Color/Hue/Saturation/Gain)         Wall Color       Off/Light Yellow/Pink/Light Green/         Blue/Blackboard       Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off				
Brilliant Color       On/Off         Picture       Gamma Selection       1.8/2.2/BenQ         Color       Color Temperature         Temperature       R Gain/G Gain/B Gain         Tuning       R Offset/G Offset/B Offset         Advanced Color       R (Primary Color/Hue/Saturation/Gain)         Gebruary Color/Hue/Saturation/Gain)       G (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)         Color       Management       M (Primary Color/Hue/Saturation/Gain)         Wall Color       Wall Color       Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off		-		
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Picture       Temperature Tuning       R Gain/G Gain/B Gain         Advanced Color Settings       R (Primary Color/Hue/Saturation/Gain)         G (Primary Color/Hue/Saturation/Gain)       G (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)         Color Management       M (Primary Color/Hue/Saturation/Gain)         V (Primary Color/Hue/Saturation/Gain)       N (Primary Color/Hue/Saturation/Gain)         V (Primary Color/Hue/Saturation/Gain)       Y (Primary Color/Hue/Saturation/Gain)         Wall Color       Wall Color         Wall Color       Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       -30~0~30         Auto Vertical Keystone       0n/Off         Corner Fit       0~60         Test Pattern       On/Off			Gamma Selection	
Advanced Color SettingsTemperature TuningR Gain/G Gain/B Gain R Offset/G Offset/B OffsetAdvanced Color SettingsColor ManagementR (Primary Color/Hue/Saturation/Gain) B (Primary Color/Hue/Saturation/Gain) C (Primary Color/Hue/Saturation/Gain) M (Primary Color/Hue/Saturation/Gain) Y (Primary Color/Hue/Saturation/Gain) W (Primary Color/Hue/Saturation/Gain) W (Primary Color/Hue/Saturation/Gain) W (Primary Color/Hue/Saturation/Gain) 	Picture			
Advanced Color Settings       R (Primary Color/Hue/Saturation/Gain)         G (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)         Color Management         M (Primary Color/Hue/Saturation/Gain)         C (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)         W (Primary Color/Hue/Saturation/Gain)         Wall Color         Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off			•	
Advanced Color Settings       Color Management       G (Primary Color/Hue/Saturation/Gain)         B (Primary Color/Hue/Saturation/Gain)       B (Primary Color/Hue/Saturation/Gain)         C (Primary Color/Hue/Saturation/Gain)       M (Primary Color/Hue/Saturation/Gain)         Wall Color       Wall Color/Hue/Saturation/Gain)         Wall Color       Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off			Tuning	
Advanced Color       B (Primary Color/Hue/Saturation/Gain)         Settings       Color         Management       B (Primary Color/Hue/Saturation/Gain)         C (Primary Color/Hue/Saturation/Gain)         M (Primary Color/Hue/Saturation/Gain)         Y (Primary Color/Hue/Saturation/Gain)         Y (Primary Color/Hue/Saturation/Gain)         Y (Primary Color/Hue/Saturation/Gain)         Y (Primary Color/Hue/Saturation/Gain)         Wall Color         Off/Light Yellow/Pink/Light Green/         Blue/Blackboard         Reset Picture         Aspect Ratio         Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off				
Settings       Color Management       B (Primary Color/Hue/Saturation/Gain)         C (Primary Color/Hue/Saturation/Gain)         M (Primary Color/Hue/Saturation/Gain)         Y (Primary Color/Hue/Saturation/Gain)         Y (Primary Color/Hue/Saturation/Gain)         Wall Color         Wall Color         Off/Light Yellow/Pink/Light Green/ Blue/Blackboard         Reset Picture       Reset/Cancel         Aspect Ratio       Auto/4:3/16:9/16:10         2D Keystone       -30~0~30         Auto Vertical Keystone       On/Off         Corner Fit       0~60         Test Pattern       On/Off		Advanced Color		
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Wall ColorBlue/BlackboardReset PictureReset/CancelAspect RatioAuto/4:3/16:9/16:102D Keystone-30~0~30Auto Vertical KeystoneOn/OffCorner Fit0~60Test PatternOn/Off				W (Primary Color/R Gain/G Gain/B Gain)
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2D Keystone-30~0~30Auto Vertical KeystoneOn/OffCorner Fit0~60Test PatternOn/Off		Reset Picture		Reset/Cancel
Auto Vertical KeystoneOn/OffCorner Fit0~60Test PatternOn/Off		Aspect Ratio		Auto/4:3/16:9/16:10
Corner Fit0~60Test PatternOn/Off				-30~0~30
Test Pattern On/Off		Auto Vertical Key	stone	On/Off
		Corner Fit		0~60
Phase		Test Pattern		On/Off
DC 9 Component VDbDy Tuning		PC & Component YPbPr Tuning Position		Phase
H. Size				H. Size
H: -5~0~5				H: -5~0~5
V: -5~0~5				V: -5~0~5
Display     3D Mode     Auto/Top Bottom/Frame Sequential/ Frame Packing/Side by Side/Off	Display	3D	3D Mode	•
3D Sync Invert Disable/Invert			3D Sync Invert	Disable/Invert
3D Apply 3D Settings 3D Settings 1/3D Settings 2/3D Settings 3/Off			Apply 3D Settings	
Save 3D Settings 3D Settings 1/3D Settings 2/3D Settings 3			Save 3D Settings	• • •
HDMI Format Auto/RGB Limited/RGB Full/ YUV Limited/YUV Full		HDMI Format		
Digital Zoom 1.0X~1.8X/2.0X			Digital Zoom	1.0X~1.8X/2.0X
Image Resizing Digital Shrink & 0.75X~1.0X Shift		Image Resizing		0.75X~1.0X
Reset Display Reset/Cancel		Reset Display		Reset/Cancel

Main menu	Sub	menu	Options
	Projector Installation		Front Table/Rear Table/Rear Ceiling/ Front Ceiling
	Remote Receiver		Front/Top/Front+Top
	Auto Source Search		On/Off
	Auto Sync		On/Off
		Light Mode	Normal/ECO/SmartEco/LampSave
	Light Settings	Reset Light Timer	Reset/Cancel
		Light Usage Time	
		Quick Cooling	On/Off
		Blank Timer	Disable/5 min/10 min/15 min/ 20 min/25 min/30 min
<b>-!</b>		Reminder Message	On/Off
Settings	Operation Settings	High Altitude Mode	On/Off
			Direct Power On
		Power On/Off	Signal Power On
		Settings	Auto Power Off
			Power Off Timer
		Panel Key Lock	On/Off
	Security Settings	Change Password	
		Power On Lock	On/Off
	Baud Rate		9600/14400/19200/38400/57600/ 115200
	HDMI Equalizer	HDMI	Auto/1/2/3/4/5
	Reset Settings	וואושח	Reset/Cancel
	Language		English/Français/Deutsch/Italiano/Español/ Русский/繁體中文/简体中文/日本語/한국어/ Svenska / Nederlands/Türkçe/Ĉeština/ Português/ไทย/Polski/Magyar/Hrvatski/ Română/Norsk/Dansk/Български/ Suomi/Bhs Ind/Еλληνικά/ألعربية/सिवी/ Tiếng Việt/فارسى/
	Standby Settings	Standby Mode	ECO/Normal
System		Audio Pass Through	Off/Audio in/HDMI
	Background Settings	Background	BenQ/Black/Blue/Purple
		Splash Screen	BenQ/Black/Blue
	Menu Settings	Menu Type	Basic/Advanced
		Menu Display Time	5 sec/10 sec/20 sec/30 sec/Always
	Audio Settings	Sound Mode	Cinema/Music/Vocal
		Mute	On/Off
		Volume	0~10~20
		Power On/Off Ring Tone	On/Off
	Factory Default		Reset/Cancel
	Reset System		Reset/Cancel

Main menu	Submenu	Options
	Native Resolution	
	Detected Resolution	
	Source	
	Picture Mode	
Information	Light Mode	
Information	3D Format	
	Color System	
	Light Usage Time	
	Firmware Version	
	Service Code	

### Basic menu

input signal source.         • Auto: Scales an image proportionally to fit the projector's native resolution in its horizontal or vertical width.         • 4:3: Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio.         • 16:9: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.         • 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.         • 16:10: picture         • 000000000000000000000000000000000000	Brightness	The higher the value, the brighter the image. Adjust this control so the black areas of the image appear just as black and that detail in the dark areas is visible.		
Aspect Ratio• 4:3: Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio.• • • • • • • • • • • • • • • • • • •		There are several options to set the image's aspect ratio depending on your input signal source.		
Aspect Ratiocenter of the screen with a 4:3 aspect ratio.Image aspect ratio.• 16:9: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio.Image aspect ratio.• 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.Image aspect ratio.• 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.Image aspect ratio.• 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.Image aspect ratio.• The projector is preset with several predefined picture modes so that you can choose one to suit your operating environment and input signal picture type.Image aspect ratio.• Bright: Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.Image aspect ratio.• Presentation: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.Spreadsheet: Designs for users who widely use excel and table to discuss financial numbers or quality numbers in meetings.• Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.• 3D: Is appropriate for playing 3D images and 3D video clips.		projector's native resolution in its horizontal or vertical width. $\bigcirc \bigcirc \bigcirc$		
<ul> <li>center of the screen with a 16:9 aspect ratio.         <ul> <li>16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio.</li> <li>16:10 picture</li> <li>16:10 picture</li> </ul> </li> <li>The projector is preset with several predefined picture modes so that you can choose one to suit your operating environment and input signal picture type.</li> <li>Bright: Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.</li> </ul> <li>Presentation: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.</li> <li>Spreadsheet: Designs for users who widely use excel and table to discuss financial numbers or quality numbers in meetings.</li> <li>Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.</li> <li>3D: Is appropriate for playing 3D images and 3D video clips.</li>	Aspect Ratio			
center of the screen with a 16:10 aspect ratio.       Ooin to suit of the screen with a 16:10 aspect ratio.         The projector is preset with several predefined picture modes so that you can choose one to suit your operating environment and input signal picture type.         • Bright: Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.         • Presentation: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.         • Spreadsheet: Designs for users who widely use excel and table to discuss financial numbers or quality numbers in meetings.         • Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.         • 3D: Is appropriate for playing 3D images and 3D video clips.		center of the screen with a 16:9 aspect ratio.		
<ul> <li>Picture Mode</li> <li>Picture Mode</li> <li>Picture Mode</li> <li>Can choose one to suit your operating environment and input signal picture type.</li> <li>Bright: Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.</li> <li>Presentation: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.</li> <li>Spreadsheet: Designs for users who widely use excel and table to discuss financial numbers or quality numbers in meetings.</li> <li>Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.</li> <li>3D: Is appropriate for playing 3D images and 3D video clips.</li> </ul>		center of the screen with a 16:10 aspect ratio. $\bigcirc \bigcirc \bigcirc$		
<ul> <li>Picture Mode</li> <li>Presentation: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.</li> <li>Spreadsheet: Designs for users who widely use excel and table to discuss financial numbers or quality numbers in meetings.</li> <li>Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.</li> <li>3D: Is appropriate for playing 3D images and 3D video clips.</li> </ul>		can choose one to suit your operating environment and input signal picture		
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<ul> <li>financial numbers or quality numbers in meetings.</li> <li>Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.</li> <li>3D: Is appropriate for playing 3D images and 3D video clips.</li> </ul>		• <b>Presentation</b> : Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.		
<ul><li>showcases detail skin color of remote meeting attendees.</li><li><b>3D</b>: Is appropriate for playing 3D images and 3D video clips.</li></ul>				
• User 1/User 2: Recalls the settings customized based on the current		• <b>3D</b> : Is appropriate for playing 3D images and 3D video clips.		
available picture modes. See Reference Mode on page 81.				
Volume         Adjusts the sound level.	Volume	Adjusts the sound level.		
Light ModeSee Setting the Light Mode on page 92.	Light Mode	See Setting the Light Mode on page 92.		

	• Native Resolution: Shows the native resolution of the projector.
	• Detected Resolution: Shows the native resolution of the input signal.
	• Source: Shows the current signal source.
	• Picture Mode: Shows the selected mode in the Picture menu.
Information	• Light Mode: Shows the selected mode in the Light Settings menu.
	• <b>3D Format</b> : Shows the current 3D mode.
	• Color System: Shows input system format.
	• Light Usage Time: Shows the number of hours the lamp has been used.
	• Firmware Version: Shows the firmware version of your projector.
	• Service Code: Show the projector's serial number.
Menu Type	Switches to the <b>Advanced</b> OSD menu. See Using the projector menus under non-Launcher source on page 71.

### Advanced menu

### **Picture**

	The projector is preset with several predefined picture modes so that you can choose one to suit your operating environment and input signal picture type.
	• <b>Bright</b> : Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.
Picture Mode	<ul> <li>Presentation: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.</li> </ul>
	<ul> <li>Spreadsheet: Designs for users who widely use excel and table to discuss financial numbers or quality numbers in meetings.</li> </ul>
	<ul> <li>Video Conference: Design for video conference scenarios which showcases detail skin color of remote meeting attendees.</li> </ul>
	• <b>3D</b> : Is appropriate for playing 3D images and 3D video clips.
	<ul> <li>User 1/User 2: Recalls the settings customized based on the current available picture modes. See Reference Mode on page 81.</li> </ul>
	There are 2 user-definable modes if the current available picture modes are not suitable for your need. You can use one of the picture modes (except the <b>User 1/User 2</b> ) as a starting point and customize the settings.
	1. Go to <b>Picture &gt; Picture Mode</b> .
Reference Mode	<ol> <li>Press  I or User 2. </li> </ol>
Mode	<ol> <li>Press ▼ to highlight Reference Mode, and press </li> <li>★ to select a picture mode that is closest to your need.</li> </ol>
	<ol> <li>Press ▼ to select a menu item to be changed and adjust the value. The adjustments define the selected user mode.</li> </ol>
Brightness	The higher the value, the brighter the image. Adjust this control so the black areas of the image appear just as black and that detail in the dark areas is visible.
Contrast	The higher the value, the greater the contrast. Use this to set the peak white level after you have previously adjusted the Brightness setting to suit your selected input and viewing environment.
Color	Lower setting produces less saturated colors. If the setting is too high, colors on the image will be overpowering, which makes the image unrealistic.
Tint	The higher the value, the more greenish the picture becomes. The lower the value, the more reddish the picture becomes.
Sharpness	The higher the value, the sharper the picture becomes.

Brilliant Color	This feature utilizes a new color-processing algorithm and system level enhancements to enable higher brightness while providing truer, more vibrant colors in picture. It enables a greater than 50% brightness increase in mid-tone images, which are common in video and natural scenes, so the projector reproduces images in realistic and true colors. If you prefer images with that quality, select <b>On</b> . When <b>Off</b> is selected, the <b>Color Temperature</b> function is not available.	
	Gamma Selection	
	Gamma refers to the relationship between input source and picture brightness.	
	<ul> <li>1.8/BenQ: Select these values according to your preference.</li> </ul>	
	<ul> <li>2.2: Increases the average brightness of the picture. Best for a lit environment, meeting room or family room.</li> </ul>	
	High Brightness Low Contrast Low Brightness	
	<u>1.8 2.2 BenQ</u>	
	Color Temperature Tuning	
Advanced Color Settings	There are several preset color temperature settings available. The available settings may vary according to the signal type selected.	
	• Normal: Maintains normal colorings for white.	
	<ul> <li>Cool: Makes images appear bluish white.</li> </ul>	
	<ul> <li>Native: With the light source's original color temperature and higher brightness. This setting is suitable for environments where high brightness is required, such as projecting pictures in well lit rooms.</li> <li>Warm: Makes images appear reddish white.</li> </ul>	
	You can also set a preferred color temperature by adjusting the following options.	
	<ul> <li>R Gain/G Gain/B Gain: Adjusts the contrast levels of Red, Green, and Blue.</li> </ul>	
	<ul> <li>R Offset/G Offset/B Offset: Adjusts the brightness levels of Red, Green, and Blue.</li> </ul>	

	Color Management
	The Color Management provides six sets (RGBCMY) of colors to be adjusted. When you select each color, you can independently adjust its range and saturation according to your preference.
	To make adjustments, press the ▲/▼ arrows to highlight an independent color from among Red (R), Green (G), Blue (B), Cyan (C), Magenta (M), Yellow (Y) or White (W). The following menu items are displayed for your choice.
	<ul> <li>Hue: Increase in the range will include colors consisted of more proportions of its two adjacent colors. Please refer to the illustration for how the colors relate to each other.</li> <li>For example, if you select Red and set its range at 0, only pure red in the projected picture will be selected. Increasing its range will include red close to yellow and red close to magenta.</li> </ul>
Advanced Color Settings	<ul> <li>Saturation: Adjusts the values to your preference. Every adjustment made will reflect to the image immediately. For example, if you select Red and set its value at 0, only the saturation of pure red will be affected.</li> </ul>
	<ul> <li>Gain: Adjusts the values to your preference. The contrast level of the primary color you select will be affected. Every adjustment made will reflect to the image immediately.</li> </ul>
	If you select <b>White Balance</b> , you can adjust the contrast levels of Red, Green, Blue, Cyan, Magenta, Yellow and White by selecting <b>R Gain</b> , <b>G Gain</b> , and <b>B</b> <b>Gain</b> .
	To return all the settings to the factory default values, highlight <b>Reset</b> , and press <b>OK</b> .
	<b>Saturation</b> is the amount of that color in a video picture. Lower settings produce less saturated colors; a setting of "0" removes that color from the image entirely. If the saturation is too high, that color will be overpowering and unrealistic.
	Wall Color
	Corrects the projected picture's color when the projection surface such as a painted wall which may not be white, the Wall Color feature can help correct the projected picture's colors to prevent possible color difference between the source and projected pictures. There are several precalibrated colors to choose from: Light Yellow, Pink, Light Green, Blue, and Blackboard.
Reset Picture	Returns all of the adjustments you've made for the <b>Picture</b> menu to the factory preset values.

### Display

	There are several options to set the image's aspect ratio depending on your input signal source.
	• Auto: Scales an image proportionally to fit the projector's native resolution in its horizontal or vertical width. $ \begin{array}{c} \circ & \circ \\ \circ & \circ \\ 15:9 \text{ picture} \end{array} \bullet \begin{array}{c} \circ & \circ \\ \circ & \circ \\ \circ & \circ \end{array} $
Aspect Ratio	• 4:3: Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio.
	• 16:9: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio. $16:9 \text{ picture} \rightarrow 0^{\circ}$
	• 16:10: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio. $16:10 \text{ picture} \rightarrow 0^{\circ}$
2D Keystone	Corrects any keystoning of the image. See Correcting keystone on page 16.
Test Pattern	Adjusts the image size and focus and check that the projected image is free from distortion.
PC & Component YPbPr Tuning	• Phase: Adjusts the clock phase to reduce image distortion. This function is only available when a PC signal (analog RGB) or YPbPr signal is selected.
	<ul> <li>H. Size: Adjusts the horizontal width of the image. This function is only available when a PC signal (analog RGB) is selected.</li> </ul>
Position	Displays the position adjustment page. To move the projected image, use the directional arrow keys. This function is only available when a PC signal (analog RGB) is selected.

	<ul> <li>This projector features a 3D function which enables you to enjoy the 3D movies, videos, and sporting events in a more realistic way by presenting the depth of the images. You need to wear a pair of 3D glasses to view the 3D images.</li> <li><b>3D Mode</b>: The default setting is <b>Off</b>. If you want the projector to automatically choose an appropriate 3D format when detecting 3D contents, select <b>Auto</b>. If the projector cannot recognize the 3D format, press ▲/▼ to choose a 3D mode from among <b>Top Bottom</b>, <b>Frame Sequential</b>, <b>Frame Packing</b> and <b>Side by Side</b>.</li> </ul>
	<ul> <li>When 3D function is activated:</li> <li>The brightness level of the projected image will decrease.</li> </ul>
3D	<ul> <li>The following settings cannot be adjusted: Picture Mode, Reference Mode.</li> </ul>
50	• The <b>2D Keystone</b> can only be adjusted within limited degrees.
	• <b>3D Sync Invert</b> : When you discover the inversion of the image depth, enable this function to correct the problem.
	• <b>Apply 3D Settings</b> : After the 3D settings are saved, you can decide if you would like to apply them by choosing a set of 3D settings that you have saved. Once applied, the projector will automatically play the incoming 3D contents if it matches the 3D settings saved.
	Only the set(s) of 3D settings with memorized data is available.
	• <b>Save 3D Settings</b> : When you have successfully displayed the 3D contents after making the appropriate adjustments, you can enable this function and choose a set of 3D settings to memorize current 3D settings.
	Selects a suitable color format to optimize display quality.
	• Auto: Automatically selects a suitable color space and gray level for the incoming HDMI signal.
HDMI Format	• RGB Limited: Utilizes the Limited range RGB 16-235.
	• RGB Full: Utilizes the Full range RGB 0-255.
	• YUV Limited: Utilizes the Limited range YUV 16-235.
	• YUV Full: Utilizes the Full range YUV 0-255.

	Digital Zoom
	Magnifies or reduces the projected image size.
	<ol> <li>After the adjustment bar displays, press ▲/▼ repeatedly to reduce or magnify the image to a desired size.</li> </ol>
	2. Press <b>OK</b> to enter panning mode.
	<ol> <li>Press the directional arrows (▲, ▼, ◄, ►) on the projector or remote control to navigate the picture.</li> </ol>
	The picture can only be navigated after it is magnified. You can further magnify the picture
Image	while searching for details.
Resizing	Digital Shrink & Shift
	Shrinks and/or shifts the projected image.
	<ol> <li>After the adjustment bar displays, press      <li>repeatedly to shrink or magnify the picture to a desired size.</li> </li></ol>
	2. Press <b>OK</b> to activate digital shift function.
	<ul> <li>After digital shift function is activated, press the directional arrows (▲, ▼, ◄, ►) to shift the image.</li> </ul>
	4. Press <b>AUTO</b> to restore the picture to its original size.
	The picture can only be shifted after it shrank.
Reset Display	Returns all of the adjustments you've made for the <b>Display</b> menu to the factory preset values.

### Settings

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Projector Installation	See Choosing a location on page 13.		
Remote Receiver	Allows you to enable all the remote receivers or one specific remote receiver on the projector.		
Auto Source Search	Allows the projector to automatically search for a signal.		
Auto Sync	• On: Allows the projector to automatically determines the best picture timings for the displayed image when PC signal (analog RGB) is selected and AUTO is pressed.		
	• Off: The projector will not respond when AUTO is pressed.		
Light Mode: See Setting the Light Mode on page 92.			
Light Settings	• <b>Reset Light Timer</b> : See Timing of replacing the lamp (FOR SERVICE PERSONNEL ONLY) on page 93.		
	• Light Usage Time: Displays the number of hours the lamp has been used.		

	Quick Cooling		
	Selecting <b>On</b> enables the function and projector cooling time will be shortened from a normal 90-second duration to approximately 15 seconds.		
	Blank Timer		
	Sets the image blank time when there is no action taken on the blank screen, once elapsed the image will return to the screen. If the preset time spans are not suitable for your need, select <b>Disable</b> . No matter <b>Blank Timer</b> is activated or not, you can press most of the keys on the projector or remote control to restore the picture.		
	Reminder Message		
	Sets the reminder messages on or off.		
	High Altitude Mode		
	We recommend you use the <b>High Altitude Mode</b> when your environment is between 1500 m $-3000$ m above sea level, and ambient temperature is between 0°C-30°C.		
	Operation under " <b>High Altitude Mode</b> " may cause a higher decibel operating noise level because of increased fan speed necessary to improve overall system cooling and performance.		
Operation Settings	If you use this projector under other extreme conditions excluding the above, it may display auto shut-down symptoms, which is designed to protect your projector from over-heating. In cases like this, you should switch to High Altitude mode to solve these symptoms. However, this is not to state that this projector can operate under any and all harsh or extreme conditions.		
	Do not use the <b>High Altitude Mode</b> if your altitude is between 0 m and 1500 m and ambient temperature is between 0°C and 35°C. The projector will be over cooled, if you turn the mode on under such a condition.		
	Power On/Off Settings		
	<ul> <li>Direct Power On: Allows the projector to turn on automatically once the power is fed through the power cord.</li> </ul>		
	• Signal Power On: Sets whether to turn the projector directly on without		
	pressing <b>() POWER</b> or <b>II ON</b> when the projector is in standby mode and detects a VGA signal or a HDMI signal with 5V power.		
	• Auto Power Off: Allows the projector to turn off automatically if no input signal is detected after a set period of time to prevent unnecessary waste of lamp life.		
	• Power Off Timer: Sets the auto-shutdown timer.		
	Instant Restart		
	Allows you to restart the projector immediately within 90 seconds after turning it off.		
Security Settings	See Utilizing the password function on page 72.		

Baud Rate	Selects a baud rate that is identical with your computer's so that you can connect the projector using a suitable RS-232 cable and update or downloa the projector's firmware. This function is intended for qualified service personnel.	
HDMI Equalizer	Adjusts the equalizer gain settings for an HDMI signal. The higher the setting, the stronger the gain value. If there are more than one HDMI port of the projector, select the HDMI port first before adjusting the value.	
Reset Settings	Returns all of the adjustments you've made for the <b>Settings</b> menu to the factory preset values.	

### System

Language	Sets the language for the On-Screen Display (OSD) menus.		
	• Standby Mode		
	<ul> <li>ECO: The projector maintains at normal standby mode with less than 0.5W power consumption.</li> </ul>		
Standby Settings	<ul> <li>Normal: Allows the projector to provide audio pass through function in standby mode.</li> </ul>		
	<ul> <li>Audio Pass Through: The projector can play sound when it is in standby mode and the corresponding jacks are correctly connected to devices.</li> <li>Press ◄/► to choose the source that you wish to use. See Connection on page 18 for how to make the connection.</li> </ul>		
Background	• Background: Sets the background color for the projector.		
Settings	<ul> <li>Splash Screen: Allows you to select which logo screen will be displayed during projector start-up.</li> </ul>		
	• Menu Type: Switches to the Basic OSD menu.		
Menu Settings	• <b>Menu Display Time</b> : Sets the length of time the OSD will remain active after your last key press.		
	• <b>Sound Mode</b> : This function utilizes MaxxAudio sound enhancement technology, which incorporates Waves's algorithms to deliver great effects of the bass and treble and provide you with immersive cinematic audio experience.		
	If the Mute function is activated, adjusting Sound Mode will turn off the Mute function.		
Audio Settings	• Mute: Temporarily turns off the sound.		
	Volume: Adjusts the sound level.		
	• <b>Power On/Off Ring Tone</b> : Turns on or off the ring tone when the projector is in startup and shutdown process.		
	The only way to change <b>Power On/Off Ring Tone</b> is setting <b>On</b> or <b>Off</b> here. Setting the sound mute or changing the sound level will not affect the <b>Power On/Off Ring Tone</b> .		

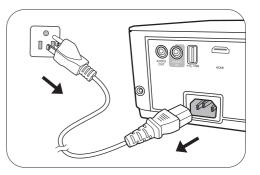
	Returns all settings to the factory preset values.		
Factory Default	The following settings will still remain: <b>2D Keystone</b> , <b>Projector Installation</b> , <b>Light Usage</b> <b>Time</b> , <b>High Altitude Mode</b> , <b>Security Settings</b> , <b>Baud Rate</b> , <b>HDMI Equalizer</b> .		
Reset System	Returns all of the adjustments you've made for the <b>System</b> menu to the factory preset values.		

### Information

	• Native Resolution: Shows the native resolution of the projector.
	• Detected Resolution: Shows the native resolution of the input signal.
	• Source: Shows the current signal source.
	<ul> <li>Picture Mode: Shows the selected mode in the Picture menu.</li> </ul>
Information	<ul> <li>Light Mode: Shows the selected mode in the Light Settings menu.</li> </ul>
Information	• <b>3D Format</b> : Shows the current 3D mode.
	Color System: Shows input system format.
	• Light Usage Time: Shows the number of hours the lamp has been used.
	• Firmware Version: Shows the firmware version of your projector.
	Service Code: Shows the projector serial number.

# Shutting down the projector

- 1. Press () on the projector or on the remote control and a confirmation message will appear prompting you. If you don't respond in a few seconds, the message will disappear.
- 2. Press 🕐 or 💽 a second time. The power indicator flashes orange, the projection lamp shuts down, and the fans will continue to run for approximately 90 seconds to cool down the projector.



- Once the cooling process finishes, the power indicator becomes a steady orange and fans stop. Disconnect the power cord from the power outlet.
  - To protect the lamp, the projector will not respond to any commands during the cooling process.
  - Avoid turning on the projector immediately after turning it off as excessive heat may shorten lamp life.
  - · Lamp life results will vary depending on environmental conditions and usage.

### Direct power off

The AC power cord can be pulled out right after the projector is turned off. To protect the lamp, wait about 10 minutes before re-starting the projector. If you attempt to re-start the projector,

the fans may run for a few minutes to cool down. In such cases, press 🕛 or 🔲 again to start the projector after the fans stop and the power indicator turns orange.

# Maintenance

## Care of the projector

### Cleaning the lens

Clean the lens whenever you notice dirt or dust on the surface. Please be sure to turn off the projector and let it cool down completely before cleaning the lens.

- · Use a canister of compressed air to remove dust.
- If there is dirt or smears, use lens-cleaning paper or moisten a soft cloth with lens cleaner and gently wipe the lens surface.
- Never use any type of abrasive pad, alkaline/acid cleaner, scouring powder, or volatile solvent, such as alcohol, benzene, thinner or insecticide. Using such materials or maintaining prolonged contact with rubber or vinyl materials may result in damage to the projector surface and cabinet material.

### Cleaning the projector case

Before you clean the case, turn the projector off using the proper shutdown procedure as described in Menu operation on page 75 and unplug the power cord.

- To remove dirt or dust, wipe the case with a soft, lint-free cloth.
- To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral pH detergent. Then wipe the case.

Never use wax, alcohol, benzene, thinner or other chemical detergents. These can damage the case.

### Storing the projector

If you need to store the projector for an extended time, please follow the instructions below:

- Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Please refer to Specifications on page 96 or consult your dealer about the range.
- Retract the adjuster feet.
- Remove the battery from the remote control.
- Pack the projector in its original packing or equivalent.

### Transporting the projector

It is recommended that you ship the projector with its original packing or equivalent.

## Light information

### Getting to know the light hour

When the projector is in operation, the duration (in hours) of light usage is automatically calculated by the built-in timer. The method of calculating the equivalent lamp hour is as follows:

1. Light Usage Time = (x+y+z+a) hours, if:

Time used in **Normal** mode = x hours Time used in **ECO** mode = y hours Time used in **SmartEco** mode = z hours Time used in **LampSave** mode = a hours

2. Equivalent light source hour =  $\alpha$  hours

 $\alpha = x(A' / X) + y(A'/Y) + z(A'/Z) + a(A'/A)$ , if

X= lamp life spec of Normal mode

- Y= lamp life spec of **ECO** mode
- Z= lamp life spec of SmartEco mode
- A= lamp life spec of LampSave mode
- A' is the longest lamp life spec among X, Y, Z, A

When you calculate Equivalent Lamp hour manually, it will probably have deviation from the value shown in OSD menu since projector system calculates time used for each lamp mode in "Minutes" then rounds down to an integer in hours shown in OSD.

For time used in each lamp mode shown in OSD menu:

- ${\boldsymbol{\cdot}}$  Time used is accumulated and rounded down to an integer in  ${\boldsymbol{hours}}.$
- When time used is less than 1 hour, it shows 0 hours.

To obtain the lamp hour information:

- 1. Go to **Advanced Menu Settings** > **Light Settings** and press **OK**. The **Light Settings** page appears.
- 2. Press ▼ to select Light Usage Time and press OK. The Light Usage Time information is displayed.

You can also get the lamp hour information on the **Information** menu.

### Extending lamp life

#### Setting the Light Mode

Go to **Advanced Menu - Settings > Light Settings > Light Mode** and select a suitable lamp power from among the provided modes.

Setting the projector in ECO, SmartEco or LampSave mode extends lamp life.

Lamp mode	Description	
Normal	Provides full lamp brightness	
ECO	Lowers brightness to extend the lamp life and decreases the fan noise	
SmartEco	Adjusts the lamp power automatically depending on the content brightness level while optimizing display quality	
LampSave	Adjusts the lamp power automatically depending on the content brightness level while offering a longer lamp life	

#### Setting Auto Power Off

This function allows the projector to turn off automatically if no input signal is detected after a set period of time to prevent unnecessary waste of lamp life.

To set Auto Power Off, go to Advanced Menu - Settings > Operation Settings > Power On/Off Settings > Auto Power Off and press ◄/►.

### Timing of replacing the lamp (FOR SERVICE PERSONNEL ONLY)

When the **LIGHT indicator** lights up or a message appears suggesting it is time to replace the lamp, please consult your dealer or go to <a href="http://www.BenQ.com">http://www.BenQ.com</a> before installing a new lamp and resetting the light timer. An old lamp may cause a malfunction in the projector and in some instances the light may explode.



- The apparent brightness of the projected image will vary depending on the ambient lighting conditions, selected input signal contrast/brightness settings, and is directly proportional to projection distance.
- The lamp brightness will decline over time and may vary within the lamp manufacturers specifications. This is normal and expected behavior.
- The LIGHT indicator light and TEMPerature warning light will light up if the lamp becomes too hot. Turn the power off and let the projector cool for 45 minutes. If the Light or Temp indicator still lights up after turning the power back on, please contact your dealer. See Indicators on page 94.

The following Lamp warning displays will remind you to change the lamp.

Order Replacement Lamp Lamp>XXXX Hours Order a new lamp at www.benq.com OK	Install a new lamp for optimal performance. Press <b>OK</b> to dismiss the message.
Replace Lamp Soon Lamp>XXXX Hours Order a new lamp at www.benq.com	It is strongly recommended that you replace the lamp at this age. The lamp is a consumable item. The lamp brightness diminishes with use. This is normal lamp behavior. You can replace the lamp whenever you notice that the brightness level has significantly diminished. Press <b>OK</b> to dismiss the message.
Replace Lamp Now Lamp>XXXX Hours Order a new lamp at www.benq.com Lamp usage time exceeded OK Out of Lamp Usage Time	The lamp MUST be replaced before the projector will operate normally. Press <b>OK</b> to dismiss the message.
Out of Lamp Usage Time Replace lamp (Refer to user manual) Then reset lamp timer Order a new lamp at www.benq.com OK	

"XXXX" shown in the above messages are numbers that vary depending on different models.

### Indicators

Light			Ctatus & Description	
POWER O	TEMP O	LIGHT O	Status & Description	
			Power events	
0	0	0	Stand-by mode	
۲	0	0	Powering up	
	0	0	Normal operation	
•	0	0	Normal power-down cooling	
۲	۲	•	Download	
	0		CW start fail	
			Lamp events	
0	0		Lamp error in normal operation	
0	0	•	Lamp is not lit up	
	0	$\bigcirc$	Lamp life exhausted	
0			Lamp door is not closed	
		-	Thermal events	
		0	Fan 1 error (the actual fan speed is outside the desired speed)	
	۲	0	Fan 2 error (the actual fan speed is outside the desired speed)	
		0	Fan 3 error (the actual fan speed is outside the desired speed)	
		0	Temperature 1 error (over limited temperature)	
	۲	0	Thermal IC #1 I2C Connection error	

O: Off	⊖: Orange On	C: Green On	E: Red On
<u> </u>	븢: Orange Flashing	💭: Green Flashing	븢: Red Flashing

# Troubleshooting



#### The projector does not turn on.

Cause	Remedy
There is no power from the power cord.	Plug the power cord into the AC power jack on the projector, and plug the power cord into the power outlet. If the power outlet has a switch, make sure that it is switched on.
Attempting to turn the projector on again during the cooling process.	Wait until the cooling down process has completed.

### No picture

Cause	Remedy
The video source is not turned on or connected correctly.	Turn the video source on and check that the signal cable is connected correctly.
The projector is not correctly connected to the input signal device.	Check the connection.
The input signal has not been correctly selected.	Select the correct input signal with the <b>SOURCE</b> key.
The lens cover is still closed.	Open the lens cover.

### Blurred image

7

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Cause	Remedy
The projection lens is not correctly focused.	Adjust the focus of the lens using the focus ring.
The projector and the screen are not aligned properly.	Adjust the projection angle and direction as well as the height of the projector if necessary.
The lens cover is still closed.	Open the lens cover.

### Remote control does not work.

Cause	Remedy
The batteries are out of power.	Replace both of the batteries with new ones.
There is an obstacle between the remote control and the projector.	Remove the obstacle.
You are too far away from the projector.	Stand within 8 meters (26 feet) of the projector.

### The password is incorrect.

Cause	Remedy			
You do not remember the password.	See Entering the password recall procedure on page 73.			

# Specifications

# **Projector specifications**

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All specifications are subject to change without notice.

#### Optical

Resolution 1920 x 1200 Display system 1-CHIP DMD Lens  $F = 1.94 \sim 2.06$ , f = 9.25 ~ 11.1 mm Light source 245 W lamp

#### Electrical

Power supply AC100–240V, 3.9 A, 50–60 Hz (Automatic) Power consumption 360 W (Max); < 0.5 W (Standby)

#### Mechanical

Weight 2.9 Kg (6.39 lbs)

#### **Output terminals**

Speaker 5 watt x 1 Audio signal output PC audio jack x 1

#### Control

USB Type-A x 4 Type-A 1.5A x 1 RS-232 serial control 9 pin x 1 IR receiver x 2

#### Input terminals

Computer input RGB input D-Sub 15-pin (female) x 1 Video signal input SD/HDTV signal input Digital - HDMI 2.0 x 1 Audio signal input Audio in PC audio jack x 1

#### **Environmental Requirements**

Operating temperature 0°C-40°C at sea level Operating relative humidity 10%-90% (without condensation) Operating altitude 0-1499 m at 0°C-35°C 1500-3000 m at 0°C-30°C (with High Altitude Mode on) Storage temperature -20°C-60°C at sea level Storage humidity 10%-90% RH (without condensation) Storage altitude 30°C@ 0~12,200m above sea level

#### Transporting

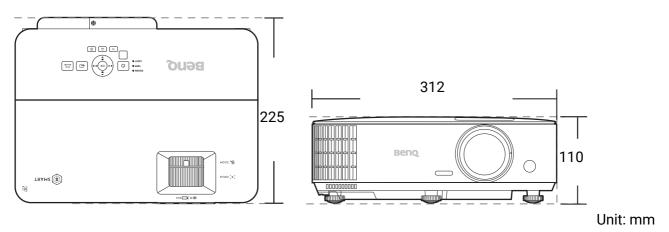
Original packing or equivalent is recommended

#### Repairing

Please visit below website and choose your country to find your service contact window. http://www.benq.com/welcome

## Dimensions

312 mm (W) x 110 mm (H) x 225 mm (D)



# **Timing chart**

### Supported timing for PC input

		Vertical	Horizontal	Pixel	3D format		
Resolution	Mode	Frequency	Frequency	Frequency	Frame	Тор	Side by
		(Hz)	(kHz)	(MHz)	Sequential	Bottom	Side
	VGA_60	59.940	31.469	25.175	Supported	Supported	Supported
640 x 480	VGA_72	72.809	37.861	31.500			
010 × 100	VGA_75	75.000	37.500	31.500			
	VGA_85	85.008	43.269	36.000			
720 x 400	720 x 400_70	70.087	31.469	28.3221			
	SVGA_60	60.317	37.879	40.000	Supported	Supported	Supported
	SVGA_72	72.188	48.077	50.000			
800 x 600	SVGA_75	75.000	46.875	49.500			
000 x 000	SVGA_85	85.061	53.674	56.250			
	SVGA_120 (Reduce Blanking)	119.854	77.425	83.000	Supported		
	XGA_60	60.004	48.363	65.000	Supported	Supported	Supported
	XGA_70	70.069	56.476	75.000			
1004 × 769	XGA_75	75.029	60.023	78.750			
1024 x 768	XGA_85	84.997	68.667	94.500			
	XGA_120 (Reduce Blanking)	119.989	97.551	115.5	Supported		
1152 x 864	1152 x 864_75	75	67.5	108			
1024 x 576	BenQ Notebook_timing	60.0	35.820	46.966			
1024 x 600	BenQ Notebook_timing	64.995	41.467	51.419			
1280 x 720	1280 x 720 60	60	45.000	74.250	Supported	Supported	Supported
1280 x 768	1280 x 768_60	59.87	47.776	79.5	Supported	Supported	Supported
	WXGA_60	59.810	49.702	83.500	Supported	Supported	Supported
	WXGA_75	74.934	62.795	106.500			
1280 x 800	WXGA_85	84.880	71.554	122.500			-
	WXGA_120 (Reduce Blanking)	119.909	101.563	146.25	Supported		
	SXGA_60	60.020	63.981	108.000		Supported	Supported
1280 x 1024	SXGA_75	75.025	79.976	135.000			
	SXGA_85	85.024	91.146	157.500			
4000 000	1280 x 960_60	60.000	60.000	108.000		Supported	Supported
1280 x 960	1280 x 960_85	85.002	85.938	148.500			
1360 x 768	1360 x 768_60	60.015	47.712	85.5		Supported	Supported
1440 x 900	WXGA+_60	59.887	55.935	106.500		Supported	Supported
1400 x 1050	 SXGA+_60	59.978	65.317	121.750		Supported	
1600 x 1200	UXGA	60.000	75.000	162.000		Supported	Supported
1680 x 1050	1680 x 1050_60	59.954	65.290	146.250		Supported	Supported
640 x 480@67Hz	MAC13	66.667	35.000	30.240			
832 x 624@75Hz	MAC16	74.546	49.722	57.280			
1024 x 768@75Hz	MAC19	74.93	60.241	80.000			
1152 x 870@75Hz	MAC21	75.060	68.680	100.000			
1920 x 1080@60Hz	1920 x 1080_60	60	67.5	148.5		Supported	Supported
1920 x 1200	1920 x 1200_60 (Reduce Blanking)	59.950	74.038	154.0000		Supported	Supported



The timings showing above may not be supported due to EDID file and VGA graphic card limitations. It is possible that some timings cannot be chosen.

### Supported timing for HDMI (HDCP) input

#### • PC timings

		Vertical	Horizontal	Pixel	3D format		
Resolution	Mode	Frequency (Hz)	Frequency (kHz)	Frequency (MHz)	Frame Sequential	Top Bottom	Side by Side
	VGA_60	59.940	31.469	25.175	Supported	Supported	Supported
640 x 480	VGA_72	72.809	37.861	31.500			
0+0 X +00	VGA_75	75.000	37.500	31.500			
	VGA_85	85.008	43.269	36.000			
720 x 400	720 x 400_70	70.087	31.469	28.3221			
	SVGA_60	60.317	37.879	40.000	Supported	Supported	Supported
	SVGA_72	72.188	48.077	50.000			
800 x 600	SVGA_75	75.000	46.875	49.500			
000 x 000	SVGA_85	85.061	53.674	56.250			
	SVGA_120 (Reduce Blanking)	119.854	77.425	83.000	Supported		
	XGA_60	60.004	48.363	65.000	Supported	Supported	Supported
	XGA_70	70.069	56.476	75.000			
1024 x 768	XGA_75	75.029	60.023	78.750			
1024 X 700	XGA_85	84.997	68.667	94.500			
	XGA_120 (Reduce Blanking)	119.989	97.551	115.5	Supported		
1152 x 864	1152 x 864_75	75	67.5	108			
1024 x 576@60Hz	BenQ Notebook Timing	60.00	35.820	46.996			
1024 x 600@65Hz	BenQ Notebook Timing	64.995	41.467	51.419			
1280 x 720	1280 x 720_60	60	45.000	74.250	Supported	Supported	Supported
1280 x 768	1280 x 768_60	59.870	47.776	79.5	Supported	Supported	Supported
	WXGA_60	59.810	49.702	83.500	Supported	Supported	Supported
	WXGA_75	74.934	62.795	106.500			
1280 x 800	WXGA_85	84.880	71.554	122.500			
	WXGA_120 (Reduce Blanking)	119.909	101.563	146.25	Supported		
	SXGA_60	60.020	63.981	108.000		Supported	Supported
1280 x 1024	SXGA_75	75.025	79.976	135.000			
	SXGA_85	85.024	91.146	157.500			
1000 × 000	1280 x 960_60	60.000	60.000	108		Supported	Supported
1280 x 960	1280 x 960_85	85.002	85.938	148.500			
1360 x 768	1360 x 768_60	60.015	47.712	85.500		Supported	Supported
1440 x 900	WXGA+_60	59.887	55.935	106.500		Supported	Supported
1400 x 1050	SXGA+_60	59.978	65.317	121.750		Supported	Supported
1600 x 1200	UXGA	60.000	75.000	162.000		Supported	Supported
1680 x 1050	1680 x 1050_60	59.954	65.290	146.250		Supported	Supported
640 x 480@67Hz	MAC13	66.667	35.000	30.240			
832 x 624@75Hz	MAC16	74.546	49.722	57.280			
1024 x 768@75Hz	MAC19	75.020	60.241	80.000			
1152 x 870@75Hz	MAC21	75.06	68.68	100.00			
1920 x 1080@60Hz	1920 x 1080_60	60	67.5	148.5		Supported	Supported
1920 x 1200	1920 x 1200_60 (Reduce Blanking)	59.950	74.038	154.0000		Supported	Supported



The timings showing above may not be supported due to EDID file and VGA graphic card limitations. It is possible that some timings cannot be chosen.

### Video timings

		Vertical	Horizontal	Pixel	3D format			
Timing	Resolution	Frequency (Hz)	Frequency (kHz)	Frequency (MHz)	Frame Sequential	Frame Packing	Top Bottom	Side by Side
480i	720 x 480	59.94	15.73	27	Supported			
480p	720 x 480	59.94	31.47	27	Supported			
576i	720 x 576	50	15.63	27				
576p	720 x 576	50	31.25	27				
720/50p	1280 x 720	50	37.5	74.25		Supported	Supported	Supported
720/60p	1280 x 720	60	45.00	74.25	Supported	Supported	Supported	Supported
1080/24P	1920 x 1080	24	27	74.25		Supported	Supported	Supported
1080/25P	1920 x 1080	25	28.13	74.25				
1080/30P	1920 x 1080	30	33.75	74.25				
1080/50i	1920 x 1080	50	28.13	74.25				Supported
1080/60i	1920 x 1080	60	33.75	74.25				Supported
1080/50P	1920 x 1080	50	56.25	148.5			Supported	Supported
1080/60P	1920 x 1080	60	67.5	148.5			Supported	Supported

### Supported timing for Component-YPbPr input

	Resolution	Vertical Frequency (Hz)	Horizontal Frequency	Pixel Frequency	3D format
Timing			(kHz)	(MHz)	Frame
		(112)		(101112)	Sequential
480i	720 x 480	59.94	15.73	13.5	Supported
480p	720 x 480	59.94	31.47	27	Supported
576i	720 x 576	50	15.63	13.5	
576p	720 x 576	50	31.25	27	
720/50p	1280 x 720	50	37.5	74.25	
720/60p	1280 x 720	60	45.00	74.25	Supported
1080/50i	1920 x 1080	50	28.13	74.25	
1080/60i	1920 x 1080	60	33.75	74.25	
1080/24P	1920 x 1080	24	27	74.25	
1080/25P	1920 x 1080	25	28.13	74.25	
1080/30P	1920 x 1080	30	33.75	74.25	
1080/50P	1920 x 1080	50	56.25	148.5	
1080/60P	1920 x 1080	60	67.5	148.5	



Displaying a 1080i(1125i)@60Hz or 1080i(1125i)@50Hz signal may result in slight image vibration.