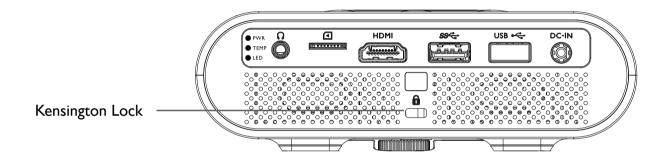
# Securing the projector Using the Kensington lock

The projector has to be installed in a safe place to prevent theft. It has a Kensington lock slot located at the rear of the projector which you can use to secure the projector via a Kensington lock cable.



# Selecting an input source

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

To select the video source:

I. Press 

on the projector or your remote control to display the source selection bar.

In the projector of your remote control to display the source selection bar.

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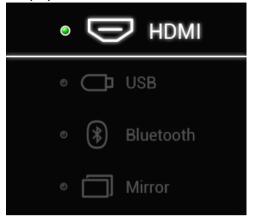
In the projector of your remote control to display the source selection bar.

In the projector of your remote control to display the source selection bar.

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2. Press ▲/▼ until your desired signal is selected and press OK.

Once detected, the selected source information displays on the screen for seconds. If there are multiple pieces of equipment connected to the projector, repeat steps I-2 to search for another signal.



The native display resolution of this projector is in a 16:9 aspect ratio. For best display picture results, you should select and use an input signal which outputs at this 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 61 for details.

# Adjusting the projected image

### Adjusting the projection angle

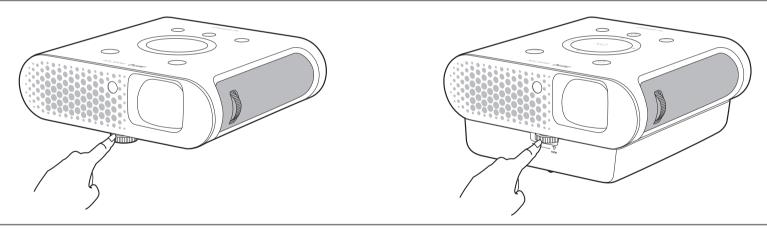
The projector is equipped with an angle adjust dial which changes the image height and projection angle.

To adjust the projection angle:

- Turn the dial to the right to slowly raise the front of the projector until the image is positioned as desired.
- Turn the dial to the left to slowly lower the front of the projector.



- The angle adjust dial works in the same manner when the projector is installed on the GSI Battery.
- If the screen and the projector are not perpendicular to each other, the projected image becomes vertical trapezoidal. To correct this, see Auto Keystone on page 63 for details.
- When the angle adjust dial is set high you will not be able to remove the projector from the battery. To remove the projector from the battery ensure that the angle adjust dial is set to a low position.

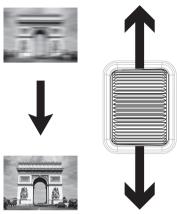




Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes.

# Fine-tuning the image clarity

To sharpen the picture, rotate the focus ring on the projector.

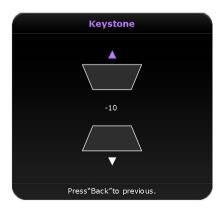


# Correcting keystone

Keystoning refers to the situation where the projected image is noticeably wider at either the top or bottom. It occurs when the projector is not perpendicular to the screen.

You may correct this in the following way.

- Using the OSD settings menu
  - Select **Keystone**.





- To correct keystoning at the top of the image, use ▲ on your remote control.
- To correct keystoning at the bottom of the image, use ▼ on your remote control.
- When done, press BACK to save your changes and exit.



You may only make these adjustments if Auto Keystone is disabled in the Setting menu, see Auto Keystone on page 63 for details.

# Bluetooth pairing

The projector allows you to output audio directly to any Bluetooth-enabled speaker or headphones for greater sound particularly in outdoor settings.

### Pairing with 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 ~10 meter range of each other and Bluetooth is enabled on the projector.

To pair your projector to a Bluetooth speaker or headphones:

- I. Power on the projector.
- 2. Press = on the projector or your remote control to display the source selection bar.
- 3. Select **Bluetooth** in the source list, the Bluetooth setting menu will launch.
- 4. Select the Bluetooth switch in the Bluetooth setting menu and press **OK** on the projector or your remote control so that the Bluetooth switch is in the enabled position.
- 5. Activate Bluetooth-pairing mode on the speaker or headphones.

6. Select the speaker or headphones from the list of Bluetooth devices in the Bluetooth setting menu.



If you are unable to find the speaker or headphones from the list of Bluetooth devices on the first try, ensure that pairing mode is activated on the device, then select Scan for devices in the Bluetooth setting menu to restart the scanning process.

7. 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 mobile device 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.

### Ending a 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:

- I. Press 

  on the projector or your remote control to display the source selection bar.

  In the projector of your remote control to display the source selection bar.
- 2. Select **Bluetooth** in the source list, the Bluetooth setting menu will launch.
- 3. Select the already connected speaker or headphones from the list of Bluetooth devices in the Bluetooth setting menu and press OK.
- 4. Confirm that you want to disconnect the speaker or headphones from the projector.
- Activate Bluetooth-pairing mode on the new speaker or headphones.
- 6. Select the new speaker or headphones from the list of Bluetooth devices in the Bluetooth setting menu.



If you are unable to find the speaker or headphones from the list of Bluetooth devices on the first try, ensure that pairing mode is activated on the device, then select Scan for devices in the Bluetooth setting menu to restart the scanning process.

### 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. Press = on the projector or your remote control to display the source selection bar.
- 2. Select **Bluetooth** in the source list, the Bluetooth setting menu will launch.
- 3. Select the Bluetooth switch in the Bluetooth setting menu and press **OK** on the projector or your remote control so that the Bluetooth switch is in the disabled position.

# **BenQ Launcher**

**BenQ Launcher** is a multimedia platform that integrates various applications ranging from entertainment, education, games, online shopping, TV, and other practical functions that caters to your everyday needs.



Under BenQ Launcher mode, please use your remote control or an optional wireless keyboard/mouse for operating BenQ Launcher functions. The projector's control panel keys are limited to control projector functions.

# Operating under the **BenQ Launcher** mode

### Accessing the **BenQ Launcher** main page

When the projector is not projecting an image from a connected source be in **BenQ Launcher** mode by default. If the projector is projecting a source you can return to **BenQ Launcher** mode by pressing  $\omega$  on your remote control.





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

# Using the **BenQ Launcher** applications



Before you start using BenQ Launcher applications, make sure you are connected to the Internet via a wireless connection. See Changing network settings on page 54 for connection instructions.

The main menu of the **BenQ Launcher** mode features four main sections.

- Streaming Video section Shortcuts to direct streaming of Teleplay shows, Movies, or Cartoons.
- Featured Apps section A rotating selection of specially featured apps BenQ selects for users of the projector.
- **System section** A group of apps that help you configure the **BenQ Launcher**, and access more apps from the **BenQ Launcher**. They include the following menus:
  - App Market A marketplace which allows you to download and install various apps for the projector.
  - **Settings** Basic settings for the projector and **BenQ Launcher**. See the Using the BenQ Launcher Settings page on page 51 for more details.
  - All Apps A menu of all apps installed on the projector.
- App Shortcuts section A group of shortcuts to apps installed on the projector. See Adding/Removing app shortcuts on page 53 for more details.

#### Navigating the **BenQ Launcher**:

- 1. From the **BenQ Launcher** main menu, press  $\blacktriangleleft/\triangleright/\blacktriangle/\blacktriangledown$  on your remote control to select the desired service and press **OK**.
- 2. Follow on screen instructions for further operations.

### Accessing the **BenQ Launcher** menus

Within the **BenQ Launcher** mode there are multiple menus that can be accessed pressing  $\blacktriangleleft/\triangleright/\blacktriangle/\blacktriangledown$  on your remote control from the main menu.

### Using the **Notification** menu and **Clean Tool** function

Press ▲ twice on your remote control from the main menu to choose either the **Notification** menu or **Clean Tool** function and press **OK** to enter the menu.



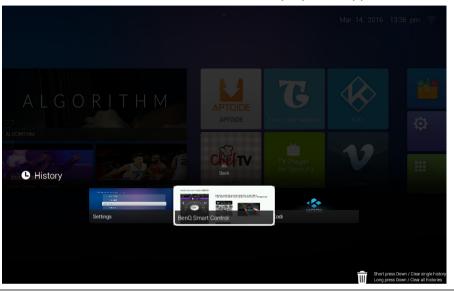


Actual screen may vary based on your BenQ Launcher firmware version.

- Notification Select this menu to view any app or system related messages for the projector.
- Clean Tool Select this function to clear the memory cache for the projector, which speeds up the performance of the BenQ Launcher.

### Using the **History** menu

Press ▼ twice on your remote control from the main menu to view a list of recently opened apps.





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

To re-open an app from the **History** menu use  $\blacktriangleleft/\triangleright$  on your remote control to navigate to the app you want to re-open, and then press **OK** to re-open that app.

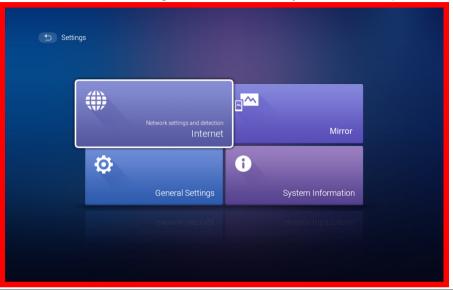
To clear an app from the **History** menu use **◄**/► on your remote control to navigate to the app you want to clear, and then press **▼** to clear that app from the History menu, you can also press and hold **▼** to clear all apps from the **History** menu.

### Using the input source menu

Press ◀ on your remote control from the main menu to access the input source menu. See Selecting an input source on page 41 for more details on input sources.

# Using the **BenQ Launcher Settings** page

The **Settings** page for the **BenQ Launcher** offers a set of configurations that allow you to make adjustments to the **BenQ Launcher** environment.





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

# BenQ Launcher Settings overview

Submenu	Functions and Descriptions			
	Allows you to:			
Intownot	• Connect to the Internet via a wireless connection. See Using the All Apps page on page 53 for more details.			
Internet	Perform Network diagnostic.			
	Test the speed of your Internet connection.			

Submenu	Functions and Descriptions			
	Allows you to:			
Mirror	• Show the connected smart device's screen from the projector. To perform the screen mirroring function, follow the instructions in the connected device's user manual.			
	• Enable or disable Bluetooth on your projector and pair with a Bluetooth speaker or headphones to output the projector's audio in outdoor settings See Bluetooth pairing on page 45 for more details.			
	Allows you to:			
	Change the input type.			
	Change the language for the projector.			
General	Change the time zone.			
Settings	Change the wallpaper.			
	<ul> <li>Change the layout of the BenQ Launcher main page. See Operating under the BenQ Launcher mode on page 47 for more details.</li> </ul>			
	Change the <b>LED Mode.</b> See LED Mode on page 63 for more details.			
	Change the default Home app for the projector.			

Submenu	Functions and Descriptions			
	Allows you to:			
	Manage the apps installed on the projector.			
	Upgrade the system to the latest version via the Internet or the connected media flash drive.			
	For each system upgrade, the system will send a notice message to remind all users to undergo system upgrade. Make sure you have stable wireless connection during system upgrades.			
	View the following system information:			
6 -4	Available storage			
System Information	Device name			
mormacion	Device model			
	Network addresses			
	Platform version			
	View operation instructions, such FAQ and user manual			
	Complete a factory data reset.			
	When you perform a factory data reset all the data stored in your projector will be deleted including apps, and media files. The settings for the projector will also revert back to the factory default settings.			

# Using the All Apps page

The All Apps page in the system section of the main page allows you view and launch all apps installed on the projector.

To open an app:

I. Press 
/►/▲/▼ on your remote control to select the App you want to launch and press OK to launch.

# Adding/Removing app shortcuts

To add an app to the App Shortcuts section of the main page:

I. Select the + box from the App Shortcuts section on the main page, a menu of all the apps installed on your projector will be displayed.

- 2. From the list of apps press **OK** on your remote control to check the box for the apps you want to add to the App Shortcuts section, or press **OK** on your remote control un-check the box for the apps you want to remove from the App Shortcuts section.
- 3. Press  $\Rightarrow$  to confirm your selections and return to the **BenQ Launcher** main page.

#### Deleting an app from the All Apps page

To delete an app from the **All Apps** page:

- I. Press </bd>
  /►/▲/▼ on your remote control to select the App you want to delete and then press and hold **OK** for a few seconds.
- 2. Confirm that you want to delete the app from the **All Apps** page.

### Changing network settings

The **BenQ Launcher** allows you to change your wireless connection settings via the **WLAN Settings** menu within the **Internet** menu, which can be accessed by selecting the **Settings** menu from the System section in the main menu.

To change or connect to the Internet via Wireless LAN:

- I. Ensure WLAN is enabled in the WLAN field.
- 2. Press **△**/▼ on your remote control to select the desired SSID for the Wireless AP you want to connect to and press **OK**.
- 3. When connecting to an SSID:
  - If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter the appropriate password. Press 
    ✓ If you chose a secured SSID for the first time, a window appears to prompt you to enter your password. After you have entered the password, select 
    Connect and press OK to 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.

### Inputting text

Various menus within the **BenQ Launcher** may require that you input text. To input text in a text field:

- I. Select the text field where you want to input text.
- 2. Press **OK** on your remote control, a full alphanumeric keyboard will appear on screen.

- 3. Press **<**/▶/▲/▼ on your remote control to navigate the keyboard, and press **OK** to select the letter/key/symbol you want to enter into the text field.
- 4. Press  $\Rightarrow$  at anytime to exit out of the keyboard.

# Navigating the OSD menus

# About the OSD menus

To let you make various adjustments or settings on the projector and the projected image, the projector provides multilingual On-Screen Display (OSD) menus, which contains primary menu functions. (See Using the OSD menu on page 58)

To access the OSD menu, press **MENU** on your remote control.



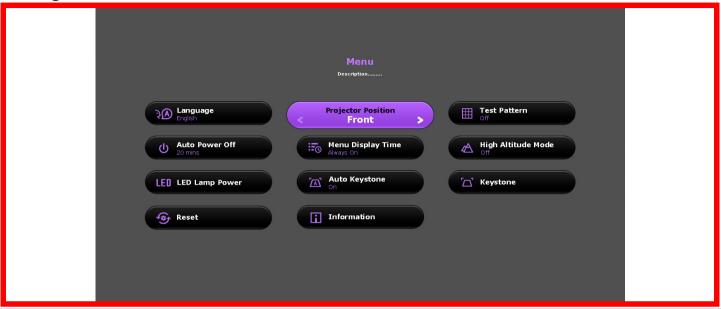
The following is the OSD menu:





Use the arrow keys  $(\blacktriangleleft/\triangleright/\blacktriangle/\blacktriangledown)$  on your remote control to move through the menu items, and use OK to confirm the selected menu item.

The following is the **Settings** menu of the OSD menu:





When selecting items within the Setting menu press OK, and then  $(\blacktriangleleft/\blacktriangleright/)$  to toggle through the options. Press  $\circlearrowleft$  when you want to confirm your selection and return to navigating the Settings menu.

# Using the OSD menu

The OSD menu provides primary menu functions. Available menu items may vary depending on the connected video sources or specified settings. Menu options that are not available will become grayed out.

To access the OSD menu, press **MENU** on your remote control.

- Use the arrow keys (◄/►/▲/▼) to move through the menu items.
- Use **OK** to confirm the selected menu item.



Certain menu items may appear only when input signals are connected and may not appear when no input signals are connected.

Menu	Submenus and descriptions			
	Selects a preset picture mode to suit your operating environment and input signal picture type. The preset picture modes are described as below:			
	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.		
	Office	Emphasizes brightness to match coloring from a PC.		
Picture Mode	Camping	Being slightly brighter than <b>Movie</b> mode, it is suitable for playing movies in the outdoors where there is a small amount of ambient light at night.		
	Movie	Well-balanced color saturation and contrast with a low brightness level, this mode is most suitable for enjoying movies in a totally dark environment (as you would find in a commercial cinema).		
	Vivid Color	Well-saturated color, fine-tuned sharpness and a higher brightness level, this mode is most suitable for watching movies in a room where there is a small amount of ambient light.		
	3D	Picture settings appropriate for playing video games.		
	User	Recalls the customized settings.		
	Adjusts the overa	Il black level of the picture. When adjusting this control the black areas of the picture appear just as black and areas are visible.		
	Daytime	Adjusts the black level of the picture to create a clearer image when atmospheric light is brighter than the picture.		
Environment Lit	Evening	Adjusts the black level of the picture to create a darker foregrounds and brighter backgrounds when atmospheric light is dimming.		
	Camp Fire	Adjusts the black level of the picture for settings when atmospheric light is slightly bright.		
	Star Night	Adjusts the black level of the picture for settings when atmospheric light is dim.		
	Normal	Adjusts the black level of the picture for settings when atmospheric light is dark.		

Menu	Submenus and descriptions			
Color Saturation	Adjusts the color saturation level the amount of each color in a video picture. Lower settings produce less saturated colors; setting to the minimum value makes the image black and white.  If the image setting is too high, colors on the image will be overpowering, which makes the image unrealistic.			
Sharpness	Adjusts the sharpness of the image the distinctness of the boundaries between different tones or colors. The higher the value the sharper the image, while the lower the value the less sharp the image is.			
Color	The options available for color temperature* settings vary according to the connected input signal.  There are many different shades that are considered to be "white" for various purposes. One of the common methods of representing white color is known as the "color temperature". A white color with a low color temperature appears to be reddish white. A white color with a high color temperature appears to have more blue in it.			
Temperature	Normal	Maintains the normal colorings for white.		
	Cool	Makes images appear bluish white.		
	Warm	Makes images appear reddish white.		
Sound Mode	Selects a sound effect mode to your preference. The following preset sound modes are provided: <b>Camping, Movie</b> , and <b>Music.</b>			

Menu	Submenus and descriptions		
	The native display resolution of this projector is in a 16:9 aspect ration. However you may use this function to display projected pictures in a different aspect ratio In the following illustrations, the black portions are inactive areas and the white portions are active areas.		
		Scales a picture proportionally to fit the projector's native resolution in its horizontal and vertical width. This makes the most use of the screen and maintains the aspect ratio of a picture.	
	Auto	15:9 picture	
Aspect Ratio	4:3	Scales the picture so that it is displayed in the center of the screen with a 4:3 aspect ratio.	
		4:3 picture	
		Scales the picture so that it is displayed in the center of the screen with a 16:9 aspect ratio.	
	16:9	16:9 picture	
Wall Color	Adjusts the color settings of the image to suit the color of the wall on which the image is projected. The following <b>Wall Color</b> options are provided: <b>Off</b> , <b>Light Yellow</b> , <b>Pink</b> , and <b>Blue</b> .		

Menu		Submenus and descriptions				
	This projector supports playing three-dimensional (3D) content transferred through your 3D-compatible video devices and contents, such as game consoles (with 3D game discs), 3D Blu-ray players (with 3D Blu-ray discs), 3D TV (with 3D channel), and so on. After you have connected the 3D video devices to the projector, wear the BenQ 3D glasses and make sure the power is on to view 3D contents.  When watching 3D contents:  • The image may seem misplaced, however, this is not a product malfunction.					
		riate breaks when watching 3D content.				
3D	•	ng 3D content if you feel fatigue or discomfort.  In the screen of about three times the effective height of the screen when watching 3D content.				
	Children and	I people with a history of oversensitivity to light, heart problems, or have any other existing medical condition frained from watching 3D content.				
	The default setting is <b>Auto</b> and the projector automatically chooses an appropriate 3D format when detecting 3D contents. If the projector cannot recognize the 3D format, manually choose a 3D mode according to your preference.  When this function is enabled:  • The brightness level of the projected image decreases.					
	The Picture Mode cannot be adjusted.					
	Press <b>OK</b> to enter its submenu. See below for more details.					
	When selecting items within the <b>Settings</b> menu press <b>OK</b> , and then (◀/►/) to toggle through the options. Press ⇒ when you want to confirm your selection and return to navigating the <b>Settings</b> menu.					
	Language	Sets the language for the On-Screen Display (OSD) menus and the <b>BenQ Launcher</b> .				
Settings	Projector Position	The projector can be installed in a high location or behind a screen. See Choosing a location on page 24 for details.				
	Test Pattern	Enable this function to display the grid test pattern, which helps you adjust the image size and focus so as to check if the projected image is free of distortion.				
	Auto Power Off	Sets the time interval in which the projector will automatically power off when inactive.  The following Auto Power Off options are provided: <b>Disable</b> , <b>5 mins</b> , <b>10 mins</b> , <b>15 mins</b> , <b>20 mins</b> , <b>25 mins</b> , and <b>30 mins</b> .				

Menu		Submenus and descriptions		
Settings	Menu Display Time	Sets the length of inactive time before the OSD menu on the screen disappears. The following Menu Display Time options are provided: Always On, 5 sec, 10 sec, 15 sec, 20 sec, 25 sec, and 30 sec.		
	High Altitude Mode	Sets whether the projector increases fan speed in high altitude settings to increase the intake of air to cool the projector. Select <b>On</b> to enable an increased fan speed. Select <b>Off</b> to keep the projector's fan working at normal speed.		
	LED Mode	<ul> <li>Selects the projector LED lamp power from the following modes.</li> <li>Normal: Provides full lamp brightness.</li> <li>Economic: Reduces system noise and power consumption by 30%. If Economic mode is selected, to light output will be reduced and result in darker projected pictures.</li> <li>SmartEco: Adjusts the visual settings of the projector based on the projected image to lower power consumption while keeping the brightness and color consistent with Normal mode (power consumption and system noise reduction varies based on the adjusted image).</li> </ul>		
	Auto Keystone	Enable this function to allow the projector to automatically adjust the keystone settings when powered on. See Correcting keystone on page 44 for more details.		
	Keystone	Adjusts the keystone settings for the projected image. See Correcting keystone on page 44 for more details.  This function is only available when <b>Auto Keystone</b> is disabled.		
	Reset All Settings	Returns all settings to the factory preset values.  The following settings will still remain: Keystone, Language and Projector Position.		

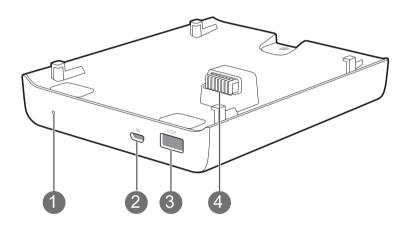
Menu		Submenus and descriptions		
		Displays the following information about your projector.		
		Source: Displays the current signal source.		
	Information	Picture Mode: Displays the current Picture Mode.		
		Resolution: Displays the native resolution of the input source.		
Settings		Color System: Displays input system format.		
		• Equivalent Lamp Hour: Displays the number of hours the lamp has been used.		
		Firmware Version: Displays the firmware version of your projector.		
		Some information is given only when certain input sources are in use.		

# Accessories

# **GSI** Battery

Your projector comes with an attachable battery which is suitable for use in outdoor situations when a traditional power outlet is not readily available.

#### Rear View



#### I. Charge indicator light

The indicator light lights up blue when the GSI battery is charging.

#### 2. Micro USB 2.0 Type-B port

Used to charge the GSI Battery via a traditional Micro-USB power adapter.

An adapter for the GSI Battery is not supplied with the package.

#### 3. USB 2.0 Type-A port

Used to connect to other devices (e.g. a smartphone, tablet, etc.) to supply power to the connected device.

This USB port only outputs power to devices, it does not support data transfer of any kind.

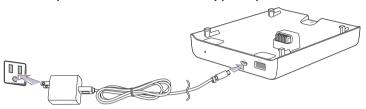
#### 4. Projector Connector

Used to connect and supply power to the projector (see Installing the battery on page 67 for details).

### Charging the battery

There are two ways to charge the GSI battery:

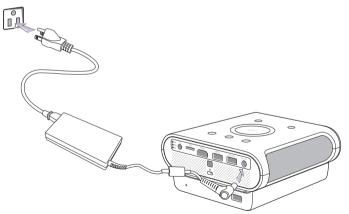
• Connect a traditional Micro USB Type-B power adapter to the Micro USB Type-B port at the rear of the battery.





When the projector is installed onto the GSI Battery and a Micro USB adapter is plugged into the GSI battery the following situations will occur:

- The adapter will charge the GSI battery when the projector is powered off.
- The adapter will not provide power to both the battery or projector when the projector is powered on (i.e. projector will only run on battery power when the projector is powered on).
- Install the projector onto the battery (see Installing the battery on page 67 for details), and then plug the supplied power adapter into the DC-IN power jack at the rear of the projector.

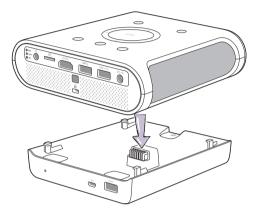




- Due to differences in power adapter throughput the charging time for the two charging methods vary, with charging via the projector's DC-IN power jack being faster than charging via a Micro USB Type-B adapter.
- To view the charge level for the GSI battery enter the **BenQ Launcher** interface and check the battery icon at the top right of the screen.

# Installing the battery

- 1. Ensure that there are no connections to the ports on the projector or battery before installing the battery.
- 2. Place the projector on top of the battery so that the projector connector and securing tabs on the battery fits into the battery connector and securing slots on the projector respectively.

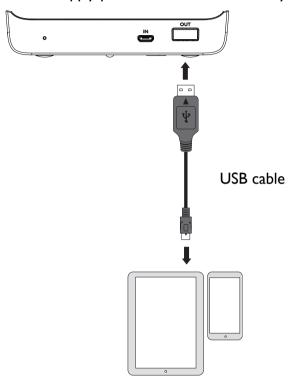


3. Push the projector forward on the battery until it clicks in place.



# Connections

Connect the GSI Battery to other devices using a USB cable to supply power from the GSI Battery to the connected device.

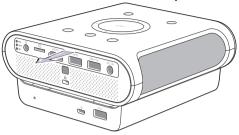


Mobile device (smartphone, tablet, etc.)

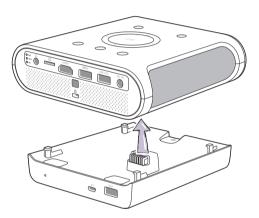
# Removing the battery

I. Ensure that there are no connections to the ports on the projector or battery before removing the battery.

2. Push the projector backwards on the battery so that it unlocks from the battery.



3. Slowly lift the projector off the battery.





When the angle adjust dial is set high you will not be able to remove the projector from the battery. To remove the projector from the battery ensure that the angle adjust dial is set to a low position. See Adjusting the projection angle on page 43 for details

# Instructions and requirements for handling the battery

#### Recommending usage

Please read the battery instructions and the label on its surface before use.

Use the battery indoors under normal condition, temperature: (25±3)°C, absolute humidity: 65±20%

When in use, the battery shall be kept out of heat, high voltage and avoided children's touching. Do not drop the battery.

Use the compatible charger. Do not put the battery into the charger over 24 hours.

Do not contact contacts together. Do not demolish or disassembly the battery by yourself. Do not put the battery in the damp place to avoid danger.

Do not wrap it with conduct material to avoid the damage caused by the direct contact between the metal and battery. Keep the battery in day places.

Well disposed the disused battery. Do not put it into fire or water.

#### Hazard warning

#### Forbid disassemble batteries

The battery has protective component and circuit internally to avoid danger. Mishandling such as improper disassembly will destroy its protective function and make it heat, smoke, distort or burning.

#### Forbid short-circuit batteries

Do not touch the plus and minus contactor with metals. Do not put the battery with metal element together in either storage or movement. If the battery is short-circuit, it carries magnified current, which will cause damage and make the battery heat, smoke, distort or burning.

#### · Forbid heat and burn the battery

If heating or burning the battery, it will caused the isolated element in the battery dissolved, protection function stopped or the electrode burning, over heated, which will make the battery heat, smoke, distort or burning.

#### • To avoid use the battery near the heat

Do not use the battery near the fire and stove, or over 60°C, and over heating will cause the battery internal short-circuit and make it heat, smoke, distort or burning

#### Forbid bathing the battery

Do not dampen the battery, or even immerse it in the water, which will cause internal protection circuit and its function lost or abnormal chemical reactions, which will lead to heating, smoking, distortion or burning.

#### Avoid charging near fire or in the sunlight

Otherwise, it will cause internal protection circuit and its function lost or abnormal chemical reactions, which will lead to heating, smoking, distortion or burning.

#### Danger in using non-indicated chargers in

Charging in abnormal condition, the battery will cause internal protection circuit and its function lost or abnormal chemical reactions, which will lead to heating, smoking, distortion or burning.

#### Forbid damage battery

Do not allow damage the battery with the metals gouged, forged or dropped etc. otherwise, it will cause over-heated, distort, smoke or burning, even in danger.

#### · Forbid directly welding on the battery

Over-heated will cause the isolated element dissolved in the battery and losing protective function its cycle life, even will cause over heated, distort, smoke or burning.

#### • Forbid directly charging on the power socket or car kit cigarette.

High voltage and amplified current will damage the battery and reduce its cycle life, even will cause overheated, distort, smoke or burning.

#### • Do not use this battery for other equipment

Inappropriate usage will damage the battery and reduce its cycle life, even will cause over-heated, distort, smoke or burning.

#### Do not touch the leaking battery

The leaking electrolyte will cause the skin uncomfortable. If it drops into eyes, do not rob the eyes but wash in time, and go to hospital for treatment.

#### Warning

#### Do not mix with other battery

This battery cannot mix with deposal or twice- recycled batteries in use. Otherwise, for its abnormal charge and discharge, it will cause over-heated, distort, smoke or burning.

Keep the battery out of children's area and prevent them biting or swallowing the battery.

Do not insert the battery onto the charger for a long time If charging beyond the normal time, the battery is still in the charger, please stop charging. The abnormal charging will cause battery over-heated, distort, smoke or burning.

Do not put into microwave stove or any other pressure apparatus Take the battery away from the cellular phone or the charger if it is instant heated or leaking (or odors) and depose it. The bad battery will causes over-heated, smoke or burning.

#### Cautions

#### Notice

The battery shall be prevented to be exposed in effulgence so as not to cause over-heated, distort, smoke and weaken its performance and cycle life.

#### Electro static-free

There is a protective circuit inside the battery to prevent contingency. Do not use the battery in the Electro static circumstances, (above 1000V), for it is easily destroyed the circuit board so that the battery doses not work and causes over-heated, distort, smoke or burning.

#### · Discharging temperature range

Recommended discharging temperature range is 0-60°C, beyond which it will result in decadence of the battery performance and shortness of its life.

#### · Read carefully the manual before use or whenever in need.

#### Charging method

Use the special chargers in the recommended charging method to charge the battery.

#### First usage

When you use the battery for its first time, do not put it into the equipment once you find it in unusual conditions such as unclearness or odors. The battery should be returned to the vendor.

#### Children use

When Children use the battery, they should be under their parents' instructions and superintend in use.

#### Avoid children's touch

Battery should keep out of the area where children in reach. Prevent children taking the battery out of the charger or the equipment to play.

To avoid the leak-out liquid be exposed to the skin or clothes. If touched, please wash by clean water so as not to cause the skin uncomfortable.

#### Consultation

When you buy the battery, please note how to contact with the vendors, so that you may get in touch with vendors for consultation whenever in need.

#### Safety usage guarantee

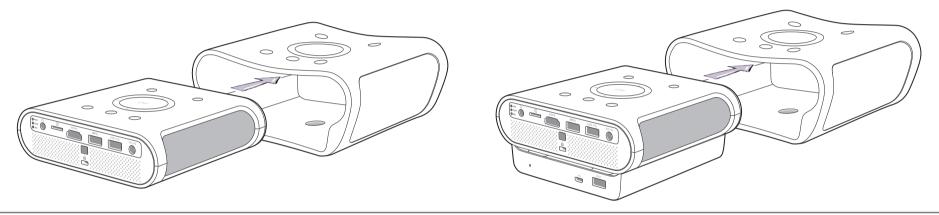
If the battery is used on other instruments, please contact with your manufacturer for how to get the best performance, at least consult its maximum current, fast charge and special application.

# **Protective Case**

Your projector comes with a rubber protective case which helps prevent damage caused by accidental spillage or unintended impact, particularly in outdoor situations.

# Installing the protective case

To install the protective case on the projector slide the projector into the opening at the rear of the protective case until the case wraps around the edges of the projector.





- The protective case can be installed on both the stand-alone projector or the projector when attached to the GSI battery. In both cases the installation procedure is the same.
- Ensure that there are no connections to the ports on the projector or battery before installing the protective case.

### Maintenance

# Care of the projector

Your projector needs little maintenance. The only thing you have to do on a regular basis is keep the lens clean.

Never remove any parts of the projector. Contact your dealer or local customer service center if the projector fails to operate as expected.

### Cleaning the lens

Clean the lens whenever you notice dirt or dust on the surface.

Before cleaning any part of the projector, turn it off using the proper shutdown procedure (see Shutting down the projector on page 39), unplug the power cable, and let it cool down completely.

- 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.



Never touch the lens with your finger or rub the lens with abrasive materials. Even paper towels can damage the lens coating. Only ever use a proper photographic lens brush, cloth, and cleaning solution. Do not attempt to clean the lens while the projector is switched on or is still hot from previous use.

### Cleaning the projector case

Before cleaning any part of the projector, turn it off using the proper shutdown procedure (see Shutting down the projector on page 39), unplug the power cable, and let it cool down completely.

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



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

### Storing the projector

To store the projector for an extended time:

- Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Refer to Specifications or consult your dealer about the range.
- · Retract the adjuster feet.
- Remove the batteries 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.

# LED Lamp information

### Getting to know the lamp hour

When the projector is in operation, the duration (in hours) of lamp usage is automatically calculated by the built-in timer.

To obtain the lamp hour information:

- 1. Press **MENU** and then use the arrow keys  $(\blacktriangleleft/\triangleright/\blacktriangle/\blacktriangledown)$  to go to **Settings > Information** and press **OK**.
- The Equivalent Lamp Hour information displays.
- 3. Press BACK to exit.

### Extending lamp life

The projection lamp is an 500AL LED bulb which features an lamp life far beyond traditional bulbs, yet it is still a consumable item. To keep the lamp life as long as possible, you can change the following settings via the OSD menu.

To access the OSD menu, see Using the OSD menu on page 58 for details.

#### Setting LED Mode

Setting the projector in Economic mode extends the lamp life.

LED mode	Description		
Normal	100% lamp brightness		
Economic	<b>Economic</b> mode dims the projector's LED lamp which will lower power consumption, extend the LED lamp life and reduce the projector's noise level. The reduced light output will result in darker projected pictures. If you set your projector to <b>Economic</b> mode choose <b>Normal</b> to return to the default normal mode.		
SmartEco	<b>SmartEco</b> mode adjusts the visual settings of the projector based on the projected image to lower power consumption while keeping the brightness and color consistent with <b>Normal</b> mode.		

- 1. Select MENU > Settings > LED Mode and press OK.
- 2. Press  $(\blacktriangleleft/\blacktriangleright)$  to move to your desired mode, and press **OK**.
- 3. When done, press to *⇒* your changes and exit.

### Setting Auto Power Off

This function allows the projector to turn off automatically if no input source is detected after a set period of time.

- 1. Select **MENU** > **Settings** > **Auto Power Off** and press **OK**.
- 2. Press (◄/►) to select a time period. If the preset time lengths are not suitable for your presentation, select **Disable**, and the projector will not automatically shut down.
- 3. When done, press  $\Rightarrow$  to save your changes and exit.

# **Indicators**

There are three indicators which show the status of the projector. Check the following information about the indicator lights. If there is anything wrong, turn the projector off and contact your dealer.

#### • When the projector is in a normal state

PVVR	TEMP	LED	Status & description
Orange	Off	Off	Projector and Bluetooth in stand-by mode
Green Flashing	Off	Off	Projector is powering up
Green	Off	Off	Projector is operating
Orange Flashing	Off	Off	Projector is powering-down and in cooling mode
Green	Off	Off	Burn-in ON
Green	Green	Red Flashing	Burn-in OFF

#### • When the projector is undergoing system updates or in an abnormal state

PWR	TEMP	LED	Status & description
Red Flashing	Red Flashing	Red Flashing	Projector is undergoing a firmware update
Green	Off	Red	Firmware update process is finished, the projector will automatically restart after.
Off	Red	Off	File download via USB port has failed
Green Flashing	Green Flashing	Off	Projector is in the process of downloading files via the USB port
Off	Off	Red	Lamp error
Off	Off	Flashing Red	Lamp is not lit up
Red	Red	Off	Fan error
Green	Red	Off	Projector temperature has exceeded the limit
Green	Red Flashing	Off	Thermal sensor error

PWR	TEMP	LED	Status & description
Green Flashing	Red	Off	
Green Flashing	Red Flashing	Off	

# **Troubleshooting**

Problem	Cause	Remedy
The projector does not turn on.	There is no power from the power cable.	Plug the power cable into the AC inlet on the rear of the projector, and plug the power cable into to 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.
	The video source is not turned on or connected correctly.	Turn the video source on and check that the signal cable is connected correctly.
No picture.	The projector is not correctly connected to the input source device.	Check the connection.
	The input source has not been correctly selected.	Select the correct source with the 🖃 key on the remote control.
Image is unstable.	The connection cables are not securely connected to the projector or the signal source.	Correctly connect the cables to the appropriate terminals.
	The projection lens is not correctly focused.	Adjust the focus of the lens using the focus ring.
Picture is blurred.	The projector and the screen are not aligned properly.	Adjust the projection angle and direction as well as the height of this projector if necessary.
	The lens cover is still closed.	Remove the lens cover.
	The batteries are out of power.	Replace both of the batteries with new ones.
Remote control does not work correctly.	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 (26.2 feet) of the projector.

Problem	Cause	Remedy
	The 3D glasses are out of battery.	Recharge the 3D glasses.
3D content does not display correctly	The settings in the <b>3D</b> menu are not set correctly.	Correctly set the settings in the <b>3D</b> menu.
3D content does not display correctly	Your Blu-ray Disc is not in 3D format.	Use a 3D Blu-ray Disc and try again.
	The input source has not been correctly selected.	Select the correct source with the <b>SOURCE</b> key on the projector or remote control.

# **Specifications**

# Projector specifications



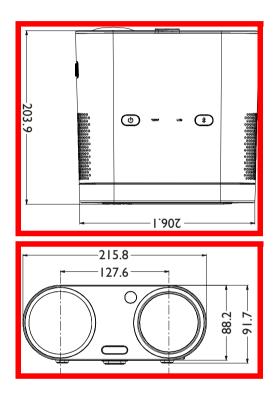
All specifications are subject to change without notice.

Category	ltem	Specification
	Resolution	1280 (H) × 720 (V), 0.3"
	Display system	Mstar ARM A7 Quad-Core CPU
	Lens F/Number	F = 1.5, f = 5.53 mm
Optical	Lamp type	OSRAM Q8
		20,000/30,000 hours
	Lamp Life (Normal/Economic)	Lamp life results will vary depending on environmental conditions and usage.
Audio	Supported audio	<ul> <li>Supports LPCM, two audio channels</li> <li>Supported audio sampling rates: 32kHz, 44.1kHz and 48kHz</li> <li>Supported audio bit rates: 16 bits, 20 bits, and 24 bits</li> </ul>
Electrical	Power supply	AC100-240V, 50-60 Hz (Automatic)
Electrical	Power consumption	75 W (Typical); < 0.5 W (Standby)
Mechanical	Weight	1.3 Kg (2.87 lbs)

Category	ltem	Specification
	Speaker	(Stereo) 2 watt x 2
Output Terminals	Audio signal output	Audio jack x I
•	USB	USB port 2.0 Type-A x I USB port 3.0 Type A x I
Control		IR receiver x 2
	Video signal input	SD/HDTV signal input Digital - HDMI x I
Input Terminals	USB	USB port 2.0 Type-A x I USB port 3.0 Type A x I
	microSD card	microSD card reader x I
	Operating temperature	0°C-40°C at sea level
Environmental Requirements	Operating relative humidity	10%–90% (without condensation)
	Operating altitude	0–1499 m at 0°C–35°C

# Dimensions (with adjustment feet not extended)

 $215.63 \text{ mm} \times 201.7 \text{ mm} \times 93.16 \text{ mm} (W \times D \times H)$ 



# Timing chart

### Supported timing for video input

Timing	Resolution	H. Frequency (KHz)	V. Frequency (KHz)	Dot Clock Frequency (MHz)
480i****	720 (1440) × 480	15.73	59.95	27
480p****	720 x 480	31.47	59.94	27
576i	720 (1440) x 576	15.63	50	27
576p	720 × 576	31.25	50	27
720/50p**	1280 × 720	37.5	50	74.25
720/60p*	1280 x 720	45.00	60	74.25
I 080/24P**	1920×1080	27	24	74.25
1080/25P	1920×1080	28.13	25	74.25
I 080/30P	1920×1080	33.75	30	74.25
1080/50i****	1920×1080	28.13	50	74.25
1080/60i****	1920×1080	33.75	60	74.25
1080/50p***	1920×1080	56.25	50	148.5
1080/60p***	1920×1080	67.5	60	148.5



<sup>\*</sup>Supported timing for 3D signal with Frame Packing, Top-Bottom format, Side-by-Side, and Frame Sequential format.

<sup>\*\*</sup>Supported timing for 3D signal with Frame Packing, Top-Bottom format, and Side-by-Side format.

<sup>\*\*\*</sup>Supported timing for 3D signal with Top-Bottom and Side-by-Side format.

<sup>\*\*\*\*\*</sup>Supported timing for 3D signal with Frame Sequential format.

<sup>\*\*\*\*\*</sup>Supported timing for 3D signal with Side-by-Side format.

# Supported timing for PC input

Timing	Resolution	H. Frequency (KHz)	V. Frequency (KHz)	Dot Clock Frequency (MHz)
	VGA_60	59.940	31.469	25.175
640 × 480	VGA_72	72.809	37.861	31.500
640 X 460	VGA_75	75.000	37.500	31.500
	VGA_85	85.008	43.269	36.000
	SVGA_60	60.317	37.879	40.000
800 × 600	SVGA_72	72.188	48.077	50.000
600 X 600	SVGA_75	75.000	46.875	49.500
	SVGA_85	85.061	53.674	56.250
	XGA_60*	60.004	48.363	65.000
1024 × 768	XGA_70	70.069	56.476	75.000
1024 X 766	XGA_75	75.029	60.023	78.750
	XGA_85	84.997	68.667	94.500
1152 x 864	1152 x 864_75	75.00	67.500	108.000
1280 × 720	1280 x 720_60*	60	45.000	74.250
1280 x 720	1280 x 720_120	120	90.000	148.500
1280 x 768	1280 × 768_60	59.870	47.776	79.5
	WXGA_60*	59.810	49.702	83.500
1280 x 800	WXGA_75	74.934	62.795	106.500
	WXGA_85	84.880	71.554	122.500

Timing	Resolution	H. Frequency (KHz)	V. Frequency (KHz)	Dot Clock Frequency (MHz)
1280 × 1024	SXGA_60	60.020	63.981	108.000
1260 X 102 <del>4</del>	SXGA_75	75.025	79.976	135.000
1280 × 960	1280 x 960_60	60.000	60.000	108
1200 X 700	1280 × 960_85	85.002	85.938	148.500
1360 × 768	1360 x 768_60	60.015	47.712	85.500
1440 × 900	WXGA+_60	59.887	55.935	106.500
1400 x 1050	SXGA+_60	59.978	65.317	121.750
1600 x 1200	UXGA	60.000	75.000	162.000
1680 x 1050	1680 x 1050_60	59.954	65.290	146.250
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 (Reduce Blanking)	60	67.5	148.5
1920 x 1200@60Hz	1920 x 1200_60 (Reduce Blanking)	59.95	74.038	154



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

# Supported file formats

File type	File extension	Description
	Adobe PDF 1.0 - 1.4 (.pdf)	
	MS PowerPoint 97 - 2010 (.ppt, .pptx)	
Documents	MS Excel 95 - 2010, Office XP (.xls, .xlsx)	
	MS Word 95 - 2010, Office XP (.doc, .docx)	
Photos	JPG (.jpg, .jpeg), BMP (.bmp)	
Music	MP3, MP2, MP1, AAC, WAV	
	AVI (XVID, MJPEG)	
Vido	DVIX (MJPEG, XVID)	
Video	DAT (MPEGI)	
	MPG (MPEGI)	
Subtitles	SRT (.srt), SMI (.smi)	<ul> <li>Subtitle files must be in the same directory as the video files.</li> <li>The name of subtitle files must be the same as the name of the corresponding video files.</li> <li>SRT and SMI only supports UTF (unicode 8).</li> </ul>



Bit rate range: If the peak bit rate of a video file is larger than 10MB, it might cause video playback lag.