

Digital Projector User Manual

EX600 / EW600 / EH600

Proselecta

V L 00

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.

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Patents

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

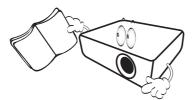
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Important safety instructions

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.

 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.



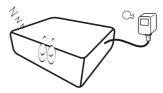
3. Refer servicing to qualified service personnel.



- 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.



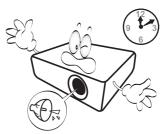
6. In some countries, the line voltage is NOT stable. This projector is designed to operate safely within a mains voltage between 100 to 240 volts AC, but could fail if power cuts or surges of ±10 volts occur. In areas where the mains voltage may fluctuate or cut out, it is recommended that you connect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



7. 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.



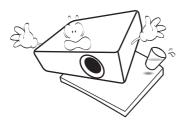
8. Do not operate lamps beyond the rated lamp life. Excessive operation of lamps beyond the rated life could cause them to break on rare occasions.



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



 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.

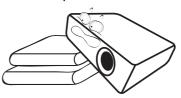


- 12. Do not block the ventilation holes.
 - Do not place this projector on a blanket, bedding or any other soft surface.
 - Do not cover this projector with a cloth or any other item
 - Do not place inflammables near the projector.



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.



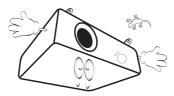
15. Do not step on the projector or place any objects upon it. Besides probable physical damage to the projector, doing so may result in accidents and possible injury.



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.

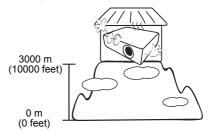


19. This apparatus must be earthed.

- 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°C / 104°F
- Locations where the altitudes are higher than 3000 m (10000 feet).



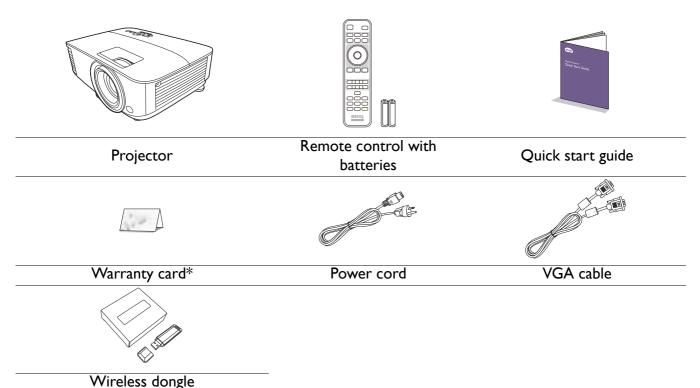
- Hg Lamp contains mercury. Manage in accordance with local disposal laws. See www.lamprecycle.org.
- To avoid damaging the DLP chips, never aim a high-power laser beam into the projection lens.

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





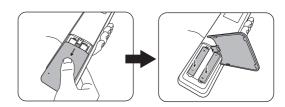
- The supplied accessories will be suitable for your region, and may differ from those illustrated.
- *The warranty card is only supplied in some specific regions. Please consult your dealer for detailed information.

Optional accessories

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

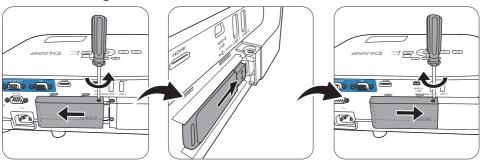
Replacing the remote control batteries

- 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.



- 0
- 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

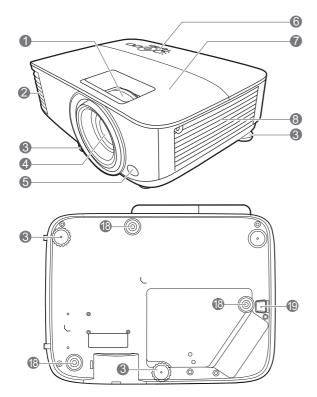




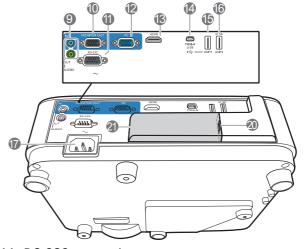
The projector only supports Wi-Fi and/or Bluetooth connections when the wireless dongle (WDR02U) is installed.

- I. Loosen the screw that secures the I/O port cover to remove the I/O port cover.
- 2. Remove the cap from the provided wireless dongle and insert the dongle into the port **WIRELESS DONGLE**.
- 3. Re-install the I/O port cover.

Projector exterior view



- I. 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. RGB (PC) signal output jack



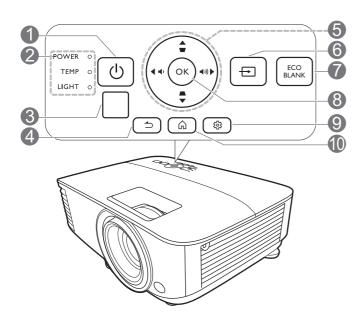
- II. RS-232 control port
- 12. RGB (PC) signal input jacks
- 13. HDMI input port
- 14. USB Mini-B port
- 15. USB Type A port
- 16. USB Type A port
- 17. AC power jack
- 18. Wall mount holes
- 19. Security bar
- 20. USB Type A port (for wireless dongle)
- 21. Wireless dongle cover

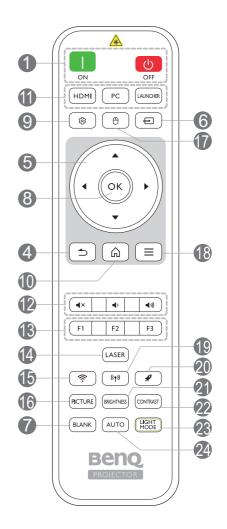
Controls and functions

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.





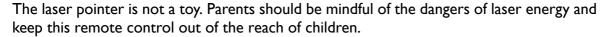
| No. | | When the input source is BenQ Launcher | When the input source is NOT BenQ Launcher | | |
|---|---------------------|---|--|--|--|
| I. ON/ Off Toggles the projector be | | | between standby mode and on. | | |
| POWER indicator 2. light/TEMPerature warning light/LAMP indicator light (See Indicators on page 88.) | | | | | |
| 3. | B. 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 BenQ Launcher | When the input source is NOT BenQ Launcher | | | |
|----------|--|--|---|--|--|--|
| 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 (△, ▽) | (Not available.) | Displays the keystone correction page. Decreases or increase the | | | |
| 6. | Volume keys ◀¹/ ◀¹)) ⊕ (SOURCE) | Displays the source selection ba | projector volume. | | | |
| <u> </u> | (SOURCE) | Used to hide the screen picture | | | | |
| 7. | ECO BLANK, BLANK | Do not block the projection le | ens from projecting as this could cause e heated and deformed or even cause | | | |
| 8. | OK Confirms the selected menu item. | | On-Screen Display (OSD) menu item. | | | |
| 9. | | Enters the Settings menu. | Turns on or off the 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 display. | | | | |
| | ◄ × | Toggles projector audio between | n on and off. | | | |
| 12. | 4) | Decreases the projector volume. | | | | |
| | ■ (1)) | Increase the projector volume. | | | | |
| 13. | Customizes buttons, the default is iOS mobile projection settings (F1) / Android mobile projection settings (F2) / Laptop mobile projection settings (F3). | | (Not available.) | | | |
| 14. | LASER | Emits visible laser pointer light f | or presentation purposes. | | | |
| 15. | | Enters the Internet menu in Settings . | (Not available.) | | | |
| 16. | PICTURE | Selects an available picture mode | e. | | | |
| 17. | (Cursor) | Activates the cursor function. | (Not available.) | | | |
| 18. | ≡ (Android menu) | Goes to the Settings menu. If app related settings can be called from within the app. | (Not available.) | | | |
| 19. | ((†)) (Hotspot) | Enters the Hotspot menu in Settings . | (Not available.) | | | |
| 20. | ★ (Clear memory) | Goes into one key speedup (one key empty) mode. | (Not available.) | | | |

| No. | | When the input source is BenQ Launcher | When the input source is NOT BenQ Launcher | | |
|-----|------------|--|--|--|--|
| 21. | BRIGHTNESS | Adjusts brightness. | | | |
| 22. | CONTRAST | Adjusts contrast. | | | |
| 23. | LIGHT MODE | Displays the Light Mode menu for selecting a suitable law operating mode. | | | |
| 24. | AUTO | (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.







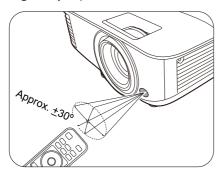
Do not look into the laser light window or shine the laser light beam on yourself or others. See the warning messages on the back of the remote control prior to using it.

Remote control effective range

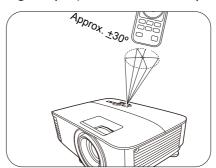
The remote control must be held at an angle within 30 degrees perpendicular to the projector's IR remote control sensor(s) to function correctly. The distance between the remote control and the sensor(s) should not exceed 8 meters (~ 26 feet).

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

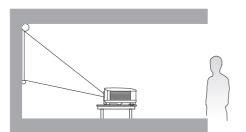
Before choosing an installation location for your projector, take the following factors into consideration:

- 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.

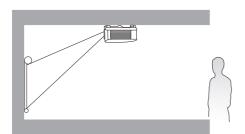
I. Front Table

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.



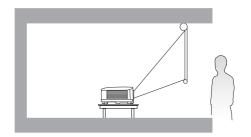
3. Front Ceiling

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.



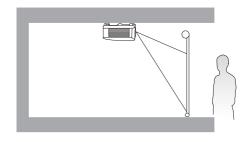
2. Rear Table

Select this location with the projector placed on the table behind the screen. Note that a special rear projection screen is required.



4. Rear Ceiling

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.



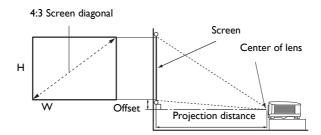
After turning on the projector, go to Advanced Menu - Settings > Projector Installation > Projector Installation and press ◀/▶ to select a setting.

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

EX600



• The screen aspect ratio is 4:3 and the projected picture is in a 4:3 aspect ratio

| Screen size | | | | Proje | | | |
|-------------|------|--------------|----------------|----------------|-------------|-------|-----|
| Diagonal | | Min distance | _ | Max distance | Offset (mm) | | |
| Inch | mm | H (mm) | vv (mm) | W (mm) Average | (min. zoom) | | |
| 30 | 762 | 457 | 610 | 1195 | 1253 | 1311 | 45 |
| 40 | 1016 | 610 | 813 | 1593 | 1670 | 1748 | 61 |
| 50 | 1270 | 762 | 1016 | 1991 | 2088 | 2184 | 76 |
| 60 | 1524 | 914 | 1219 | 2390 | 2505 | 2621 | 91 |
| 70 | 1778 | 1067 | 1422 | 2788 | 2923 | 3058 | 107 |
| 80 | 2032 | 1219 | 1626 | 3186 | 3341 | 3495 | 122 |
| 90 | 2286 | 1372 | 1829 | 3584 | 3758 | 3932 | 137 |
| 100 | 2540 | 1524 | 2032 | 3983 | 4176 | 4369 | 152 |
| 110 | 2794 | 1676 | 2235 | 4381 | 4593 | 4806 | 168 |
| 120 | 3048 | 1829 | 2438 | 4779 | 5011 | 5243 | 183 |
| 130 | 3302 | 1981 | 2642 | 5178 | 5428 | 5679 | 198 |
| 140 | 3556 | 2134 | 2845 | 5576 | 5846 | 6116 | 213 |
| 150 | 3810 | 2286 | 3048 | 5974 | 6264 | 6553 | 229 |
| 160 | 4064 | 2438 | 3251 | 6372 | 6681 | 6990 | 244 |
| 170 | 4318 | 2591 | 3454 | 6771 | 7099 | 7427 | 259 |
| 180 | 4572 | 2743 | 3658 | 7169 | 7516 | 7864 | 274 |
| 190 | 4826 | 2896 | 3861 | 7567 | 7934 | 8301 | 290 |
| 200 | 5080 | 3048 | 4064 | 7965 | 8352 | 8738 | 305 |
| 250 | 6350 | 3810 | 5080 | 9957 | 10439 | 10922 | 381 |
| 300 | 7620 | 4572 | 6096 | 11948 | 12527 | 13106 | 457 |

For example, if you are using a 120-inch screen, the recommended projection distance is 5011 mm.

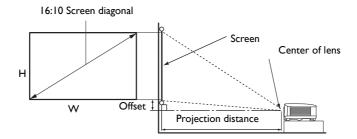
If your measured projection distance is 6200 mm, the closest match in the "Projection distance (mm)" column is 6264 mm. Looking across this row shows that a 150" (about 3.8 m) screen is required.



To optimize your projection quality, we suggest to do the projection within non-gray area.

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.



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

| Screen size | | | | Proje | | | |
|-------------|-----------------|--------|------------|--------------|---------|--------------|-------------|
| Diag | gonal H (mm) | | \A/ (mama) | Min distance | Δνοκοσο | Max distance | Offset (mm) |
| Inch | mm | п (mm) | W (mm) | (max. zoom) | Average | (min. zoom) | |
| 30 | 762 | 406 | 646 | 1002 | 1050 | 1098 | 0 |
| 40 | 1016 | 538 | 862 | 1335 | 1400 | 1465 | 0 |
| 50 | 1270 | 673 | 1077 | 1669 | 1750 | 1831 | 0 |
| 60 | 1524 | 808 | 1292 | 2003 | 2100 | 2197 | 0 |
| 70 | 1778 | 942 | 1508 | 2337 | 2450 | 2563 | 0 |
| 80 | 2032 | 1007 | 1723 | 2671 | 2800 | 2929 | 0 |
| 90 | 2286 | 1212 | 1939 | 3005 | 3150 | 3295 | 0 |
| 100 | 2540 | 1346 | 2154 | 3339 | 3500 | 3662 | 0 |
| 110 | 2794 | 1481 | 2369 | 3672 | 3850 | 4028 | 0 |
| 120 | 3048 | 1615 | 2585 | 4006 | 4200 | 4394 | 0 |
| 130 | 3302 | 1750 | 2800 | 4340 | 4550 | 4760 | 0 |
| 140 | 3556 | 1885 | 3015 | 4676 | 4900 | 5126 | 0 |
| 150 | 3810 | 2019 | 3231 | 5008 | 5250 | 5492 | 0 |
| 160 | 4064 | 2154 | 3446 | 5342 | 5600 | 5859 | 0 |
| 170 | 4318 | 2289 | 3662 | 5676 | 5950 | 6225 | 0 |
| 180 | 4572 | 2423 | 3877 | 6009 | 6300 | 6591 | 0 |
| 190 | 4826 | 2558 | 4092 | 6343 | 6650 | 6957 | 0 |
| 200 | 5080 | 2692 | 4308 | 6677 | 7000 | 7323 | 0 |
| 250 | 6350 | 3365 | 5385 | 8346 | 8750 | 9154 | 0 |
| 300 | 7620 | 4039 | 6462 | 10016 | 10500 | 10985 | 0 |

For example, if you are using a 120-inch screen, the recommended projection distance is 4200 mm.

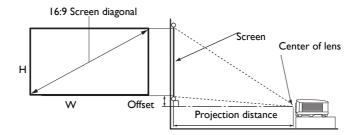
If your measured projection distance is 5200 mm, the closest match in the "Projection distance (mm)" column is 5250 mm. Looking across this row shows that a 150" (about 3.8 m) screen is required.



To optimize your projection quality, we suggest to do the projection within non-gray area.

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.



• The screen aspect ratio is 16:9 and the projected picture is in a 16:9 aspect ratio

| Screen size | | | | Projection distance (mm) | | | | |
|-------------|----------|--------|------------|--------------------------|-------------|--------------|-------------|--|
| Diag | Diagonal | | \A/ (mama) | Min distance | Averes | Max distance | Offset (mm) | |
| Inch | mm | H (mm) | п (ппп) | W (mm) | (max. zoom) | Average | (min. zoom) | |
| 30 | 762 | 374 | 664 | 990 | 1039 | 1089 | 30 | |
| 40 | 1016 | 498 | 886 | 1319 | 1386 | 1452 | 40 | |
| 50 | 1270 | 623 | 1107 | 1649 | 1732 | 1815 | 50 | |
| 60 | 1524 | 747 | 1328 | 1979 | 2079 | 2178 | 60 | |
| 70 | 1778 | 872 | 1550 | 2309 | 2425 | 2541 | 70 | |
| 80 | 2032 | 996 | 1771 | 2639 | 2772 | 2905 | 80 | |
| 90 | 2286 | 1121 | 1992 | 2969 | 3118 | 3268 | 90 | |
| 100 | 2540 | 1245 | 2214 | 3299 | 3465 | 3631 | 100 | |
| 110 | 2794 | 1370 | 2435 | 3628 | 3811 | 3994 | 110 | |
| 120 | 3048 | 1494 | 2657 | 3958 | 4158 | 4357 | 120 | |
| 130 | 3302 | 1619 | 2878 | 4288 | 4504 | 4720 | 130 | |
| 140 | 3556 | 1743 | 3099 | 4618 | 4850 | 5083 | 139 | |
| 150 | 3810 | 1868 | 3321 | 4948 | 5197 | 5446 | 149 | |
| 160 | 4064 | 1992 | 3542 | 5278 | 5543 | 5809 | 159 | |
| 170 | 4318 | 2117 | 3763 | 5608 | 5890 | 6172 | 169 | |
| 180 | 4572 | 2241 | 3985 | 5937 | 6236 | 6535 | 179 | |
| 190 | 4826 | 2366 | 4206 | 6267 | 6583 | 6898 | 189 | |
| 200 | 5080 | 2491 | 4428 | 6597 | 6929 | 7261 | 199 | |
| 250 | 6350 | 3113 | 5535 | 8246 | 8661 | 9077 | 249 | |
| 300 | 7620 | 3736 | 6641 | 9896 | 10394 | 10892 | 299 | |

For example, if you are using a 120-inch screen, the recommended projection distance is 4158 mm.

If your measured projection distance is 5200 mm, the closest match in the "Projection distance (mm)" column is 5197 mm. Looking across this row shows that a 150" (about 3.8 m) screen is required.



To optimize your projection quality, we suggest to do the projection within non-gray area.

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.

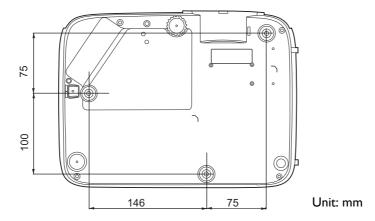
If you use a non-BenQ brand projector mounting kit, there is a safety risk that the projector may fall down due to an improper attachment through the use of the wrong gauge or length screws.

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)

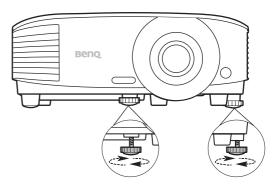


Adjusting the projected image

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.

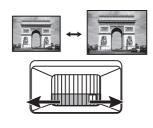


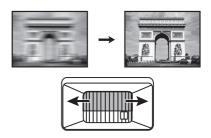
This function is only available when PC signal (analog RGB) is selected.

Fine-tuning the image size and clarity

Adjust the projected image to the size that you need using the zoom ring.

Sharpen the image by rotating the focus ring.





Correcting keystone

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

To correct this, you will need to manually correct it following these steps.

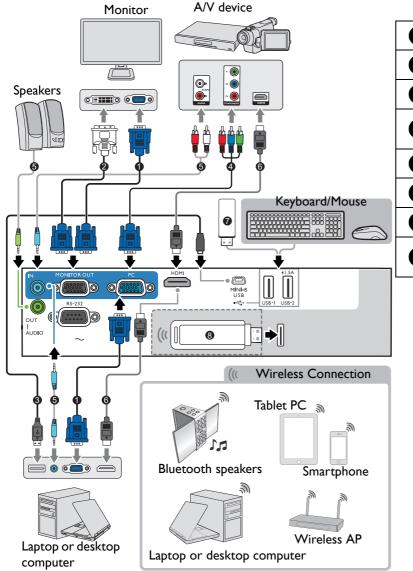
- 1. Do one of the following steps to display the keystone correction page.
 - Press \triangle / \bigcirc on the projector or remote control.
 - Go to Advanced Menu Display > Keystone and press OK.
- 2. After the **Keystone** correction page displays. Press \triangle to correct keystoning at the top of the

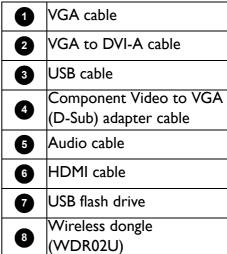


Connection

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.







- 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 | |
|-------------------------------------|-----------------|--------|
| НОМІ | | 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.



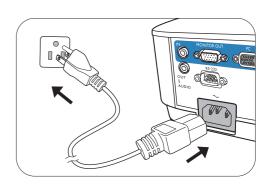
- The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected.
- If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.

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 (1) on the projector or III 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 , \blacktriangledown , \blacktriangleleft , \blacktriangleright) to move through the menu items.
 - Use **OK** to confirm the selected menu item.
 - Use the back button

 to return to the previous menu.
 - Use the menu button ≡ 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.





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

Step 3: Adjusting **Keystone**.



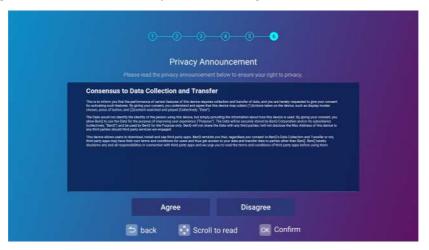
Step 4: Configure the **Wireless Setting** by selecting a wireless network and entering the password.



Step 5: Specify **Time Zone**.



Step 6: Read the **Privacy Announcement** and press **OK** to agree with the statement.





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 53 for more information.

Once you've completed the setup wizard; you may start using the projector.

Operation (under Launcher source)

BenQ Launcher

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



Use the remote control or connect a USB mouse to the projector's USB-1 or USB-2 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 \boxminus 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 **Advanced > 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 Settings on page 78.





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

The **BenQ Launcher** home screen features five main sections:

- Status Bar icons Icons that display the time, Bluetooth, and wireless status.
- Wireless Projection buttons Provides instructions on how to project wirelessly via iOS/Android devices or a laptop/PC.
- Source menu Allows you to select open media files from storage devices connected to the USB-I or **USB-2** ports, or video input source connected to the **HDMI** or **PC** ports for projection.
- App Shortcuts Quick access to the pre-installed File Manager, BenQ Suggests, along with other installed apps.

• Settings menus - Shortcuts to the settings menus to adjust wireless network, Bluetooth and other settings.



Press the down button ▼ to access the **Source** menu, App shortcuts, and **Settings** menus.

Navigating the **BenQ Launcher** home screen

- 1. From the **BenQ Launcher** home screen, press $\triangle/\nabla/\blacktriangleleft/\triangleright$ to select the desired function and press OK.
- 2. Follow on-screen instructions for further operations.

Using the source menu

Press the down button ▼ from the **BenQ Launcher** home screen to access the **Source** menu, which displays the input source options: USB, HDMI, and PC. Press OK to select the desired input source. See Connection on page 20 for more information.





You may also press the source button 🖅 from any screen within **BenQ Launcher** to access the **Source** menu.

Using the app menu

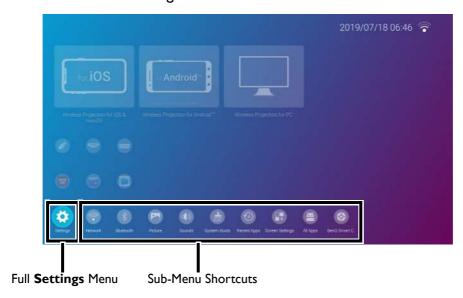
Press the down button ▼ twice from the **BenQ Launcher** home screen to access the app shortcuts menu, which displays the pre-installed BenQ Suggests, and File Manager apps as well as other apps that have been installed on the projector.

To access all the apps installed on the projector, see All Apps on page 52. For details on how to re-order the shortcuts see Screen Settings on page 56.



Using the **BenQ Launcher Settings** menus

Press the down button ▼ three times from the **BenQ Launcher** home screen to access the settings menu section, which features a button for the projector's full settings menu as well as shortcut buttons for various sub-menus within the settings menus.





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

For more information on the settings menus see About the Settings menu on page 47.

Inputting text

Various menus within **BenQ Launcher** may require that you input text. You may either connect a keyboard to the **USB-I** 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 $\triangle/\nabla/\blacktriangleleft/\triangleright$ 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 $\stackrel{\frown}{}$ at anytime to exit out of the keyboard.



Actual keyboard types may vary based on your language preference setting. See Keyboard on page 58 for more information.

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:

- 1. Press the source button ⊕ or the **LAUNCHER** button on the remote control.
- 2. Select **BenQ Launcher** in the source menu.





When the Auto Source Search function is enabled in the Advanced > 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 78.

Wireless Connections

Connecting the projector to a wireless network

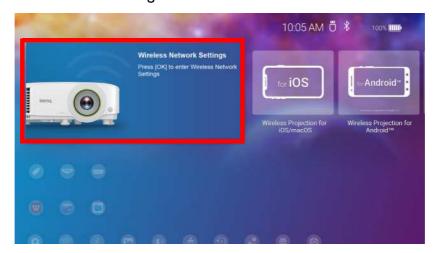
Before you can project wirelessly via the projector, you must first connect the projector to a wireless network. To connect your projector to a wireless network, or to switch wireless networks:



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 Operation (under Launcher source) on page 25).

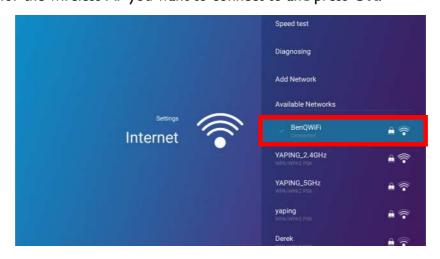
3. On the home screen of the BenQ Launcher interface, select Wireless Network Settings and press **OK** to access the wireless settings menu.



4. Select Wireless Network Settings and press OK to enable.



5. Select the SSID for the wireless AP you want to connect to and press **OK**.



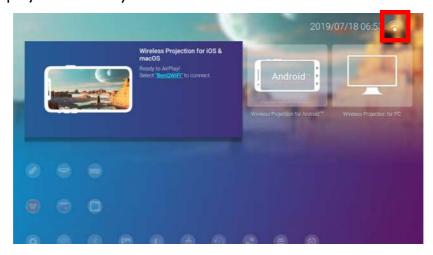


- To connect to a hidden wireless network select Add A Network and enter the SSID, security setting, and password for the network.
- The list of available wireless networks will be refreshed every 10 seconds. If the desired SSID is not listed please wait for refreshing to complete.

6. 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, select **Next** 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 \supset to return to the list of SSIDs.
- 7. Once you have successfully connected to the wireless AP a wireless connection icon will appear at the top right corner of the **BenQ Launcher** interface. You can now connect your devices wirelessly to the projector to cast your device's screen.



Wireless Projection for iOS & macOS®

To connect an iOS device to the projector and cast your device's screen via AirPlay:

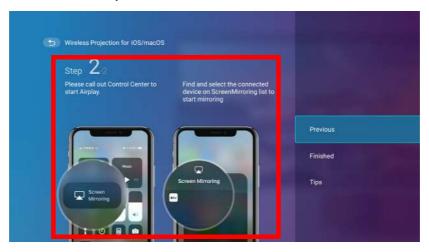
1. On the home screen of the BenQ Launcher interface, select Wireless Projection for iOS & macOS and press OK.



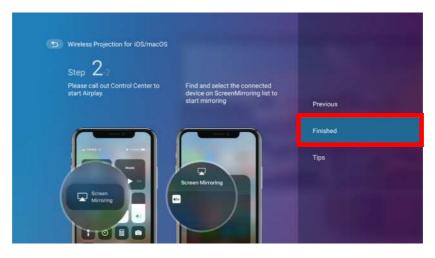
2. On your iOS mobile device's wireless network menu connect to the wireless network shown on the Wireless Projection for iOS & macOS screen and then select Next.



3. Follow the instructions shown on the Wireless Projection for iOS & macOS screen to project your iOS device's screen via AirPlay.



4. Select Finished on the Wireless Projection for iOS & macOS menu to finish the tutorial and return to the home screen.



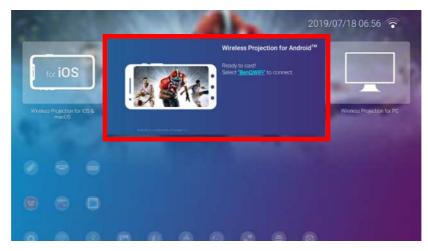
The quality of the wireless projection may depend on the quality of the wireless signal along with the screen mirroring compatibility of the mobile device.

Once you have finished projecting, disable AirPlay on your iOS device to end the connection.

Wireless Projection for AndroidTM

To connect an AndroidTM device to the projector and cast your device's screen:

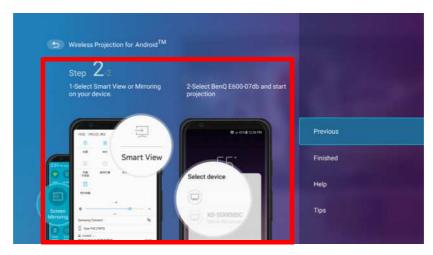
I. On the home screen of the BenQ Launcher interface, select Wireless Projection for Android™ and press OK.



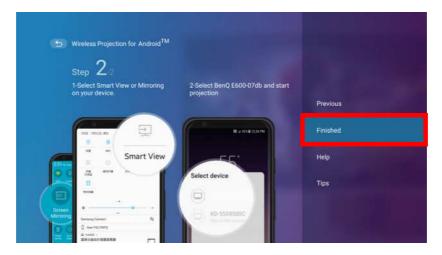
2. On your Android mobile device's wireless network menu connect to the wireless network shown on the Wireless Projection for Android™ screen and then select Next.



3. Follow the instructions shown on the Wireless Projection for Android™ screen to project your Android device's screen.



4. Select Finished on the Wireless Projection for Android™ menu to finish the tutorial and return to the home screen.



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.

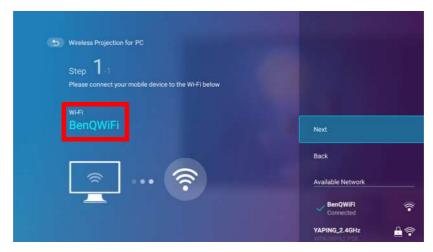
Once you have finished projecting, disable screencasting on your Android device to end the connection. Wireless Projection for PC

To connect an PC to the projector and cast your PC's screen:

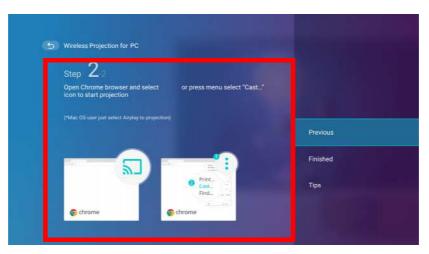
1. On the home screen of the BenQ Launcher interface, select Wireless Projection for PC and press **OK**.



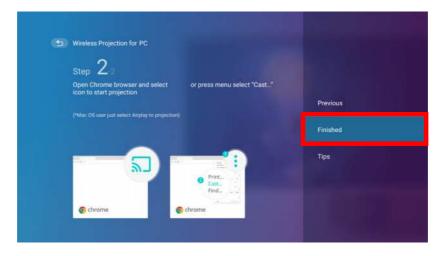
2. On your PC's wireless network menu connect to the wireless network shown on the **Wireless Projection for PC** screen and then select **Next**.



3. Follow the instructions shown on the **Wireless Projection for PC** screen to project your PC's screen.



4. Select **Finished** on the **Wireless Projection for PC** menu to finish the tutorial and return to the home screen.



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

Once you have finished projecting, disable screencasting on your PC to end the connection.

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.



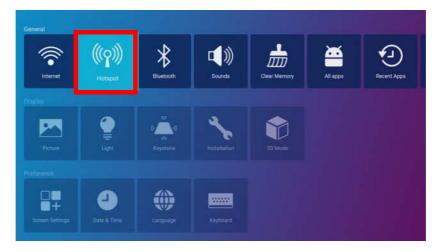
The projector will have no access to the Internet while in wireless hotspot mode.

To create a wireless hotspot:

- 1. Install the wireless dongle provide into the wireless dongle port (see Installing the wireless dongle on page 8).
- 2. Power on the projector (see Operation (under Launcher source) on page 25).
- 3. On the home screen of the **BenQ Launcher** interface, press the down arrow ▼ key the three times to navigate to the **Settings** menus.
- 4. Select **Settings** and press **OK**.



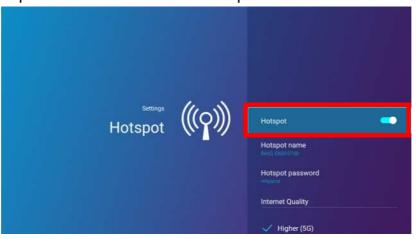
5. Select **Hotspot** and press **OK**.



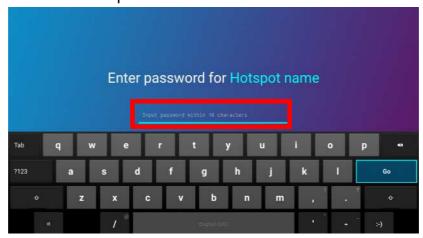
6. (Optional) Select Hotspot Password and press OK to change the password of the wireless hotspot.



- The projector will have no access to the Internet while in wireless hotspot mode.
- 7. Select **Hotspot** and press **OK** to enable wireless hotspot.



8. 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 shown in the Hotspot Password field as the connection password.



9. 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 setup, follow the corresponding connection instructions described in the previous section(s) 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-I or USB-2 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 \bigcirc or the **LAUNCHER** button on the remote control and then selecting BenQ Launcher.
- A red dot will appear above the **USB** icon in the **Source** menu anytime a USB-A flash drive is connected to the projector.

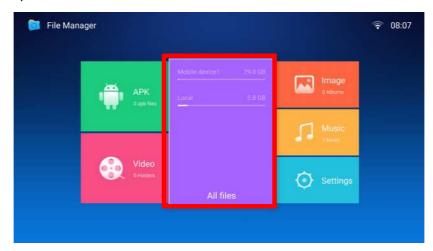
To play files stored on a flash drive:

- I. Connect the USB-A flash drive to the **USB-I** or **USB-2** port at the rear of the projector.
- 2. A pop-up notification from the **File Manager** app will appear indicating that a storage device is detected. Select **All Files** and press **OK** to open the device.

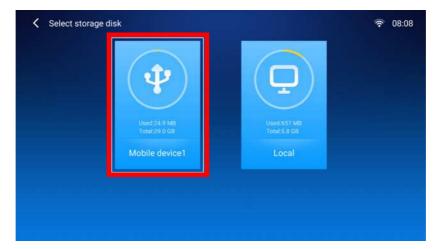




- If you do not want to open the media file immediately after connecting the storage device, press the back button to remain on the current screen.
- If you are trying to open a media file from a storage device that was already previously connected, select USB in the Source menu, press OK, and select All Files.



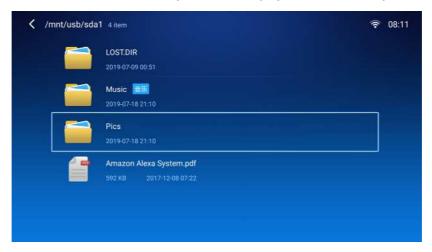
3. The File Manager app will launch and show selections for your connected device, select Mobile Device I and press OK.



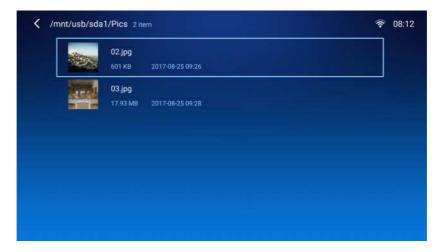


If flash drives are connected to both USB-A ports at the rear of the projector, select Mobile Device I for the storage device that was connected first or Mobile Device2 for the storage device that was connected most recently.

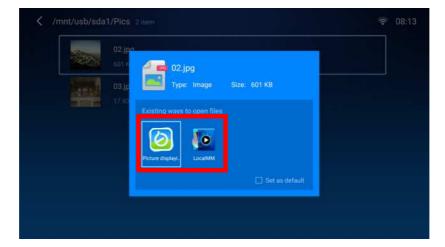
4. Navigate to the folder where the media file you want to play is located and press **OK**.



5. Select the media file you want to play and press **OK**.



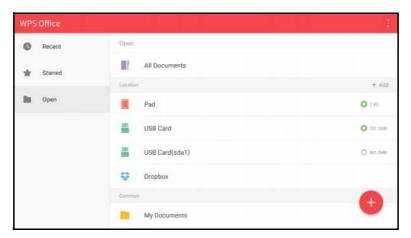
6. A prompt will appear asking you to choose a media player app, select the app you want to use to open the media file and press OK.



- Check the Set as default box to configure the selected media player app as the default app for opening the type of media file (e.g. video, photo, music) of the selected file.
- 7. The media file will open in the selected media player app.

Using WPS Office to view documents

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



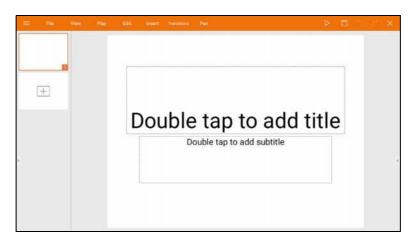
To edit a file with **WPS Office**:

1. 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.



| 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. | | | |
| Pen | Select to write, draw, paint or sketch to the slides. | | | |
| Play (>) | 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 (つ) | Select to undo an action. | | | |
| Redo (C) | Select to redo the last action. | | | |
| Close (X) | Select to close the presentation file. | | | |
| Back (←) | Select to return to the previous page. | | | |
| Next (→) | Select to go to the next page. | | | |
| Exit (←) | Select to exit WPS Office. | | | |

Bluetooth Connections

The projector is able to connect to a Bluetooth-enabled speaker or headphones to output audio directly for greater sound, particularly in outdoor settings.



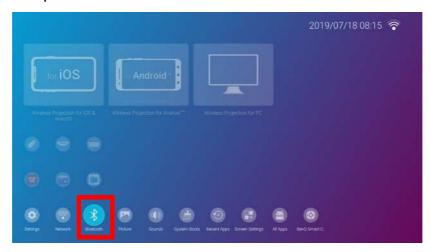
- The Bluetooth connection does not support any data transfer as the projector only allows Bluetooth connections for audio output.
- You may not use the projector to broadcast audio from a Bluetooth-enabled mobile device.

Pairing/Connecting to a Bluetooth speaker or headphones

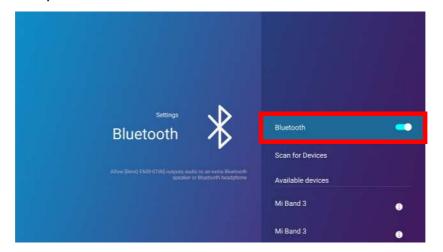
Pairing is the process by which your projector creates a connection to a Bluetooth speaker or headphones for the first time. Once both devices have been successfully paired each device will have the corresponding device's pairing information stored internally and both will be able to connect automatically when they are within an ~10 meter range of each other and Bluetooth is enabled on the projector.

To pair your projector to a Bluetooth speaker or headphones:

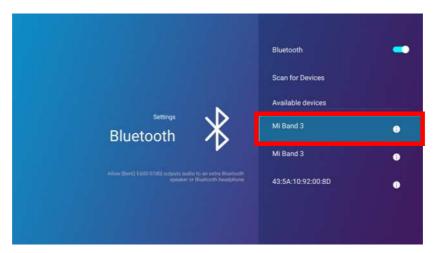
- 1. Install the provided wireless dongle into the wireless dongle port (see Installing the wireless dongle on page 8).
- 2. Power on the projector (see Operation (under Launcher source) on page 25).
- 3. Press the down arrow key ▼ and right arrow ▶ key to navigate to the settings sub-menu shortcuts.
- 4. Select **Bluetooth** and press **OK**.



5. Select **Bluetooth** and press **OK** to enable Bluetooth.



- 6. Activate Bluetooth-pairing mode on the speaker or headphones.
- 7. Select the speaker or headphones from the **Device List** 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:

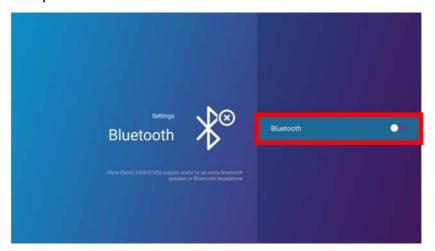
- 1. Press the down arrow key ▼ and right arrow ► key to navigate to the settings sub-menu shortcuts.
- 2. Select **Bluetooth** and press **OK**.
- 3. Select the already connected speaker or headphones from the **Device List** in the **Bluetooth** setting menu and press OK.
- 4. Confirm that you want 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 **Device 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:

- Press the down arrow key ▼ and right arrow ► key to navigate to the settings sub-menu shortcuts.
- 2. Select **Bluetooth** and press **OK**.

3. Select **Bluetooth** and press **OK** to disable Bluetooth.



Apps

The Shortcut section of BenQ Launcher features shortcuts to the pre-installed File Manager, and BenQ Suggests apps, as well as a customizable selection of downloaded apps.



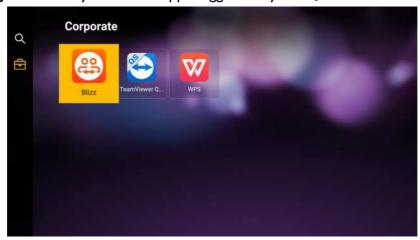
Certain apps require the use of a mouse and/or keyboard to operate. It is suggested that you connect a mouse and/or keyboard to the projector before opening any apps from the **Shortcut** section.

To access all the apps installed on the projector, select All Apps in the Settings menu, see All Apps on page 52.

To configure the apps that appear in the **Shortcut** section, see Screen Settings on page 56.

BenQ Suggests

The BenQ Suggests allows you to view apps suggested by BenQ for download.



Select the category on the left panel to browse the suggested apps based on the type. Select an app from the selected category and press **OK** to view a basic description of the app and access the download link.



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 Suggests.

File Manager

The **File Manager** app allows you to browse, open, and manage files stored on your projector's internal storage or in connected storage devices (e.g. a USB flash drive).



| Function Description | |
|----------------------|---|
| АРК | Select to open the list of available installation files for Android apps stored internally or on an external storage device. For APK files located on external storage devices, the files must be saved in the outer |
| | most directory of the storage device to be able to be detected by File Manager . |

| Function | Description | | |
|-----------|---|--|--|
| | Select to open the list of available video files stored internally or on an external storage device. | | |
| Video | | | |
| | For video files located on external storage devices, the files must be saved in the outer most directory of the storage device to be able to be detected by File Manager . | | |
| | Select to browse the various storage options for the projector including internal storage or connected external storage devices. | | |
| All Files | Select Local to browse the projector's internal storage, select Mobile Device1 or Mobile Device2 to browse external storage devices. For information on opening media files located on external storage devices, see Connecting a flash drive on page 38. | | |
| | Select to open the list of available image files stored internally or on an external storage device. | | |
| Image | | | |
| | For image files located on external storage devices, the files must be saved in the outer most directory of the storage device to be able to be detected by File Manager . | | |
| | Select to open the list of available music files stored internally or on an external storage device. | | |
| Music | | | |
| | For music files located on external storage devices, the files must be saved in the outer most directory of the storage device to be able to be detected by File Manager . | | |
| Settings | Select to configure file management settings including options for Display Mode, Auto cleaning up APK file, Image view, Quick Open, Hidden File, and Clear Association. | | |

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 press the down button ▼ three times, and then select **Settings**.



If the projector is not of the latest version of 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 firmware update. The red dot will disappear when the projector is updated with the latest version of firmware. See System Update on page 62 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 Advanced OSD settings menu. See Advanced menu on page 68 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 (◀/▶) 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 (\triangle/∇) to move to the item you want to configure.
- Use left and right arrow keys (◄/►) to toggle through the available options.
- Use **OK** to enable/disable options or select sub-menu options.
- Use the back button \supset to return to the main settings menu.
- Use the home button $\ \ \widehat{\ }$ to return to the **BenQ Launcher** home screen.

Internet



| Wireless Network Settings | Enables a wireless network connection for the projector. See Connecting the projector to a wireless network on page 28 for details. This function is only available when Hotspot is disabled. | | |
|---------------------------------|---|--|--|
| Speed Test | Tests the speed of the projector's Internet connection. | | |
| Diagnosing | Diagnoses the status of the projector's Internet connection. | | |
| Add Network | Allows you to add a specific network that may be hidden or undetected in the Available Networks . 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 28 for details. Available Networks is only available when Wireless Network Settings is disabled. | | |

Hotspot



| Hotspot | Enables wireless hotspot for the projector, allowing other devices to connect to the projector directly. See Wireless Hotspot on page 35 for details. | | |
|---------------------|--|--|--|
| 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. The default name for the projector's wireless hotspot is "BenQ E600-xxxx". The final four digits are | | |
| Hotspot Password | Sets the password for the projector's wireless hotspot. The password needs to be at least 8 characters. | | |
| Internet Quality | Sets the frequency for the projector's wireless hotspot signal. Available options include Higher (5G) and Normal (2.4G) . | | |

Bluetooth



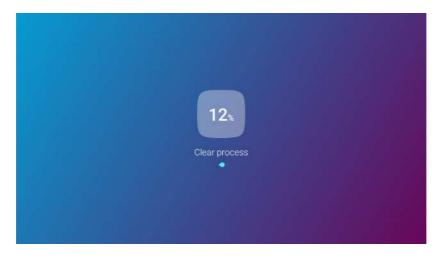
| Bluetooth | Enables Bluetooth for the projector, allowing the projector to output its audio to a Bluetooth speaker or headphones. | |
|-------------------|---|--|
| My Devices | Lists of previously paired Bluetooth devices. | |
| | This function is only accessible when Bluetooth is enabled. | |
| | Refreshes the list of devices. | |
| Scan for Devices | | |
| | This function is only available when Bluetooth is enabled. | |
| | Lists the available Bluetooth devices which the projector can pair and connect to. | |
| Available Devices | | |
| | This function is only available when Bluetooth is enabled. | |

Sounds



| Feedback Sound | Enables/Disables feedback on the audio provided by the projector. |
|-------------------|---|
| 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 launch the app.
- Select an app and press the menu button (🖾) to uninstall the app.

Recent Apps



Select the **Recent Apps** menu to access a list of apps that have been recently used.

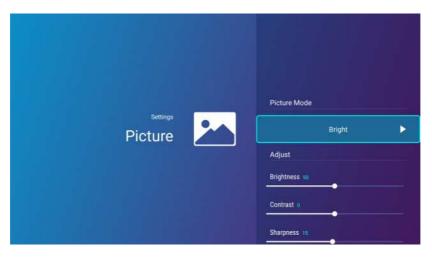
- Select any icon and press the down button (▼) to remove the icon from the list of recently used apps.
- Select any icon and press the menu button (②) to clear all icons from the list of recently used apps.

About



| Projector Information | Displays information on the current status of the projector including the current Native Resolution, Picture Mode, Light Mode, Light Usage Time, Firmware Version, and Service Code. | |
|----------------------------|--|--|
| Android System Information | Displays information on the Android operating system including Android Version, Ram, System storage, Internal storage, and MAC address. | |
| 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 System Update on page 62, | |
| 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



The options available for the **Picture** settings menu are the same as the options available in the OSD menu. See Advanced menu on page 68 for the Picture settings options.

Light Settings



The options available for the Light Settings settings menu are the same as the options available in the OSD menu. See Advanced menu on page 68 for the Light Settings settings options.

Keystone



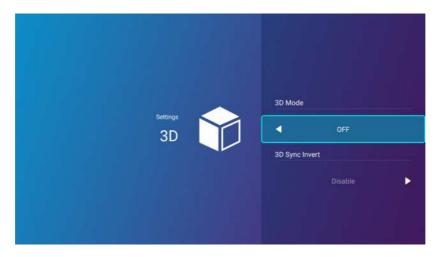
The options available for the **Keystone** settings menu are the same as the options available in the OSD menu. See Advanced menu on page 68 for the **Keystone** settings options.

Projector Position



The options available for the **Projector Position** settings menu are the same as the options available in the OSD menu. See Advanced menu on page 68 for the Projector Position settings options.

3D



The options available for the **3D** settings menu are the same as the options available in the OSD menu. See Advanced menu on page 68 for the **3D** settings options.

Screen Settings

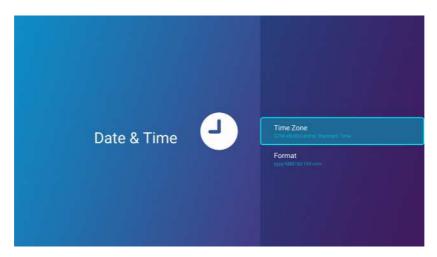


Sets which app shortcuts are displayed on the **BenQ Launcher** home screen and their sequence. The home screen requires at least one shortcut and allows up to ten shortcuts. • Auto: Enables the projector to automatically arrange the sequence of app shortcuts on the home screen so that the most recently used app will appear first in the row. • Manual: Enables the user to manually arrange which app shortcuts to be **Shortcut** displayed on the home screen and their sequence. 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) the shortcuts. This function is only available when **Auto** is disabled. Sets which settings menu shortcuts are displayed on the BenQ Launcher home screen and their sequence. The home screen requires at least one shortcut and allows up to eight shortcuts. • Manual: Enables the user to manually arrange which settings menu shortcuts to **Settings** be displayed on the home screen and their sequence. Press **OK** on a settings

> menu in the **Adjust** menu and then press **◄/▶** to adjust the sequence of the settings menu shortcuts in the settings menu section. Press **OK** on an settings menu in the **Show/Hide settings** menu to check (show) or uncheck (hide) the

shortcuts.

Date & Time



| Time Zone | Sets the time zone for the projector | |
|-----------|--|--|
| Format | Sets the date and time format as either HH:MM or YYYY/MM/DD HH:MM. | |

Language



Sets the language for **BenQ Launcher**.

Keyboard



| Current Keyboard | Displays the current keyboard setting. | | |
|---------------------------------------|---|--|--|
| Keyboard Settings | Sets the projector's virtual keyboard for inputting text. The available options are BenQ Keyboard and Android keyboard (AOSP) . | | |
| o o o o o o o o o o o o o o o o o o o | To input Chinese characters, set the language preference to traditional Chinese or simplified Chinese, and set the keyboard to BenQ Keyboard . | | |

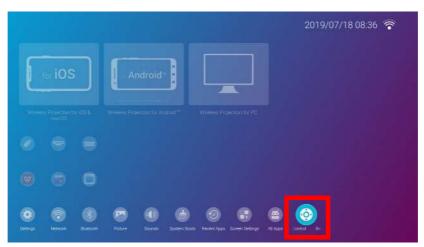
BenQ Smart Control

The settings menu also features a link to install the **BenQ Smart Control** app, which lets you transform your smartphone into a remote control to control the projector via buttons and/or touch gestures.

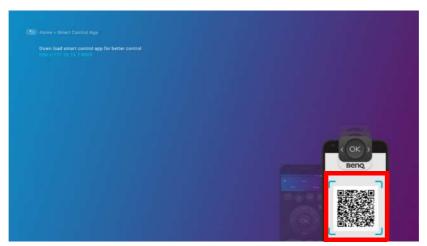
Installing the BenQ Smart Control app on your smartphone

To install the **BenQ Smart Control** app on your smartphone:

- I. Choose one of the following options:
 - Connect your smartphone to the same wireless network as your projector.
 - Enable wireless hotspot for your projector and then connect your smartphone to the projector's wireless hotspot. For instructions on how to enable wireless hotspot for your projector see Hotspot on page 49.
- 2. Select BenQ Smart Control in the Settings menu of the BenQ Launcher home screen and then press **OK**.



3. Scan the QR code shown on the projector with your smartphone, this will open a download link on your smartphone.



4. Download and install the **BenQ Smart Control** on to your smartphone.

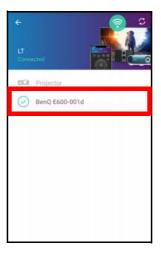


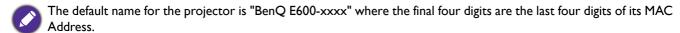
For some smartphones you may first need to allow your smartphones to install apps using downloaded installation files from your smartphones settings menu.

Using the BenQ Smart Control app

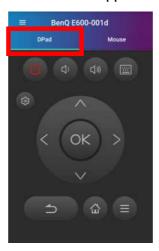
To begin using the **BenQ Smart Control** app:

- I. Choose one of the following options:
 - Connect your smartphone to the same wireless network as your projector.
 - Enable wireless hotspot for your projector and then connect your smartphone to the projector's wireless hotspot. For instructions on how to enable wireless hotspot for your projector see Hotspot on page 49.
- You must be connected to either the same wireless network as the projector or the projector's wireless hotspot for BenQ Smart Control to work correctly.
- 2. Open the **BenQ Smart Control** app on your smartphone.
- 3. Select the projector from the **BenQ Smart Control** device list.





- 4. Choose one of the following methods to use **BenQ Smart Control**:
 - Tap **DPad** to use the pre-configured buttons in the app to control your projector.



• Tap **Mouse** to use touch gestures on your smartphone to control the cursor on the projector similar to a mouse.

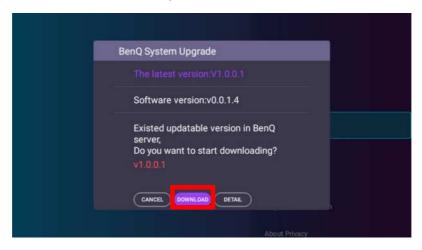


System Update

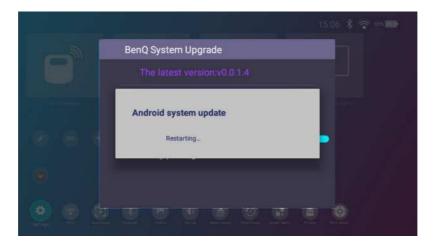
It is suggested that users regularly update their projector with the latest version of the firmware to optimize the user experience. The projector uses Over-the-Air (OTA) updates to install the update file wirelessly.

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. Follow the steps below to begin updating the firmware:

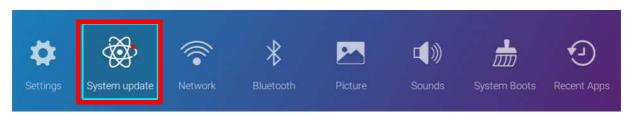
1. Select **DOWNLOAD** to download the update file.



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.



If you select CANCEL when the system upgrade message appears, a System Update button will appear in the settings menu of the BenQ Launcher home screen and feature a red dot as a reminder that a newer version of firmware is available on the BenQ OTA server. Users can select the **System Update** and press **OK** to upgrade the system at any time.



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 67)
- Advanced OSD menu: provides full menu functions. (See Advanced menu on page 68)

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

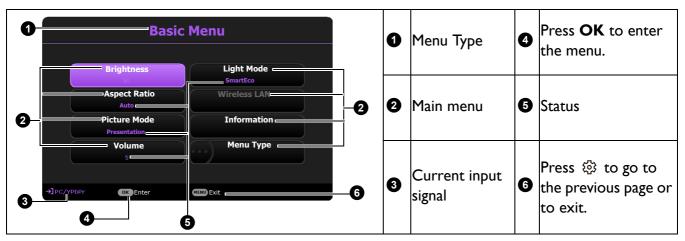
- Use the arrow keys $(\triangle/\nabla/\blacktriangleleft/\triangleright)$ on the projector or remote control to move through the menu
- Use **OK** on the projector or remote control to confirm the selected menu item.

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.

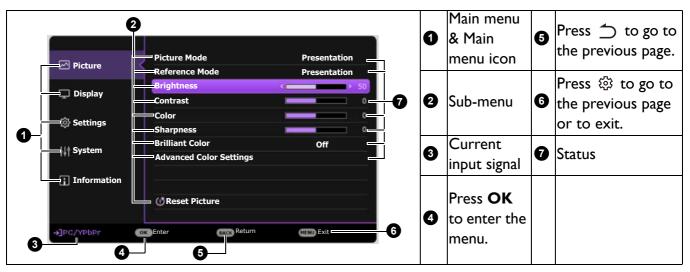
Below is the overview of the **Basic** OSD menu.



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 \triangle/∇ 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 \triangle/∇ to select **Basic**. Next time when you turn on the projector, you may access the **Basic** OSD menu by pressing .

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 19 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 $(\blacktriangle, \blacktriangleright, \blacktriangledown, \blacktriangleleft)$ 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.
- 4. Confirm the new password by re-entering the new password. Once the password is set, the OSD menu returns to the **Security Settings** page.



5. To activate the **Power On Lock** function, press \triangle/∇ 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

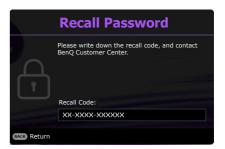
If you enter the wrong password, the password error message will appear, and the Input Current Password message follows. If you absolutely do not remember the password, you can use the password recall procedure. See Entering the password recall procedure on page 65.



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.
- 3. 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 \bigcirc 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 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 \bigcirc 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.



To select the source:

- I. Press

 → . A source selection bar appears.
- 2. Press \triangle/∇ 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 I-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 72.

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/Real/4:3/16:9/16:10 | |
| Picture Mode | Bright/Presentation/Infographic/Video/sRGB/ | |
| Ticture Flode | (3D)/User I/User 2 | |
| Volume | 0~5~10 | |
| Light Mode | Normal/Economic/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

| Main menu | Submenu | | Options |
|-----------|----------------------------|-----------------------|--|
| | Picture Mode | | Bright/Presentation/Infographic/ |
| | | | Video/sRGB/(3D)/User I/User 2 |
| | Reference Mode | | Bright/Presentation/Infographic/ |
| | | | Video/sRGB/(3D) |
| | Brightness | | 0~50~100 |
| | Contrast | | -50~0~50 |
| | Color | | -50~0~50 |
| | Sharpness | | 0~15~31 |
| | Brilliant Color | | On/Off |
| | | Color Temperature | Cool/Normal/Warm |
| | | | R Gain (0~50~100) |
| | | | G Gain (0~50~100) |
| | | Color | B Gain (0~50~100) |
| | | Temperature Tuning | R Offset (-50~0~50) |
| Picture | | | G Offset (-50~0~50) |
| riccarc | | | B Offset (-50~0~50) |
| | Advanced Color Settings | Color Management | R (Primary Color/Hue/ |
| | | | Saturation/Gain) |
| | | | G (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) |
| | | Wall Color | Off/Light Yellow/Pink/Light Green/Blue/Blackboard |
| | Reset Picture | | Reset/Cancel |

| Main menu | Submenu | | Options |
|-----------|-----------------------------|------------------------|----------------------------------|
| | Aspect Ratio | | Auto/Real/4:3/16:9/16:10 |
| | Keystone | | -40~0~40 |
| | Test Pattern | | On/Off |
| | PC & Component YPbPr Tuning | | Phase |
| | | | H. Size |
| | Position | | H:-5~0~5 |
| | FOSILIOII | | V:-5~0~5 |
| | | 3D Mode | Auto/Top Bottom/Frame |
| | | | Sequential/Frame Packing/Side by |
| | | | Side/Off |
| Display | 3D | 3D Sync Invert | Disable/Invert |
| | | Apply 3D | 3D Settings I/3D Settings 2/3D |
| | | Settings | Settings 3/Off |
| | | Save 3D | 3D Settings I/3D Settings 2/3D |
| | | Settings | Settings 3 |
| | LIDMI Forms : 4 | | Auto/RGB Limited/RGB Full/ |
| | HDMI Format | | YUY Limited/YUV Full |
| | Image Resizing | Digital Zoom | 1.0X~1.8X/2.0X |
| | | Digital Shrink & Shift | 0.75X~I.0X |
| | Reset Display | | Reset/Cancel |

| Main menu | Submenu | | 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 Settings | Light Mode | Normal/Economic/SmartEco/ |
| | | | LampSave |
| | | Reset Light Timer | Reset/Cancel |
| | | Light Usage Time | |
| | Operation Settings | Quick Cooling | On/Off |
| | | Blank Timer | Disable/5 min/10 min/15 min/ |
| | | | 20 min/25 min/30 min |
| Settings | | Reminder Message | On/Off |
| | | High Altitude Mode | On/Off |
| | | Power On/Off Settings | Direct Power On |
| | | | Signal Power On |
| | | | Auto Power Off |
| | | | Power Off Timer |
| | | Instant Restart | On/Off |
| | Security Settings | Panel Key Lock | On/Off |
| | | Change Password | |
| | | Power On Lock | |
| | Baud Rate | | 9600/14400/19200/38400/57600/ 115200 |
| | HDMI Equalizer | HDMI | Auto/Lower/Low/Middle/High/ |
| | | | Higher |
| | Reset Settings | | Reset/Cancel |

| Main menu | Submenu | | Options | | |
|-------------|------------------------|---------------------------|---|--|--|
| System | Language | | English/Français/Deutsch/Italiano/Español/ Русский/繁體中文/简体中文/日本語/한국어/ Svenska/Nederlands/Türkçe/Čeština/ Português/Чив/Polski/Magyar/Hrvatski/ Română/Norsk/Dansk/Български/ Suomi/Bhs Ind/Ελληνικά/العربية/ 院計/ | | |
| | Standby Settings | Standby Mode | Eco/Normal | | |
| | | Audio Pass Through | Off/Audio in/HDMI | | |
| | Background Settings | Background | BenQ/Black/Blue/Purple | | |
| | | Splash Screen | BenQ/Black/Blue | | |
| | | Menu Type | Basic/Advanced | | |
| | Menu Settings | Menu Display Time | 5 sec/10 sec/20 sec/30 sec/Always | | |
| | Audio Settings | Mute | On/Off | | |
| | | Volume | 0~5~10 | | |
| | | Power On/Off Ring Tone | On/Off | | |
| | Factory Default | | Reset/Cancel | | |
| | Reset System | | Reset/Cancel | | |
| | Native Resolution | | | | |
| | Detected Resolution | | | | |
| | Source | | | | |
| | Picture Mode | | | | |
| Information | Light Mode | | | | |
| | 3D Format | | | | |
| | Color System | | | | |
| | Light Usage Time | | | | |
| | Firmware Versi | ion | | | |
| | Service Code | | | | |

Basic menu

| 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 | 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. | | | | | |
| | • Real: Projects an image as its original resolution and resizes it to fit within the display area. For input signals with lower resolutions, the projected image will be displayed in its original size. | | | | | |
| | • 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 16:10 aspect ratio. | | | | | |
| Picture Mode | 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. | | | | | |
| | • Infographic: Is perfect for presentations with the mixture of text and graphics due to its high color brightness and better color gradation to see the details clearly. | | | | | |
| | • Video : Is suitable for playing videos in an environment where there is ambient light. Dynamic color details are preserved by BenQ enhancement technology. | | | | | |
| | • sRGB: Maximizes the purity of RGB colors to provide true-to-life images regardless of brightness setting. It is most suitable for viewing photos taken with an sRGB compatible and properly calibrated camera, and for viewing PC graphic and drawing applications such as AutoCAD. | | | | | |
| | • 3D: Is appropriate for playing 3D images and 3D video clips. | | | | | |
| | • User I/User 2: Recalls the settings customized based on the current available picture modes. See Reference Mode on page 74. | | | | | |

| Volume | Adjusts the sound level. | | | |
|--------------|---|--|--|--|
| Light Mode | See Setting the Light Mode on page 84. | | | |
| | 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. | | | |
| Information | • Picture Mode: Shows the selected mode in the Picture menu. | | | |
| | • Light Mode: Shows the selected mode in the Light Settings menu. | | | |
| Illiormation | • 3D Format: 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 Advanced OSD menu. See Using the projector menus under non-Launcher source on page 63. | | | |

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. | | | |
| | • 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. | | | |
| Picture Mode | • Infographic : Is perfect for presentations with the mixture of text and graphics due to its high color brightness and better color gradation to see the details clearly. | | | |
| | • Video : Is suitable for playing videos in an environment where there is ambient light. Dynamic color details are preserved by BenQ enhancement technology. | | | |
| | • sRGB: Maximizes the purity of RGB colors to provide true-to-life images regardless of brightness setting. It is most suitable for viewing photos taken with an sRGB compatible and properly calibrated camera, and for viewing PC graphic and drawing applications such as AutoCAD. | | | |
| | • 3D: Is appropriate for playing 3D images and 3D video clips. | | | |
| | • User I/User 2: Recalls the settings customized based on the current available picture modes. See Reference Mode on page 74. | | | |
| | 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 User I/User 2) as a starting point and customize the settings. | | | |
| | I. Go to Picture > Picture Mode. | | | |
| Reference | 2. Press ◄/▶ to select User I or User 2 . | | | |
| Mode | 3. Press ▼ to highlight Reference Mode , and press ◀/▶ to select a picture mode that is closest to your need. | | | |
| | Press ▼ to select a menu item to be changed and adjust the value. The adjustments define the selected user mode. | | | |
| 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. | | | |
| 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,

When **Off** is selected, the **Color Temperature** function is not available.

Color Temperature

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.
- Cool: Makes images appear bluish white.
- Warm: Makes images appear reddish white.

Color Temperature Tuning

You can also set a preferred color temperature by adjusting the following options.

- R Gain/G Gain/B Gain: Adjusts the contrast levels of Red, Green, and Blue.
- R Offset/G Offset/B Offset: Adjusts the brightness levels of Red, Green, and Blue.

Color Management

This function 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.

- Primary Color: Selects a color from among R (Red), G (Green), B (Blue), C (Cyan), M (Magenta), or Y (Yellow).
- **Hue**: Hue is used for adjusting the color balance. Increase in the value will include colors consisted of more proportions of its adjacent colors in counterclockwise order. Decrease in the value will have effect in clockwise order. Please refer to the illustration for how the colors relate to each other

For example, if you select Red and set its value at 0, only pure red in the projected picture will be selected. Increasing its value will include red

- close to yellow while decreasing its value will include red close to magenta.
- 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.



Saturation 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.

• 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.

Advanced Color Settings



Yellow

GREEN

BLUE

| | Wall Color | |
|----------------------------|---|--|
| Advanced Color Settings | 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 Picture menu to the factory preset values. | |

Display

| 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. | | | | |
| | • Real : Projects an image as its original resolution and resizes it to fit within the display area. For | | | | |
| Aspect Ratio | input signals with lower resolutions, the projected image will be displayed in its original size. | | | | |
| | • 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 16:10 aspect ratio. | | | | |
| Keystone | Corrects any keystoning of the image. See Correcting keystone on page 19. | | | | |
| Test Pattern | Adjusts the image size and focus and check that the projected image is free from distortion. | | | | |
| | | | | | |
| PC & Component | 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. | | | | |
| YPbPr Tuning | • H. Size: Adjusts the horizontal width of the image. This function is only available when a PC signal (analog RGB) is selected. | | | | |

| 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. | | | |
|--------------------|--|--|--|--|
| | 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. | | | |
| | • 3D Mode: The default setting is Off. If you want the projector to automatically choose an appropriate 3D format when detecting 3D contents, select Auto. If the projector cannot recognize the 3D format, press ▲/▼ to choose a 3D mode from among Top Bottom, Frame Sequential, Frame Packing and Side by Side. | | | |
| | | | | |
| | When 3D function is activated: | | | |
| | The brightness level of the projected image will decrease. | | | |
| | The following settings cannot be adjusted: Picture Mode, Reference Mode. | | | |
| 3D | The Keystone can only be adjusted within limited degrees. | | | |
| | • 3D Sync Invert: When you discover the inversion of the image depth, enable this function to correct the problem. | | | |
| | • Apply 3D Settings: 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. | | | |
| | • Save 3D Settings: 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. | | | | |
| | After the adjustment bar displays, press ▲/▼ repeatedly to reduce or magnify the image to a desired size. | | | | |
| | 2. Press OK to enter panning mode. | | | | |
| | 3. Press the directional arrows (▲, ▼, ◄, ▶) on the projector or remote control to navigate the picture. | | | | |
| | | | | | |
| Image Resizing | The picture can only be navigated after it is magnified. You can further magnify the picture while searching for details. | | | | |
| | Digital Shrink & Shift | | | | |
| | Shrinks and/or shifts the projected image. | | | | |
| | After the adjustment bar displays, press ◀/▶ repeatedly to shrink or magnify the picture to a desired size. | | | | |
| | 2. Press OK to activate digital shift function. | | | | |
| | 3. After digital shift function is activated, press the directional arrows (▲, ▼, ◄, ▶) to shift the image. | | | | |
| | 4. Press AUTO 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 Display menu to the factory preset values. | | | | |

Settings

| Projector Installation | See Choosing a location on page 14. | | | |
|---------------------------|--|--|--|--|
| 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 84. | | | |
| Light Settings | • Reset Light Timer: See Resetting the lamp timer on page 87. | | | |
| | • Light Usage Time: Displays the number of hours the lamp has been used. | | | |

Quick Cooling

Selecting **On** 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 **Disable**. No matter **Blank Timer** 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 **High Altitude Mode** when your environment is between 1500 m –3000 m above sea level, and ambient temperature is between 0°C-30°C.

Operation under "High Altitude Mode" 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 High Altitude Mode 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

- Direct Power On: Allows the projector to turn on automatically once the power is fed through the power cord.
- Signal Power On: Sets whether to turn the projector directly on without pressing () POWER or (II) ON 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

Security **S**ettings

See Utilizing the password function on page 64.

| 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 download 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 on the projector, select the HDMI port first before adjusting the value. | | | |
| Reset Settings | Returns all of the adjustments you've made for the Settings menu to the factory preset values. | | | |

System

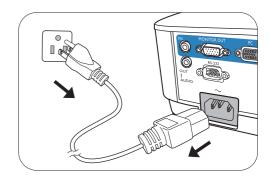
| Language | Sets the language for the On-Screen Display (OSD) menus. | | |
|------------------------|--|--|--|
| | Standby Mode | | |
| Standby Settings | • Eco : The projector maintains at normal standby mode with less than 0.5W power consumption. | | |
| | Normal: Allows the projector to provide audio pass through function in standby mode. | | |
| S | • Audio Pass Through: The projector can play sound when it is in standby mode and the corresponding jacks are correctly connected to devices. Press ◀/▶ to choose the source that you wish to use. See Connection on page 20 for how to make the connection. | | |
| Rackground | Background: Sets the background color for the projector. | | |
| Background Settings | • Splash Screen: Allows you to select which logo screen will be displayed during projector start-up. | | |
| Menu Settings | Menu Type: Switches to the Basic OSD menu. | | |
| | • Menu Display Time: Sets the length of time the OSD will remain active after your last key press. | | |
| | Mute: Temporarily turns off the sound. | | |
| | Volume: Adjusts the sound level. | | |
| Audio | • Power On/Off Ring Tone: Turns on or off the ring tone when the projector is in startup and shutdown process. | | |
| Settings | | | |
| | The only way to change Power On/Off Ring Tone is setting On or Off here. Setting the sound mute or changing the sound level will not affect the Power On/Off Ring Tone . | | |
| | Returns all settings to the factory preset values. | | |
| Factory Default | | | |
| | The following settings will still remain: Keystone, Projector Installation, Light Usage Time, High Altitude Mode, Security Settings, Baud Rate, HDMI Equalizer. | | |
| Reset System | Returns all of the adjustments you've made for the System menu to the factory preset values. | | |

Information

| 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. | | |
| • Light Mode: Shows the selected mode in the Light Settings menu. | | |
| • 3D Format: 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 (1) 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 \bigcirc or \bigcirc 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.



3. 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.
- To shorten the cooling time, you can also activate the Quick cooling function. See Quick Cooling on page 79.
- · 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 (1) or \blacksquare 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 67 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 90 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 **Economic** mode = y hours

Time used in **SmartEco** mode = z hours

Time used in **LampSave** mode = a hours

2. Equivalent light source hour = α hours

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

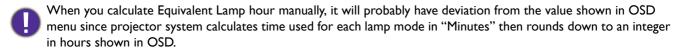
X= lamp life spec of **Normal** mode

Y= lamp life spec of **Economic** 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





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

- Time used is accumulated and rounded down to an integer in hours.
- When time used is less than I hour, it shows 0 hours.

To obtain the lamp hour information:

- Go to Advanced Menu Settings > Light Settings and press OK. The Light Settings page appears.
- 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 **Economic**, **SmartEco** or **LampSave** mode extends lamp life.

| Lamp mode | Description | | | |
|-----------|--|--|--|--|
| Normal | Provides full lamp brightness | | | |
| Economic | 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 ◄/►.

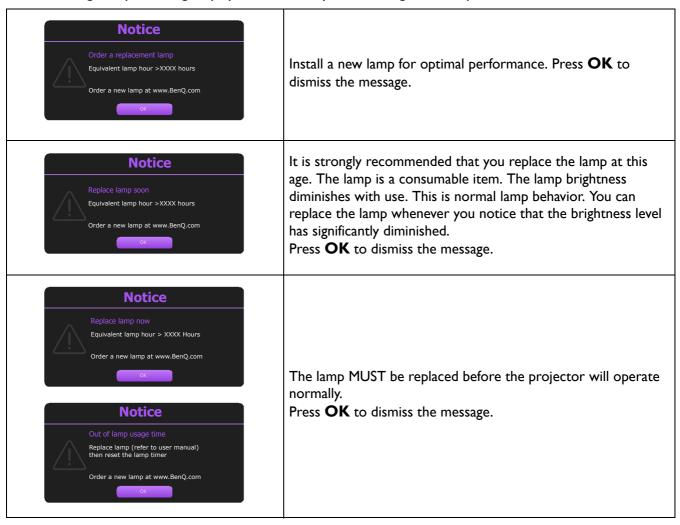
Timing of replacing the lamp

When the Lamp indicator lights up or a message appears suggesting it is time to replace the lamp, please consult your dealer or go to http://www.BenQ.com before installing a new lamp. An old lamp may cause a malfunction in the projector and in some instances the lamp 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 LAMP 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 Lamp or Temp indicator still lights up after turning the power back on, please contact your dealer. See Indicators on page 88.

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



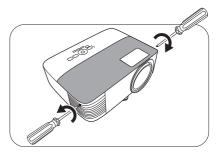


"XXXX" shown in the above messages are numbers that vary depending on different models.

Replacing the lamp (FOR SERVICE PERSONNEL ONLY)



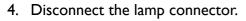
- To reduce the risk of electrical shock, always turn the projector off and disconnect the power cord before changing the lamp.
- To reduce the risk of severe burns, allow the projector to cool for at least 45 minutes before replacing the lamp.
- To reduce the risk of injuries to fingers and damage to internal components, use caution when removing lamp glass that has shattered into sharp pieces.
- To reduce the risk of injuries to fingers and/or compromising image quality by touching the lens, do not touch the empty lamp compartment when the lamp is removed.
- This lamp contains mercury. Consult your local hazardous waste regulations to dispose of this lamp in a proper manner.
- To assure optimal performance from the projector, it is recommended that you purchase a qualified projector lamp for lamp replacement.
- If lamp replacement is performed while the projector is suspended upside-down, make sure that no one is underneath the lamp socket to avoid any possible injury or damage to the human eyes caused by fractured lamp.
- Ensure good ventilation when handling broken lamps. We recommend that you use respirators, safety glasses, goggles or face shield and wear protective clothing such as gloves.
- I. Turn the power off and disconnect the projector from the power outlet. If the lamp is hot, avoid burns by waiting for approximately 45 minutes until the lamp has cooled.
- 2. Loosen the screw(s) that secure the lamp cover on the side of the projector until the lamp cover loosens.



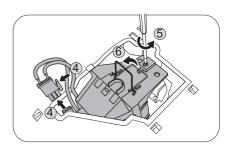
3. Remove the lamp cover from the projector.



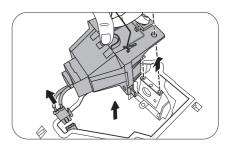
- Do not turn the power on with the lamp cover open.
- Do not insert your fingers between the lamp and the projector. The sharp edges inside the projector may cause injuries



- 5. Loosen the screw(s) that secure the inner lamp.
- 6. Lift the handle so that it stands up.

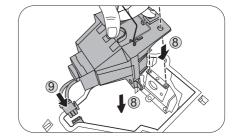


7. Use the handle to slowly pull the lamp out of the projector.





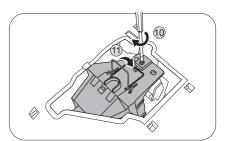
- · Pulling it too quickly may cause the lamp to break and scatter broken glass in the projector.
- Do not place the lamp in locations where water might splash on it, children can reach it, or near flammable materials.
- Do not insert your hands into the projector after the lamp is removed. The sharp edges inside the projector may cause injuries. If you touch the optical components inside, it could cause color unevenness and distortion of the projected images.
- 8. As shown in the figure, insert the new lamp. Align the lamp connector and 2 sharp points with the projector and push the lamp a bit into the locked position.
- 9. Insert the lamp connector.



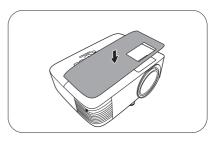
- 10. Tighten the screw(s) that secures the lamp.
- II. Ensure the handle is fully laid flat and locked in place.



- · Loose screw may cause a bad connection, which could result in malfunction.
- Do not over tighten the screw.



12. Replace the lamp cover on the projector.



13. Tighten the screw that secures the lamp cover.



- · Loose screw may cause a bad connection, which could result in malfunction.
- Do not over tighten the screw.
- 14. .Connect the power and restart the projector.

Resetting the lamp timer

15. After the startup logo, open the On-Screen Display (OSD) menu. Go to Advanced Menu - Settings > Lamp Settings and press OK. The Lamp **Settings** page appears. Highlight **Reset Lamp Timer** and press **OK**. A warning message is displayed asking if you want to reset the lamp timer. Highlight Reset and press OK. The lamp time will be reset to "0".





Do not reset if the lamp is not new or replaced as this could cause damage.

Indicators

| Light | | | Status 8 Danistian | |
|----------|----------------|---------|---|--|
| POWER O | TEMP O | LIGHT 0 | Status & Description | |
| | | | Power events | |
| | 0 | 0 | Stand-by mode | |
| | 0 | 0 | Powering up | |
| | 0 | 0 | Normal operation | |
| - | 0 | 0 | Normal power-down cooling | |
| • | • | • | Download | |
| | 0 | | CW start fail | |
| | | | Lamp events | |
| 0 | 0 | | Lamp error in normal operation | |
| 0 | 0 | • | Lamp is not lit up | |
| | 0 | | Lamp life exhausted | |
| 0 | | | Lamp door is not closed | |
| | Thermal events | | | |
| | | 0 | Fan I error (the actual fan speed is outside the desired speed) | |
| | • | 0 | Fan 2 error (the actual fan speed is outside the desired speed) | |
| | | 0 | Temperature I error (over limited temperature) | |
| | | | | |
| <u> </u> | 1 | | | |

| O : | O. 0# | O: Orange On | : Green On | : Red On | |
|------------|---------------|-------------------|------------------|----------------|--|
| | ○: O π | : Orange Flashing | : Green Flashing | : 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 SOURCE key. |
| The lens cover is still closed. | Open the lens cover. |

Blurred image

| 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 65. | | |

Specifications

Projector specifications

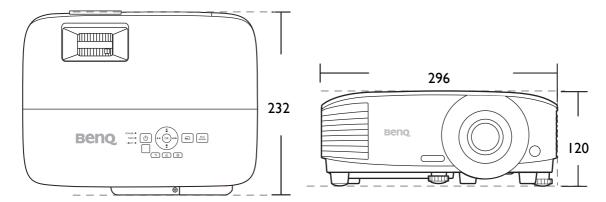


All specifications are subject to change without notice.

| Optical | Control |
|--|---|
| Resolution EX600 : 1024 x 768 XGA | USB |
| EW600: 1024 x 766 AGA EW600: 1280 x 800 WXGA | Type-A: 1A Type-A: 1.5A |
| EH600 : 1920 x 1080 1080p | Type-A for wireless dongle: 1.5A |
| Display system | Mini-B x 1 |
| 1-CHIP DMD | RS-232 serial control |
| Lens | 9 pin x 1 |
| $F = 2.56 \sim 2.68$, $f = 22 \sim 24.1$ mm | IR receiver x 2 |
| Clear focus range | Input terminals |
| EX600 : 2.38–7.15 m @ Wide, | Computer input |
| 2.62–7.87 m @ Tele | RGB input |
| EW600: | D-Sub 15-pin (female) x 1 |
| 2-6 m @ Wide, 2.2-6.6 m @ Tele | Video signal input SD/HDTV signal input |
| EH600: | Analog - Component |
| 1.98–5.94 m @ Wide, | (through RGB input) |
| 2.18–6.53 m @ Tele | Digital - HDMI x 1 |
| Lamp 200 W lamp | Audio signal input |
| Electrical | Audio in |
| | PC audio jack x 1 |
| Dower cumbly | |
| Power supply AC100–240V, 50–60 Hz (Automatic) | Environmental Requirements |
| AC100–240V, 50–60 Hz (Automatic) | Operating temperature |
| AC100–240V, 50–60 Hz (Automatic) Power consumption | Operating temperature 0°C–40°C at sea level |
| AC100–240V, 50–60 Hz (Automatic) | Operating temperature 0°C–40°C at sea level Operating relative humidity |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight | Operating temperature 0°C–40°C at sea level |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) | Operating temperature 0°C–40°C at sea level Operating relative humidity 10%–90% (without condensation) |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight | 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 |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output | 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) |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output D-Sub 15-pin (female) x 1 | 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 |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output D-Sub 15-pin (female) x 1 Speaker | 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 |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output D-Sub 15-pin (female) x 1 Speaker 2 watt x 1 | 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 |
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| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output D-Sub 15-pin (female) x 1 Speaker 2 watt x 1 Audio signal output | 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 |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output D-Sub 15-pin (female) x 1 Speaker 2 watt x 1 Audio signal output | 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 |
| AC100–240V, 50–60 Hz (Automatic) Power consumption 320 W (Max); < 0.5 W (Standby) Mechanical Weight 2.5 Kg (5.5 lbs) Output terminals RGB output D-Sub 15-pin (female) x 1 Speaker 2 watt x 1 Audio signal output | 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 |

Dimensions

296 mm (W) \times 120 mm (H) \times 232 mm (D)



Unit: mm

Timing chart

Supported timing for PC input

| Resolution 640 x 480 720 x 400 | VGA_60 VGA_72 VGA_75 VGA_85 720 x 400 70 | Frequency (Hz) 59.940 72.809 75.000 | Frequency (kHz) 31.469 | Frequency (MHz) | Frame Sequential | Тор | Side by |
|----------------------------------|--|---|------------------------------|-----------------|---------------------|-------------|-----------|
| | VGA_72 VGA_75 VGA_85 | (Hz) 59.940 72.809 | 31.469 | • • | C | • | |
| | VGA_72 VGA_75 VGA_85 | 59.940 72.809 | 31.469 | | Seguentiai | Bottom | Side |
| _ | VGA_72 VGA_75 VGA_85 | 72.809 | | 25.175 | Supported | Supported | Supported |
| _ | VGA_75 VGA_85 | | 37.861 | 31.500 | - Cupportou | - Cupportou | - appoint |
| 720 x 400 | VGA_85 | 73.000 | 37.500 | 31.500 | | | |
| 720 x 400 | | 85.008 | 43.269 | 36.000 | | | |
| | 12U X 4UU /U | 70.087 | 31.469 | 28.3221 | | | |
| II II | SVGA 60 | 60.317 | 37.879 | 40.000 | Supported | Supported | Supported |
| | SVGA 72 | 72.188 | 48.077 | 50.000 | | | |
| | SVGA 75 | 75.000 | 46.875 | 49.500 | | | |
| 800 x 600 | SVGA 85 | 85.061 | 53.674 | 56.250 | | | |
| | SVGA 120 | | | | | | |
| (Re | educe 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 | | | |
| | XGA 75 | 75.029 | 60.023 | 78.750 | | | |
| 1024 x 768 | XGA 85 | 84.997 | 68.667 | 94.500 | | | |
| XG | GA 120 (Reduce | | | | | | |
| | Blanking) | 119.989 | 97.551 | 115.5 | Supported | | |
| 1152 x 864 1 | 1152 x 864 75 | 75 | 67.5 | 108 | | | |
| | BenQ | | | | | | |
| 1024 x 576 | otebook_timing | 60.0 | 35.820 | 46.966 | | | |
| | BenQ | | | | | | |
| 1024 x 600 | otebook_timing | 64.995 | 41.467 | 51.419 | | | |
| | 1280 x 720 60 | 60 | 45.000 | 74.250 | Supported | Supported | Supported |
| | 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 | | | | | | |
| (Re | educe 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 | | | |
| 1 | 1280 x 960 60 | 60.000 | 60.000 | 108.000 | | Supported | Supported |
| | 1280 x 960 85 | 85.002 | 85.938 | 148.500 | | | |
| | 1360 x 768 60 | 60.015 | 47.712 | 85.5 | | Supported | Supported |
| | 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 |
| | 680 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 | | | |



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

| | | V ertical | 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 | | | |
| 040 X 400 | 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 | | | |
| 4000 v 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 | | 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

| | | V ertical | Horizontal | Pixel | | 3D for | mat | |
|----------|-------------|-------------------|--------------------|-----------------|---------------------|------------------|---------------|-----------------|
| 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 |
| 1080/50i | 1920 x 1080 | 50 | 28.13 | 74.25 | | | | Supported |
| 1080/60i | 1920 x 1080 | 60 | 33.75 | 74.25 | | | | 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 | | | | |
| 1080/50P | 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

| | | Vortical Eroquancy | Harizantal Erraguansy | Divol Eroguansy | 3D format |
|----------|-------------|----------------------------|----------------------------|-----------------------|---------------------|
| Timing | Resolution | Vertical Frequency (Hz) | Horizontal Frequency (kHz) | Pixel Frequency (MHz) | Frame 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.