# Displaying image through Q Presenter

The Q Presenter is an application running on the host PC. It connects to an available network display and transfers the desktop contents to the network display via local network connection.

☞ **Be sure to turn off other virtual network control programs before using Q Presenter.**

1. Connect the projector with the RJ45 cable, and make sure your laptop or computer also link to the LAN. See "Configuring the Wired LAN Settings" on page 47 and "Configuring the Wireless LAN Settings" on page 48 for details.
2. Find the IP address and enter the address of the projector in the address bar of your browser. See "Controlling the projector remotely through a web browser" on page 48 for details.
3. Download the Q Presenter, unzip it and complete program installation.
4. Once installed, double click the Q Presenter icon. The Q Presenter page appears.
5. Click the Search icon.

The Search page allows you to search and connect a network display.
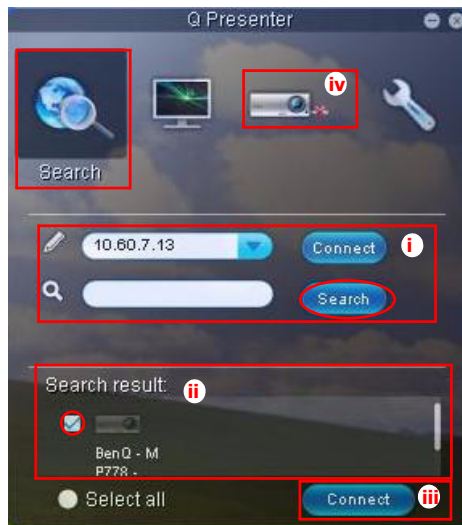
i. You can key in the IP address (see "Controlling the projector remotely through a web browser" on page 48 for details.) or just click "Search".

ii. Projectors linked in the LAN will be found. Then select the projector you want to link.

iii. Click "Connect". Then you should be able to see the image on projector.

iv. You can click to disconnect all connected projectors..

The Special Feature page allows you to have some advanced functions to manage the display image on your projector.
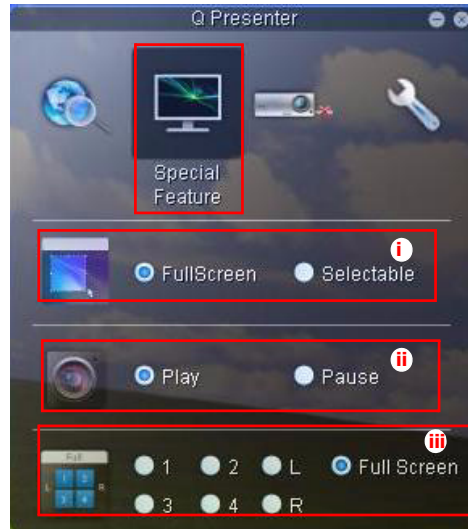

i. Full Screen: whole image display on the projector. Selectable: a square will pop-up then you can move and drag the area you want to show the audience.

ii. You can select to stop/start displaying desktop contents to connected network display.

iii. 4-1 Display (up to 4 computers can shoot to 1 projector at the same time). Click the location you want to display. 4locations can be chosen (1-4) or 2 places (L and R) if it's 2 computers. Once you click the place you want to display, the image appers on th eprojector. You can change th elocation anytime you want, even back to full screen or blank out.

The Basic and Advanced Settings pages allow you to configure the Q Presenter.
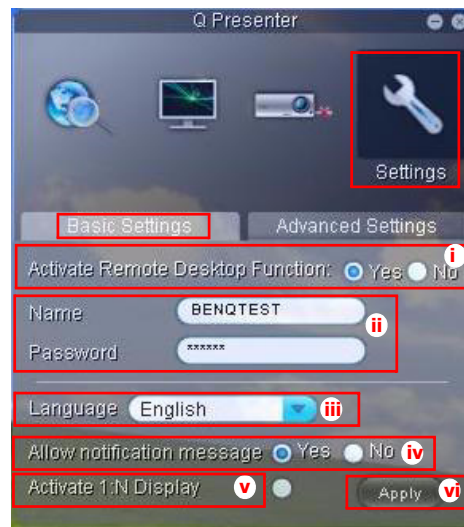
i. You can select whether to activate Remote Desktop function. If the Remote Desktop function is activated, you can change the Name and Password. If it isn't activated, the Name and Password will be gray out.

ii. You can set the name and password of the connected computer. The Name must be eight capital letters from A-Z & 0-9. The Password must be 6 digits from 1 to 4.

iii. When you install the Q Presenter, the program will automatically identify the language of your computer's operating system and install the same language as your operating system. If your language isn't included, the system will keep English as the default setting.

iv. You can select whether to allow notification message popup.

v. Once you set to activate 1:N display, 1PC/NB can display up to 8 projectors at the same time.

vi. Once set, press Apply to save the changes.
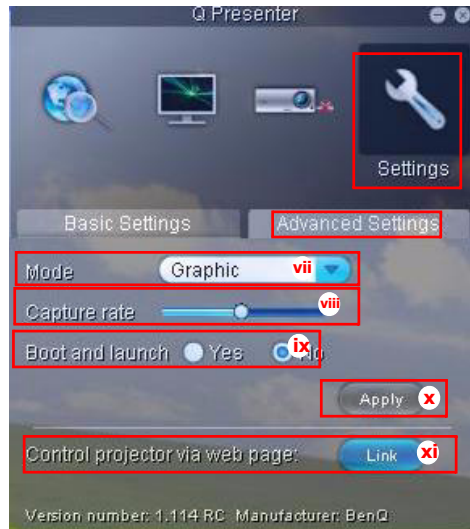
vii. You can select Video or Graphic display mode. Graphic Mode: worse image quality but faster tramsmission speed. Video Mode: better image quality but slower transmission speed. However, the actual transmission performance was determined by the status of network usage at that time.

viii.You can adjust the capture rate. The network bandwidth may also affect the performance.

ix. You can select whether to automatically open the Q Presenter application when the computer is powered on.

x. Once set, press Apply to save the changes.

xi. You can link to the BenQ remote network operation page on page 48.

Presenting From a USB Reader

This fature displays a slide show of images stored on a USB flash drive connected to the projector. It can eliminate the need for a computer source.

Image File Types

USB Reader displays images files in JPEG, GIF, TIFF, PNG and BMP formats.

☞ • **A square box will display on the filename for unidentified characters.**

• **Thai filename is not supported.**

• **Files in GIF, TIFF, PNG and BMP formats can be displayed for the file size smaller than WXGA (1280 x 800) only.**

• **If a folder consists of more than 200 photos, only the first 200 photos can be displayed.**

Preparation

To view your pictures as a slideshow, follow these steps:

1. Connect a USB flash drive to your computer and copy files from your computer to the USB flash drive.
2. Turn on your projector if needed.
3. Remove the USB flash drive from your computer and plug it into the USB TYPE-A jack of the projector.
4. The thumbnails display.

Controlling USB Reader

While viewing thumbnails:

i. Thumbnails

ii. Selected folder

iii. Supported file format

iv. Unsupported file format

| To	Press
open folder	Enter
scroll through thumbnails	four arrow keys
return to a previous page	Auto
exit USB Reader	Exit
change to a different page	◄ / ►
go back to the first page of that folder	Back
start slide show	Slideshow when an image is highlighted.
adjust USB Reader settings	Setting

During slideshow:

To	Press
go to previous or next image	◄ / ►

rotate the image by 90 degree clockwise/ counterclockwise	▲ / ▼ (Rotation is temporary; the image returns to its original orientation when you go back to thumbnails)
return to a previous page	Auto
start/stop slideshow	Enter

Settings page:
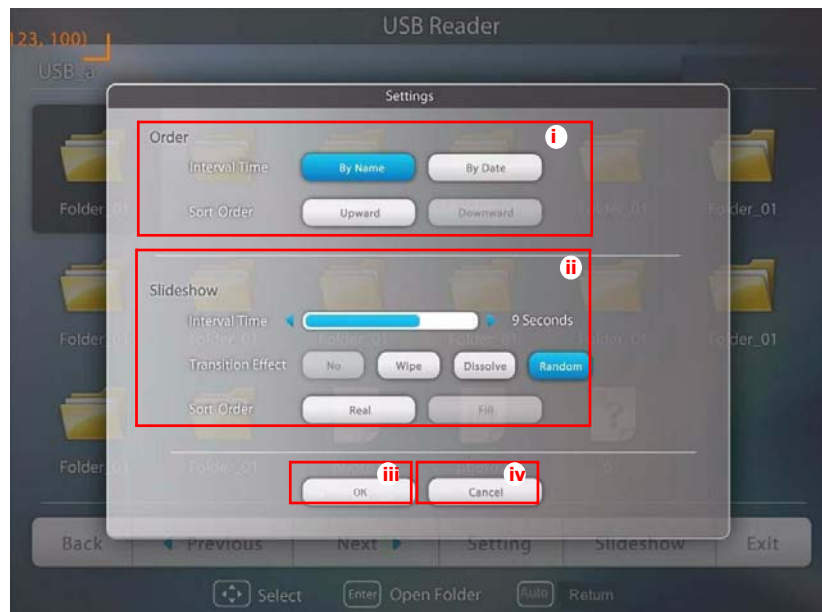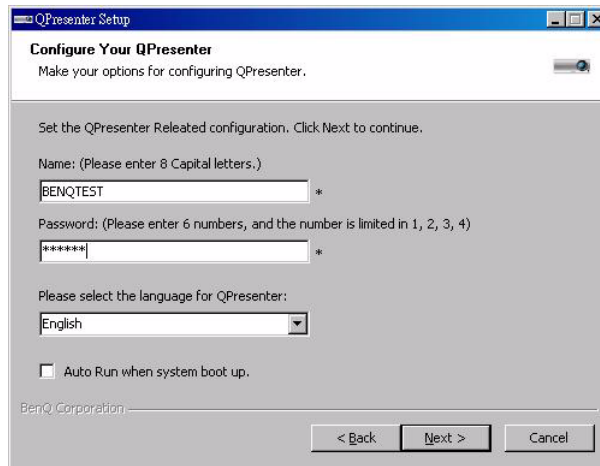

i. You can adjust order settings.
ii. You can adjust Slideshow settings.
iii. Press **OK** to save the settings.
iv. Press **Cancel** to ignore the change.

Remote Desktop Control through Q Presenter

The Q Presenter can proceed the Remote Desktop Control (RDC) the host PC from projector site.

1. Setup the RDC login account (User name and Password) in Q Presenter.

- • Name: must be 8 English capital letters A~Z and number 0 ~9.

- • Password: must be 6 digits and limit the range from 1~4.

- • If there are lot of audience is watching the display while the user is entering the password, the number will be transferred to up, left, down, right in order from 1 to 4 of remote control's or projector's keypads .

- • If multiple same Q Presenter names are found, an error like "duplicate" is displayed in projector OSD.

2. Activate Remote Desktop Control Function in **Q Presenter** > **Settings** > **Basic Settings**.

3. Open the OSD menu and go to the **SYSTEM SETUP: Advanced** > **Network Settings** menu. Press **MODE/ENTER**.
4. Highlight **Remote Desktop** and press **MODE/ENTER**.
5. Enter the **Account** and **Password** the same as step 1.
6. Highlight **Connect** and press **MODE/ENTER** to connect the selected PC.
7. Connect USB keyboard or mouse to control the host PC's desktop through the projector.

• **Remote Desktop Control does not support PC Standby mode.**

• **Remote Desktop Control only supports LAN source so the projector source is fixed on LAN.**

PointDraw™ Pen (MP780 ST only)

The PointDraw™ pen works like a wireless mouse - but one that works in midair, not on your desktop. Just hold the pen in your hand, and point it at the projected image to point, click and drag.

1. Make sure the PointDraw™ pen's battery is charged.
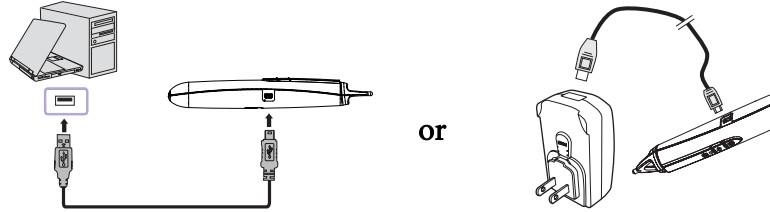
USB mini-B type to A type cable

⚠ **Do not use the PointDraw™ pen while the pen's battery is charging.**

2. Connect the projector and your computer with the supplied USB B type to A type cable. If a pop-up window appears on the computer's screen for requiring to provide a driver, please use the original driver in your computer or the driver recommended by your computer.
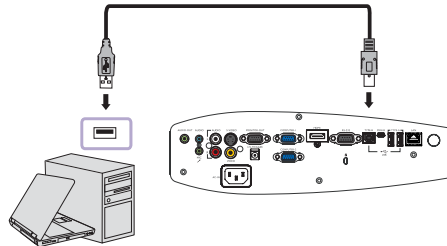
3. Turn on the projector and make sure it's displaying the computer's screen - set the source to VGA 1, VGA 2, or HDMI (press SOURCE button on the projector or remote control if needed - you may need to press it several times).
4. Point the pen at the screen to point, click, and drag - just like a normal mouse.
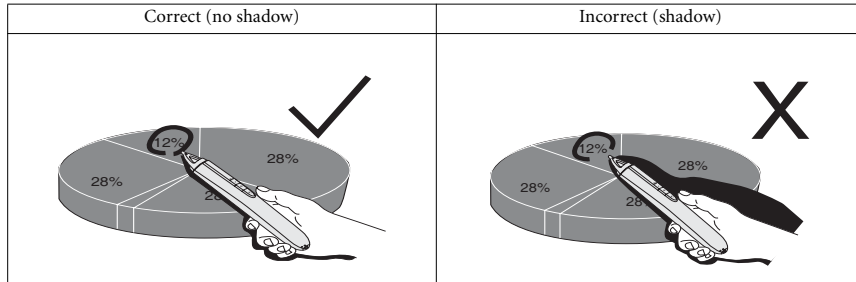
How to hold the PointDraw™ pen

You can hold the PointDraw™ the way you would hold a normal pencil or pen, or you can hold it like a remote control - use in whichever position is most comfortable.
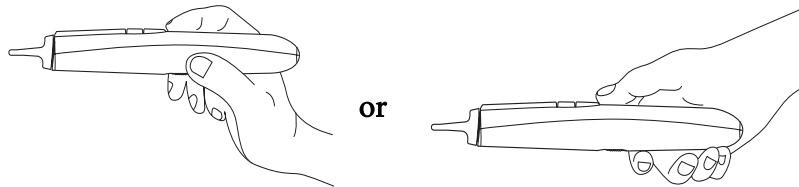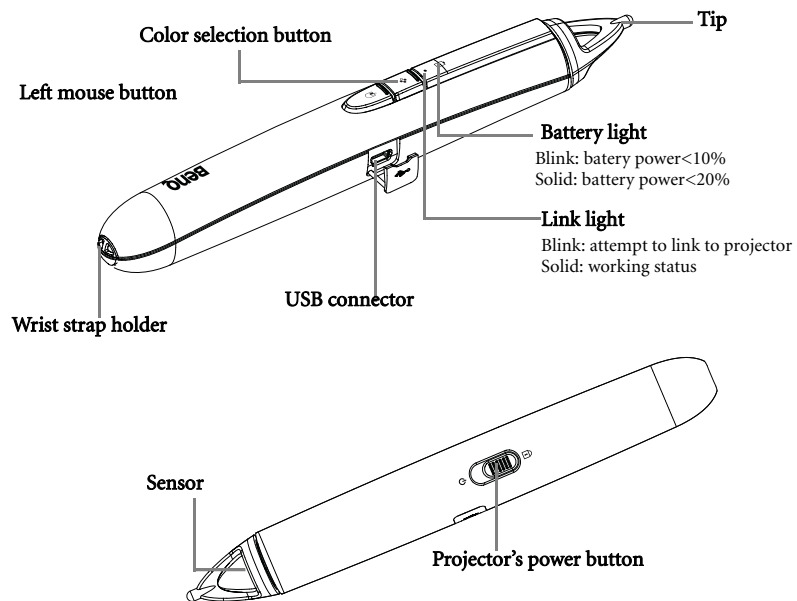

☞ **If the PointDraw™ pen is far away from the screen, be sure to press the left mouse button to click and drag.**

Avoid shadows!

The PointDraw™ pen won't work if its tip is in a shadow or if it is pointing at a shadow:

Correct (no shadow)	Incorrect (shadow)

PointDraw™ pen features

Color selection button

Left mouse button

Tip

Battery light
Blink: batery power<10%
Solid: battery power<20%

Link light
Blink: attempt to link to projector
Solid: working status

USB connector

Wrist strap holder

Sensor

Projector's power button

Lithium battery information

Charging time: approx. 2 hours
Working time: approx. 20 hours
Standby time: approx. 39,000 hours

⚠ **Lithium battery is only rechargeable, and not user replaceable. Not user serviceable.**

Troubleshooting

- If the pen doesn't work at all, or it works intermittently, try one of these solutions:
  - If the pen's battery light is blinking or lit, then the pen's battery is fully discharged; connect the pen to the USB power adapter or your computer.
  - Make sure the pen is not pointing at a shadow and make sure its tip is not in a shadow.
  - If the room is brightly lit, reduce the room illumination.
  - If you're trying to use the computer's mouse at the same time as the pen, point the pen away from the screen while using the mouse.
- If accurate clicking is difficult, try below solution:
  - Hold the pen steadier when clicking.
- If the mouse pointer is in the wrong place on the screen, or the mouse pointer's movement is restricted to only part of the screen, try below solution:
  - Make sure your projector is displaying the computer's screen and not some other source (such as DVD, VCR, etc.). To change the source, press the SOURCE button on the projector or remote control.

Shutting down the projector

1. Press ⏻ **Power** on the projector. A confirmation message displays prompting you. If you don't respond in a few seconds, the message will disappear. If you use the remote control, press **OFF** to shut down the projector.

2. Press ⏻ **Power** on the projector a second time. The **POWER indicator light** flashes orange, the projection lamp shuts down, and the fans will continue to run to cool down the projector.

⚠ **To protect the lamp, the projector will not respond to any commands during the cooling process.**

3. Once the cooling process finishes, the **POWER indicator light** is a steady orange and fans stop.

4. Disconnect the power cord from the power putlet if the projector will not be used in an extended period of time.
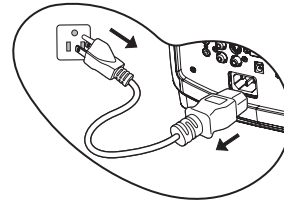
☞ • **If the projector is not properly shut down, to protect the lamp, when you attempt to re-start the projector, the fans will run for a few minutes to cool down. Press Power again to start the projector after the fans stop and the POWER indicator light turns orange.**

   • **Actual lamp lives may vary due to different environmental conditions and usage.**

Menu operation

Menu system

Please note that the on-screen display (OSD) menus vary according to the signal type selected.

Main menu	Sub-menu		Options
1. DISPLAY	**Wall Color**		**Off/Light Yellow/Pink/Light Green/Blue/Blackboard**
	Aspect Ratio		**Auto/Real/4:3/16:9/16:10**
	Auto Keystone		**On/Off**
	Keystone		
	Position		
	Phase		
	H. Size		
	Digital Zoom		
	3D Sync		**On/Off**
	3D Sync Invert		**Disable/Invert**
2. PICTURE	**Picture Mode**		**Dynamic/Presentation/sRGB/Cinema/User 1/User 2**
	Reference Mode		**Dynamic/Presentation/sRGB/Cinema**
	Brightness		
	Contrast		
	Color		
	Tint		
	Sharpness		
	Brilliant Color		**On/Off**
	Color Temperature		T1/T2/T3/T4
	3D Color Management	**Primary Color**	R/G/B/C/M/Y
		Hue	
		Saturation	
		Gain	
	Save Settings		
3. SOURCE	**Quick Auto Search**		**On/Off**
	Color Space Conversion		Auto/RGB/YUV

		Timer period	1~240 minutes
4. SYSTEM SETUP: Basic	**Presentation Timer**	**Timer display**	Always/Last 1 Min/Last 2 Min/ Last 3 Min/Never
		Timer position	**Top-Left/Bottom-Left/Top-Right/Bottom-Right**
		Timer counting direction	**Count Down/Count Up**
		Sound Reminder	**On/Off**
		On/Off	
	Language		English/ Français/ Deutsch/ Italiano/ Español / **Русский** / 繁體中文/ 简体中文/ 日本語/ 한국어/ Svenska/ Nederlands/ Türkçe/ Čeština/ Português/ ไทย/ Polski Magyar/ Hrvatski/ Română / Norsk/ Dansk/ Български / Suomi
	Projector Position		**Front Table/Rear Table/Rear Ceiling/Front Ceiling**
	Menu Settings	**Menu display time**	5 sec/10 sec/15 sec/20 sec/25 sec/30 sec
		Menu position	Center/Top-left/Top-right/Bottom-right/Bottom-left
		Reminder Message	**On/Off**
	Operation Settings	**Direct Power On**	**On/Off**
		Auto Power Off	**Disable**/5 min/10 min/15 min/20 min/25 min/30 min
		Blank Timer	**Disable**/5 min/10 min/15 min/20 min/25 min/30 min
		Sleep Timer	**Disable**/30 min/1 hr/2 hr/3 hr/4 hr/8 hr/12 hr
	Remote Receiver		Front+Rear/Front/Rear
	Panel Key Lock	**On/Off**	**Yes/No**
	Background Color		BenQ/Black/Blue/Purple
	Splash Screen		BenQ/MyScreen/Black/Blue
	MyScreen	Capture	**Yes/No**
	PointDraw™ (MP780 ST only)	**On/Off**	

5. SYSTEM SETUP: Advanced	**Quick Cooling**		**On/Off**
	High Altitude Mode		**On/Off**
	Audio Settings	**Mute**	**On/Off**
		Volume	
		Microphone Volume	
		Power on/off Ring Tone	**On/Off**
	Lamp Settings	**Lamp Mode**	**Normal/Economic**
		Reset lamp timer	
		Equivalent lamp hour	
	Security Settings	**Change password**	
		Change Security Settings	**Power on Lock**
			Splash Sscreen On Lock
	Baud Rate		2400/4800/9600/14400/19200/38400/57600/115200
	Test Pattern		**On/Off**
	Closed Caption	**Closed Caption Enable**	**On/Off**
		Caption Version	CC1/CC2/CC3/CC4
	Standby Settings	**Network**	**On/Off**
		Microphone	**On/Off**
		Monitor Out	**On/Off**
	Network Settings	**Wired LAN**	Status
			DHCP
			IP Address
			Subnet Mask
			Default Gateway
			DNS
			Apply
		Wireless LAN	Status
			SSID
			IP Address
			Connection Mode
		Remote Desktop	Account
			Password
			Connect
	Reset All Settings		

	FAQ-Image and Installation	
	FAQ-Features and Service	
6. INFORMATI ON	**Current System Status**	• **Source** • **Picture Mode** • **Resolution** • **Color System** • **Equivalent Lamp Hour** • **Firmware Version**

Note that 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.

Description of each menu

☞ • **The default values listed in this manual, especially on pages 74-82, are for reference only. They may vary between the projectors due to the continuous improvement to the products.**

	FUNCTION	DESCRIPTION
1. DISPLAY menu	**Wall Color**	Corrects the projected picture's color when the projection surface is not white. See "Using Wall Color" on page 40 for details.
	Aspect Ratio	There are four options to set the image's aspect ratio depending on your input signal source. See "Selecting the aspect ratio" on page 37 for details.
	Auto Keystone	Auto corrects any keystoning of the image.
	Keystone	Corrects any keystoning of the image. See "Correcting keystone" on page 32 for details.
	Position	Displays the position adjustment page. To move the projected image, use the directional arrow keys. The values shown on the lower position of the page change with every key press you made until they reach their maximum or minimum. ☞ **This function is only available when a PC signal (analog RGB) is selected.**
	Phase	Adjusts the clock phase to reduce image distortion. ☞ **This function is only available when a PC signal (analog RGB) is selected.**
	H. Size	Adjusts the horizontal width of the image. ☞ **This function is only available when a PC signal (analog RGB) is selected.**
	Digital Zoom	Magnifies or reduces the projected image. See "Magnifying and searching for details" on page 37 for details.

FUNCTION	DESCRIPTION
3D Sync	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. • For a PC type signal: When the vertical frequency is 120Hz, and the content being projected is made with 3D technology, selecting On will present the 3D images. When the input signal is PC@120Hz, 3D sync will be enabled automatically. • For a video type signal: When the content being projected is made with 3D technology, selecting On will present the 3D images. When 3D Sync function is enabled, the projector will enter a special picture mode and the current picture mode adjustment will be disabled. ☞ **This function is only enabled when the input signal is PC@120Hz, 60Hz@Video and S-video.**
3D Sync Invert	When you discover the inversion of the image depth, enable this function to correct the problem. ☞ **This function is only enabled when the input signal is PC@120Hz, Video and S-video.**

<div style="writing-mode: vertical">1. DISPLAY menu</div>

FUNCTION)	DESCRIPTION
Picture Mode	Pre-defined picture modes are provided so you can optimize your projector image set-up to suit your program type. See "Selecting a picture mode" on page 39 for details.
Reference Mode	Selects a picture mode that best suits your need for the image quality and further fine-tune the image based on the selections listed on the same page below. See "Setting the User 1/User 2 mode" on page 39 for details. ☞ **This function is only available when User 1 or User 2 is selected.**
Brightness	Adjusts the brightness of the image. See "Adjusting Brightness" on page 40 for details. ☞ **This function is only available when User 1 or User 2 is selected.**
Contrast	Adjusts the degree of difference between dark and light in the image. See"Adjusting Contrast" on page 40 for details. ☞ **This function is only available when User 1 or User 2 is selected.**
Color	Adjusts the color saturation level -- the amount of each color in a video image. See "Adjusting Color" on page 40 for details. ☞ **This function is only available when User 1 or User 2 is selected.** ☞ **This function is only available when a Video or S-Video signal is selected and the system format is NTSC or PAL.**
Tint	Adjusts the red and green color tones of the image. See "Adjusting Tint" on page 40 for details. ☞ **This function is only available when User 1 or User 2 is selected.** ☞ **This function is only available when a Video or S-Video signal is selected and the system format is NTSC or PAL.**
Sharpness	Adjusts the image to make it look sharper or softer. See "Adjusting Sharpness" on page 40 for details. ☞ **This function is only available when User 1 or User 2 is selected.**

2. PICTURE menu

	FUNCTION	DESCRIPTION
2. PICTURE menu	**Brilliant Color**	Adjusts white peaking while maintaining correct color presentation. See "Adjusting Brilliant Color" on page 40 for details. ☞ **This function is only available when User 1/2 is selected.**
	Color Temperature	See "Selecting a Color Temperature" on page 40 for details. ☞ **This function is only available when User 1/2 is selected.**
	3D Color Management	See "3D Color Management" on page 41 for details. ☞ **This function is only available when User 1/2 is selected.**
	Save Settings	Saves the settings made for **User 1** or **User 2** mode. ☞ **This function is only available when User 1/2 is selected.**
3. SOURCE menu	**Quick Auto Search**	See "Switching input signal" on page 36 for details.
	Color Space Conversion	See "Changing Color Space" on page 36 for details.

FUNCTION	DESCRIPTION
Presentation Timer	Reminds the presenter to finish the presentation within a certain time frame. See "Setting the presentation timer" on page 43 for details. **Timer period** Sets a preferred length of time for presentation. **Timer display** Sets whether to display the timer on screen. **Timer position** Sets the position where the timer displays on screen. **Timer counting direction** Sets the timer counting direction. **Sound Reminder** Sets a sound reminder if timer is up.
Language	Sets the language for the On-Screen Display (OSD) menus. See "Using the menus" on page 33 for details.
Projector Position	The projector can be installed on a ceiling or behind a screen, or with one or more mirrors. See "Choosing a location" on page 16 for details.
Menu Settings	**Menu display time** Sets the length of time the OSD will remain active after your last key press. The range is from 5 to 30 seconds in 5-second increments. **Menu position** Sets the On-Screen Display (OSD) menu position. **Reminder Message** Sets whether to display the reminder message.
Operation Settings	**Direct Power On** Selecting On enables the function. See "Starting up the projector" on page 30 for details. **Auto Power Off** Allows the projector to turn off automatically if no input signal is detected after a set period of time. See "Setting Auto Power Off" on page 84 for details. **Blank Timer** Sets the image blank time when the Blank feature is activated, once elapsed the image will return to the screen. See "Hiding the image" on page 44 for details. **Sleep Timer** Sets the auto-shutdown timer. The timer can be set to a value between 30 minutes and 12 hours.

4. SYSTEM SETUP: Basic menu

FUNCTION	DESCRIPTION
Remote Receiver	Sets which IR remote sensor of the projector will receive the signal from the remote control.
Panel Key Lock	Disables or enables all panel key functions except Power on the projector and keys on the remote control. See "Locking control keys" on page 45 for details.
Background Color	Allows you to select which background color will display when no signal is input into the projector. Four options are available: BenQ logo, Black, Blue, or Purple.
Splash Screen	Allows you to select which logo screen will display during projector start-up. Four options are available: BenQ logo, MyScreen, Black, or Blue.
MyScreen	Allows you to capture the current projected picture to save as Splash Screen.
PointDraw™ **(MP780 ST only)**	See "PointDrawTM Pen (MP780 ST only)" on page 66 for details.

The table above is labeled on the left side: **4. SYSTEM SETUP: Basic menu**

FUNCTION	DESCRIPTION
Quick Cooling	Selecting **On** enables the function and the projector cooling time will be shortened to a few seconds. ☞ **If you attempt to restart the projector right after the quick cooling process, it may not be turned on successfully and will rerun its cooling fans.**
High Altitude Mode	A mode for operation in high altitude areas. See "Operating in a high altitude environment" on page 45 for details.
Audio Settings	Allows you to enter the audio setting menu. See "Adjusting the sound" on page 46 for details. **Mute** Sets the mute function. **Volume** Adjusts the audio volume level. **Microphone volume** Adjusts the microphone sound level. **Power on/off Ring Tone** Sets the power on/off ring tone.
Lamp Settings	**Lamp Mode** See "Setting Lamp Mode as Economic" on page 84 for details. **Reset lamp timer** See "Resetting the lamp timer" on page 88 for details. **Equivalent lamp hour** See "Getting to know the lamp hour" on page 84 for details on how the total lamp hour is calculated.
Security Settings	**Change password** You will be asked to enter the current password before changing to a new one. **Change Security Settings** **Power on Lock** See "Securing the projector" on page 34 for details. **Splash Sscreen On Lock** When Splash screen lock is activated, My Screen cannot be used unless the correct password is entered every time when you attempt to capture screen.
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. This function is intended for qualified service personnel.

5. SYSTEM SETUP: Advanced menu

FUNCTION	DESCRIPTION
Test Pattern	Selecting **On** enables the function and the projector displays the grid test pattern. It helps you adjust the image size and focus and check that the projected image is free from distortion.
Closed Caption	**Closed Caption Enable** Activates the function by selecting **On** when the selected input signal carries closed captions. • Captions: An on-screen display of the dialogue, narration, and sound effects of TV programs and videos that are closed captioned (usually marked as "CC" in TV listings). **Caption Version** Selects a preferred closed captioning mode.
Standby Settings	**Network** Selecting On enables the function, and the projector can be monitored or controlled over a network when it is in standby mode. **Microphone** Selecting On enables the function, and the microphone can be used even in standby mode **Monitor Out** Selecting **On** enables the function. The projector can output a VGA signal when it is in standby mode and the **COMPUTER 1** and **MONITOR OUT** jacks are correctly connected to devices. See "Connecting a monitor" on page 25 for how to make the connection. ☞ **Enabling this function slightly increases the standby power consumption.** ☞ **The Monitor Out only works when an appropriate D-Sub input is made to the COMPUTER 1 jack.**
Network Settings	**Wired LAN** See "Controlling the projector through a LAN environment" on page 47 for details. **Wireless LAN** See "Controlling the projector through a LAN environment" on page 47 for details. **Remote Desktop** See "Displaying image through Q Presenter" on page 57 for details.
Reset All Settings	Returns all settings to the factory preset values. ☞ **The following settings will still remain: Position, Phase, H. Size, User 1, User 2, Language, Projector Position, High Altitude Mode, Security Settings, Baud Rate.**

5. SYSTEM SETUP: Advanced menu

FUNCTION	DESCRIPTION
FAQ-Image and Installation	Displays possible solutions to problems you may encounter.
FAQ-Features and Service	
Current System Status	**Source** Shows the current signal source. **Picture Mode** Shows the selected mode in the **PICTURE** menu. **Resolution** Shows the native resolution of the input signal. **Color System** Shows input system format, NTSC, PAL, SECAM, or RGB. **Equivalent Lamp Hour** Displays the number of hours the lamp has been used. **Firmware Version** Shows firmware version.

6. INFORMATION menu

Maintenance

Care of the projector

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

Never remove any parts of the projector except the lamp. Contact your dealer if other parts need replacing.

Cleaning the lens

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

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

⚠ **Never rub the lens with abrasive materials.**

Cleaning the projector case

Before you clean the case, turn the projector off using the proper shutdown procedure as described in "Shutting down the projector" on page 69 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 91 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.

Lamp information

Getting to know the lamp hour

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

Total (equivalent) lamp hour
= 1 (hours used in Economic mode) + 4/3 (hours used in normal mode)

☞ See **"Setting Lamp Mode as Economic"** below for more information on Economic mode.

The lamp hour in **Economic** mode is calculated as 3/4 of that in **Normal** mode. That is, using the projector in **Economic** mode helps to extend the lamp hour by 1/3.

To obtain the lamp hour information:

1. Press **MENU/EXIT** and then press ◀/▶ until the **SYSTEM SETUP: Advanced** menu is highlighted.
2. Press ▼ to highlight **Lamp Settings** and press **MODE/ENTER**. The **Lamp Settings** page displays.
3. You will see the **Equivalent lamp hour** information displaying on the menu.
4. To leave the menu, press **MENU/EXIT**.

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

Extending lamp life

The projection lamp is a consumable item. To keep the lamp life as long as possible, you can do the following settings via the OSD menu.

Setting Lamp Mode as Economic

Using **Economic** mode reduces system noise and power consumption by 20%. If the **Economic** mode is selected, the light output will be reduced and result in darker projected pictures.

Setting the projector in **Economic** mode also extends the lamp operation life. To set **Economic** mode, go into the **SYSTEM SETUP: Advanced** > **Lamp Settings** > **Lamp Mode** menu and press ◀/▶.

Setting Auto Power Off

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

To set **Auto Power Off**, go into the **SYSTEM SETUP: Basic** > **Operation Settings** >**Auto Power Off** menu and press ◀/▶. The time period can be set from 5 to 30 minutes in 5-minute increments. If the preset time lengths are not suitable for your presentation, select **Disable**. The projector will not automatically shut down in a certain time period.
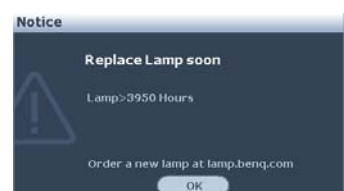
Timing of replacing the lamp

When the **Lamp indicator** lights up red or a message appears suggesting it is time to replace the lamp, please install a new lamp or consult your dealer. An old lamp may cause a malfunction in the projector and in some instances the lamp may explode.

⚠ **The Lamp indicator light and Temperature warning light will light up if the lamp becomes too hot. See "Indicators" on page 89 for details.**

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

☞ **The warning messages below are for reference only. Please follow the actual on-screen**

instructions to prepare and replace the lamp.

Status	Message
Install a new lamp for optimal performance. If the projector is normally run with **Economic** selected (see "Getting to know the lamp hour" on page 84), you may continue to operate the projector until the next lamp warning appears. Press **ENTER** to dismiss the message.	**Notice** Order Replacement Lamp ⚠ Lamp>3500 Hours Order a new lamp at lamp.benq.com OK
It is strongly recommended that you replace the lamp at this stage. The lamp is a consumable item. The lamp brightness diminishes with use. This is a normal lamp behavior. You can replace the lamp whenever you notice that the brightness level has significantly diminished. Press **ENTER** to dismiss the message.	**Notice** Replace Lamp soon ⚠ Lamp>3950 Hours Order a new lamp at lamp.benq.com OK
The lamp MUST be replaced before the projector will operate normally. Press **ENTER** to dismiss the message.	**Notice** Replace Lamp Now ⚠ Lamp>4000 Hours Lamp usage time exceeded Order a new lamp at lamp.benq.com OK

Replacing the lamp

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

- **If lamp replacement is performed while the projector is suspended upside-down from the ceiling, 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.**

- **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 BenQ projector lamp for lamp replacement.**

1. 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 on the lamp cover.
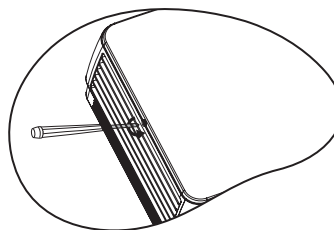
3. Remove the lamp cover by (a) sliding the cover toward the side of the projector and (b) lifting it off.

⚠ • **Do not turn the power on with the lamp cover removed.**

   • **Do not insert your fingers between the lamp and the projector. The sharp edges inside the projector may cause injuries.**
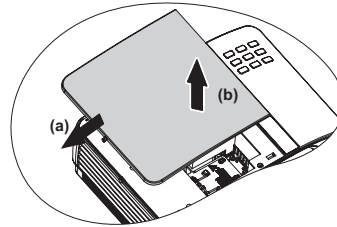
4. Loosen the screws that secure the lamp.
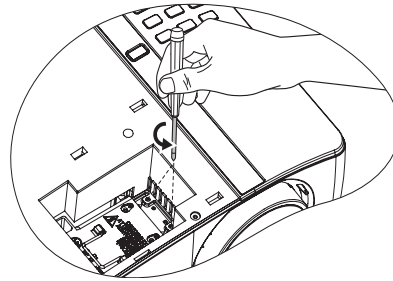
5. Lift the handle so that it stands up. Use the handle to slowly pull the lamp out of the projector.

⚠ • **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. If you touch the optical components inside, it could cause color unevenness and distortion of the projected images.**
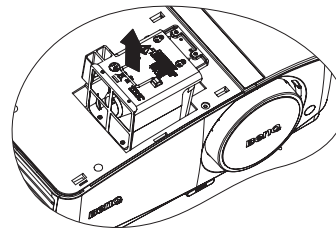
6. Insert the new lamp into the lamp compartment and make sure it fits in the projector.
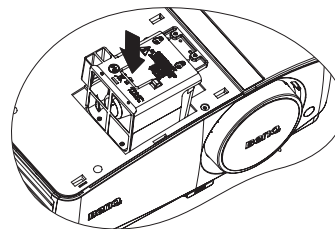
7. Tighten the screws that secure the lamp.

⚠ • **Loose screw may cause a bad connection, which could result in malfunction.**

   • **Do not over tighten the screws.**

8. Ensure the handle is fully laid flat and locked in place.
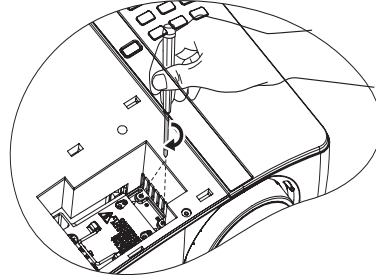
9. Replace the lamp cover by sliding it into place.
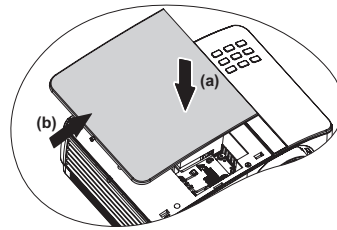
10. Tighten the screw that secures the lamp cover.

⚠ • **Loose screw may cause a bad connection, which could result in malfunction.**

   • **Do not over tighten the screw.**
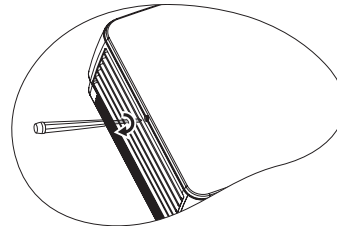
11. Restart the projector.

⚠ **Do not turn the power on with the lamp cover removed.**

Resetting the lamp timer

12. After the startup logo, open the On-Screen Display (OSD) menu. Go to the **SYSTEM SETUP: Advanced** > **Lamp Settings** menu. Press **MODE/ENTER**. The **Lamp Settings** page displays. Press ▼ to highlight **Reset lamp timer** and press **MODE/ENTER**. A warning message displays asking if you want to reset the lamp timer. Highlight **Reset** and press **MODE/ENTER**. 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 & Description
POWER	**TEMP**	**LAMP**	
Power events			
Orange	**Off**	**Off**	Stand-by mode
Green Flashing	**Off**	**Off**	Powering up
Green	**Off**	**Off**	Normal operation
Orange Flashing	**Off**	**Off**	1. The projector needs 90 seconds to cool down as it was abnormally shut down without the normal cooling down process. **Or** 2. The projector needs to cool for 90 seconds after the power is turned off. **Or** 3. The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
Lamp events			
Orange Flashing	**Off**	**Red**	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
Off	**Off**	**Red**	1. The projector needs 90 seconds to cool down. **Or** 2. Please contact your dealer for assistance.
Thermal events			
Off	**Red**	**Off**	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
Off	**Red**	**Red**	
Off	**Red**	**Green**	
Red	**Red**	**Red**	
Red	**Red**	**Green**	
Red	**Red**	**Orange**	
Green	**Red**	**Red**	
Green	**Red**	**Green**	

Troubleshooting

? The projector does not turn on.

Cause	Remedy
There is no power from the power cable.	Plug the power cord into the AC inlet 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 on the projector or remote control.
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 unit if necessary.
The lens cover is still closed.	Open the lens cover.

? Remote control does not work

Cause	Remedy
The battery is out of power.	Replace the battery with new one.
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.	Please see "Entering the password recall procedure" on page 35 for details.

Specifications

☞ **All specifications are subject to change without notice.**

Optical

Resolution
(MP778)
    1024 x 768 XGA
(MP780 ST)
    1280 x 800 WXGA
Display system
    1-CHIP DMD
Lens F/Number
(MP778)
    F = 2.68 to 3.4,
    f = 15.94 to 25.5 mm
(MP780 ST)
    F = 2.89,
    f = 7.78 mm
Lamp
(MP778)
    240 W lamp
(MP780 ST)
    189 W lamp

Electrical

Power supply
    AC100–240V, 2.9 A,
    50-60 Hz (Automatic)
Power consumption
(MP778)
    300 W (Max.)
(MP780 ST)
    260 W (Max.)

Mechanical

Weight
(MP778)
    3.6 kg (7.9 lbs.)
(MP780 ST)
    3.7 kg (8.1 lbs.)

Output terminals

RGB output
    D-Sub 15-pin (female) x 1
Speaker
    (Stereo) 10 watt x 2
Audio signal output
    PC audio jack x 1

Control

RS-232 serial control
    9 pin x 1
LAN controk
    RJ45 x 1 (wired)
    USB A type x 2 (wireless)
Screen control
    12V trigger x 1 (Max. 1A)
USB B type x 1
    (Supports firmware upgrade)

Input terminals

Computer input
    RGB input
        D-Sub 15-pin (female) x 2
Video signal input
    S-VIDEO
        Mini DIN 4-pin port x 1
    VIDEO
        RCA jack x 1
    SD/HDTV signal input
        Analog - Component RCA jack x 3
        (through RGB input)
        Digital-HDMI V1.3 x 1
Audio signal input
    Audio in
        PC audio jack x 1
        RCA audio jack (L/R) x 2
USB A type x 2
    (Supports mouse/keyboard/card reader)
USB mini-B type x 1
    (Supports USB display)

Environmental Requirements

Operating temperature
    0°C-40°C at sea level
Operating relative humidity
    10%-90% (without condensation)
Operating altitude
    0-1499 m at 0°C-35°C
    1500-3000 m at 0°C-30°C (with High Altitude Mode on)

Dimensions

329 mm (W) x 137.2 mm (H) x 241.9 mm (D)

329

241.9

137.2

62.5

77.4
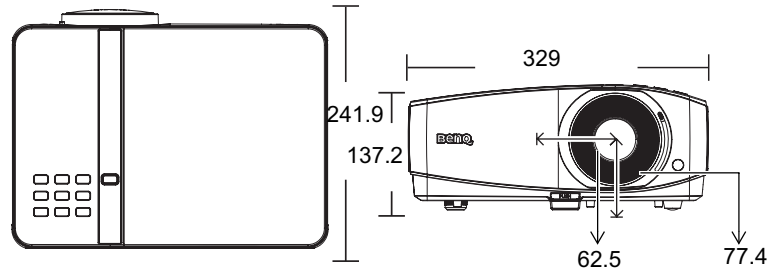
Ceiling mount installation

221.0

75.0

100.0

146.0
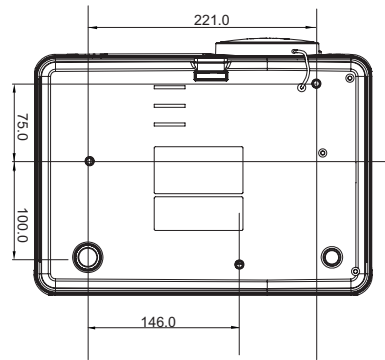
Ceiling mount screws:

M4 x 8 (Max. L = 8 mm)

Unit: mm

100.00

116.00

82.50

107.7

62.5

163.7

328.0

115.1

129.1
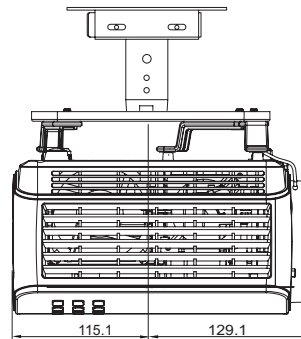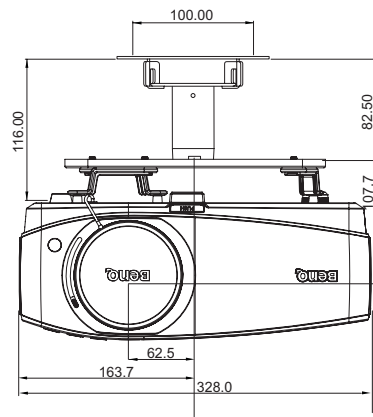
Timing chart

Supported timing for PC input

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Mode
720 x 400	31.469	70.087	28.322	720 x 400_70
640 x 480	31.469	59.940	25.175	VGA_60
	37.861	72.809	31.500	VGA_72
	37.500	75.000	31.500	VGA_75
	43.269	85.008	36.000	VGA_85
800 x 600	37.879	60.317	40.000	SVGA_60
	48.077	72.188	50.000	SVGA_72
	46.875	75.000	49.500	SVGA_75
	53.674	85.061	56.250	SVGA_85
1024 x 768	48.363	60.004	65.000	XGA_60
	56.476	70.069	75.000	XGA_70
	60.023	75.029	78.750	XGA_75
	68.677	84.997	94.500	XGA_85
1024 x 576	35.820	60.0	46.996	Netbook_1
1024 x 600	37.5	60.0	45.000	Netbook_2
1024 x 600	41.467	64.995	51.419	Netbook_3
1280 x 800	49.702	59.810	83.500	WXGA_60
	62.795	74.934	106.500	WXGA_75
	71.554	84.880	122.500	WXGA_85
1280 x 1024	63.981	60.020	108.000	SXGA_60
	79.976	75.025	135.000	SXGA_75
	91.146	85.024	157.500	SXGA_85
1280 x 960	60.000	60.000	108	1280 x 960_60
	85.938	85.002	148.500	1280 x 960_85
1440 x 900	55.935	59.887	106.500	WXGA+_60
1400 x 1050	65.317	59.978	121.750	SXGA+_60
1600 x 1200	75.000	60.000	162.000	UXGA
640 x 480@67Hz	35.000	66.667	30.240	MAC13
832 x 624@75Hz	49.722	74.546	57.280	MAC16
1024 x 768@75Hz	60.241	75.020	80.000	MAC19
1152 x 870@75Hz	68.680	75.060	100.000	MAC21

Supported timing for HDMI input

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Mode
720 x 400	31.469	70.087	28.322	720 x 400_70
640 x 480	31.469	59.940	25.175	VGA_60
	37.861	72.809	31.500	VGA_72
	37.500	75.000	31.500	VGA_75
	43.269	85.008	36.000	VGA_85
800 x 600	37.879	60.317	40.000	SVGA_60
	48.077	72.188	50.000	SVGA_72
	46.875	75.000	49.500	SVGA_75
	53.674	85.061	56.250	SVGA_85
1024 x 768	48.363	60.004	65.000	XGA_60
	56.476	70.069	75.000	XGA_70
	60.023	75.029	78.750	XGA_75
	68.677	84.997	94.500	XGA_85
1280 x 800	49.702	59.810	83.500	WXGA_60
	62.795	74.934	106.500	WXGA_75
	71.554	84.880	122.500	WXGA_85
1280 x 1024	63.981	60.020	108.000	SXGA_60
	79.976	75.025	135.000	SXGA_75
	91.146	85.024	157.500	SXGA_85
1280 x 960	60.000	60.000	108	1280 x 960_60
	85.938	85.002	148.500	1280 x 960_85
1440 x 900	55.935	59.887	106.500	WXGA+_60
1400 x 1050	65.317	59.978	121.750	SXGA+_60
1600 x 1200	75.000	60.000	162.000	UXGA
640 x 480@67Hz	35.000	66.667	30.240	MAC13
832 x 624@75Hz	49.722	74.546	57.280	MAC16
1024 x 768@75Hz	60.241	75.020	80.000	MAC19
1152 x 870@75Hz	68.680	75.060	100.000	MAC21
VIDEO (HDCP)	31.47	60	27	480p
	31.25	50	27	576p
	45.00	60	74.25	720p_60
	37.50	50	74.25	720_50
	33.75	60	74.25	1080i_60
	28.13	50	74.25	1080i_50
	67.5	60	148.5	1080p
	56.25	50	148.5	1080p

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

Supported timing for Component-YPʙPʀ input

Signal Format	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
480i(525i)@60Hz	15.73	59.94
480p(525p)@60Hz	31.47	59.94
576i(625i)@50Hz	15.63	50.00
576p(625p)@50Hz	31.25	50.00
720p(750p)@60Hz	45.00	60.00
720p(750p)@50Hz	37.50	50.00
1080i(1125i)@60Hz	33.75	60.00
1080i(1125i)@50Hz	28.13	50.00
1080p@60Hz	67.5	60.00
1080p@50Hz	56.25	50.00

☞ **Displaying a 1080i@60Hz or 1080i@50Hz signal may result in slight image vibration.**

Supported timing for Video and S-Video inputs

Video mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Color sub-carrier Frequency (MHz)
NTSC	15.73	60	3.58
PAL	15.63	50	4.43
SECAM	15.63	50	4.25 or 4.41
PAL-M	15.73	60	3.58
PAL-N	15.63	50	3.58
PAL-60	15.73	60	4.43
NTSC4.43	15.73	60	4.43

Warranty and Copyright information

Patents for MP780 ST

This BenQ projector is covered by the following patents:

U.S. patents 6,837,608; 7,275,834; 7,181,318; TW patents 202690; 205470; I228635; I259932; China Patents (中国发明专利) ZL01143168.7; ZL03119907.0; ZL200510051609.2

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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Regulation statements

FCC statement

CLASS B: This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the distance between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

FCC/IC statement

This device complies with Part 15 of the FCC Rules/RSS-210. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

EEC statement (for European users)

This device complies with the requirements set out in the Council Directives on the Approximation of the Laws of the Member States relating Electromagnetic Compatibility (2004/108/EC) , Low Voltage Directive (2006/95/EC), the Restriction of The Use of Certain Hazardous Substances in Electrical And Electronic Equipment Directive (2002/95/EC), Turkish EEE Directive, Commission Regulation (EC) No 1275/2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment, and the Directive 2009/125/EC of the European parliament and of the council establishing a framework for the setting of ecodesign requirements for energy-related products.

WEEE directive

Disposal of Waste Electrical and Electronic Equipment by users in private households in the European Union.

This symbol on the product or on the packaging indicates that this can not be disposed of as household waste. You must dispose of your waste equipment by handling it over to the applicable take-back scheme for the recycling of electrical and electronic equipment. For more information about recycling of this equipment, please contact your city office, the shop where you purchased the equipment or your household waste disposal service. The recycling of materials will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and environment.

Accessibility Requirements for Rehabilitation Act of 1973, Section 508

BenQ's commitment to accessible products allows us to support government in making accessible technology choices BenQ's LCD monitors and projectors are compliant with Section 508 guidelines by including the assistive features as below:

- BenQ's monitors have colored "Power" indicators. While the indicator shows green, it means that the monitor is using the full power. While the indicator shows yellow or amber, it means that the monitor is in suspend or sleep mode and is using less than 2 watts of electricity.

- BenQ's monitors have a variety of settings of pre-programmed flicker-free timing to make the screen shown on the monitor readily accessible. The default timing setting is automatically turned on every time the monitor is powered up, and thus reduces the hassle of user intervention.

- BenQ's monitors and projectors have options for brightness and contrast adjustments that text and images could be displayed differently to meet the demands of the visually impaired. Other similar adjustments are also available by using the On-Screen Display (OSD) controls on the products.

- BenQ's monitors and projectors include user-selectable color controls, such as color temperature selections (Monitor: 5800K, 6500K and 9300K, Projector: 5500K, 6500K, 7500K and 9300K), with a wide range of contrast levels.

- BenQ's multimedia monitors and projectors usually have one or two speakers for audio performance which allow users (including hearing impaired) to interact with the computer systems connected. Speaker controls are typically located on the front-panel.

- Firmware of BenQ's monitors and projectors contain unique product information that helps computer systems to identify BenQ products and activate their Plug-and-Play function when connected.

- All BenQ's monitors and projectors are compatible with the PC99 standard. For example, connectors are color-coded to help users easily connecting products to computer systems correctly.

- Some models of BenQ's monitors and projectors contain additional USB and DVI ports for connection to more devices such as a special headphone to assist the hearing impaired.

- All BenQ monitors and projectors come with user manuals on compact discs which could be easily read by commercial software such as Adobe Reader via a connected computer system. These documents are also available on the BenQ's web site (www.BenQ.com <http://www.BenQ.com>). Other types of documents may be available upon requests.

- BenQ's customer service provides answers and assistance to all our customers through phone calls, facsimiles, e-mails, or web sites.