



SE Series
LCD Monitor
User Manual



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BenQ ecoFACTS

BenQ has been dedicated to the design and development of greener product as part of its aspiration to realize the ideal of the "Bringing Enjoyment 'N Quality to Life" corporate vision with the ultimate goal to achieve a low-carbon society. Besides meeting international regulatory requirement and standards pertaining to environmental management, BenQ has spared no efforts in pushing our initiatives further to incorporate life cycle design in the aspects of material selection, manufacturing, packaging, transportation, using and disposal of the products. BenQ ecoFACTS label lists key eco-friendly design highlights of each product, hoping to ensure that consumers make informed green choices at purchase. Check out BenQ's CSR Website at <http://csr.BenQ.com/> for more details on BenQ's environmental commitments and achievements.



Notice for this monitor

- This product is not used in relation to nuclear, biological or chemical weapons, or missiles capable of delivering these weapons.
- This product has been adjusted specifically for use in the region to which it was originally shipped. If the product is used outside the region, it may not operate as specified in the specifications.
- This product may not be covered by warranty for uses other than those described in this manual.
- The specifications noted in this manual are only applicable for power cords and signal cables specified by us.
- As it takes about 30 minutes for the performance of electrical parts to stabilize, adjust the monitor 30 minutes or more after the monitor power has been turned on.
- In order to suppress the luminosity change by long-term use and to maintain the stable luminosity, use of a monitor in lower brightness is recommended.
- When the screen image is changed after displaying the same image for extended periods of time, an afterimage may appear. Use the screen saver or timer to avoid displaying the same image for extended periods of time.
- The screen may have defective pixels. These pixels may appear as slightly light or dark area on the screen or may appear spontaneously. This is due to the characteristics of the panel itself, and is not a malfunction of the product.
- Over a long period of use, because of the physical characteristics of the liquid crystal display, such “stuck” pixels may appear spontaneously. These problems are not a malfunction.
- The backlight of the LCD panel has a fixed life span. When the screen becomes dark or begins to flicker, please contact your dealer.
- Some people may experience discomfort (such as eye strain, fatigue, or nausea) while watching video images. BenQ recommends that all viewers take regular breaks while watching video images. The length and frequency of necessary breaks will vary from person to person. You must decide what works best. If you experience any discomfort, you should stop watching the video images until the discomfort ends; consult a doctor if necessary.

Important safety instructions

Warning and caution

Warning



To prevent fire or shock hazards, do not expose this unit to rain or moisture. Also, do not use this unit's polarized plug with an extension cord receptacle or other outlets unless the prongs can be fully inserted.



Refrain from opening the cabinet as there are high voltage components inside. Refer servicing to qualified service personnel.

Caution

- To prevent the risk of electric shock, make sure power cord is unplugged from wall socket. To fully disengage the power to the unit, please disconnect the power cord from the AC outlet. Do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel. The AC outlet shall be readily available and accessible.
- To avoid the risk of electric shock, this equipment must only be connected to a supply main with protective earth.

Important power cord information

Please use the power cord provided with this display. If a power cord is not supplied with this equipment, please contact your supplier. For all other cases, please use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country. When you use this monitor in North America, you should use a North America Hospital Grade power cord.

Caution

- Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked "Hospital Only" or "Hospital Grade".
- This device is intended to be used (1) outside the "patient vicinity" area or (2) within the "patient vicinity" to the patient such as consulting rooms.
- That SIP/SOPs need to be connected properly and that any unused SIP/SOPs shall not be accessible for the patient to contact in the patient area after the monitor is integrated into a medical system.
- Suggested text for the notice indication complies with this standard: This digital apparatus complies with Canadian ICES-I/NMB-I. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measure.
- To prevent electric shock, please do not remove cover or any internal components. Refer to a qualified technician for service.
- Unplug the monitor from the power outlet before cleaning.

- Please follow the national guidelines for unit disposal.
- This product cannot be used for a life-support system.
- The unit is for exclusive interconnection with IEC 60XXX certified equipment outside of patient environment and IEC 60601-I certified equipment inside the patient environment.
- This device complies with EN60601-I. To minimize the interference from other equipment, a minimum 0.5 meters distance shall be kept from other potential electromagnetic sources, such as the Cell Phone.
- To reduce the inadvertent hazards, DO NOT lift up the monitor by holding the base of the monitor.
- To have the best performance of this product, it's recommended to replace the panel after it has been used for 2 years.

Warning

- Do not touch a damaged LCD panel directly with bare hands. The liquid crystal which leaks from the panel is poisonous if it enters the eyes or mouth.
- Do not leave the LCD screen facing the sun as it can damage the LCD screen. Take care when you place the unit by a window.
- Do not push or scratch the LCD monitor's screen. Do not place a heavy object on the LCD monitor's screen. This may cause the screen to lose uniformity of clarity, color, or brightness.
- If the unit is used in a cold place, a residual image may appear on the screen. This is not a malfunction. When the monitor becomes warm, the screen returns to normal.
- If a still picture is displayed for a long time, a residual image may appear. The residual image will eventually disappear.
- Avoid keeping a static picture on this monitor, or it may cause a "screen burn-in" (image retention).
- "Screen burn-in" (image retention) is not covered under warranty.
- The screen and the cabinet become warm during operation. This is not a malfunction.
- The LCD monitor becomes hot when it's working, please do not touch the panel and plastic enclosure over 10 seconds, and do not touch the metal enclosure on the back of the LCD monitor over 1 second.
- No open or modification of this equipment is allowed. Refer all servicing to qualified service personnel.

Explanation of graphic symbols



Indicates that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.



Indicates the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself.



Indicates the need for the user to consult the instructions for use.



Indicates the manufacturing date.



Indicates the manufacturer.



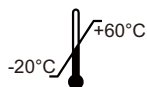
Indicates the authorized representative in the European community.



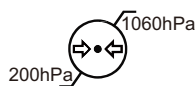
Indicates the device's serial number.



Indicates the range of humidity to which the medical device can be safely exposed when being stored.



Indicates the temperature limits to which the medical device can be safely exposed when being stored.



Indicates the range of atmospheric pressure to which the medical device can be safely exposed when being stored.



Protective earth terminal marked.



Indicates the equipotential earth ground.



Main switch ON.



Main switch OFF.



DC input.



AC input.



Supplementary information.



Useful information for completing a task.



Information mainly to prevent the damage to components, data, or personal injury caused by misuse and improper operation or behavior.

When operating the display with a 240V AC power source in Europe, use the power cord provided with the monitor. In the UK, a BS approved power cord with a moulded plug has a Black (five Amps) fuse installed for use with this equipment. If a power cord is not supplied with this equipment please contact your supplier.

When operating the display with a 240V AC power source in Australia, use the power cord provided with the monitor. If a power cord is not supplied with this equipment please contact your supplier.

For all other cases, use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country.

Adapter information

This monitor complies to the medical standards only when used with the supplied medical grade power supply.

Model	SE26101
Power Supply	Delta Electronics MDS-090AAS24 B
AC Input	100-240V ~ 1.5-0.75A 50-60Hz
DC Output	24V 3.75A

- Use only the power adapter supplied with your LCD Monitor. Use of another type of power adapter will result in malfunction and/or danger.
- Allow adequate ventilation around the adapter when using it to operate the device or charge the battery. Do not cover the power adapter with paper or other objects that will reduce cooling. Do not use the power adapter while it is inside a carrying case.
- Connect the power adapter to a proper power source.
- Do not attempt to service the power adapter. There are no service parts inside. Replace the unit if it is damaged or exposed to excess moisture.

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Introduction

Thank you for purchasing BenQ displays. Please read this manual carefully for proper use. Keep this user manual in a safe place for easy reference when needed.

In this user manual the steps needed to reach a menu are shown in condensed form, for example: **Display > Brightness**.

Features

- 26" wide-screen LCD (IPS-Pro LCD technology)
- Provide high brightness, high contrast and full HD resolution images.
- True 16:9 HDTV aspect ratio, ideal for use with HD endoscopic cameras.
- Widest range of SD and HD input signals, including 3G-SDI and DisplayPort.
- Maximum ten (10) settings can be set as preset.
- Easy cleaning design with sealed front (IPX3).
- Lightweight for easy mounting on spring arms.

Intended use

The SE series displays are intended for use in a medical environment to display high quality video and graphic images from cameras or other compatible medical imaging systems, other than diagnostic X-ray equipment. This product is capable of displaying Radiology (PACS) images for reference, not diagnostic purposes. These devices cannot be used in digital mammography and life-support system. These devices are designed for exclusive interconnection with IEC60601-1-1 certified equipment.

Equipment connected to the analog or digital interfaces must comply with the respective IEC standards (e.g. IEC 60950-1 or data processing equipment and IEC 60601-1 for medical equipment). Furthermore all configurations shall comply with the current version of the standard for SYSTEMS IEC 60601-1 everybody who connects additional equipment to the signal input part or signal output part configure a medical system, and is therefore responsible that the system complies with current version of the requirements of the system standard IEC60601-1 doubt, consult the technical service department or your local representative.

Classification

- Type of protection against electric shock: Class I
- The degree of protection against electric shock: No Applied Part.
- The degree of protection against the ingress of water: IPX3 (only for the front side)
- The mode of operation: Continuous Operation

The equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide: Not AP or APG Category.

CE Doc


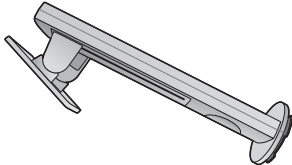

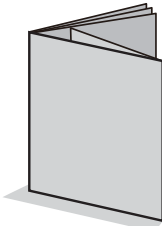
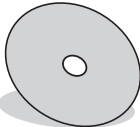
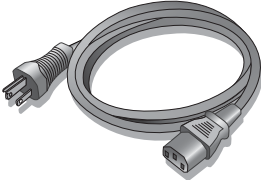
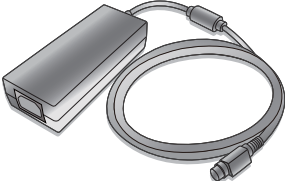
Declaration of conformity

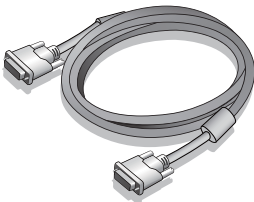


This device complies with the requirements set out in the Council Directives on the harmonization of the Laws of Member States concerning Medical Device Directive 93/42/EEC as amended by 2007/47/EC with the compliance of conformity assessment Annex VII to be self-declaration, the Restriction of The Use of Certain Hazardous Substances in Electrical And Electronic Equipment Directive (2011/65/EU), Turkish EEE and ErP 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.

Getting started

Package content

When unpacking please check you have the following items. If any are missing or damaged, please contact the place of purchase for a replacement.

BenQ LCD Monitor	
Monitor Stand (Optional accessory)	
Monitor Base (Optional accessory)	
Quick Start Guide	
CD-ROM	
Power Cord (Picture may differ from product supplied for your region.)	
Power Adapter	

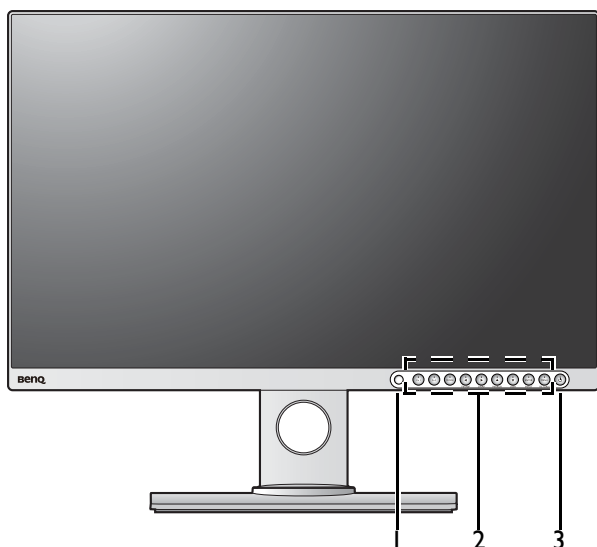
DVI-D Cable	
S-Video Cable	
Screws x 4 (For attachment with LCD arm or monitor stand)	



- Available accessories and the pictures shown here may differ from the actual contents and the product supplied for your region. And the package contents may subject to change without prior notice. For cables that are not supplied with your product, you can purchase them separately.
- For the latest information about the accessories and the compatible graphics board, refer to the BenQ website: www.BenQ.com.
- Consider keeping the box and packaging in storage for use in the future when you may need to transport the monitor. The fitted foam packing is ideal for protecting the monitor during transport.
- Use an approved power cord only:
 - In the US market: US approved hospital grade power cable.
 - In the European market: The power cable shall be complied with the safety standards of your country.
- Always keep the product and accessories out of reach of small children.

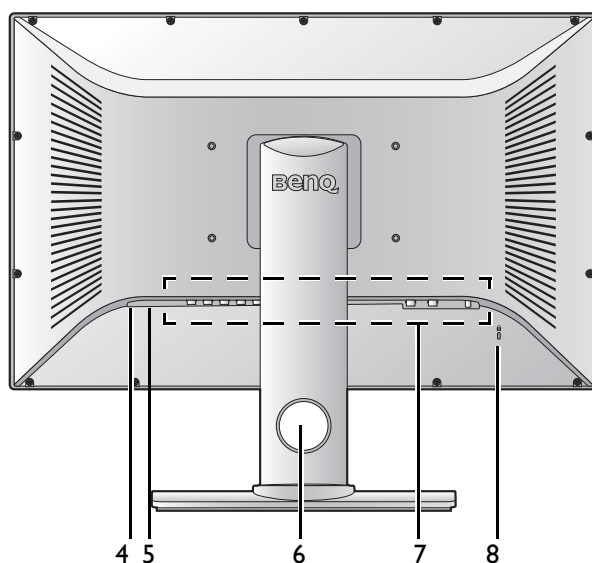
Getting to know your monitor

Front view



1. Light sensor (See [The control panel on page 20](#) for details)
2. Control buttons (see [The control panel on page 20](#) for details)
3. Power button

Back view



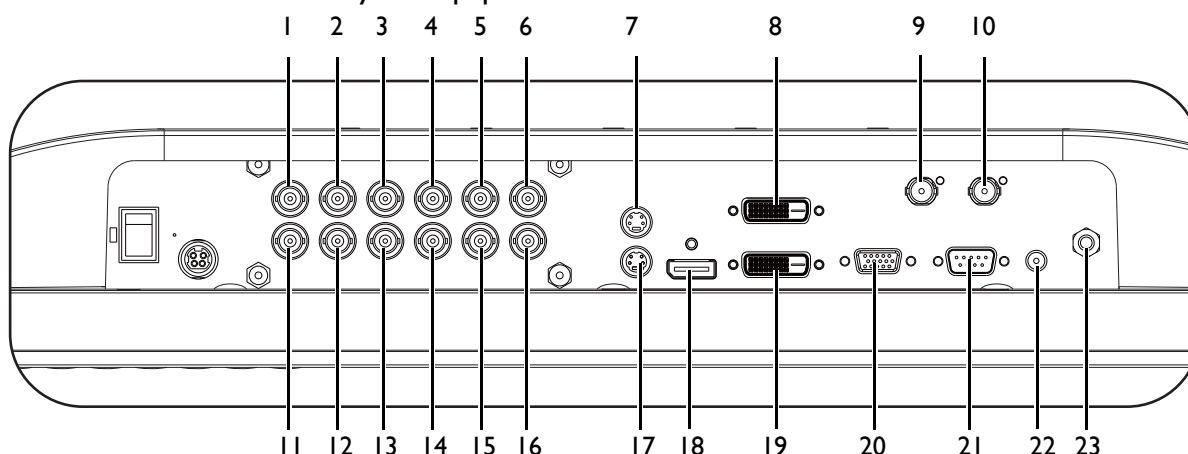
4. Power switch
5. DC power input jack (24V)
6. Cable management hole
7. Input and output ports (see [Input and output ports](#) for details.)
8. Kensington lock slot



- Above diagram may vary depending on the model.
- Picture may differ from the product supplied for your region.

Input and output ports

Make cable connections properly to ensure appropriate signal input and output. For details, refer to the user manual of your equipment.



No.	Name
1.	Composite input terminal (BNC type)
2.	VS input terminal (BNC type)
3.	HS/CS input terminal (BNC type)
4.	R/Pr input terminal (BNC type)
5.	B/Pb input terminal (BNC type)
6.	G/Y input terminal (BNC type)
7.	S-Video input terminal (BNC type)
8.	DVI-I input terminal
9.	3G-SDI input terminal (BNC type)
10.	3G-SDI output terminal (BNC type)
11.	Composite output terminal (BNC type)
12.	VS output terminal (BNC type)
13.	HS/CS output terminal (BNC type)
14.	R/Pr output terminal (BNC type)
15.	B/Pb output terminal (BNC type)
16.	G/Y output terminal (BNC type)
17.	S-Video output terminal (BNC type)
18.	DisplayPort input terminal
19.	DVI-2 input terminal
20.	VGA input terminal
21.	RS-232C input terminal
22.	DC power output jack (5V 1A)
23.	Potential equalization terminal

How to assemble your monitor hardware



If the computer is turned on, you must turn it off before continuing.
Do not plug-in or turn-on the power to the monitor until instructed to do so.

Installing the monitor stand and base

I. Attach the monitor stand.

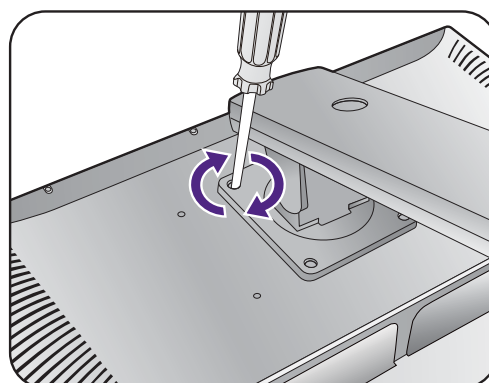
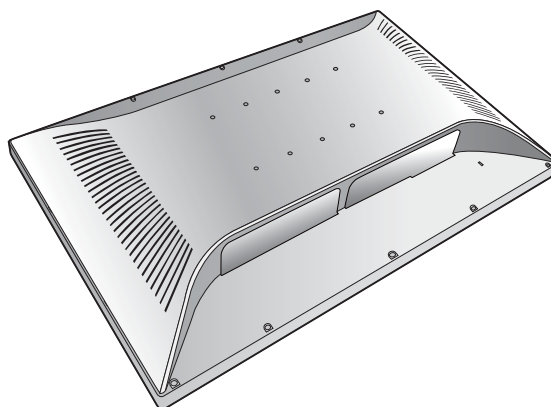


Please be careful to prevent damage to the monitor. Placing the screen surface on an object like a stapler or a mouse will crack the glass or damage the LCD substrate voiding your warranty. Sliding or scraping the monitor around on your desk will scratch or damage the monitor surround and controls.

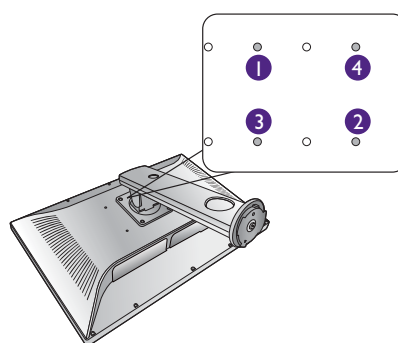
Protect the monitor and screen by clearing a flat open area on your desk and placing a soft item like the monitor packaging bag on the desk for padding.

Gently lay the screen face down on a flat clean padded surface.

Orient and align the stand arm with the 100 x 100 VESA mounting screw holes on the back of the monitor. And use a screwdriver to secure the stand arm with the provided screws.

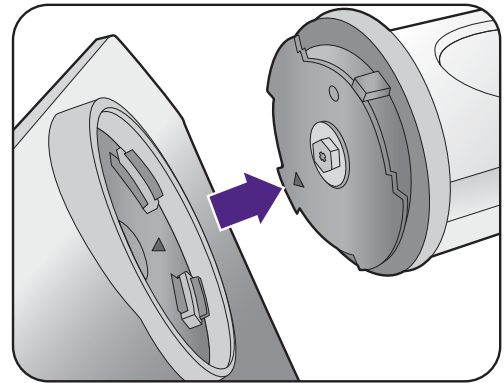


Secure the screws as in the order of the illustration to prevent possible damage to the stand arm or monitor.

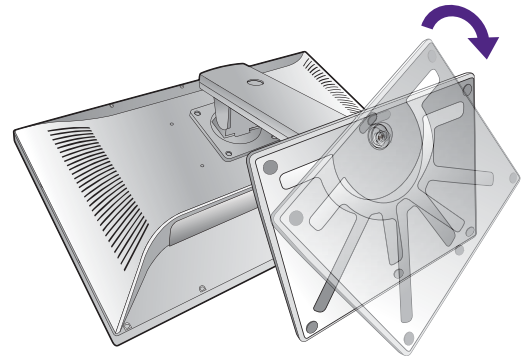


2. Attach the monitor base.

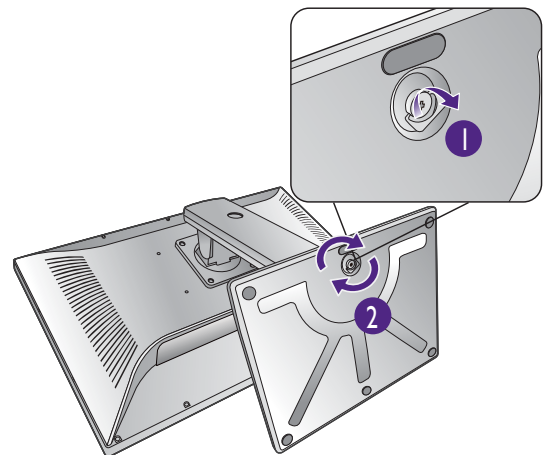
Attach the monitor base to the monitor stand as illustrated. Make sure to align the arrow on the monitor base to the one on the end of the stand arm.



Turn the stand clockwise until you cannot go further.



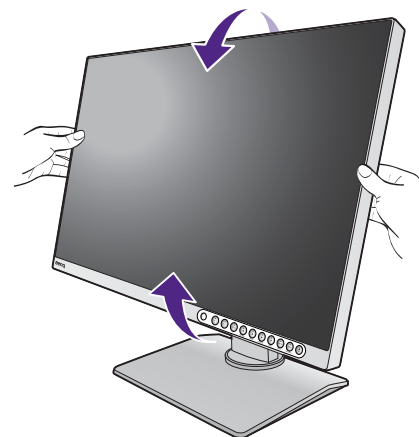
Raise the thumbscrew lid at the bottom of the stand and tighten the thumbscrew as illustrated. Then push the lid back.



Gently lift the monitor, turn it over and place it upright on its stand on a flat even surface. Make connections with other devices as desired. For cables that are not supplied with your product, you can purchase them separately from an electronics store.

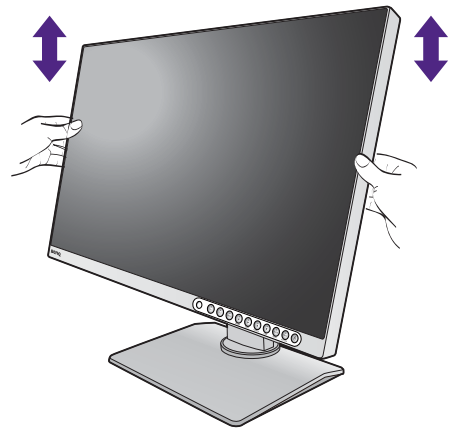


You should position the monitor and angle the screen to minimize the unwanted reflections from other light sources.




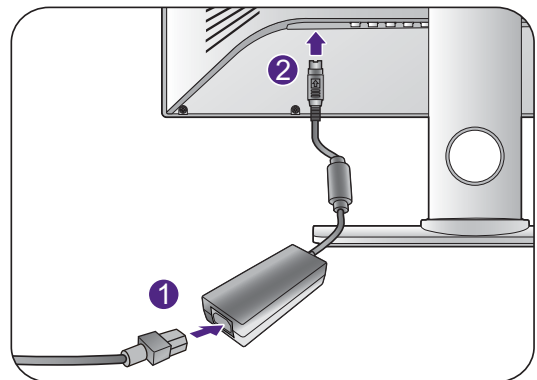
3. Adjust the monitor height.

To adjust the monitor height, hold both the left and the right sides of the monitor to lower the monitor or lift it up to the desired height.



4. Connect the power cable to the monitor.

Connect the power cord to the power adapter. Plug one end of the power cord into the socket labelled  on the rear of the monitor.

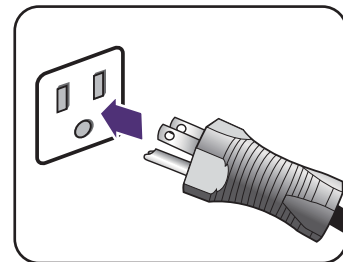


5. Connect-to and turn-on the power.

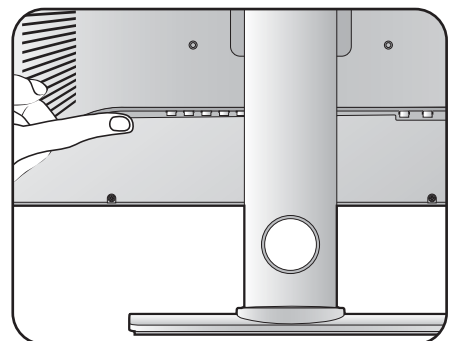
Plug the other end of the power cord into a power outlet and turn it on.



Picture may differ from product supplied for your region.



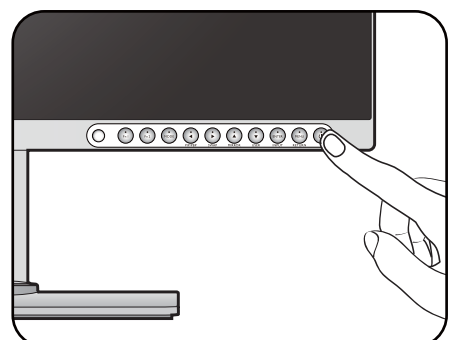
Switch the power switch next to the AC power input jack to **ON**.



Turn on the monitor by pressing the power button on the monitor.



To extend the service life of the product, we recommend that you use your computer's power management function.



Mounting your monitor

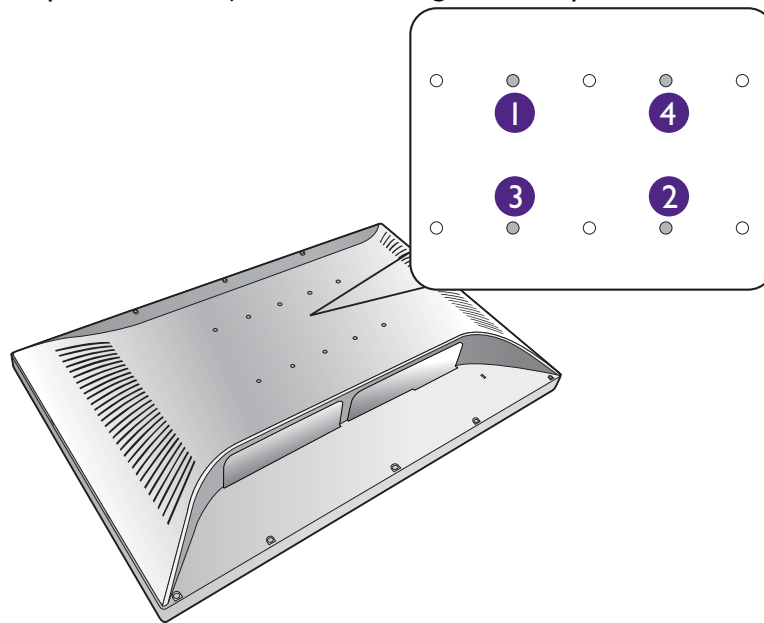
The display supports mounting arm and stands according to the VESA 100 x 100 or 200 x 100 mm standard.



- Use an arm that is approved by VESA.
 - Use an arm that can support at least 10 kg (22.05 lbs).
-

Turn off the monitor and the power before disconnecting the cables from the LCD monitor. And read the user manual of your equipment for precautions and installation instructions.

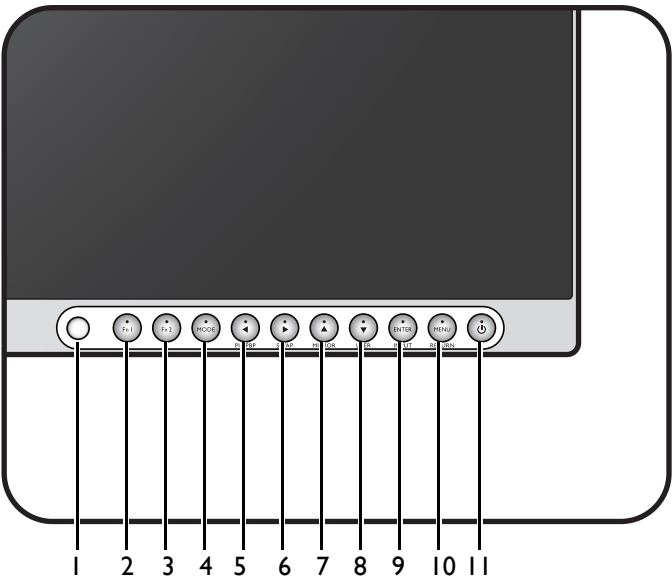
1. Attach the stand arm firmly to the monitor using the included 4 hexagonal screws (M4 x 12 mm).
2. Ensure that the monitor is fixed firmly to the LCD monitor mount. Otherwise, the monitor may drop and cause injuries and damages to the personnel and the monitor itself.









OSD controls

The control panel

At the bottom-right of the display are 10 control keys, which allow you to make adjustments to various display parameters using the On Screen Display (OSD) menus.



No.	Name / button	Description
1.	Light sensor	<p>Detects the light source condition and provides recommended color temperature value of the display.</p> <p> Works with Endo light. See Syncing with the light source's color temperature on page 23 for more information.</p>
2.	Fn 1 (Function key 1)	<ul style="list-style-type: none">•By default, the key is the hot key for Freeze main. To change the default settings, see Customizing the function keys on page 22 for more information.•The LED indicator blinks in green when monitor calibration is recommended. The time to perform calibration may vary by model.
3.	Fn 2 (Function key 2)	<ul style="list-style-type: none">•By default, the key is the hot key for Light box. To change the default settings, see Customizing the function keys on page 22 for more information.•The LED indicator blinks in green when the monitor is close to the life span specified. The specified hours of use may vary by model.
4.	MODE	<ul style="list-style-type: none">•Press to select a desired preset mode. See Preset mode on page 28 for more information.•The LED indicator blinks in green when the monitor's temperature is close to the specified temperature. You are recommended to turn off the monitor then.

No.	Name / button	Description
5.		<ul style="list-style-type: none"> •For Left/Decrease adjustment. •This is the hot key for PIP/PBP. Press to toggle between different PIP/PBP modes (see Setting PIP/PBP mode on page 24 for more information).
6.		<ul style="list-style-type: none"> •For Right/Increase adjustment. •This is the hot key for screen SWAP. Press to enable/disable the swap of the main and the sub screens in PIP/PBP mode (see Setting the screen swap on page 24 for more information).
7.		<ul style="list-style-type: none"> •For Up adjustment. •This is the hot key for Mirror. Press to enable/disable the mirror function (see Mirroring the screen on page 24 for more information).
8.		<ul style="list-style-type: none"> •For Down adjustment. •This is the hot key for User Profile. Press to select a user profile. See User Profile on page 35 for more information.
9.	ENTER	<ul style="list-style-type: none"> •Enters sub menus. •Selects menu items. •This is the hot key for Input. Press to select an input source.
10.	MENU	<ul style="list-style-type: none"> •Activates the main menu. •Returns to the previous menu.
11.	Power	<p>Turns the power on or off.</p> <ul style="list-style-type: none"> •Normal mode: the LED indicator lights up in green. •No signal warning: the LED indicator blinks in orange. (fast blinking) •Standby mode: the LED indicator blinks in orange. (slow blinking) •Off mode: the LED indicator lights in orange. <div>  <p>Before you turn on the monitor, make sure the adapter has been connected properly to the monitor and a power outlet, and the AC power switch has been switched to ON.</p> </div>



The hot keys only operate while the main menu is not currently displaying. Hot key displays will disappear after a few seconds of no key activity.

Locking and unlocking the OSD control keys

You can lock the OSD control keys to prevent the settings from being accidentally changed.

1. Go to **Setup > OSD lock**.
2. You are provided with 2 kinds of OSD lock. **Mode 0** allows you to select an input source and brightness, while **Mode 1** allows you to access different user profiles, an input source, and brightness. See [OSD lock on page 33](#) for more information.
3. To release the locked control keys, press and hold the ◀ key for 5 seconds. To disable OSD lock, go to **Setup > OSD lock > Off**.

Customizing the function keys

The left 2 perform as functions keys to provide direct access to pre-defined functions. You can change the default setting and designate different functions for these keys.

1. Go to **Setup > Func. key**.
2. Select the function key you want to change.
3. In the sub menu, select a function that can be accessed by this key.

Changing a Preset mode

Your monitor provides various preset modes that are suitable for different types of images. And you can choose different preset modes for the main and the sub screens respectively.

Go to **Main screen** or **Sub screen** and **Preset mode** for a desired mode. Different options may be offered depending on the selected picture mode. See [Preset mode on page 28](#) for more information.

Adjusting Brightness

To adjust the brightness of the monitor, go to **Display > Brightness**. See [Brightness on page 27](#) for more information.

Using User Profile

The monitor can keep the preference of display settings of up to 10 users.

- If you prefer to keep the current display settings, go to **System > User Profile > Save profile**.
- Rename the user profile in **System > User Profile > User naming**.
- Load a user profile from **System > User Profile > Load profile**.

Syncing with the light source's color temperature

You are recommended to adjust the display's color temperature before using an endoscope.

1. Make sure the endoscope and its light source have been properly connected with the display, and then go to **System > Endo light** to enable the light sensor on the bottom of the front bezel. Check if there are any obstacles in front of the sensor that keep it from detecting the light properly.
2. Turn on the light source, and aim the endoscope at the sensor with 3 ~ 5 cm of distance. Follow the on-screen instructions to make adjustment if necessary.
3. After the measurement is done, press **MENU** to exit.



The sensor works within certain color temperature range only and may fail to complete the measurement if it is not within this range.

Managing multiple windows (PIP/PBP)

You are provided with different PIP/PBP modes and several ways to manage the screens.

Selecting input sources

1. Make sure the signal cables have been connected properly.
2. Press the **ENTER** key to bring up a list of all input sources. Follow the control tips displayed on the bottom of the list to select the source for the main and the sub screens separately. Depending on the selected main source, some of the sources are available for the sub screen.

Source	
Main	Sub
✓ DVI-1	DVI-1
DVI-2	✓ DVI-2
DP	DP
VGA	VGA
RGB	RGB
YPbPr	YPbPr
S-Video	S-Video
Composite	Composite
3G-SDI	3G-SDI
<div>< > ^ v Move Enter Select Menu Exit</div>	

Refer to the following table to find your main source and its supporting second sources (for the sub screen). To find out the supported incoming display mode (input timing), please refer to [Display mode on page 46](#).

Input		Sub source								
		DVI-I	DVI-2	DP	VGA	RGB	YPbPr	S-Video	Composite	3G-SDI
Main source	DVI-I	-	v	v	v	v	v	v	v	v
	DVI-2	v	-	v	v	v	v	v	v	v
	DP	v	v	-	v	v	v	v	v	v
	VGA	v	v	v	-	-	-	v	v	v
	RGB	v	v	v	-	-	-	v	v	v
	YPbPr	v	v	v	-	-	-	v	v	v
	S-Video	v	v	v	v	v	v	-	-	v
	Composite	v	v	v	v	v	v	-	-	v
	3G-SDI	v	v	v	v	v	v	v	v	-



- “v” means enabled; “-” means disabled.
- If there are two images from the same source, this function will not work.
- If the vertical frequencies of the two images are different, you cannot acquire the dual screen capability (e.g. PAL and PAL-60, PAL (50 Hz) and NTSC (60 Hz)).

Setting PIP/PBP mode

1. Press the ◀ key repeatedly to choose a desired screen layout.
2. If a specific preset mode for each screen is preferred, go to **Main screen > Preset mode** for the main screen and **Sub screen > Preset mode** for the sub screen.

Setting the screen swap

To swap the main and the sub screens, press the ▶ key.

Freezing the main screen

To freeze the main screen press the **Fn I** key.


Mirroring the screen

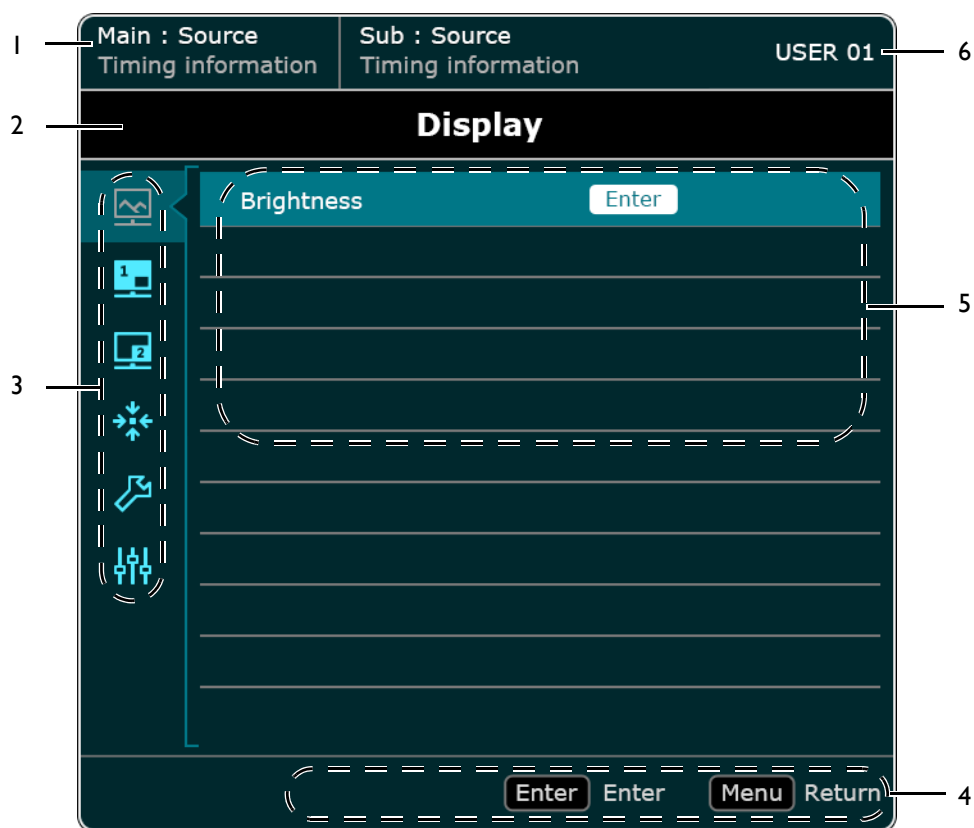
To mirror the current screen, press the ▲ key.

Navigating the main menu

You can use the OSD (On Screen Display) menu to adjust all the settings on your monitor. Press any of the control keys to bring up the hot key menu, and press **MENU** to access the main menu. See [The control panel on page 20](#) for basic menu operations.

Available menu options may vary depending on the input sources, functions, settings, and the product specifications. Menu options that are not available temporarily will become grayed out. And keys that are not available will be disabled and the corresponding OSD icons will disappear. For models without certain functions, their settings and related items will not appear on the menu.

 Screen images and icons in this manual are simulated for illustrative purposes only. Actual displays may vary by model.



No.	Description
1.	Input source(s) and the timing information.
2.	Menu name.
3.	Menu icons.
4.	Menu control tips.
5.	Sub menus and their options or settings.
6.	Name of the current user.



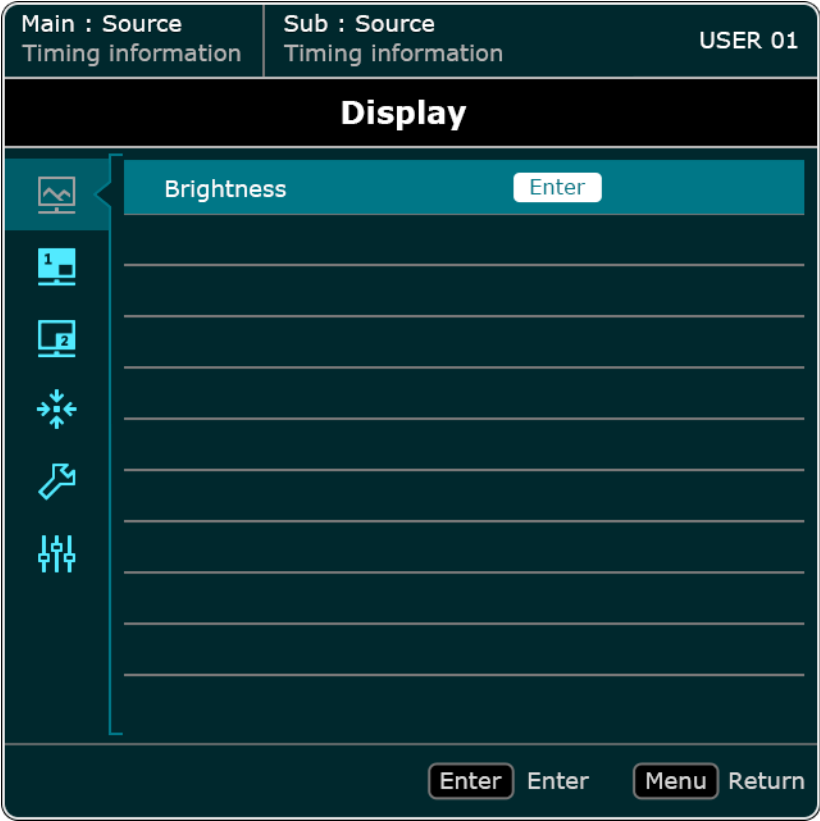
The OSD menu languages may differ from the product supplied to your region, see [Language on page 35](#) under **System** for more details.


For more information on each menu, please refer to the following pages:

- [Display menu on page 27](#)
- [Main screen / Sub screen menu on page 28](#)
- [Image menu on page 31](#)
- [Setup menu on page 32](#)
- [System menu on page 35](#)

Display menu

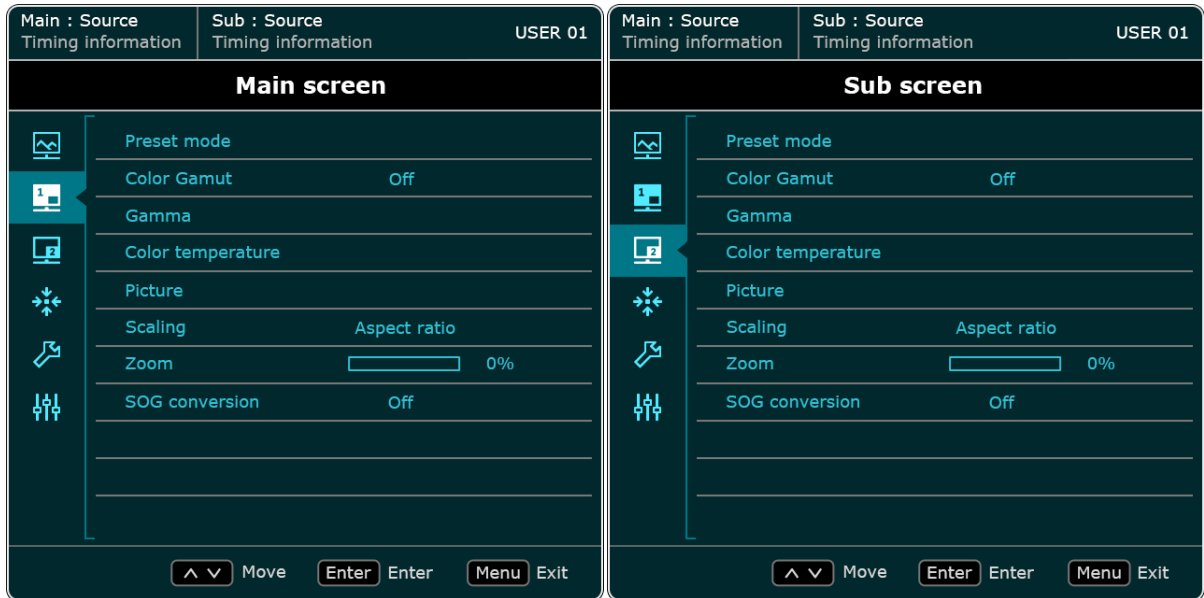
Available menu options may vary depending on the input sources, functions, settings, and the product specifications. Menu options that are not available temporarily will become grayed out. And keys that are not available will be disabled and the corresponding OSD icons will disappear. For models without certain functions, their settings and related items will not appear on the menu.




Item	Description	Options
Brightness	<div>Adjusts the balance between light and dark shades.</div> <div> When the display cannot keep the desired brightness setting, a warning message will show on the brightness menu. Please contact your supplier for further assistance.</div>	<div>•0~100%</div> <div>•170 nits</div> <div>•250 nits</div>

Main screen / Sub screen menu

Available menu options may vary depending on the input sources, functions, settings, and the product specifications. Menu options that are not available temporarily will become grayed out. And keys that are not available will be disabled and the corresponding OSD icons will disappear. For models without certain functions, their settings and related items will not appear on the menu.



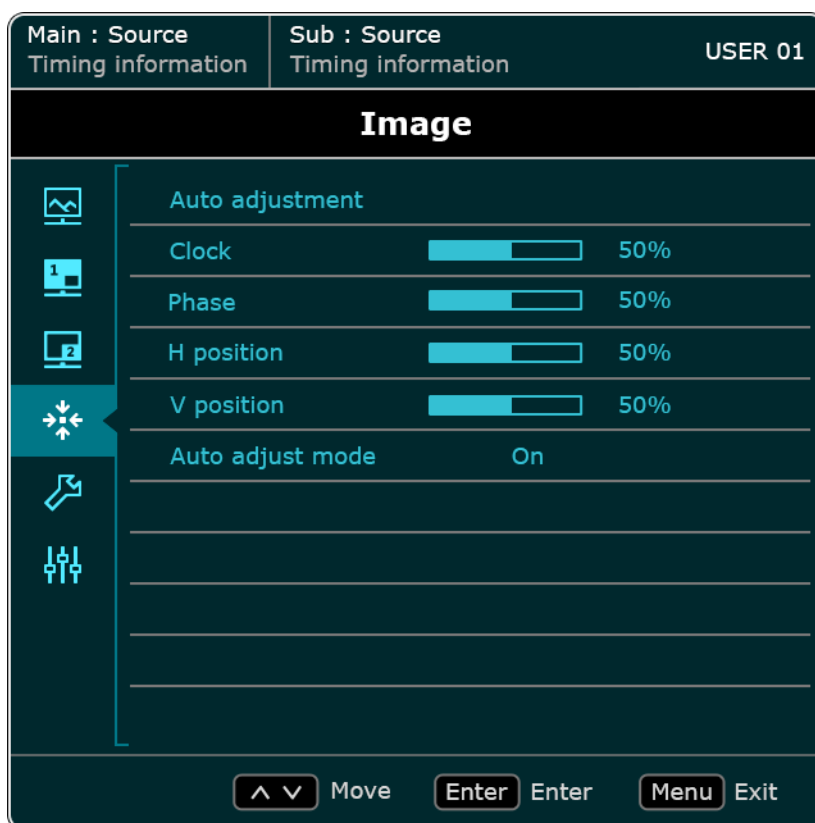
Item	Description		Options
Preset mode	Select a picture mode that best suits the current application and the type of images shown on the screen.		
	Normal	Allows you to adjust the basic display settings as desired.	
	Endo	For viewing endoscopy images.	
	DICOM	For viewing DICOM images. It is recommended for displaying medical images.  DICOM as the abbreviation of Digital Imaging and Communications in Medicine is a standard for handling, storing, printing, and transmitting medical imaging.	
	DICOM CL	For color matching representation with clear base backlight.	
	DICOM BL	For color matching representation with blue base backlight.	
	Low blue light	Decreases the blue light emitted from the display to reduce the risk of blue light exposure to your eyes.	


Item	Description		Options
	Calibration 1	Applies the calibration results optimized by calibration software.	
	Calibration 2		
Color Gamut	Adjusts the color gamut.		
	Off	Turns color gamut off.	
	BT. 709	Reproduces the color gamut set by BT. 709 standards.	
Gamma	Adjusts the tone luminance.		•Gamma 1.8 •Gamma 2.0 •Gamma 2.2 •Gamma 2.4 •DICOM
Color temperature	Applies a color tint (cool or warm) to the image. Color temperature is measured in K (Kelvin) degrees. The display becomes reddish if the color temperature is low, and becomes bluish if the color temperature is high.		•5500K •6500K •7500K •9300K •User RGB 1 •User RGB 2
Picture	Adjusts the picture settings.		
	Contrast	Adjusts the degree of difference darkness and lightness.	0~100%
	Blacklevel	Adjusts the luminance of the dark area in an image.	0~100%
	Hue	Adjusts the degree of how we perceive colors.	0~100%
	Saturation	Adjusts the purity degree of colors.	0~100%
	Sharpness	Adjusts the clarity and visibility of the edges of the subjects in the image.	0~100%
Scaling	This feature is provided to allow desired ratios to be displayed.		
	Full screen	Scales the input image to fill the screen.	
	Aspect ratio	The input image is displayed without geometric distortion filling as much of the display as possible.	
	Native	Displays the input image in its native resolution without scaling.	

Item	Description	Options
Zoom	Zooms in or out an image.	0 ~ 25%
SOG conversion	Receives a sync-on-green signal transferred via the G/Y input terminal from RGB / YPbPr sources.	<ul style="list-style-type: none"> •On •Off

Image menu

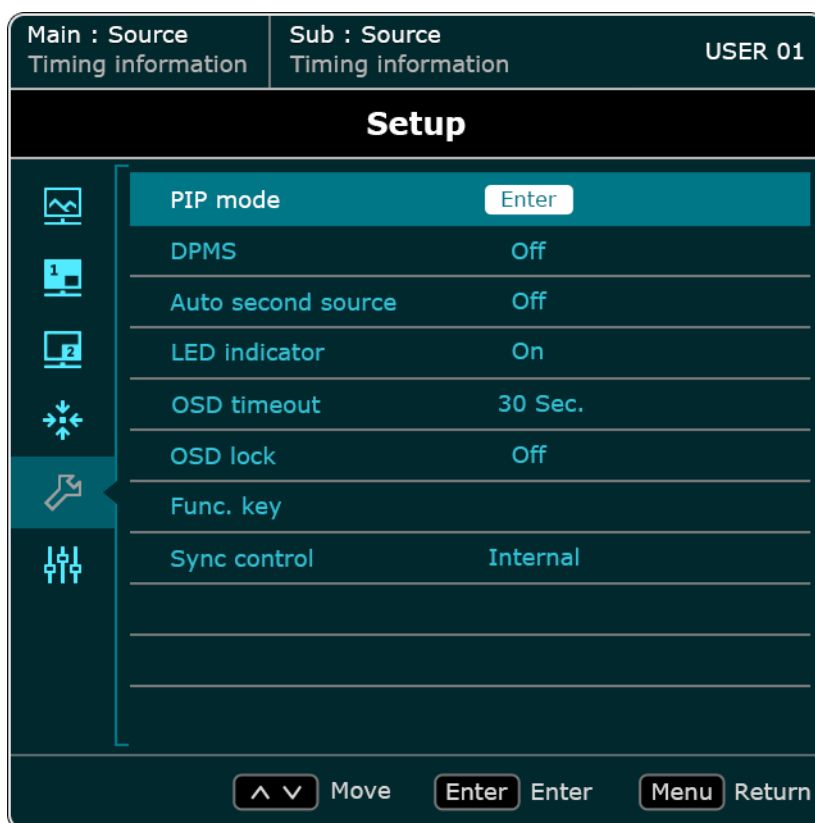
Available menu options may vary depending on the input sources, functions, settings, and the product specifications. Menu options that are not available temporarily will become grayed out. And keys that are not available will be disabled and the corresponding OSD icons will disappear. For models without certain functions, their settings and related items will not appear on the menu.





Item	Description	Options
Auto adjustment	Optimizes and adjusts the screen settings automatically for you.  Applicable to VGA or RGBHV input signals.	
Clock	Adjusts the pixel clock frequency timing to synchronize with the analog input video signal.	0~100%
Phase	Adjusts the pixel clock phase timing to synchronize with the analog input video signal.	0~100%
H position	Adjusts the horizontal position of the screen image.	0~100%
V position	Adjusts the vertical position of the screen image.	0~100%
Auto adjust mode	Sets to enable the auto adjustment function. If enabled, the monitor performs the auto adjustment function whenever the input signal is switched to VGA or RGBHV.	<ul style="list-style-type: none"> •On •Off

Setup menu

Available menu options may vary depending on the input sources, functions, settings, and the product specifications. Menu options that are not available temporarily will become grayed out. And keys that are not available will be disabled and the corresponding OSD icons will disappear. For models without certain functions, their settings and related items will not appear on the menu.



Item	Description	Options
PIP	<p>Sets PIP or PBP mode. Pictures from two independent video source are displayed on the screen at the same time.</p> <p> Depending on the input signals, the picture quality of the main and sub screens may be different.</p>	<ul style="list-style-type: none"> •Off •Top-left •Top-right •Bottom-left •Bottom-right •PBP
DPMS	Display Power Management signaling (DPMS) enables managing the power supply of video monitors for computers through the graphics card.	<ul style="list-style-type: none"> •On •Off
Auto second source	Allows to switch to a pre-defined sub input source automatically when the main signal is missing.	<ul style="list-style-type: none"> •On •Off
LED indicator	Enables/disables LED indications.	<ul style="list-style-type: none"> •On •Off


Item	Description		Options
OSD timeout	Adjusts the display time of the OSD menu.		<ul style="list-style-type: none"> •Off •10 Sec. •20 Sec. •30 Sec. •40 Sec. •50 Sec. •60 Sec.
OSD lock	Prevents all the monitor settings from being accidentally changed. When this function is activated, the OSD controls and hotkey operations will be disabled. <div>  The unlock the OSD controls, press and hold the ◀ key for 5 seconds. </div>		
	Off	Disables OSD lock.	
	Mode 0	All control keys are locked except for Brightness adjustment and input source switch. <ul style="list-style-type: none"> •Press MENU to adjust the brightness. •Press ENTER to switch the input source. 	
	Mode I	All control keys are locked except for the Brightness adjustment, input source switch, and User Profile change. <ul style="list-style-type: none"> •Press MENU to adjust the brightness. •Press ENTER to switch the input source. •Press the ▼ key to access User Profile. 	
Func. key	Fn 1	Sets the function to be accessed by the function key 1.	<ul style="list-style-type: none"> •Information •Light box •Scaling main •Freeze main
	Fn 2	Sets the function to be accessed by the function key 2.	<ul style="list-style-type: none"> •Information •Light box •Scaling sub •Freeze sub


Item	Description		Options
Sync control	Sets to synchronizing signals when using YPbPr and RGB inputs.		
	Internal	For signal input from R / G / B input terminals (BNC type).	
	External	For signal input from R / G / B / S input terminals (BNC type).	
	Separation	For signal input from R / G / B / H / V input terminals (BNC type).	

System menu

Available menu options may vary depending on the input sources, functions, settings, and the product specifications. Menu options that are not available temporarily will become grayed out. And keys that are not available will be disabled and the corresponding OSD icons will disappear. For models without certain functions, their settings and related items will not appear on the menu.



Item	Description	Options
User Profile	Allows you to create distinct user scenarios for individual usages. You can save up to 10 user profiles.  Whenever text input is required, a virtual keyboard is displayed.	<ul style="list-style-type: none"> •Load profile •Save profile •User naming
Language	Sets the OSD menu language.	<ul style="list-style-type: none"> •English •Français •Deutsch •Italiano •Español •日本語 •簡中
Endo light	Detects the light source condition and provides recommended color temperature value of the display.	

Item	Description	Options
Reset all	Resets all mode, color and geometry settings to the factory default values.	
Information	<p>Displays the current monitor property settings.</p>  <p>The limit of backlight life time may differ by product. When the backlight is used to almost 10,000 hours, a warning message will be displayed. Contact your supplier then for further assistance.</p>	<ul style="list-style-type: none"> •FW version •Model name •Serial number •Life hours •Current temperature •Calibrated counter


Troubleshooting


Frequently asked questions (FAQ)

If the display fails to function correctly, please follow these steps for a possible solution.

1. Perform the adjustments according to the instructions in [How to assemble your monitor hardware on page 16](#).
2. Refer to the following troubleshooting guide if you cannot resolve the problem from other sections of this user manual.
3. If the problem is not described below or you cannot correct the problem, stop using the monitor and contact your dealer or the nearest service center for further assistance.

 No picture can be seen.

-  Check if the signal cable is properly connected to the display and the computer.
- Check if the graphic card is properly seated in its slot.
- Check if the power switch is switched to **ON**.
- Make sure the monitor and your computer have been powered on.
- Make sure that a supported system is being used and the supported mode has been selected on the graphic card. Refer to the graphic card or system manuals for more information.
- Check the monitor and your graphic card with respect to compatibility and recommended settings.
- Make sure there are no bent or pushed-in pins in the signal cable connectors.
- Check the signal cable connectors and make sure no pin is bent or broken off.

 No picture can be seen in RGB or YPbPr source.





-  Check the **Sync control** setting to meet the connection. See [Sync control on page 34](#) for more information.


 Image persistence (image sticking)





















-  Image persistence is when a residual or “ghost” image of a previous image remains visible on the screen. To alleviate image persistence, turn off the monitor for as long as the previous image had been displayed.
- Try not to operate the LCD with a “fixed” image on the screen for more than thirty minutes.







 The screen has green / red / blue / white dots or defective pixels.

-  This is due to the characteristics of the panel itself, and is not a malfunction of the product.

 The display is green or purple.

-  Make sure that the RGB / YPbPr setting of the input connector is correct.

-  Image is unstable, unfocused or swimming is apparent.
-  •Check if the signal cable is properly connected to the display and the computer.
-  •Check the monitor and your graphic card with respect to compatibility and recommended signal timings.
-  •If your text is garbled, change the video mode to non-interlace and use 60Hz refresh rate.
-  OSD is distorted.
-  •Use the OSD Image Adjust controls to increase or decrease the Coarse total.
-  •Make sure that a supported system is being used and the supported mode has been selected on the graphic card. Refer to the graphic card or system manuals for more information.
-  No signal.
-  •Check if the signal cable is properly connected to the display and the computer.
-  •Make sure the computer is not in a power-saving mode (by touching the keyboard or mouse).
-  •Check if the power switch is switched to **ON**.
-  •Cycle power on-off.
-  •Make sure the correct input source is selected.
-  The LED indicator on monitor is not green or orange.
-  •Check if the monitor is powered on.
-  •Check if the power cord is properly connected.
- When the monitor is powered on, the LED indicator lights up in solid green. If the LED is illuminated in orange, the power management mode is active. Press any button on the computer keyboard or move the mouse. If that does not help, check the signal cable connectors. If any pin is bent or broken off, please contact your dealer to get necessary support.
-  The OSD controls are inaccessible.
-  To unlock the OSD controls when it is preset to be locked, refer to [OSD lock on page 33](#).
-  Water or mist residue found inside the panel surface.
-  If the display is brought directly from a cold place to a warm place, or the display is warm and the temperature drops suddenly (by air-conditioning, for example), condensation may occur on the inner side of the display surface or the protection plate. This is a natural phenomenon, which does not affect the operation, yet it may cause damage to the unit.
- Try to keep the display in a condensation-free area or power it off and wait until the condensation disappears.

-  The monitor cannot be remote controlled.
-  •Check if the universal remote RS232 cable (remote cable, purchased separately) has been connected to the monitor properly.
- Check if the remote cable is damaged. Replace the broken cable with a new one and make connection again.
-  No SDI image can be seen.
-  •Press the **ENTER** button on the front of the monitor and select **SDI**.
- Check if the video cable has been connected properly to the SDI input terminal of the monitor and your video source.
-  Black bars appear at the upper and lower parts of the display.
-  Black bars appear when the aspect ratio of the input image is different from that of the monitor. This is not a failure of the unit. Adjust the aspect ratio of the input image from **Scaling** under **Main screen** or **Sub screen** if desired.

Need more help?

If your problems remain after checking this manual, please contact your place of purchase or e-mail us at: Support@BenQ.com.

Recommended use

For optimum performance, please note the following when setting up and using the LCD monitor:

- Do not open the monitor. There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. Refer all servicing to qualified service personnel.
- Do not spill any liquids into the cabinet or use your monitor near water.
- Do not insert objects of any kind into the cabinet slots, as they may touch dangerous voltage points, which can be harmful or fatal or may cause electric shock, fire or equipment failure.
- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.
- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the monitor.
- Do not place any objects onto the monitor and do not use the monitor outdoors.

Immediately unplug your monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the monitor.
- If the monitor has been exposed to rain or water.
- If the monitor has been dropped or the cabinet damaged.
- If the monitor does not operate normally by following operating instructions.
- Do not bend power cord.
- Do not use monitor in high temperature, humid, dusty, or oily areas.
- Do not cover vent on monitor.
- If monitor or glass is broken, do not come in contact with the liquid crystal and handle with care.

Caution

- Allow adequate ventilation around the monitor so that heat can properly dissipate. Do not block ventilated openings or place the monitor near a radiator or other heat sources. Do not put anything on top of monitor.
- The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet, which is easily accessible.
- Handle with care when transporting. Save packaging for transporting.
- Image persistence is when a residual or “ghost” image of a previous image remains visible on the screen. LCD monitors’ image persistence is not permanent, but constant images being displayed for a long period of time should be avoided. To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.

Corrective placement and adjustment of the monitor can reduce eye, shoulder and neck fatigue. Check the following when you position the monitor:

- For optimum performance, allow 30 minutes for warm-up.
- Adjust the monitor height so that the top of the screen is at or slightly below eye level. Your eyes should look slightly downward when viewing the middle of the screen.
- Position your monitor no closer than 40 cm and no further away than 70 cm from your eyes. The optimal distance is 50 cm.
- Rest your eyes periodically by focusing on an object at least 50 cm away.
- If reflected light makes it hard for you to see your screen, use an anti-glare filter.
- Adjust the monitor’s brightness and contrast controls to enhance readability.
- Use a document holder placed close to the screen.
- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after-image effects).
- Get regular eye checkups.

Ergonomics

To realize the maximum ergonomics benefits, we recommend the following:

- Adjust the backlight to best state.
- Do not position the Contrast control to its maximum setting.
- Use the preset Size and Position controls with standard signals.
- Use the preset Color Setting.
- Do not use primary color blue on a dark background, as it is difficult to see and may produce eye fatigue to insufficient contrast.

Cleaning

Warning

If you dropped any material or liquid such as water onto the monitor when cleaning, unplug the power cable immediately and contact your dealer or the nearest service center. Always make sure your hands are dry when unplugging the power cable.








Caution

- For safety reasons, turn-off the power switch and unplug the monitor before cleaning.
- Do not scratch or rub the screen with a hard object.
- Never use any of the following solvents on the display. Harsh chemicals may cause damage to the cabinet, front glass, and the sensors.
 - Alcohol/solvents at higher concentration > 5%
 - Strong alkalis lye, strong solvents,
 - Thinner Spray-type cleaner, Abrasive cleaner, acid
 - Benzene
 - Wax
 - Detergents with fluoride
 - Detergents with ammonia
 - Detergents with abrasives
 - Steel wool
 - Sponge with abrasives
 - Steel blades
 - Cloth with steel thread

Cabinet

- Remove dirt with a lightly moistened cloth and a mild solvent detergent. Then wipe the cabinet with a soft dry cloth.
- Do not apply spray liquid directly to the cabinet as excess liquid may cause damage to internal electronics.

Symbol information

	Indicates complies with the 93/42/EEC, EN60601-I, EN 60601-I-2 of related European standards.
	Indicates complies with Part 18 of the FCC rules.
	Indicates complies with cTÜVus (ANSI/AAMI ES 60601-I, CAN/CSA C22.2 No. 60601-I).
	Indicates comply with TÜV Rheinland (EN/IEC 60601-I).
	Indicates the device is approved according to the China CCC regulations.
	Indicates the device is approved according to the Taiwan BSMI regulations.
	Indicates the DisplayPort connectors on the device.

Product information

Specifications

Item		SE26101
LCD panel	Technology	TFT Color IPS LCD panel
	Backlight	LED
	Panel size (diagonal)	26" (66.1 cm)
	Display size (H x V)	576 x 324 mm
	Mega pixels	2.3 megapixel
	Native resolutions (H x V)	1920 x 1080
	Pixel pitch (H x V)	0.300 x 0.300 mm
	Viewing angle (H, V)	178°/178°@CR>10 (Typ.)
	Response time	18 ms (Typ.)
	Brightness	450 cd/m ² (Typ.)
	Contrast ratio	1400:1 (Typ.)
Connectivity	Input terminals	<ul style="list-style-type: none"> •DVI-D x 2 •DisplayPort: DisplayPort x 1 •3G-SDI: BNC x 1 (75 Ω) •VGA: HD-15 x 1 •RGSB / YPbPr: BNC x 5 (75 Ω) •S-Video: DIN-4 x 1 •Composite: BNC x 1 (75 Ω)
	Output terminals	<ul style="list-style-type: none"> •3G-SDI: BNC x 1 •RGSB / YPbPr: BNC x 5 •S-Video: DIN-4 x 1 •Composite: BNC x 1
DC Power Output	DC Out 5V, 1A	Round type pin (female) x1 (For powering an external equipment)
Control Inputs	Serial Remote	RS-232C: D-Sub 9-pin x 1
Power supply	Power input	DC 24V, 3.75A (Supplied from AC adapter)
	Power consumption	80 W (Maximum)

Item		SE26101
Physical	Screen protection	Protective, Double AR Coating Glass
	Water proofing level	IPX3 (front side)
	Dimensions with stand (W x H x D)	638 x 471.7 ~ 541.7 x 264.9 mm
	Dimensions w/o stand (W x H x D)	638 x 409.5 x 90.2 mm
	Net weight with stand	12.6 kg
	Net weight w/o stand	8.6 kg
	Mounting	100 x 100, 200 x 100 mm VESA compliant
Environmental conditions	Operating temperature	0°C to +40°C
	Transport & storage temperature	-20°C to +60°C
	Operating humidity	20% to 80% (non-condensing)
	Transport & storage humidity	10% to 80% (non-condensing)
	Operating atmospheric pressure	700hPa to 1060hPa
	Transport & storage atmospheric pressure	200hPa to 1060hPa
Certification and compliance		cTÜVus (ANSI/AAMI ES 60601-I, CAN/CSA C22.2 No. 60601-I), CB (IEC 60601-I, IEC 60950-I), TÜV/RH (EN 60601-I), CE, FCC, CCC, BSMI, IP33 (IPX3 only the front side), RoHS, WEEE, REACH
Supplied accessories		<ul style="list-style-type: none"> •Power adapter •DVI-D to DVI-D cable •S-Video cable •Power cord •Manual CD •QSG •Display stand



- Specifications and functions are subject to change without notice for quality improvement.
- Brightness shown is without a touch screen or glass installed.
- The protection level against water entry is IPX3 for the front side.
- Applies to the Delta Power MDS-090AAS24 B power supply provided with the display.

Display mode

Source	Resolution	Dot clock (MHz)	fH (kHz)	fV (Hz)
DVI-1 / DVI-2 / DP / VGA	640 x 480 @ 60 Hz	25.17	31.5	60
	640 x 480 @ 72 Hz	31.50	37.9	72
	640 x 480 @ 75 Hz	31.50	37.50	75
	720 x 400 @ 70 Hz	28.32	31.5	70
	800 x 600 @ 56 Hz	36.00	35.1	56
	800 x 600 @ 60 Hz	40.00	37.9	60
	800 x 600 @ 72 Hz	50.00	48.1	72
	800 x 600 @ 75 Hz	49.50	46.9	75
	832 x 624 @ 75 Hz	55	49.1	75
	1024 x 768 @ 60 Hz	65.00	48.4	60.00
	1024 x 768 @ 70 Hz	75.00	56.5	70
	1024 x 768 @ 75 Hz	78.75	60.0	75
	1152 x 864 @ 75 Hz	108.00	67.5	75
	1280 x 960 @ 60 Hz	108.00	60.0	60
	1280 x 1024 @ 60 Hz	108.00	64	60
	1280 x 1024 @ 75 Hz	135.00	80	75
	1600 x 1200 @ 60 Hz	162.00	75.0	60
	1920 x 1080 @ 50 Hz	148.50	56.25	50
	1920 x 1080 @ 60 Hz	148.50	67.5	60
	1920 x 1200 @ 60 Hz	154.00	74.038	59.95



Modes not listed in the table may not be supported. For optimal resolution, it is recommended to choose a mode from the table above.

Available signal formats

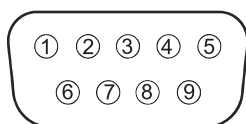
Signal format	Resolution	Input connector								
		DVI-1	DVI-2	DP	VGA	RGB	YPbPr	S-Video	Composite	3G-SDI
NTSC	720x480	-	-	-	-	-	-	v	v	-
PAL	720x576	-	-	-	-	-	-	v	v	-
480i	720x480	-	-	-	v	v	v	-	-	v
480p60	720x480	v	v	v	v	v	v	-	-	v
576i	720x576	-	-	-	v	v	v	-	-	v
576p50	720x576	v	v	v	v	v	v	-	-	-
720p23	1280x720	v	v	v	v	v	v	-	-	-
720p24	1280x720	v	v	v	v	v	v	-	-	-
720p25	1280x720	v	v	v	v	v	v	-	-	-
720p29	1280x720	v	v	v	v	v	v	-	-	-
720p30	1280x720	v	v	v	v	v	v	-	-	-
720p50	1280x720	v	v	v	v	v	v	-	-	v
720p60	1280x720	v	v	v	v	v	v	-	-	v
1080i50	1920x1080	v	v	v	v	v	v	-	-	v
1080i60	1920x1080	v	v	v	v	v	v	-	-	v
1080p23	1920x1080	v	v	v	v	v	v	-	-	v
1080p24	1920x1080	v	v	v	v	v	v	-	-	v
1080p25	1920x1080	v	v	v	v	v	v	-	-	v
1080p30	1920x1080	v	v	v	v	v	v	-	-	v
1080p50	1920x1080	v	v	v	v	v	v	-	-	v
1080p60	1920x1080	v	v	v	v	v	v	-	-	v



"v" means enable; "-" means disable.

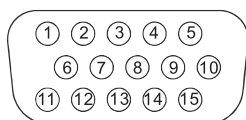
Pin specifications

RS-232C terminal



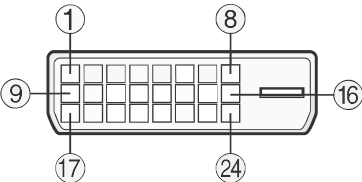
Pin	Signal
1	NC
2	RX
3	TX
4	NC
5	GND
6	NC
7	RTS
8	CTS
9	NC

VGA input terminal



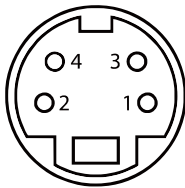
Pin	Signal
1	RED
2	GREEN
3	BLUE
4	NC
5	GND
6	GND RED
7	GND GREEN
8	GND BLUE
9	+3.3/+ VDC
10	SYNC GND
11	NC
12	SDA
13	HD/SYNC
14	VD
15	SCL

DVI-D terminal



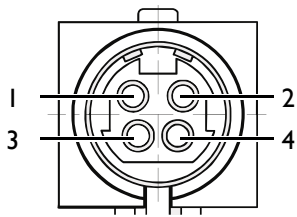
Pin	Signal
1	TMDS Data 2 -
2	TMDS Data 2 +
3	TMDS Data 2 / 4 Shield
4	TMDS Data 4 -
5	TMDS Data 4 +
6	DDC Clock
7	DDC Data
8	No Connect
9	TMDS Data 1 -
10	TMDS Data 1 +
11	TMDS Data 1 / 3 Shield
12	TMDS Data 3 -
13	TMDS Data 3 +
14	+3.3/+5V Power (from PC)
15	Ground (Return for +5V)
16	Hot Plug Detect
17	TMDS Data 0 -
18	TMDS Data 0 +
19	TMDS Data 0 / 5 Shield
20	TMDS Data 5 -
21	TMDS Data 5 +
22	TMDS Clock Shield
23	TMDS Clock +
24	TMDS Clock -

S-Video terminal



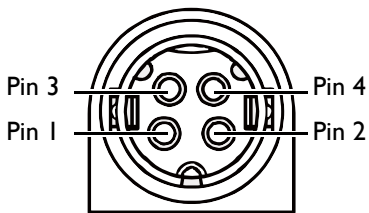
Pin	Name	Signal
1	GND	Ground (Y)
2	GND	Ground (Y)
3	Y	Intensity (Luminance)
4	C	Color (Chrominance)

DC IN terminal



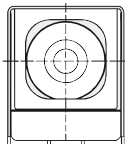
Pin	Signal
1	DC + 24V
2	DC + 24V
3	GND
4	GND

AC adapter DC OUT terminal



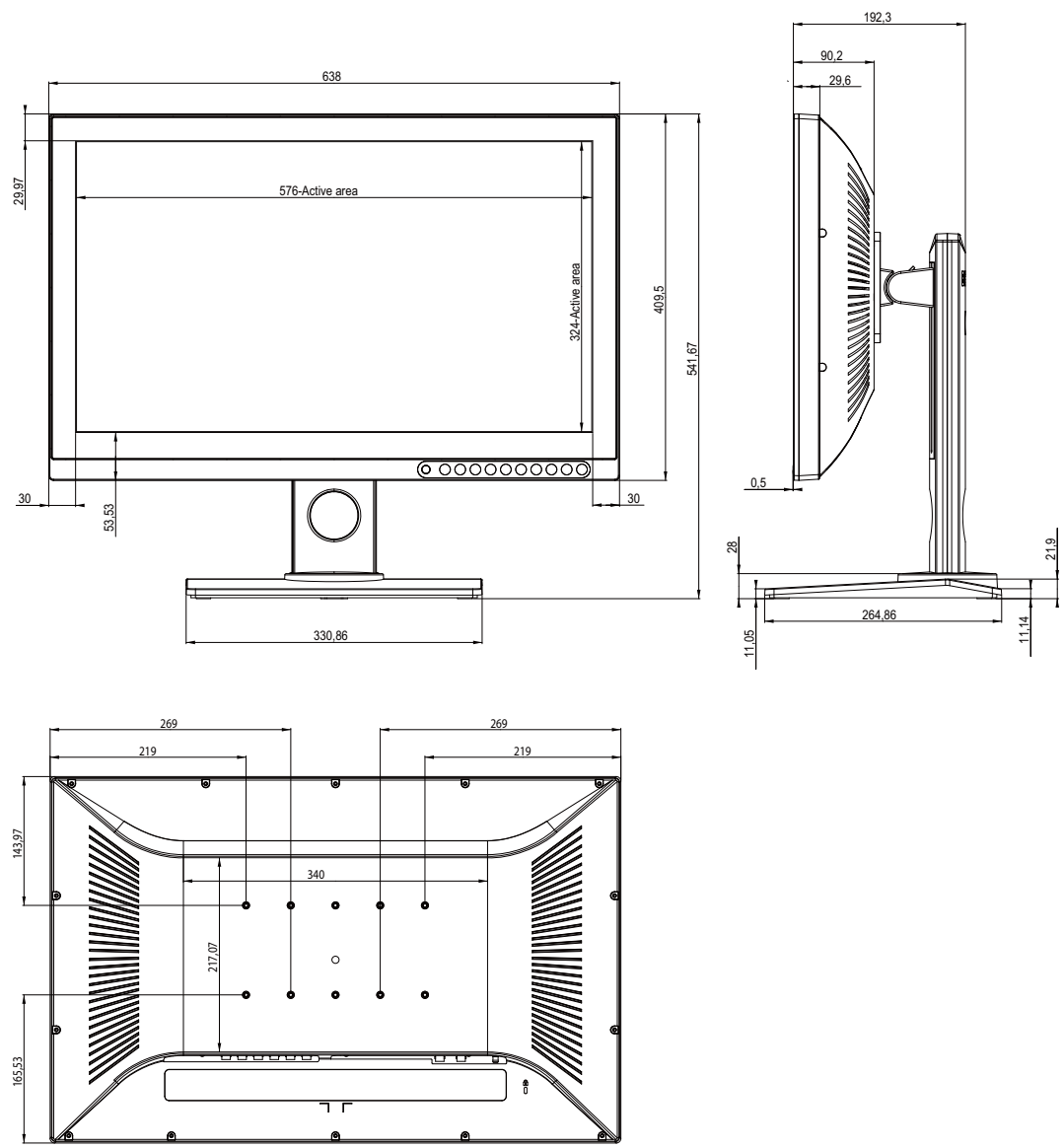
Pin	Signal
1	DC + 24V
2	DC + 24V
3	GND
4	GND

Monitor DC OUT terminal



Pin	Signal
1	DC + 5V

Dimensions



Unit: mm

Regulatory statements

FCC Information

Federal Communications Commission (FCC) Notice (U.S. Only) WARNING: This equipment has been tested and found to comply with Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 receiving antenna.
- Increase the separation 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.

This device complies with Part 18 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

EMC Information

General information

No specific requirement on the use of external cables or other accessories except power supply.

With the installation of the device, use only the delivered power supply or a spare part provided by the legal manufacturer. Using another can result in a decrease of the immunity level of the device.

Electromagnetic emissions

The BenQ SE series display is intended for use in the electromagnetic environment specified below. The customer or the user of the display should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment – Guidance
RF emissions CISPR 11/EN55011	Group I	The SE Series uses RF energy only for its internal function. Therefore, its RF emission are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11/EN55011	Class B	The SE series Display is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC/EN 61000-3-2	Class D	
Voltage fluctuations/ flicker emissions IEC/EN 61000-3-3	Complies	

This SE series display complies with appropriate medical EMC standards on emissions to, and interference from surrounding equipment. 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.

Interference can be determined by turning the equipment off and on.


If this equipment does cause harmful interference to, or suffer from harmful interference of, surrounding equipment, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna or equipment.
- Increase the separation 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 technician for help.

Electromagnetic immunity

The SE series display is intended for use in the electromagnetic environment specified below. The customer or the user of the SE series display should assure that it is used in such an environment.

Immunity test	IEC/EN 60601 Test levels	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC/EN 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC/EN 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment
Surge IEC/EN 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment
Voltage dips, short interruptions and voltage variations on power supply input lines IEC/EN 61000-4-11	< 5% U_T (> 95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (>95% dip in U_T) for 5s	< 5% U_T (> 95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (>95% dip in U_T) for 5s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the SE series LED Display requires continued operation during power mains interruptions, it is recommended that the SE series LED Display be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC/EN 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Immunity test	IEC/EN 60601 Test levels	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC/EN 61000-4-6 Radiated RF IEC/EN 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2.5 GHz	3 Vrms 3 V/m	<p>Portable and mobile RF communications equipment should be used no closer to any part of the SE series LED Display, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = 1.2 \sqrt{P}$ $d = 1.2 \sqrt{P} \text{ 80 MHz to 800 MHz}$ $d = 2.3 \sqrt{P} \text{ 800 MHz to 2.5 GHz}$ <p>Where "P" is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and "d" is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range.</p> <p>Interference may occur in the vicinity of equipment marked with symbol:</p> 



- U_T is the AC mains voltage prior to application of the test level.
- At 80 MHz and 800 MHz, the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Recommended separation distance

The SE series LED Display is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer of the user of the SE series LED Display can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the SE series LED Display as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150kHz to 80MHz $d=1.2\sqrt{P}$	80MHz to 800MHz $d=1.2\sqrt{P}$	800MHz to 2.5GHz $d=2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23



- At 80 MHz and 800 MHz, the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.