SL Series / IL Series
Digital Signage
User Manual

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Safety warnings and precautions





The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

THIS EQUIPMENT MUST BE GROUNDED

To ensure safe operation, the three-pin plug must be inserted only into a standard three-pin power outlet which is effectively grounded through normal household wiring. Extension cords used with the equipment must have three cores and be correctly wired to provide connection to the ground. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power outlet is grounded or that the installation is completely safe. For your safety, if you are in any doubt about the effective grounding of the power outlet, please consult a qualified electrician.

- The mains plug of the power supply cord shall remain readily operable. The AC receptacle (mains socket outlet) shall be installed near the equipment and shall be easily accessible. To completely disconnect this equipment from the AC mains, disconnect the power cord plug from the AC receptacle.
- Do not place this display on an uneven, sloping or unstable surface (such as a trolley) where it may fall and cause damage to itself or others.
- Do not place this display near water, like a spa or pool, or in a position which will allow the splashing or spraying of water onto the display, like in front of an open window where rain water may enter.
- Do not install this display in a confined space without proper ventilation and air circulation, such as in a closed cabinet. Allow proper space around the display for dissipating heat inside. Do not block any openings and vents on the display. Overheating may result in hazards and electric shock.
- Installation of this display should only be performed by a qualified technician. Failure to install this display properly may cause injuries and damages to the personnels and the display itself. Check the installation regularly and maintain the display periodically to ensure the best working condition.
- Use only the accessories approved or recommended by the manufacturer to mount this display. Using wrong or unsuitable accessories may cause the display to fall and result in serious personal injuries. Make sure that the surface and fixing points are strong enough to sustain the weight of the display.
- To reduce the risk of electric shock, do not remove covers. No user serviceable parts inside. Refer servicing to qualified service personnel.
- To prevent personal injuries, mounting the display or installing desktop stands is required before use.

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Notes on the LCD panel of this display

- The Liquid Crystal Display (LCD) panel of this display has a very thin protective layer of glass which is liable to marking or scratching, and cracking if struck or pressured. The liquid crystal substrate is also liable to damage under excessive force or extreme temperatures. Please handle with care.
- The response time and brightness of the LCD panel may vary with the ambient temperature.
- Avoid placing the display in direct sun or where direct sun or spot lighting will shine onto the LCD panel, as the heat may damage the panel and the external casing of the display, and the bright light will make viewing the display more difficult than necessary.
- The LCD panel consists of individual pixels to display images and is manufactured according to the design specifications. While 99.9% of these pixels work normally, 0.01% of the pixels may remain constantly lit (in red, blue or green) or unlit. This is a technical limitation of the LCD technology and is not a defect.
- LCD screens, like plasma (PDP) and conventional CRT (Cathode Ray Tube) screens, are also susceptible to 'screen burn-in' or 'image retention' which can be found on the

screen as visible fixed lines and shades. To avoid such damage to the screen, avoid displaying still images (like On-Screen Display menus, TV station logos, fixed/inactive text or icons) for more than two hours. Change the aspect ratio from time to time. Fill the entire screen with the image and eliminate the black bars whenever possible. Avoid displaying images in 4:3 aspect ratio over a long period of time, otherwise there may be visible burn marks on the screen as two vertical lines.
If display of a still image is required, it is recommended to enable **Anti Image Retention** under the **Setting** and **Advanced** menu.

- Note: Under certain circumstances, condensation may occur on the inner side of the cover glass, it's a natural phenomenon and will not affect the operation of the display. This condensation will usually disappear after around 2 hours of normal operation.

Safety notice for remote control

- Do not put the remote control in the direct heat, humidity, and avoid fire.
- Do not drop the remote control.
- Do not expose the remote control to water or moisture. Failure to do so could result in malfunction.
- Confirm there is no object between the remote control and the remote sensor of the product.
- When the remote control will not be used for an extended period, remove the batteries.

Battery safety notice

The use of the wrong type of batteries may cause chemical leaks or explosion. Please note the following:

- Always ensure that the batteries are inserted with the positive and negative terminals in the correct direction as shown in the battery compartment.
- Different types of batteries have different characteristics. Do not mix different types.
- Do not mix old and new batteries. Mixing old and new batteries will shorten battery life or cause chemical leaks from the old batteries.
- When batteries fail to function, replace them immediately.
- Chemicals which leak from batteries may cause skin irritation. If any chemical matter seeps out of the batteries, wipe it up immediately using a dry cloth, and replace the batteries as soon as possible.
- Due to varying storage conditions, the battery life for the batteries included with your product may be shortened. Replace them within 3 months or as soon as you can after initial use.
- There may be local restrictions on the disposal or recycling of batteries. Consult your local regulations or waste disposal provider.

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.

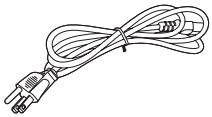


Package contents

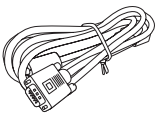
Open the sales package and check the contents. If any item is missing or damaged, please contact your dealer immediately.



LCD display



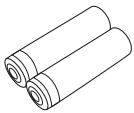
Power cord



D-Sub (15-pin) cable



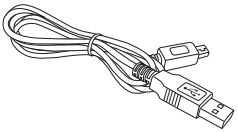
Remote control



AAA batteries



Quick start guide

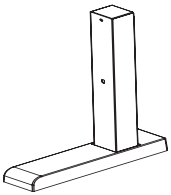


USB cable (IL series only)

- The type of power cord supplied may differ from that illustrated depending on your region of purchase.
- Before discarding the package, check that you haven't left any accessories inside the box.
- Dispose of packaging materials wisely. You can recycle the cardboard carton. Consider storing the package (if possible) for future transport of the display.
- Do not leave plastic bags within reach of young children or babies.

Optional accessory

In addition to the items that come with the standard package, the following optional accessory is also available separately:



Desktop stand

Setting up the display

Mounting the display

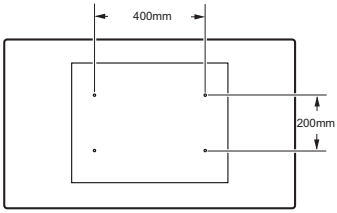
You can install the display on a vertical surface with a suitable wall mounting bracket or on a horizontal surface with the optional desktop stands. Please pay attention to the following notes during installation:

- This display should be installed by at least two adult persons. Attempting to install this display by only one person may result in danger and injuries.
- Refer the installation to qualified technicians. Improper installation may cause the display to fall or malfunction.

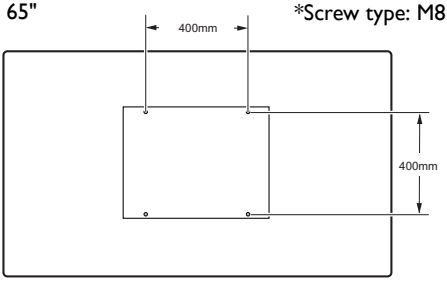
Installing the display on a wall

1. Place a clean, dry and lint-free cloth on a flat, horizontal and object-free surface. Make sure that the size of the cloth is larger than the display.
2. Gently lay the display on the cloth with the LCD screen facing down.
3. Remove the desktop stands from the display if installed.
4. Identify the wall mounting screw holes on the back of the display as shown in the illustration.

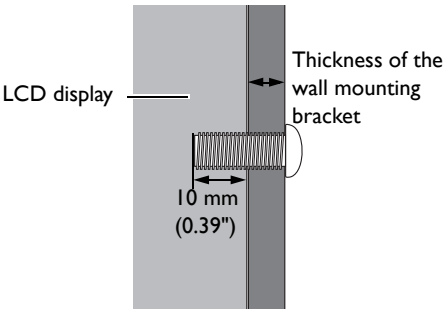
42"/46" *Screw type: M6



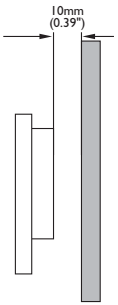
65" *Screw type: M8



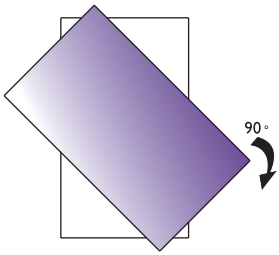
5. Install the wall mounting bracket on the display and attach the display to the wall according to the mounting bracket's instructions. The length of the screw should exceed the thickness of the wall mounting bracket by at least 10 mm. Make sure that all screws are tightened and secured properly. (Recommended torque: 470 - 635N•cm). The mounting means should be strong enough to bear the weight of the display.



- To maintain proper ventilation, keep at least 10 mm of clear space from the back cover of the display to the wall.
- Please consult a professional technician for wall mount installations. The manufacturer accepts no liability for installations not performed by a professional technician.



- The AC IN/OUT socket should be on top of connectors when rotating your display.

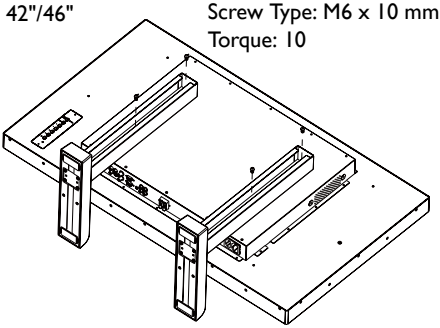


Installing the optional desktop stands

1. Place a clean, dry and lint-free cloth on a flat, horizontal and object-free surface. Make sure that the size of the cloth is larger than the display.
2. Gently lay the display on the cloth with the LCD screen facing down.
3. Place the desktop stands on the display as illustrated.

42"/46"

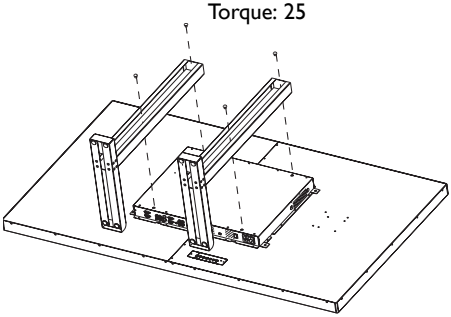
Screw Type: M6 x 10 mm
Torque: 10



4. Use the screws and a suitable screwdriver to secure the stands on the display.

65"

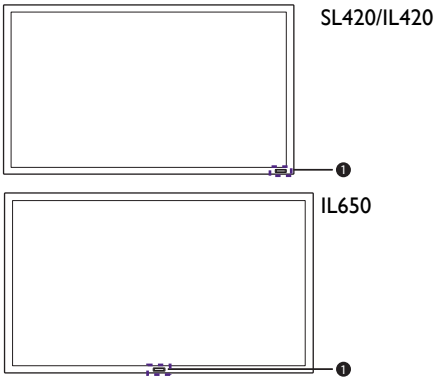
Screw Type: M8 x 15 mm
Torque: 25



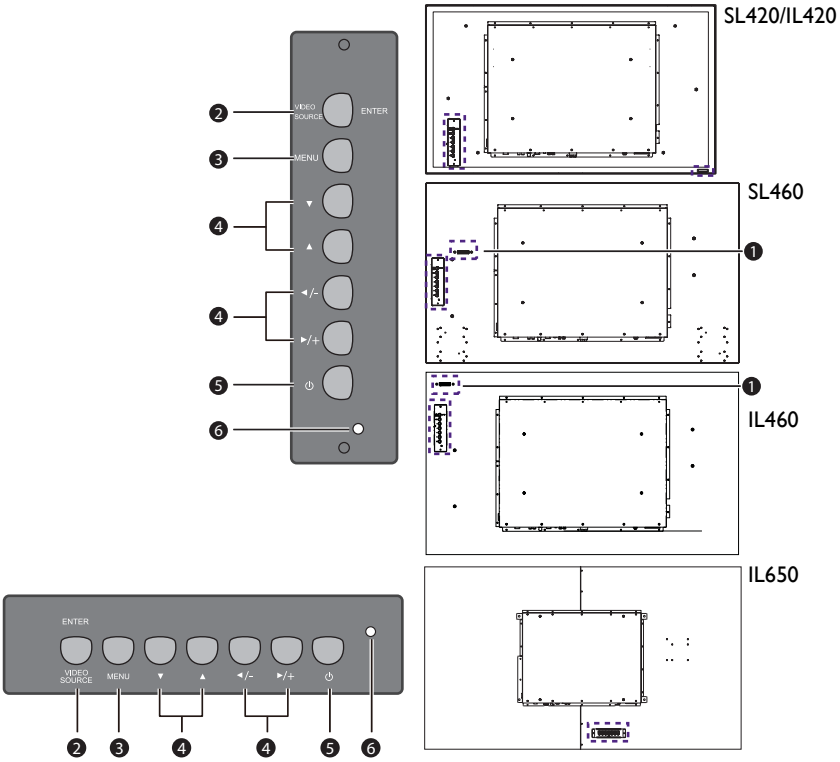
The IL Series displays are not suggested for flip table application (long time usage as horizontal position).

Parts of the display and their functions

Front panel

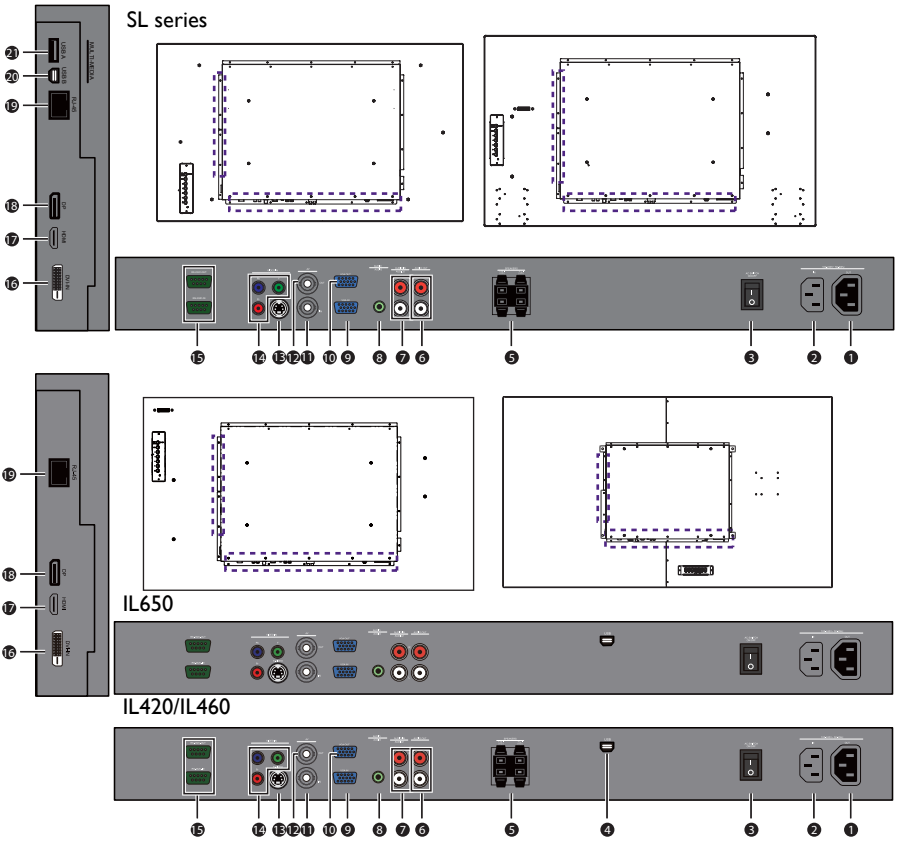


Rear panel



No.	Name	Description
1	 Remote control sensor / Ambient light sensor / Power indicator	• Receives command signals from the remote control. • Detects ambient lighting conditions around the display and adjusts screen brightness automatically when the Ambient Light Sensor function is activated. • Indicates the operating status of the display: - Lights up green when the power is turned on. - Lights up red when the display is turned off. - Lights up red when the display is in **Power Save High** mode. - Flashes red when the display is in **Power Save Low** mode. - Off when the main power is turned off.
2	**ENTER/VIDEO SOURCE**	• Selects a video source. • Confirms your selection or enters a submenu in the On-Screen Display (OSD) menu.
3	**MENU**	Opens or closes the OSD menu.
4	▼, ▲, ◀ /-, ▶ /+	• Scrolls through settings and options in the OSD menu. • ◀ /-, ▶ /+: Hot keys for audio volume adjustment.
5	Power button	Turns the display on or off.
6	Power indicator	Indicates the power status of the display: - Lights up green when the power is turned on. - Lights up red when the display is turned off. - Lights up red when the display is in **Power Save High** mode. - Flashes red when the display is in **Power Save Low** mode. - Off when the main power is turned off.

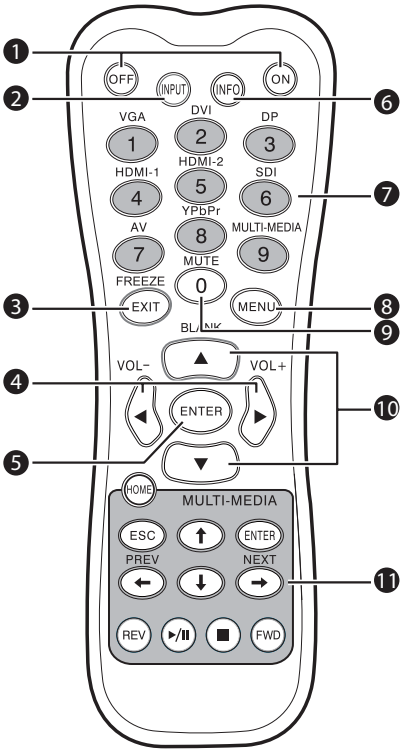
Input/output terminals



No.	Name	Description
1	**AC OUT**	Relays the AC power from the **AC IN** jack to another display.
2	**AC IN**	Connects to a power outlet via the supplied power cord.
3	**AC SWITCH ON/ OFF**	Turns on or off the main power.
4	**USB** (IL series only)	Connects the USB cable from the display to a computer to use the touch module.
5	**SPEAKERS (R/L)** (Not for the IL650)	Outputs audio signals to external speakers.
6	**AUDIO OUT (R/L)**	Outputs audio signals to an external device.
7	**AUDIO IN (AUDIO2)**	Receives audio signals from an external device (such as a VCR or DVD player).
8	**AUDIO IN (AUDIO1)**	Receives audio signals from an external device (such as a computer).

9	**VGA IN**	Receives analog RGB signals from an external device (such as a computer).
10	**VGA OUT**	Outputs analog RGB signals from the **VGA IN** input to another display.
11	**AV IN**	Receives composite video signals from an external device (such as a VCR or DVD player).
12	**AV OUT**	Outputs composite video signals from the **AV IN** input to another display.
13	**VIDEO IN (S-VIDEO)**	Receives S-Video signals from an external device (such as a VCR or DVD player).
14	**VIDEO IN (YPbPr)**	Receives component video (YPbPr) signals from an external device (such as a DVD player, HDTV device or Laser disc player).
15	**RS232C IN/OUT**	For external control and multi-display operation. • **RS232C IN**: receives control signals from a computer or another display. • **RS232C OUT**: outputs control signals from the **RS232C IN** input to another display.
16	**DVI-IN**	Receives DVI signals from an external device (such as a computer).
17	**HDMI**	Receives HDMI signals from an external device (such as a Blu-ray disc player).
18	**DISPLAY PORT**	Connects to a DisplayPort compatible device.
19	**RJ-45**	Connects to the RJ-45 port on your Ethernet or router.
20	**USB B** (Mini B) (SL series only)	Connects to a computer for USB display.
21	**USB A** (Type A) (SL series only)	Connects to a USB flash drive or WiFi dongle.

Remote control



1 ON/OFF

Turns the display on or off.

2 INPUT

Selects an input source.

3 EXIT/FREEZE

- Returns to the previous menu or closes the OSD menu when the OSD menu is on.
- Freezes the image when the OSD menu is off. Press this button again or press **MENU** to resume normal display.

4 ◂ / VOL- / ▸ / VOL+

- Scrolls through settings and options in the OSD menu.
- Turns down/up the volume.

5 ENTER

Confirms your selection or save changes.

6 INFO

Shows the current input source and resolution.

7 Numeric buttons (1-9) /Input source buttons

- Performs as numeric buttons when the OSD menu is on.
- Performs as input source buttons when the OSD menu is off.

- The **HDMI-2** and **SDI** functions are not available with this display.
- The **MULTI-MEDIA** function is only available with the SL series.

8 MENU

Opens or closes the OSD menu.

9 Numeric button (0)/MUTE

- Performs as a numeric button when the OSD menu is on.
- Turns on or off the mute function.

10 ▲ BLANK/▼

- Scrolls through settings and options in the OSD menu when the OSD menu is on.
- Hides the image (the screen becomes blank) when the OSD menu is off. Press this button again or press **MENU** to resume normal display.

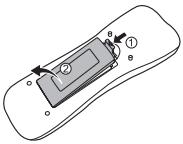
11 MULTI-MEDIA buttons

(SL series only) See Multimedia OSD operation on page 48 for details.

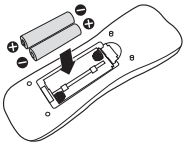
(IL series only) The button functions are not available with the display.

Using the remote control

Installing remote control batteries

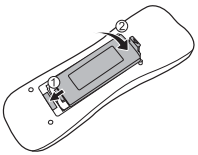


1. Open the remote control battery compartment cover.



2. Insert the supplied batteries ensuring that the positive and negative marked battery terminals match the (+) and (-) marks in the battery compartment.

The supplied batteries are provided for your convenience so that you can operate the display straight away. You should replace them as soon as possible.

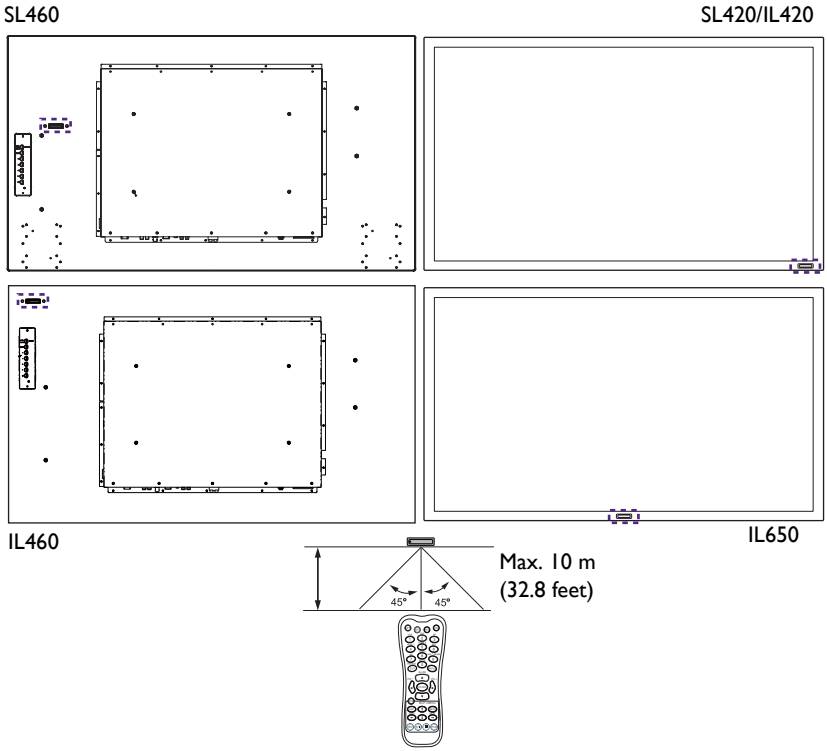


3. Refit the battery compartment cover.

Remote control usage tips

- Point and aim the top front of the remote control directly at the display's remote control sensor window when you press the buttons.
- Do not let the remote control become wet or place it in humid environments (like bathrooms).
- If the display's remote control sensor window is exposed to direct sunlight or strong light, the remote control may not operate properly. In this situation, change the light

source, readjust the angle of the display or operate the remote control from a location closer to display's remote control sensor window.



Connection

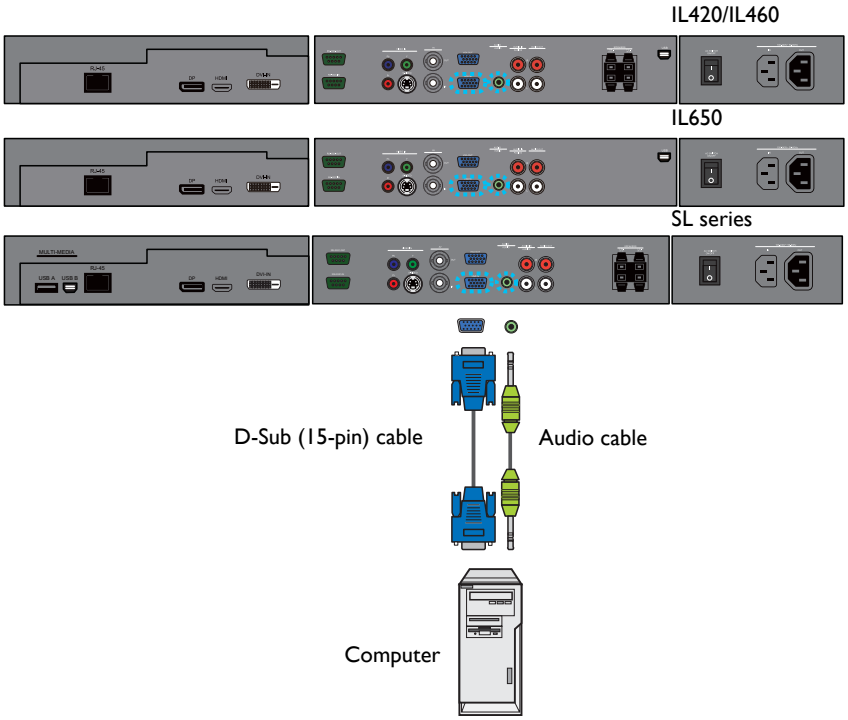
Connecting audio/video signals

Pay attention to the following notes when you connect cables:

- Please turn off all devices.
- Familiarize yourself with the audio/video ports on the display and the devices you want to use. Be aware that incorrect connections may adversely affect picture quality.
- Do not remove cables from the ports by pulling the cable itself. Always grasp and pull the connectors at the end of the cable.
- Ensure that all cables are fully inserted and firmly seated.

Connecting the VGA input

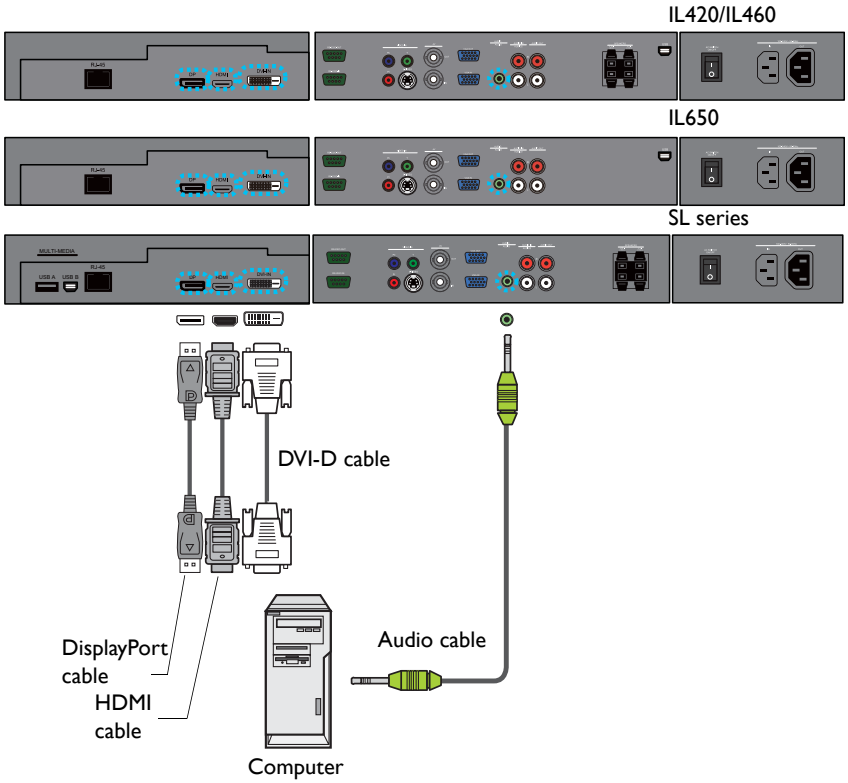
1. Connect the **VGA IN** jack on the display to the VGA output jack on a computer using a D-Sub (15-pin) cable.
2. Connect the computer's audio output jack to the **AUDIO IN (AUDIO1)** jack on the display using a suitable audio cable.
3. To view images from this input, press the **VGA** button on the remote control. To select an appropriate audio source, see Audio Source on page 40 for details.



The audio cable is not supplied and should be purchased separately.

Connecting the digital inputs

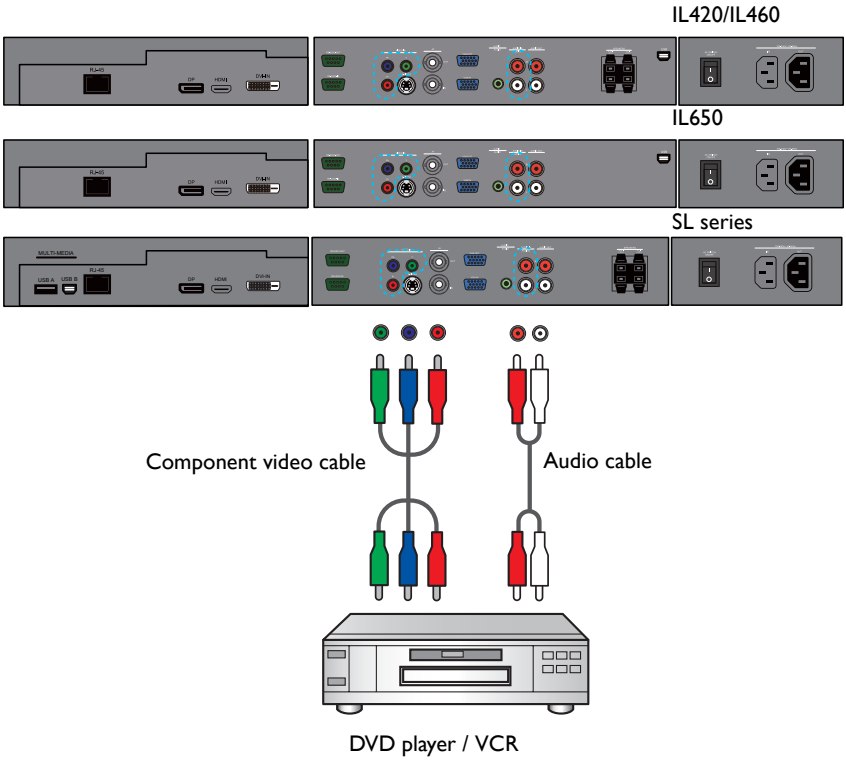
1. Connect the **DVI-IN** jack on the display to the DVI-D output jack on a computer using a DVI-D cable. If the computer has an HDMI output jack, connect the computer's HDMI output jack to the **DISPLAY PORT/HDMI** input jack on the display using an HDMI cable or a DVI-D to HDMI conversion cable.
2. If needed, connect the computer's audio output jack to the **AUDIO IN (AUDIO1)** jack on the display using a suitable audio cable.
3. To view video image from this input, press the **DVI** or **DP/HDMI-1** button on the remote control. To select an appropriate audio source, see Audio Source on page 40 for details.



The cables are not supplied and should be purchased separately.

Connecting the YPbPr component video input

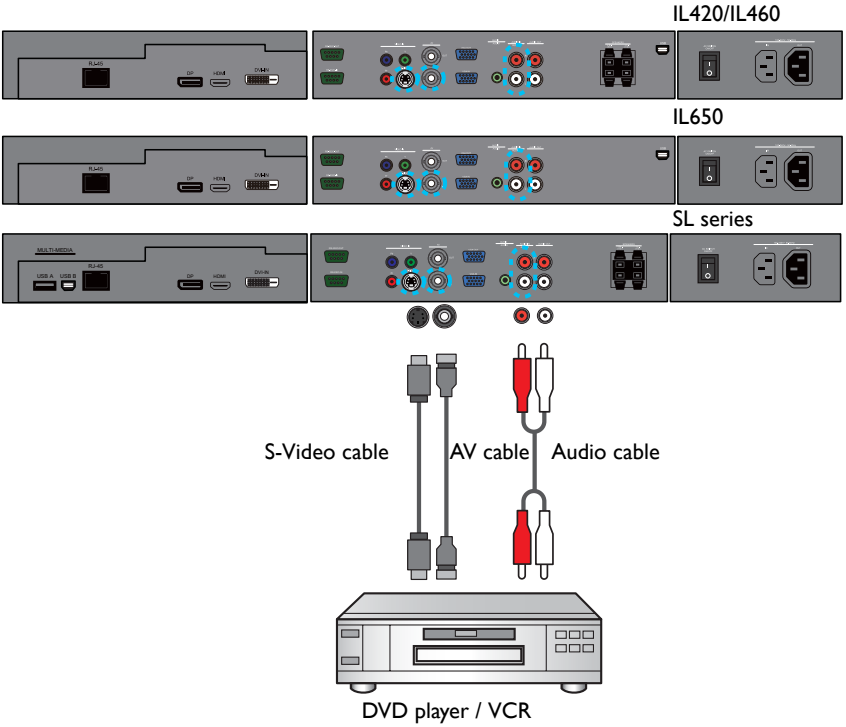
1. Connect the **VIDEO IN (YPbPr)** jacks on the display to the component output jacks on an A/V device (such as a VCR or DVD player) using a component video cable.
2. Connect the DVD player's audio output jacks to the **AUDIO IN (AUDIO2)** jacks on the display using a suitable audio cable.
3. To view video image from this input, press the **YPbPr** button on the remote control. To select an appropriate audio source, see Audio Source on page 40 for details.



The cables are not supplied and should be purchased separately.

Connecting the AV and S-Video inputs

1. Connect the **VIDEO IN (S-VIDEO)** or **AV IN** jack on the display to the output jack on an A/V device (such as a VCR) using an appropriate video cable.
2. Connect the VCR's audio output jacks to the **AUDIO IN** jacks on the display using a suitable audio cable.
3. To view video image from this input, press the **AV** button on the remote control for the AV signal, or press the **INPUT** button repeatedly for the S-Video signal. To select an appropriate audio source, see Audio Source on page 40 for details.



The cables are not supplied and should be purchased separately.

Connecting the multimedia inputs (SL series only)

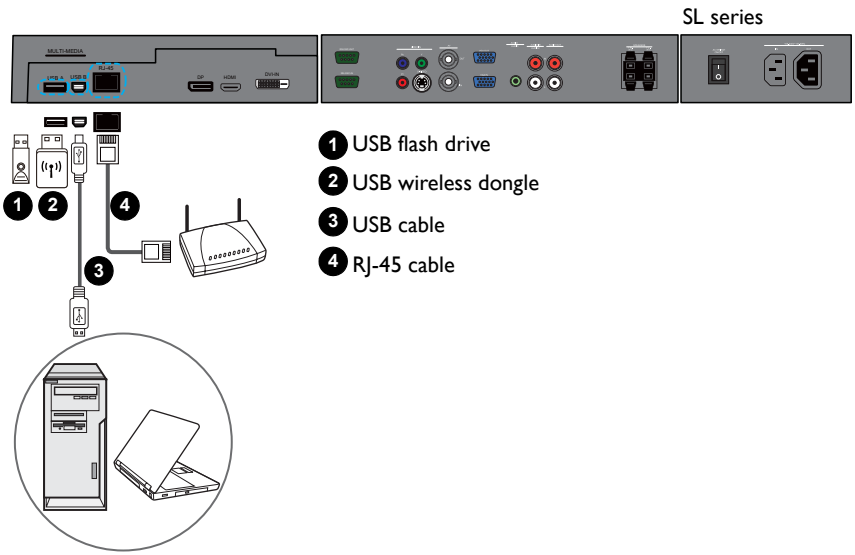
To connect to a network, do one of the following steps.

- Take a RJ-45 cable and connect one end to the **RJ-45** jack on the display and the other end to the RJ-45 port on your Ethernet or router.
- Plug a wireless dongle to the **USB A** jack.

To connect to a computer directly:

Take a USB cable, connect the mini B plug to the **USB B** jack on the display and the type A plug to a computer.

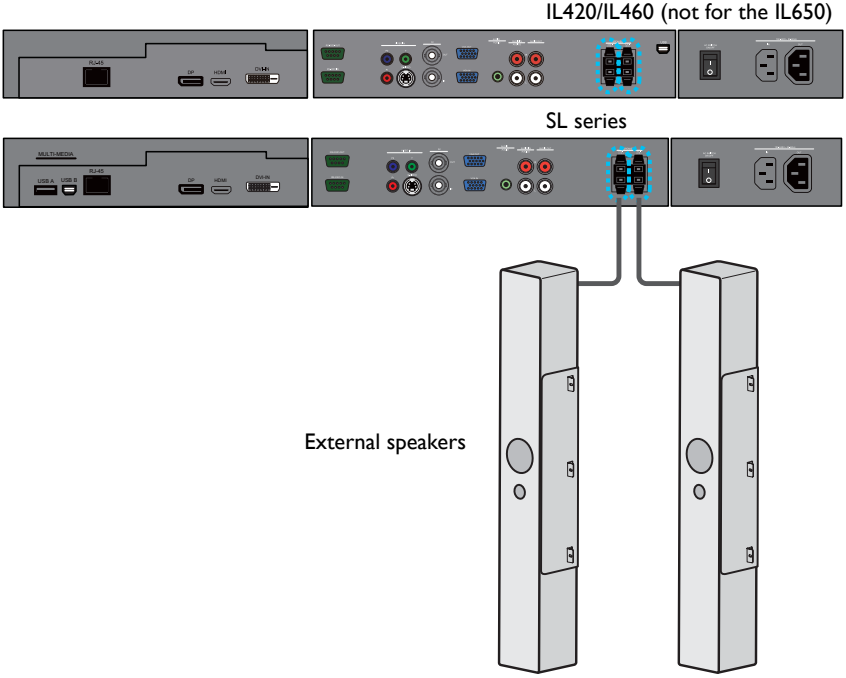
To view video image from the input, press **MULTI-MEDIA** on the remote control or select **MULTI-MEDIA** from the source selection bar to access the multimedia OSD system. See the Multimedia OSD operation on page 48 for details.



The cables are not supplied and should be purchased separately.

Connecting external speakers (not for the IL650)

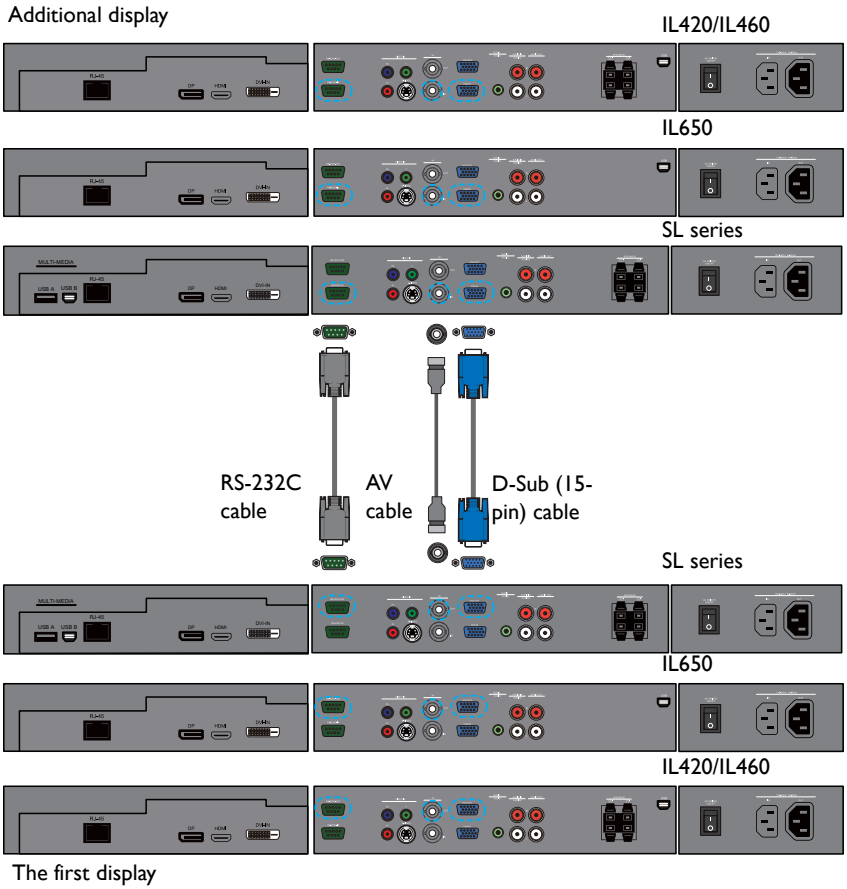
The built-in amplifier on the display allows you to output audio signals through external speakers. Connect external speakers to the **SPEAKERS (R/L)** jacks on the display.



You can use the remote control or the control panel on the display to adjust the volume.

Connecting multiple displays

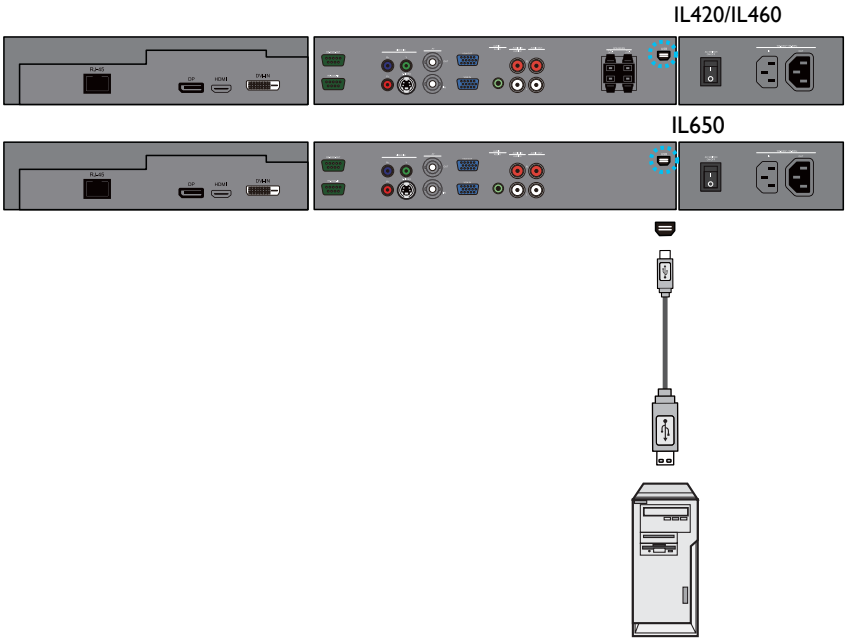
You can connect multiple displays serially (daisy chain) to a computer for management. The number of displays you can connect serially depends on the resolution of the input signal you use.



- This RS-232C daisy chain application requires an RS-232C port equipped computer.
- Use RS-232C serial null modem cables for daisy chain application.
- Avoid using HDCP source for daisy chain application

Connecting the touch module (IL series only)

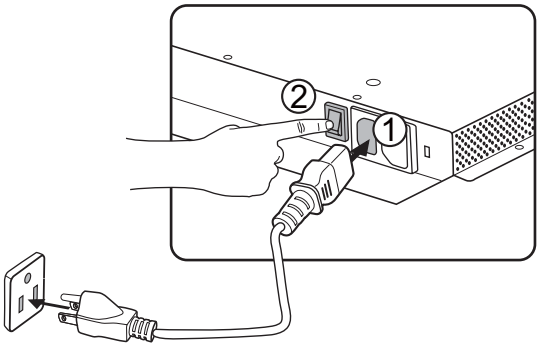
Connect the **USB** (type B) jack on the display to the USB port of a computer using the supplied USB cable. The touch module of the display supports easy Plug-and-Play operation. There is no need to install additional drivers on the computer.



- Avoid blocking the touch screen frame (where sensors are located) when initiating the touch module.
- It is highly recommended that you connect the display to the PC or laptop directly. Avoid connecting the display to a face plate device which may cause failures in touch operations.
- If any ghost image occurs, please try to un-plug and then re-plug all USB cables. If the failure image still exists, use another USB type B to A cable.

Connecting power

1. Plug one end of the power cord into the **AC IN** jack on the display and the other end into an appropriate power outlet (if the outlet is switched, turn on the switch).
2. Press the power switch to turn on the main power.

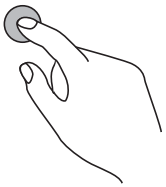
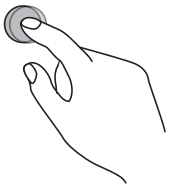
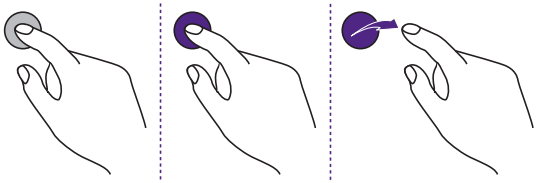
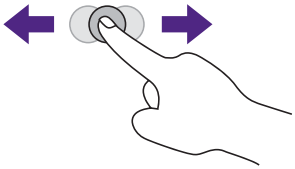


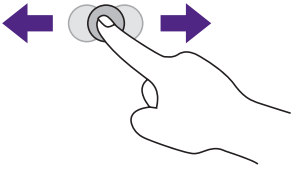
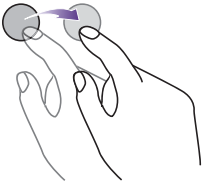
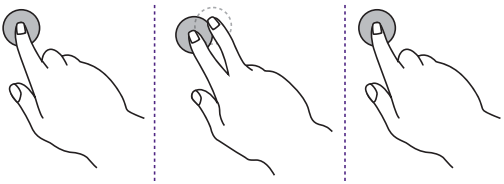
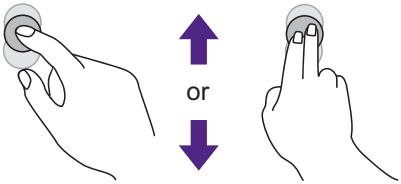
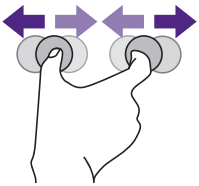
- The supplied power cord is suitable for use with 110-240V AC power only.
- The power cord and outlet illustrated may differ from the ones used in your region.
- Only use an appropriate power cord for your region. Never use a power cord which appears damaged or frayed, or change the plug type on the power cord.
- Be aware of the power loading when you use extension cords or multiple outlet power boards.
- There are no user serviceable parts in this display. Never unscrew or remove any covers. There are dangerous voltages inside the display. Turn off the power and unplug the power cord if you intend to move the display.

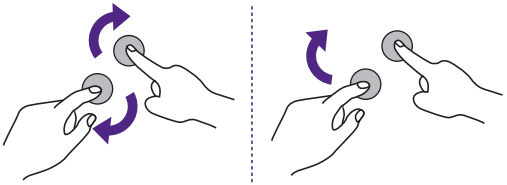
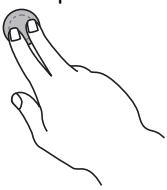
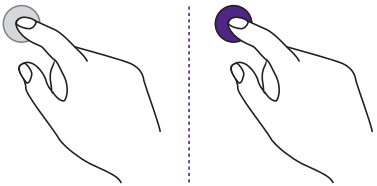
Using the touch screen (IL series only)

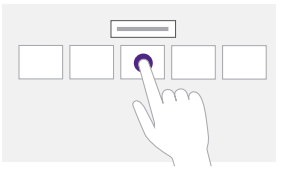
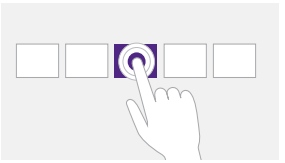
You can use the optical touch screen to control your operating system. The touch screen can emulate basic mouse functions and supports multi-touch functions for Windows 7/ 8*. The following table shows a list of gestures you can use on the touch screen.

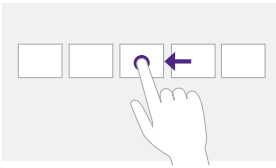
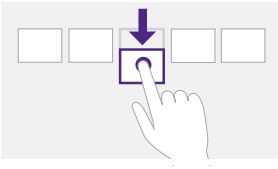
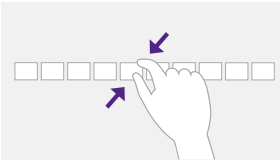
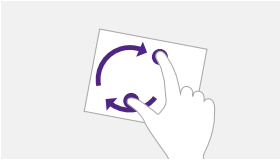
- Ensure that you have installed the USB cable on the display to a computer.
- *Multi-touch functions are only supported by Windows 8, Windows 7 - Home Premium, Professional, Enterprise and Ultimate versions. For Windows XP, Windows Vista and Windows 7 - Starter and Home Basic versions, multi-touch is not supported.
- Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

OS functions	Gesture actions
For Windows XP, Windows Vista and Windows 7	
Click	Tap the screen once. 
Double-click	Tap the screen twice. 
Right-click	1. Press on the target. 2. Hold and wait for a blue ring to appear. 3. Release your finger. 
Drag	Drag one finger left or right. 

OS functions	Gesture actions
For Windows Vista and Windows 7	
Selection	Drag one finger left or right. 
Pan up / Pan down / Back / Forward	Quickly drag your finger (Flick) in a desired direction. 
Multi-touch functions For Windows 7 - Home Premium, Professional, Enterprise and Ultimate versions	
Right-click	1. Press on the target. 2. Tap the screen with another finger. 3. Release the second finger. 
Scrolling	Drag one or two fingers up or down. 
Zoom	Move two fingers apart or toward each other. 

OS functions	Gesture actions
Supported by specific applications	• Move two fingers in opposing directions. • Use one finger to pivot around another. 
Supported by specific applications	Tap two fingers simultaneously. The target should be the midpoint between the fingers. 
For Windows XP, Windows Vista and Windows 7	
Wakeup from Windows sleep mode (S3)	Press and hold for 4 seconds. 

Gesture	Description
For Windows 8	
	Press and hold to learn This touch interaction causes detailed information or teaching visuals (for example, a tooltip or context menu) to be displayed without a commitment to an action. Anything displayed this way should not prevent users from panning if they begin sliding their finger.
	Tap for primary action Tapping on an element invokes its primary action, for instance launching an application or executing a command.

Gesture	Description
	Slide to pan Slide is primarily used for panning interactions but can also be used for moving, drawing or writing. Slide can also be used to target small, densely packed elements by scrubbing (sliding the finger over related objects such as radio buttons).
	Swipe to select, command, and move Sliding the finger a short distance, perpendicular to the panning direction, selects objects in a list or grid (ListView and GridLayout controls). Display the AppBar with relevant commands when objects are selected.
	Pinch and stretch to zoom While the pinch and stretch gestures are commonly used for resizing, they also enable jumping to the beginning, end, or anywhere within content with Semantic Zoom. A SemanticZoom control provides a zoomed out view for showing groups of items and quick ways to dive back into them.
	Turn to rotate Rotating with two or more fingers causes an object to rotate.

Supported operating systems

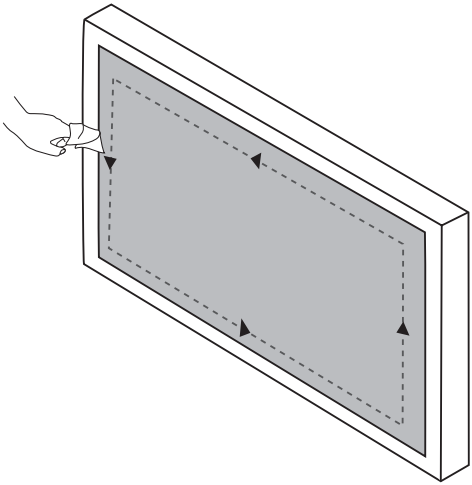
OS	IL420/IL460/IL550	IL650
Windows	6 touch points (plug & play) • Windows XP • Windows 7 • Windows 8	2 touch points (plug & play) • Windows 2000, Windows XP, Windows Vista • Windows 7 • Windows 8
Mac	6 touch points (with driver installation) • 10.7 (Lion) • 10.8 (Mountain Lion)	2 touch points (with driver installation) • 10.4, 10.5, 10.6 • 10.7 (Lion)
Linux	6 touch points (with driver installation) • Fedora 15 • Ubunto 12.10	1 touch point (with driver installation) • Linux kernel version 3.9.2 • X-Window version 1.13 & previous

If driver installation is required, visit local website from www.BenQ.com for the appropriate driver files.

Important instructions for using the touch screen

Please clean the frame when there is sign of malfunction on the touch screen.

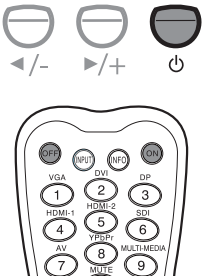
- Before you clean the screen, make sure the display is turned off, and unplug the power cord.
- Remove dust or dirt from the screen and the infrared plastic filter periodically. It is suggested using a small amount of alcohol to clean the infrared plastic filter.
- To avoid damage to the screen, never use any type of abrasive materials to wipe the screen.
- Use a neutral detergent to clean the touch screen. Avoid using detergents with erosive substance, such as banana oil or ammonia.
- Moisten a clean, soft, lint-free cloth with a neutral detergent and then clean the touch screen.
- Do not spray a detergent on the screen surface or the body directly. It may result in a short circuit to the touch screen.
- Keep the touch screen out of direct sunlight or spotlights.



Basic operations

Turning the display on or off

To turn on or off the display, press the power button on the display's control panel or on the remote control.



- The display's standby mode still consumes power. To completely cut off power supply, set the power switch to the off position or disconnect the power cord from the power outlet.
- The display follows the VESA approved DPM Power Management function. The power management function is an energy saving feature that automatically reduces the display's power consumption when the keyboard or the mouse has not been used for a fixed period.

Locking/unlocking the controls

You can lock/unlock the control panel to prevent unwanted or accidental operations.

• Control panel buttons

To lock/unlock the control panel buttons, press and hold ◄ /- and ► /+ on the control panel simultaneously for 5 seconds. Once locked, the control panel buttons do not function unless unlocked.

• Remote control (IR) functions

To lock/unlock the remote control (IR) functions, press and hold **MENU** and ◄ /- on the control panel for 5 seconds. Once locked, the display does not respond to any remote control operations unless unlocked.

To lock/unlock both the control panel and remote control buttons, press ▼ for 5 seconds, and then **ENTER** on the remote control. Once locked, the control panel and remote control buttons do not function unless unlocked.

Switching input signals

Press the **INPUT** button or those signal selection buttons on the remote control or the **INPUT** button on the control panel to select an input signal.

Adjusting audio volume level

Press ◄ /- or ► /+ on the control panel or **VOL+/VOL-** on the remote control to adjust the volume.

Network connection

Connecting to a LAN

To set the display to connect to a local area network:

1. Connect a RJ45 cable to the corresponding ports on the display and your LAN switch or router.
2. Enter the OSD menu **Setting** > **Control Setting**. Select **LAN**.
3. Enter the next OSD menu **Setting** > **Network Settings**.
   If you are in a DHCP environment, select **DHCP** > **Execute** and press **ENTER**. Once done, the **IP Address**, **Subnet Mask**, **Default Gateway**, **Primary DNS**, and **Secondary DNS** settings will be displayed.
   If you are not in a DHCP environment, select **Manual** > **Execute** and press **ENTER**. Contact your ITS administrator for information on the **IP Address**, **Subnet Mask**, **Default Gateway**, **Primary DNS**, and **Secondary DNS** settings and enter it accordingly.
4. To save the settings and return to the previous menu, highlight **Execute** and press **ENTER** on the remote control.

Controlling the display

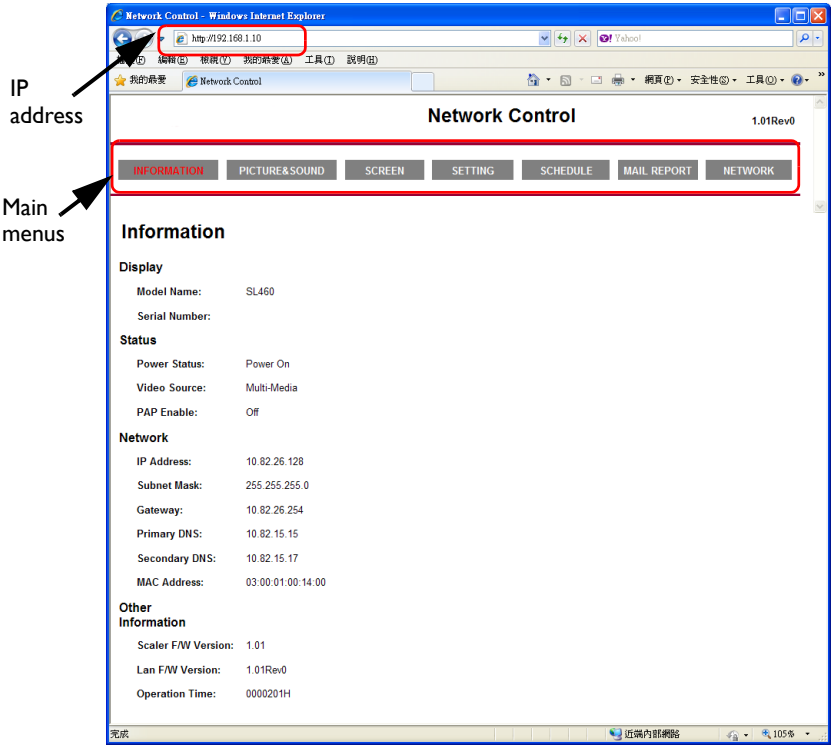
Once you have the correct IP address for your display and the display is on or in standby mode, you can use any computer that is on the same local area network to control the display.

- You cannot control the display via the RS-232C connector when LAN control is in use.
- It is recommended that you use Internet Explorer versions 7.0 or higher browser.

1. Enter the IP address of the display in the address bar of your browser and press Enter.
2. The setting page appears.

- **INFORMATION**: Shows information of the display. It is for information only. There are no items that can be set.
- **PICTURE & SOUND**: Provides options for picture and sound adjustments.
- **SCREEN**: Provides options related to display adjustments.
- **SETTING**: Provides options for advanced display adjustments.
- **MAIL REPORT**: Provides options for setting up email accounts to receive status or error reports sent from the display.
- **NETWORK**: Provides options for manually setting the display's IP address or obtaining an IP address from a DHCP server.

Make sure the **Setting** > **Control Setting** menu is set to **LAN**, and the **Setting** > **Power Save** menu is set to **Low** or **Off** if you would like to turn on the display from a web page.


IP address
Main menus
Network Control - Windows Internet Explorer
http://192.168.1.10
Network Control
Network Control
1.01Rev0
INFORMATION
PICTURE&SOUND
SCREEN
SETTING
SCHEDULE
MAIL REPORT
NETWORK
Information
Display
Model Name: SL460
Serial Number:
Status
Power Status: Power On
Video Source: Multi-Media
PAP Enable: Off
Network
IP Address: 10.82.26.128
Subnet Mask: 255.255.255.0
Gateway: 10.82.26.254
Primary DNS: 10.82.15.15
Secondary DNS: 10.82.15.17
MAC Address: 03:00:01:00:14:00
Other Information
Scaler F/W Version: 1.01
Lan F/W Version: 1.01Rev0
Operation Time: 0000201H

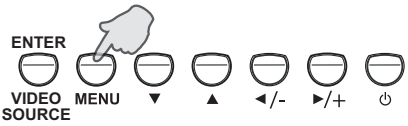
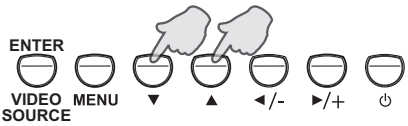
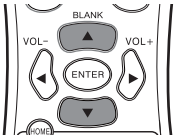
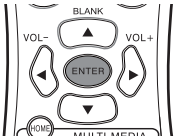
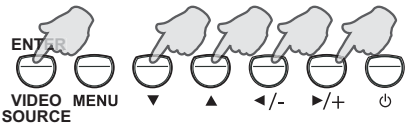
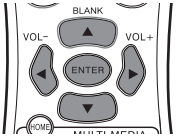
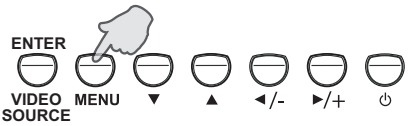
The OSD (On-Screen Display) menu

OSD menu overview

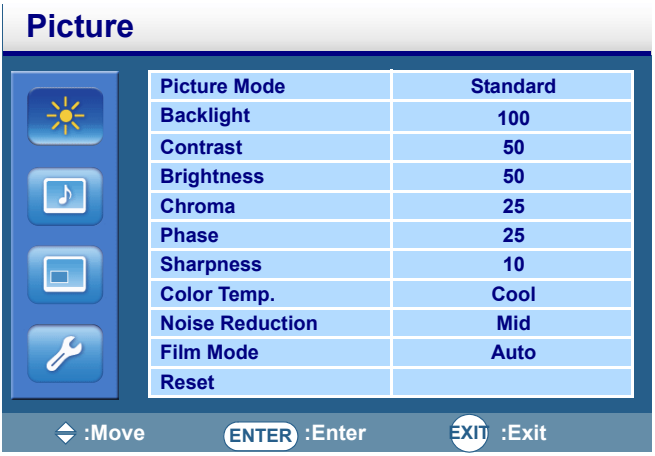
Menu name	Options/functions	See page
Picture	• **Picture Mode** • **Backlight** • **Contrast** • **Brightness** • **Chroma** • **Phase** • **Sharpness** • **Color Temp.** • **Noise Reduction** • **Film Mode** • **Reset**	39
Sound	• **Sound Mode** • **Treble** • **Bass** • **Balance** • **Surround** • **Speaker** • **Audio Source** • **Reset**	40
Screen	• **PAP Setting** • **Display Wall** • **Aspect** • **Adjust Screen** • **Freeze** • **Touch Feature**	41
Setting	• **Language** • **Schedule** • **Power Save** • **Control Setting** • **Network Settings** • **Set Monitor ID** • **HDMI Control** • **Advanced** • **Information** • **All Reset**	45

Some options are only available when a certain input signal source is selected.

Operations in the OSD menu

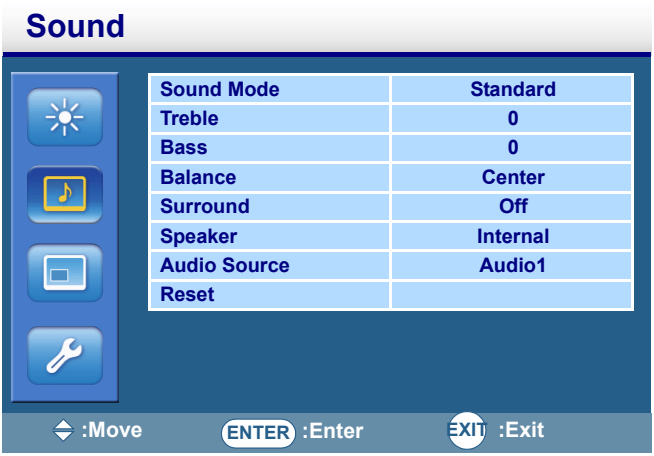
Using the control panel buttons	Using the remote control
1. Press **MENU** to open the OSD menu. 	1. Press **MENU** to open the OSD menu. 
2. In the OSD menu, press ▲ or ▼ to select an item. 	2. Press ▲ or ▼ to select an item. 
3. Press **ENTER/VIDEO SOURCE** to confirm selections. 	3. Press **ENTER** to confirm selections. 
4. Press ▲ or ▼ to select a feature and press ◄ or ► to adjust settings. Press **ENTER/VIDEO SOURCE** to save changes. 	4. Press ▲ and ▼ to select a feature and press ◄ or ► to adjust settings. Press **ENTER** to confirm changes. 
5. Press **MENU** to close the OSD menu. 	5. Press **MENU** to close the OSD menu. 

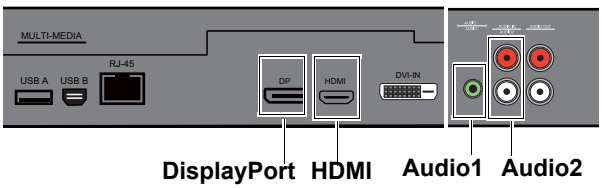
Picture menu



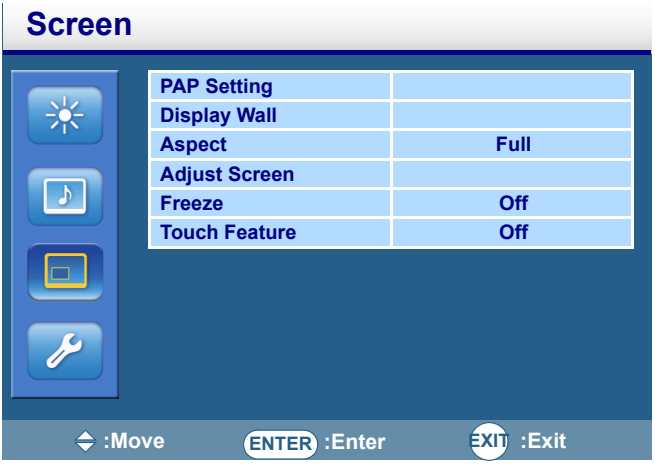
Name	Description
Picture Mode	Sets the display mode.
Backlight	Adjusts the backlight intensity for the screen. This feature is not available if the **Ambient Light Sensor** or **Adaptive Contrast** function is set to **On**.
Contrast	Adjusts the image contrast.
Brightness	Adjusts the image brightness.
Chroma	Adjusts the color intensity of the image.
Phase	Adjusts the color tint of the image.
Sharpness	Adjusts the image sharpness.
Color Temp.	Adjusts the color temperature.
Noise Reduction	Reduces electrical image noise caused by different media players.
Film Mode	Optimizes the screen display automatically by detecting picture content and applying a reverse 3-2 or 2-2 pull-down process. The picture will be clearer and more natural. • This function is not available when displaying Picture and Picture (**PAP**). • This function may not be correctly processed depending on the input signal.
Reset	Resets all settings in the **Picture** menu.

Sound menu



Name	Description
Sound Mode	Adjusts the sound output from the speakers. **Dynamic**: Enhances treble and bass. **Standard**: Flat settings. **Custom**: Recalls the customized settings.
Treble	Adjusts the audio treble.
Bass	Adjusts the audio bass.
Balance	Adjusts the audio balance.
Surround	Turns the surround mode on or off.
Speaker	Sets the audio source. **Line-out**: Selects the audio output source from **AUDIO OUT (R/L)** on the rear connector panel. **External** (Not for the IL650): Selects the audio output source from **SPEAKERS (R/L)** on the rear connector panel. **Internal**: Select the audio output source from the internal speakers.
Audio Source	Sets the audio input source.  **Multi-Media** (SL series only): The audio source is from the built-in multi-media board.
Reset	Resets all settings in the **Sound** menu.

Screen menu



Name	Description
PAP Setting (Picture and Picture)	• **PAP:** Turns on or off the PIP (Picture in Picture) and PBP (Picture by Picture) functions. • **Active Picture**: For the PIP, selects the main or sub picture to operate. For the PBP, selects the left or right picture to operate. Swaps the main/sub or left/right pictures. • **Picture Size**: Changes the size of the sub picture.

PIP mode

	Aspect Ratio			
	4:3		16:9	
	Width	Height	Width	Height
Small	304	225	400	225
Large	456	338	600	338

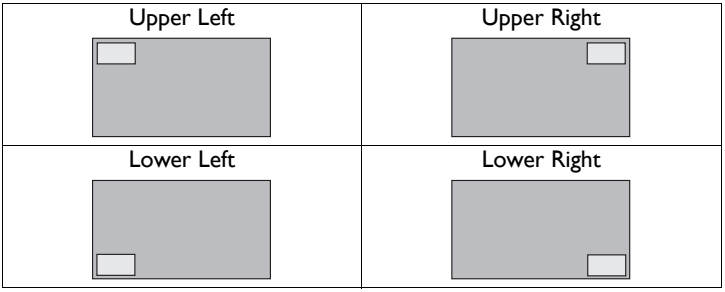
Unit: pixel

- In PIP mode, when the aspect ratio of the sub picture's source signal is 4:3 and its Aspect setting is set to Full 1 or Real, the aspect ratio of the sub picture will be 4:3.
- In PBP mode, the aspect ratio of the sub picture is fixed as 16:9 regardless of the Aspect setting.

PBP mode

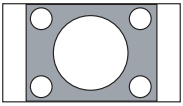
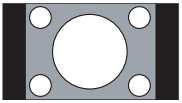
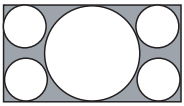
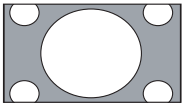
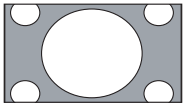
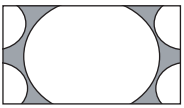
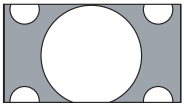
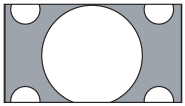
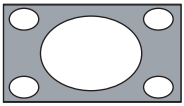
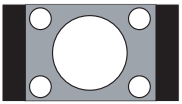
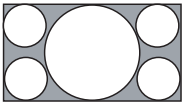
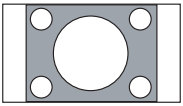
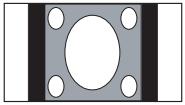
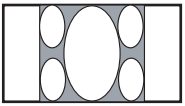
	Aspect Ratio = 16:9 (fixed)	
	Width	Height
Size = 0	747	267
Size = 1	542	305
Size = 2	612	344
Size = 3	680	382
Size = 4	748	421
Size = 5	816	459
Size = 6	886	498
Size = 7	954	537
Size = 8	1022	575
Size = 9	1092	614
Size = 10	1160	652
Size = 11	1228	691
Size = 12	1296	729
Size = 13	1366	768
Size = 14	1434	807

Unit: pixel

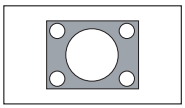
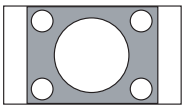
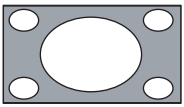
PAP Setting (continued)	• **Picture Position**: (PIP only) Changes the position of the sub picture.  • PAP is not available for all signal source combinations. See Supported PAP input signal combination on page 77 for more information on supported combinations. • In PAP mode, only sound from the active picture will be available.
Display Wall	• **H. Monitors/V. Monitors**: Sets the number of displays used in the horizontal/vertical direction. • **H. Position/V. Position**: Sets the horizontal/vertical position of the display wall matrix. • **Frame Comp.**: Adjusts images near the display edges for optimal demonstration across the display wall. • **LED**: Turns the power indicator on the display on or off. • **Power On Delay**: Choose to enable or disable a sequence in turning on the screen matrix. If enabled, the display will turn on with a maximum of 10-second delay.
Aspect	Sets the picture's aspect ratio. • **Wide Zoom**: Enlarges to fill screen with minimum distortion. • **Zoom**: Enlarges the picture, keeping the same aspect ratio. • **Full**: Enlarges the picture horizontally to fill the screen when the picture source is 4:3 (Standard definition). When the picture source is 16:9 (High definition), it displays in the same 16:9 aspect ratio. • **4:3**: Displays all picture source in 4:3 aspect ratio. • **Full 1**: Enlarges the picture to fill the screen in the vertical direction, keeping the same aspect ratio. A black frame may appear around the picture. • **Full 2**: Enlarges the picture to fill the screen. • **Real**: Displays the picture in its original number of dots.

Aspect (continued)

For video signal inputs

4:3 original source	16:9 Original source	
		
Wide Zoom 	**Wide Zoom** 	
Zoom 	**Zoom** 	
Full 	**Full** 	
4:3 	**4:3** 	

For PC signal input

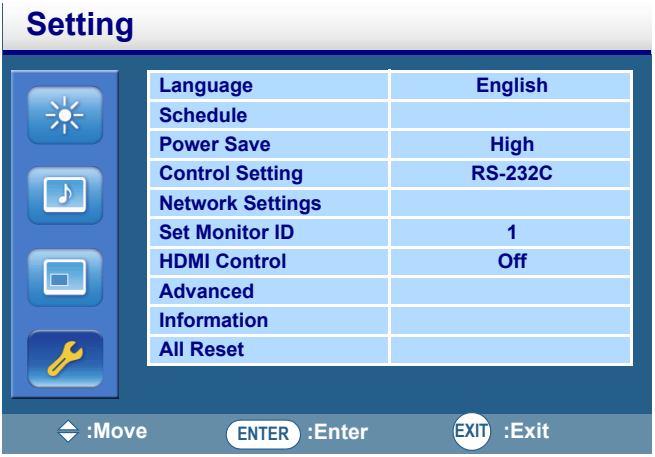
Real	Full 1	Full 2
		

Adjust Screen

- **Auto Adjustment**: Sets whether to optimize image display for each **VGA** input.
- **Phase**: Adjusts the phase of the **VGA** input image.
- **Clock Frequency**: Adjusts the clock frequency of the **VGA** input image.
- **H. Position**: Adjusts the horizontal position of the **VGA** input image.
- **V. Position**: Adjusts the vertical position of the **VGA** input image.

Freeze	Select **On** to freeze the displayed image. To resume normal image display, select **Off**.  You can also press **FREEZE** on the remote control to freeze or unfreeze the image.
Touch Feature	When turned on, **Aspect**, **PIP**, **Overscan** and **Display Wall** will be disabled to optimize touch performance.  This feature is only available for **VGA**, **DVI** and **HDMI** inputs.

Setting menu



Name	Description
Language	Sets your preferred language for the OSD menu.
Schedule	• **Date and Time**: Sets the current date and time. • **Clock Display**: Sets whether to show the current time which was set. • **Input**: Sets an input source to display when the display is automatically turned on next time. • **On/Off Timer**: Sets when to turn on or off the display. • Set the current time before you set the **On/Off Timer**. • When schedule settings overlap, the **Every day** setting takes priority over other weekly settings.
Power Save	Sets the display to enter the power saving mode when there is no signal detected. • **Low**: All source can enter the power saving mode and wake up the display. • **High**: All source can enter the power saving mode, but only a VGA signal can wake up the display or you have to press the power button to wake up the display when other source is connected. • **Off**: If no source is detected, the backlight will continue on. • RS-232C can bring any mode out of the power saving status. • On **Power Save** setting **High**, the LAN function is not available if the monitor enters **Power Save**, or DC off mode.

Control Setting	• **RS-232C/LAN**: Sets a terminal to control the display. • **IR Passthrough**: Select it when multiple displays are connected via RS-232C cables. - **Primary**: Designate the display as the primary unit for remote control operation. Only this display will be operated by the remote control. - **Secondary**: Designate the display as the secondary unit. The display can not be operated by the remote control, and will only receive the control signal from the primary display via the RS-232 connection. To go back to the default setting (**RS-232C**) for **Control Setting**, press **INFO** on the remote control for 5 seconds.
Network Settings	See Network connection on page 35 for details.
Set Monitor ID	Assigns an ID number for the current display when multiple displays are connected. For use when under the RS-232C control mode.
HDMI Control	Uses the HDMI CEC (Consumer Electronics Control) industry standard protocol to share functionality between connected devices and the display. To transfer system commands, you need to use an HDMI cable to connect the display to a device equipped with HDMI CEC. Select **On** in this menu and you can operate the main functionalities on your display and the connected device with one remote control.
Advanced	• **Auto Search**: If turned **On**, the display automatically detects available input sources.. • **Auto Adjustment:** Automatically optimizes image display for the **VGA** input. • **Overscan**: Turns the overscan function on or off. • **RGB Signal**: Sets the type of signal for a piece of video equipment or PC connected to the HDMI of the display • **Anti Image Retention**: Automatically displays swift moving patterns to prevent image retention on the screen. • **OSD Rotation**: Adjusts the OSD rotation. See product specifications for models recommended for portrait orientation. Landscape only models operated in portrait mode may result in premature failure and will not be covered under the warranty. • **OSD Info Box**: When turned **On**, switching signal inputs, or changing timing, the display will show the current input source and resolution onscreen. Select **Off** to show the information box onscreen only when you press **INFO** on the remote control. • **Adaptive Contrast**: Turns the **Adaptive Contrast** function on or off. This feature enhances image contrast for dark scenes. This feature is not available if the **Ambient Light Sensor** function is set to **On**. • **Ambient Light Sensor**: When turned **On**, the image brightness will adjust automatically as the ambient lighting conditions change.

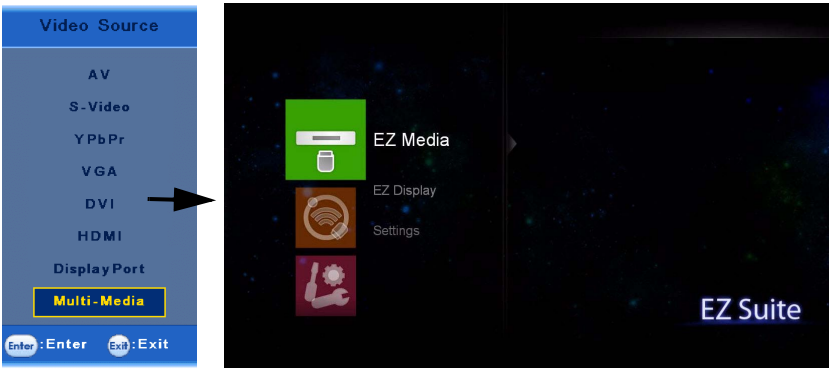
Information	Displays the following information of your display. • **Date** • **Model Name** • **Serial Number** • **Operating Time** • **Software Version** • **LAN Version** • **IP Address**
All Reset	Returns all settings to factory default values.

Multimedia OSD operation

The multimedia OSD system provides a variety of settings when the display is connecting to USB devices, wireless networks, or using the built-in storage device, etc.

To access the multimedia OSD system:

1. Make sure the display is correctly connecting to a multimedia device. See Connecting the multimedia inputs (SL series only) on page 24 for details.
2. Press **MULTI-MEDIA** on the remote control or select **MULTI-MEDIA** from the source selection bar to access the multimedia OSD system. The main page appears.



3. Select your desired menu to operate.

Multimedia buttons on the remote control

To operate the multimedia OSD system, use the buttons on the remote control.



No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Activates the selected menu item.
4	←/↑/↓/→ (PREV) (NEXT)	Directional arrows for selecting a desired item.
5	**REV**	Rewinds the video/audio clips.

6	▶/II	Plays/Pauses the video/audio clips.
7	■	Stops the video/audio clips.
8	**FWD**	Fast forwards the video/audio clips.

Viewing files

• Files on the built-in storage device

The display is built-in an approximate 3GB storage device. To transfer files to the display, you need to take a USB cable, connect the type A plug to your computer and connect the mini B plug to the display. Once connected, locate the Removable Disk on your computer. Select and drag the target files from your computer to the Removable Disk. Make sure the files are completely transferred to the display.

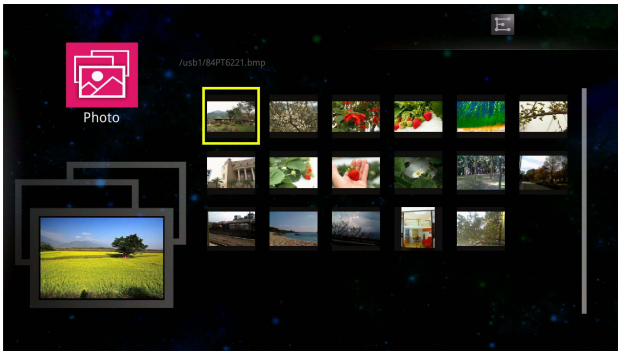
Go to the **EZ Media** > **Internal Memory** menu to view the files.

• Files on your USB flash drive

To view the files on your USB flash drive, simply plug your USB flash drive to the **USB A** jack on the display. Go to the **EZ Media** > **USB** menu to view the files.

You can view various types of files in **EZ Media** > **Internal Memory** or **EZ Media** > **USB** menu.

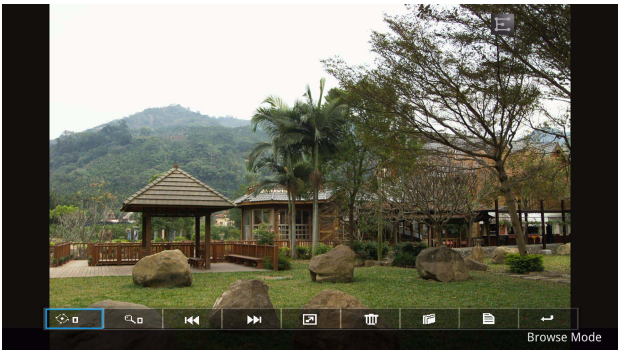
• **Photo**: Lists all the supported files in thumbnail view. Select the picture you want to display and perform the functions as provided on the screen according to your needs.



Remote control key function in thumbnail view

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Opens the selected photo.
4	←/↑/↓/→ (PREV) (NEXT)	Directional arrows for selecting a desired photo.
5	**REV**	N/A

6	▶/II	N/A
7	■	N/A
8	**FWD**	N/A

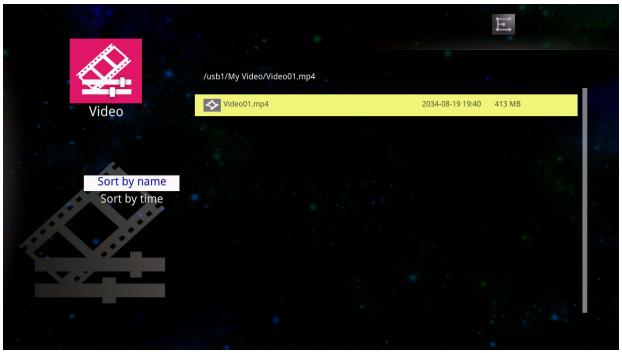


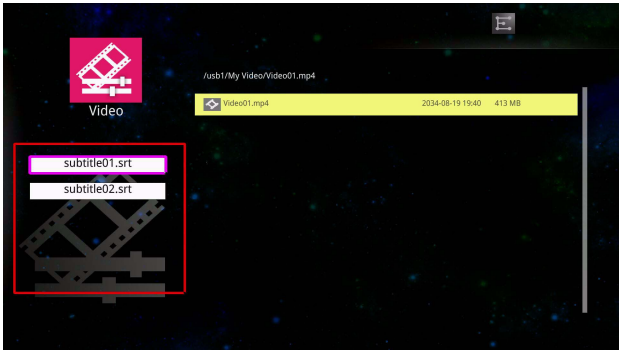
Remote control key function in browse mode

No	Icon	Description
1		Rotation Press ↑/→/**ENTER** to rotate the picture clockwise (0 > 90 > 180 > 270). Press ↓/← to rotate the picture counterclockwise (0 > 270 > 180 > 90 > 0).
2		Zoom Press **ENTER** to zoom in/out on the picture. Press ←(PREV)/↑/↓/→(NEXT) to navigate the picture.
3		Previous photo
4		Next photo
5		Slideshow mode Press **ESC**/**ENTER**/ ←(PREV)/↑/↓/(NE to go back to the browse mode.
6		Deletion Press **ENTER** and then ↑/↓ to delete the picture.
7		Duplication Press **ENTER** and then ↑/↓ to copy the picture.
8		Information Shows the current information of the picture.

9	↵	Returns to the previous page.

- **Video**: Lists all supported files. Select the video you want to display and perform the functions as provided on the screen according to your needs.





Remote control key function in list view

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Opens the selected video.
4	←(PREV)/↑/↓/→(NEXT)	↑/↓: Moves up/down to select an item. ←: Sorts items by file names (alphabetically) or created time. →: Shows subtitle files for the selected item.
5	**REV**	N/A
6	▶/II	N/A
7	■	N/A

8	**FWD**	N/A



Control user interface

Remote control key function: when the control user interface is displayed

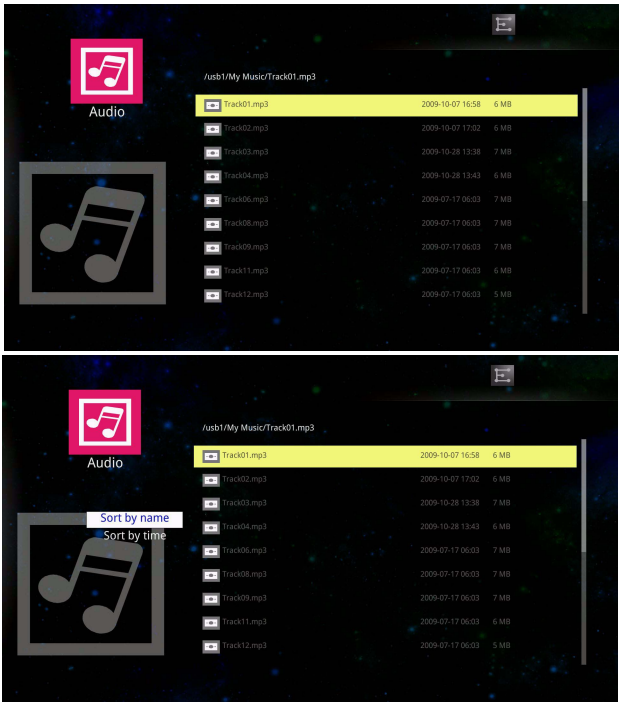
No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	When the video is playing, hides the control user interface. When the video is not playing, goes back to the previous page.
3	**ENTER**	Plays/Pauses the video.
4	←(PREV)/↑/↓/→(NEXT)	↑/↓: N/A ←: Plays the previous video. →: Plays the next video.
5	**REV**	Rewinds the video. Rate: x1, 2, 4, 8
6	▶/II	Plays/Pauses the video.
7	■	Stops the video.
8	**FWD**	Fast forwards the video. Rate: x1, 2, 4, 8

Remote control key function: when the control user interface is not displayed

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Shows the control user interface.

4	←/↑/↓/→ (PREV) (NEXT)	↑/↓: N/A ←: Plays the previous video. →: Plays the next video.
5	**REV**	Shows the control user interface.
6	▶/II	Shows the control user interface.
7	■	Shows the control user interface.
8	**FWD**	Shows the control user interface.

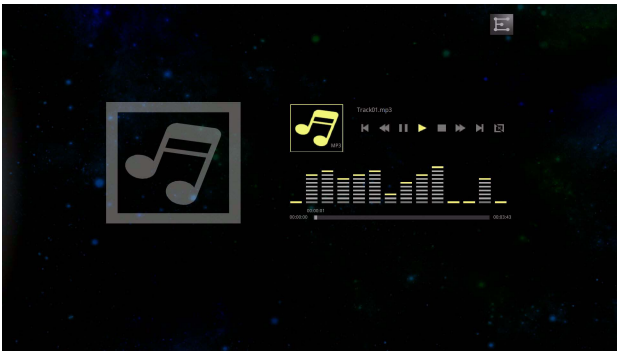
- **Audio**: Lists all supported files. Select the audio you want to play and perform the functions as provided on the screen according to your needs.



Remote control key function in list view

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Opens the selected audio.

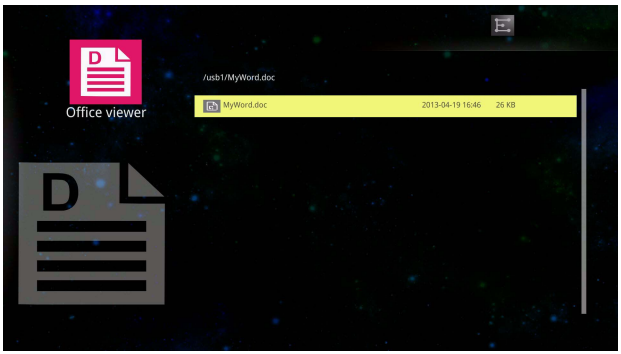
4	←(PREV)/↑/↓/→(NEXT)	↑ / ↓ : Moves up/down to select an item. ←: Sorts items by file names (alphabetically) or created time. →: N/A
5	**REV**	N/A
6	▶/II	N/A
7	■	N/A
8	**FWD**	N/A

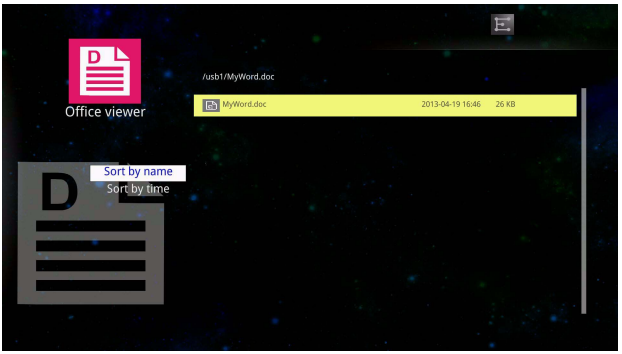


Remote control key function when playback

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Plays/Pauses the audio.
4	←(PREV)/↑/↓/→(NEXT)	↑ / ↓ : N/A ←: Plays the previous audio. →: Plays the next audio.
5	**REV**	Rewinds the audio.
6	▶/II	Plays/Pauses the audio.
7	■	Stops the audio.
8	**FWD**	Fast forwards the audio.

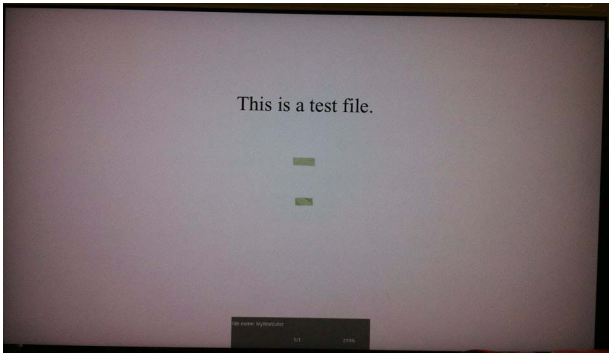
- **Office Viewer**: Supports PowerPoint/Word/Excel/PDF files. Select the document you want to display and perform the functions as provided on the screen according to your needs.





Remote control key function in list view

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Goes back to the previous page.
3	**ENTER**	Opens the selected file.
4	←(PREV)/↑/↓/→(NEXT)	↑/↓: Moves up/down to select an item. ←: Sorts items by file names (alphabetically) or created time. →: N/A
5	**REV**	N/A
6	▶/II	N/A
7	■	N/A
8	**FWD**	N/A



Remote control key function when a document is opened

No	Name	Description
1	**HOME**	Goes back to the main page.
2	**ESC**	Closes the document.
3	**ENTER**	Zooms in to the maximum view or zooms out to the minimum view.
4	←(PREV)/↑/↓/→(NEXT)	↑: Moves to the top of the page or goes back to the previous page. ↓: Moves to the bottom of the page or goes to the next page. ←/→: Moves to the left/right of the page.
5	**REV**	Goes back to the previous page.
6	▶/II	N/A
7	■	N/A
8	**FWD**	Goes to the next page.

Making connections

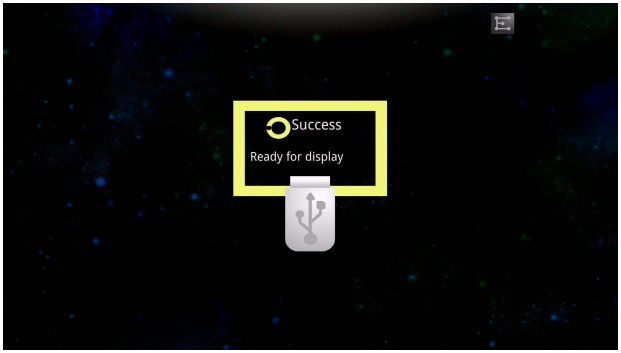
Except for those conventional cables, e.g. VGA cable, DVI cable, you can connect to the display with more flexible ways.

• Using a USB cable (EZ USB)

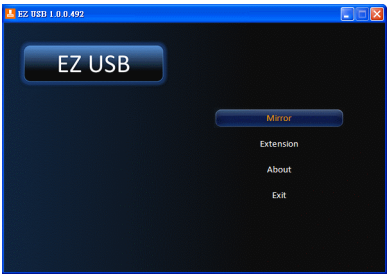
1. Take a USB cable and connect the mini B plug to the display, type A plug to a PC.
2. Have your computer ready with the EZ USB software installed. To obtain the EZ USB software, please go to local website from www.BenQ.com.

Supported OS for EZ USB:
• Windows XP 32/64 bit SP3 (Professional or higher)
• Windows Vista 32/64 bit SP2 (Home premium or higher)
• Windows 7 32/64 bit SP1 (Home premium or higher)
• Mac OSD 10.7 or higher

3. Go to the **EZ Display** > **EZ USB** menu and confirm your selection.



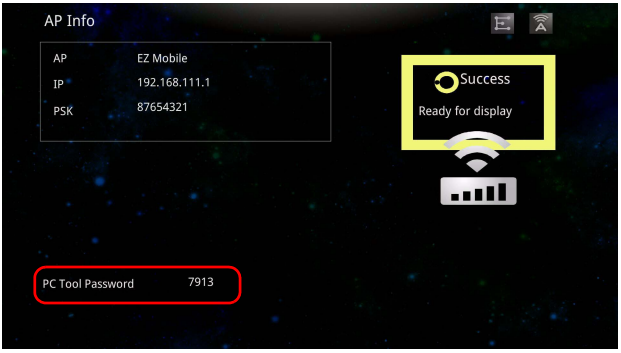
4. Use the EZ USB software to set how you will use the display. You can send your computer screen directly to the display by selecting Mirror mode, or treat the display as an extended desktop by selecting Extension mode. For details about how to install and use the software, see its user manual.



• Using WiFi (EZ WiFi)

1. Plug a wireless dongle to the **USB A** jack on the display.
2. Have your computer ready with the EZ WiFi/LAN software installed, or iOS/Android device ready with the EZ Display app installed. To obtain the software, please go to local website from www.BenQ.com.
   The EZ Display is also available on Google Play (Android) or App Store (iOS).
3. Depending on your need and the availability of the equipment, select a connection method (**AP Mode**/**Client Mode**) in the **Settings** > **WiFi** menu.
   - **AP Mode**: Make sure your device has a built-in wireless network adapter and it is enabled. Obtain or change the display's SSID and related information in the **Settings** > **WiFi** > **AP Mode**. Search for and select the display by clicking the wireless icon to view the Wireless Networks window on your device.
   - **Client Mode**: In this mode, you need to have a wireless enabled computer. Select an available wireless network from the list of **Settings** > **WiFi** > **Client Mode**. Connect to the same wireless network by clicking the wireless icon to view the Wireless Networks window on your device.

4. Go to the **EZ Display** > **EZ WiFi** menu and confirm your selection. The password of the display appears on the screen.



5. Open the EZ WiFi/LAN software or EZ Display app, and enter the password for the display. Use the software to set how you will use the display. You can allow multiple computers to connect to the display, and manage those computers by selecting a split screen, send your computer screen directly to the display by selecting Mirror mode, or treat the display as an extended desktop by selecting Extension mode. For details about how to install and use the software, see its user manual.

(EZ WiFi/LAN)

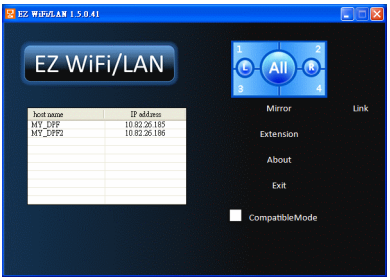
When a display is searched, enter the password shown in the **EZ Display** > **EZ WiFi** menu.)





(EZ WiFi/LAN)

When multiple displays are searched, enter the password for the display you want to connect with.)

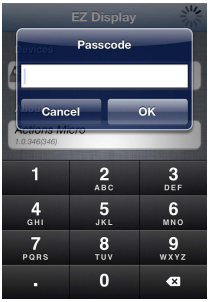




(EZ Display)



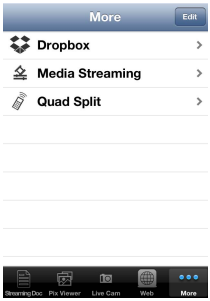
1. Connect to a display.



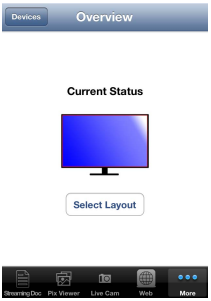
2. Enter the password for the selected display.



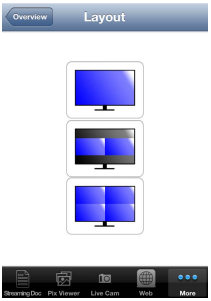
3. Select the function icon on the bottom to display your file.



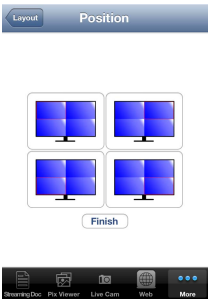
4. You can also click "More" to discover more functions provided.



5. In this example picture, "Quad Split" is selected, and only one computer is allowed to be displayed. Click "Select Layout".



6. More options are available.



7. Select one layout and click "Finish".

• Using a RJ-45 cable (EZ LAN)

You have to select **LAN** in the **Setting** > **Control Setting** menu for the display OSD before using this EZ LAN connection.

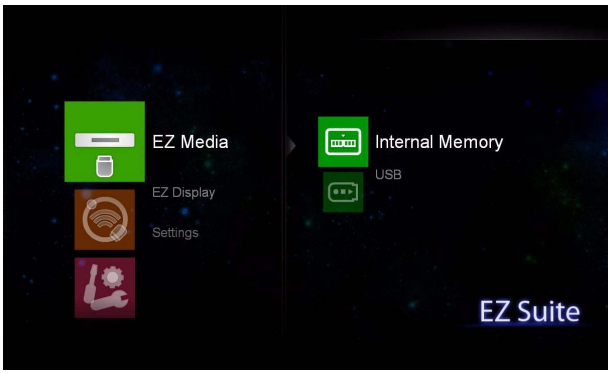
1. Take a RJ-45 cable and connect it to your computer, and Ethernet or router.

2. Take another RJ-45 cable and connect it to the display, and your Ethernet or router. Make sure that your computer and the display is on the same local area network (LAN).
   You can also use your Android/iOS device to connect to the display if the network equipment is wireless enabled.
3. Have your computer ready with the EZ WiFi/LAN software installed. To obtain the EZ WiFi/LAN software, please go to local website from www.BenQ.com.
4. Depending on your need and the availability of the equipment, select a connection method (**Auto**/**Manual**) in the **Settings** > **LAN** menu.
   - **Auto**: Select it when you are in a DHCP environment.
   - **Manual**: Fill in the required information when you are not in a DHCP environment.
5. Go to the **EZ Display** > **EZ LAN** menu and confirm your selection. The password of the display appears on the screen.
6. Open the EZ WiFi/LAN software and enter the password for the display. Use the software to set how you will use the display. You can allow multiple computers to connect to the display, and manage those computers by selecting a split screen, send your computer screen directly to the display by selecting Mirror mode, or treat the display as an extended desktop by selecting Extension mode. For details about how to install and use the software, see its user manual.

Menu system

EZ Media

Select the device where the files you want to present are stored, and select the file type.



Name	Description
Internal Memory	See Viewing files on page 49 for details.
USB	

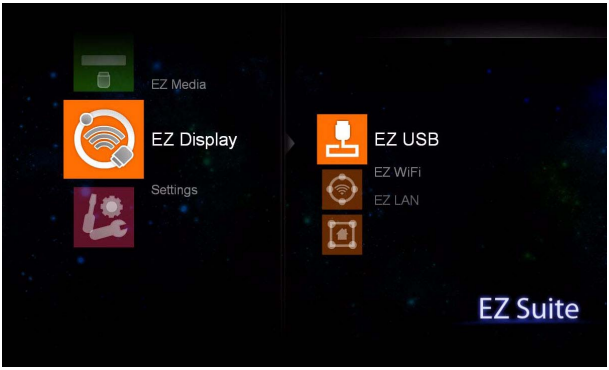
Supported file formats

• **Photo**: JPEG, BMP

- **Audio**: MP1/MP2/MP3, WMA, OGG, ADPCM-WAV, PCM-WAV, AAC, MPEG Layer-3 (.mp3), IMA-ADPCM (.wav)
- **Video**: avi, divx, mkv, ts, dat, vob, mpg, mpeg, mov, mp4, rm, mvb, wmv
- **Subtitle**: Standard SRT (UTF-8/UTF-16)
  Do not support mixed code in subtitle files.
- **Office Viewer**:
  - Adobe PDF: accepts file size up to 75MB
    PDF 1.0/1.1/1.2/1.3/1.4
  - MS Word: accepts file size up to 100MB
    British Word 95/Word 97/2000/2003/2007 (.docx)/2010 (.docx)
  - MS Excel: accepts file size up to 15MB
    British Excel 5, 95, Excel 97/2000/2002/2003/2007 (.xlsx)/2010 (.xlsx), Office XP Excel
  - MS PowerPoint: accepts document page number up to 1000, and file size up to 19MB
    British PowerPoint 97, PowerPoint 2000/2002/2003/2007 (.pptx)/2010 (.pptx), Office X PowerPoint, PowerPoint presentation-2003 and earlier (.ppx), PowerPoint Presentation-2007 and 2010 (.ppsx)
- **Storage**:
  - Internal Memory
    TLC/MLC/SLC 8/12/24/40/60 bit ECC NAND
  - USB
    USB Flash, USB-HardDisk

EZ Display

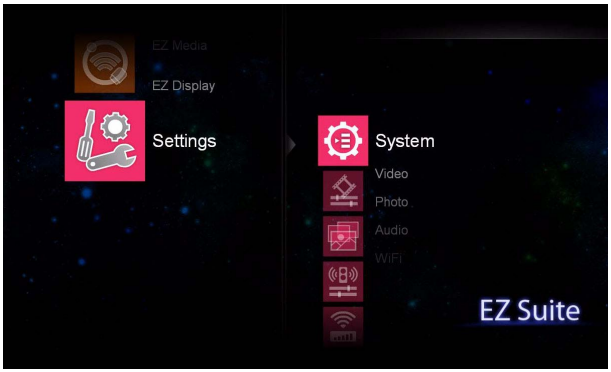
Use an appropriate cable to make connection between your device and the display.



Name	Description
EZ USB	Connects to a computer by using a USB cable. See Making connections on page 56 for details.
EZ WiFi	Connects to a computer via wireless enabled equipment. See Making connections on page 56 for details.

EZ LAN	Connects to a computer via RJ-45 cables. See Making connections on page 56 for details.

Settings



Name	Description
System	• **Version**: Displays the version number of the firmware. • **Language**: Sets your preferred language for the OSD menu. • **Update**: Updates the OSD firmware with a USB flash drive. • **Hostname**: Displays the display's name for network identification. • **USBConnect**: When a USB cable is connected between the display and computer. Enable this function and a Removable Disk icon will appear for files transfer. • **Auto Play Mode**: Enables automatically playback the content from the USB flash driver once it is connected to the display. You can select to playback a certain type of file from among: - **Photo** - **Video** - **Audio**
Video	• **Display Ratio**: Sets the video clip's aspect ratio. • **Repeat Mode**: Sets the video clips' playback mode.
Photo	• **Display Ratio**: Sets the picture's aspect ratio. • **Slideshow Duration**: Sets the interval time of each slide.
Audio	• **Repeat Mode**: Sets the video clips' playback mode.
WiFi	• **AP Mode**: Fills in the information required for WiFi connection. - **SSID**: Sets a name for your display. - **Security**: Selects a security level. - **PSK**: Sets an access password. - **Channel**: Selects a channel to communicate. • **Client Mode**: Lists all wireless networks detected in your area and selects a suitable one.

LAN	• **Auto**: Obtains an IP address when you are in a DHCP environment. • **Manual**: Sets the information required for LAN connection. Contact your network administrator for those information. • **OFF**: Turns off LAN connection.

Product information

Specifications

Item		Specifications	
		SL420	SL460
LCD panel	Backlight	D-LED	E-LED
	Panel size	42"	46"
	Pixel pitch (mm)	0.4833 x 0.4833	0.17675 x 0.53025
	Native resolution (pixels)	1920 x 1080	
	Brightness (cd/m^2) (typical)	400	500
	Contrast (typical)	1000:1	4000:1
	Adaptive Contrast	10,000	40,000
	Response time (ms) (typical)	9	6.5
	Panel Bit	8 bit	10 bit (8 bit + FRC), 1073.7 M
Input	Computer	VGA (D-Sub 15-pin)	
	Video	DVI (DVI-D), Composite Video (BNC jack), S-Video, YPbPr (RCA jacks), HDMI, DisplayPort	
	Audio	L/R (RCA jacks), Line-in (3.5 mm jack)	
	USB	Type A; Mini B	
	Control	RS-232C (D-Sub 9-pin), RJ45 (Jack RJ45 W/LED I)	
Output	Computer	VGA (D-Sub 15-pin)	
	Video	Composite Video (BNC jack)	
	Speaker	External speaker jack (12W+12W, 8 Ohms)	
	Audio	L/R (RCA jacks)	
	Control	RS-232C (D-Sub 9-pin)	
Audio	Audio W (Amp)	12W x 2	
	Internal speaker	12W x 2	
Power	Supply	100 - 240V AC, 50/60 Hz	
	Consumption Max.	< 150W	< 150W
	Consumption Standby	< 0.5 W	
Environment	Operating Temperature	0 - 40°C, 32 - 104°F	
	Operating Humidity	10 - 90% (without condensation)	
	Storage Temperature	-20 - 60°C, 4 - 140°F	
	Storage Humidity	10 - 95% (without condensation)	
	Display Orientation	Landscape/Portrait	

Mechanical	Weight (kg)	< 18	< 22
	Dimensions (W x H x D) (mm)	981 x 571 x 106	1052 x 606 x 84
	Bezel Dimension - T/B/ L/R (mm)	22.5/22.5/22.5/22.5	14.9 x 14.9 x 14.9 x 14.9
Feature	VGA daisy chain	O	
	DVI daisy chain	X	
	RS232 control daisy chain	O	
	ID setting	O	
	Sharpness enhancement	O	
	Proof of image retention	O	
	Dimming control (Adaptive Contrast)	O	
	Picture in Picture (PIP)	O	
	Picture by Picture (PBP)	O	
	10 Bit color processing	O	
	Built-in video wall support	O	
	Scheduling	O	
	Total turn-on time	O	
	Diagnostic DC voltage (12v/5v)	O	
	Internal temperature Sensor	O	
	CEC control	O	

Item		Specifications	
		IL420	IL460
LCD panel	Backlight	D-LED	E-LED
	Panel size	42"	46"
	Pixel pitch (mm)	0.4833 x 0.4833	0.17675 x 0.53025
	Native resolution (pixels)	1920 x 1080	
	Brightness (cd/m^2) (typical)	400	500
	Contrast (typical)	1000:1	4000:1
	Adaptive Contrast	10,000	40,000
	Response time (ms) (typical)	9	6.5
	Panel Bit	8 bit	10 bit (8 bit + FRC), 1073.7 M
Touch	Technology	IR Touch 6 points	
	Resolution	32767 x 32767	
	Capacity	6 simultaneous touches	
	Accuracy	+/- 6mm over 95% of touchable area	
	Touch Output	USB 2.0	
	OS	Support Windows 7/8, Android, Linux	
Glass	Tempered glass	3 mm + 0 mm/-0.3 mm	
Input	Computer	VGA (D-Sub 15-pin)	
	Video	DVI (DVI-D), Composite Video (BNC jack), S-Video, YPbPr (RCA jacks), HDMI, DisplayPort	
	Audio	L/R (RCA jacks), Line-in (3.5 mm jack)	
	Control	RS-232C (D-Sub 9-pin), RJ45 (Jack RJ45 W/LED I)	
Output	Computer	VGA (D-Sub 15-pin)	
	Video	Composite Video (BNC jack)	
	Speaker	External speaker jack (12W+12W, 8 Ohms)	
	Audio	L/R (RCA jacks)	
	Control	RS-232C (D-Sub 9-pin)	
Audio	Audio W (Amp)	12W x 2	
	Internal speaker	12W x 2	
Power	Supply	100 - 240V AC, 50/60 Hz	
	Consumption Max.	< 150W	< 150W
	Consumption Standby	< 0.5 W	

Environment	Operating Temperature	0 - 40°C, 32 - 104°F	
	Operating Humidity	10 - 90% (without condensation)	
	Storage Temperature	-20 - 60°C, 4 - 140°F	
	Storage Humidity	10 - 95% (without condensation)	
	Display Orientation	Landscape/Portrait	
Mechanical	Weight (kg)	< 23	< 28
	Dimensions (W x H x D) (mm)	981 x 571 x 121	1066 x 621 x 100
	Bezel Dimension - T/B/ L/R (mm)	22.5/22.5/22.5/22.5	22.5 x 22.5 x 22 x 22
Feature	VGA daisy chain	O	
	DVI daisy chain	X	
	RS232 control daisy chain	O	
	ID setting	O	
	Sharpness enhancement	O	
	Proof of image retention	O	
	Dimming control (Adaptive Contrast)	O	
	Picture in Picture (PIP)	O	
	Picture by Picture (PBP)	O	
	10 Bit color processing	O	
	Built-in video wall support	O	
	Scheduling	O	
	Total turn-on time	O	
	Diagnostic DC voltage (12v/5v)	O	
	Internal temperature Sensor	O	
	CEC control	O	

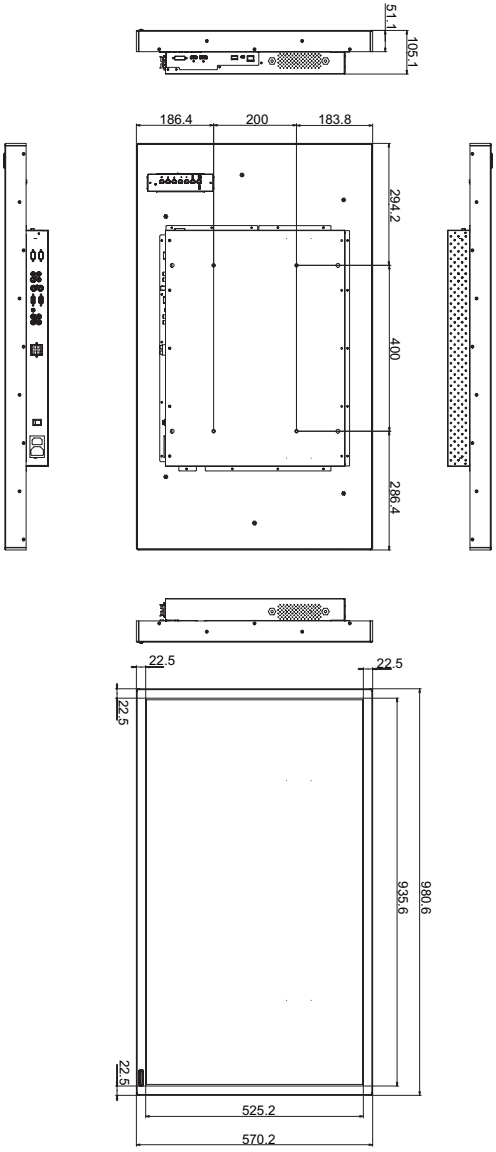
Item		Specifications
		IL650
LCD panel	Backlight	E-LED
	Panel size	65"
	Pixel pitch (mm)	0.744
	Native resolution (pixels)	1920 x 1080
	Brightness (cd/m^2) (typical)	360
	Contrast (typical)	4000:1
	Adaptive Contrast	
	Response time (ms) (typical)	8
	Panel Bit	10 bit
Touch	Technology	IR Touch 2 points
	Resolution	32767 x 32767
	Capacity	2 simultaneous touches
	Accuracy	<1.5 mm (central area) <2.5 mm (marginal area)
	Touch Output	USB 2.0
	OS	Win 2k/XP/Vista/W7, Linux, Mac 10.4-10.6 32bit, Android 4.x
Glass	Tempered glass	O
Input	Computer	VGA (D-Sub 15-pin)
	Video	DVI (DVI-D), Composite Video (BNC jack), S-Video, YPbPr (RCA jacks), HDMI, DisplayPort
	Audio	L/R (RCA jacks), Line-in (3.5 mm jack)
	Control	RS-232C (D-Sub 9-pin), RJ45 (Jack RJ45 W/LED I)
Output	Computer	VGA (D-Sub 15-pin)
	Video	Composite Video (BNC jack)
	Speaker	X
	Audio	L/R (RCA jacks)
	Control	RS-232C (D-Sub 9-pin)
Audio	Audio W (Amp)	12W x 2
	Internal speaker	12W x 2
Power	Supply	100 - 240V AC, 50/60 Hz
	Consumption Max.	265 W
	Consumption Standby	< 0.5 W

Environment	Operating Temperature	0 - 40°C, 32 - 104°F
	Operating Humidity	10 - 90% (without condensation)
	Storage Temperature	-20 - 60°C, 4 - 140°F
	Storage Humidity	10 - 95% (without condensation)
	Display Orientation	Landscape/Portrait
Mechanical	Weight (kg)	
	Dimensions (W x H x D) (mm)	1520.4 x 882 x 107.1
	Bezel Dimension - T/B/ L/R (mm)	36.9 / 36.9 / 43.9 / 43.9
Feature	VGA daisy chain	O
	DVI daisy chain	X
	RS232 control daisy chain	O
	ID setting	O
	Sharpness enhancement	O
	Proof of image retention	O
	Dimming control (Adaptive Contrast)	O
	Picture in Picture (PIP)	O
	Picture by Picture (PBP)	O
	10 Bit color processing	O
	Build-in video wall support	O
	Scheduling	O
	Total turn-on time	O
	Diagnostic DC voltage (12v/5v)	O
	Internal temperature Sensor	O
	CEC control	O

Specifications and functions are subject to change without notice.

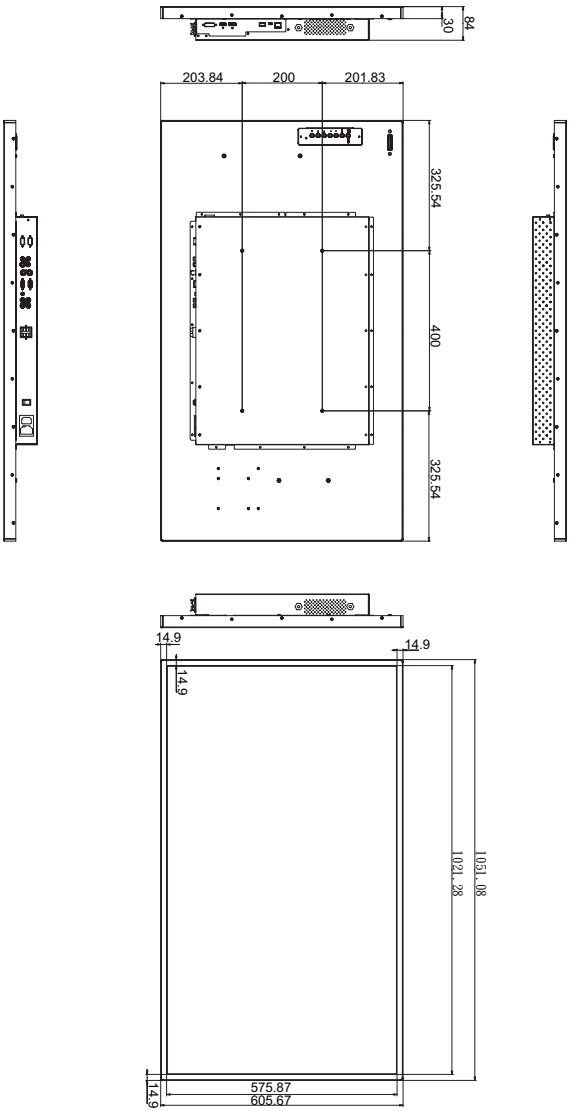
Dimensions

• SL420



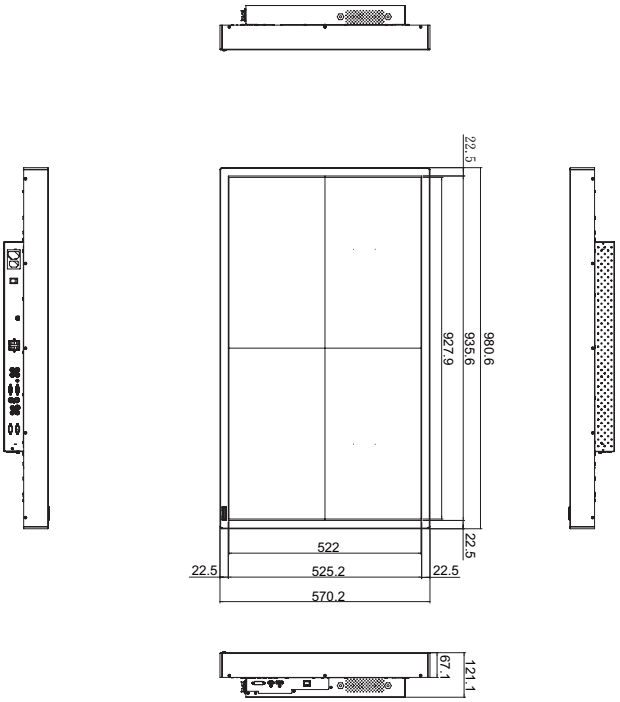
Unit: mm

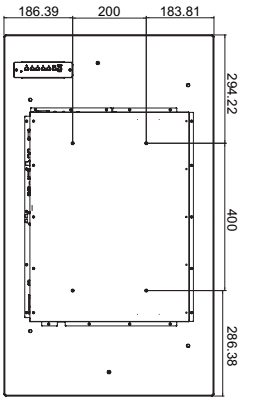
• SL460



Unit: mm

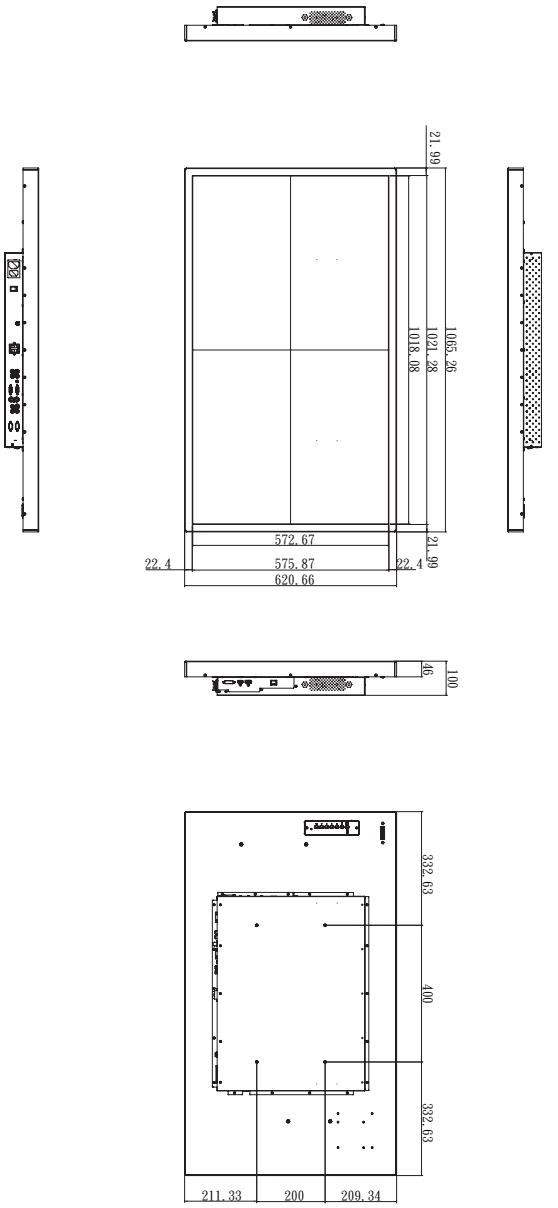
• IL420





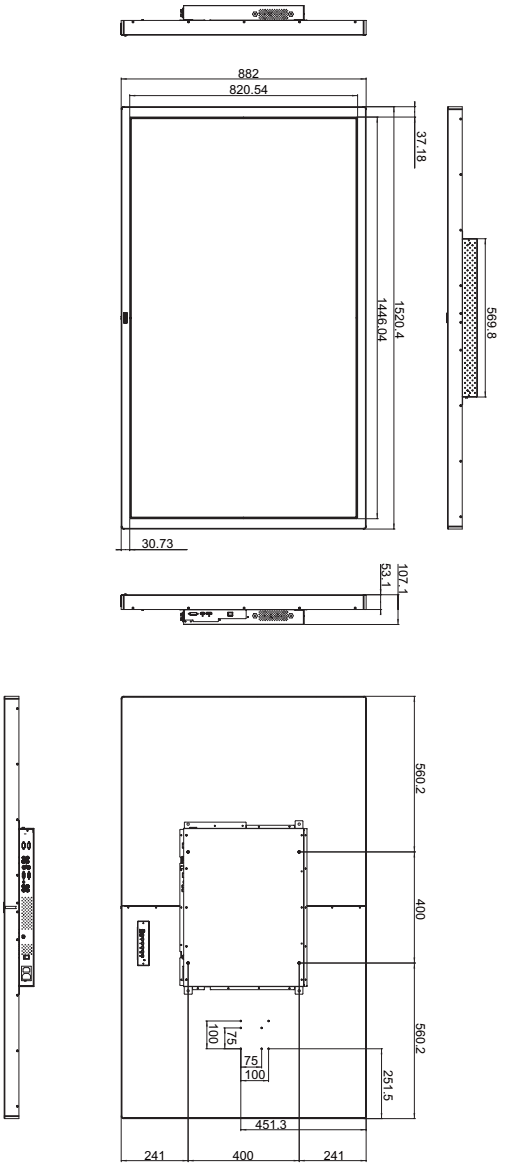
Unit: mm

• IL460



Unit: mm

• IL650



Unit: mm

Supported input signal resolution

Resolution	Input source						
	AV	S-Video	YPbPr	VGA	HDMI	DVI	Display Port
640 x 480 @ 60Hz				○	○	○	○
640 x 480 @ 72Hz				○	○	○	○
640 x 480 @ 75Hz				○	○	○	○
720 x 400 @ 70Hz				○	○	○	○
800 x 600 @ 60Hz				○	○	○	○
800 x 600 @ 75Hz				○	○	○	○
1024 x 768 @ 60Hz				○	○	○	○
1024 x 768 @ 75Hz				○	○	○	○
1280 x 768 @ 60Hz				○	○	○	○
1280 x 800 @ 60Hz RB				○	○	○	○
1280 x 800 @ 60Hz				○	○	○	○
1280 x 960 @ 60Hz				○	○	○	○
1280 x 1024 @ 60Hz				○	○	○	○
1360 x 768 @ 60Hz				○	○	○	○
1366 x 768 @ 60Hz				○	○	○	○
1400 x 1050 @ 60Hz				○	○	○	○
1600 x 1200 @ 60Hz				○	○	○	○
1680 x 1050 @ 60Hz RB				○	○	○	○
1600 x 1050 @ 60Hz				○	○	○	○
1920 x 1080 @ 60Hz				○	○	○	○
NTSC-M	○	○					
NTSC-J	○	○					
PAL-BDGHI	○	○					
576i (50Hz)			○		○		
480i (60Hz)			○		○		
480p (60Hz)			○		○		
576p (50Hz)			○		○		
720p (50Hz)			○		○		

720p (60Hz)			◯		◯		
1080i (50Hz)			◯		◯		
1080i (60Hz)			◯		◯		
1080p (50Hz)			◯		◯		
1080p (60Hz)			◯		◯		

- ◯: supported
- Blank: not supported

Supported PAP input signal combination

		Main/Left picture signal source							
		AV	S-Video	YPbPr	VGA	DVI	HDMI	DisplayPort	Multi-media
Sub/Right picture signal source	AV	×	×	×	○	○	○	○	○
	S-Video	×	×	×	○	○	○	○	○
	YPbPr	×	×	×	×	○	○	○	○
	VGA	○	○	×	×	○	○	○	○
	DVI	○	○	○	○	×	×	○	×
	HDMI	○	○	○	○	×	×	○	×
	Display Port	○	○	○	○	○	○	×	○
	Multi-media	○	○	○	○	○	○	○	×

Troubleshooting

Problem	Solution
No picture	Check the following: • Is the display turned on? Check the power indicator of the display. • Is the signal source device turned on? Turn on the device and try again. • Are there any loose cable connections? Make sure that all cables are connected firmly. • Have you chosen an unsupported output resolution on the computer? Refer to Supported input signal resolution on page 75 to select a supported resolution and try again. • Have you chosen an unsupported output resolution on the DVD or Blu-ray disc player? Refer to Supported input signal resolution on page 75 to select a supported resolution and try again.
No sound	Check the following: • Have you turned on the mute function on the display or the input source device? Turn off the mute function or increase the audio volume level and try again. • Are there any loose cable connections? Make sure that all cables are connected firmly.
The computer input image looks strange	• Have you chosen an unsupported output resolution on the computer? Refer to Supported input signal resolution on page 75 to select a supported resolution and try again. • Use the **Auto Adjustment** function (See Adjust Screen on page 43) to let the display automatically optimize the display of computer image. • If the result of the **Auto Adjustment** function is not satisfactory, use the **Clock Frequency**, **Phase**, **H. Position** and **V. Position** functions to manually adjust the image.
The control panel buttons do not work	Have you locked the control panel buttons? Unlock the buttons and try again.

The remote control does not work	• Have you locked the remote control function? Unlock the function and try again. • Check for incorrect battery orientation. • Check for dead batteries. • Check your distance and angle from the display. • Check whether remote control is properly being pointed at the display's remote control sensor window. • Check for any obstacle between the remote control and the remote control sensor window. • Check that the remote control sensor window is not under strong fluorescent lighting, or in direct sunlight. • Check for any devices (computer or personal digital assistant, PDA) nearby that transmit infrared signals which may cause interference to signal transmission between the remote control and the display. Turn off the infrared function of these devices.