**Public Information Display**

# User Manual

# DT653

# Table of Contents

# Declaration of Conformity

## FCC DECLARATION OF CONFORMITY

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

### FCC Information

1. Use the attached specified cables with this display so as not to interfere with radio and television reception.

    (1)  Please use the supplied power cord or equivalent to ensure FCC compliance.

    (2)  Please use the supplied shielded video signal cable.

2. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

    • Reorient or relocate the receiving antenna.

    • Increase the separation between the equipment and receiver.

    • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

    • Consult your dealer or an experienced radio/TV technician for help.

If necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

# CE DECLARATION OF CONFORMITY

Hereby, Acer Inc., declares that this LCD monitor is in compliance with the essential requirements and other relevant provisions of EMC Directive 2014/30/EU, Low Voltage Directive 2014/35/EU, and RoHS Directive 2011/65/EU and Directive 2009/125/EC with regard to establishing a framework for the setting of eco-design requirements for energy-related product.

**Notice: Shielded cables**

All connections to other computing devices must be made using shielded cables to maintain compliance with EMC regulations.

**Notice: Peripheral devices**

Only peripherals (input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this equipment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

**Caution**

Changes or modifications not expressly approved by the manufacturer could void the user authority, which is granted by the Federal Communications Commission, to operate this product.

**Notice: Canadian users**

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

Remarque à l'intention des utilisateurs canadiens

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

# Safety Information

## Warnings

| | This symbol warns user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit. |
|---|---|
| | This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems. |

### ⚠ WARNING

To prevent fire or shock hazards, do not expose this unit to rain or moisture.

### ⚠ WARNING

Do not use this unit's polarized plug with an extension cord receptacle or other outlets unless the prongs can be fully inserted.

### ⚠ WARNING

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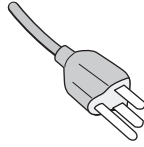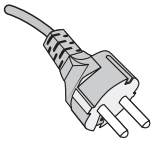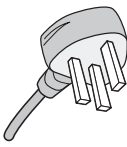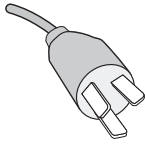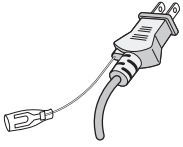
### ⚠ CAUTION

To reduce the risk of electric shock, make sure power cord is unplugged from wall socket. To fully disengage the power to the unit, please disconnect the power cord from the ac outlet. Do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

### ⚠ CAUTION

Please use the power cord provided with this monitor in accordance with the table below. If a power cord is not supplied with this equipment, please contact your supplier. For all other cases, please use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country.

| | North America (USA/Canada/Taiwan) | European Union | UK | China | Japan |
|---|---|---|---|---|---|
| **Plug Shape** | | | | | |
| **Voltage** | 120 (110 in Taiwan) | 230 | 230 | 220 | 100 |

When operating a display which requires an AC 125-240V power supply, make sure to use a power supply cord that matches the power supply voltage of the AC power outlet being used.

---

**NOTE**

---

This product can only be serviced in the country where it was purchased.

Use the power cord which has BSMI mark at both ends when you use this monitor in Taiwan.

---

- The intended primary use of this product is as an Information Technical Equipment in an office or domestic environment.

- The product is intended to be connected to a an external device and is not intended for the display of television broadcast signals.

# Safety Information

## SAFETY PRECAUTIONS

Please note the following when setting up and using the display:

- **DO NOT OPEN THE DISPLAY.** There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. Refer all servicing to qualified service personnel.

- Do not spill any liquids into the cabinet or use your display near water.

- Do not insert objects of any kind into slots on the display, as they may touch dangerous voltage points, which can be harmful or fatal or may cause electric shock, fire or equipment failure.

- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.

- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the display.

- Do not mount the display face up, face down or upside down for an extended period of time as it may cause permanent damage to the screen.

- The power supply cord you use must have been approved by and comply with the safety standards of your country. (Type H05VV-F 3G 1mm2 should be used in Europe)

- In UK, use a BS-approved power cord with melded plug having a black (13A) fuse installed for use with this display.

- Do not place any objects on top of the display and do not use the display outdoors.

- Do not bend, crimp or otherwise damage the power cord.

- Do not use the display in high temperature, humid, dusty, or oily areas.

- If display glass is broken, do not come in contact with the liquid crystal and handle with care.

- Allow adequate ventilation around the display, so that heat can properly dissipate. Do not block ventilated openings or place the display near a radiator or other heat sources.

- The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet, which is easily-accessible.

- Handle with care when transporting. Save packaging for transporting.

- Please clean the ventilation holes on the back of the display at least once a year to remove any dust or dirt.

- Do not use the display under rapid temperature and humidity change condition or avoid cold air from air-conditioning outlet directly, as it may shorten the lifetime of the display or cause condensation. If condensation happens, let the display stand unplugged until there is no condensation.

- The touch panel glass is not safety glass and is not laminated. As with other glass, the touch panel glass may break into sharp pieces if misused, dropped, or otherwise subjected to a substantial shock. If touch panel glass happens to break, please use care to avoid injury.

- DO NOT tap the monitor with hard or pointed objects, such as a pen or pencil.

# RECOMMENDED USE

- For optimum performance, allow 20 minutes for warm-up.

- Position the display at a 90° angle to windows and other light sources to minimize glare and reflections.

- Clean the display surface with a lint-free, non-abrasive cloth. Avoid using any cleaning solution or glass cleaner.

- Adjust the display's brightness, contrast and sharpness controls to enhance readability.

- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after image effects).

## Ergonomics

To realize the maximum ergonomic benefits, the following is recommended:

- Use the preset **Size** and **Position** controls with standard signals.

- Use the preset **Color Setting**.

- Use non-interlaced signals.

- Do not use primary color blue on a dark background, as it is difficult to see and may produce eye fatigue due to insufficient contrast.

- Suitable for entertainment purposes at controlled luminous environments, to avoid disturbing reflections from the screen.

## Cleaning the LCD Panel

- When the liquid crystal panel is dusty, please gently wipe with a soft cloth.

- Do not rub the LCD panel with hard material.

- Do not apply pressure to the LCD surface.

- Do not use OA cleaner as it will cause deterioration or discolor on the LCD surface.

## Cleaning the Cabinet

- Unplug the power supply

- Gently wipe the cabinet with a soft cloth

- To clean the cabinet, dampen the cloth with a neutral detergent and water, wipe the cabinet and follow with a dry cloth.

---

**NOTE**

---

DO NOT clean with benzene thinner, alkaline detergent, alcoholic system detergent, glass cleaner, wax, polish cleaner, soap powder, or insecticide. Rubber or vinyl should not be in contact with the cabinet for an extended period of time. These types of fluids and materials can cause the paint to deteriorate, crack or peel.

---

# Package Contents

Your new display should include the following items:



LCD monitor



Power cord



Darwin Large Format Display

**User Manual**

**DT653**

Model Number: S64SHF64 V0 IWB65
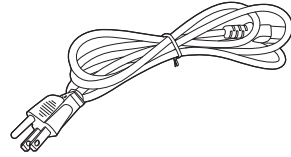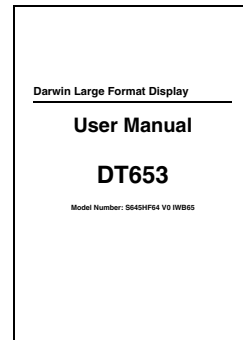
Setup Manual



Wireless Remote Control



Remote Control Batteries

| NOTE |
| --- |
| For models shipped with touchscreen functionality, an additional A-type USB connector will be attached to the left side of the display. |

# Features of Your Display

## IMAGE FEATURES

**Advanced Color Control:** Adjust the colors of your screen image and customize the color accuracy of your display to a wide variety of standards.

**Six-Axis Color Control:** Utilizes six-axis color control with the sRGB color control. Six-axis color control allows color adjustments via six axes (R, G, B, C, M and Y) rather than through the typical three axes (R, G and B).

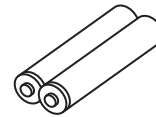**sRGB Color Control:** sRGB is a color management standard which allows for color matching on computer displays and other peripherals. The sRGB standard provides the display with a uniform color profile. This assures that the colors shown on the display are exactly the same as a printed color output (with an operating system supporting sRGB and an sRGB printer). This allows you to adjust the colors on your screen and customize the color accuracy of your display to uniform accuracy across devices.

**OSD (On-Screen-Display) Controls:** The OSD Menu allows you to quickly and easily adjust all elements of your screen image via simple to use on-screen menus.

**FullScan Capability:** Uses the entire screen area in most resolutions, significantly expanding image size.

## USAGE FEATURES

**Plug and Play:** The Microsoft® solution with the Windows® operating system facilitates setup and installation by allowing the display to send its capabilities (such as screen size and resolution-support) directly to your computer, automatically optimizing display performance.

**VESA Standard (FDMIv1) Mounting Interface:** Connect your display to any VESA standard (FDMIv1) third party mounting arm or bracket. Dealer recommends using a mounting interface that complies with TÜV-GS and/or UL1678 standard in North America.

**Self-Diagnosis Feature:** If an internal error should occur, a failure state will be enacted and an error LED will illuminate.

**HDCP (High-bandwidth Digital Content Protection):** HDCP is a system for preventing illegal copying of video data sent over a digital signal. If you are unable to view material via the digital input, this does not necessarily mean the display is not functioning properly. There may be cases in which certain content is protected with HDCP and might not be displayed due to the content's creator registering with Digital Content Protection, LLC.

## POWER FEATURES

**IPM (Intelligent Power Manager) System:** Provides innovative power-saving methods that allow the display to shift to a lower power consumption level when on but not in use, saving two-thirds of your display's energy costs, reducing emissions and lowering the air conditioning costs of the workplace.

**Reduced Carbon Footprint:** Provides superior image quality while being more energy-efficient and reducing environmental impact than previous models.

# Installation of Your Display

---
### ⚡ WARNING
---

- For proper installation it is strongly recommended to use a trained, authorized technician. Failure to follow standard mounting procedures could result in damage to the equipment or injury to the user or installer.
- Product warranty does not cover damage caused by improper installation, remodelling, or natural disasters. Failure to follow these recommendations could result in voiding the warranty.
- DO NOT mount the display yourself. For proper installation **it is strongly recommended to use a trained, qualified technician**.

---

## Moving Your Display

---
### ⚠ CAUTION
---

Never move or carry the display yourself.

---

Prior to installation, place the display on a flat area or surface with adequate space.

Make sure there is nothing on the floor/surface that can damage the display.

To avoid damaging the screen face, place a protective sheet on the surface underneath the display.

---
### NOTE
---

Do not leave the monitor in the face-up or face-down position for more than one hour as this may result in a negative effect on the screen's performance.

---
### OPTIONAL
---

You may secure carrying handles onto the display. Please check with your dealer for more info.

---

# Mounting Location

It is important to install the display in a location that allows adequate ventilation around the display, so that heat can properly dissipate away from the display and its mounting accessories. If installing the display onto a ceiling or wall with a mounting bracket, then the ceiling and wall must be strong enough to support the display and its mounting accessories.

## Ventilation Requirements

When mounting in an enclosed space or recessed area, leave adequate room between the display and the enclosure in order to allow heat to disperse, as shown below.
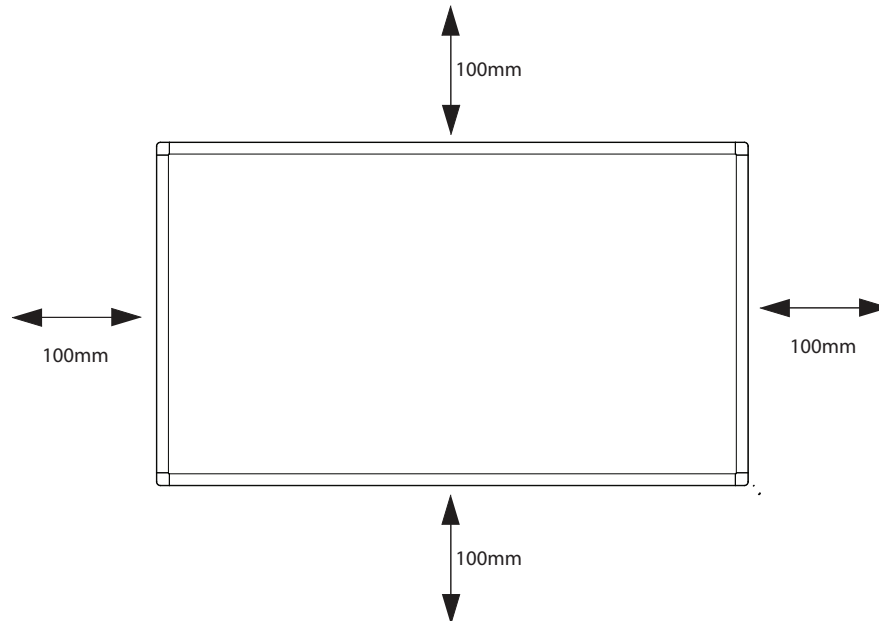


Make sure to provide air conditioning around the display or adequate ventilation, so that heat can properly dissipate away from the unit and mounting accessories.

Please note the following:

• DO NOT install in locations where a door can knock against the display.

• DO NOT install in areas where the display will be subjected to dust and/or strong vibrations.

• DO NOT install the display next to the location where the main power supply enters the building.

• DO NOT install the display in an area where people can easily grab and hang onto the display or its mounting accessories.

# Mounting Equipment

The display is designed for use with the VESA mounting system. When using mounting accessories other than those that are approved by the dealer, they must comply with the VESA-compatible (FDMlv1) mounting method. It is recommended to use mounting interfaces that comply with UL1678 standard in North America.

# Attaching Mounting Equipment to Your Display

For proper installation **it is strongly recommended to use a trained, qualified technician**.

**NOTE**

Refer to the proper installation instructions included with the mounting equipment.

1. Place the display face-down on a flat, padded surface for safe installation of mounting accessories.

2. For installation, it is recommended to use M6 screws and tighten them securely. Screws should have a Boss screw thread of at least 15mm, a loose-proof spring washer, and a length 10 mm longer than the thickness of the mounting bracket.
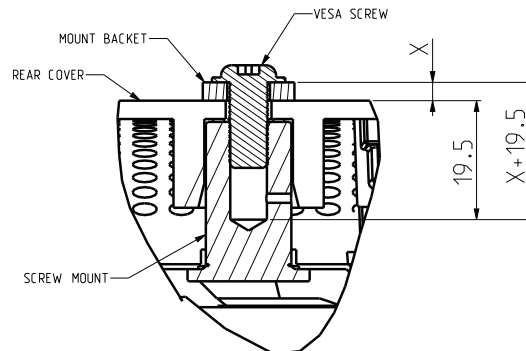


(Recommended Torque: 470 - 635N·cm). Bracket hole should be under φ8.5 mm.

400.00mm

400.00mm

3. Make sure there is no gap between the display and the bracket.

4. To ensure safe installation, use two or more brackets to mount the display. Mount the display to at least two points on the installation location.

---

**NOTE**

---

- Be careful to avoid tipping the display over when attaching accessories.

- The display is designed to be used for landscape mode only. Do not install the display vertically.

- Periodically check for loose screws, gaps, distortions, or other problems that may occur with the mounting apparatus. If a problem is detected, please refer to qualified personnel for service.

- Regularly check the mounting location for signs of damage or weakness that may occur over time.

---

# Display Components

## CONTROL PANEL – LOCATION & BUTTONS
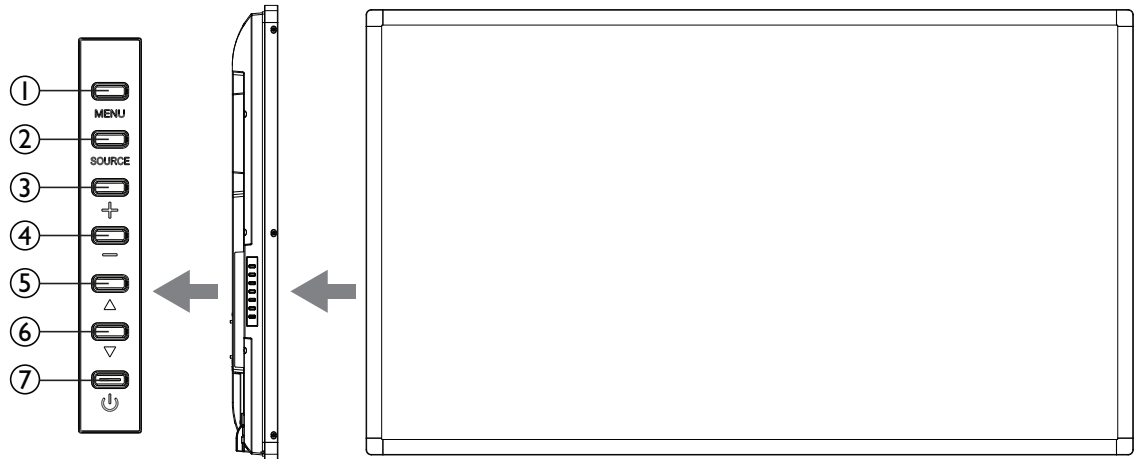


| | | |
|---|---|---|
| ① | **MENU button** | Turns the OSD menu on/off. |
| ② | **SOURCE button** | Toggles between the input sources of your display: [HDMI1], [HDMI2], [VGA], [USB] and [DVI-D]). Also acts as an INPUT button within the OSD menu. |
| ③ | **Volume Up button** (+) | In the OSD menu, acts as the LEFT button to adjust or increase the function. Also increases the audio output level when the OSD menu is turned off. |
| ④ | **Volume Down button** (-) | In the OSD menu, acts as the RIGHT button to adjust or decrease the function. Also decreases the audio output level when the OSD menu is turned off. |
| ⑤ | **Up button** (△) | In the OSD menu, acts as the UP button to move the highlighted area up to select adjustment items. |
| ⑥ | **Down button** (▽) | In the OSD menu, acts as the DOWN button to move the highlighted area down to select adjustment items. |
| ⑦ | **Power button** (⏻) | Switches the power on/off. See also "POWER ON AND OFF MODES" on page 20. |

# PORTS & CONNECTORS



| | | |
|---|---|---|
| ① | **Remote control sensor and Power Indicator** | Receives the signal from the remote control. See also "USING THE REMOTE CONTROL" on page 18. |
| | | When the display is in active use the power indicator illuminates GREEN. When the display is powered off it illuminates RED. When a component failure is detected, the indicator will blink RED. |
| ② | **IR IN** | Connects to an external IR sensor module to the display. |
| ③ | **AUDIO OUT** | Connects to external speakers, audio amplifiers, etc. or outputs the signal that is supplied to the AUDIO IN connector. |
| ④ | **AUDIO IN (LINE IN)** | Connects with the audio out connector of a video source such as a computer, VCR, or DVD player when the display is connected to the source via the **D-SUB** connector. |
| ⑤ | **D-Sub (VGA IN)** | Connects with the analog video output (VGA) of a computer or other RGB equipment. This input can be used with an RGB or COMPONENT source. |
| ⑥ | **USB port** | Connects to a personal computer or USB 2.0 device to display digital media. |
| ⑦ | **HDMI IN** | Connects with devices supporting audio/video data using the digital HDMI interface. |
| ⑧ | **AC IN connector** | Connects with the supplied power cord. |
| ⑨ | **AC SWITCH** | Switches the main power of the display ON/OFF. |

# REMOTE CONTROL

| | | |
|---|---|---|
| ① | **POWER button** | Switches the power on/off. |
| ② | **SOUND buttons** | Selects the sound mode options STANDARD, DYNAMIC and CUSTOM. |
| ③ | **PICTURE button** | Selects the picture mode options from STANDARD, DYNAMIC, CINEMA and CUSTOM. |
| ④ | **INFO button** | Displays the current screen resolution and refresh rate. |
| ⑤ | **VOLUME buttons (VOL)** | Increases the audio output levels. The plus (+) button increases and the minus (−) button decreases the audio output level. |
| ⑥ | **MUTE button** | Switches the mute function ON/OFF. |
| ⑦ | **UP/DOWN/ RIGHT/ LEFT buttons** | Navigates the selection area in the OSD menu. (▲) button moves the selection area up, (▼) moves the selection area down, (◀) toggles the selection to the left, (▶) toggles the selection to the right. |

| | | |
|---|---|---|
| ⑧ | **MENU button** | Switches the OSD menu mode on/off. |
| ⑨ | **MEDIA CONTROL buttons** | Contextual buttons providing various media control functions in specific menus. The functions of each button will be shown in the OSD menu in its corresponding color. |
| ⑩ | **INPUT button** | Displays the OSD menu to switch the video input. You can select [HDMI1], [HDMI2], [HDMI3], [VGA], and [USB]. |
| ⑪ | **ASPECT button** | Displays the current display aspect ratio. |
| ⑫ | **OK button** | Accepts the selection made in the OSD menu. |
| ⑬ | **BACK button** | Returns to the previous OSD menu. |
| ⑭ | **AUDIO/VIDEO CONTROL buttons** | Sets the control functions when playing media files. Fast reverse (◀◀), play ( ▶ ), fast forward (▶▶), track backwards (◀◀), stop ( ■ ), pause ( ❚❚ ), and track forward (▶▶❘). |

---

### NOTE

If operation of the remote control is not available, you can use the control panel to access settings. See "BASIC OPERATIONS OF THE OSD SCREEN" on page 27.

# USING THE REMOTE CONTROL

## Setting Up the Infrared Remote Control Sensor

Before using the infrared remote control, the display's remote control sensor must be positioned. The remote control sensor is the small black box located on the back of left of the display. Press the small button near the base of the remote control sensor, and slide the sensor away from the display until it locks in place. Reverse this procedure to return the sensor to its original position.

## Using the Remote Control

Point the remote control toward the display's remote control sensor when making selections with the buttons. The operating range of the remote control is a distance of about 10m from the front of the remote control sensor. The horizontal and vertical angles of the remote control are approximately 30° within a distance of about 10m.

---
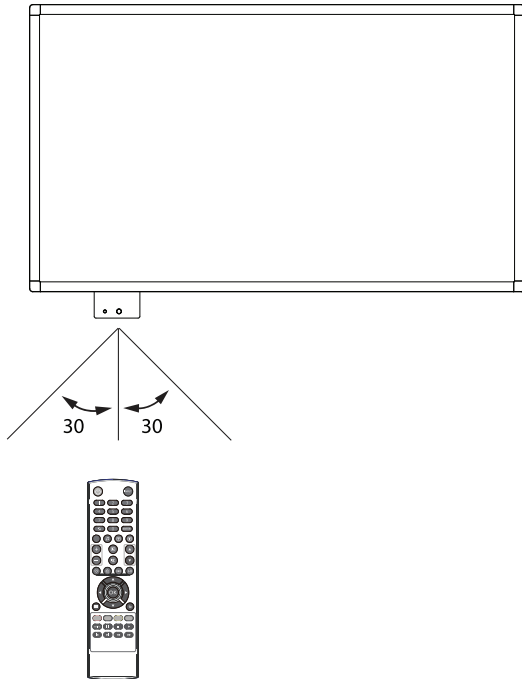
### ⚠ CAUTION

---

The remote control may not function when direct sunlight or strong illumination strikes the remote control sensor or when there is an object in its path.

---

## Installing the Remote Control Batteries

The remote control is powered by two 1.5V AAA batteries.

To install or replace batteries:

1. Press and slide to open the cover.

2. Align the batteries according to the (+) and (–) indications inside the case.

3. Replace the cover.
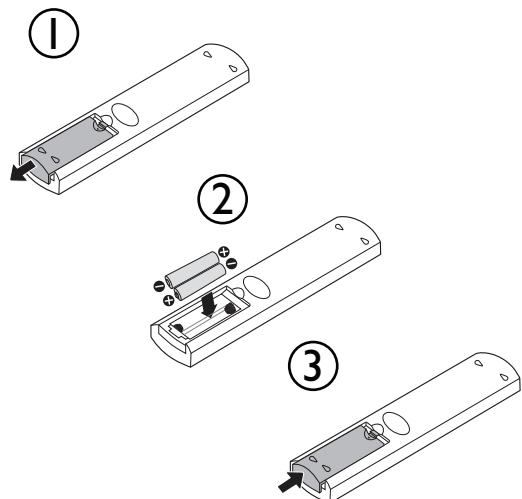
# Preparing Your Display for Use

### 1.  Install in the desired location.

---

### ⚠ CAUTION

---

MOVING OR INSTALLING THE DISPLAY MUST BE DONE BY TWO OR MORE PEOPLE.
Failure to follow this caution may result in injury if the display falls.

---

### ⚠ CAUTION

---

Do not mount or operate the display upside down, face up or face down.

---

### IMPORTANT

---

When setting the display down to install the wall mount, place it face down on a flat and stable surface covered by a protective sheet or cloth and a table cushion. DO NOT place the display on an uncovered surface.

---

### 2.  Make connections.

(See "Connecting Devices to Your Display" on page 22)

### 3.  Plug the supplied power cable into the display and a power source.



---
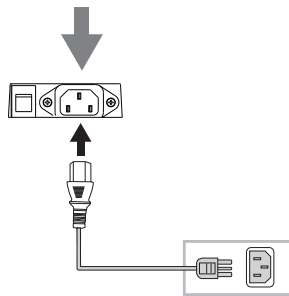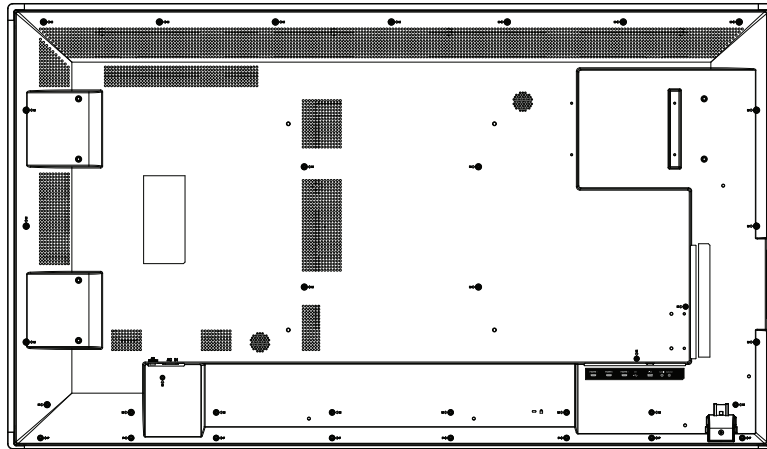
### NOTE

---

Please refer to the "Safety Information" on page 5 of this manual for proper selection of AC power cord.

# Operating Your Display

## POWER ON AND OFF MODES

1. Turn the AC switch located at the bottom of the display on.
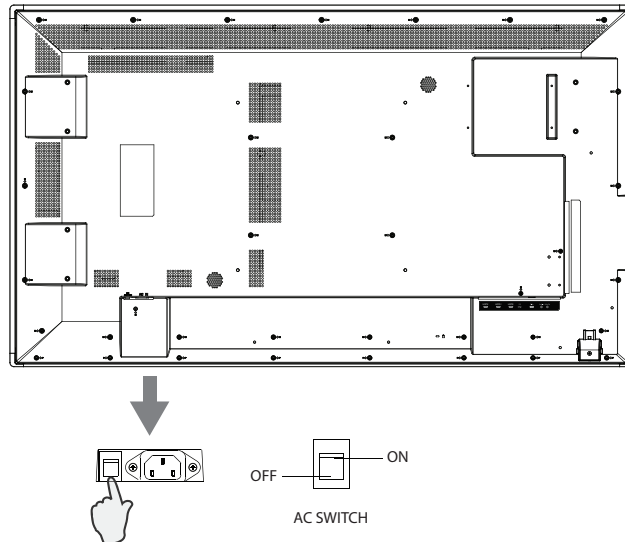


2. To power up the display, select either the Power button [⏻] on the control panel (A) or the Power button [⏻] on the remote control (B).



---
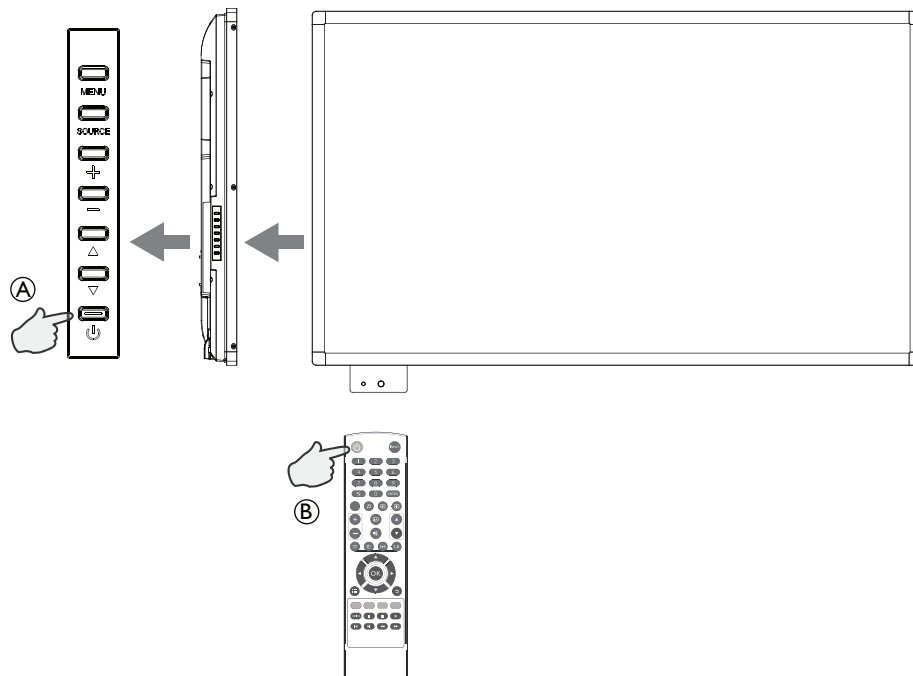
**NOTE**

---

The display power indicator will turn green while powered on and will turn red while powered off.

---

# LED POWER INDICATOR

| Condition | Indicator | |
|---|---|---|
| | **LED (RED)** | **LED (GREEN)** |
| On | OFF | ON |
| Off (=Standby) | ON | OFF |
| Power Saving | ON | ON |
| Schedule Standby | BLINK | ON |
| Over safe temperature | BLINK | OFF |
| USB auto upgrade (use in factory) | BLINK | BLINK |
| Over alarm temperature | BLINK | OFF |

# Connecting Devices to Your Display

Before connecting any equipment:

- First turn off the power of all the attached equipment and then make connections to the display.

- Refer to the user manual included with each separate piece of equipment.

---
**NOTE**

---
Do not connect/disconnect cables when turning on the display or when turning on other external equipment as this may result in image loss.

---

---
**NOTE**

---
Use an audio cable without a built-in resistor. This type of audio cable turns down the sound.

---
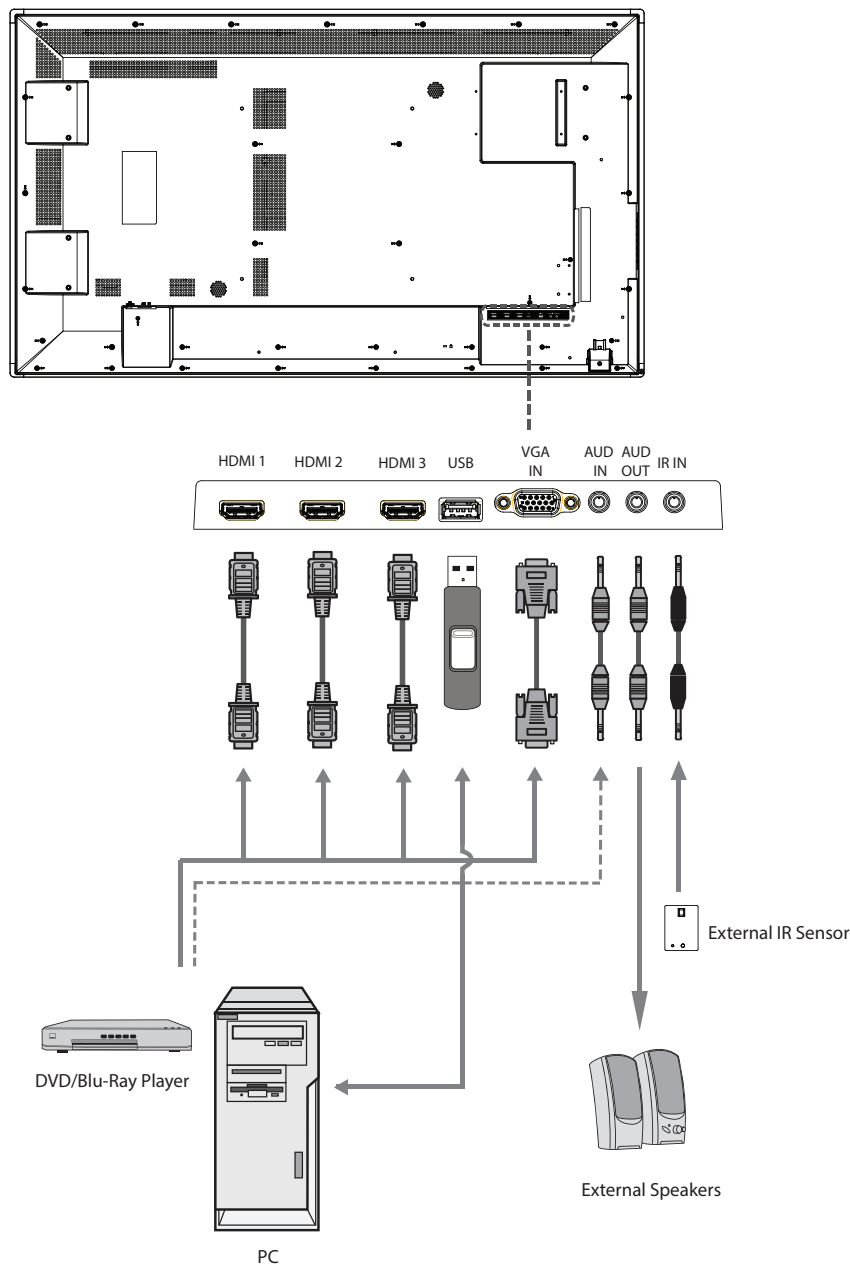
| Connecting equipment | Connecting video terminal | Input signal name on source menu | Connecting audio terminal | Input button on remote control |
|---|---|---|---|---|
| AV | HDMI 1<br>HDMI 2<br>HDMI 3 | HDMI 1<br>HDMI 2<br>HDMI 3 | HDMI 1<br>HDMI 2<br>HDMI 3<br>[Optional: AUDIO IN] | INPUT > HDMI 1<br>INPUT > HDMI 2<br>INPUT > HDMI 3 |
| PC | HDMI 1<br>HDMI 2<br>HDMI 3 | HDMI 1<br>HDMI 2<br>HDMI 3 | HDMI 1<br>HDMI 2<br>HDMI 3<br>[Optional: AUDIO IN] | INPUT > HDMI 1<br>INPUT > HDMI 2<br>INPUT > HDMI 3 |
|  | D-SUB<br>(VGA IN) | VGA | AUDIO IN | INPUT > VGA |

# ANALOG CONNECTIONS

## Connecting with an Analog Video Source:

### D-SUB connection:

1. Connect a VGA cable to the D-SUB connector.

2. Select **VGA** using the [SOURCE] button on the display, or the [INPUT] button on the remote control. Once selected, the audio automatically switches to [LINE IN] on the display.

### Audio with a D-SUB connection:

• Connect an audio cable (3.5-mm stereo mini), to the AUDIO IN connector. Because the audio automatically switches to [LINE IN], the audio is output simply by connecting the cable.

# DIGITAL CONNECTIONS

## Connecting with a Digital Video Source:

### HDMI Connection:

1. Connect an HDMI cable to the HDMI1, HDMI2 or HDMI3 connector.

2. Select **HDMI1**, **HDMI2**, or **HDMI3** according to the connected connector by pressing the [SOURCE] button on the display or the [INPUT] button on the remote control.

---

**NOTE**

---

Please use an HDMI cable with HDMI logo.

---

### Audio with an HDMI connection:

• For HDMI 1, HDMI 2 or HDMI 3, the default setting of audio source is a TMDS signal with HDMI cable. Users can use an external audio source if an audio cable (3.5-mm stereo mini) is connected to the AUDIO IN connector. Open the OSD Menu and select **Sound > Audio Source > LINE IN**. (See "OSD (On-Screen-Display) Controls" on page 26).

---

**NOTE**

---

It may take a moment for the signal to appear on the screen.

---

---

**NOTE**

---

Some display cards or drivers may not display an image correctly.

---

---

**NOTE**

---

The image may be reduced and may not be displayed full screen at a resolution of 1920 x 1080. Check the setting of the device's video card.

---

## Connecting a Personal Computer:

Some display cards with a pixel clock over 162MHz may not display an image correctly. Your display projects the proper image by adjusting the factory preset timing signal automatically.

Typical factory preset signal timing:

| Resolution | Scanning frequency | | Remarks |
|---|---|---|---|
| | Horizontal | Vertical | |
| 640 x 480 | 31.5 kHz | 60 Hz | |
| 800 x 600 | 37.9 kHz | 60 Hz | |
| 1024 x 768 | 48.4 kHz | 60 Hz | |
| 1280 x 768 | 48 kHz | 60 Hz | |
| 1360 x 768 | 48 kHz | 60 Hz | |
| 1280 x 1024 | 64 kHz | 60 Hz | |
| 1600 x 1200 | 75 kHz | 60 Hz | Compressed image |
| 1920 x 1080 | 67.5 kHz | 60 Hz | Recommended resolution |

# USING THE TOUCHSCREEN

The display supports touchscreen functionality with an external A-type USB connector located at the left side of the panel.

To use the touchscreen function:

1. Turn off the power of the display.

2. Connect the display's A-type USB connector to the USB port of an external computer.

3. Turn on the power of the display. The external computer's desktop should automatically appear on the display panel.

---

**NOTE**

---

You may need to select the input signal of the external computer to its USB connector.

---
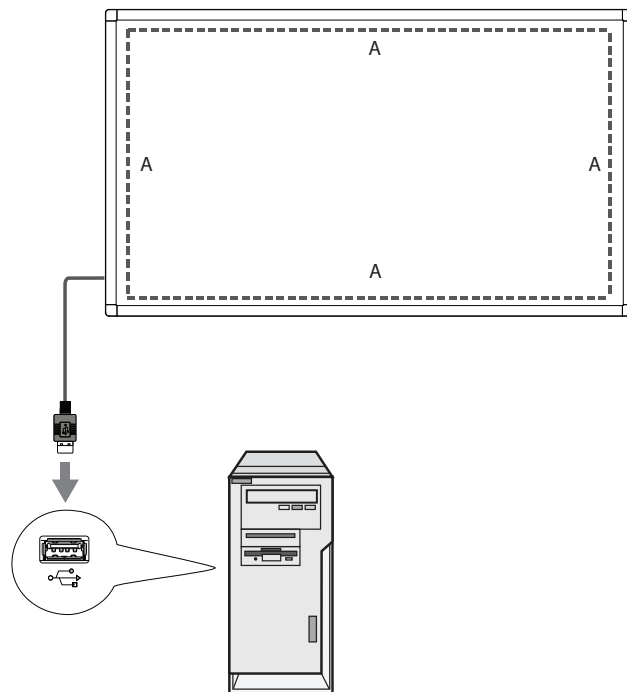


# PICTURE ASPECT RATIO

You can set the aspect ratio of the screen by selecting an item for **Aspect Ratio** (OSD Menu) or by using the [ASPECT] button on the remote control. Select 4:3, 16:9, ZOOM, CINEMA or DOT BY DOT.

---

**NOTE**

---

When **Over Scan** is set to OFF, you can only select 4:3, 16:9 or DOT BY DOT

---

# OSD (On-Screen-Display) Controls

For this display, an OSD (On-Screen Display) function is used to allow you to easily adjust settings. You can use the OSD function to control the menu displayed on the screen and to adjust the picture, sound and other settings of the display.

To access the OSD Main Menu, press the [MENU] button on the remote control or the control panel.

## OSD Main Menu

```
                          Main Menu
  Picture
  Sound
  Setup
  Initial Setting
  System Information


  ▲▼ Move                         ⊙  OK
                                Menu  Exit
```
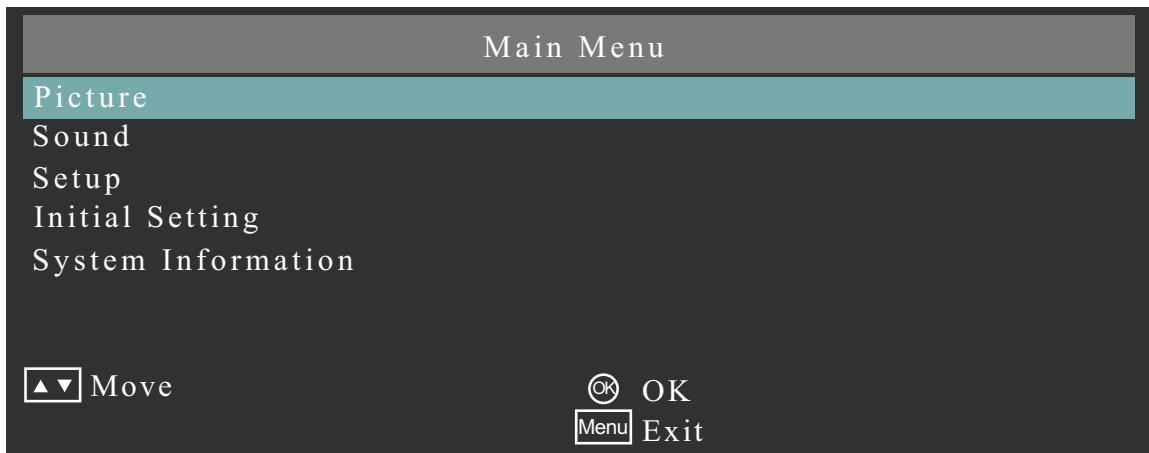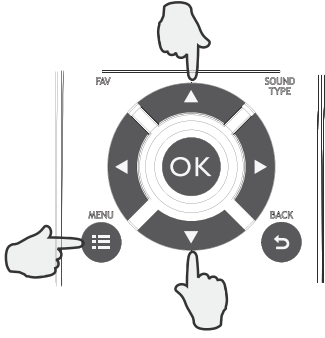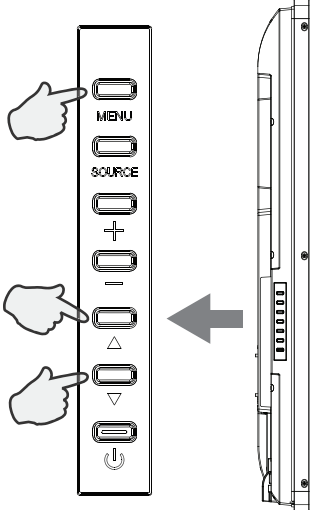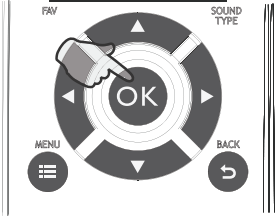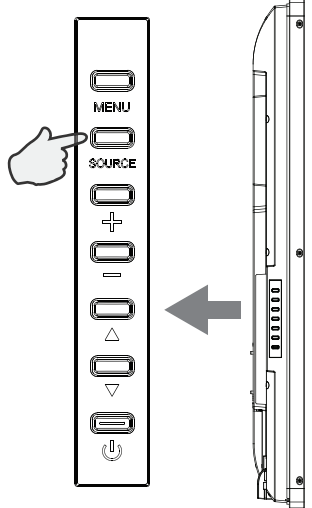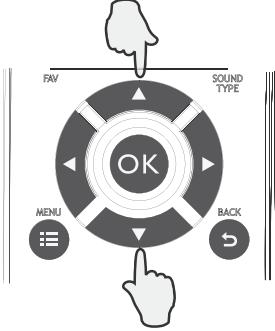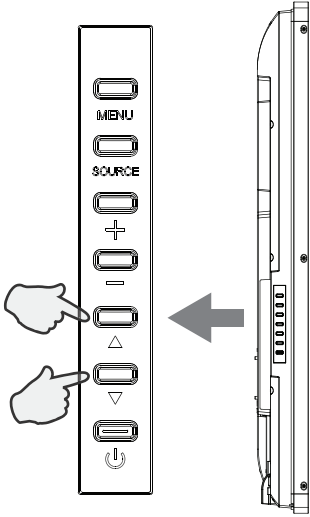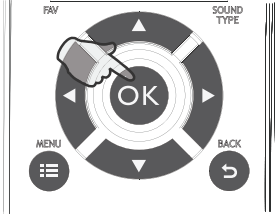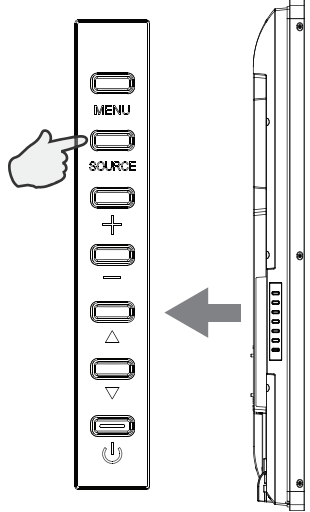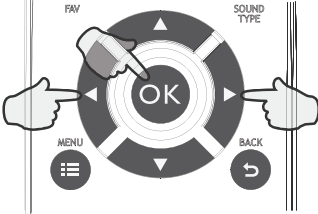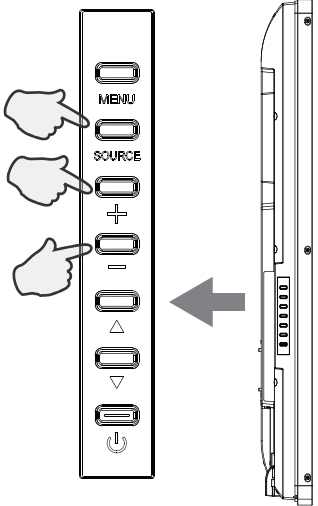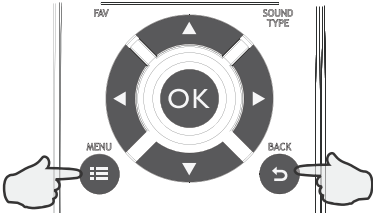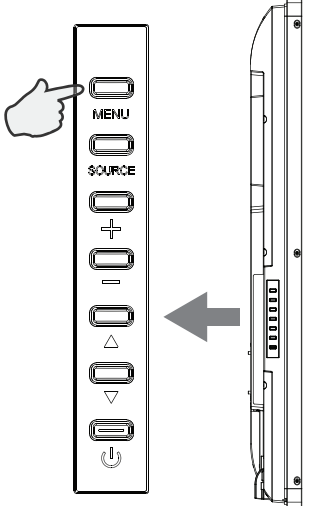
| Sub-Menu Name | FUNCTION | See Page |
|---|---|---|
| Picture | Adjusts the picture settings of the display | 30 |
| Sound | Adjusts the audio settings of the display | 31 |
| Setup | Adjusts general settings of the display such as Scheduler, Power Save, and updating firmware | 32 |
| Initial Setting | Adjusts the language and time settings of the display | 33 |
| System Information | Displays the model number and software version of the display | 34 |

# BASIC OPERATIONS OF THE OSD SCREEN

Make sure that the display is powered on and that the LED power indicator is green.

| | Step | Wireless Remote Control | Keypad Operation |
|---|---|---|---|
| 1 | Opening and Navigating the OSD Main Menu | Press the [MENU] button to display the OSD screen. Press the up (△)/down (▽) button to select an item in the main menu. | Press the [MENU] button to display the OSD screen. Press the up (△)/down (▽) button to select an item in the main menu. |
| 2 | Making Selections in the OSD Main Menu | Press the [OK] button to determine the selected item in the main menu. The top item in the relevant sub menu is selected. | Press the [SOURCE] button to determine the selected item in the main menu. The top item in the relevant sub menu is selected. |

| | Step | Wireless Remote Control | Keypad Operation |
|---|---|---|---|
| 3 | Opening and Navigating OSD Sub-Menus | Press the up (△)/down (▽) button to navigate to an item in the sub menu.  | Press the up (△)/down (▽) button to navigate to an item in the sub menu.  |
| 4 | Making Selections in the OSD Sub-Menus | Press the [OK] button to select an item in the sub menu.  | Press the [SOURCE] button to determine the selected item in the sub menu.  |

| | Step | Wireless Remote Control | Keypad Operation |
|---|---|---|---|
| 5 | Adjusting settings in the OSD sub-menus | Press the left (◁)/right (▷) button to adjust a setting or press the [OK] button to display further features of the setting. | Press the plus (+)/minus (−) button to select a setting and press the [SOURCE] button to determine the setting. |
| 6 | Returning to the previous menus and exiting the OSD Main Menu | Press the [BACK] button to exit from the current menu and return to the previous menu. Press the [MENU] button to exit from the OSD Menu. | Press the [MENU] button to exit from the OSD Menu. |

## PICTURE

```
                        Picture
 Picture Mode                      Dynamic
 Backlight                         100
 Color Temperature                 11500
 Gamma                             2.2
 Noise Reduction                   Strong
 Adaptive Contrast                 Off
 Over Scan                         Auto
 Aspect Ratio                      16:9
 Color Range                       Automatic
 VGA setting
 Reset Picture Setting

 ▲▼ Move                      ⊙ OK
 ⤴ Back                      Menu Exit
```
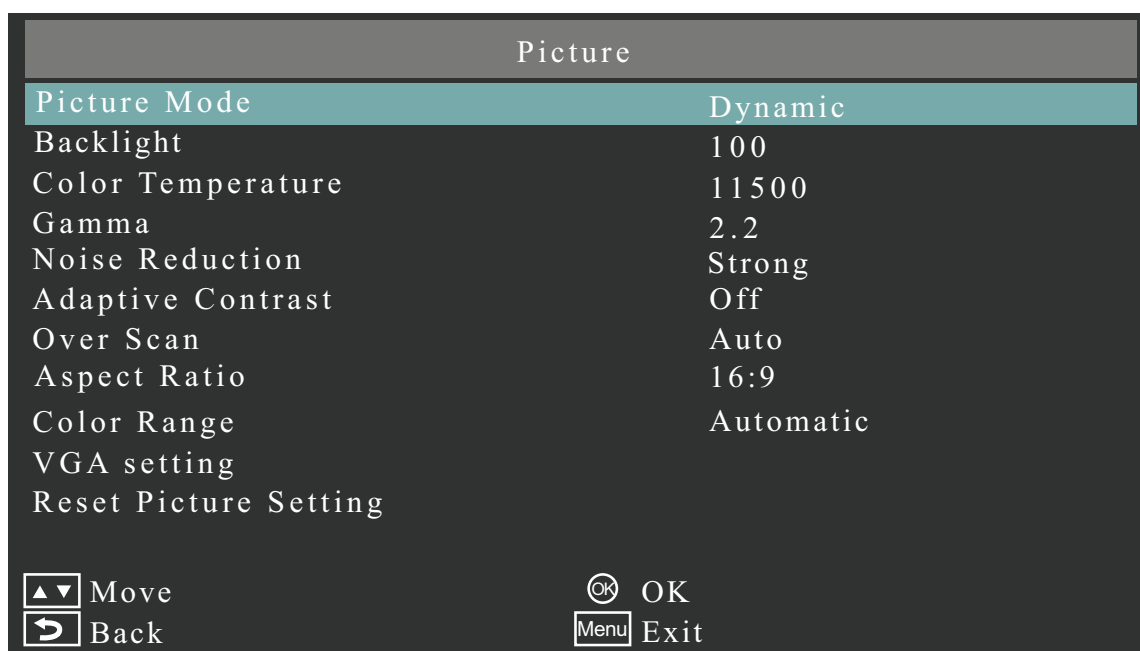
| PICTURE | FUNCTION |
|---------|----------|
| Picture Mode | Select **Dynamic**, **Cinema**, **Custom**, or **Standard**. <br> Adjust **Contrast**, **Brightness**, **Sharpness**, **Tint**, and **Color**. |
| Backlight | Adjust the **Backlight** setting. |
| Color Temperature | Adjust **Color Temperature** and the **Red Gain**, **Green Gain** and **Blue Gain**. |
| Gamma | Select a **Gamma** setting. |
| Noise Reduction | Adjust **Noise Reduction** setting |
| Adaptive Contrast | Select **Adaptive Contrast** to ON or OFF. |
| Over Scan | Adjust **Over Scan** to AUTO or OFF. |
| Aspect Ratio | Adjust **Aspect Ratio** setting. <br> • Select 4:3, 16:9, ZOOM, CINEMA, or DOT BY DOT. <br> When **Over Scan** is set to OFF, you can select 4:3, 16:9, or DOT BY DOT. |
| Color Range | Adjust **Color Range** setting |
| VGA setting | Adjust **H Position**, **V Position**, **Clock**, and **Phase**. |
| Reset Picture Setting | Resets the settings in the Picture menu back to their factory settings. |

**SOUND**



```
                              Sound
 Sound  Mode                          Standard
 Surround Sound                        Off
 Speaker                               Internal
 Audio Source                          HDMI1
 Reset Audio Setting




 ▲▼ Move                         OK  OK
 ⤺  Back                       Menu  Exit
```

| SOUND | FUNCTION |
|-------|----------|
| Sound Mode | Select **Standard**, **Dynamic**, or **Custom**. Adjust **Treble**, **Bass**, and **Balance**. |
| Surround Sound | Adjust **Surround Sound** to ON or OFF. |
| Speaker | Select **Speaker** setting to INTERNAL or EXTERNAL. |
| Audio Source | Select the **Audio Source** to either LINE IN, HDMI1, HDMI2 or HDMI3. |
| Reset Sound Setting | Resets the settings in the Sound menu back to their factory settings. |
| Restore Default | Resets the settings in the Setup menu back to their factory settings. |

## SETUP

```
                          Setup

 Scheduler                        ◄ Off
 Signal Check Priority
 CEC Control                        On
 Sleep Timer                        Off
 Power Save                         300 Sec
 Software Update (USB)
 Restore Default


 ▲▼ Move                    ◄► Adjust
 ⟲ Back                    Menu Exit
```

| SETUP | FUNCTION |
|---|---|
| Scheduler | Change the **Scheduler** setting.<br><br>• The schedule function allows the display to be set to power on and off at different times. Up to seven different schedules can be programmed.<br><br>• If schedules are overlapping then the schedule with the highest number will have priority over the schedule with the lowest number. For example schedule #7 will have priority over schedule #1. |
| Signal Check Priority | When **Signal Check Priority** is enabled, the display attempts to find a valid signal source according to the Signal Check Priority setting at power on.<br><br>• Set PRIORITY 1 to PRIORITY 5 (PRIORITY 1: highest priority) as the priority of each signal. When the current source signal is lost, the display attempts to find a new signal source according to the Signal Check Priority setting.<br><br>• When the signal source for which PRIORITY 1 is set is not found, the display checks other sources in order of priority and switches to the available source with the highest priority.<br><br>• When the signal source with the highest priority recovers, the display automatically switches to the source again.<br><br>• When **Signal Check Priority** is disabled, the display uses the last used source at power on.<br><br>• When **Signal Check Priority** is enabled and the signal source is USB, the USB data is automatically played at power on. |
| CEC Control | Select **CEC Control** settings to ON or OFF. |
| Sleep Timer | Change the **Sleep Timer** setting or set Sleep Timer to OFF. |
| Power Save | Change the **Power Save** setting or set Power Save Mode to OFF. |
| Software Update (USB) | Updates software via the USB port. |
| Restore Default | Resets the settings in the Setup menu back to their factory settings. |

## INITIAL SETTING

```
                    Initial Setting
  Menu Language                   ◄ English
  Time Format                       12-hour
  Clock                             2017/1/1 12:00PM
  Remote Operation                  Enable
  Keypad Operation                  Enable
  Anti-Image Retention              Off




  ▲▼ Move                         ◄► Adjust
  ⤺ Back                          Menu Exit
```

| INITIAL SETTING | FUNCTION |
|---|---|
| Menu Language | Change the language used for OSD Menu. |
| Time Format | Select 12 HOUR or 24 HOUR. |
| Clock | Set the time and date. |
| Remote Operation | Enable or disable **Remote Operation**.<br>• When **Remote Operation** is enabled and locked, press the following combination on the remote control: [MENU], left [◁], right [▷], up [△], and down [▽]. The **Remote Operation** will become unlocked and disabled. |
| Keypad Operation | Enable or disable **Keypad Operation**. |
| Anti-Image Retention | Select PICTURE SHIFT or WHITE PIXEL, or set Anti-Image Retention to OFF. |

### NOTE

**Image Persistance:** Please be aware that LCD Technology may experience a phenomenon known as Image Persistence. Image Persistence occurs when a residual or "ghost" image of a previous image remains visible on the screen. Unlike CRT monitors, image persistence in LCD monitors is not permanent, but constant images being displayed for a long period of time should be avoided.

To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.

As with all personal display devices, dealer recommends displaying moving images and using a moving "Anti-Image Retention" at regular intervals whenever the screen is idle or turning off the monitor when not in use.

Please set **Anti-Image Retention**, **Clock** and **Scheduler** functions to further reduce the risk of Image persistence.

**SYSTEM INFORMATION**

| System Information | |
|---|---|
| Model Name | ◀ BH281 |
| SW Version | 0.03.01 |

▲▼ Move
↩ Back          Menu Exit
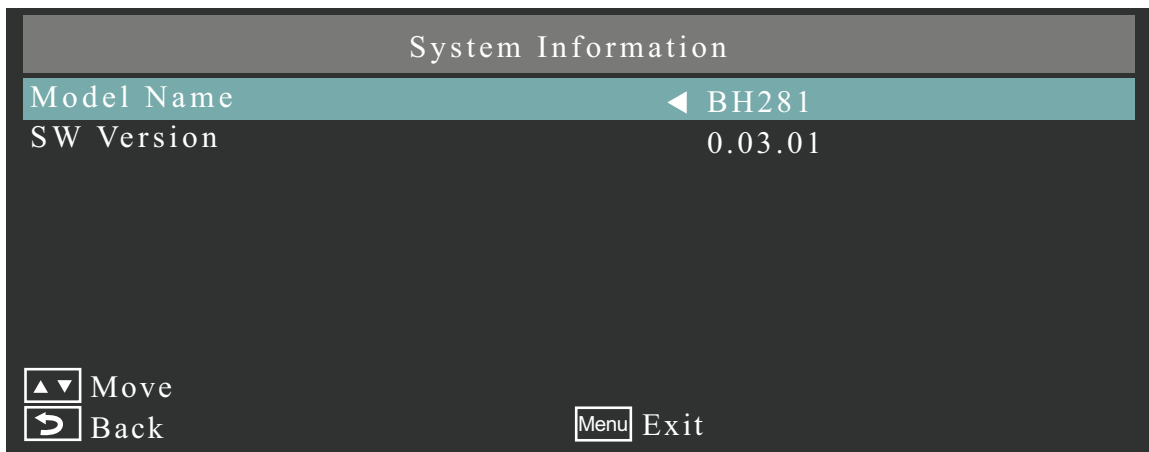
| SYSTEM INFORMATION | FUNCTION |
|---|---|
| Model Name | Displays the model name of the display. |
| SW Version | Displays the version of the current software of the display. |

# Troubleshooting

### No picture

- The signal cable should be completely connected to the display card/computer.
- The display card should be completely seated in its slot.
- Check the main Power Switch, it should be in the ON position.
- Power Switch and computer power switch should be in the ON position.
- Check to make sure that a supported mode has been selected on the display card or system being used. (Please consult display card or system manual to change graphics mode.)
- Check the display and your computer's display card with respect to compatibility and recommended settings.
- Check the signal cable connector for bent or pushed-in pins.
- The display automatically goes into OFF at the preset time period after signal is lost. Press the power button.

### Power Button does not respond

- Unplug the power cord of the display from the AC outlet to turn off and reset the display.
- Check the main Power Switch on the back side of the display.

### Image persistence

- Please be aware that LCD Technology may experience a phenomenon known as Image Persistence.

  Image Persistence occurs when a residual or "ghost" image of a previous image remains visible on the screen. Unlike CRT monitors, image persistence in LCD monitors is not permanent, but constant images being displayed for a long period of time should be avoided. To alleviate image persistence, turn off the display for as long as the previous image was displayed.

  For example, if an image was on the display for one hour and a residual image remains, the display should be turned off for one hour to erase the image.

---

**NOTE**

As with all personal display devices, dealer recommends displaying moving images and using a moving "Anti-Image Retention" at regular intervals whenever the screen is idle or turning off the monitor when not in use.

---

### Image is unstable, unfocused or swimming is apparent

- Signal cable should be completely attached to the computer.
- Use the OSD **Image Adjust** controls to focus and adjust display by increasing or decreasing the fine adjustment.
- When the display mode is changed, the OSD **Image Adjust** settings may need to be re-adjusted.
- Check the display and your computer's display card with respect to compatibility and recommended signal timings.
- If your text is garbled, change the video mode to non-interlace and use 60Hz refresh rate.
- The image may be distorted when turning the power on or changing the settings.

### LED on display is not lit (no green or red color can be seen)

- Power Switch should be in the ON position and power cord should be connected.

- Check the main Power Switch, it should be in the ON position.

- Make certain the computer is not in a power-saving mode (touch the keyboard or mouse).

- Check to see that the power indicator option in the OSD is set to ON.

### RED LED on monitor is blinking

- A certain failure might have occurred, please contact your nearest authorized dealer service facility.

- Display is powered off by the inside temperature being higher than the normal operating temperature. Power on the display again after confirming the inside temperature has been reduced to normal operation temperature.

### Display image is not sized properly

- Use the OSD **Image Adjust** controls to increase or decrease the coarse adjustment.

- Check to make sure that a supported mode has been selected on the display card or system being used. (Please consult display card or system manual to change graphics mode.)

### Selected resolution is not displayed properly

- Use OSD **Display Mode** to enter Information menu and confirm that the appropriate resolution has been selected. If not, select corresponding option.

### No Sound

- Check to see if audio cable is properly connected.

- Check to see if mute is activated.

- Check to see if volume is set at minimum.

- Check to see if computer supports an audio signal.

If unsure, contact the computer manufacturer.

- Check to see if SURROUND is set to ON.

- Check the external speaker switch.

### Remote Control is not available

- Check the status of the Remote Control's batteries.

- Check if batteries are inserted correctly.

- Check if the Remote Control is pointing at the monitor's remote sensor.

- Check the **Remote Operation** setting status.

- The remote control system may not function when direct sunlight or strong illumination strikes the remote control sensor of the display, or when there is an object in the path.

### Scheduler/Sleep Timer function is not working properly

- The **Scheduler** function will be disabled when the **Sleep Timer** is set.

- If the **Sleep Timer** function is enabled and the power to the display is turned off when the power supply is interrupted unexpectedly, then the **Sleep Timer** will be reset.

**Interference in TV**

- Check components for shielding, move away from monitor if necessary.

**The touch panel does not respond**

- Check the input signal setting.

- Make sure the USB cable is connected properly.

- When using touch function at the display edge, there may be a slight gap between touch position on the screen and where you touched. It is the specification and not a failure of product.

**The response of the touch screen is not correct**

- Avoid direct sunlight or strong light on the screen.

- If there are some obstacles near the touch screen, it may malfunction.

- Wipe gently with a soft cloth.

**The computer's power management does not work**

- It is recommended to choose "S3" at the "Power Management" item in the BIOS (abbreviation of Basic Input / Output System) computer's setup screen.


Either faint vertical or horizontal stripes may appear, depending on the specific display pattern. This is no product fault or degradation.

# Product Specifications

| LCD Module | |
|---|---|
| 65" V / 1639.0 mm diagonal | |
| Pixel Pitch | 0.744 mm |
| Resolution | 1920 x 1080 |
| Color | Over 1073 million colors |
| Brightness | 400 cd/m2 (with cover glass) |
| Contrast Ratio | 4000:1 |
| Viewing Angle | Left/Right: 170° (typ) @ CR>10, Up/Down: 170° (typ) @ CR>10 |
| **Frequency** | |
| Horizontal | 15.625 kHz - 67.5 kHz (Analog Input) <br> 31.5 kHz - 67.5 kHz (Digital Input) |
| Vertical | 50.0 - 60.0 Hz |
| **Pixel Clock** | |
| 13.5 - 148.5MHz (Analog) <br> 25.0 - 148.5MHz (Digital) | |
| **Viewable Size** | |
| 1428.5 x 803.5 mm | |
| **Input Signal** | |

| | | | |
|---|---|---|---|
| VGA | 15pin Mini D-sub | Analog RGB | 0.7 Vp-p/75 ohm <br> VGA60, SVGA60, XGA60, WXGA60, SXGA60, UXGA60, 1920X1080 (60Hz) |
| | | Sync | Separate: TTL level (Pos./Neg.) <br> Composite sync on Green Video: 0.3 Vp-p Neg. |
| HDMI | HDMI Connector | Digital YUV <br> Digital RGB | HDMI <br> VGA60, SVGA60, XGA60, WXGA60, SXGA60, UXGA60, 1920X1080(60Hz), 1125p(1080p), 1125i(1080i), 750p(720p)@50Hz/60Hz, 525p(480p)@60Hz, 625p(576p)@50Hz, 525i(480i)@60Hz, 625i(576i) @50Hz |

| Audio | | | |
|---|---|---|---|
| Audio Input | Stereo Mini Jack | Analog Audio | Stereo L/R 0.5 Vrms |
| | HDMI Connector | Digital Audio | PCM 32, 44.1, 48 KHz (16/20/24bit) |
| Audio Output | Stereo Mini Jack | Analog Audio | Stereo L/R 0.5 Vrms |

| Speaker Output |
|---|
| Internal Speaker 10W + 10W |

| Control | |
|---|---|
| Remote IN | Stereo Mini jack 3.5? |

| Power Supply |
|---|
| 2.5 A @ 100-240V AC, 50/60Hz |

| Operational Environment | |
|---|---|
| Temperature | 0 - 40°C / 32 -104°F |
| Humidity | 20 - 80% (without condensation) |
| Altitude | 0 - 2000 m (Brightness may decrease with altitude) |

| Storage Environment | |
|---|---|
| Temperature | -20 - 60°C / -4 - 140°F |
| Humidity | 10 - 90% (without condensation) / 90% - 3.5% x (Temp - 40°C) regarding over 40°C |

| Dimension |
|---|
| 1489.0 (W) x 866.1 (H) x 86.7 (D) mm / 58.6 (W) x 34.1 (H) x 3.4 (D) inches |

| Weight |
|---|
| 42.1 kg (92.8 lbs) |

| Detection Method |
|---|
| IR scanning method |

| Operating System |
|---|
| (Multi Touch) Windows8, Windows7 <br> (Single Touch) Windows8, Windows7, Windows XP, Windows Vista |

| Multi-touch |
|---|
| More than 10 touches (limited accuracy) |

| PC Connector |
|---|
| USB V2.0 Full Speed |

| Protective Glass | |
|---|---|
| Material | Tempered glass |
| Thickness | 4.0 mm |
| Surface Treatment | Anti-Glare coating |
| Transparency | More than 89% |
| Reflection Rate | δ2% |
| Surface Hardness | 6H |
| Impact Resistance | 100 cm |
| **VESA compatible mounting interface** | |
| 400 mm x 400 mm (M6, 4 Holes) | |
| **Power Management** | |
| VESA DPM | |
| **Plug & Play** | |
| VESA DDC2B | |
| **Accessories** | |
| Setup manual, Power Cord, Remote Control, AAA Battery x 2 | |

**NOTE**

Technical specifications are subject to change without notice.

# Appendix – Supported Media

## VIDEO SPECIFICATIONS

| File extension | Container | Video codec | Maximum resolution | Maximum frame rate | Maximum bit rate | MPEG-1 Audio Layer2 and 3 | AAC | WMA | L-PCM |
|---|---|---|---|---|---|---|---|---|---|
| .mpg .mpeg | – | MPEG-2 Video | 1080P | 30fps | 20Mbps | ○ | ○ | | ○ |
| .ts .trp .to .m2ts | MPEG2-TS | MPEG-2 Video | 1080P | 30fps | 20Mbps | ○ | ○ | | |
| | | H.264 | 1080P | 30fps | 20Mbps | ○ | ○ | | |
| .vob | MPEG2-PS | MPEG-2 Video | 1080P | 30fps | 20Mbps | ○ | | | ○ |
| .mp4 | MP4 | MPEG-4 AVC | 1080P | 30fps | 20Mbps | ○ | ○ | | |
| | | H.264 | 1080P | 30fps | 20Mbps | ○ | ○ | | |
| .mkv | MKV | H.264 | 1080P | 30fps | 20Mbps | ○ | ○ | | ○ |
| | | MPEG-1 | 1080P | 30fps | 20Mbps | | | | |
| | | MPEG-2 Video | 1080P | 30fps | 20Mbps | | | | |
| | | MPEG-4 AVC | 1080P | 30fps | 20Mbps | | | | |
| .avi | AVI | MPEG-2 Video | 1080P | 30fps | 20Mbps | ○ | ○ | | ○ |
| | | MPEG-4 AVC | 1080P | 30fps | 20Mbps | | | | |
| | | H.264 | 1080P | 30fps | 20Mbps | | | | |
| .asf .wmv | ASF | H.264 | 1080P | 30fps | 20Mbps | ○ | | ○ | ○ |
| | | MPEG-2 Video | 1080P | 30fps | 20Mbps | | | | |
| | | MPEG-4 AVC | 1080P | 30fps | 20Mbps | | | | |
| | | WMV3 | 1080P | 30fps | 20Mbps | | | | |

* Some videos may not be able to be played. In particular, MP4 videos may not be able to be played by the encoder.

# AUDIO SPECIFICATIONS

| File extension | Audio codec | Bit rate | Sampling rate |
|---|---|---|---|
| .mp3 | MPEG1 Audio Layer 3 | 32Kbps - 320Kbps | 32kHz - 48kHz |
| .m4a .AAC | AAC, HEAAC | 24Kbps - 384Kbps | 8kHz - 48kHz |
| .wma .asf | WMA | 128Kbps - 320Kbps | 8kHz - 48kHz |
| N/A (Movie file only) | LPCM | 64Kbps - 1.5 Mbps | 8kHz - 48kHz |

# IMAGE SPECIFICATIONS

| File extension | Codec (format) | Photo | Resolution |
|---|---|---|---|
| .jpg | JPEG | baseline | 15360x8640 |
| | | progressive | 1024x768 |
| .png | PNG | non-interlace | 9600x6400 |
| | | interlace | 1200x800 |
| .bmp | BMP | -- | 9600x6400 |

# Manufacturer's Recycling and Energy Information

## IT Equipment Recycling Information

Acer is strongly committed to environmental protection and views recycling, in the form of salvaging and disposal of used equipment, as one of the company's top priorities in minimizing the burden placed on the environment.

We at Acer are very conscious of the environmental effects of our business and strive to identify and provide the best working procedures to reduce the environmental impact of our products.

For more information and help when recycling, please go to this website: http://www.acer-group.com/public/Sustainability/

Visit www.acer-graoup.com for further information on the features and benefits of our other products.

## Disposal instructions

Do not throw this electronic device into the trash when discarding.

To minimize pollution and ensure utmost protection of the global environment, please recycle. For more information on the Waste from Electrical and Electronics Equipment (WEEE) regulations, visit http://www.acer-group.com/public/Sustainability

## Energy Saving

This monitor features an advanced energy saving capability. When a Display Power Management signal is sent to the monitor, the Energy Saving mode is activated. The monitor enters a single Energy Saving mode.

| Mode | Power consumption | LED color |
|------|-------------------|-----------|
| Normal Operation*1, *2 | Approx. 140 W | Green |
| Energy Saving Mode*1, *3 (Power Save) | Less than 0.5 W | Amber |
| Energy Saving Mode*1, *3 (AUTO STANDBY) | Less than 0.5 W | Red |
| Power Off | Less than 0.5 W | Red |

*1: without any option, with factory settings.

*2: depends on destination.

*3: VGA input only.

## WEEE Mark (European Directive 2012/19/EU)

### Disposing of your used product: In the European Union

EU-wide legislation as implemented in each Member State requires that used electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you dispose of such products, please follow the guidance of your local authority or ask the shop where you purchased the product, or if applicable, follow applicable legislation or agreement you may have. The mark on electrical and electronic products may only apply to the current European Union Member States.

### Outside the European Union

If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority and ask for the correct method of disposal.

**For EU:** The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation.

**According the EU directive 2006/66/EC, the battery can't be disposed improperly. The battery shall be separated to collect by local service.**