# **JOC**

/IOC

LCD Monitor User Manual

24E2H/24E2D/24E2DA/24E2Q/24E2QA 27E2H/27E2DA/27E2Q/27E2QAE/27E2UA



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# Safety

### **National Conventions**

The following subsections describe notational conventions used in this document.

#### Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:



NOTE: A NOTE indicates important information that helps you make better use of your computer system.



**CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



**WARNING:** A WARNING indicates the potential for bodily harm and tells you how to avoid the problem. Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

#### **Power**

The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.

The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.

Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.



Do not overload power strips and extension cords. Overloading can result in fire or electric shock.

To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 5A.



The wall socket shall be installed near the equipment and shall be easily accessible.

#### Installation

Do not place the monitor on an unstable cart, stand, tripod, bracket, or table. If the monitor falls, it can injure a person and cause serious damage to this product. Use only a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with this product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. A product and cart combination should be moved with care.

Never push any object into the slot on the monitor cabinet. It could damage circuit parts causing a fire or electric shock. Never spill liquids on the monitor.



Do not place the front of the product on the floor.

If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.

Leave some space around the monitor as shown below. Otherwise, air-circulation may be inadequate hence overheating may cause a fire or damage to the monitor.

To avoid potential damage, for example the panel peeling from the bezel, ensure that the monitor does not tilt downward by more than -5 degrees. If the -5 degree downward tilt angle maximum is exceeded, the monitor damage will not be covered under warranty.

See below the recommended ventilation areas around the monitor when the monitor is installed on the wall or on the stand:

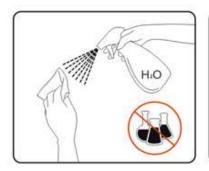
### Installde on the wall 12 inches 30cm 4 inches 4 inches 10cm 10cm leave at least this space around the set 4 inches Installde with stand 12 inches 30cm 4 inches 4 inches 10cm 4 inches 10cm 10cm leave at least this space around the set

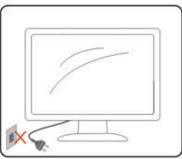
# Cleaning

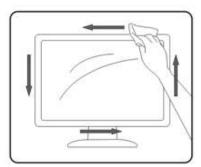
Clean the cabinet regularly with cloth. You can use soft-detergent to wipe out the stain, instead of strong-detergent which will cauterize the product cabinet.

When cleaning, make sure no detergent is leaked into the product. The cleaning cloth should not be too rough as it will scratch the screen surface.

Please disconnect the power cord before cleaning the product.







### Other

If the product is emitting a strange smell, sound or smoke, disconnect the power plug IMMEDIATELY and contact a Service Center.



Make sure that the ventilating openings are not blocked by a table or curtain.

1 Do not engage the LCD monitor in severe vibration or high impact conditions during operation.

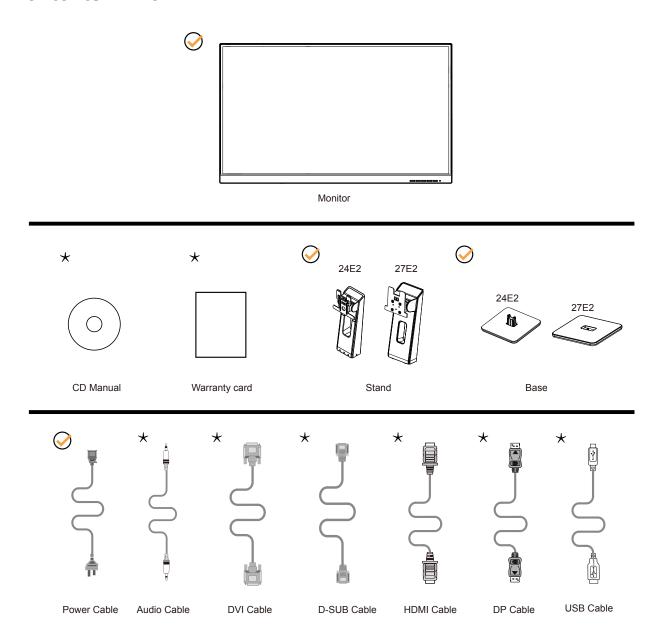
♠ Do not knock or drop the monitor during operation or transportation.

The power cords shall be safety approved. For Germany, it shall be H03VV-F, 3G, 0.75 mm2, or better. For other countries, the suitable types shall be used accordingly.

Excessive sound pressure from earphones and headphones can cause hearing loss. Adjustment of the equalizer to maximum increases the earphones and headphones output voltage and therefore the sound pressure level.

# Setup

### **Contents in Box**

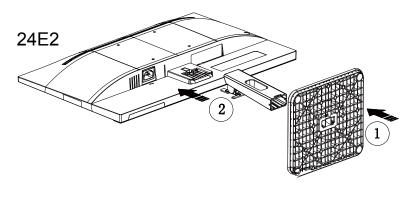


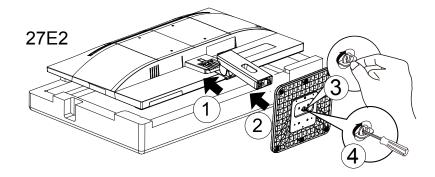
Not all signal cables will be provided for all countries and regions. Please check with the local dealer or AOC branch office for confirmation.

# **Setup Stand & Base**

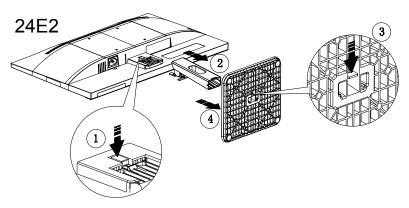
Please setup or remove the base following the steps as below.

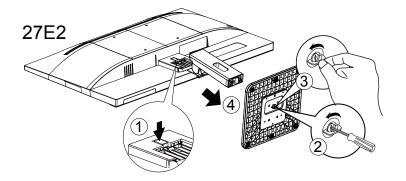
#### Setup:





#### Remove:



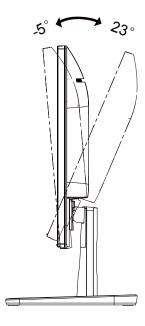


## **Adjusting Viewing Angle**

For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.

Hold the stand so you will not topple the monitor when you change the monitor's angle.

You are able to adjust the monitor as below:





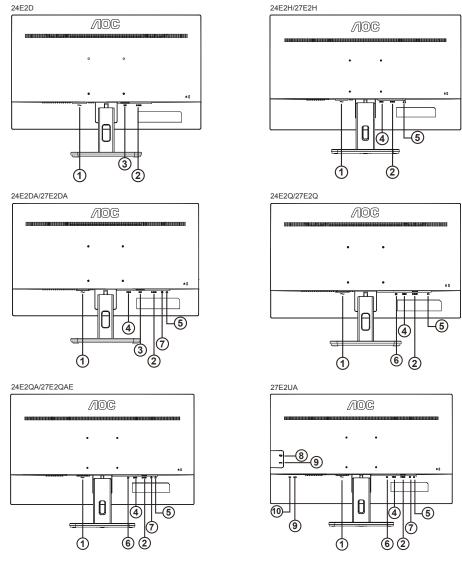
Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.

#### **WARNING:**

- 1. To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- 2. Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

## **Connecting the Monitor**

Cable Connections In Back of Monitor and Computer:



- 1. Power
- 2. Analog (D-Sub 15-Pin VGA cable)
- 3. DVI
- 4. HDMI
- 5. Earphone
- 6. DisplayPort
- 7. Audio in
- 8. USB charging
- 9. USB downstream
- 10. USB upstream

#### **Connect to PC**

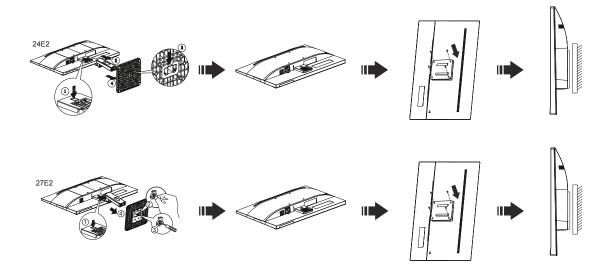
- 1. Connect the power cord to the back of the display firmly.
- 2. Turn off your computer and unplug its power cable.
- 3. Connect the display signal cable to the video connector on the back of your computer.
- 4. Plug the power cord of your computer and your display into a nearby outlet.
- 5. Turn on your computer and display.

If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.

To protect equipment, always turn off the PC and LCD monitor before connecting.

### **Wall Mounting**

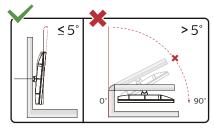
Preparing to Install An Optional Wall Mounting Arm.



This monitor can be attached to a wall mounting arm you purchase separately. Disconnect power before this procedure. Follow these steps:

- 1. Remove the base.
- 2. Follow the manufacturer's instructions to assemble the wall mounting arm.
- 3. Place the wall mounting arm onto the back of the monitor. Line up the holes of the arm with the holes in the back of the monitor.
- 4. Insert the 4 screws into the holes and tighten.
- 5. Reconnect the cables. Refer to the user's manual that came with the optional wall mounting arm for instructions on attaching it to the wall.

Noted: VESA mounting screw holes are not available for all models, please check with the dealer or official department of AOC.



\* Display design may differ from those illustrated.

#### WARNING:

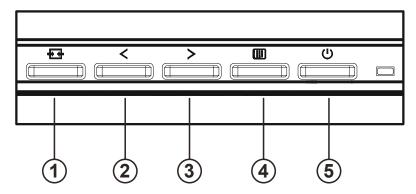
- 1. To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- 2. Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

# **Adaptive-Sync function**

- 1. Adaptive-Sync function is working with DP/HDMI
- 2. Compatible Graphics Card: Recommend list is as the below, also could be checked by visiting www.AMD.com
- Radeon™ RX Vega series
- Radeon™ RX 500 series
- Radeon™ RX 400 series
- Radeon™ R9/R7 300 series (R9 370/X, R7 370/X, R7 265 except)
- Radeon™ Pro Duo (2016)
- Radeon™ R9 Nano series
- Radeon™ R9 Fury series
- Radeon™ R9/R7 200 series (R9 270/X, R9 280/X except)

# **Adjusting**

### **Hotkeys**



1	Source/Auto/Exit
2	Clear Vision/<
3	Volume/>(24E2QA/24E2DA/27E2DA/27E2QAE/27E2UA) Image ratio/>(24E2D) Volume/Image ratio/>(24E2H/27E2H/24E2Q/27E2Q)
4	Menu/Enter
5	Power

#### Menu/Enter

When there is no OSD, Press to display the OSD or confirm the selection.

#### Power

Press the Power button to turn on the monitor.

#### Volume

When there is no OSD, Press > Volume button to active volume adjustment bar, Press < or > to adjust volume.

#### Image ratio

When there is no OSD, Press > hotkey to active image ratio, Press < or > to adjust 4:3 or wide. (If the product screen size is 4:3 or input signal resolution is wide format, the hot key is disable to adjust).

#### Volume/Image ratio

When there is no OSD, Press > Volume button to active volume adjustment bar, Press < or > to adjust volume.(HDMI/DP)

When there is no OSD, Press > hotkey to active image ratio, Press < or > to adjust 4:3 or wide. (If the product screen size is 4:3 or input signal resolution is wide format, the hot key is disable to adjust).(VGA)

#### Source/Auto/Exit

When the OSD is closed, press Source/Auto/Exit button will be Source hot key function.

When the OSD is closed, press Source/Auto/Exit button continuously about 2 second to do auto configure (Only for the models with D-Sub).

#### **Clear Vision**

- 1. When there is no OSD, Press the " <" button to activate Clear Vision.
- 2. Use the ">" or ">" buttons to select between weak, medium, strong, or off settings. Default setting is always "off".



3. Press and hold "<" button for 5 seconds to activate the Clear Vision Demo, and a message of "Clear Vision Demo: on" will be display on the screen for a duration of 5 seconds. Press Menu or Exit button, the message will disappear. Press and hold "<" button for 5 seconds again, Clear Vision Demo will be off.



Clear Vision function provides the best image viewing experience by converting low resolution and blurry images into clear and vivid images.

## **OSD Setting**

Basic and simple instruction on the control keys.



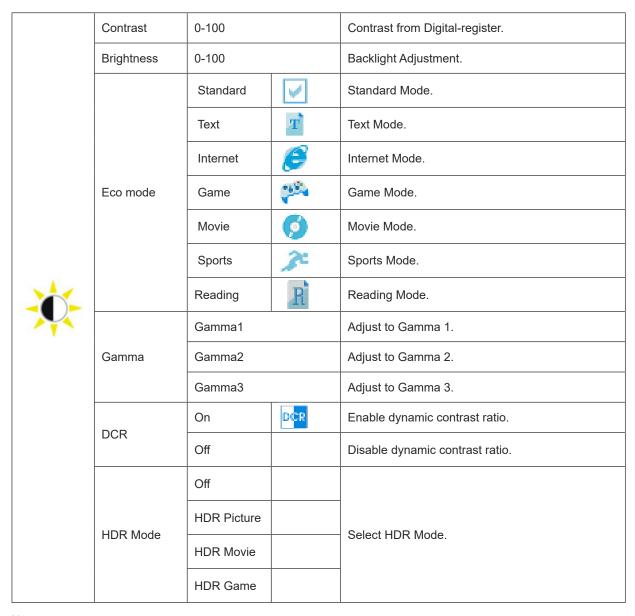
- 1). Press the **IIII MENU-button** to activate the OSD window.
- 2). Press < Left or > Right to navigate through the functions. Once the desired function is highlighted, press the IIII MENU-button to activate it, press < Left or > Right to navigate through the sub-menu functions. Once the desired function is highlighted, press IIII MENU-button to activate it.
- 3). Press < Left or > to change the settings of the selected function. Press + to exit. If you want to adjust any other function, repeat steps 2-3.
- 4). OSD Lock Function: To lock the OSD, press and hold the III MENU-button while the monitor is off and then press U power button to turn the monitor on. To un-lock the OSD press and hold the III MENU-button while the monitor is off and then press U power button to turn the monitor on.

#### Notes:

- 1). If the product has only one signal input, the item of "Input Select" is disable to adjust.
- 2). ECO modes (except Standard mode), DCR, DCB mode and Picture Boost, for these four states that only one state can exist.

#### Luminance



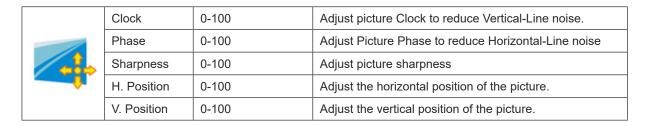


#### Note:

When "HDR Mode" is set to "non-off", the items "Contrast", "Gamma" cannot be adjusted.

### **Image Setup**





# Color Setup

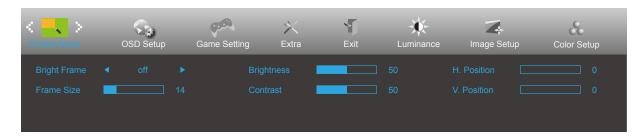


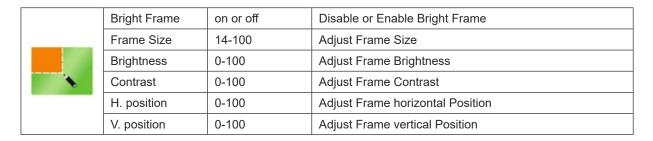
		Warm		Recall Warm Color Temperature from EEPROM.
		Normal		Recall Normal Color Temperature from EEPROM.
		Cool		Recall Cool Color Temperature from EEPROM.
		sRGB		Recall SRGB Color Temperature from EEPROM.
		User		Restore Color Temperature from EEPROM.
		Full Enhance	On or Off	Disable or Enable Full Enhance Mode
	DCB Mode	Nature Skin	On or Off	Disable or Enable Nature Skin Mode
		Green Field	On or Off	Disable or Enable Green Field Mode
		Sky-blue	On or Off	Disable or Enable Sky-blue Mode
		AutoDetect	On or Off	Disable or Enable AutoDetect Mode
		Off	On or Off	Disable or Enable Off Mode
	DCB Demo		On or Off	Disable or Enable Demo
	Red		0-100	Red gain from Digital-register.
	Green		0-100	Green gain from Digital-register.
	Blue		0-100	Blue gain from Digital-register.

#### Note:

When "HDR Mode" under "Luminance" is set to "non-off", all items under "Color Setup" cannot be adjusted.

#### **Picture Boost**





#### Note:

Adjust the brightness, contrast, and position of the Bright Frame for better viewing experience.

When "HDR Mode" under "Luminance" is set to "non-off", all items under "Picture Boost" cannot be adjusted.

### **OSD Setup**



	Language		Select the OSD language
	Timeout	5-120	Adjust the OSD Timeout
	DP Capability (only for certain models)	1.1/1.2	If the DP video content supports DP1.2, please select DP1.2 for DP Capability; otherwise, please select DP1.1. Please be noted that only DP1.2 support Adaptive-Sync function
	H. Position	0-100	Adjust the horizontal position of OSD
	V. Position	0-100	Adjust the vertical position of OSD
	Transparence	0-100	Adjust the transparence of OSD
	Break Reminder	on or off	Break reminder if the user continuously work for more than 1hrs

### **Game Setting**



Game Mode	Off	No optimization by Smart image game
	FPS	For playing FPS (first Person Shooters) games. Improves dark theme black level details.
	RTS	For playing RTS (Real Time Strategy). Improves the image quality.
	Racing	For playing Racing games, Provides fastest response time and high color saturation.
	Gamer 1	User's preference settings saved as Gamer 1.
	Gamer 2	User's preference settings saved as Gamer 2.
	Gamer 3	User's preference settings saved as Gamer 3.
Shadow Control	0-100	Shadow Control Default is 50, then end-user can adjust from 50 to 100 or 0 to increase contrast for clear picture.  1. If picture is too dark to be saw the detail clearly, adjusting from 50 to100 for clear picture.  2. If picture is too white to be saw the detail clearly, adjusting from 50 to0 for clear picture
	Off	
Overdrive (only for certain models)	Weak	Adjust the response time.
	Medium	Adjust the response time.
	Strong	
Game Color	0-20	Game Color will provide 0-20 level for adjusting saturation to get better picture.
LowBlue Mode	Reading / Office / Internet / Multimedia / Off	Decrease blue light wave by controlling color temperature.
Dial Point	On or Off	The "Dial Point" function places an aiming indicator in the center of screen for helping gamers to play First Person Shooter (FPS) games with an accurate and precise aiming.
Adaptive-Sync		Disable or Enable Adaptive-Sync.c
(only for certain models)	On or Off	Adaptive-Sync Run Reminder: When the Adaptive-Sync feature is enabled, there may be flashing in some game environments.
Frame Counter (only for certain models)	Off / Right-up / Right- Down / Left-Down /	Display V frequency on the corner selected
	Shadow Control  Overdrive (only for certain models)  Game Color  LowBlue Mode  Dial Point  Adaptive-Sync (only for certain models)  Frame Counter	FPS   RTS   Racing   Gamer 1   Gamer 2   Gamer 3

#### Note:

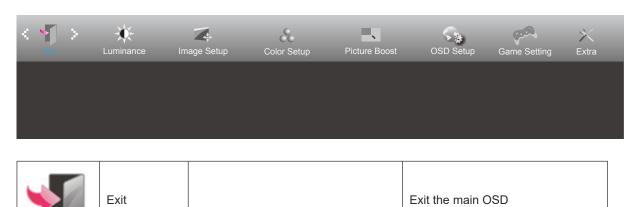
When "HDR Mode" under "Luminance" is set to "non-off", the items "Game Mode", "Shadow Control", "Game Color", "Low Blue Mode" cannot be adjusted.

### **Extra**



	Input Select		Select Input Signal Source
	Auto Config.	Yes or No	Auto adjust the picture to default. (For D-SUB models)
2240	Off timer	0-24hrs	Select DC off time
	Imaga Patia	Wide	Salact image ratio for display
	Image Ratio	4:3	Select image ratio for display.
	DDC/CI	Yes or No	Turn ON/OFF DDC/CI Support
	Yes or No		Reset the menu to default
	Reset	ENERGY STAR® or No	(ENERGY STAR® available for selective models)

### Exit



# **LED Indicator**

Status	LED Color
Full Power Mode	White
Active-off Mode	Orange

# **Troubleshoot**

Problem & Question	Possible Solutions
Power LED Is Not ON	Make sure the power button is ON and the Power Cord is properly connected to a grounded power outlet and to the monitor.
No images on the screen	<ul> <li>Is the power cord connected properly? Check the power cord connection and power supply.</li> <li>Is the cable connected correctly? (Connected using the VGA cable) Check the VGA cable connection. (Connected using the HDMI cable) Check the HDMI cable connection. (Connected using the DP cable) Check the DP cable connection. *VGA/HDMI/DP input is not available on every model.</li> <li>If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen. If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows 7/8/10) and then change the frequency of the video card. (Refer to the Setting the Optimal Resolution) If the initial screen (the login screen) does not appear, contact the Service Center or your dealer.</li> <li>Can you see "Input Not Supported" on the screen? You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can handle properly. Adjust the maximum resolution and frequency that the monitor can handle properly.</li> <li>Make sure the AOC Monitor Drivers are installed.</li> </ul>
Picture Is Fuzzy & Has Ghosting Shadowing Problem	Adjust the Contrast and Brightness Controls.  Press to auto adjust.  Make sure you are not using an extension cable or switch box. We recommend plugging the monitor directly to the video card output connector on the back.
Picture Bounces, Flickers Or Wave Pattern Appears In The Picture	Move electrical devices that may cause electrical interference as far away from the monitor as possible.  Use the maximum refresh rate your monitor is capable of at the resolution you are using.
Monitor Is Stuck In Active Off- Mode"	The Computer Power Switch should be in the ON position. The Computer Video Card should be snugly fitted in its slot. Make sure the monitor's video cable is properly connected to the computer. Inspect the monitor's video cable and make sure no pin is bent. Make sure your computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.
Missing one of the primary colors (RED, GREEN, or BLUE)	Inspect the monitor's video cable and make sure that no pin is damaged.  Make sure the monitor's video cable is properly connected to the computer.
Screen image is not centered or sized properly	Adjust H-Position and V-Position or press hot-key (AUTO).
Picture has color defects (white does not look white)	Adjust RGB color or select desired color temperature.
Horizontal or vertical disturbances on the screen	Use Windows 7/8/10 shut-down mode to adjust CLOCK and FOCUS. Press to auto-adjust.
Regulation & Service	Please refer to Regulation & Service Information which is in the CD manual or www.aoc.com (to find the model you purchase in your country and to find Regulation & Service Information in Support page.

# **Specification**

# **General Specification**

	Model name	24E2H				
	Driving system	TFT Color LCD				
	Viewable Image Size	60.47cm diagonal				
Panel	Pixel pitch	0.2745(H)mm x 0.2745(V) mm				
	Video	R, G, B Analog Interface & HDMI Interface				
	Separate Sync	H/V TTL				
	Display Color	16.7M Colors				
	Horizontal scan range	30-85kHz				
	Horizontal scan Size(Maximum)	527.04mm				
	Vertical scan range	48-75Hz				
	Vertical Scan Size(Maximum)	296.46mm				
	Optimal preset resolution	1920x1080@60Hz				
	Max resolution	1920x1080@60Hz(D-SUB)				
Others	Max resolution	1920x1080@75Hz(HDMI)				
	Plug & Play	VESA DDC2B/CI				
	Power Source	100-240V~, 50/60Hz				
		Typical(default brightness and contrast) 23W				
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 25W		
		Standby mode		≤0.3W		
Physical	Connector Type	D-Sub/HDMI//Earphone o	ut			
Characteristics	Signal Cable Type	Detachable				
	T	Operating	0°~ 40°			
	Temperature	Non-Operating	-25°~ 55°			
		Operating	10% ~ 85% (non-condensing			
Environmental	Humidity	Non-Operating	5% ~ 93% (non-condensing)			
	A late and a	Operating 0~ 5000 m (0~ 16404ft )		~ 16404ft )		
	Altitude	Non-Operating	0~ 12192m (0~ 40000ft )			

	Model name	24E2D				
	Driving system	TFT Color LCD				
	Viewable Image Size	60.47cm diagonal				
Panel	Pixel pitch	0.2745(H)mm x 0.2745(V) mm				
	Video	R, G, B Analog Interface & DVI Interface				
	Separate Sync	H/V TTL				
	Display Color	16.7M Colors				
	Horizontal scan range	30-85kHz				
	Horizontal scan Size(Maximum)	527.04mm				
	Vertical scan range	48-75Hz				
	Vertical Scan Size(Maximum)	296.46mm				
Others	Optimal preset resolution	1920x1080@60Hz				
	Max resolution	1920x1080@60Hz				
	Plug & Play	VESA DDC2B/CI				
	Power Source	100-240V~, 50/60Hz				
		Typical(default brightness and contrast) 20W				
	Power Consumption	Max. (brightness = 100, contrast =100) ≤ 22W		≤ 22W		
		Standby mode		≤0.3W		
Physical	Connector Type	DVI/D-Sub				
Characteristics	Signal Cable Type	Detachable				
	Tanananatuna	Operating	0°~ 40°			
	Temperature	Non-Operating	-25°~ 55°			
Environmental		Operating	10% ~ 85% (non-condensing)			
Environmental	Humidity	Non-Operating	5% ~ 93% (non-condensing)			
	Altitude	Operating	0~ 5000 m (0~ 16404ft )			
	Ailliude	Non-Operating	0~ 12192m (0~ 40000ft )			

	Model name	24E2DA				
	Driving system	TFT Color LCD				
	Viewable Image Size	60.47cm diagonal				
Panel	Pixel pitch	0.2745(H)mm x 0.2745(V) mm				
	Video	R, G, B Analog Interface & HDMI Interface & DVI Interface				
	Separate Sync	H/V TTL				
	Display Color	16.7M Colors				
	Horizontal scan range	30-85kHz				
	Horizontal scan Size(Maximum)	527.04mm				
	Vertical scan range	48-75Hz				
	Vertical Scan Size(Maximum)	296.46mm				
	Optimal preset resolution	1920x1080@60Hz				
	Max resolution	1920x1080@60Hz(VGA/DVI)				
Others	Max resolution	1920x1080@75Hz(HDMI)				
	Plug & Play	VESA DDC2B/CI				
	Power Source	100-240V~, 50/60Hz				
		Typical(default brightness and contrast) 20W				
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 30W		
		Standby mode		≤0.5W		
Physical	Connector Type	HDMI/DVI/D-Sub/Audio in	/Earphone out	:		
Characteristics	Signal Cable Type	Detachable				
	Townsonstand	Operating	0°~ 40°			
	Temperature	Non-Operating	-25°~ 55°			
Environmental		Operating	perating 10% ~ 85% (non-condens			
Environmental	Humidity	Non-Operating	5% ~ 93% (non-condensing)			
	Altitude	Operating 0~ 5000 m (0~ 16404ft )		~ 16404ft )		
	Ailliude	Non-Operating	0~ 12192m (0~ 40000ft )			

	Model name	24E2Q					
	Driving system	TFT Color LCD					
	Viewable Image Size	60.47cm diagonal					
Panel	Pixel pitch	0.2745(H)mm x 0.2745(V) mm					
	Video	R, G, B Analog Interface & HDMI Interface & DP Interface					
	Separate Sync	H/V TTL	H/V TTL				
	Display Color	16.7M Colors					
	Horizontal scan range	30-85kHz					
Others	Horizontal scan Size(Maximum)	527.04mm					
	Vertical scan range	48-75Hz					
	Vertical Scan Size(Maximum)	296.46mm					
	Optimal preset resolution	1920x1080@60Hz					
		1920x1080@60Hz(VGA)					
	Max resolution	1920x1080@75Hz(HDMI/DP)					
	Plug & Play	VESA DDC2B/CI					
	Power Source	100-240V~, 50/60Hz					
		Typical(default brightness and contrast) 20W					
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 26W			
		Standby mode		≤0.5W			
Physical	Connector Type	DP/HDMI/D-Sub/Earphon	e out				
Characteristics	Signal Cable Type	Detachable					
	Tamparatura	Operating	0°~ 40°				
	Temperature	Non-Operating	-25°~ 55°				
Environmental	Llupaidity	Operating 10% ~ 85% (non-condensing		non-condensing)			
Liviioiiiieiilai	Humidity	Non-Operating	5% ~ 93% (non-condensing)				
	Altitudo	Operating 0~ 5000 m (0~ 16404ft )		~ 16404ft )			
	Altitude	Non-Operating	0~ 12192m (0~ 40000ft )				
		-					

	Model name	24E2QA		
	Driving system	TFT Color LCD		
	Viewable Image Size	60.47cm diagonal		
Panel	Pixel pitch	0.2745(H)mm x 0.2745(V) mm		
	Video	R, G, B Analog Interface & HDMI Interface & DP Interface		
	Separate Sync	H/V TTL		
	Display Color	16.7M Colors		
	Horizontal scan range	30-85kHz		
	Horizontal scan Size(Maximum)	527.04mm		
	Vertical scan range	48-75Hz		
	Vertical Scan Size(Maximum)	296.46mm		
	Optimal preset resolution	1920x1080@60Hz		
Others	Max resolution	1920x1080@60Hz(VGA)		
	IVIAX TESOIULIOTI	1920x1080@75Hz(HDMI/DP)		
	Plug & Play	VESA DDC2B/CI		
	Power Source	100-240V~, 50/60Hz		
		Typical(default brightness and contrast) 20W		
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 32W
		Standby mode		≤0.5W
Physical	Connector Type	DP/HDMI/D-Sub/Audio in/	Earphone out	
Characteristics	Signal Cable Type	Detachable		
	Tomporatura	Operating	0°~ 40°	
	Temperature	Non-Operating	-25°~ 55°	
Environmental	Liumiditu	Operating	10% ~ 85% (ı	non-condensing)
Environmental	Humidity	Non-Operating	5% ~ 93% (no	on-condensing)
	Altitudo	Operating	0~ 5000 m (0	~ 16404ft )
	Altitude	Non-Operating	0~ 12192m (0	)~ 40000ft )

	Model name	27E2H			
	Driving system	TFT Color LCD			
	Viewable Image Size	68.6cm diagonal			
Panel	Pixel pitch	0.3114(H)mm x 0.3114(V)	0.3114(H)mm x 0.3114(V) mm		
	Video	R, G, B Analog Interface 8	k HDMI Interfa	ce	
	Separate Sync	H/V TTL			
	Display Color	16.7M Colors			
	Horizontal scan range	30-85kHz			
	Horizontal scan Size(Maximum)	597.888mm			
	Vertical scan range	48-75Hz			
	Vertical Scan Size(Maximum)	336.312mm			
Others	Optimal preset resolution	1920x1080@60Hz			
	Max resolution	1920x1080@60Hz(D-SUB)			
	IVIAX TESOIUTIOTI	1920x1080@75Hz(HDMI)			
	Plug & Play	VESA DDC2B/CI			
	Power Source	100-240V~, 50/60Hz			
		Typical(default brightness and contrast)		26W	
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 31W	
		Standby mode		≤0.3W	
Physical	Connector Type	D-Sub/HDMI//Earphone or	ut		
Characteristics	Signal Cable Type	Detachable			
	Tanananatuna	Operating	0°~ 40°		
	Temperature	Non-Operating	-25°~ 55°		
Environno antol	I li considida e	Operating	10% ~ 85% (r	non-condensing)	
Environmental	Humidity	Non-Operating	5% ~ 93% (no	on-condensing)	
	A lata l -	Operating	0~ 5000 m (0	~ 16404ft )	
	Altitude	Non-Operating	0~ 12192m (0	)~ 40000ft )	

	Model name	27E2Q		
	Driving system	TFT Color LCD		
	Viewable Image Size	68.6cm diagonal		
Panel	Pixel pitch	0.3114(H)mm x 0.3114(V) mm		
	Video	R, G, B Analog Interface & HDMI Interface & DP Interface		
	Separate Sync	H/V TTL		
	Display Color	16.7M Colors		
	Horizontal scan range	30-85kHz		
	Horizontal scan Size(Maximum)	597.888mm		
	Vertical scan range	48-75Hz		
	Vertical Scan Size(Maximum)	336.312mm		
	Optimal preset resolution	1920x1080@60Hz		
Others	Max resolution	1920x1080@60Hz(VGA)		
	wax resolution	1920x1080@75Hz(HDMI/DP)		
	Plug & Play	VESA DDC2B/CI		
	Power Source	100-240V~, 50/60Hz		
		Typical(default brightness and contrast) 25W		
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 38W
		Standby mode		≤0.5W
Physical	Connector Type	DP/HDMI/D-Sub/Earphone	e out	
Characteristics	Signal Cable Type	Detachable		
	Townsonstand	Operating	0°~ 40°	
	Temperature	Non-Operating	-25°~ 55°	
Environmental	Llumidity	Operating	10% ~ 85% (ı	non-condensing)
Environmental	Humidity	Non-Operating	5% ~ 93% (no	on-condensing)
	Altitudo	Operating	0~ 5000 m (0	~ 16404ft )
	Altitude	Non-Operating	0~ 12192m (0	0~ 40000ft )

	Model name	27E2DA		
	Driving system	TFT Color LCD		
	Viewable Image Size	68.6cm diagonal		
Panel	Pixel pitch	0.3114(H)mm x 0.3114(V) mm		
	Video	R, G, B Analog Interface & HDMI Interface & DVI Interface		
	Separate Sync	H/V TTL		
	Display Color	16.7M Colors		
	Horizontal scan range	30-85kHz		
	Horizontal scan Size(Maximum)	597.888mm		
	Vertical scan range	48-75Hz		
	Vertical Scan Size(Maximum)	336.312mm		
	Optimal preset resolution	1920x1080@60Hz		
Others	Max resolution	1920x1080@60Hz(VGA/DVI)		
	Max resolution	1920x1080@75Hz(HDMI)		
	Plug & Play	VESA DDC2B/CI		
	Power Source	100-240V~, 50/60Hz		
		Typical(default brightness and contrast) 20W		
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 30W
		Standby mode		≤0.5W
Physical	Connector Type	HDMI/DVI/D-Sub/Audio in	/Earphone out	
Characteristics	Signal Cable Type	Detachable		
	Tomporatura	Operating	0°~ 40°	
	Temperature	Non-Operating	-25°~ 55°	
Environmental	Llumidity	Operating	10% ~ 85% (1	non-condensing)
Environmental	Humidity	Non-Operating	5% ~ 93% (no	on-condensing)
	Altitudo	Operating	0~ 5000 m (0	~ 16404ft )
	Altitude	Non-Operating	0~ 12192m (0	0~ 40000ft )

	Model name	27E2UA		
	Driving system	TFT Color LCD		
	Viewable Image Size	68.6cm diagonal		
Panel	Pixel pitch	0.3114(H)mm x 0.3114(V) mm		
and	Video	R, G, B Analog Interface & HDMI Interface & DP Interface		
	Separate Sync	H/V TTL		
	Display Color	16.7M Colors		
	Horizontal scan range	30-85kHz		
	Horizontal scan Size(Maximum)	597.888mm		
	Vertical scan range	48-75Hz		
	Vertical Scan Size(Maximum)	336.312mm		
	Optimal preset resolution	1920x1080@60Hz		
Others	Mary manalistics	1920x1080@60Hz(VGA)		
	Max resolution	1920x1080@75Hz(HDMI/DP)		
	Plug & Play	VESA DDC2B/CI		
	Power Source	100-240V~, 50/60Hz		
		Typical(default brightness	20W	
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 48W
		Standby mode		≤0.5W
Physical	Connector Type	DP/HDMI/D-Sub/Audio in/ (includes 1 fast charger)	Earphone out/	/USB3.2 Gen1x4
Characteristics	Signal Cable Type	Detachable		
	Ta was a waste was	Operating	0°~ 40°	
	Temperature	Non-Operating	-25°~ 55°	
Environmental	I la consididad	Operating	10% ~ 85% (	non-condensing)
Environmental	Humidity	Non-Operating	5% ~ 93% (ne	on-condensing)
	Altitudo	Operating	0~ 5000 m (0	~ 16404ft )
	Altitude	Non-Operating	0~ 12192m (0	0~ 40000ft )

	Model name	27E2QAE			
	Driving system	TFT Color LCD			
	Viewable Image Size	68.6cm diagonal			
Panel	Pixel pitch	0.3114(H)mm x 0.3114(V) mm			
	Video	R, G, B Analog Interface 8	R, G, B Analog Interface & HDMI Interface & DP Interface		
	Separate Sync	H/V TTL			
	Display Color	16.7M Colors			
	Horizontal scan range	30-85kHz			
	Horizontal scan Size(Maximum)	597.888mm			
	Vertical scan range	48-75Hz			
	Vertical Scan Size(Maximum)	336.312mm			
	Optimal preset resolution	1920x1080@60Hz			
	Max resolution	1920x1080@60Hz(VGA)			
Others	Max resolution	1920x1080@75Hz(HDMI/DP)			
	Plug & Play	VESA DDC2B/CI			
	Power Source	100-240V~, 50/60Hz			
		Typical(default brightness and contrast) 20W			
	Power Consumption	Max. (brightness = 100, contrast =100)		≤ 33W	
		Standby mode		<0.3W	
Physical	Connector Type	DP/HDMI/D-Sub/Audio in/	Earphone out		
Characteristics	Signal Cable Type	Detachable			
	T	Operating	0°~ 40°		
	Temperature	Non-Operating	-25°~ 55°		
		Operating	10% ~ 85% (	non-condensing)	
Environmental	Humidity	Non-Operating	5% ~ 93% (ne	on-condensing)	
	۵ اختلاء ما م	Operating	0~ 5000 m (0	~ 16404ft )	
	Altitude	Non-Operating	0~ 12192m (0	0~ 40000ft )	



# **Preset Display Modes**

### 24E2H/27E2H

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)	
	640x480@60Hz	31.469	59.94	
VGA	640x480@72Hz	37.861	72.809	
	640x480@75Hz	37.500	75.000	
MAC MODES VGA	640x480@67Hz	35.000	66.667	
IBM MODE	720x400@70Hz	31.469	70.087	
	800x600@56Hz	35.156	56.25	
SVGA	800x600@60Hz	37.879	60.317	
SVGA	800x600@72Hz	48.077	72.188	
	800x600@75Hz	46.875	75.000	
MAC MIDE SVGA	832x624@75Hz	49.725	74.500	
	1024x768@60Hz	48.363	60.004	
XGA	1024x768@70Hz	56.476	70.069	
	1024x768@75Hz	60.023	75.029	
SXGA	1280x1024@60Hz	63.981	60.020	
SAGA	1280x1024@75Hz	79.976	75.025	
MCVC	1280x720@60Hz	45.000	60.000	
WSXG	1280x960@60Hz	60.000	60.000	
WXGA+	1440x900@60Hz	55.935	59.876	
WSXGA+	1680x1050@60Hz	65.290	59.954	
ELID	1920x1080@60Hz	67.500	60.000	
FHD	1920x1080@75Hz	83.909	74.986	

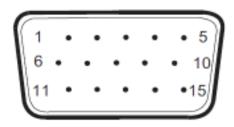
### 24E2D

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)	
	640x480@60Hz	31.469	59.94	
VGA	640x480@72Hz	37.861	72.809	
	640x480@75Hz	37.5	75	
	800x600@56Hz	35.156	56.25	
CV/CA	800x600@60Hz	37.879	60.317	
SVGA	800x600@72Hz	48.077	72.188	
	800x600@75Hz	46.875	75	
	1024x768@60Hz	48.363	60.004	
XGA	1024x768@70Hz	56.476	70.069	
	1024x768@75Hz	60.023	75.029	
	1280x1024@60Hz	63.981	60.02	
SXGA	1280x1024@75Hz	79.976	75.025	
SXGA	1280x720@60HZ	44.772	59.855	
	1280x960@60Hz	60	60	
	1440x900@60Hz	55.935	59.887	
WXGA+	832x624@75Hz	49.725	74.77	
	1680x1050@60Hz	64.674	59.883	
FHD	1920x1080@60Hz	67.5	60	
	IBM N	MODES		
DOS	640x350@70Hz	31.469	70.087	
DOS	720x400@70Hz	31.469	70.087	
	MAC I	MODES		
VGA	640x480@67Hz	35	66.667	
SVGA	832x624@75Hz	49.725	74.551	

### 24E2DA/27E2DA/27E2QAE/24E2Q/24E2QA/27E2Q/27E2UA

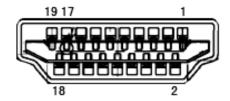
STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)
	640x480@60Hz	31.469	59.940
VCA	640x480@67Hz	35.000	66.667
VGA	640x480@72Hz	37.861	72.809
	640x480@75Hz	37.500	75.00
	800x600@56Hz	35.156	56.250
	800x600@60Hz	37.879	60.317
SVGA	800x600@72Hz	48.077	72.188
	800x600@75Hz	46.875	75.000
	832x624@75Hz	49.725	74.551
	1024x768@60Hz	48.363	60.004
XGA	1024x768@70Hz	56.476	70.069
	1024x768@75Hz	60.023	75.029
SXGA	1280x1024@60Hz	63.981	60.020
SAGA	1280x1024@75Hz	79.976	75.025
WXGA+	1440x900@60Hz	55.935	59.887
FHD	1920x1080@60Hz	67.500	60.000
Full HD	1920x1080@75Hz	83.894	74.973

# **Pin Assignments**



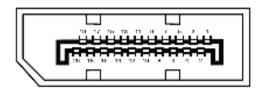
#### 15-Pin Color Display Signal Cable

Pin No.	Signal Name	Pin No.	Signal Name
1.	Video-Red	9	+5V
2.	Video-Green	10	Ground
3.	Video-Blue	11	N.C.
4.	N.C.	12	DDC-Serial data
5.	Detect Cable	13	H-sync
6.	GND-R	14	V-sync
7.	GND-G	15	DDC-Serial clock
8.	GND-B		



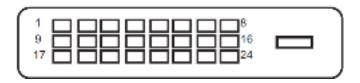
#### 19-Pin Color Display Signal Cable

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1.	TMDS Data 2+	9.	TMDS Data 0-	17.	DDC/CEC Ground
2.	TMDS Data 2 Shield	10.	TMDS Clock +	18.	+5V Power
3.	TMDS Data 2-	11.	TMDS Clock Shield	19.	Hot Plug Detect
4.	TMDS Data 1+	12.	TMDS Clock-		
5.	TMDS Data 1Shield	13.	CEC		
6.	TMDS Data 1-	14.	Reserved (N.C. on device)		
7.	TMDS Data 0+	15.	SCL		
8.	TMDS Data 0 Shield	16.	SDA		



### 20-Pin Color Display Signal Cable

Pin No.	Signal Name	Pin No.	Signal Name
1	ML_Lane 3 (n)	11	GND
2	GND	12	ML_Lane 0 (p)
3	ML_Lane 3 (p)	13	CONFIG1
4	ML_Lane 2 (n)	14	CONFIG2
5	GND	15	AUX_CH(p)
6	ML_Lane 2 (p)	16	GND
7	ML_Lane 1 (n)	17	AUX_CH(n)
8	GND	18	Hot Plug Detect
9	ML_Lane 1 (p)	19	Return DP_PWR
10	ML_Lane 0 (n)	20	DP_PWR



24-Pin Color Display Signal Cable

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

### \* Only for certain models

# **Plug and Play**

#### Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bi-directional data channel based on the I2C protocol. The host can request EDID information over the DDC2B channel.