Lenovo

L27e-40

User Guide



Product No.

H23270FL0

67AC-KAC4-WW

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# **Safety Matters**

## **General Safety Principles**

For tips on safe computer use, please go to: <u>http://www.lenovo.com/safety</u>

Before installing this product, please read the safety matters.



Danger

### To avoid collision dangers:

- Do not remove the cover.
- Do not use the product without the base installed.
- Do not connect or disconnect the product during thunderstorm conditions.
- The power cord plug must be connected to a properly wired and grounded electrical outlet.
- Any equipment connected to this product must also be connected to a properly wired and grounded electrical outlet.
- When disconnecting the display, the plug must be unplugged from the power outlet.

The power outlet should be easy to plug and unplug the power cord. To take special precautions against dangers when using, installing, servicing, transporting, or storing the equipment, prepare the necessary instructional notes.

To reduce the risk of electric shock, do not perform any maintenance not described in the operating instructions unless you are qualified to do so.

### Handling:

• If the display weighs more than 18 kg (39.68 lbs.), it is recommended that two people move or lift the display.

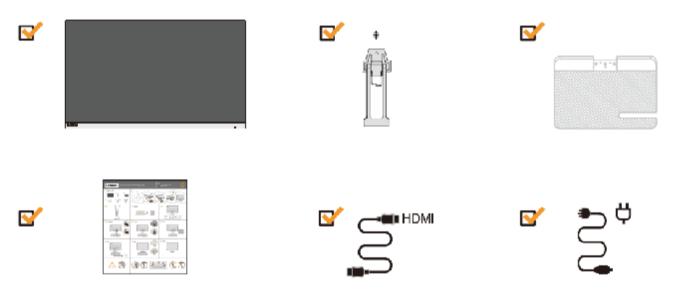
## Chapter 1. New Member Guide

This user guide provides users with detailed operating instructions. For a quick overview of the instructions, please refer to the Setup coloring page for brief information.

## **Items** List

The following items should be included in the package of this product:

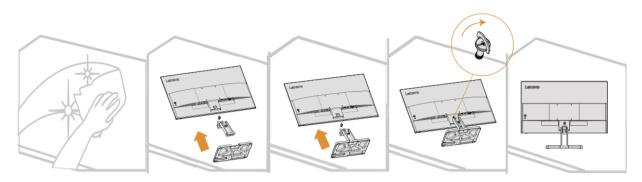
- ■Quick Start Guide
- ■Display
- ■Stand (Screw\*1PCS)
- ■Base
- ■Power Cord
- ■Signal Line (Subject to the practice)



## **Precautions For Use**

To set up your display, please refer to the following illustration.

Note: Do not touch the screen area of the display. The screen area is a glass product and can be easily damaged by friction or pressure.



- 1. Place the display screen down on a soft flat surface.
- 2. Align the stand with the base, and then tighten the screws clockwise.
- 3. Insert the installed stand base into the corresponding position on the back of the monitor, and then tighten the screws clockwise.

Note: To install the VESA mount, see "Wall-mounted (optional)" on pages 2-9.

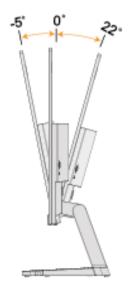
## **Product Overview**

This section describes how to adjust the display position, set the user controls, and use the cable lock slot.

Adjustment Types

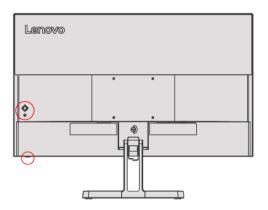
Tilt

See the figure below for an example of the tilt range.



## **Display Control**

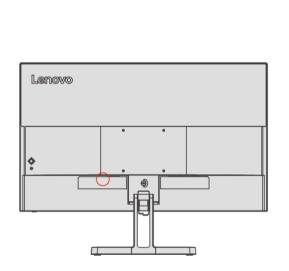
Different functions can be used through the key controls on the panel frame.

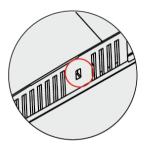


For information on how to use these key controls, see "Adjusting the Display Image" on pages 2-3.

# Kensington anti-theft lock

Your display is equipped with a Kensington anti-theft lock, which is located on the back of the display.





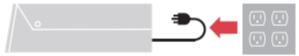
## Set Up the Display

This section describes how to set up the display.

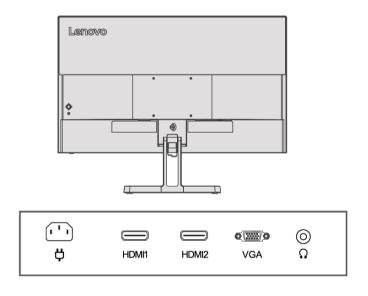
#### **Connecting and Powering on the Display**

Note: Before performing this procedure, be sure to read the "Safety Matters" on page iv.

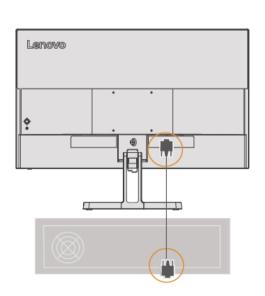
1. Turn off the power to the computer and all connected devices, and then unplug the computer's power cord.

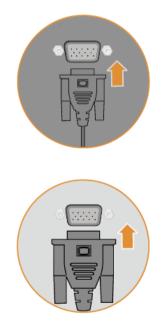


2. Connect the cables as shown in the figure below.

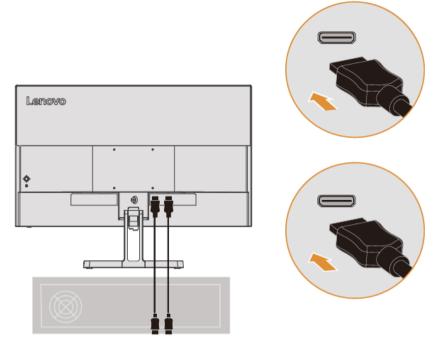


3. For computers with VGA connections.



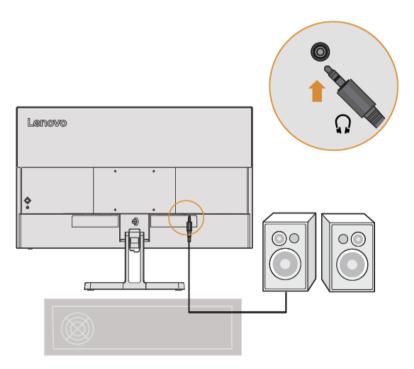


4. For computers with HDMI1/2 connections.



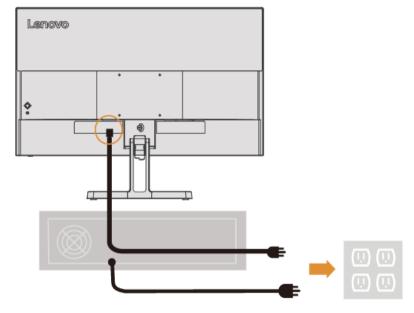
5. Connect the audio cable of the speaker and the audio jack of the monitor to transmit the audio source from HDMI.

Note: HDMI mode audio output.

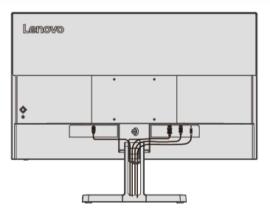


6. Plug the power cord into the display, and then plug the display power cord and computer cord into a grounded power outlet.

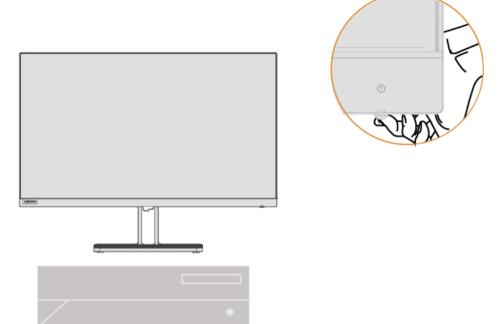
Note: A certified power cord must be used for this equipment. The installation and/o r equipment regulations of the country concerned should be taken into account. The certified power cable used should not be lighter than the normal PVC cable (marked H05VV-F 3G 0.75mm2 or H05VVH2-F2 3G 0.75mm2) as specified in IEC 60227. In addition, synthetic rubber cords as specified in IEC 60245 (marked H05RR-F 3G 0.75mm2) should be used.



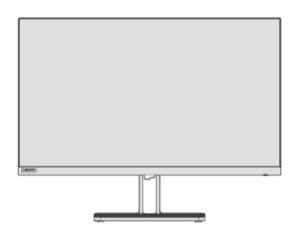
7. Use cable clamps when connecting cables



8. Turn on the power to the display and computer.



9. When you install the display driver, download the driver that corresponds to your display model from the Lenovo website at <u>http://support.lenovo.com/docs/L27e\_40</u>. To install the driver, see the "Manually Install the Driver for the Display" section on pages 3-5.



## Chapter 2. Adjusting and Using the Display

This section describes how to adjust and use this display.

#### **Comfort and Assistance Functions**

Good ergonomic designs are important for the comfortable use of your personal computer. Your workplace and the equipment you use should be arranged appropriately for your personal needs and the type of work you do. In addition, healthy work habits can help you achieve optimal efficiency and comfort when using a computer.

### Arrange Your Working Area

Use a work surface of the right height and enough work area so that you can work comfortably. Arrange your work area according to the way you use materials and equipment. Keep frequently used materials neatly organized in your work area, and place frequently used items (such as a computer mouse or telephone) in an easily accessible location. The placement and setup of equipment are very important to your work posture. The following topics describe how to optimize equipment settings to achieve and maintain a good working posture.

### Placing and Viewing the Display

For comfortable viewing of the display, the following factors should be considered when placing and adjusting computer displays:

- **Viewing Distance**: The recommended viewing distance between your eyes and the display screen is 1.5X the screen diagonal. Solutions to meet this required distance in a small office include: keeping the desk a certain distance from the wall or partition to allow space for the display, using a flat panel or smaller display and keeping the display in the corner of the desk, or placing the keyboard in an adjustable drawer board to create a deeper work surface.
- **Display Height**: If your display is not height-adjustable, place your head and neck in a natural, comfortable (vertical or upright) position. If your display is not height-adjustable, you can place a book or other sturdy object under the base of the display to achieve the desired height. The general rule is to sit comfortably with the top of the display screen at eye level or slightly lower. However, it is important to optimize the height of the display so that the relative position between the eyes and the center of the display provides the right visual distance and a comfortable viewing experience when the eye muscles are relaxed.
- **Tilt**: Adjusting the tilt of your display optimizes the appearance of your screen content and keeps your head and neck in the best possible position.
- **Regular Location**: Place the display in such a way that overhead lighting or nearby windows do not cause glare or reflection on the screen.

Here are some additional tips for comfortable viewing of your display:

- Use adequate lighting for the type of work you do.
- Use display brightness, contrast, and image controls (if available) to optimize the image on the screen for your visual needs.
- Keep the display screen clean so that you can see the content clearly.

Long periods of focused visual activity tend to strain the eyes. Be sure to periodically move away from the display screen and gaze at a distant object to relax your eye muscles. If you have any questions about eye strain or visual discomfort, consult vision care professional for advice.

## **Tips on Healthy Work Habits**

The following is a summary of some important factors that are useful to keep you comfortable and productive while using your computer.

- **Good posture comes from equipment placement:** The layout of your work area and the placement of your computer equipment can have a significant impact on your posture while using the computer. Be sure to follow the tips listed in " Arrange Your Working Area" on pages 2-1 to optimize the placement and orientation of your equipment so you can maintain comfortable posture and efficiency. In addition, be sure to use the adjustment features of your computer components and office furniture to meet your needs, and adjust them over time as your needs change.
- Slight changes in posture help keep you comfortable: the longer you sit in front of a computer, the more important it becomes to pay attention to your work posture. Avoid maintaining one posture for long periods. Regular slight changes in posture can help prevent possible discomfort. Use the adjustment function provided by office furniture or equipment to adapt to changes in posture.
- **Regular short breaks help ensure healthy computing:** Because computing is primarily a static activity, it is especially important to take short breaks during the workday. Take regular breaks to stand in front of your work area, stretch your limbs, walk around or have a drink, or otherwise take a short break from using the computer. Taking short breaks during work allows for changes in body posture that can help you stay comfortable and productive while working.

## Adjusting the Display Image

This section describes the functions of the user controls used to adjust the display image.

Using Direct Access Controls

lcon	Control	Description
Ċ	Power	Press to turn On/Off the monitor.
$\bigcirc$	Menu/OK	Press to open main menu while there is no OSD on the screen ; Press to enter next level on main menu or sub menu , or move backwards through the sub menus; Press and hold for 10 seconds to Lock/un-Lock all menu.
	Right	It is a shortcut for adjusting Volume (HDMI) or Processing Please wait (VGA) while there is no OSD on the screen ; Press to enter sub menu; Press to increase current values on adjustment bar.
<i></i> ⊂i	LeftIt is a shortcut for adjusting Volume (HDMI) or Process wait (VGA) while there is no OSD on the screen; Press to move backwards through the sub menus; Press to decrease current values on adjustment bar.	
	Up	Press to move lighting-indicator on main menu up to last one; Press to Brightness shortcut key.
$\bigtriangledown$	Down	Press to move lighting-indicator on main menu down to next one; Press to Brightness shortcut key.
1 윤순 2	Source- selecting	It is a shortcut for changing input signal while there is no OSD on the screen or on power-saving mode; Press and hold for 10 seconds to Enable/Disable the "DDC/CI" .

When On Screen Display (OSD) is not displayed, you can use direct access controls.

# Use the On-Screen Display (OSD) Control

When adjusting the settings, you can view the user controls through the OSD.

Lenovo L27e <sup>.</sup>	-40		×
÷	Information		5.12
Basic Settings	Language	English	
<b>\$</b>	Menu Position	(0,0)	
Color Settings	Transparency	0	
•4	OSD Timeout	10 5	
Port Settings	LED Indicator	On	
문플 Menu Settings	Reset All Settings		Lenovo
Input : HD	OMI 1 Resolution : 1920*10	080 Refresh Rate : 100Hz	

Use controls:

1. Press  $\bigcirc$  to open the OSD Main Menu.

2. Use  $\land$  or  $\lor$  to move between icons. Select an icon and press  $\downarrow$  to access the feature. If there is a

submenu, use  $\land$  or  $\lor$  to move between options, and then press  $\leftarrow$  to select the feature. Use  $\land$  or  $\lor$  to make adjustments, and then press  $\leftarrow$  to save.

3. Press to exit the submenu in sequence, and then exit the OSD.

4. When OSD is not displayed, press  $\leftarrow$  and hold for 10 seconds to lock the OSD. In this way, you can prevent accidental adjustment of the OSD. Press  $\leftarrow$  and hold for 10 seconds to unlock the OSD for OSD adjustment.

5. DDC/CI is enabled by default. Press <sup>1</sup> C<sup>2</sup> and hold for 10 seconds to disable/enable the DDC/CI function. The message "DDC/CI disable (DDC/CI enable)" is displayed on the screen.

#### Table 2-1. OSD Functions

Main Menu	Submenu	Description	Controls and Adjustment	
	Duishtussa	Adjust the overall		
	Brightness	brightness of the screen		
	Contrast	Adjust screen contrast		
	Contrast	On	Electricity consumption	
		on		
			Changing this setting will increase	
	DCR		power consumption	
			Change/Cancel	
		Off		
		Standard		
		Game		
	Display Mode	Movie		
	Display mode	Web	-	
-0-		Picture		
~				
Basic	Scaling Mode	Full Screen	Non 16:9 signal adjustable	
Settings		Original AR		
		Off Normal	_	
	Over Drive			
	Volume	Extreme 0-100		
		On	-	
	Mute	Off		
		Auto	Only HDMI	
	Video range	Full range 0-255		
		Limited range 16-235		
	Automatic	/		
	Clock	0-100		
	Phase	0-100	Only VGA	
	Horizontal Position	0-100		
	Vertical Position	0-100		
	Bluish Neutra	/		
	Reddish	/	-	
	Reduisii	Red 0-100		
	User	Green 0-100		
Color Sottings		Blue 0-100		
Settings	sRGB	/		
	Low Blue Light	/		
		Auto Switch Input		
<b>⊷</b> ⊊-	Input Signal	HDMI1	Signal source switching	
	inpat bight	HDMI2		
•+				
Port Settings		VGA Auto		

	Information	Model Name: L27e-40 Refresh Rate: 100Hz Firmware: LEN0.0 Serial Number:	
	Language	EnglishFrançaisItaliano简体中文医spañol日本语DeutschРусскийไทยУкраїнська	
	Menu Horizontal	0-100	
	Menu Vertical	0-100	
Menu	Transparency	0-100	
Settings	OSD Timeout	5-60S	
	LED Indicator	On Off	
	Reset All Settings	Cancel Factory Reset	

### Low Blue Light

Concerns on blue light affecting eye health have risen over the years. Blue light have wavelength between 300 nm to 500 nm. The monitors under default setting modereduce blue light emissions. The monitors achieve the requirement of Low blue Light (Hardware Solution).

### **Select Supported Display Modes**

The display mode used by the display is controlled by the computer. Therefore, you should refer to the computer's documentation for detailed information on how to change the display mode.

When the display mode is changed, the image size, position, and shape may change. This is normal and the image can be readjusted using the automatic image settings and image controls.

Unlike CRT displays, which require high refresh rates to minimize flicker, LCD or flat panel technology is inherently flicker-free.

Note: If the system has previously been used in conjunction with a CRT display and is currently configured for a display mode outside the range of that display, you may need to temporarily reconnect the CRT display until the system has been reconfigured; it is best to set it to 1920 x1080 (100Hz), the normal display mode.

The display modes shown below are factory optimized.

Timing sequence	<b>Refresh rate</b>	Signal Channel
640×480	60Hz	
640×480	72Hz	
640×480	75Hz	
720×400	70Hz	
800×600	56Hz	
800×600	60Hz	
800×600	72Hz	
800×600	75Hz	
832×624	75Hz	
1024×768	60Hz	VGA/HDMI
1024×768	70Hz	
1024×768	75Hz	
1152×864	75Hz	
1280×1024	60Hz	
1280×1024	70Hz	
1280×1024	75Hz	
1440×900	60Hz	
1600×900	60Hz	
1680×1050	60Hz	
1920×1080	60Hz	
1366×768	60Hz	
1600×900	75Hz	HDMI
1920×1080	75Hz	
1920×1080	100Hz	

Table 2-2. Display modes set by the manufacturer

## **Understanding Power Management**

The power management function is activated when the computer detects that the mouse or keyboard has not been used for a user-defined time interval. There are several states as described in the table below. For best performance, it is best to turn off the display at the end of the day, or when it is not in use for a longer period during the day.

Status	Power indicator	Screen	Recovery Operation
On	White	Normal	
Standby/Hang up	Amber	Blank	Press any key or move the mouse. The response time may be slightly delayed. Note: When there is no image output to the display, it will also enter standby mode.
Off	Off	Blank	Press the power button to power on. There may be a slight delay before the image is redisplayed.

Table 2-3. Power Indicators

#### Power Management Mode

VESA Mode		Vertical Synchronization	Video	Power indicator	Power consumption
Normal Operation	Active	Active	Events	White	36W (Max)* 20.5W (typical)
Active-Off Mode	Inactive	Inactive	Close	Amber	Less than 0.5W
Off	_	-	-	Off	Less than 0.3W

\* Maximum power consumption for maximum brightness.

This document is for reference only and reflects laboratory performance. Your product performance will vary depending on the software, components, and peripherals you order, and it should not be your responsibility to update this information. Accordingly, customers should not rely on this information to make decisions regarding electronic fault tolerance or similar items. We make no express or implied warranties as to accuracy or completeness.

# Maintaining the Display

Always turn off the power to the display before performing any maintenance work on the display.

### Do not:

- Let water or liquids spill onto the display.
- Use solvents or abrasive substances.
- Use flammable cleaning materials to clean the display or any other electronic device.

• Touch the screen area of the display with sharp or abrasive objects. Such contact may cause permanent damage to the screen.

• Use any cleaner that contains an anti-static solution or similar additive. Otherwise, the coating of the screen area may be damaged.

### Be sure to:

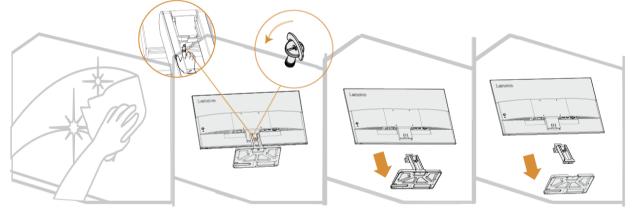
- Wipe the case and screen gently with a soft cloth lightly dampened in water.
- Use a damp cloth and a little flexible cleaner to remove fingerprints and grease.

## **Remove the Display Base and Support Arm**

Step 1: Place the monitor on a flat surface.

Step 2: Loosen the screws and press and hold the quick release button on the support arm to separate the support arm from the monitor.

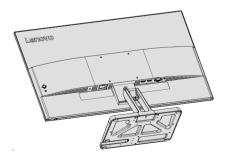
Step 3: Loosen the screws to separate the base from the support arm.



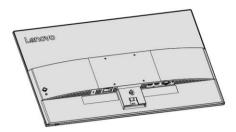
# Wall-mounted (optional)

Refer to the instructions attached with the base assembly. To convert the LCD from a desktop to a wall mount, perform the following steps :

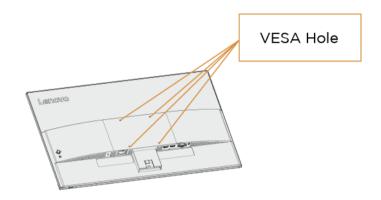
Step 1: Make sure the power button is off and unplug the power cord. Step 2: Place the LCD face down on a towel or blanket.



Step 3: Remove the base and stand from the display, see "Removing the Display Base and Support Arm" on pages 2-9.



Step 4: Install the assembly bracket for the VESA compatible wall mount. (100mm x 100mm distance), VESA assembly screws M4 x 10 mm.



Step 5: Mount the LCD to the wall following the instructions for the wall mount. Only the lightest weight/weight-bearing wall mount from the UL list should be used: 8kg

Note: When using the flexible arm, the display should not be tilted downward by more than 5 degrees.

## **Chapter 3. Reference Information**

This section provides display specifications, instructions for manual installation of the display driver, and troubleshooting information.

# **Display Specifications**

Size	Thickness	181.5mm (7.15 in.)	
	Height	474.8mm (18.69 in.)	
	Width	613.3mm (24.15 in.)	
Support Arm	Tilt	Range: -5°~22°	
VESA mount	Support	100mm x 100mm (3.94 in. x 3.94 in.)	
Image	Viewable image size	685.9mm (27 in.)	
	Maximum height	336.312mm (13.24 in.)	
	Maximum width	597.888mm (23.53 in.)	
	Pixel pitch	0.3114(H) x 0.3114(V) mm	
Power input	Supply voltage Max. power supply current	100-240V AC 1.2A	
Power Consumption	Normal operation	<36 W (max )	
Note: The power consumption value is		<20.5 W (standard)	
the power consumption of both	Standby/Hang Up	<0.5 W	
the display and the power supply.	Off Note: No USB/camera/external speakers	<0.3 W	
Video input (analog)	Interface	VGA	
	Input Signal	Analog direct drive, 75 Ohm 0.7V	
	Horizontal Addressing Capability	1920 pixels (max)	
	Vertical Addressing Capability	1080 pixels (max)	
	Clock frequency	170 MHz (max)	
HDMI	Interface	HDMI	
	Input Signals	VESA TMDS (Panel Link <sup>TM</sup> )/HDMI	
	Horizontal Addressing Capability	1920 pixels (max)	
	Vertical Addressing Capability	1080 pixels (max)	
	Clock frequency	250 MHz (max)	
Communication	VESA DDC/CI		

Table 3-1. Display Specifications – Model H23270FL0

Supported display	Horizontal frequency	30 kHz - 120 kHz	
modes	Vertical frequency	48 Hz - 100 Hz	
	Self-resolution	1920 x 1080 @ 100 Hz	
Temperature	At working time	0° to 40°C (32°F to 104°F)	
	During storage	-20° to 60°C (-4°F to 140°F)	
	During transport	-20° to 60°C (-4°F to 140°F)	
Humidity	At working time	10% to 80% (non-condensing)	
	During storage	5% to 95% (non-condensing)	
	During transport	5% to 95% (non-condensing)	

# Troubleshooting

If you encounter problems setting up or using your display, you may be able to solve the problem. Before contacting your dealer or Lenovo, please try the following suggested actions depending on the problem you are experiencing.

Problem	Possible Causes	<b>Recommended Operations</b>	Refer to
"Out of Range" is displayed on the screen and the power indicator flashes white.	This display does not support the display mode set by the system		"Select Support Display Mode" on pages 2-7
Poor image quality	The video signal cable is not well connected to the display or the system.	Make sure the signal cable is securely plugged into the system	"Connecting and Powering on the Display" on pages 1-4
	The color setting may be incorrect.		"Adjusting the Display Image" on pages 2-3
	The automatic image setting function is not performed.		"Adjusting the Display Image" on pages 2-3
The power indicator does not light up and no images are displayed.		<ul> <li>Make sure the power cord is well connected.</li> <li>Make sure the outlet has power.</li> <li>Power on the display.</li> <li>Change the power cord.</li> <li>Change the power outlet.</li> </ul>	"Connecting and Powering on the Display" on pages 1-4
The screen is blank and the power indicator shows amber.	The display is in standby/hang-up mode		"Understanding Power Management" on pages 2-8
The power indicator shows amber and no images are displayed	Video signal cable is loose or disconnected from the system or display.		"Connecting and Powering on the Display" on pages 1-4
			"Adjusting the Display Image" on pages 2-3
One or more pixels change color	characteristic of LCD		"Appendix A. Service and Support" on pages A-1

Table 3-2. Troubleshooting

Problem	Possible Causes	<b>Recommended Operations</b>	Refer to
•Blurred lines or images in text •Horizontal or vertical lines	•Image settings are not optimized •The system's display	Adjust the system's resolution setting to the resolution of this display: 1920x1080 @100 Hz.	"Adjusting the Display Image" on pages 2-3
		Perform the automatic image setting. If the automatic image setting does not work, perform the manual image setting.	"Select Support Display Mode" on pages 2-7
		When using its resolution, adjusting the Dots Per Inch (DPI, dots per inch) setting on the system can further improve it.	See the Advanced section of System Display Properties.

## Manually Install the Driver for the Display

Here are the steps to manually install the display driver in Microsoft Windows 10 and Microsoft Windows 11.

### Installing the display driver in Windows 10

To use the Microsoft Windows 10 Plug and Play feature, do the following steps :

1. Turn off the power to the computer and all connected devices.

2. Make sure the display is properly connected.

3. Power on the display, and then power on the system unit. Let the computer start the Windows 7 operating system.

4. Find the corresponding display driver from the Lenovo website http://support.lenovo.com.cn/ and download it to the PC to which the display is connected (e.g. desktop).

5. Open the Display Properties window as follows: Click the Start, Control Panel, Hardware, and Sound icons, and then click the Display icon.

6. Click the Change the display settings tab.

7. Click the Advanced Settings icon.

8. Click the Display tab.

9. Click the Properties button.

10. Click the Driver tab.

11. Click Update Driver, and then click "Browse the computer to find the driver program".

12. Select "Pick from the list of device driver programs on the computer".

13. Click the Hard Disk button. Click the Browse button to browse and open the following path: X:\Monitor Drivers\Windows 7

(where X means "the folder where the downloaded driver is located" (e.g. desktop)).

14. Select the "lenL27e-40.inf " file and click the Open button. Click the OK button.

15. In the new window, select LEN L27e-40, and then click Next.

16. When the installation is complete, delete all downloaded files and close all windows.

17. Reboot the system. The system will automatically select the maximum refresh rate and the corresponding color matching profile.

### Installing the display driver in Windows 11

To use the Microsoft Windows 11 Plug and Play feature, do the following steps:

1. Turn off the power to the computer and all connected devices.

2. Make sure the display is properly connected.

3. Power on the display, and then power on the system unit. Let the computer start the Windows 10 operating system.

4. Find the corresponding display driver from the Lenovo website http://support.lenovo.com.cn/ and download it to the PC to which the display is connected (e.g. desktop).

5. Open the Display Properties window as follows: Click the Start, Control Panel, Hardware, and Sound icons, and then click the Display icon.

6. Click the Change the display settings tab.

7. Click the Advanced Settings icon.

8. Click the Display tab.

9. Click the Properties button.

10. Click the Driver tab.

11. Click Update Driver, and then click "Browse the computer to find the driver program".

12. Select "Pick from the list of device driver programs on the computer".

13. Click the Hard Disk button. Click the Browse button to browse and open the following path: X:\Monitor Drivers\Windows 10

(where X means "the folder where the downloaded driver is located" (e.g. desktop)).

14. Select the "lenL27e-40.inf" file and click the Open button. Click the OK button.

15. In the new window, select LEN L27e-40, and then click Next.

16. When the installation is complete, delete all downloaded files and close all windows.

17. Reboot the system. The system will automatically select the maximum refresh rate and the corresponding color matching profile.

Note: Unlike CRTs, LCD displays do not improve display quality by increasing the refresh rate. Lenovo recommends using a 1920x1080@100Hz refresh rate.

## Get further help

If you are still unable to resolve the issue, please contact Lenovo Support. For more information on contacting the Support Center, see "Appendix A. Service and Support" on page A-1.

# **Appendix A. Services and Support**

The following information describes the technical support available to you during the warranty period or lifetime of the product. For a complete explanation of Lenovo's warranty terms, see the Lenovo Limited Warranty.

### **Register Your Option**

Please register to receive product service and support updates as well as free and discounted computer accessories and content. Visit: <u>http://www.lenovo.com/support</u>

### **Online Technical Support**

Enjoy lifetime online technical support for your product: http://www.lenovo.com/support

During the warranty period, the product is also covered by replacement assistance or defective component replacement services. In addition, if your option is installed in a Lenovo computer, you may be entitled to on-site service. Lenovo technical support representative can help you determine the best way to proceed.

### **Telephone Technical Support**

The Customer Support Center will continue to provide installation and netting support for 90 days after the option is removed from the market. After this time, Lenovo will, at its discretion, no longer provide support or provide paid support. Other support services are charged at the published cost.

Before contacting the Lenovo Technical Support representative, please have the following information ready: option name and number, proof of purchase, computer manufacturer, model, serial number and manual, exact content of error messages, description of the problem, and hardware and software configuration information for your system.

A technical support representative may be available by phone to guide you through the problem while you are at the computer.

Phone numbers are subject to change without notice. For an updated list of telephone numbers for Lenovo support services, please visit: <u>http://www.lenovo.com/support</u>

Country or Region	Telephone Number
Argentina	0800-666-0011
	(Spanish, English)
Australia	1-800-041-267
	(English)

Austria	0810-100-65 (For local rate) (German)
Belgium	Warranty service and support: 02-339-36-11 (Dutch, French)
Bolivia	0800-10-0189 (Spanish)
Brazil	Calls made from within the Sao Paulo region: 11-3889-8986 Calls made from outside the Sao Paulo region: 0800-701-4815 (Portuguese)
Brunei Darussalam	Dial 800-1111 (English)
Chile	800-361-213 (Spanish)
China	400-990-8888
China	(852) 3516-8977
(Hong Kong S.A.R.)	(Cantonese, English, Mandarin)
China	0800-807 / (852) 3071-3559
(Macau S.A.R.)	(Cantonese, English, Mandarin)
Colombia	1-800-912-3021
Coloniola	(Spanish)
Costa Rica	0-800-011-1029
Costa NICa	(Spanish)
Croatia	385-1-3033-120
Crouilu	(Croation)
Cyprus	800-92537
Cyprus	(Greek)
Czech Republic	800-353-637
ezeen Republie	(Czech)
Denmark	Warranty service and support: 7010-5150
	(Danish)
Dominican Republic	1-866-434-2080
Ĩ	(Spanish)
Ecuador	1-800-426911-OPCION 4
	(Spanish)
Egypt	Primary: 0800-0000-850
	Secondary: 0800-0000-744
	(Arabic,English)
El Salvador	800-6264
	(Spanish)
Estonia	372-66-0-800
	(Estonian, Russian, English)
Finland	Warranty service and support: +358-800-1-4260
	(Finnish)
France	Warranty service and support: 0810-631-213 (hardware)
	(French)
Germany	Warranty service and support: 0800-500-4618 (toll-free)
	(German)
Greece	Lenovo Business Partner (Greek)
Guatemala	Dial 999-9190, wait for operator, and request to reach 877-404-9661
	(Spanish)

Honduras	Dial 800-0123 (Spanish)	
Hungary	+36-13-825-716 (English, Hungarian)	
India	Primary: 1800-419-4666 (Tata) Secondary: 1800-3000-8465 (Reliance) Email: commercialts@lenovo.com (English and Hindi)	
Indonesia	1-803-442-425 62 213-002-1090 (Standard Charges Apply) (English, Bahasa Indonesia)	
Ireland	Warranty service and support: 01-881-1444 (English)	
Israel	Givat Shmuel Service Center: +972-3-531-3900 (Hebrew, English)	
Italy	Warranty service and support: +39-800-820094 (Italian)	
Japan	0120-000-817 (Japanese, English)	
Kazakhstan	77-273-231-427 (Standard Charges Apply) (Russian, English)	
Korea	080-513-0880 (Collect call) 02-3483-2829 (Toll Call) (Korean)	
Latvia	371-6707-360 (Latvian, Russian, English)	
Lithuania	370 5278 6602 (Italian, Russian, English)	
Luxembourg	ThinkServer and ThinkStation: 352-360-385-343 ThinkCentre and ThinkPad: 352-360-385-222 (French)	
Malaysia	1-800-88-0013 03-7724-8023 (Standard Charges Apply) (English)	
Malta	356-21-445-566 (English, Italian, Maltese Arabic)	
Mexico	001-866-434-2080 (Spanish)	
Netherlands	020-513-3939 (Dutch)	
New Zealand	0508-770-506 (English)	
Nicaragua	001-800-220-2282 (Spanish)	
Norway	8152-1550 (Norwegian)	
Panama	Lenovo Customer Support Center: 001-866-434 (toll-free) (Spanish)	

Peru	0-800-50-866 OPCION 2 (Spanish)
Philippines	1-800-8908-6454 (GLOBE subscribers) 1-800-1441-0719 (PLDT subscribers) (Tagalog, English)
Poland	Laptops and tablets branded with logo Think: 48-22-273-9777 ThinkStation and ThinkServer: 48-22-878-6999 (Polish, English)
Portugal	808-225-115 (Standard Charges Apply) (Portuguese)
Romania	4-021-224-4015 (Romanian)
Russia	+7-499-705-6204 +7-495-240-8558 (Standard Charges Apply) (Russian)
Singapore	1-800-415-5529 6818-5315 (Standard Charges Apply) (English, Mandarin, Bahasa Malaysia)
Slovakia	ThinkStation and ThinkServer: 421-2-4954-5555
Slovenia	386-1-2005-60 (Slovenian)
Spain	34-917-147-833 (Spanish)
Sri Lanka	9477-7357-123 (Sumathi Information systems) (English)
Sweden	Warranty service and support: 077-117-1040 (Swedish)
Switzerland	Warranty service and support: 0800-55-54-54 (German, French, Italian)
China	0800-000-702
Taiwan	(Mandarin)
Thailand	001-800-4415-734 (+662) 787-3067 (Standard Charges Apply) (Thai, English)
Turkiye	444-04-26 (Turkish)
United Kingdom	Standard warranty support: 03705-500-900 (local rate) Standard warranty support: 08705-500-900 (English)
United States	1-800-426-7378 (English)
Uruguay	000-411-005-6649 (Spanish)
Venezuela	0-800-100-2011 (Spanish)
Vietnam	120-11072 (Toll Free) 84-8-4458-1042 (Standard Charges Apply) (Vietnamese, English)

# **Appendix B. Declaration**

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The performance data provided herein was obtained in a controlled environment. Therefore, results obtained in other operating environments may vary significantly. Some measurements may have been obtained on development-level systems and therefore cannot be guaranteed to be identical on conventional systems. In addition, some measurements may have been obtained by inferential evaluation. Actual results may vary. Users of this document should verify the appropriate data for their particular environment.

# **Recycling Information**

Lenovo encourages owners of information technology (IT) equipment to take responsibility for recycling the equipment they no longer need. For information on recycling Lenovo products, please visit: http://www.lenovo.com/recycling 環境配慮に関して

本機器またはモニターの回収リサイクルについて

企業のお客様が、本機器が使用済みとなり廃棄される場合は、資源有効 利用促進法の規定により、産業廃棄物として、地域を管轄する県知事あ るいは、政令市長の許可を持った産業廃棄物処理業者に適正処理を委託 する必要があります。また、弊社では資源有効利用促進法に基づき使用 済みパソコンの回収および再利用・再資源化を行う「PC 回収リサイク ル・サービス」を提供しています。詳細は、 https://www.lenovo.com/jp/ja/services\_warranty/recycle/pcrecycle/をご参照ください。

また、同法により、家庭で使用済みとなったパソコンのメーカー等に よる回収再資源化が 2003 年 10 月 1 日よりスタートしました。詳細は、 https://www.lenovo.com/jp/ja/services\_warranty/recycle/pcrecycle/ をご参照ください。

#### 重金属を含む内部部品の廃棄処理について

本機器のプリント基板等には微量の重金属(鉛など)が使用されてい ます。使用後は適切な処理を行うため、上記「本機器またはモニターの 回収リサイクルについて」に従って廃棄してください。

Collect and Recycle Used Lenovo Computers or Displays

If you are a company employee and need to dispose of a Lenovo computer or display that is a company asset, it must be disposed of following the requirements of the Resource Efficient Use Promotion Act. Computers and displays are industrial waste and should be properly disposed of by a local government-approved industrial waste disposal facility. Lenovo Japan collects, reuses, and recycles used computers and monitors through its PC, collection, and recycling services, as required by the Resource Efficient Use Promotion Law. For more information, visit the Lenovo Web site: <u>https://www.lenovo.com/jp/ja/services\_warranty/recycle/pcrecycle</u>. The collection and recycling of home computers and displays by the manufacturer began on October 1, 2003, following the provisions of the Resource Efficient Use Promotion Act. This service is available free of charge for home computers sold after October 1, 2003. For more information, please visit Lenovo's Web site: <u>https://www.lenovo.com/jp/ja/services\_warranty/recycle/personal</u>.

### Discarded Lenovo Computer Components

Some Lenovo computer products sold in Japan have components that may contain heavy metals or other environmentally sensitive substances. To properly dispose of used components (such as printed circuit boards or drives), you should collect and recycle used computers or displays using the methods described above.

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### **Power Cord**

Only the power cord provided by the product manufacturer should be used. Do not use AC power cords from other devices.