Lenovo

ThinkVision

ThinkVision P32p-30 User Guide

Machine Types: 63D1-RAR1-WW

Product numbers

A22315UP0 63D1-RAR1-WW

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Safety information

General Safety guidelines

For tips to help you use your computer safely, go to: http://www.lenovo.com/safety

Before installing this product, read the Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza

Antes de instalar este produto, leia as Informações de Segurança.

Läs säkerhetsinformationen innan du installerar den här produkten.

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Pred inštaláciou tohto zariadenia si peèítaje Bezpeènostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Ennen kuin asennat t m n tuotteen, lue turvaohjeet kohdasta Safety Information.

Před instalací tohoto produktu si pročtěte Bezpečnostní informace.

在安装本产品之前,请仔细阅读 Safety Information (安全信息)。

安裝本產品之前,請先閱讀「安全資訊」。

يجب قراءة إرشادات السلامة قبل تشغيل هذا المنتج.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Antes de instalar este producto lea la información de seguridad.

Antes de instalar este produto, leia as Informações de Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

This equipment is not suitable for use in locations where children are likely to be present, avoid hurting your child when machine falling down.

Chapter 1.Getting started

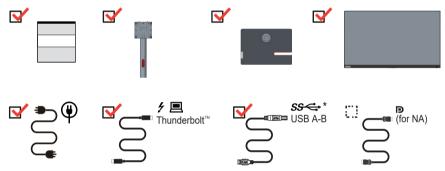
This User's Guide provides detailed operation instructions for the user. For quick instruction overview, please see the Setup Poster for brief information.

ThinkVision P32p-30 supports Lenovo Display Control Center - ThinkColour.

Shipping contents

The product package should include the following items:

- Information Flyer
- Stand
- Base
- Flat Panel Monitor
- Power Cord
- Thunderbolt[™] 4 Cable
- Type A-B Cable
- DisplayPort Cable (for NA)



*: Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen 1; 10 Gbit/s for USB 3.1 Gen 2 & 20 Gbit/s for USB 3.2.

Notice for use

To set up your monitor, please see the illustrations below.

Note: Do not touch the monitor within the screen area. The screen is made of glass and can be damaged by rough handling or excessive pressure.



- 1. Take out the Top cushion and accesories.
- 2. Mounting the stand to monitor's recess.
 - Insert the three tabs on the upper part of the stand to the groove on the back of the monitor.
 - Press the stand down till it snaps into place.
- 3. Insert base towards the stand and tighten the thumbscre.
- 4. Stand up the monitor with both hands carefully.

Note: To install a VESA mount, please see "Wall Mounting (Optional)" on page 2-12.

Product overview

This section will provide information on adjusting monitor positions, setting user controls, and using the cable lock slot.

Types of adjustments

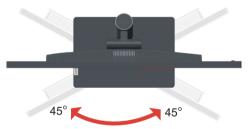
Tilt

Please see the illustration below for an example of the tilt range.



Swivel

With the built-in pedestal, you can tilt and swivel the monitor for the most comfortable viewing angle.



Height Adjustment

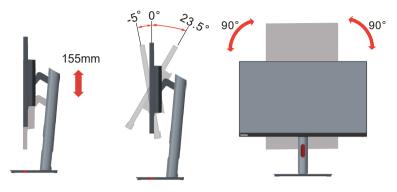
For height adjustment, user needs to press down or lift up the monitor.



Monitor

- Adjust the screen position before rotating the monitor screen. (Make sure that the monitor screen ascent to its highest point, and it inclines backward at 23.5°.)

- then rotate clockwise until the monitor stops at 90° .



Monitor controls

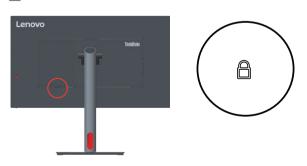
The keypad controls on the back cover are accesses to various functions.



For information on how to utilize these keypad controls, please see "Adjusting your monitor image" on page 2-3.

Cable lock slot

Your monitor is equipped with a cable lock slot located on the rear of your monitor



Setting up your monitor

This section provides information on how to set up your monitor.

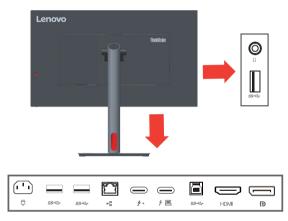
Connecting and turning on your monitor

Note: Be sure to read the Safety information on page iv before carrying out this procedure.

1. Power off your computer and all attached devices, and unplug the computer power cord.

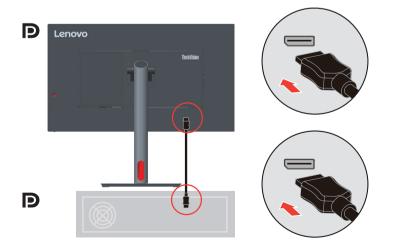


2. Connect the cables according to below icon indication.

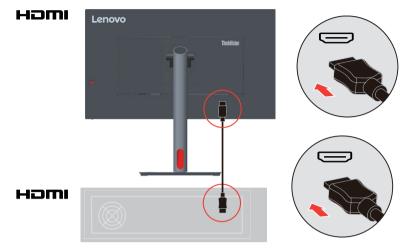


3. For computer in DisplayPort connecting.

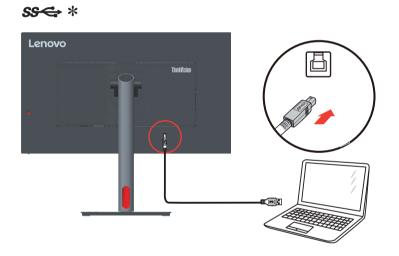
Note 1: Monitors sold in NA include an DP cable. Note 2: For other regions Lenovo recommends that customers who require to use the DP Cable on their monitor purchase the "Lenovo DisplayPort to DisplayPort Cable 0A36537" www.lenovo.com/support/monitoraccessories.



4. For computer in HDMI connecting. Lenovo recommends that customers who require to use the HDMI input on their monitor purchase the "Lenovo HDMI to HDMI cable OB47070" www.lenovo.com/support/ monitor accessories.



5. For computer in USB type A-B connecting.

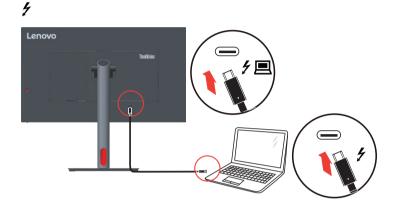


 Connect one end of the ThunderboltTM 4 cable to the ThunderboltTM connector of the computer, and the other end to the ThunderboltTM connector on the monitor. Note 1: P32p-30 monitor supports ThunderboltTM 4.

Note 2: $\not =$ is ThunderboltTM 4 upstream port, $\not =$ is ThunderboltTM 4 downstream port.

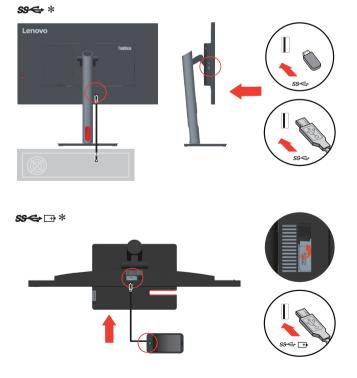
Note 3:ThunderboltTM upstream port supports output typical power 75W(20V/3.25A, 15V/4.3A,9V/5A,5V/5A), maximum 96W(20V/4.8A).

Note4:ThunderboltTM downstream port supports output power 27W(15V/1.8A, 9V/3A, 5V/5A). When super USB-C charging is on, the output power is 15W.



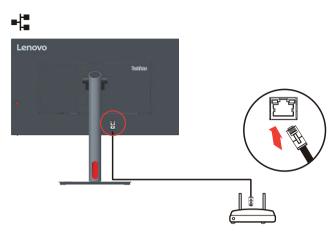
 Connect one end of the USB cable to the USB downstream terminal of the monitor, and connect the other end of the USB cable to an appropriate USB port on your device. Note1: The USB downstream port does not provide power while the monitor switch is off.

Note2: The USB downstream port provide power while connecting upstream cable in on mode or standby mode.



If there are any * tag, you can consult the comments on page 1-1.

8. Connect one end of the network cable connector to the Ethernet interface of the monitor and the other end to the router.



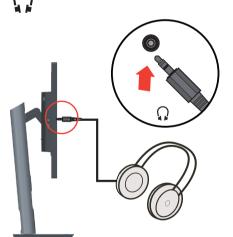
Note 1: To connect USB cable to enable the function.

Note 2: The Thunderbolt mode always stay in the networked standby mode , there is no standby in this mode.

Note 3: This product can support 10M/100M/1000M Gigabit Ethernet .Please be sure the setting is correct in OS if the network cannot work well.

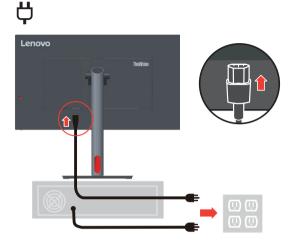
9. Connect the speaker's audio cable and audio jack of monitor to transfer audio source from Display Port, HDMI, Type-C.

Note: The audio output in Display Port, HDMI or Type-C modes.

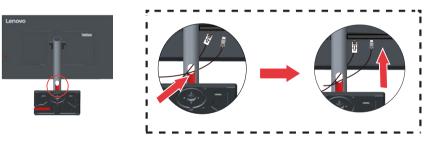


10. Insert the power cord into the monitor, then plug the monitor power cord and the computer cord into grounded electrical outlets.

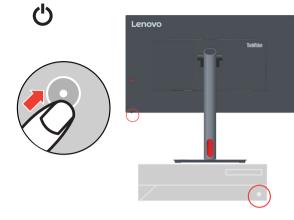
Note: A certified power supply cord has to be used with this equipment. The relevant national installation and or equipment regulations shall be considered. A certified power supply cord not lighter than ordinary polyvinyl chloride flexible cord according to IEC 60227 (designation H05VV-F 3G 0.75mm² or H05VVH2-F2 3G 0.75mm²) shall be used. Alternative a flexible cord be of synthetic rubber according to IEC 60245 (designation H05RR-F 3G 0.75mm²) shall be used.



11. Assembled cables with Line Cleaner as shown below.



12. Power on the monitor and the computer.



13. When you install the monitor driver, download the driver that corresponds to your monitor model from the Lenovo website https://pcsupport.lenovo.com/solutions/p32p_30. Refer to the "Manually installing the monitor driver" on page 3-6 section to install the driver.





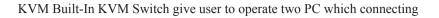
Registering your option

Thank you for purchasing this Lenovo[™] product. Please take a few moments to register your Product and provide us with information that will help Lenovo to better serve you in the future. Your feedback is valuable to us in developing product and services that are important to you, as well as in developing better ways to communicate with you. Register your option on the following Web site:

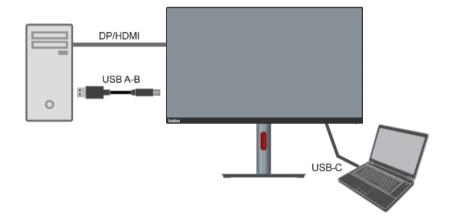
http://www.lenovo.com/register

Lenovo will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

KVM

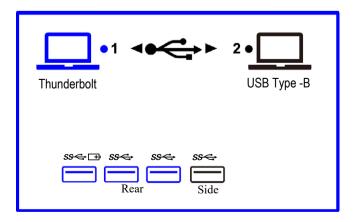






How to enable KVM

The shortcut key of KVM on right direction of five-way key. The USB devices will be switched to another upstream port after OSD disappears. **Note:** KVM operation may cause USB device to be interrupted.



Chapter 2.Adjusting and using your monitor

This section will give you information on adjusting and using your monitor.

Comfort and accessibility

Good ergonomic practice is important to get the most from your personal computer and to avoid discomfort. Arrange your workplace and the equipment you use to suit your individual needs and the kind of work that you perform. In addition, use healthy work habits to maximize your performance and comfort while using your computer. For more detailed information on any of these topics, visit the Healthy Computing Web site at: http://www.lenovo.com/healthycomputing/.

Arranging your work area

Use a work surface of appropriate height and available working area to allow you to work in comfort.

Organize you work area to match the way you use materials and equipment. Keep your work area clean and clear for the materials that you typically use and place the items that you use most frequently, such as the computer mouse or telephone, within the easiest reach. Equipment layout and setup play a large role in your working posture. The following topics describe how to optimize equipment setup to achieve and maintain good working posture.

Positioning and viewing your monitor

Position and adjust your computer monitor for comfortable viewing by considering the following items:

- Viewing distance: Recommended viewing distance between the eye and the monitor screen is 1.5 x the diagonal of the screen. Solutions in meeting this required distance in cramped office situations include pulling desk away from wall or divider to make room for monitor, using flat panel or compact displays placing the monitor in the desk corner, or placing the keyboard in an adjustable drawer to create a deeper working surface.
- **Monitor height:** Position the monitor so your head and neck are in a comfortable and neutral (vertical, or upright) position. If your monitor does not have height adjustments, you might have to place books or other sturdy objects under the base of the monitor to achieve the desired height. A general guideline is to position the monitor such that the top of the screen is at or slightly below your eye-height when you are comfortably seated. However, be sure to optimize your monitor height so the line of site between your eyes and the center the monitor suits your preferences for visual distance and comfortable viewing when your eye muscles are in a relaxed state.
- **Tilt:** Adjust the tilt of your monitor to optimize the appearance of the screen content and to accommodate your preferred head and neck posture.
- General location: Position your monitor to avoid glare or reflections on the screen from overhead lighting or nearby windows.

The following are some other tips for comfortable viewing of your monitor:

- Use adequate lighting for the type of work you are performing.
- Use the monitor brightness, contrast, and image adjustment controls, if equipped, to optimize the image on your screen to meet your visual preferences.
- Keep your monitor screen clean so you can focus on the screen's contents.

Any concentrated and sustained visual activity can be tiring for your eyes. Be sure to periodically look away from your monitor screen and focus on a far object to allow your eye muscles to relax. If you have questions on eye fatigue or visual discomfort, consult a vision care specialist for advice.

Quick tips for healthy work habits

The following information is a summary of some important factors to consider to help you remain comfortable and productive while you use your computer.

- **Good posture starts with equipment setup:** The layout of your work area and the setup of your computer equipment have a large effect on your posture while using your computer. Be sure to optimize the position and orientation of your equipment by following the tips outlined in "Arranging your work area" on page 2-1so you can maintain a comfortable and productive posture. Also, be sure to use the adjustment capabilities of your computer components and office furniture to best suit your preferences now and as your preferences change over time.
- Minor changes in posture can help avoid discomfort: The longer you sit and work in front of your computer, the more important it is to observe your working posture. Avoid as summing any one posture for an extended period of time. Periodically make minor modifications in your posture to help deter any discomforts that might arise. Make use of any adjustments that your office furniture or equipment provide to accommodate changes in posture
- Short, periodic breaks help ensure healthy computing: Because computing is primarily a static activity, it is particularly important to take short breaks from your work. Periodically, stand up in front of your work area, stretch, walk for a drink of water, or otherwise take a short break from using your computer. A short break from work gives your body a welcome change in posture and helps to ensure you remain comfortable and productive while you do work.

Accessibility information

Lenovo is committed to providing greater access to information and technology to people with disabilities. With assistive technologies, users can access information in the way most appropriate to their disability. Some of these technologies are already provided in your operating system; others can be purchased through vendors or accessed at: https://lenovo.ssbbartgroup.com/lenovo/request_vpat.php

Adjusting your monitor image

This section describes the user control features used to adjust your monitor image.

Using the direct access controls

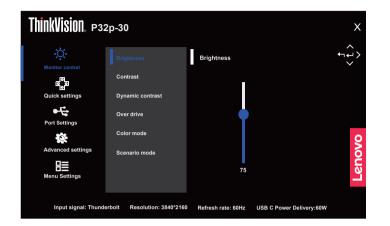
The direct access controls can be used when the On Screen Display (OSD) is not displayed.

	Icon	Control	Description
1	4	Left	Return to the previous menu page or exit from the previous function.
2	\bigtriangleup	UP	UP browsing key For increasing the value on adjustment bar/tune in
3	1 2 2	Input Source	Switches the video input source. Press and hold for 10 seconds to Enable/Disable the "DDC/CI".
4	\bigtriangledown	Down	Down browsing key. For decreasing the value on adjustment bar/tune in.
5	Ξ	Menu	To access OSD menu. Press to confirm selection. Press and hold for 10 seconds will lock menu/un-lock menu.
6	\triangleright	Right	Press to enter next level on main menu/sub menu status or enter previous level on adjustment bar.

Table 2-1. Direct access controls

Using the On-Screen Display(OSD) controls

To adjust the settings, the user controls can be viewed through the OSD.



To use the controls:

- 1. Press 🔳 to open the main OSD menu.
- Use △ or ▽ to move among the icons. Select an icon and press ↓ to access that function. If there is a sub-menu, you can move between options using △ or ▽ , then press ↓ to select that function. Use △ or ▽ to make adjustments then press ↓ to save.
- 3. Press \frown to move backwards through the sub-menus and exit from the OSD.
- 4. The ENERGY STAR option resets all user settings to default values so that the monitor can meet the requirements of Energy Star.



Energy Star is an energy saving program for consumer electronics led by the U.S. government. It was launched in 1992 by EPA and DOE to reduce energy consumption and greenhouse gas emissions. Energy Star logo is a symbol of energy conservation and environmental protection. It improves the concept of energy efficiency of consumers and manufacturers, and effectively guides the market.

The regulation of Energy Star improves energy efficiency and reduces air pollution by using more energy-efficient equipment in homes, offices and factories. One way to achieve this goal is to use management to reduce energy consumption when products are not in use. The default settings for monitors conform to Energy Star certification. Any changes by users for more features and functionalities may increase power consumption, which will exceed the limitation of Energy Star's standard. If the user changes the options related to energy efficiency when using, such as brightness, color mode, etc., select All Reset Factory or choose the Energy Star option, the power consumption will be restored to the energy efficiency with Energy Star standard.

For more information, please refer to (<u>www.energystar.gov/products</u>). All products of Energy Star will be posted online and can be accessed directly by governments, public institutions and consumers.

OSD Icon on Main Menu	Sub menu	Description	Controls and Adjustments
	Brightness Adjusts overall screen brightness. A		All input ports
	Contrast	Adjusts difference between light and dark areas.	
	Dynamic contrast	• On • Off	
	Over drive	Off Normal (6ms) Extreme (4ms)	
Monitor Controls	Color mode	 sRGB DCI-P3 (Only for P series) BT.709(Only for P series) Neutral Warm Cool Custom Red: Increases or decreases the saturation of 'red' in the image. Green: Increases or decreases the saturation of 'green' in the image. Blue: Increases or decreases the saturation of 'blue' in the image. 	
	Scenario mode	Panel native Image creation Digital cinema Video creation	
	Right key	• Brightness	All input ports
Quick settings	Up key	Contrast Scenario mode	
2	Down key	• KVM• Color mode• language	

OSD Icon on Main Menu	Sub menu	Description	Controls and Adjustments
Input Signal		AutoThunderboltDisplayPortHDMI	All input ports
	USB Charging	• On • Off Note:Enable the charging function in USB-A port (BC 1.2) when the monitor is without the upstream cable and in the standby mode.	for USB-A BC1.2 Port
		Upstream USB-C charging always on	for USB-C Port
Port Settings	Super USB-C Charging	• On • Off Note:Enable the maximum charging capability in USB C port and perhaps it will change the brightness in the same time based on the current setting.	
	Smart Power	• On • Off	
	KVM Setting	• KVM • TBT Priority • USB-B Source	All input ports
	DP Select	• DP 1.4 • DP 1.2	for DP Port
	Vpro	• On • Off	All input ports
	Video range	 Auto Full range 0-255 Limited range 16-235 Note:Refers to RGB range of HDMI input. 	
	Button repeat rate	• Default • Slow • Off	
	Aspect ratio	Full ScreenOrginal AR	
	Mirrored power button	• On • Off	
	LED indicator	• On • Off	
Advanced setting	Power button lock	• On • Off	
	USB Select	• USB 3.0 • USB 2.0	
	HDR 10	• Auto • Off	
	PIP/PBP	 PIP/PBP Swap PBP source PIP source Audio source 	

OSD Icon on Main Menu	Sub menuDescriptionControls and Adjustment			
	Information	 Model name Refresh Rate Firmware Scaler PD USB Hub1 USB Hub2 Thunderbolt Serial number 	All input ports	
Menu settings	Language	Select OSD Languages. Note: The language chosen only affects the language of the OSD. It has no effect on any software running on the computer.		
	OSD timeout	Adjust bar 5~60 s		
	OSD position	Adjust bar 0~100 (H,V)		
	OSD rotation	• Normal • 90 • 270		
	Transparency	0~100		
	Factory reset	• Reset • No		

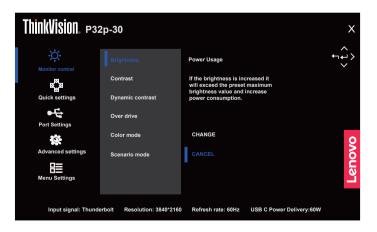
*The use of Extreme Mode (response time) may result in reduced display quality when fast moving video graphics are displayed.

Users should check Extreme Mode (response time) to verify if it is compatible with any applications they would like to use it with.

Low Blue Light: The display uses the low blue light panel. It complies with TÜV Rheinland Low Blue Light Hardware Solution certification under factory reset/default setting (Low Blue Light=Standard, Brightness:75%, Contrast: 75%, CCT: Warm)

Extended brightness mode

When the user adjusts the OSD default value over 100, the Warning message will pop up, "If the brightness is increased it will exceed the preset maximum brightness value and increase power consumption", after selecting the CHANGE, the OSD brightness maximum value can be adjusted to 150.



Selecting a supported display mode

The display mode of the monitor uses is controlled by the computer. Therefore, refer to your computer documentation on how to change display modes.

The image size, position and shape might be changed when the display mode changes. This is normal and the image can be re-adjusted using automatic image setup and the image controls. Unlike CRT monitors, which require a high refresh rate to minimize flicker, LCD or Flat Panel technology is inherently flicker-free.

Note: If your system has previously been used with a CRT monitor and is currently configured to a display mode outside the range of this monitor, you may need to reattach the CRT monitor temporarily until you have re-configured the system; preferably to 3840 x 2160 at 60 Hz, which is a common display mode.

The display modes shown below have been optimized at the factory.

Table 2-3 Factory set display modes

Timing	Refresh rate(Hz)		
640x480	60Hz		
640x480	72Hz		
640x480	75Hz		
800x600	60Hz		
800x600	72Hz		
800x600	75Hz		
832x624	75Hz		
1024x768	60Hz		
1024x768	72Hz		
1024x768	75Hz		
1280x1024	60Hz		
1280x1024	72Hz		
1280x1024	75Hz		
1440x900	60Hz		
1600x900	60Hz		
1680x1050	60Hz		
1920x1080	60Hz		
1920x1080	75Hz		
2560x1440	60Hz		
2560x1440	75Hz		
3840x2160	60Hz		

Understanding power management

Power management is invoked when the computer recognizes that you have not using your mouse or keyboard for a user-definable period. There are several states as described in the table below.

For optimal performance, switch off your monitor at the end of each working day, or whenever you expect to leave it unused for long periods during the day.

State	Power Indicator	Screen	Restoring Operation Compliance		een Restoring Operation Con	
On	White	Normal				
Standby/Suspend	Amber	Blank	Press a key or move the mouse. There may be a slight delay reappears. Note: Standby also occurs if there is no image output to the monitor.	ENERGY STAR		
Off	Off	Blank	Press power key to switch on There may be a slight delay before the image reappears.	ENERGY STAR		

Table 2-4. Power indicator

Power Management Modes

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	230 W (maximum)* 33 W (typical)
Active-off mode	Inactive	Inactive	Off	Amber	Less than 0.5 W
Switch off	-	-	-	Off	Less than 0.3 W

Energy Star	Power Consumption
P _{on}	32.92 W
E _{TEC}	114.89 kWh

****** Maximum power consumption with max luminance.

This document is informational only and reflects laboratory performance. Your product may perform differently, depending on the software, components and peripherals you ordered and shall have no obligation to update such information. Accordingly, the customer should not rely upon this information in making decisions about electrical tolerances or otherwise. No warranty as to accuracy or completeness is expressed or implied.

Caring for your monitor

Be sure to turn off the power before you perform any maintenance on the monitor.

Do not:

- Apply water or liquid directly to your monitor.
- Use solvents or abrasives.
- Use flammable cleaning materials to clean your monitor or any other electrical equipment.
- Touch the screen area of your monitor with sharp or abrasive items. This type of contact may cause permanent damage to your screen.
- Use any cleaner which contains an anti-static solution or similar additives. This may harm the coating of the screen area.

Do:

- Lightly dampen a soft cloth with water and use this to gently wipe the covers and the screen.
- Remove grease or finger marks with a damp cloth and a little mild detergent.

Detaching the monitor base and stand

- Step 1: Place the monitor on a soft and flat surface.
- Step 2: Press and hold the stand release button.
- Step 3: Lift the stand up and away from the monitor.



Wall Mounting (Optional)

Refer to the instructions that come with the base mounting kit. To convert your LCD display from a desk-mounted to a wall-mounted display, do the following:

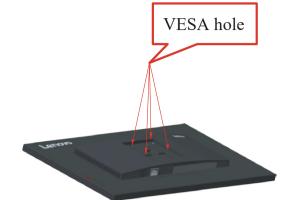
Step 1: Verify that the Power button is turned off, then disconnect the power cord. Step 2: Lay the LCD display face down on a towel or blanket.



Step 3: Remove the base and stand from the monitor, refer to "Detaching the monitor base and stand" on page 2-12.



Step 4: Attach the mounting bracket from the VESA compatible wall mounting kit. (100mm x100mm distance), the type of VESA mounting screw is M4 x 10 mm.



Step 5: Attach the LCD display to the wall, and follow the instructions in the wall-mounting kit. For use only with UL Listed Wall Mount Bracket with minimum weight/load: 8kg

Chapter 3.Reference information

This section contains monitor specifications, instructions to manually install the monitor driver, troubleshooting information.

Monitor specifications

Table 3-1. Monitor specifications for type-model P32p-30/63D1-RAR1-WW

Dimensions	Depth	234.94mm (9.25in)		
	Height	599.54mm (23.60in)		
	Width	714.20mm (28.12in)		
Stand	Tilt	Range: -5°~23.5°		
VESA mount	Supported	100 mm x 100 mm (3.94 in. x 3.94 in.)		
mage	Viewable image size	800 mm (31.5 in.)		
	Maximum height	697.31 mm (27.45 in.)		
	Maximum width	392.23 mm (15.44 in.)		
	Pixel pitch	0.18159mm (0.01 in.)		
Power input	Supply voltage	100-240V AC		
	Max supply current	2.5A		
Power consumption	Normal operation	<230 W (Max)		
Note: Power		<33 W (Typical)		
consumption figures are for the monitor and the power supply combined.	Standby/Suspend	<0.5 W		
Note: Typical power consumption is tested under OSD default setting.	Off	<0.3 W at 100VAC and 240VAC		
OP	Interface	DP*		
	Input signal	VESA TMDS (Panel Link TM)		
	Horizontal addressability	3840 pixels (max)		
	Vertical addressability	2160 lines (max)		
	Clock frequency	600 MHz (max)		
HDMI	Interface	HDMI		
	Input signal	VESA TMDS (Panel Link TM)		
	Horizontal addressability	3840 pixels (max)		
	Vertical addressability	2160 lines (max)		

*: DP1.4 (HBR3: 32.4 Gbit/s) HBR3: High Bit Rate3

Communications	VESA DDC/CI	
Supported Display Modes	Horizontal frequency	29 kHz – 160 kHz
wodes	Vertical frequency	50 Hz – 75 Hz
	Native Resolution	3840 x 2160 at 60 Hz
Temperature	Operating	0° to 40°C (32°F to 104° F)
	Storage	-20° to 60°C (-4°F to 140° F)
	Shipping	-20° to 60°C (-4° F to 140° F)
Humidity	Operating	10% to 80% non-condensing
	Storage	5% to 95% non-condensing
	Shipping	5% to 95% non-condensing

Troubleshooting

If you have a problem setting up or using your monitor, you might be able to solve it yourself. Before calling your dealer or Lenovo, try the suggested actions that are appropriate to your problem.

Table 3-2. Troubleshooting

Problem	Possible cause	Suggested action	Reference
The words" Out of Range" are shown on the screen, and the power indicator is flashing white.	The system is set to a display mode which is not supported by the monitor	 If you are replacing an old monitor, reconnect it and adjust the display mode to within the specified range for your new monitor. If using a Windows system, restart the system in safe mode, then select a supported display mode for your computer. If these options do not work, contact the Customer Support Centre. 	"Selecting a supported display mode"on page 2-6
The image quality is unacceptable	The video signal cable is not connected with the monitor or system completely.	Be sure the signal cable is firmly plugged into the system and monitor.	"Connecting and turning on your monitor"on page 1-5
	The color settings may be incorrect.	Select another color setting from the OSD menu.	"Adjusting your monitor image"on page 2-3
	The automatic image setup function was not performed.	Perform automatic image setup.	"Adjusting your monitor image"on page 2-3
The power indicator is not lit and there is no image.	 The monitor's power switch is not switched on. The power cord is loose or disconnected. There is no power at the outlet. 	 Be sure the power cord is connected properly. Be sure the outlet has power. Power on the monitor. Try using another power cord. Try using another electrical outlet. 	"Connecting and turning on your monitor"on page 1-5
Screen is blank and power indicator is amber.	The monitor is in Standby / Suspend mode	 Press any key on the keyboard or move the mouse to restore operation. Check the Power options settings on your computer. 	"Understanding power management"on page 2-11
The power indicator is amber, but there is no image	The video signal cable is loose or disconnected from the system or monitor	Be sure the video cable is connected with the system properly	"Connecting and turning on your monitor"on page 1-5
	The monitor brightness and contrast are at the lowest setting.	Adjust the brightness and contrast setting on the OSD menu.	"Adjusting your monitor image"on page 2-3

Problem	Possible cause	Suggested action	Reference
One or more of the pixels appear discolored	This is a characteristic of the LCD technology and is not an LCD defect	If there are more than five pixels missing, contact the Support Center	"Appendix A. Service and Support"on page A-1
in text or a blurryimage • Horizontal or vertical	 Image setup has not been optimized Your system DisplayProperties setting have not 	Adjust the resolution settings on your system to match the native resolution for this monitor: 3840 x 2160 at 60 Hz.	"Adjusting your monitor image"on page 2-3
	been optimized.	Perform automatic image setup. If automatic image setup does not help, perform manual image setup.	supported display
		When working in the native resolution, you may find additional improvements by adjusting the Dots Per Inch (DPI) setting on your system.	See the Advanced section of your system's display properties.

Manually installing the monitor driver

Below are steps for manually installing the monitor driver in Microsoft Windows 10, Microsoft Windows 11.

Installing the monitor driver in Windows 10

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

- 1. Turn off the computer, all attached devices.
- 2. Ensure that the monitor is connected correctly.
- 3. Turn on the monitor and then the system unit. Allow your computer to start the Windows 10 operating system.
- From the Lenovo website https://pcsupport.lenovo.com/solutions/p32p_30, find the corresponding monitor driver and download it to a PC to which this monitor is connected (such as a desktop).
- 5. On the Desktop, move mouse to bottom-left corner of screen, right-click choose **Control Panel**, then double click the icon of Hardware and Sound, and then click **Display**.
- 6. Click the Change the display settings tab.
- 7. Click the Advanced Settings icon.
- 8. Click the Monitor tab.
- 9. Click the Properties button.
- 10. Click the Driver tab.
- 11. Click Update Driver, then click Browse the computer to find the driver program.
- 12. Select Pick from the list of device driver program on the computer.
- 13. Click the **Hard Disk** button. By clicking the **Browse** button, browse and point to the following path:
 - X:\Monitor Drivers\Windows 10
 - (where ${\bf X}$ indicates "the folder in which the downloaded
 - driver is located" (such as a desktop)).
- 14. Select the "lenP32p-30.inf" file and click the Open button. Click the OK button.
- 15. In the new window, select LEN P32p-30 and click Next.
- 16. After the installation is complete, delete all downloaded files and close all windows.
- 17. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. Lenovo recommends using either 3840 x 2160 at a refresh rate of 60 Hz, or 640 x 480 at refresh rate of 60 Hz.

Installing the monitor driver in Windows 11

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

- 1. Turn off the computer, all attached devices.
- 2. Ensure that the monitor is connected correctly.
- 3. Turn on the monitor and then the system unit. Allow your computer to start the Windows 11 operating system.
- From the Lenovo website https://pcsupport.lenovo.com/solutions/p32p_30, find the corresponding monitor driver and download it to a PC to which this monitor is connected (such as a desktop).
- 5. On the Desktop, move mouse to bottom-left corner of screen, right-click choose **Control Panel**, then double click the icon of Hardware and Sound, and then click **Display**.
- 6. Click the Change the display settings tab.
- 7. Click the Advanced Settings icon.
- 8. Click the Monitor tab.
- 9. Click the Properties button.
- 10. Click the Driver tab.
- 11. Click Update Driver, then click Browse the computer to find the driver program.
- 12. Select Pick from the list of device driver program on the computer.
- 13. Click the **Hard Disk** button. By clicking the **Browse** button, browse and point to the following path:

X:\Monitor Drivers\Windows 11 (where X indicates "the folder in which the downloaded driver is located" (such as a desktop)).

- 14. Select the "lenP32p-30.inf" file and click the Open button. Click the OK button.
- 15. In the new window, select LEN P32p-30 and click Next.
- 16. After the installation is complete, delete all downloaded files and close all windows.
- 17. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. Lenovo recommends using either 3840 x 2160 at a refresh rate of 60 Hz, or 640 x 480 at a refresh rate of 60 Hz.

Getting further help

If you still can't solve your problem, please contact the Lenovo Support Center. For more information on contacting the Support Center, please see Appendix A. "Service and Support" on page A-1.

Service information

Customer responsibilities

The warranty does not apply to a product which has been damaged due to accident, misuse, abuse, improper installation, usage not in accordance with product specifications and instructions, natural or personal disaster, or unauthorized alterations, repairs or modifications.

- The following are examples of misuse or abuse and not covered by warranty:
- Images burned on to the screen of a CRT monitor. Burned image is preventable by utilizing a moving screen saver or power management.
- Physical damage to covers, bezel, base and cables.
- Scratches or punctures on monitor screens.

Service parts

The following parts are for use by Lenovo service, or Lenovo authorized dealers to support the customer warranty. Parts are for service use only. The table below shows information for model (A22315UP0/P32p-30/63D1-RAR1-WW).

Table 3-3. List of service parts

FRU (Field Replaceable Unit) Part number	Description	Machine Type Model (MTM)	colour
5D11J81667	P32p-30 - 31.5 inch FRU Monitor (HDMI)	63D1	Raven Black
5C11J81661	P32p-30 TBT4 cable	63D1	Raven Black
5C11J81663	P32p-30 USB Type A to Type B cable	63D1	Raven Black
5C11J07492	DP1.4 cable 1.8m (Common p/n)	63D1	Raven Black
5C11J07491	HDMI2.0 cable 1.8m FRU	63D1	Raven Black

Appendix A. Service and Support

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of the product. Refer to your Lenovo Statement of Limited Warranty for a fully explanation of Lenovo warranty terms.

Registering your option

Register to receive product service and support updates, as well as free and discounted computer Accessories and content. Go to: http://www.lenovo.com/support

Online technical support

Online technical support is available during the life of your product through the Lenovo Support Web site at http://www.lenovo.com/ support

Product replacement assistance or exchange of defective components also is available during the warranty period, assistance for replacement or exchange of defective components is available. In addition, if your option is installed in a Lenovo computer, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Telephone technical support

Installation and configuration support through the Customer Support Center will be available until 90 days after the option has been withdrawn from marketing. After that time, the support is cancelled, or made available for a fee, at Lenovo's discretion. Additional support is also available for a nominal fee.

Before contacting a Lenovo technical support representative, please have the following information available: option name and number, proof of purchase, computer manufacturer, model, serial number and manual, the exact wording of any error message, description of the problem, and the hardware and software configuration information for your system.

Your technical support representative might want to walk you through the problem while you are at your computer during the call.

Telephone numbers are subject to change without notice. The most up-to-date telephone list for Lenovo Support is always available at: http://consumersupport.lenovo.com

Country or Region	Telephone Number
Argentina	0800-666-0011 (Spanish, English)
Australia	1-800-041-267 (English)
Austria	0810-100-654 (local phone) (German)
Belgium	Warrant 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)

Country or Region	Telephone Number
Brunei Darussalam	800-1111 (English)
Canada	1-800-565-3344 (English, French)
Chile	800-361-213(Spanish)
China	Technical Support Line: 400-100-6000 (Mandarin)
China (Hong Kong S.A.R.) China	(852) 3516-8977 (Cantonese, English, Mandarin) 0800-807 / (852) 3071-3559
(Macau S.A.R.)	(Cantonese, English, Mandarin)
Colombia	1-800-912-3021 (Spanish)
Costa Rica	0-800-011-1029(Spanish)
Croatia	385-1-3033-120(Croatian)
Cyprus	800-92537(Greek)
Czech Republic	800-353-637(Czech)
Denmark	Warranty service and support: 7010-5150 (Danish)
Dominican Republic	1-866-434-2080(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 (hardware): 0810-631-213(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 and Center: +972-3-531-3900 (Hebrew, English)

Appendix A. Service and Support A-2

Country or Region	Telephone Number
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)

Country or Region	Telephone Number
Switzerland	Warranty service and support: 0800-55-54-54 (German, French, Italian)
Taiwan	0800-000-702 (Mandarin)
Thailand	001-800-4415-734 (+662) 787-3067 (Standard Charges Apply)(Thai, English)
Turkey	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)

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http://www.lenovo.com/recycling

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If you are a company employee and need to dispose of a Lenovo computer or monitor that is the property of the company, you must do so in accordance with the Law for Promotion of Effective Utilization of Resources. Computers and monitors are categorized as industrial waste and should be properly disposed of by an industrial waste disposal contractor certified by a local government. In accordance with the Law for Promotion of Effective Utilization of Resources, Lenovo Japan provides, through its PC Collecting and Recycling Services, for the collecting, reuse, and recycling of disused computers and monitors. For details, visit the Lenovo Web site at

https://www.lenovo.com/jp/ja/services_warranty/recycle/pcrecycle/. Pursuant to the Law for Promotion of Effective Utilization of Resources, the collecting and recycling of homeused computers and monitors by the manufacturer was begun on October 1, 2003. This service is provided free of charge for home-used computers sold after October 1, 2003. For details, visit the Lenovo Web site at

https://www.lenovo.com/jp/ja/services_warranty/recycle/personal/.

Disposing of Lenovo computer components

Some Lenovo computer products sold in Japan may have components that contain heavy metals or other environmental sensitive substances. To properly dispose of disused components, such as a printed circuit board or drive, use the methods described above for collecting and recycling a disused computer or monitor.

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Use only the power cords and power adapters supplied by the product manufacturer. Do not use the ac power cord for other devices.