

# **ThinkVision**

ThinkVision P49w-30



# **Product numbers**

A234905P0 63DB-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.

Преди инсталиране на продукта, прочетете Информация за безопасност.

Před instalací tohoto produktu si přečtěte bezpečnostní informace.

Før du dette tages i brug produkt, skal du læse sikkerhedsoplysningerne.

Lesen Sie die Sicherheitshinweise, bevor Sie das Gerät installieren.

Πριν εγκαταστήσετε αυτό το προϊόν, διαβάστε τις Πληροφορίες για την ασφάλεια.

Antes de instalar este producto, lea la Información de seguridad.

Ennen kuin asennat tämän tuotteen, lue Turvallisuustiedot.

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

לפני התקנת המוצר, חשוב לקרוא את המידע בנושא בטיחות.

Prije ugradnje proizvoda pročitajte obavijesti o sigurnosti.

A termék használatba vétele előtt olvassa el a biztonsági tudnivalókat.

Sebelum memasang produk ini, baca Informasi Keselamatan.

Prima di installare il prodotto, leggere le informazioni sulla sicurezza.

本製品を設置する前に、安全に関する情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 숙지하십시오.

Lees de veiligheidsinformatie voorafgaand aan het installeren van dit product.

Les sikkerhetsinformasjonen før du installerer produktet.

Przed instalacją tego produktu należy przeczytać Informacje dotyczące bezpieczeństwa.

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

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

Înainte de a instala acest produs, citiți informațiile privind siguranța.

Перед установкой продукта прочтите раздел "Информация о безопасности".

Pred inštaláciou tohto výrobku si prečítajte bezpečnostné informácie.

Pred namestitvijo tega izdelka preberite varnostne informacije.

Pre instaliranja ovog proizvoda, pročitajte Bezbednosne informacije.

Läs säkerhetsinformation innan du installerar den här produkten.

#### โปรดอ่านข้อมูลด้านความปลอดภัยก่อนที่จะติดตั้งผลิตภัณฑ์นี้

Bu ürünü kurmadan önce Güvenlik Bilgilerini okuyun.

Перш ніж встановлювати пристрій, прочитайте інформацію з техніки безпеки.

在安装本产品之前,请阅读"安全事项"。

安裝本產品前,請閱讀安全資訊。

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**

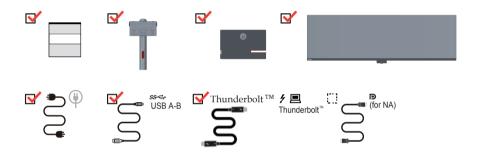
This User's Guide provides detailed operation instructions for the user. For quick instruction overview, please see the Setup Poster for brief information.

ThinkVision P49w-30 supports Lenovo Display Control Center - ThinkColour.

## **Shipping contents**

The product package should include the following items:

- Information Flyer
- Stand
- Base
- Curved Panel Monitor
- Power Cord
- Thunderbolt<sup>TM</sup>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 area is 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 2-11.

## **Product overview**

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

## Types of adjustments

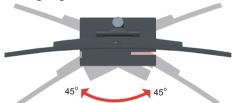
## Tilt

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.



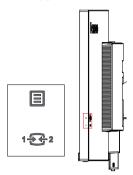
## **Height Adjustment**

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



## **Monitor 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.

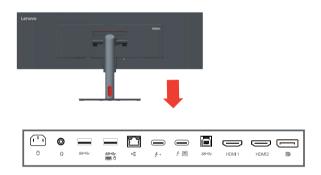
#### Connecting and turning on your monitor

**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.



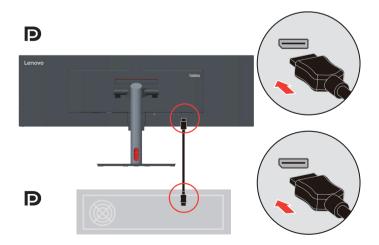
2. Connect the cables according to below icon indication.



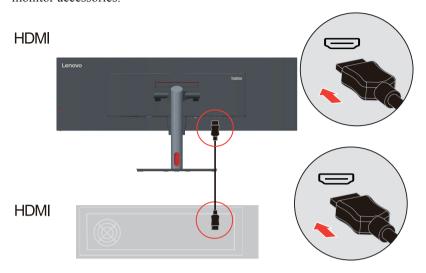
3. For computer in DisplayPort connecting.

Note 1: Monitors sold in NA include an DP cable.

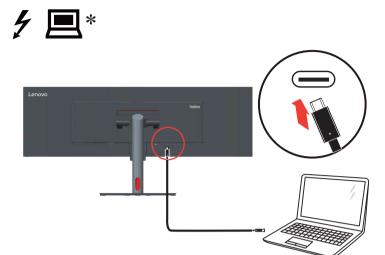
**Note 2:** For other regions Lenovo recommends that customers who require to use the DP Cable on their monitor purchase the "Lenovo DisplayPort to DisplayPort Cable 0A36537" www.lenovo.com/support/monitoraccessories.



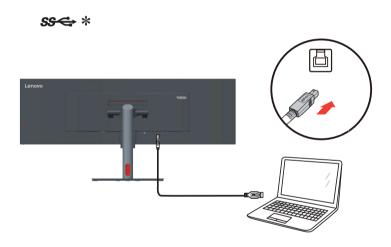
# 4. For computer in HDMI connecting. Lenovo recommends that customers who require to use the HDMI input on their monitor purchase the "Lenovo HDMI to HDMI cable OB47070" www.lenovo.com/support/monitor accessories.



5. For computer in USB type C-C connecting.



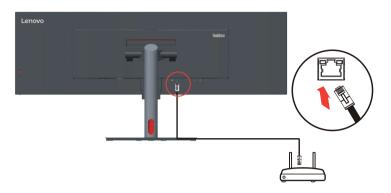
6. For computer in USB type A-B connecting.



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

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





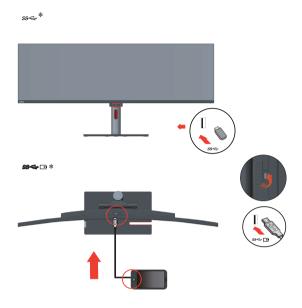
Note1: To connect USB cable to enable the function.

**Note2:** The Thunderbolt mode always stay in the networked standby mode , there is no standby&sleep in this mode.

**Note3:** This product can support 10M/100M/1000M Gigabit Ethernet .Please be sure the setting is correct in OS if the network cannot work well.

8. 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

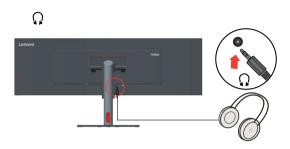
Note2: The USB downstream port provide power while connecting upstream cable in on mode or standby mode.



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

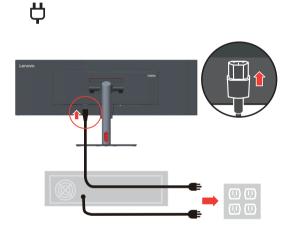
9. Connect the speaker's audio cable and audio jack of monitor to transfer audio source from Display Port, HDMI, Type-C or USB.

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

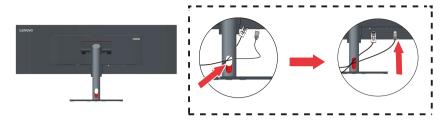


10. Insert the power cord into the monitor, then plug the monitor power cord and the computer cord into grounded electrical outlets.

**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.

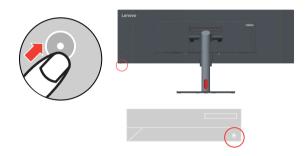


11. Assembled cables with Line Cleaner as shown below.



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/p49w\_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<sup>TM</sup> 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.

## eKVM & KVM

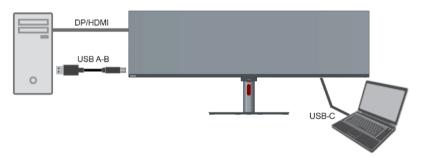
Built-In KVM Switch give user to operate two PC which connecting USB Type-B and Type-C upstream ports, also user can use USB keyboard or USB mouse to reach the same function, called eKVM.



#### **KVM**

Step 1 Connect your PC to monitor thru the Thunderbolt and DisplayPort or HDMI.

#### **KVM**



#### Step 2 Enable KVM in OSD.

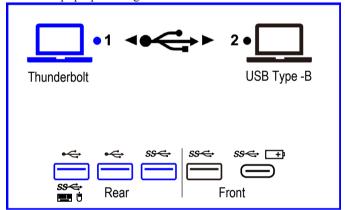
- KVM On- switch USB and video together.
- KVM Off- switch USB only.



Step 3 Press the hotkey of KVM located on the specific button of front bezel.



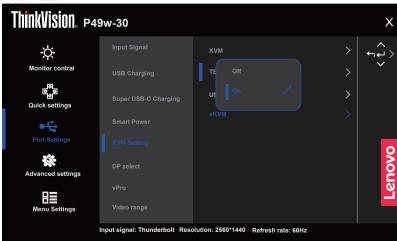
It will show pop up message on the screen when user switch KVM.



- \* Remarks:
- 1. Data transmission & Network interruption" may happen when user switch source between TBT & USB-B.
- 2. eKVM functionality may vary depending upon the different brands of the mouse.

#### **TBT Priority**

Attach the TBT cable and mode detected will automatically switch to TBT video source and USB data.



USB-B Source

Attach an TBT cable and mode detected will automatically switch to TBT video source and USB data.

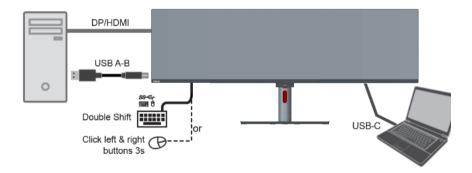


- Auto: Video source will be automatically bundled with USB-B.
- DisplayPort: DP (Video source) + USB-B(Data)
- HDMI: HDMI (Video source) + USB-B(Data)

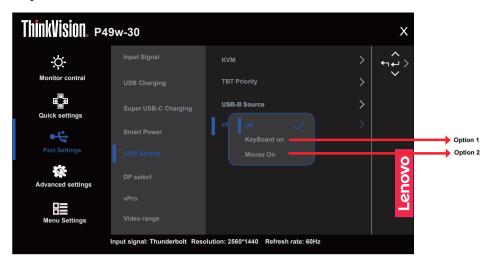
#### eKVM

Step 1 Connect your PC to monitor thru the Thunderbolt and DisplayPort or HDMI.

#### **eKVM**

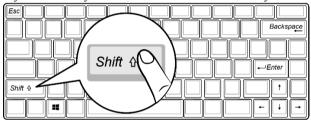


Step 2 Enable eKVM in OSD.



#### Option 1

Keyboard hotkey: double click 'Shift' function key in 0.5s.



#### Option 2

Mouse hotkey: press and hold both left and right button of mouse in 3s.



# 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 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

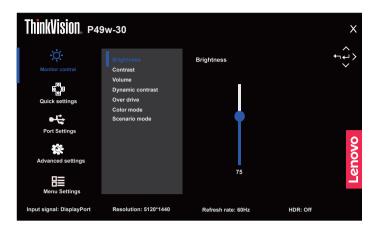
The direct access controls can be used when the On Screen Display (OSD) is not displayed.

Table 2-1. Direct access controls

|   | Icon        | Control      | Description  |
|---|-------------|--------------|--|
| 1 | ٥           | Left         | Return to the previous menu page or exit from the previous function.   |
| 2 | Δ           | 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 | $\nabla$    | Down         | Down browsing key. For decreasing the value on adjustment bar/tune in.                                       |
| 5 | ▤           | Menu         | To access OSD menu.  Press to confirm selection.  Press and hold for 10 seconds will lock menu/un-lock menu. |
| 6 | <b>&gt;</b> | Right        | Press to enter next level on main menu/sub menu status or enter previous level on adjustment bar.            |

### 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.
- 2. Use  $\triangle$  or  $\nabla$  to move among the icons. Select an icon and press  $\longrightarrow$  to access that function. If there is a sub-menu, you can move between options using  $\triangle$  or  $\nabla$ , then press  $\longrightarrow$  to select that function. Use  $\triangle$  or  $\nabla$  to make adjustments then press  $\longrightarrow$  to save.
- 3. Press 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.

Table 2-2. OSD functions

| OSD Icon on Main<br>Menu | Sub menu         | Description  | Controls and Adjustments |
|--------------------------|------------------|--|--------------------------|
|                          | Brightness       | Adjusts overall screen brightness.   | All input ports          |
|                          | Contrast         | Adjusts difference between light and dark areas.   |                          |
|                          | Volume           | Adjust the value.  |                          |
|                          | Dynamic Contrast | • Off<br>• On  |                          |
|                          | Over Drive       | • Off<br>• Normal (6ms)<br>• 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.     Close |                          |
| Scenario Mode            |                  | Panel native     Image creation     Digital cinema     Video creation  |                          |
|                          | Right key        | Brightness     Contrast  | All input ports          |
| Ovials settings          | Up key           | Scenario mode     KVM  |                          |
| Quick settings           | Down key         | Color mode True split language   |                          |

| OSD Icon on Main<br>Menu | Sub menu                | Description   | Controls and Adjustments |
|--------------------------|-------------------------|---|--------------------------|
|                          | Input Signal            | <ul><li>Auto</li><li>Thunderbolt</li><li>DisplayPort</li><li>HDMI</li></ul>                       | All input ports          |
|                          | USB Charging            | • On • Off • Upstream USB-C charging always on  | for USB-C Port           |
|                          | Super USB-C<br>Charging | • On<br>• Off   |                          |
| D + G + i                | Smart Power             | • On<br>• Off   |                          |
| Port Settings            | KVM Setting             | KVM     TBT Priority     USB-B Source     eKVM  | All input ports          |
|                          | DP Select               | • DP 1.4<br>• DP 1.2  | for DP Port              |
|                          | Vpro                    | • On<br>• Off   |                          |
|                          | Video range             | Auto     Full range     Limited range Note: Refers to RGB range of HDMI input.                    |                          |
|                          | Button repeat rate      | • Default • Slow • Off  | All input ports          |
|                          | Aspect ratio            | Full Screen     Orginal AR  |                          |
|                          | Mirrored power button   | • On<br>• Off   |                          |
|                          | LED indicator           | • On<br>• Off   |                          |
|                          | Power button lock       | • On<br>• Off   |                          |
|                          | USB Select              | • USB 3.0<br>• USB 2.0  |                          |
| Advanced settings        | HDR 10                  | • Auto<br>• Off   |                          |
|                          | True split              | • Off<br>• Mode 1   |                          |
|                          | PIP/PBP                 | <ul><li>PIP/PBP</li><li>Swap</li><li>PBP source</li><li>PIP source</li><li>Audio source</li></ul> |                          |

| OSD Icon on Main<br>Menu             | Sub menu     | Description   | Controls and Adjustments |
|--------------------------------------|--------------|---|--------------------------|
| Information  Menu settings  Language |              | Model name     Refresh Rate     Firmware     Scaler     PD     USB Hub1     USB Hub2     Thunderbolt     Serial number                          | All input ports          |
|                                      |              | 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)  |                          |
|                                      | Transparency | 0~100   |                          |
| Factory reset                        |              | • Reset<br>• No   |                          |

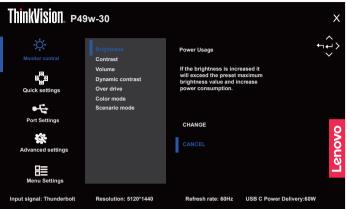
<sup>\*</sup>The use of Extreme Mode (response time) may result in reduced display quality when fast moving video graphics are displayed.

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 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 5120x1440 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     | 60 Hz            |
| 640x480     | 67 Hz            |
| 640x480     | 72 Hz            |
| 640x480     | 75 Hz            |
| 720x400     | 70 Hz            |
| 800x600     | 60 Hz            |
| 800x600     | 72 Hz            |
| 800x600     | 75 Hz            |
| 832x624     | 75 Hz            |
| 1024x768    | 60 Hz            |
| 1024x768    | 70 Hz            |
| 1024x768    | 75 Hz            |
| 1280x1024   | 60 Hz            |
| 1280x1024   | 75 Hz            |
| 1440x900    | 60 Hz            |
| 1440x900    | 75 Hz            |
| 1600x1200   | 60 Hz            |
| 1600x1200   | 70 Hz            |
| 1680x1050   | 60 Hz            |
| 1920x1080   | 60 Hz            |
| 2560x1440   | 60 Hz            |
| 3840x1080 * | 60Hz             |
| 3440x1440*  | 60Hz             |
| 5120x1440*  | 30 Hz            |
| 5120x1440   | 60 Hz            |

<sup>\*:</sup>Only Thunderbolt port supports this function

## **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.

Table 2-4. Power indicator

| State           | Power<br>Indicator | Screen | Restoring Operation   | Compliance  |
|-----------------|--------------------|--------|---|-------------|
| 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<br>There may be a slight delay<br>before the image reappears.  | ENERGY STAR |

#### **Power Management Modes**

| VESA Modes       | Horizontal<br>Sync | Vertical<br>Sync | Video  | Power<br>Indicator | Power Consumption   |
|------------------|--------------------|------------------|--------|--------------------|---|
| Normal operation | Active             | Active           | Active | White              | 275 W (maximum)*<br>58 W (typical)                        |
| Active-off mode  | Inactive           | Inactive         | Off    | Amber              | Less than 0.5 W<br>(The Thunderbolt port is not included) |
| Switch off       | -                  | -                | -      | Off                | Less than 0.3 W   |

| Energy Star      | Power Consumption |
|------------------|-------------------|
| P <sub>ON</sub>  | 56 W              |
| E <sub>TEC</sub> | 183 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 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 2-11.



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 P49w-30/63DB-RAR1-WW

| Dimensions  | Depth                     | 253.87 mm (9.99 in.)                   |
|---|---------------------------|--|
|   | Height                    | 576.27 mm (22.69 in.)                  |
|   | Width                     | 1215.10 mm (47.84 in.)                 |
| Stand   | Tilt                      | Range: -5°~23.5°                       |
| VESA mount  | Supported                 | 100 mm x 100 mm (3.94 in. x 3.94 in.)  |
| Image   | Viewable image size       | 1244.6 mm (49 in.)                     |
|   | Maximum height            | 1209.9 mm (47.63 in.)                  |
|   | Maximum width             | 360.45 mm (14.19 in.)                  |
|   | Pixel pitch               | 0.234 mm (0.01 in.)                    |
| Power input   | Supply voltage            | 100-240V AC                            |
|   | Max supply current        | 3A                                     |
| Power consumption   | Normal operation          | <275 W (Max)                           |
| Note: Power   |                           | <58 W (Typical)                        |
| consumption figures are for the monitor                                     | Standby/Suspend           | <0.5 W *                               |
| and the power supply combined.  |                           | (The Thunderbolt port is not included) |
| <b>Note:</b> Typical power consumption is tested under OSD default setting. | Off                       | <0.3 W at 100VAC and 240VAC            |
| DP  | Interface                 | DP*                                    |
|   | Input signal              | VESA TMDS (Panel Link <sup>TM</sup> )  |
|   | Horizontal addressability | 5120 pixels (max)                      |
|   | Vertical addressability   | 1440 lines (max)                       |
|   | Clock frequency           | 600 MHz (max)                          |
| HDMI  | Interface                 | HDMI                                   |
|   | Input signal              | VESA TMDS (Panel Link <sup>TM</sup> )  |
|   | Horizontal addressability | 5120 pixels (max)                      |
|   | Vertical addressability   | 1440 lines (max)                       |
|   | Clock frequency           | 600 MHz (max)                          |
|   |                           |  |

<sup>\*:</sup> DP1.4 (HBR3: 32.4 Gbit/s) HBR3:High Bit Rate3

| Communications             | VESA DDC/CI          |                                |
|----------------------------|----------------------|--------------------------------|
| Supported Display<br>Modes | Horizontal frequency | 29 kHz – 120 kHz               |
| ivioues                    | Vertical frequency   | HDMI:30-75Hz                   |
|                            | vertical frequency   | DP/Type-C:50-75Hz              |
|                            | Native Resolution    | 5120x1440 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       |

# The recommendation for DP Daisy Chain

#### SDR Mode

| 1st video source | Timing / Color Depth   | Maximum number of total monitors in DP Daisy Chain |
|------------------|------------------------|--|
| Display Port     |                        | 4  |
| USB-C(USB 2.0)   | 5120x1440 60Hz / 8bits | 4  |
| USB-C(USB 3.0)   |                        | 2  |

| 1st video source | Timing / Color Depth    | Maximum number of total monitors in Daisy Chain mode |
|------------------|-------------------------|--|
| Display Port     | 5120 1440 (OH / 101:4:  | 3  |
| USB-C(USB 2.0)   | 5120x1440 60Hz / 10bits | 3  |

#### HDR Mode

| 1st video source | Timing / Color Depth     | Maximum number of total monitors in DP Daisy Chain mode |
|------------------|--------------------------|---|
| Display Port     | 51201440 COLL- / 10b-id- | 3   |
| USB-C(USB 2.0)   | 5120x1440 60Hz / 10bits  | 3   |

#### Note:

- 1. It is based on the DisplayPort 1.4/HBR3
- 2. The capability will be different based on the USB setting in USB C
- 3. The scenario will be different according to the OS and the capability of the GPU
- 4. The color depth will be different according to the OS and the capability of the GPU in HDR mode.
- 5. Daisy Chain & HDR Daisy Chain performance is controlled by graphic card.

# **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<br>supported display<br>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<br>turning on your<br>monitor"on page<br>1-5  |
|  | The color settings may be incorrect.   | Select another color setting from the OSD menu.  | "Adjusting your<br>monitor image"on<br>page 2-3               |
|  | The automatic image setup function was not performed.  | Perform automatic image setup.   | "Adjusting your<br>monitor image"on<br>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<br>turning on your<br>monitor" on page<br>1-5 |
| Screen is blank<br>and power<br>indicator is amber.  | The monitor is in Standby / Suspend mode   | <ul> <li>Press any key on the keyboard or move the mouse to restore operation.</li> <li>Check the Power options settings on your computer.</li> </ul>  | "Understanding<br>power<br>management"on<br>page 2-10         |
| 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<br>connected with the system<br>properly  | "Connecting and<br>turning on your<br>monitor"on page<br>1-5  |
|  | The monitor brightness and contrast are at the lowest setting.   | Adjust the brightness and contrast setting on the OSD menu.  | "Adjusting your<br>monitor image" on<br>page 2-3              |

| Problem   | Possible cause  | Suggested action   | Reference  |
|---|---|--|--|
| One or more of<br>the pixels appear<br>discolored                           | This is a characteristic of<br>the LCD technology and<br>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-2                           |
| • Fuzzy lines<br>in text or a<br>blurryimage<br>• Horizontal<br>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: 5120x1440 at 60 Hz.                       | "Adjusting your<br>monitor image"on<br>page 2-3                        |
| lines through the image.  | Perform automatic image setup.<br>If automatic image setup does<br>not help, perform manual image<br>setup. | "Selecting a<br>supported display<br>mode"on page 2-6  |  |
|   |   | 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<br>section of your<br>system's display<br>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.
- 4. From the Lenovo website <a href="https://pcsupport.lenovo.com/solutions/p49w\_30">https://pcsupport.lenovo.com/solutions/p49w\_30</a>, 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 **X** indicates "the folder in which the downloaded driver is located" (such as a desktop)).

- 14. Select the "lenP49w-30.inf" file and click the Open button. Click the OK button.
- 15. In the new window, select LEN P49w-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 5120x1440 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.
- 4. From the Lenovo website https://pcsupport.lenovo.com/solutions/p49w\_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 "lenP49w-30.inf" file and click the Open button. Click the OK button.
- 15. In the new window, select LEN P49w-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 5120x1440 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-2.

## **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 (A234905P0/P49w-30/63DB-RAR1-WW).

Table 3-3. List of service parts

| FRU (Field<br>Replaceable<br>Unit)<br>Part number | Description                             | Machine<br>Type<br>Model<br>(MTM) | Colour      | GEOGRAPHY |
|---|---|-----------------------------------|-------------|-----------|
| 5D11K24620  | P49w-30 - 49 inch FRU<br>Monitor (HDMI) | 63DB                              | Raven Black | WORLDWIDE |
| 5C11M45648  | P49w-30 TBT4 cable 1m passive           | 63DB                              | Raven Black | WORLDWIDE |
| 5C11J07492  | DP1.4 cable 1.8m                        | 63DB                              | Raven Black | WORLDWIDE |
| 5C11J07491  | HDMI2.0 cable 1.8m                      | 63DB                              | Raven Black | WORLDWIDE |
| 5C11K24624  | Type-A to B cable 1.8m                  | 63DB                              | Raven Black | WORLDWIDE |
| 5SE1K24623  | P49w-30 - FRU Stand<br>and Base         | 63DB                              | Raven Black | WORLDWIDE |

# 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

| <b>Country or Region</b> | 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) |  |

| <b>Country or Region</b>    | 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<br>(Hong Kong S.A.R.) | (852) 3516-8977<br>(Cantonese, English, Mandarin)   |
| China (Macau S.A.R.)        | 0800-807 / (852) 3071-3559<br>(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<br>Secondary:0800-0000-744<br>(Arabic, English)  |
| El Salvador                 | 800-6264 (Spanish)  |
| Estonia                     | 372-66-0-800<br>(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,<br>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)<br>Secondary: 1800-3000-8465 (Reliance)<br>Email: commercialts@lenovo.com (English and Hindi) |
| Indonesia                   | 1-803-442-425<br>62 213-002-1090 (Standard Charges Apply)<br>(English, Bahasa Indonesia)                                    |
| Ireland                     | Warranty service and support: 01-881-1444 (English)   |

| Country or Region | Telephone Number   |
|-------------------|--|
| Israel            | Givat Shmuel Service and Center: +972-3-531-3900 (Hebrew, English)   |
| Italy             | Warranty service and support: +39-800-820094 (Italian)   |
| Japan             | 0120-000-817<br>(Japanese, English)  |
| Kazakhstan        | 77-273-231-427(Standard charges Apply) (Russian, English)  |
| Korea             | 080-513-0880 (Collect Call)<br>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<br>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)<br>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<br>+7-495-240-8558<br>(Standard Charges Apply)(Russian)  |
| Singapore         | 1-800-415-5529<br>6818-5315 (Standard Charges Apply)<br>(English, Mandarin, Bahasa Malaysia)                               |
| Slovakia          | ThinkStation and ThinkServer: 421-2-4954-5555  |
| Slovenia          | 386-1-2005-60 (Slovenian)  |
| Spain             | 34-917-147-833(Spanish)  |

| Country or Region | Telephone Number  |
|-------------------|---|
| 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)                                   |
| Taiwan            | 0800-000-702 (Mandarin)   |
| Thailand          | 001-800-4415-734<br>(+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)<br>84-8-4458-1042 (Standard Charges Apply) (Vietnamese, English)                  |

# **Appendix B.Notices**

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service.

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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

## **Recycling information**

Lenovo encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. Lenovo offers a variety of programs and services to assist equipment owners in recycling their IT products. For information on recycling Lenovo products, go to:

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。

#### Collecting and recycling a disused Lenovo computer or monitor

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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## Power cords and power adapters

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