ThinkPad Thunderbolt 3 Workstation Dock Gen 2
User Guide

[i] https://www.lenovo.com/safety

Note: Before using this documentation and the product it supports, ensure that you read and understand the warranty information in the documentation that comes with the product.

Contents

Chapter 1. About the dock

Product description

The dock is an expansion module. You can use it to connect your compatible computer to a local area network (LAN) and multiple devices, such as a headset, external displays, and Universal Serial Bus (USB) devices.

For the list of compatible computers, go to https://www.lenovo.com/support/docks and select the entry for the dock.
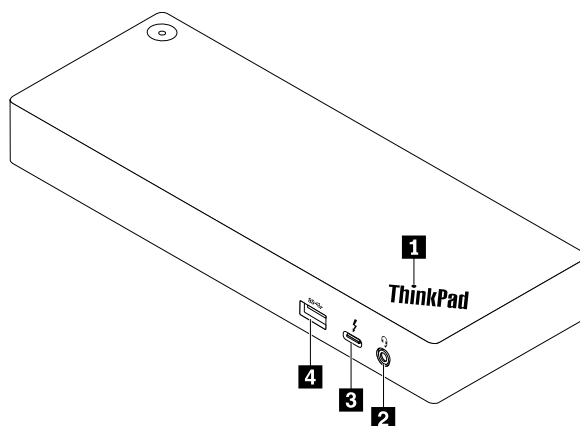
Operating system requirement

Microsoft® Windows® 10

In the box

- ThinkPad Thunderbolt 3 Workstation Dock Gen 2
- 230-watt power adapter and power cord
- ThinkPad Thunderbolt 3 Workstation Dock Split Cable
- ThinkPad Workstation Dock Slim Tip Y Cable
- Documentation

Contact your place of purchase if any item is missing or damaged. Ensure that you retain your proof of purchase and packing material. They might be required to receive warranty service.

Product overview

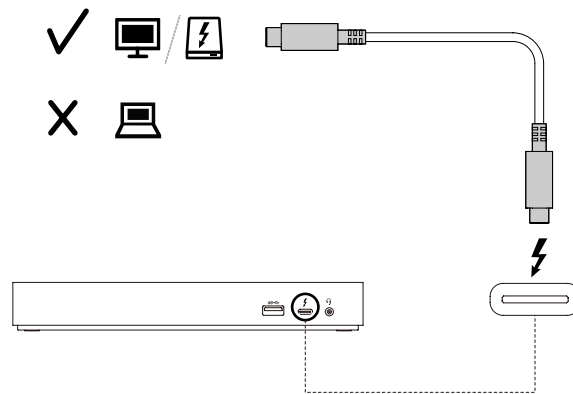**1 Indicator in ThinkPad logo**: The indicator is solid on when the dock is connected to ac power.

2 Audio connector: Connect a headphone or a headset with a 3.5-mm (0.14-inch) and 4-pole plug.
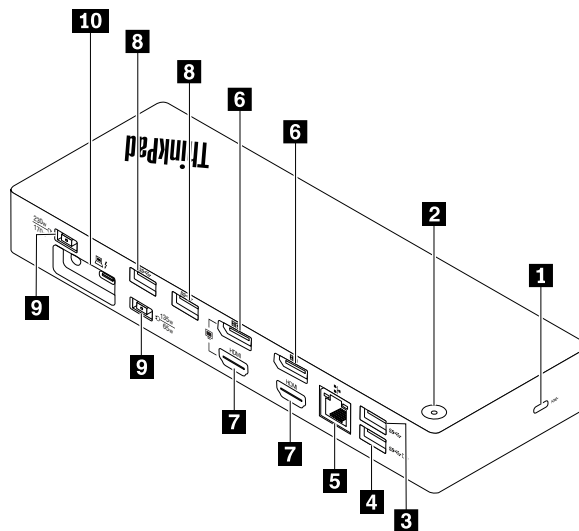
3 USB-C™ connector (Thunderbolt 3 compatible): Use the connector to transfer data (with high speed supported by the Thunderbolt 3 technology), charge your device, or connect to an external display.

Notes:

- This connector does not support the external display if your computer does not have a USB-C connector (Thunderbolt 3 compatible).
- Do not connect your computer to this connector.

4 **USB 3.1 connector Gen 2**: With greater data transfer rate, the USB 3.1 connector Gen 2 is used to connect USB-compatible devices, such as a USB keyboard, a USB mouse, a USB storage device, or a USB printer.

1 **Security-lock slot**: Lock your dock to a desk, table, or other fixture through a compatible security cable lock.

2 **Power button with indicator**: The power button works differently in the following situations:

- When you connect the dock only to ac power but not the computer, press this power button to turn on or turn off the dock.
- When you connect the dock to both ac power and the computer, this button has the same function as the computer power button.

The indicator in the power button shows the status of the dock and computer:

- **Off**: The dock is off, the computer is off, or the computer is in hibernation mode.
- **White**: The computer is on.
- **White and blinking slowly**: The computer is in sleep mode.
- **Amber**: The dock is on.

3 8 USB 3.1 connector Gen 2: Connect USB-compatible devices, such as a USB keyboard, a USB mouse, a USB storage device, or a USB printer. For optimal data transfer, connect a USB 3.1 device to a USB 3.1 connector instead of a USB 2.0 connector.

Note: It is recommended that you connect the receiver of the wireless keyboard or mouse to the USB 3.1 connector Gen 2 **8**.

4 Always On USB 3.1 connector Gen 2: Connect USB-compatible devices or charge mobile digital devices and smartphones when the dock is connected to ac power.

5 Ethernet connector: Connect the dock to a local area network (LAN).

6 DisplayPort® connectors: Connect a high-performance monitor, a direct-drive monitor, or other devices that use a DisplayPort connector.

7 HDMI™ connectors: The High Definition Multimedia Interface (HDMI) connector is a digital audio and video interface. It enables you to connect the dock to a compatible digital audio device or video monitor, such as an HDTV.

9 ac power connector: Connect the ac power adapter.

10 Thunderbolt 3 workstation connector: Connect the dock to your computer with ThinkPad Thunderbolt 3 Workstation Dock Split Cable.

Statement on USB transfer rate

Depending on many factors such as the processing capability of the host and 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 will be slower than the data rate listed below for each corresponding device.

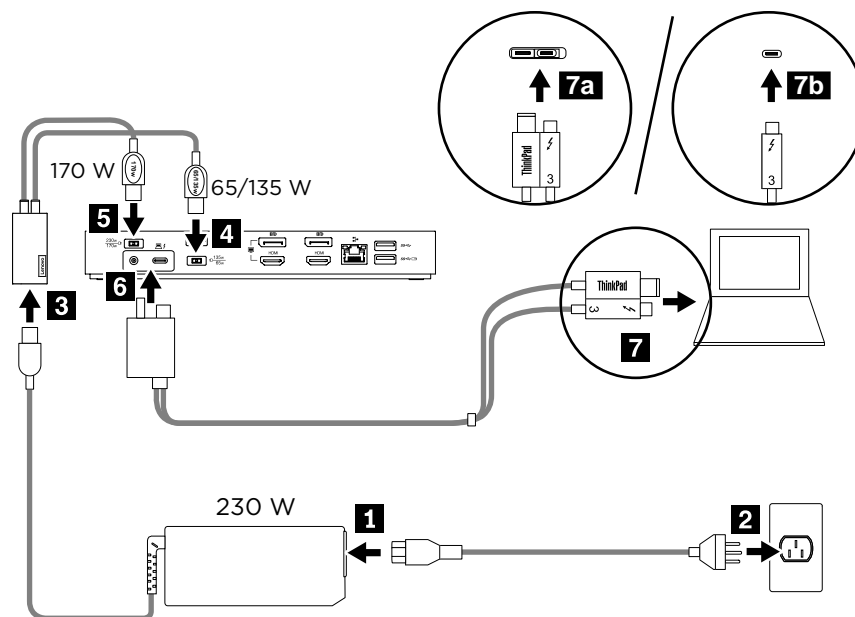| USB device	Data rate (Gbit/s)
3.1 Gen 2	10

Chapter 2. Set up the dock

Install the dock

Connect the dock to ac power and your computer

Use the accompanying ac power adapter, power cord, ThinkPad Thunderbolt 3 Workstation Dock Split Cable, and ThinkPad Workstation Dock Slim Tip Y Cable to install the dock.

Depending on your computer, you can connect both connectors **7a** or only the Thunderbolt 3 connector **7b** to your computer.

The dock supplies power to the computer when the dock is connected to ac power and your computer.

Enable the dock

To enable the dock when connected to the computer for the first time, do either of the following:

- Confirm the change when prompted if you have the administrator privilege.
- Enter the ThinkPad Setup program (BIOS) and go to the **Config** menu. Select **Thunderbolt(TM) 3 ➙ Security level ➙ No Security**.

Install the dock driver

The dock driver is preinstalled on compatible computers and the dock is ready for use after you connect it to ac power and computer.

You also can download the latest dock driver from the Lenovo Web site by doing the following:

1. Go to https://www.lenovo.com/support/docks.
2. Select the entry for the dock and then follow the on-screen instructions.

Chapter 3.   Use the dock

Use the audio connector

After setting up the dock, the audio connector on the dock is enabled and the one on the computer is disabled by default.

To change the default settings:

1. Right-click the speaker icon in the Windows notification area.
2. Click **Playback devices**. The Sound window is displayed.
3. Click the **Playback** tab to select an audio line-out device, and then click **Set Default**.
4. Click the **Recording** tab to select an audio line-in device, and then click **Set Default**.
5. Click **OK**.

Note: You might need to restart the application that is using the audio devices to apply the changes.

Use the Ethernet connector

To use the Ethernet connector on the dock, connect the dock to a standard 10 Mbps, 100 Mbps, or 1000 Mbps network with an Ethernet cable.

The Ethernet connector has two network status indicators. When the green indicator is on, the computer is connected to a local area network (LAN). When the yellow indicator blinks, data is being transmitted.

The following functions are available when the dock is connected to a LAN.

- Preboot eXecution Environment

  The Preboot eXecution Environment (PXE) technology makes the computer more manageable by enabling the computer to start from a server.

- MAC address Pass Through

  After enabling the MAC address Pass Through function, your dock MAC address is the same as that of your computer.

- Wake on LAN or Wake on LAN from Dock

  The network administrator can turn on a computer from a management console by using the Wake on LAN or Wake on LAN from Dock feature.

  When the Wake on LAN function is enabled, many operations, such as data transfer, software updates, and flash updates of the UEFI BIOS, can be done remotely. The updating process can perform after normal working hours and on weekends, so that the users are not interrupted during work, and the LAN traffic is kept to a minimum. It saves time and increases productivity.

  Note: To use the Wake on LAN from Dock feature to wake the computer from hibernation mode or turn on the computer, ensure that the dock is connected to the USB-C connector on the computer.
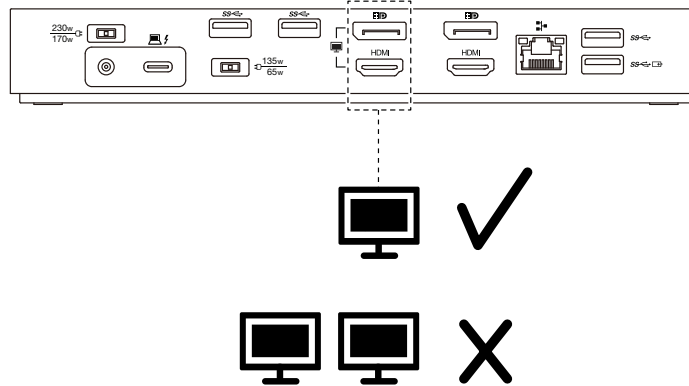
  You can enable the Wake on LAN feature or the Wake on LAN from Dock feature through configuring the BIOS on your computer:

  1. Restart the computer. When the logo screen is displayed, press F1 to start the ThinkPad Setup program.
  2. Select **Config** ➙ **Network**. The **Network** submenu is displayed.

3. Select a corresponding option for the Wake on LAN feature.

4. Press F10 to save the settings and exit.

Use the video output connectors

The video output connectors on the rear of the dock support up to two external displays. The external displays connected to the dock will not be on until your computer enters the Windows operating system. Do not use the DisplayPort connector and HDMI connector as shown at the same time. Otherwise, only the monitor connected to the DisplayPort connector will be on.

Maximum resolutions

Up to 3840 x 2160 pixels / 60 Hz

Note: The maximum resolution might vary depending on the computer.

For the latest maximum display matrix, go to https://www.lenovo.com/support/docks and select the entry for the dock.

Configure the external displays

You can perform the following configurations for the external displays connected to your dock to meet your needs:

- Choose a display mode: extend mode, mirror mode, or single-display mode
- Rotate the external displays
- Set the resolution
- Set the color quality

To configure the external displays:

1. Right-click on the desktop and select **Display settings**.

2. Follow the on-screen instructions to complete the configuration.

For more information, see the Windows help information.

Chapter 4. Troubleshooting

General

1. **The dock does not work after connected to a computer with the provided Thunderbolt 3 cable.**

   a. Ensure that the dock is well powered by its power adapter. The dock always needs an external power adapter for operation because it is not powered by the Thunderbolt 3 connector attached to your computer.

   b. Ensure that the device driver of the dock is well installed; if not, install the device driver and restart the computer.

   c. Ensure that the USB–C connector on your computer works well.

2. **The 2.4 GHz wireless keyboard or mouse function is interrupted. The mouse pointer lags or does not move. Some characters are lost when you input by the keyboard.**

   - Ensure that you connect the 2.4 GHz wireless device receiver to the front USB 3.0 connector on the dock.

3. **The charging speed for the connected device, such as a mobile phone, becomes slow.**

   The charging speed might become faster if you:

   - Connect your device to the Always On USB 3.1 connector Gen 2.
   - Disconnect the dock from the computer.

4. **My mobile devices connected to the Always On USB 3.1 connector Gen 2 cannot be charged.**

   It is recommended that you disconnect the dock from the computer when charging the mobile devices.

5. **The mouse and keyboard cannot wake up my computer when connected to the Always On USB 3.1 connector Gen 2.**

   Connect your mouse or keyboard to another USB connector on the dock.

6. **My computer cannot be charged after I connect it to the dock.**

   Ensure that you connect the dock to ac power with the power adapter that shipped with the dock.

Video output

1. **The external monitor display is blank.**

   Ensure that:

   - No more than three external displays are connected to the dock.
   - Your computer connected to the dock is running correctly and is not in standby or hibernation mode. When the computer is in standby or hibernation mode, the external monitor display is always blank.
   - The device driver is installed following the installation instructions.
   - The following components are securely connected:
     – Your computer and the dock
     – The dock and electrical outlet
     – The dock and external displays

   If the problem persists, disconnect all cables from the dock, and uninstall the dock device driver. Then, reinstall the device driver and reconnect all cables to the dock. See Chapter 2 "Set up the dock" on page 5.

2. **I cannot play back videos on the external monitor but can play them back on the computer screen.**

Some computers do not support the Certified Output Protection Protocol (COPP), and you cannot play back the protected videos on the external monitor connected to the dock.

To play back videos on the external monitor, you can connect the external monitor to the VGA or DisplayPort connector on your computer, and configure the display settings of your preference. See "Configure the external displays" on page 8.

3. **The images on the external monitor flutter.**

   Check the display resolution of the external displays and ensure that the resolution is supported by the dock.

4. **The computer can play back Web flashes. However, when you drag the window to the external monitor and maximize the playback window, the playback stops.**

   Update your Adobe Flash Player program to the latest version.

Audio

By default, the audio connector on the computer is disabled automatically.

To enable the audio connector on your computer, see "Use the audio connector" on page 7 for more information.

Appendix A. Accessibility information

Documentation in accessible formats

Lenovo provides electronic documentation in accessible formats, such as properly tagged PDF files or HyperText Markup Language (HTML) files. Lenovo electronic documentation is developed to ensure that visually impaired users can read the documentation through a screen reader. Each image in the documentation also includes adequate alternative text to explain the image so that visually impaired users can understand the image when they use a screen reader.

To open and view PDF files, your computer must have the Adobe Reader program installed. The Adobe Reader program also is available for download at:
http://www.adobe.com

Appendix B. Trademarks

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