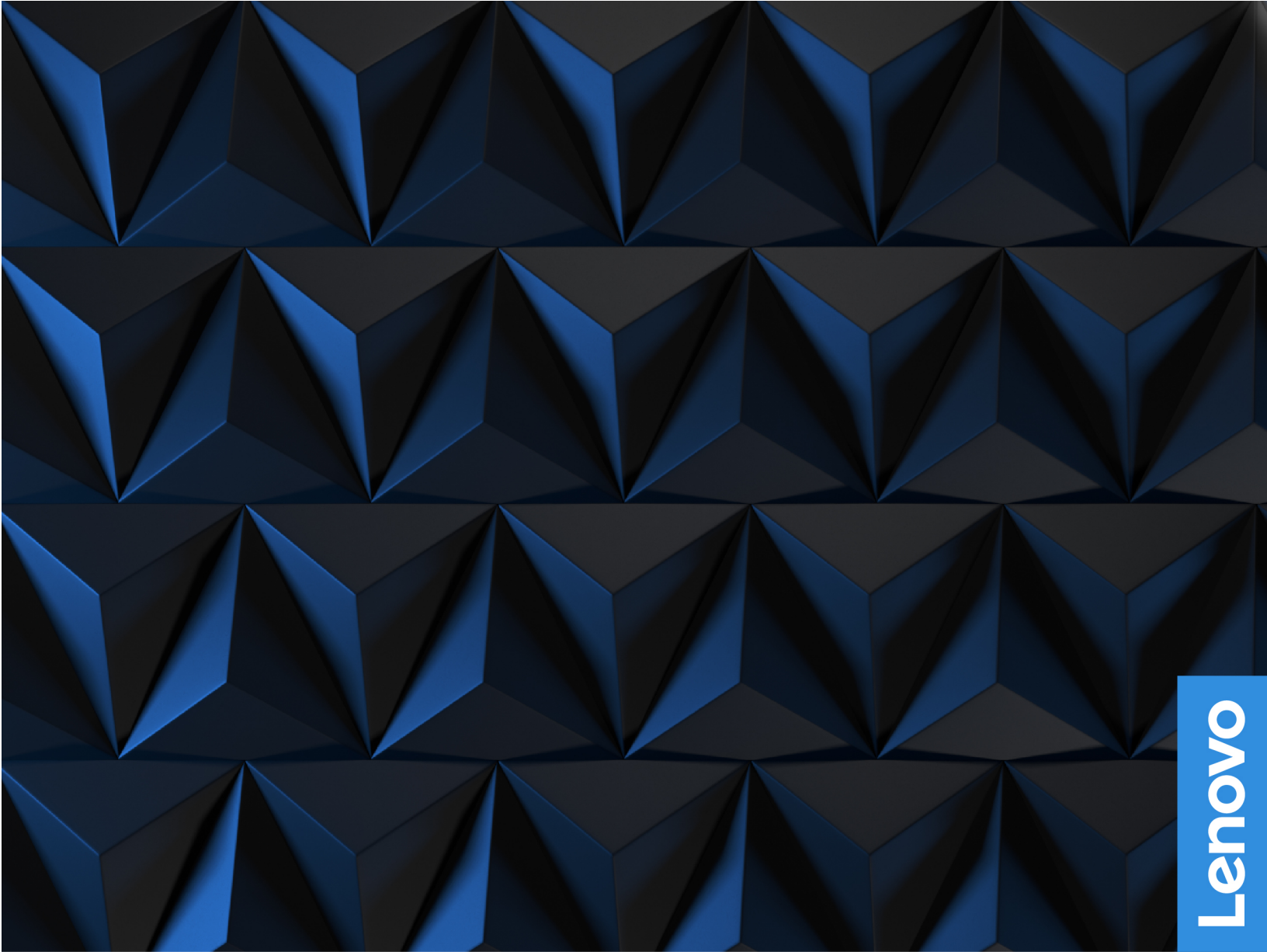


Lenovo Legion BoostStation User Guide



Lenovo

 <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.

First Edition (March 2020)

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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.

Note: Ensure the computer system supports a Thunderbolt™ 3 connector to connect an external graphics card.

To view the compatible computers,

1. Go to <https://support.lenovo.com/us/en/solutions/accs-guide>.
2. Select **Legion, ThinkPad, ThinkCentre, ThinkStation, Ideapad and Ideacentre Option Compatibility Matrix**. Then follow the on-screen instructions.

Operating system requirement

Microsoft Windows 10

In the box

- Lenovo Legion BoostStation
- Power cord
- Thunderbolt™ 3 cable
- Documentation
- SATA HDD cable
- 2.5"/3.5" HDD screw
- VGA screw *
- VGA Bezel *

* for selected models

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 front view



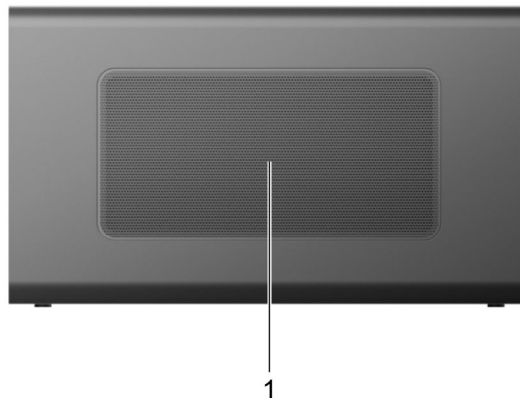
1 Power button

- When the dock is connected to ac power but not your computer, press the dock power button to turn off or turn on the dock.

2 Y light

- When the dock is connected to your computer or the ac power adapter, the indicator on the dock shows the status:
 - **White, blinking slowly:** The dock is connected to ac power and the computer is not connected.
 - **Solid white:** The dock and the computer are connected to ac power.
 - **Off:** The dock is not connected to ac power.

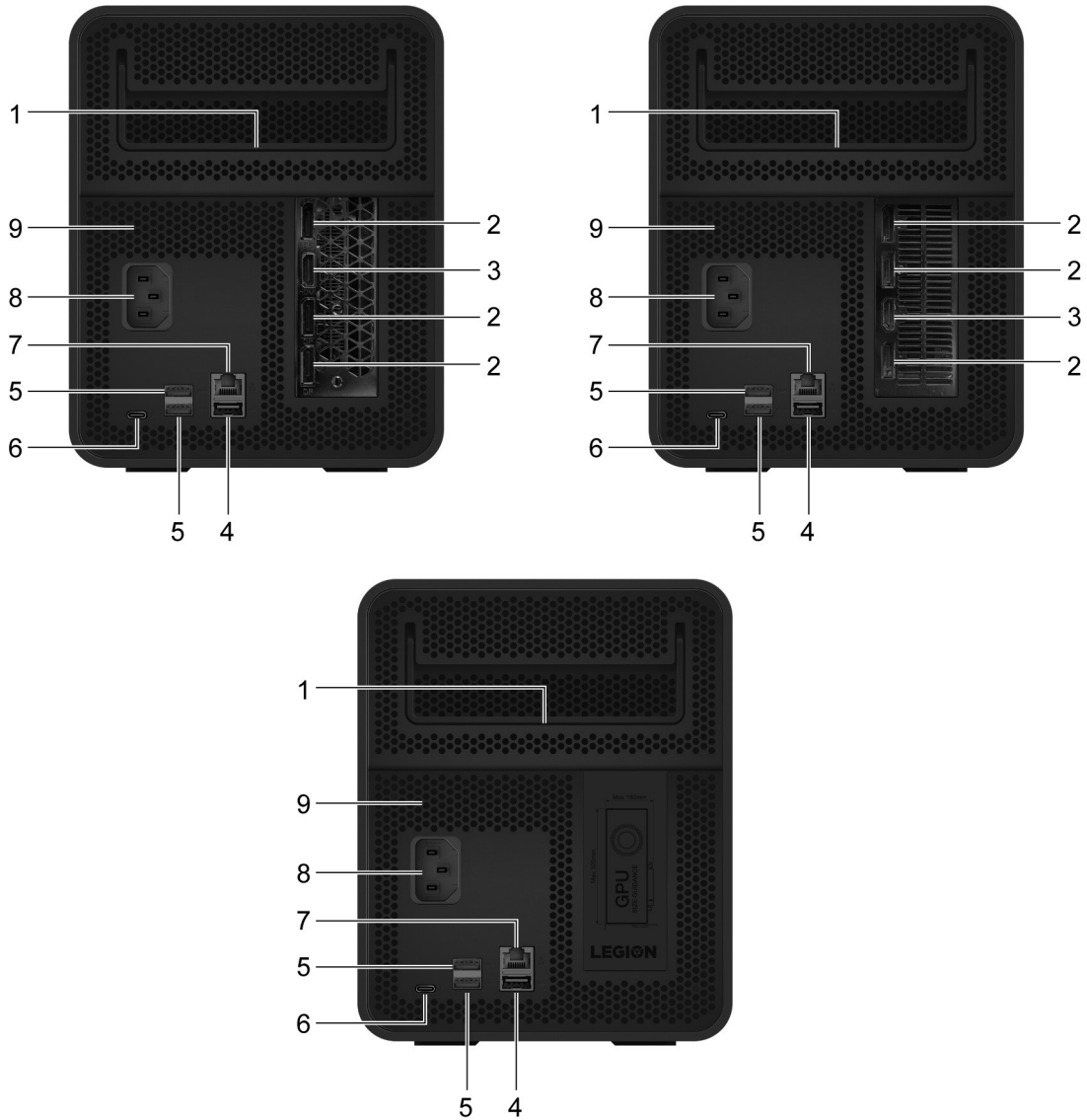
Product left view



1 Vents

Ensure that the vents are not blocked to avoid overheating.

Product rear view



Note: The appearance of the backboard corresponds to the configuration selected by the user.

1 Handle	Use to pull the inner dock out, do not use the handle to carry the dock. Note: The handle is strictly for removing the inner dock. Use of the handle to carry the dock may result in the inner dock falling.
2 DisplayPort connectors	Connect a high-performance monitor, a direct-drive monitor, or other devices that use a DisplayPort connector.
3 HDMI connector	The High-Definition Multimedia Interface™ (HDMI) connector is a digital audio and video interface. It enables you to connect your computer to a compatible digital audio device or video monitor, such as a DVD player or an HDTV.
4 USB 2.0 connector	Connect a USB-compatible device, such as a USB keyboard or a USB mouse. Note: For optimal data transfer, connect a USB 3.2 device to a USB 3.2 connector Gen 1 instead of a USB 2.0 connector.

5 USB (3.2 Gen 1) connectors	Connect a USB-compatible device to transfer data at USB 3.2 speed, up to 5 Gbps.
6 Thunderbolt™ 3 connector	Connect the dock to your Lenovo computer with a Thunderbolt™ 3 cable. • Support data transfer rates up to 20 Gbps for Thunderbolt™ 3. • Provide power output up to 20 V and 5 A. • Do not support image output.
7 Ethernet connector	Connect to a LAN with an Ethernet cable.
8 Power connector	Connect the Lenovo Legion BoostStation to a power outlet using the power cord.
9 Vents	Ensure that the vents are not blocked to avoid overheating.

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)
3.2 Gen 1	5
3.2 Gen 2	10
3.2 Gen 2 × 2	20

Features and specifications

Dimensions

- Outside:
 - Length: 365 mm (14.3 inches)
 - Width: 172 mm (6.8 inches)
 - Height: 212 mm (8.4 inches)
-

ac power adapter

- Input: 100–127 V ac, 8 A; 200–240 V ac, 4 A; 50–60 Hz
 - Output: 20 V dc, 5 A
-

Connectors and slots

- Power connector
 - Ethernet connector
 - USB 2.0 connector
 - USB (3.2 Gen 1) connectors (2)
 - Thunderbolt™ 3 connector
 - DisplayPort connectors (3) *
 - HDMI connectors *
-

* for selected models

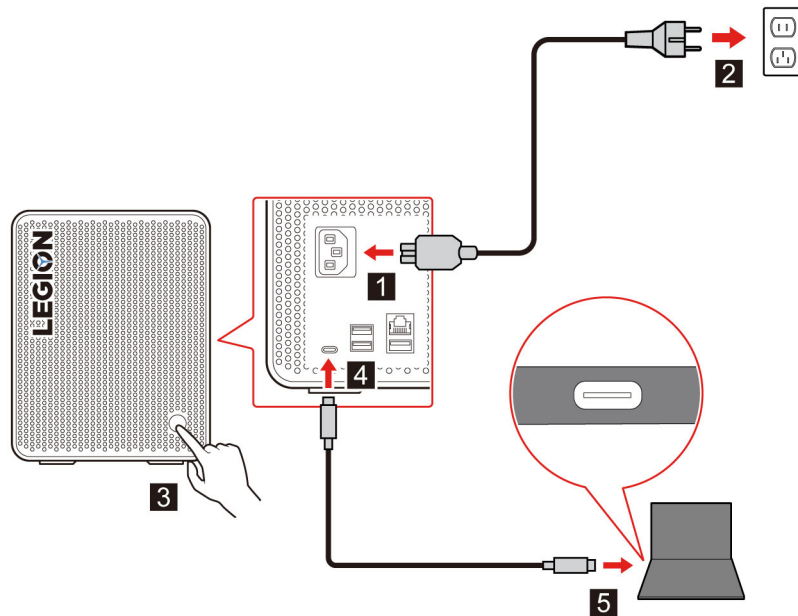
Chapter 2. Set up the dock

Install the dock

Use the accompanying power cord, and Thunderbolt™ 3 cable to install the dock. The dock supplies power to the computer when the dock is connected to ac power and your computer.

Notes:

- If the computer supports DGPU, you will need to change DGPU mode to IGPU mode to use this dock.
- Notebooks that cannot be set in UMA mode are not suitable for use with this dock.



Update the dock driver and firmware

Note: This is an optional operation.

The dock driver is preinstalled on compatible Lenovo computers and the firmware is embedded into the dock. The dock is ready for use after you connect it to your computer.

Lenovo recommends that you update the dock driver and firmware whenever a later version is available.

You also can download the latest dock driver and firmware from <https://support.lenovo.com/accessories/docks>.

Removing the dock from your computer

Note: Removing the dock when some programs are running with the dock graphics card might cause program data loss or the program to stop responding.

To remove the dock from your computer, do the following:

1. Check and close the programs that are using the graphics card.

- From the desktop, move the pointer to the Windows notification area, and then click **Show hidden icons**.
 - Find and click the icon for Lenovo Legion BoostStation. A window is displayed with a list of the programs that are using the graphics card.
 - Save and close the programs that are using the graphics card.
2. Safely disconnect the Thunderbolt™ 3 cable of the dock from your computer.

Chapter 3. Use the dock

Use the video output connectors

The dock has four video output connectors to support up to four external displays:

- Three DisplayPort connectors
- One HDMI connector

Note: For models requiring the separate purchase of a graphics card, please check the manufacturer's website for your graphics card to confirm compatibility.

Use the Ethernet connector

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

Depending on your computer, some of the following functions are available when the dock is connected to a LAN.

- Wake on LAN from Dock

To view the functions supported by your computer, go to <https://support.lenovo.com/us/en/solutions/accs-guide>. Select **Network function support – Option Compatibility Matrix**. Then follow the on-screen instructions.

Use the USB connectors

To use the USB connectors, connect a USB device to any of the three USB connectors on the dock with a USB cable.

When the USB device is correctly connected to a USB connector on the dock, an information window will be displayed in the Windows notification area, indicating that the USB device has been connected to the computer.

Chapter 4. Troubleshooting

General

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

Ensure that:

- The dock is powered by its power cord. The dock always needs an external power cord for operation, because it does not take power from the Thunderbolt™ 3 connector attached to your computer.
- The device driver of the dock is installed; if not, install the device driver and restart the computer.
- The Thunderbolt™ 3 connector on your computer works well.
- Disconnect and reconnect the Thunderbolt™ 3 cable to ensure that the cable works well.

2. The function of the wireless keyboard or mouse (2.4 GHz) is interrupted. The mouse pointer lags or does not move. Some characters are lost when input with the keyboard.

Connect the wireless device receiver to a USB 2.0 connector on the dock.

3. My computer cannot be charged by the dock.

Ensure that:

- You use the accompanying power cord and Thunderbolt™ 3 cable to set up the dock.
- The Thunderbolt™ 3 connector on your computer supports ac input.

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. Customer replaceable units (CRU) instructions

What is a CRU?

Customer replaceable units (CRUs) are parts that can be upgraded or replaced by the customer. A Lenovo computer may contain the following types of CRUs:

Self-service CRU

Parts that can be installed or replaced easily by customers themselves or by trained service technicians at an additional cost.

Optional-service CRU

Parts that can be installed or replaced by customers with a greater skill level. Trained service technicians can also provide service to install or replace the parts under the type of warranty designated for the customer's machine.

If you intend to install a CRU, Lenovo will ship the CRU to you. You might be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you might be charged for the replacement CRU if Lenovo does not receive the defective CRU within thirty (30) days of your receipt of the replacement CRU. For full details, see the *Lenovo Limited Warranty* at https://www.lenovo.com/warranty/llw_02.

CRUs for your product model

The table below lists the CRUs and CRU types that are defined for your product model.

Part	Self-service CRU	Optional-service CRU
Power cord	X	
Thunderbolt™ 3 cable	X	
SATA hard disk drive (HDD) cable	X	
SATA HDD *	X	
Graphics card *	X	

*Select models may not include the HDD or the graphics card. You can purchase these separately.

Refer to the following steps for replacing the removable module.

Attention: Before replacing the removable module:

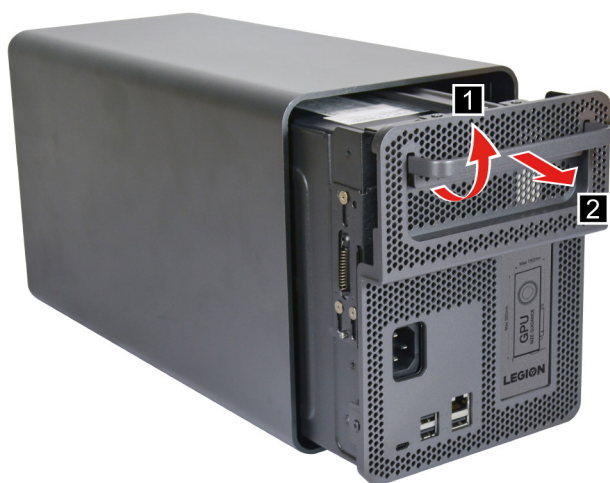
- Turn off the dock.
- Remove all connected devices and cables.
- Ensure the integrity of the dock shell after replacing the removable module to avoid causing safety problems.

Install the HDD

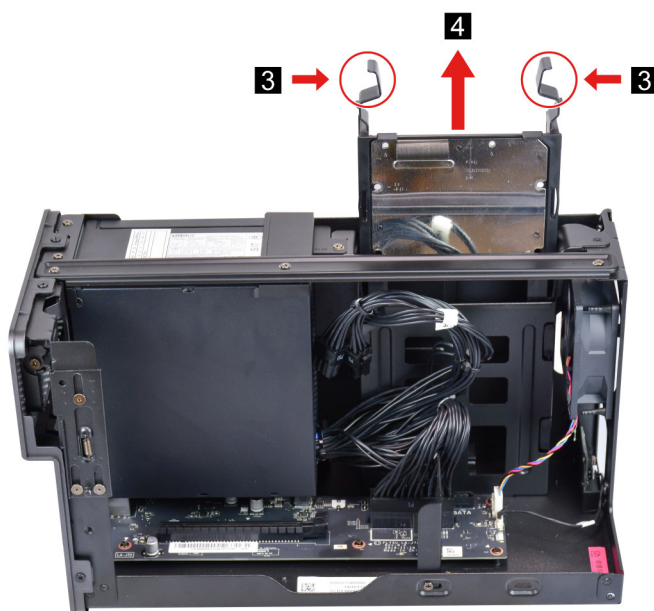
Attention: The internal HDD is sensitive. Inappropriate handling might cause damage and permanent loss of data. When handling the internal HDD, observe the following guidelines:

- Replace the internal HDD only in the case of upgrade or repair. The internal HDD is not designed for frequent replacement.
- Before replacing the internal HDD, make a backup of all the data that you want to keep.
- Do not touch the contact edge of the internal HDD. Otherwise the internal HDD might get damaged.
- Do not apply pressure to the internal HDD.
- Do not subject the internal HDD to physical shock or vibration. Put the internal HDD on a soft material, such as cloth, to absorb physical shock.

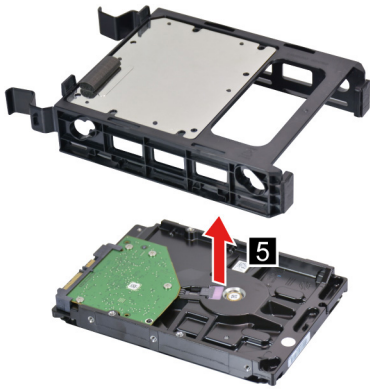
Step 1. Pull up the handle and then pull out the dock.



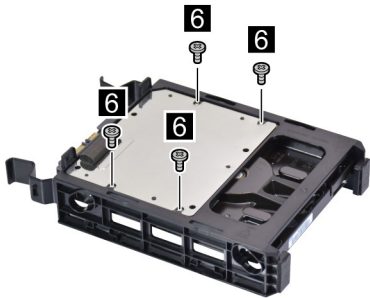
Step 2. Press the latches on each side of the HDD holder inward and then pull out the HDD holder.



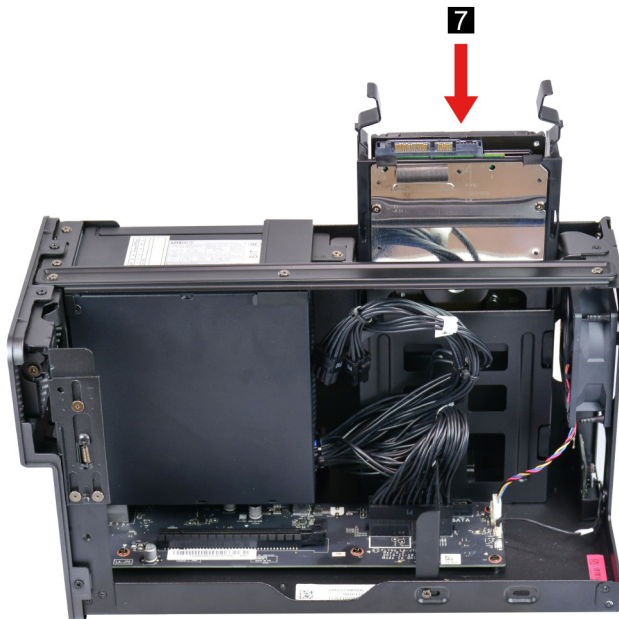
Step 3. Mount the HDD on the holder.



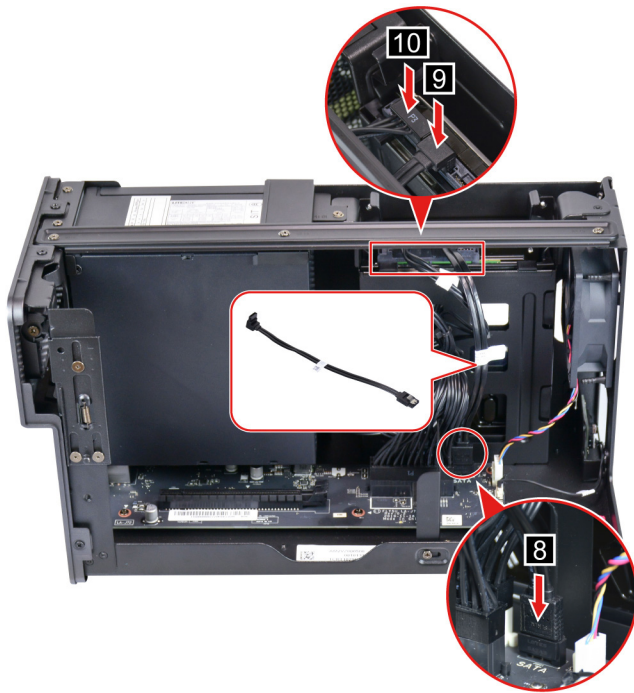
Step 4. Install the four screws.



Step 5. Reinstall the HDD holder.



Step 6. Connect the HDD cable to the HDD and the system board and plug the power cord into the HDD.



Step 7. Reinstall the dock.



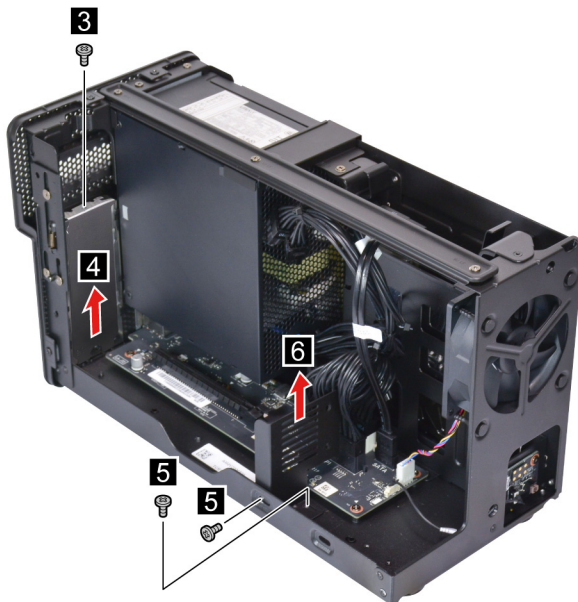
Install the graphics card

Step 1. Pull up the handle and then pull out the dock.

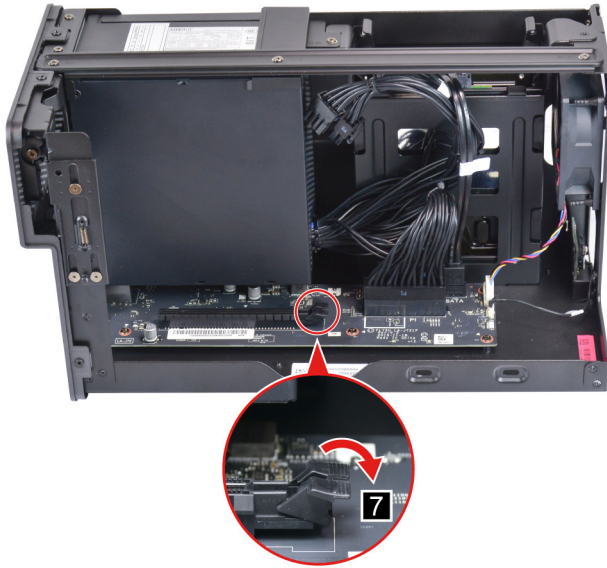


Step 2. Remove the three screws and then remove the shutter and the retaining latch.

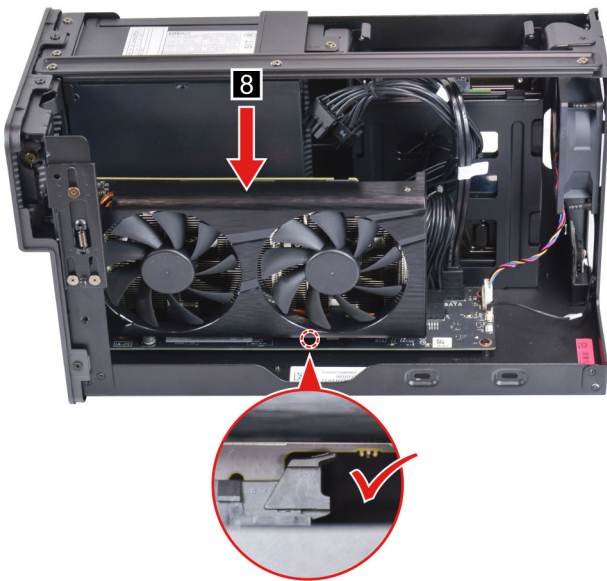
Note: Retain the shutter for future use.



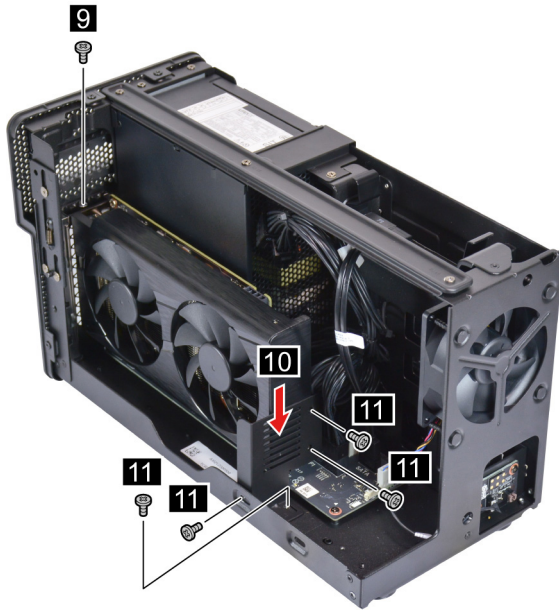
Step 3. Open the card slot latch.



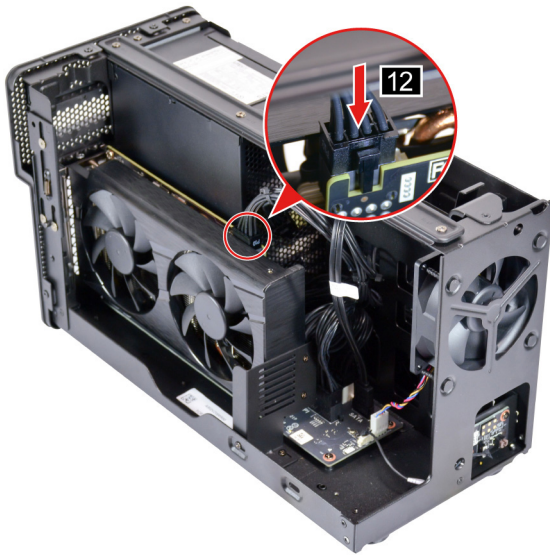
Step 4. Install the graphics card into the slot and then confirm the card slot latch has been closed.



Step 5. Reinstall the retaining latch and the five screws.



Step 6. Plug the power cord into the graphics card.



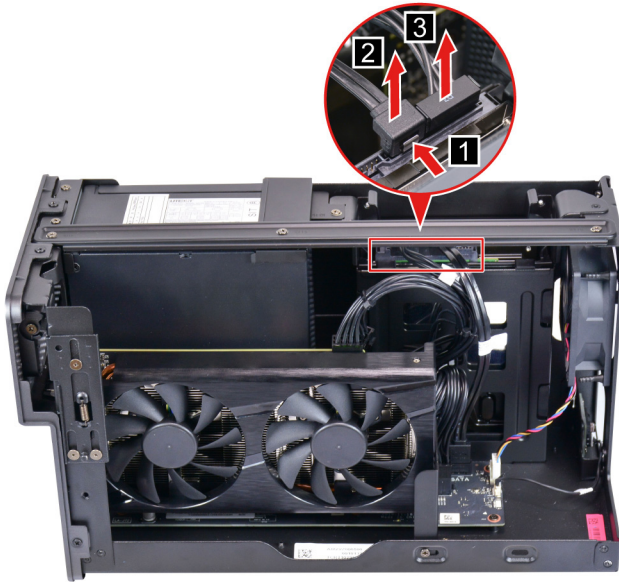
Step 7. Reinstall the dock.



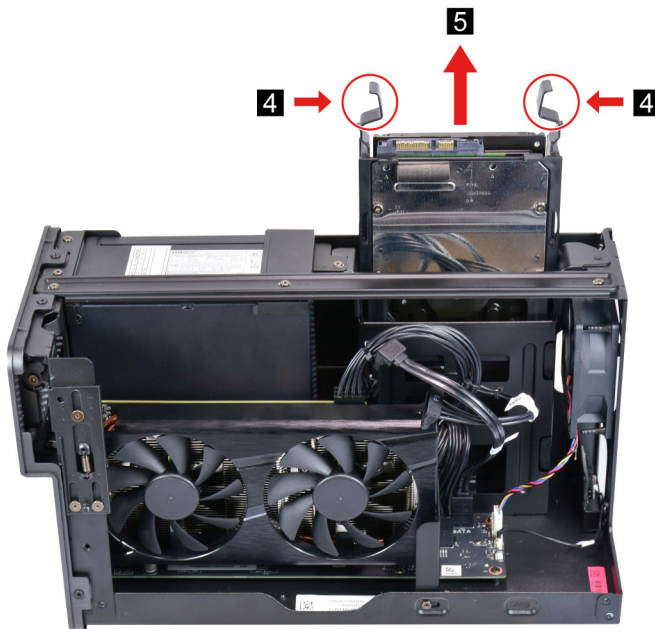
Remove the hard disk drive (HDD)

Pull out the dock, and then remove the HDD by using the following steps.

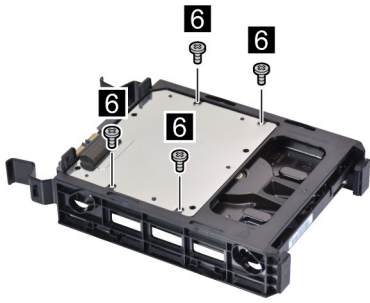
Step 1. Disconnect the HDD cable from the HDD and unplug the power cord.



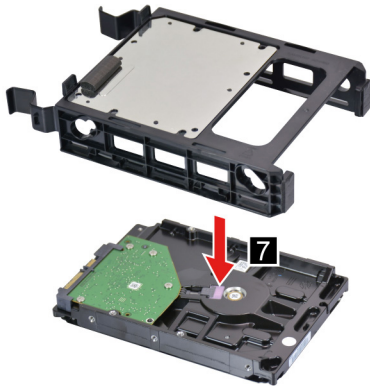
Step 2. Press the latch on each side of the HDD holder inward, and then pull out the HDD holder.



Step 3. Remove the four screws.



Step 4. Remove the HDD.

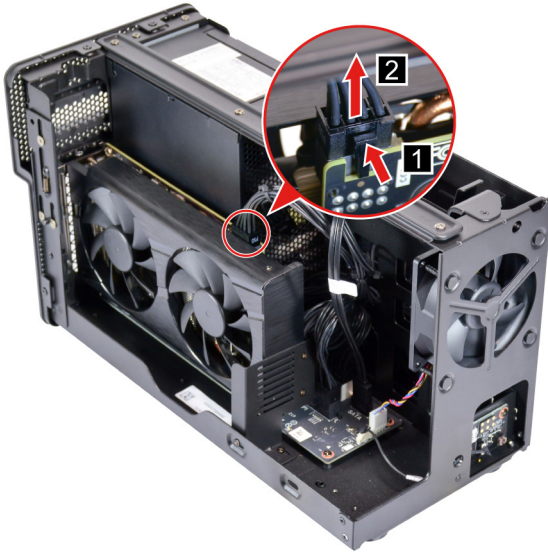


Step 5. Reinstall the HDD holder and the dock.

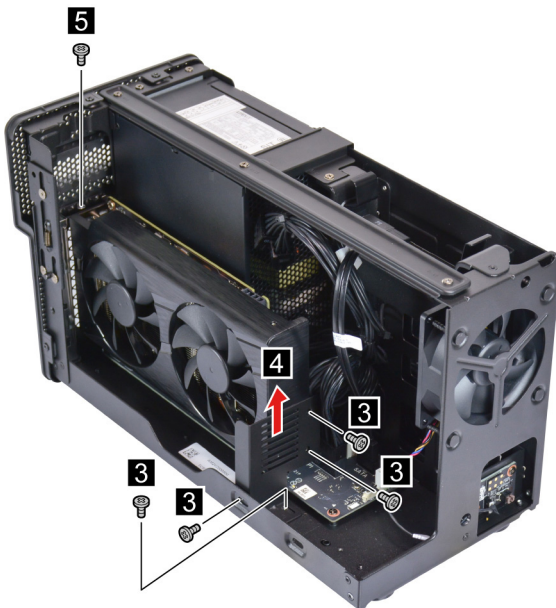
Remove the graphics card

Pull out the dock, and then remove the graphics card by using the following steps.

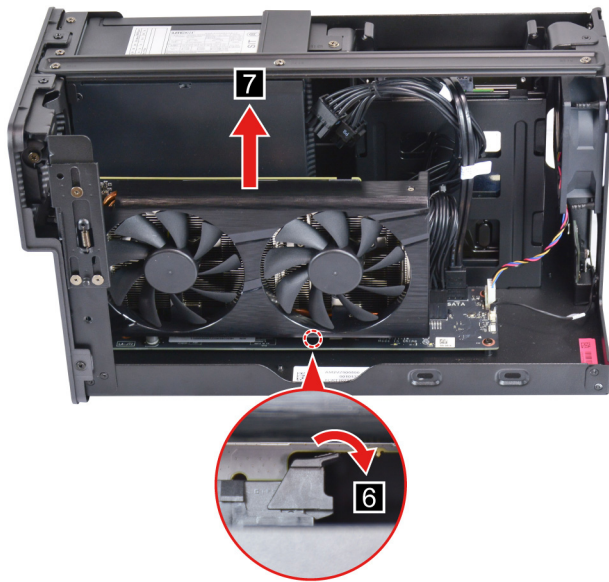
Step 1. Unplug the power cord as shown.



Step 2. Remove the five screws and then remove the retaining latch.



Step 3. Open the card slot latch and then remove the graphics card.



Step 4. Reinstall the dock.

Appendix C. Important safety information

Service and upgrades

Although there are no moving parts in your computer after the power cord has been disconnected, the following warnings are required for your safety.



Keep fingers and other parts of your body away from hazardous, moving parts. If you suffer an injury, seek medical care immediately.



Avoid contact with hot components inside the computer. During operation, some components become hot enough to burn the skin. Before you open the computer cover, turn off the computer, disconnect power, and wait approximately 10 minutes for the components to cool.



After replacing a CRU, reinstall all protective covers, including the computer cover, before connecting power and operating the computer. This action is important to help prevent unexpected electrical shock and help ensure the containment of an unexpected fire that could happen under extremely rare conditions.



When replacing CRUs, be cautious of sharp edges or corners that might cause injury. If you suffer an injury, seek medical care immediately.

Power cords and power adapters



Use only the power cords and power adapters supplied by the product manufacturer.

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

Never wrap a power cord around a power adapter or other object. Doing so can stress the cord in ways that can cause the cord to fray, crack, or crimp. This can present a safety hazard.

Always route power cords so that they will not be walked on, tripped over, or pinched by objects.

Protect power cords and power adapters from liquids. For instance, do not leave your power cord or power adapter near sinks, tubs, toilets, or on floors that are cleaned with liquid cleansers. Liquids can cause a short circuit, particularly if the power cord or power adapter has been stressed by misuse. Liquids also can cause gradual corrosion of power cord terminals and/or the connector terminals on a power adapter, which can eventually result in overheating.

Ensure that all power cord connectors are securely and completely plugged into receptacles.

Do not use any power adapter that shows corrosion at the ac input pins or shows signs of overheating (such as deformed plastic) at the ac input pins or anywhere on the power adapter.

Do not use any power cords where the electrical contacts on either end show signs of corrosion or overheating or where the power cord appears to have been damaged in any way.

To prevent possible overheating, do not cover the power adapter with clothing or other objects when the power adapter is plugged into an electrical outlet.

Extension cords and related devices

Ensure that extension cords, surge protectors, uninterruptible power supplies, and power strips that you use are rated to handle the electrical requirements of the product. Never overload these devices. If power strips are used, the load should not exceed the power strip input rating. Consult an electrician for more information if you have questions about power loads, power requirements, and input ratings.

Plugs and outlets



If a receptacle (power outlet) that you intend to use with your computer equipment appears to be damaged or corroded, do not use the outlet until it is replaced by a qualified electrician.

Do not bend or modify the plug. If the plug is damaged, contact the manufacturer to obtain a replacement.

Do not share an electrical outlet with other home or commercial appliances that draw large amounts of electricity; otherwise, unstable voltage might damage your computer, data, or attached devices.

Some products are equipped with a three-pronged plug. This plug fits only into a grounded electrical outlet. This is a safety feature. Do not defeat this safety feature by trying to insert it into a non-grounded outlet. If you cannot insert the plug into the outlet, contact an electrician for an approved outlet adapter or to replace the outlet with one that enables this safety feature. Never overload an electrical outlet. The overall system load should not exceed 80 percent of the branch circuit rating. Consult an electrician for more information if you have questions about power loads and branch circuit ratings.

Be sure that the power outlet you are using is properly wired, easily accessible, and located close to the equipment. Do not fully extend power cords in a way that will stress the cords.

Be sure that the power outlet provides the correct voltage and current for the product you are installing.

Carefully connect and disconnect the equipment from the electrical outlet.

Appendix D. Trademarks

TLENOVO, LENOVO logo, THINKPAD®, and THINKPAD logo are trademarks of Lenovo.

Microsoft and Windows are trademarks of the Microsoft group of companies.

DisplayPort is a trademark of the Video Electronics Standards Association.

The terms HDMI and HDMI High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

Thunderbolt and the Thunderbolt logo are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

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