

User Guide

© Copyright 2017, 2018 HP Development Company, L.P.

Thunderbolt and the Thunderbolt logo are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries. Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Second Edition: December 2018

First Edition: November 2017

Document Part Number: L12821-002

Table of contents

| 1 Getting | g started | 1 |
|-----------|---|----|
| | Identifying components | 1 |
| | Top component | 1 |
| | Right components | 2 |
| | Front components | 3 |
| | Rear components | 5 |
| | Setting up the USB docking station | ε |
| | Step 1: Connecting to AC power | 6 |
| | Step 2: Connecting to a computer | 7 |
| | Step 3: Prevent Sleep or Hibernation | 7 |
| | Setting up the software | 7 |
| | Configuring an external monitor | 8 |
| | Using Windows | 8 |
| | Sleep, Hibernation, shutdown, and restart | ε |
| 2 Using t | the docking station | 9 |
| | Docking station guidelines | |
| | Screen resolution limits | |
| | Connecting to a network | |
| | Connecting USB devices | |
| | Connecting to a DisplayPort device | 12 |
| | Connecting to an HDMI device | 13 |
| | Connecting audio | 14 |
| | Connecting analog audio devices | 14 |
| | Connecting an optional security cable | 15 |
| 3 Discon | necting the docking station | 16 |
| 4 Troubl | eshooting | 17 |
| | Solving common problems | 17 |
| | General use and connection problems | 17 |
| | Audio problems | 17 |
| | Video problems | 18 |
| | Getting more information | 18 |
| | Contacting support | 18 |

| Input power | 20 |
|-----------------------|----|
| Operating environment | 20 |
| operating environment | |
| Index | 21 |

Getting started

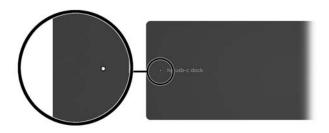
Identifying components

This chapter identifies the visible hardware features of the docking station and provides setup instructions.



NOTE: Some features of the docking station may not be available on your computer.

Top component



| Component | Description |
|-------------|---|
| Power light | On: The computer connected to the docking station is on. |
| | Pulsing: The computer connected to the docking station is in the Sleep state, a power-saving state. The computer enters Sleep if all devices have been idle for more than 15 seconds. |

Right components



| Component | | Description | |
|-----------|---------------------|--|--|
| (1) | USB Type-C port | Connects the docking station to a computer. | |
| | | The dock can charge computers with the following specifications: | |
| | | • 20 V @ 3 A | |
| | | • 15 V @ 3 A | |
| | | • 12 V @ 3 A | |
| | | • 10 V @ 3 A | |
| | | • 9 V @ 3 A | |
| | | • 5 V @ 3 A | |
| | | NOTE: Connect the docking station to a computer using only this USB Type-C port and the included USB Type-C cable. | |
| (2) | Security cable slot | Attaches an optional security cable to the docking station. | |
| | | NOTE: The security cable is designed to act as a deterrent, but it may not prevent the docking station from being mishandled or stolen. | |

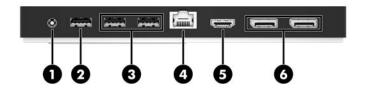
Front components



| Component | | | Description | |
|-----------------|--|---------------------------------------|---|--|
| (1) | | Power button | When the computer connected to the docking station is off, press the button to turn on the computer. | |
| | | | When the computer connected to the docking station is on, press the button briefly to initiate Sleep. | |
| | | | When the computer connected to the docking station is in the Sleep state, press the button briefly to exit Sleep. | |
| | | | When the computer connected to the docking station is in Hibernation, press the button briefly to exit Hibernation. | |
| | | | CAUTION: Pressing and holding down the power button results in the loss of unsaved information. | |
| | | | If the computer has stopped responding and shutdown procedures are ineffective, press and hold the power button for at least 5 seconds to turn off the computer. | |
| combo jack earb | | · · · · · · · · · · · · · · · · · · · | Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional standalone microphones. | |
| | | | WARNING! To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, see the <i>Regulatory, Safety, and Environmental Notices</i> . | |
| | | | To access this guide: | |
| | | | Select the Start button, select HP Help and Support , and then select HP Documentation . | |
| | | | NOTE: When a device is connected to the jack, the computer speakers are disabled. | |
| | | | If the audio does not automatically switch to the docking station, set the docking station as the default audio device in your computer settings. | |
| (3) | | USB Type-C SuperSpeed port | When the dock is on, connects a USB device that has a Type-C connector, such as a camera, activity tracker, or smartwatch, and provides high-speed data transfer. | |

| Component | | | Description |
|-----------|-----------------------|-----------------------|--|
| | | | This port does not support video. NOTE: Cables and/or adapters (purchased separately) may be required. |
| (4) | ş ss ç. | USB 3.x charging port | When the dock is on, connects and charges a USB device, such as a camera, activity tracker, or smartwatch, and provides highspeed data transfer. |

Rear components



| Comp | onent | | Description |
|------|------------------------|----------------------------|--|
| (1) | Ą | Power connector | Connects an AC adapter. |
| (2) | ş ss ⊂ . | USB 3.x charging port | When the dock is on, connects and charges a USB device, such as a camera, activity tracker, or smartwatch, and provides highspeed data transfer. |
| (3) | ~ | USB 2.0 ports (2) | Connect a USB device, such as a camera, activity tracker, or smartwatch, and provide data transfer. |
| (4) | *** | RJ-45 (network) jack | Connects a network cable. |
| (5) | нот | HDMI port | Connects an optional video or audio device, such as a high- definition television, any compatible digital or audio component, or a high-speed High Definition Multimedia Interface (HDMI) device. |
| (6) | ₽ | Dual-Mode DisplayPorts (2) | Connect an optional digital display device, such as a high- performance monitor or projector. |

Setting up the USB docking station

Step 1: Connecting to AC power

MARNING! To reduce the risk of electric shock or damage to your equipment:

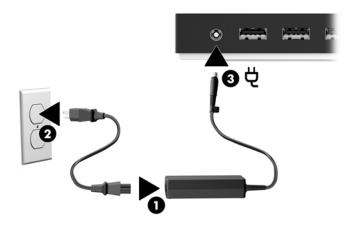
Plug the power cord into a grounded (earthed) outlet that is easily accessible at all times.

Disconnect power from the equipment by unplugging the power cord from the electrical outlet.

Do not disable the power cord grounding plug. The grounding plug is an important safety feature.

To ensure the correct performance of all docking station features, connect the docking station to an AC power source using the docking station power cord.

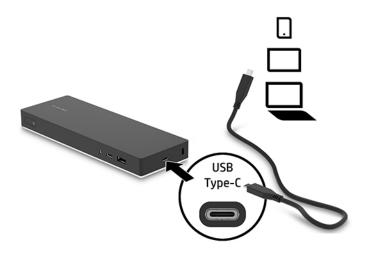
- Connect one end of the power cord to the AC adapter (1), and connect the other end of the power cord to an electrical outlet (2).
- Connect the AC adapter to the power-in connector (3) on the docking station.



Step 2: Connecting to a computer

To connect a computer to the docking station:

- NOTE: The dock is compatible with computers that support USB Type-C video, charging, and data and computers with USB Type-C Thunderbolt™-enabled ports.
 - ▲ Connect the included USB Type-C cable to the USB Type-C port on the right side of the docking station and to a USB Type-C port on your computer.
 - NOTE: Connect the docking station to a computer using only this USB Type-C port and the included USB Type-C cable.



Step 3: Prevent Sleep or Hibernation

When using an external monitor, you might want to close the computer. For more information on configuring an external monitor, see <u>Configuring an external monitor on page 8</u>.

To ensure that the computer does not initiate Sleep or Hibernation when it is closed:

- 1. Open the Control Panel and select the **Power Options** page.
- Click Choose what closing the lid does. Click Do nothing, and then click OK.
- 3. Under **Plugged in**, select **Do nothing**, and then click **Save changes**.
- NOTE: For instructions on accessing the Power Options page, see Help and Support on the computer.

Setting up the software

This section describes how to install the docking station software on a computer running the Windows® 10 operating system.

- 1. With the computer on, Windows running, and the Internet connected, connect the USB cable from the docking station to the computer. The device drivers should install automatically.
- 2. If the device drivers do not install automatically, do the following:

- a. Go to http://www.hp.com/support, and select **Get software and drivers**.
- **b.** Enter the dock model number (located on the bottom of the docking station), and then select **Find my product**.
- **c.** Select **Drivers & software**, and then download the latest drivers.

Configuring an external monitor

Using Windows

Use Windows to configure the display of a monitor attached to the docking station.

- Type control panel in the taskbar search box, and then select Control Panel. Select Appearance
 and Personalization.
- **2.** To set the external monitor as the primary monitor, select **Second screen only**.

- or -

To set the external monitor as an extension of the primary monitor, select **Extend**.

- or -

To set the external monitor as a copy of the primary monitor, select **Duplicate**.

You can also access the display settings by pressing the Windows key +p.

Sleep, Hibernation, shutdown, and restart

If the computer initiates Sleep or Hibernation, the monitor turns off. When the computer exits Sleep or Hibernation, the connected monitor returns to the previous monitor settings.

If you restart or shut down the computer and then turn it back on, the connected monitor returns to the previous monitor settings.

2 Using the docking station

Docking station guidelines

- Operating systems—For optimal performance, use the docking station with a computer running the Windows 10 operating system. Only computers with USB Type-C ports are supported. The dock is compatible with computers that support USB Type-C video, charging, and data and computers with USB Type-C Thunderbolt™-enabled ports.
- **Power**—To use docking station features, power must be connected to the docking station through the power connector.
- Connecting and disconnecting—The docking station can be connected to or disconnected from the
 computer whether the computer is on or off. (See Step 2: Connecting to a computer on page 7 and
 Disconnecting the docking station on page 16.)
- **External devices**—When the docking station is connected to the computer, external devices can be connected to the ports on the docking station or to the ports on the computer.

Screen resolution limits

A maximum of three external monitors can be connected to the docking station.

NOTE: You can verify your display resolution settings in your computer operating system. Select the **Start** button, select **Settings**, select **System**, select **Display**, and then select **Advanced Display Settings**.

The dock does not convert a lower display resolution to a higher display resolution. It is limited by your display resolution settings.

The resolution limits are as follows:

| Number of external monitors | Resolution |
|-----------------------------|---------------------|
| 1 | 3840 x 1440 @ 60 Hz |
| 2 | 1920 x 1200 @ 60 Hz |
| 3 | 1680 x 1050 @ 60 Hz |

Connecting to a network

You can connect the computer to a network through the docking station. This requires an Ethernet cable (purchased separately).

The dock supports the following computer functions over the network connection:

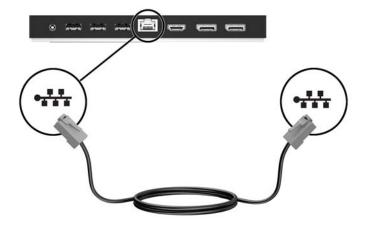
- NOTE: Before using these functions, verify that your computer has the latest BIOS and network controller driver installed. For instructions on updating these drivers, see your computer documentation.
 - PXE boot
 - MAC Address Pass Through
 - Your computer might support MAC Address Pass Through from the On, Off, Sleep, or Hibernation states, or only when the computer is on or in the Sleep state.

MAC Address Pass Through supports either UEFI PXE boot and Legacy PXE boot or only UEFI PXE boot.

- Wake on LAN (WOL)
 - Your computer might support WOL from the Off, Sleep, or Hibernation states, or only when the computer is on or in Sleep.

LAN-WLAN autoswitching and LAN-WWAN autoswitching are supported only on select computers running the Windows 10 operating system.

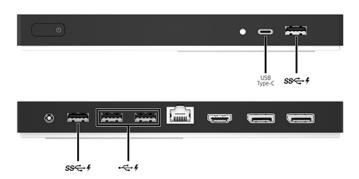
- 1. Connect the docking station to the computer.
- 2. Connect one end of the Ethernet cable to the RJ-45 (network) jack on the docking station and connect the other end to an RJ-45 wall jack or router.



Connecting USB devices

The docking station has five USB ports: one USB 3.x and two USB 2.0 ports on the rear panel and one USB Type-C and one USB 3.x port on the front panel. Use the USB ports to connect optional external USB devices, such as a keyboard and mouse.

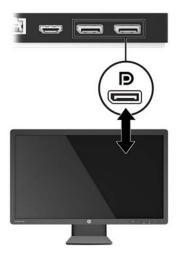
NOTE: Be sure that the external device is compliant with the docking station power specifications. Using a noncompliant device might disable the port to which the device is attached. To reset the port, see Troubleshooting on page 17.



Connecting to a DisplayPort device

The docking station can also be connected to an external device, such as a monitor or a projector, through the DisplayPort.

The docking station supports simultaneous video connections to the HDMI port and the DisplayPort. For screen resolution limits, see <u>Screen resolution limits on page 9</u>.



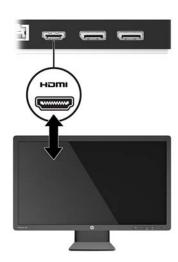
Connecting to an HDMI device

You can connect the docking station to an external video or audio device, such as a high-definition television, or to any digital audio components, through the HDMI port.

The docking station supports simultaneous video connections to the HDMI port and the DisplayPort. For screen resolution limits, see <u>Screen resolution limits on page 9</u>.



NOTE: To transmit video signals through the HDMI port, you need an HDMI cable (purchased separately).



Connecting audio

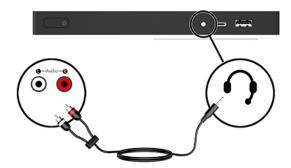
You can connect headphones or speakers directly into the audio-in (headphone)/audio-out (microphone) combo jack on the docking station. You can also connect analog audio devices.

NOTE: If the audio does not automatically switch to the docking station, set the docking station as the default audio device in your computer settings.

Connecting analog audio devices

To connect analog audio:

- 1. Connect one end of an audio Y-cable (purchased separately) to the audio-out (headphone)/audio-in (microphone) combo jack on the docking station.
- 2. Connect the other end to the red and white audio-in jacks on your television or stereo equipment. See your television or stereo equipment user guide for the jack names and locations.



Connecting an optional security cable

NOTE: The security cable is designed to act as a deterrent, but it may not prevent the docking station from being mishandled or stolen.

To install a security cable:

- Loop the security cable around a secured object.
- Insert the key into the cable lock.
- Insert the cable lock into the security cable slot on the docking station, and then turn the key.

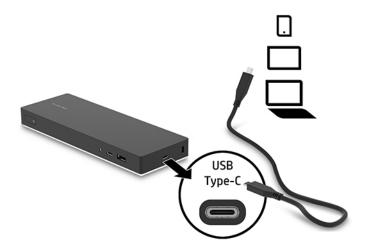


Remove the key.

3 Disconnecting the docking station

To disconnect the docking station from the computer, follow these steps:

- 1. Click the **Safely Remove Hardware** icon in the notification area of the taskbar.
- 2. Click Safely Remove USB Docking Station. The Safe to Remove Hardware message is displayed.
- 3. Disconnect the USB Type-C cable from the computer, and then from the dock.



4 Troubleshooting

Solving common problems

The following tables list possible problems and the recommended solutions.

General use and connection problems

| Problem | Possible cause | Solution | |
|---|---|--|--|
| The power light is off. | The docking station is not connected to AC power. | Connect the power cord to the docking station and to an electrical outlet. | |
| The ports or jacks on the docking station are not working. | The docking station is not connected to AC power. | Connect the power cord to the docking station and to an electrical outlet. | |
| | The docking station is not connected to the computer correctly. | Disconnect the USB cable from the computer, and then reconnect it. | |
| A USB port on the docking station is | The USB device attached to the port may | Reset the port: | |
| disabled. | not be compliant with the docking station power specifications and is using too much power. | Disconnect the device that disabled the port. | |
| | | Disconnect the power cord from the docking station, and then reconnect it. | |
| | | - or - | |
| | | Disconnect the docking station from the computer, and then reconnect it. | |
| When the docking station is connected to | Switching from the WLAN connection to | Disable the WLAN connection: | |
| the computer, both the WLAN and the LAN the LAN connection is not su are connected. | the LAN connection is not supported. | Right-click Start, and then select Network Connections. | |
| | | 2. Right-click Wi-Fi , and then click Disable . | |
| | | - or - | |
| | | Click the Show hidden icons arrow in the notification area, and then click the HP Connection Manager icon. | |
| | | In the HP Connection Manager window, click the WLAN power icon to turn it off. | |

Audio problems

| Problem | Possible cause | Solution |
|----------------------|--------------------------------|--|
| Audio does not play. | The drivers are not installed. | Install the drivers. See <u>Setting up the</u> software on page 7. |

| Problem | Possible cause | Solution |
|---|---|--|
| Headphones or other audio device connected to the docking station do not produce sound. | An audio device is connected to the headphone jack on the docking station, but the docking station is not the default audio device. | Set the docking station as the default audio device in the computer settings, or connect the audio device to the computer. |
| A microphone connected to the docking station does not work. | A microphone is connected to the docking station, but the docking station is not the default audio device. | Set the docking station as the default audio device in the computer settings, or connect the microphone to the computer. |
| A connected home entertainment system does not have audio. | Audio is not connected properly. | Be sure that the docking station is properly connected to the home entertainment system. |

Video problems

| Problem | Possible cause | Solution |
|--|--|--|
| A video does not display. | The drivers are not installed. | Install the drivers. See <u>Setting up the</u> <u>software on page 7</u> . |
| Fonts and other characters on the external monitor appear large. | The external monitor screen resolution is higher than the maximum limit of 3840 x 1440. | Set the screen resolution equal to or lower than the maximum limit. |
| The graphics application does not detect the external monitor. | Some graphics applications do not detect external monitors connected to the docking station. | Configure the external monitor. See Configuring an external monitor on page 8. |
| The external monitor cannot be set as the primary monitor when using some Intel graphics applications. | Older Intel graphics applications do not support setting the external monitor as the primary monitor. | Download the latest Intel drivers from http://www.hp.com/support. |
| The computer monitor does not work. | The external monitor has been disconnected from the docking station before the docking station was disconnected from the computer. | Disconnect the docking station from the computer, and then disconnect the external monitor from the docking station. |
| A video device connected to the external monitor port displays a black screen when playing Blu-ray or other protected content. | The docking station does not support viewing Blu-ray or other protected content on an external display device connected to the external monitor port on the docking station. | Use the computer's display or connect the external display device to the computer. |

Getting more information

- For comprehensive information about the docking station, as well as governmental agency and safety information about the use of the docking station, access Help and Support.
- The HP website (http://www.hp.com) provides product news and software updates.

Contacting support

If you cannot solve a problem using the troubleshooting tips in this chapter, you might need to contact support.

For the fastest possible resolution of your problem, have the following information available when you contact support:

- NOTE: The serial number and other information for the docking station can be found on the service label located on the bottom of the docking station.
 - Model name and number for the computer and for the docking station
 - Serial numbers for the computer and docking station
 - Dates the computer and docking station were purchased
 - Conditions under which the problem occurred
 - Error messages that have been displayed
 - Hardware and software you are using
 - The manufacturer and model of components connected to the computer and docking station

To contact support using your HP computer, select **Start** and then select **Help and Support**. Click **Contact support** to start a chat session with a support specialist.

For U.S. support, go to http://www.hp.com/go/contactHP. For worldwide support, go to http://welcome.hp.com/country/us/en/wwcontact_us.html.

Choose from the following types of support:

- Chat online with an HP technician.
- **NOTE:** When chat is not available in a particular language, it is available in English.
- Find HP support worldwide telephone numbers.
- Locate an HP service center.

5 Specifications

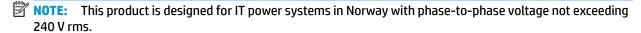
Input power

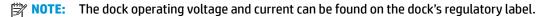
The power information in this section may be helpful if you plan to travel internationally with the dock.

The dock operates on DC power, which can be supplied by an AC or a DC power source. The AC power source must be rated at 100–240 V, 50–60 Hz. Although the dock can be powered from a standalone DC power source, it should be powered only with an AC adapter or a DC power source supplied and approved by HP for use with this dock.

The dock can operate on DC power within the following specifications.

| Input Power | Rating |
|-------------------------------|---------------------------|
| Operating voltage and current | 19.5 V dc @ 4.62 A – 90 W |





Operating environment

| Factor | Metric | U.S. |
|-------------------------------------|------------------|---------------------|
| Temperature | | |
| Operating (writing to optical disc) | 0°C to 40°C | 32°F to 104°F |
| Nonoperating | -20°C to 60°C | -4°F to 140°F |
| Relative humidity (noncondensing) | | |
| Operating | 0% to 90% | 0% to 90% |
| Nonoperating | 0% to 95% | 0% to 95% |
| Maximum altitude (unpressurized) | | |
| Operating | -15 m to 3,048 m | -50 ft to 10,000 ft |
| Nonoperating | -15 m to 3,048 m | -50 ft to 10,000 ft |

Index

| A | N |
|------------------------------------|--------------------------------|
| analog audio 14 | network (RJ-45) jack |
| audio connection, analog 14 | identifying 5 |
| audio, connecting 14 | using 10 |
| audio-out (headphone)/audio-in | - |
| (microphone) combo jack | 0 |
| identifying 3 | operating environment 20 |
| using 14 | operating systems supported 9 |
| • | |
| В | P |
| button, power 3 | ports |
| | Dual-Mode DisplayPort 5 |
| C | HDMI 5 |
| cable, identifying 2 | USB 5, 11 |
| computer | USB Type-C 3 |
| connecting 7 | power |
| sleeping 7 | docking station, connecting 6 |
| connector, power 5, 6 | guidelines 9 |
| | power button, identifying 3 |
| D | power connector |
| DisplayPort device, connecting 12 | connecting 6 |
| Dual-Mode DisplayPort, identifying | identifying 5 |
| 5 | power light, identifying 1 |
| | |
| E | R |
| external devices 9 | RJ-45 (network) jack |
| | identifying 5 |
| Н | using 10 |
| HDMI device, connecting 13 | |
| HDMI port, identifying 5 | S |
| Help and Support 18 | security cable slot |
| | identifying 2 |
| I . | using 15 |
| input power 20 | security cable, connecting 15 |
| | slot, security cable 2, 15 |
| J | support, contacting 18 |
| jacks | |
| audio-out (headphone)/audio-in | T |
| (microphone) combo 3, 14 | troubleshooting 17 |
| RJ-45 (network) 5, 10 | |
| | U |
| L | USB devices, connecting 11 |
| lights, power 1 | USB ports, identifying 4, 5 |
| lock, security cable 15 | USB Type-C port, identifying 3 |