



User Guide

# Mo Test Document 4

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# 1 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.

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### Top component



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Component	Description
Power light	<ul style="list-style-type: none"><li data-bbox="895 1010 1203 1035">• On: The docking station is on.</li><li data-bbox="895 1056 1465 1184">• Pulsing: The docking station is in the standby state, a power-saving state. The docking station enters standby if no devices are connected or if all devices have been idle for more than the amount of time set in the computer power settings.</li></ul>

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## Right components



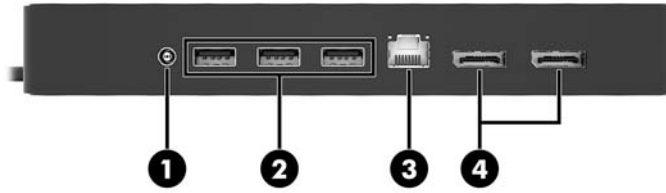
Component	Description
<b>(1)</b> USB Type-C cable	Connects the docking station to a notebook or tablet computer. <b>NOTE:</b> If a computer does not support power over USB Type-C connections or requires more than 60 W of power, you must use the AC adapter included with the computer to power or charge the computer.
<b>(2)</b> Security cable slot	Attaches an optional security cable to the docking station. <b>NOTE:</b> 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
<b>(1)</b>  Audio-out (headphone)/Audio-in (microphone) combo jack	<p>Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. This jack does not support optional standalone microphones.</p> <p><b>WARNING!</b> 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>.</p> <p>To access this guide:</p> <p><b>Windows® 10</b></p> <p>Select the <b>Start</b> button, select <b>All apps</b>, select <b>HP Help and Support</b>, and then select <b>HP Documentation</b>.</p> <p><b>Windows 7</b></p> <p>Select <b>Start</b>, select <b>All Programs</b>, select <b>HP Help and Support</b>, and then select <b>HP Documentation</b>.</p> <p><b>NOTE:</b> When a device is connected to the jack, the computer speakers are disabled.</p> <p>If the audio does not automatically switch to the docking station, set the docking station as the default audio device in your computer settings.</p>
<b>(2)</b>  USB Type-C SuperSpeed port	<p>Connects a USB device, such as a cell phone, camera, activity tracker, or smartwatch, and provides high-speed data transfer.</p> <p><b>NOTE:</b> Cables and/or adapters (purchased separately) may be required.</p>
<b>(3)</b>  USB 3.x SuperSpeed port with HP Sleep and Charge	<p>Connects a USB device, provides high-speed data transfer, and even when the computer is off, charges most products such as a cell phone, camera, activity tracker, or smartwatch.</p>

## Rear components



Component	Description
(1) 	Power connector Connects an AC adapter.
(2) 	USB 2.0 ports (3) Connect a USB device, such as a cell phone, camera, activity tracker, or smartwatch, and provide data transfer.
(3) 	RJ-45 (network) jack Connects a network cable.
(4) 	Dual-Mode DisplayPorts (2) Connect an optional digital display device, such as a high-performance monitor or projector.

## Adapter components



Component	Description
(1) USB Type-C port	Connects the adapter to the docking station.
(2) USB 3.0 connector	Connects the docking station to a USB 3.0 port on a notebook or tablet computer that lacks a USB Type-C port.  <b>NOTE:</b> Power is not provided to the computer through the docking station when you connect the computer to the docking station via USB. So you must use the AC adapter included with the computer to power or charge the computer.

# Setting up the docking station

## Step 1: Connecting to AC power

**⚠ WARNING!** To reduce the risk of electric shock or damage to your equipment:

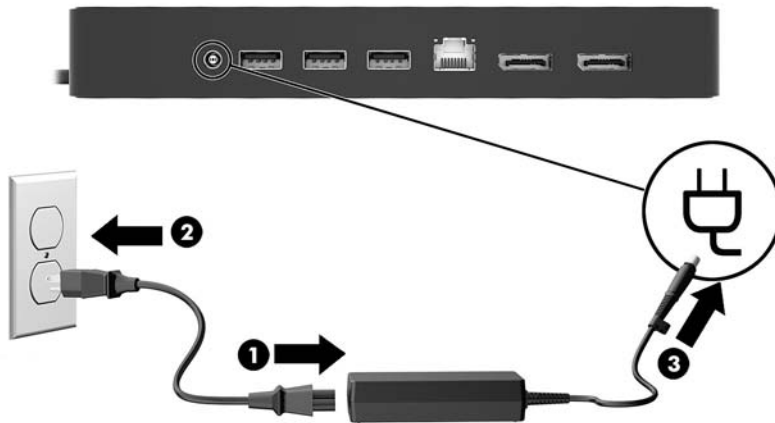
Plug the power cord into a grounded (earthed) outlet that is easily accessible at all times.

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.


1. 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)**.
2. Connect the AC adapter to the power-in connector **(3)** on the docking station.

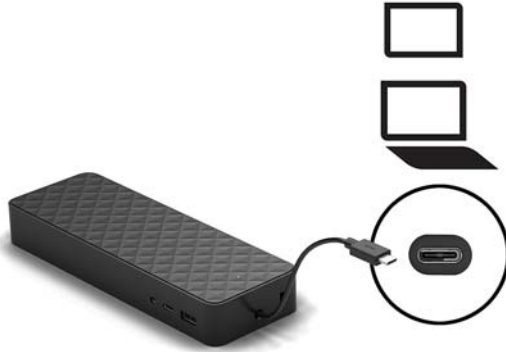


## Step 2: Connecting to a computer

To connect a computer to the docking station via USB Type-C:


- ▲ Connect the USB Type-C cable to a USB Type-C port on your computer.

 **NOTE:** If a computer does not support power over USB Type-C connections or requires more than 60 W of power, you must use the AC adapter included with the computer to power or charge the computer.



To connect a computer to the docking station via USB, use the included USB-Type-C-to-USB adapter:

- ▲ Connect the docking station cable to the USB Type-C end of the adapter, and then connect the USB end of the adapter to a USB port on your computer.

 **NOTE:** Power is not provided to the computer through the docking station when you connect the computer to the docking station via USB. So you must use the AC adapter included with the computer to power or charge the computer.



## 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 [Configuring an external monitor on page 9](#).

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.
2. 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 computer Power Options page, see HP Help and Support on the computer.

## Using the tether

Depending on the external devices you want to connect to the computer, you might want to switch between connecting the docking station to the computer via USB Type-C and connecting the docking station via USB.

To help you organize the cables, a tether is included with the adapter.

To use the tether:

- ▲ Connect the included adapter to the docking station. Then fasten one end of the tether around the docking station cable next to the USB Type-C connector and the other end of the tether around the adapter cable next to the USB Type-C connector.



You can either keep the cable and adapter connected or disconnect the cable and adapter without removing the tether.



## Setting up the software

This section describes how to install the HP USB-C Universal Docking station software on a computer running the Windows 10 or Windows 7 operating system. The software is preinstalled in flash memory on the docking station.

1. With the computer on, Windows running, and the Internet connected, connect the USB cable from the docking station to the computer.
2. If the device flash drive does not open automatically, open **File Explorer**, and then select **HP USB-C Dock**.
3. Double-click **HP USB-C Universal Dock Installer**.
4. Follow the on-screen instructions.
5. A welcome screen appears. Click **Next**.
6. When the **End User License Agreement** appears, accept and then click **Next**.
7. Click **Install**.
8. Choose to restart now or later. The docking station might not work until the next restart. If you choose to restart the computer, first remove any disks from the computer's drives. Click **Finish**.
9. Be sure that you have the latest drivers installed. Go to <http://www.hp.com/support>. Select **Get software and drivers**, type the docking station model number (located on the bottom of the docking station), and then select **Find**. Click the link for your specific docking station, and then download the latest drivers.

## Configuring an external monitor

### Using DisplayLink

Use DisplayLink to configure the display of a monitor attached to the docking station:

1. Click the **DisplayLink** icon in the taskbar.
2. To set the external monitor as an extension of the primary monitor, click **Extend**.

– or –

To set the external monitor as a copy of the primary monitor, click **Mirror**.

– or –

To set the external monitor to be the only display, click **Notebook monitor off**.

– or –

To set the external monitor to be the primary display, click **Set as main monitor**.

DisplayLink allows you to optimize the display for video, check for updates, and configure advanced settings. DisplayLink options might vary, depending on the operating system. For instructions on configuring the external monitor using Windows, see [Using Windows on page 10](#).

## Using Windows

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



**NOTE:** When you first connect the docking station to a computer using Windows 7, the Windows properties screen appears, and the external display is automatically configured in Mirror mode as the default.

1. If the computer is running Windows 10, type `control panel` in the taskbar search box, and then select **Control Panel**. Select **Appearance and Personalization**.

– or –

If the computer is running Windows 8, move the pointer down from the upper-right corner of the screen, and then click **Devices**. Click **Second screen**.

– or –

If the computer is running Windows 7, right-click on the desktop, and then select **Screen Resolution**.

2. To set the external monitor as the primary monitor on computers running Windows 10 or Windows 8, select **Second screen only**. To set the external monitor as the primary monitor on computers running Windows 7, select **Make this my main display**.

– or –

To set the external monitor as an extension of the primary monitor on computers running Windows 10 or Windows 8, select **Extend**. To set the external monitor as an extension of the primary monitor on computers running Windows 7, select **Extend these displays**.

– or –

To set the external monitor as a copy of the primary monitor on computers running Windows 10 or Windows 8, select **Duplicate**. To set the external monitor as a copy of the primary monitor on computers running Windows 7, select **Duplicate these displays**.

You can also access the display settings by pressing the [Windows](#) key +p.

## Using additional software features

The DisplayLink software offers additional features for configuring monitors attached to the docking station:

- **Screen Resolution**—Changes the resolution of the external monitor.
- **Screen rotation**—Rotates the display of the external monitor 90, 180, or 270 degrees.
- **Off**—Turns the external monitor off.
- **Advanced**—Opens the Windows properties box.

## **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 or Windows 7 operating system.
- **Power**—To use docking station features, AC power must be connected to the docking station.
- **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 17](#).)
- **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.


## Connecting to a network

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

The docking station 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

 **TIP:** 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 Sleep.

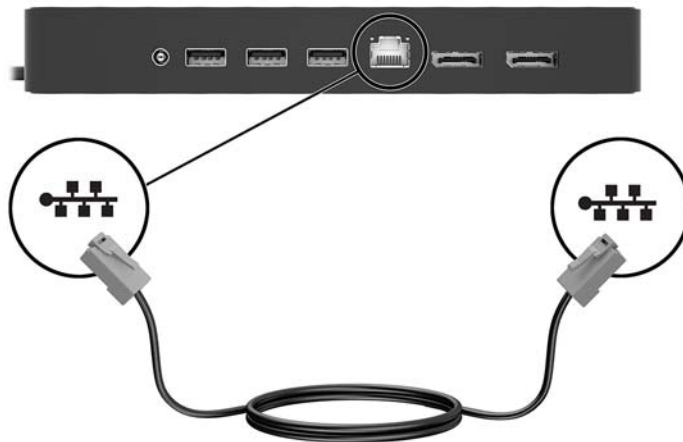
MAC Address Pass Through is supported for UEFI PXE boot.

- Wake on LAN (WOL)

 **TIP:** Your computer might support WOL from the Off, Sleep, or Hibernation states, or only when the computer is on or in Sleep.


WLAN-LAN switching is supported only on select computers running the Windows 10 operating system.

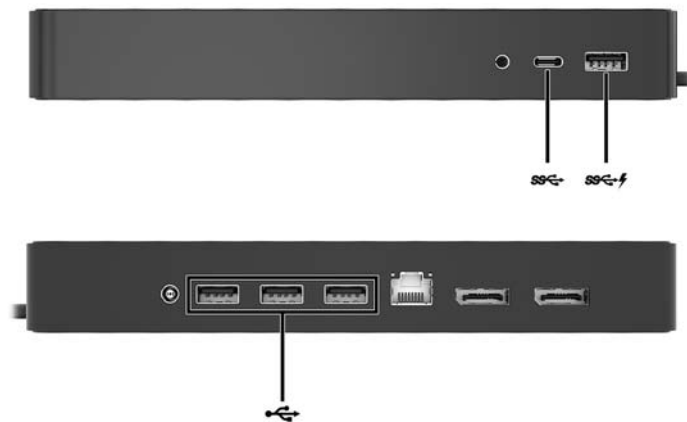
1. Connect the docking station to the computer.
2. Connect one end of the Ethernet cable to the RJ-45 (network) jack on the docking station and connect the other end to an RJ-45 wall jack or router.



## Connecting USB devices

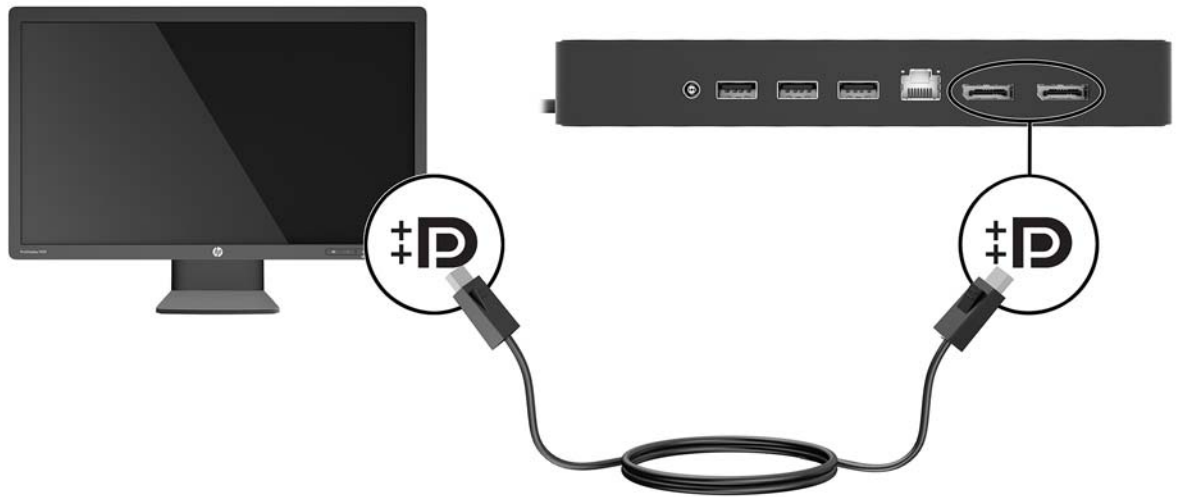
The docking station has five USB ports: one USB 3.x and one USB Type-C port on the front panel and three USB 2.x ports on the rear panel. Use the USB ports to connect optional external USB devices, such as a keyboard and mouse.

 **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 18](#).



## 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 DisplayPorts. The docking station supports video connections to the both DisplayPorts at the same time, as long as screen resolutions are 3840 × 2160 or less. A single DisplayPort can support a screen resolution up to 5120 × 2880.



## Connecting audio

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



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**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.

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## 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

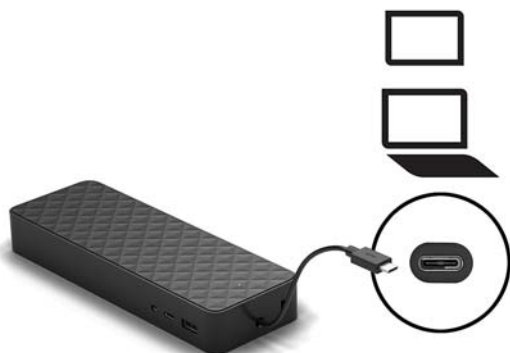
A security cable (purchased separately) is designed to act as a deterrent, but it may not prevent the docking station from being mishandled or stolen. To connect a security cable to your docking station, follow the device manufacturer's instructions.

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## 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, at the far right of the taskbar.
2. Click **Safely Remove USB Docking Station**. The **Safe to Remove Hardware** message is displayed.
3. Disconnect the attached USB Type-C cable from the computer.



# 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 disabled.	The USB device attached to the port may not be compliant with the docking station power specifications and is using too much power.	Reset the port: <ol style="list-style-type: none"><li>1. Disconnect the device that disabled the port.</li><li>2. Disconnect the power cord from the docking station, and then reconnect it.</li></ol> <p>– or –</p> Disconnect the docking station from the computer, and then reconnect it.
When the docking station is connected to the computer, both the WLAN and the LAN are connected.	Switching from the WLAN connection to the LAN connection may not be supported on your computer.  <b>NOTE:</b> WLAN-LAN switching is supported only on select computers running the Windows 10 operating system.	Disable the WLAN connection:  If you are using Windows 10: <ol style="list-style-type: none"><li>1. Right-click <b>Start</b>, and then select <b>Network Connections</b>.</li><li>2. Right-click <b>Wi-Fi</b>, and then click <b>Disable</b>.</li></ol> If you are using Windows 7: <ul style="list-style-type: none"><li>• Select <b>Start</b>, select <b>Control Panel</b>, select <b>Hardware and Sound</b>, and then select <b>Windows Mobility Center</b>. Click <b>Turn wireless off</b>.</li></ul> <p>– or –</p> <ul style="list-style-type: none"><li>• Click the <b>Show hidden icons</b> arrow in the notification area, and then click the <b>HP Connection Manager</b> icon.</li></ul>

		In the HP Connection Manager window, click the <b>WLAN power</b> icon to turn it off.
Cannot uninstall DisplayLink core software using <b>Uninstall</b> in Windows 10 or Windows 8 or <b>Uninstall a program</b> in Windows 7.		Uninstall <b>DisplayLink Core Software</b> . This automatically uninstalls DisplayLink.  In Windows 10 or Windows 8, use <b>Uninstall</b> . In Windows 7 or Vista, use <b>Uninstall a program</b> .

## Audio problems

Problem	Possible cause	Solution
Audio does not play.	The drivers are not installed.	Install the drivers. See <a href="#">Setting up the software on page 9</a> .
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 <a href="#">Setting up the software on page 9</a> .
Fonts and other characters on the external monitor appear large.	The external monitor screen resolution is higher than the maximum limit of 5120 x 2880.	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.	Using the DisplayLink software, configure the external monitor. See <a href="#">Configuring an external monitor on page 9</a> .
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 <a href="http://www.hp.com/support">http://www.hp.com/support</a> .
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 HP 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:



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**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.

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- 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 **HP Help and Support**. Click **Contact support** to start a chat session with a support specialist.

For support, go to <http://www.hp.com/support>.

Choose from the following types of support:

- Chat online with an HP technician.



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**NOTE:** When chat is not available in a particular language, it is available in English.

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- 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 docking station.

The docking station 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 docking station 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 docking station.

The docking station 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

 **NOTE:** This product is designed for IT power systems in Norway with phase-to-phase voltage not exceeding 240 V rms.

 **NOTE:** The docking station operating voltage and current can be found on the docking station's regulatory label.

## Operating environment

Factor	Metric	U.S.
<b>Temperature</b>		
Operating	<b>0°C to 40°C</b>	32°F to 104°F
Nonoperating	<b>-40°C to 70°C</b>	-40°F to 158°F
<b>Relative humidity (noncondensing)</b>		
Operating	<b>5% to 95%</b>	5% to 95%
Nonoperating	<b>5% to 90%</b>	5% to 90%
<b>Maximum altitude (unpressurized)</b>		
Operating	<b>-15 m to 3,048 m</b>	-50 ft to 10,000 ft
Nonoperating	<b>-15 m to 9,144 m</b>	-50 ft to 30,000 ft

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