Alienware 15 R4
Setup and Specifications

Computer Model: Alienware 15 R4
Regulatory Model: P69F
Regulatory Type: P69F002

ALIENWARE

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Set up your computer

Connect the power adapter and press the power button.

Set up the Virtual Reality (VR) headset—optional

NOTE: The VR headset is sold separately.

NOTE: If you are using Alienware Graphics Amplifier with your computer, see Alienware Graphics Amplifier.

HTC Vive

1 Download and run the setup tools for your VR headset at www.dell.com/VRsupport.

2 Connect the HDMI cable of the HTC Vive headset to the back of your computer.

3 Connect the USB cable from the Vive hub to the USB 3.1 Gen 1 port at the right side of your computer.

4 Follow the on-screen instructions to complete the setup.

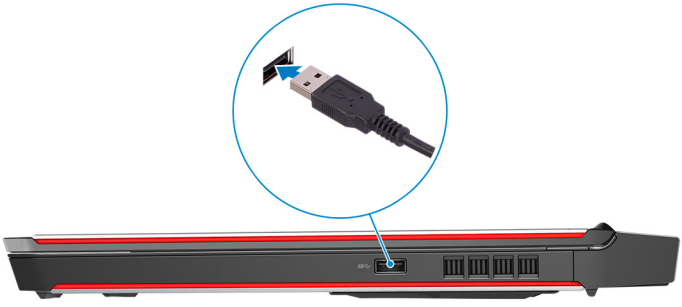
Oculus Rift

NOTE: The USB dongles are only shipped with computers that are Oculus certified.

1 Download and run the setup tools for your VR headset at www.dell.com/VRsupport.

2 Connect the HDMI cable of the Oculus Rift headset to the back of your computer.

3 Connect the Oculus Rift headset to the USB Type-A port at the right side of your computer.



4 Connect the Oculus Rift tracker to the USB Type-A port at the left side of your computer.

5 Connect a USB Type-C to Type-A dongle to the Thunderbolt 3 (USB Type-C) port at the back of your computer.

6 Connect the XBOX controller to the USB Type-A port on the USB dongle.

7 Follow the on-screen instructions to complete the setup.

Oculus Rift with touch

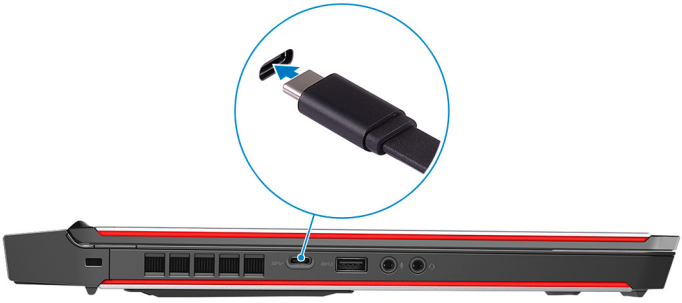
NOTE: The USB dongles are only shipped with computers that are Oculus certified.

1. Download and run the setup tools for your VR headset at www.dell.com/VRsupport.
2. Connect the HDMI cable of the Oculus Rift headset to the back of your computer.

3. Connect the Oculus Rift headset to the USB Type-A port at the right side of your computer.
4. Connect a USB Type-C to Type-A dongle to the Thunderbolt 3 (USB Type-C) port on the back of your computer.

5. Connect the Oculus Rift tracker to the USB Type-A port at the left side of your computer.

6 Connect a USB Type-C to Type-A dongle to the USB 3.1 Gen 2 (Type-C) port at the left side of your computer.



7 Connect the XBOX controller to the USB Type-A port on the USB dongle.

8 Connect the Oculus Rift tracker for Touch to the USB Type-A port on the dongle.

9 Follow the on-screen instructions to complete the setup.

Alienware Graphics Amplifier

Alienware Graphics Amplifier enables you to connect an external graphics card to your computer.

When using the Virtual Reality (VR) headset, connect the HDMI cable to the graphics card installed on your Alienware Graphics Amplifier. The USB cables from the VR headset can be connected either to your computer or your Alienware Graphics Amplifier.

NOTE: The USB dongle is not required, if you are connecting the USB 3.0 cables on your VR headset to the USB 3.0 Type-A port on your Alienware Graphics Amplifier.

For more information about Alienware Graphics Amplifier, see *Alienware Graphics Amplifier User's Guide* at http://www.dell.com/support.

Views

Base

1 **Power button (Alienhead)**

Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

Press to put the computer in sleep state if it is turned on.

Press and hold for 4 seconds to force shut-down the computer.

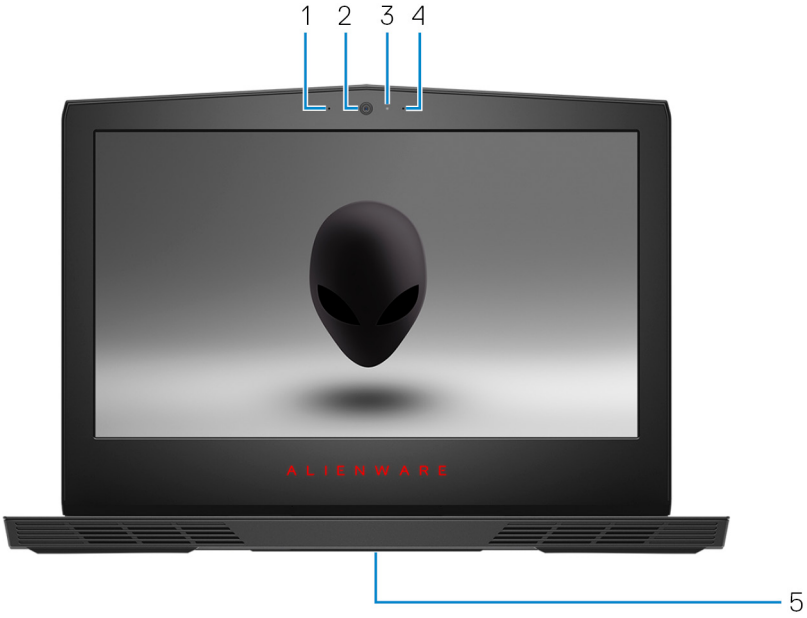
NOTE: You can customize the power-button behavior in Power Options.

2 **Macro keys**

Run pre-defined Macros.

Define the macro keys using the Alienware Command Center.

Display



1 **Left microphone**

Provides digital sound input for audio recording and voice calls.

2 **Camera**

Enables you to video chat, capture photos, and record videos.

3 **Camera-status light**

Turns on when the camera is in use.

4 **Right microphone**

Provides digital sound input for audio recording and voice calls.

5 **Service Tag label**

The Service Tag is a unique alphanumeric identifier that enables Dell service technicians to identify the hardware components in your computer and access warranty information.

Front

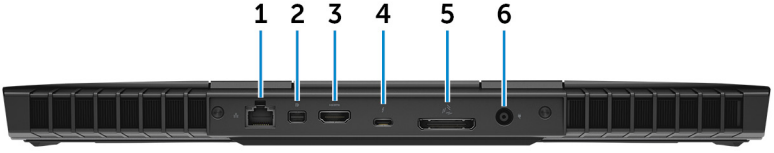
1 **Left speaker**

Provides audio output.

2 **Right speaker**

Provides audio output.

Back



1 **Network port (with lights)**

Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or Internet access.

The two lights next to the connector indicate the connectivity status and network activity.

2 **Mini DisplayPort**

Connect a TV or another DisplayPort-in enabled device. Provides video and audio output.

3 **HDMI port**

Connect a TV or another HDMI-in enabled device. Provides video and audio output.

4 **Thunderbolt 3 (USB Type-C) port**

Supports USB 3.1 Gen 2, DisplayPort 1.2, Thunderbolt 3 and also enables you to connect to an external display using a display adapter.

Provides data transfer rates up to 10 Gbps for USB 3.1 Gen 2 and up to 40 Gbps for Thunderbolt 3.

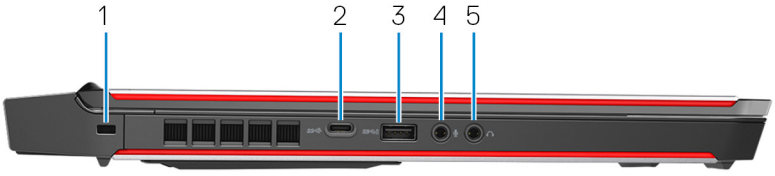
5 **External graphics port**

Connect an Alienware Graphics Amplifier to enhance the graphics performance.

6 **Power-adapter port**

Connect a power adapter to provide power to your computer and charge the battery.

Left



1 **Security-cable slot (for Noble locks)**

Connect a security cable to prevent unauthorized movement of your computer.

2 **USB 3.1 Gen 2 (Type-C) port**

Connect to external storage devices. Provides data transfer speeds up to 10 Gbps.

NOTE: This port does not support video/audio streaming.

3 **USB 3.1 Gen 1 port with PowerShare**

Connect peripherals such as external storage devices and printers.

Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge your USB devices even when your computer is turned off.

NOTE: If the charge on your computer's battery is less than 10 percent, you must connect the power adapter to charge your computer, and USB devices connected to the PowerShare port.

NOTE: If a USB device is connected to the PowerShare port before the computer is turned off or in hibernate state, you must disconnect and connect it again to enable charging.

NOTE: Certain USB devices may not charge when the computer is turned off or in sleep state. In such cases, turn on the computer to charge the device.

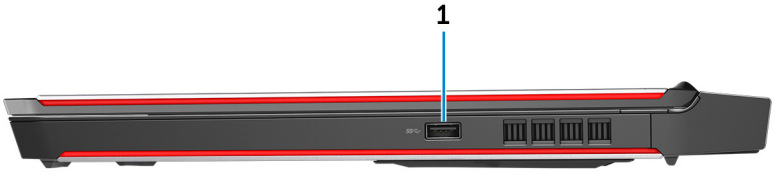
4 **Microphone/headphone port (configurable)**

Connect an external microphone for sound input or headphones for sound output.

5 **Headset port**

Connect headphones or a headset (headphone and microphone combo).

Right



1 **USB 3.1 Gen 1 port**

Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps.

Specifications

Computer model

Alienware 15 R4

System information

Table 1. System information

Processor	8th Generation Intel Core i5/i7/i9
Chipset	Intel CM246

Operating system

Table 2. Operating system

Operating systems supported	▪ Windows 10 Home (64-bit) ▪ Windows 10 Professional (64-bit)

Dimensions and weight

Table 3. Dimensions and weight

Height	25.40 mm (1 in)
Width	389 mm (15.31 in)
Depth	305 mm (12 in)
Weight	3.49 kg (7.69 lb)

NOTE: The weight of your computer varies depending on the configuration ordered and the manufacturing variability.

Memory

Table 4. Memory specifications

Slots		Two SODIMM slots
Type		DDR4
Speed		2666 MHz
Configurations supported		
	Per memory module slot	4 GB, 8 GB, and 16 GB
	Total memory	8 GB, 16 GB, and 32 GB

Ports and connectors

Table 5. Ports and connectors

External:	
Network	One RJ-45 port
USB	▪ One USB 3.1 Gen 2 (Type-C) port ▪ One USB 3.1 Gen 1 port with PowerShare ▪ One USB 3.1 Gen 1 port ▪ Thunderbolt 3 (USB Type-C) port
Audio/Video	▪ One HDMI 2.0 port ▪ One microphone/headphone port (configurable) ▪ One headset port ▪ One Mini DisplayPort 1.3 ▪ One external graphics port
Internal:	
M.2 card	▪ Three M.2 card slots for solid-state drive (SATA/PCIe)

	▪ One M.2 card slot for Wi-Fi and Bluetooth combo card

Communications

Table 6. Communications specifications

Ethernet	10/100/1000 Mbps Ethernet controller integrated on system board
Wireless	▪ Wi-Fi 802.11ac ▪ Bluetooth 4.1

Wireless module

Table 7. Wireless module specifications

Transfer rate	Up to 1733 Mbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz
Encryption	▪ WEP ▪ WPA ▪ EAP ▪ WPS ▪ PMF ▪ TKIP

Audio

Table 8. Audio specifications

Controller	Realtek ALC 3266
Speakers	Stereo
Speaker output	▪ Average: 4 W ▪ Peak: 5 W

Microphone	Digital-array microphones
Volume controls	Media-control shortcut keys

Storage

Your computer supports one hard drive and three solid-state drives.

Table 9. Storage specifications

Storage type	Interface type	Capacity
One 2.5-inch hard drive	SATA AHCI 6 Gbps	Up to 1 TB
One M.2 2242 solid-state drive	▪ SATA AHCI 6 Gbps ▪ PCIe NVMe up to 32 Gbps	Up to 1 TB
One M.2 2280 solid-state drive	▪ SATA AHCI 6 Gbps ▪ PCIe NVMe up to 32 Gbps	Up to 1 TB
One M.2 2280 solid-state drive	PCIe NVMe up to 32 Gbps	Up to 1 TB

Intel Optane storage

Table 10. Intel Optane storage

Interface	PCIe 3.0 x2
Connector	M.2
Capacity	▪ 60 GB ▪ 120 GB
Configurations supported	120 GB

Keyboard

Table 11. Keyboard specifications

Type	▪ RGB Backlit keyboard

	▪ RGB per Key keyboard
Shortcut keys	Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key. **NOTE: You can define the primary behavior of the function keys (F1–F12) by changing Function Key Behavior in BIOS setup program.** Keyboard shortcuts

Camera

Table 12. Camera specifications

Resolution	▪ Still image: 2 megapixel ▪ Video: 1920 x 1080 (Full HD) at 30 fps (maximum)
Diagonal viewing angle	74 degrees

Touch pad

Table 13. Touch pad specifications

Resolution	▪ Horizontal: 1727 ▪ Vertical: 1092
Dimensions	▪ Height: 56 mm (2.20 in) ▪ Width: 100 mm (3.94 in)

Touchpad gestures

For more information about touchpad gestures for Windows 10, see the Microsoft knowledge base article 4027871 at support.microsoft.com.

Battery

Table 14. Battery specifications

Type		4-cell "smart" lithium-ion (68 WHr)	6-cell "smart" lithium-ion (99 WHr)
Weight (maximum)		0.33 kg (0.72 lb)	0.43 kg (0.94 lb)
Voltage		15.20 VDC	11.40 VDC
Dimensions:			
	Height	13.50 mm (0.53 in)	
	Width	259.60 mm (10.22 in)	
	Depth	89.20 mm (3.51 in)	
Temperature range:			
	Operating	0°C to 35°C (32°F to 95°F)	
	Storage	–20°C to 60°C (–4°F to 140°F)	
Charging time (approximate)		4 hours (when the computer is off)	
Life span (approximate)		300 discharge/charge cycles	
Coin-cell battery		CR-2032	
Operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	

Video

Table 15. Video specifications

	Integrated	Discrete
Controller	Intel UHD Graphics 630	▪ AMD Radeon RX 570 ▪ NVIDIA GeForce GTX 1060 ▪ NVIDIA GeForce GTX 1070 ▪ NVIDIA GeForce GTX 1080 with Max-Q Design Technology
Memory		▪ 6 GB GDDR5 ▪ 8 GB GDDR5 ▪ 8 GB GDDR5X

Power adapter

Table 16. Power adapter specifications

Type	E180 W	E240 W
Input current (maximum)	2.34 A/2.50 A	3.50 A
Output current (continuous)	9.23 A	12.30 A
Diameter (connector)	7.40 mm	
Input voltage	100 VAC–240 VAC	
Input frequency	50 Hz–60 Hz	
Rated output voltage	19.50 VDC	
Temperature range:		
Operating	0°C to 40°C (32°F to 104°F)	
Storage	–40°C to 70°C (–40°F to 158°F)	

Display

Table 17. Display specifications

Type	15-inch FHD	15-inch UHD
G-Sync support	Optional	Yes
Resolution (maximum)	1920 x 1080	3840 x 2160
Pixel pitch	0.179 mm	0.090 mm
Operating angle	140 degrees	140 degrees
Viewing angle	▪ 80 degrees ▪ 60/60/50/50 degrees	80 degrees
Refresh rate	▪ 60 Hz ▪ 120 Hz	60 Hz
Dimensions: (excluding bezel)		
Width	344.16 mm (13.54 in)	345.60 mm (13.60 in)
Height	193.59 mm (7.62 in)	194.40 mm (7.65 in)
Diagonal	394.87 mm (15.54 in)	396.52 mm (15.61 in)
Controls	Brightness can be controlled using shortcut keys	

Computer environment

Airborne contaminant level: G2 or lower as defined by ISA-S71.04-1985

Table 18. Computer environment

	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	–40°C to 65°C (–40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)	0.66 GRMS	1.30 GRMS
Shock (maximum)*	110 G†	160 G ‡
Altitude (maximum)	–15.20 m to 3048 m (–50 ft to 10,000 ft)	–15.20 m to 10,668 m (–50 ft to 35,000 ft)

* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse when the hard drive is in use.

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.

Keyboard shortcuts

Table 19. List of keyboard shortcuts

Keys	Description
	Disconnect Alienware Graphics Amplifier
	Disable/enable wireless
	Mute audio
	Decrease volume
	Increase volume
	Switch to external display
	Decrease brightness
	Increase brightness
	Disable/enable touch pad
	Disable/enable AlienFX

Getting help and contacting Alienware

Self-help resources

You can get information and help on Alienware products and services using these online self-help resources:

Table 20. Alienware products and online self-help resources

Information about Alienware products and services	www.alienware.com
Dell Help & Support app	
Tips	
Contact Support	In Windows search, type **Contact Support**, and press **Enter**.
Online help for operating system	www.dell.com/support/windows www.dell.com/support/linux
Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on	www.alienware.com/gamingservices
VR Support	www.dell.com/VRsupport
Videos providing step-by-step instructions to service your computer	www.youtube.com/alienwareservices

Contacting Alienware

To contact Alienware for sales, technical support, or customer service issues, see www.alienware.com.

NOTE: Availability varies by country and product, and some services may not be available in your country.

NOTE: If you do not have an active internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.