Alienware 17 R4 User Guide

A L I E N W A R E

Alienware 17 R4
Setup and Specifications
Regulatory Model: P31E
Regulatory Type: P31E001

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.

Contents

Set up your computer

Connect the power adapter and press the power button.

Set up the Virtual Reality (VR) headset—optional

(i) **NOTE: The VR headset is sold separately.**

(i) **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 on the right side of your computer.
4. Follow the on-screen instructions to complete the setup.

Oculus Rift

(i) 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 on the right side of your computer.

4. Connect the Oculus Rift tracker to the USB Type-A port on 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.
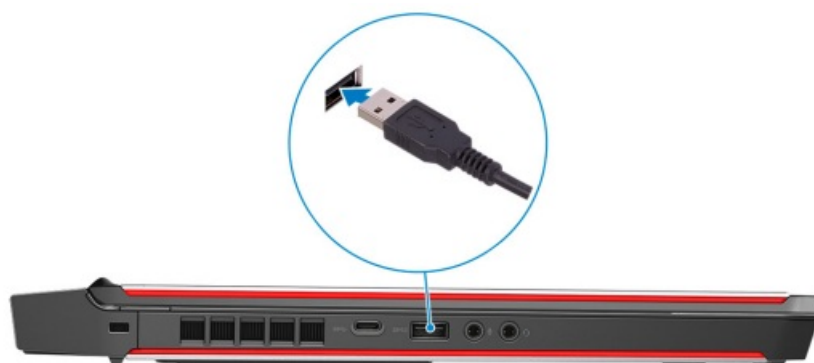
Oculus Rift with touch

(i) **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**.

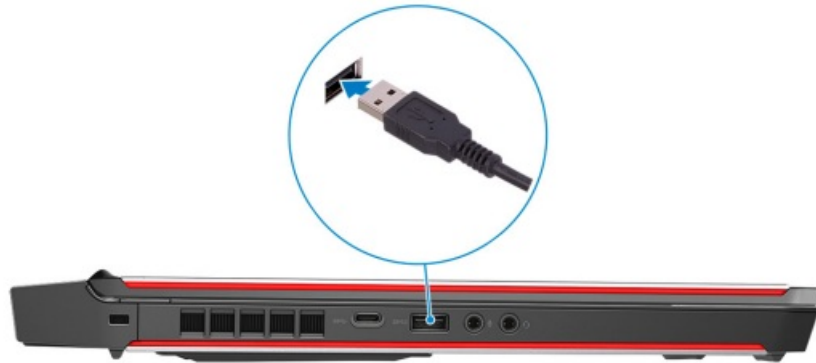2. Connect the HDMI cable of the Oculus Rift headset to the back of your computer.

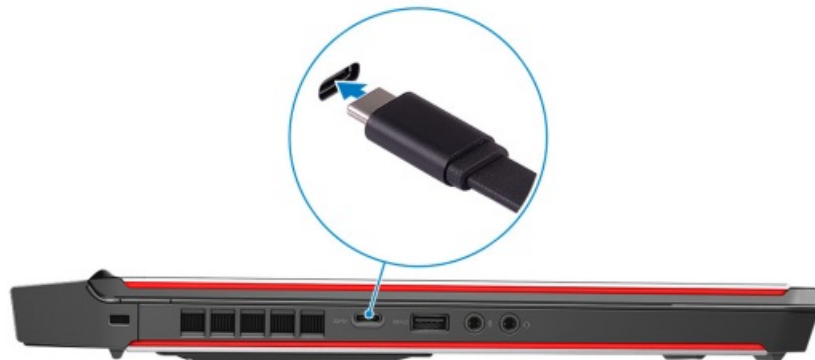3. Connect the Oculus Rift headset to the USB Type-A port on the right side of your computer.

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 TypeA port on your Alienware Graphics Amplifier.**

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

Views

Base

1. **Power button (Alien head)**

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

   Press to put the computer in a 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 (with Tobii Aware)

1. **Left microphone**

   Provides digital sound input for audio recording and voice calls.

2. **Infrared emitter**

   Emits infrared light, which enables the infrared camera to sense depth and track motion.

   (i)**NOTE: The infrared emitter blinks to detect the user's presence. To stop the emitter from blinking, turn off the Tobii Aware. For more information about the Tobii Aware, see Tobii Aware.**

3. **Infrared camera**

   Enhances security when paired with Windows Hello face authentication.

4. **Camera**

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

5. **Camera-status light**

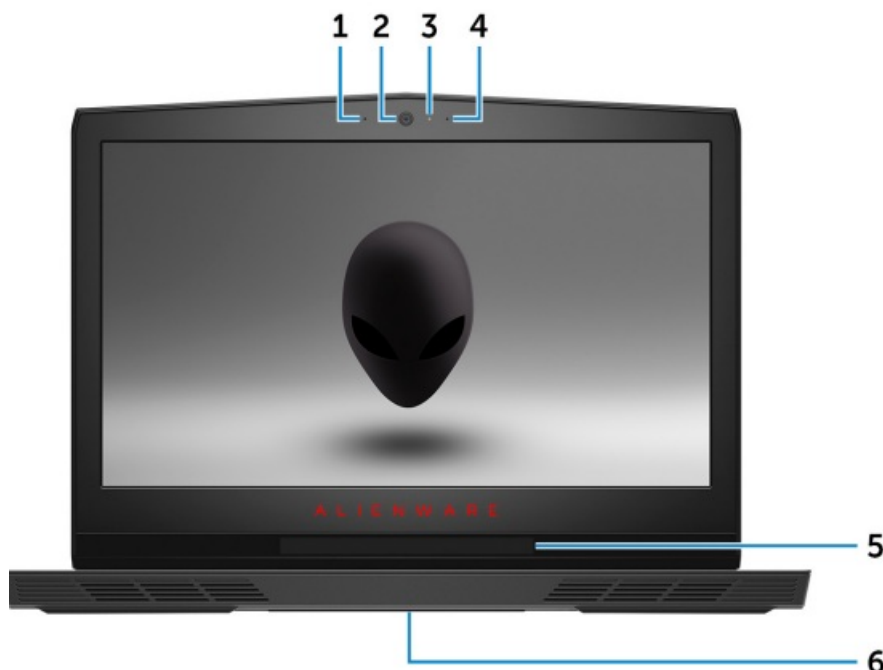   Turns on when the camera is in use.

6. **Right microphone**

   Provides digital sound input for audio recording and voice calls.

7. **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.

Display (with Tobii Eye Tracker)

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.
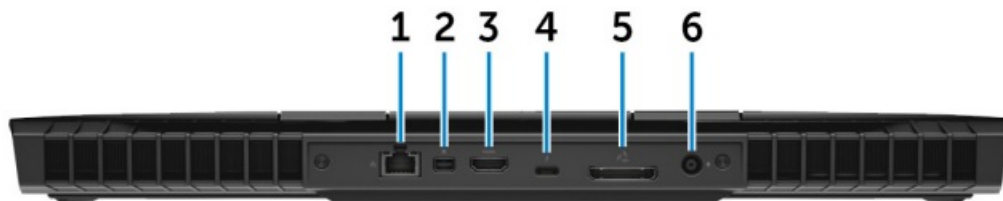
5. **Tobii Eye Tracker**

   An application that enables you to interact with your computer using your eyes.

6. **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.

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

3. **HDMI port**

   Connect to 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.

   (i) **NOTE: A USB Type-C to DisplayPort adapter (sold separately) is required to connect a DisplayPort device.**
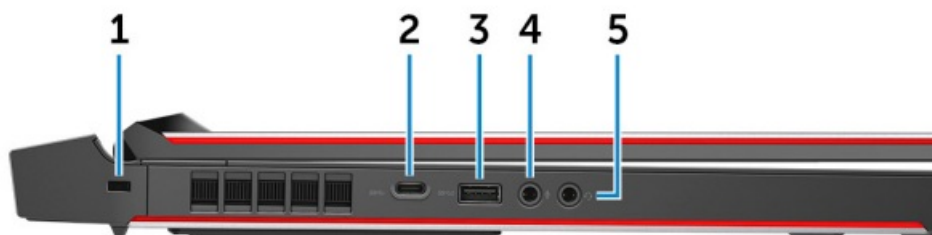
5. **External graphics port**

   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 3.0 (Type-C) port**

   Connect peripherals such as external storage devices and printers.

   Provides data transfer speeds up to 5 Gbps. Supports Power Delivery that enables a two-way power supply between devices.

   Provides up to 15 W power output that enables faster charging.

3. **USB 3.0 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.

   (i) **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.**

   (i) **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.**

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
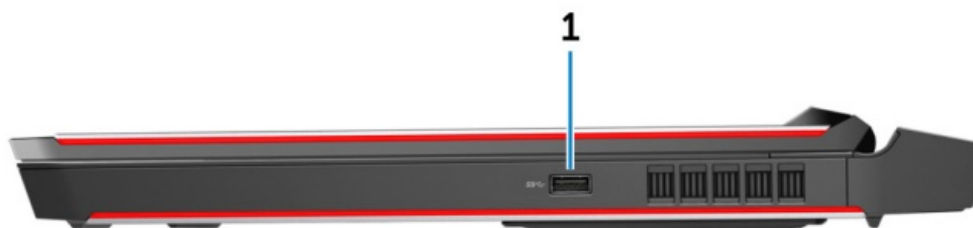
1. **USB 3.1 Gen 1 port**

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

Specifications

Dimensions and weight System information Table 1. System information processor

System information

Table 1. System information

Processor	• 6thGeneration Intel Core i7/i7k • 7th Generation Intel Core i7/i7k (i) **NOTE: If your computer is shipped with an Intel Core i7k pr ocessor, you can overclock the processing speed beyond the s andard specifications.**
Chipset	• Intel CM236 • Intel CM238

Memory

Table 2. Memory specifications

Slots	Two SODIMM slots
Type	DDR4
Speed	2133 MHz, 2400 MHz, and 2667 MHz
Configurations supported	8 GB, 16 GB, and 32 GB

Ports and connectors

Table 3. Ports and connectors
External:

Network	One RJ-45 port
USB	• One USB 3.0 p • One USB 3.0 p • One USB 3.0 (T • Thunderbolt 3 (
Audio/Video	• One HDMI 2.0 • One microphon • One headset po • One Mini Displa • One external gr

Internal:
Expansion slots: One 2.5″ hard drive SATA 3.0 connector
M.2

- One M.2 2242 card slot for SSD
- Two M.2 2280 card slots for SSD
- One M.2 2230 card slot for WiFi/Bluetooth combo card

Communications

Table 4. Communications specifications

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

Audio

Table 5. Audio specifications

Controller	Realtek ALC 3266
Speakers	Stereo
Speaker output	• Average: 4 W • Peak: 5 W
Subwoofer output	• Average: 2 W • Peak: 2.5 W
Microphone	Digital-array microphones
Volume controls	Media-control shortcut keys

Storage

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

Table 6. Storage specifications

Interface	• SATA 6 Gbps • PCIe up to 32 Gbps
Hard drive	One 2.5-inch drive
A solid-state drive (SSD)	• Two full-size M.2 PCIe/SATA drives • One half-size M.2 PCIe/SATA drive

Keyboard

Table 7. Keyboard specifications

Type	Backlit 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 the BIOS setup program.** **Keyboard shortcuts**

Camera

Table 8. Camera specifications

Resolution	• Still image: 2.07 megapixels • Video: 1920 x 1080 (Full HD) at 30 fps (maximum)
Diagonal viewing angle	74 degrees

Touchpad

Table 9. Touchpad specifications

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

Battery

Table 10. Battery specifications

Type	4-cell "smart" lithium-ion (68 WHr)	6-cell "smart" lithium-ion (99 WHr)
Weight (maximum)	0.32 kg (0.71 lb)	0.42 kg (0.93 lb)
Voltage	15.20 VDC	11.40 VDC
Life span (approximate)		300 discharge/charge cycles
Temperature range: Operating		0°C to 35°C (32°F to 95°F)
Temperature range: Storage		–20°C to 60°C (–4°F to 140°F)
Coin-cell battery		CR-2032
Dimensions:		
Height		13.50 mm (0.53 in)
Width		259.60 mm (10.22 in)
Depth		89.20 mm (3.51 in)
Operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.

Video

Table 11. Video specifications

	Integrated	Discrete
Controller	• Intel HD Graphics 530 • Intel HD Graphics 630	• AMD Radeon RX • NVIDIA GeForce 1060 • NVIDIA GeForce 1070 • NVIDIA GeForce 1080
Memory	Shared system memory	• 6 GB GDDR5 • 8 GB GDDR5 • 8 GB GDDR5X

Power adapter

Table 12. Power adapter specifications

Type	180 W	240 W	330 W
Input voltage	100 VAC–240 VAC	100 VAC–240 VAC	100 VAC–240 VAC
Input frequency	50 Hz–60 Hz	50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)	2.34 A/2.50 A	3.50 A	4.40 A
Output current (continuous)	9.23 A	12.30 A	16.92 A
Rated output voltage	19.50 VDC	19.50 VDC	19.50 VDC
Temperature range: Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Temperature range: Storage	40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)

Display

Table 13. Display specifications

Type	17.3-inch FHD (optional Tobii Eye-tracking)	17.3-inch QHD (with Tobii Eye-tracking)	17.3-inch UHD (with Tobii Eye-tracking)
G-Sync support	Optional	No	No
Resolution (maximum)	1920 x 1080	2560 x 1440	3840 x 2160
Viewing angle (Left/ Right/Up/Down)	89/89/89/89 degrees	70/70/60/60 degrees	89/89/89/89 degrees
Pixel pitch	0.1989 mm	0.14925 mm	0.0995 mm
Height (excluding bezel)	214.81 mm (8.46 in)	214.92 mm (8.46 in)	214.94 mm (8.46 in)
Width (excluding bezel)	381.89 mm (15.04 in)	382.08 mm (15.04 in)	382.12 mm (15.04 in)
Diagonal (excluding bezel)	439.42 mm (17.30 in)	439.42 mm (17.30 in)	439.42 mm (17.30 in)
Refresh rate	60 Hz	120 Hz	60 Hz
Controls	Brightness can be controlled using shortcut keys		

Computer environment

Airborne contaminant level: G2 or lower as defined by ISA-S71.04-1985
Table 14. Computer environment

	Operating	Storage
Temperature range	5°C to 35°C (41°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)	0.26 GRMS	1.37 GRMS
Shock (maximum)*	40 G for 2 ms with a change in velocity of 20 in/s (51 cm/s) †	105 G for 2 ms with a change in velocity of 52.5 in/s (133 cm/s) ‡
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 the 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 a parked position.

Tobii Aware

Tobii Aware application enables the infrared sensors on your computer to manage power, security, and Alien FX lighting.

Features

The following table shows the features of Tobii Aware.
Table 15. Features

Enables Alien FX lighting feature when you are in front of your	Reduces screen brightness when you are not in front of it.
screen.	Turns off the screen when you are not in front of it.
Sleep mode	Sends your computer to sleep before Windows power plan when you are not in front of the screen.
Turn off lights	Turns off the computer lights when you are not in front of the screen.
Windows Hello	Enables you to log in to your computer without the login id or password when paired with Windows Hello face authentication.
Alien FX lighting	Enables Alien FX lighting feature when you are in front of your screen.

Enabling or disabling Tobii Aware

1. Select the Eye detection indicator on the activity field in Windows.
2. Toggle the On/Off switch located on the top. Default: On
3. Save the settings and exit.

Keyboard shortcuts

Table 16. List of keyboard shortcuts

Keys	Description
FN + F1	Disconnect Alienware Graphics Amplifier
FN + F2	Disable/enable wireless
FN + F3 MUTE	Mute audio
FN + F4	Decrease volume
FN + F5	Increase volume
FN + F7 I/D GFX	Toggle integrated/discrete graphics
FN + F8	Switch to an external display
FN + F9	Decrease brightness
FN + F10	Increase brightness
FN + F11 T-PAD	Disable/enable the touchpad
FN + F12 ALIEN FX	Disable/enable AlienFX

Table 17. List of Macro keys

Keys	Description
	Macro keys (i) **NOTE: You can configure modes and assign multiple tasks for the macro keys on the keyboard.**

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 18. Alienware products and online self-help resources

Self-help resources	Resource location
Information about Alienware products and services	**www.alienware.com**
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.dell.com/support/linux**
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/region and product, and some services may not be available in your country/region.**
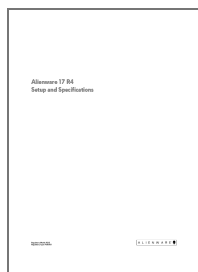
ⓘ**NOTE: If you do not have an active internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.**

Documents / Resources

Alienware 17 R4 Setup and Specifications	**ALIENWARE Alienware 17 R4** [pdf] User Guide Alienware 17, R4, Setup, Specifications, P31E

References

- ⓘ **Alienware Gaming PCs: Laptops, Desktops and Consoles | Dell USA**
- ⓘ **Alienware Gaming PCs: Laptops, Desktops and Consoles | Dell USA**
- ⓘ **Shop: Dell Site Map of All Products, Solutions & Services | Dell USA**
- ⓘ **Support | Dell US**
- ⓘ **Dell - Dell Linux - Community Web**

- <img> **Windows Operating Systems | Dell US**