Alienware 17 R4 Setup and Specifications

Notes, cautions, and warnings
i 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.
MARNING: A WARNING indicates a potential for property damage, personal injury, or death.
© 2018 - 2019 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Contents

1 Set up your computer	4
Set up the Virtual Reality (VR) headset—optional	
HTC Vive	
Oculus Rift	
Oculus Rift with touch	5
Alienware Graphics Amplifier	
0.14	_
2 Views	
Base	
Display (with Tobii Aware)	
Display (with Tobii Eye Tracker)	
Back	
Left	
Right	10
3 Specifications	11
Dimensions and weight	
System information	
Memory	
Ports and connectors	
Communications	
Audio	
Storage	
Keyboard	
Camera	
Touch pad	
Battery	
Video	
Power adapter	
Display	
Computer environment	
4 Tobii Aware	
Features	
Enabling or disabling Tobii Aware	16
5 Keyboard shortcuts	17
· · · · · · · · · · · · · · · · · · ·	·
6 Getting help and contacting Alienware	

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.
- 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

- 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 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

- 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 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 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.

(i) 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.

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.

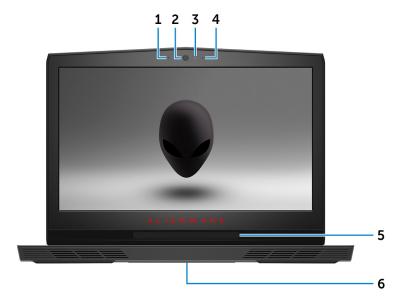
6. Right microphone

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.

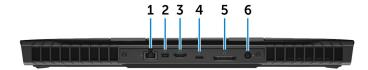
5. Tobii Eye Tracker

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.

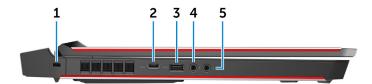
5. External graphics port

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 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.

- 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.

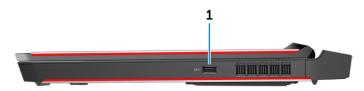
4. Microphone/headphone port (configurable)

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

• 6th Generation Intel Core i7/i7k

• 7th Generation Intel Core i7/i7k

(i) NOTE: If your computer is shipped with an Intel Core i7k processor, you can overclock the processing speed beyond the standard 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 port

One USB 3.0 port with PowerShare
One USB 3.0 (Type-C) port
Thunderbolt 3 (USB Type-C) port

Audio/Video • One HDMI 2.0 port

One microphone/headphone port (configurable)

One headset portOne Mini DisplayPort 1.2One external graphics port

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

PCle up to 32 Gbps

Hard drive One 2.5-inch drive

Solid-state drive (SSD)

• Two full-size M.2 PCIe/SATA drives

One half-size M.2 PCle/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.

(i) 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 8. Camera specifications

Resolution • Still image: 2.07 megapixels

Video: 1920 x 1080 (Full HD) at 30 fps (maximum)

Diagonal viewing angle 74 degrees

Touch pad

Table 9. Touch pad 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 $0^{\circ}\text{C to }35^{\circ}\text{C }(32^{\circ}\text{F to }95^{\circ}\text{F})$ Temperature range: Storage $-20^{\circ}\text{C to }60^{\circ}\text{C }(-4^{\circ}\text{F to }140^{\circ}\text{F})$

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 530Intel HD Graphics 630	 AMD Radeon RX 470 NVIDIA GeForce GTX 1060 NVIDIA GeForce GTX 1070 NVIDIA GeForce GTX 1080
Memory	Shared system memory	6 GB GDDR58 GB GDDR58 GB GDDR5X

Power adapter

Table 12. Power adapter specifications

Туре	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	0°C to 40°C	0°C to 40°C
	(32°F to 104°F)	(32°F to 104°F)	(32°F to 104°F)
Temperature range: Storage	–40°C to 70°C	–40°C to 70°C	–40°C to 70°C
	(-40°F to 158°F)	(-40°F to 158°F)	(-40°F to 158°F)

Display

Table 13. Display specifications

Туре	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	214.81 mm (8.46 in)	214.92 mm (8.46 in)	214.94 mm (8.46 in)
(excluding bezel)			
Width	381.89 mm (15.04 in)	382.08 mm (15.04 in)	382.12 mm (15.04 in)
(excluding bezel)			
Diagonal	439.42 mm (17.30 in)	439.42 mm (17.30 in)	439.42 mm (17.30 in)
(excluding bezel)			
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%	0% to 95%
	(non-condensing)	(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 $(51~cm/s)^{\dagger}$	105 G for 2 ms with a change in velocity of 52.5 in/s (133 cm/s)‡

	Operating	Storage	
Altitude (maximum)	-15.20 m to 3048 m	-15.20 m to 10,668 m	

(-50 ft to 10,000 ft) (-50 ft to 35,000 ft)

 $^{^{\}star}$ Measured using a random vibration spectrum that simulates user environment.

 $[\]dagger$ Measured using a 2 ms half-sine pulse when the hard drive is in use.

 $[\]ddagger$ Measured using a 2 ms half-sine pulse when the hard-drive head is in 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

Dim brightness Reduces screen brightness when you are not in front of it.

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.

Turns off the computer lights when you are not in front of the

screen.

Windows Hello Enables you to login 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
$\begin{bmatrix} FN \end{bmatrix} + \begin{bmatrix} F2 \\ \mathfrak{P} \end{bmatrix}$	Disable/enable wireless
FN + F3	Mute audio
FN + (F4 *	Decrease volume
	Increase volume
FN + F7	Toggle integrated/discrete graphics
FN + FB	Switch to external display
FN + F9 0.	Decrease brightness
FN + F10 0.	Increase brightness
FN + Fn T-PAD	Disable/enable touch pad
FN + F12 ALIEN FX	Disable/enable AlienFX
Table 17. List of Macro keys	
Keys	Description
7 _s	
Ja	
72	Macro keys
-/ _e	i NOTE: You can configure modes and assign multiple tasks for the macro keys on the keyboard.
$2\sqrt{2}$	
$\left(\frac{1}{8}\right)$	
$\overline{J_{a}}$	
$(7\times)$	

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.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.

- (i) NOTE: Availability varies by country/region and product, and some services may not be available in your country/region.
- (i) 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.