# Alienware 17 R5 **Setup and Specifications**

Computer Model: Alienware 17 R5 Regulatory Model: P31E Regulatory Type: P31E002

ALIENWARE 🗣



# Notes, cautions, and warnings





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 <u>Alienware Graphics Amplifier</u>.

### **HTC Vive**

- 1 Download and run the setup tools for your VR headset at <u>www.dell.com/</u><u>VRsupport</u>.
- 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 <u>www.dell.com/</u><u>VRsupport</u>.
- 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 <u>www.dell.com/</u><u>VRsupport</u>.
- 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 3.1 Gen 1 cables on your VR headset to the USB 3.1 Gen 1 Type-A port on your Alienware Graphics Amplifier. For more information about Alienware Graphics Amplifier, see *Alienware Graphics Amplifier User's Guide* at <u>www.dell.com/support</u>.

# 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.

### IJ

# 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 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.

# Front



l Left speaker

Provides audio output.

### 2 Right speaker

Provides audio output.

## Back



### 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.
- Microphone/headphone port (configurable) 4 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 17 R5

# System information

#### Table 1. System information

Processor

Chipset

8<sup>th</sup> generation Intel Core i7/i9 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

Weight	4.42 kg (9.74 lb)
Depth	332 mm (13.07 in)
Width	424 mm (16.69 in)
Height	29.99 mm (1.18 in)

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

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

# Communications

#### Table 6. Communications specifications

Ethernet

Wireless

10/100/1000 Mbps Ethernet controller integrated on system board

- Wi-Fi 802.11ac
  - Bluetooth 4.1

### Wireless module

#### Table 7. Wireless module specifications

Transfer rate

Frequency bands supported

Encryption

Up to 1733 Mbps Dual band 2.4 GHz/5 GHz

- WEP
- WPA
- EAP
- WPS
- PMF
- TKIP

# Audio

#### Table 8. Audio specifications

Controller

Speakers

Speaker output

Realtek ALC3266

Stereo

- Average: 4 W
- Peak: 5 W

Subwoofer output

- Average: 2 W
- Peak: 2.5 W

Microphone

Digital-array microphones

# 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	<ul> <li>SATA AHCI 6 Gbps</li> </ul>	Up to 1 TB
One M.2 2280 solid-state drive	<ul> <li>PCIe NVMe up to 32 Gbps</li> </ul>	
One M.2 2280 solid-state drive	PCle NVMe up to 32 Gbps	Up to 1 TB
Intel Optane storage		

#### Table 10. Intel Optane storage

Interface	PCle 3.0x2
Connector	M.2 2280
Configurations supported	60 GB and 120 GB
Capacity	Up to 120 GB

# Keyboard

#### Table 11. Keyboard specifications

Туре	<ul><li>RGB Backlit keyboard</li><li>RGB per Key keyboard</li></ul>
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.

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NOTE: You can define the primary behavior of the function keys (F1–F12) by changing Function Key Behavior in BIOS setup program.

Keyboard shortcuts



#### Table 12. Camera specifications

Resolution

- Still image: 2.07 megapixels
- Video: 1920 x 1080 (Full HD) at 30 fps (maximum)

Diagonal viewing angle

# Touchpad

#### Table 13. Touchpad specifications

Resolution

74 degrees

- 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 <u>4027871</u> at <u>support.microsoft.com</u>.

# Battery

	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 mr	n (0.53 in)
Width	259.60 m	m (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	C (−4°F to 140°F)
Life span (approximate)	300 discharge	e/charge cycles
Coin-cell battery	CR-	2032
Operating time	Varies depending on ope significantly reduce under conditions.	

#### Table 14. Battery specifications

### Video

	Integrated	Discrete
Controller	Intel UHD Graphics 630	<ul> <li>AMD Radeon RX570</li> <li>NVIDIA GeForce GTX 1060</li> <li>NVIDIA GeForce GTX 1070</li> <li>NVIDIA GeForce GTX 1080</li> </ul>

#### Table 15. Video specifications

	Integrated	Discrete
		NOTE: The NVIDIA graphics cards support G-Sync panels.
Memory	Shared system memory	<ul> <li>6 GB GDDR5</li> <li>8 GB GDDR5</li> <li>8 GB GDDR5X</li> </ul>

# Power adapter

	• •			
	180 W	240 W	330 W	
Input current (maximum)	2.34 A	3.50 A	4.40 A	
Output current (continuous)	9.23 A	12.31 A	16.92 A	
Diameter (connector)		7.40 mm		
Input voltage		100 VAC-240 V	/AC	
Input frequency		50 Hz-60 Hz	2	
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)		

#### Table 16. Power adapter specifications

# Display

	17.3-inch FHD Anti-Glare panel	17.3-inch QHD Anti-Glare panel	17.3-inch UHD Anti-Glare panel
Resolution (maximum)	1920 x 1080	2560 x 1440	3840 x 2160
Operating angle	140 degrees	140 degrees	140 degrees
Pixel pitch	0.1989 mm	0.14925 mm	0.0995 mm
Dimensions: (excluding bezel)			
Height	214.81 mm (8.46 in)	214.92 mm (8.46 in)	214.94 mm (8.46 in)
Width	381.89 mm (15.04 in)	382.08 mm (15.04 in)	382.12 mm (15.04 in)
Diagonal	438.16 mm (17.25 in)	438.38 mm (17.26 in)	438.42 mm (17.26 in)
Refresh rate	60 Hz	120 Hz	60 Hz
G-sync support	Yes (optional)	Yes	Yes
Tobii Eye-tracking support	No	Yes	Yes
Panel technology	In-plane switching	In-plane switching	In-plane switching
Controls	Brightness can be controlled using shortcut keys		

#### Table 17. Display specifications

# **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	–40°C to 65°C

	Operating	Storage
	(32°F to 95°F)	(–40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	5% to 95% (non-condensing)
Vibration (maximum)	0.66 GRMS	1.30 GRMS
Shock (maximum)*	110 G <sup>†</sup>	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**

NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys used for shortcuts remain the same across all language configurations.

Keys	Description
FN + [1]	Disconnect Alienware Graphics Amplifier
FN + F2	Disable/enable wireless
FN + F3	Mute audio
FN + F4	Decrease volume
FN + F5	Increase volume
	Switch to external display
FN + F9	Decrease brightness
	Increase brightness
	Disable/enable touchpad
	Disable/enable AlienFX

Table 19. List of keyboard shortcuts

#### Table 20. List of Macro keys

Keys	Description
$a^1$	Macro keys



# 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 21. Alienware products and online self-help resources

Information about Alienware products <u>www.alienware.com</u> and services

Dell Help & Support app

Tips

**Contact Support** 

Online help for operating system

Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on

**VR** Support

Videos providing step-by-step instructions to service your computer

# In Windows search, type **Contact Support**, and press **Enter**.

www.dell.com/support/windows www.dell.com/support/linux

www.alienware.com/gamingservices

www.dell.com/VRsupport www.youtube.com/alienwareservices

## **Contacting Alienware**

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





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.