Alienware m15
Setup and Specifications

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.

Contents

Set up your Alienware m15

📝 **NOTE: The images in this document may differ from your computer depending on the configuration you ordered.**

1   Connect the power adapter and press the power button.

2   Create recovery drive for Windows.

📝 **NOTE: It is recommended to create a recovery drive to troubleshoot and fix problems that may occur with Windows.**

For more information, see Create a USB recovery drive for Windows.

Create a USB recovery drive for Windows

Create a recovery drive to troubleshoot and fix problems that may occur with Windows. An empty USB flash drive with a minimum capacity of 16 GB is required to create the recovery drive.

> **NOTE: This process may take up to an hour to complete.**

> **NOTE: The following steps may vary depending on the version of Windows installed. Refer to the Microsoft support site for latest instructions.**

1   Connect the USB flash drive to your computer.
2   In Windows search, type Recovery.
3   In the search results, click **Create a recovery drive**.
    The **User Account Control** window is displayed.
4   Click **Yes** to continue.
    The **Recovery Drive** window is displayed.
5   Select **Back up system files to the recovery drive** and click **Next**.
6   Select the **USB flash drive** and click **Next**.
    A message appears, indicating that all data in the USB flash drive will be deleted.
7   Click **Create**.
8   Click **Finish**.

    For more information about reinstalling Windows using the USB recovery drive, see the *Troubleshooting* section of your product's *Service Manual* at www.dell.com/support/manuals.
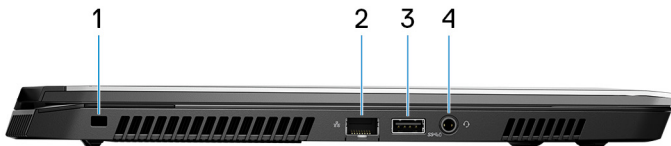
Views of Alienware m15

Right
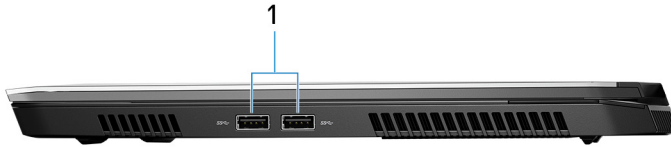
1 **USB 3.1 Gen 1 ports (2)**

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

Left

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

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

2 **Network port**

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

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 your computer is turned off or in hibernate state, you must connect the power adapter to charge your devices using the PowerShare port. You must enable this feature in the BIOS setup program.**

> ✎ **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 **Headset port**

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

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 **Right-click area**

Press to right-click.

3 **Left-click area**

Press to left-click.

4 **Touchpad**

Move your finger on the touchpad to move the mouse pointer. Tap to left-click and two finger tap to right-click.

# 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.

Back
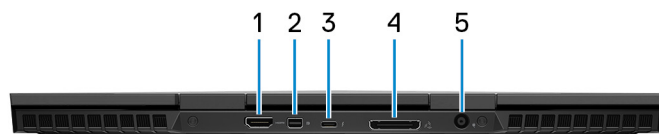
1 **HDMI port**

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

2 **Mini DisplayPort**

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

3 **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.

> **NOTE: A USB Type-C to DisplayPort adapter (sold separately) is required to connect a DisplayPort device.**

4 **External graphics port**

Connect an Alienware Graphics Amplifier to enhance the graphics performance.

5 **Power-adapter port**

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

Bottom
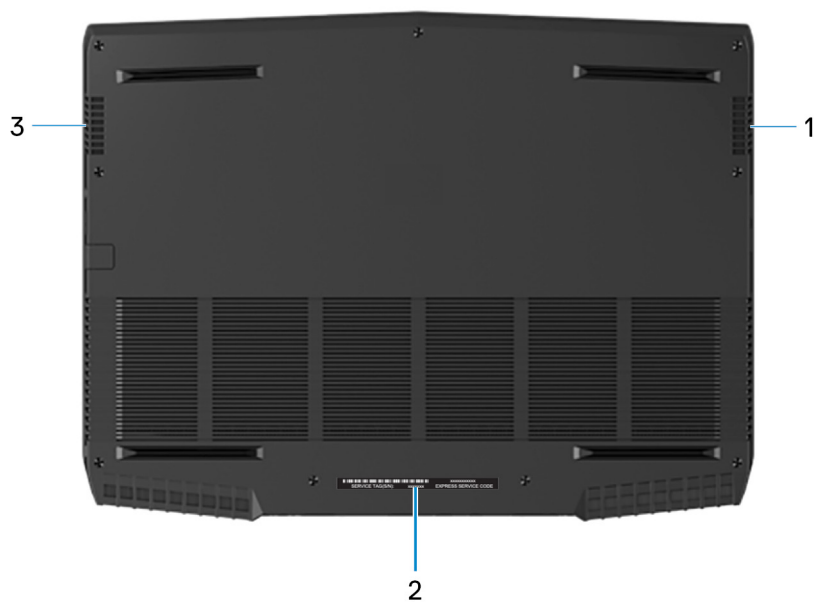
1 **Right speaker**

Provides audio output.

2 **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.

3 **Left speaker**

Provides audio output.

Specifications of Alienware m15

Computer model

Alienware m15

Dimensions and weight

Table 1. Dimensions and weight

Description	Values
Height:	
Front	17.90 mm (0.70 in.)
Rear	19.99 mm (0.78 in.)
Width	362.50 mm (14.27 in.)
Depth	275 mm (10.85 in.)
Weight (minimum)	2.20 kg (4.85 lbs)
	NOTE: The weight of your computer depends on the configuration ordered and the manufacturing variability.

Processors

Table 2. Processor specifications

Features	Values
Processor	8th Generation Intel Core i5/i7
Wattage	45 W
Core count	6
Thread count	12
Speed	Up to 3.9 GHz
L2 cache	256 KB
L3 cache	9 MB
Integrated graphics	Supported

Chipset

Table 3. Chipset specifications

Features	Values
Chipset	HM 370
Processor	8th Generation Intel Core i5/i7
DRAM bus width	Supported

Features	Values
Flash EPROM	16 MB
PCIe bus	PCIe Gen3
External bus frequency	PCIe Gen3x4

Operating system

- Windows 10 Home (64-bit)
- Windows 10 Professional (64-bit)

Memory

Table 4. Memory specifications

Features	Values
Slots	Two SODIMM slots
Type	DDR4
Speed	2666 MHz
Maximum memory	32 GB
Minimum memory	8 GB
Memory per slot	4 GB, 8 GB, and 16 GB
Configurations supported	8 GB DDR4 at 2666 MHz (2 x 4 GB) 16 GB DDR4 at 2666 MHz (2x 8 GB) 32 GB DDR4 at 2666 MHz (2 x 16 GB)

Ports and connectors

Table 5. External ports and connectors specifications

Features	Values
Network	One RJ-45 port
USB	- Two USB 3.1 Gen 1 ports - One USB 3.1 Gen 1 with PowerShare - Thunderbolt 3 (USB Type-C)
Audio	One headset port
Video	- One HDMI 2.0b port - One mini DisplayPort 1.4 - One external graphics port
Media-card reader	Not supported
Power adapter port	7.4 mm DC_IN

Features	Values
Security	Noble lock

Table 7. Internal ports and connectors specifications

Features	Values
M.2	- One M.2 slot for Wi-Fi and Bluetooth combo card - One M.2 2230/2280 PCIe/SATA slots for solid-state drive - One M.2 2280 PCIe slot for Intel Optane

Communications

Ethernet

Table 8. Ethernet specifications

Features	Values
Model number	Killer E2500 PCI-E Gigabit Ethernet Controller
Transfer rate	10/100/1000 Mbps

Wireless module

Table 9. Wireless module specifications

Features	Values	
Model number	Qualcomm QCA61x4A (DW1820)	Killer 1550
Transfer rate	867 Mbps (maximum)	1733 Mbps (maximum)
Frequency bands supported	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz
Wireless standards	Wi-Fi 802.11b/g/a/n/ac	Wi-Fi 802.11b/g/a/n/ac
Encryption	64-bit/128-bit WEP - AES-CCMP - TKIP	64-bit/128-bit WEP - AES-CCMP - TKIP
Bluetooth	Bluetooth 4.2	Bluetooth 5.0

Audio

Table 10. Audio specifications

Features	Values
Type	4 channel High Definition Audio
Controller	Realtek ALC3281-CG
Stereo conversion	Supported

Features	Values
Internal interface	High-definition audio interface
External interface	Universal Audio Jack supports Headset/Headphone/Line-out/Microphone/Line-in function
Speakers	Supported
Internal speaker amplifier	Supported
External volume controls	Supported
Speaker output:	
Average	2 W
Peak	2.5 W
Subwoofer output	Not supported
Microphone	Digital-array microphones in camera assembly

Storage

Your computer supports one of the following configurations:

- One 2.5-inch hard drives
- One M.2 PCIe solid-state drive
- One M.2 PCIe solid-state drive and one 2.5-inch hard drive
- One M.2 Intel Optane and one 2.5-inch hard drive
- Two M.2 PCIe solid-state drives

> 🖉 **NOTE: The primary drive of your computer varies depending on the storage configuration.**

For computers:

- with a M.2 drive, the M.2 drive is the primary drive.
- without M.2 drive, the 2.5-inch drive is the primary drive.

Table 11. Storage specifications

Storage type	Interface type	Capacity
One 2.5-inch hard drive	SATA AHCI 6 Gbps	Up to 1 TB
One M.2 2230/2280 solid-state drive	SATA AHCI 6 Gbps/PCIex4 NVMe	Up to 1 TB
One M.2 2280 solid-state drive	PCIex4 NVMe up to 32 Gbps	Up to 118 GB

Intel Optane solid-state drive

Table 12. Intel Optane solid-state drive

Features	Values
Type	Storage
Interface	PCIe 3.0x2
Connector	M.2 2280
Configurations supported	Primary operating system drive

Features	Values
Capacity	118 GB

Keyboard

Table 13. Keyboard specifications

Features	Values
Type	4-zone RGB backlit keyboard
Layout	QWERTY
Number of keys	- United States and Canada: 101 keys - United Kingdom: 102 keys - Japan: 105 keys
Size	- X = 19.05 mm key pitch - Y = 18.05 mm key pitch
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 14. Camera specifications

Features	Values
Number of cameras	One
Type	FHD fixed focus
Location	Front camera
Sensor type	CMOS sensor technology
Resolution:	
Still image	2.0 megapixel (FHD)
Video	1920 x 1080 (FHD) at 30 fps
Diagonal viewing angle	74.9 degrees

Touchpad

Table 15. Touchpad specifications

Features	Values
Resolution:	
Horizontal	1229
Vertical	749
Dimensions:	
Horizontal	105 mm (4.13 in.)
Vertical	65 mm (2.56 in.)

Touchpad gestures

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

Power adapter

Table 16. Power adapter specifications

Features	Values	
Type	130 W	180 W
Diameter (connector)	7.4 mm	7.4 mm
Input voltage	100 VAC–240 VAC	100 VAC–240 VAC
Input frequency	50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)	1.80 A	2.34 A
Output current (continuous)	6.70 A	9.23 A
Rated output voltage	19.50 VDC	19.50 VDC
Temperature range:		
Operating	0°C to 40°C (32°F to 104°F)	−40°C to 70°C (−40°F to 158°F)
Storage	−40°C to 70°C (−40°F to 158°F)	−40°C to 70°C (−40°F to 158°F)

Battery

Table 17. Battery specifications

Features	Values	
Type	4-cell "smart" lithium-ion (60 WHr)	6-cell "smart" lithium-ion (90 WHr)
Voltage	15.20 VDC	11.40 VDC
Weight (maximum)	0.25 kg (0.56 lb)	0.37 kg (0.81 lb)
Dimensions:		
Height	11.60 mm (0.46 in.)	11.60 mm (0.46 in.)

Features	Values	
Width	222.20 mm (8.75 in.)	332.65 mm (13.09 in.)
Depth	74.20 mm (2.92 in.)	74.20 mm (2.92 in.)
Temperature range:		
Operating	0°C to 35°C (32°F to 95°F)	0°C to 35°C (32°F to 95°F)
Storage	−40°C to 65°C (−40°F to 149°F)	−40°C to 65°C (−40°F to 149°F)
Operating time	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	
Charging time (approximate)	4 hours (when the computer is off)	4 hours (when the computer is off)
Life span (approximate)	300 discharge/charge cycles	300 discharge/charge cycles
Coin-cell battery	CR-2032	CR-2032

Display

Table 18. Display specifications

Features	Values	
Type	Full High Definition (FHD)	Ultra High Definition (UHD)
Panel technology	Wide Viewing angle(WVA)	Wide Viewing angle(WVA)
Luminance (typical)	300 nits	300 nits
Dimensions (active area):		
Height	344.16 mm (13.54 in.)	344.21mm (13.55 in.)
Width	193.59 mm (7.62 in.)	193.62 mm (7.62 in.)
Diagonal	394.87 mm (15.60 in.)	394.92 mm (15.60 in.)
Native resolution	1920 x 1080	3840 x 2160
Megapixels	2.07	8.29
Pixels Per Inch (PPI)	141	282
Contrast ratio (minimum)	700:1	1000:1
Response time (maximum)	35 msec rise/fall	35 msec rise/fall
Refresh rate	60 Hz	60 Hz
Horizontal view angle	+/- 85 degrees	+/- 85 degrees
Vertical view angle	+/- 85 degrees	+/- 85 degrees
Pixel pitch	0.179 mm	0.089 mm
Power consumption (maximum)	6.2 W	5.15 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare
Touch options	No	No

Video

Table 19. Discrete graphics specifications

Discrete graphics			
Controller	**External display support**	**Memory size**	**Memory type**
GTX 1050 Ti	One HDMI port, one mini-DisplayPort	4 GB	GDDR5
GTX 1060	One HDMI port, one mini-DisplayPort	6 GB	GDDR5
GTX 1070 with Max-Q	One HDMI port, one mini-DisplayPort	8 GB	GDDR5

Table 20. Integrated graphics specifications

Controller	**External display support**	**Memory size**	**Processor**
Intel UHD Graphics 630	One Thunderbolt 3 (USB Type-C)	Shared system memory	8 th Generation Intel Core i5/i7

Computer environment

Airborne contaminant level: G1 as defined by ISA–S71.04–1985

Table 21. 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)	−15.2 m to 3,048 m (−50 ft to 10,000 ft)	−15.2 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.**

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

Table 22. List of keyboard shortcuts

Keys	Description
FN + F1	Disconnect Alienware Graphics Amplifier
FN + F2	Disable/enable wireless
FN + F3	Mute audio
FN + F4	Decrease volume
FN + F5	Increase volume
FN + F8	Switch to external display
FN + F9	Decrease brightness
FN + F10	Increase brightness
FN + F11 T-PAD	Disable/enable touch pad
FN + F12 ALIEN FX	Disable/enable AlienFX

Table 23. List of Macro keys

Keys	Description
1	
2	Macro keys
3	📝 **NOTE: You can configure modes and assign multiple tasks for the macro keys on the keyboard.**
4	

Alienware Command Center

Alienware Command Center (AWCC) provides a single interface to customize and enhance the gaming experience. The AWCC dashboard displays most recently played or added games, and provides game-specific information, themes, profiles, and access to computer settings. You can quickly access settings such as game-specific profiles and themes, lighting, macros, and audio that are critical to the gaming experience.

AWCC also supports AlienFX 2.0. AlienFX enables you to create, assign, and share game-specific lighting maps to enhance the gaming experience. It also enables you to create your own individual lighting effects and apply them to the computer or attached peripherals. AWCC embeds Peripheral Controls to ensure a unified experience and the ability to link these settings to your computer or game.

AWCC supports the following features:

- FX: Create and manage the AlienFX zones.
- Fusion: Includes the ability to adjust game-specific Power Management, Sound Management, and Thermal Management features.
- Peripheral Management: Enables peripherals to appear in and be managed in Alienware Command Center. Supports key peripheral settings and associates with other functions such as profiles, macros, AlienFX, and game library.

AWCC also supports Sound Management, Thermal Controls, CPU, GPU, Memory (RAM) monitoring. For more information about AWCC, see the *Alienware Command Center Online Help*.

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 24. 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.

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 about your purchase invoice, packing slip, bill, or Dell product catalog.