

Alienware Area-51m

Setup and Specifications

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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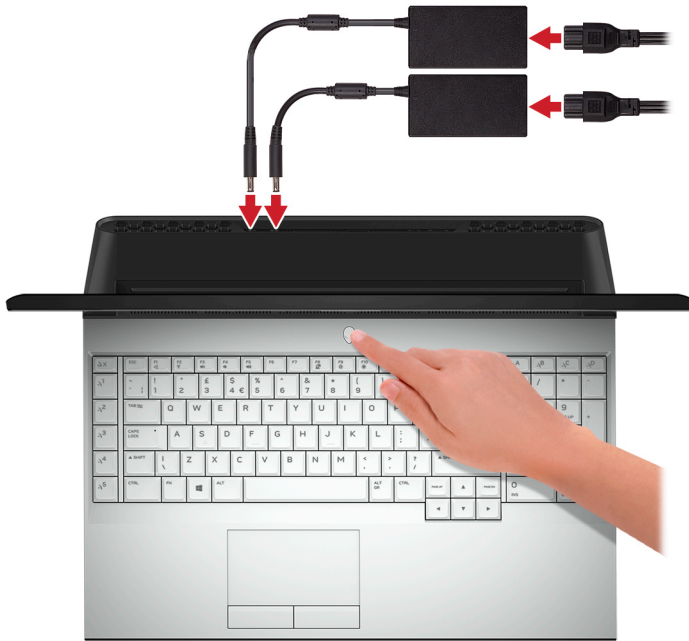
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Set up your Alienware Area-51m

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

1. Connect one or both power adaptors supplied with your computer, then press the power button.



NOTE: Your computer ships with two power adapters, and it will operate normally with one power adapter connected. For maximum gaming performance, it is recommended to connect two adapters. Only use adapters supplied with your device, or Dell-approved adapters to power your device.

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](#).

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 www.dell.com/support.

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 Area-51m

Front



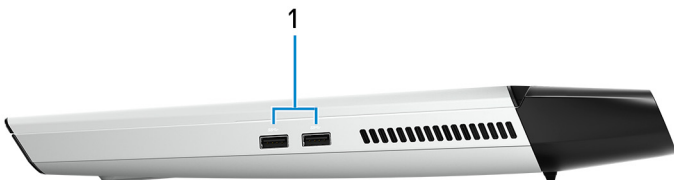
1. Left speaker

Provides audio output.

2. Right speaker

Provides audio output.

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 (wedge-shaped)

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

2. 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.

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.

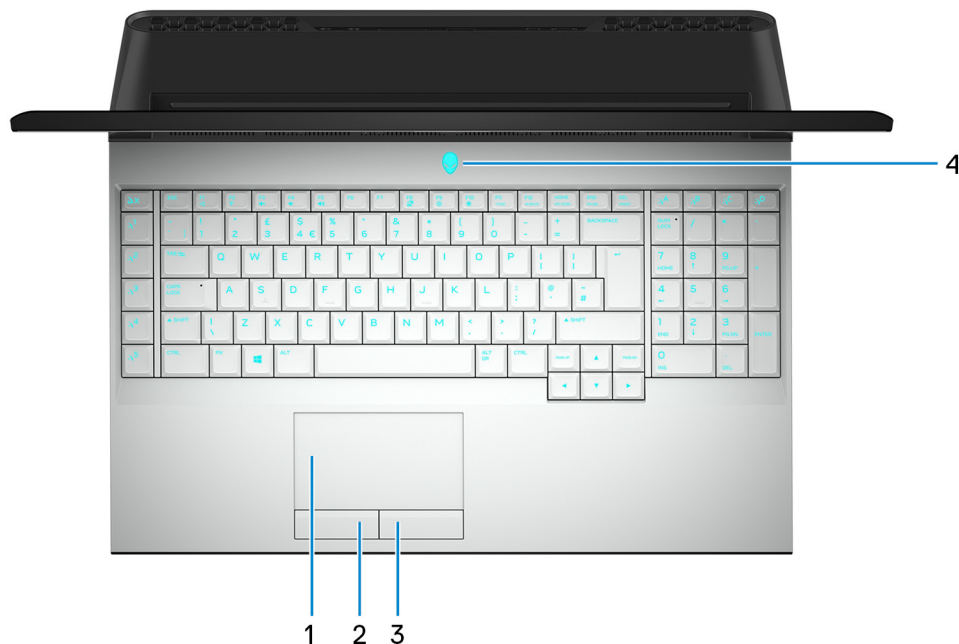
4. Microphone/headphone port (configurable)

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

5. Headset port

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

Base



1. Touchpad

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

2. Left-click button

Press to left-click.

3. Right-click button

Press to right-click.


4. Power button (Alienhead)

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

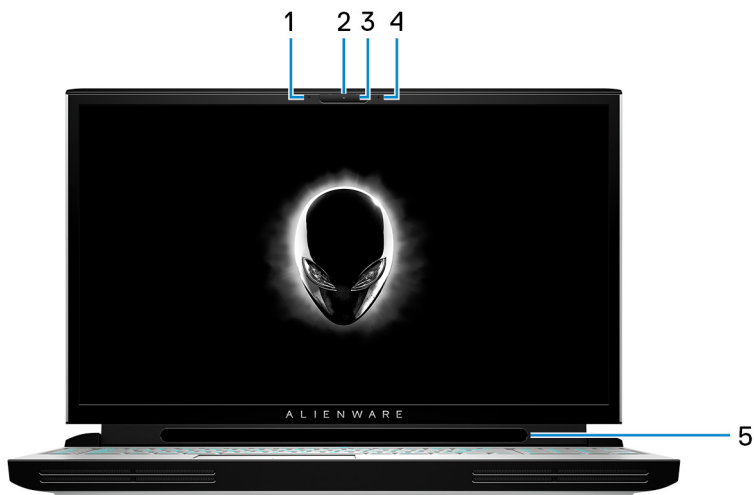
Press to put the computer in sleep state if it is turned on.

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

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

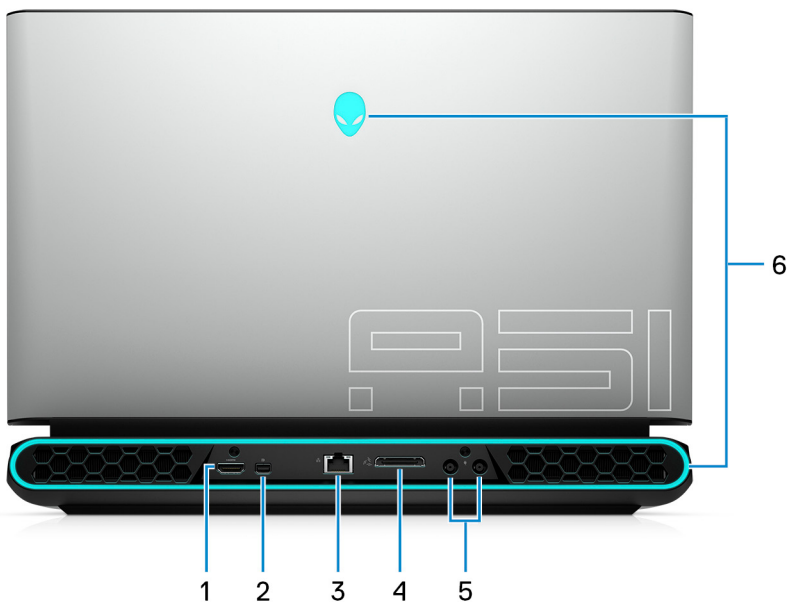
 **NOTE:** This computer supports AlienFX, which lets you choose from an array of color and transition effects across multiple zones on the computer, including the keyboard, power button, and touchpad. For more information, see [Alienware Command Center](#).

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.

Back



- 1. HDMI port**
Connect to a TV or another HDMI-in enabled device. Provides video and audio output.
- 2. DisplayPort**
Connect an external display or a projector.

3. Network port

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

4. External graphics port

Connect an Alienware Graphics Amplifier to enhance the graphics performance.

5. Power-adaptor ports (2)

Connect a power adapter to provide power to your computer.

6. AlienFX lighting

AlienFX lets you choose from an array of color and transition effects across multiple zones on the computer.

 **NOTE: AlienFX is configurable in Alienware Command Center (AWCC). For more information about AWCC, see [Alienware Command Center](#).**

Bottom




1. 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.

Specifications of Alienware Area-51m

Dimensions and weight

Table 1. Dimensions and weight

Description	Values
Height:	
Front	27.65 mm (1.09 in.)
Rear	31.2 mm (1.23 in.)
Width	402.6 mm (15.85 in.)
Depth	319.14 mm (12.56 in.)
Weight (maximum)	3.87 kg (8.54 lbs)
 NOTE: The weight of your computer depends on the configuration ordered and the manufacturing variability.	

Processors

Table 2. Processors

Description	Values
Processors	<ul style="list-style-type: none">8th Generation Intel Core i79th Generation Intel Core i7/i9
Wattage	Up to 95 W
Core count	Up to 8
Thread count	Up to 16
Speed	Up to 3.6 GHz Base, 5.0 GHz Boost, 5.20 GHz Overclocked
L2 Cache	Up to 2 MB
L3 Cache	Up to 16 MB
Integrated graphics	Intel UHD Graphics 630

Chipset

Table 3. Chipset

Description	Values
Chipset	Intel Z390
Processor	<ul style="list-style-type: none">8th Generation Intel Core i79th Generation Intel Core i7/i9
DRAM bus width	Not supported
Flash EPROM	16 MB


Description	Values
PCIe bus	PCIe Gen3
External bus frequency	100 MHz

Operating system

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

Memory

Table 4. Memory specifications

Description	Values
Slots	Four SoDIMM slots
Type	DDR4
Speed	2400 MHz/2933 MHz
Maximum memory	64 GB
Minimum memory	8 GB
Memory size per slot	4 GB, 8 GB, and 16 GB
Configurations supported	<ul style="list-style-type: none"> ▪ 8 GB DDR4 at 2400 MHz (1 x 8 GB) ▪ 16 GB DDR4 at 2400 MHz (2 x 8 GB) ▪ 32 GB DDR4 at 2400 MHz (2 x 16 GB) ▪ 64 GB DDR4 at 2400 MHz (4 x 16 GB) ▪ 16 GB XMP DDR4 at 2933 MHz (2 x 8 GB) ▪ 32 GB XMP DDR4 at 2933 MHz (2 x 16 GB)
 NOTE: The computer is shipped with these default configurations. You can also configure the memory according to the supported memory per slot.	


Ports and connectors

Table 5. External ports and connectors

Description	Values
External:	
Network	One RJ-45 port
USB	<ul style="list-style-type: none"> ▪ One Thunderbolt 3 (USB Type-C) port ▪ One USB 3.1 Gen 1 port with PowerShare ▪ Two USB 3.1 Gen 1 ports
Audio	<ul style="list-style-type: none"> ▪ One global headset port ▪ One microphone/headphone port (configurable)
Video	<ul style="list-style-type: none"> ▪ One HDMI 2.0 port ▪ One Mini DisplayPort 1.4 ▪ One external graphics port

Description	Values
Media card reader	Not supported
Docking port	Not supported
Power adapter port	Two power-adapter ports
Security	Wedge-shaped lock

Table 6. Internal ports and connectors

Description	Values
Internal:	
M.2	<ul style="list-style-type: none"> One M.2 slot for WiFi and Bluetooth combo card Two PCIe/SATA M.2 2230/2280 slots for solid-state drive/Intel Optane storage <p> NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.</p>

Communications

Ethernet

Table 7. Ethernet specifications

Description	Values
Model number	Killer E3000 Ethernet controller (integrated on system board)
Transfer rate	2.5 Gbps

Wireless module

Table 8. Wireless module specifications

Description	Values	
Model number	Killer 1550	Killer AX1650
Transfer rate	Up to 1.73 Gbps	Up to 2400 Mbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) 	<ul style="list-style-type: none"> 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) Wi-Fi 6 (WiFi 802.11ax)
Encryption	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP
Bluetooth	Bluetooth 5.0	Bluetooth 5.0

Audio

Table 9. Audio specifications

Description	Values
Controller	Realtek ALC3282-CG
Stereo conversion	Supported
Internal interface	High-definition audio
External interface	One global headset jack supports headset/headphone, one microphone/headphone port (configurable)
Speakers	Four
Internal speaker amplifier	Supported
External volume controls	Media-control shortcut keys
Speaker output:	
Average	8 W
Peak	10 W
Subwoofer output	Not supported
Microphone	Digital array microphones in camera assembly

Storage

Your computer supports one 7.5 mm or 9.5 mm hard drive and two M.2 2230/2280 solid-state drives/Intel Optane storage.


Table 10. Storage specifications

Storage type	Interface type	Capacity
One 7 mm or 9.5 mm hard drive	SATA AHCI 6 Gbps	Up to 1 TB
Two M.2 2230/2280 solid-state drives/Intel Optane storage	<ul style="list-style-type: none">SATA AHCI 6 GbpsPCIe NVMe up to 32 Gbps	<ul style="list-style-type: none">Up to 1 TB (for SSD)Up to 240 GB (for Intel Optane storage)

Keyboard

Table 11. Keyboard specifications

Description	Values
Type	RGB per Key keyboard
Layout	QWERTY
Number of keys	<ul style="list-style-type: none">United States and Canada: 103 keysUnited Kingdom: 104 keysJapan: 107 keys
Size	X = 19.05 mm key pitch Y = 18.05 mm key pitch

Description	Values
Shortcut keys	<p>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.</p> <p> NOTE: You can define the primary behavior of the function keys (F1–F12) by changing Function Key Behavior in BIOS setup program.</p> <p>Keyboard shortcuts</p>

Camera

Table 12. Camera specifications

Description	Values
Number of cameras	One
Type	HD RGB Camera
Location	Front camera
Sensor type	CMOS sensor technology
Resolution:	
Still image	0.92 megapixel (HD)
Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle	74.9 degrees

Touchpad

Table 13. Touchpad specifications

Description	Values
Resolution:	
Horizontal	1727
Vertical	1092
Dimensions:	
Horizontal	56 mm (2.20 in.)
Vertical	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.


Power adapter

Table 14. Power adapter specifications

Description	Values		
Type	E4 180 W	E4 240 W	E4 330 W
Diameter (connector)	7.4 mm	7.4 mm	7.4 mm
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	3.50 A	4.40 A
Output current (continuous)	9.23 A	12.31 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)
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)

Battery

Table 15. Battery specifications

Description		Values
Type		6-cell "smart" lithium-ion (90 WHr)
Voltage		11.40 VDC
Weight (maximum)		0.37 kg (0.82 lb)
Dimensions:		
Height		15.8 mm (0.62 in.)
Width		81.0 mm (3.19 in.)
Depth		222 mm (8.74 in.)
Temperature range:		
Operating		0°C to 35°C (32°F to 95°F)
Storage		-40°C to 65°C (-40°F to 149°F)
Operating time		Varies depending on operating conditions, and can reduce under certain power-intensive conditions
Charging time (approximate)		4 hours (when the computer is off)
		 NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, Me and My Dell on https://www.dell.com/
Life span (approximate)		300 discharge/charge cycles

Description	Values
Coin-cell battery	CR-2032
Operating time	Varies depending on operating conditions., and can reduce under certain power-intensive conditions

Display

Table 16. Display specifications

Description	Values	
Type	17-inch Full High Definition (FHD) panel	17-inch Full High Definition (FHD) panel
Panel technology	In-plane switching (IPS)	In-plane switching (IPS)
Luminance (typical)	300 nits	300 nits
Dimensions (Active area):		
Height	214.81 mm (8.46 in.)	214.81 mm (8.46 in.)
Width	381.89 mm (15.04 in.)	381.89 mm (15.04 in.)
Diagonal	438.16 mm (17.25 in.)	438.16 mm (17.25 in.)
Native resolution	1920 x 1080	1920 x 1080
Megapixels	2.07	2.07
Pixels per inch (PPI)	127	127
Contrast ratio (min)	600:1	600:1
Response time (max)	35 msec rise/fall	19 msec rise/fall
Refresh rate	60 Hz	144 Hz
Horizontal view angle	+/- 85 degrees	+/- 85 degrees
Vertical view angle	+/- 85 degrees	+/- 85 degrees
Pixel pitch	0.1989 mm	0.1989 mm
Power consumption (maximum)	8 W	8.5 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare
Touch options	No	No

Video

Table 17. Video specifications

Discrete graphics			
Controller	External display support	Memory size	Memory Type
Nvidia GeForce RTX 2060	One HDMI port and one Mini DisplayPort	6 GB	GDDR6
Nvidia GeForce RTX 2070	One HDMI port and one Mini DisplayPort	8 GB	GDDR6
Nvidia GeForce RTX 2080	One HDMI port and one Mini DisplayPort	8 GB	GDDR6

Discrete graphics

Controller	External display support	Memory size	Memory Type
Nvidia GeForce GTX 1660 Ti	One HDMI port and one Mini DisplayPort	6 GB	GDDR6

Table 18. Video specifications

Integrated graphics

Controller	External display support	Memory size	Processor
Intel UHD Graphics 630	One Thunderbolt (USB Type-C) port	Shared system memory	<ul style="list-style-type: none">8th Generation Intel Core i79th Generation Intel Core i7/i9

Computer environment

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

Table 19. Computer environment

Description	Operating	Storage
Temperature range	0°C to 40°C (32°F to 104°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)	140 G†	160 G‡
Altitude (maximum)	0 m to 3,048 m (0 ft to 10,000 ft)	0 m to 10,668 m (0 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.

Keyboard shortcuts

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

Table 20. 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 touchpad
 + 	Disable/enable AlienFX

Table 21. List of Macro keys

Keys	Description
	<div>Macro keys</div> <div> NOTE: You can configure modes and assign multiple tasks for the macro keys on the keyboard.</div>
	
	
	
	
	
	
	

Keys**Description**



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* or the knowledge base article [SLN309565](#) at www.dell.com/support.

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 22. Alienware products and online self-help resources

Self-help resources	Resource location
Information about Alienware products and services	www.alienware.com
My Dell	
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/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 about your purchase invoice, packing slip, bill, or Dell product catalog.