Alienware m15 R6
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.
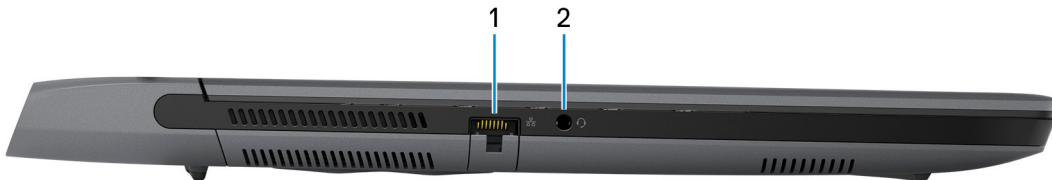
Contents

Set up your Alienware m15 R6

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

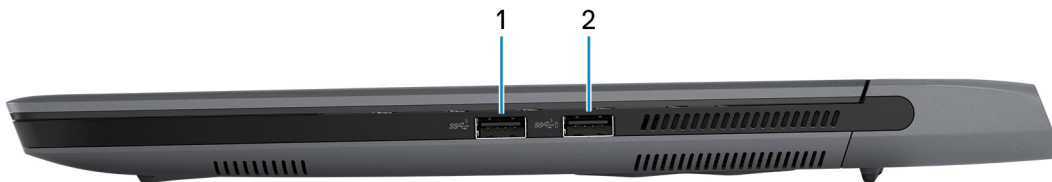Connect the power adapter and press the power button.

Views of Alienware m15 R6

Left

1. **Network port**

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

2. **Headset (headphone and microphone combo) port**

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

Right

1. **USB 3.2 Gen 1 port**

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

2. **USB 3.2 Gen 1 port with PowerShare**

   Connect devices 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.

Top

1. **Touchpad**

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

2. **Left-click area**

   Press to left-click.

3. **Right-click area**

   Press to right-click.

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

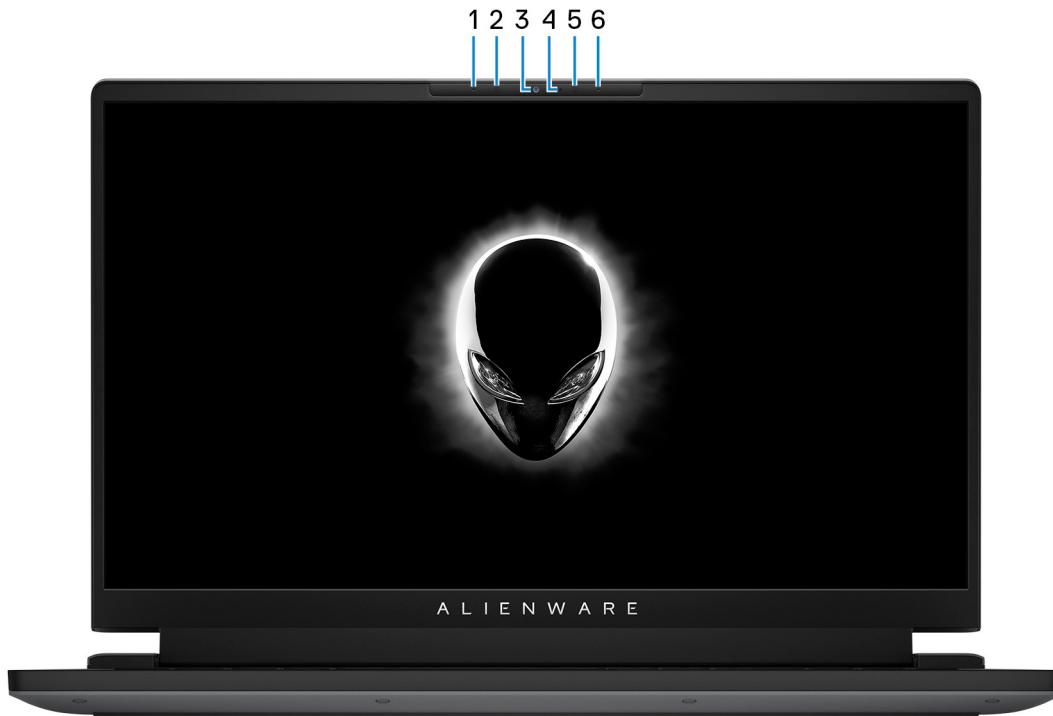   Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

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

   When the computer is turned on, press the power button to put the computer into sleep state; press and hold the power button for 10 seconds to force shut-down the computer.

   ⓘ **NOTE:** You can customize the power-button behavior in Windows.

Front

1. **Left microphone**

   Provides digital sound input for audio recording and voice calls.

2. **Infrared emitter (optional)**

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

3. **RGB-infrared camera (optional)**

   This combined camera supports both infrared Windows Hello facial recognition and standard RGB imaging for photos and videos.

   > (i) **NOTE:** The device will also ship with a HD RGB camera that enables you to video chat, capture photos, and record videos. For this configuration, the infrared emitters will not be featured in the camera module.

4. **Camera-status light**

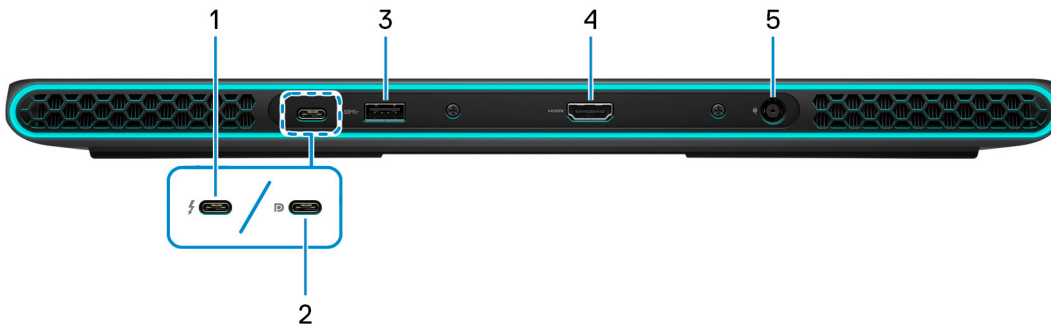   Turns on when the camera is in use.

5. **Infrared emitter (optional)**

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

6. **Right microphone**

   Provides digital sound input for audio recording and voice calls.

Back

1. **Thunderbolt 4.0 port with Power Delivery**

   Supports USB4, DisplayPort 1.4, Thunderbolt 4 and also enables you to connect to an external display using a display adapter. Provides data transfer rates of up to 40 Gbps for USB4 and Thunderbolt 4.

   ⓘ **NOTE:** You can connect a Dell Docking Station to the Thunderbolt 4 ports. For more information, see the knowledge base article SLN286158 at www.dell.com/support.

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

   ⓘ **NOTE:** USB4 is backward compatible with USB 3.2, USB 2.0, and Thunderbolt 3.

   ⓘ **NOTE:** Thunderbolt 4 supports two 4K displays or one 8K display.

2. **USB 3.2 Gen 2 (Type-C) port with DisplayPort**

   Connect devices such as external storage devices, printers, and external displays. Provides data transfer rate of up to 10 Gbps.

   Supports DisplayPort 1.4 and also enables you to connect an external display using a display adapter.

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

3. **USB 3.2 Gen 1 port**

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

4. **HDMI port**

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

5. **Power-adapter port**

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

Bottom

1. **Left 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. **Right speaker**

   Provides audio output.

Specifications of Alienware m15 R6

Dimensions and weight

The following table lists the height, width, depth, and weight of your Alienware m15 R6.

Table 1. Dimensions and weight

Description	Values
Height:	
Front height	12.90 mm (0.51 in.)
Rear height	19.20 mm (0.76 in.)
Width	356.20 mm (14.02 in.)
Depth	272.50 mm (10.73 in.)
Weight (i) **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.	2.69 kg (5.93 lb) (i) **NOTE:** This is the maximum weight of the device.

Processor

The following table lists the details of the processors supported by your Alienware m15 R6.

Table 2. Processor

Description	Option one	Option two	Option three
Processor type	11th Generation Intel Core i5-11400H	11th Generation Intel Core i7-11800H	11th Generation Intel Core i9-11900H
Processor wattage	45 W	45 W	45 W
Processor core count	6	8	8
Processor thread count	12	16	16
Processor speed	Up to 4.50 GHz	Up to 4.60 GHz	Up to 4.90 GHz
Processor cache	12 MB	24 MB	24 MB
Integrated graphics	Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics

Chipset

The following table lists the details of the chipset supported by your Alienware m15 R6.

Table 3. Chipset

Description	Values
Chipset	HM570

Table 3. Chipset (continued)

Description	Values
Processor	11th Generation Intel Core i5/i7/i9
DRAM bus width	128-bit
Flash EPROM	16 MB
PCIe bus	Up to Gen3

Operating system

Your Alienware m15 R6 supports the following operating systems:

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

Memory

The following table lists the memory specifications of your Alienware m15 R6.

Table 4. Memory specifications

Description	Values
Memory slots	Two SoDIMM slots
Memory type	DDR4
Memory speed	3200 MHz 3466 MHz
Maximum memory configuration	32 GB - for computers with 3200 MHz 64 GB - for computers with 3466 MHz XMP
Minimum memory configuration	8 GB - for computers with 3200 MHz 32 GB - for computers with 3466 MHz XMP
Memory size per slot	4 GB, 8 GB, 16 GB, and 32 GB
Memory configurations supported	8 GB, 1 x 8 GB, DDR4, 3200 MHz 8 GB, 2 x 4 GB, DDR4, 3200 MHz, dual-channel 16 GB, 2 x 8 GB, DDR4, 3200 MHz, dual-channel 32 GB, 2 x 16 GB, DDR4, 3200 MHz, dual-channel 32 GB, 2 x 16 GB, DDR4, 3466 MHz XMP, dual-channel 64 GB, 2 x 32 GB, DDR4, 3466 MHz XMP, dual-channel

External ports

The following table lists the external ports of your Alienware m15 R6.

Table 5. External ports

Description	Values
Network port	One RJ-45 port
USB ports	- Two USB 3.2 Gen 1 ports - One USB 3.2 Gen 1 port with PowerShare - One Thunderbolt 4 port with Power Delivery or one USB 3.2 Gen 2 Type-C port with DisplayPort (i) **NOTE:** You can connect a Dell Docking Station to this port. For more information, see the knowledge base article SLN286158 at www.dell.com/support.
Audio port	One headset (headphone and microphone combo) port
Video port	One HDMI 2.1 port
Media-card reader	Not supported
Power-adapter port	7.4 mm barrel
Security-cable slot	Not supported

Internal slots

The following table lists the internal slots of your Alienware m15 R6.

Table 6. Internal slots

Description	Values
M.2	Two M.2 2230/2280 slot for solid-state drives (i) **NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article 000144170 at www.dell.com/support.

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Alienware m15 R6.

Table 7. Ethernet specifications

Description	Values
Model number	Ethernet controller integrated to the system board
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module supported on your Alienware m15 R6.

Table 8. Wireless module specifications

Description	Values
Model number	Killer 1650
Transfer rate	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz
Wireless standards	- WiFi 802.11a/b/g - Wi-Fi 4 (WiFi 802.11n) - Wi-Fi 5 (WiFi 802.11ac) - Wi-Fi 6 (WiFi 802.11ax)
Encryption	64-bit/128-bit WEP - AES-CCMP - TKIP
Bluetooth	Bluetooth 5.0

Audio

The following table lists the audio specifications of your Alienware m15 R6.

Table 9. Audio specifications

Description		Values
Audio controller		Realtek ALC3254 with A-Volute Nahimic audio processing software – Integrated in Alienware Sound Center (AWSC)
Stereo conversion		Supported
Internal audio interface		High-definition audio interface
External audio interface		One headset (headphone and microphone combo) port
Number of speakers		2
Internal-speaker amplifier		Supported
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W per channel
	Peak speaker output	2.5 W per channel
Subwoofer output		Not supported
Microphone		Dual-array microphones

Storage

This section lists the storage options on your Alienware m15 R6.

Your Alienware m15 R6 supports one of the following storage configurations:
- One M.2 solid-state drive
- Two M.2 solid-state drives

The primary drive of your Alienware m15 R6 varies with the storage configuration. For computers:
- with a M.2 drive, the M.2 drive is the primary drive
- with two M.2 drives, one of the M.2 drives is the primary drive

Table 10. Storage specifications

Storage type	Interface type	Capacity
One M.2 2230 solid-state drive	PCIe Gen3 x4 NVMe, up to 32 Gbps	Up to 512 GB
One M.2 2280 solid-state drive	PCIe Gen3 x4 NVMe, up to 32 Gbps	Up to 1 TB
One M.2 2280 solid-state drive	PCIe Gen4 x4 NVMe, up to 32 Gbps	Up to 2 TB

Keyboard

The following table lists the keyboard specifications of your Alienware m15 R6.

Table 11. Keyboard specifications

Description	Values
Keyboard type	4-zone RGB backlit rubber dome keyboard - RGB per key backlit Cherry mechanical keyboard
Keyboard layout	QWERTY
Number of keys	- United States and Canada: 85 keys - United Kingdom: 86 keys - Japan: 89 keys
Keyboard size	X=19.05 mm key pitch Y=19.05 mm key pitch
Keyboard shortcuts	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) changing **Function Key Behavior** in BIOS setup program. For more information, see keyboard shortcuts. Keyboard shortcuts

Camera

The following table lists the camera specifications of your Alienware m15 R6.

Table 12. Camera specifications

Description		Values
Number of cameras		One
Camera type		- HD RGB camera - RGB-IR camera (optional)
Camera location		Front
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	0.92 megapixel
	Video	1280 x 720 (HD) at 30 fps
Infrared camera resolution:		
	Still image	0.23 megapixel
	Video	640 x 360 (HD) at 30 fps
Diagonal viewing angle:		
	Camera	74.9 degrees
	Infrared camera	75.8 degrees

Touchpad

The following table lists the touchpad specifications of your Alienware m15 R6.

Table 13. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	1217
	Vertical	168
Touchpad dimensions:		
	Horizontal	105 mm (4.13 in.)
	Vertical	60 mm (2.36 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows 10, see the Microsoft knowledge base article 4027871 at support.microsoft.com.

Power adapter

The following table lists the power adapter specifications of your Alienware m15 R6.

Table 14. Power adapter specifications

Description		Option one	Option two
Type		180 W	240 W
Connector dimensions:			
	External diameter	7.40 mm	7.40 mm
	Internal diameter	5.10 mm	5.10 mm
Input voltage		100 VAC–240 VAC	100 VAC–240 VAC
Input frequency		50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)		2.34 A	3.50 A
Output current (continuous)		9.23 A	12.31 A
Rated output voltage		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)
	Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
⚠ CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.			

Battery

The following table lists the battery specifications of your Alienware m15 R6.

Table 15. Battery specifications

Description		Option one	Option two
Battery type		3-cell, 56 Wh "smart" lithium-ion	6-cell, 86 Wh "smart" lithium-ion
Battery voltage		13.20 VDC	13.35 VDC
Battery weight (maximum)		0.26 kg (0.57 lb)	0.34 kg (0.75 lb)
Battery dimensions:			
	Height	77.70 mm (3.06 in.)	77.70 mm (3.06 in.)
	Width	295.20 mm (11.62 in.)	295.20 mm (11.62 in.)
	Depth	7.56 mm (0.30 in.)	7.56 mm (0.30 in.)
Temperature range:			
	Operating	0°C to 70°C (32°F to 158°F)	0°C to 70°C (32°F to 158°F)

Table 15. Battery specifications (continued)

Description		Option one	Option two
	Storage	–25°C to 65°C (–4°F to 149°F)	–25°C to 65°C (–4°F to 149°F)
Battery operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate) (i) **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 www.dell.com.		3 hours (when the computer is off)	3 hours (when the computer is off)
Coin-cell battery		Not supported	Not supported

⚠ **CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.**

(i) **NOTE:** Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.

Display

The following table lists the display specifications of your Alienware m15 R6.

Table 16. Display specifications

Description		Option one	Option two	Option three
Display type		Full High Definition	Full High Definition	Quad High Definition
Display-panel technology		Wide-Viewing Angle (WVA)	Wide-Viewing Angle (WVA)	Wide-Viewing Angle (WVA)
Display-panel dimensions (active area):				
	Height	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)	193.62 mm (7.62 in.)
	Width	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)	344.22 mm (13.55 in.)
	Diagonal	394.87 mm (15.55 in.)	394.87 mm (15.55 in.)	394.94 mm (15.55 in.)
Display-panel native resolution		1920 x 1080	1920 x 1080	2560 x 1440
Luminance (typical)		300 nits	300 nits	400 nits
Megapixels		2.07	2.07	3.69
Color gamut		100% sRGB	100% sRGB	DCI-P3 99%
Pixels Per Inch (PPI)		141.00	141.00	188.30
Contrast ratio (typ)		1000:1	1000:1	400:1

Table 16. Display specifications (continued)

Description	Option one	Option two	Option three
Response time (max)	19 ms	10 ms	19 ms
Refresh rate	165 Hz	360 Hz	240 Hz
Horizontal view angle	+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Vertical view angle	+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Pixel pitch	0.179 mm	0.179 mm	0.179 mm
Power consumption (maximum)	6 W	7.60 W	10.15 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare	Anti-glare
Touch options	No	No	No

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Alienware m15 R6.

Table 17. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	11th Generation Intel Core i5/i7/i9

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Alienware m15 R6.

Table 18. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce RTX 3050 Ti	4 GB	GDDR6
NVIDIA GeForce RTX 3060	6 GB	GDDR6
NVIDIA GeForce RTX 3070	8 GB	GDDR6
NVIDIA GeForce RTX 3080	8 GB	GDDR6

Operating and storage environment

This table lists the operating and storage specifications of your Alienware m15 R6.

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)

Table 19. Computer environment (continued)

Description	Operating	Storage
Relative humidity (maximum)	50% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude range	0 m to 3048 m (0 ft to 10000 ft)	0 m to 10668 m (0 ft to 35000 ft)
⚠ **CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.**		

* 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.

Low blue light

⚠ **WARNING: Prolonged exposure to blue light from the display may lead to long-term effects such as eye strain, eye fatigue, or damage to the eyes.**

Blue light is a color in the light spectrum which has a short wavelength and high energy. Chronic exposure to blue light, particularly from digital sources, may disrupt sleep patterns and cause long-term effects such as eye strain, eye fatigue, or damage to the eyes.

The display on this computer is designed to minimize blue light and complies with TÜV Rheinland's requirement for low blue light displays.

Low blue light mode is enabled at the factory, so no further configuration is necessary.

To reduce the risk of eye strain, it is also recommended that you:

- Position the display at a comfortable viewing distance between 20 and 28 inches (50 and 70 cm) from your eyes.
- Blink frequently to moisten your eyes, wet your eyes with water, or apply suitable eye drops.
- Look away from your display, and gaze at a distant object at 20 ft (609.60 cm) away for at least 20 seconds during each break.
- Take an extended break for 20 minutes every two hours.

Keyboard shortcuts

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

Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press shift and the key, the symbol shown on the upper part of the key is typed out. For example, if you press **2**, 2 is typed out; if you press **Shift + 2**, @ is typed out.

The keys F1-F12 at the top row of the keyboard are function keys for multi-media control, as indicated by the icon at the bottom of the key. Press the function key to invoke the task represented by the icon. For example, pressing F1 mutes the audio (refer to the table below).

However, if the function keys F1-F12 are needed for specific software applications, multi-media functionality can be disabled by pressing **fn + Esc**. Subsequently, multi-media control can be invoked by pressing **fn** and the respective function key. For example, mute audio by pressing **fn + F1**.

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

Table 20. List of keyboard shortcuts

| Keys	Description
FN + F1	Disable/enable Performance Boost
FN + F7	Adjust keyboard backlight brightness
FN + F8	Switch to external display
FN + F9	Disable/enable Bluetooth
FN + F10	Decrease display brightness
FN + F11	Increase display brightness
FN + F12 T-PAD	Disable/enable touchpad

Your computer comes with pre-programmable macro keys that enable you to perform multiple actions with a single key press.

Table 21. List of Macro keys

Keys	Description
F2	
F3	
F4	Macro keys (i) **NOTE:** You can configure modes and assign multiple tasks for the macro keys on the keyboard.
F5	
F6	

Your computer comes with dedicated keys that enable you to control audio features of the computer with a single key press.

Table 22. List of keys to control audio features

Keys	Description
🎤✕	Mute microphone
🔇✕	Mute speakers
🔊	Increase volume
🔈	Decrease volume

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 SLN128904 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 23. Alienware products and online self-help resources

Self-help resources	Resource location
Information about Alienware products and services	www.alienware.com
My Dell app	
Tips	
Contact Support	In Windows search, type **Contact Support**, and press **Enter**.
Online help for operating system	www.dell.com/support/windows
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	Your Alienware computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support. For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer.
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 about your purchase invoice, packing slip, bill, or Dell product catalog.