Dell G3 3590

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.

© 2019-2020 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

Chapter 1: Set up your Dell G3 3590	
Chapter 2: Views of Dell G3 3590	
Right	
Left	
Base	
Display	
Bottom	9
Chapter 3: Specifications of Dell G3 3590	10
Dimensions and weight	10
Processors	10
Chipset	10
Operating system	11
Memory	11
Ports and connectors	11
Communications	12
Audio	13
Storage	13
Intel Optane memory (optional)	14
Media-card reader	15
Keyboard	15
Camera	
Touchpad	16
Touchpad gestures	17
Power adapter	17
Battery	
Display	18
Fingerprint reader (optional)	19
Video	19
Computer environment	19
Chapter 4: Using Game Shift	21
Chapter 5: Keyboard shortcuts	22
Chanter 6: Getting help and contacting Dell	25

Set up your Dell G3 3590

- i 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.



- NOTE: To conserve battery power, the battery might enter power saving mode. Connect the power adapter and press the power button to turn on the computer.
- 2. Finish operating system setup.

For Ubuntu:

Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, see the knowledge base articles SLN151664 and SLN151748 at www.dell.com/support.

For Windows:

Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:

- Connect to a network for Windows updates.
 - NOTE: If connecting to a secured wireless network, enter the password for the wireless network access when prompted.
- If connected to the internet, sign-in with or create a Microsoft account. If not connected to the internet, create an
 offline account.
- On the Support and Protection screen, enter your contact details.
- 3. Locate and use Dell apps from the Windows Start menu—Recommended.

Table 1. Locate Dell apps

Resources	Description
DELL	My Dell

Table 1. Locate Dell apps (continued)

Resources	Description
	Centralized location for key Dell applications, help articles, and other important information about your computer. It also notifies you about the warranty status, recommended accessories, and software updates if available.
	SupportAssist
oc .	Pro-actively checks the health of your computer's hardware and software. The SupportAssist OS Recovery tool troubleshoots issues with the operating system. For more information, see the SupportAssist documentation at www.dell.com/support .
	NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.
	Dell Update
40	Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article SLN305843 at www.dell.com/support.
	Dell Digital Delivery
	Download software applications, which are purchased but not pre-installed on your computer. For more information about using Dell Digital Delivery, see the knowledge base article 153764 at www.dell.com/support.

Views of Dell G3 3590

Right



1. SD-card slot

Reads from and writes to the SD card.

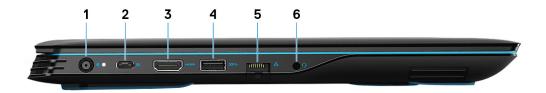
2. USB 2.0 ports (2)

Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 480 Mbps.

3. Security-cable slot (wedge-shaped)

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

Left



1. Power-adapter port

Connect a power adapter to provide power to your computer.

2. USB 3.1 Gen 2 (Type-C) port with DisplayPort (for computers shipped with NVIDIA GeForce GTX 1650 and NVIDIA GeForce GTX 1660 Ti)

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

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

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

3. HDMI port

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

USB 3.1 Gen 1 port

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

5. Network port

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

6. Headset port

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

Base



1. Left-click area

Press to left-click.

2. Touchpad

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

3. Right-click area

Press to right-click.

4. Power button with optional fingerprint reader

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

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.

If the power button has a fingerprint reader, place your finger on the power button to log in.

- NOTE: You can customize power-button behavior in Windows. For more information, see *Me and My Dell* at www.dell.com/support/manuals.
- NOTE: To reset the battery, press and hold the power button for 25 seconds.

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.

Bottom



1. Left speaker

Provides audio output.

2. Right speaker

Provides audio output.

3. 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 Dell G3 3590

Dimensions and weight

Table 2. Dimensions and weight

Description		Values	
Height:			
	Front	21.60 mm (0.85 in.)	
	Rear	23.18 mm (0.91 in.)	
٧	Vidth	365.50 mm (14.39 in.)	
D	epth	254 mm (10 in.)	
V	Veight (maximum)	2.34 kg (5.16 lb) - minimum (i) NOTE: The weight of your computer depends on the configuration ordered and the manufacturing variability.	

Processors

Table 3. Processors

Description	Values	
Processors	9 th Generation Intel Core i5-9300H	9 th Generation Intel Core i7-9750H
Wattage	45 W	45 W
Core count	4	6
Thread count	8	12
Speed	Up to 4.1 GHz	Up to 4.5 GHz
Cache	8 MB	12 MB
Integrated graphics	Intel UHD Graphics 630	Intel UHD Graphics 630

Chipset

Table 4. Chipset

Description	Values
Chipset	HM370

Table 4. Chipset (continued)

Description	Values
Processor	9 th Generation Intel Core i5/i7
DRAM bus width	64-bit
Flash EPROM	16 MB
PCle bus	Up to Gen 3.0

Operating system

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

Memory

Table 5. Memory specifications

Description	Values
Slots	Two SODIMM slots
Туре	DDR4
Speed	2666 MHz
Maximum memory	32 GB
Minimum memory	4 GB
Memory size per slot	4 GB, 8 GB, and 16 GB
Configurations supported	 4 GB DDR4 at 2666 MHz (1 x 4 GB) 8 GB DDR4 at 2666 MHz (2 x 4 GB) 8 GB DDR4 at 2666 MHz (1 x 8 GB) 12 GB DDR4 at 2666 MHz (1 x 4 GB + 1 x 8 GB) 16 GB DDR4 at 2666 MHz (2 x 8 GB) 16 GB DDR4 at 2666 MHz (1 x 16 GB) 32 GB DDR4 at 2666 MHz (2 x 16 GB)

Ports and connectors

Table 6. External ports and connectors

Description	Values
External:	
Network	One RJ45 port

Table 6. External ports and connectors (continued)

Description	Values
USB	 One USB 3.1 Gen 2 Type-C port with DisplayPort (for computers shipped with NVIDIA GeForce GTX 1650 and NVIDIA GeForce GTX 1660 Ti) One USB 3.1 Gen 1 port Two USB 2.0 ports
Audio	One headset (headphone and microphone combo) port
Video	One HDMI 2.0 port
Media card reader	One SD-card slot
Docking port	Not supported
Power adapter port	7.40 mm x 5.08 mm
Security	One security-cable slot (wedge-shaped)

Table 7. Internal ports and connectors

Description	Values
Internal:	
M.2	 One M.2 slot for Wi-Fi and Bluetooth combo card One M.2 slot for one of the following: Solid-state drive (2230/2280) Intel Optane Memory M15 (2280) Intel Optane Memory H10 with solid-state storage
	(2280) (i) NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.

Communications

Ethernet

Table 8. Ethernet specifications

Description	Values
Model number	Realtek RTL8111 Ethernet controller (integrated on system board)
Transfer rate	10/100/1000 Mbps

Wireless module

Table 9. Wireless module specifications

Description	Values		
Model number	Qualcomm QCA9377 (DW1820)	Intel 9560 (160 MHz)	Intel AX200
Transfer rate	Up to 433 Mbps	Up to 1.73 Gbps	Up to 2.4 Gbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz
Wireless standards	 WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) 	WiFi 802.11a/b/gWi-Fi 4 (WiFi 802.11n)Wi-Fi 5 (WiFi 802.11ac)	 WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) Wi-Fi 6 (WiFi 801.11ax)
Encryption	64-bit/128-bit WEP AES-CCMP TKIP	64-bit/128-bit WEP AES-CCMP TKIP	64-bit/128-bit WEP AES-CCMP TKIP
Bluetooth	Bluetooth 4.2	Bluetooth 5	Bluetooth 5

Audio

Table 10. Audio specifications

Description		Values	
Controller		Realtek ALC3254 with Nahimic 3D Audio for Gamers	
Stereo conversion		Supported	
Internal interface		Intel High-Definition Audio (HDA) via HDMI	
External interface		Headset combo connector Digital-array microphone input on camera module	
Speakers		Two	
Internal speaker amplifier		Supported (audio codec built-in amplifier)	
External volume controls		Keyboard shortcut controls	
Speaker output:			
	Average	2 W	
	Peak	2.5 W	
Subwoofer output		Not supported	
Microphone		Dual-array microphones	

Storage

Your computer is shipped with **one** of the following configurations:

- One M.2 card (solid-state drive or Intel Optane Memory H10 with solid-state storage)
- One 2.5-inch hard drive
- One M.2 card (solid-state drive or Intel Optane Memory H10 with solid-state storage) and one 2.5-inch hard drive
 - (i) NOTE: The solid-state drive or the Intel Optane Memory H10 with solid-state storage is the primary drive.
- One 2.5-inch hard drive and one M.2 card (Intel Optane Memory M15)
 - NOTE: The 2.5-inch hard drive is the primary drive.

Table 11. Storage specifications

Form factor	Interface type	Capacity
2.5-inch hard drive	SATA AHCI, up to 6 Gbps	1 TB (5400 RPM)1 TB + 8 GB Hybrid2 TB (5400 RPM)
M.2 2230/2280 solid-state drive	 SATA PCle (up to x4) PCle NVMe 3.0 x4, up to 32 Gbps PCle 3.0, 8 Gbps (up to 4 lanes) 	Up to 1 TB
M.2 2280 Intel Optane Memory H10 with solid-state storage	Solid-state storage: PCle NVMe 3.0 x2	Solid-state storage: Up to 512 GB

Intel Optane memory (optional)

Intel Optane technology utilizes 3D XPoint memory technology and functions as a non-volatile storage cache/accelerator and/or storage device depending on the Intel Optane memory installed in your computer.

Your computer supports the following Intel Optane memory:

- Intel Optane Memory M15
- Intel Optane Memory H10 with solid-state storage

Intel Optane Memory M15

Intel Optane Memory M15 functions only as a non-volatile storage cache/accelerator, enabling enhanced read/write speeds for hard-drive storage. It neither replaces nor adds to the memory (RAM) installed on your computer.

Table 12. Intel Optane Memory M15 specifications

Description	Values
Interface	PCle 3.0 x2
Connector	M.2
Form factor	2280
Capacity	32 GB or 64 GB

- NOTE: Intel Optane Memory M15 is supported on computers that meet the following requirements:
 - 7th Generation or higher Intel Core i3/i5/i7 processors
 - Windows 10 64-bit version or higher (Anniversary Update)
 - Intel Rapid Storage Technology driver version 15.9.1.1018 or higher

Intel Optane Memory H10 with solid-state storage

Intel Optane Memory H10 with solid-state storage functions as both a non-volatile storage cache/accelerator (enabling enhanced read/write speeds for hard-drive storage) and a solid-state storage solution. It neither replaces nor adds to the memory (RAM) installed on your computer.

Table 13. Intel Optane Memory H10 with solid-state storage specifications

Description	Values
Interface	PCIe 3.0 x4
	 One PCle 3.0 x2 for Optane memory One PCle 3.0 x2 for solid-state storage
Connector	M.2
Form factor	2280
Capacity (Optane memory)	Up to 32 GB
Capacity (solid-state storage)	Up to 512 GB

- (i) NOTE: Intel Optane Memory H10 with solid-state storage is supported on computers that meet the following requirements:
 - 9th Generation or higher Intel Core i3/i5/i7 processors
 - Windows 10 64-bit version or higher (Anniversary Update)
 - Intel Rapid Storage Technology driver version 15.9.1.1018 or higher

Media-card reader

Table 14. Media-card reader specifications

Description	Values
Туре	One SD-card slot
Cards supported	 Secure Digital (SD) Secure Digital High Capacity (SDHC) Secure Digital Extended Capacity (SDXC) NOTE: The maximum capacity supported by the media card varies depending on the standard of the media card used in your computer.

Keyboard

Table 15. Keyboard specifications

Description	Values
Туре	 Standard keyboard Backlit keyboard (optional) Four-zone RGB backlit keyboard (optional)
Layout	QWERTY
Number of keys	United States and Canada: 101 keysUnited Kingdom: 102 keysJapan: 105 keys

Table 15. Keyboard specifications (continued)

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

Camera

Table 16. Camera specifications

Description		Values	
Number of cameras		One	
Туре		HD RGB camera	
Location		Front	
Sensor type		CMOS sensor technology	
Resoluti	ution:		
	Still image		0.92 megapixel (HD)
	Video		1280 x 720 (HD) at 30 fps
Diagonal viewing angle			78.6 degrees

Touchpad

Table 17. Touchpad specifications

Description		Values
Resolution:		
	Horizontal	1229
	Vertical	749
Dimensions:		
	Horizontal	105 mm (4.13 in.)
	Vertical	80 mm (3.15 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 18. Power adapter specifications

Description		Values	
Туре		130 W (E4 Series)	180 W (E4 Series)
Diam	eter (connector)	7.40 mm x 5.08 mm	7.40 mm x 5.08 mm
Input	voltage	100 VAC-240 VAC	100 VAC-240 VAC
Input	frequency	50 Hz-60 Hz	50 Hz-60 Hz
Input current (maximum)		2.50 A	2.34 A
Output current (continuous)		6.70 A	9.34 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)

Battery

Table 19. Battery specifications

Description		Values
Туре		3-cell "smart" lithium-ion (51 WHr)
Voltage		11.40 VDC
Weight (max	ximum)	0.23 kg (0.51 lb)
Dimensions:		
	Height	7.05 mm (0.28 in.)
	Width	67.65 mm (2.66 in.)
	Depth	241.25 mm (9.50 in.)
Temperature	e range:	
	Operating	0°C to 70°C (32°F to 158°F)
	Storage	-20°C to 65°C (-4°F to 149°F)
Operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.

Table 19. Battery specifications (continued)

Description	Values
Charging time (approximate)	3 hours (when the computer is off) (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 https://www.dell.com/
Life span (approximate)	300 discharge/charge cycles
Coin-cell battery	CR-2032
Operating time	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.

Display

Table 20. Display specifications

Decsript	ion	Values		
Туре		FHD Anti-Glare	FHD Anti-Glare	FHD Anti-Glare
Panel tec	hnology	In-Plane Switching (IPS)	In-Plane Switching (IPS)	In-Plane Switching (IPS)
Luminanc	e (typical)	220 nits	300 nits	300 nits
Dimension	ns (active area):			
	Height	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)
	Width	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)
	Diagonal	394.90 mm (15.60 in.)	394.90 mm (15.60 in.)	394.90 mm (15.60 in.)
Native re	solution	1920 x 1080	1920 x 1080	1920 x 1080
Megapixe	els	2.07	2.07	2.07
Color gam	nut	NTSC 45%	NTSC 72%	NTSC 72%
Pixels per	inch (PPI)	141	141	141
Contrast	ratio (min)	700:1 (typical)/600:1 (minimum)	700:1 (typical)/600:1 (minimum)	800:1 (typical)/600:1 (minimum)
Response	e time (max)	35 ms rise/fall	35 ms rise/fall	9 ms rise/fall
Refresh r	ate	60 Hz	60 Hz	144 Hz
Horizonta	al view angle	+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Vertical v	iew angle	+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Pixel pitcl	h	0.179 mm	0.179 mm	0.179 mm
Power co (maximun	nsumption n)	4.2 W	6.2 W	7.8 W
Anti-glare	e vs glossy finish	Anti-glare	Anti-glare	Anti-glare

Table 20. Display specifications (continued)

Decsription	Values		
Touch options	No	No	No

Fingerprint reader (optional)

Table 21. Fingerprint reader specifications

Description	Values
Sensor technology	Capacitive
Sensor resolution	500 PPI
Sensor area	5.5 mm (0.22 in.) x 4.5 mm (0.18 in.)
Sensor pixel size	108 x 88 pixels

Video

Table 22. Video specifications

Discrete graphics			
Controller	External display support	Memory size	Memory Type
NVIDIA GeForce GTX 1050	One HDMI 2.0 port	3 GB	GDDR5
NVIDIA GeForce GTX 1650	One USB 3.1 Gen 2 (Type-C) port with DisplayPortOne HDMI 2.0 port	4 GB	GDDR5
NVIDIA GeForce GTX 1660 Ti	One USB 3.1 Gen 2 (Type-C) port with DisplayPortOne HDMI 2.0 port	6 GB	GDDR6
NVIDIA GeForce RTX 2060	One USB 3.1 Gen 2 (Type-C) port with DisplayPortOne HDMI 2.0 port	6 GB	GDDR6

Table 23. Video specifications

Integrated graphics			
Controller	External display support	Memory size	Processor
Intel UHD Graphics 630	One USB 3.1 Gen 2 (Type-C) port with DisplayPort (optional) One HDMI 2.0 port	1	9 th Generation Intel Core i5/i7

Computer environment

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

Table 24. Computer environment

Description	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	-40°C to 65°C (-40°F to 149°F)

Table 24. Computer environment (continued)

Description	Operating	Storage
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)

 $[\]ensuremath{^{*}}$ 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.

Using Game Shift

Game Shift improves gaming performance by increasing the fan speed for optimal thermal cooling of the processor.

Enabling Game Shift

To enable Game Shift, press F7 (if fn default is enabled; otherwise, press fn + F7). For more information, see Keyboard shortcuts.

Alienware Command Center displays a blue G icon, a notification pops up to indicate that Game Shift is enabled.

Disabling Game Shift

When you are not using the computer for gaming, disable Game Shift by pressing $\mathbf{F7}$ (if \mathbf{fn} default is enabled; otherwise, press $\mathbf{fn} + \mathbf{F7}$).

Game Shift is also disabled when:

- You set your computer to a sleep state.
- You restart your computer.
- Game Shift has been active for 24 consecutive hours.
- You start a new game.
- You terminate the game that has been running on Game Shift.
- You change power plans or thermal profiles of the computer.

Installing Game Shift after reinstalling the operating system

Alienware Command Center and Alienware OC Controls are installed at the factory. If you reinstall the operating system, you have to reinstall Alienware Command Center and Alienware OC Controls before you can use Game Shift.

NOTE: Ensure that the Windows operating system and all the compatible drivers are reinstalled in your computer. Windows update is also required.

After you have reinstalled the operating system, Alienware Command Center, and Alienware OC Controls, install Game Shift:

- 1. Go to Dell support site www.dell.com/support.
- 2. Enter Dell G3 3590 and click Search.
- 3. Click Drivers & downloads.
- 4. Download and install Alienware Command Center.
- 5. Download and install Alienware OC Controls.
- 6. Restart your computer. You can now enable Game Shift (see Enabling Game Shift).

Keyboard shortcuts

NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys 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**, **3** is typed out.

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

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

Table 25. List of keyboard shortcuts

Function key	Redefined key (for multimedia control)	Behavior
∠ x F1	fn + □ □ × F1	Mute audio
∠ ,	fn + C + F2	Decrease volume
(1)) _{F3}	fn + □□→ F3	Increase volume
Md F4	fn + KM F4	Play previous track/chapter
	fn + ▷Ⅱ _{F5}	Play/Pause
F6_	+	Play next track/chapter
G _{F7}	fn + G	Enable/disable Game Shift
	fn + 🗗 F8	Switch to external display
P _{F9}	fn + P _{F9}	Search

Table 25. List of keyboard shortcuts (continued)

Function key	Redefined key (for multimedia control)	Behavior	
F10	fn + ===================================	Toggle keyboard backlight (optional) NOTE: Non-backlight keyboards have the F10 function key without the backlight icon. In this case, the function key does not toggle the keyboard backlight function.	
∯ _{F11}		Decrease brightness	
** _{F12}	fn + * F12	Increase brightness	

The **Fn** key is also used with selected keys on the keyboard to invoke other secondary functions.

Table 26. List of keyboard shortcuts

Function key	Behavior
fn + prtsc	Turn off/on wireless
fn + B	Pause/Break
fn + insert	Sleep
fn + S	Toggle scroll lock
fn + H	Toggle between power and battery-status light/hard-drive activity light
fn + R	System request
fn + ctrl	Open application menu
fn + esc	Toggle fn-key lock
fn + pg up	Page up
fn + pg dn	Page down
fn + home	Home

Table 26. List of keyboard shortcuts (continued)

Function key	Behavior
fn + end	End

Getting help and contacting Dell

Self-help resources

You can get information and help on Dell products and services using these self-help resources:

Table 27. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell	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.dell.com/support
Dell knowledge base articles for a variety of computer concerns.	 Go to www.dell.com/support. Type the subject or keyword in the Search box. Click Search to retrieve the related articles.
Learn and know the following information about your product:	See Me and My Dell at www.dell.com/support/manuals.
Product specificationsOperating system	To locate the <i>Me and My Dell</i> relevant to your product, identify your product through one of the following:
 Setting up and using your product Data backup Troubleshooting and diagnostics Factory and system restore BIOS information 	 Select Detect Product. Locate your product through the drop-down menu under View Products. Enter the Service Tag number or Product ID in the search bar.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

- i 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 on your purchase invoice, packing slip, bill, or Dell product catalog.