

Inspiron 3781

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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Set up your Inspiron 3781

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
	My Dell

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



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

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](https://www.dell.com/support/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](https://www.dell.com/support/153764) at www.dell.com/support.

- 4 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 Inspiron 3781

Right



1 **SD-card slot**

Reads from and writes to the SD card.

2 **USB 2.0 port**

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

3 **Optical drive**

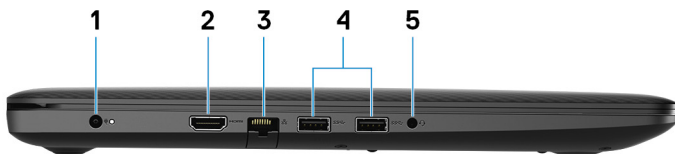
Reads from and writes to CDs, DVDs, and Blu-ray discs.

NOTE: Blu-ray support is only available in certain regions.

4 **Security-cable slot (wedge-shaped)**

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

Left



1 **Power-adaptor port**

Connect a power adapter to provide power to your computer.

2 **HDMI port**

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

3 **Network port**

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

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

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

5 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 4 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.

Display



1 **Camera**

Enables you to video chat, capture photos, and record videos.

2 **Camera-status light**

Turns on when the camera is in use.

3 **Microphone**

Provides digital sound input for audio recording, voice calls, and so on.

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 Inspiron 3781

Dimensions and weight

Table 2. Dimensions and weight

Description	Values
Height:	
Front	21.86 mm (0.86 in.)
Rear	25.60 mm (1.01 in.)
Width	415.40 mm (16.35 in.)
Depth	279.20 mm (10.99 in.)
Weight	3.03 kg (6.68 lb)

NOTE: The weight of your computer depends on the configuration ordered and the manufacturing variability.

Processors

Table 3. Processors

Description	Values				
	Intel Celeron Processor	Intel Pentium Gold	7 th Generation Intel Core i3	7 th Generation Intel Core i5	7 th Generation Intel Core i7
Processors	Intel Celeron Processor	Intel Pentium Gold	7 th Generation Intel Core i3	7 th Generation Intel Core i5	7 th Generation Intel Core i7
Wattage	15 W	15 W	15 W	15 W	15 W
Core count	2	4	2	2	2
Thread count	4	8	4	4	4
Speed	Up to 1.8 GHz	Up to 2.2 GHz	Up to 2.3 GHz	Up to 3.1 GHz	Up to 3.5 GHz
L2 Cache	512 KB	512 KB	512 KB	512 KB	512 KB
L3 Cache	2 MB	2 MB	3 MB	3 MB	4 MB
Integrated graphics	Intel HD Graphics 610	Intel HD Graphics 610	Intel HD Graphics 620	Intel HD Graphics 620	Intel HD Graphics 620

Chipset

Table 4. Chipset

Description		Values
Processor	<ul style="list-style-type: none">Intel Celeron ProcessorIntel Pentium Gold	7 th Generation Intel Core i3/i5/i7
Chipset	Integrated in the processor	Integrated in the processor
DRAM bus width	64-bit	64-bit
Flash EPROM	16 MB	16 MB
PCIe bus	Up to Gen2.0	Up to Gen3.0
External bus frequency	4 GT/s	4 GT/s

Operating system

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

Memory

Table 5. Memory specifications

Description	Values
Slots	Two SODIMM slots
Type	Dual-channel DDR4
Speed	Up to 2133 MHz
Maximum memory	16 GB
Minimum memory	4 GB
Memory size per slot	4 GB, 8 GB, 16 GB
Configurations supported	<ul style="list-style-type: none">4 GB DDR4 at 2133 MHz (1 x 4 GB)8 GB DDR4 at 2133 MHz (2 x 4 GB)8 GB DDR4 at 2133 MHz (1 x 8 GB)12 GB DDR4 at 2133 MHz (1 x 8 GB + 1 x 4 GB)16 GB DDR4 at 2133 MHz (2 x 8 GB)16 GB DDR4 at 2133 MHz (1 x 16 GB)

Ports and connectors

Table 6. Ports and connectors

External:

Network	One RJ-45 port
USB	<ul style="list-style-type: none">Two USB 3.1 Gen 1 portsOne USB 2.0 port
Audio	One headset (headphone and microphone combo) port
Video	One HDMI 1.4b port
Media card reader	One SD-card slot
Docking port	Not supported
Power adapter port	One 4.5 mm x 2.9 mm DC in
Security	One security-cable slot (wedge-shaped)

Internal:

M.2	<ul style="list-style-type: none">One M.2 slot for Wi-Fi and Bluetooth combo cardOne M.2 2280 slot for solid-state drive or Intel Optane
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i | **NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article [SLN301626](#).

Communications

Ethernet

Table 7. Ethernet specifications

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

Wireless module

Table 8. Wireless module specifications

Description	Values		
Model number	Qualcomm QCA9565 (DW1707)	Qualcomm QCA9377 (DW1810)	Qualcomm QCA61x4A (DW1820)
Transfer rate	Up to 150 Mbps	Up to 433 Mbps	Up to 867 Mbps
Frequency bands supported	Dual band 2.4 GHz	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz
Wireless standards	WiFi 802.11b/g/n	WiFi 802.11a/b/g/n/ac	WiFi 802.11a/b/g/n/ac
Encryption	<ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP	<ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP	<ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP
Bluetooth	Bluetooth 4.0	Bluetooth 4.2	Bluetooth 4.2

Audio

Table 9. Audio specifications

Description	Values
Controller	Realtek ALC3246
Stereo conversion	Supported
Internal interface	High-definition audio
External interface	Headset combo jack (stereo headphones/microphone-in)
Speakers	Two
Internal speaker amplifier	Supported
External volume controls	Keyboard shortcuts
Speaker output:	
Average	2 W
Peak	2.5 W
Subwoofer output	Not supported
Microphone	Supported

Storage

Table 10. Storage specifications

Storage type	Interface type	Capacity
One 2.5-inch hard drive	SATA AHCI, up to 6 Gbps	<ul style="list-style-type: none">• 500 GB (5400 RPM/7200 RPM)• 1 TB (5400 RPM/7200 RPM)• 2 TB (5400 RPM)
One M.2 2280 solid-state drive	<ul style="list-style-type: none">• PCIe Gen3.0x4 NVMe, up to 32 Gbps for 7th Generation Intel Core i3/i5/i7 processors• PCIe Gen2.0x4, up to 16 Gbps for Intel Celeron and Pentium Gold processors	Up to 256 GB
Optical drive	9.5 mm DVD-RW	One slimline DVD-RW

Media-card reader

Table 11. Media-card reader specifications

Description	Values
Type	One SD-card slot
Cards supported	<ul style="list-style-type: none">• Secure Digital (SD)• Secure Digital High Capacity(SDHC)• Secure Digital Extended Capacity(SDXC)

Intel Optane memory (optional)

Intel Optane memory functions only as a storage accelerator. It neither replaces nor adds to the memory (RAM) installed on your computer.

NOTE: Intel Optane memory is supported on computers that meet the following requirements:

- 7th Generation or higher Intel Core i3/i5/i7 processor
- Windows 10 64-bit version or higher (Anniversary Update)
- Latest version of Intel Rapid Storage Technology driver

Table 12. Intel Optane memory

Description	Values
Type	Storage accelerator
Interface	PCIe 3.0x2
Connector	M.2 2280
Configurations supported	16 GB

Description	Values
Capacity	Up to 16 GB

Keyboard

Table 13. Keyboard specifications

Description	Values
Type	<ul style="list-style-type: none"> Standard keyboard Backlit keyboard (optional)
Layout	QWERTY
Number of keys	<ul style="list-style-type: none"> United States and Canada: 101 keys United Kingdom: 102 keys Japan: 105 keys
Size	<p>X = 19.05 mm key pitch</p> <p>Y = 18.05 mm key pitch</p>
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 14. Camera specifications

Description	Values
Number of cameras	One
Type	HD RGB camera
Location	Front (above the LCD screen)
Sensor type	CMOS sensor technology
Resolution:	
Still image	0.92 megapixel
Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle	78.6 degrees

Touchpad

Table 15. Touchpad specifications

Description	Values
Resolution:	
Horizontal	3215
Vertical	2429
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](https://support.microsoft.com/4027871) at support.microsoft.com.

Power adapter

Table 16. Power adapter specifications

Description	Values
Type	E4 45 W E4 65 W
Diameter (connector)	4.5 mm x 2.9 mm 4.5 mm x 2.9 mm
Input voltage	100 VAC–240 VAC 100 VAC–240 VAC
Input frequency	50 Hz–60 Hz 50 Hz–60 Hz
Input current (maximum)	1.30 A 1.60 A/1.70 A
Output current (continuous)	2.31 A 3.34 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 17. Battery specifications

Description	Values
Type	3-cell "smart" lithium-ion (42 WHr)
Voltage	11.40 VDC
Weight (maximum)	0.20 kg (0.44 lb)
Dimensions:	
Height	5.90 mm (0.23 in.)
Width	184.15 mm (7.25 in.)
Depth	90.73 mm (3.57 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 significantly reduce under certain power-intensive conditions.
Charging time (approximate)	4 hours (when the computer is off)
	<p>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, <i>Me and My Dell</i> on https://www.dell.com/.</p>
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 18. Display specifications

Description	Values
Type	High Definition Plus (HD+) Full High Definition (FHD)
Panel technology	Twisted Nematic (TN) Wide Viewing Angle (WVA)
Luminance (typical)	220 nits 300 nits
Dimensions (Active area):	
Height	214.92 mm (8.46 in.) 214.81 mm (8.46 in.)

Description	Values	
Width	382.08 mm (15.04 in.)	381.89 mm (15.04 in.)
Diagonal	438.38 mm (17.26 in.)	438.16 mm (17.25 in.)
Native resolution	1600 x 900 (HD+)	1920 x 1080 (FHD)
Megapixels	1.44	2.07
Pixels per inch (PPI)	106	127
Contrast ratio (min)	400:1	500:1
Response time (max)	16 ms	35 ms
Refresh rate	60 Hz	60 Hz
Horizontal view angle	<ul style="list-style-type: none"> Left: 40 degrees Right: 40 degrees 	<ul style="list-style-type: none"> Left: 80 degrees Right: 80 degrees
Vertical view angle	<ul style="list-style-type: none"> Top: 10 degrees Bottom: 30 degrees 	<ul style="list-style-type: none"> Top: 80 degrees Bottom: 80 degrees
Pixel pitch	0.2388 mm	0.1989 mm
Power consumption (maximum)	4.4 W	8 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare
Touch options	Not supported	Not supported

Fingerprint reader (optional)

Table 19. Fingerprint reader specifications

Description	Values
Sensor technology	Capacitive
Sensor resolution	500 PPI
Sensor area	5.50 mm x 4.50 mm (0.22 in. x 0.17 in.)
Sensor pixel size	108 pixels x 88 pixels

Video

Table 20. Video specifications

Discrete graphics

Controller	External display support	Memory size	Memory Type
AMD Radeon 520	One HDMI 1.4b port	2 GB	GDDR5

Table 21. Video specifications

Integrated graphics

Controller	External display support	Memory size	Processor
Intel HD Graphics 610	One HDMI 1.4b port	Shared system memory	<ul style="list-style-type: none">Intel Celeron processorIntel Pentium Gold
Intel HD Graphics 620	One HDMI 1.4b port	Shared system memory	7 th Generation Intel Core i3/i5/i7

Computer environment

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

Table 22. Computer environment

	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.

‡ 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.























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**.













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

Table 23. List of keyboard shortcuts

Function key	Re-defined key (for multi-media control)	Behavior
		Mute audio
		Decrease volume
		Increase volume
		Play previous track/chapter
		Play/Pause
		Play next track/chapter
		Switch to external display
		Search
		Toggle keyboard backlight (optional)
		Decrease brightness
		Increase brightness

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

Table 24. List of keyboard shortcuts



Function key	Behavior
	Turn off/on wireless
	Pause/Break
	Sleep
	Toggle scroll lock
	Toggle between power and battery-status light/hard-drive activity light
	System request
	Open application menu
	Toggle Fn-key lock
	Page up
	Page down
	Home
	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 25. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , 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.	<ol style="list-style-type: none"> 1 Go to www.dell.com/support. 2 Type the subject or keyword in the Search box. 3 Click Search to retrieve the related articles.
Learn and know the following information about your product:	See <i>Me and My Dell</i> at www.dell.com/support/manuals .
<ul style="list-style-type: none"> • Product specifications • Operating system • Setting up and using your product • Data backup • Troubleshooting and diagnostics • Factory and system restore • BIOS information 	<p>To locate the <i>Me and My Dell</i> relevant to your product, identify your product through one of the following:</p> <ul style="list-style-type: none"> • 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.

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.