

# Inspiron 7590 2n1

## 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 7590 2n1

**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 Windows setup.

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
	<p><b>My Dell</b></p> <p>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.</p>
	<p><b>SupportAssist</b></p> <p>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 <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>

**NOTE:** In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.

## Resources

## Description

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### 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/article/SLN305843) at [www.dell.com/support](http://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/article/153764) at [www.dell.com/support](http://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](http://www.dell.com/support/manuals).

# Views of Inspiron 7590 2n1

## 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.

### 2 Headset port

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

## Left



### 1 Power-adapter port

Connect a power adapter to provide power to your computer.

### 2 Power and battery-status light

Indicates the power state and battery state of the computer.

Solid white—Power adapter is connected and the battery is charging.

Solid amber—Battery charge is low or critical.

Off—Battery is fully charged.

**NOTE:** On certain computer models, the power and battery-status light is also used for system diagnostics. For more information, see the *Troubleshooting* section in your computer's *Service Manual*.

### 3 HDMI port

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

### 4 USB 3.1 Gen 1 (Type-C) port/DisplayPort

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

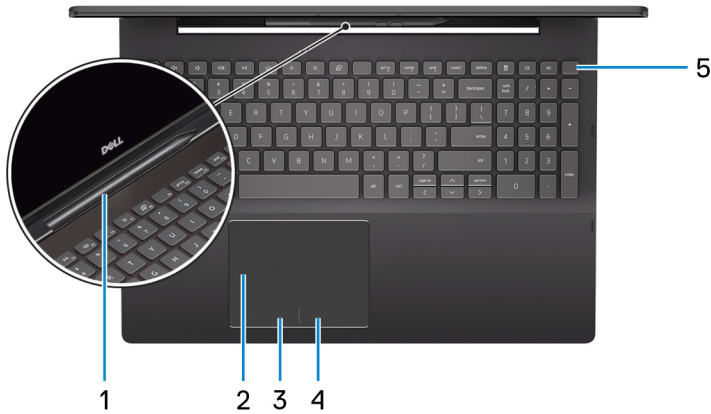
**NOTE:** A USB Type-C to DisplayPort adapter (sold separately) is required to connect a DisplayPort device.



## 5 microSD-card slot

Reads from and writes to the microSD-card.

# Base



## 1 Pen garage

Magnetic storage slot for the Dell Active Stylus Pen.

## 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 Left-click area

Press to left-click.

## 4 Right-click area

Press to right-click.

## 5 Power button with fingerprint reader

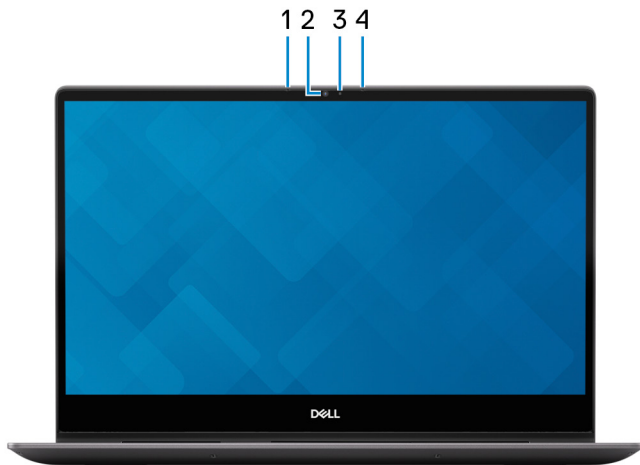
Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

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.

Place your finger on the power button to log-in with the fingerprint reader.

**NOTE:** You can customize power-button behavior in Windows. For more information, see *Me and My Dell* at [www.dell.com/support/manuals](http://www.dell.com/support/manuals).

# 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.

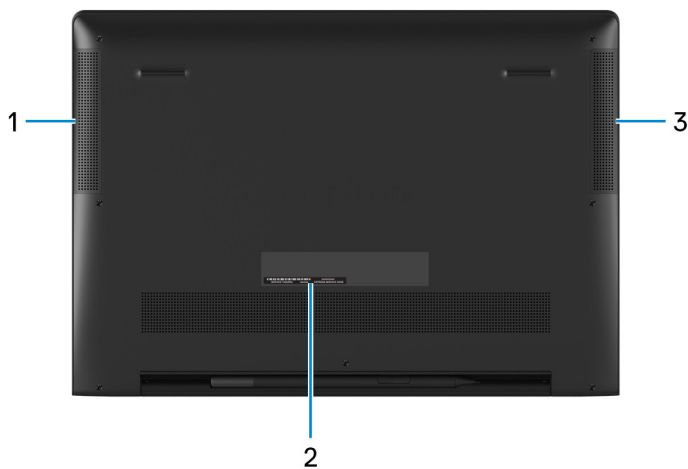
3 **Camera-status light**

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 **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.

# Modes

## Notebook



## Tablet



## Stand



# Tent



# Specifications of Inspiron 7590 2n1

## Dimensions and weight

**Table 2. Dimensions and weight**

Description	Values
Height:	
Front	15.85 mm (0.62 in.)
Rear	18.90 mm (0.74 in.)
Width	357.66 (14.08 in.)
Depth	248.61 mm (9.78 in.)
Weight	2.19 kg (4.83 lbs)

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

## Processors

**Table 3. Processors**

Description	Values	
Processors	8 <sup>th</sup> Generation Intel Core i5	8 <sup>th</sup> Generation Intel Core i7
Wattage	15 W	15 W
Core count	4	4
Thread count	8	8
Speed	Up to 3.9 GHz Boost	Up to 4.6 GHz Boost
Cache	6 MB	8 MB
Integrated graphics	Intel UHD Graphics 620	Intel UHD Graphics 620

# Chipset

**Table 4. Chipset**

Description	Values
Chipset	Integrated into the processor
Processor	8 <sup>th</sup> Generation Intel Core i5/i7
DRAM bus width	64-bit
Flash EPROM	16 MB
PCIe bus	Up to PCIe Gen3
External bus frequency	Not supported

## Operating system

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

## Memory

**Table 5. Memory specifications**

Description	Values
Slots	Two SODIMM slots
Type	DDR4
Speed	2400 MHz
Maximum memory	16 GB
Minimum memory	8 GB
Memory size per slot	4 GB/8 GB/16 GB
Configurations supported	8 GB, 12 GB, and 16 GB

## Ports and connectors

**Table 6. External ports and connectors**

External:	
USB	<ul style="list-style-type: none"><li>• Two USB 3.1 Gen 1 ports</li></ul>

## External:

	<ul style="list-style-type: none"><li>USB 3.1 Gen 1 (Type-C) port/DisplayPort</li></ul>
Audio	One headset port
Video	One HDMI 2.0 port
Media card reader	One microSD-card slot
Docking port	Not supported
Power adapter port	4.5 mm x 2.9 mm
Security	Not supported

**Table 7. Internal ports and connectors**

## Internal:

M.2	<ul style="list-style-type: none"><li>One M.2 slot for WiFi and Bluetooth combo card</li><li>One M.2 2230/2280 slot for solid-state drive/Intel Optane storage</li></ul>
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**NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article [SLN301626](#).

# Communications

## Wireless module

**Table 8. Wireless module specifications**

Description	Values	
Model number	Qualcomm QCA61x4A (DW1820)	Intel 9560 (160MHz)
Transfer rate	Up to 867 Mbps	Up to 1.73 Gbps
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"><li>WiFi 802.11a/b/g</li><li>Wi-Fi 4 (WiFi 802.11n)</li><li>Wi-Fi 5 (WiFi 802.11ac)</li></ul>	<ul style="list-style-type: none"><li>WiFi 802.11a/b/g</li><li>Wi-Fi 4 (WiFi 802.11n)</li><li>Wi-Fi 5 (WiFi 802.11ac)</li></ul>
Encryption	<ul style="list-style-type: none"><li>64-bit/128-bit WEP</li><li>AES-CCMP</li><li>TKIP</li></ul>	<ul style="list-style-type: none"><li>64-bit/128-bit WEP</li><li>AES-CCMP</li><li>TKIP</li></ul>
Bluetooth	Bluetooth 4.2	Bluetooth 5.0

# Audio

**Table 9. Audio specifications**

Description	Values
Controller	Realtek ALC3254
Stereo conversion	Supported
Internal interface	High-definition audio
External interface	Headset combo connector
Speakers	Two
Internal speaker amplifier	Supported (Audio codec built-in amplifier)
External volume controls	Using media-control shortcut keys
Speaker output:	
Average	2 W
Peak	2.5 W
Subwoofer output	Not supported
Microphone	Digital-array microphones

# Storage

Your computer supports one 2.5-inch hard drive and one M.2 solid state drive/Intel Optane storage.

**Table 10. Storage specifications**

Storage type	Interface type	Capacity
M.2 2230 solid-state drive	PCIe NVMe 3x2/3x4	Up to 1 TB
M.2 2280 solid-state drive	PCIe NVMe 3x4	Up to 1 TB
M.2 2280 Intel Optane storage	PCIe NVMe 3x4	Up to 512 GB
One 2.5-inch hard drive	SATA AHCI 6 Gbps	Up to 1 TB



# Media-card reader

Table 11. Media-card reader specifications

Description	Values
Type	One microSD-card slot
Cards supported	Secure Digital (SD)

# Keyboard

Table 12. Keyboard specifications

Description	Values
Type	Backlit keyboard
Layout	QWERTY
Number of keys	<ul style="list-style-type: none"><li>United States and Canada: 101 keys</li><li>United Kingdom: 102 keys</li><li>Japan: 105 keys</li></ul>
Size	X = 18.70 mm key pitch Y = 18.05 mm key pitch
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><b>NOTE:</b> You can define the primary behavior of the function keys (F1–F12) by changing Function Key Behavior in BIOS setup program.</p> <p><a href="#">Keyboard shortcuts</a></p>

# Camera

Table 13. Camera specifications

Description	Values
Number of cameras	One
Type	HD RGB camera
Location	Front camera
Sensor type	CMOS sensor technology
Resolution:	

Description	Values
Still image	0.92 megapixel (HD)
Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle	74.9 degrees

## Touchpad

**Table 14. Touchpad specifications**

Description	Values
Resolution:	
Horizontal	1229
Vertical	929
Dimensions:	
Horizontal	104.40 mm (4.11 in.)
Vertical	64.40 mm (2.53 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](https://support.microsoft.com).

## Power adapter

**Table 15. Power adapter specifications**

Description	Values	
Type	65 W	90 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)	1.60 A/1.70 A	1.50 A
Output current (continuous)	3.34 A	4.62 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)

Description	Values	
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

# Battery

**Table 16. Battery specifications**

Description	Values	
Type	3-cell "smart" lithium-ion (51Whr)	4-cell "smart" lithium-ion (68Whr)
Voltage	11.40 VDC	7.60 VDC
Weight (maximum)	0.25 kg (0.55 lb)	0.34 kg (0.75 lb)
Dimensions:		
Height	7.05 mm (0.28 in.)	7.05 mm (0.28 in.)
Width	181 mm (7.12 in.)	233 mm (0.17 in.)
Depth	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)
Temperature range:		
Operating	0°C to 35°C (32°F to 95°F)	0°C to 35°C (32°F to 95°F)
Storage	-40°C to 65°C (-40°F to 149°F)	-40°C to 65°C (-40°F to 149°F)
Operating time	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Charging time (approximate)	4 hours (when the computer is off)	4 hours (when the computer is off)
	<b>i</b> <b>NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manger application. For more information on the Dell Power Manger see, <i>Me and My Dell</i> on <a href="https://www.dell.com/">https://www.dell.com/</a></b>	<b>i</b> <b>NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manger application. For more information on the Dell Power Manger see, <i>Me and My Dell</i> on <a href="https://www.dell.com/">https://www.dell.com/</a></b>
Life span (approximate)	300 discharge/charge cycles	300 discharge/charge cycles
Coin-cell battery	CR-2032	CR-2032
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.

# Display

**Table 17. Display specifications**

<b>Description</b>	<b>Values</b>	
Type	15-inch FHD	15-inch UHD
Panel technology	Narrow border with wide viewing angle (WVA)	Narrow border with wide viewing angle (WVA)
Luminance (typical)	200 nits	270 nits
Dimensions (Active area):		
Height	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)
Width	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)
Diagonal	394.87 (15.60 in.)	394.87 (15.60 in.)
Native resolution	1920 x 1080	3840 x 2160
Megapixels	2.07	8.29
Pixels per inch (PPI)	141	282
Contrast ratio (min)	400:1	800:1
Response time (max)	35 msec rise/fall	35 msec rise/fall
Refresh rate	60 Hz	60 Hz
Horizontal view angle	+/- 85 degrees	+/- 85 degrees
Vertical view angle	+/- 85 degrees	+/- 85 degrees
Pixel pitch	0.179 mm	0.08964 mm
Power consumption (maximum)	4.20 W	5.15 W
Anti-glare vs glossy finish	Glossy	Glossy
Touch options	Yes	Yes

# Fingerprint reader

**Table 18. Fingerprint reader specifications**

<b>Description</b>	<b>Values</b>
Sensor technology	Capacitive
Sensor resolution	500 dpi

Description	Values
Sensor area	5.5 mm x 4.5 mm
Sensor pixel size	108 x 88 pixels

## Video

**Table 19. Discrete graphics specifications**

Discrete graphics			
Controller	External display support	Memory size	Memory type
NVIDIA MX250	Not supported	2 GB	GDDR5

**Table 20. Discrete graphics specifications**

Integrated graphics			
Controller	External display support	Memory size	Processor
Intel UHD Graphics 620	One HDMI 2.0 port	Shared system memory	8 <sup>th</sup> Generation Intel Core i5/i7

## Computer environment

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

**Table 21. Computer environment**

	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	110 G†	160 G‡
Altitude (maximum)	-15.2 m to 3,048 m (-50 ft to 10,000 ft)	-15.2 m to 10,668 m (-50 ft to 35,000 ft)

\* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse when the hard drive is in use.

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.

# Keyboard shortcuts

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























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 22. 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 23. List of keyboard shortcuts**



<b>Function key</b>	<b>Behavior</b>
	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 24. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
My Dell	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a> <a href="http://www.dell.com/support/linux">www.dell.com/support/linux</a>
Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on.	<a href="http://www.dell.com/support">www.dell.com/support</a>
Dell knowledge base articles for a variety of computer concerns.	<ol style="list-style-type: none"> <li>1 Go to <a href="http://www.dell.com/support">www.dell.com/support</a>.</li> <li>2 Type the subject or keyword in the <b>Search</b> box.</li> <li>3 Click <b>Search</b> to retrieve the related articles.</li> </ol>
Learn and know the following information about your product:	See <i>Me and My Dell</i> at <a href="http://www.dell.com/support/manuals">www.dell.com/support/manuals</a> .
<ul style="list-style-type: none"> <li>• Product specifications</li> <li>• Operating system</li> <li>• Setting up and using your product</li> <li>• Data backup</li> <li>• Troubleshooting and diagnostics</li> <li>• Factory and system restore</li> <li>• BIOS information</li> </ul>	<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"> <li>• Select <b>Detect Product</b>.</li> <li>• Locate your product through the drop-down menu under <b>View Products</b>.</li> <li>• Enter the <b>Service Tag number</b> or <b>Product ID</b> in the search bar.</li> </ul>

## Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [www.dell.com/contactdell](http://www.dell.com/contactdell).

**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.