XPS 8920
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 computer

1. Connect the keyboard and mouse.

2. Connect to your network using a cable, or connect to a wireless network.

3. Connect the display.

   **NOTE:** If you ordered your computer with a discrete graphics card, the HDMI and the display ports on the back panel of your computer are covered. Connect the display to the discrete graphics card.

4. Connect the power cable.
5. Press the power button.


   Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:
   
   • Connect to a network for Windows updates.
   
   \(\textit{NOTE:}\) 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 \textbf{Support and Protection} screen, enter your contact details.

7. Locate and use Dell apps from the Windows Start menu—Recommended

\begin{table}[h]
\centering
\begin{tabular}{|l|l|}
\hline
\textbf{Resources} & \textbf{Description} \\
\hline
\includegraphics[width=1cm]{mydell} & \textbf{My Dell} \\
 & 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. \\
\hline
\includegraphics[width=1cm]{supportassist} & \textbf{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 \url{www.dell.com/support}. \\
\hline
\includegraphics[width=1cm]{dellupdate} & \textbf{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 \url{SLN305843} at \url{www.dell.com/support}. \\
\hline
\end{tabular}
\end{table}
8. 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.

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.
Setting up the Virtual Reality (VR) headset — optional

1. Download and run the setup tools for your VR headset at www.dell.com/VRsupport.
2. Connect the VR headset to the designated USB 3.1 Gen 1 ports on the back of your computer and HDMI port on the graphics card on your computer, when prompted.

**NOTE:** If you connect the VR headset to the HDMI port on your computer, the performance will be optimum.

3. Follow the instructions on the screen to complete the setup.
1. **Power button**
   - Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.
   - Press to put the computer in sleep state if it is turned on.
   - Press and hold for 4 seconds to force shut-down the computer.
   
   **NOTE:** You can customize the power-button behavior in Power Options. For more information, see *Me and My Dell* at www.dell.com/support manuals.

2. **SD-card slot**
   - Reads from and writes to the SD card.

3. **Headphone/speaker port**
   - Connect headphones, a headset (headphone and microphone combo), or speakers.

4. **Microphone port**
   - Connect an external microphone to provide sound input.

5. **USB 3.0 ports (4)**
   - Connect peripherals such as storage devices, printers, and so on. Provides data transfer speeds up to 5 Gbps.

6. **Optical drive**
   - Reads from and writes to CDs and DVDs.

7. **Optical-drive eject button**
   - Press to open the optical drive tray.
1. **Back panel**
   - Connect USB, audio, video and other devices.

2. **PCI-Express x16 (graphics slot 1)**
   - Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your computer.
   - For optimal graphics performance, use this slot for connecting the graphics card.

3. **PCI-Express x1 slots (2)**
   - Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your computer.

4. **PCI-Express x4 slot**
   - Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your computer.

5. **Regulatory label**
   - Contains regulatory information about your computer.

6. **Bottom power-supply cage release-latch**
   - Allows you to remove the power supply unit from your computer.

7. **Service Tag label**
   - Provides the Service Tag and Express Service Code needed when contacting Dell.

8. **Top power-supply cage release-latch**
   - Allows you to remove the power supply unit from your computer.

9. **Power supply light**
   - Indicates the power-supply state.

10. **Power-supply diagnostic button**
    - Press to check the power-supply state.

11. **Power port**
    - Connect a power cable to provide power to your computer.

12. **Security-cable slot**
    - Connect a security cable to prevent unauthorized movement of your computer.
1. **Network port**
   
   Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or internet access. The two lights next to the connector indicate the connectivity status and network activity.

2. **USB 2.0 ports (2)**
   
   Connect peripherals such as storage devices and printers. Provides data transfer speeds up to 480 Mbps.

3. **DisplayPort**
   
   Connect an external display or a projector.

   **NOTE:** If you ordered your computer with a discrete graphics card, the DisplayPort on the back panel of your computer is covered. Connect the display to the discrete graphics card of your computer.

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

   **NOTE:** If you ordered your computer with a discrete graphics card, the HDMI port on the back panel of your computer is covered. Connect the display to the discrete graphics card of your computer.

5. **USB 3.1 Type-C port**
   
   Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 10 Gbps.

6. **USB 3.1 port**
   
   Connect peripherals, such as storage devices and printers. Provides data transfer speeds up to 10 Gbps.

7. **USB 3.0 ports (3)**
   
   Connect peripherals such as storage devices and printers. Provides data transfer speeds up to 5 Gbps.

8. **Front L/R surround line-out port**
   
   Connect audio-output devices such as speakers and amplifiers. In a 5.1 speaker channel setup, connect the front-left and front-right speakers.

9. **Rear L/R surround port**
   
   Connect audio-output devices such as speakers and amplifiers. In a 5.1 speaker channel setup, connect the rear-left and rear-right speakers.

10. **Center/subwoofer LFE surround port**
Connect the subwoofer.

**NOTE:** For more information about the speaker setup, refer to the documentation that shipped with the speakers.
Specifications

Computer model

Table 2. Computer model
Computer model

XPS 8920

System information

Table 3. System information
Processor
- 7th Generation Intel Core i5/i5k
- 7th Generation Intel Core i7/i7k

Chipset
- Intel H270
- Intel Z270

Operating system

Table 4. Operating system
Operating systems supported
- Windows 10 Pro 64-bit
- Windows 10 Home 64-bit

Dimensions and weight

Table 5. Dimensions and weight
Height
389 mm (15.32 in)

Width
180 mm (7.09 in)

Depth
356 mm (14.02 in)

Weight (maximum)
10 kg (22 lbs)

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

Memory

Table 6. Memory specifications
Slots
Four DIMM slots

Type
- UDIMM
- DDR4

Speed
2400 MHz

Configurations supported
8 GB, 16 GB, 24 GB, 32 and 64 GB
The following table lists the available memory configuration matrix:

**Table 7. Memory configuration matrix**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>DIMM1</th>
<th>DIMM2</th>
<th>DIMM3</th>
<th>DIMM4</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 GB</td>
<td>4 GB</td>
<td>4 GB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 GB</td>
<td>8 GB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 GB</td>
<td>8 GB</td>
<td>8 GB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 GB</td>
<td>16 GB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 GB</td>
<td>8 GB</td>
<td>8 GB</td>
<td>4 GB</td>
<td>4 GB</td>
</tr>
<tr>
<td>32 GB</td>
<td>8 GB</td>
<td>8 GB</td>
<td>8 GB</td>
<td>8 GB</td>
</tr>
<tr>
<td>64 GB</td>
<td>16 GB</td>
<td>16 GB</td>
<td>16 GB</td>
<td>16 GB</td>
</tr>
</tbody>
</table>

**Intel Optane memory**

Intel Optane memory functions as a storage accelerator. It accelerates the computer and any type of SATA-based storage media such as hard drives and solid-state drives (SSDs).

**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)
- Intel Rapid Storage Technology driver version 15.5.xxxx or higher

**Table 8. Intel Optane memory**

<table>
<thead>
<tr>
<th>Interface</th>
<th>PCIe NVMe 3.0 x2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>M.2</td>
</tr>
<tr>
<td>Configurations supported</td>
<td>16 GB</td>
</tr>
</tbody>
</table>

**NOTE:** For more information about enabling or disabling the Intel Optane memory, see [Enabling Intel Optane memory](#) or [Disabling Intel Optane memory](#).

**Ports and connectors**

**Table 9. Ports and connectors**

**Back panel ports**

<table>
<thead>
<tr>
<th>Network</th>
<th>One RJ45 port</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two USB 2.0 ports</td>
</tr>
<tr>
<td></td>
<td>Three USB 3.0 ports</td>
</tr>
<tr>
<td></td>
<td>One USB 3.1 Type-A port</td>
</tr>
<tr>
<td></td>
<td>One USB 3.1 Type-C port</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Video/Audio</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One Surround Front Stereo port</td>
</tr>
<tr>
<td></td>
<td>One Surround Rear Stereo port</td>
</tr>
<tr>
<td></td>
<td>One Surround Center/Subwoofer port</td>
</tr>
<tr>
<td></td>
<td>One HDMI port for integrated graphics</td>
</tr>
<tr>
<td></td>
<td>One DisplayPort for integrated graphics</td>
</tr>
</tbody>
</table>
Table 10. Ports and connectors

Front panel ports:

| Audio | • One Stereo Headphone jack
| • One Microphone jack
| USB   | Four USB 3.0 ports
| Card Reader | One 3-in-1 Card reader, supporting:
|          | • Secure Digital (SD)
|          | • Secure Digital Extended Capacity (SDXC)
|          | • Secure Digital High Capacity (SDHC) Classes 2, 4, and 6

Table 11. Ports and connectors

Internal ports:

| PCIe Slots | • One PCIe x16 card slot
| • Two PCIe x1 card slots
| • One PCIe x4 card slot
| M.2 Card   | • One M.2 card slot for SSD (SATA or PCIe/NVMe)
|          | • One M.2 card slot for Wi-Fi and Bluetooth combo card

Communications

Table 12. Supported Communications

Ethernet | 10/100/1000 Mbps Ethernet controller integrated on system board
Wireless | • Wi-Fi 802.11a/b/g/n
|          | • Wi-Fi 802.11ac
|          | • Bluetooth 4.0

Wireless module

Table 13. Wireless module specifications

| Transfer rate | Up to 867 Mbps (max)
| Frequency bands supported | Dual band 2.4 GHz/5 GHz
| Encryption | • 64-bit and 128-bit WEP
|          | • TKIP
|          | • AES-CCMP

Audio

Table 14. Audio specifications

Controller | Integrated Realtek ALC3861 High Definition Audio with Waves MaxxAudio Pro
Storage

Table 15. Storage specifications

<table>
<thead>
<tr>
<th>Interface</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• SATA 6 Gbps for optical drive</td>
<td></td>
</tr>
<tr>
<td>• SATA 6 Gbps for hard drive</td>
<td></td>
</tr>
<tr>
<td>• M.2 for SSD (SATA or PCIe/NVMe)</td>
<td></td>
</tr>
<tr>
<td>Hard drive</td>
<td>Three 3.5-inch hard drives</td>
</tr>
<tr>
<td>Solid-state drive</td>
<td>One M.2 slot</td>
</tr>
<tr>
<td>Optical drive (optional)</td>
<td>One Slimline DVD+/-RW</td>
</tr>
</tbody>
</table>

Capacity:
- Hard drive: Up to 4 TB
- SSD: PCIe/NVMe: Up to 1 TB

Video

Table 16. Video specifications

<table>
<thead>
<tr>
<th>Controller</th>
<th>Integrated</th>
<th>Discrete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel HD Graphics 630</td>
<td>• NVIDIA GT 730</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NVIDIA GTX 745</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NVIDIA GTX 1050 Ti</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NVIDIA GTX 1070</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NVIDIA GTX 1080</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• AMD Radeon RX 460</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• AMD Radeon RX 470</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• AMD Radeon RX 480</td>
<td></td>
</tr>
</tbody>
</table>

Memory
- Integrated: Shared system memory
- Discrete: Up to 8 GB GDDR5X

Power ratings

Table 17. Power ratings

<table>
<thead>
<tr>
<th>Type</th>
<th>460 W APFC</th>
<th>460 W Bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input current</td>
<td>8 A</td>
<td>8 A</td>
</tr>
<tr>
<td>Rated output voltage</td>
<td>3.3V, 5V, 12VA, 12VB, 12VC, 5Vaux</td>
<td>3.3V, 5V, 12VA, 12VB, 12VC, 5Vaux</td>
</tr>
<tr>
<td>Input voltage</td>
<td>100 VAC–240 VAC</td>
<td></td>
</tr>
<tr>
<td>Input frequency</td>
<td>50 Hz–60 Hz</td>
<td></td>
</tr>
<tr>
<td>Temperature range: Operating</td>
<td>5°C to 50°C (41°F to 122°F)</td>
<td></td>
</tr>
<tr>
<td>Temperature range: Storage</td>
<td>−40°C to 70°C (−40°F to 158°F)</td>
<td></td>
</tr>
</tbody>
</table>

Computer Environment

Airborne contaminant level: G2 or lower as defined by ISA-S71.04-1985
<table>
<thead>
<tr>
<th>Table 18. Computer environment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating</strong></td>
</tr>
<tr>
<td>Temperature range</td>
</tr>
<tr>
<td>Relative humidity (maximum)</td>
</tr>
<tr>
<td>Vibration (maximum)*</td>
</tr>
<tr>
<td>Shock (maximum)</td>
</tr>
<tr>
<td>Altitude (maximum)</td>
</tr>
</tbody>
</table>

* 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.
Enabling Intel Optane memory

1. On the taskbar, click the search box, and then type Intel Rapid Storage Technology.
2. Click Intel Rapid Storage Technology. The Intel Rapid Storage Technology window is displayed.
3. On the Status tab, click Enable to enable the Intel Optane memory.
4. On the warning screen, select a compatible fast drive, and then click Yes to continue enabling Intel Optane memory.
5. Click Intel Optane memory > Reboot to complete enabling your Intel Optane memory.

**NOTE:** Applications may take up to three subsequent launches after enablement to see the full performance benefits.

Disabling Intel Optane memory

⚠️ **CAUTION:** After disabling Intel Optane memory, do not uninstall the driver for Intel Rapid Storage Technology as it will result in a blue screen error. The Intel Rapid Storage Technology user interface can be removed without uninstalling the driver.

**NOTE:** Disabling Intel Optane memory is required before removing the SATA storage device accelerated by the Intel Optane memory module from the computer.

1. On the taskbar, click the search box, and then type Intel Rapid Storage Technology.
2. Click Intel Rapid Storage Technology. The Intel Rapid Storage Technology window is displayed.
3. On the Intel Optane memory tab, click Disable to disable the Intel Optane memory.

**NOTE:** For computers in which Intel Optane memory acts as a primary storage, do not disable the Intel Optane memory. The Disable option will be grayed out.

4. Click Yes if you accept the warning. The disabling progress is displayed.
5. Click Reboot to complete disabling your Intel Optane memory and restart your computer.
Self-help resources

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

**Table 19. Self-help resources**

<table>
<thead>
<tr>
<th>Self-help resources</th>
<th>Resource location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about Dell products and services</td>
<td><a href="http://www.dell.com">www.dell.com</a></td>
</tr>
<tr>
<td>My Dell app</td>
<td></td>
</tr>
</tbody>
</table>

**Tips**

- Contact Support
- Online help for operating system
- Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on.
- Dell knowledge base articles for a variety of computer concerns.

Learn and know the following information about your product:
- Product specifications
- Operating system
- Setting up and using your product
- Data backup
- Troubleshooting and diagnostics
- Factory and system restore
- BIOS information

See **Me and My Dell** at www.dell.com/support/manuals.

To locate the **Me and My Dell** relevant to your product, identify your product through one of the following:
- 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/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.