

XPS 13 9345

Re-imaging guide for Windows

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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Installation overview

CAUTION: This section of the re-imaging guide covers driver installation and driver updates and is designed for system administrators. Do not attempt to install or update drivers on the computer if you are not an administrator or if you are unsure of the procedures. Failure to follow instructions may result in permanent data loss.

NOTE: The information that is provided in this guide is only applicable to computers shipped with the Windows 11 operating system.

NOTE: Dell Technologies recommends that you download and install the device drivers from the Dell [Drivers & Downloads](#) website. Installing device drivers from a non-Dell website can cause system performance issues, corrupt operating system files, blue screen errors, unexpected shutdowns, or infect your computer with malicious software.

Device drivers must be updated when you reinstall the operating system using either a CD, DVD, USB drive, or when you are facing networking, graphics, sound or other hardware-related problems. Dell Technologies recommends that you install or update device drivers after you have performed a factory reset of your Dell computer using the [Dell Backup and Recovery](#) application or other factory-reset methods. This ensures that you have the latest device drivers that are installed on your computer and that the devices function optimally.


Installing or updating device drivers may lead to the following improvements:


- Increases in system performance
- Patched security risks
- Expanded compatibility
- Fixed device issues
- Support for new features

However, if your computer is operating normally and there are no driver issues or updates that are prompted by the Windows operating system, driver updates may be unnecessary. Updating drivers unnecessarily may create problems.

Review the importance of each driver update on the Dell [Drivers & Downloads](#) page before you continue with an update.

Introduction

 **CAUTION:** This reimaging guide is designed for system administrators. Do not attempt to reimage the computer if you are not an administrator or are unsure of the procedures. Failure to follow instructions may result in permanent data loss.

 **NOTE:** The information that is provided in this guide is only applicable to computers shipped with the Windows 11 operating system.

Reimaging is the process of removing all software on the computer and reinstalling the removed software. Reimaging is required when the software in the computer is corrupted or damaged. It can also be used as a way to remove harmful and malicious software in your computer. This reimaging guide provides the steps that are required for reimaging your computer.


This guide assists you in installing Dell-recommended software stack and settings, drivers, and applications, which are tested and validated on your computer. The installation of the listed drivers and applications as described in the guide enhances the optimal performance of your computer.

Dell also provides drivers and applications that are not included with the Windows operating system. These drivers are required to enable the following solid state drives (SSDs):

- 512 GB, M.2 2230, Gen4 PCIe NVMe
- 1 TB, M.2 2280, Gen4 PCIe NVMe
- 2 TB, M.2 2280, Gen4 PCIe NVMe

It is always recommended to reimage on a newly installed operating system and not from any previous image-build. Ensure BIOS settings, including SATA configurations and modes, are appropriately set and the latest drivers and applications are used when reimaging the computer.

Order of reinstallation

 **NOTE:** Some drivers and application installation steps may not be applicable, depending on the configuration of the computer you have ordered.

To achieve optimal performance, install the drivers and applications in the following sequence:

1. **BIOS:** Enables the operating system to be loaded into the memory and enables the initial setup process on your computer.
2. **Windows operating system:** The operating system controls the hardware of your computer to be a base on which other software can operate on.
3. **Critical Microsoft Knowledge Base (KB) updates:** Microsoft updates that fix and optimize the operating system. For more information, see [Windows release information](#).
4. **Chipset driver:** The chipset driver helps to install INF files in a system. The INF files are in turn used by the operating system for installation of software and drivers.
5. **Audio driver:** Enables and enhances the audio controller.
6. **Graphics driver:**
 - Enhances and optimizes video performance.
 - Enables and provides additional functionality that is not included in the native Microsoft VGA driver, including:
 - User-customizable power management features
 - Portability and behavioral profiles
 - Multiple-monitor support
7. **Networking and communication drivers**, which include:
 - Wireless Local Area Network (WLAN) adapter driver: Enables and enhances the wireless adapter.
 - Bluetooth driver: Enables and enhances the Bluetooth adapter.
 - Onboard Local Area Network (LAN) driver.
8. **Security drivers**, which includes:
 - Goodix Fingerprint Sensor
9. **Dell applications**, which include:
 - Dell Command | Updates (DCU)
 - MyDell
 - SupportAssist

Updating or resetting the BIOS

Updating the BIOS in Windows

It is recommended to update the BIOS in the Windows operating system when an update is available or when you replace the system board.

1. Go to the [Dell Support Site](#).
2. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

3. Click **Drivers & Downloads**.
4. From the **Operating system** drop-down list, select the operating system that is installed on your computer.
5. From the **Category** drop-down list, select **BIOS**.
6. Select the latest version of BIOS, and click **Download** to download the BIOS file for your computer.
7. After the download is complete, browse to the folder where you saved the BIOS update file.
8. Double-click the BIOS update file icon and follow the on-screen instructions.

For more information, see the knowledge base article [000124211](#) at the [Dell Support Site](#).

Clearing CMOS settings

If flashing your computer with the latest BIOS update results in your computer being unable to boot, a BIOS reset is necessary. Clearing the CMOS settings resets the BIOS to factory settings. For more information about clearing the CMOS settings, go to the [Dell Support Site](#) and see the *Owner's Manual* of your computer.

Trusted Platform Module (TPM) security

TPM must be enabled in the BIOS Setup program for it to be deployed on the computer. Follow these steps to enable and configure the TPM:

1. Turn on or restart your computer.
2. Press F2 when the Dell logo is displayed on the screen to enter the BIOS Setup program. The BIOS setup program is displayed.
3. On the left pane, select **Security**.
4. Select or clear any of the following options to enable or disable it, respectively:
 - **TPM 2.0 Security On:** TPM is enabled and activated.
 - **Clear:** The BIOS clears the information that is stored in the TPM.
5. Select **APPLY CHANGES** to save the settings and click **EXIT**.

Reinstalling the operating system

The Windows operating system is validated for use on this computer. You can reset or reinstall the operating system under different scenarios. For more information about reinstalling the operating system, see the knowledge base article [000192698](#) at the [Dell Support Site](#).

Before you attempt to reinstall your operating system, Dell Technologies recommends that you backup all data as described in the [Microsoft Knowledge Base article](#).


Reinstalling drivers and applications

Drivers and applications are software that enables the Windows operating system to communicate with the hardware devices and software in your computer. Devices such as video and sound cards require drivers to function correctly within the Windows operating system, and enable you to adjust hardware settings.

The Windows operating system includes drivers for most devices, but device-specific drivers may have to be downloaded and installed separately. Dell Technologies recommends that you download the device drivers for your computer from [Drivers & Downloads](#).

Applications must be downloaded and installed separately. Dell Technologies recommends that you download the required applications for your Dell computer from the [Dell Download Center](#).

Displaying drivers and applications on your computer

1. Turn on your computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.
 **NOTE:** If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.
4. Click **Drivers & Downloads**.
5. From the **Operating system** drop-down list, select the Windows operating system that is installed on your computer to get a list of the drivers and applications available for your computer.

Reinstallation sequence for drivers and applications

Driver installation is critical after reinstalling the Windows operating system on your Dell computer. Install the drivers in the correct sequence for your computer to function correctly. In some scenarios, you may have to reinstall or update the device driver if you are encountering issues with a specific device.

For more information, see the Dell knowledge base article [000132394](#) at the [Dell Support site](#).

NOTE: The Windows operating system includes touchpad drivers; no other touchpad-driver installation is required.

NOTE: The Windows operating system includes the webcam drivers; no additional webcam-driver installation is required. For video capture or streaming, users can install webcam software available from third-party providers.

Dell Technologies recommends installing drivers or applications in the following sequence.

Critical Microsoft Knowledge Base (KB) updates

Dell Technologies recommends installing all the latest available KB updates on your computer. KB updates are automatically downloaded and installed when Windows Updates are enabled and can also be manually downloaded and installed from the Microsoft support site. For more information, see [Windows 11 - release information](#).

Chipset

The Windows operating system does not include the chipset driver that is recommended by Dell. Install the chipset driver available for download from the [Dell Support Site](#).

Downloading and installing the chipset driver

1. Turn on the computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Chipset**.
6. Click **Download** to download the chipset driver for your computer.
7. After the download is complete, go to the folder where you saved the chipset driver file.
8. Double-click the chipset driver file icon and follow the on-screen instructions.

Audio

The Windows operating system does not include the audio driver recommended by Dell. Install the HD audio driver available for download from the [Dell Support Site](#).

Downloading and installing the audio driver

1. Turn on your computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Audio**.
6. Click **Download** to download the preferred audio driver for your computer.
7. After the download is complete, go to the folder where you saved the audio driver file.
8. Double-click the audio driver file icon and follow the on-screen instructions.

Graphics

The Windows operating system includes the VGA-graphics driver only. For optimal graphics performance, install the Dell graphics driver applicable to your computer from the [Dell Support Site](#).

Downloading and installing the graphics driver

1. Turn on your computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Video**.
6. Click **Download** to download the preferred graphics driver for your computer.
7. After the download is complete, go to the folder where you saved the graphics driver file.
8. Double-click the graphics driver file icon and follow the on-screen instructions.

Wireless Local Network (WLAN) drivers

The Windows operating system does not provide native-device driver support for WLAN controllers on Dell computers. To obtain wireless network functionality, install the relevant WLAN drivers from the [Dell Support Site](#).

Downloading and installing the Wi-Fi driver

1. Turn on the computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Network, Ethernet & Wireless**.
6. Click **Download** to download the preferred Wi-Fi controller and Bluetooth drivers for your computer.
7. After the download is complete, go to the folder where you saved the driver files.
8. Double-click the file icon of each driver file, and follow the on-screen instructions.

Fingerprint-reader driver

Downloading and installing the fingerprint-sensor driver

1. Turn on your computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Security**.
6. Click **Download** to download the Fingerprint Sensor Driver for your computer.
7. After the download is complete, go to the folder where you saved the Fingerprint Sensor driver file.
8. Double-click the Fingerprint Sensor driver file icon and follow the on-screen instructions.

Dell applications

Reinstall Dell applications, such as:

- Dell Command | Updates (DCU)
- MyDell
- SupportAssist

Downloading and installing Dell applications

1. Turn on your computer.
2. Go to the [Dell Support Site](#).
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Application** to see the list of application drivers that you can download.
6. Select the required Dell application and click **Download**.
7. After the download is complete, go to the folder where you have saved the application file.
8. Double-click the application file icon and follow the on-screen instructions.

.NET Framework


The .NET Framework is a software framework from Microsoft, which is bundled with Windows operating systems. The .NET Framework is intended to be used by applications created for the Windows platform.

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 1. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	Dell Site
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	Windows Support Site
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Dell 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 Dell Support Site . For more information about how to find the Service Tag for your computer, see Instructions on how to find your Service Tag or Serial Number .
Dell knowledge base articles	<ol style="list-style-type: none"> 1. Go to Dell Support Site. 2. On the menu bar at the top of the Support page, select Support > Support Library. 3. In the Search field on the Support Library page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [Contact Support at Dell Support Site](#).

 **NOTE:** Availability of the services may vary depending on the country or region, and product.

 **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.