



SanDisk® SSD Dashboard

User Manual

SanDisk®



Accessing Online Support

Visit our product support website at kb.sandisk.com and choose from these topics:

- **Downloads** — Download software and updates for your SanDisk product
- **Registration** — Register your SanDisk product to get the latest updates and special offers.
- **SanDisk Community** — Share your thoughts and connect with other SanDisk users

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Introduction

This chapter contains the following sections.

- [Minimum System Requirements](#)
- [Supported Operating Systems](#)
- [Supported Languages](#)
- [Installation](#)
- [Usage](#)

Minimum System Requirements

The SanDisk SSD Dashboard is a Microsoft Windows application. Administrative rights are required for installation and execution of the application.

Supported Operating Systems

- Windows 10 (32/64 bit)
- Windows 8.1 (32/64 bit)
- Windows 7 (32/64 bit)
 - Windows 7 requires a Microsoft Hotfix to support NVMe, see: [MS Hotfix 2990941](#)
 - Windows 7 requires the support of a graphics driver that supports OpenGL 2.1 or higher.

Supported Languages

Seventeen languages are supported:

- Czech
- Danish
- Dutch
- English
- French
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese
- Russian
- Simplified Chinese
- Spanish
- Swedish
- Traditional Chinese
- Turkish

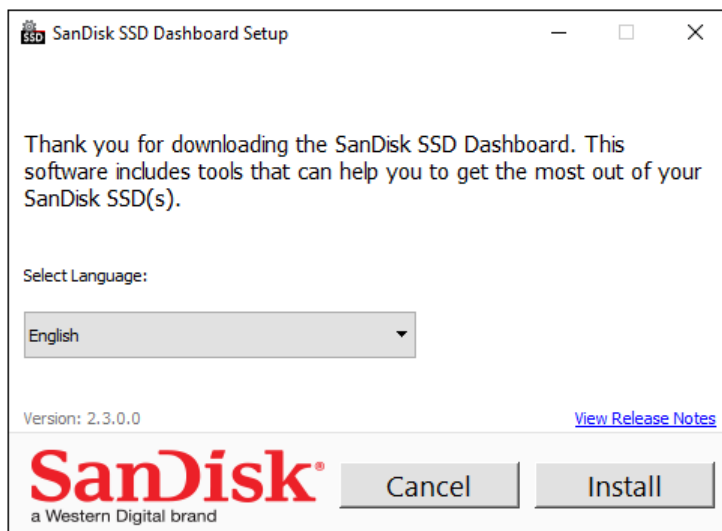
Installation

You can download the current version of the SanDisk SSD Dashboard software from kb.sandisk.com.

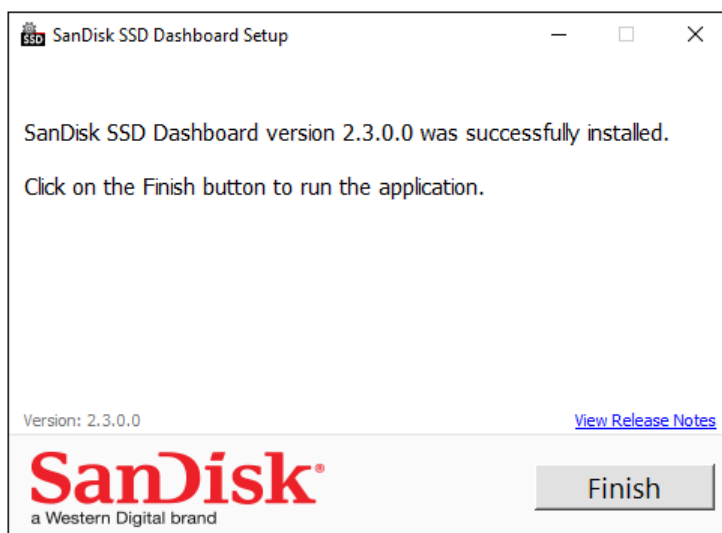
After the file has been downloaded, follow these steps to install the application.

1. Double-click on the **SanDiskSSDDashboardSetup.exe** file icon to launch the installation.

Note: To cancel the installation, click on the **X** in the upper-right corner of the dialog box.



2. When the installation is complete, click **Finish**. The SanDisk SSD Dashboard launches and populates the Status section.



When the installation has completed successfully, click on the **Finish** button. This will automatically launch the SanDisk SSD Dashboard and load the Status section.

Note: To perform an application update, see [Application Update](#).

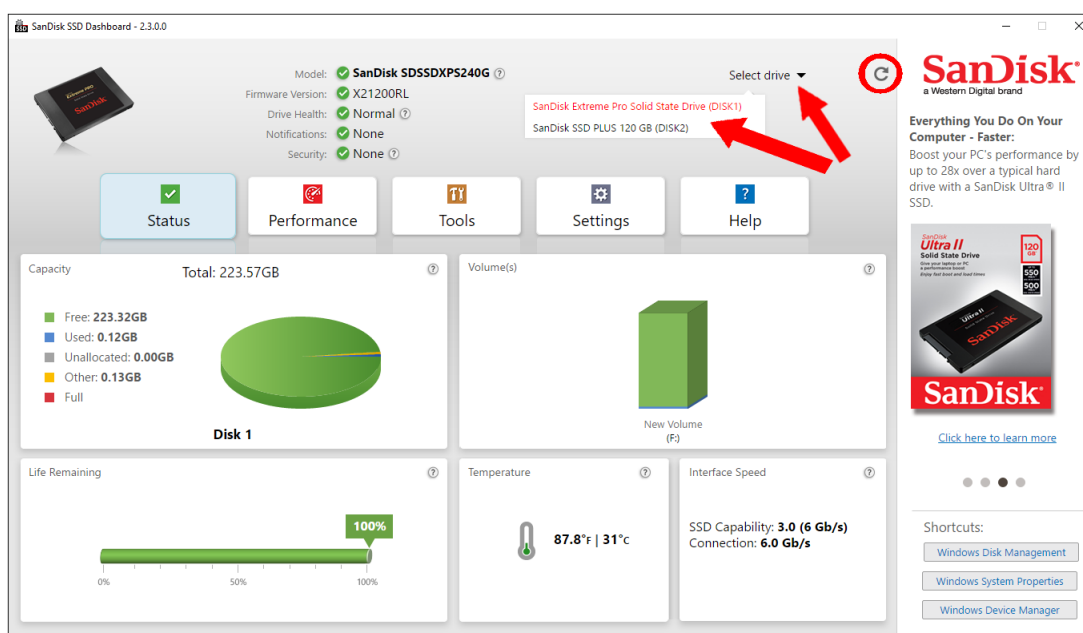
Usage

The SanDisk SSD Dashboard automatically scans for SanDisk SSDs after it launches.



If a SanDisk SSD is connected to the system after Dashboard is launched, the Dashboard will automatically scan the system. It will add the drive as the current model if this is the only SanDisk drive in the system, or add it to the list of drives in the Select Drive drop-down. If, for some reason, you do not see the drive, click the **Refresh** icon in the upper right corner of the screen to rescan the system for SanDisk SSDs.

When all SSD drives have been detected, you can select a specific drive by clicking on the **Select drive** drop-down menu.



2

Status

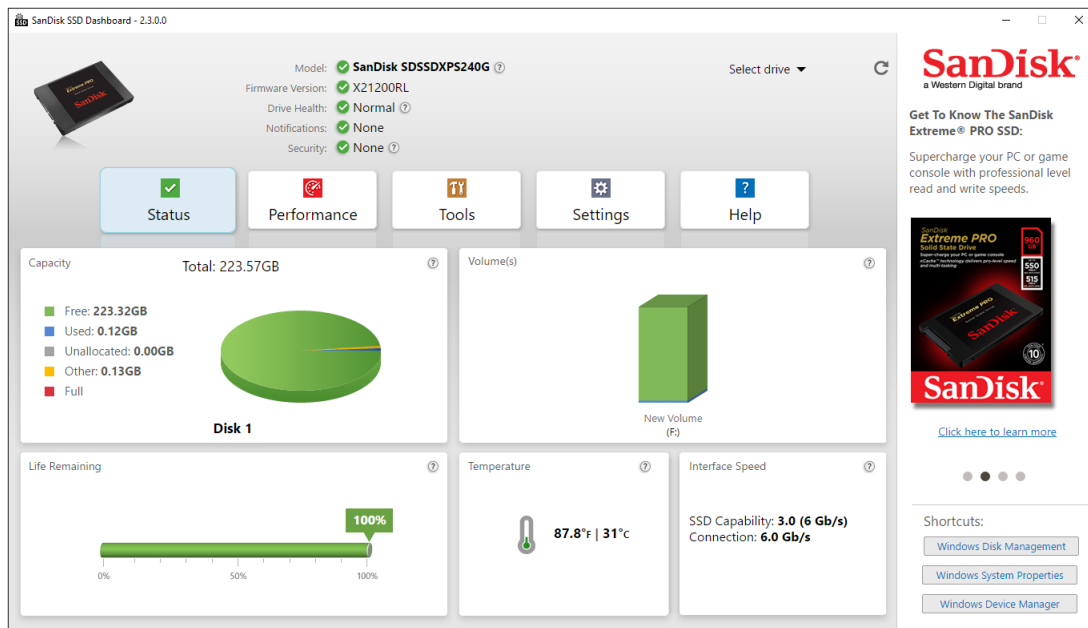
This chapter contains the following sections.

- [Status Section](#)
- [Capacity](#)
- [Volumes](#)
- [Life Remaining](#)
- [Temperature](#)
- [Interface Speed](#)

Status Section

The Status section displays the overall state and health of the selected drive.

Note: To select an SSD drive, click the **Select drive** drop-down menu.



The following information is listed at the top of the Status screen:

- **Model** - The product model name of the selected SanDisk SSD.
- **Firmware Version** - The version number of the firmware installed on the selected SanDisk SSD. Notifications of updates also appear in this section.
- **Drive Health** - Drive Health summarizes the current condition of the selected SSD based on Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) attributes.
 - Normal: The drive is in good condition.
 - Poor: The number of spare blocks has reached the minimum threshold or the drive is overheating. In the case of low spare-block count, replace this drive with a new SanDisk SSD.
- **Notifications** - Notifications, such as software or S.M.A.R.T. attribute warnings, will be displayed in this area.
- **Security** - If the selected drive supports security, this area will be visible.
 - “Not Activated” displays if the security protocol is not active.

- If the security protocol is active, the name of the active security protocol displays, for example, “Activated, TCG Opal 2.0/eDrive”.

Capacity

As used for storage capacity on our packaging and device label, one gigabyte (GB) = one billion bytes and one terabyte (TB) = one trillion bytes. On the SanDisk SSD Dashboard and within Windows folders, total accessible capacity varies depending on operating environment and the capacity displayed is based on the Windows operating system’s calculation method for total-reported capacity.

- Green - Free space
- Blue - Used space
- Gray - Unallocated space
- Yellow - Other
- Red - Full

Volumes

The chart displays any drive volumes recognized by Windows.

- Green - Free space
- Blue - Used space
- Red - No free space

Life Remaining

The Life Remaining percentage represents the remaining writes the selected drive can perform in its lifetime.

Note: If this feature is not supported by the drive, a “Not Supported” message will be displayed.

Temperature

The temperature reported by the SSD. The thermometer graphic displays one of two colors, as follows.

- Green - Normal operation
- Yellow - The SSD is currently overheating

Interface Speed

- SSD Capability - The fastest speed supported by the drive.
- Connection - The port connecting the SSD to the system.

Note: For SATA SSD, the connection speed is the actual speed negotiated with the system. If the connection speed is lower than the SSD

Capability speed, the following message appears in red: For best performance, connect your SSD to a 6.0 Gb/s-capable port.

3

Performance

This chapter contains the following sections.

- [Performance Chart](#)
- [Transfer Speed MB/s](#)
- [Transfer IOPS](#)
- [TRIM](#)

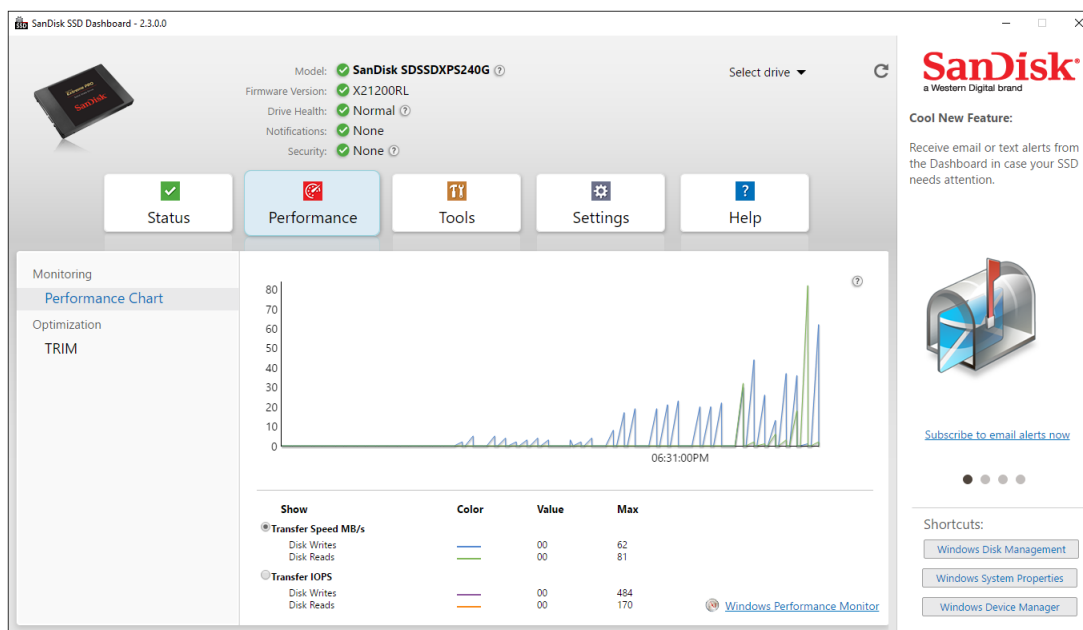
Performance Chart

The Performance chart provides two different real time performance metrics: transfer speed MB/s (megabytes per second) and transfer IOPS (I/O operation count per second).

The chart scrolls from right to left and shows moving, 5-minute time line increments on the horizontal axis. The vertical axis of the chart will show either Transfer Speed MB/s or Transfer IOPS.

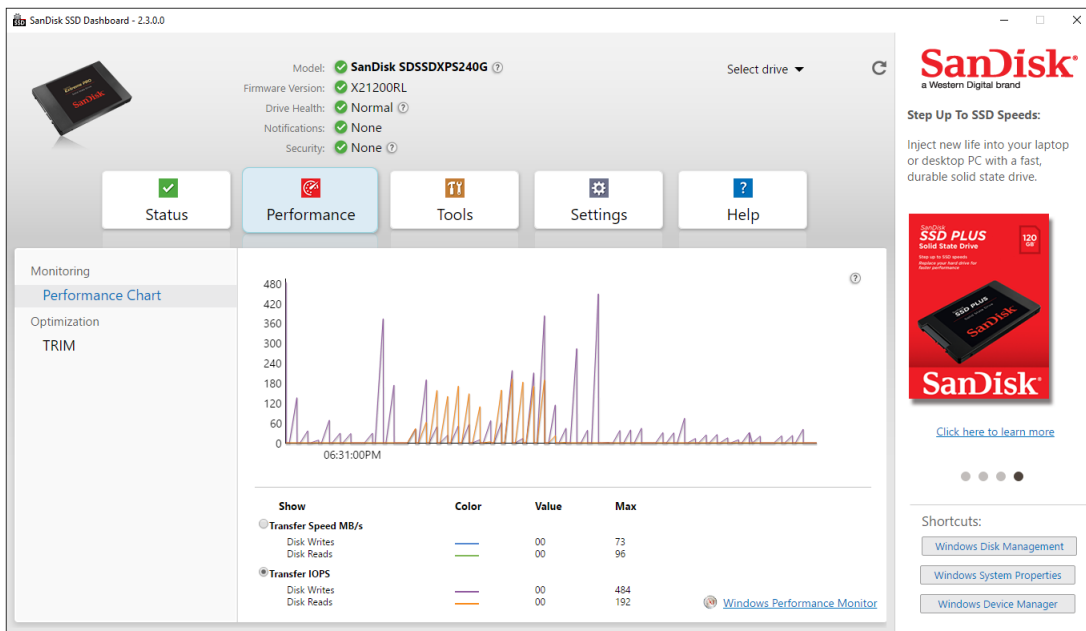
Transfer Speed MB/s

The SSD MB/s write and read speeds are shown in the chart with blue and green indicators, respectively.



Transfer IOPS

The SSD I/O write and read speeds are shown in the chart with purple and orange indicators, respectively.



TRIM

(This feature will be displayed if the operating system supports it.) The TRIM function frees up space on the SSD that was used by files that have been deleted.

Note: SanDisk recommends that TRIM be run on a weekly basis.

- Click the **Enable Windows TRIM** checkbox to automatically run TRIM.
- Select **Weekly**, for the frequency, if available.
- Click **Run TRIM Now** to manually run TRIM.

SanDisk SSD Dashboard - 2.3.0.0

Model: **SanDisk SDSSDXPS240G**

Firmware Version: **X21200RL**

Drive Health: **Normal**

Notifications: **None**

Security: **None**

Select drive ▼

Status **Performance** **Tools** **Settings** **Help**

Monitoring

Performance Chart

Optimization

TRIM

TRIM allows the operating system to request the selected SSD to free up the space used by files that have since been deleted.

☒ Enable Windows TRIM [Run TRIM Now](#) Last run: None

It is recommended to run TRIM periodically. Use the selection box and Frequency menu below to schedule automatic TRIM at the desired frequency. We recommend to automatically schedule TRIM on a weekly basis.

Run TRIM automatically at this frequency:

None ▼

Last run: None

Automatic TRIM scheduling is managed by the Windows Task Scheduler. Click the button below to view the details of the scheduled TRIM task(s).

[Windows Task Scheduler](#)

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[Click here to learn more](#)

Shortcuts:

[Windows Disk Management](#)

[Windows System Properties](#)

[Windows Device Manager](#)

4

Tools

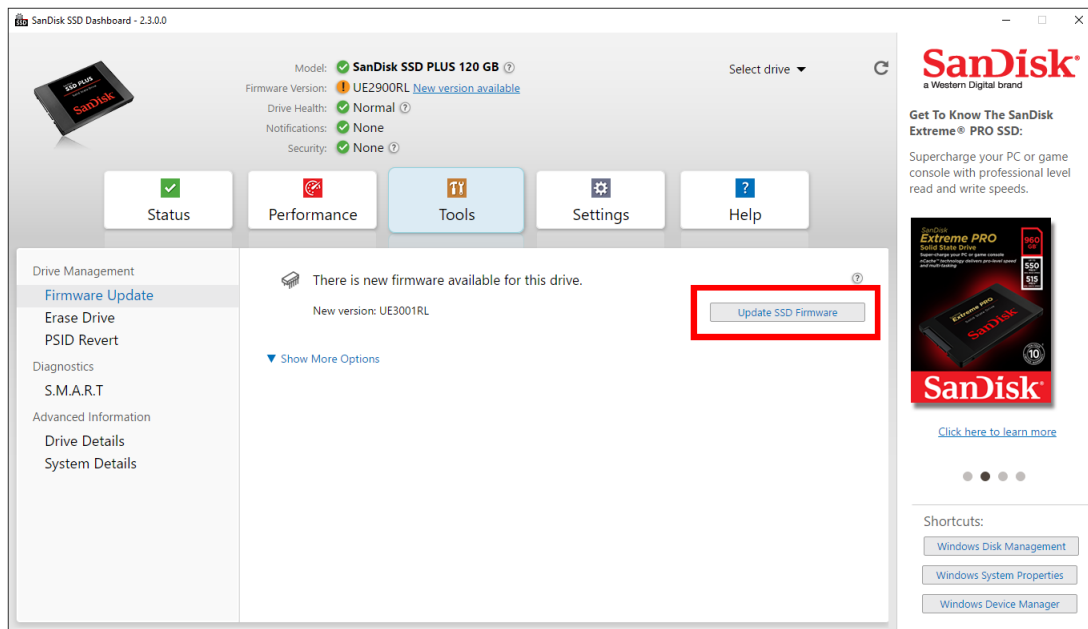
This chapter contains the following sections.

- [Firmware Update](#)
- [Check for Updates](#)
- [Update Using Bootable USB Drive](#)
- [Update Using File on My Computer](#)
- [Erase Drive—Secure Erase](#)
- [Delete User Data with Secure Erase](#)
- [Create a Bootable USB Drive for Secure Erase](#)
- [Sanitize](#)
- [Delete User Data with Sanitize](#)
- [Create a Bootable USB Drive with Sanitize](#)
- [Erase Drive](#)
- [Bootable USB Drive for Erase Drive](#)
- [PSID Revert](#)
- [S.M.A.R.T.](#)
- [Diagnostic Short Test](#)
- [Diagnostic Extended Test](#)
- [Drive Details](#)
- [System Details](#)

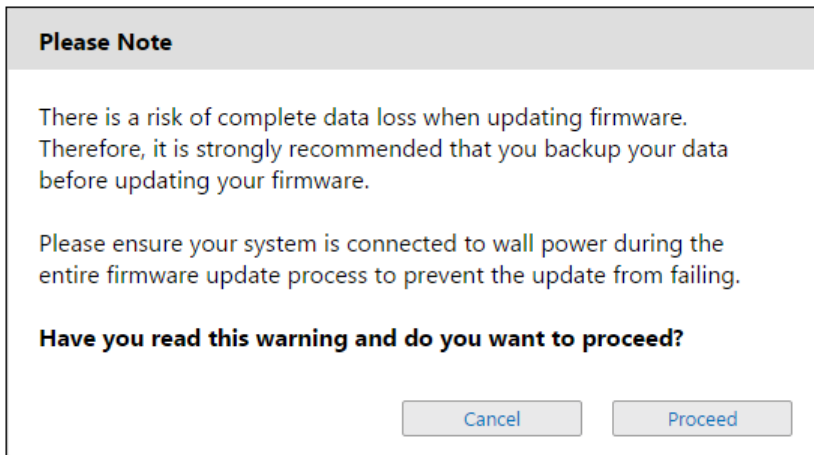
Firmware Update

Note: To avoid data loss, it is strongly recommended that you backup your data before updating the firmware.

Click **Update SSD Firmware** to initiate a firmware update, or click on the **Show More Options** drop-down menu to choose from additional firmware update methods.

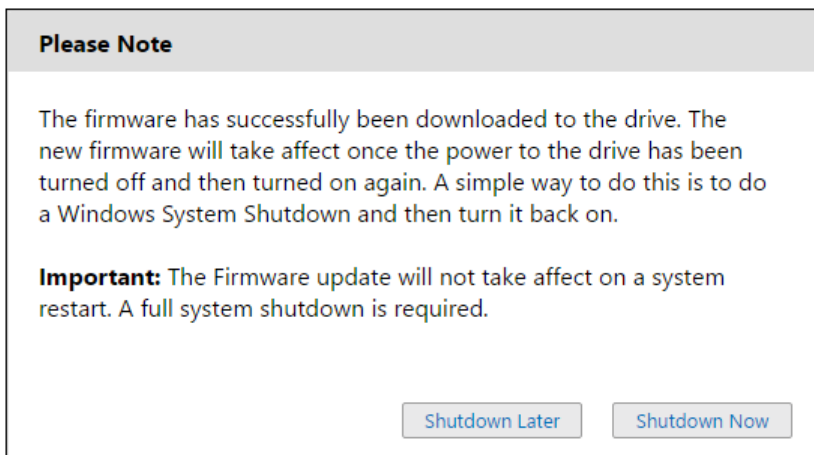


When you click the **Update SSD Firmware** button, a confirmation dialog box appears.



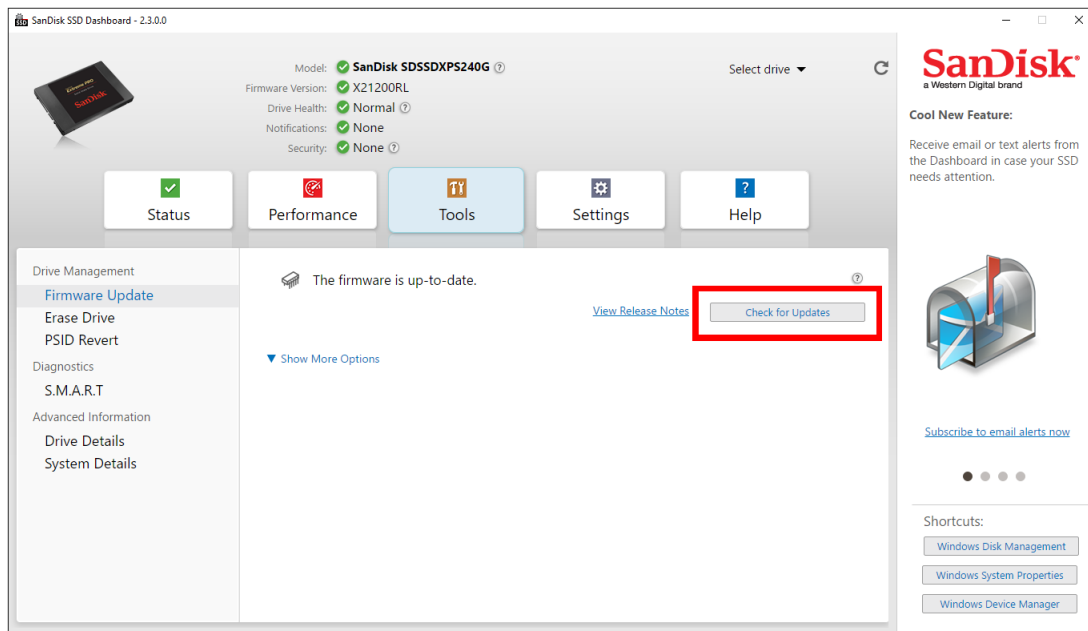
After the firmware has been downloaded to the SSD, a full-system shutdown is required to complete the firmware update process for SATA SSDs. This is typically done by shutting the computer down, and then turning it back on.

A dialog box appears that provides the option to shut the computer down now, or later.

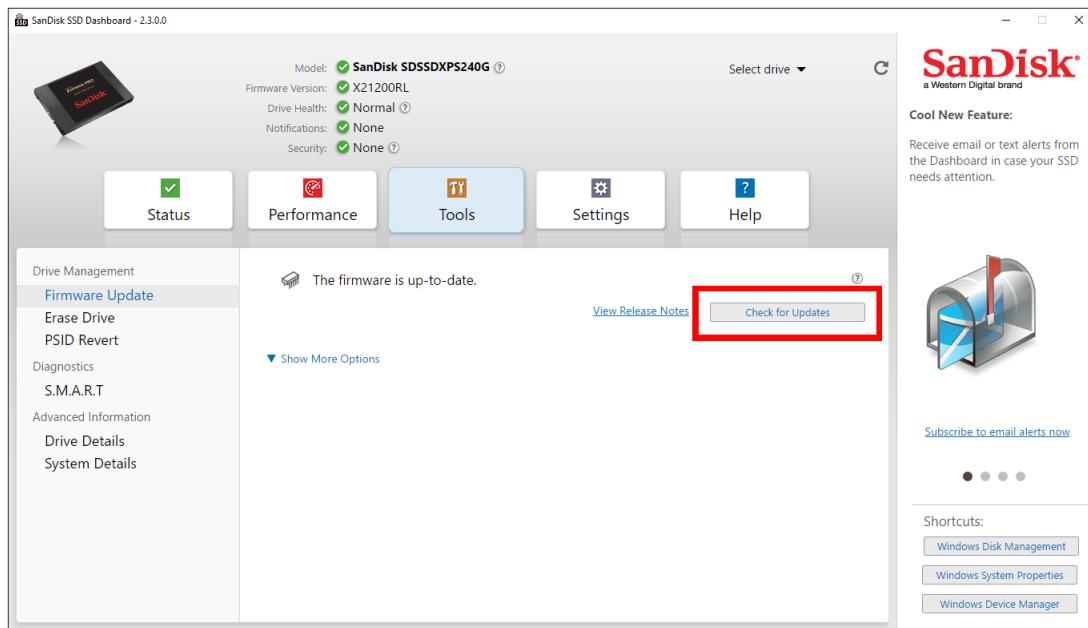


Check for Updates

Click **Check for Updates** to manually check if a firmware update is available for the selected drive.

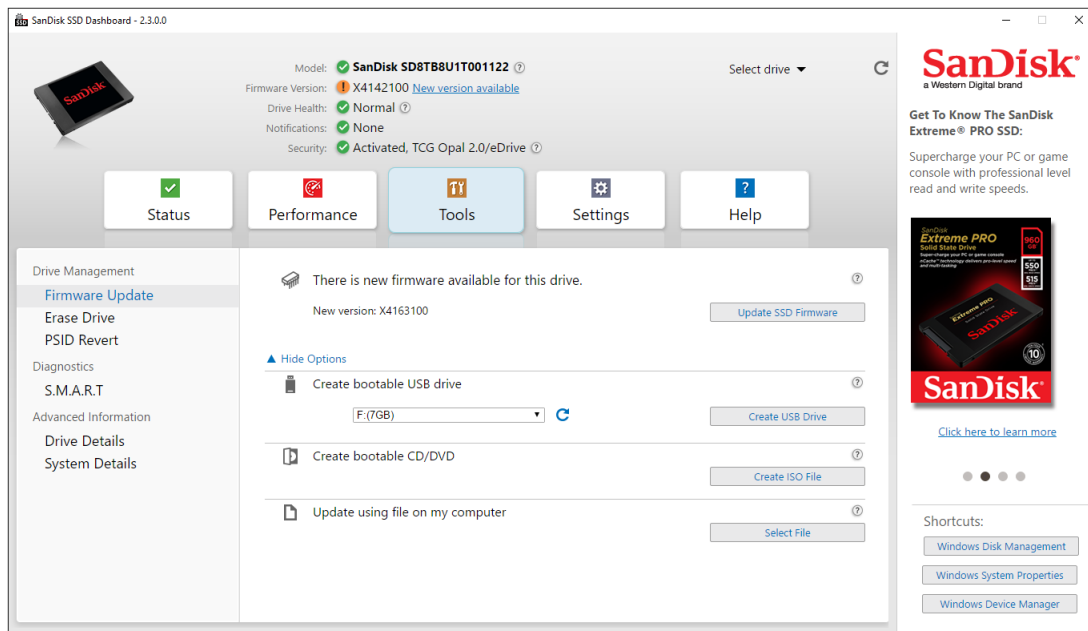


If a firmware update is found, the status message will change to “There is new firmware available for this drive,” and the update options will be displayed.



Update Using Bootable USB Drive

Note: The USB device must be formatted in order for the Dashboard to recognize it. During USB creation, it will automatically be re-formatted to FAT32. All data will be permanently erased from the USB device.



1. Insert a formatted USB drive. If the USB drive is added to the system after the Dashboard is launched, it won't be recognized automatically. Click the **refresh** icon next to the "No USB Drive Found" drop-down.
2. Before proceeding, backup any existing data on the USB drive.
3. Click the drop-down list to select the USB drive.

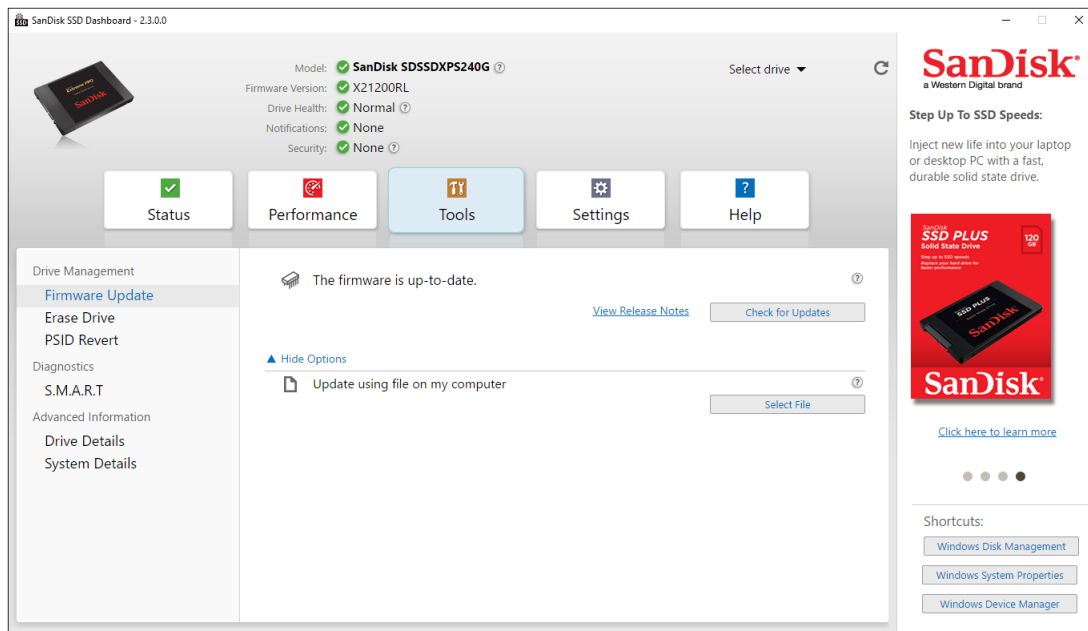
Note: If the USB drive is not listed, click the Refresh icon next to the drop-down list to scan for the USB drive.

4. Click **Create USB Drive**.

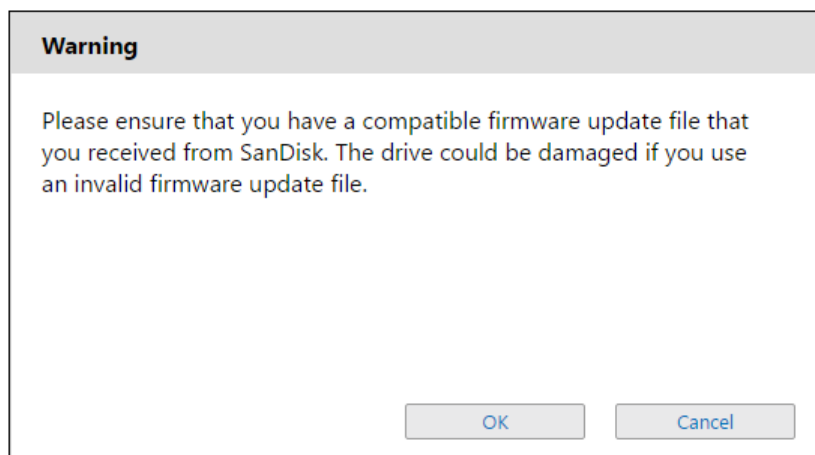
Update Using File on My Computer

Note: Only use compatible firmware update files for this process.

If you have already downloaded the specific firmware file that should be used for the update, click **Select File**.



A confirmation dialog box appears.



Erase Drive—Secure Erase

Secure Erase permanently destroys all user data on the selected SSD.

Note: Secure Erase deletes the mapping table on the selected SSD, but it does not erase all blocks that have been written to. This makes Secure Erase a faster “erase” option than the Sanitize function (also see [Sanitize](#)).

Secure Erase can only be performed on an SSD that is not the boot drive. However, if the SSD is the boot drive, the Secure Erase function can be performed from a formatted USB. See [Create a Bootable USB Drive for Secure Erase](#).

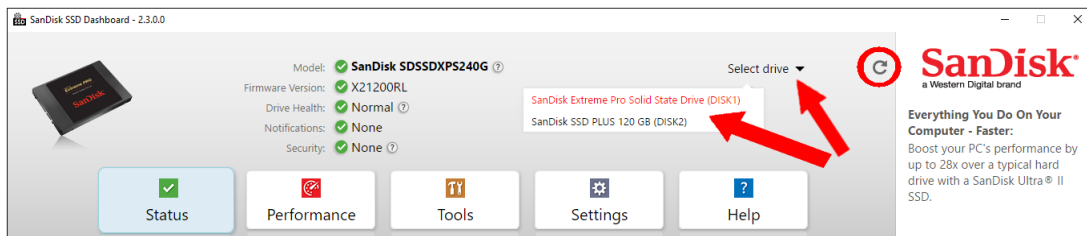
Delete User Data with Secure Erase

Note: Ensure that the correct SSD is selected on a system with more than one SSD. The Secure Erase function permanently destroys all user data on the selected SSD.

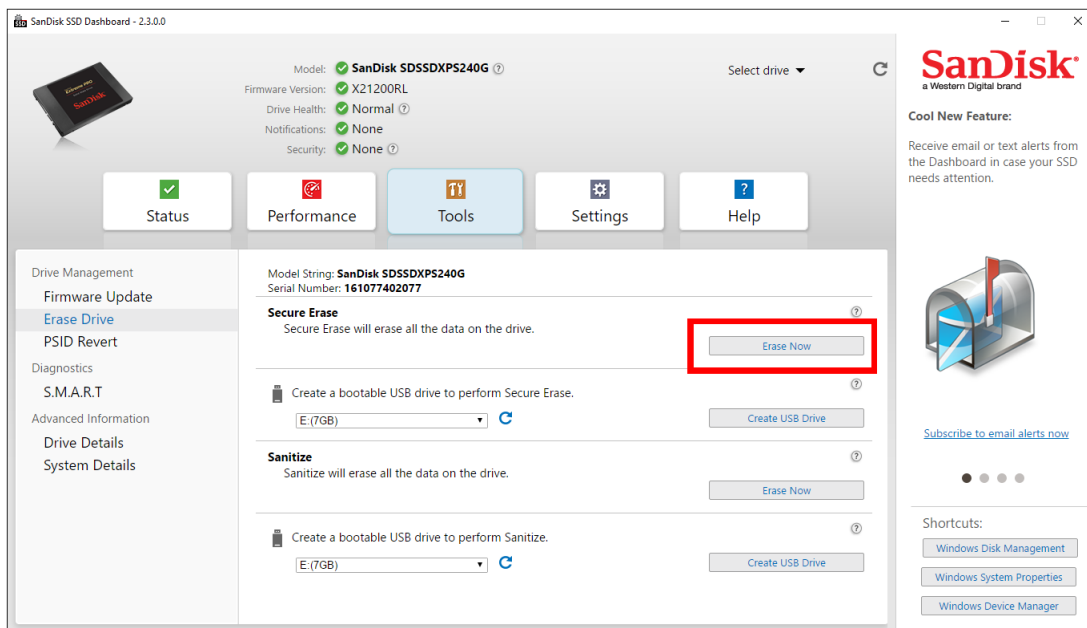
1. In the blue section at the top of the Dashboard, click the **Select drive** drop-down menu to select the SSD on which all user data will be permanently deleted.

Note: If the SSD to be deleted is not listed, click the **Refresh** icon next to the Select drive drop-down menu to scan for the SSD.

The name of the selected SSD appears next to **Model**.



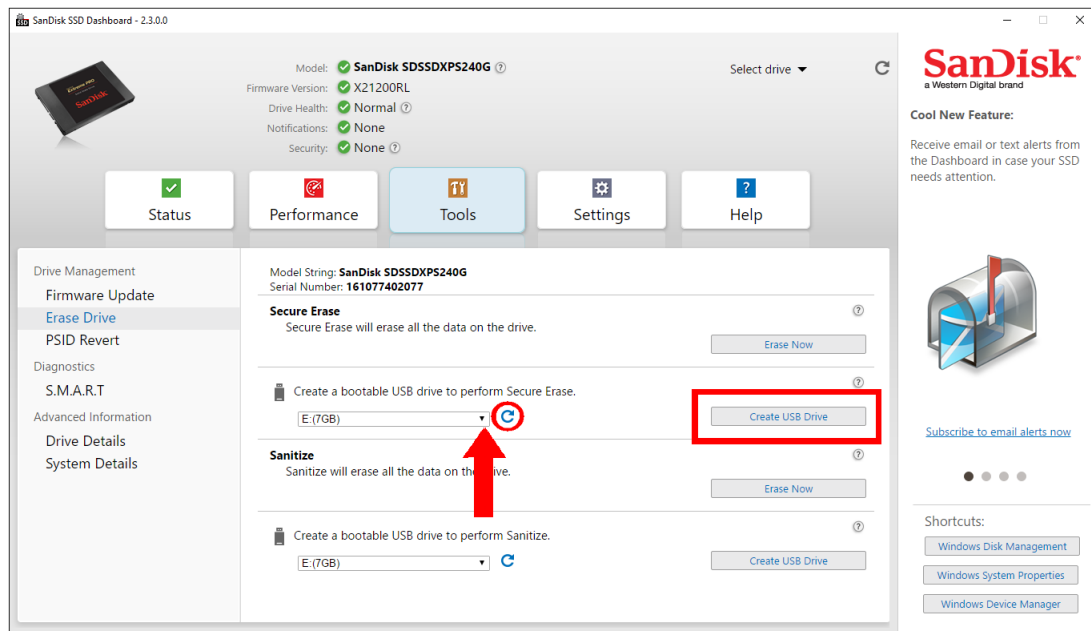
2. Click **Erase Now** next to **Secure Erase** to delete all user data and leave the drive in an unformatted state.



Create a Bootable USB Drive for Secure Erase

1. Insert a formatted USB drive.
2. Before proceeding, backup any existing data on the USB drive.
3. Click the **drop-down** list to select the USB drive.

Note: If the USB drive is not listed, click the **Refresh** icon next to the drop-down list to scan for the USB drive.



- Click **Create USB Drive**.

Sanitize

Sanitize permanently destroys all user data on the SSD.

Note: Sanitize deletes the mapping table and erases all blocks that have been written to on the selected SSD. This makes Sanitize a slower “erase” option than the Secure Erase function (also see [Secure Erase](#)).

Sanitize can only be performed on an SSD that is not the boot drive. However, if the SSD is the boot drive, the Sanitize function can be performed from a formatted USB. See [Create a Bootable USB Drive with Sanitize](#).

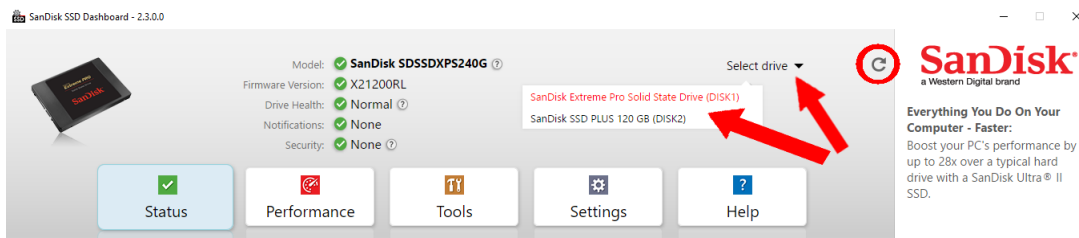
Delete User Data with Sanitize

Note: Ensure that the correct SSD is selected on a system with more than one SSD. The Sanitize function permanently destroys all user data on the selected SSD.

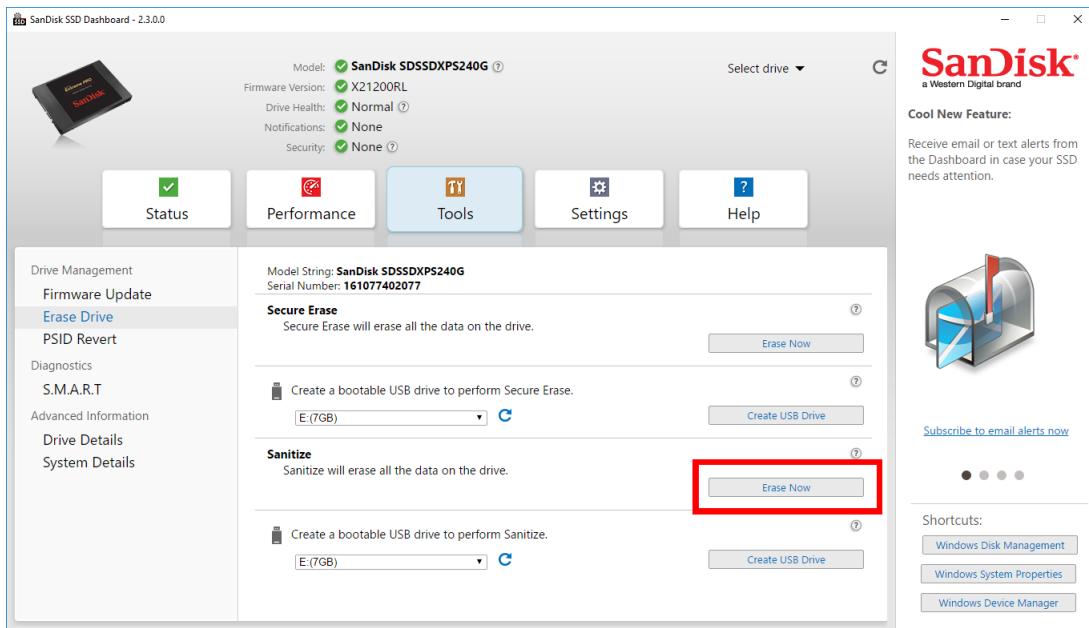
- In the blue section at the top of the Dashboard, click the **Select drive** drop-down menu to select the SSD on which all user data will be permanently deleted.

Note: If the SSD to be deleted is not listed, click the **Refresh** icon next to the Select drive drop-down menu to scan for the SSD.

The name of the selected SSD appears next to **Model**.



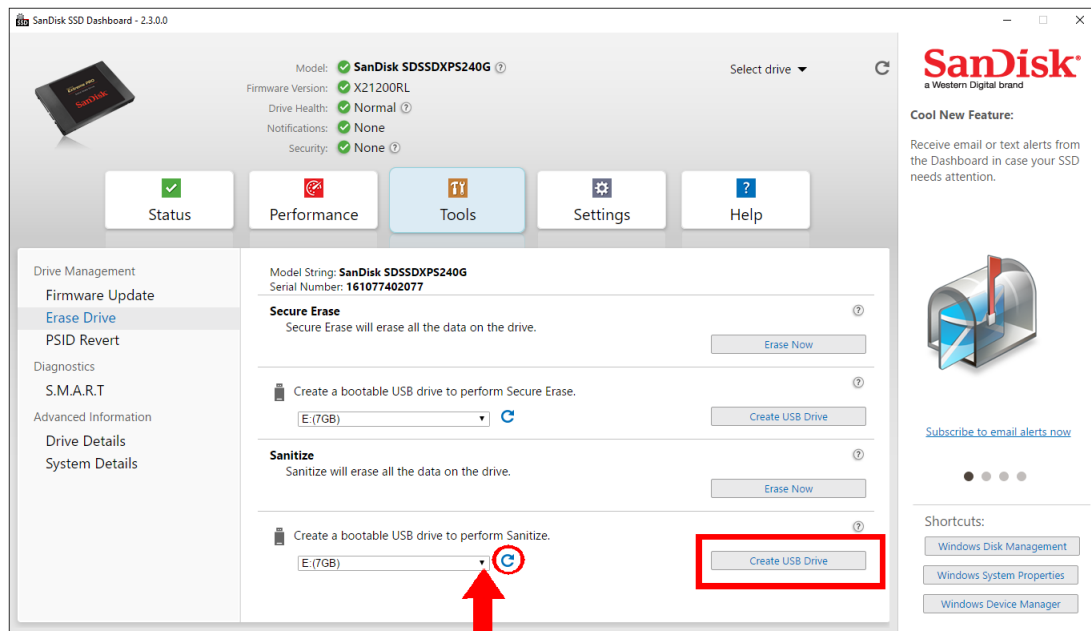
2. Click **Erase Now** next to **Sanitize** to delete all user data and leave the drive in an unformatted state.



Create a Bootable USB Drive with Sanitize

1. Insert a formatted USB drive.
2. Before proceeding, backup any existing data on the USB drive.
3. Click the **drop-down** list to select the USB drive.

Note: If the USB drive is not listed, click the **Refresh** icon next to the drop-down list to scan for the USB drive.

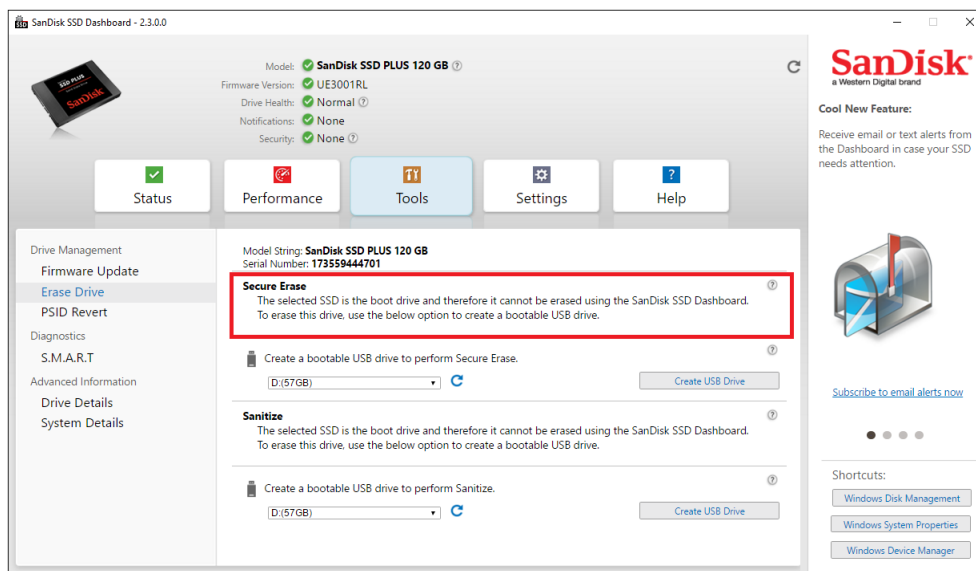


- Click **Create USB Drive**.

Erase Drive

Erase Drive permanently destroys all user data on the selected SSD.

Note: Erase Drive deletes the mapping table on the selected SSD, but it does not erase all blocks that have been written to.

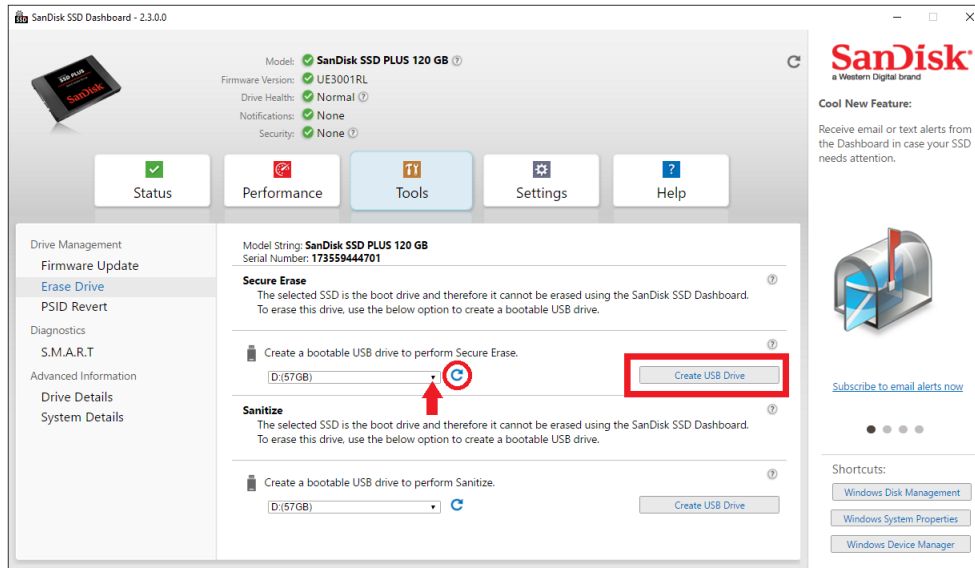


Bootable USB Drive for Erase Drive

Note: The USB drive must be formatted as a FAT or FAT32 file system.

- Insert a formatted USB drive.

2. Before proceeding, backup any existing data on the USB drive.
3. Click the drop-down list to select the USB drive. Note: If the USB drive is not listed, click the Refresh icon next to the drop-down list to scan for the USB drive.
4. Click Create USB Drive.

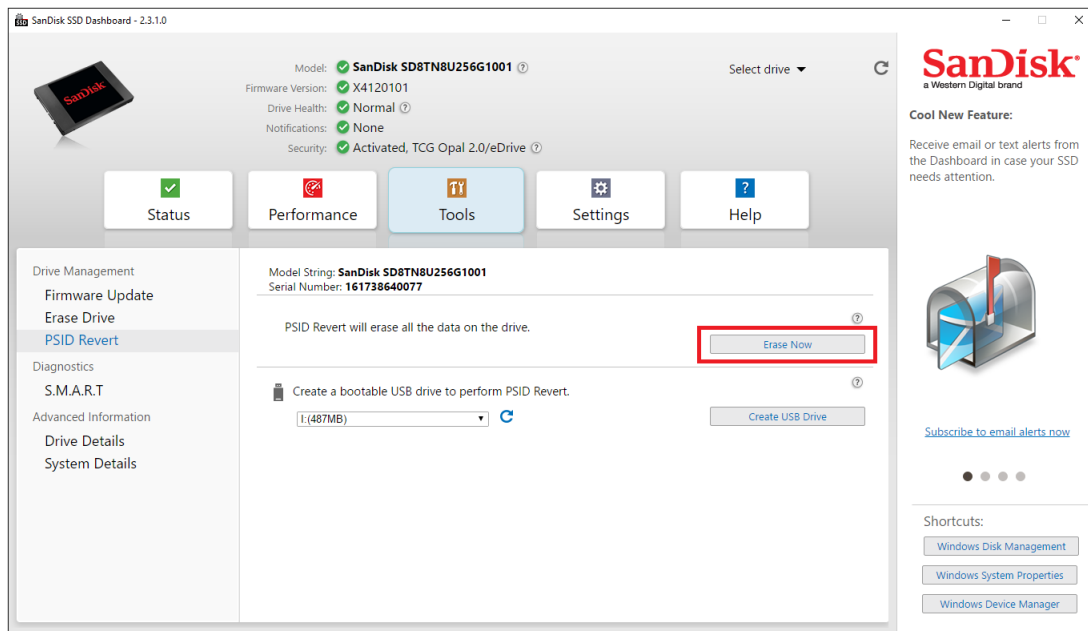


PSID Revert

PSID (Physical Security ID) is a unique 32-character alphanumeric identifier for SanDisk security-capable SSDs, which is required to restore the drive to a clean state. It is printed on the SSD label (for encrypted drives) as a 32-character string, as well as a 2D barcode.

The PSID revert function is useful if the drive is locked and needs to be re-purposed. It allows users to regain use of the drive by restoring factory settings. Note that this function will erase all user data and leave the drive in an unformatted state.

Note: The drive must be locked and encrypted.



If the SSD is the boot drive, you may create a bootable USB drive with PSID Revert tool on it. The bootable USB drive can also be used as portable tool to erase SSDs on multiple systems.

Please Note

After you erase the drive, all user data will be permanently destroyed on the selected drive. This data cannot be recovered. The drive's unique Physical Security ID (PSID) needs to be entered in the boxes below. The PSID is a unique 32 character alphanumeric string, which is printed on the drive's label.

- - -

Click on the **Select USB Drive** dropdown to choose the desired USB drive and then click **Create USB Drive**. If it is not listed, click the **Refresh** icon next to the dropdown menu to scan for the USB drive. It is recommended to backup any existing data on the USB drive before proceeding.

S.M.A.R.T.

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is an industry-standard drive monitoring system.

SanDisk SSD Dashboard - 2.3.0.0

Model: **SanDisk SDSSDXPS240G**

Firmware Version: **X21200RL**

Drive Health: **Normal**

Notifications: **None**

Security: **None**

Select drive

Status **Performance** **Tools** **Settings** **Help**

Drive Management
Firmware Update
Erase Drive
PSID Revert

Diagnostics
S.M.A.R.T.

Advanced Information
Drive Details
System Details

The S.M.A.R.T. Diagnostic Short Test may take 5 minutes or less to complete. **Run Short Test**
Last run: None

The S.M.A.R.T. Diagnostic Extended Test may take 10 minutes or longer to complete. **Run Extended Test**
Last run: Mon Feb 26 17:35:24 2018

▲ Hide Advanced Details

ID	Name	Value	Threshold	Result
5	Reassigned Block Count	0	None	N/A
9	Power On Hours	7582	None	N/A
12	Drive Power Cycle Count	46	None	N/A
171	Program Fail Count	0	None	N/A
172	Erase Fail Count	0	None	N/A
174	Unexpected Power Loss Count	38	None	N/A
187	UECC Count	0	None	N/A
194	Temperature	86° F 30° C	None	N/A
199	SATA CRC Errors	0	None	N/A

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Shortcuts:
[Windows Disk Management](#)
[Windows System Properties](#)
[Windows Device Manager](#)

Diagnostic Short Test

The S.M.A.R.T. Diagnostic Short Test runs automatically every time the SanDisk SSD Dashboard application is launched. It is a quick, drive health test as defined by the S.M.A.R.T. specification.

Diagnostic Extended Test

The S.M.A.R.T. Diagnostic Extended Test is an extended drive health test as defined by the S.M.A.R.T. specification. The SanDisk SSD Dashboard cannot be used while the test is running. However, you can cancel the test at any time.

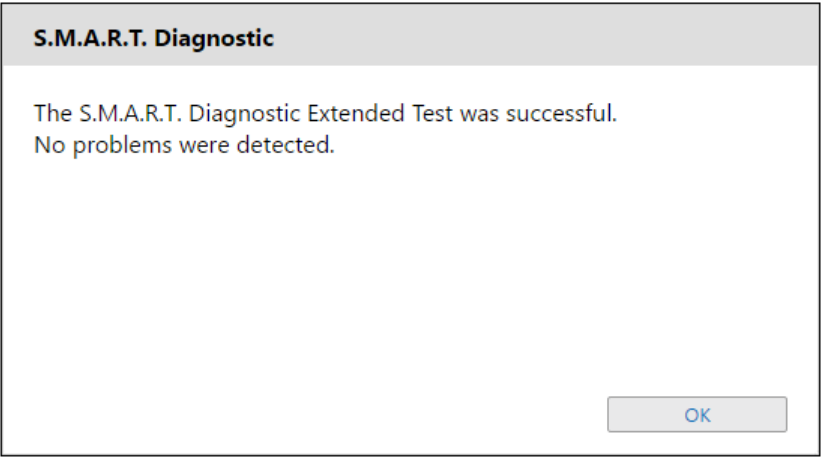
S.M.A.R.T. Diagnostic

Running S.M.A.R.T. Extended Test.

10%

Cancel

If the test is successful, the progress status changes to a green, test complete message.



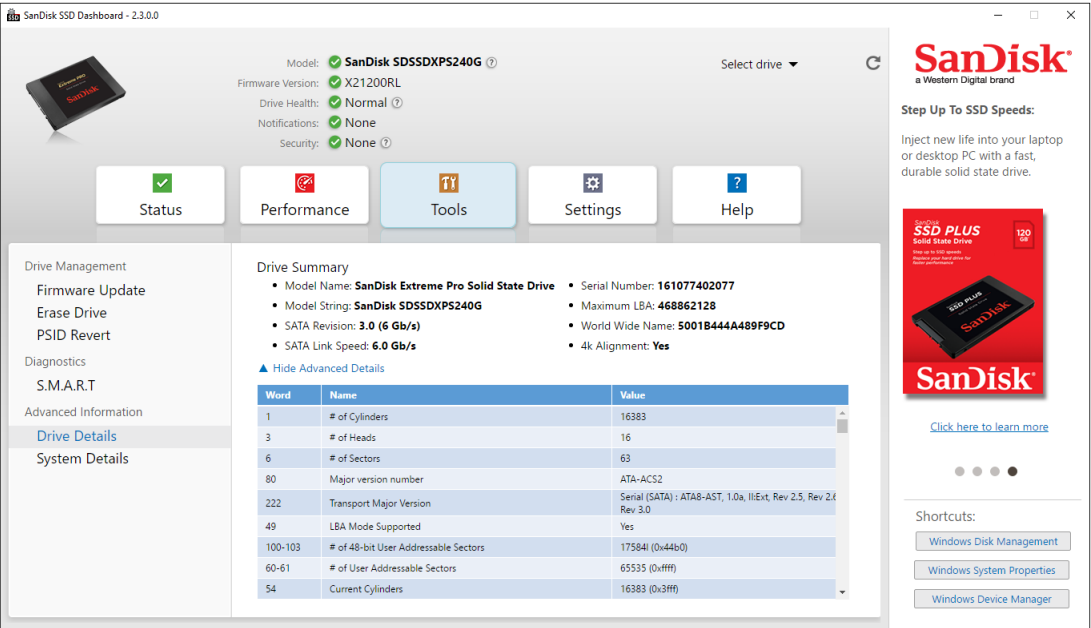
If the test is unsuccessful, click the provided link to go to the test details.

Drive Details

Drive Details displays the following information for the selected drive:

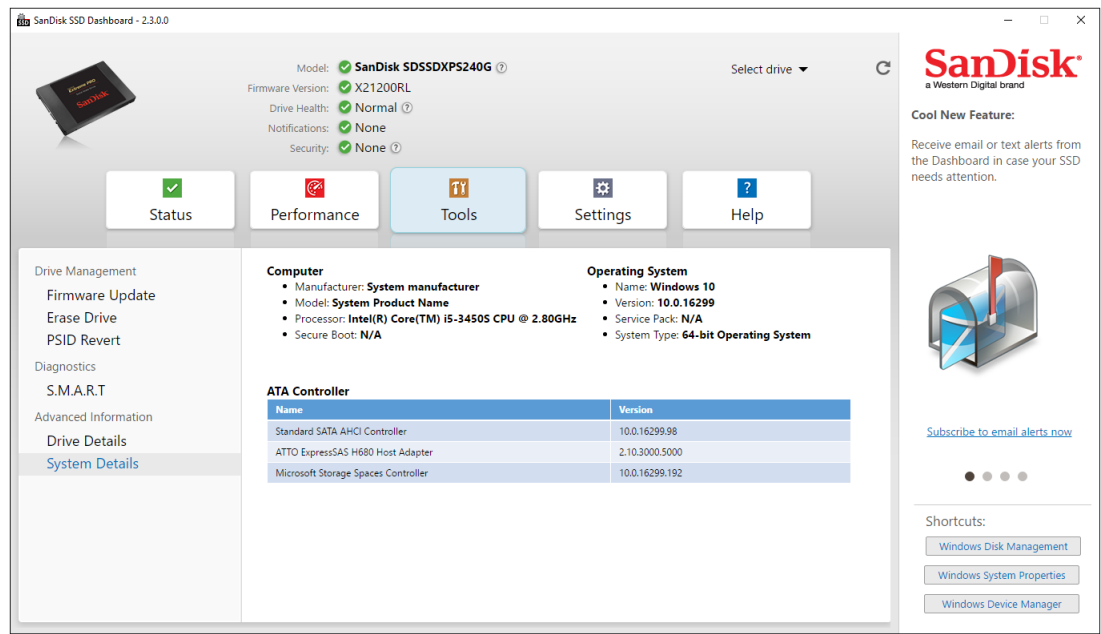
- Model Name
- Model String
- NVMe Revision / SATA Revision
- NVMe Link Speed / SATA Link Speed
- Serial Number
- Maximum LBA
- World Wide Name (a unique identifier used for storage technologies)
- 4K Alignment

For additional information, click **Show Advanced Details**.



System Details

System Details displays information about the operating system, computer hardware, and ATA controller(s) used in the system on which SanDisk SSD Dashboard is installed.



5

Settings

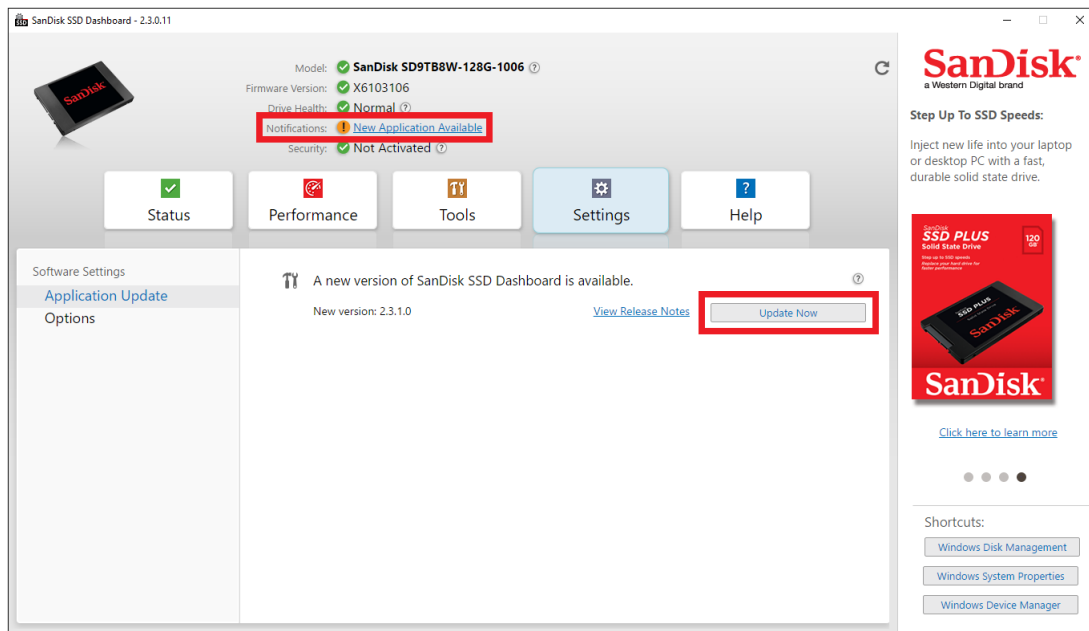
This chapter contains the following sections.

- [Application Update](#)
- [Starting SanDisk SSD Dashboard with Windows Startup](#)
- [Select Language](#)

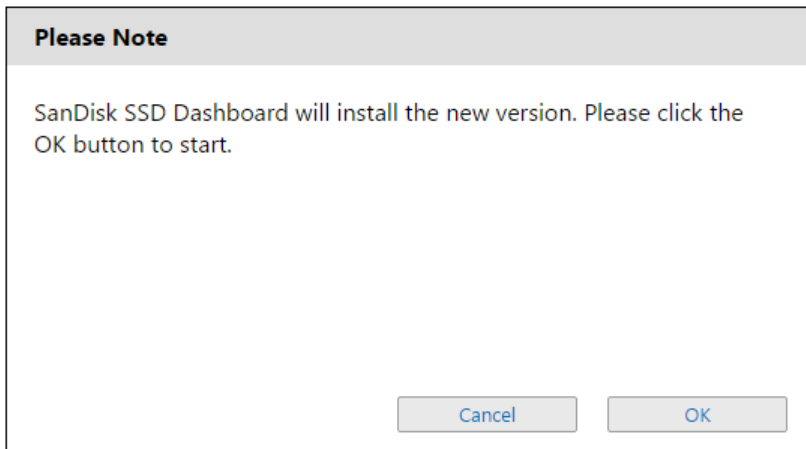
Application Update

If a newer version of the application is available, a message will be displayed in the Notifications area.

Clicking on the **New Application Available** link will take you to the Settings section, which will display the number of the new version available. Click on **Update SanDisk SSD Dashboard** to initiate the update.



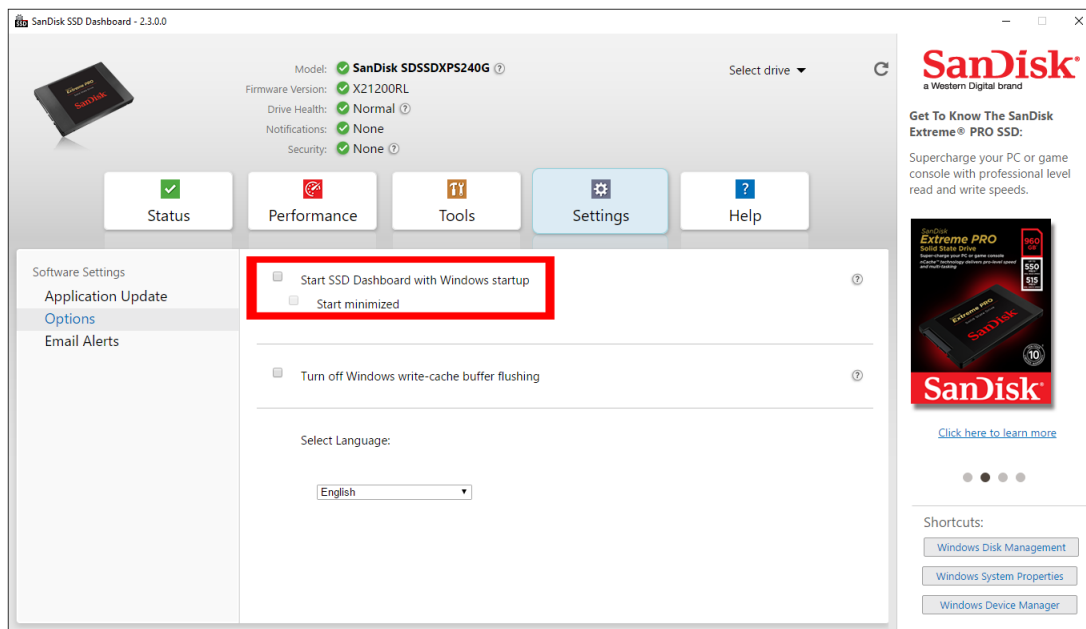
Click **OK** to confirm and proceed with the application update. After the update has finished downloading, the installation process will begin.



Starting SanDisk SSD Dashboard with Windows Startup

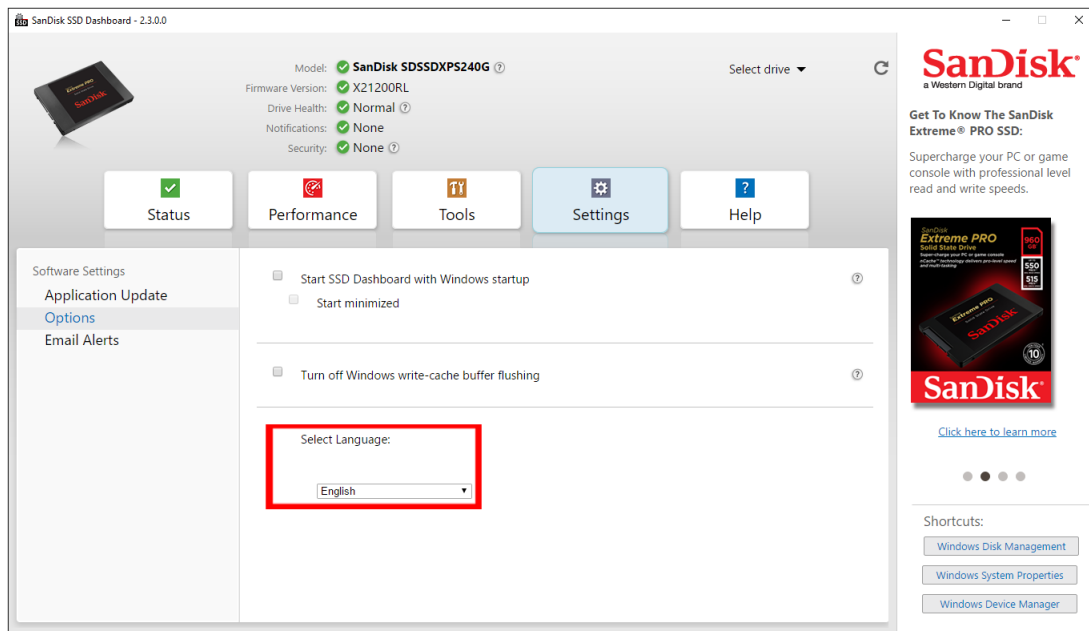
To launch the SanDisk SSD Dashboard at Windows startup, check **Start SSD Dashboard with Windows startup**.

To open the SanDisk SSD Dashboard in Windows' system tray on the taskbar, check **Start minimized**.



Select Language

Click the **Select Language** drop-down menu to select the display language of the SanDisk SSD Dashboard.



6

Help

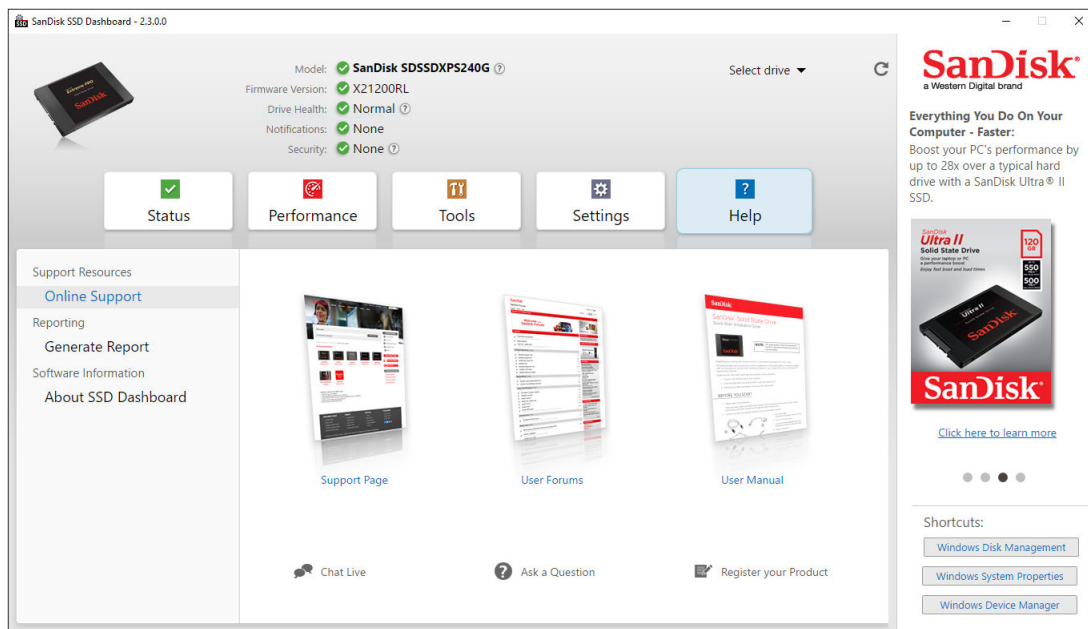
This chapter contains the following sections.

- [Online Support](#)
- [Generate Report](#)
- [About SanDisk SSD Dashboard](#)

Online Support

The Online Support section contains links to the SanDisk Support website, where you'll find product-specific information and user guides, a searchable Knowledge Base, and the SanDisk Community forum.

The Software & Downloads link takes you to the latest product and application software and firmware versions, and when specialized support is required, use the Get Help - Create a Support Case form.



Generate Report

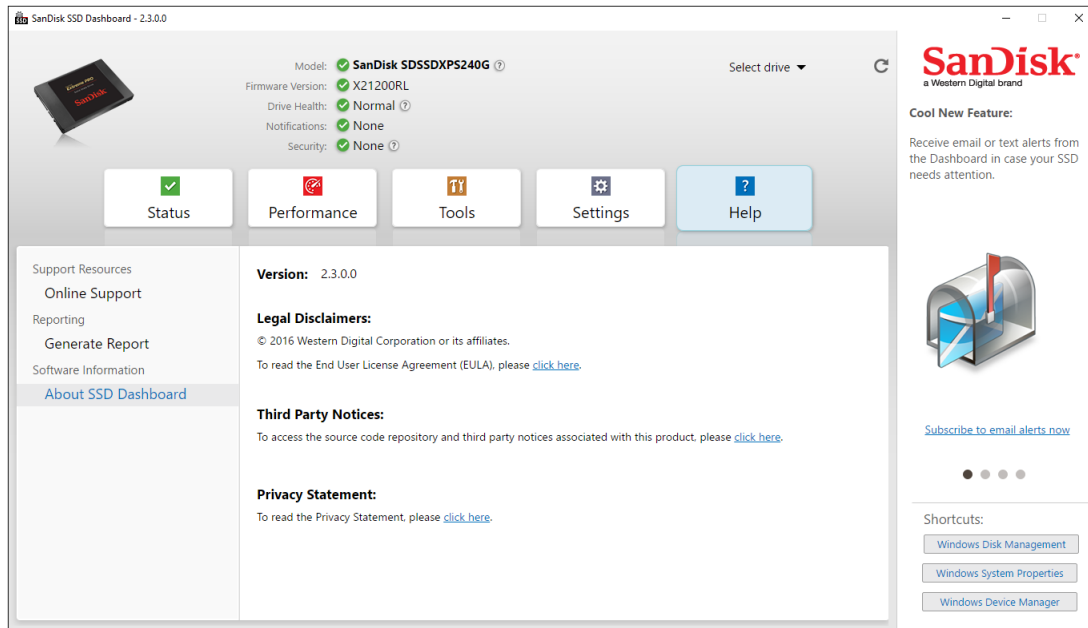
Click **Generate Report** to create and save a full system report that provides the detailed information required for certain support cases.

The Generate Report function generates two files:

- SSD_Dashboard_Report.csv
- SSD_Dashboard_Report_msinfo.txt.

About SanDisk SSD Dashboard

The About SSD Dashboard section contains the current version number of the SanDisk SSD Dashboard software, as well as links to the End User License Agreement (EULA), Third Party Notices, and the SanDisk Privacy Statement.



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02-02-WW-02-00005-P6 April 2018