

Western Digital®

Western Digital SSD Dashboard™

SSD Dashboard

User Manual



Western Digital® SSD Dashboard

Western Digital.

Accessing Online Support

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Introduction

This chapter contains the following sections.

- [Minimum System Requirements](#)
- [Supported Operating Systems](#)
- [Supported Languages](#)
- [Installation](#)
- [Usage](#)
- [WD Black Gaming SSD](#)
- [Gaming Mode](#)

Minimum System Requirements

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

Supported Operating Systems

- Windows 7 (32/64 bit; requires a KB hotfix to support NVMe, see <https://support.microsoft.com/en-us/help/2990941/update-to-add-native-driver-support-in-nvm-express-in-windows-7-and-wi>)
- Windows 8.1 (32/64 bit)
- Windows 10 (32/64 bit)

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

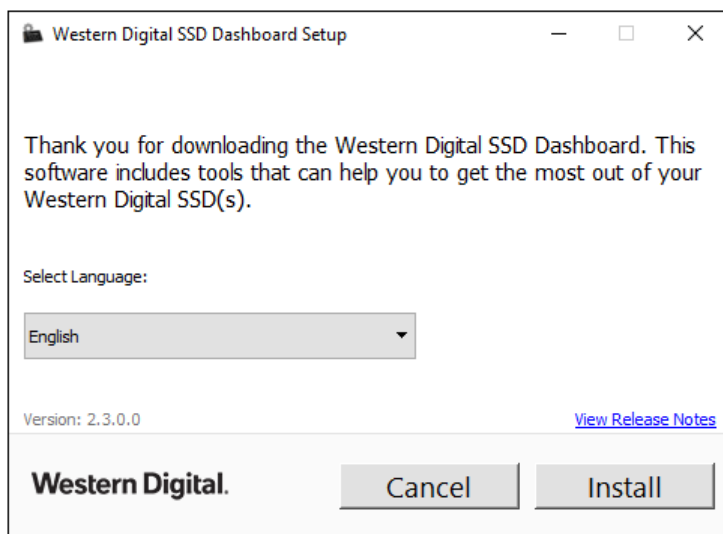
Installation

You can download the current version of the Western Digital SSD Dashboard software from <http://support.wdc.com>.

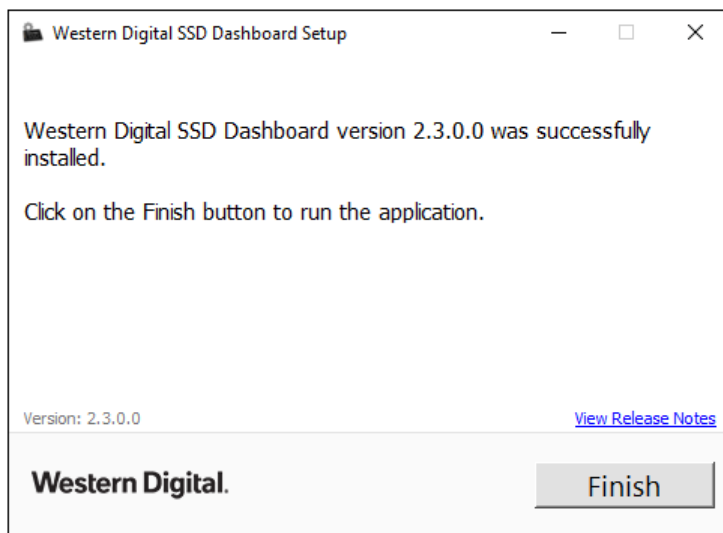
After the file has been downloaded, follow these steps to install the application.

1. Double-click on the **WesternDigitalSSDDashboardSetup.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.



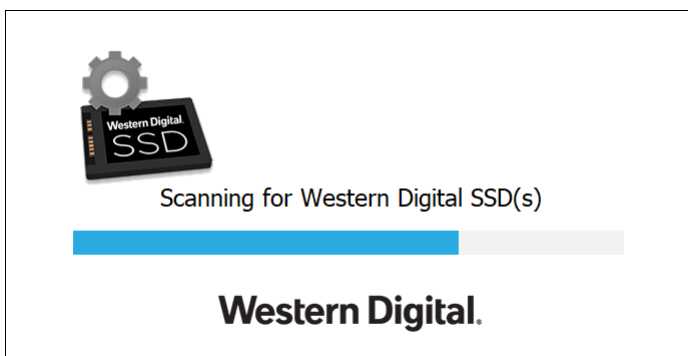
2. Select your language and click **Install** to proceed with the installation.



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

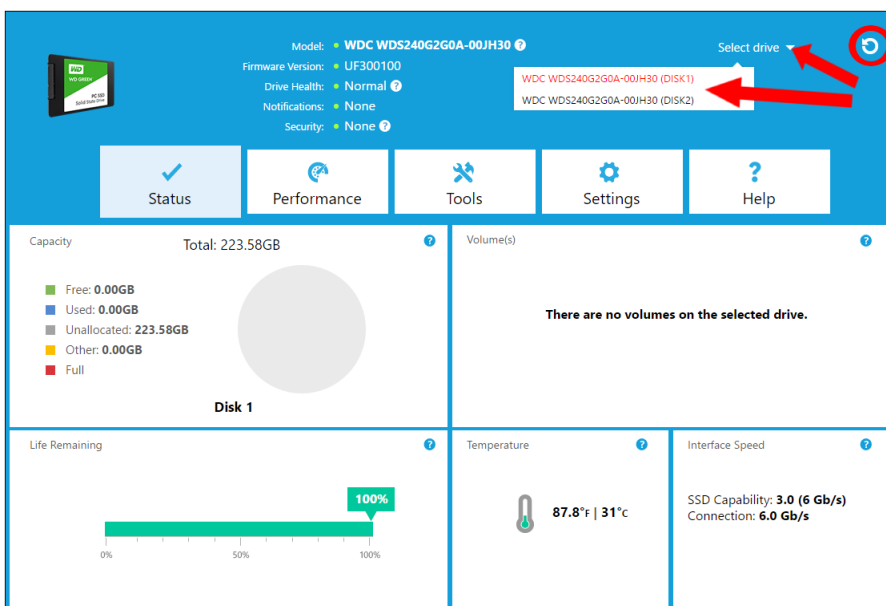
Usage

Upon launching the Western Digital SSD Dashboard, the software automatically scans your computer for Western Digital SSDs, including WD and SanDisk products.



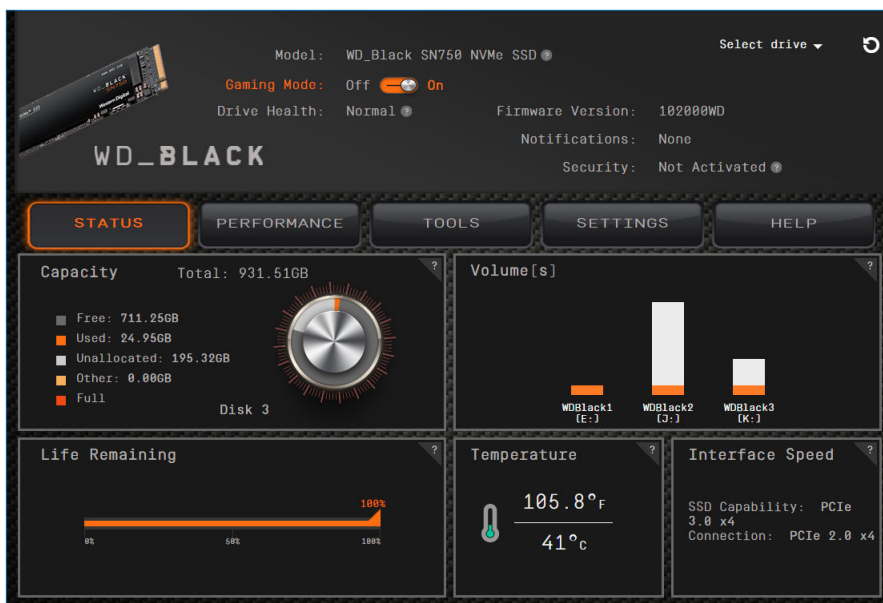
If a Western Digital SSD is connected to the system after Dashboard is launched, the Dashboard will automatically detect the drive. It will add the drive as the current model if this is the only Western Digital drive in the system, or add it to the list of drives in the Select Drive drop-down. If for 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 Western Digital SSDs.

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



WD Black Gaming SSD

The Western Digital SSD Dashboard automatically changes its appearance (often called a "skin") when a WD Black Gaming SSD is selected. This enhanced, product-specific skin includes gaming-related features, including Gaming Mode.



Gaming Mode

Gaming Mode is a feature exclusive to the SN750 model of WD Black SSD and beyond.

Turning Gaming Mode on will disable low power mode and keep the SSD running at peak levels for longer sustained execution when you want non-stop, consistent high performance.

A system restart is required for the SSD to take effect after changing mode.

2

Status

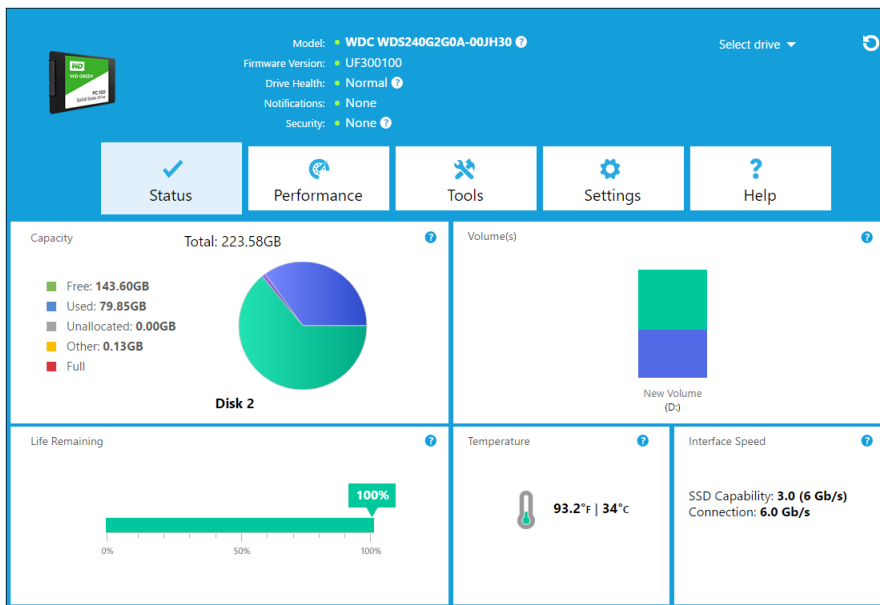
This chapter contains the following sections.

- [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 Western Digital SSD.
- **Firmware Version** - The version number of the firmware installed on the selected Western Digital SSD.
- **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 Western Digital SSD.
- **Notifications** - Notifications, such as software or firmware updates available 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, "TCG Opal 2.0."

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 Western Digital 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 is updated every 30 seconds. 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 IOPS](#)
- [Transfer Speed MB/s](#)
- [TRIM](#)

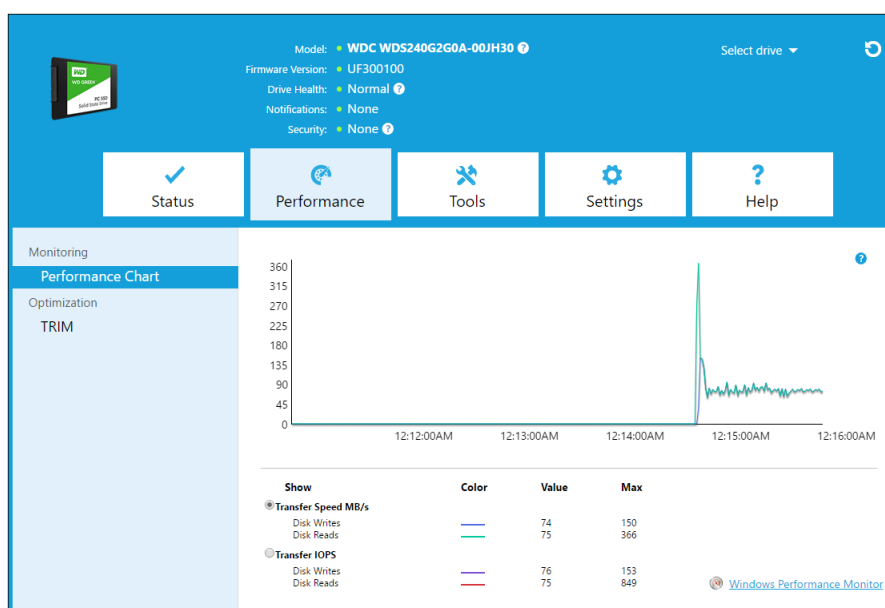
Performance Chart

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.

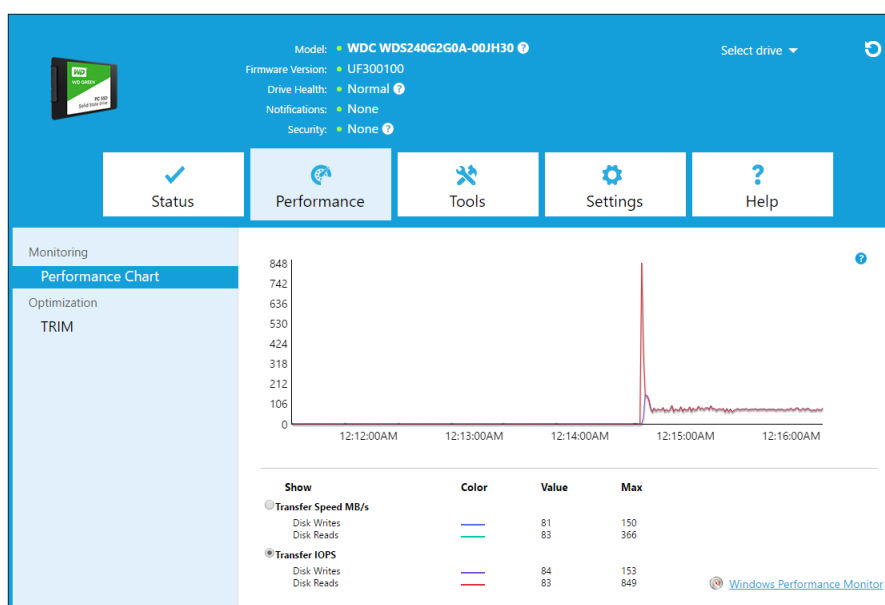
Transfer Speed MB/s

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 red indicators, respectively.

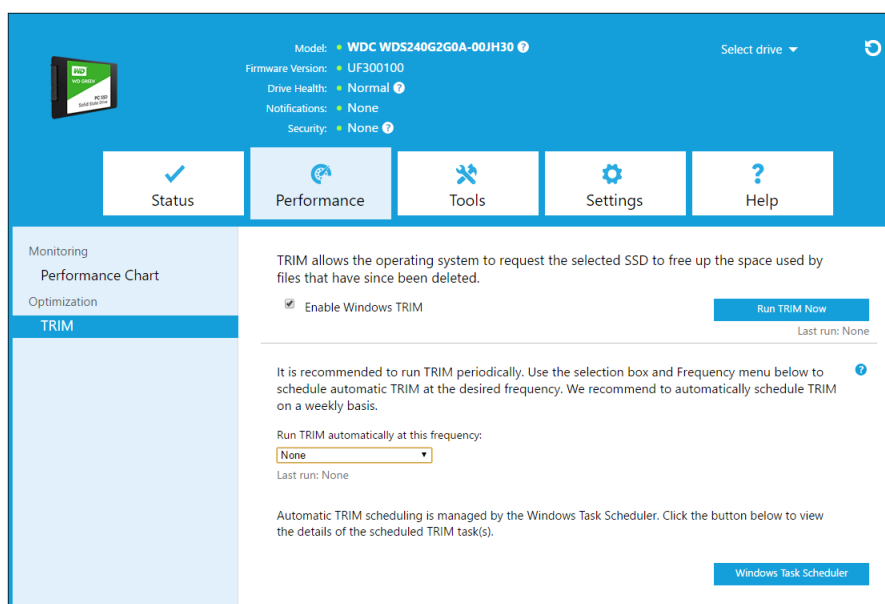


TRIM

(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: Western Digital 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.



4

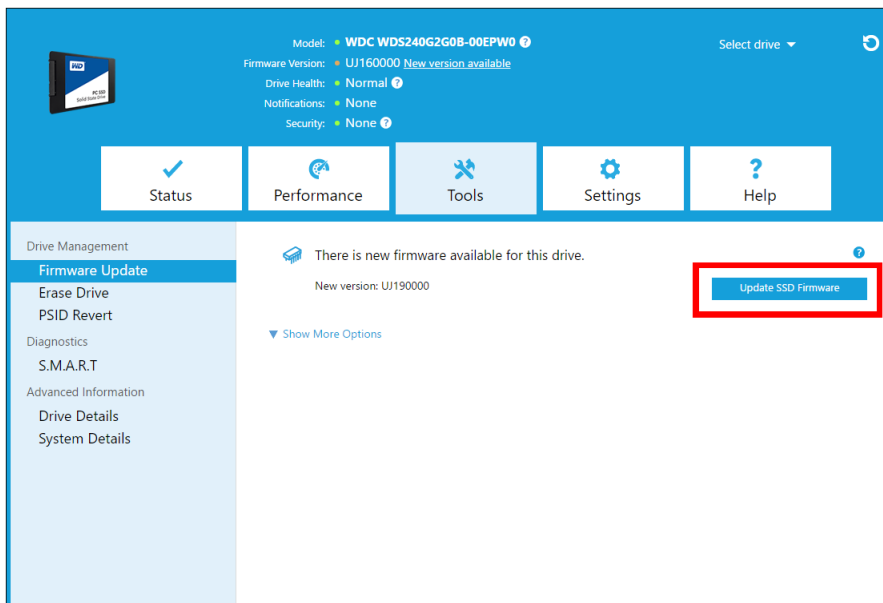
Tools

[Firmware Update](#)
[Check for Updates](#)
[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](#)
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[S.M.A.R.T.](#)
[Diagnostic Short Test](#)
[Diagnostic Extended Test](#)
[Drive Details](#)
[System Details](#)

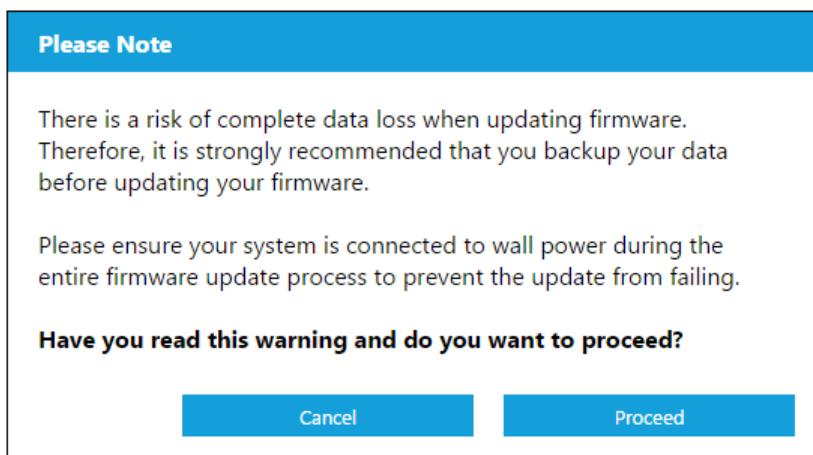
Firmware Update

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.

Please Note

The firmware has successfully been downloaded to the drive. The new firmware will take affect once the power to the drive has been turned off and then turned on again. A simple way to do this is to do a Windows System Shutdown and then turn it back on.

Important: The Firmware update will not take affect on a system restart. A full system shutdown is required.

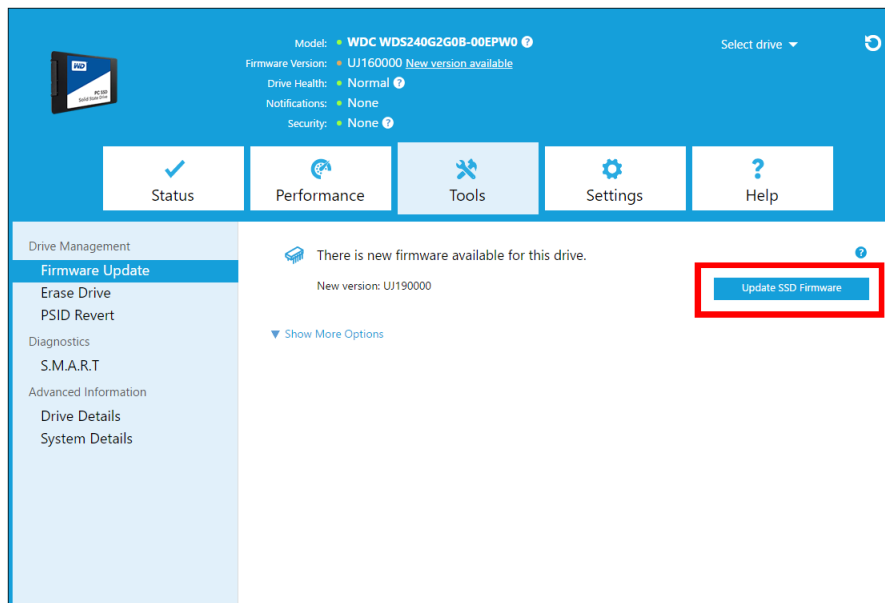
Shutdown Later Shutdown Now

Check for Updates

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

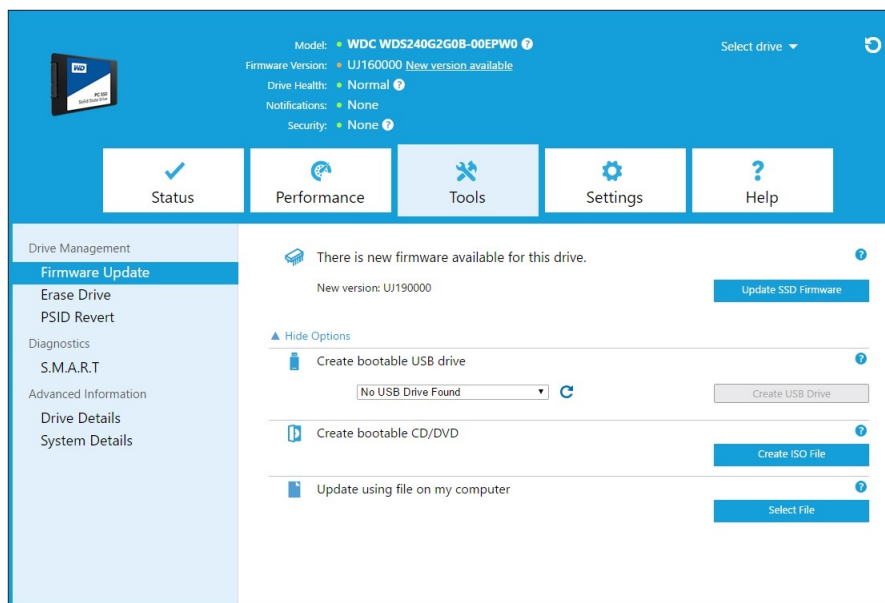
The screenshot shows the Western Digital SSD Dashboard interface. At the top, it displays drive information: Model: WDC WDS240G2G0A-00/JH30, Firmware Version: UF300100, Drive Health: Normal, Notifications: None, and Security: None. Below this is a navigation bar with buttons for Status, Performance, Tools, Settings, and Help. The 'Tools' button is currently selected. On the left side, under 'Drive Management', the 'Firmware Update' option is highlighted. The main content area shows a message: 'The firmware is up-to-date.' Below this message is a 'Show More Options' link. A red rectangle highlights the 'Check for Updates' button located in the top right corner of the main content area.

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 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. 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.

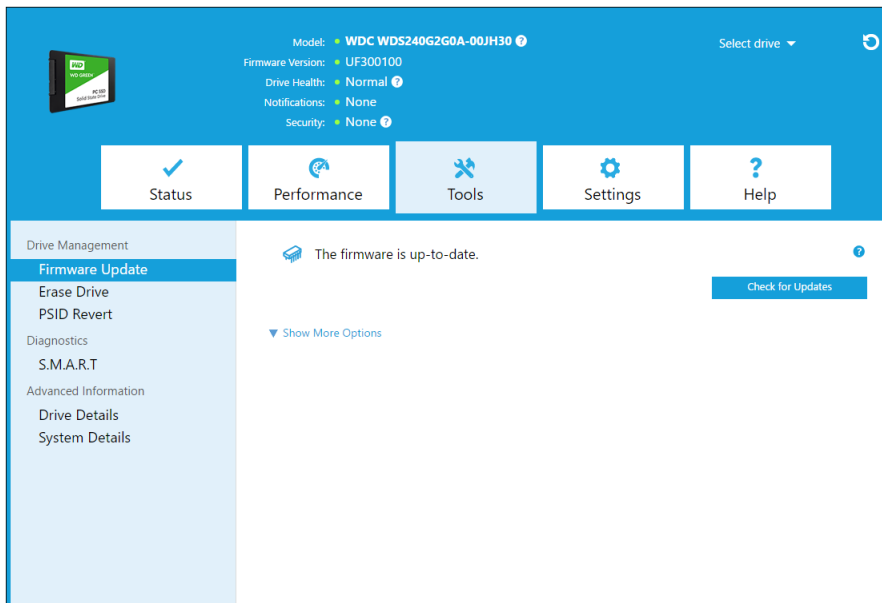
Note: If the USB drive is not listed, click the Refresh icon next to the drop-down list to scan for the USB drive.

4. Click **Create USB Drive**.

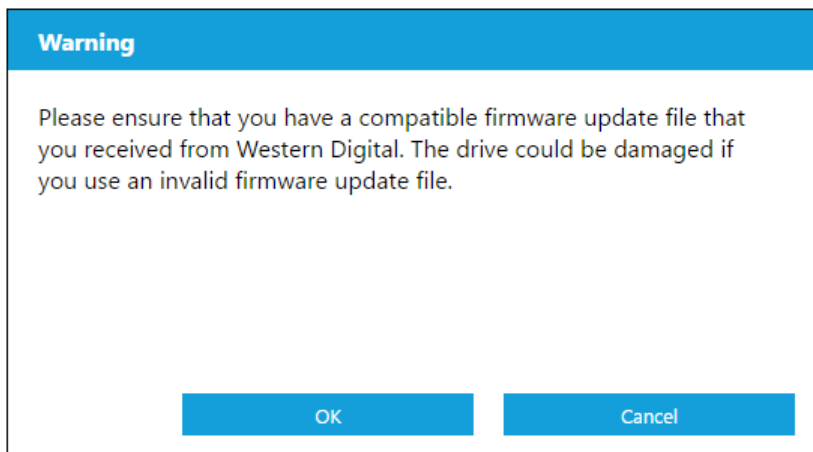
Update Using File on My Computer

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](#).

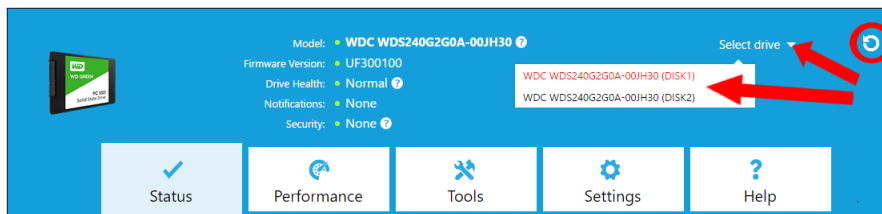
Delete User Data with Secure Erase

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.

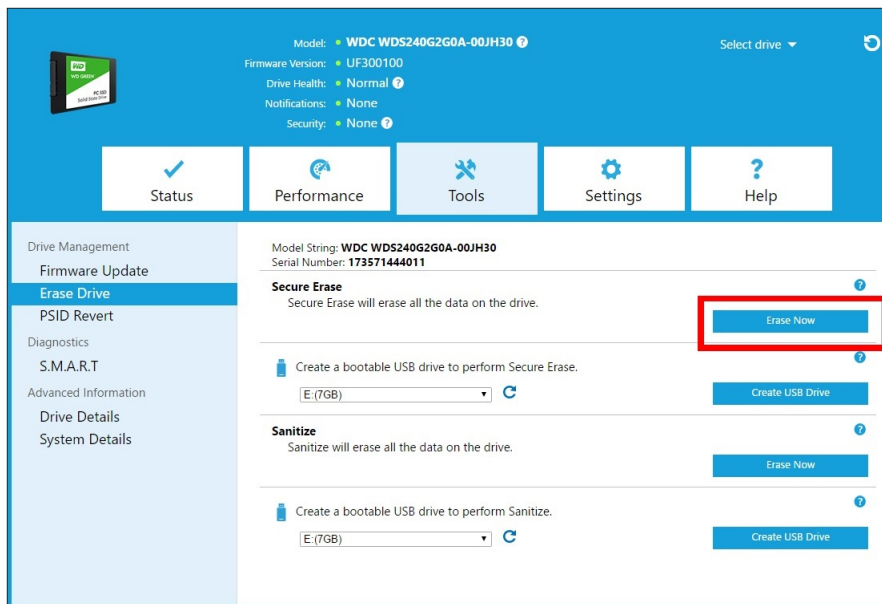
1. At the top of the Dashboard, click the **Select drive** drop-down menu to select the SSD on which all user data will be permanently deleted.

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.

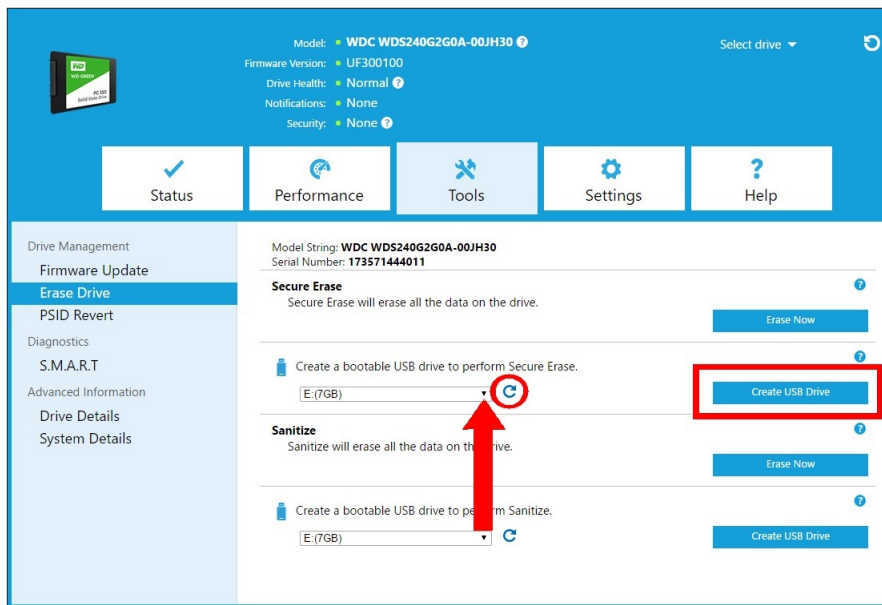


Create a Bootable USB Drive for Secure Erase

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

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.



4. 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 for Secure Erase](#).

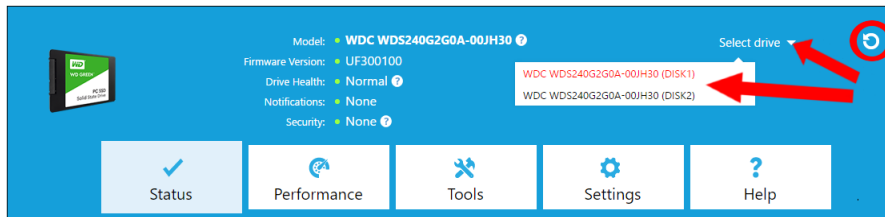
Delete User Data with Sanitize

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.

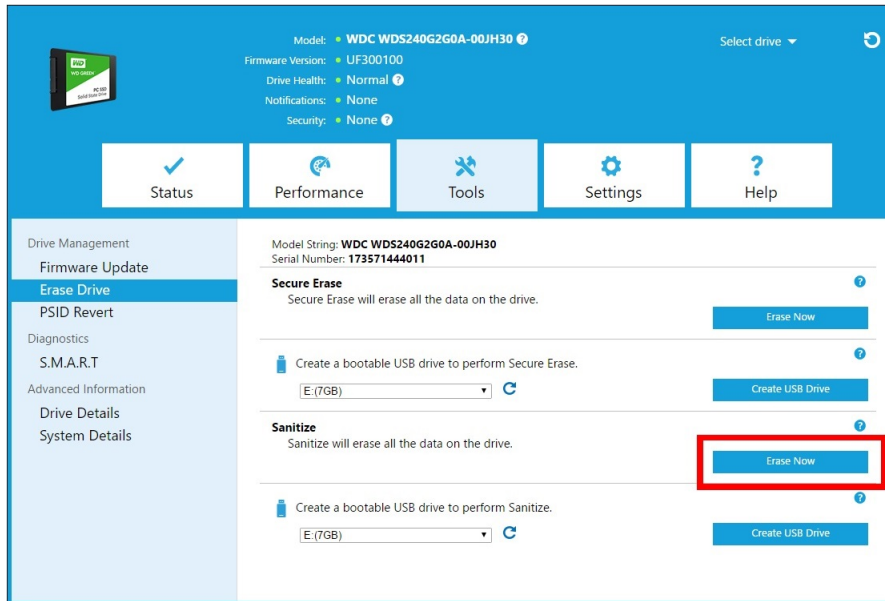
1. At the top of the Dashboard, click the **Select drive** drop-down menu to select the SSD on which all user data will be permanently deleted.

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**.



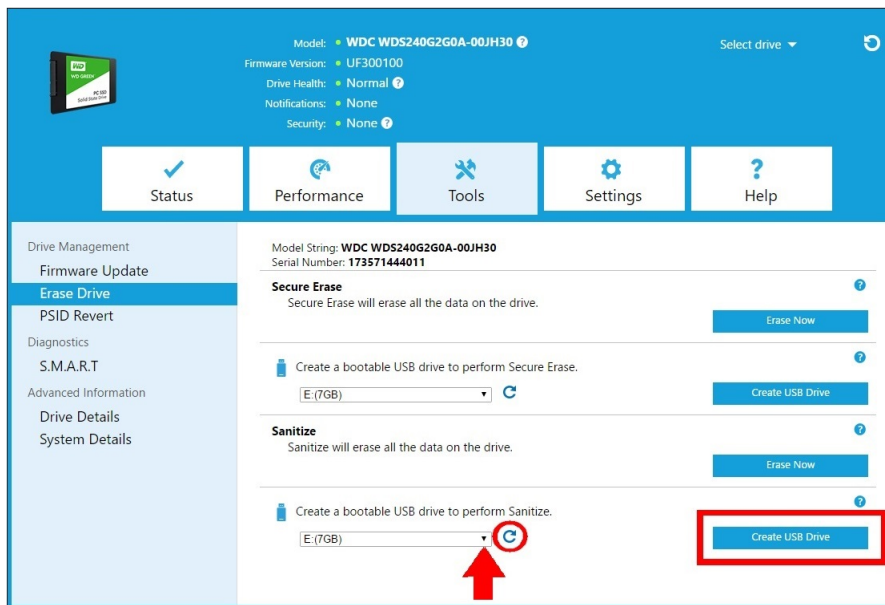
2. Click **Erase Now** next to **Sanitize** to delete all user data and leave the drive in an unformatted state.



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.

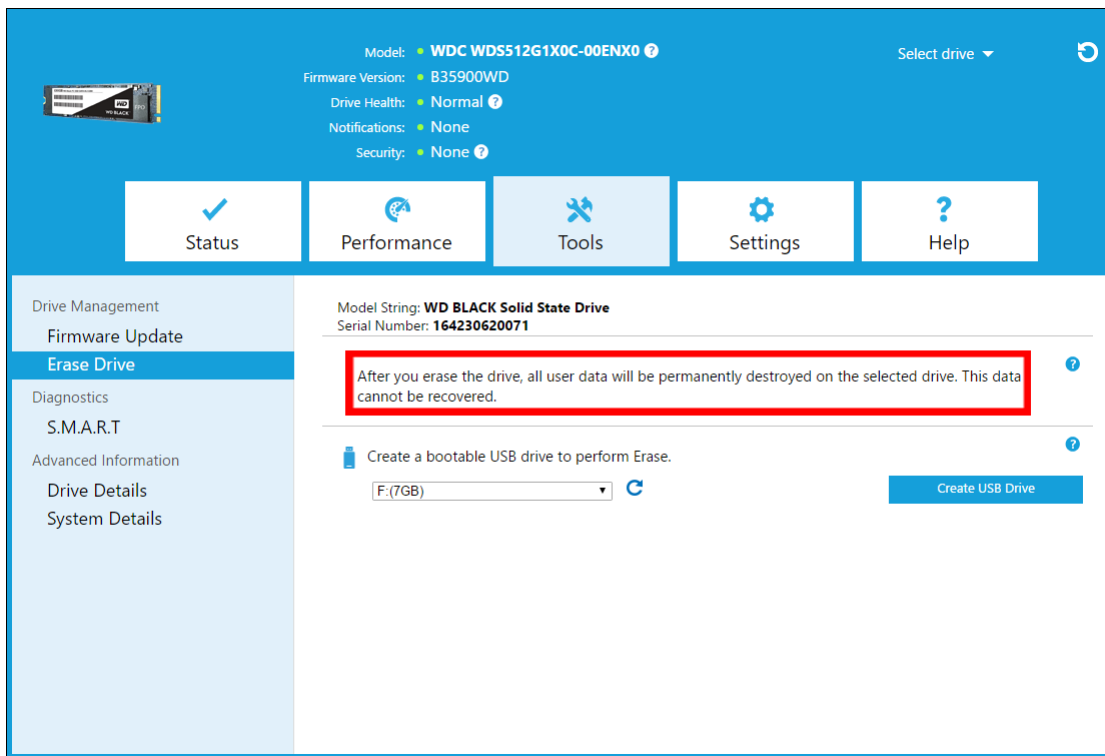


4. Click **Create USB Drive**.

Erase Drive (WD Black)

Erase Drive permanently destroys all user data on the selected SSD. This function currently only supports WD Black PCIe SSD, and it will not be visible unless a WD Black PCIe SSD is connected and detected by the Western Digital SSD Dashboard software.

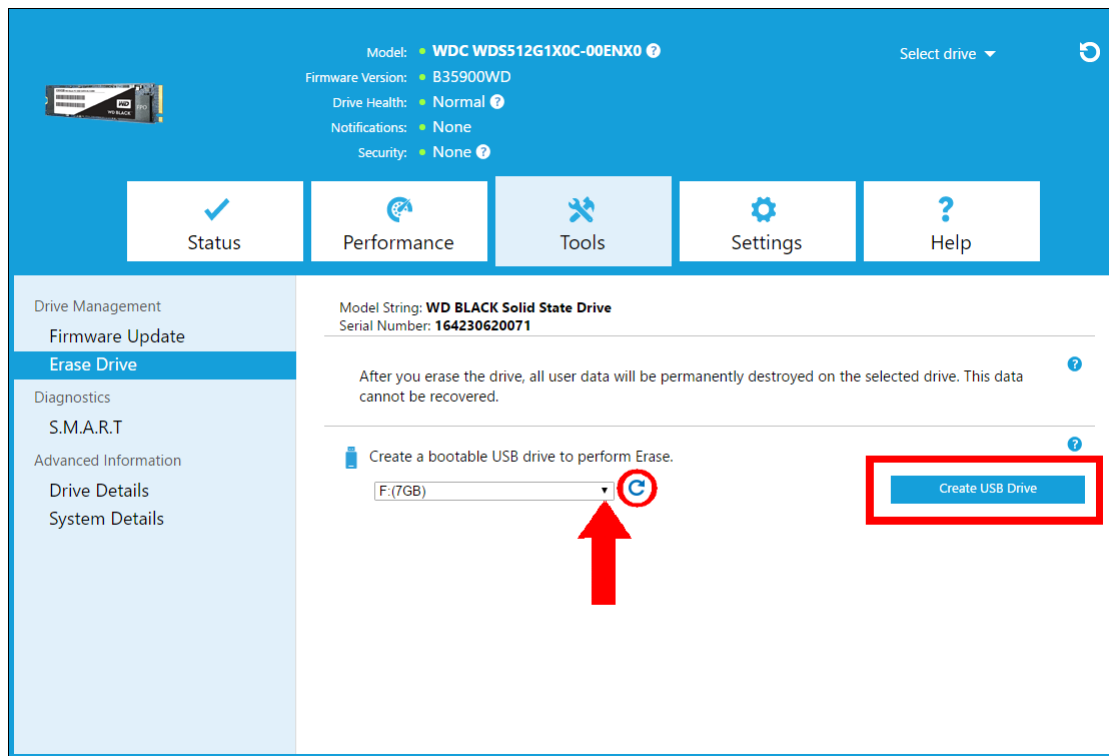
Note: Erase Drive deletes the mapping table on the selected SSD, but it does not erase all blocks that have been written to.



Bootable USB Drive for Erase Drive (WD Black)

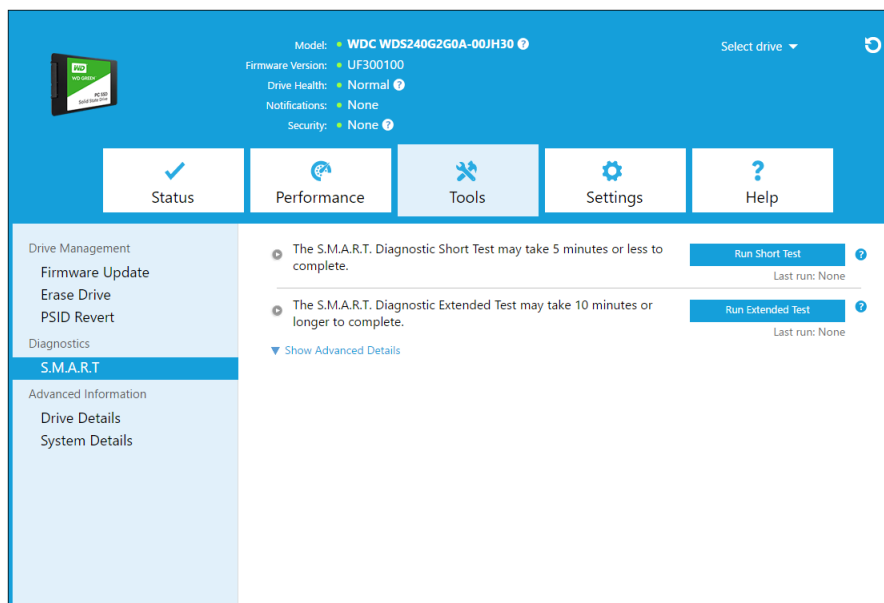
Note: The USB drive will be formatted as a FAT32 system.

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.
4. Click Create USB Drive.



S.M.A.R.T.

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is an industry-standard drive monitoring system. The Western Digital SSD Dashboard application automatically obtains S.M.A.R.T information from the drive upon drive selection.



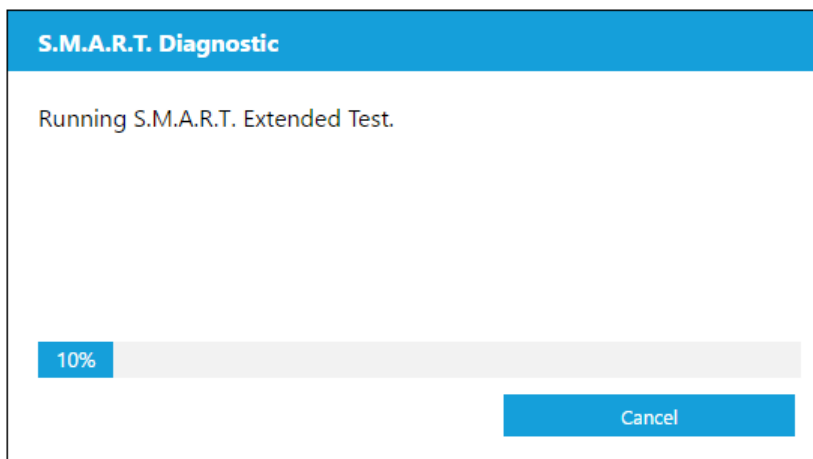
Diagnostic Short Test

The S.M.A.R.T. Diagnostic Short Test is a quick drive health test as defined by the S.M.A.R.T. specification.

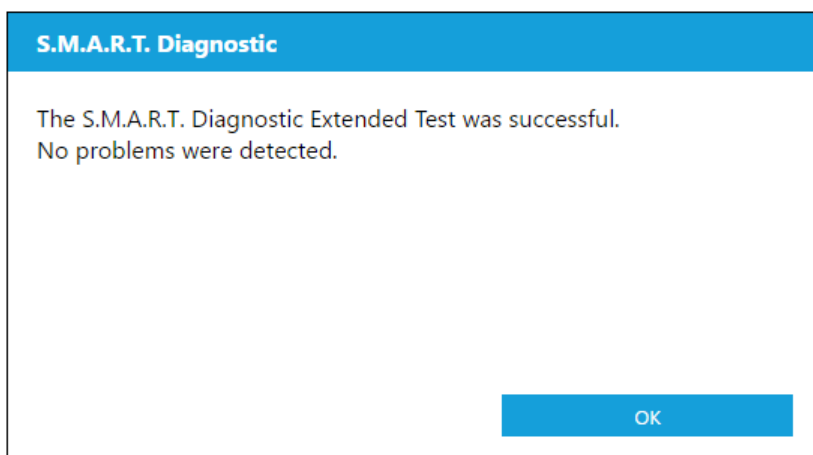
Note: For Western Digital-branded NVMe SSD in systems running certain iRST driver versions, S.M.A.R.T. Diagnostic Short and Extended Tests are not supported due to driver limitations.

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 Western Digital SSD Dashboard cannot be used while the test is running. However, you can cancel the test at any time.



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**.

Model: **WDC WDS240G2G0A-00JH30**

Firmware Version: **UF300100**

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: Sat Feb 10 13:11:42 2018

▲ Hide Advanced Details

ID	Name	Value	Threshold	Result
5	Reassigned block count	0	None	N/A
9	Power On Count	1806	None	N/A
12	Drive Power Cycle Count	29	None	N/A
165	SLC Block Erase Count	b	None	N/A
166	Minimum P/E Cycles	0	None	N/A
167	Maximum Bad Blocks per Die	0	None	N/A
168	Maximum P/E Cycles	0	None	N/A
169	Total Bad Blocks	360	None	N/A
170	Grown Bad Blocks	0	None	N/A

System Details

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



Model: WDC WDS240G2G0A-00JH30


Firmware Version: UF300100

Drive Health: Normal


Notifications: None


Security: None


Select drive




✓
Status


Performance


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Drive Management

Firmware Update

Erase Drive

PSID Revert

Diagnostics

S.M.A.R.T

Advanced Information

Drive Details

System Details

Computer

Manufacturer: **System manufacturer**

Model: **System Product Name**

Processor: **Intel(R) Core(TM) i5-3450S CPU @ 2.80GHz**

Secure Boot: **N/A**

Operating System

Name: **Windows 10**

Version: **10.0.16299**

Service Pack: **N/A**

System Type: **64-bit Operating System**

ATA Controller

Name	Version
Standard SATA AHCI Controller	10.0.16299.98
ATTO ExpressSAS H680 Host Adapter	2.10.3000.5000
Microsoft Storage Spaces Controller	10.0.16299.192

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Settings

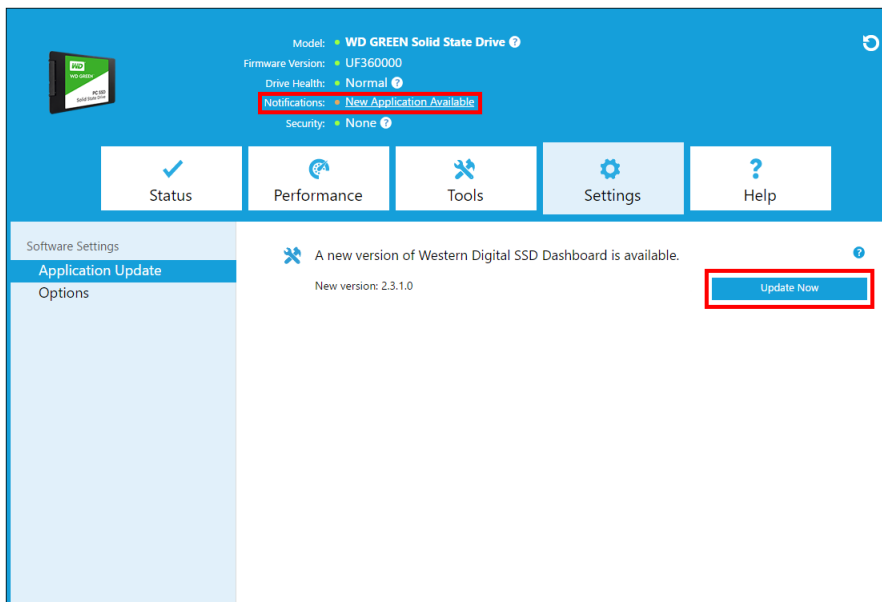
This chapter contains the following sections.

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

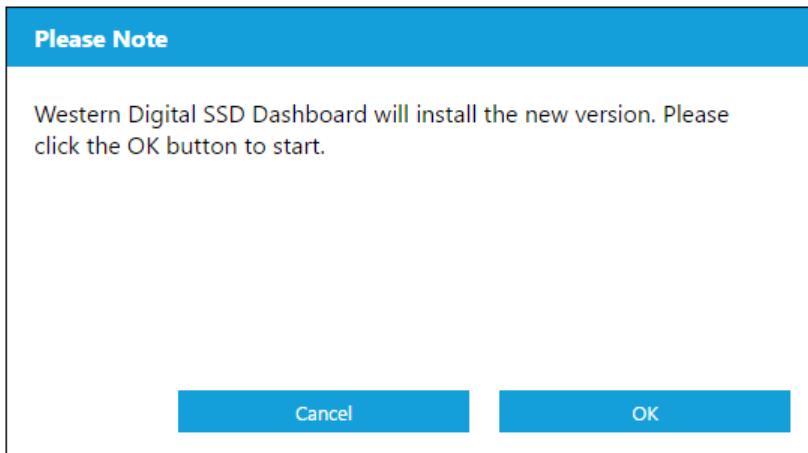
Application Update

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 Western Digital SSD Dashboard** to initiate the update.



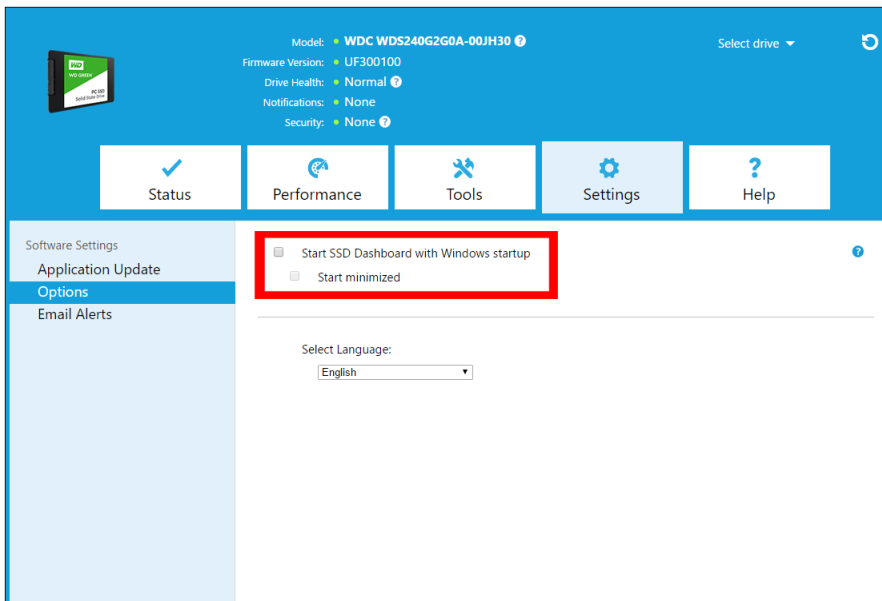
Click **OK** to confirm and proceed with the application update. After the update has finished downloading, the installation process will begin.



Starting Western Digital SSD Dashboard with Windows Startup

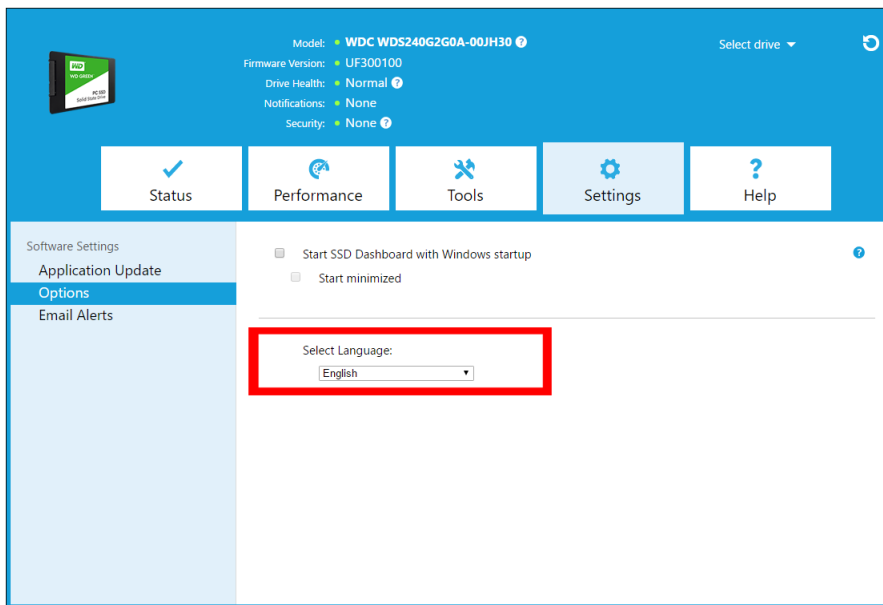
To launch the Western Digital SSD Dashboard at Windows startup, check **Start SSD Dashboard with Windows startup**.

To open the Western Digital 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 Western Digital SSD Dashboard.



Help

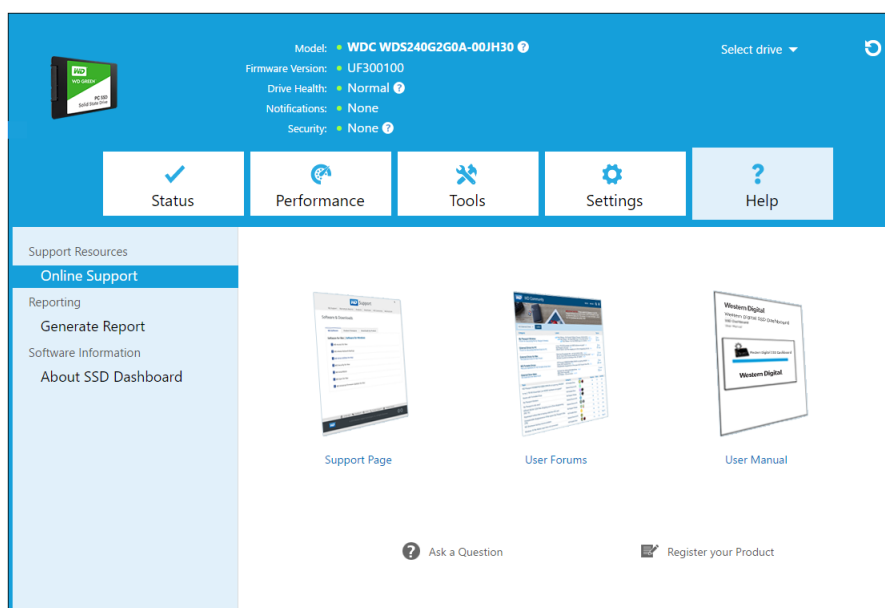
This chapter contains the following sections.

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

Online Support

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

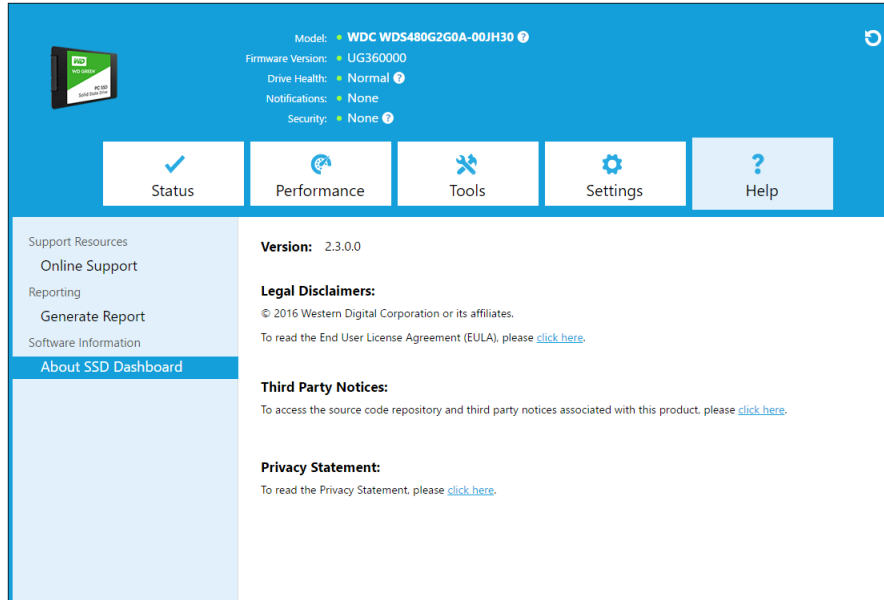
Click **Generate Report** to create and save a full system report that provides the detailed information required for certain support cases.

The Generate Report function generates two files:

- SSD_Dashboard_Report.csv
- SSD_Dashboard_Report_msinfo.txt.

About Western Digital SSD Dashboard

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



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