Western Digital.

Western Digital SSD Dashboard™ SSD Dashboard

User Manual



Western Digital® SSD Dashboard

Western Digital.

Accessing Online Support

Visit our product support website at http://support.wdc.com and choose from these topics:

- **Downloads** Download software and updates for your Western Digital product
- Registration Register your Western Digital product to get the latest updates and special offers at http://register.wdc.com
- Warranty & RMA Services Get warranty, product replacement (RMA), RMA status, and data recovery information
- Knowledge Base Search by keyword, phrase, or Answer ID
- Installation Get online installation help for your Western Digital product or software
- Western Digital Community Share your thoughts and connect with other Western Digital users at http://community.wdc.com

Table of Contents

Acce	ssing Online Supporti	ii
1 Int	roduction	1
	Minimum System Requirements	1
	Supported Operating Systems	1
	Supported Languages	1
	Installation	2
	Usage	3
	WD Black Gaming SSD	3
	Gaming Mode	4
	atus5	5
	Status Section	5
	Capacity	6
	Volumes	6
	Life Remaining	6
	Temperature	6
	Interface Speed	6
3 Pe	rformance	3
	Performance Chart	8
	Transfer Speed MB/s	8
	Transfer IOPS	8
	TRIM	9
 4 To	ols10	C
	Firmware Update10	
	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	16
	Create a Bootable USB Drive with Sanitize	17
	Erase Drive (WD Black)	18
	Bootable USB Drive for Erase Drive (WD Black)	19
	S.M.A.R.T	20
	Diagnostic Short Test	21
	Diagnostic Extended Test	
	Drive Details	22
	System Details	
5	 Settings	24
5	Settings Application Update	
5	Application Update	24
5		24 25
	Application Update Starting Western Digital SSD Dashboard with Windows Startup Select Language	24 25 25
	Application Update Starting Western Digital SSD Dashboard with Windows Startup Select Language Help	24 25 25
	Application Update	24252527
	Application Update Starting Western Digital SSD Dashboard with Windows Startup Select Language Help	24252727

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

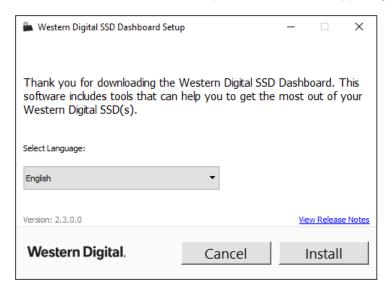
Installation

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

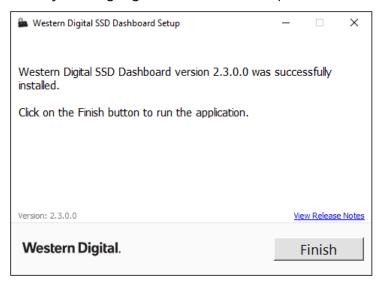
After the file has been downloaded, follow these steps to install the application.

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.



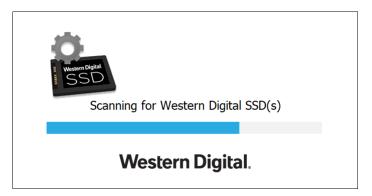
2. Select your language and click **Install** to proceed with the installation.



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.

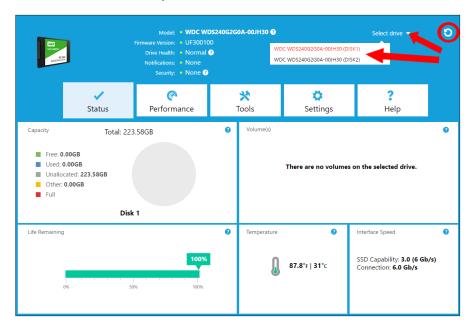
Usage

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.

Status

This chapter contains the following sections.

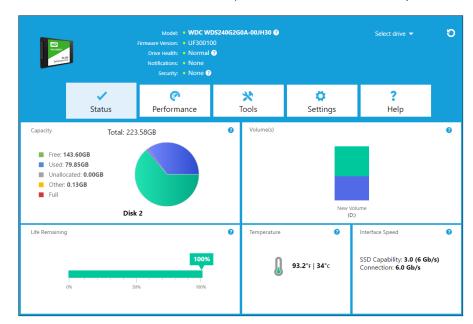
- Status Section
- Capacity
- Volumes

- 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.

Performance

This chapter contains the following sections.

Performance Chart

Transfer IOPS

Transfer Speed MB/s

TRIM

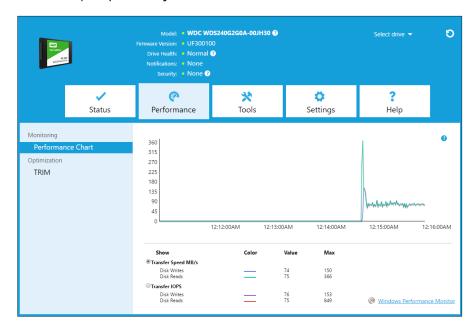
Performance Chart

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.

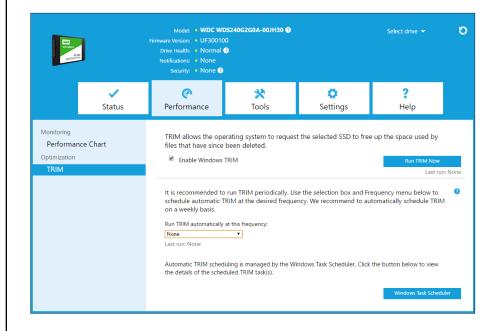


TRIM

(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.



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

Erase Drive (WD Black)

Bootable USB Drive for Erase Drive (WD Black)

S.M.A.R.T.

Diagnostic Short Test

Diagnostic Extended Test

Drive Details

System Details

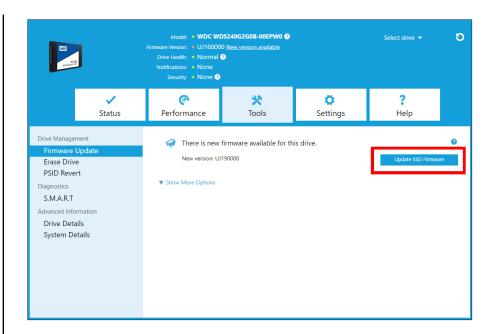
Firmware Update

Note:

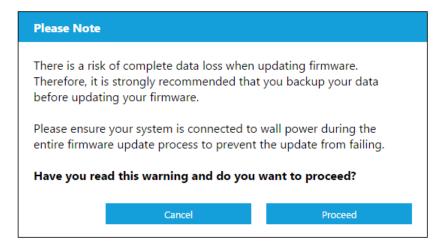
To avoid data loss, it is strongly recommended that you backup your

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.

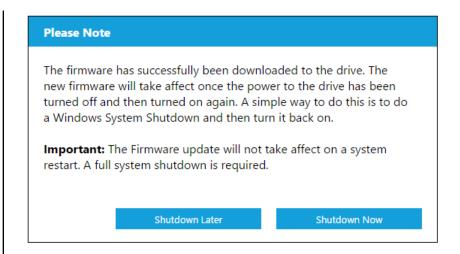


When you click the **Update SSD Firmware** button, a confirmation dialog box appears.



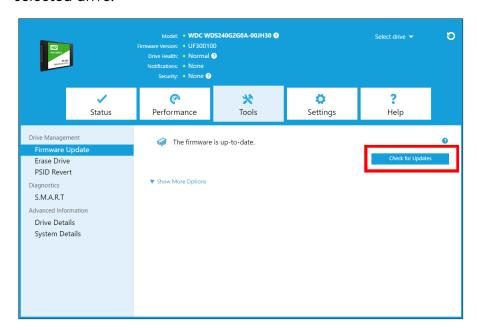
After the firmware has been downloaded to the SSD, a full-system shutdown is required to complete the firmware update process for SATA SSDs. This is typically done by shutting the computer down, and then turning it back on.

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

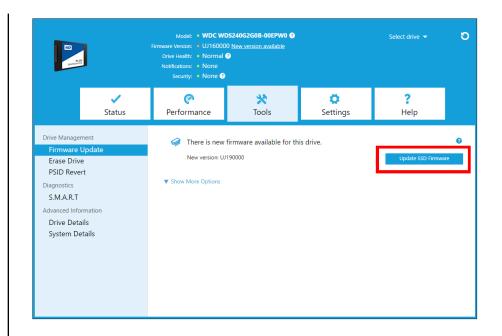


Check for Updates

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

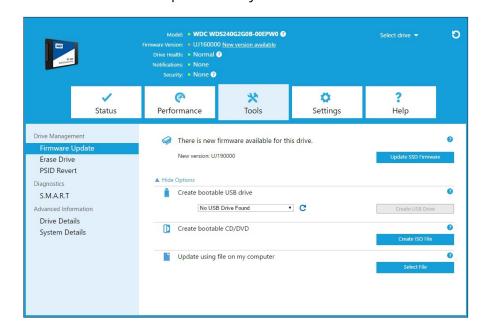


If a firmware update is found, the status message will change to "There is new firmware available for this drive," and the update options will be displayed.



Update Using Bootable USB Drive

Note: The USB 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.



- 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.

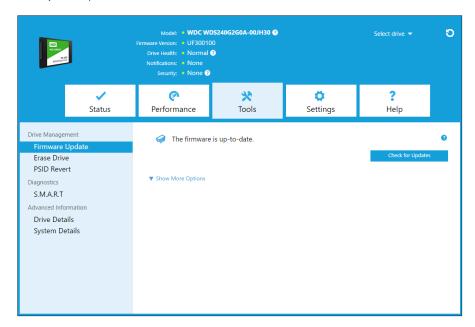
Note: If the USB drive is not listed, click the Refresh icon next to the drop-down list to scan for the USB drive.

4. Click Create USB Drive.

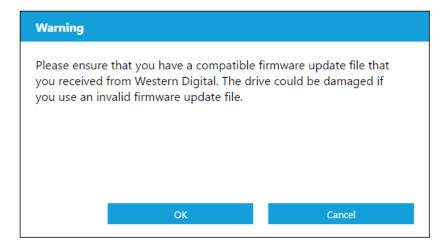
Update Using File on My Computer

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.

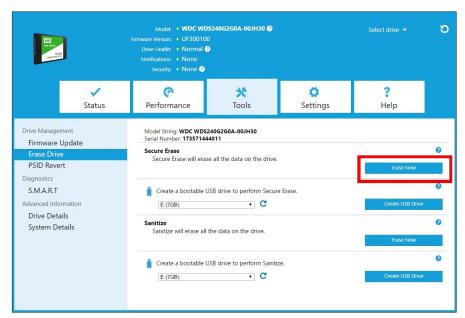
1. At the top of the Dashboard, click the **Select drive** drop-down menu to select the SSD on which all user data will be permanently deleted.

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.

Model: • WDC WDS240G2G0A-00JH30 @ C Drive Health: • Normal ? Security: • None ? (A * Ö ? Settings Help Status Performance Tools Model String: WDC WDS240G2G0A-00JH30 Serial Number: 173571444011 Drive Management Firmware Update Secure Erase Secure Erase will erase all the data on the drive. PSID Revert SMART Create a bootable USB drive to perform Secure Erase. (C) Advanced Information E:(7GB) Drive Details Sanitize System Details Create a bootable USB drive to pe E:(7GB) · C

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.

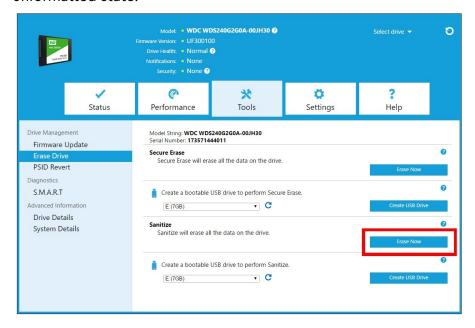
Note:

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**.



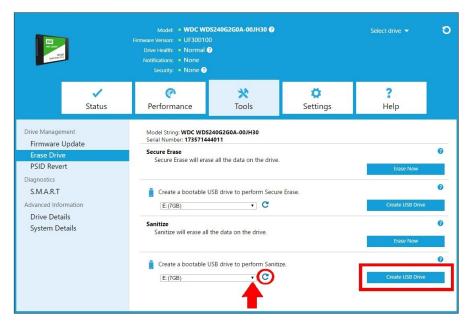
2. Click Erase Now next to Sanitize to delete all user data and leave the drive in an unformatted state.



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.

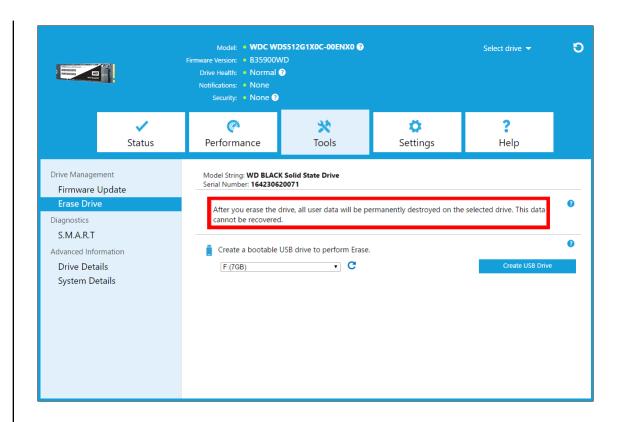


4. Click Create USB Drive.

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.

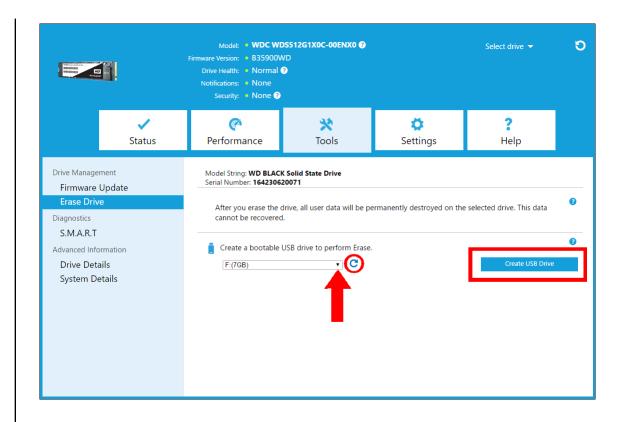
Note: Erase Drive deletes the mapping table on the selected SSD, but it does not erase all blocks that have been written to.



Bootable USB Drive for Erase Drive (WD Black)

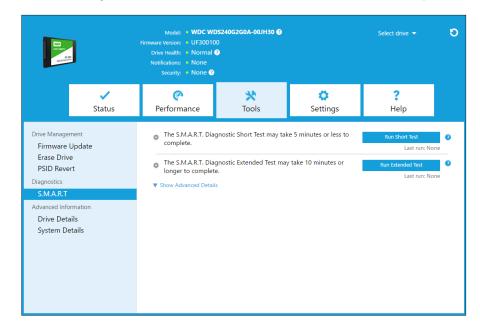
Note: The USB drive will be formatted as a FAT32 system.

- 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

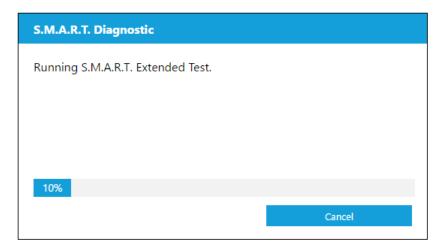
The S.M.A.R.T. Diagnostic Short Test is a quick drive health test as defined by the S.M.A.R.T. specification.

Note:

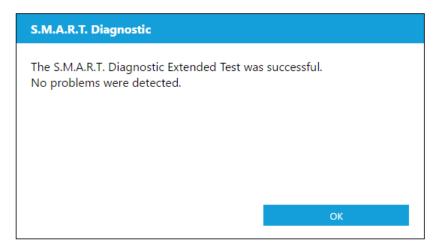
For Western Digital-branded NVMe SSD in systems running certain iRST driver versions, S.M.A.R.T. Diagnostic Short and Extended Tests are not supported due to driver limitations.

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.



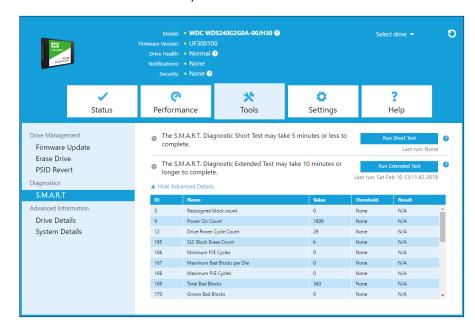
If the test is unsuccessful, click the provided link to go to the test details.

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.



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.



5

Settings

This chapter contains the following sections.

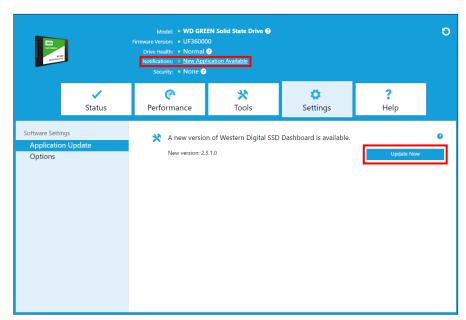
Application Update

- Select Language
- Starting Western Digital SSD Dashboard with Windows Startup

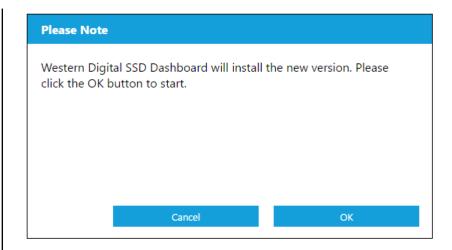
Application Update

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.



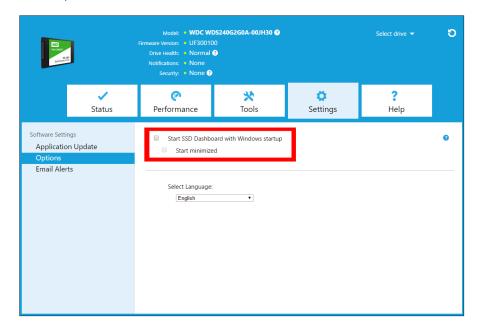
Click **OK** to confirm and proceed with the application update. After the update has finished downloading, the installation process will begin.



Starting Western Digital SSD Dashboard with Windows Startup

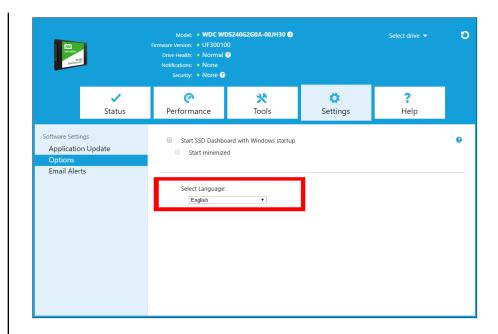
To launch the Western Digital SSD Dashboard at Windows startup, check **Start SSD Dashboard with Windows startup**.

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.



6

Help

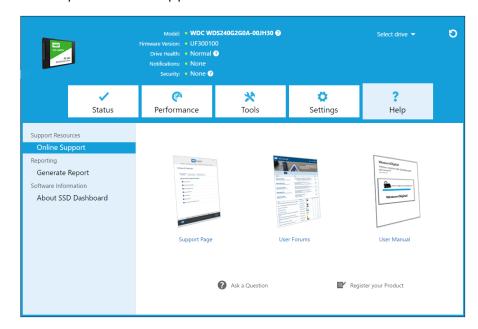
This chapter contains the following sections.

- 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

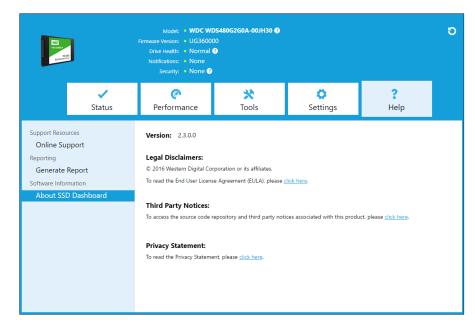
Click **Generate Report** to create and save a full system report that provides the detailed information required for certain support cases.

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.



Western Digital, WD, the Western Digital logo, WD Black, WD Blue and WD Green are registered trademarks or trademarks of Western Digital Corporation or its affiliates in the U.S. and/or other countries. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other marks that may be mentioned herein are the property of their respective owners. As used for storage capacity, one gigabyte (GB) = one billion bytes and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. Pictures shown may vary from actual products. Not all products are available in all regions of the world.

 $^{\hbox{\scriptsize @}}$ 2019 Western Digital Corporation or its affiliates.

Western Digital 5601 Great Oaks Parkway San Jose, California 95119 U.S.A