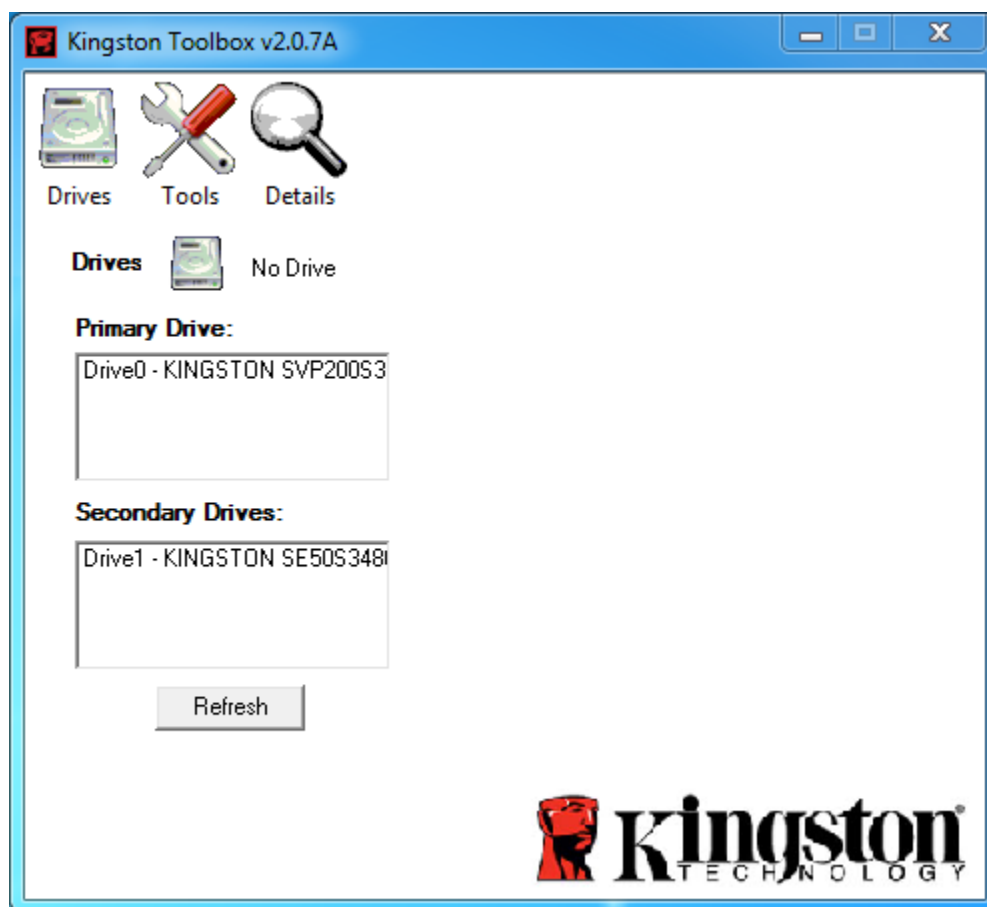


Kingston Toolbox 2.0 User Manual



About Kingston Toolbox 2.0

Kingston Toolbox 2.0 enables users to read serial numbers, firmware versions and S.M.A.R.T attributes on their SandForce-based SSDs. It also includes an easy-to-use, built-in firmware update feature.

System Requirements

Platform

- PC with SATA II or SATA III interface
- Kingston SandForce-based SSD

OS Support

- Windows® 8
- Windows® 7 (SP1)
- Windows® Vista (SP2)
- Windows® XP (SP3)

System Considerations

- You must be running Windows 8, 7 SP1, Vista SP2, or XP SP3 in AHCI mode for this application to function properly
- If you are performing an update with Kingston Toolbox 2.0, Kingston recommends reading the instructions provided with your firmware download before proceeding. - **Always remember to back up your data before updating your drive**
- Do not unplug power at any time during the firmware update
- **Intel and AMD** users must use the Microsoft AHCI driver for the update procedure to complete successfully
- Use only native SATA ports to perform update - **Do NOT use third party controllers**
- Notebook users, please use AC power to prevent any power loss during firmware update

Getting Started

These instructions are designed to help you navigate through and utilize Kingston Toolbox 2.0. If you encounter issues during usage, please confirm that you meet the system consideration criteria above and then contact technical support.

Launching the Utility

For Windows 8, 7 (SP1) and Vista (SP2) users, right-click the **KingstonToolbox** executable and select "Run as administrator" to launch the application. See Figure 1.0.

For XP (SP3) users, double-click on the "KingstonToolbox" executable to launch the application

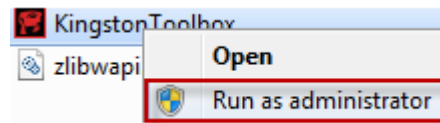


Figure 1.0 - Locate and launch

Exploring the Home Screen

When you launch the application, the interface will appear on screen and default to the **Drives** section. See Figure 2.0.

The **Drives** section provides you with information related to your drive. You must select your drive from the primary or secondary windows for this information to appear. Additional information related to the **Drives** section can be found on page 4 of this document.

The **Tools** section provides you with the ability to update your drive's firmware effortlessly. Additional information related to the firmware update process can be found in the **Tools** section on pages 4-5 of this document.

The **Details** section, located on pages 4-5, provides you with access your drive's SMART data and device identification data. SMART data will reveal information related to drive usage, SSD life remaining, and other useful statistics.

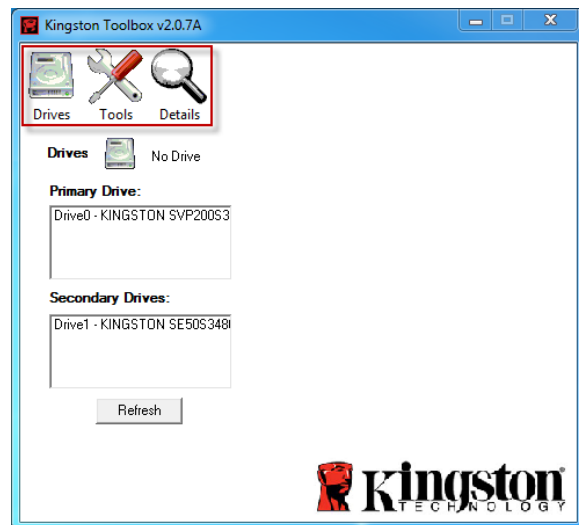


Figure 2.0- Home Screen

Drives

In order to obtain information from your drive, you must first select it from within the corresponding window. If your drive is connected as a primary drive, it will appear within the primary window. If it is connected as a secondary drive, it will appear within the secondary window.

Once you have selected your drive (SandForce-based models only) the window will display its model number, capacity, serial number, firmware version, various ID's and an SSD life-remaining gauge.

Note: If your SSD does not appear within the window, make sure that it is SandForce-based and confirm that you are running in AHCI mode within your BIOS. RAID configurations are not supported.

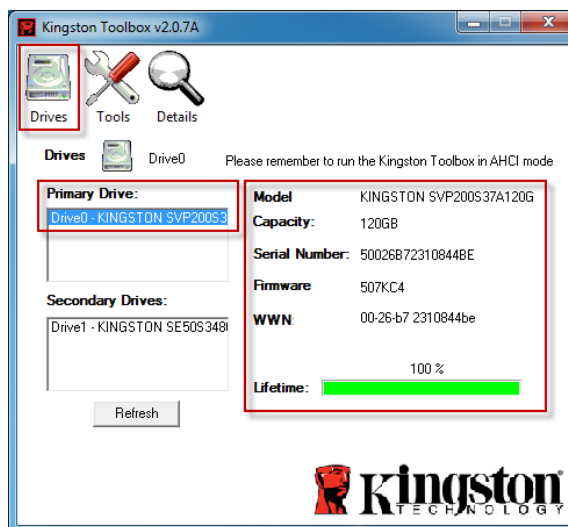


Figure 2.1 - Drive Window

Tools

In order to use the firmware update feature located in the **Tools** menu, you must first select your drive from within the **Drives** window.

Navigate to the **Tools** icon at the top of the application interface and select it to access the firmware update utility. See Figure 3.1.

If you wish to update the firmware on your drive, select **Firmware Update** from within the **Tools** window. See Figure 3.2 .

If there is a newer firmware included with your toolbox download, the utility will automatically load the microcode, install it and notify you of its completion. See Figure 3.3.

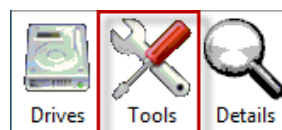


Figure 3.1 - Tools Icon

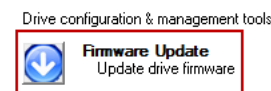


Figure 3.2 - Firmware Update



Figure 3.3 - Firmware Update Complete

If you are already at the latest available firmware you will see the message "There are no firmware updates available at this time" appear within the lower left corner of the window. See **Figure 3.4**.

There are no firmware updates available at this time

Figure 3.4 - No Firmware Available

*Note: If you receive a message that reads "There is no correct vic in the firmware folder"(as seen in **Figure 3.5**) it is possible that you are trying to update the wrong SandForce-based SSD. Confirm that you have downloaded the correct firmware package and if you continue to experience difficulties, please contact our technical support team.*

There is no correct vic in the firmware folder

Figure 3.5 - Incorrect Firmware Package

Details

In order to read device ID information and view SMART attributes within the **Details** menu, you must first select your drive from within the **Drives** window.

Once selected, navigate to the **Details** icon at the top of the application interface and click it to access SMART data. See **Figure 5.1**.

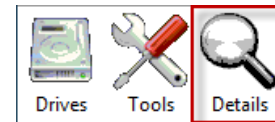


Figure 5.1 - Details Icon

The **Details** home screen will reveal the **Power On Hours, Power Cycle Count, Lifetime Writes from Host, and Lifetime Reads from Host** within the window, as seen in **Figure 5.2**.

Device Power On Hours:	403 Hours
Device Power Cycle Count:	61 Cycles
Lifetime Writes from Host:	3883 GB
Lifetime Reads from Host:	1965 GB

Figure 5.2 - Drive Usage Information

For additional information related to these values, click on the **SMART Data** button within the window and explore your drive's SMART attributes. See **Figure 5.3**.

Note: Your download will contain a SMART attribute decoder PDF which explains what each normalized value represents. If you do not have access to this file and would like to view it, please visit kingston.com/support, locate your SSD and click on the SMART Attribute download link.

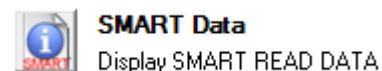


Figure 5.3 - SMART Data

Select **Identify Data** from within the **Details** window in order to view general drive configuration information. See **Figure 5.4**.



Identify Data

Display IDENTIFY DEVICE DATA

Figure 5.4- Identify Data

For additional information related to Kingston Toolbox 2.0, please contact technical support @ kingston.com/support