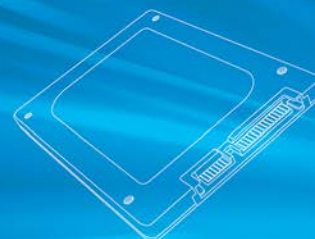# SSD Firmware Update Utility Guide

Crucial® m4 2.5" SSD Firmware Revision 070H Firmware Update Guide for Windows 7 + Windows 8 (Update from Rev 0001, 0002, 0009, 0309, 000F, 010G, 040H to Rev 070H)

Introduction

This document describes the process of updating the firmware on the Crucial m4 SSD using our Windows update utility. The utility is a single executable file that contains all the code necessary to perform the upgrade. The creation of a separate bootable device is not necessary.

This program is to be used for updating the **firmware from Revisions 0001, 0002, 0009, 0309, 000F, 010G or 040H to Revision 070H.**

PLEASE NOTE: This firmware update is **not applicable** to any Micron SSD which was purchased separately or as original equipment in a computer system. Any firmware updates for such drives, if necessary, will be made available by the computer manufacturer or at www.micron.com. This firmware update is not applicable to any Micron RealSSD C300 drive. It should not be used with any Micron RealSSD C400 Self Encrypting Drive (SED). This update is for 2.5" m4 drives only and should not be used to update mSATA m4 drives.

WARNING: As with all firmware updates, it is strongly recommended that you backup or make copies of all important files before performing this update. This firmware update process is done entirely at your own risk. If performed correctly, there will be no loss of system or user data on the drive. However, if the firmware process is interrupted for any reason, your solid state drive may not function properly. If this update is done on a notebook computer, it is strongly recommended that power be supplied by the AC power adapter.

General Instructions

Complete the following steps before starting the firmware update process:

1. Backup the Solid State Drive

It is highly recommended that full system backup be completed before starting this firmware upgrade procedure. If the upgrade is interrupted (by a power loss or hardware failure of some sort), it is possible that the solid state drive may not function properly.
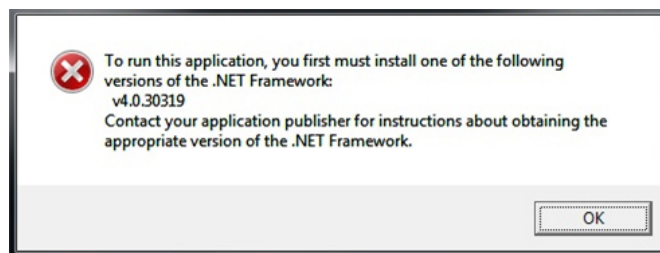
2. Use AC Power

Ensure your mobile PC or desktop PC is plugged in to AC power during the update process. It is not recommended to use only battery power during the upgrade. Do not remove power at any time during the firmware update process as this could produce incomplete results and may render your solid state drive unusable.

3. Disable/Remove Drive Passwords

Password protection, such as OS drive encryption or BIOS-level passwords can block firmware updates. Drive encryption can be disabled in the OS or software tool you use for encryption. To disable a BIOS password, you may need to edit your computer's BIOS settings. Please see your computer's owner's manual for details on editing these settings. Enter the BIOS (typically by hitting the "Delete", "F2" or "F12" key during start-up screen) and disable any passwords that you may have set on the SSD.

4. Update Microsoft .NET Framework

In order to be compatible with both Windows 7 and Windows 8, this firmware update tool is built under Microsoft .NET Framework 4. Some Windows 7 users may need to update their .NET Framework version in order to enable this tool. If the following error message is noticed when running the firmware updater, please use the Windows Update utility to update .NET Framework.

To run this application, you first must install one of the following versions of the .NET Framework:
v4.0.30319
Contact your application publisher for instructions about obtaining the appropriate version of the .NET Framework.
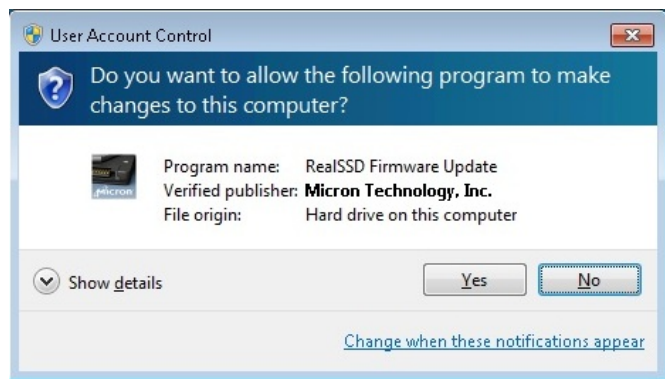
OK

Download the Firmware Update

1. Before beginning the firmware download process, close all other programs except for your Internet browser.

2. Find the Firmware Windows Update Utility associated with your Crucial m4 SSD at:
http://www.crucial.com/support/firmware.aspx

3. Click the link for the Firmware Windows Update Utility and select Save to download the ZIP file containing the firmware update utility to your system.

4. Double-click the ZIP file to extract the files inside. Save them to your desktop.

Run the Firmware Update

1. If not already done, copy the update utility file to your desktop.

2. Double-click the icon to launch the update utility.

3. A User Account Control box will open:

Ensure that the Verified Publisher is clearly listed as "Micron Technology, Inc." If this is not the case, select "No" to abort this operation. Click "Yes" to proceed if the file is properly signed.

4. You must accept the License Agreement to proceed. When you see the following window, click on the "License" button.

5. Scroll through and read the Software License Agreement. If you wish to proceed, then click the "Accept" button to continue.

6. The utility is ready to start the update process. Before clicking "Continue," ensure that all other work is saved and that open applications are closed. Clicking "Continue" will start the process by closing Windows and restarting your computer.

7. Your computer will restart and boot into the update tool. You will see the following on your screen:

8. After the update tool has fully loaded, you will see the following:

It is acceptable to update from any previous version 0001, 0002, 0009, 0309, 000F, 010G or 040H, so you may see any of these revisions in the above display (immediately below your drive's serial number). If your m4 drive is not listed in the screen display as above, please see the "Troubleshooting Tips" section below.

9. The utility will immediately update your drive, indicated by the following:

10. On most systems, this process will take between 30 to 60 seconds. Some systems may require a longer time to complete.

11. Upon completion, the following message will display:

12. After several seconds, the system will reboot again, restarting Windows.

13. When Windows successfully restarts, the firmware update process is complete.
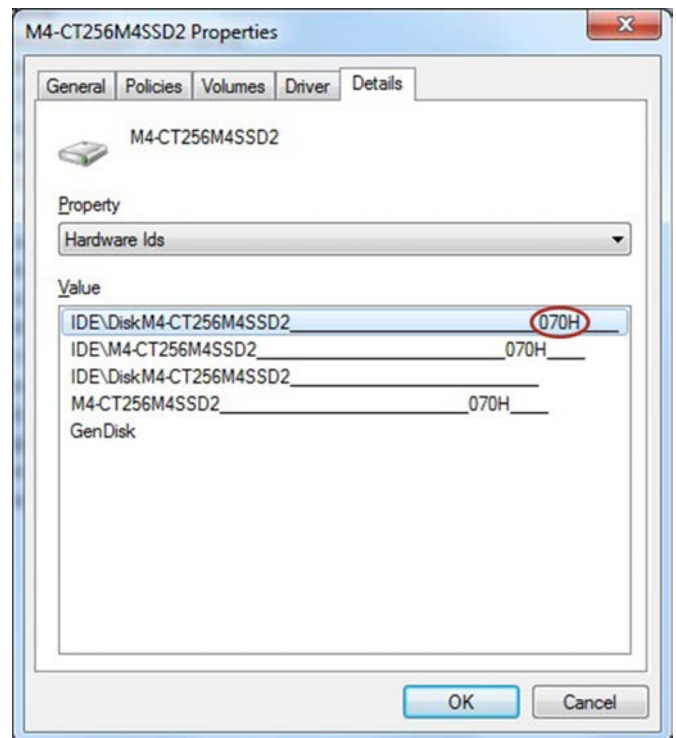
Troubleshooting Tips

- Although efforts have been made to test the compatibility of this software with various system and chipset configurations, it is not possible to test every available system. Therefore, certain systems (e.g., older systems) may experience compatibility problems.

- If you experience issues after the tool reboots, verify that you have disabled any drive passwords BIOS.

- If your m4 drive is not recognized in Step 8 of the "Run the Firmware Update" section above, it may be necessary to run this update in IDE mode instead of AHCI mode, on some older systems. When it is necessary to change the system to IDE or AHCI mode, it may be necessary to reboot the system using external media, such as a bootable CD-ROM. Instructions for running the 070H update from bootable media are available on the SSD Support page at http://www.crucial.com/support/firmware.aspx

- Some systems prevent firmware updates when in RAID mode. In this case, changing to AHCI or IDE mode may help to complete the update process. Any RAID configurations should be preserved after the update, when the system is put back into RAID mode, but check with your system's user manual before proceeding.

- Peripheral RAID cards will not pass the necessary commands to perform firmware updates. You may need to move the target drive onto a SATA host bus adapter or SATA connector on the motherboard that facilitates these commands.

- This firmware update tool may not properly operate in PCs, notebooks or tablets with UEFI-based BIOS. We will make an update tool available separately, which will support firmware updates under UEFI (Unified Extensible Firmware Interface).

Validating the Current Firmware Revision

Windows 7 allows the user to check the current firmware revision of the drive by following these steps:

- Click the Windows "Start" button, and select "Computer."

- On the disk icon which represents your drive, right-click and select "Properties."

- In the window that pops up, select the "Hardware" tab.

- In the All Disk Drives list, highlight your m4 drive, and click the "Properties" button.

- In the next window that opens, select the "Details" page.

- Under the Property pull-down menu, select "Hardware Ids," and you will see the following display:

- The current firmware revision is circled in red above. If the firmware revision says "070H," no further action is necessary.

Firmware Release Notes

Firmware for the m4 SSD is being updated from version 040H to 070H.

Firmware 070H is recommended for anyone currently running 040H or previous firmware releases. It includes incremental improvements and refinements over these versions which may improve the overall user experience.

Like recent firmware versions, version 070H has improvements over versions 000F which are specific for Windows 8 and new UltraBook systems, although systems running Windows 7 and other operating systems may also see improvements. Any m4 firmware version will function normally in Windows 8, even without these performance improvements.

The following is a summary of changes between 040H and 070H, which are independent of operating system:

• Resolved a power-up timing issue that could result in a drive hang, resulting in an inability to communicate with the host computer. The hang condition would typically occur during power-up or resume from Sleep or Hibernate. Most often, a new power cycle will clear the condition and allow normal operations to continue. The failure mode has only been observed in factory test. The failure mode is believed to have been contained to the factory. This fix is being implemented for all new builds, for all form factors, as a precautionary measure. The fix may be implemented in the field, as desired, to prevent occurrence of this boot-time failure. To date, no known field returns have been shown to be related to this issue. A failure of this type would typically be recoverable by a system reset.

Revision History

Rev. A…………………………………………………………… 2 April 2013

• Initial release