

## SSD Firmware Update Utility Guide

### Crucial® M500 SSD Firmware Revision MU05 Firmware Update Guide for Windows 7 (Update from Rev MU02 and MU03 to Rev MU05)

#### Introduction

This document describes the process of updating the firmware on the Crucial M500 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 Revision MU02 or MU03 to Revision MU05**.

**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](http://www.micron.com). This firmware update is not applicable to any other Micron or Crucial SSD.

**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.

#### 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 M500 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:



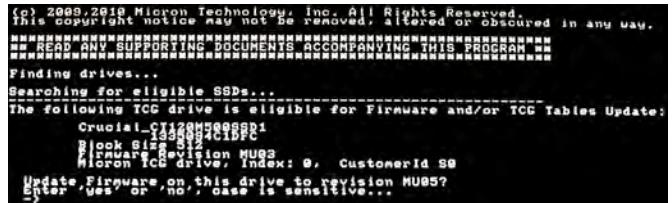
Ensure that the Verified Publisher is clearly listed as "Micron Technology, Inc." If this is not the case, select "No" to abort this operation. Click "Yes" to proceed if the file is properly signed and you should see a screen like this:



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.

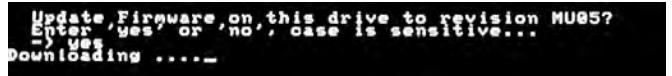
**Note:** Once you click "Continue" the process will initiate and will complete automatically on all eligible drives on the system, and reboot your system after the Firmware upgrade.

7. The screen will refresh and you will see:



It is acceptable to update from any previous version. If your M500 drive is not listed in the screen display as above, please see the "Troubleshooting Tips" section below.

8. The utility will automatically enter "yes". The following screen will appear:



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

10. Upon completion, the following message will display:



11. At this point the system will automatically be rebooted.

12. Process is complete.

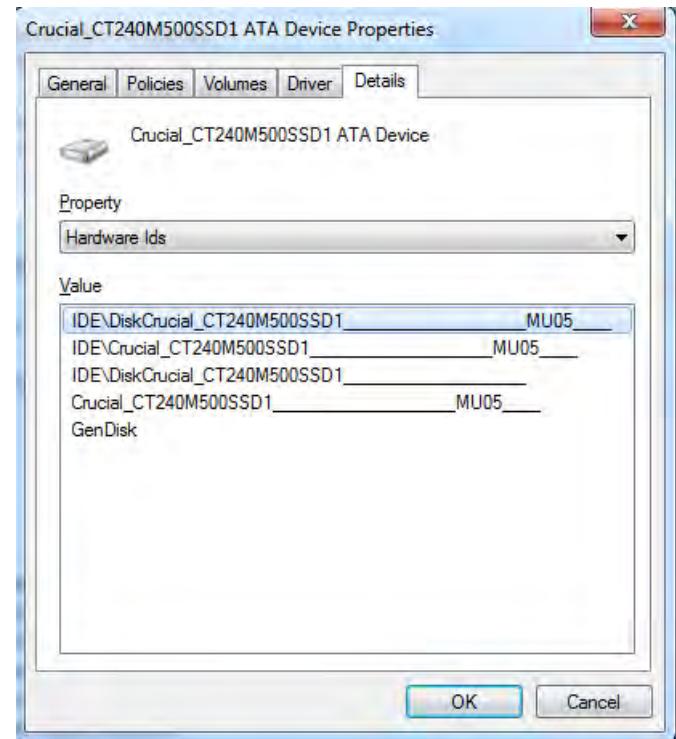
## Troubleshooting Tips

- 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 M500 drive is not recognized in Step 7 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 MU05 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.

## 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 M500 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:



## Firmware Release Notes

Firmware for the M500 (all form factors) is being updated from version MU03 to MU05. The M500 is updateable to this new firmware starting from previous versions using tools provided by Micron.

This update will be mandatory cut-in for new product built in Micron factories, and is an OPTIONAL update for any drive in the field. For end users, it is recommended if the user is experiencing or wishes to prevent an issue related to the following items.

### Version MU05 includes the following changes:

- Improved drive latency performance in applications with SMART polling
- Improved compatibility with 3rd party encryption management software
- Corrected reporting of SMART attribute 196 and 183
- Increased thermal throttling response on 960GB capacity for greater reliability
- Corrected upgrade issues experienced on MU03 by some customers
- Numerous bug fixes and stability improvements

## Revision History

Rev. A..... 25 March 2014

- Initial release