



## SSD Firmware Update Utility Guide

### Crucial® v4 2.5" SSD Firmware Update Guide for Windows 7 + Windows 8 (Update from 22 to 25)

#### Introduction

This document describes the process of updating the firmware on the Crucial v4 SSD using our Windows update utility. The utility is a single executable file that contains all the code necessary to perform the upgrade.

This program is to be used for updating the **Firmware from Revision 22 to Revision 25**.

**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 update is for 2.5" v4 drives only and should not be used to update m4 drives or any others.

**WARNING: This firmware update is destructive to the data on the SSD and on the flash drive being created as bootable media. Your data will be lost.** 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. 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

**This firmware update is destructive to the data on the SSD and on the flash drive being created as bootable media.** 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

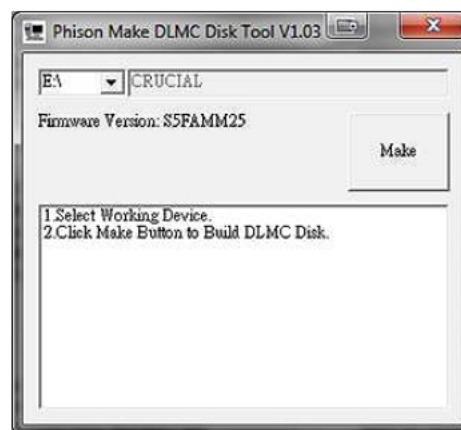
Password protection, such as OS drive encryption or BIOS-level passwords can block firmware updates. Drive encryption can be disabled in the OS or software tool you use for encryption. To disable a BIOS password, you may need to edit your computer's BIOS settings. Please see your computer's owner's manual 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 v4 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.

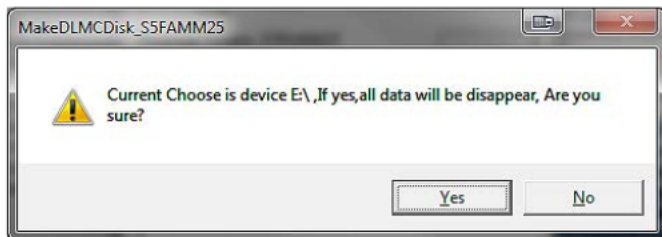
#### Run the Firmware Update

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:

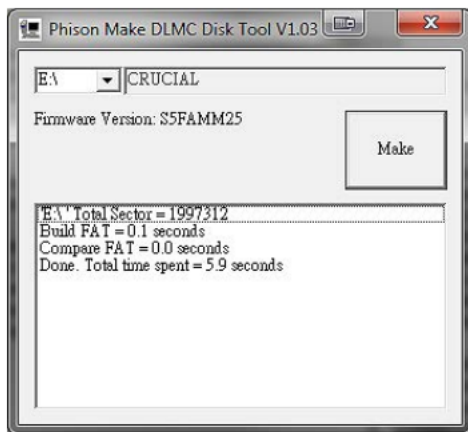


4. If your USB drive is compatible you will see it in the list, if you have more than one USB device installed on your system, make sure the program is pointing to the USB drive you will be using and then click on the make button and you will get a confirmation box letting you know it will delete all the data on that drive.

**Note: The data on your flash drive will be lost. Please make sure it has been backed up.**



5. Once you click yes and the process begins, it only takes a few seconds to prepare your USB device and then you will be ready to start the update process.



6. Close out of the program and restart your system with the USB device still in the USB slot. You will need to press the appropriate key to enter the setup/BIOS of the system. Please consult your owner's manual for the correct key to tap. Once you are in the BIOS/Setup program, first thing to do is set the drive configuration from AHCI to IDE, the update will not run or the drive will not be found, then find the boot configuration and change the boot order to boot from the USB drive. Press the F10 key and reboot the system, the following screen will show up on the screen as the system boots.

```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.

C:\>dir

Volume in drive C has no label
Volume Serial Number is 744C-B1EE
Directory of C:\

DLMC   EXE       727,646  01-31-13  9:01
ISP    BAT         7  01-31-13  9:01
      2 file(s)       727,653 bytes
      0 dir(s)    1,019,936,768 bytes free

C:\>
```

7. At the C:\ prompt type in isp.bat and enter to begin the firmware update process.

```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.

C:\>dir

Volume in drive C has no label
Volume Serial Number is 744C-B1EE
Directory of C:\

DLMC   EXE       727,646  01-31-13  9:01
ISP    BAT         7  01-31-13  9:01
      2 file(s)       727,653 bytes
      0 dir(s)    1,019,936,768 bytes free

C:\>isp.bat_
```

8. The program will then look for all qualified drives.

```
PHISON SATA PS3105 DOS Firmware Upgrade Tool v1.02(Mar 23 2012 18:35:04)
Start scan device... \
-
```

9. After the scan is completed the list of available drives will show as depicted in the screen shot below.

```
PHISON SATA PS3105 DOS Firmware Upgrade Tool v1.02(Mar 23 2012 18:35:04)
Choose Device : 1.SATA 0(Slave) : FW:S5FAMM22 ,Model:U4-CT128U4SSD2

Check Device Ready ...
New Updated Firmware version : S5FAMM25
This action will destroy all data on SSD ,
Please check the version is correctly.
Continue? [Y/N] :
```

10. **Note: The data on your flash drive will be lost. Please make sure it has been backed up.** Once this has been completed, type in "Y" to start the update.

```
PHISON SATA PS3105 DOS Firmware Upgrade Tool v1.02(Mar 23 2012 18:35:04)
Choose Device : 1.SATA 0(Slave) : FW:S5FAMM22 ,Model:U4-CT128U4SSD2

Check Device Ready ...
New Updated Firmware version : S5FAMM25
This action will destroy all data on SSD ,
Please check the version is correctly.
Continue? [Y/N] : y_
```

11. The update process will take a few minutes and if everything is successful you will see the next screen upon completion.

```
Check Device Ready ...
New Updated Firmware version : S5FAMM25
This action will destroy all data on SSD ,
Please check the version is correctly.
Continue? [Y/N] : y

Don't remove device during running :
Force To Boot Code ... PASS
ISP Prog PRAM Code ... PASS
Erase Device 100%... PASS
Preformat Device ..100%... PASS
ISP Prog Flash Code ... PASS
Check InfoBlock ... PASS
Flash Write-Read Test, Logical Size=122104 MB
Begin : ok.
End : ok.
Scan Bad Block ... PASS

PASS
Testing Completed!!
C:\>
```

12. At this point, you can remove the USB drive and restart the system. The update process has been completed.

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

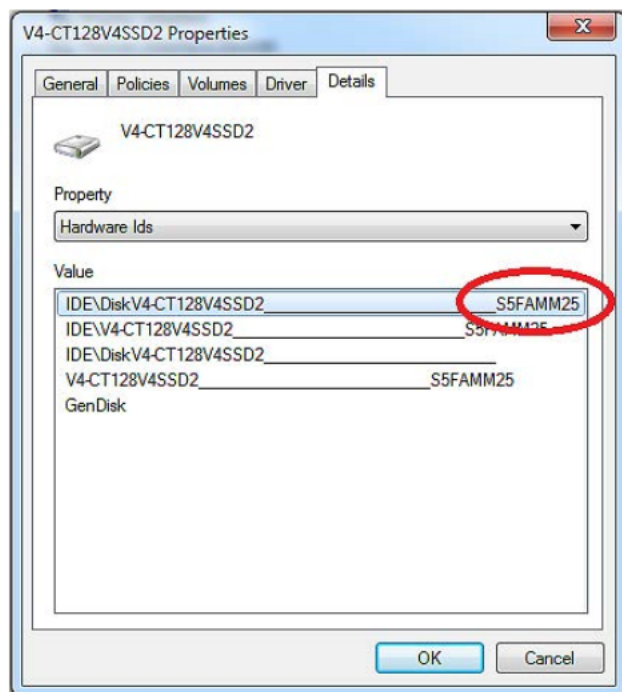
## Troubleshooting Tips

- 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 and that you are in IDE mode.
- 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 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 “S5FAMM25,” no further action is necessary.

## Firmware Release Notes

Firmware for the v4 SSD is being updated from Revision 22 to 25.

The following is a summary of changes between 22 and 25, which are independent of operating system:

- Improved full disk performance.
- Improved mixed mode performance.

## Revision History

Rev. A..... 20 February 2013

- Initial release