Technical Note



## Refreshing the NV9000 SSD

## Introduction

This procedure assumes that you *can* access the data on the SSD. The SSD is recognized in the disk manager; there is a drive letter associated with it; and you can read any data from the drive. However, this controller will not boot completely or it boots with errors.

This procedure refreshes the SSD (solid-state drive) in an NV9000 FR0040-10 frame.

See Technical Note TN0020 SSD Replacement if you want to replace the SSD.

## Procedure

Follow these steps to refresh the SSD:

1 Start (or restart) the controller, holding the 'Del' key during the initial boot to access the 'CMOS Setup' page:

Phoenix - Award BIOS	CMOS Setup Utility			
<ul> <li>Standard CMOS Features</li> <li>Advanced BIOS Features</li> <li>Advanced Chipset Features</li> <li>Integrated Peripherals</li> <li>Power Management Setup</li> <li>PnP/PCI Configurations</li> <li>PC Health Status</li> </ul>	<ul> <li>Frequency/Voltage Control Load Fail-Safe Defaults Load Optimized Defaults Set Supervisor Password Set User Password Save and Exit Setup Exit without Saving</li> </ul>			
Esc : Quit F10 : Save and Exit Setup	$\uparrow \downarrow \rightarrow \leftarrow$ : Select Item			
Virus Protection, Boot Sequence				

Use the arrow keys to choose 'Advanced BIOS Freatures', then press 'Enter'. Then choose 'Hard Disk Boot Prioriity' and press 'Enter':

Phoenix - Award BIOS CMOS Setup Utility Advanced BIOS Features				
<ul> <li>CPU Feature</li> <li>Hard Disk Boot Priority Virus Warning CPU L1 &amp; L2 Cache Hyper-Threading Technology Quick Power-On Self Test First Boot Drive Second Boot Drive Third Boot Drive Boot Other Device Swap Floppy Drive</li> </ul>	Press Enter Disabled Enabled Enabled USB-CDROM CDROM Hard Disk Enabled Disabled	Item Help Menu Level ► Select Hard Disk Boot Device Priority		
Boot Up Ffoppy Seek Boot Up NumLock Status Gate A20 Option Typematic Rate Setting Typematic Rate (Chars/Sec) Typematic Delay (msec) Security Option APIC Mode	Disabled On Fast Disabled 6 25Ø Setup Enabled <del>v</del>			
↑↓→←:Move Enter:Select +/-/PU/	PD:Value F10:Save	Esc:Exit F1:General Help		

Follow the instructions to change the boot priority so that the HDD is first in the priority list:

Phoenix - Award BIOS CMOS Setup Utility Hard Disk Boot Priority			
Hard DISK BOOT PFIOFI 1. Ch3 M. : SST3250020NS 2. Ch2 M. : Sandisk SSD SATA 500 3. Bootable Add-in Cards	Y Item Help Menu Level →→ Use <1> or <1> to select a device , then press <+> to move it up or <> to move it down the list. Press <esc> to exit this menu.</esc>		
↑↓:Move PU/PD/+/-/:Change Priority    F5: Proview Values - F6: Fail-Safe Defaults	F10:Save Esc:Exit		

Save the change and exit. The controller will now boot from the HDD. When Windows' startup completes, login. You will see the *DriveImager* icon on the desktop.

The HDD is drive #1. The SSD is drive #0.

- 2 Run diskpart from the command prompt window.
- 3 Enter List disk at the prompt.
- 4 Enter Select disk Ø at the next prompt.
- 5 Enter Clean all at the next prompt. (This cleans the SSD.)

6 When that is done—it might take a few minutes—close the command prompt window. Then doubleclick the DriveImager icon on the desktop.



🔓 Flash Media Imaging and Formatting Utilities		
💕 Tools 👩 Log 👶 Help		
Available Drives		
Display Removable Drives Only		
□         Physical Drive 0 (3.679 GiB) (SanDisk SSD SATA 5000 2.5)           □         □.\	Format FAT16 Bootable	Write Image to Drive
	😻 Extract Zip	Create Drive Image File
	🍠 🛛 Run Bootprep	Write XP MBR
	Check Files Integrity	
	Format to NTFS	
9:07 AM: (Finished writing image to drive, please unplug card) (Physical Drive 0 (3.679 9:04 AM: (Writing Image to Drive) (Physical Drive 0 (3.679 GiB) (SanDisk SSD SATA 50 "E\EmbeddedXP\Secondary\Drive_C_WINXP-EMB-SP2_Secondary_Resea 9:04 AM: (Writing Image to Drive) (Physical Drive 0 (3.679 GiB) (SanDisk SSD SATA 50	GiB) (SanDisk SSD SATA 5000 2.5)) 00 2.5)) Started writing image from led_SSD_3728_2D.nvbin" 00 2.5)) Image file OK	) Writing Image to Drive
903 AM: (Writing Image to Drive) (Physical Drive 0 (3.679 GiB) (SanDisk SSD SATA 50 E:\EmbeddedXP\Secondary\Drive_C_WINXP-EMB-SP2_Secondary_Reseale 2:34 PM: (Finished writing image to drive, please unplug card) (Physical Drive 0 (3.828	00 2.5)) Started checking image fil ed_SSD_3728_2D.nvbin GiB) (SILICONSYSTEMS SATA 4GB	e: -4000)) Writing Image
hoose physical drive0. Click 'Write image to drive',	then click 'Next' and	select the most recei

backup file in the E:\System Backup folder. Click 'Next' to proceed with the image restore.

- 7 When the restore is complete, close DriveImager.
- 8 Restart the controller, change the boot priority so that the SSD is first in the list (as described in step 1). Allow Windows to restart (from the SSD) and login.
- //