SSD7000 Series NVMe RAID Solutions Mac Installation Guide

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Overview

This guide includes important hardware/software requirements, installation & upgrade procedures, and troubleshooting tips for using SSD7000 NVMe RAID controllers, the RocketStor 6661A-NVMe ThunderboltTM 3 NVMe RAID solution, and SSD6540/6540M RAID enclosures with a macOS operating system.

Prerequisites

This section describes the base hardware and software requirements for SSD7000 series NVMe RAID controllers & enclosures.

Driver Installation

This section covers driver installation, driver upgrade and driver uninstallation procedures for SSD7000 series NVMe RAID controllers & enclosures in a macOS environment.

Troubleshooting

Please consult this section if you encounter any difficulties installing or using SSD7000 series NVMe RAID controllers or enclosures. It includes descriptions and solutions for commonly reported technical issues.

Appendix

This section describes how to collect trouble shooting information for support cases you have submitted via our Online Support Portal.

Prerequisites

- 1) Make sure at least one NVMe SSDs has been installed into the HighPoint NVMe controller or enclosure. The driver will not install properly unless NVMe SSDs are detected by the hardware environment.
- 2) The SSD7101A-1/7120/6540/6540M/7103/7104/7140/7505/7502/7540 NVMe device must installed into a PCIe 3.0 slot with x16 dedicated lanes. The SSD7204 can be installed into a PCIe 3.0 x8 or x16 slot.

If you are using the RocketStor 6661A-NVMe or a SSD7000 NVMe RAID controller via the RocketStor 6661A adapter, the RocketStor unit must be plugged into a Thunderbolt[™] 3 port.

- 3) Operating System Support: macOS 10.13 or later
- 4) Before installing the driver and RAID Management software, you should log into the system as a System Administrator.
- 5) Identify the system as either T2 or Non-T2 based if the system has a T2 chip, make sure to follow section 3 before attempting to install any software for the HighPoint NVMe device.

1. Disabling macOS Secure boot and SIP for T2 Systems

Customers working with Mac platforms manufactured in 2018 or later that feature a T2 security chip, will need to disable the **Secure Boot** in order to load drivers for third party devices. In addition, macOS 10.13x and earlier may require that **SIP** (System Integrity Protection) be disabled. If enabled, older versions of macOS may prevent the NVMe drivers from loading.

HighPoint products affected by this requirement include our NVMe RAID product lines (SSD7100 and SSD7500 Series RAID Controllers and SSD6540 series NVMe RAID Enclosures).

For a list of products with the T2 Security Chipset, please visit the following website: Mac computers that have the Apple T2 Security Chip

Disabling Secure Boot

In order to use these products with T2 systems, Secure Boot must be disabled. To disable this feature select "No Security" from the Startup Security Utility interface. You can access this menu by pressing the Command (\mathfrak{B})-R keys after the Apple logo first appears during the boot-up process.

00	Startup Security Utility					
T	Firmware password protection is off. Turn on a firmware password to prevent this computer from starting up from a different hard disk, CD, or DVD without the password.					
	Turn On Firmware Password					
Secure Boo	ot					
Ensures t trusted b	Full Security Ensures that only your current OS, or signed operating system software currently trusted by Apple, can run. This mode requires a network connection at software installation time.					
	Medium Security Allows any version of signed operating system software ever trusted by Apple to run.					
No Security Does not enforce any requirements on the bootable OS.						
External Boot						
 Disallow booting from external media Restricts the ability to boot from any devices such as USB and Thunderbolt drives. 						
Allow booting from external media Does not restrict the ability to boot from any devices.						

Instructions are available from Apple's website: About Secure Boot

Disabling SIP (for macOS 10.13x and earlier)

While macOS is running, open a terminal window to confirm whether System Integrity Protection (SIP) status is disabled.

If enabled, you will need to manually disable the setting. Open a terminal, and then enter the following command:

csrutil status

		â	test — -zsh -	- 80×2
Last login:	Sat Oct 12	16:02:36	on ttys000	
test@testsM Svstem Inte			l status tus: enabled.	
test@testsM	And the second sec	a design of the second s		

The example screenshot shown above indicates that SIP is enabled.

To disable SIP

1) Restart the computer and hold down the "**Command** + **R**" buttons. Continue to hold these keys until macOS enters System Recovery mode.



Note: If you are unable to enter Recovery Mode to disable SIP: Make sure you are using a wired keyboard and mouse for this procedure. Wireless devices may not be recognized or function properly when booting into this mode.



2) Click on Utilities in the upper left corner and select Terminal:



3) Set SIP to disabled in using Terminal. Enter the following command:

csrutil disable



4) Click the **Apple** logo in the upper left-hand corner of the desktop, and select **Restart** to reboot the system.

Ś	Terminal	Shell	Edit	View	Window	Help
S	tartup Disk					
R	estart 📐			Terr	ninal — - ha	sh — 80×24
Shut Down		\$1	statu			511-00×24

5) After rebooting, confirm that SIP is disabled. Open terminal and type the following command:

csrutil status



If the status is now reported as **disabled**, you can install the HighPoint NVMe driver.

2. Installing the Device Driver

Product	Download Page
SSD7101A-1	https://www.highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm
SSD7120	https://highpoint-tech.com/USA_new/series-ssd7120-download.htm
SSD7204	https://highpoint-tech.com/USA_new/series-ssd7204-download.htm
SSD7104	https://highpoint-tech.com/USA_new/series-ssd7104-download.htm
SSD6540M	https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm
SSD6540	https://highpoint-tech.com/USA_new/series-ssd6540-download.htm
SSD7103	https://highpoint-tech.com/USA_new/series-ssd7103-download.htm
SSD7140	https://highpoint-tech.com/USA_new/series-ssd7140-download.htm
RS6661A-NVMe	https://highpoint-tech.com/USA_new/series-rs6661a-nvme-download.htm
SSD7505	https://highpoint-tech.com/USA new/series-ssd7500-download.htm
SSD7502	https://www.highpoint-tech.com/USA new/series-ssd7502-overview.html
SSD7540	https://highpoint-tech.com/USA_new/series-ssd7500-download.htm

macOS High Sierra 10.13 Driver Installation Procedure

1) Start the driver installation procedure. Locate the download and double click the package to start the installer. Click the **Continue** button:



2) macOS will prompt you to install the driver. Click Install to proceed.

	Install HighPoint NVMe RAID Controller						
Standard Install on "1014.6"							
 Introduction Destination Select Installation Type Installation Summary 	This will take 438 KB of space on your computer. Click Install to perform a standard installation of this software for all users of this computer. All users of this computer will be able to use this software.						
	Customize Go Back Install						

3) You will be prompted that a reboot is needed to install the software. Click **Continue Installation**.



4) If no pop-ups appear, please proceed to the next step of installation. Click Restart.



5) If you receive a popup window prompting you for permission, click **Open Security Preferences**.



6) Make sure App Store and identified developers is checked, and then click Allow.



7) You will receive a popup window, prompting you to restart. Click **OK**.

\odot	Enabling this system software requires a restart
	Restart OK
8) Return to the	driver installation window. Click Restart to restart the system.
	The installation was completed successfully.
 Introduction Destination Select Installation Type Installation 	
• Summary	The installation was successful. The software was installed.
	Click Restart to begin installing the software.
	Go Back Restart

9) After restarting the system, install HighPoint RAID management.

macOS Mojave10.14 and macOS Catalina 10.15 Driver Installation Procedure

1) Locate the download and double click the package to start the installer. Click the **Continue** button:



2) macOS will prompt you to install the driver. Click Install to proceed.

 Introduction Destination Select Installation Type Installation Summary 	Click Install to perform a	space on your computer. standard installation of this software uter. All users of this computer will

3) You will be prompted that a reboot is needed to install the software. Click **Continue Installation**.

 Introductic 	must restart your	re finishes installing, you computer. Are you sure II the software now?	-
DestinatioInstallatic	Cancel	Continue Installation	software ter will
 Installation 			
 Summary 			

4) If no pop-ups appear, please proceed to the next step of installation. Click **Restart**.

	VINSTAIL HIGhPoint NVMe RAID Controller
 Introduction Destination Select Installation Type Installation Summary 	The installation was completed successfully.
	Click Restart to begin installing the software.

5) If you receive a popup window prompting you for permission, click **Open Security Preferences**.



6) Make sure App Store and identified developers is checked, and then click Allow.



7) You will receive a popup window, prompting you to restart. Click OK.

Enabling this s a restart	ystem software re	equires
	Restart	ОК

8) Return to the driver installation window. Click Restart to restart the system.

Introduction Destination Select Installation Type	The installation was completed successfully.
Installation Type Installation Summary	The installation was successful. The software was installed.
	Click Restart to begin installing the software.
	Go Back Restart

9) After the system restarts, the driver's status can be viewed under **System Information**; The following screenshot shows the driver has been loaded:

Bluetooth	Extension Name			Version	Last Modified	Loaded
Camera	HighPointNVMe			1.1.12	2020/5/19, 7:07 PM	Yes
Card Reader	initioFWBridge			439,70,3	2017/8/25, 1:13 PM	No
	Intel82574L			2.7.2	2017/8/25, 12:56 PM	No
Controller	IO80211Family			12.0	2017/8/25, 12:56 PM 2017/8/25, 1:03 PM	No
Diagnostics				12.0	2017/8/25, 1:03 PM	Yes
Disc Burning	IO80211FamilyV2			12.0		
Ethernet Cards	IO80211NetBoote				2017/8/25, 1:01 PM	No
Fibre Channel	IO80211NetBoote			12.0	2017/8/25, 1:01 PM	No
FireWire	IOAcceleratorFam	nily2	0	378.28	2017/8/25, 1:00 PM	Yes
Graphics/Displays	HighPointNVMe	:				
Hardware RAID	and the second sec					
Memory	Version:	1.1.12				
NVMExpress	Last Modified:	2020/5/19, 7:07 PM				
PCI	Bundle ID: Loaded:	com.highpoint-tech.kext Yes	HighPointNVMe			
Parallel SCSI						
Power	Kind:	Intel				
Printers		x86_64				
SAS	64-Bit (Intel):	Yes	17 - 18 - 18 - 18 - 18 - 18 - 18 - 18 -			
SATA/SATA Express	Location: Kext Version:	/Library/Extensions/Highl 1.1.12	PointNVMe.kext			
SPI		1844674352185580000	n			
SPI		1844674352185580000 Yes	0			
	Load Address:	Yes Satisfied				
SPI Storage Thunderbolt	Load Address: Loadable:	Yes Satisfied) : HighPoint Technologies, Inc (DX6	G69M9N2), D	eveloper ID Certification	Authority,
SPI Storage Thunderbolt USB	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification	Authority,
SPI Storage Thunderbolt USB etwork	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification	Authority,
SPI Storage Thunderbolt USB etwork Firewall	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification	Authority,
SPI Storage Thunderbolt USB stwork Firewall Locations	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB etwork Firewall Locations Volumes	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB etwork Firewall Locations Volumes WWAN	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB stwork Firewall Locations Volumes WWAN Wi-Fi	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB Stwork Firewall Locations Volumes WWAN Wi-Fi fitware	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB Itwork Firewall Locations Volumes WWAN WI-Fi oftware Accessibility	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB Stwork Firewall Locations Volumes WWAN WI-Fi WWAN WI-Fi Accessibility Applications	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB Stwork Firewall Locations Volumes WWAN Wi-Fi Strware Accessibility Applications Components	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,
SPI Storage Thunderbolt USB Stwork Firewall Locations Volumes WWAN WI-Fi WWAN WI-Fi Accessibility Applications	Load Address: Loadable: Dependencies:	Yes Satisfied		G69M9N2), D	eveloper ID Certification /	Authority,

Note: The driver revision shown in the screenshots may not correspond with current software releases. Please make sure to download the latest driver updates from the product's Software Updates page.

3. Updating the Device Driver

Note: Update the driver, please make sure the RAID controller is connected to the host.

Product	Download Page
SSD7101A-1	https://www.highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm
SSD7120	https://highpoint-tech.com/USA_new/series-ssd7120-download.htm
SSD7204	https://highpoint-tech.com/USA_new/series-ssd7204-download.htm
SSD7104	https://highpoint-tech.com/USA_new/series-ssd7104-download.htm
SSD6540M	https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm
SSD6540	https://highpoint-tech.com/USA_new/series-ssd6540-download.htm
SSD7103	https://highpoint-tech.com/USA_new/series-ssd7103-download.htm
SSD7140	https://highpoint-tech.com/USA_new/series-ssd7140-download.htm
RS6661A-NVMe	https://highpoint-tech.com/USA_new/series-rs6661a-nvme-download.htm
SSD7505	https://highpoint-tech.com/USA_new/series-ssd7500-download.htm
SSD7502	https://www.highpoint-tech.com/USA_new/series-ssd7502-overview.html
SSD7540	https://highpoint-tech.com/USA_new/series-ssd7500-download.htm

Current drivers can be downloaded from each product's Software Downloads webpage.

Updating the Device Driver (for macOS 10.13/10.14/10.15)

1) Locate the download and double click the package to start the installer. Click the **Continue** button:

	🥪 Install HighPoint NVMe RAID Controller
	Welcome to the HighPoint NVMe RAID Controller Installer
Introduction	You will be guided through the steps necessary to install this
Destination Select	software.
Installation Type	
Installation	
Summary	

2) macOS will prompt you to install the driver. Click **Install** to proceed.

e e ()	Install HighPoint NVMe RAID Controller
	Standard Install on "1014.6"
 Introduction Destination Select Installation Type Installation Summary 	This will take 438 KB of space on your computer. Click Install to perform a standard installation of this software for all users of this computer. All users of this computer will be able to use this software.
	Customize Go Back Install

3) You will be prompted that a reboot is needed to install the software. Click **Continue Installation**.

Introductic	🗾 must	restart your c	e finishes installing, you computer. Are you sure the software now?	
 Destinatio 		Cancel	Continue Installation	software
 Installatic 		Calicer	Continue installation	ter will
 Installation 				
 Summary 				

4) If no pop-ups appear, please proceed to the next step of installation. Click **Restart**.

	Install HighPoint NVMe RAID Controller
 Introduction Destination Select Installation Type Installation Summary 	The installation was completed successfully.
	Click Restart to begin installing the software. Go Back Restart

5) After the system restarts, the driver's status can be viewed under **System Information**; the screenshot below shows that the driver has loaded properly.

	Extension Name			Version	Last Modified	Loaded
Bluetooth	Extension Name					roaded
Camera	HighPointNVMe			1.1.12	2020/5/19, 7:07 PM	Yes
Card Reader	initioFWBridge			439.70.3	2017/8/25, 1:13 PM	No
Controller	Intel82574L			2.7.2	2017/8/25, 12:56 PM	No
Diagnostics	IO80211Family			12.0	2017/8/25, 1:03 PM	No
Disc Burning	IO80211FamilyV2			12.0	2017/8/25, 1:01 PM	Yes
Ethernet Cards	IO80211NetBoote	er		12.0	2017/8/25, 1:01 PM	No
Fibre Channel	IO80211NetBoote	erV2		12.0	2017/8/25, 1:01 PM	No
FireWire	IOAcceleratorFam	nily2		378.28	2017/8/25, 1:00 PM	Yes
Graphics/Displays Hardware RAID	HighPointNVMe	:	0			
Memory NVMExpress PCI Parallel SCSI Power Printers SAS	Kind:	1.1.12 2020/5/19, 7:07 PM com.highpoint-tech.kext.HighPo Yes Identified Developer Intel x88_64 Yes Vibrary/Extensions/HighPointNV				
SATA/SATA Express	Kext Version: Load Address: Loadable:	1.1.12 18446743521855800000 Yes				
Storage Thunderbolt USB	Dependencies: Signed by:	Developer ID Application: HighPo	oint Technologies, Inc (DX6G	69M9N2), D	eveloper ID Certification /	Authority
Thunderbolt USB Network			int Technologies, Inc (DX6G	69M9N2), D	eveloper ID Certification /	Authority
Thunderbolt USB			vint Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority
Thunderbolt USB Network			int Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority
Thunderbolt USB Network Firewall			int Technologies, Inc (DX6G	69M9N2), D	eveloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations			int Technologies, Inc (DX6G	69M9N2), D	eveloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations Volumes			int Technologies, Inc (DX6G	69M9N2), D	sveloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations Volumes WWAN Wi-Fi			int Technologies, Inc (DX6G	69M9N2), D	sveloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations Volumes WWAN Wi-Fi			int Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations Volumes WWAN Wi-Fi Software			int Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations Volumes WWAN Wi-Fi Software Accessibility			int Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority
Thunderbolt USB Network Firewall Locations Volumes WWAN Wi-Fi Software Accessibility Applications			int Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority
Thunderbolt USB Vetwork Firewall Locations Volumes WWAN WI-Fi Software Accessibility Applications Components			int Technologies, Inc (DX6G	69M9N2), D	veloper ID Certification /	Authority

Note: The driver revision shown in the screenshots may not correspond with current software releases. Please make sure to download the latest driver updates from the product's Software Updates page.

4. Uninstalling the Device Driver

Uninstalling the Device driver for macOS 10.13 and 10.14

To uninstall the NVMe driver, you will need to open a **Terminal** window and enter the following command:

sudo rm -rf /Library/Extensions/HighPointNVMe.kext

● ● ● test — -zsh — 80×24 Last login: Fri Dec 20 19:34:31 on ttys004 test@testsMB01610152 ~ % sudo rm -rf /Library/Extensions/HighPointNVMe.kext Password: test@testsMB01610152 ~ %

Uninstalling the Device Driver for macOS 10.15

To uninstall the NVMe driver, you will need to open a Terminal window and enter the following command:

sudo rm -rf /Library/Extensions/HighPointNVMe.kext

sudo kextcache -i /

```
test@testsMB01610152 ~% sudo rm -rf /Library/Extensions/HighPointNVMe.kext
Password:
test@testsMB01610152 ~% sudo kextcache -i /
kextcache -i /
kextcache -arch x86_64 -local-root -all-loaded -kernel /System/Library/Kernels/k
ernel -prelinked-kernel /Library/Apple/System/Library/PrelinkedKernels/prelinked
kernel -volume-root / /Library/Extensions /AppleInternal/Library/Extensions /Lib
rary/Apple/System/Library/Extensions /System/Library/Extensions
KernelCache ID: 91AFAAB6216EDD61055A39A8E77A483C
test@testsMB01610152 ~ %
```

5. Installing the RAID Management Software (WebGUI)

Installing the WebGUI for macOS 10.13/10.14/10.15

1) Double click the package named **HighPointWebGUI.pkg** to start the installer. When the window appears, click the **Continue** button.

🖲 😑 💿 😜 lr	nstall HighPoint Web RAID Controller Management
	Welcome to the HighPoint Web RAID Controller Management Installer
Introduction	You will be guided through the steps necessary to install this software.
Destination Select	
Installation Type	
Installation	
 Summary 	
	Go Back Continue

2) You will be promoted to click the **Install** button. Click **Install** to continue.

🖲 😑 😌 😜 In	stall HighPoint Web RAID Controller Management
	Standard Install on "1010"
 Introduction Destination Select Installation Type Installation Summary 	This will take 2.7 MB of space on your computer. Click Install to perform a standard installation of this software for all users of this computer. All users of this computer will be able to use this software.
	Go Back Install

3) You will then be promoted to enter the *Administrator* Username and Password. Once these have been entered, click **Install Software** to continue.

	😺 Install	HighPoint Web RAID Controller Management	
	Star	ndard Install on "1010"	
 Introduction Destination St Installation T Installation Summary 		Installer is trying to install new software. Type your password to allow this. Username: Password: Cancel Install Software	re be
		Go Back	

4) The WebGUI Management software has been installed. Click **Close** to complete the procedure.

•••	Install HighPoint Web RAID Controller Management
 Introduction Destination Select Installation Type Installation Summary 	The installation was completed successfully. The installation was successful. The software was installed. Go Back

6. Updating the WEBGUI for macOS 10.13/10/14/10.15

- 1) First, uninstall the current WebGUI. Please refer to <u>Uninstalling the WebGUI</u>.
- 2) After uninstalling the WebGUI, reboot macOS.
- 3) Once the system has rebooted, download the latest version of the WebGUI from the appropriate Software Downloads webpage.
- Locate the download and double click the package named HighPointWebGUI.pkg to start the installer. Please refer to Installing the <u>WebGUI for macOS 10.13/10.14/10.15</u> for more information.

7. Uninstalling the WebGUI for macOS 10.13/10.14/10.15

To uninstall the WebGUI, access Applications, click on HPTWEBGUI, select uninstall, and double-click the uninstall-WEBGUI.command. The uninstall command will automatically open a terminal and uninstall the software:



[Process completed]

8. Trouble shooting

Unable to connect to the WebGUI

After the driver and management software are installed, the management software displays a "Connection Failure" warning when attempting to start the interface:



This error can be triggered by one of the following issues:

- 01. The HighPoint NVMe hardware is not recognized by macOS
- 02. The HighPoint NVMe device driver is not installed or is not loading properly.
- 03. WEBGUI service is not running.
- 04. The system's SIP status is incorrect.
- 05. If you are using a T2 system; Secure Boot may not be disabled

01. Verifying the HighPoint NVMe hardware

Please refer to the <u>Appendix – Verifying Product Installation</u> to make sure the HighPoint NVMe device is properly recognized by macOS.

Note: If you are using the RocketStor 6661A-NVMe:

- If you are using the RocketStor 6661A-NVMe (RS6661A-NVMe), or another SSD7000 series controller via our RocketStor 6661A adapter and a Thunderbolt[™] 3 connection, refer to the <u>first screenshot</u> displayed under - **Appendix – Verifying Product Installation**. If the RS6661A entry is present, proceed to screenshot #2.
- If the RocketStor 6661A entry is not displayed, this may be related to a connection problem – move the RS6661A to another Thunderbolt[™] 3 port or replace the cable and recheck the entry.

02. Make sure the HighPoint NVMe Driver is loaded

Please refer to the <u>Appendix - Checking the Driver status and Version</u> to make sure the HighPoint NVMe driver is installed properly.

- If the HighPoint NVMe driver is not loading, proceed to step 2 <u>Check the</u> security & privacy status. If HighPoint software is blocked in the permission, you need to click Allow.
- If the driver is loading properly, but the WebGUI is still unable to start, please try to restart the WEBGUI service. Please refer to <u>Appendix - WEBGUI service restart</u> make settings.

If WEBGUI is still not connected, please contact our <u>Support Department</u> to open a support ticket. Please make sure to include any screenshots and system information you are able to collect (see the Appendix for more information).

03. Check the SIP status

- 1) Please refer to the <u>Appendix Checking the SIP Status</u> (page 27).
- 2) If the settings are not correct for your system, please refer to the driver installation manual for each system to reset the SIP status.

04. For T2 Systems: Make sure Secure Boot is disabled

 Please refer to the <u>Appendix - Systems with T2 chipsets - Secure Boot status</u>. If the setting is incorrect, you will need to reboot the system to change the setting.

If you encounter any problems while checking items 01-05, please refer to the <u>Appendix</u> to collect information about your system and configuration, and submit a support ticket to our Customer Support department using our Online Support Portal: <u>https://www.highpoint-tech.com/websupport/main.php</u>

The WebGUI can't connect to a remote system

If you can't connect to a remote system, make sure **raidman-httpsd** is running on the target system, and confirm that you can access the remote system via a TCP/IP connection. If you have a firewall configured, make sure TCP port 7402 is not blocked.

Appendix

When submitting s support ticket via our Online Support Portal, the following information will help our Support Department diagnose and resolve your issue as quickly and efficiently as possible.

Check the security & privacy

1) Check if there is HighPoint software blocked in the permission, if it is blocked, you need to click "Allow".

General FileVault Firewall Privacy
A login password has been set for this user Change Password
Require password immediately C after sleep or screen saver begins
Show a message when the screen is locked Set Lock Message
 Allow apps downloaded from:
 Allow apps downloaded from: App Store

Verifying Product Installation

1) Click on the **Apple** logo located near the upper left-hand portion of the Desktop, and select "**About this Mac**".

RocketStor 6661A-NVMe (Thunderbolt entry):

		масвоок Рго
▼ Hardware	Thunderbolt Device Tree	
ATA	Thunderbolt Bus 0	
Apple Pay	Thunderbolt Bus 1	
Audio	RocketStor 6661A	
Bluetooth	Rocketorol obolik	
Camera		
Card Reader		
Controller		
Diagnostics		
Disc Burning		
Ethernet Cards		
Fibre Channel		
FireWire		
Graphics/Displays		
Memory		
NVMExpress		
PCI		
Parallel SCSI		
Power		
Printers		
SAS		
SATA/SATA Express		0
SPI	RocketStor 6661A:	
Storage		
Thunderbolt	Vendor Name: HighPoint Techno	
USB	Device Name: RocketStor 6661A	
▼ Network	Vendor ID: 0x43 Device ID: 0x6661	
Firewall	Device Revision: 0x1	
Locations	UID: 0x0043053BE549	ED00
Volumes	Route String: 1	
WWAN	Firmware Version: 26.1 Port (Upstream):	
Wi-Fi	Status:	Device connected
▼ Software	Link Status:	0x2
Accessibility	Speed:	Up to 40 Gb/s x1
Applications	Current Link Width:	0x2
Developer	Cable Firmware Version: Link Controller Firmware Version:	0.9.0
Disabled Software	Port:	0.30.0
Extensions	Status:	No device connected
Fonts	Link Status:	0x7
Frameworks	Speed: Current Link Width:	Up to 40 Gb/s x1

2) If you are using a SSD7000 series NVMe RAID controller, check under **Hardware**, **PCI**. Reference screenshots for each product are show below.

SSD7101A / 7104 / 7204 / 7120 / 6540 / 6540M, or RS6661A-NVMe:

		MagBi	2014440		
Hardware	Card		~ Туре	Driver Installed	Slot
ATA	pci144d,a804		NVM Express Controller	Yes	Thunderbolt@71,0,0
Apple Pay Audio	pci144d,a804		NVM Express Controller	Yes	Thunderbolt@72,0,0
Audio Bluetooth	pci144d,a804		NVM Express Controller	Yes	Thunderbolt@69,0,0
Camera	pci144d,a804		NVM Express Controller	Yes	Thunderbolt@70,0,0
Card Reader					
Controller					
Diagnostics					
Disc Burning					
Ethernet Cards					
Fibre Channel	pci144d,a804:				
FireWire	Type:	NVM Express Controller			
Graphics/Displays	Driver Installed:	Yes			
Memory	Tunnel Compatible:	Yes			loca
WVMExpress	Pause Compatible: MSI:	No Yes			
PCI	Bus:	PCI	Controller(1): NVMe 📀		
Darallal SCSI	Slot:	Thunderbolt@71,0,0			
Power	Vendor ID:	0x144d 0xa804			
Printers	Device ID: Subsystem Vendor ID:				
SAS	Subsystem ID:	0xa801	Global View Pt	in the second	ical Setting
SATA/SATA Express	Revision ID:	0x0000	Global view Pr	nysical Log	ical Setting
SPI	Link Width:	x4			
Storage	Link Speed:	8.0 GT/s	Croate Array		Logic

SSD7140

'Hardware ATA	Card		^ Туре	Driver Installed	Slot
AIA Apple Pav	AMD Radeon Pro 580X		Display Controller	Yes	Slot-1@7,0,0
Apple Pay Audio	pci10b5,87d0		Unknown	No	Slot-3@17,0,1
Bluetooth	pci10b5,87d0		Unknown	No	Slot-3@17,0,2
Camera	pci10b5,87d0		Unknown	No	Slot-3@17,0,3
Card Reader	pci10b5,87d0		Unknown	No	Slot-3@17,0,0
Controller	pci15b7,5002		NVM Express Controller	Yes	Slot-3@26,0,0
Diagnostics	pci15b7,5003		NVM Express Controller	Yes	Slot-3@21,0,0
Diagnostics Disc Burning	pci15b7,5003		NVM Express Controller	Yes	Slot-3@20,0,0
Ethernet Cards	pci15b7,5003		NVM Express Controller	Yes	Slot-3@24,0,0
Ethernet Cards	pci126f,2262		NVM Express Controller	Yes	Slot-3@22,0,0
FireWire	pci144d,a808		NVM Express Controller	Yes	Slot-3@19,0,0
	pci144d,a808		NVM Express Controller	Yes	Slot-3@23,0,0
Graphics/Displays Memory	pci1002,aaf0		Audio Device	Yes	Slot-1@7,0,1
NVMExpress	pci1179,11a		NVM Express Controller	Yes	Slot-3@25,0,0
PCI	pci8086,15eb		Thunderbolt Controller	Yes	Thunderbolt@146,0,
Parallel SCSI	XHC4		USB eXtensible Host Controller	Yes	Thunderbolt@145,0,
Power					
Power Printers				0	
SAS					
SATA/SATA Express	AMD Radeon Pro 580)	C:			
SPI	Name:	ATY.Forrahue			
Storage	Type:	Display Controller			
Thunderbolt	Driver Installed:	Yes			
USB	MSI:	Yes			
Network	Bus: Slot:	PCI Slot-1@7,0,0			
Firewall	Vendor ID:	0x1002			
Locations	Device ID:	0x67df			
Volumes	Subsystem Vendor ID:				
	Subsystem ID:	0x0206			
WWAN Wi-Fi	Revision ID: Link Width:	0x00c0 x16			
	Link Speed:	8.0 GT/s			
' Software					

SSD7103:

••• MacBook Pro Hardware ATA Card Driver Installed Slot Туре pci144d,a808 pci144d,a808 pci144d,a808 NVM Express Controller NVM Express Controller Thunderbolt@130,0,0 Thunderbolt@131,0,0 Yes Apple Pay Yes Audio Bluetooth NVM Express Controller Yes Thunderbolt@138,0,0 pci144d,a808 pci1103,7103 NVM Express Controller RAID Controller Yes No Thunderbolt@136,0,0 Thunderbolt@137,0,0 Camera Card Reader Controller Controller Diagnostics Disc Burning Ethernet Cards Fibre Channel FireWire pci144d,a808: Type: Driver Installed: Tunnel Compatible: Pause Compatible: MSI: Bus: Slot: Vendor ID: NVM Express Controller Yes Yes Yes PCI Thunderbolt@130,0,0 0x144d Graphics/Displays Hardware RAID Memory NVMExpress Parallel SCSI

SSD7110:

		MacBook Pro	-	
Hardware	Card	~ Туре	Driver Installed	Slot
ATA	pci144d,a804	NVM Express Controller	Yes	Thunderbolt@135,0,0
Apple Pay	pci144d,a804	NVM Express Controller	Yes	Thunderbolt@132,0,0
Audio	pci144d,a808	NVM Express Controller	Yes	Thunderbolt@134,0,
Bluetooth Camera	pci1103,7110	RAID Controller	No	Thunderbolt@133,0,0
Card Reader				
Controller				
Diagnostics				
Disc Burning				
Ethernet Cards				
Fibre Channel	pci144d,a804:			
FireWire	Type:	NVM Express Controller		
Graphics/Displays	Driver Installed:	Yes		
Hardware RAID	Tunnel Compatible:	Yes		
Memory	Pause Compatible:	Yes		
NVMExpress	MSI: Bus:	Yes PCI		
PCI	Slot:	Thunderbolt@135,0,0		
Parallel SCSI	Vendor ID:	0x144d		

SSD7505:



SSD7000 Series NVMe RAID Solutions Mac Installation Guide

SSD7540

Hardware	Card		~	Туре	Driver Installed	Slot
ATA	AMD Radeon Pro 580X			Display Controller	Yes	Slot-1@7.0.0
Apple Pay	pci144d,a808			NVM Express Controller	Yes	Slot-3@27,0,0
Audio	pci144d,a808			NVM Express Controller	Yes	Slot-3@30,0,0
Bluetooth	pci144d,a808		_	NVM Express Controller	Yes	Slot-3@29,0,0
Camera	pci144d,a808			NVM Express Controller	Yes	Slot-3@28.0.0
Card Reader	pci144d,a808			NVM Express Controller	Yes	Slot-3@21,0,0
Controller	pci144d,a808			NVM Express Controller	Yes	Slot-3@22,0,0
Diagnostics	pci144d,a808		_	NVM Express Controller	Yes	Slot-3@22,0,0 Slot-3@23,0,0
Disc Burning					Yes	
Ethernet Cards	pci144d,a808		_	NVM Express Controller		Slot-3@24,0,0
Fibre Channel	pci1000,c010		_	Other Mass Storage Controller	No	Slot-3@35,0,0
FireWire	pci1002,aaf0		_	Audio Device	Yes	Slot-1@7,0,1
Graphics/Displays	pci1103,7540			RAID Controller	No	Slot-3@33,0,0
Memory	pci8086,15eb			Thunderbolt Controller	Yes	Thunderbolt@151,0
NVMExpress	XHC4			USB eXtensible Host Controller	Yes	Thunderbolt@150,0
PCI				0		
Parallel SCSI	pci1103,7540:					
Power Printers SAS SATA/SATA Express SPI Storage Thunderbolt USB Network Firewall Locations Volumes WWAN	Type: Driver installed: MSI: Slot: Vendor ID: Device ID: Subsystem Vendor ID: Subsystem ID: Revision ID: Link Width: Link Speed:	RAID Controller No PCI Stot-3@33,0,0 0x1103 0x103 0x103 0x103 0x0001 0x0001 x1 5.0 GT/s				

WEBGUI service restart

If you can't connect to the WebGUI, please check if a process named raidman-httpsd is running on the system. If it is not running, you can start it manually by opening a terminal window and running the command: "sudo hptdaemonctl restart".

Checking the SIP Status

Open a Terminal window and enter the following command:

csrutil status

Please take a screenshot of the output, and attach it to a support case (see example below):



The status will vary depending on which version of macOS you are using.

MacOS Version	SIP Status	Driver Status
10.13.x	Disable	Loaded
10.14.x	Enable	Loaded
10.15.x	Enable	Loaded

Please refer to **Disabling SIP** (for macOS13x and earlier)

Systems with T2 chipsets – Secure Boot status

You will need reboot the system and enter Recovery Mode to check the Secure Boot status. This setting should remain disabled.

Please refer to **Disabling Secure boot**.

Checking the Driver status and Version

- 1) Click on the **Apple** logo located near the upper left-hand portion of the Desktop, and select "**About this Mac**".
- 2) Click on **Extensions**, and then click on **HighPoint NVMe** entry please take a screenshot and attach it this support case (see the example below):

System Information→Software→Extensions→HighPointNVMe

Hardware	Extension Name		Version	Last Modified	Notarized	Loaded	Obtained from
ATA	FWPreferredProtoc	olSpeed	489.120.1	2019/9/27, 12:50 PM	Yes	No	Apple
Apple Pay	GeForce		14.0.32	2019/9/26, 12:33 PM	Yes	No	Apple
Audio	HFS		522.100.5	2019/9/26, 11:30 AM	Yes	Yes	Apple
Bluetooth	HFSEncodings		1.0	2019/9/26, 11:29 AM	Yes	Yes	Apple
Camera	HighPointIOP		4.4.1	2018/5/4, 6:31 AM	Yes	No	Identified Developer
Card Reader	HighPointNVMe		1.1.10	2020/1/2, 4:38 PM	Yes	Yes	Identified Developer
Controller	HighPointRR		4.13.0	2017/12/5, 3:40 PM	Yes	No	Identified Developer
Diagnostics	initioFWBridge		489,120,1	2019/9/27, 12:49 PM	Yes	No	Apple
Disc Burning	innor monage		400.120.1	0	103		rippie
Ethernet Cards	ul-ha-l-mana						
Fibre Channel	HighPointNVMe						
FireWire	Version:	1.1.10					
Graphics/Displays	Last Modified:	2020/1/2, 4:38 PM					
Memory	Bundle ID:	com.highpoint-tech.kext.High	PointNVMe				
NVMExpress	Notarized:	Yes					
PCI	Loaded:	Yes					
Parallel SCSI	Kind:	Identified Developer Intel					
Power	Architectures:	x86.64					
Printers	64-Bit (Intel):	Yes					
SAS	Location:	/Library/Extensions/HighPoint	tNVMe.kext				
SATA/SATA Express	Kext Version:	1.1.10					
SPI	Load Address: Loadable:	18446743521862550000 Yes					
Storage	Dependencies:						
Thunderbolt	Signed by:	Developer ID Application: Hig	hPoint Techno	logies Inc (DX6G69M9N	2) Developer I	D Certificatio	n Authority, Apple Root
	oignee by:	CA			27, 0 0 10 0 0 0 0		
USB							
etwork							
etwork Firewall							
etwork Firewall Locations							
etwork Firewall Locations Volumes							
etwork Firewall Locations							
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etwork Firewall Locations Volumes WWAN Wi-Fi oftware Accessibility							
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Note: The driver revision shown in the screenshots may not correspond with current software releases. Please make sure to download the latest driver updates from the product's Software Updates page.

How to Collect Diagnostic Logs

We have provided a detailed video on log collection methods: link

1) Start the WEBGUI, Diagnostic view will appear when Driver or HPT card does not effect, you can see the system information and HPT Product information in this view.

	Diagno	stic View	
System		Product	
OS: Kernel: CPU: MotherBoard: T2: Disk: Thunderbolt: Secure Boot: SIP:	Mac OS X 10.13.6 17G14042 xnu-4570.71.82.8~1 Intel(R) Core(TM) I5-4258U CPU @ 2.40GHz MacBookPro11,1 / APPLE SSD SD0128F / Not Present Disabled	Controller: Driver Name: Driver Version:	No controller detected! No driver detected! /
ogs Location:	: /Users/Shared/HighPoint_HighPointNVM	1e_1.1.25_2021.10.29_	10.05.25.zip Save Lo

2) You can also click 'Help' \rightarrow 'Diagnostic' to enter the diagnostic view.

Global View Physical Logical Setting	Event SHI Help
HBA Properties	Storage Prop Online Help Register Product Diagnostic
Host Adapter model: HighPoint NVMe RAID Controller	Total Capacity: 4048 GB Configured Capacity: 4048 GB
Enclosure count: 1	Free Capacity: 0 GB
Physical Drive: 4	
Legacy Disk: 4	
RAID Count: 0	Configured 100.0%

3) Enter the Diagnostic view, click 'Save Logs', your log information will be collected. You need to click 'OK' and wait a few minutes.

•		7402 says re to save the diagnostic	c information?		High 7
Global View	Physi		Cancel	ок	Help
		Diagnos			
System			Product		
Kernel: xr CPU: In MotherBoard: M. T2: / Disk: Ai Thunderbolt: / Secure Boot: No	PPLE SSD SD0128F		Controller: Driver Name: Driver Version:		controller detected

4) **'Logs Location'** will display the location of the saving path.

~			Hight
Global Vie		Event SHI	Logout Help
System		Product	
OS: Kernel: CPU: MotherBoard: T2: Disk: Thunderbolt: SEcure Boot: SIP:	Mac OS X 10.13.6 17G14042 xnu-4570.71.82.8~1 Intel(R) Core(TM) I5-4258U CPU @ 2.40GHz MacBookPro11,1 / APPLE SSD SD0128F / Not Present Disabled	Controller: Driver Name: Driver Version:	No controller detected No driver detected! /

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If you have problems in use, please submit the log to our online service (<u>https://www.highpoint-tech.com/websupport/</u>).