HighPointRR Mac Installation Guide

V1.03 –Oct, 2021

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Overview

This guide includes important hardware/software requirements, installation & upgrade procedures, for using RAID controllers, with a macOS operating system. Support products:

RR3740 / 3742 / 3720 / 2840 / 840 RR640L / 644L / 644LS / 642L RR2720 / 2721 / 2722 / 2711 RS6628T / 6674T

Prerequisites

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

Driver Installation

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

RAID Management Software (WebGUI) Installation

This section covers WebGUI installation, WebGUI upgrade and WebGUI uninstallation procedures for RAID controllers & enclosures in a macOS environment.

Troubleshooting

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

Prerequisites

- 1) Operating System Support: macOS 10.13 or later
- 2) Before installing the driver and RAID Management software, you should log into the system as a System Administrator.
- 3) Identify the system as either T2 or Non-T2 based if the system has a T2 chip, make sure to follow <u>section 1</u> before attempting to install any software for the device.
- 4) If you're using the **Apple M1** Platform, make sure to follow <u>section 3</u> before attempting to install any software for the HighPointRR 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.

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

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 Bo	ot
trusted t installati	that only your current OS, or signed operating system software currently by Apple, can run. This mode requires a network connection at software
Allows a	ny version of signed operating system software ever trusted by Apple to run.
O No Sector	urity t enforce any requirements on the bootable OS.
External B	loot
-	v booting from external media s the ability to boot from any devices such as USB and Thunderbolt drives.
	ooting from external media t restrict the ability to boot from any devices.

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

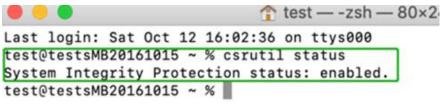
2. Disabling SIP (for macOS 10.13x and earlier)

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 device drivers from loading.

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



The example screenshot shown above indicates that SIP is enabled.

To disable SIP

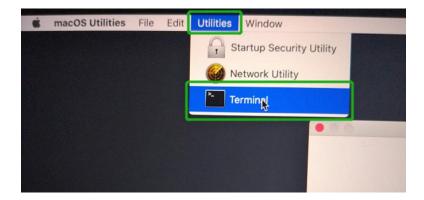
1) Restart the computer and hold down the "**Command** + **R**" buttons. Continue to hold these keys until macOS enters System Recovery mode.



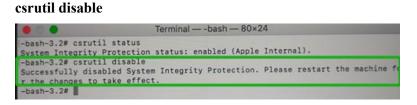
Note: If you are unable to enter Recovery Mode to disable SIP: Make sure you are using a wired keyboard and mouse for this procedure. Wireless devices may not be recognized or function properly when booting into this mode.



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



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



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 📐			Tern	ninal — -ba	sh - 80×1
S	hut Down	\$1	statu		initian va.	511 - 002,

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

csrutil status

■ test — -zsh — 80×24 Last login: Sat Oct 12 17:18:44 on console test@testsMB20161015 ~ % csrutil status System Integrity Protection status: disabled. test@testsMB20161015 ~ %

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

3. Reduced Security Policy – For Apple M1 Platform

Customers working with Apple M1 Platforms manufactured will need to **reduce the Security Policy** in order to load drivers for third party devices. Mac computers with Apple M1 chip, please visit the following website:

Mac computers that have the Apple M1 Chip

Check Security Policy settings to determine if they need to be changed, **if Secure Boot is Full Security, please set to Reduced Security**:

System Information -> Hardware -> Controller -> Boot Policy

		MacBook Pro
 ✓ Hardware ATA Apple Pay Audio 	Model Identifier: Firmware Version: Boot UUID: Boot Policy:	MacBookPro17,1 iBoot-6723.120.36 EB0BF9A4-BD52-4A36-B9F5-701A30C0417B
Bluetooth	Secure Boot:	Reduced Security
Camera Card Reader	System Integrity Protection: Signed System Volume:	Enabled Enabled
Controller	Kernel CTRR:	Enabled
Diagnostics Disc Burning Ethernet Cards Fibre Channel	Boot Arguments Filtering: Allow All Kernel Extensions: User Approved Privileged MDM Operations: DEP Approved Privileged MDM Operations:	

Reduced Security Policy

In order to use these products with Apple M1 Platform, Secure Boot must be **reduced Security**. Reduce this feature and select "**Allow user management of kernel extensions from Identified developers**" from the Startup Security Utility interface.

You can access this menu by:

Shutdown the system, pressing and holding the Power Button until you see Loading Startup Options.



Instructions are available from Apple's website: <u>About Secure Boot for M1</u>

4. Installing the Device Driver

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

Product	Download Page
RR3740/3742/3720	https://highpoint-tech.com/USA_new/series-rr3700-download.htm
RR2840	https://highpoint-tech.com/USA_new/series-rr2840a-download.htm
RR840	https://highpoint-tech.com/USA_new/series-rr800-download.htm
RR2720/2721/2722/2711	https://highpoint-tech.com/USA_new/series_rr272x_configuration.htm
RR640L/642L/644L/644LS	https://highpoint-tech.com/USA_new/series_rr600-download.htm
RS6628T	https://highpoint-tech.com/USA_new/series-rs6628t-download.htm
RS6674T	https://highpoint-tech.com/USA_new/series-rs6674t-download.htm

macOS High Sierra 10.13 and Mojave10.14 and macOS Catalina 10.15 and macOS Big Sur 11.0 Driver Installation Procedure

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

	Install HighPointRR RAID Controller	Ê
	Welcome to the HighPointRR RAID Controller Installer	
Introduction	You will be guided through the steps necessary to install this software.	
 Destination Select Installation Type Installation Summary 		
	Go Back Continu	e

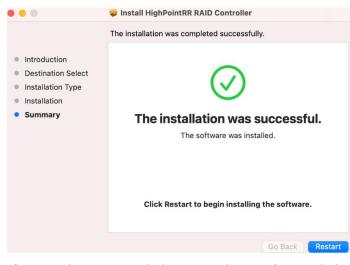
2) macOS will prompt you to install the driver. Click **Install** to proceed.

	💝 Install HighPointRR RAID Controller
	Standard Install on "1101"
 Introduction Destination Select Installation Type Installation Summary 	This will take 965 KB of space on your computer. Click Install to perform a standard installation of this software on the disk "1101".
	Change Install Location

3) You will be prompted that installer is trying to install new software, enter the *Administrator* Username and Password. Once these have been entered, Click **Install Software**.

•••	Installer is trying to install new software.	
IntroducDestinat	User Name: tdest	
Installati	Password:	
Installat Summar	Cancel Install Software	
	Go Back Continue	e

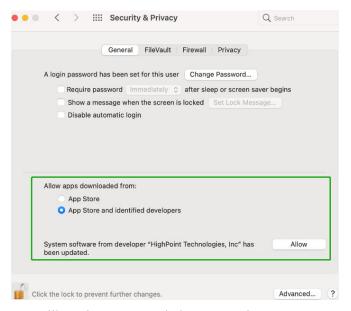
4) If no pop-ups appear, please proceed to the next step of installation. Click Restart.



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

		ılly.
 Introduction Destination Select Installation Type Installation Summary 	System Extension Updated A program has updated system extension(s) signed by "HighPoint Technologies, Inc". To finish the update, you must approve it in the Security & Privacy System Preferences.	successful.
	ОК	italied.
	Open Security Preferences	
	Click Restart to begin insta	lling the software.

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 Restart.

w a message w	hen the screen	is locked	Set Lock Mess	
ble auto				
	restart is requ ystem extensio			
download	Restart	Not No	NAZ	
Store	Restart	HOUNG		

8) After clicking, the following page will appear, wait a moment.

Security & Privacy	
✓ Require password immediately \$ after sleep or s	
Rebuilding system extension cache.	
App Store and identified developers	

9) After the 'Rebuilding system extension cache' is completed, please click '**OK**' in the pop-up window.

• • •	Install HighPointRR RAID Controlle	r
	"Installer" interrupted restart.	
Introc	To continue restarting, quit "Installer".	
Desti	Cancel	Try Again
Instal		
Installation		
Summary	_	successful.
	Alert	alled.
	To install this software, you must restart your computer. Click Restart to complete the installation.	
	ОК	
	Click Restart to begin install	ing the software.
		Go Back Restart

10) 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

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

			Ma	acBook Pro			
Diagnostics Disc Burning	Extension Name		Version Version	Last Modified	Notarized	Loaded	Obtained from
Ethernet Cards	HFS_MacJapane	ese	8.0	1/1/20, 4:00 PM	Yes	No	Apple
Fibre Channel	HFS MacKorean		8.0	1/1/20, 4:00 PM	Yes	No	Apple
FireWire	HFSEncodings		1.0	1/1/20, 4:00 PM	Yes	Yes	Apple
Graphics/Displays	HighPointIOP		4.4.5	1/1/20, 4:00 PM	Yes	No	Identified Deve
Memory	HighPointRR		4.22.0	10/26/20, 10:30 AM	Yes	Yes	Identified Deve
NVMExpress	initioFWBridge		511.40.9	1/1/20, 4:00 PM	Yes	INV	Apple
PCI	Intel82574L		2.7.2	1/1/20, 4:00 PM	Yes	No	Apple
Parallel SCSI	InvalidateHmac		1.0	1/1/20, 4:00 PM	Yes	No	Apple
Power				11-11-1			
Printers	Ulabor lator						
SAS	HighPointRR:						
SATA	Version:	4.22.0					
SPI	Last Modified:	10/26/20, 10:30 AM					
Storage	Bungle ID:	com.nignpoint-tecn.kex	T HighPointRR				
Thunderbolt	Notarized:	Yes					
	Loaded:	Yes					
USB	Get Info String:		ght (c) 2020 Highl	Point Technologies, Inc.			
 Network 	Obtained from:	Identified Developer					
Firewall	Kind:	Intel					
Locations	Architectures:	x86_64					
Volumes	64-Bit (Intel):	Yes					
WWAN	Location: Kext Version:	/Library/Extensions/Higl 4.22.0	hPointRR.kext				
Wi-Fi	Load Address:	4.22.0 184467435223656240	00				
Software	Load Address:	Yes	00				
Accessibility	Dependencies:	Satisfied					
Applications	Signed by:	Developer ID Applicatio	n: HighPoint Tech	nologies Inc (DX6G69	MON2) Devel	oper ID Certifi	cation Authority
Developer	orgined by:	Apple Root CA	in right one reen	inclogica, inc (BACCCC)		sper ib der in	control right
Disabled Software							
Extensions							
Fonts							
Frameworks							

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.

5. Update the Device Driver

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

Product	Download Page
RR3740/3742/3720	https://highpoint-tech.com/USA_new/series-rr3700-download.htm
RR2840	https://highpoint-tech.com/USA_new/series-rr2840a-download.htm
RR840	https://highpoint-tech.com/USA_new/series-rr800-download.htm
RR2720/2721/2722/2711	https://highpoint-tech.com/USA_new/series_rr272x_configuration.htm
RR640L/642L/644L/644LS	https://highpoint-tech.com/USA new/series rr600-download.htm
RS6628T	https://highpoint-tech.com/USA_new/series-rs6628t-download.htm
RS6674T	https://highpoint-tech.com/USA_new/series-rs6674t-download.htm

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

	💝 Install HighPointRR RAID Controller
	Welcome to the HighPointRR RAID Controller Installer
Introduction	You will be guided through the steps necessary to install this software.
Destination Select	
Installation Type	
Installation	
Summary	
	Go Back Continue

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

• • •	Install HighPointRR RAID Controller
 Introduction Destination Select Installation Type Installation Summary 	Install HighPointRR RAID Controller Standard Install on "1101" This will take 965 KB of space on your computer. Click Install to perform a standard installation of this software on the disk "1101".
	Change Install Location Go Back Install

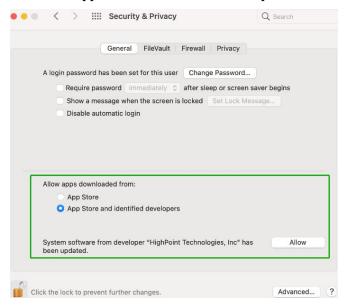
3) If no pop-ups appear, please proceed to the next step of installation. Click Restart.

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

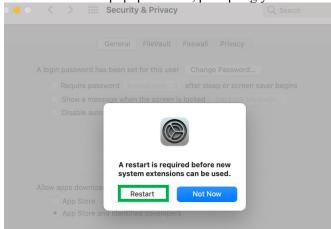
4) If you receive a popup window prompting you for permission, click **Open Security Preferences**.

000		ally.
 Introduction Destination Select Installation Type Installation Summary 	System Extension Updated A program has updated system extension(s) signed by 'HighPoint Technologies, Inc'. To finish the update, you must approve it in the Security & Privacy System Preferences.	successful.
	OK Open Security Preferences	
	Click Restart to begin insta	Iling the software.

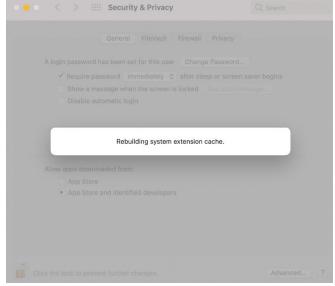
5) Make sure App Store and identified developers is checked, and then click Allow.



6) You will receive a popup window, prompting you to restart. Click Restart.



7) After clicking, the following page will appear, wait a moment.



8) After the 'Rebuilding system extension cache' is completed, please click '**OK**' in the pop-up window.

• • •	Install HighPointRR RAID Controller	
 Introc 	"Installer" interrupted restart. To continue restarting, quit "Installer".	
Desti	Oursel Tradevic	
Instal	Cancel Try Again	
Installation		
Summary	Alert To install this software, you must restart your computer. Click Restart to complete the installation.	
	ок	
	Click Restart to begin installing the software.	
	Go Back Rest	art

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

• • •	💝 Install HighPointRR RAID Controller
 Introduction Destination Select Installation Type Installation Summary 	The installation was completed successfully. The installation was successful. The software was installed.
	Click Restart to begin installing the software.
	Go Back Restart

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

			Ma	acBook Pro			
Diagnostics	Extension Name	• ^	Version	Last Modified	Notarized	Loaded	Obtained from
Disc Burning Ethernet Cards	HFS MacJapane	496	8.0	1/1/20, 4:00 PM	Yes	No	Apple
Fibre Channel	HFS_MacKorean		8.0	1/1/20, 4:00 PM	Yes	No	Apple
FireWire	HFSEncodings		1.0	1/1/20, 4:00 PM	Yes	Yes	Apple
Graphics/Displays	HighPointIOP		4.4.5	1/1/20, 4:00 PM	Yes	No	Identified Develo
Memory	HighPointRR		4.22.0	10/26/20, 10:30 AM	Yes	Yes	Identified Develo
NVMExpress	initioFWBridge		511.40.9	1/1/20, 4:00 PM	Yes	ING	Apple
PCI	Intel82574L		2.7.2	1/1/20, 4:00 PM	Yes	No	Apple
Parallel SCSI	InvalidateHmac		1.0	1/1/20, 4:00 PM	Yes	No	Apple
Power	intendecermines		1.0	11,120, 4.001111	105	110	Apple
Printers							
SAS	HighPointRR:						
SATA	Version: Last Modified:	4.22.0					
SPI	Bundle ID:	10/26/20, 10:30 AM com.nignpoint-tecn.kext.Higl	DointDD				
Storage	Notarized:	Yes	POINTRA				
Thunderbolt	Loaded:	Yes					
USB	Get Info String:	Version: 4.22.0, Copyright (c)	2020 High	Point Technologies, Inc.			
✓ Network	Obtained from:	Identified Developer	/ LOLO Ingh	Forite recimologies, me.			
Firewall	Kind:	Intel					
Locations	Architectures:	x86_64					
Volumes	64-Bit (Intel):	Yes					
WWAN	Location:	/Library/Extensions/HighPoint	tRR.kext				
Wi-Fi	Kext Version:	4.22.0					
✓ Software	Load Address:	18446743522365624000					
	Loadable:	Yes					
Accessibility	Dependencies:	Satisfied				10.0.11	
Applications	Signed by:	Developer ID Application: Hig	phPoint lecr	inologies, Inc (DX6G69	M9N2), Develo	oper ID Certifi	cation Authority,
Developer		Apple Root CA					
Disabled Software							
Extensions							
Fonts							
Frameworks							

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.

6. Uninstalling the Device Driver

Uninstalling the Device driver for macOS 10.13 and 10.14

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

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

test — -bash — 80×24
 ~ --bash
Last login: Thu Nov 19 10:45:51 on console
[testsMaok161045:~ test\$ sudo rm -rf /Library/Extensions/HighPointRR.kext/
[Password:
testsMaok161045:~ test\$

Uninstalling the Device driver for macOS 10.15 and macOS 11.0

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

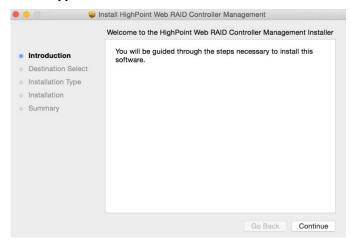
sudo rm -rf /Library/Extensions/HighPointRR.kext

```
sudo kextcache -i /
```

```
Last login: Wed Nov 18 10:02:48 on ttys000
tdest@tdestsM01810153 ~ % sudo rm -rf /Library/Extensions/HighPointRR.kext
Password:
tdest@tdestsM01810153 ~ % sudo kextcache -i /
kextcache -i /
Executing: /usr/bin/kmutil install --volume-root / --check-rebuild
rebuilding local auxiliary collection
kmutil done
tdest@tdestsM01810153 ~ %
```

7. Installing the RAID Management Software (WebGUI)

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



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

	Standard Install on "1010"
Introduction	This will take 2.7 MB of space on your computer. Click Install to perform a standard installation of this software
Destination Select	for all users of this computer. All users of this computer will be
Installation Type	able to use this software.
Installation	

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

	Standard Install on "1010"	
 Introduction Destination Sr Installation T Installation Summary 	your password to allow this.	re be
	Go Back	

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

•	0	Install HighPoint Web RAID Controller Management		
•	Introduction Destination Select Installation Type Installation Summary	Install HighPoint Web RAID Controller Management The installation was completed successfully. Image: Cose A stall Attign of the installation was successful. The installation was successful. The software was installed.		

8. Updating the WebGUI

- 1) First, uninstall the current WebGUI. Please refer to item 8 below (Uninstalling the WebGUI).
- 2) Download the latest version of the WebGUI from the appropriate Software Downloads webpage.
- 3) Locate the download and double click the package named **HighPointWebGUI.pkg** to start the installer. Please refer to <u>Installing the WebGUI</u> for more information.

9. Uninstalling the WebGUI

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

• • •	🛅 uninstall
< >	🗱 📰 🔜 🧱 🗸 🏟 🖒 🖸
Applications	AJA System Test Lite.app HighPoint RA_ement.webloc App Store.app HighSvr Highsvr Uninstall Uninstall
Desktop	ATTO ConfigTool
O Downloads	
Test ocations	Blackmagic Deeu Ist.app Bioksmagic ARW ► Sooks.app
Macintosh HD	Calculator.app Calculator.app
OSXRESERVED BOOTCAMP	Carbon Copy Cloner.app Chess.app Chess.app Contacts.app
10136 10154 - Data	DaVinci Resolve Model and the solve DaVinci Resolve DaVinci Resolve
mocana	C FaceTime.app Find My.app
Network	Font Book.app Soft Foxmail.app
egs 🧶 Red	Home.app HPTWEBGUI
Orange	Inage Capture.app

Enter the macOS password, uninstall the software:



10. 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:



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

- 1. The hardware is not recognized by macOS
- 2. The device driver is not installed or is not loading properly.
- 3. WEBGUI service is not running.
- 4. The system's SIP status is incorrect.
- 5. If you are using a T2 system; Secure Boot may not be disabled.
- 6. If you are using Apple M1 system, Security Policy may not be 'Reduced'.

Verifying the hardware

1) The device is connected to the host through the Thunderbolt

01. If you are using the controller via our RocketStor 6661A adapter and a Thunderbolt[™] 3 connection, please make sure the RocketStor 6661A device is properly recognized by macOS.

Diagnostics Disc Burning	✓ Thunderbolt Bus			
Ethernet Cards	RocketStor 66	61A		
Fibre Channel	and the second se			
FireWire				
Graphics/Displays				
Memory				
NVMExpress				
PCI				0
Parallel SCSI	RocketStor 6661A			
Power	Rocketstor ObortA			
Printers	Vendor Name:	HighPoint Technol	ogies Inc	
SAS	Device Name:	RocketStor 6661A		
SATA	Vendor ID:	0x43		
SPI	Device ID:	0x6661		
Storage	Device Revision:	0x1		
Thunderbolt	UID:	0x004371936C22	2B00	
USB	Route String:	1		
Network	Firmware Version:	26.1		
Firewall	Port (Upstream): Status:		Device connected	
Locations	Link Status:		0x2	
Volumes	Speed:		Up to 40 Gb/s x1	
WWAN	Current Link W	/idth:	0x2	
Wi-Fi	Cable Firmwar	e Version:	0.9.0	
Software	Link Controller	Firmware Version:	0.36.0	
oortmano	Port:			
Accessibility	Status:		No device connected	
Applications	Link Status:		0x7	
Developer	Speed:	r. 141	Up to 40 Gb/s x1	
Disabled Software	Current Link W	/idth: Firmware Version:	0x1	
Extensions	LINK CONTROLLER	rinnware version:	0.30.0	

If the RocketStor 6661A entry is not displayed, this may be related to a connection problem – move the RS6661A to another ThunderboltTM 3 port or replace the cable and recheck the entry.

02. If RocketStor 6661A is correctly connected, make sure the **System Information**→**PCI** controller is recognized by macOS (see example below):

Þ	•		MacBook Pro
	Card Reader Controller Diagnostics Disc Burning Ethernet Cards Fibre Channel FireWire Graphics/Displays Memory NVMExpress	RocketRAID 640L SAT. Name: Type: Driver Installed: Turnel Compatible: Pause Compatible: MSI: Bus: Slot: Vendor ID:	A Controller: RocketRAID 640L SATA Controller RAID Controller Yes Yes Yes PCI PCI Thunderbolt@133,0,0 0x1103
	PCI Parallel SCSI Power Printers SAS SATA SPI Storage Thunderbolt	Device ID: Subsystem Vendor ID: Subsystem ID: Revision ID: Link Width: Link Speed:	0x0641 0x103 0x0641 0x0001 x2 5.0 GT/s 認道 Win

2) The device is directly connected to the host through the PCIE SLOT

make sure the **System Information**→**PCI** controller is recognized by macOS (see example below):

•		MacBook Pro
Card Reader Controller Diagnositics Disc Burning Ethernet Cards Fibre Channel Fibre Channel FireWire Graphics/Displays Memory	RocketRAID 640L SAT Name: Type: Driver Installed: Tunnel Compatible: Pause Compatible: MSI: Bus:	A Controller: RocketRAID 640L SATA Controller RAID Controller Yes Yes Yes PCI
VVMExpress PCI Parallel SCSI Power Printers SAS SATA SPI	Slot: Vendor ID: Device ID: Subsystem Vendor ID: Subsystem ID: Revision ID: Link Width: Link Speed:	Thunderbolt@133,0,0 0x1103 0x0641
Storage Thunderbolt		激活 Wi

3) The device is RAID enclosures

make sure the **System Information**→**Thunderbolt** controller is recognized by macOS (see example below):

✓ Hardware ATA	Thunderbolt Dev	ice Tree	
Apple Pay	✓ Thunderbolt Bus		
Audio Bluetooth	RocketStor 66	28T	
Camera			
Camera Card Reader			
Controller			
Diagnostics			
Disc Burning			
Ethernet Cards			9
Fibre Channel	RocketStor 6628T		
FireWire			
Graphics/Displays	Vendor Name:	HighPoint Technol	ogies, Inc.
Memory	Device Name:	RocketStor 66281	
NVMExpress	Vendor ID:	0x43	
PCI	Device ID:	0x6627	
Parallel SCSI	Device Revision:	0x1	
Power	UID:	0x00434F418102	6C00
Printers	Route String: Firmware Version:		
SAS	Port (Upstream):	20.5	
SATA	Status:		Device connected
SPI	Link Status:		0x2
Storage	Speed:		Up to 40 Gb/s x1
Thunderbolt	Current Link W	lidth:	0x2
USB	Cable Firmware		0.9.0
V Network		Firmware Version:	0.36.0
V Network Firewall	Port:		
Thoman .	Status:		No device connected
Locations	Link Status: Speed:		Up to 40 Gb/s x1
Volumes	Current Link W	lidth:	0x1
WWAN		Firmware Version:	
Wi-Fi	Link controller	version.	0.00.0

Make sure the HighPointRR Driver is loaded

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

- If the HighPointRR driver is not loading, proceed to <u>Check the security & privacy status</u>. 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).

Check the SIP status

- 1) Please refer to the <u>Appendix Checking the SIP Status</u>.
- 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.

For T2 Systems: Make sure Secure Boot is disabled

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

For Apple M1 Platform: Make sure Security Policy is reduced

 Please refer to the <u>Reduced Security Policy</u>. If the setting is incorrect, you will need to shutdown the system to change the setting it.

If you encounter any problems while checking items 1-6, 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.

Collecting the macOS version

1) Click on the Apple logo located near the upper left-hand portion of the Desktop, and click "Version". Then the version number of the system will all be displayed.

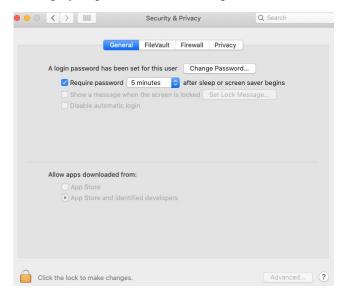
	Version 10.15.5 (19F101)
	iMac (21.5-inch, 2017) Processor 2.3 GHz Dual-Core Intel Core i5
all the second	Memory 8 GB 2133 MHz DDR4
2000	Startup Disk 10.15
	Graphics Intel Iris Plus Graphics 640 1536 MB
	Serial Number C02W476SH7JY
	System Report Software Update

Check the security & privacy

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

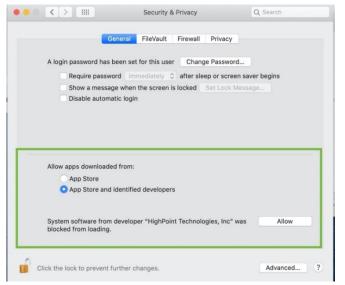
		General	FileVault	Firewall	Privacy	
A logi	n password h	nas been set f	or this user	Chang	e Password	
	Require pas	ssword limm	ediately C	after sle	ep or screen sav	er begins
	Show a me	ssage when th	ne screen is	locked	Set Lock Messa	ge
	Disable aut	omatic login				
Allow	anns downlo	adad from:				
Allow	apps downlo	aded from:				
	App Store		developers			
	App Store	aded from: and identified	developers	5		
	App Store		developers	5		
Syste	App Store App Store	and identified			igies, Inc" was	Allow
Syste	App Store App Store	and identified			gies, Inc" was	Allow

2) If 'System software from developer 'HighPoint Technologies, Inc' was blocked from loading' is not displayed, please do the following:

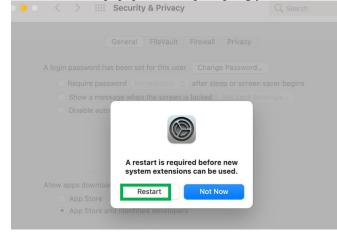


- i) First, uninstall the driver, please refer to the Uninstalling the Device Driver
- ii) Install the driver again, please refer to the <u>Installing the Device Driver</u>, The System Extensions Updated window that pops up when installing the driver, please click Open Security Preferences, Allow the permission, and click 'Restart' in the pop-up window.

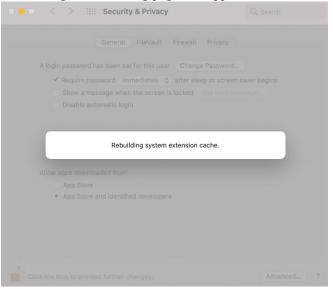
		ally.
 Introduction Destination Select Installation Type Installation Summary 	System Extension Updated A program has updated system extension(s) signed by "HighPoint Technologies, Inc". To finish the update, you must approve it in the Security & Privacy System Preferences.	successful.
	OK Open Security Preferences	italieq.
	Click Restart to begin insta	Illing the software.
		Go Back Restart



You will receive a popup window, prompting you to restart. Click Restart.



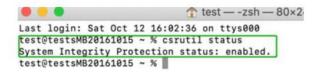
After clicking, the following page will appear, wait a moment.



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
11.0.x	Enable	Loaded

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

Apple M1 Platform – Reduced security policy

Check if Secure Boot is Reduced Security

System Information -> Hardware -> Controller -> Boot Policy

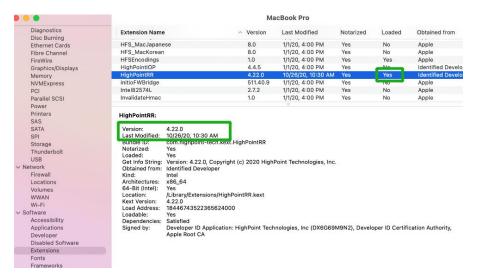
• • •		MacBook Pro
✓ Hardware ATA Apple Pay Audio	Model Identifier: Firmware Version: Boot UUID: Boot Policy:	MacBookPro17,1 iBoot-6723.120.36 EB0BF9A4-BD52-4A36-B9F5-701A30C0417B
Bluetooth	Secure Boot:	Reduced Security
Camera	System Integrity Protection:	Enabled
Card Reader	Signed System Volume:	Enabled
Controller	Kernel CTRR:	Enabled
Diagnostics	Boot Arguments Filtering:	Enabled
Disc Burning	Allow All Kernel Extensions:	Yes
Ethernet Cards	User Approved Privileged MDM Operations:	
Fibre Channel	DEP Approved Privileged MDM Operations:	NO

Secure Boot must be **reduced Security** in order to load drivers for third party devices, if change please refer to: <u>Reduced Security Policy</u>

Checking the Driver status and Version

 Click on System Information→ Extensions, and then click on HighPointRR entry – please take a screenshot and attach it this support case (see the example below):

Make sure System Information → Extensions → HighPointRR 'Loaded' is Yes



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.

WebGUI Screenshots

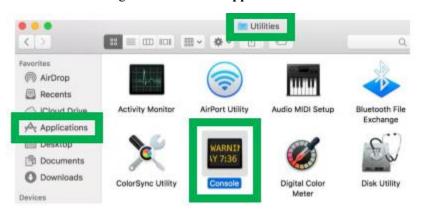
Please take screenshots of WEBGUI each Tab (such as Physical, Logical, Event, etc.) and upload these to your support case. In addition, check the Event log tab and save a copy of the current log – please upload this to the support case.

WebGUI service restart

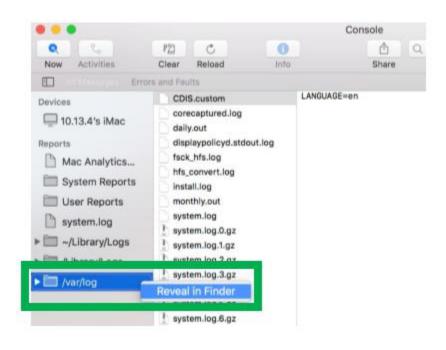
If you can't connect to the WebGUI, please check if a process named raidman-httpsd is running on the system. If it is not running, you can start it manually by opening a terminal window and running the command: "**sudo hptdaemonctl restart**".

How to Collect System Logs

Please attach a copy of the /var/log folder to your support ticket.
 To locate the /var/log Folder: 1. Go to Applications → Utilities → Console:



2) On the left side of the Console application, right-click on the /var/log folder and select Reveal in Finder:



3) You should then be automatically directed to the log folder in the var directory. Please remember when sending the folder to zip file, you should first direct it to a separate location (such as the desktop).

		i var			
< 3	** = = +01	調くなく	ô O		
Favorites	agentx	ət	audit	backups	
(AirDrop	-	_	-	-	
Recents					
Cloud Drive				•	
→ Applications	empty	folders	install	jabberd	
Desktop	-				
Documents	-	in the second se	-	-	
O Downloads					
Devices	log	ma	mail	msgs	
Remote Disc	A CONTRACTOR				

- 4) In addition to /var/log Folder detailed above, please attach a copy of the errlog.txt file:
 - Open terminal and type the following, then press Enter:
 log show |grep kernel > hptsyslog.txt

Note:

It takes about 5-10 minutes to respond after this command is entered, please don't worry, thi s isbecause your log file is relatively large, so it takes a lot of time.

b. Enter the following command to view the path where the log is stored. pwd

	ro-2029 ~ % pwd	e grep kernel >hptsyslog.txt
		test
< >		Q Search
Applications A Applications Desktop Documents Downloads C test Diffuence Cocations C Cloud Drive D 10145_Dont_Update D 1012 - Data D Update		2820-11-19 16:28:07.477486+8800 0x98a Error 0x0 131 0 symptomsd: (SymptomEvaluator) [com.apple.symptomsd:flow] 130 108.02 (1149186-x912); 168.0.24:14450en0 pkrst rx 0 tx 1, pytes 0 51 cell 0 vifi 0 51 vired 0 131 0 symptomsd: (SymptomEvaluator) [com.apple.symptomsd:flow] 130 108.02 (1149186-x912); 168.0.24:14450en0 pkrst rx 0 tx 1, pytes 0 51 cell 0 vifi 0 51 vired 0 131 0 symptomsd: (SymptomEvaluator) [com.apple.symptomsd:flow] 130 108 0.1149185-x9120 [sol.024]; 1700 [sol.024]; 1710 [sol.024]; 1710 [sol.024]; 1710 [sol.024]; 1700 [sol.024]; 1710 [sol.024]; 17
10157_DONT_UPDATE!	new.txt	0 0 kernel: Kext unloading now disabled. 2020-11-19 16:28:08.632609+0800 0x1363 Default 0x0
10157_DONT_UPDATE! - Data 112 - Data Remote Disc	new1.txt nvmehelper nvmehelper.kext OS-X-SAT-SMART-Driver panic.txt	2020-11-19 16:28:08.632609+0800 0x1363 Default 0x0 hptsyslog.txt Plain Text Document - 62.8 MB
🗁 mocana 🛞 Network	Pictures Public RAID_Manag9_01_14.dmg	Tags Add Tags Created Thursday, May 28, 2020 at 9:00 AM
Tags	RamDisk.kext	Modified Tuesday, December 8, 2020 at 9:35 AM

Please attach the hptsyslog.txt to your support ticket.