SSD7101A_SSD7204_SSD7104_SSD7120_SSD6540_SSD6540M_SSD7180_SSD7184_SSD7140 Driver & Management Software Installation Guide (Windows)

Version 1.06

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Contents

Overview

This guide includes important hardware/software requirements, installation & upgrade procedures, and troubleshooting tips for using SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/ SSD7180/SSD7184/SSD7140 NVMe RAID controllers with a Windows operating system.

Prerequisites

This section describes the base hardware and software requirements for the SSD7101A-1 /SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 PCIe 3.0 NVMe RAID controllers.

Driver Installation

This section covers driver installation, driver upgrade and driver uninstallation procedures for SSD7101-A/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controllers.

Management Software Installation

This section explains how to download and install the SSD7101A-1/SSD7204/SSD7104/SSD7120/ SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 RAID Management Software Suite for Windows operating systems. The download includes both the Web RAID Management Interface (WebGUI), and the CLI (Command Line Interface).

Troubleshooting

Please consult this section if you encounter any difficulties installing or using the SSD7101A-1 /SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controller. It includes descriptions and solutions for commonly reported technical issues.

Appendix

A selection of useful information and web links for the SSD7101A-1/SSD7204/SSD7104/SSD7120 /SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controllers.

Prerequisites for a Data-RAID Configuration

The SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184 /SSD7140 controllers can support Data-RAID arrays. In order to configure a Data-RAID array, you will need the following:

1. **An NVMe SSD must be installed**. You must have at least one NVMe SSD installed into the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/ SSD7140 controller.

2. **A PCIe 3.0/4.0 slot with x8 or x16 lanes.** The SSD7101A-1/SSD7104/SSD7120/SSD6540/ SSD6540M/SSD7180/SSD7184/SSD7140 must be installed into a PCIe 3.0/4.0 slot with x16 dedicated lanes, The SSD7204 can be installed into a PCIe 3.0/4.0 x8 or x16 slot.

3. **Make sure any non-HighPoint drivers are uninstalled for any SSD's hosted by the SSD7000 series RAID controllers**. 3rd party software and manufacturer provided drivers may prevent the SSD7000 from functioning properly.

Warnings:
1) **Failing to remove the controller and SSD's when uninstalling the driver may result in data loss.**
2) **Always make sure the SSD7000 driver is installed before moving a SSD7000 series NVMe RAID controller & RAID array to another Windows system.**

Windows operating systems will always load the default NVMe support after the SSD7000 driver has been uninstalled, or if it detects the present of a card when no driver has been loaded – this driver will only recognize the NVMe SSD's as separate disks.

If the SSD's are recognized separately, any data they contain may be lost – this includes RAID configuration data.

# Driver Installation

Installing the Device Driver

The following section discusses driver installation for a non-bootable NVMe configuration.

1. **Verify that Windows recognizes the controller**

   After installing the SSD7000 controller into the motherboard, power on the computer, boot the Windows operating system, and open **Device Manager**.

   A. Expand the **Disk drives** tab. Each NVMe SSD's installed into the SSD7101A-1 /SSD7120/SSD7204/SSD7104/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 controller should be displayed here.
   B. Expand the **Storage Controllers** tab. You should see a "**Standard NVM Express Controller**" entry for each NVMe SSD that is installed into the SSD7101A1/SSD7204/SSD7104/SSD7120/ SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 controller.
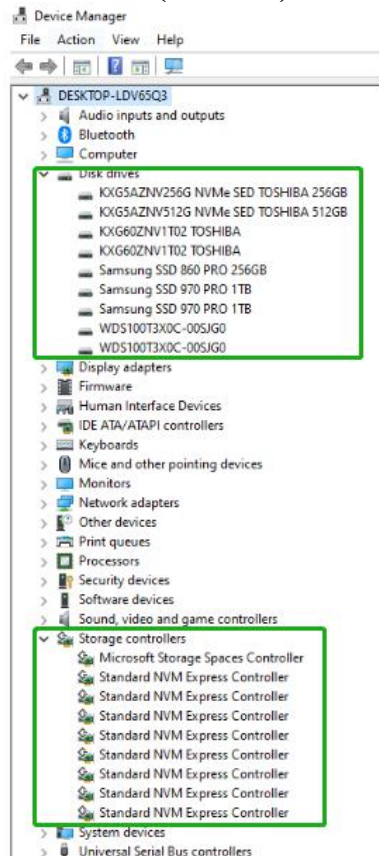
   Example screenshot (SSD7101A-1/7104/7204/7120/6540/6540M):
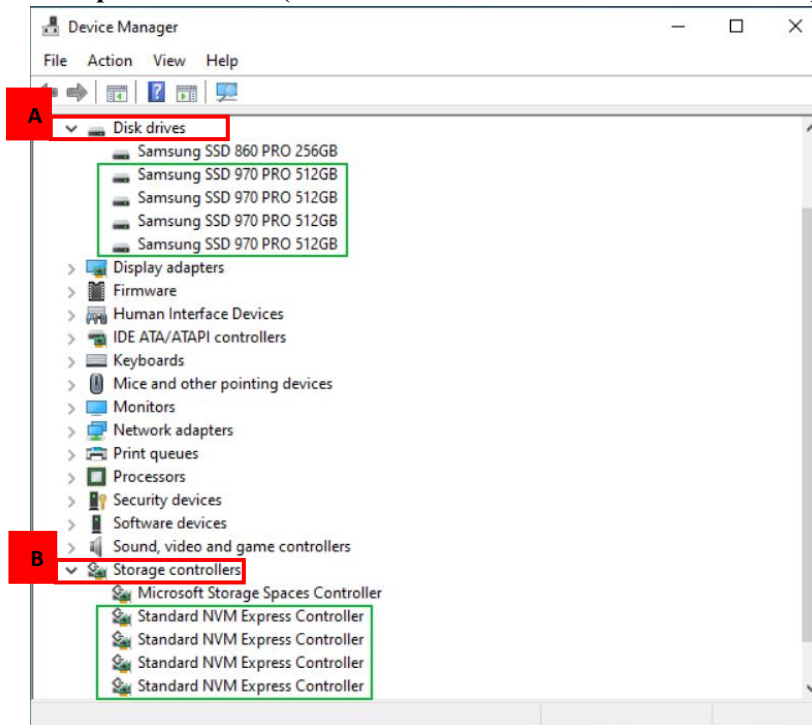
Example screenshot(SSD7180/7184):
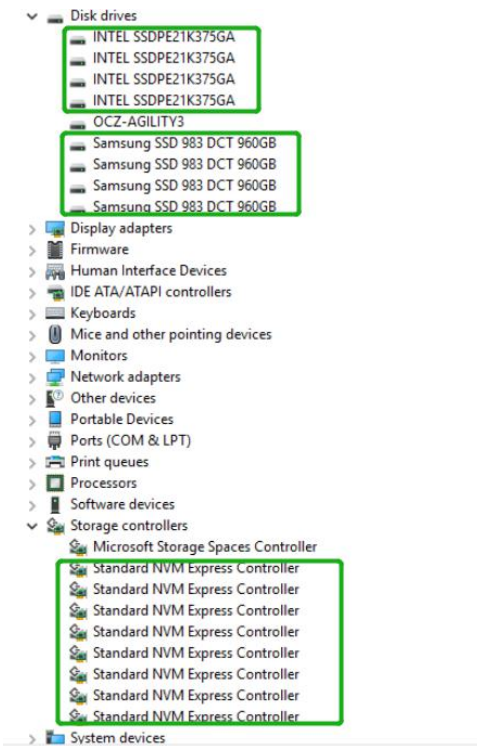
Example screenshot(SSD7140):

2. Download the Device Driver

Download the appropriate SSSD7000 driver from the controller's Software Downloads webpage.

SSD7101A-1:

https://highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm

SSD7104：

https://highpoint-tech.com/USA_new/series-ssd7104-download.htm

SSD7204:

https://highpoint-tech.com/USA_new/series-ssd7204-download.htm

SSD7120:

https://highpoint-tech.com/USA_new/series-ssd7120-download.htm

SSD6540:

https://highpoint-tech.com/USA_new/series-ssd6540-download.htm

SSD6540M:

https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm

SSD7180:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7184:

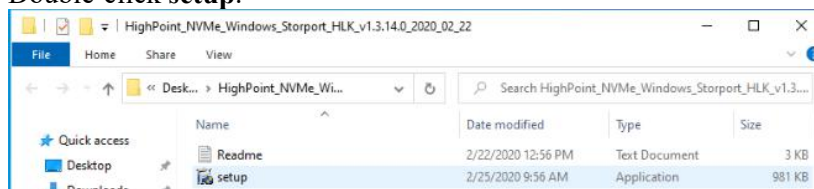https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7140:

https://highpoint-tech.com/USA_new/series-ssd7140-download.htm
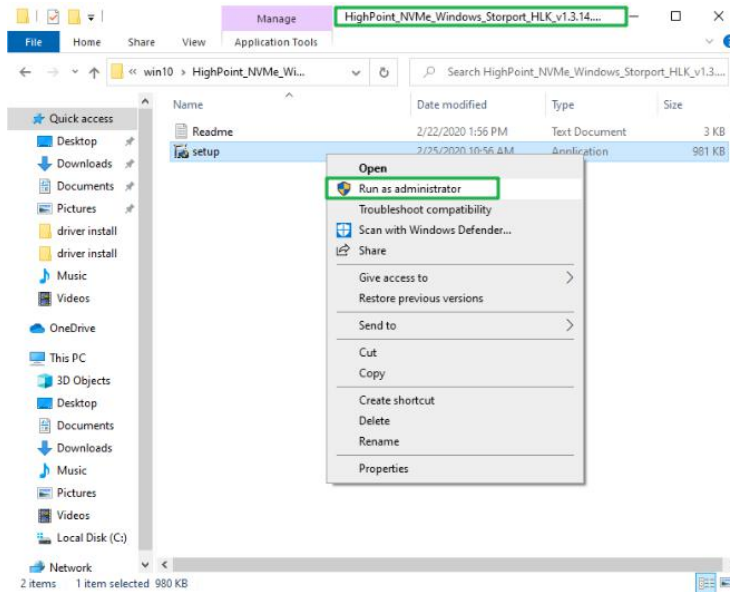

3. Install the Device Driver

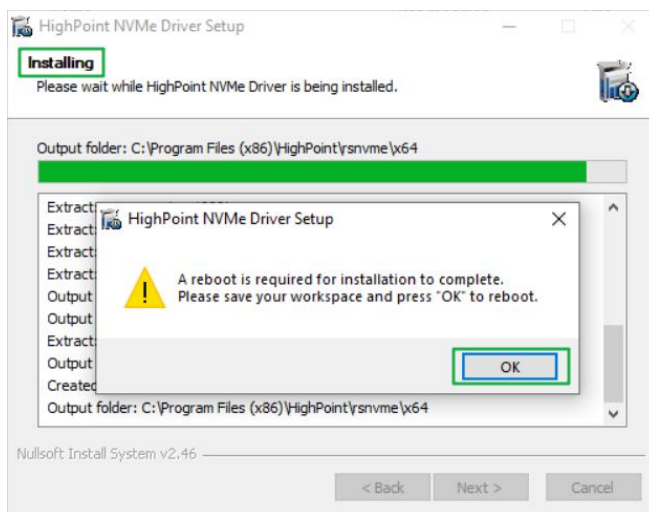A. Locate the driver download and open the file.

B. Double-click **setup**.

Note: If installation does not start, you may have to manually start setup using Administrator Privileges. Right-click **setup**, select **Run as Administrator** from the menu, and confirm the pop-up window to proceed.
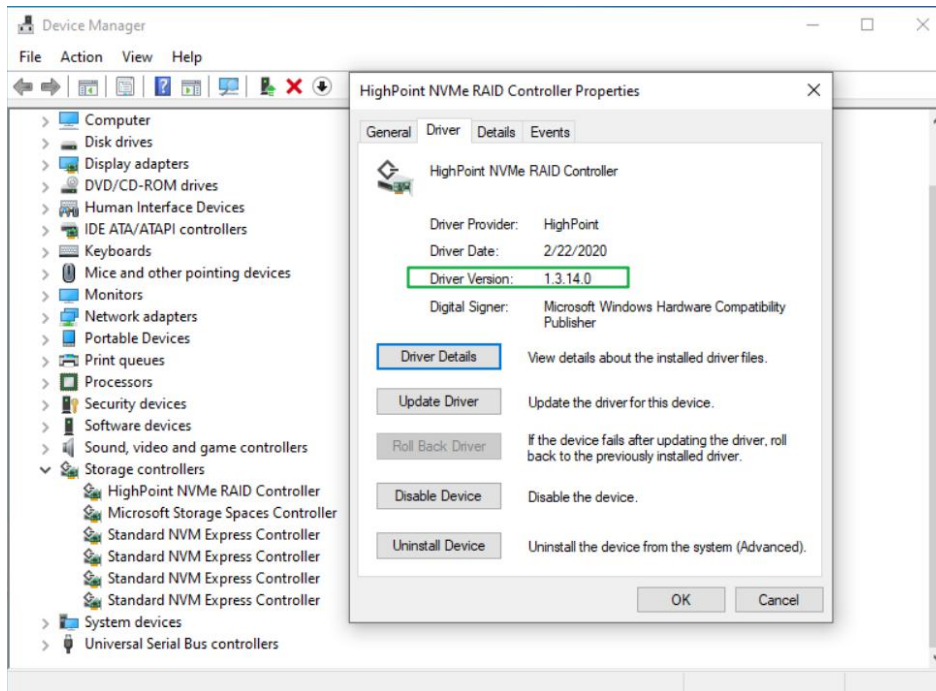
After driver installation is complete, click **OK** to reboot.

C. Once Windows has rebooted, open **Device Manager** to check the status of the driver.
Expand **Storage controllers** and click on the **HighPoint NVMe RAID Controller** entry**.** View
the properties and click the **Driver** tab:

Example screenshot (SSD7101A-1/7120/7104/7204/6540/6540M)

D. First, make sure the WebGUI has been installed (Install WebGUI). Open the WebGUI and make sure the SSD.'s / arrays are properly recognized.
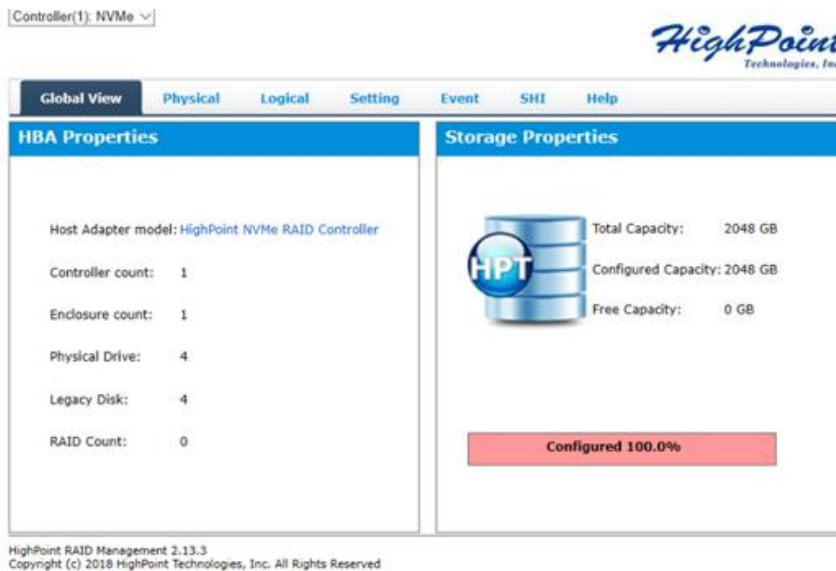
Note: Please refer to Appendix A to verify that your Device Manager entries correspond with the driver version you have installed.
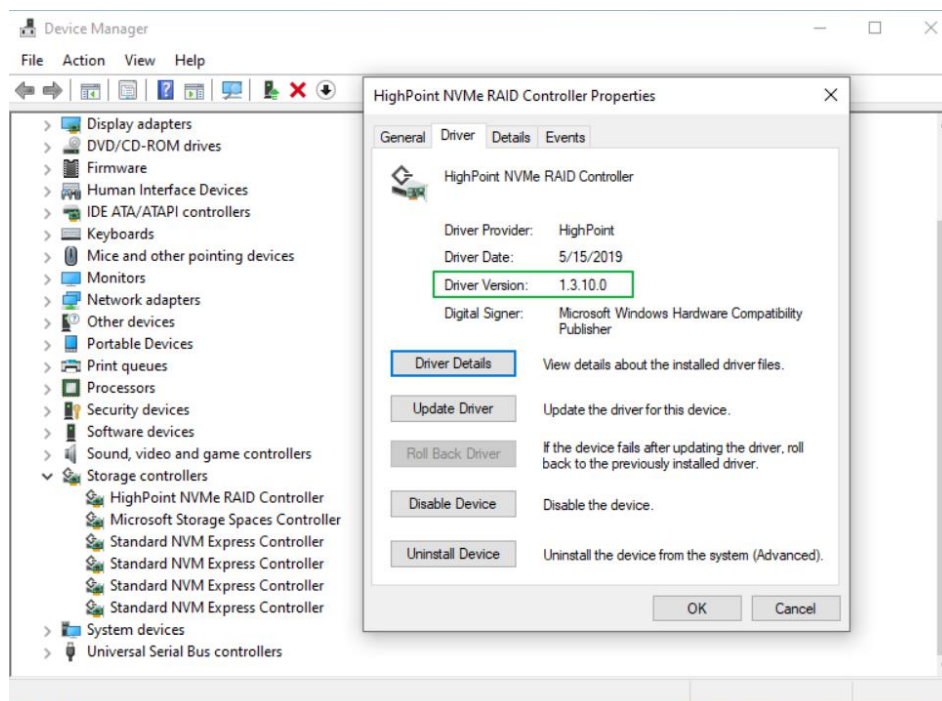
Updating the Device Driver

Note: Before attempting to update the driver entry, ensure that the SSD7101A-1/SSD7204/ SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 is removed from the motherboard.

1. **Check the Driver version**

    Open **Device Manager** to check the current driver version. Expand **Storage controllers** and click on the **HighPoint NVMe RAID Controller** entry. View the properties and click the **Driver** tab:

    Example screenshot (SSD7101A-1/7120/7104/7204/6540/6540M)

2. **Download the Device Driver**

    Download the latest driver from the controller's Software Downloads webpage.

    SSD7101A-1:

    https://highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm

    SSD7104:

    https://highpoint-tech.com/USA_new/series-ssd7104-download.htm

    SSD7204:

    https://highpoint-tech.com/USA_new/series-ssd7204-download.htm

    SSD7120:

    https://highpoint-tech.com/USA_new/series-ssd7120-download.htm

SSD6540:

https://highpoint-tech.com/USA_new/series-ssd6540-download.htm

SSD6540M:

https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm

SSD7180:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7184:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7140:

https://highpoint-tech.com/USA_new/series-ssd7140-download.htm

3. Shutdown and Remove the Device

A. Power down the system and remove the SSD7101A-1/SSD7204/SSD7104/ SSD7120/ SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 RAID controller from the motherboard.

Note: Failing to remove the SSD7000 controller from the motherboard during the uninstall process may result in data loss. Whenever the driver is uninstalled, Windows will attempt to install the default NVMe support, which may corrupt the RAID configurations and any data stored on SSD's hosted by the SSD7000 controller.
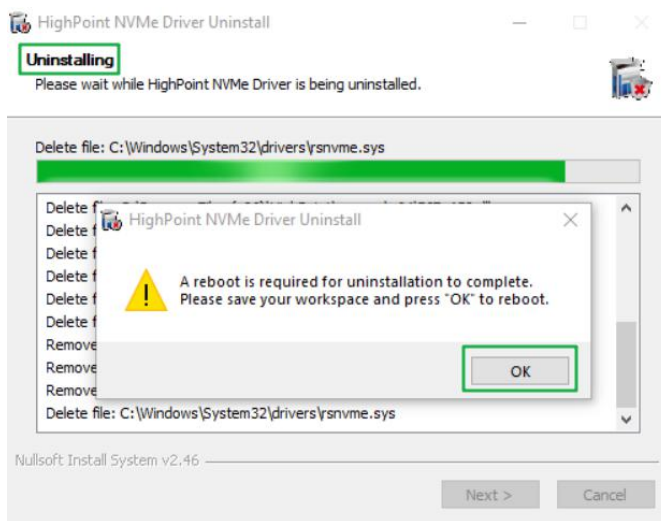
B. Power on the system and boot Windows.

4. Uninstall the old Device Driver

A. Access **Control Panel** and select **Programs→ Programs and Features, and click on the HighPoint NVMe Driver** entry**.**
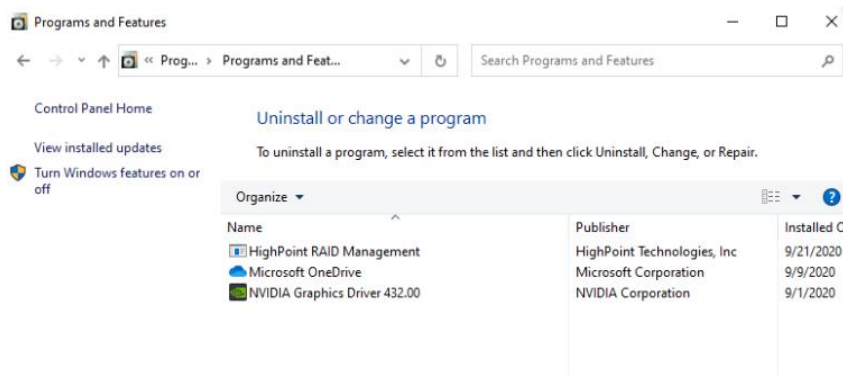
B. Click **Uninstall/Change**
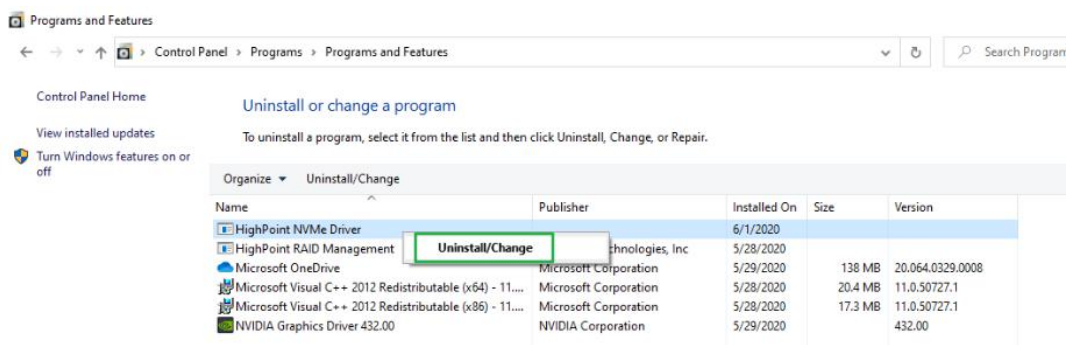
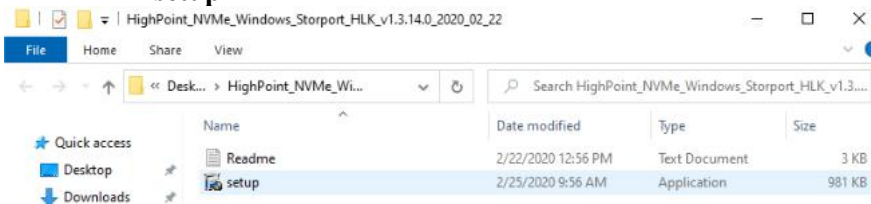
C. After uninstalling the driver, click **OK** to reboot.

D. After Windows has rebooted, access **Control Panel** to make sure the driver has been uninstalled. If there are no HighPoint NVMe RAID/Driver entries present, the driver has been successfully uninstalled:
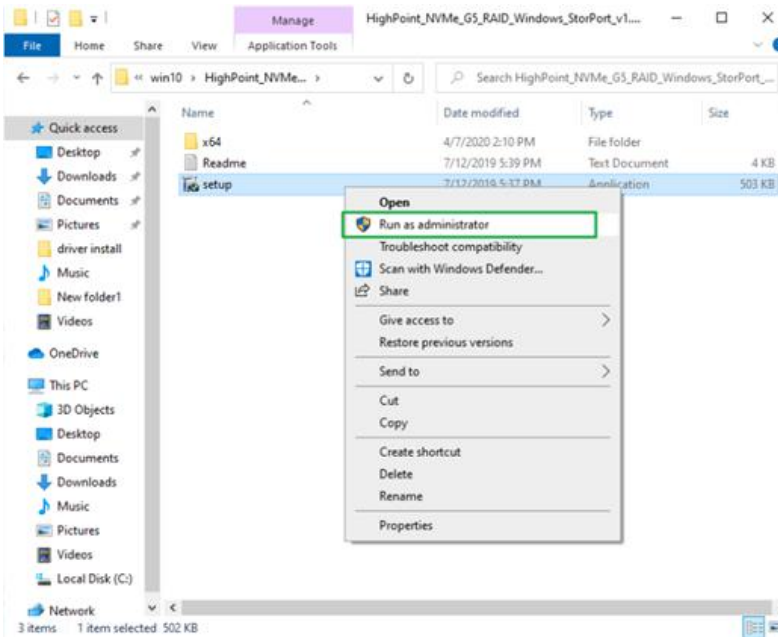

5. Install the new Device Driver

E. Locate the driver download and open the file.

F. Double-click **setup**.

Note: If the update does not start, you may have to manually start setup using Administrator Privileges. Right-click **setup**, select **Run as Administrator** from the menu, and confirm the pop-up window to proceed.

G. Windows will notify you that the driver is already installed. Click **OK** to reboot.
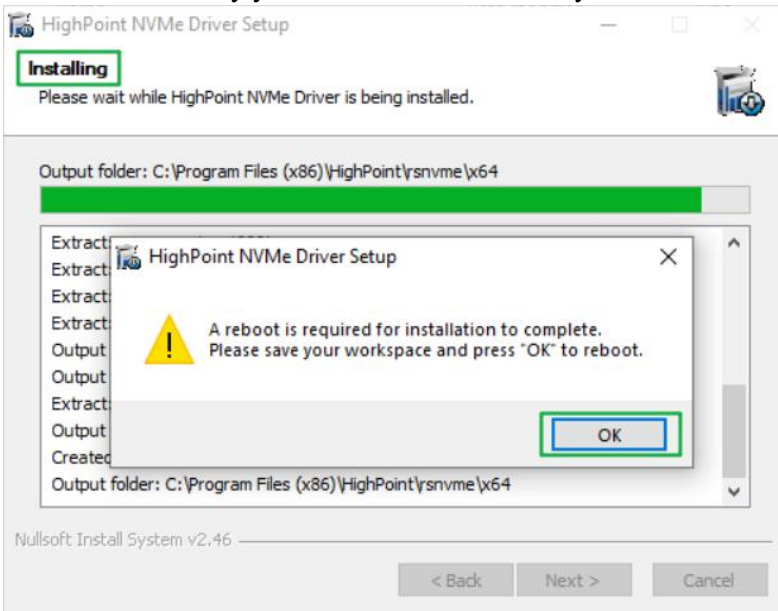
H. After entering the system, **shut down** the system. In the shutdown state, connect the SSD7000 controller to the motherboard.

I. Boot into the system.

J. Once Windows has rebooted, open **Device Manager** to check the status of the driver. Expand **Storage controllers** and click on the **HighPoint NVMe RAID Controller** entry**.** View the properties and click the **Driver** tab:

Example screenshot (SSD7101A-1)

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.
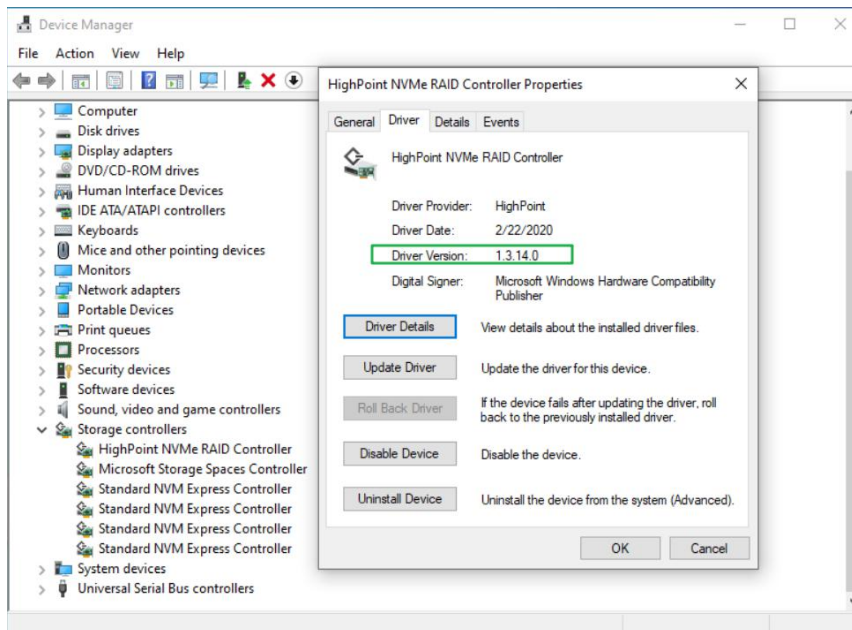
K. Open the WebGUI and make sure the SSD's arrays are properly recognized.
   Note: make sure the WebGUI has been installed (Install WebGUI).
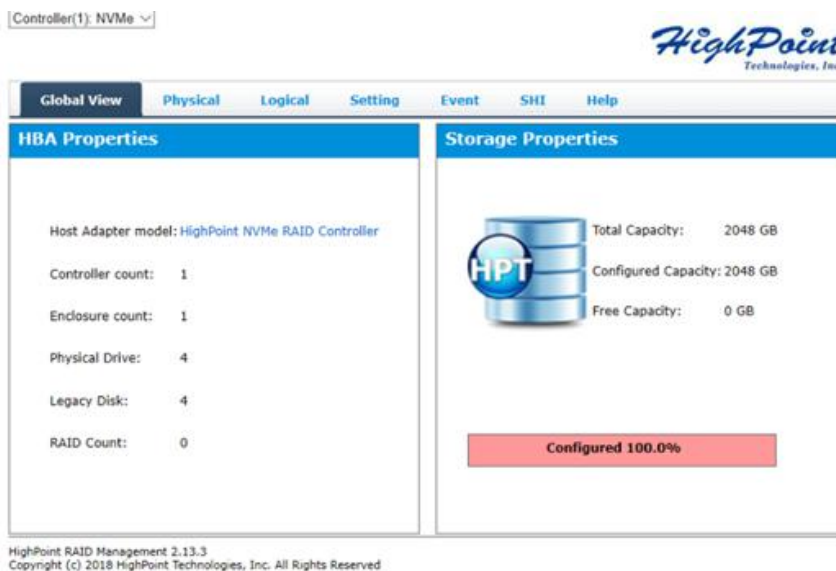
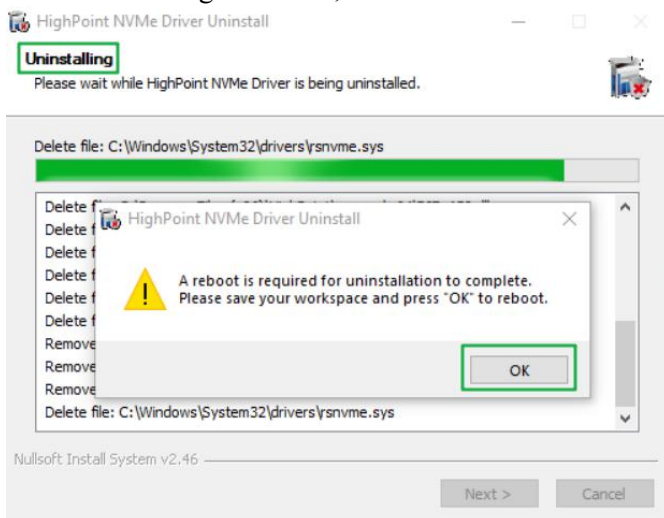# Uninstalling the Device Driver

1. Power down the system and remove the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/

    SSD6540M/SSD7180/SSD7184/SSD7140 RAID controller from the motherboard.

    Note: Failing to remove the SSD7000 controller from the motherboard during the uninstall process may result in data loss. Whenever the driver is uninstalled, Windows will attempt to install the default NVMe support, which may corrupt the RAID configurations and any data stored on SSD's hosted by the SSD7000 controller.

2. Power on the system and boot Windows.

3. Access **Control Panel** and select **Programs→ Programs and Features, and click on the HighPoint NVMe Driver** entry**.**

4. Click **Uninstall/Change**
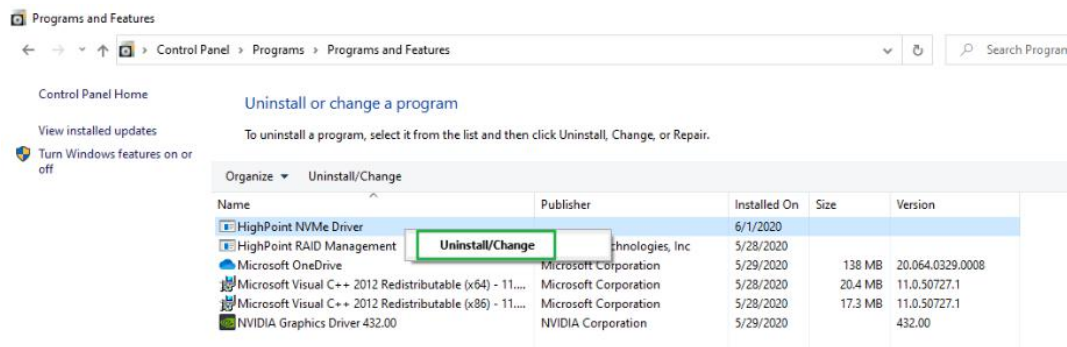
5. After uninstalling the driver, click **OK** to reboot.

6. After Windows has rebooted, access **Control Panel** to make sure the driver has been uninstalled. If there are no HighPoint NVMe RAID/Driver entries present, the driver has been successfully uninstalled
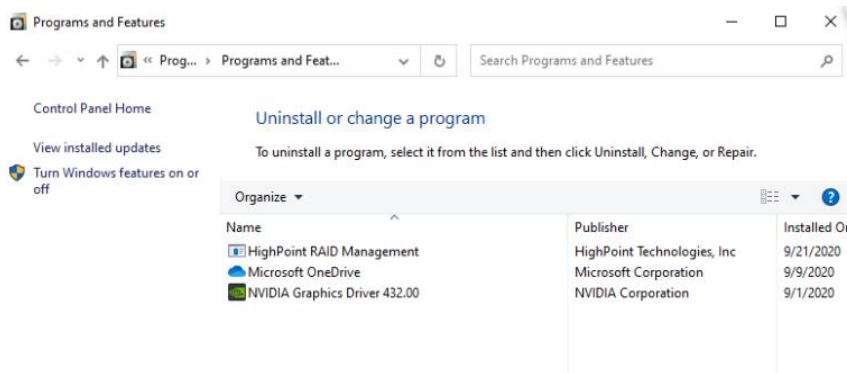
Installing the HighPoint RAID Management Software (WebGUI & CLI)

The HighPoint RAID Management Software (WebGUI and CLI utilities) are used to configure and monitor NVMe SSD's hosted by the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M SSD7180/SSD7184/SSD7140 RAID controller. Download the latest software package from the HighPoint website:

SSD7101A-1:

https://highpoint-tech.com/USA_new/series-ssd7101a-1-download.htm

SSD7104**:**

https://highpoint-tech.com/USA_new/series-ssd7104-download.htm

SSD7204:

https://highpoint-tech.com/USA_new/series-ssd7204-download.htm

SSD7120:

https://highpoint-tech.com/USA_new/series-ssd7120-download.htm

SSD6540:

https://highpoint-tech.com/USA_new/series-ssd6540-download.htm

SSD6540M:

https://highpoint-tech.com/USA_new/series-ssd6540m-download.htm

SSD7180:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7184:

https://highpoint-tech.com/USA_new/series-hpc-download.htm

SSD7140：

https://highpoint-tech.com/USA_new/series-ssd7140-download.htm

1. Extract the package and double-click the HighPoint RAID Management program to install the software.

2. Once installed, locate the Management icon on the desktop and double-click to start the WebGUI interface.
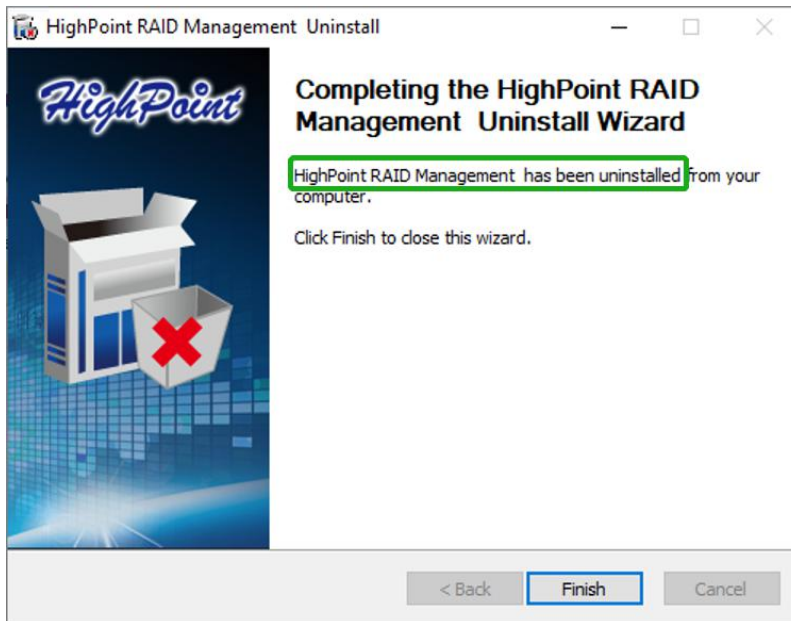
   Example screenshot (SSD7101A-1)
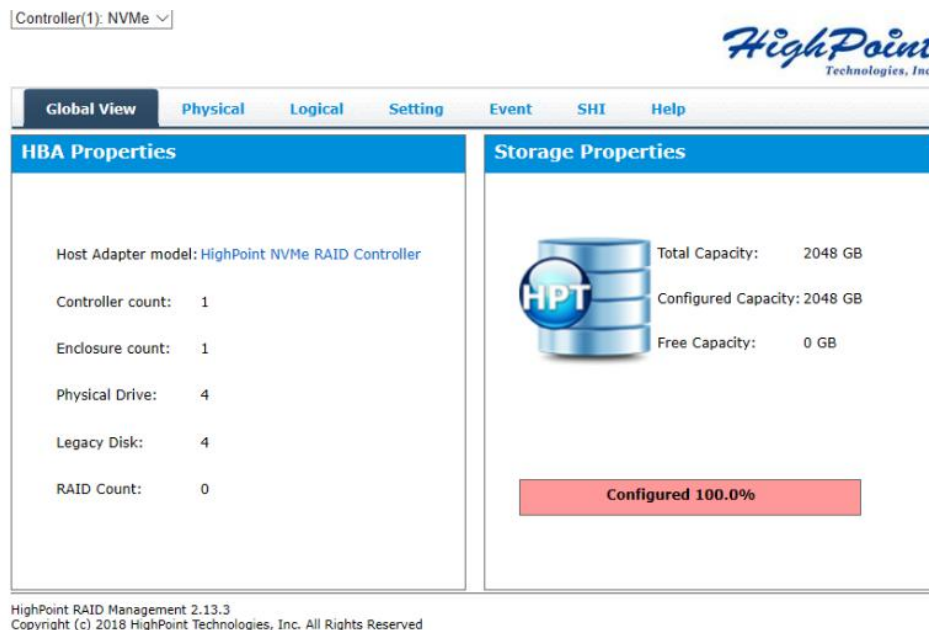
Uninstalling the HighPoint RAID Management Software (WEBGUI & CLI)

1. Access **Control Panel** and select **Programs→ Programs and Features, and right-click on the** HighPoint RAID Management entry**.**
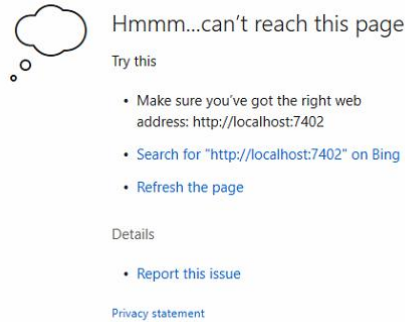
2. Click **Uninstall/Change**
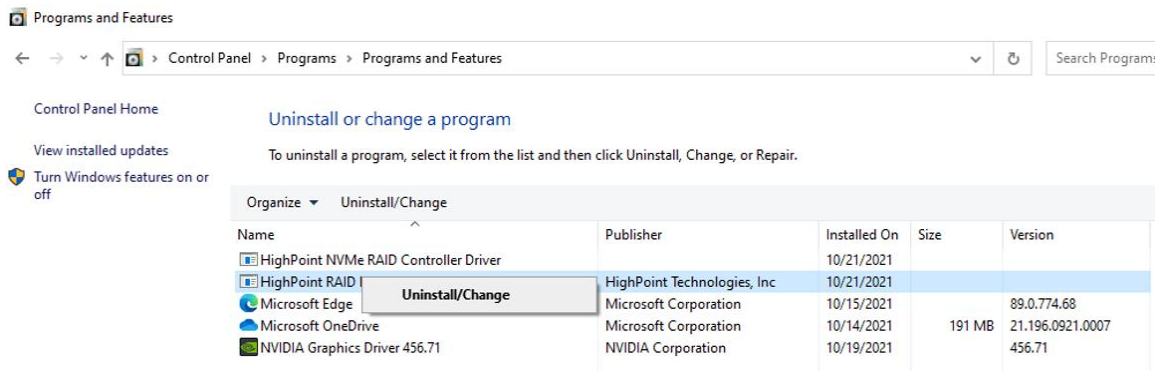
3. After uninstalling the HighPoint RAID Management, click **Finish**.

Troubleshooting

Note: When troubleshooting your SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/
SSD6540M/SSD7180/SSD7184/SSD7140 NVMe RAID controller, make sure all of the Prerequisites
have been met before proceeding.

## The WebGUI will not start after double-clicking the desktop icon.

Hmmm...can't reach this page

Try this

- Make sure you've got the right web
  address: http://localhost:7402

- Search for "http://localhost:7402" on Bing

- Refresh the page

Details

- Report this issue

Privacy statement

1. This is often the result of a missing driver or improperly installed driver. Open **Device Manager**
    and check under **Storage Controllers**.
    If the Driver is properly installed, you should see a **HighPoint NVMe Controller** entry for
    SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/
    SSD7140 controller, followed by **HighPoint NVMe RAID Controller** entry:

    Example screenshot (SSD7101A-1)

    *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.*
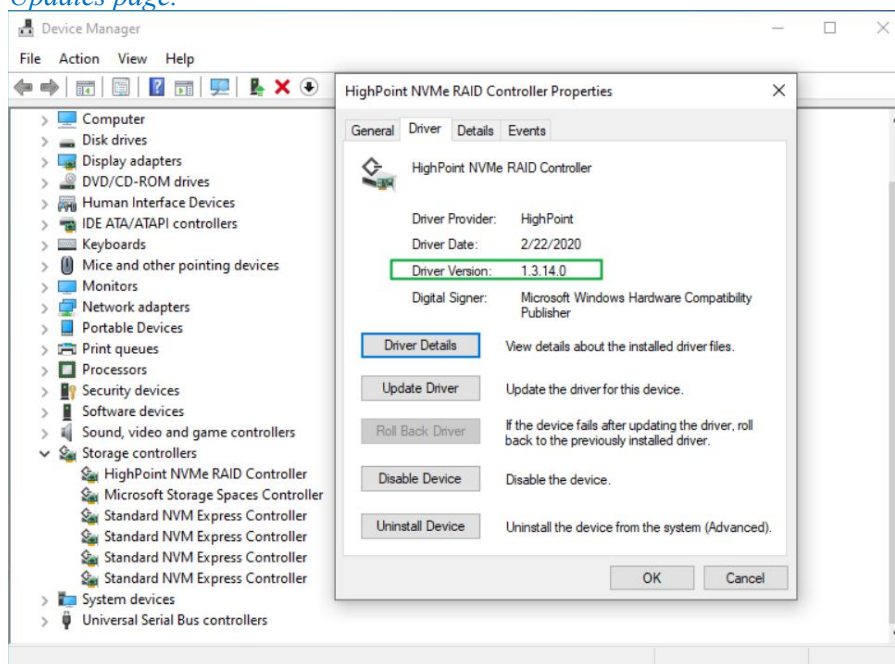
2. You should also check to make sure **hptsvr** is running under **Task Management → Services**. If the status of **hptsvr** process is **Stopped**, right-click on this entry and select Start from the menu:
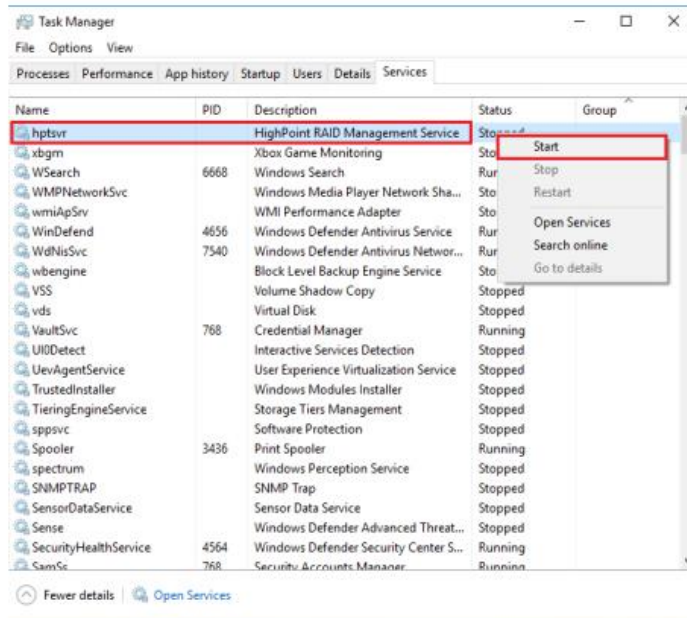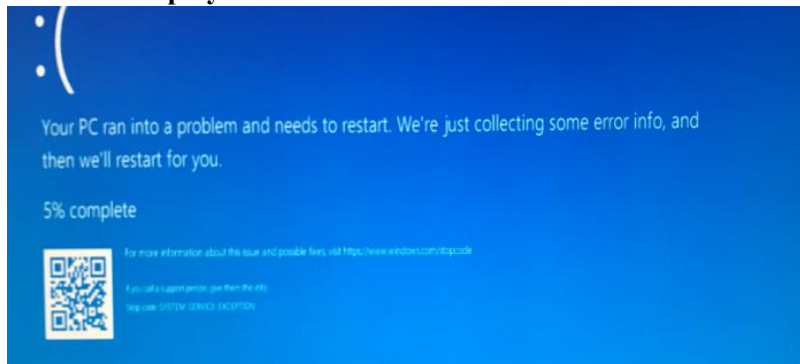

BSOD (Blue Screen of Death)

There are three scenarios in which a BSOD may occur with

 SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140:

Windows displays a BSOD when the controller is installed.

If you are running Windows 10, please make sure that any **Quick Shutdown** options are disabled – these features can cause a BSOD when the SSD7101A-1 /SSD7204 /SSD7104 / SSD7120 /SSD6540 /SSD6540M /SSD7180 /SSD7184 /SSD7140 is installed into or removed from your motherboard. BSODs can be avoided by **completely powering off** your system.

How to Turn off Quick Shutdown for Windows
a.   Use administrator privileges to access the Command Prompt utility:
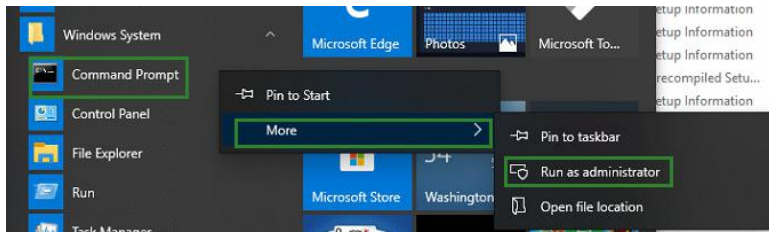
b. Enter the following command and press Enter:

powercfg / h off

c. To make sure the setting has been disabled, enter the following command and press Enter:

powercfg / a

d. Shut down the computer and remove the SSD7101A-1 /SSD7204 /SSD7104 /SSD7120 /SSD6540 /SSD6540M/SSD7180/SSD7184/SSD7140 from the motherboard;

e. Restart the system and open the SSD7101A-1/SSD7204 /SSD7104 /SSD7120 /SSD6540 /SSD6540M/SSD7180/SSD7184/SSD7140 driver download.

f. Double-click Setup to reinstall the driver; if you are prompted to uninstall the driver, you will need to follow the prompts and restart. After rebooting, double-click **Setup** once more to install the driver.

g. After the driver installation is complete, shut down the computer. Connect the NVMe SSD's to the SSD7101A-1/SSD7204/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184 /SSD7140 and insert it into the motherboard PCIe slot.

h. Power on the system, boot Windows and access the WebGUI; if the WebGUI can't connect, you need to restart again.

i. If it fails to start the second time, please access our Online Support portal and submit a support ticket.

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1. **A BSOD is encountered when installing the driver:**
   If you experience a BSOD during driver installation, please collect the log information refer to：How to Collect Diagnostic Logs and submit a new support ticket via our Online Support Portal.

2. **If Windows reports that driver installation has failed:**
   Please collect these log information refer to：How to Collect Diagnostic Logs

   Note: If you experience a BSOD or error when installing the driver, please ensure that any **Quick Shutdown** options are **not enabled** – Quick shutdown can cause a BSOD when removing the SSD7101A-1/SSD7204/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184/SSD7140 from your motherboard, and plugging it back in. BSODs can be avoided by **completely powering off** your system:

Controller and Drive Detection Issues

- If your motherboard or Windows is unable to detect the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/SSD7184 /SSD7140 RAID controller or NVMe SSD's, please shutdown the system and try moving the SSD7101A1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M/SSD7180/ SSD7184/SSD7140 to another PCIe slot.
- Make sure any unrelated NVMe devices are removed from the motherboard while troubleshooting the SSD7101A-1/SSD7204/SSD7104/SSD7120/SSD6540/SSD6540M /SSD7180/SSD7184/SSD7140 controller.

Appendix

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.
   *You need to wait until the log location shows "Logs **have been saved** in following path:"*

2. You can also click 'Help'→'Diagnostic' to enter the diagnostic view.

3. Enter the Diagnostic view, click 'Save Logs', your log information will be collected. 'Logs Location' will display the location of the saving path.
   *You need to wait until the log location shows "Logs **have been saved** in following path:"*

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