NS370TB3

Thunderbolt 3 Rackmount 1U 4-Bay RAID Storage

User Manual

Third edition, Mar. 2023

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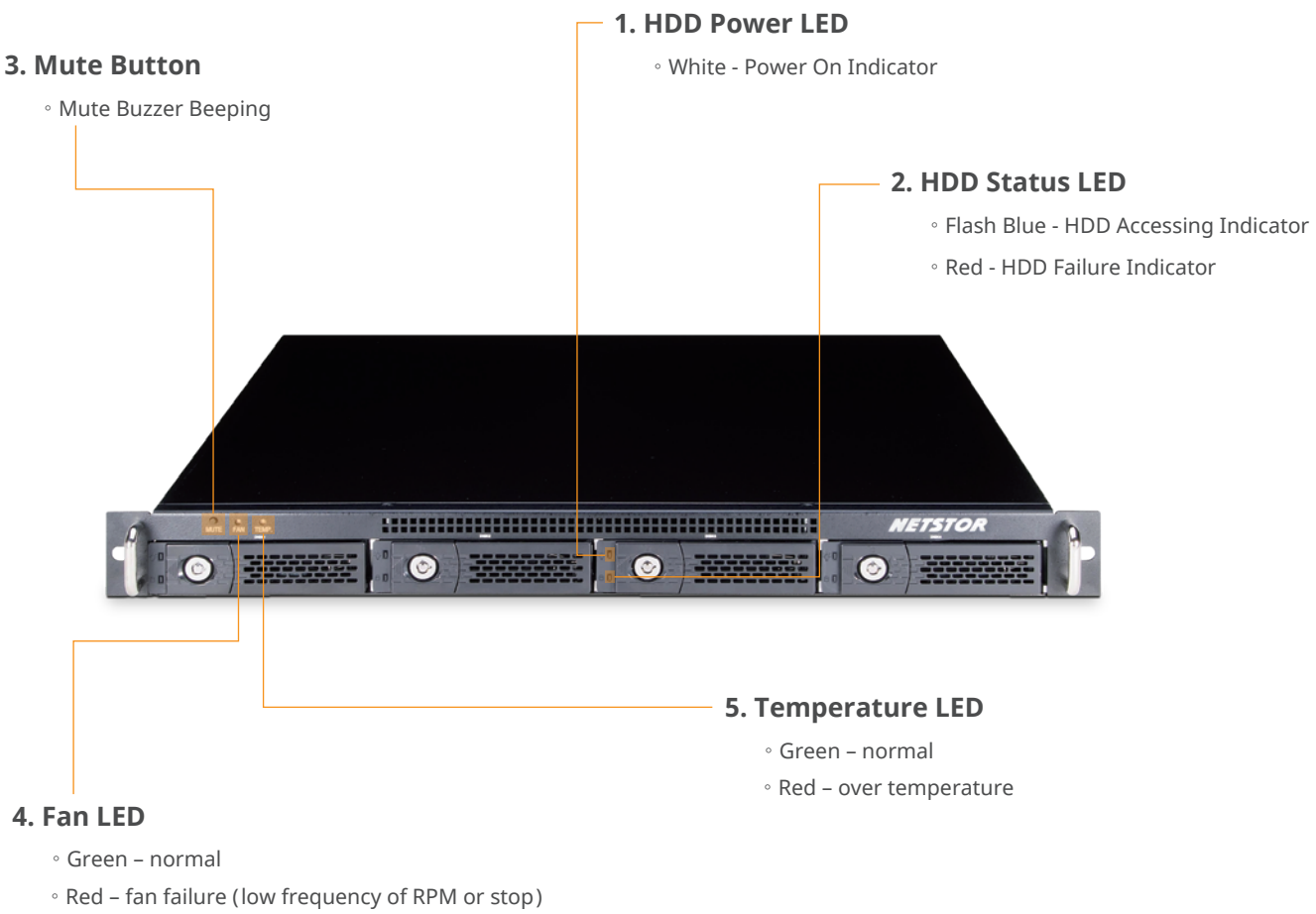
1. Unpack the NS370TB3

The box contains the following items:

- Netstor NS370TB3 storage
- HDD tray × 4 (installed in enclosure)
- Thunderbolt 3 cable (2 meters) × 1
- Power cord × 1
- HDD mounting screws
- Key for HDD tray × 2

2. Storage Enclosure Description

2.1 Panel Layout



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10. Thumbscrews to loosen / tighten the top cover

7. Hot-Swappable Blower Fan 1

- 75 × 75 × 28 mm

6. Power Cord Receptacle

8. Hot-Swappable Blower Fan 2

- 75 × 75 × 28 mm

9. Thunderbolt 3 Connectors

- Connecting Thunderbolt 3 cables to host and downstream device

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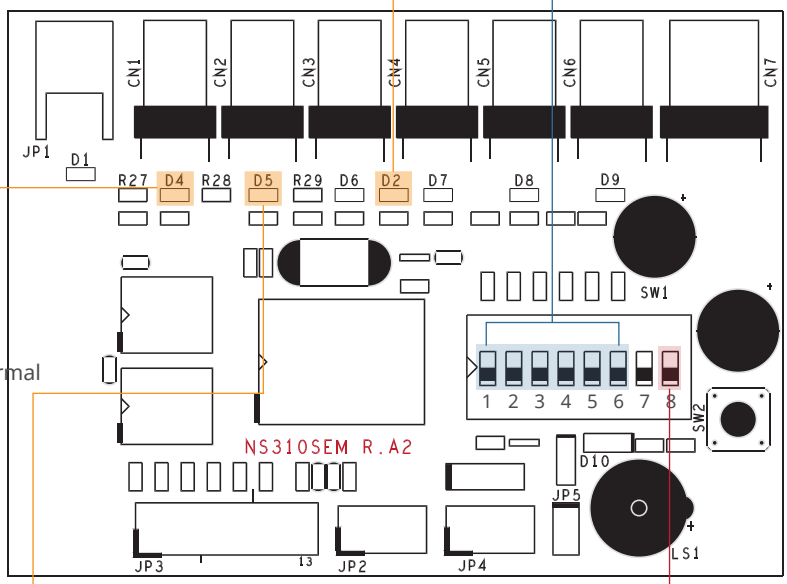
2.2 Environmental Control Board LED Status

DIP switch No.1 ~ No.6: Fan Alarm

- ON: Enable
- OFF: Disable

D2 LED: fan failure indicator

- D2 LED no light: both blower fan 1 and 2 are normal
- D2 LED red light: either blower fan 1 or 2 fails



D4 LED: fan 1 status

- D4 LED no light: blower fan 1 is normal
- D4 LED red light: blower fan 1 fails

D5 LED: fan 2 status

- D5 LED no light: blower fan 2 is normal
- D5 LED red light: blower fan 2 fails

DIP switch No.8: Temperature Sensor

- ON: Enable
- OFF: Disable

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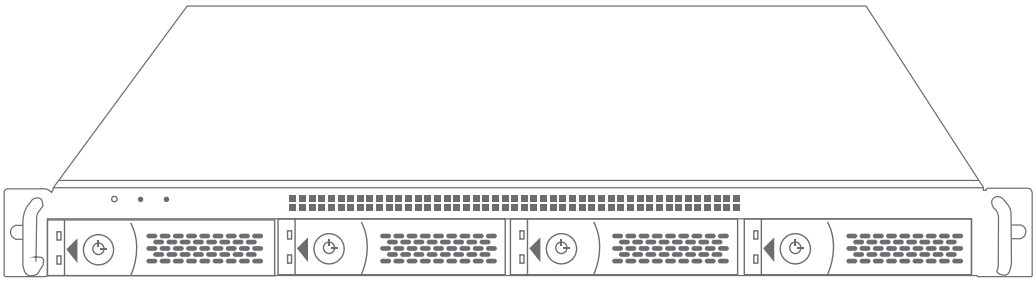
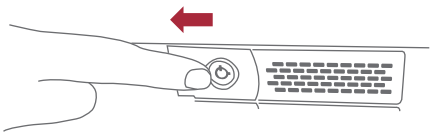
3. Setup Procedure

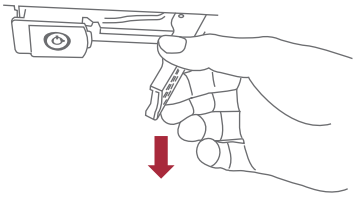
3.1 Storage Setup

1. Place NS370TB3 storage on a level surface on a stable table.

2. Take out all the four HDD trays.







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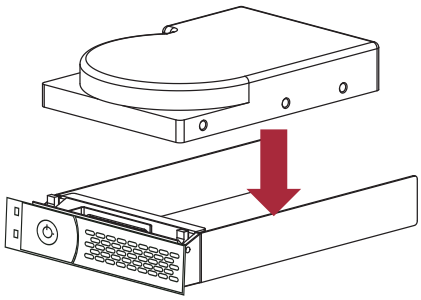
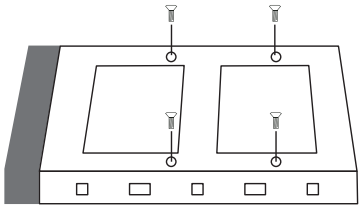
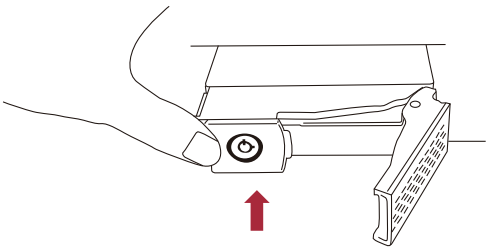
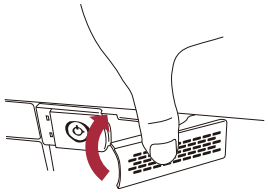
3. Place HDDs in the trays and fix them with the included hard drive mounting screws. And then put the trays with HDDs back to NS370TB3 storage.

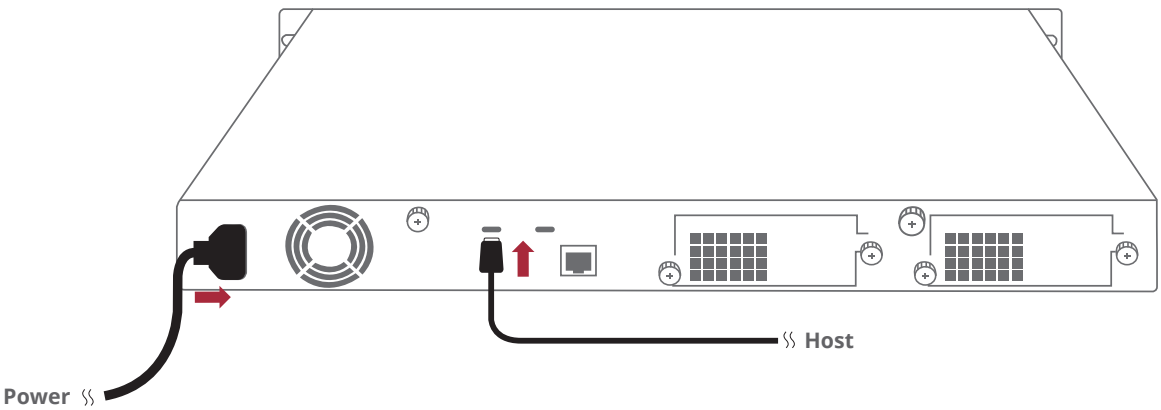








4. Connect NS370TB3 and Thunderbolt 3 computer with Thunderbolt cable, and then connect Netstor storage with power source.



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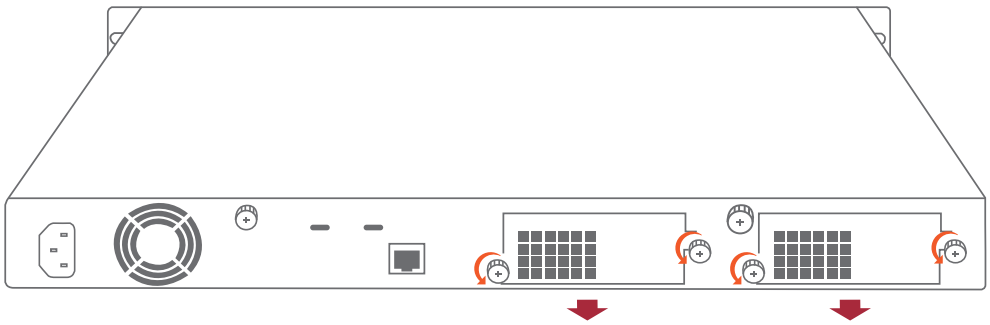
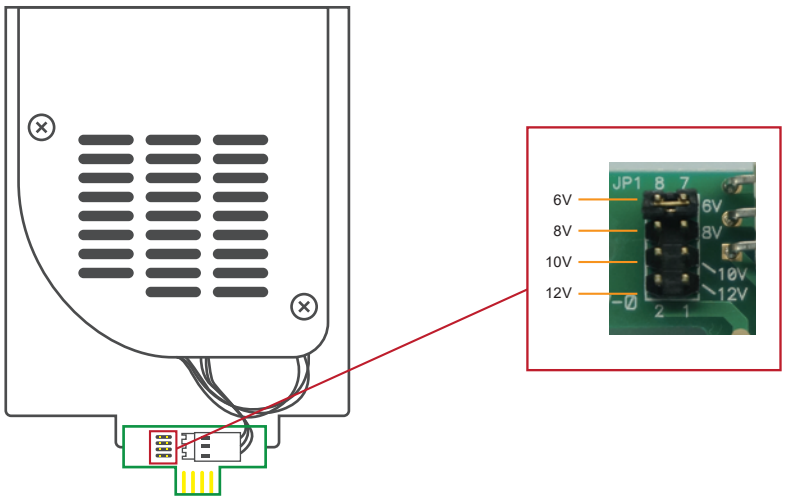
3.2 Blower Fan Speed Adjustment

1. There are two hot-swappable 75×75×28 mm blower fans for ventilation at rear of NS370TB3. After loosening the two thumbscrews on the fan module, the blower fan can be pulled out of the storage enclosure.



2. The rear 75×75×28 mm blower fan speed can be adjusted. As the blower fan module is pulled out, there are four sets of jumpers labeled with 6V, 8V, 10V, 12V from top to bottom on the fan connector board. The default setting is the jumper being placed over pin 7 and 8 for label 6V for slowest speed. The speed increases from label 8V to label 12V. As jumper is not placed over pins, the fan will spin at 12V full speed.



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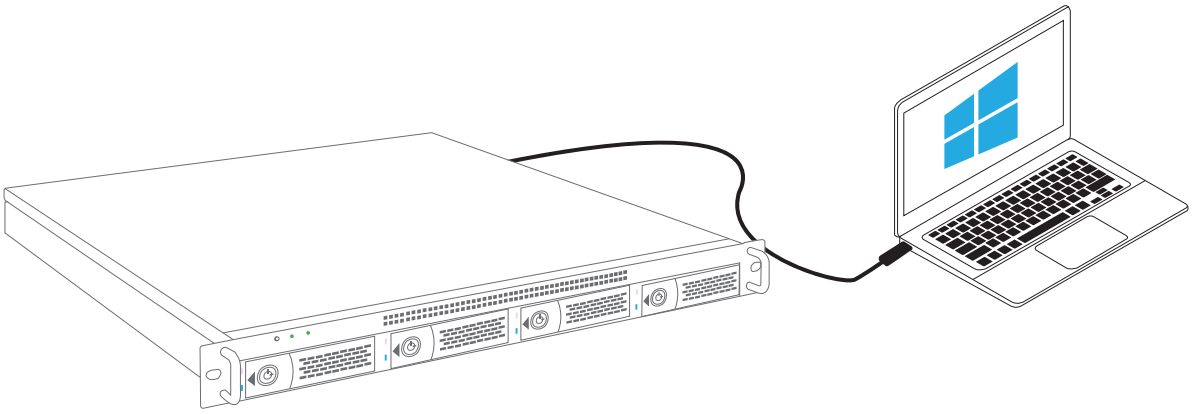
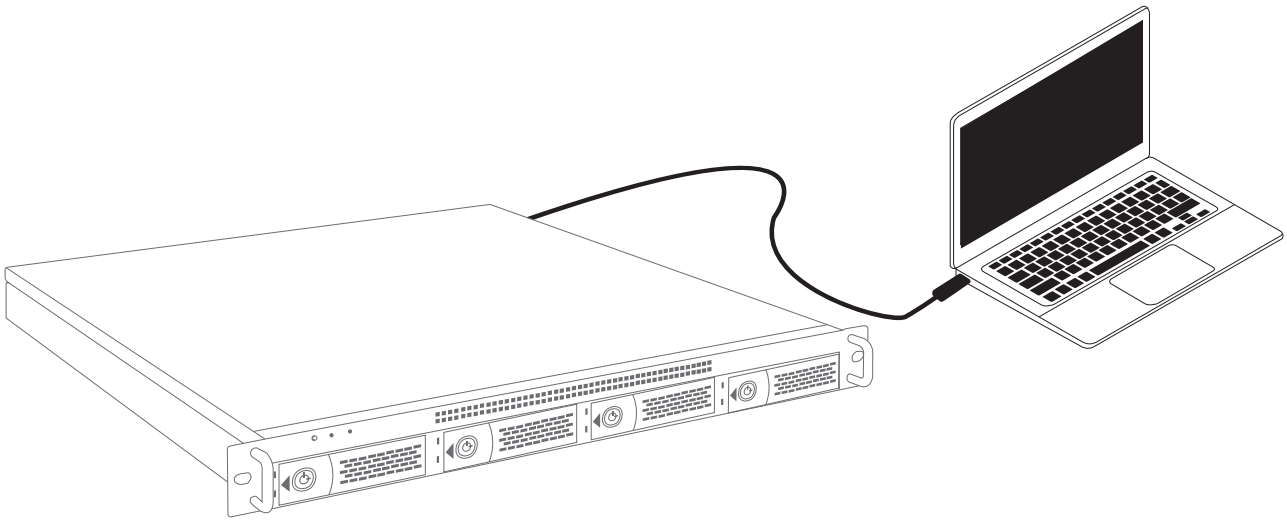
4. Power On/Off NS370TB3

1. NS370TB3 storage is designed to be powered on/off simultaneously with the Thunderbolt 3 computer as NS370TB3 is connected to computer by Thunderbolt cable. Therefore, power on computer first, and then NS370TB3 will be powered on automatically.



2. As NS370TB3 storage is connected to computer by Thunderbolt cable, when shutting down computer, the NS370TB3 will be shut down automatically as well.

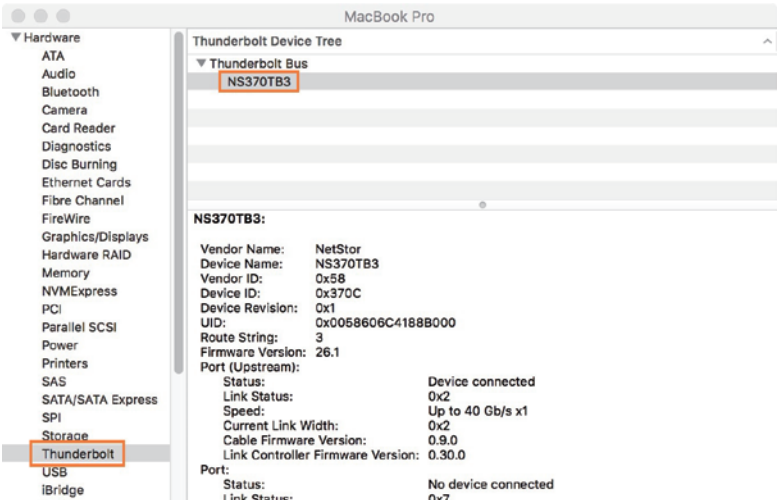


※ NS370TB3 supports hot-plug and hot-unplug for powering on and off.

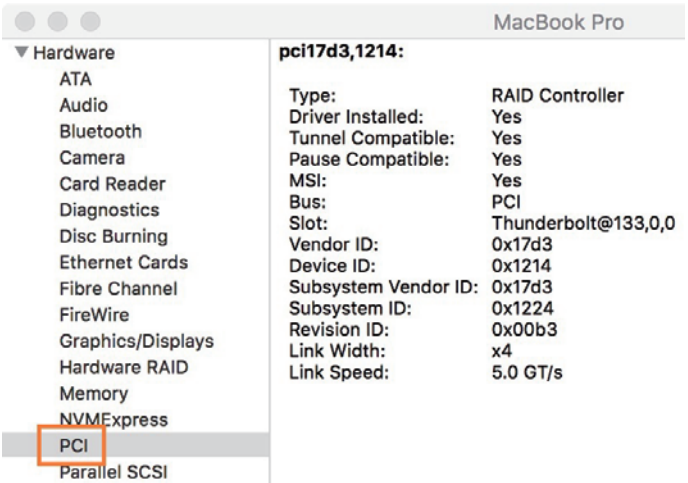
5. Verification

5.1 macOS

1. Verify Netstor NS370TB3 is recognized by computer. Click Apple icon at the top menu bar, select **About This Mac**, and click **System Report** button. Click **Thunderbolt** in the left column, as NS370TB3 appears in the information, it means Netstor storage is recognized correctly by computer.



2. Verify RAID controller of NS370TB3. Right after the above point 1, click **PCI** in the left column, and information about NS370TB3 RAID controller will appear. (For RAID controller, from starting up, it will take more time for its info to be shown)



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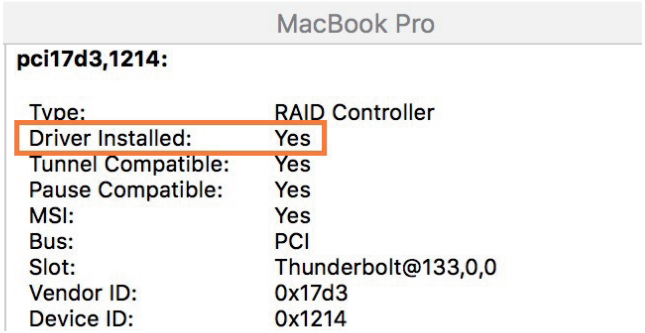
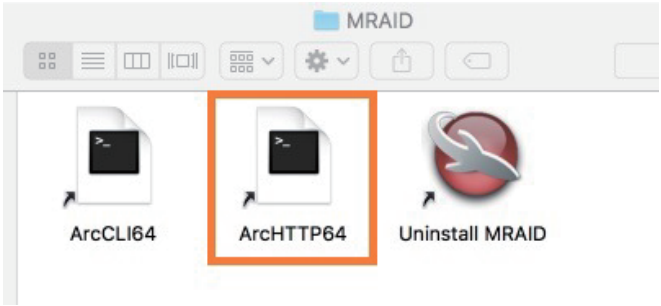
3. Verify the driver of NS370TB3 RAID controller. Following point 2, there is an item **Driver Installed** indicating the status of RAID controller's driver. The driver is already embedded in macOS 10.12 and later.



4. Download MRAID GUI program to configure and set up RAID volume for NS370TB3. To download MRAID GUI program, please visit: www.netstor.com.tw

5. After downloading and installing MRAID GUI program, open MRAID folder, and double click **ArcHTTP64** icon to enter configuration page on web browser.



6. When at first page of web GUI, click **SAS RAID Controllers**, select **Web Management**, and then a login pane will pop up.

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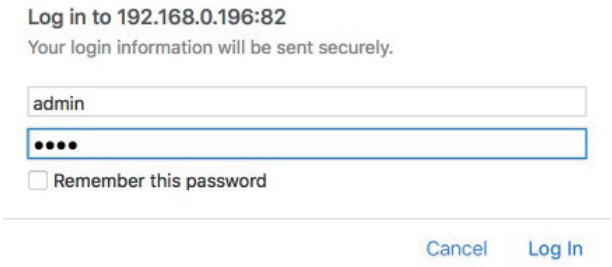
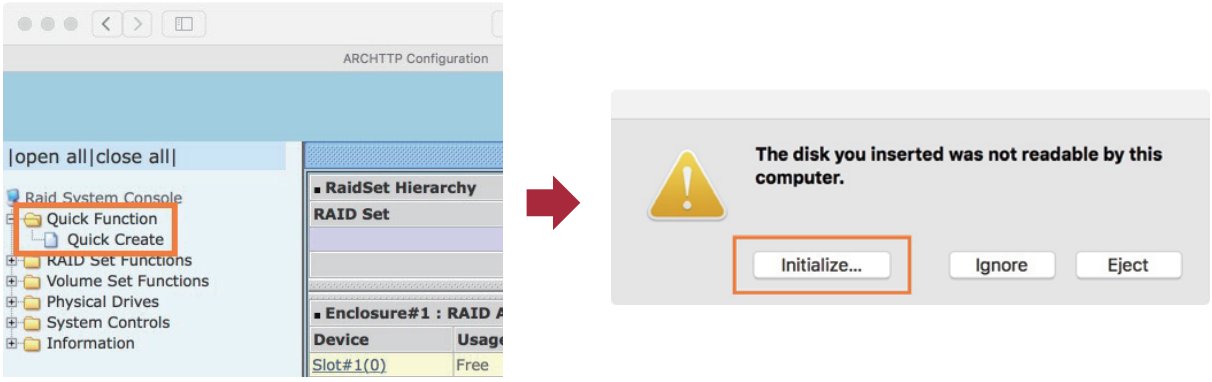
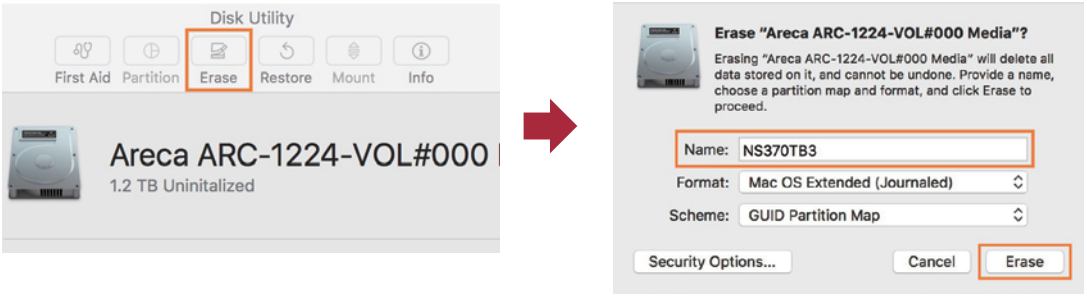
7. Input **admin** for name and **0000** for password to enter.

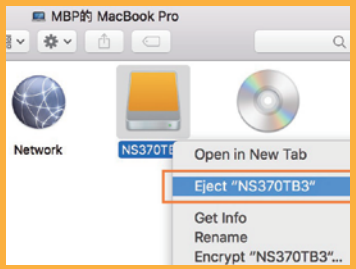


8. After logging in, for quick setup of RAID volume, click **Quick Function** in the left column, and select **Quick Create**. After RAID volume is created, a pane will pop up providing three selections for action. Click **Initialize** button to format the RAID volume.



9. Select the RAID volume, click **Erase** button at top side. Name the RAID volume in center part, and click **Erase** button at bottom right to format the RAID volume. After formatting, the RAID volume is ready for use.

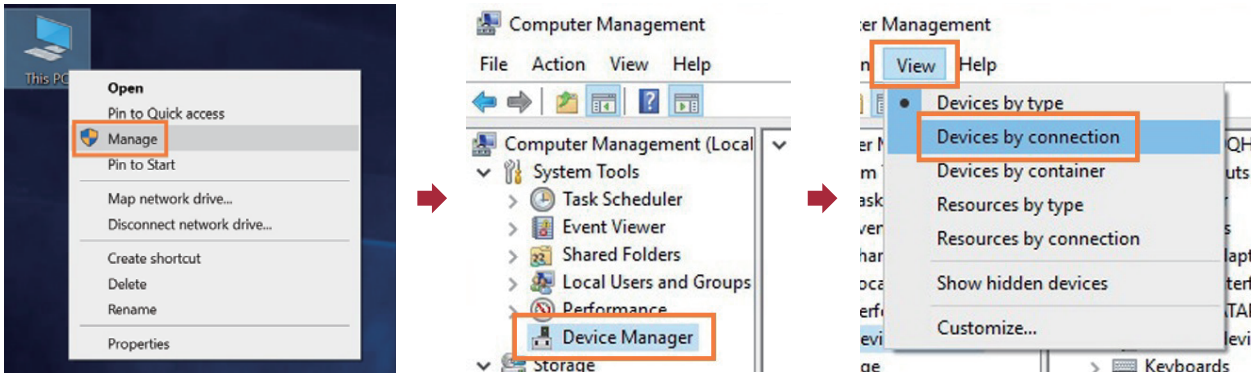




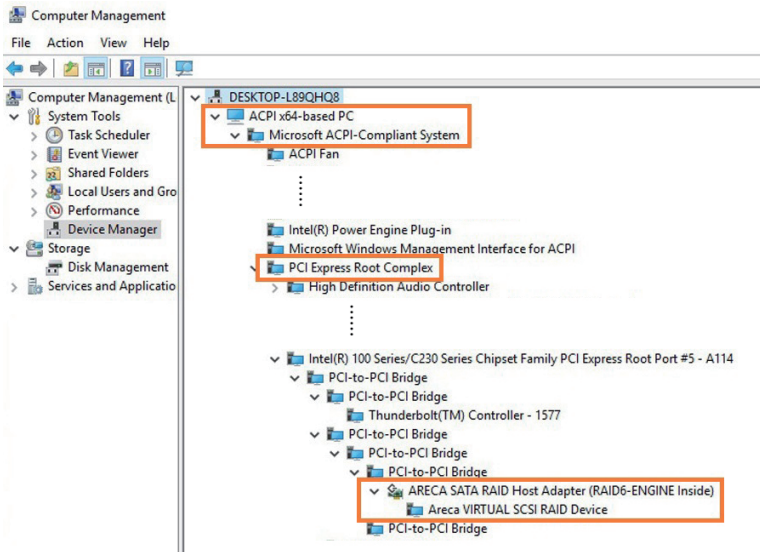
NOTE
To eject the RAID volume on macOS, click **Go** at the top menu bar, and select **Computer**. Right click the RAID volume, and select **Eject** to safely eject the RAID volume from computer.

5.2 Windows Operating System

1. Verify Netstor NS370TB3 is recognized by computer. Right click **This PC**, and select **Manage**. As window of Computer Management pops up, click **Device Manager** in the left column, click **View** at the top menu bar, and select **Devices by connection**.

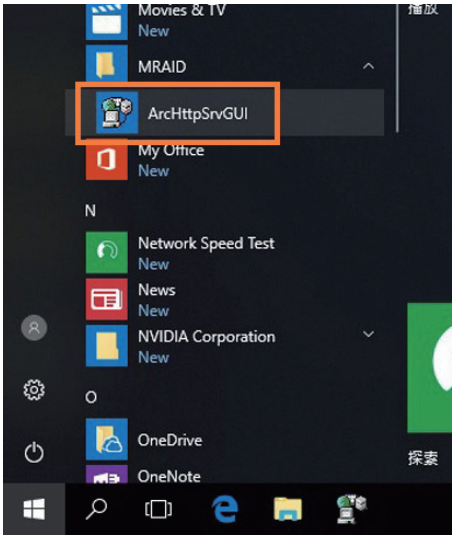


2. Click **ACPI x64-based PC**, select **Microsoft ACPI-Compliant System**, and click **PCI Express Root Complex**. Open the PCI Express Root Port, and NS370TB3's RAID controller will be shown, meaning Netstor storage is recognized correctly by computer.

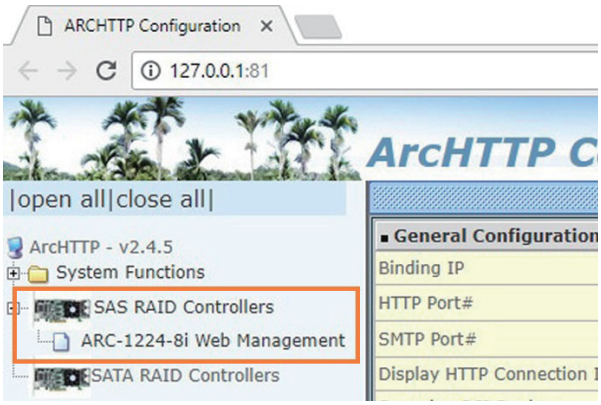


3. Install Windows MRAID that contains Windows driver of NS370TB3 RAID controller and Windows GUI program. To download Windows MRAID, please visit: www.netstor.com.tw

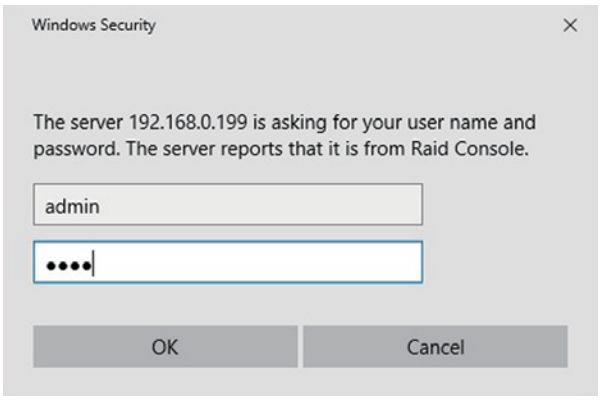
4. After installing the driver and the GUI program, launch the GUI program by selecting **ArcHttpSrvGUI** in All Programs in Windows Start to run the application.



5. Subsequent to running ArcHttpSrvGUI application, the web-based GUI will appear. Select **SAS RAID Controllers**, and then select **Web Management** to enter the web GUI



6. Key in **admin** for name and **0000** for password to enter.



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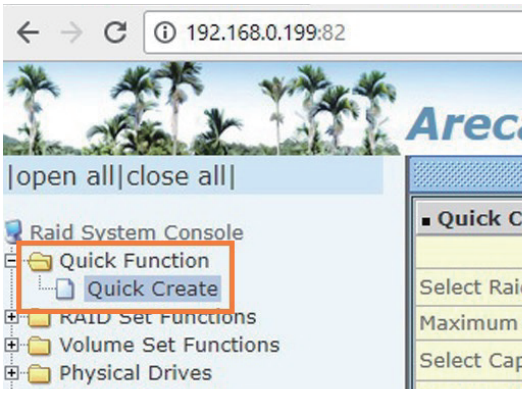
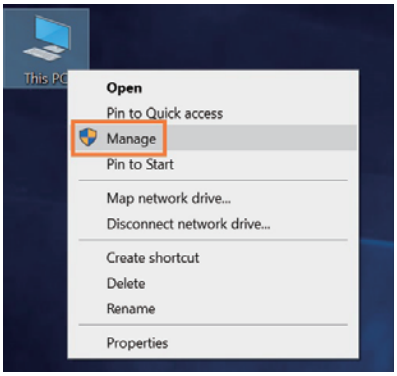
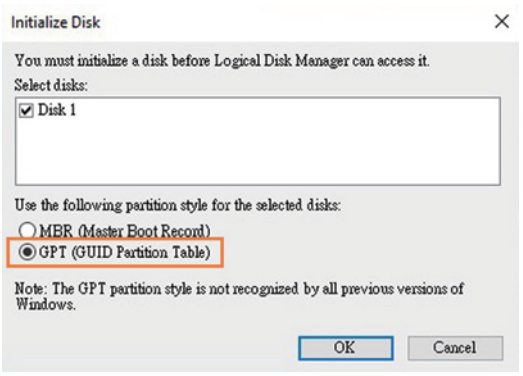
7. After logging in, for quick setup of RAID volume, click **Quick Function** in the left column, and select **Quick Create**.

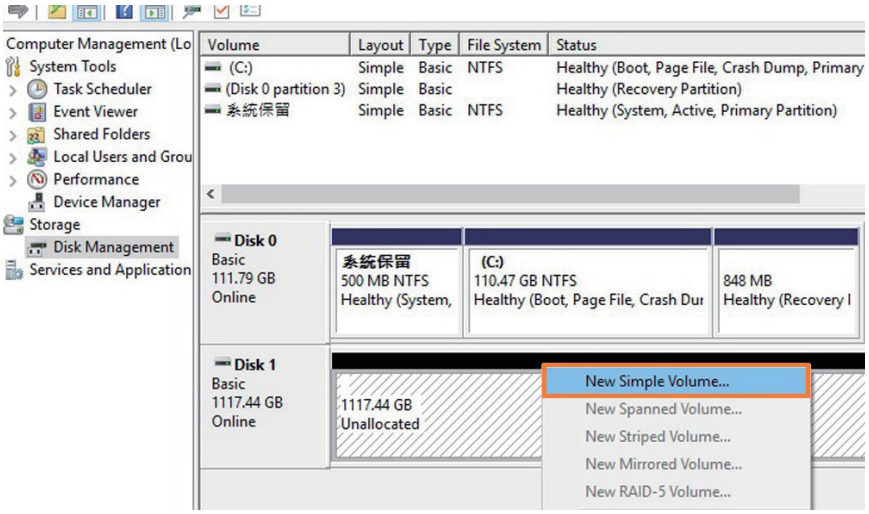


8. After creating RAID volume, right click **This PC**, and select **Manage**. As window of Computer Management pops up, click **Disk Management** in the left column, and a window will pop up; select **GPT (GUID Partition Table)**, and click OK.





9. Following selecting GPT (GUID Partition Table), the RAID volume will appear in the center field of the window. Right click the section of the RAID volume, and select **New Simple Volume** to format the RAID volume.



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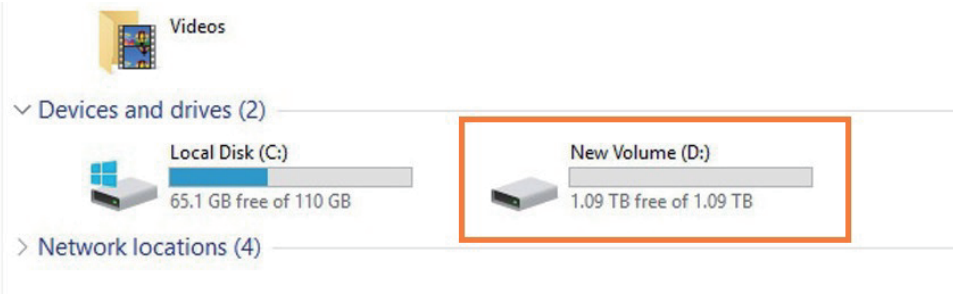
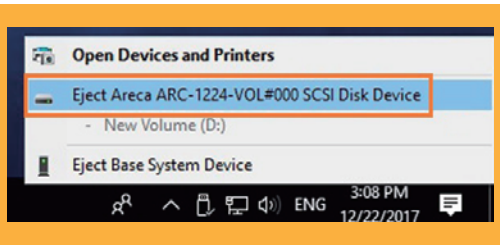
10. As formatting is completed, the RAID volume will be shown in This PC, and it is ready for use.





NOTE
To eject the RAID volume on Windows, click the Safely Remove Hardware icon at the bottom right of the screen, and select **Eject SCSI Disk Device**.

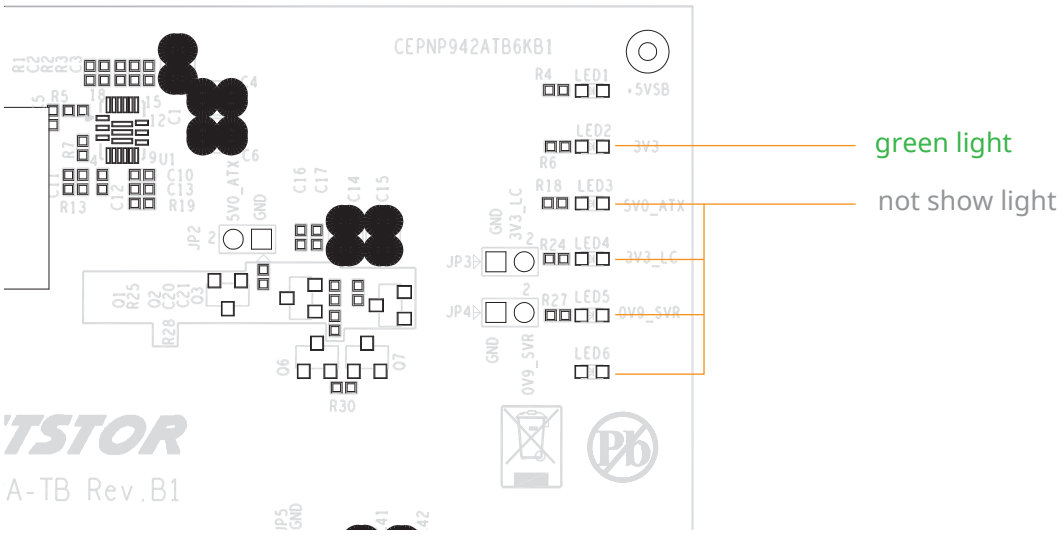
It is strongly recommended when under RAID initializing or rebuilding, the sleep mode be disabled temporarily for speeding up the process. While computer goes in sleep mode, the NS370TB3 will go into sleep as well for energy saving; when computer wakes up, the initializing or rebuilding will resume automatically. Hence, the process can be completed in a short time without sleep mode interruption.

6. Thunderbolt 3 Card LEDs Status

On the Thunderbolt 3 card within the NS370TB3 storage, there are totally five LEDs. From top to bottom, they are: LED 2 (for 3V3), LED 3 (for 5V0_ATX), LED 4 (for 3V3_LC), LED 5 (for 0V9_SVR), and LED 6 (for 0V9_USB). The following information describes what the LEDs lighting status will be before NS370TB3 is powered on and after the Netstor unit is powered on.

Power-off:

Before NS370TB3 is powered on, only LED 2 will show green light, and the rest LED 3 through LED 6 will not show light.



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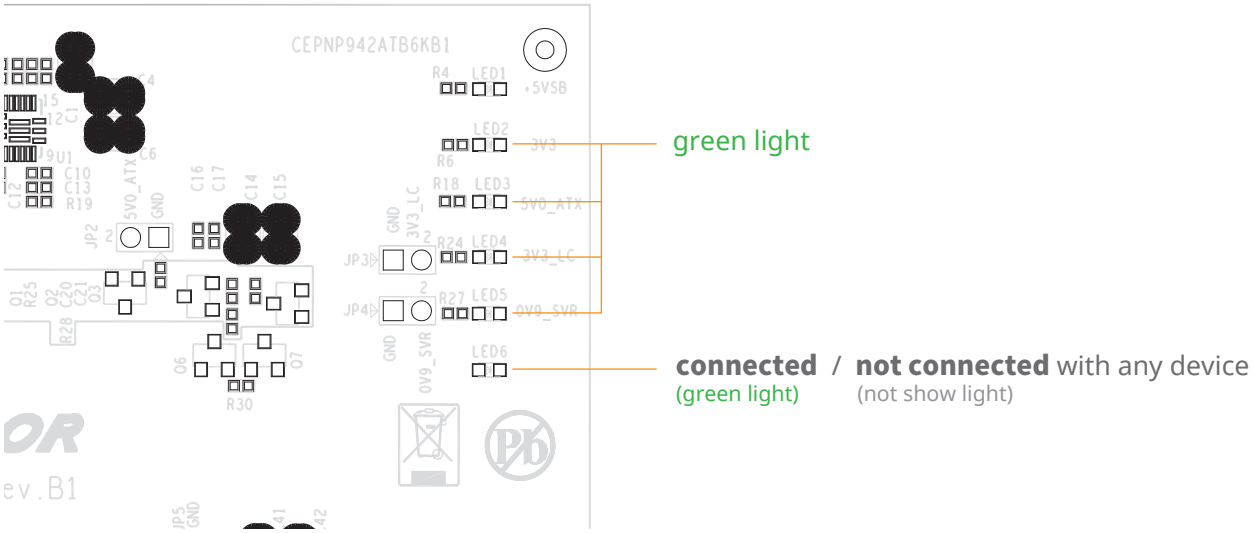
Power-on:

After NS370TB3 is powered on, LED 2 through LED 5 will show green light. At this time, if a USB device or a monitor is daisy chained to the second Thunderbolt 3 port on the Netstor Thunderbolt 3 card, then LED 6 will show green light. On the other hand, provided the second Thunderbolt 3 port is not connected with any device/monitor, LED 6 will not show light.



If you have any questions, please contact your regional distributor, or Netstor Technology, Taiwan.

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