NA611TB3

Thunderbolt™ 3 NVMe SSD Storage

User Manual

Third edition, Sep. 2020

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1. Unpack the NA611TB3

The box contains the following items:

- Netstor NA611TB3
- Thunderbolt 3 cable (0.5 m)
- Power adapter
- Power cord

1. Power Button

2. Power Status LED

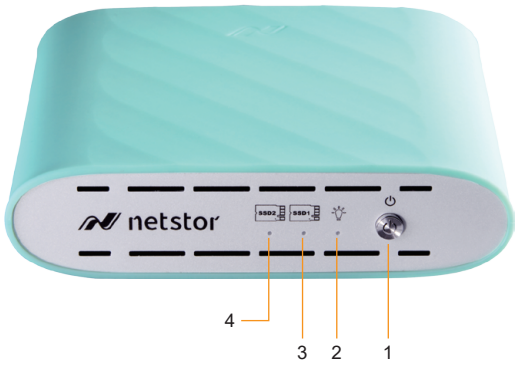
- Orange - Standby mode
  Blue - Power on

3. SSD 1 Status

- Flashing white - NVMe access

4. SSD 2 Status

- Flashing white - NVMe access

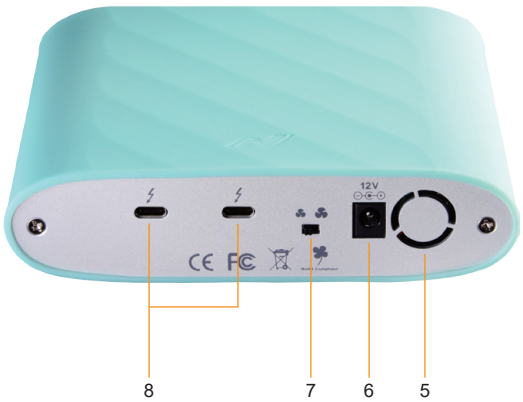


5. Cooling Fan

6. Power Receptacle

7. Fan Speed Adjustment

8. Thunderbolt 3 port



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2. Install M.2 NVMe SSD

※ If you intend to set a RAID 0 or RAID 1 volume over the two M.2 SSDs within storage, it's recommended the two M.2 SSDs are with the same capacity.

2.1 Configuration Options

There are four configuration choices for M.2 SSD in the unit; the available configurations are as below:

A Single volume (single M.2 NVMe SSD is installed as JBOD mode)

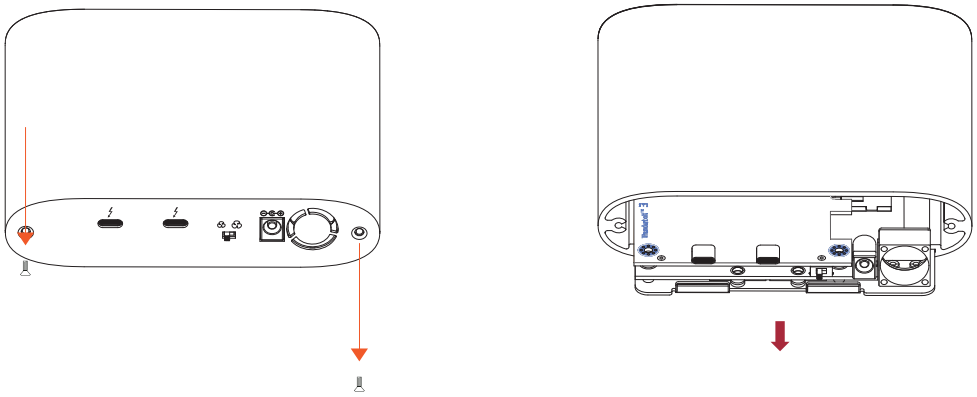
B Dual volumes (two M.2 NVMe SSDs are installed as JBOD mode)

C Single volume (two M.2 NVMe SSDs are installed configured as RAID 0 by O.S.)

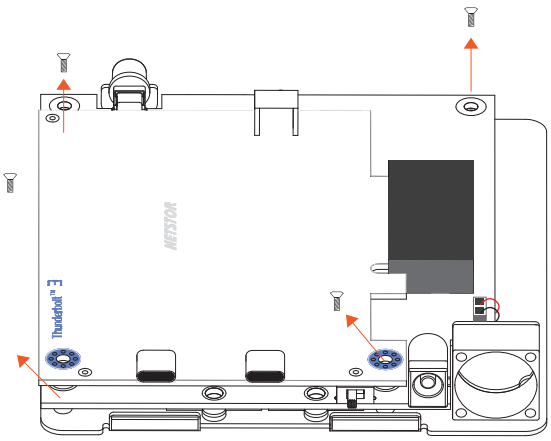
D Single volume (two M.2 NVMe SSDs are installed configured as RAID 1 by O.S.)

2.2 Pre-Steps for M.2 SSD Module Installation

1. Loosen the two screws at rear of storage. Detach the rear panel, and pull out the aluminum plate with backplane completely.



2. Loosen the four screws on the backplane plate.



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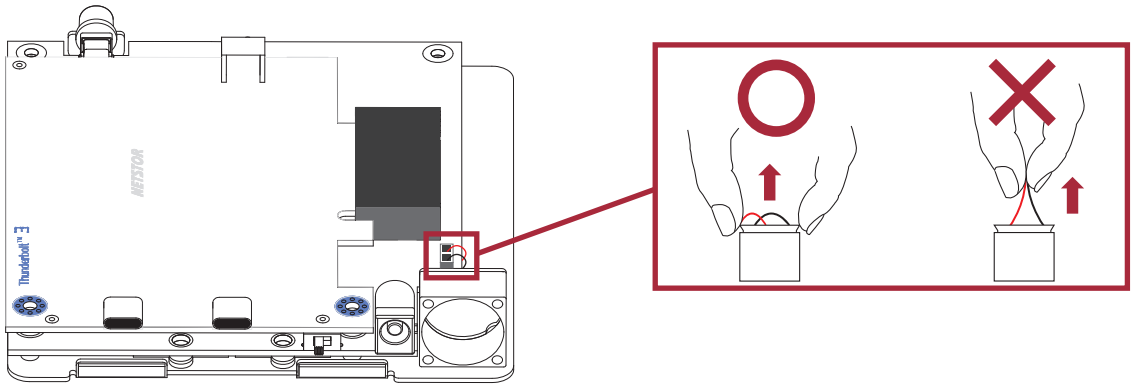
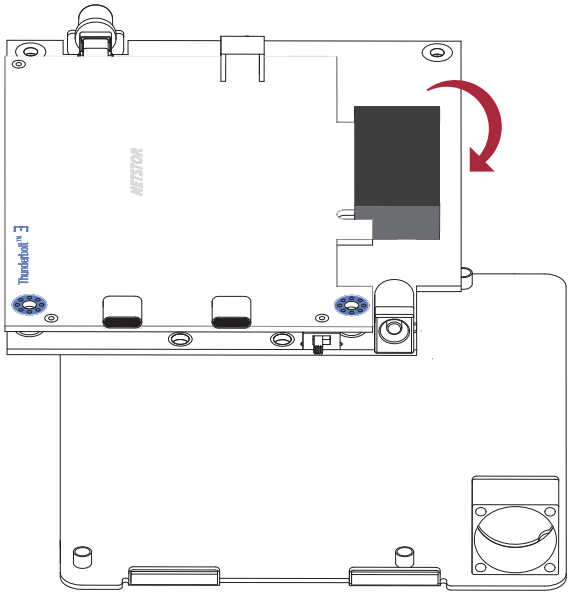
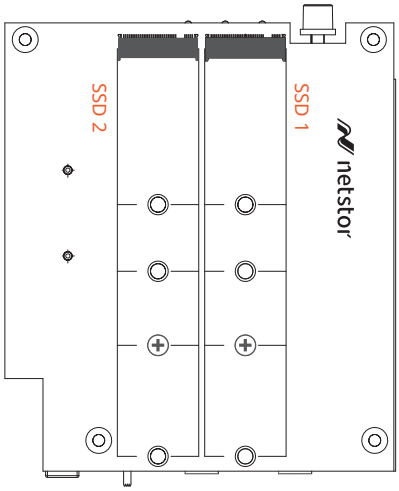
3. Unplug the 2-pin power cable of 2x2 cm fan from backplane.



※ (If your NVMe module doesn't need the active cooling, please stop the fan by disconnecting the fan connector.)

4. Detach the backplane from the aluminum plate. Overturn and put the backplane on a level surface on table.





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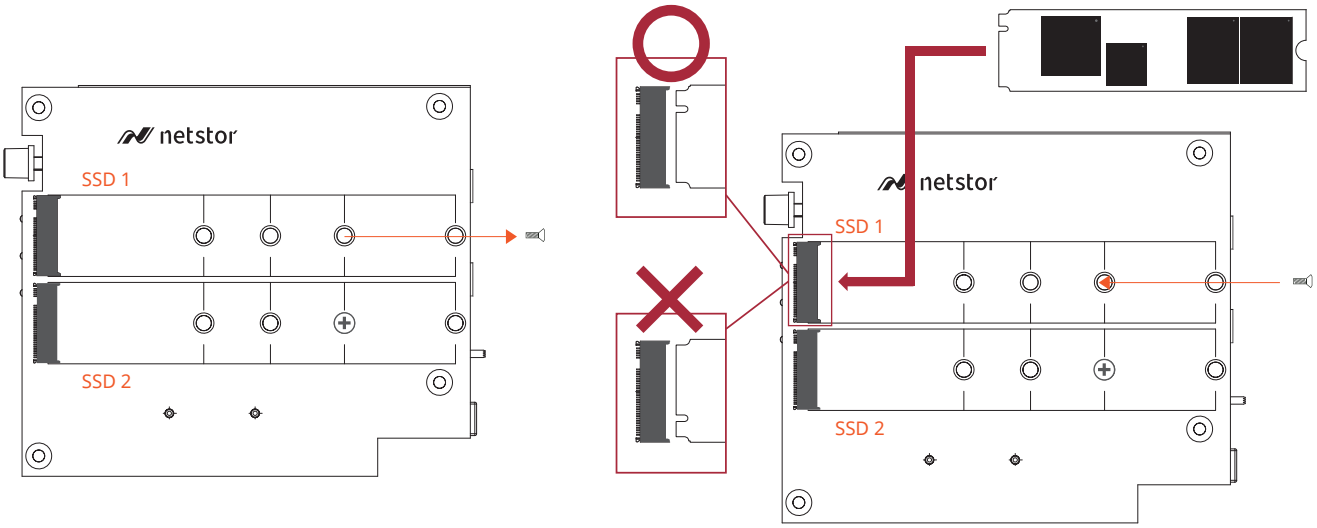
2.3 Install M.2 SSD Module

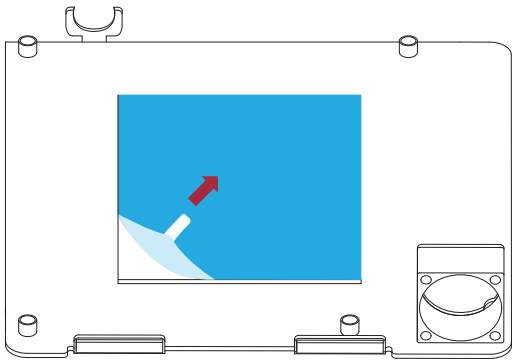
1. Loosen SSD1 location's screw. Insert M.2 NVMe SSD 2280 module into the M.2 socket. Tighten SSD1's screw.

※ The step is for M.2 SSD 2280 by default. If you plan to use M.2 SSD 22110 or other lengths of SSD, please refer to section 2.5 (**page 8.**) about installing M.2 SSD in different length.



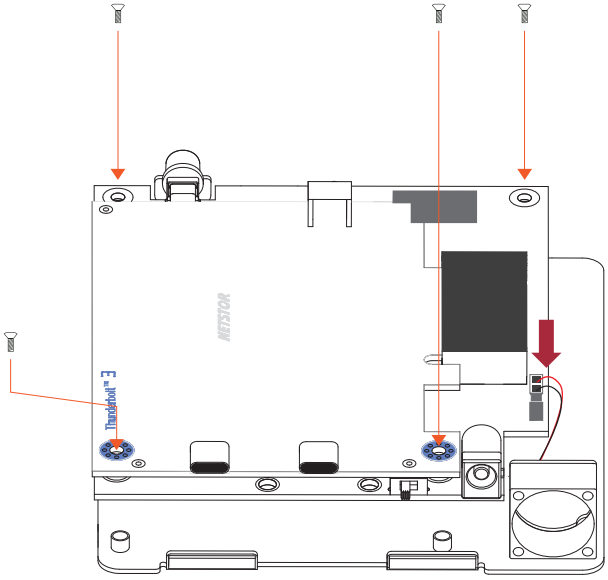
2. When installing second M.2 SSD module, repeat the above point 1 for installation.

3. A thermal pad is on the surface of the aluminum plate; peel off the blue cover on the thermal pad in favor of M.2 SSDs thermal conduction.

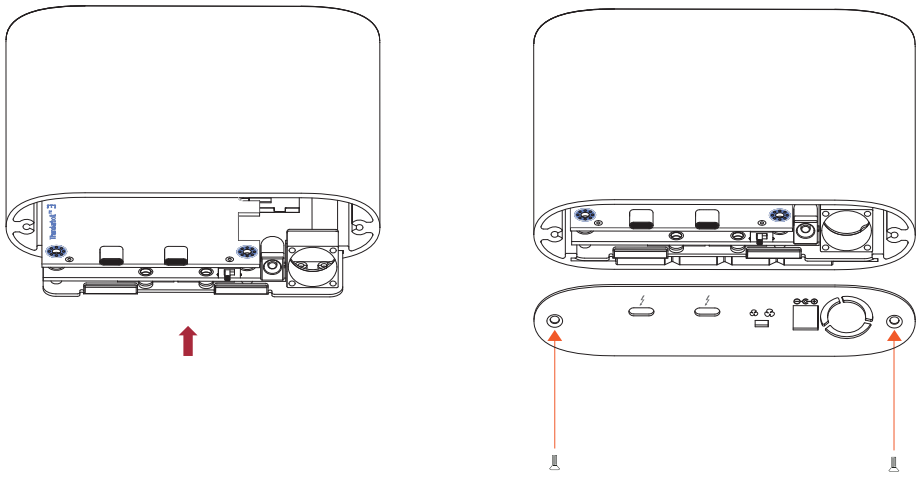


2.4 Restore NA611TB3 Storage Unit

1. Attach the backplane back to the aluminum plate, tighten the four screws, and plug the 2-pin power cable of 2x2 cm fan back to the backplane.



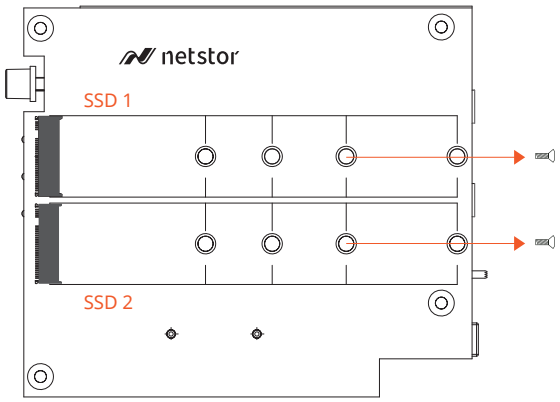
2. Insert the backplane plate back into storage. Recover the rear panel, and tighten the two screws at rear side.



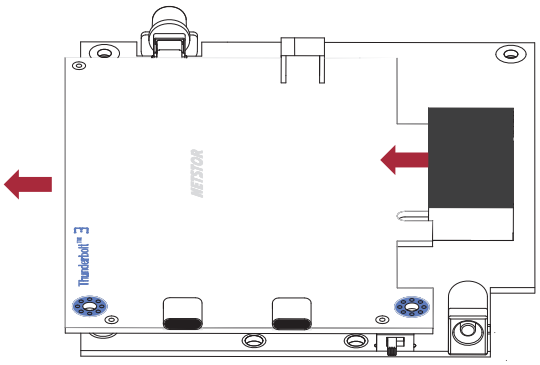
2.5 Additional Info on Installing M.2 SSD in Different Length

If you wish to use other length of M.2 NVMe SSD in storage, the circular mount on backplane needs to be shifted to other location to fit the length of SSD. The following is the instance for utilizing M.2 SSD 22110:

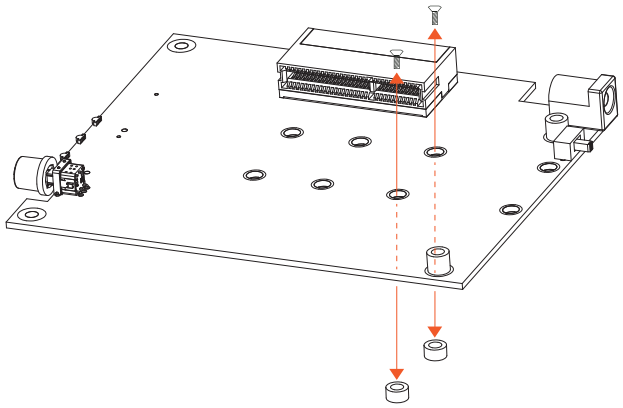
1. Loosen both SSD1 and SSD2 locations' screws.



2. Uninstall Netstor Thunderbolt 3 card from PCIe x4 slot.

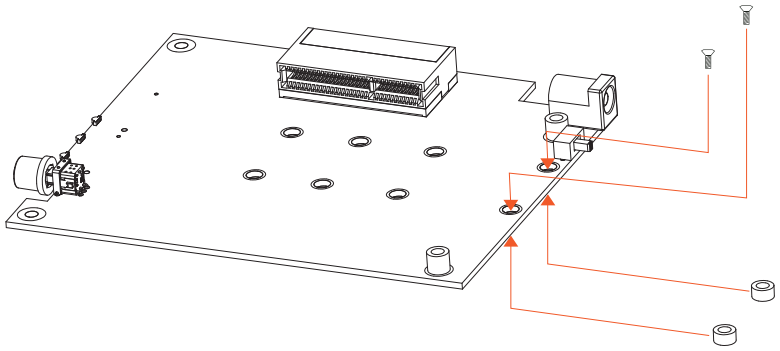


3. Loosen the two screws that are tighten with the circular mounts.



4. Move the circular mounts from default 2280 to location 22110.

5. Tighten the two screws back to have the screws fastened to the circular mounts.



Go back to 2.3 (**page 6.**)

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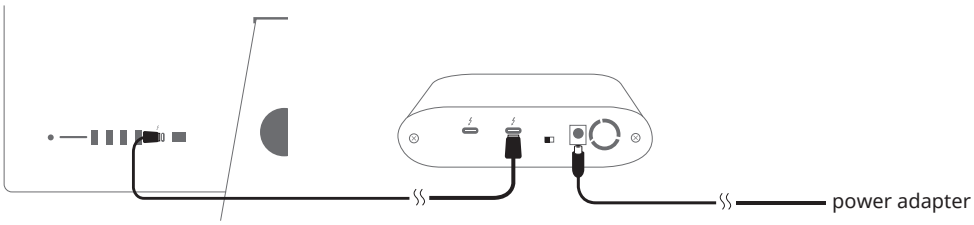
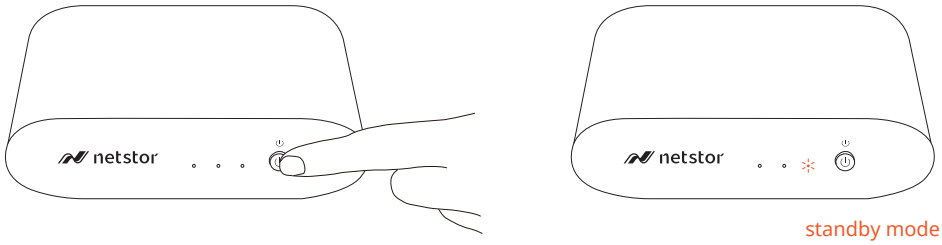
3. Operation

3.1 macOS High Sierra 10.13 or later

1. Connect the Thunderbolt 3 NVMe SSD storage with power source through the included power adapter and power cord. And then connect storage and Mac computer via Thunderbolt 3 cable.



2. Press the front power button to switch on the storage. Power LED turns orange indicating standby mode.



standby mode

When at standby mode, the Thunderbolt 3 port can provide 15W @ 5V / 3A power charging.

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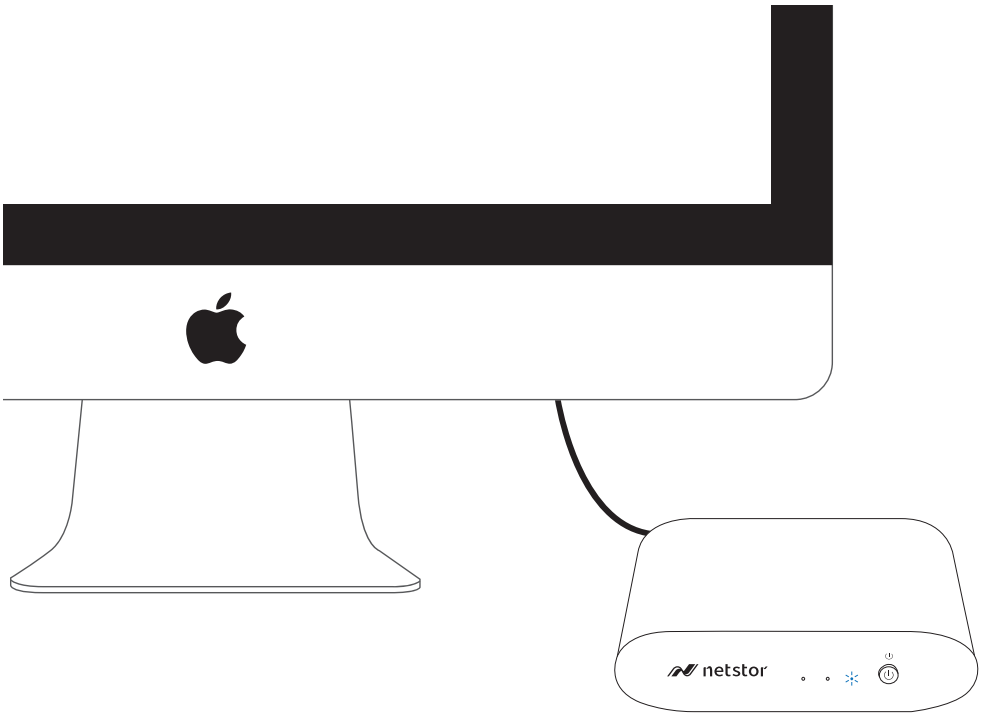
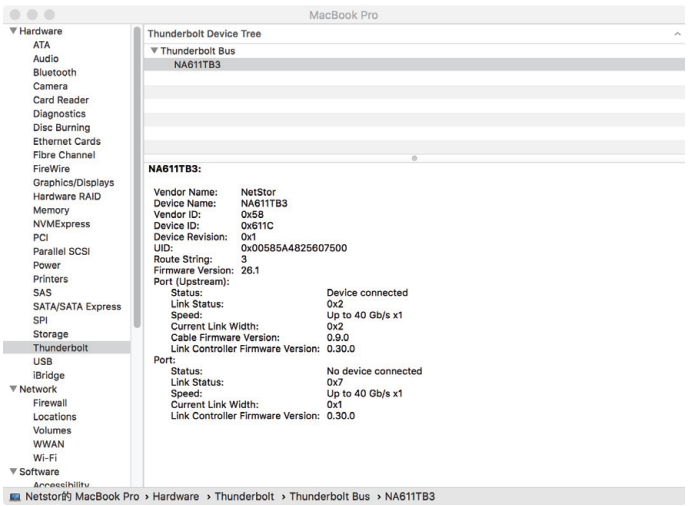
3. Power on Mac computer and NA611TB3 powers on automatically. Power LED turns blue meaning storage is at the powered on status.



powered mode

4. When at macOS's desktop, click Apple icon at the top menu bar. Select **About This Mac**, and click **System Report**. Click **Thunderbolt** in the left column. As NA611TB3 appears within the information section, the Thunderbolt 3 storage is recognized by Mac computer.



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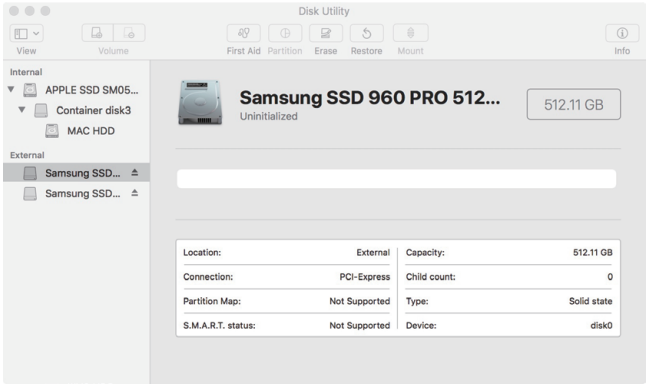
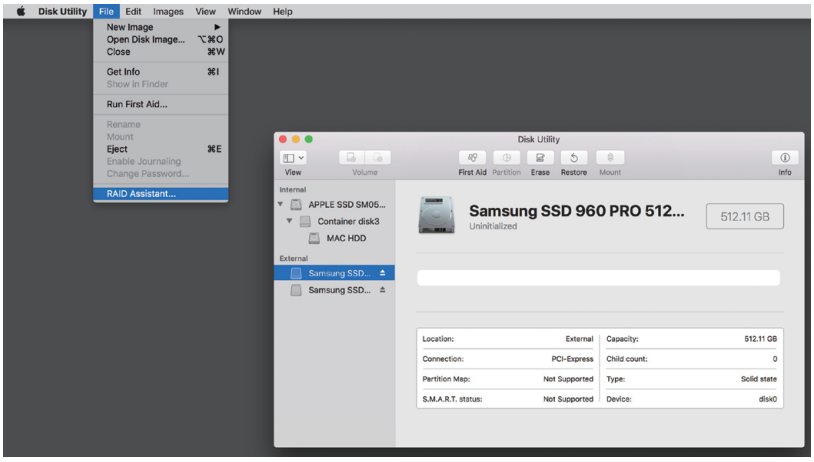
3.1.1 Procedure for setting up a RAID 0 volume

※ RAID 0 has no backup feature; it is without fault tolerance.

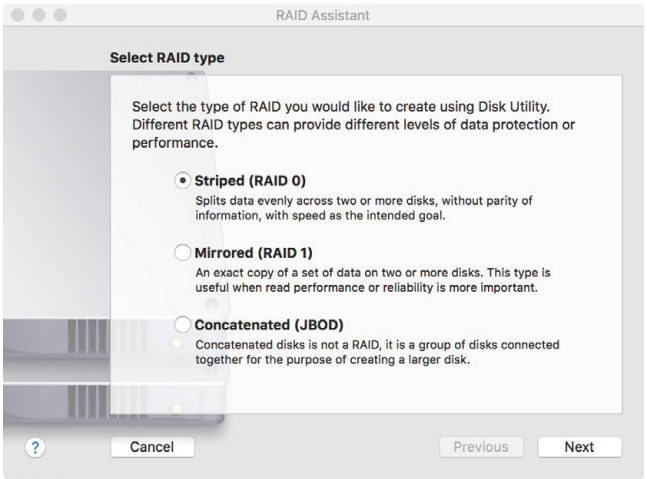
1. Go to macOS's Disk Utility. The two M.2 SSDs in NA611TB3 will appear in the left-hand column.



2. Click **File** at the top menu bar, and select **RAID Assistant**.



3. Select **Striped (RAID 0)**, and click Next.



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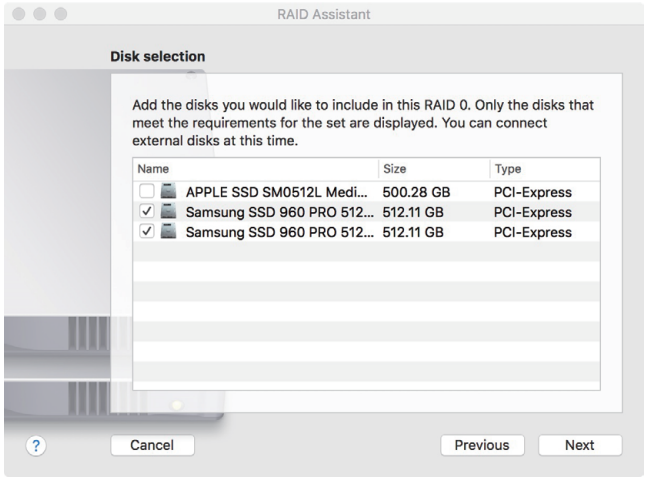
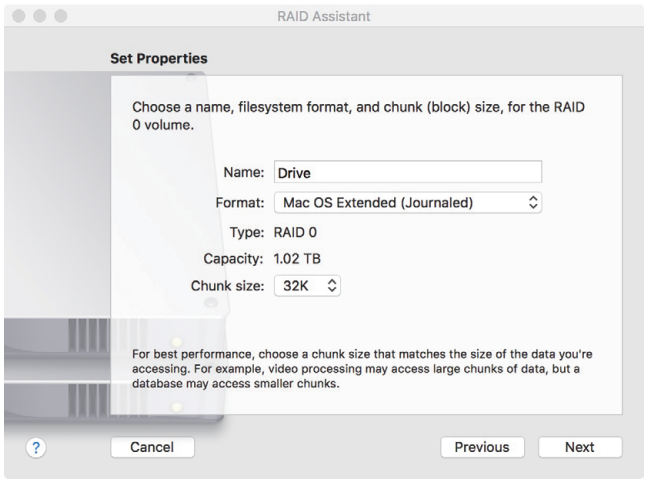
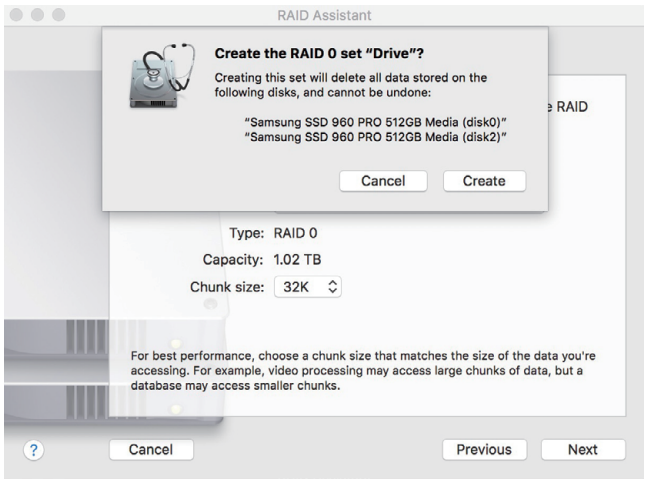
4. Put the checks to the two M.2 SSDs, and click **Next**.



5. Confirm the Properties, and click **Next**.



6. The confirmation pane for creating RAID 0 volume will pop up; click **Create** to proceed.



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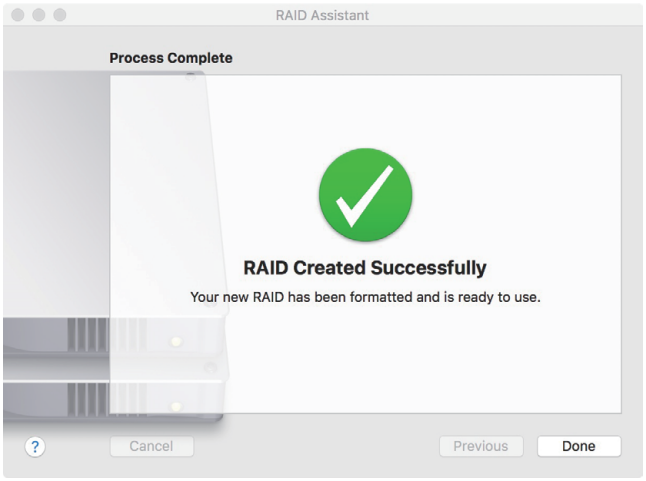
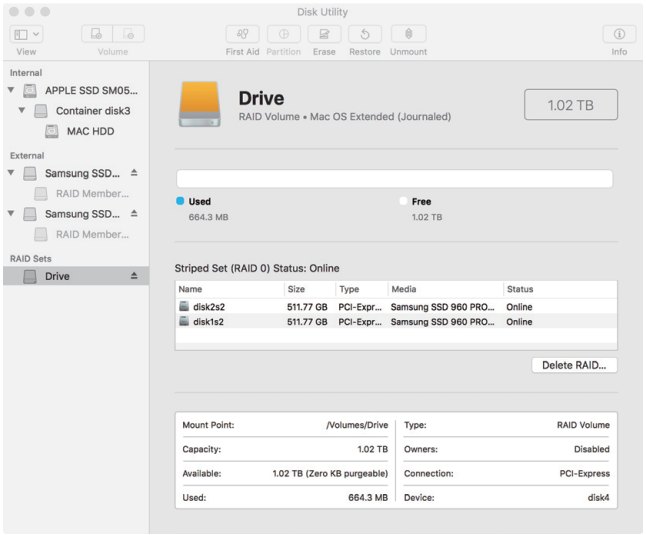
7. When the process is complete, click **Done** to finish.



8. You will see RAID 0 volume is created successfully, and the RAID 0 volume is ready for use.



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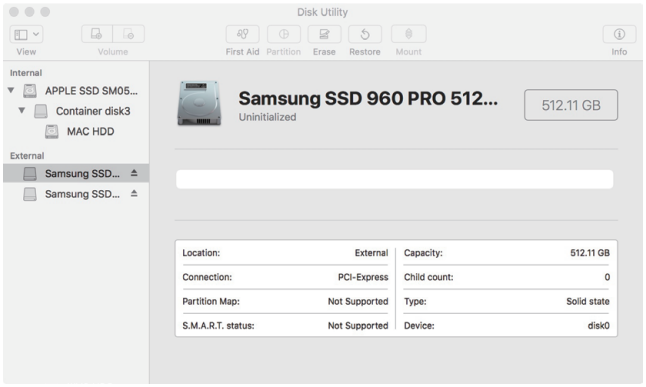
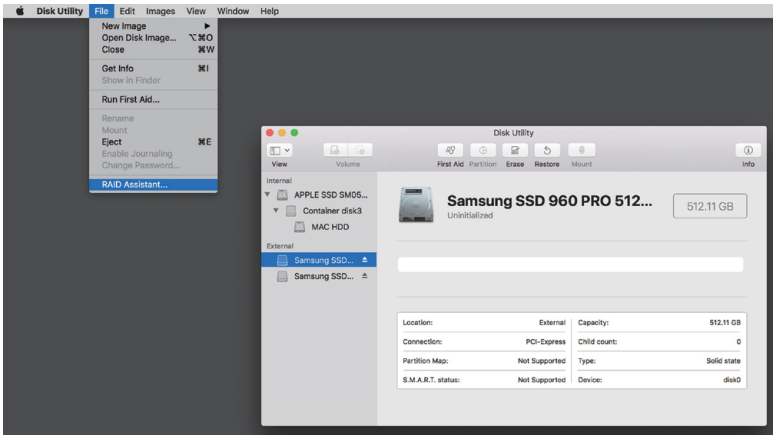
3.1.2 Procedure for setting up a RAID 1 volume

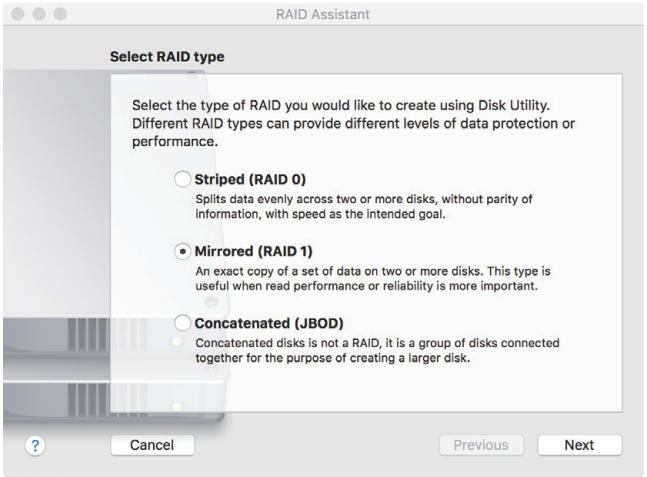
1. Go to macOS's Disk Utility. The two M.2 SSDs in NA611TB3 will appear in the left-hand column.



2. Click **File** at the top menu bar, and select **RAID Assistant**.



3. Select **Mirrored (RAID 1)**, and click **Next**.



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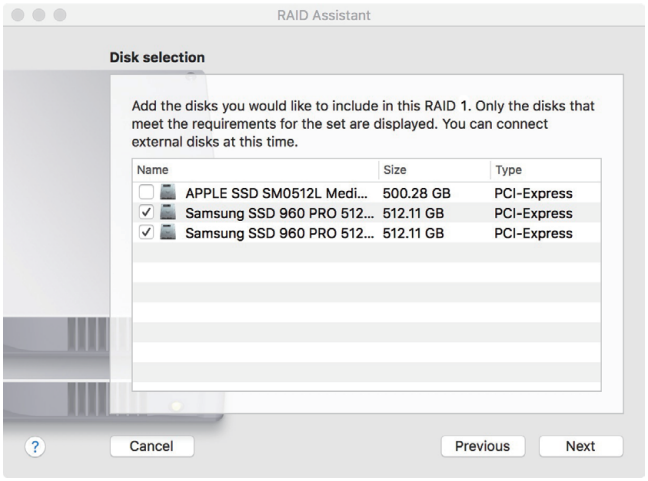
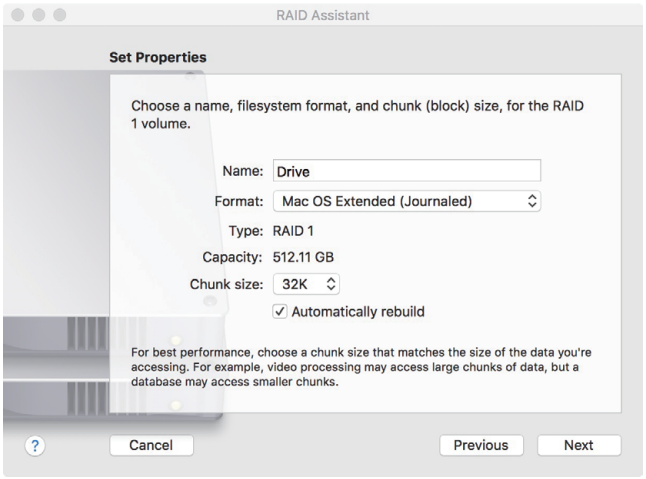
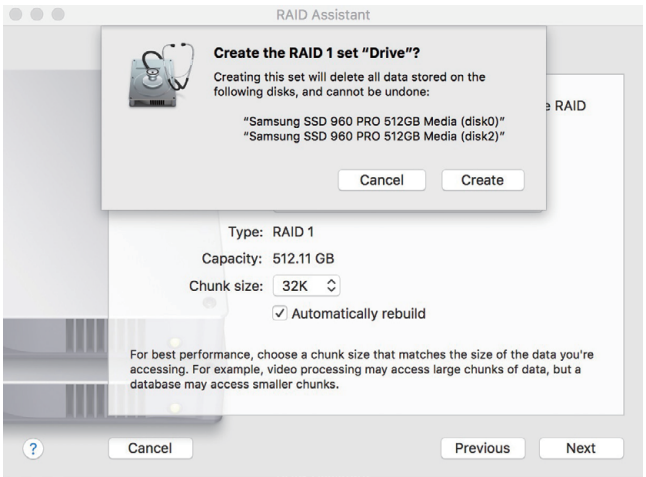
4. Put the checks to the two M.2 SSDs, and click **Next**.



5. Confirm the Properties, and click **Next**.



6. The confirmation pane for creating RAID 1 volume will pop up; click **Create** to proceed.



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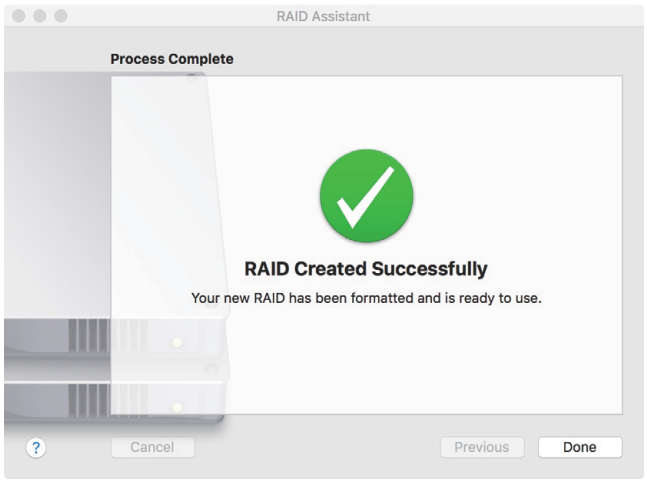
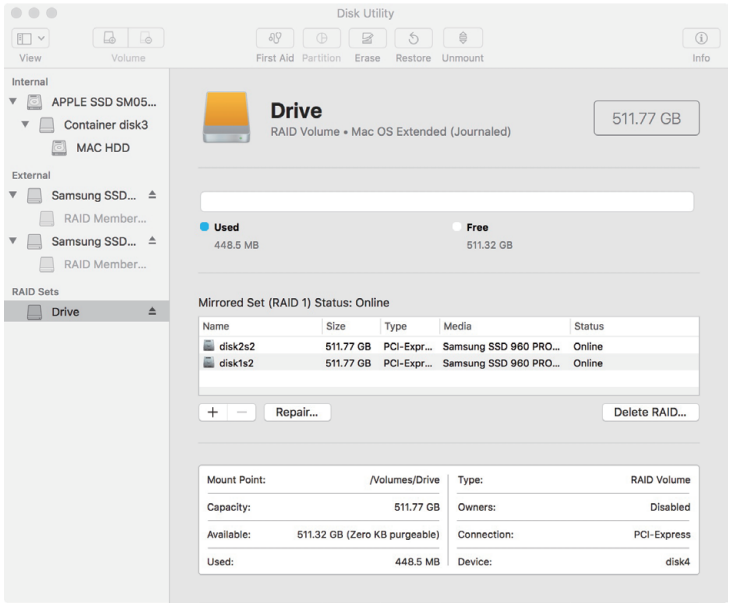
7. When the process is complete, click Done to finish.



8. You will see RAID 1 volume is created successfully, and the RAID 1 volume is ready for use.



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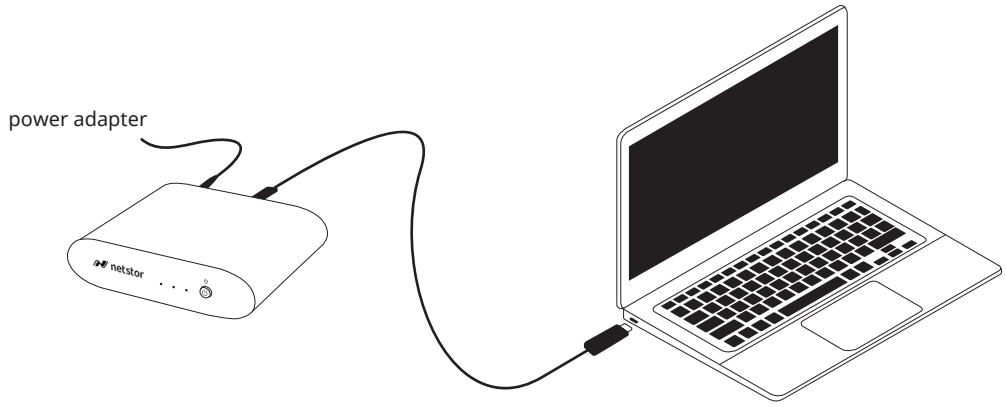
3.2 Thunderbolt 3 Windows PC/laptop (Windows 10 / 8.1)

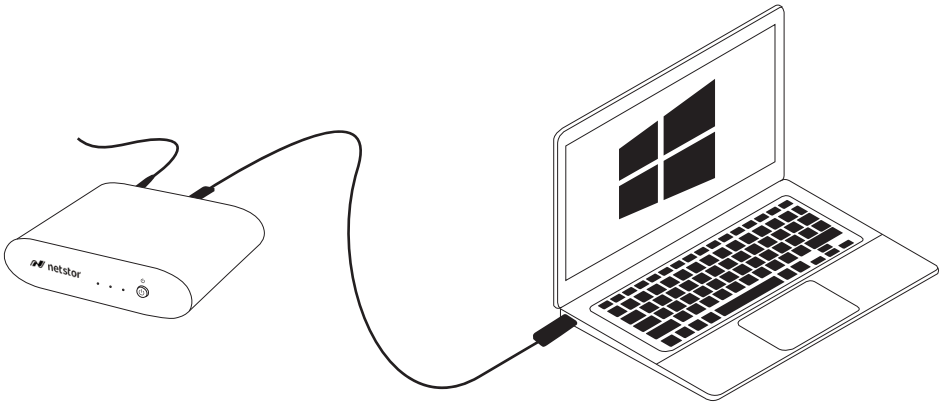
1. Connect the Thunderbolt 3 NVMe SSD storage with power source through the included power adapter and power cord, and then connect storage and Windows PC/laptop via Thunderbolt 3 cable.



2. Press the front power button to switch on the storage. Power LED turns orange indicating standby mode.

When at standby mode, the Thunderbolt 3 port can provide 15W @ 5V / 3A power charging.

3. Power on computer and NA611TB3 powers on automatically. Power LED turns blue meaning storage is at the powered on status.



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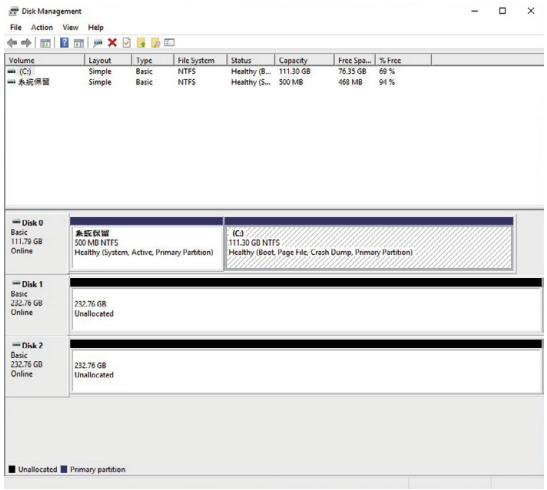
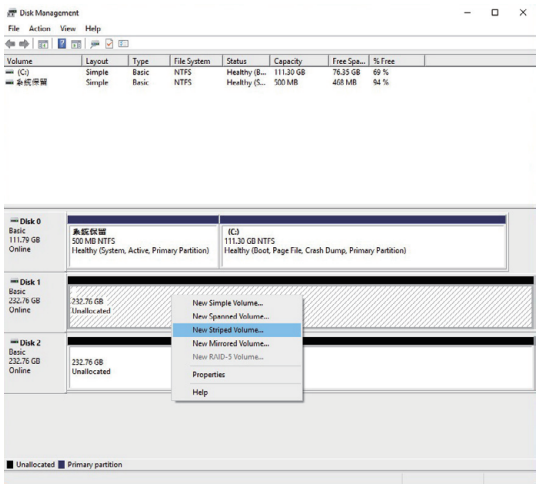
3.2.1 Procedure for setting up a RAID 0 volume

※ RAID 0 has no backup feature; it is without fault tolerance.

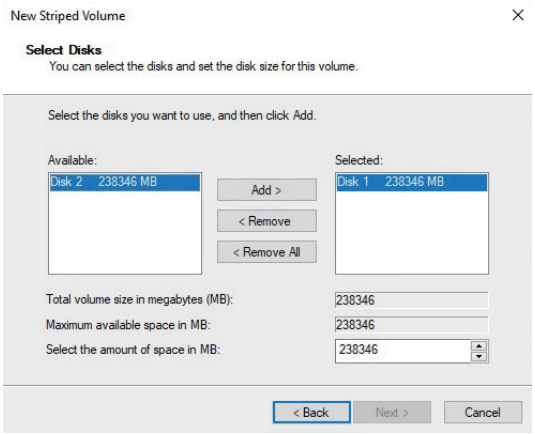
1. Go to Windows' Disk Management: the two M.2 SSDs in storage will appear in information section.



2. Right click first M.2 SSD, and select **New Striped Volume**.



3. Select second M.2 SSD [Disk 2] in the Available section.



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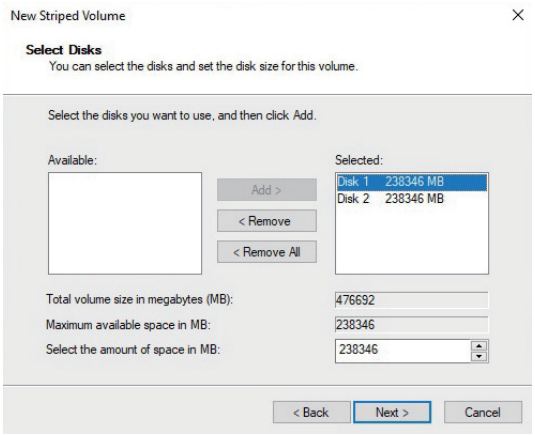
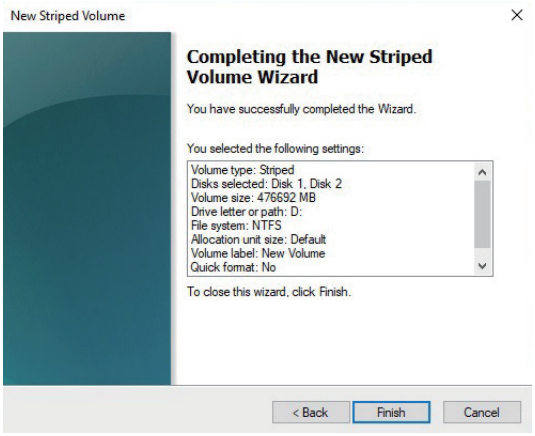
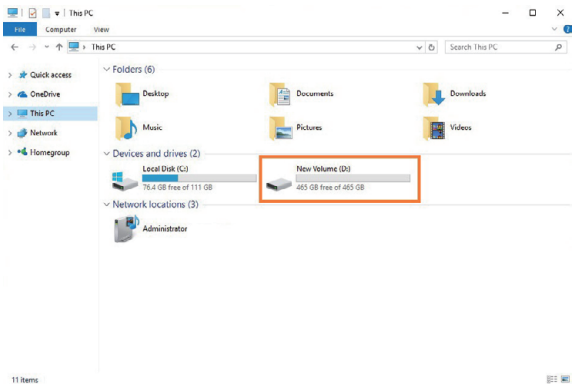
4. Click **Add** button to add Disk 2 to the Selected section, and then click **Next** to proceed.



5. Click **Finish** button to complete setting up RAID 0 volume.



6. The RAID 0 volume of NA611TB3 will appear at This PC, and it's ready for use.



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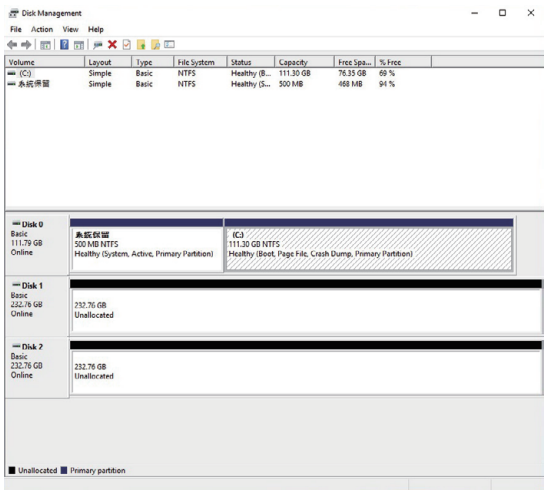
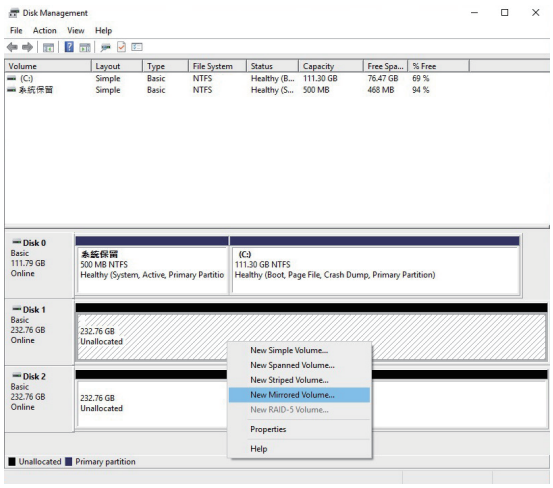
3.2.2 Procedure for setting up a RAID 1 volume

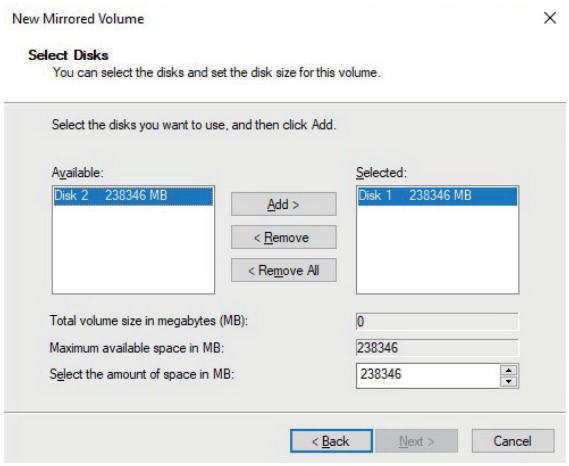
1. Go to Windows' Disk Management: the two M.2 SSDs in storage will appear in information section.



2. Right click first M.2 SSD, and select **New Mirrored Volume**.



3. Select second M.2 SSD [Disk 2] in the Available section.



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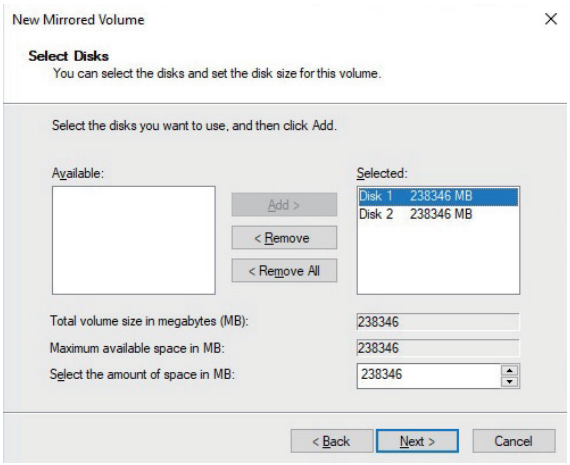
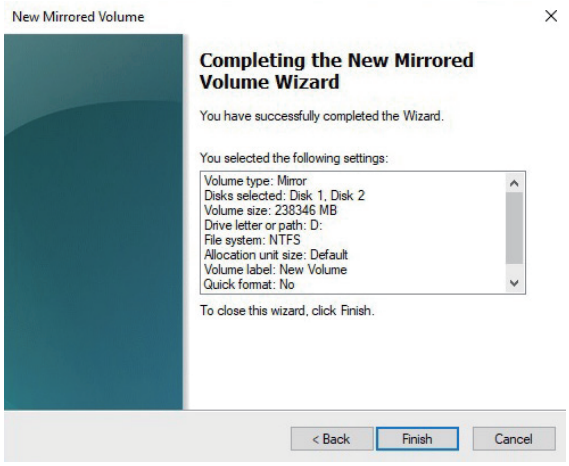
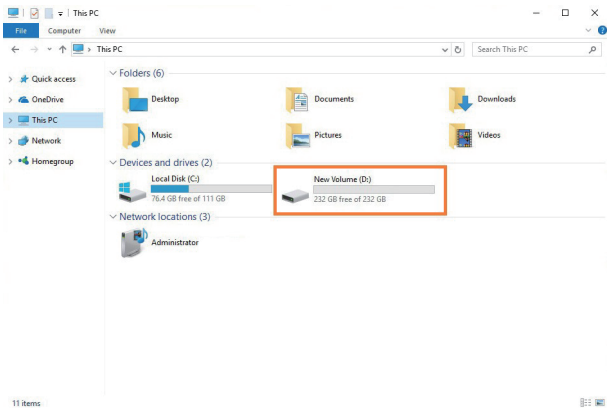
4. Click **Add** button to add Disk 2 to the Selected section, and then click **Next** to proceed.



5. Click **Finish** button to complete setting up RAID 1 volume.



6. The RAID 1 volume of NA611TB3 will appear at This PC, and it's ready for use.



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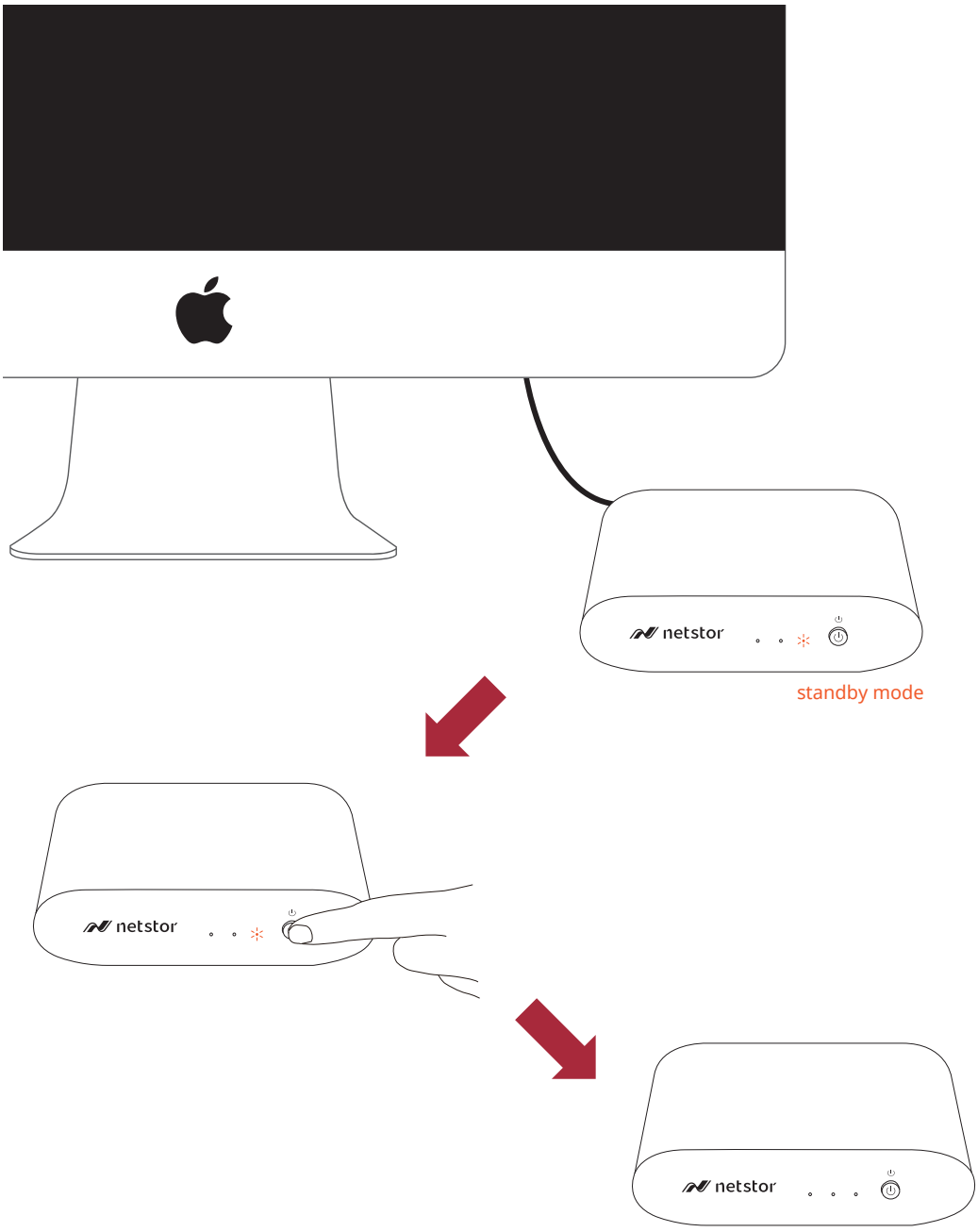
4. Power off the System

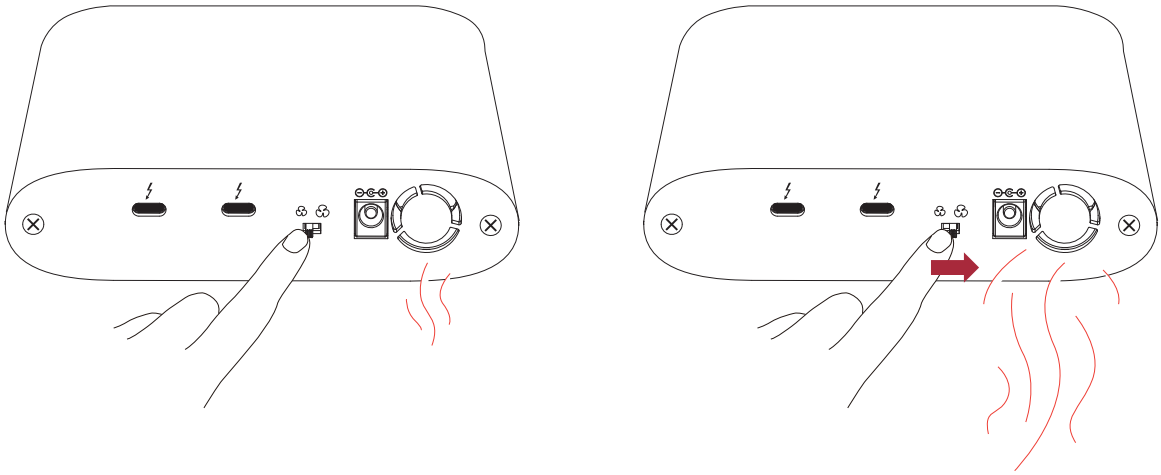
To power off the system, shut down the computer, as the computer is powered off, the NA611TB3 will power off automatically; at this time, the unit's power LED will turn orange to indicate the storage is at the standby mode (the Thunderbolt 3 port's 15W power charging is still working and effective during standby status). To completely power off NA611TB3, press the front power button to turn off the unit.



Turn off

5. Fan Speed Adjustment

Providing heavy workloads are continuously run with M.2 SSD's controller, which will generate more heat than average within the storage, then you can increase the fan speed manually to provide more cooling. (The default fan speed is set at the slowest speed)



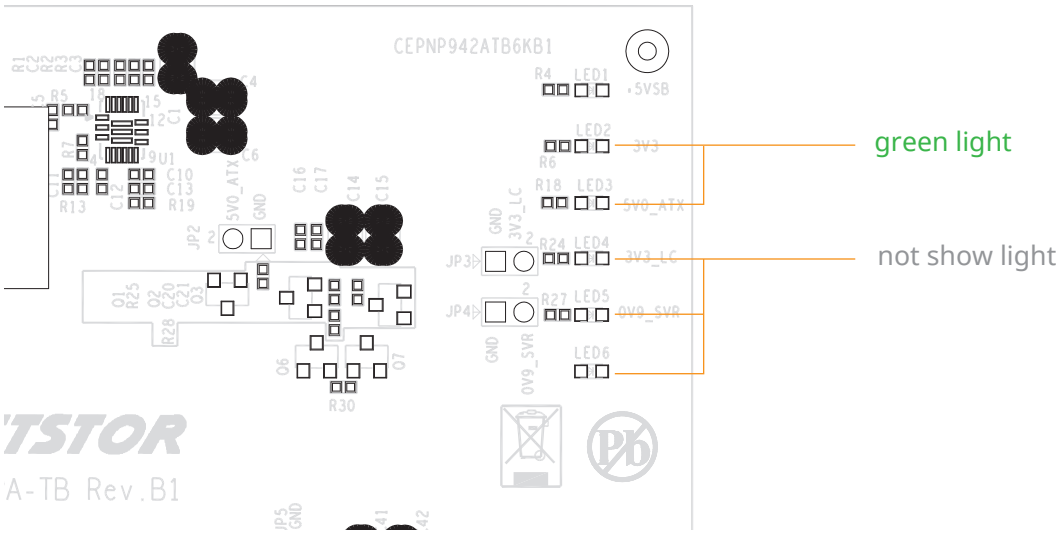
Fan Level	* Default	
Noise	≈ 14dB @ 6800 RPM	≈ 18dB @ 7800 RPM

6. Thunderbolt 3 Board LEDs Status

On the Thunderbolt 3 board within the NA611TB3 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 info describes what the LEDs lighting status will be when NA611TB3 is at the standby mode and when the Netstor unit is at the powered on mode.

Standby mode:

When NA611TB3 is at the standby mode, only LED 2 and LED 3 will show green light, and the rest LED 4, LED 5, and LED 6 will not show light.



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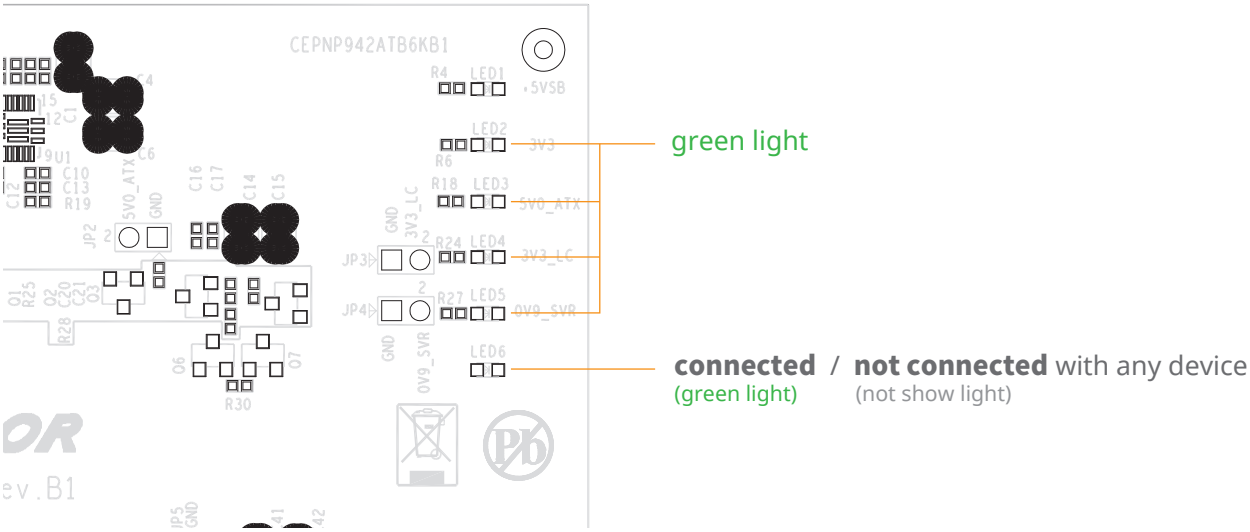
Power-on mode:

As NA611TB3 is at the powered on mode, 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 board, 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 further questions, please contact your regional distributor, or Netstor Technology, Taiwan.

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