



Docking
SA2TB3
User Manual

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The Introduction

Thanks for purchasing Stardom product. This User Manual will introduce you the SA2TB3 Thunderbolt™ storage product. Before using your SA2TB3, please read it thoroughly. Although all information contented in this User manual had already been carefully verified before publishing, however, the actual product and its specification will be based upon the time of delivery from Stardom. Any update to the product or its relevant information may be listed on www.stardom.com.tw. Product is subjected to change without prior notifications.

If you have any question regarding to the product you purchased, or you would like to know the latest product information, User Manual's update, please contact to your local supplier or visit to www.stardom.com.tw for further information.

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1. Operating Information

Operating Temperature: 5 ~ 35 °C (41 ~ 95 °F)

Storage Temperature : -20 ~ 47°C (-4 ~ 116 °F)

5% to 95% noncondensing

Line Voltage : 100 ~ 240V AC

2. Package Contents and Product Views

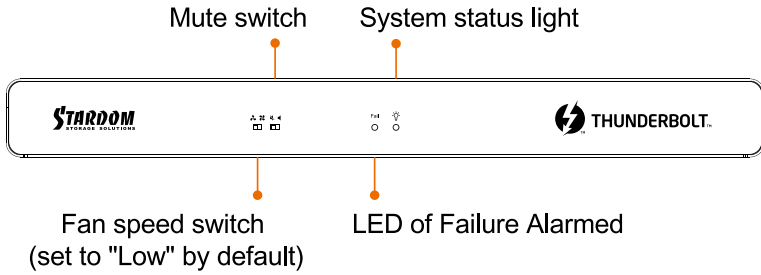
Open the package and you shall find the following parts :

SA2TB3 Product Unit x1
Thunderbolt™ Cable x1
Power Cord x1
Quick Installation Guide x1

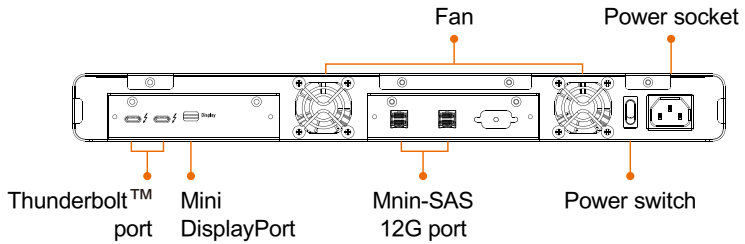
- Please check the product and accessories for any defect or missing parts. If you have any questions, please contact your product supplier.
- Please visit the official website (www.stardom.com.tw) to download drivers and other related resources.

Front and Rear Views

Front View

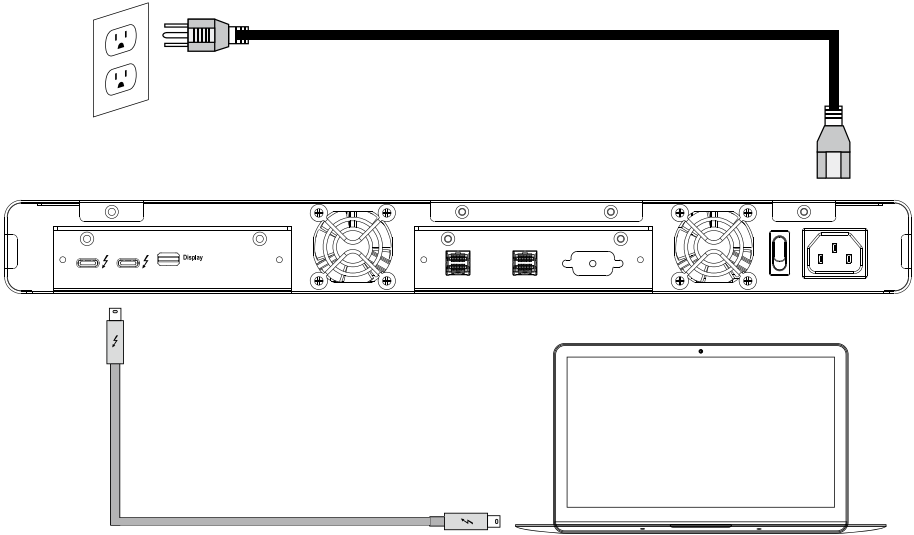


Rear View

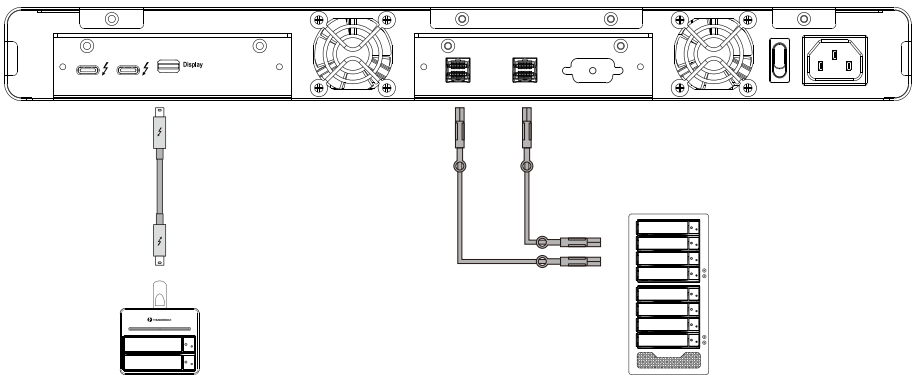


3. The System Connections

SA2TB3 connects to Host (PC/Workstation/Server)



SA2TB3 connects to other Devices (TB, SAS)



Thunderbolt™ daisy chain
up to 6 Thunderbolt devices

SAS 12G External Storage Enclosure
EX: STARDOM ST4-U6/ST8-U6

4. Hardware Requirements and Precautions

1. Only one interface connection may be used at once per computer system.
2. Whenever turning off or unplugging your SA2TB3 from your computer system, please always remember to safely remove it from your operating system first.
3. While the In-chassis temperature reaches up to 55 degree-C (131 degree-F), in order to get rid of the heat efficiently, your SA2TB3 will turn fan parts to full speed automatically.
And once the In-chassis temperature drops down to 50 degree-C (122 degree-F), you could then set fan speed at Fan Speed Switch manually to reduce its fan noise for a better green environment at both of a lower fan noise and the power saving.
4. If the computer is unable to detect the system, please install the drivers from official website (www.STARDOM.com.tw)

5. System Fan Failure Management

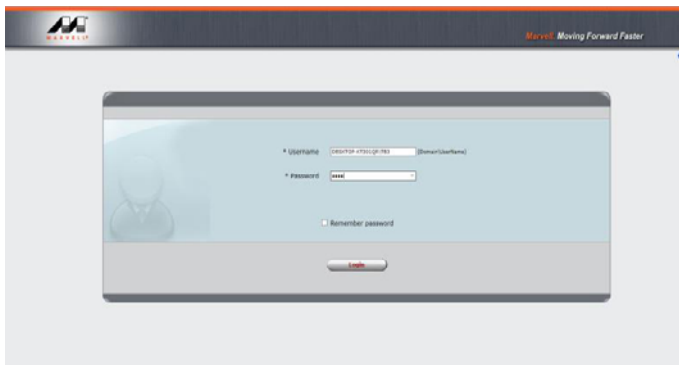
If the alarm indicator has lit up red and the audio alarm sounds, this could mean that either a system fan has stopped operating entirely. When this occurs, you may press the mute button at the rear of the system to shut off the audio alarm and power off the system immediately if in the allowed operational state to let the system cool. Check and see if the overall operation environment is well ventilated and make sure there are no blockages to the enclosed fan and then re-power on the system to continue use. If the problem persists, please turn off the system and contact your supplier or the STARDOM tech support for further assistance.

6. The MSU, and easy RAID configurator

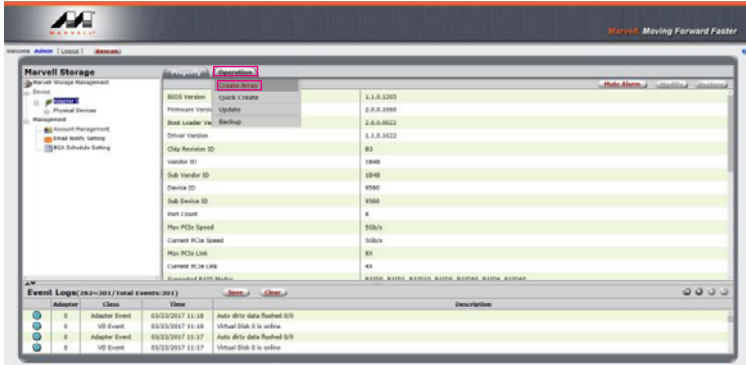
Thru connecting your miniSAS device to SA2TB3, you could use this MSU (Marvell Storage Utility) to configure a RAID mode.

A. Set up RAID Mode:

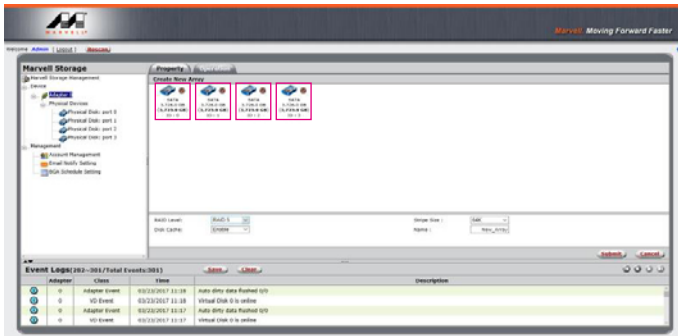
1. Use your Windows username and password to log into the MSU. If you have a username but no password, then leave the password field blank.



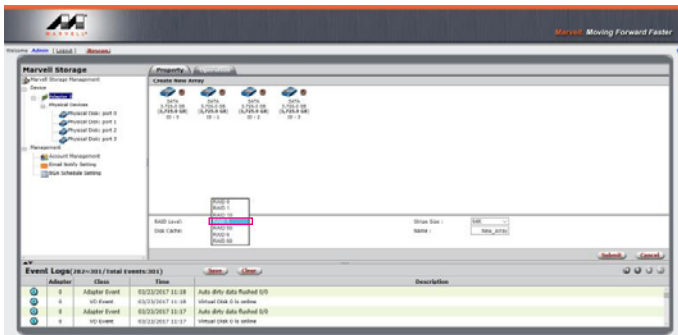
2. Click **【Operation】** and **【Create Array】** .



3. Click at the selected HDDs.

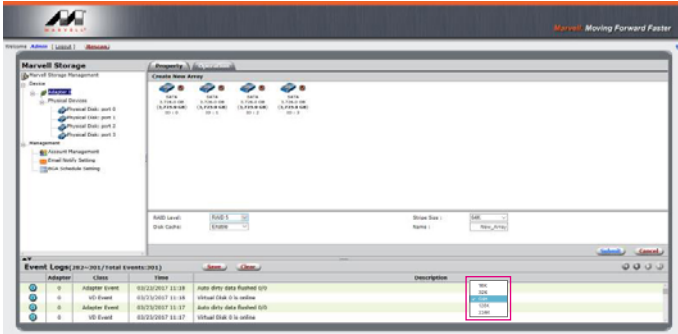


4. Select **【RAID 5】** (or other RAID) .

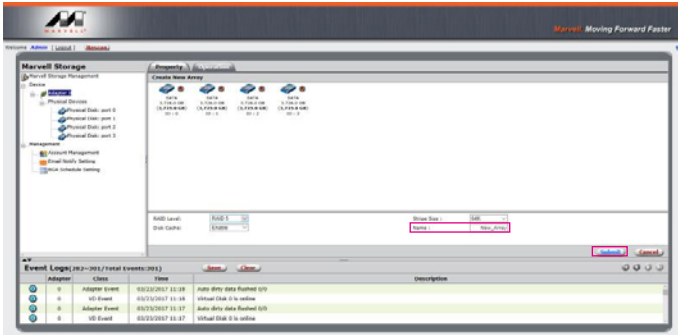


- The more Stripe Sizes helps a better data transfer for large data files which is good for video and audio editing works.
- The less Stripe Sizes helps a better efficiency at random files which is good for daily word processing, frequent read-&-write works.

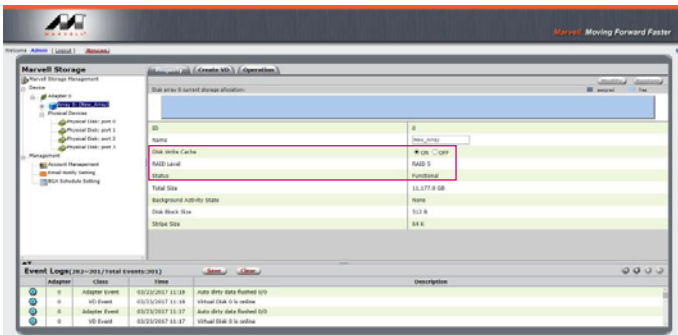
5. Setup Stripe Size.



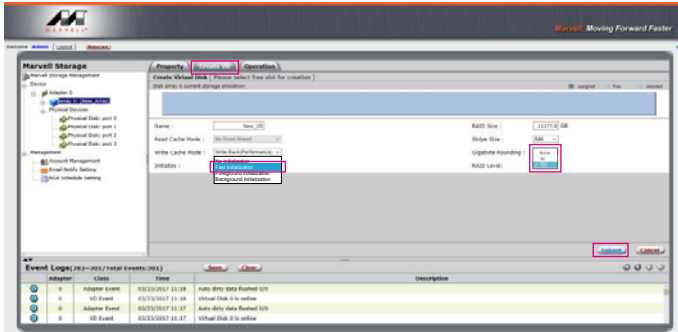
6. Type Storage Name and Submit RAID setting.



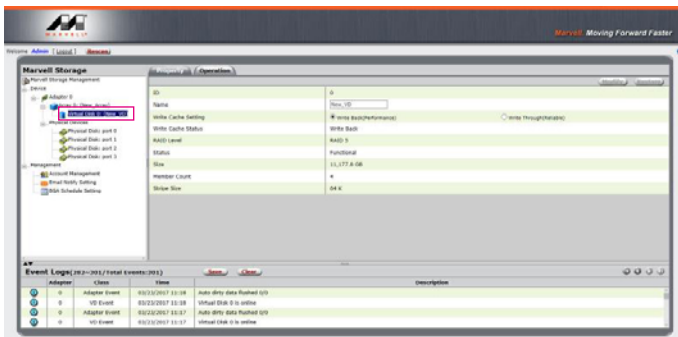
7. After submitting RAID setting:



8. Click **【Create VD】**, **【Initialize】** option is set to **【Fast Initialization】**; **【Gigabyte Rounding】** options set to **【10G】**, then click **【Submit】**.

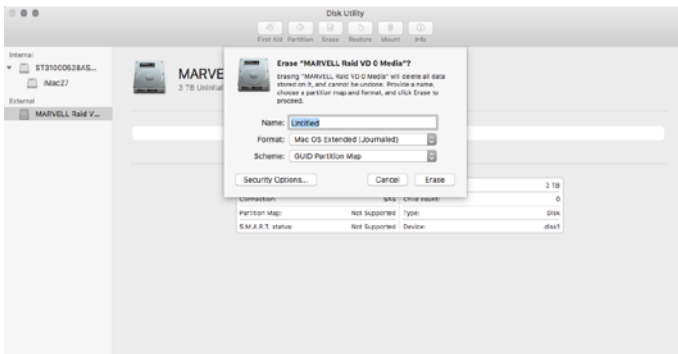


9. After submit, you get a New_VD.

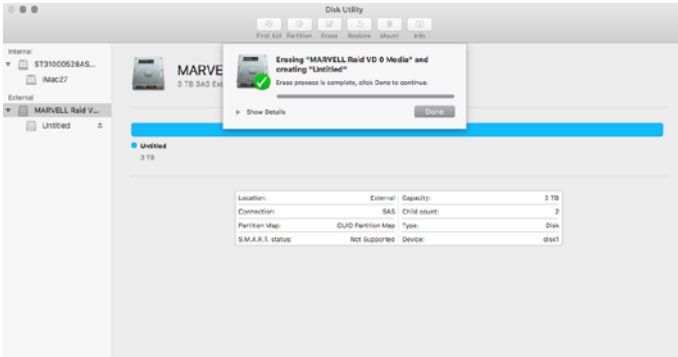


P.S. VD is the abbreviation of Virture Disk.

10. To initiate and format HDD/SSD at OS level.

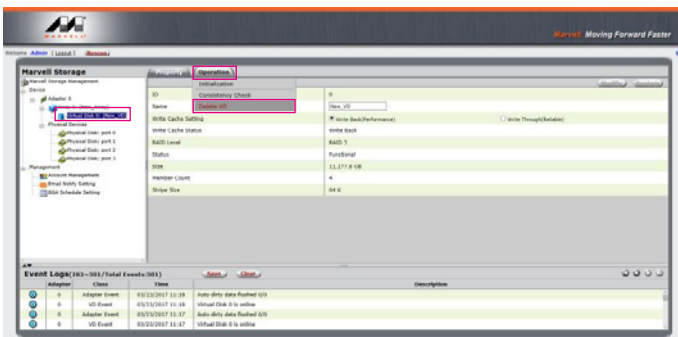


11. After completing the format, you could start using your SA2TB3.

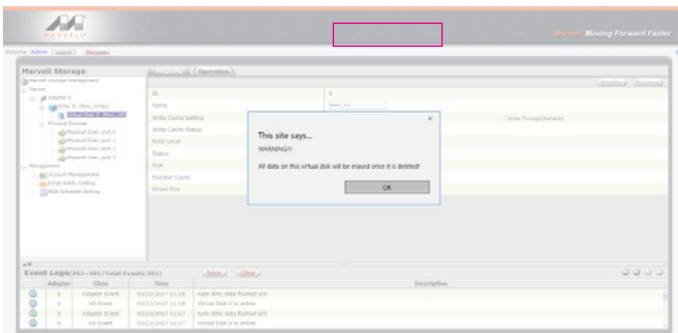


B. Delete a RAID for a new RAID setting

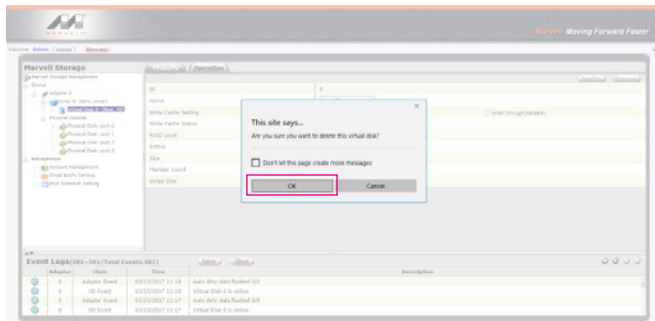
1. Click **【Operation】** and **【Delete VD】** .



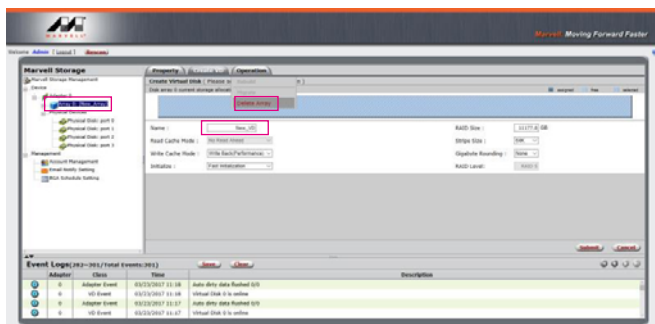
2. Click **【OK】** at first warning message.



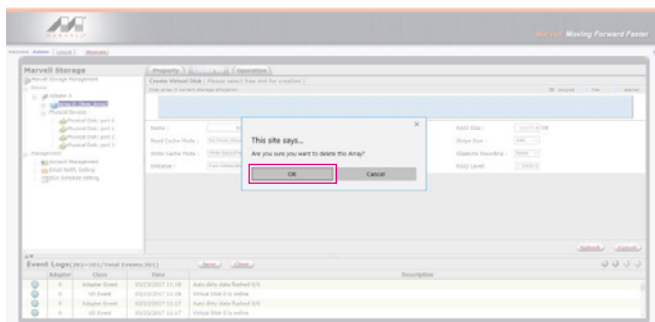
3. Click **【OK】** at the second warning message.



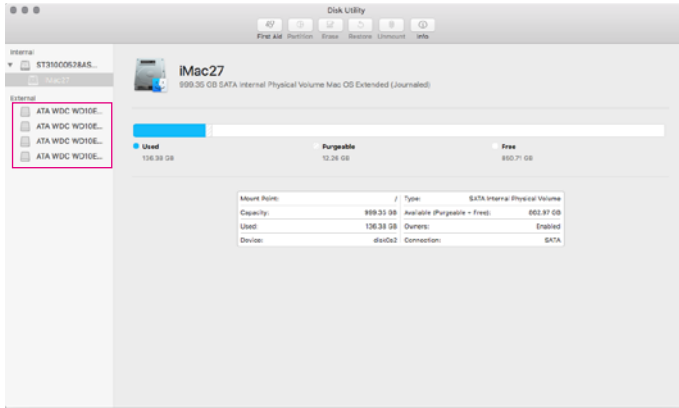
4. Click **【Operation】**, **【Delete Array】** and **【Submit】**.



5. Click **【OK】** at warning message.



- It returns to JBOD mode, you just have to format every individual HDD or just to set up another RAID.



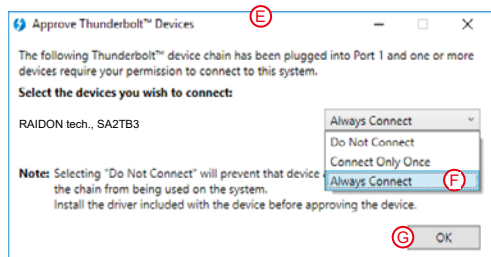
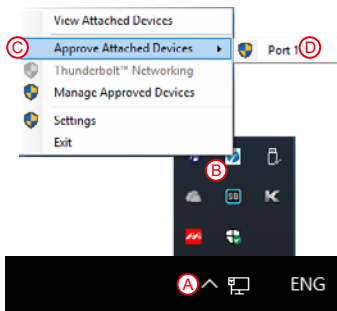
Please refer to "STARDOM All TB2&TB3 RAID 5 Storage MSU User Manual.pdf" for the RAID setting.

7. Description of HDD Indicators

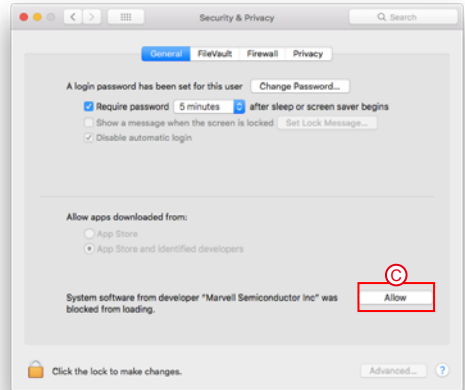
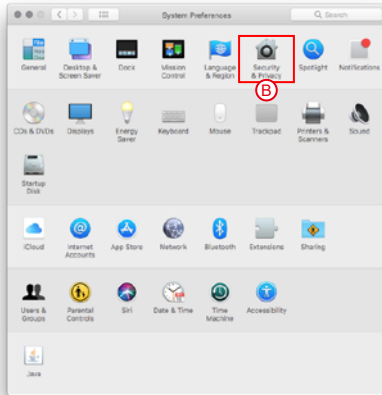
Status	Power Status Light	LED of Failure Alarmed	Buzzer
	Blue light	Red light	
Power ON	Always on	— —	— —
Fan failed	Always on	Flashing	YES

8. Frequently Asked Questions

1. If the SA2TB3 is turned on, but the Thunderbolt™ cable is not connected, the fan and power status lights will both be in stopped/hibernation mode. The fan and power status light will not come on until the Thunderbolt™ cable is connected to the computer.
2. When the computer enters hibernation mode, the fan and power status lights will both be in stopped/hibernation mode. The fan and power status light will not come on until the computer is awake.
3. If the SA2TB3 is installed on the Windows OS but can not be connected, refer to the following steps:
 - A. Open the Windows Taskbar.
 - B. right-click the Thunderbolt™ icon.
 - C. Select "Approve Attached Devices".
 - D. Select the port to which the device is connected.
 - E. Wait for the dialog box "Approve Thunderbolt™ Devices" to appear.
 - F. Select "Always Connect"
 - G. Press "OK"



4. The new macOS 10.13 (High Sierra) requires user approval before loading new, third-party kernel extensions.
 - A. Execute **MarvellMvumi.pkg**.
 - B. Appear from an unidentified developer warning, click on the lower right corner of the "OK."
 - C. Open **System Preferences**, and go to **Security & Privacy**.
 - D. Click on the "Allow" button.



Note: If you can not click the allow button, click the lower left corner of the lock icon, and enter the administrator password.

關於這份手冊

感謝您使用 STARDOM 的產品。本手冊將介紹 STARDOM SA2TB3 產品。在您開始使用 STARDOM SA2TB3 產品前，建議您先閱讀過本手冊。手冊裡的資訊在出版前雖已被詳細確認，實際產品規格仍將以出貨時為準；任何產品規格或相關資訊更新請您直接到 www.stardom.com.tw 網站查詢，本公司將不另行通知。若您想獲得 STARDOM 最新產品訊息、使用手冊、韌體，或對 STARDOM 產品有任何疑問，請您聯絡當地供應商或到 www.stardom.com.tw 取得相關訊息。

本手冊相關產品內容歸銳銳科技股份有限公司版權所有

1. 環境需求

工作溫度：5 ~ 35 °C (41 ~ 95 °F)

儲存溫度：-20 ~ 47°C (-4 ~ 116 °F)

相對濕度：5% 至 95% 非凝滯狀態

工作電壓：100 ~ 240V AC

2. 產品外觀及包裝內容

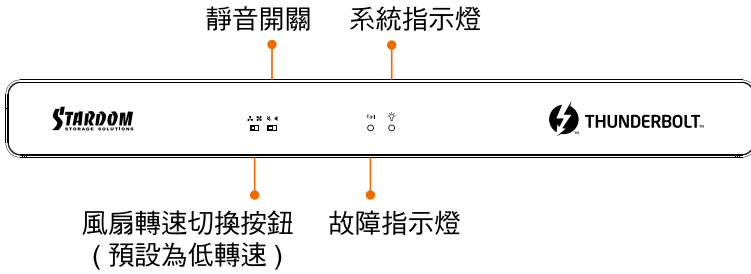
打開包裝外盒後，包裝內容應包含下列組件：

SA2TB3
SA2TB3 產品本體 x1
Thunderbolt™ 連接線 x1
電源線 x1
快速安裝手冊 x1

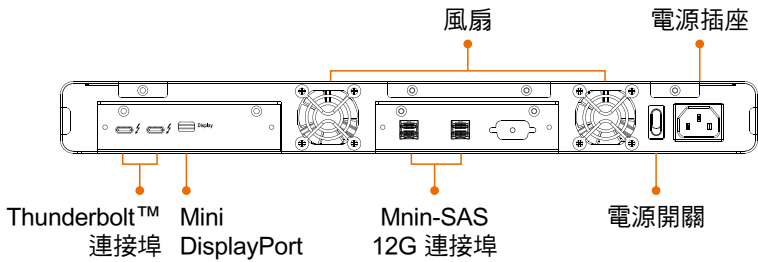
- 請確認相關配件與產品本身是否有受損或配件缺少，若有任何疑問請與本產品供應商聯絡。
- 請前往官網 (www.stardom.com.tw) 下載驅動程式以及其餘相關資源。

正面與背面示意圖

前視圖

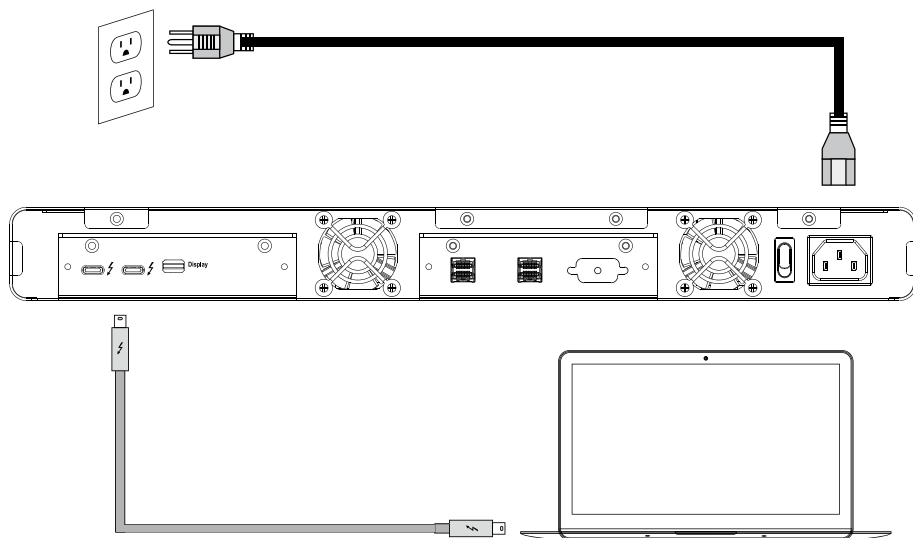


背視圖

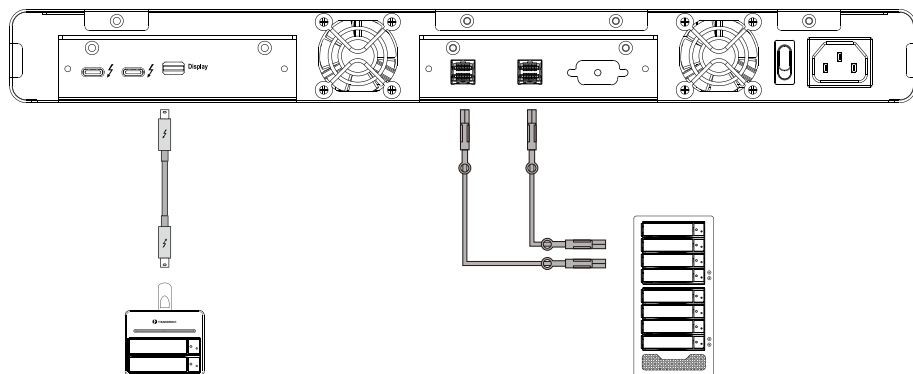


3. 硬體連結示意圖

SA2TB3 連結電腦示意圖



SA2TB3 連結外接設備示意圖



Thunderbolt™ daisy chain
最多可串接6台裝置

SAS 12G 硬碟外接盒
例如 STARDOM ST4-U6/ST8-U6

4. 注意事項

1. 本系統同一時間只可透過一組介面與一台電腦執行資料傳輸。
2. 當您需要關閉或移除 SA2TB3 時，務必透過您所操作的作業系統中執行硬碟安全移除後，方進行電源關閉的動作。
3. 當系統溫度達到 55 度時，機器風扇會全速運轉，加速機器內部散熱，當系統溫度降回 50 度以下時，才會恢復手動風扇轉速設定之狀態。
4. 如電腦無法辨識此一系統，請前往官網 (www.STARDOM.com.tw) 下載驅動程式並安裝。

5. 風扇故障狀況排除

SA2TB3 內建風扇故障警示功能，若 SA2TB3 風扇發生故障時，內建的蜂鳴器會發出警告聲響，前面板的故障指示燈也會亮起；此時你可選按系統前面的靜音按鈕，先將警示聲關閉，並在允許的狀況下關閉 SA2TB3 電源讓機器降溫；同時，請先確認機體擺放環境是否通風良好，沒有任何物體擋住風扇孔，一併檢查 SA2TB3 的風扇是否停止運轉；待上述檢查確認後，再將電源開啟繼續使用本系統。若問題還是無法獲得解決，請與此產品供應商或 STARDOM 連絡，以便取得進一步的支援。

6. MSU 簡易設定

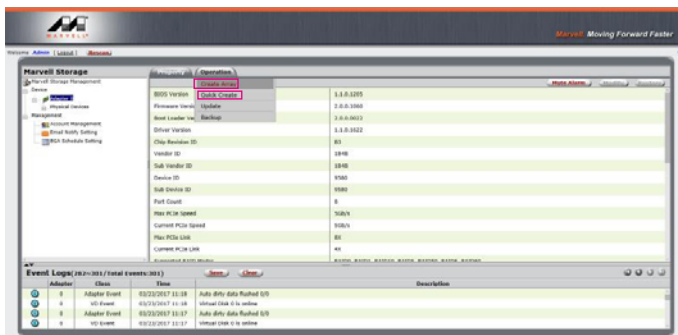
Mini-SAS 外接設備藉由 SA2TB3 連結後，可透過 Marvell Storage Utility (MSU) 建立多種 RAID 模式。

一、建立 RAID 模式：

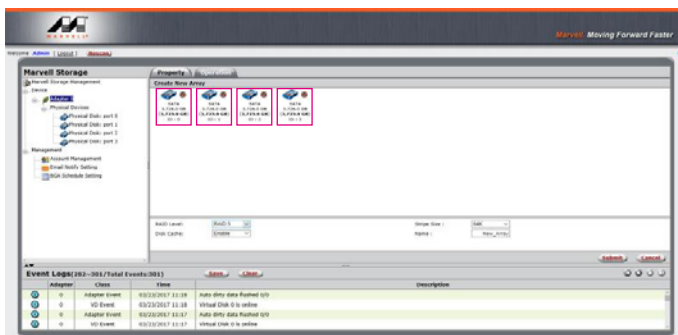
1. 開啟 MSU 程式進入登錄頁面，使用 Windows 或 Mac 帳戶及密碼登錄進入 MSU。若有帳戶卻無密碼，請將 MSU 登錄密碼處維持空白。



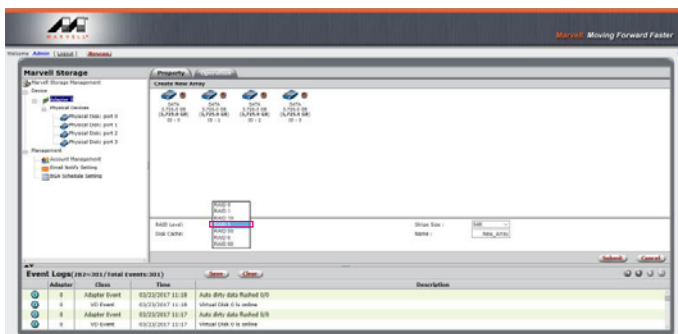
2. 點擊【Operation】與【Create Array】。



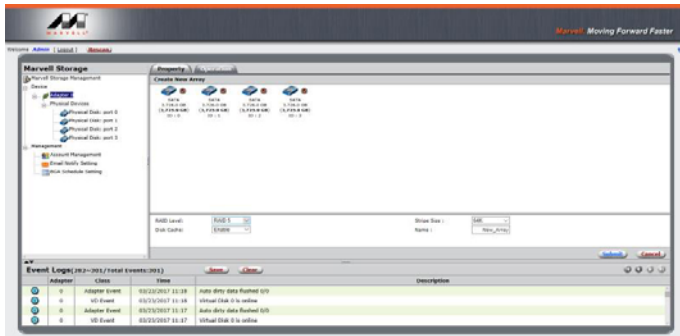
3. 點擊選擇硬碟。



4. 選擇【RAID 5】(或其他 RAID)

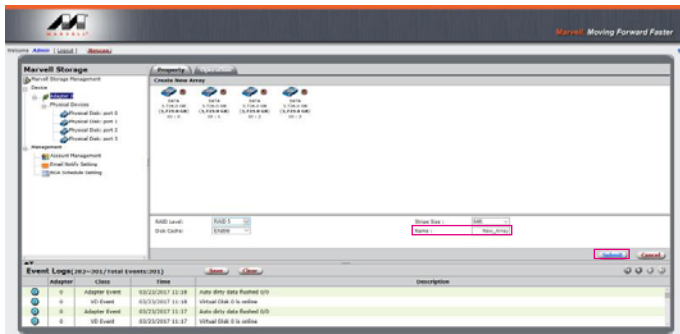


5. 設定 Stripe Size

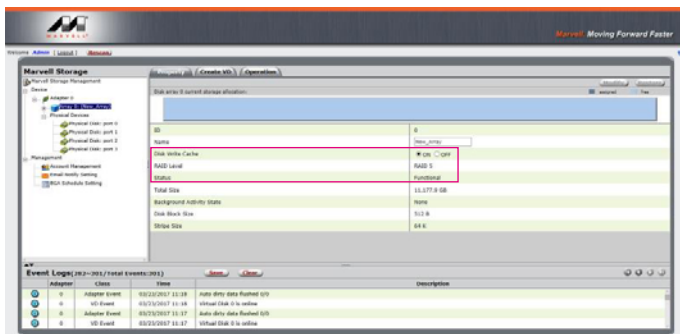


數值越大，大量傳輸資料的效能越好（如圖像編修、影音編輯等）；
數值越小，隨機讀寫越快（如程式啟動、文書處理、系統頻繁讀寫等）。

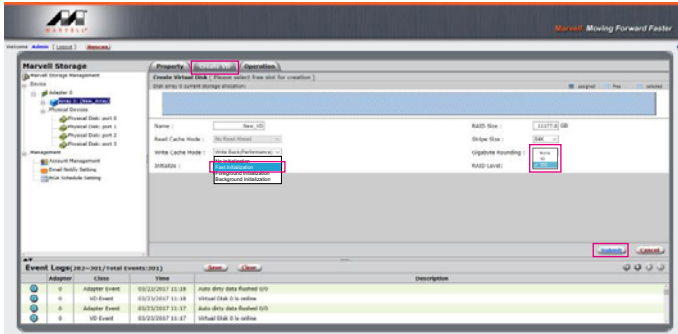
6. 輸入存儲名稱，再點擊【Submit】，提交 RAID 設置。



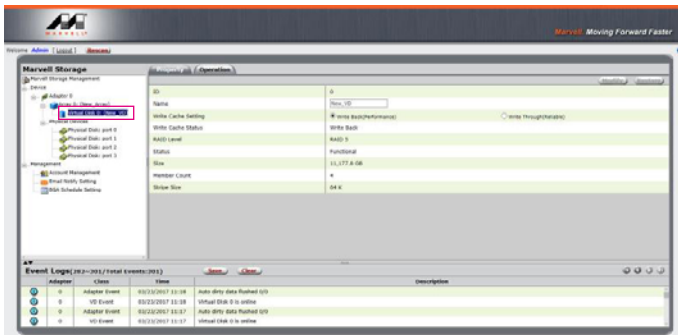
7. 提交 RAID 設置後的回饋如下：



8. 點擊【Create VD】，將【Initialize】的選項設定為【Fast Initialization】；將【Gigabyte Rounding】的選項設定為【10G】，再點擊【Submit】。



9. 提交後，您將獲得一個 New_VD。



P.S. VD 為虛擬磁碟 virtual disk 的簡稱

10. 於作業系統進行初始化硬碟的設定。

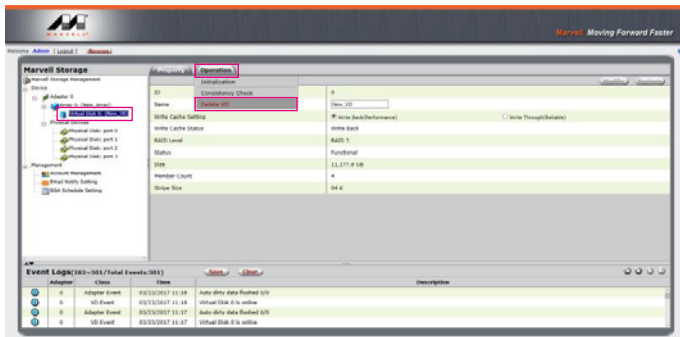


11. 格式化之後，即可開始使用。

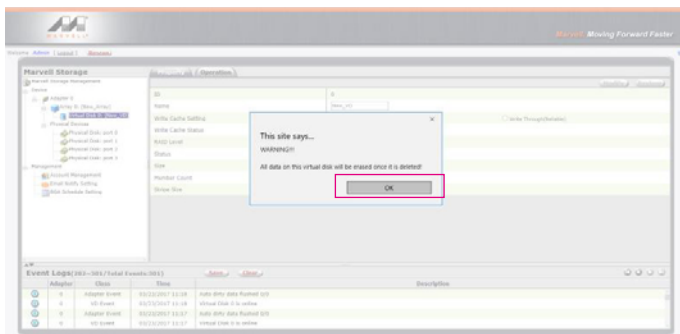


二、移除 RAID 模式：

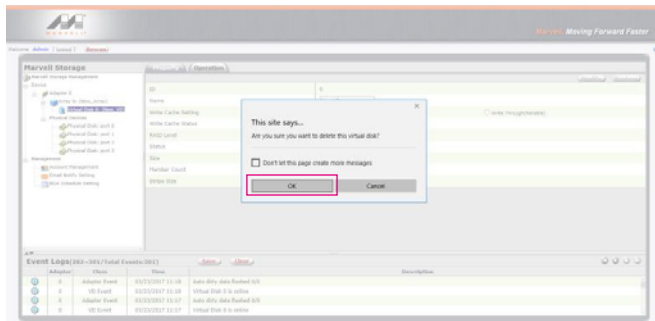
1. 點擊【Operation】與【Delete VD】。



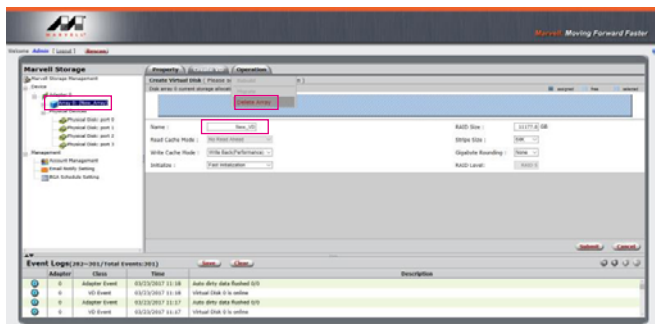
2. 在第一條警告消息中點擊【OK】。



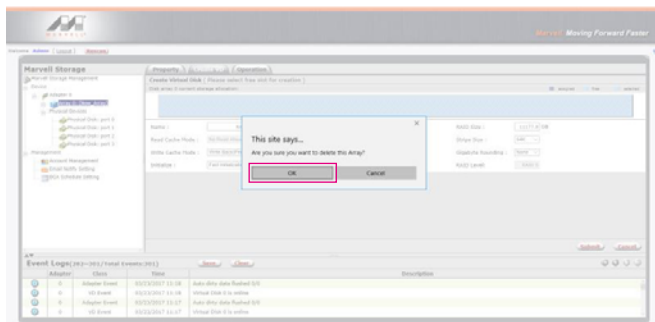
3. 在第二條警告信息中點擊【OK】。



4. 點擊【Operation】、【Delete Array】與【Submit】



5. 在警告信息中點擊【OK】。



6. 磁碟系統轉為 JBOD 模式，之後只需要個別格式化硬碟，或設置新的 RAID 模式。



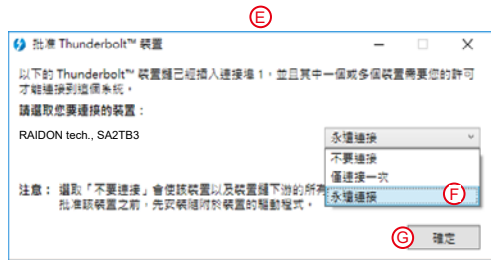
更詳細的 RAID 設定方式請參閱 STARDOM All TB2&TB3 RAID 5 Storage MSU User Manual.pdf

7. 燈號說明

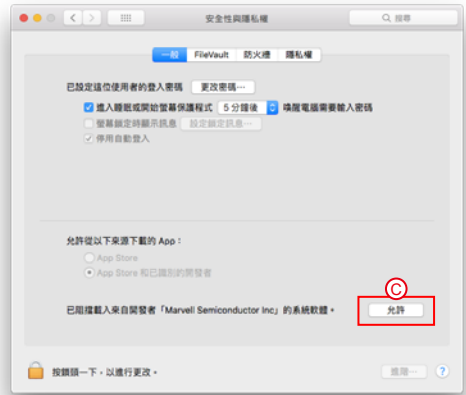
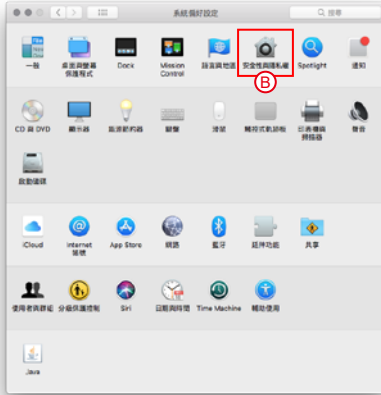
狀態	系統指示燈	故障指示燈	蜂鳴器
	藍燈	紅燈	
電源開啟	恆亮	— —	開機—短音
風扇故障	恆亮	閃爍	YES

8. 常見問題

1. SA2TB3 在開機情況下，未連接 Thunderbolt™ cable 時，風扇與電源指示燈皆為停止及休眠狀態，直至連接 Thunderbolt™ cable 至電腦才會啟動風扇及電源指示燈。
2. 電腦進入睡眠模式時，SA2TB3 的風扇與電源指示燈皆為停止及休眠狀態，直至喚醒時才會啟動風扇及電源指示燈。
3. 若 SA2TB3 裝設在 Windows 作業系統上卻無法連線，請參考下方步驟：
 - A. 開啟右下角工作列圖示
 - B. 在 Thunderbolt™ software 圖示上擊點滑鼠右鍵
 - C. 選擇「批准已接上的裝置」
 - D. 選擇連接埠
 - E. 等候對話框「批准 Thunderbolt™ 裝置」出現
 - F. 選擇「永遠連接」
 - G. 按下確定。



4. 礙於 macOS 10.13 (High Sierra) 的權限設定，如果程式來自於未識別開發者，是無法直接安裝的。請依照下列步驟進行安裝。
- A. 執行 `MarvellMvumi.pkg`，出現來自未識別開發者的警訊，先點選右下角的「好」。
 - B. 進入「系統偏好設定」後，點選「安全性與隱私」功能。
 - C. 接著下方就會看到被阻擋的訊息，按旁邊的「允許」。



注意：如果無法擊點允許按鈕，請先擊點左下角的鎖頭圖示，並輸入管理員密碼。



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