



SOHORAID
DR8-TB3
User Manual

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The Introduction

Thanks for purchasing Stardom product. This User Manual will introduce you the DR8-TB3 Thunderbolt storage product. Before using your DR8-TB3, 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)
Line Voltage : 100 ~ 240V AC

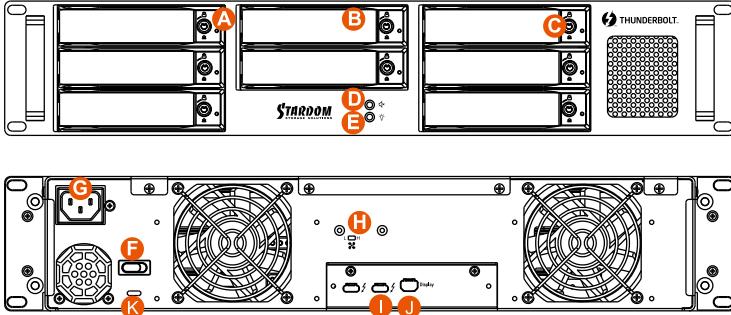
2. Package Contents and Product Views

Open the package and you shall find the following parts :

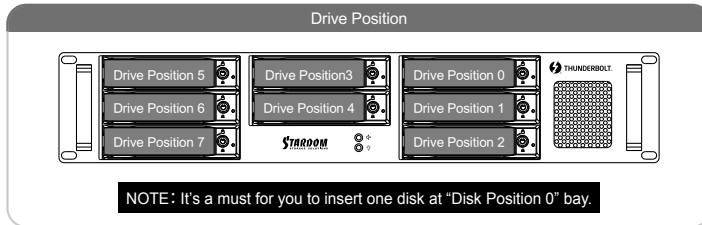
DR8-TB3
DR8-TB3 Product Unit x1(Removable Tray x8)
Thunderbolt Cable x1
Power Cord x1
Screws & Keys x9
Quick Installation Guide x1

- 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



- | | | |
|--------------------------|---|---------------------|
| A. HDD access light | E. System status light | I. Thunderbolt port |
| B. HDD enclosure handle | F. Power switch | J. Mini DisplayPort |
| C. HDD enclosure keylock | G. Power socket | K. Anti-theft lock |
| D. Mute Switch | H. Fan speed switch
(set to "High" by default) | |



3. Hardware Requirements and Precautions

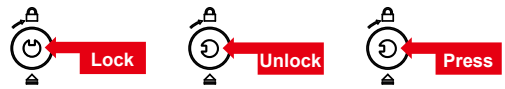
1. Only one interface connection may be used at once per computer system.
2. RAID volume formation utilizes the capacity of whichever hard drive has the smallest and then multiply that capacity by seven for RAID 5, eight for RAID 0, to form a large volume, therefore, it is recommended to only install hard drives of the same brand and specification for all drive position prior to use. Moreover, when you need to replace with a new hard drive, please be sure to purchase one with the same specification, capacity and brand. If these conditions can't be met, select one that's at least 20 GB greater in capacity.
3. The actual storage capacity of DR8-TB3 recognized by the system may differ from the total capacity stated on the hard drives once the drives have been formatted.
4. Since DR8-TB3 will delete all data files in your HDDs/SSDs at its first-time use, please be informed that you shall first save all your personal data files into a safe memory space before starting setting your new DR8-TB3 to avoid any data loss during your start-up process.
5. Please make sure that the hard drives are free from bad blocks or defects prior to installation in order to avoid system crashes or data loss.
6. Whenever turning off or unplugging your DR8-TB3 from your computer system, please always remember to safely remove it from your operating system first.

7. When your DR8-TB3 connects to the computer system, please do not remove, insert or even swap any hard drive while data transfer is being performed.
8. It's prohibited to change the positioning of the drives once the initial installation has been completed as the changes made to the drive positions may destroy the RAID formation.
9. A WARNING to you if you plan to delete or switch your original RAID setting : If you plan to delete or switch your original RAID setting, please always duplicate your personal data before deleting or changing it.
10. In RAID 5 mode, the system allows one single hard drive failure. If multiple drive failures occur at once, it's likely that all data stored in the system have been destroyed or lost. In RAID 0 mode, if one hard drive failure occurs, then all data maybe destroyed or lost.
11. Whenever turning off or unplugging the DR8-TB3 from your computer system becomes necessary, always remember to safely remove it from your operating system first.
12. While the In-chassis temperature reaches up to 55 degree-C (131 degree-F), in order to get rid of the heat efficiently, your DR8-TB3 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.
13. It is highly recommended for users to back up important data contained within the DR8-TB3 unit on a regular basis or whenever the user feels necessary to a remote or a separate storage device. Stardom will not be responsible for any lost of data caused during the use of the unit or the recovery of the data lost.

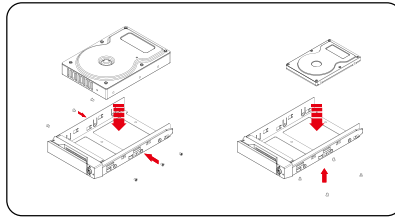
4. Hardware Installation

Please follow the following procedure to have your DR8-TB3 installed:

- Step 1 Open the package and take out the product making sure that all the enclosed contents are not damaged or missing.
- Step 2 If you want to install a DR8 system in the rackmount, please fasten the handle to the two panels of the DR8. Then, use the screws from the component bag to screw the DR8 system to the slot inside of the rackmount. Finally, make sure the DR8 is securely fastened.
- Step 3 If you choose to place the system on a desktop, please fasten the foot pads to the bottom of the system and place the system on a stable, level surface. Also, make sure that the heat sink fans are not blocked and that the sides of the system have ample space to displace heat. (Please select dry spaces and environments that are not harmful to the system.)
- Step 4 Use the key included in the accessory kit and inserted into the key access opening to eject the removable drive tray latch and extract the removable drive tray.



- Step 5 Mount your hard drives onto the removable drive tray and secure it with the screws included in the accessory kit to avoid any damage to the hard drive due to accidental movements.



We strongly recommend you to only use the same disk product (same brand and same model#) for your DR8-TB3 product.

- Step 6 After installing the HDD into tray, please insert them into DR8-TB3, and then latch the handle.
- Step 7 Connect AC power cord to your power outlet and DR8-TB3.
- Step 8 Connect the cable to the Mac / PC and the DR8-TB3 port.
- Step 9 After booting up, Your Mac/PC shall be able to automatically detect and connect to your DR8-TB3 product. After disk has been successfully recognized, please format your disks as instructed by your operating system to suit your own storage needs. After formatting is complete, you may begin to use your DR8 system.
- Step10 If your Mac/PC fails to connect to DR8-TB3, please install the drivers from the bundled CD.

5. System Fan Failure Management

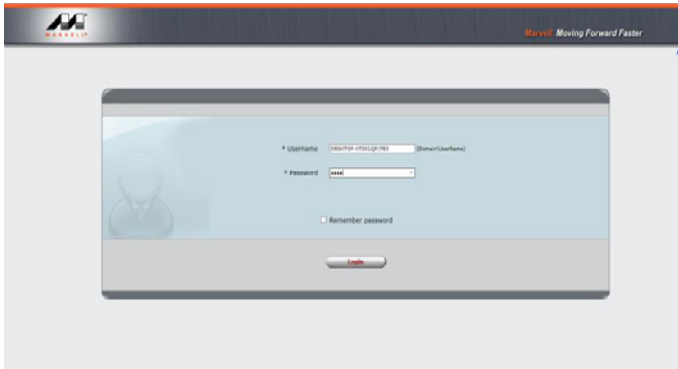
If the alarm indicator has lit up red and the audio alarm sounds, this could mean that either a system fan has stopped operating entirely. When this occurs, you may press the mute button at the rear of the system to shut off the audio alarm and power off the system immediately if in the allowed operational 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

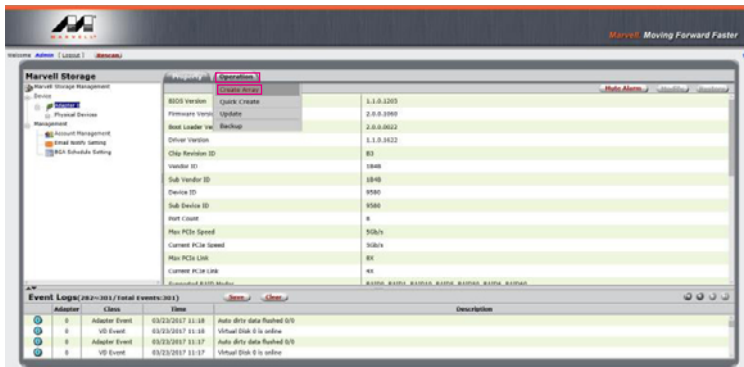
After DR8-TB3 connected to the computer and install the Marvell Storage Utility (MSU), multiple RAID modes can be set up through the MSU.

A. Set up RAID Mode:

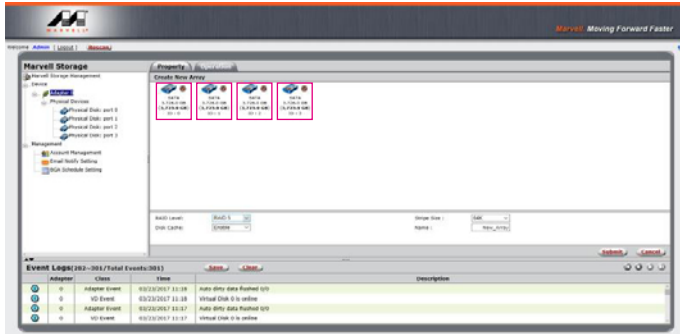
1. Use your Windows username and password to log into the MSU. If you have a username but no password, then leave the password field blank.



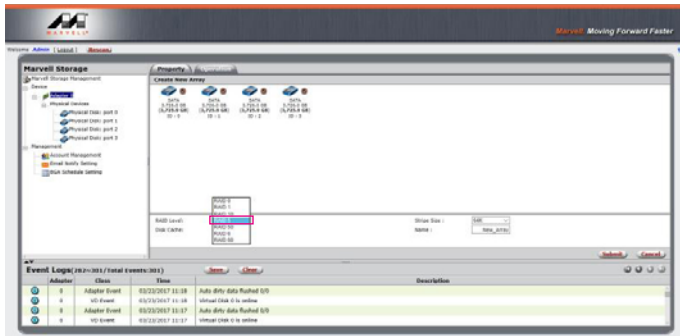
2. Click **【Operation】** and **【Create Array】**.



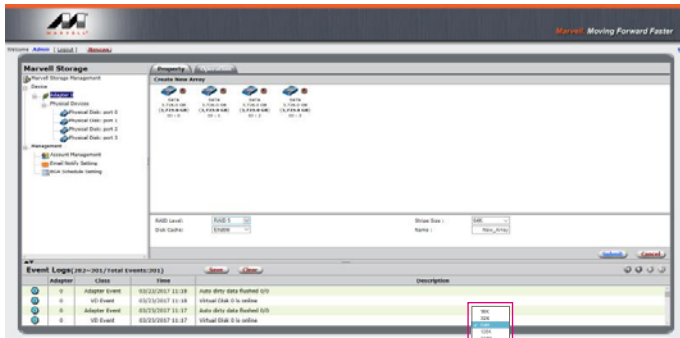
3. Click at the selected HDDs.



4. Select 【RAID 5】 (or other RAID) .

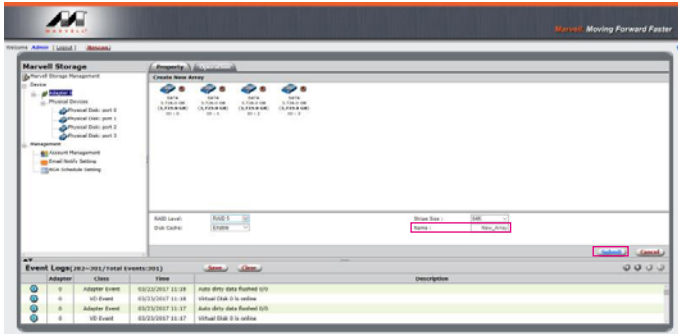


5. Setup Stripe Size.

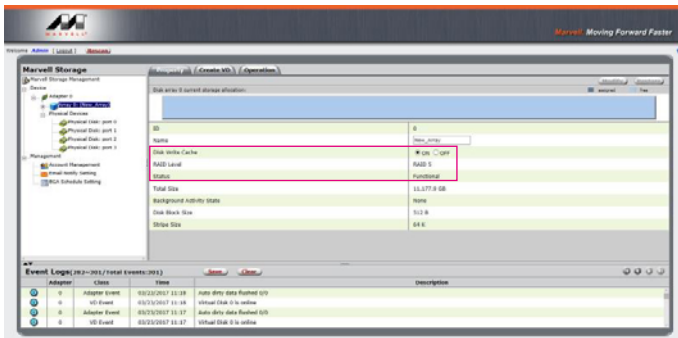


- The more Stripe Sizes helps a better data transfer for large data files which is good for video and audio editing works.
- The less Stripe Sizes helps a better efficiency at random files which is good for daily word processing, frequent read-&-write works.

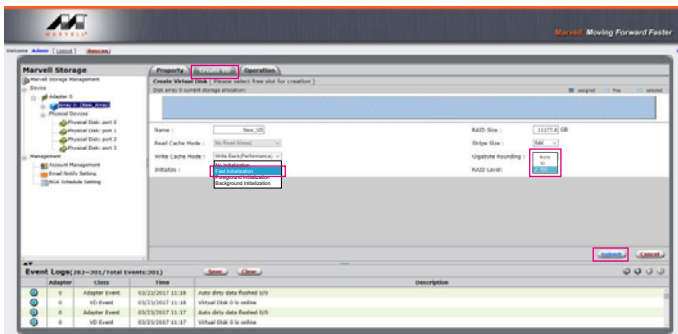
6. Type Storage Name and Submit RAID setting.



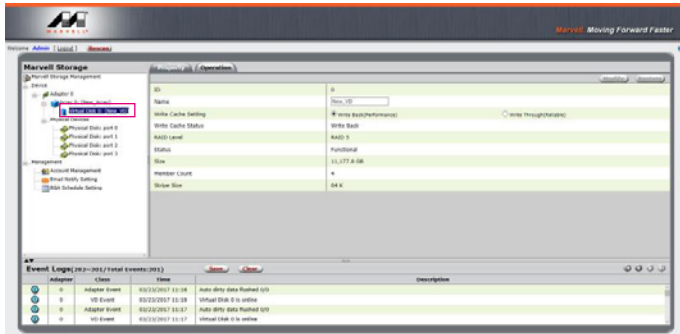
7. After submitting RAID setting:



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

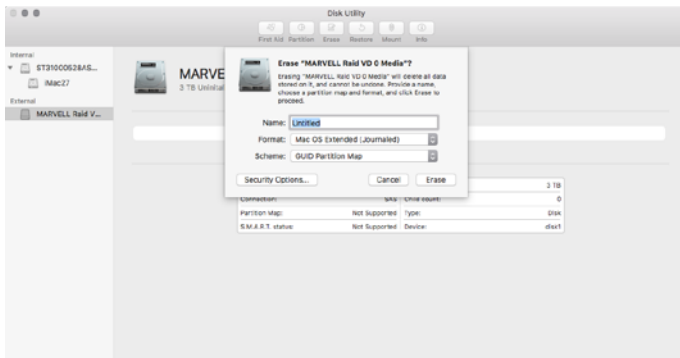


9. After submit, you get a New_VD.

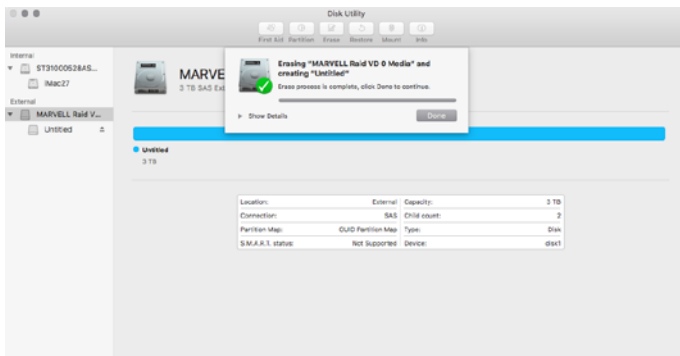


P.S. VD is the abbreviation of Virture Disk.

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

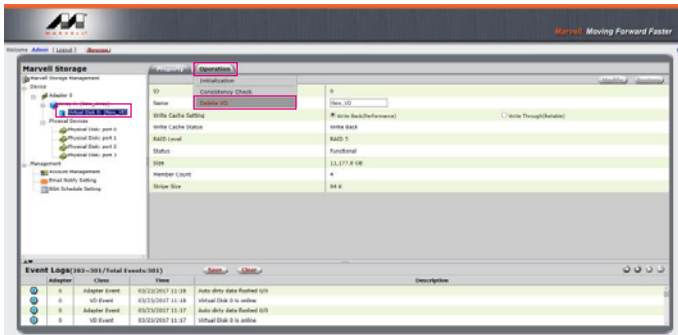


11. After completing the format, you could start using your DR8-TB3.

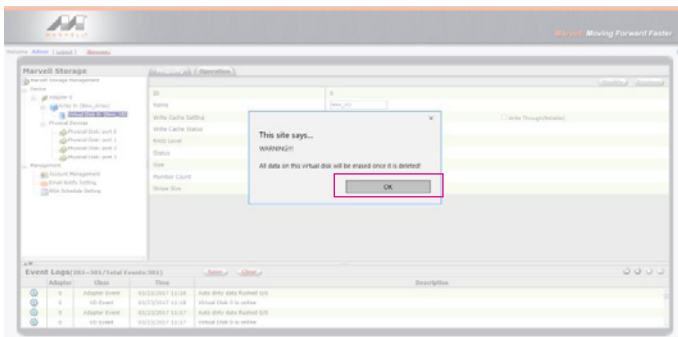


B. Delete a RAID for a new RAID setting

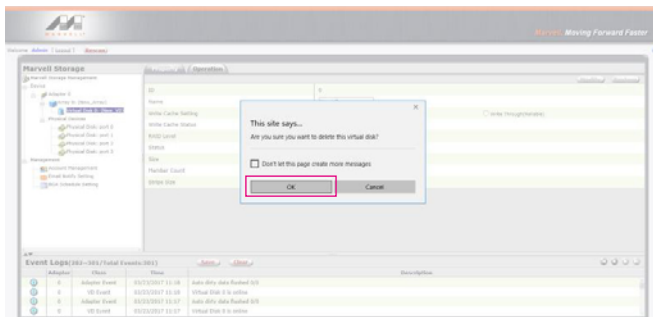
1. Click **【Operation】** and **【Delete VD】**.



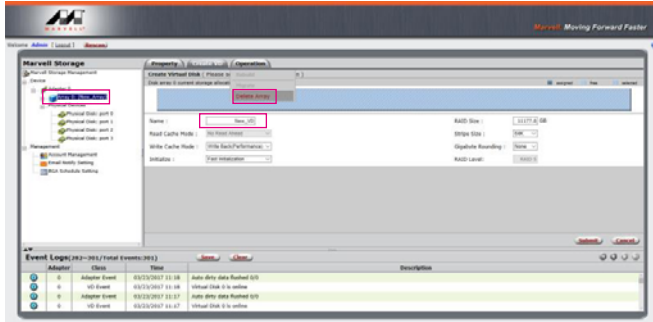
2. Click **【OK】** at first warning message.



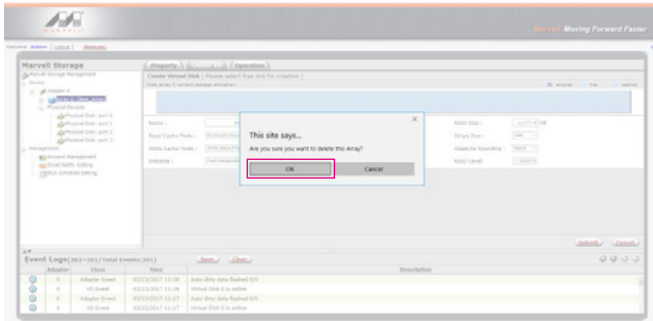
3. Click **【OK】** at the second warning message.



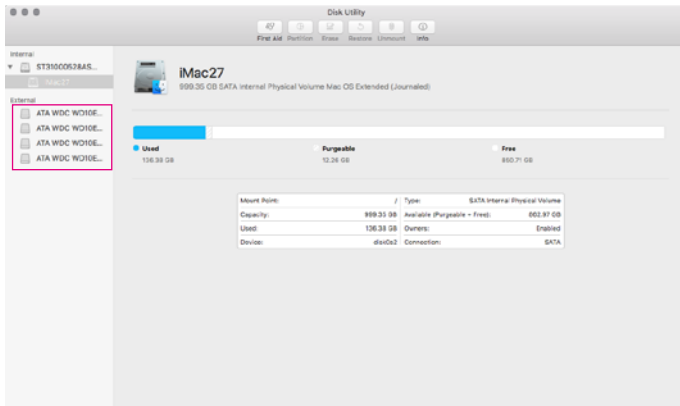
4. Click **【Operation】** , **【Delete Array】** and **【Submit】** .



5. Click **【OK】** at warning message.



6. 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. The Indication of HDD Status

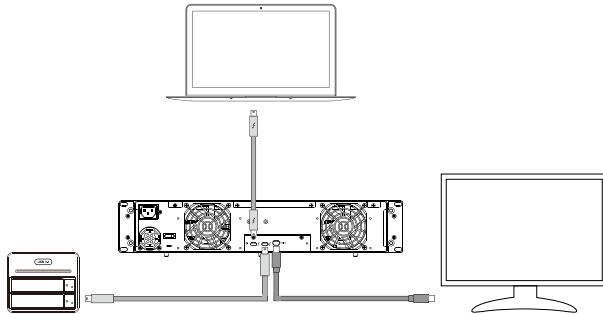
Status	System indicator Light	HDD Status Light	Buzzer
No HDD detected	Blue light always on	Red light always on	— —
RAID Failed	Purple light flashing	Red light always on	YES
HDD failure	Purple light flashing	Red light always on	YES
Data access	Blue light always on	Blue light flashing	— —
HDD idle	Blue light always on	Blue light always on	— —
Rebuilding data - Source HDD	Blue light always on	Blue light flashing	— —
Rebuilding data - Target HDD	Blue light always on	Purple light flashing	— —
Fan failure	Purple light flashing	Blue light always on	YES
Overheat	Purple light flashing	Blue light always on	YES

8. Connect with other devices

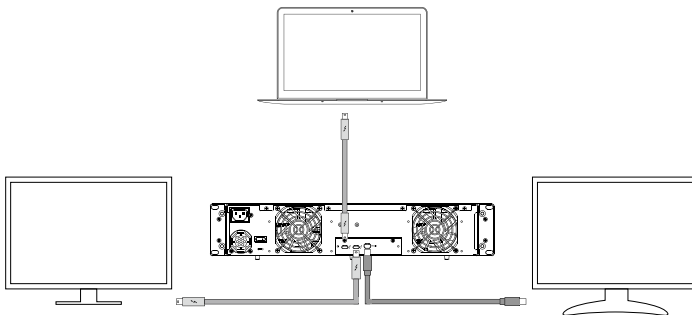
1. TB port: Thunderbolt 3 ports can be connected to TB3, USB3.1 and Display port device. It is downward to support USB3.0 / USB2.0. This product can connect with different USB devices by USB Type C to Type A/B cable. It supports TB port power delivery (PD) function, which can provide 15W (5V / 3A) power output to support 5V / 3A rechargeable notebook computer use. There is no additional power supply need.
2. Mini Display port: configured with Mini Display Port connection port to provide additional screen output.

Two System Connections:

- A. DR8-TB3: Let its TB A port connect to Host (PC/Workstation/Server), TB B port to other Device (USB or TB), and mDP (Mini Display) port to monitor.



- B. DR8-TB3: Let its TB A port connect to Host (PC/Workstation/Server), TB B port to a monitor, and mDP port to the second monitor.

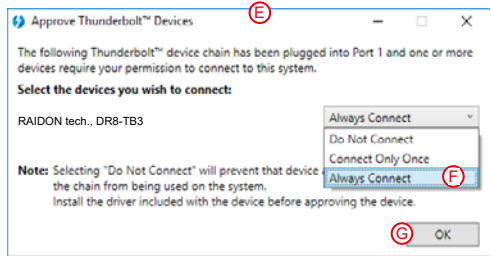
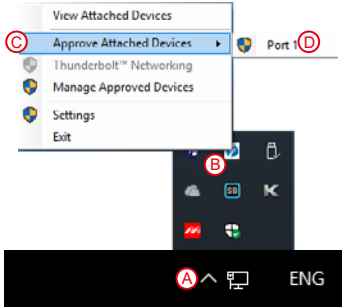


9. Common Technical Questions

1. DR8-TB3 will always stay SLEEP Mode if (a) it doesn't connect it to Mac Computer, and (b) your Mac Computer is Power-Off.
2. DR8-TB3 will also stay SLEEP Mode if your Mac Computer gets into SLEEP or IDLE Mode too.
3. In case if you use old HDDs which already have other RAID setting, we would strongly suggest you to first reset them with JBOD mode at your DR8-TB3 before setting them to the RAID mode you will use DR8-TB3.

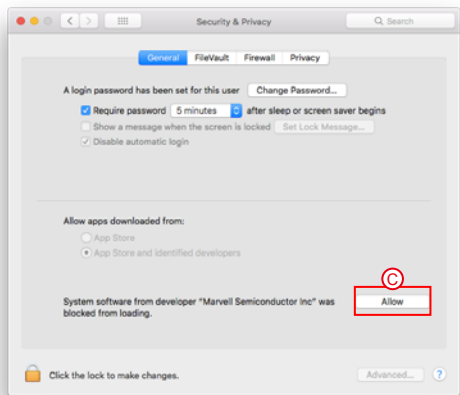
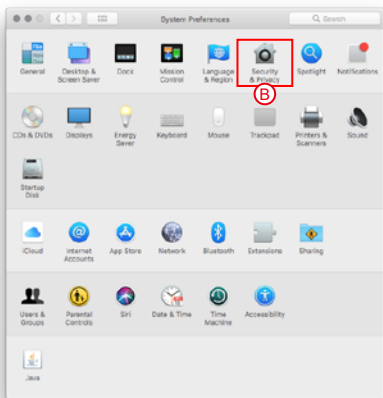
4. If the DR8-TB3 is installed on the Windows OS but can not be connected, refer to the following steps:

- 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"



5. 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 DR8-TB3 產品。在您開始使用 STARDOM DR8-TB3 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)

工作電壓：100 ~ 240V AC

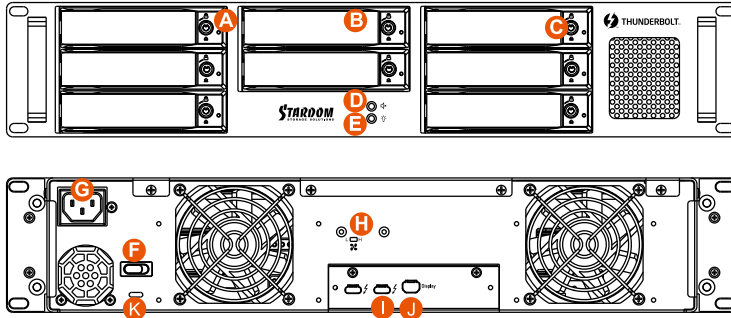
2. 產品外觀及包裝內容

打開包裝外盒後，包裝內容應包含下列組件：

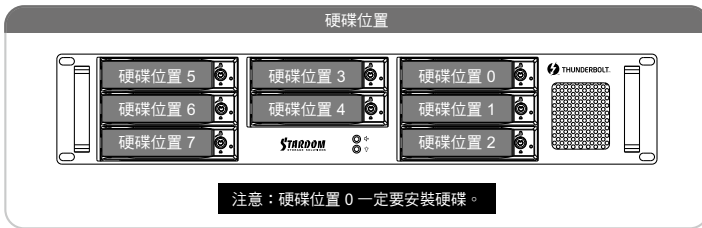
DR8-TB3
DR8-TB3 產品本體 x1(內含抽取盒 x8)
Thunderbolt 連接線 x1
電源線 x1
螺絲及鑰匙 x9
快速安裝手冊 x1

- 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



- | | | |
|------------|----------------------|--------------------|
| A. 硬碟讀取燈 | E. 系統指示燈 | I. Thunderbolt 連接埠 |
| B. 硬碟抽取盒把手 | F. 電源開關 | J. DisplayPort 連接埠 |
| C. 硬碟卡榫按鍵 | G. 電源插座 | K. 防竊鎖孔 |
| D. 靜音按鈕 | H. 風扇轉速切換按鈕 (預設為高轉速) | |



3. 硬體需求與注意事項

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. RAID5 的容量形成是將硬碟中最小容量乘上 7 倍後，RAID0 乘上 8 倍，之後會被視為一個大儲存容量；因此，用本系統前必須每顆硬碟裝置槽都已完成硬碟安裝，並建議全部使用相同品牌與同規格之全新硬碟。同時，如果需要更換新的硬碟時，也請您務必購買規格、容量、廠牌相同的硬碟，若您無法購買到符合上述條件的硬碟時，請選購容量大於另一硬碟最少 20GB。
3. 硬碟格式化後，由電腦主機作業系統所辨識 DR8-TB3 的實際總容量會與硬碟廠所標示的容量加總後，將有所差異。
4. 第一次使用本產品進行設定時，資料會被全數清除。請於硬碟置入前，確認硬碟已備份，避免資料遺失。
5. 在安裝新硬碟到 DR8-TB3 之前，請先確認硬碟是沒有壞軌而且是沒有故障的，以避免資料受損。
6. 當您需要關閉或移除 DR8-TB3 時，務必透過您所操作的作業系統中執行硬碟安全移除後，方可進行電源關閉的動作。
7. 當系統運作時，請勿任意移除任何一顆硬碟，以免導致資料遺失。
8. 完成系統初始化安裝後，在使用上請勿任意變更硬碟位置；此動作將可能導致系統無法形成 RAID。
9. RAID 模式一旦設定完成，若要進行切換，因切換過程中將會清除硬碟中的資料，請務必先將硬碟中的資料另行備份後再行切換。

10. 在 RAID 5 模式下儲存系統僅容許單顆硬碟故障。因此，當您發現二顆以上的硬碟顯示故障時，您先前已存儲的資料可能已毀損或遺失；在 RAID 0 模式下，當您發現一顆以上的硬碟顯示故障時，您先前已存儲的資料可能已毀損或遺失。
11. 當您需要關閉或移除 DR8-TB3 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。
12. 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。
13. 強烈建議除了使用 DR8-TB3 的資料儲存功能外，請針對重要資料備份到另一個儲存裝置上或遠端備份，雙重備份您重要的資料。若您儲存在 DR8-TB3 的資料損毀或遺失，STARDOM 將不負任何的責任。

4. 硬體安裝

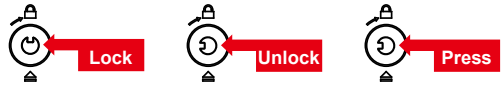
請參照以下步驟完成硬體安裝

步驟 1 拆開外包裝，並取出產品主體。

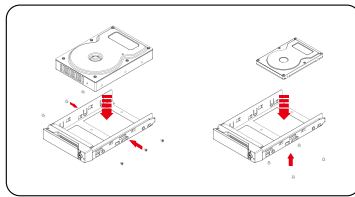
步驟 2 如果你是要將 DR8 系統安裝於機架上，請將配件中的把手鎖定於 DR8 系統面板兩側，並使用配件包的螺絲來將 DR8 系統鎖定於機架內的軌道位置，並確定 DR8 系統呈現平穩狀態。

步驟 3 如果你選擇擺放系統於桌面，請將配件中的腳墊鎖定於系統下方，並將系統擺放於穩固平台，並確認散熱風扇口沒有被其他物體擋住，系統四周有適當的散熱空間。(擺放環境請避免接近潮濕或其他易對產品造成損傷的環境)

步驟 4 請使用零件包內附的鑰匙解鎖硬碟托盤鎖，按下硬碟卡榫按鍵，即可抽出硬碟抽取盒。



步驟 5 將硬碟安裝到抽取盒上，並以零件包內附的螺絲加以固定，以避免不必要的移動對硬碟造成傷害。



注意：不建議使用不同廠牌，或是同廠牌不同型號的硬碟，避免影響效能。

步驟 6 硬碟安裝完成後，請將抽取盒平移放入主機內，並關上把手。

步驟 7 將電源線連接到電源插座及 DR8-TB3 上。

步驟 8 將 Thunderbolt 連接線與電腦相連接。

步驟 9 開機後，系統指示燈；待辨識成功後，請依據您所需的儲存格式，將系統內的硬碟依照作業系統的指示完成格式化。待硬碟格式化完成後，便可直接使用 DR8 系統。

步驟 10 如電腦無法辨識此一系統，請安裝光碟中之驅動程式。

5. 風扇故障狀況排除

DR8-TB3 內建風扇故障警示功能，若 DR8-TB3 風扇發生故障時，內建的蜂鳴器會發出警告聲響，前面板的紅色警示燈號也會亮起；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 DR8-TB3 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 DR8-TB3 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

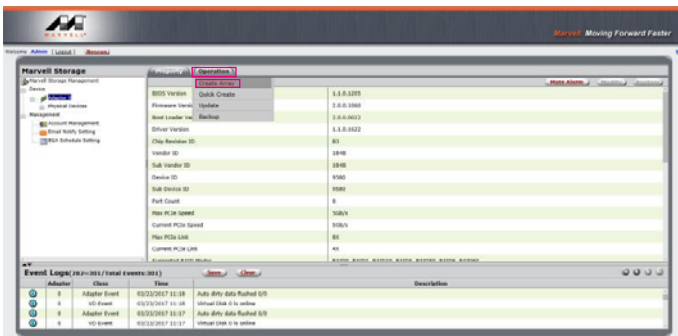
DR8-TB3 連接電腦並安裝 Marvell Storage Utility (MSU) 後，可透過 MSU 建立多種 RAID 模式。

一、建立 RAID 模式：

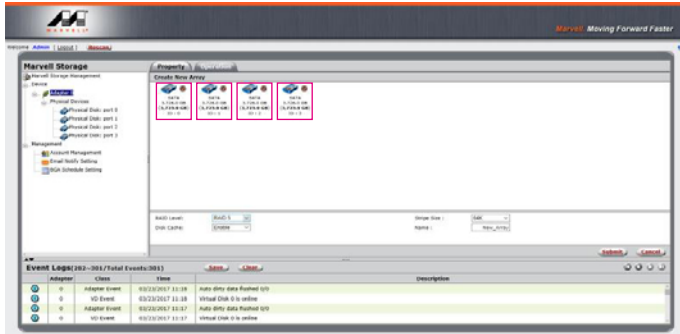
1. 開啟 MSU 程式進入登錄頁面，使用 Windows 或 Mac 帳戶及密碼登錄進入 MSU。若有帳戶卻無密碼，請將 MSU 登錄密碼處維持空白。



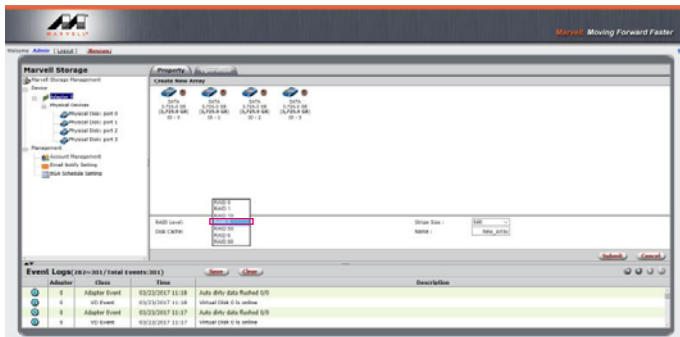
2. 點擊【Operation】與【Create Array】。



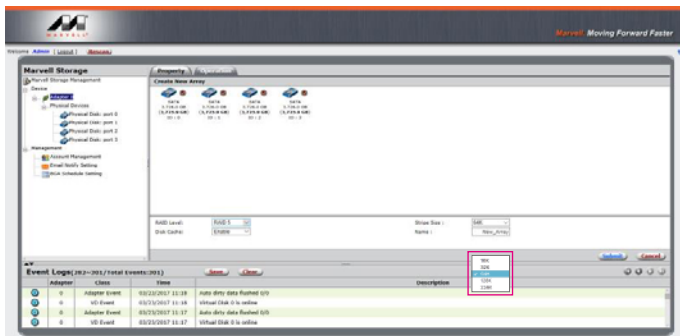
3. 點擊選擇硬碟。



4. 選擇【RAID 5】(或其他 RAID)

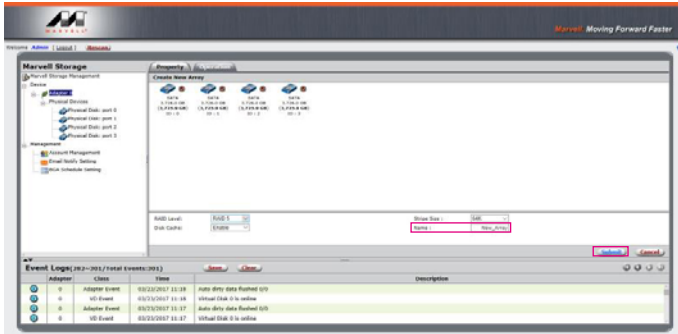


5. 設定 Stripe Size

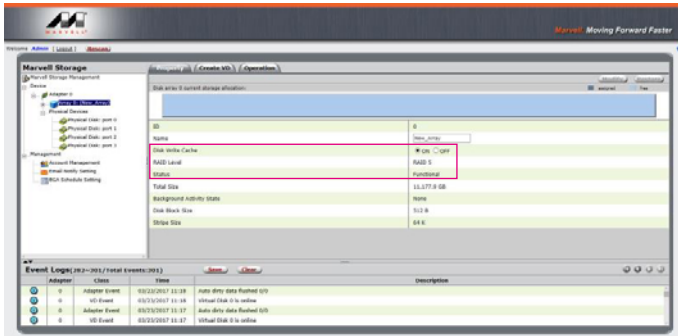


數值越大，大量傳輸資料的效能越好（如圖像編修、影音編輯等）；
數值越小，隨機讀寫越快（如程式啟動、文書處理、系統頻繁讀寫等）。

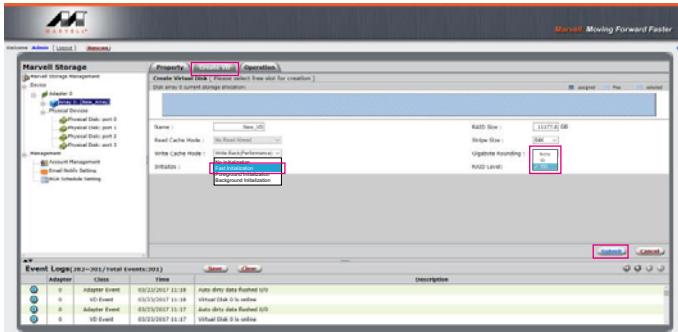
6. 輸入存儲名稱，再點擊【Submit】，提交 RAID 設置。



7. 提交 RAID 設置後的回饋如下：

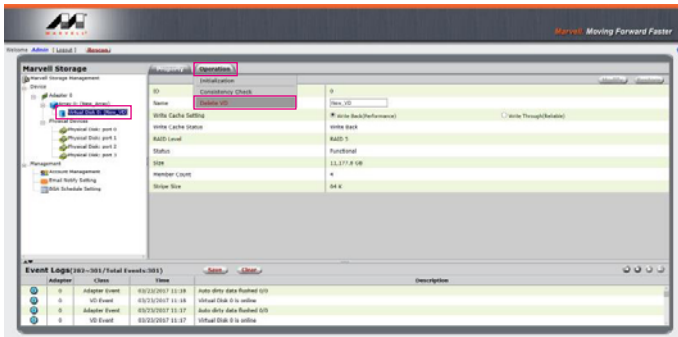


8. 點擊【Create VD】，將【Initialize】的選項設定為【Fast Initialization】；將【Gigabyte Rounding】的選項設定為【10G】，再點擊【Submit】。

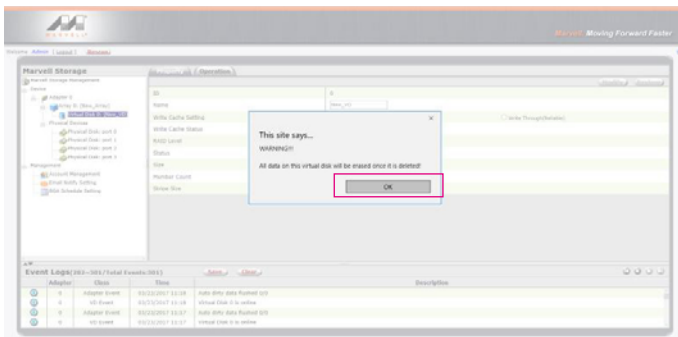


二、移除 RAID 模式：

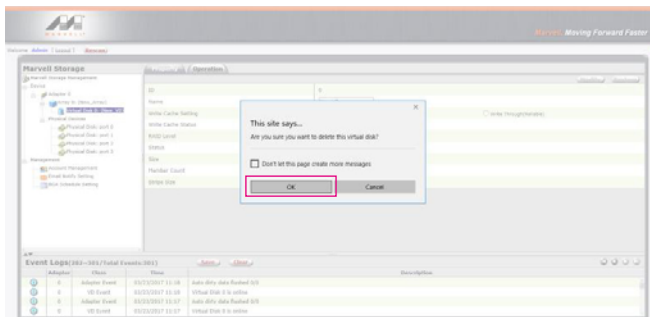
1. 點擊【Operation】與【Delete VD】。



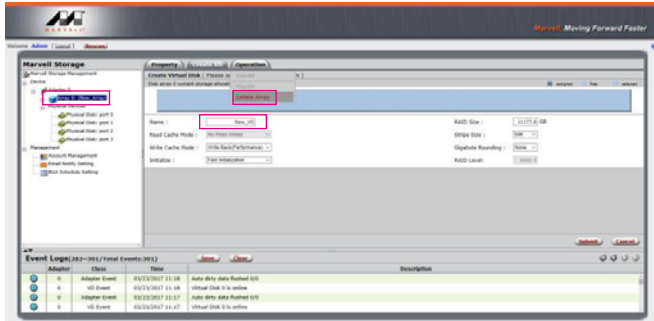
2. 在第一條警告消息中點擊【OK】。



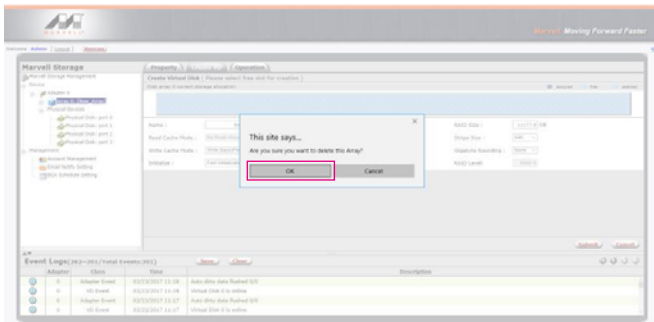
3. 在第二條警告信息中點擊【OK】。



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. 硬碟狀態指示燈號說明

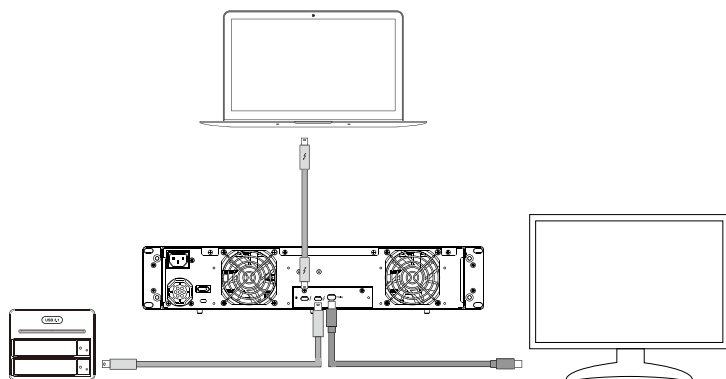
狀態	系統指示燈	硬碟狀態燈	蜂鳴器
無硬碟	藍燈恆亮	紅燈恆亮	— —
硬碟故障	紫燈閃爍	紅燈恆亮	YES
硬碟移除	紫燈閃爍	紅燈恆亮	YES
資料存取	藍燈恆亮	藍燈閃爍	— —
硬碟閒置	藍燈恆亮	藍燈恆亮	— —
資料重建 - 來源碟	藍燈恆亮	藍燈閃爍	— —
資料重建 - 目標碟	藍燈恆亮	紫燈閃爍	— —
風扇故障	紫燈閃爍	藍燈恆亮	YES
過熱	紫燈閃爍	藍燈恆亮	YES

8. 與其他裝置連接說明

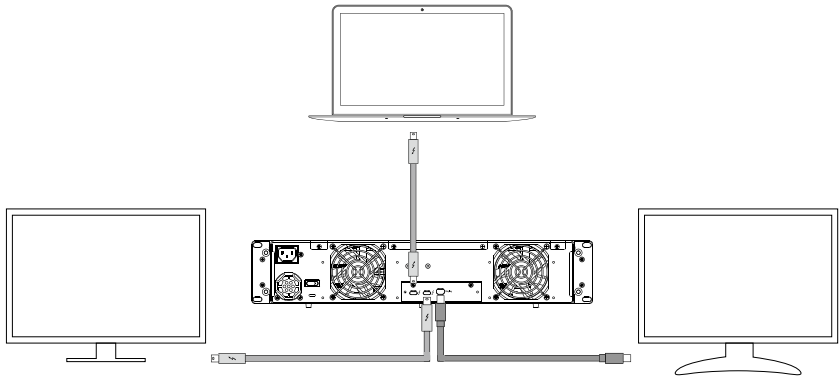
1. TB port : Thunderbolt 3 連接埠可串接 TB3、USB 3.1 和 DisplayPort 裝置；其中向下支援 USB3.0/USB2.0，有轉接線即可連接不同規格之 USB 產品，本產品支援 TB port 供電功能 (PD)，可以提供 15W (5V/3A) 的電源輸出給支援 5V/3A 充電的筆記型電腦使用，不用額外連接電源。
2. Mini Display port : 配置 Mini DisplayPort (mDP) 連接埠，支援額外的螢幕輸出。

裝置連接示意圖：

- A. DR8-TB3: TB A port 接 MB (Host) · TB B port 接 other Device (USB or TB) · mDP 接螢幕。

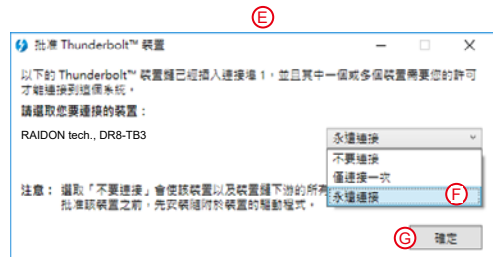


B. DR8-TB3: TB A port 接 MB (Host), TB B port 接螢幕, mDP 接螢幕 (雙螢幕)



9. 常見問題

- DR8-TB3 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。
- 電腦進入睡眠模式時，DR8-TB3 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。
- 若硬碟已在其他磁碟陣列產品存取資料或設定 RAID MODE 過，建議還原成 JBOD 模式後再應用於 DR8-TB3，以避免產生無法讀取硬碟問題。
- 若 DR8-TB3 裝設在 Windows 作業系統上卻無法連線，請參考下方步驟：
 - 開啟右下角工作列圖示
 - 在 Thunderbolt software 圖示上點擊滑鼠右鍵
 - 選擇「批准已接上的裝置」
 - 選擇連接埠
 - 等候對話框「批准 Thunderbolt™ 裝置」出現
 - 選擇「永遠連接」
 - 按下確定。



5. 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 `MarvelIMvumi.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。



<http://www.stardom.com.tw/>

