

TS-x73U

TS-873U

TS-1273U

TS-1673U

TS-873U-RP

TS-1273U-RP

TS-1673U-RP

使用者指南

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1. 前言





關於本指南

本指南涵蓋 QNAP TS-x73U NAS 的相關資訊，以及安裝硬體的逐步指示。此外，本指南也提供基本操作說明與疑難排解資訊。

適用對象

本文件的適用對象為消費者與儲存空間管理員。本指南預設使用者對於儲存與備份概念有基本的認識。

慣用符號

符號	說明
	注意事項。用於提供預設組態設定與其他補充資訊。
	重要注意事項。用於提供必要組態設定及其他重要資訊。
	提示。用於提供任務執行或組態設定的建議或替代方式。
	警告。忽略此類資訊可能導致潛在損失、受傷甚至死亡。

2. 產品概觀

本章介紹 QNAP TS-x73U NAS 的基本資訊。

關於 TS-x73U

TS-x73U 系列搭載高效能的 AMD R 系列四核心處理器，以及最高 64 GB 的 DDR4 記憶體。每台 TS-x73U NAS 皆有兩個 10 GbE SFP+ 網路埠，以及兩個 M.2 SATA 6 Gbps SSD 插槽（可搭配使用儲存、分層儲存或快取加速功能）。此外還採用 AES-NI 加密加速技術，可加倍提升加密檔案的傳輸效能。

硬體規格






重要

修改 QNAP 產品的硬體或軟體，將導致產品保固失效。對於因未獲授權進行修改或安裝不支援之第三方應用程式所導致的任何損害或資料遺失，QNAP 一概不予負責。

訂購料號	硬碟插槽	記憶體	電源供應器
TS-873U			
TS-873U-4G	8	4 GB	單一
TS-873U-8G		8 GB	
TS-873U-16G		16 GB	
TS-873U-64G		64 GB	
TS-873U-RP			
TS-873U-RP-8G	8	8 GB	備援
TS-873U-RP-16G		16 GB	
TS-873U-RP-64G		64 GB	
TS-1273U			
TS-1273U-8G	12	8 GB	單一
TS-1273U-16G		16 GB	
TS-1273U-64G		64 GB	
TS-1273U-RP			
TS-1273U-RP-8G	12	8 GB	備援
TS-1273U-RP-16G		16 GB	
TS-1273U-RP-64G		64 GB	
TS-1673U			
TS-1673U-8G	16	8 GB	單一
TS-1673U-16G		16 GB	
TS-1673U-64G		64 GB	
TS-1673U-RP			
TS-1673U-RP-8G	16	8 GB	備援
TS-1673U-RP-16G		16 GB	
TS-1673U-RP-64G		64 GB	

元件	TS-873U TS-873U-RP	TS-1273U TS-1273U-RP	TS-1673U TS-1673U-RP
處理器			
CPU	AMD R-Series RX-421ND 四核心 2.1 GHz 處理器 · Turbo Core (最高 3.4 GHz)		
架構	64 位元		
加密引擎	AES-NI		
記憶體			
預載記憶體	<ul style="list-style-type: none"> • 4 GB RAM : 1 x 4 GB UDIMM DDR4 • 8 GB RAM : 2 x 4 GB UDIMM DDR4 • 16 GB RAM : 2 x 8 GB UDIMM DDR4 • 64 GB RAM : 4 x 16 GB UDIMM DDR4 <p>僅限使用 QNAP 非錯誤修正 (ECC) 記憶體模組，以維護系統效能和穩定性。若是具有一個以上記憶體插槽的 NAS 硬碟，請使用規格相同的 QNAP 非錯誤修正記憶體模組。</p> <p> 注意 使用不支援的記憶體模組會導致效能降級、產生錯誤，或造成作業系統無法啟動。</p>		
記憶體插槽數：	4 x UDIMM DDR 4		
最大記憶體	64 GB (4 x 16 GB)		
儲存設備			
硬碟插槽	8 個 SATA 6Gb/s	12 個 SATA 6Gb/s	16 個 SATA 6Gb/s
硬碟相容性	<ul style="list-style-type: none"> • 3.5 吋 SATA 硬碟 • 2.5 吋 SATA 硬碟 • 2.5 吋 SATA 固態硬碟 		
M.2 SSD 類型	2 x M.2 SSD SATA 6 Gbps		
M.2 SSD 機種	<ul style="list-style-type: none"> • 2260 • 2280 		
SSD 快取加速技術支援	<ul style="list-style-type: none"> • 硬碟插槽 1 到 8 • M.2 插槽 1 到 2 • 選購：使用 PCIe 擴充插槽的 SSD 	<ul style="list-style-type: none"> • 硬碟插槽 1 到 12 • M.2 插槽 1 到 2 • 選購：使用 PCIe 擴充插槽的 SSD 	<ul style="list-style-type: none"> • 硬碟插槽 1 到 16 • M.2 插槽 1 到 2 • 選購：使用 PCIe 擴充插槽的 SSD
熱抽換	<p>是</p> <p> 注意 下列元件不支援熱抽換：</p> <ul style="list-style-type: none"> • M.2 SSD • SSD 快取硬碟 • 使用 PCIe 擴充插槽的 SSD 		
網路			

元件	TS-873U TS-873U-RP	TS-1273U TS-1273U-RP	TS-1673U TS-1673U-RP
10 個 Gigabit 乙太網路埠	2 x SFP+		
Gigabit 乙太網路埠	4 x RJ45		
外接 I/O 埠和擴充插槽			
PCIe 插槽	1 x PCIe 3.0 x4  注意 PCIe 插槽已預先安裝一個雙埠 10 GbE SFP+ 網路擴充卡。		
USB 埠	<ul style="list-style-type: none"> • 2 x USB 3.0 • 4 x USB 2.0 		
介面			
維護用連接埠	1 個 3.5 mm 維護用連接埠		
尺寸			
外型	2U 機架式	2U 機架式	3U 機架式
尺寸 (高 x 寬 x 深)	89 x 482 x 534 mm 3.5 x 18.98 x 21.02 inch	89 x 482 x 534 mm 3.5 x 18.98 x 21.02 inch	130 x 481 x 536 mm 5.12 x 18.94 x 21.10 inch
淨重	<ul style="list-style-type: none"> • TS-873U : 9.86 kg (21.74 lbs.) • TS-873U-RP : 10.96 kg (24.16 lbs.) 	<ul style="list-style-type: none"> • TS-1273U : 10.71 kg (23.62 lbs.) • TS-1273U-RP : 11.81 kg (26.04 lbs.) 	<ul style="list-style-type: none"> • TS-1673U : 14.25 kg (31.42 lbs.) • TS-1673U-RP : 15.42 kg (34 lbs.)
電源供應器	<ul style="list-style-type: none"> • TS-873U : 1 x 250W · 100-240V AC · 50/60 Hz • TS-873U-RP : 2 x 250W · 100-240V AC · 50/60 Hz 	<ul style="list-style-type: none"> • TS-1273U : 1 x 350W · 100-240V AC · 50/60 Hz • TS-1273U-RP : 2 x 300W · 100-240V AC · 50/60 Hz 	<ul style="list-style-type: none"> • TS-1673U : 1 x 350W · 100-240V AC · 50/60 Hz • TS-1673U-RP : 2 x 500W · 100-240V AC · 50/60 Hz
系統電池	CR2032 鋰電池 (3V · 225mAh)  警告 如需更換系統電池，務必使用相同類型的電池替換，以免發生爆炸事故。		
風扇	系統：2 x 70 mm	系統：2 x 70 mm	系統：4 x 92 mm  警告 請勿在 NAS 連上電源時觸碰風扇，以免受到嚴重傷害。
操作溫度	0 到 40°C (32 到 104°F)		
相對濕度	<ul style="list-style-type: none"> • 不凝結相對溼度：5 到 95% • 濕球溫度：27°C (80.6°F) 		
安全鎖	Kensington 安全鎖		

**注意**

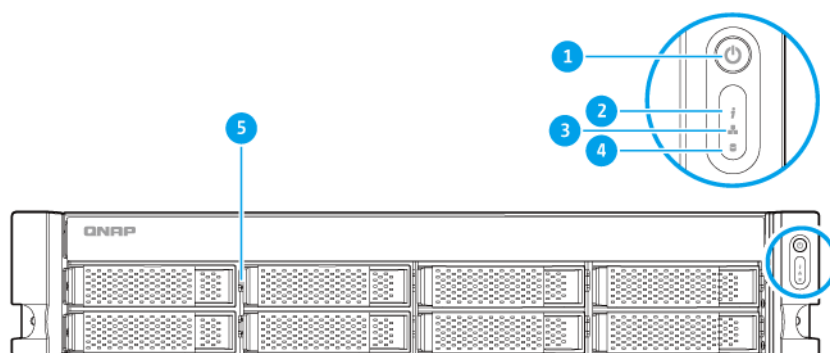
型號規格如有變更，恕不另行通知。若要查看最新規格，請前往 <https://www.qnap.com>。

包裝內容

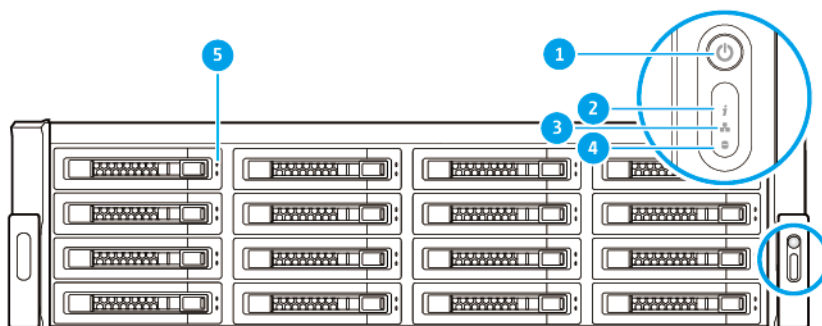
項目	數量
TS-x73U NAS	1
電源線	<ul style="list-style-type: none"> • TS-873U、TS-1273U、TS-1673U：1 • TS-873U-RP、TS-1273U-RP、TS-1673U-RP：2
乙太網路線	2 條 Gigabit 網路線
3.5 吋硬碟用螺絲	<ul style="list-style-type: none"> • TS-873U、TS-873U-RP：32 • TS-1273U、TS-1273U-RP：48 • TS-1673U、TS-1673U-RP：64
2.5 吋硬碟用螺絲	<ul style="list-style-type: none"> • TS-873U、TS-873U-RP：24 • TS-1273U、TS-1273U-RP：36 • TS-1673U、TS-1673U-RP：48
M.2 SSD 用螺絲	<ul style="list-style-type: none"> • 2 顆平頭機械螺絲 • 2 顆 Riser 螺絲
M.2 SSD 散熱器	2
快速安裝手冊	1

元件

前面板



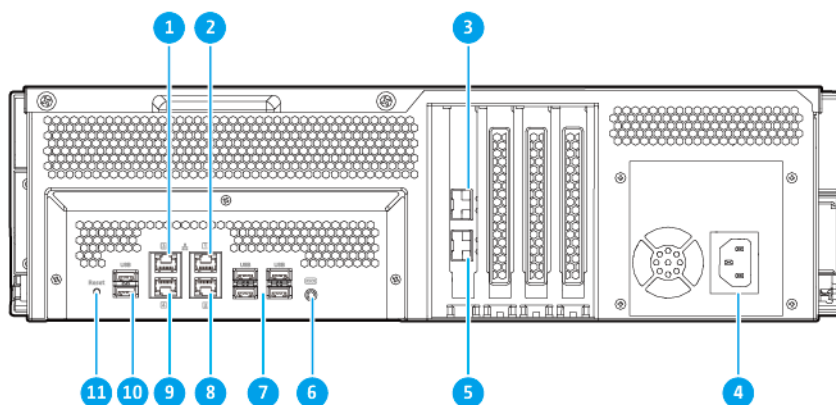
TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP



TS-1673U、TS-1673U-RP

編號	元件	編號	元件
1	電源按鈕	4	擴充設備 LED 燈號
2	狀態 LED 燈	5	硬碟狀態 LED 燈號
3	Gigabit 乙太網路 LED 燈號	-	-

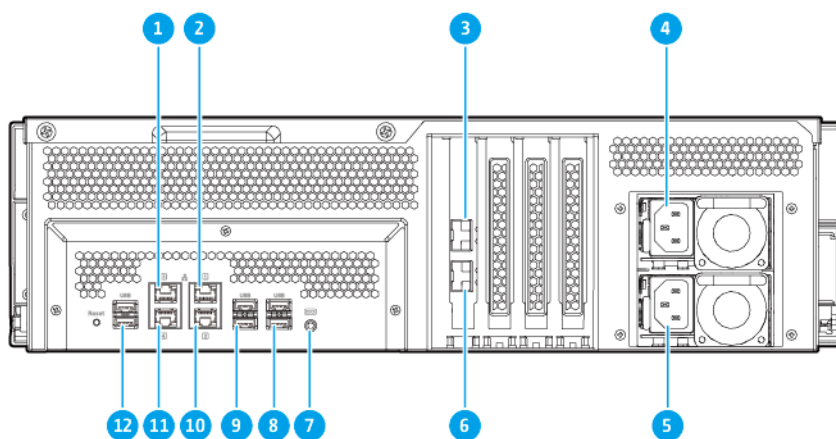
背面板



TS-873U、TS-1273U、TS-1673U

編號	元件	編號	元件
1	Gigabit 乙太網路埠 3	7	USB 2.0 埠
2	Gigabit 網路埠 1	8	Gigabit 網路埠 2

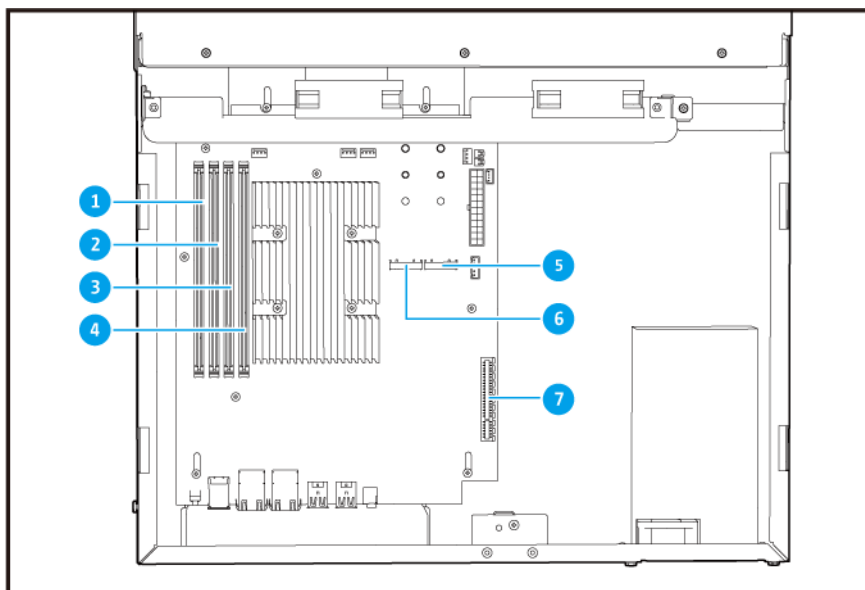
編號	元件	編號	元件
3	10 Gigabit 乙太網路埠 1	9	Gigabit 網路埠 4
4	電源埠	10	USB 3.0 埠
5	10 Gigabit 乙太網路埠 2	11	重設按鈕
6	維護用連接埠	-	-



TS-873U-RP、TS-1273U-RP、TS-1673U-RP

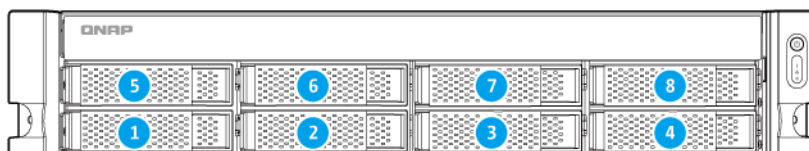
編號	元件	編號	元件
1	Gigabit 網路埠 3	7	維護用連接埠
2	Gigabit 網路埠 1	8	USB 2.0 埠
3	10 Gigabit SFP+ 網路埠 1	9	Gigabit 網路埠 2
4	電源供應器 1	10	Gigabit 網路埠 4
5	電源供應器 2	11	USB 3.0 埠
6	10 Gigabit SFP+ 網路埠 2	12	重設按鈕

系統板

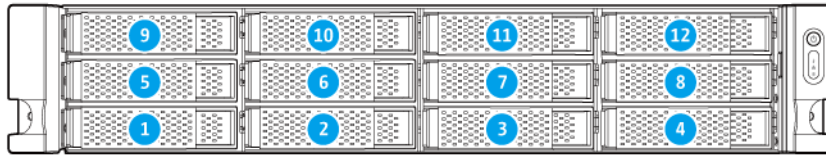


編號	元件	編號	元件
1	DIMM 記憶體插槽 4	5	M.2.SSD 插槽 1
2	DIMM 記憶體插槽 3	6	M.2.SSD 插槽 2
3	DIMM 記憶體插槽 2	7	PCIe 3.0 x4
4	DIMM 記憶體插槽 1	-	-

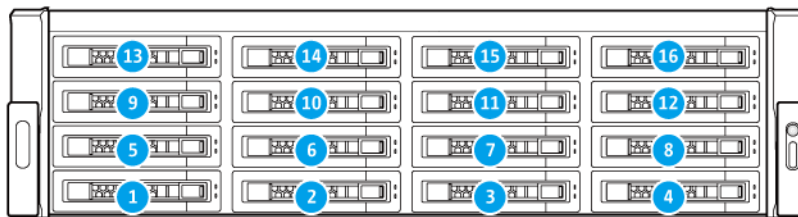
前端硬碟編號



TS-873U、TS-873U-RP

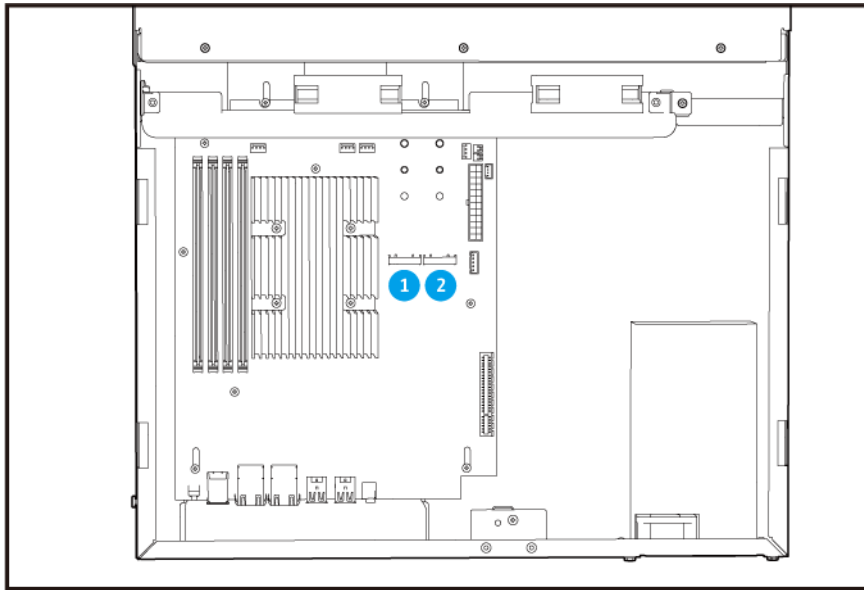


TS-1273U、TS-1273U-RP



TS-1673U、TS-1673U-RP

M.2 固態硬碟編號



安全資訊

以下指示幫助確保人身安全及環境安全。執行任何操作前，請仔細閱讀本安全指示。

一般指示

- NAS 應放置在實施進出管制的場所，控管方式包括工具、鎖鑰或其他安全機制。
- 唯有具技能且獲得授權的合格裝置管理員能夠存取 NAS；合格裝置管理員必須熟悉所有管制方法、安全注意事項、安裝及保養程序。
- 為避免受傷或元件損壞，在觸碰硬碟及其他內部系統元件前，請先確認其是否已經冷卻。
- 請遵守靜電放電 (ESD) 程序以防止潛在傷害或元件損壞。

電源

- 為了降低走火或觸電風險，務必只將電源線連接至適當的接地電源插座。



具有備援電源供應器的裝置可能配備一條或以上電源供應器 (PSU) 的電源線。為防止嚴重傷害事故發生，在安裝或更換系統元件前，所有 PSU 電源線必須由經訓練之維修技術人員從裝置拔除。

系統電池

- 更換電池時，請務必使用相同類型的電池，以免電池爆炸造成受傷或元件損壞。
- 請遵照當地法規或電池製造商的指示妥善處置廢棄電池。

移動零件

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移動之風扇葉片：裝置連接至電源時，請使身體部位遠離移動中之風扇葉片。

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移動元件：使身體部位遠離其他移動元件。

安裝需求

類別	項目
環境	<ul style="list-style-type: none"> 室溫：0 到 40°C (32 到 104°F) 不凝結相對溼度：5 到 95% 濕球溫度：27°C (80.6°F) 平坦且防靜電的表面，不受陽光直射，亦不與液體和化學物質接觸。
硬體和週邊設備	<ul style="list-style-type: none"> 儲存硬碟 如需相容硬碟的詳細資訊，請前往 https://www.qnap.com/compatibility/。 網路線
工具	<ul style="list-style-type: none"> 1 號或 2 號十字螺絲起子 防靜電腕帶

設定 NAS



重要

設定 NAS 或安裝 NAS 元件前，請詳閱[安全資訊](#)中所有安全要求及資訊。

- 將 NAS 裝置放置在符合需求的環境。
如需詳細資訊，請參見：[安裝需求](#)。
- 將 NAS 安裝到機架上。
如需詳細資訊，請參見：[機架滑軌](#)。
- 安裝硬碟。
如需詳細資訊，請參見下列主題：
 - [在 3.5 吋托盤上安裝 3.5 吋硬碟](#)
 - [在 3.5 吋托盤上安裝 2.5 吋硬碟或固態硬碟](#)
 - [安裝 M.2 固態硬碟](#)
- 連接電源線與所有適用的網路線。

5. 打開 NAS 電源。
6. 安裝 QTS。
如需詳細資訊，請參見：[QTS 安裝](#)。
7. 登入 QTS。

3. 安裝與設定

本章介紹特定硬體及韌體的安裝與設定步驟。

硬體安裝

本節介紹安裝硬碟、記憶體模組以及擴充卡的相關資訊。

安裝硬碟

TS-x73U 與 3.5 吋 和 2.5 吋硬碟以及 2.5 吋和 M.2 固態硬碟相容。全部硬碟插槽都支援 SSD 快取加速。

在 3.5 吋托盤上安裝 3.5 吋硬碟



警告

- 安裝硬碟會刪除硬碟上的所有資料。
- 請遵守靜電放電 (ESD) 程序以防止元件損壞。

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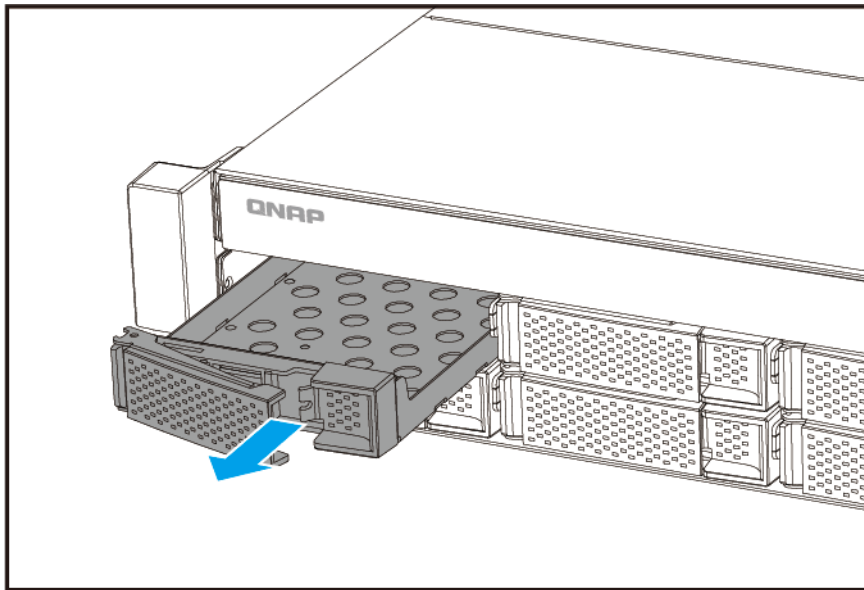
轉動中之風扇葉片：使雙手及其他身體部位遠離轉動中之風扇葉片。

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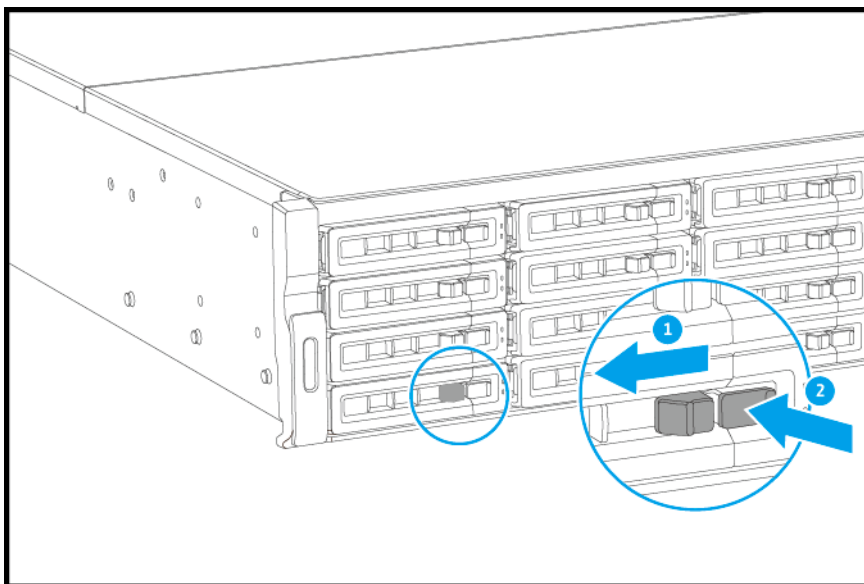
其他移動元件：使雙手及其他身體部位遠離其他移動元件。

1. 關閉 NAS 電源。
2. 抽出硬碟托盤。
 - TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP
 1. 拉把手以鬆開托盤。
 2. 將托盤拉出。

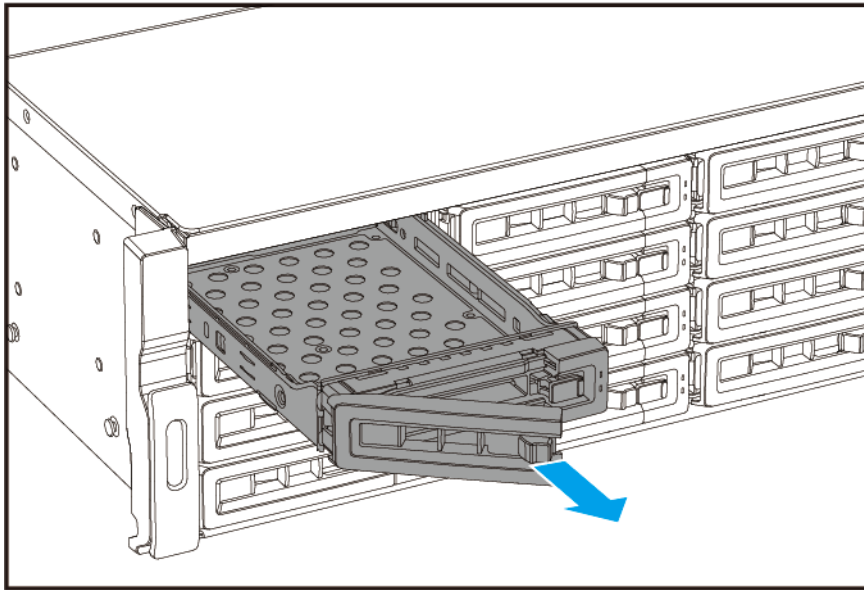


• TS-1673U、TS-1673U-RP

1. 找到固定鎖的位置。
2. 將固定鎖向左推。
3. 按下灰色按鈕以鬆開把手。



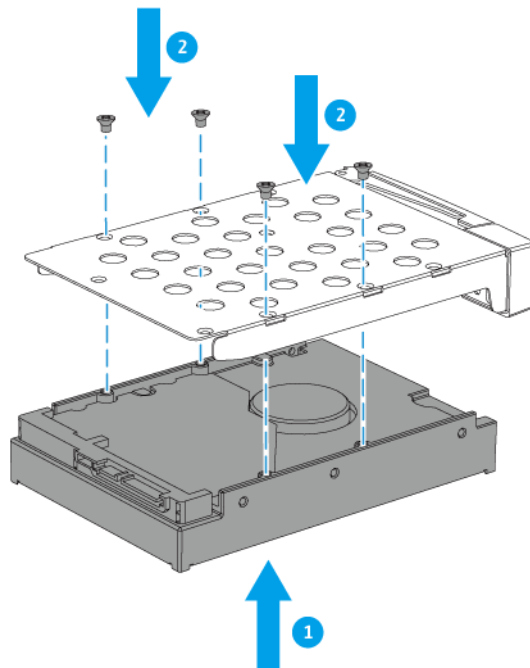
4. 將托盤拉出。



3. 在硬碟托盤上安裝硬碟。

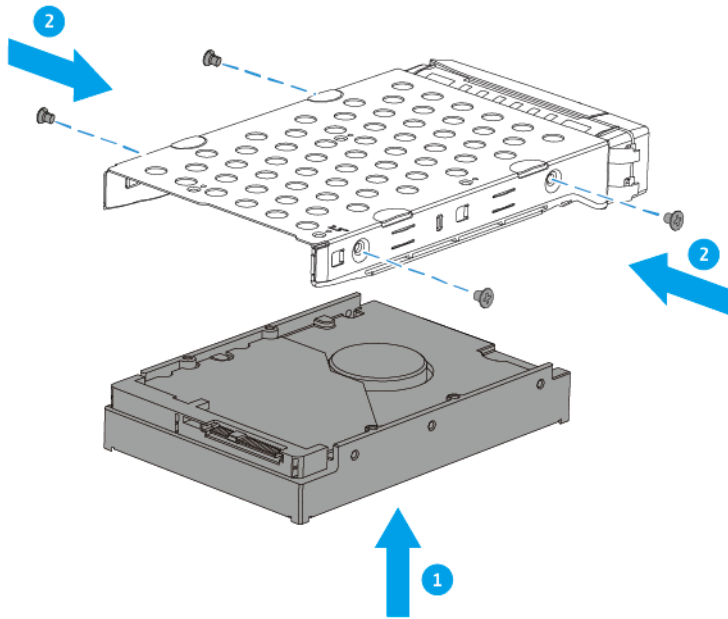
- TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP

1. 將硬碟放在托盤上，讓硬碟底部的孔洞與托盤底部的孔洞對齊。
2. 鎖上螺絲。



- TS-1673U、TS-1673U-RP

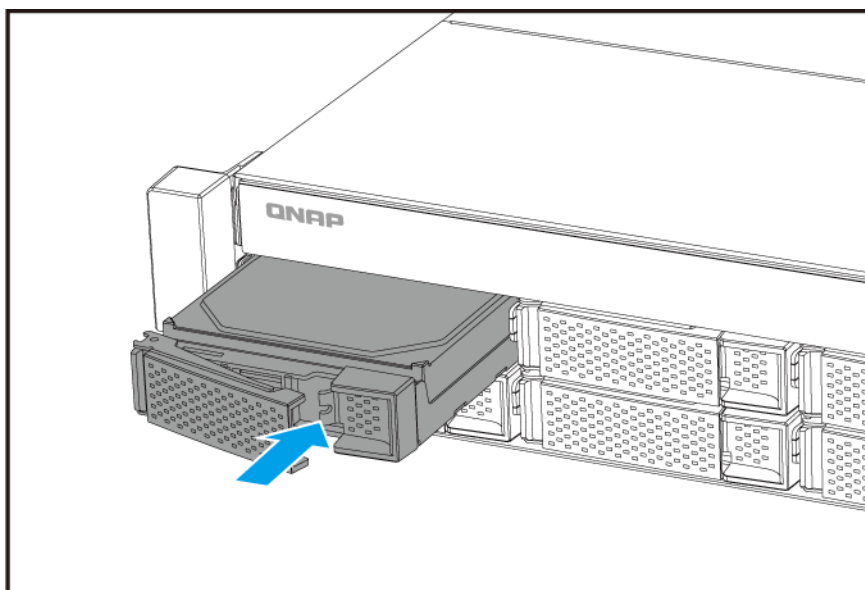
1. 將硬碟放在托盤上，讓硬碟側邊的孔洞與托盤側邊的孔洞對齊。
2. 鎖上螺絲。



4. 將硬碟托盤裝入硬碟插槽。

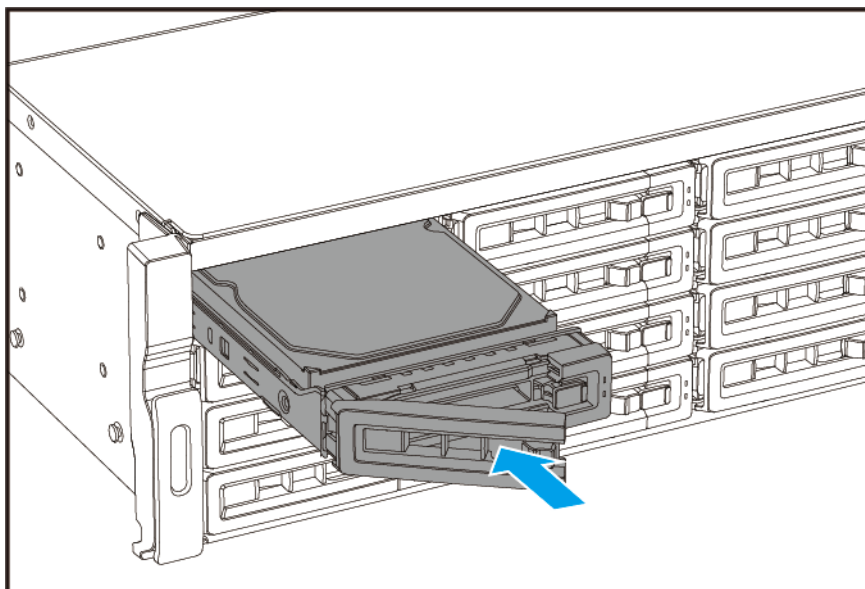
- TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP

1. 將托盤插入插槽。
2. 推入把手。



• TS-1673U、TS-1673U-RP

1. 將托盤插入插槽。
2. 推入把手。
3. 將固定鎖向右推。



5. 打開 NAS 電源。

在 3.5 吋托盤上安裝 2.5 吋硬碟或固態硬碟



警告

- 安裝硬碟會刪除硬碟上的所有資料。
- 請遵守靜電放電 (ESD) 程序以防止元件損壞。



轉動中之風扇葉片：使雙手及其他身體部位遠離轉動中之風扇葉片。



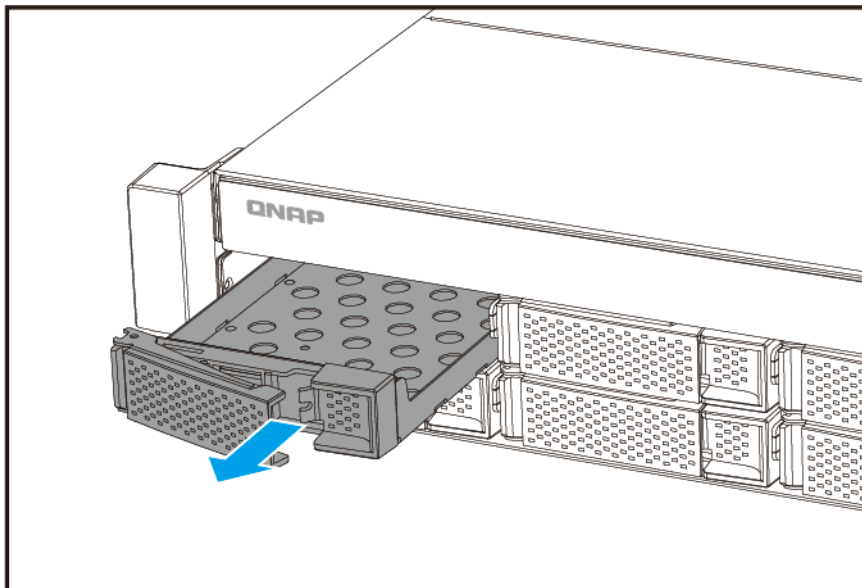
其他移動元件：使雙手及其他身體部位遠離其他移動元件。

1. 關閉 NAS 電源。

2. 抽出硬碟托盤。

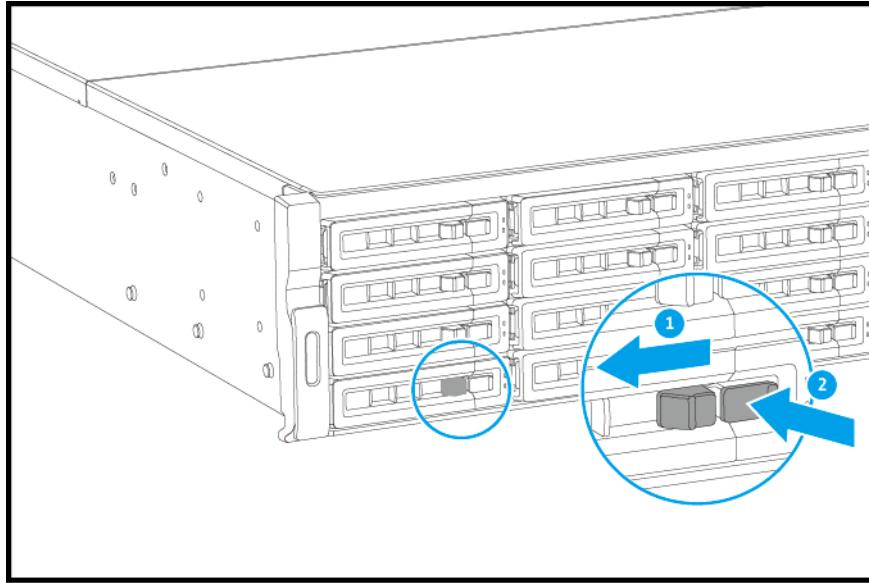
- TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP

1. 拉把手以鬆開托盤。
2. 將托盤拉出。

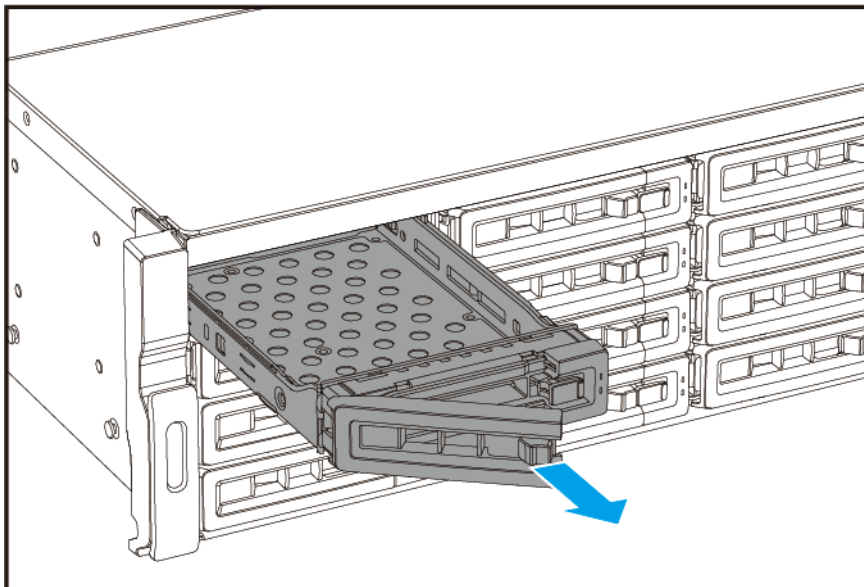


- TS-1673U、TS-1673U-RP

1. 找到固定鎖的位置。
2. 將固定鎖向左推。
3. 按下灰色按鈕以鬆開把手。



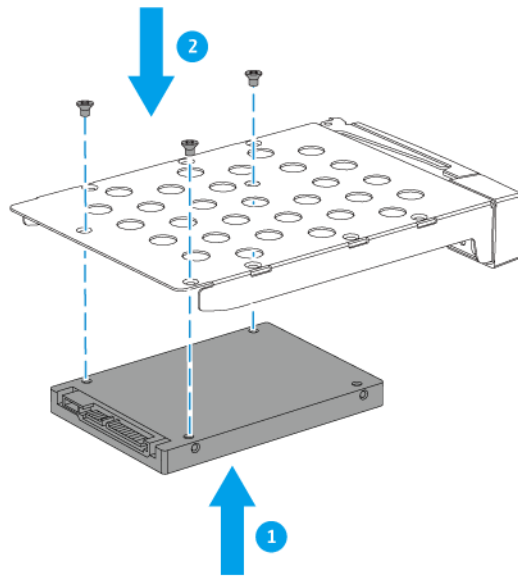
4. 將托盤拉出。



3. 在硬碟托盤上安裝硬碟。

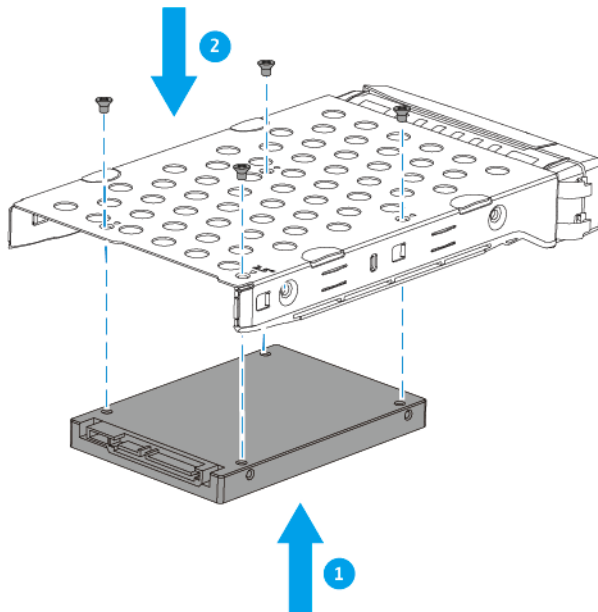
- TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP

1. 將硬碟放在托盤上，讓硬碟底部的孔洞與托盤底部的孔洞對齊。
2. 鎖上螺絲。



- TS-1673U、TS-1673U-RP

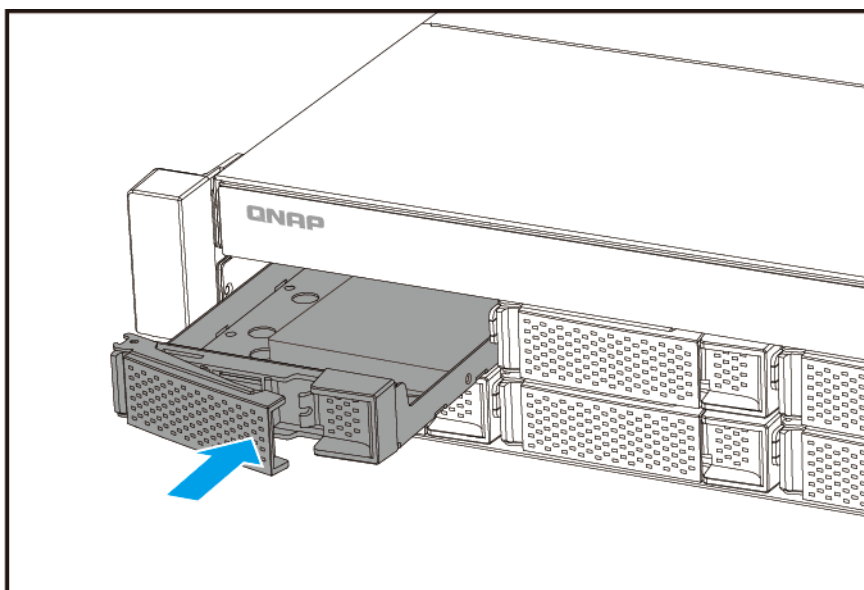
1. 將硬碟放在托盤上，讓硬碟底部的孔洞與托盤底部的孔洞對齊。
2. 鎖上螺絲。



4. 將硬碟托盤裝入硬碟插槽。

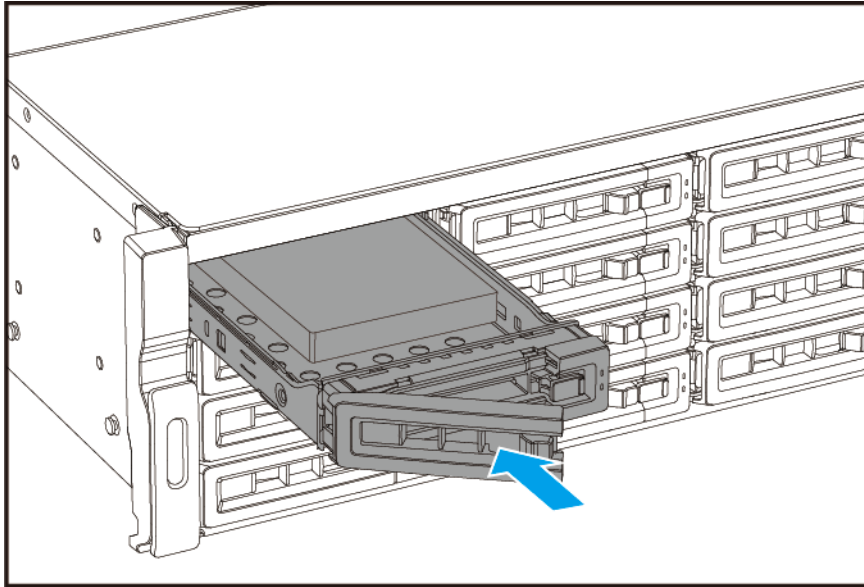
- TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP

1. 將托盤插入插槽。
2. 推入把手。



- TS-1673U、TS-1673U-RP

1. 將托盤插入硬碟插槽。
2. 推入把手。
3. 將固定鎖向右推。



5. 打開 NAS 電源。

安裝 M.2 固態硬碟

TS-x73U 具有兩個 M.2 SATA 6Gbps SSD 插槽。請前往 <http://www.qnap.com/compatibility> 查看相容的 M.2 SSD 清單。



警告

- 僅限合格人員可執行下列步驟。未遵照指示操作可能導致嚴重傷害或死亡。
- 請遵守靜電放電 (ESD) 程序以防止元件損壞。



轉動中之風扇葉片：使雙手及其他身體部位遠離轉動中之風扇葉片。



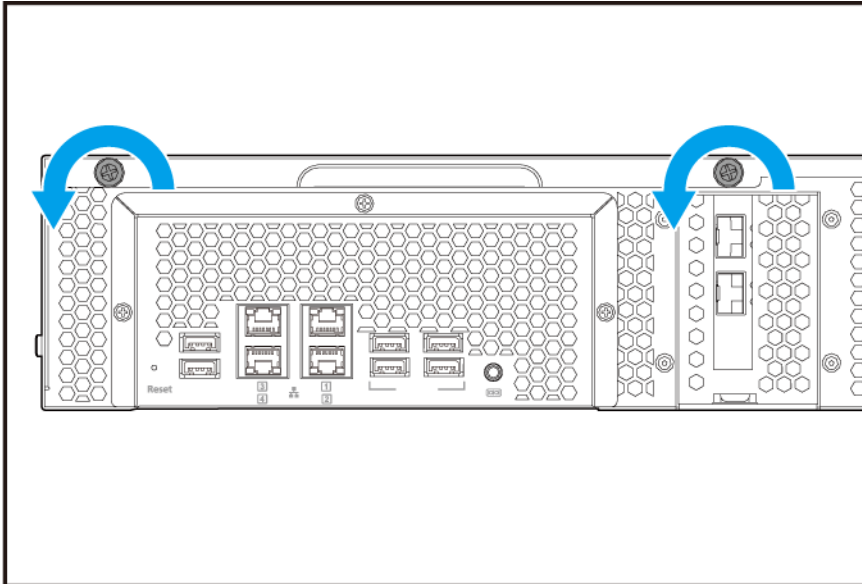
其他移動元件：使雙手及其他身體部位遠離其他移動元件。



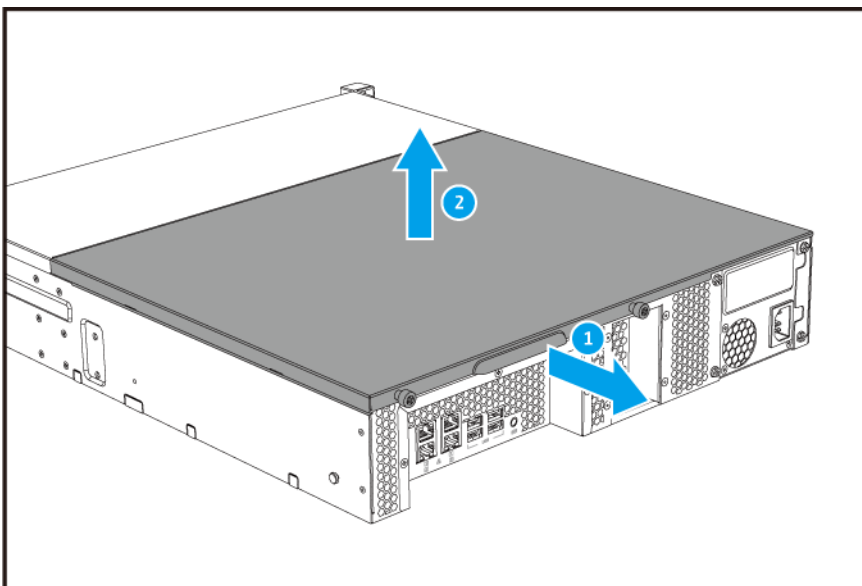
注意

QNAP 建議在 M.2 SSD 控制器上安裝散熱器，以提高散熱效率並確保效能一致。

1. 關閉 NAS 電源。
2. 從電源插座拔下電源線。
3. 中斷所有連接線和外接裝置的連線。
4. 卸除上蓋。
 - a. 鬆開殼蓋背面的螺絲。



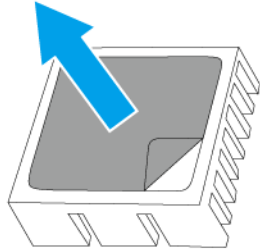
- b. 使用把手將殼蓋從 NAS 拉開。
- c. 拿起殼蓋。



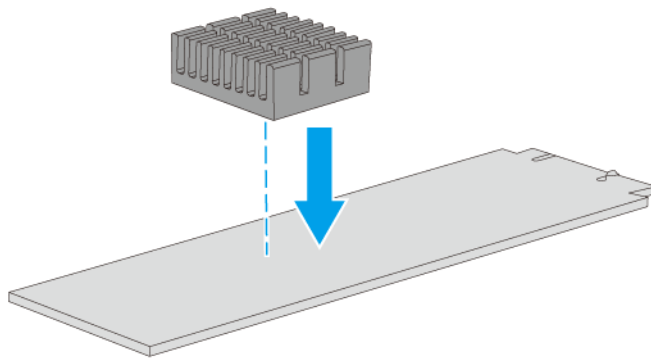
5. 在 M.2 SSD 控制器上安裝散熱器。
 - a. 找到 M.2 SSD 上的控制器。

控制器的位置會因 M.2 SSD 的型號與製造商而不同。
如需詳細資訊，請參見相關文件或聯絡製造商。

- b. 取下散熱器底部的保護膜。



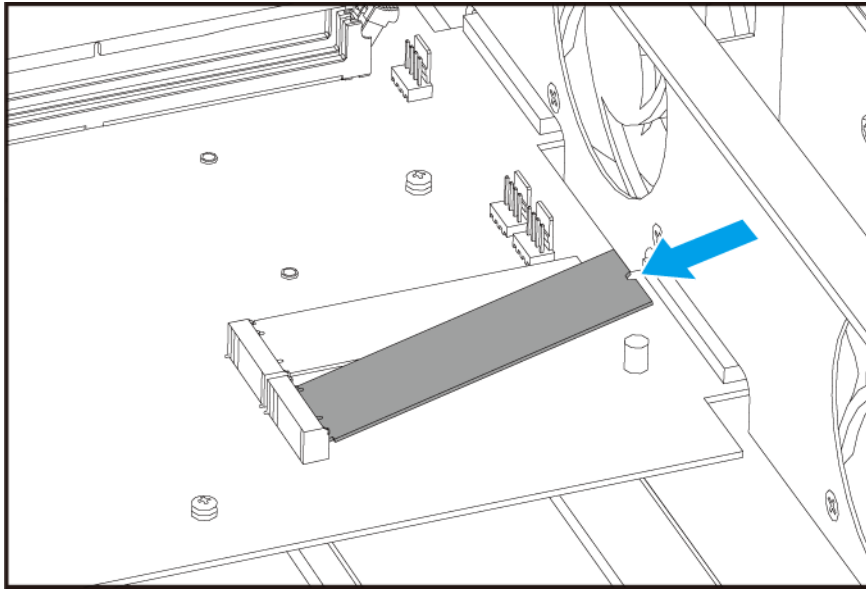
- c. 在控制器上安裝散熱器。



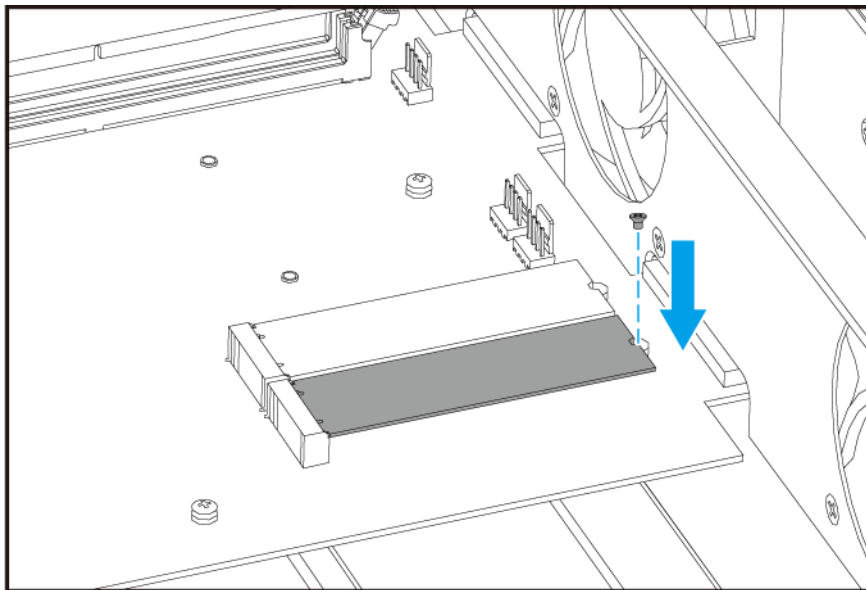
6. 為 2260 M.2 SSD 插入一根 Riser 螺絲。

7. 安裝 M.2 SSD。

- a. 將 M.2 SSD 插入插槽。

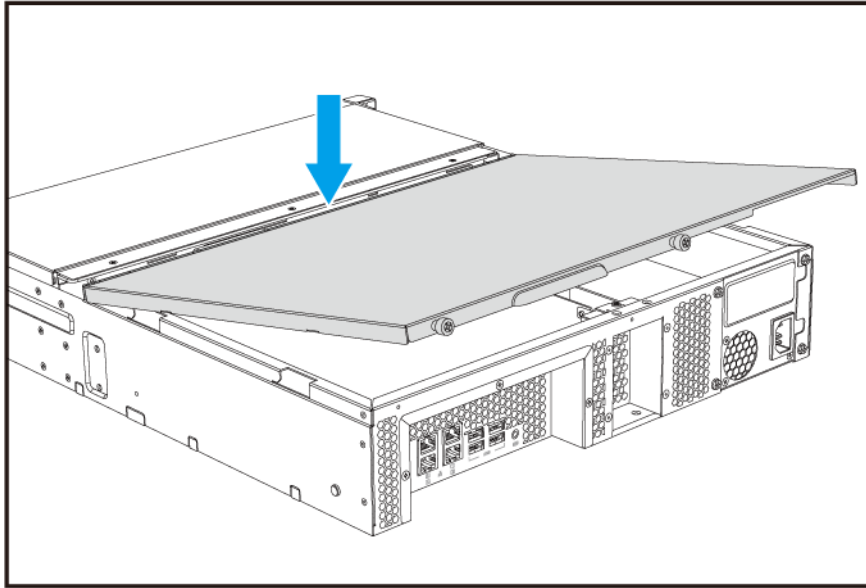


b. 將平頭螺絲鎖到 Riser 螺絲上。

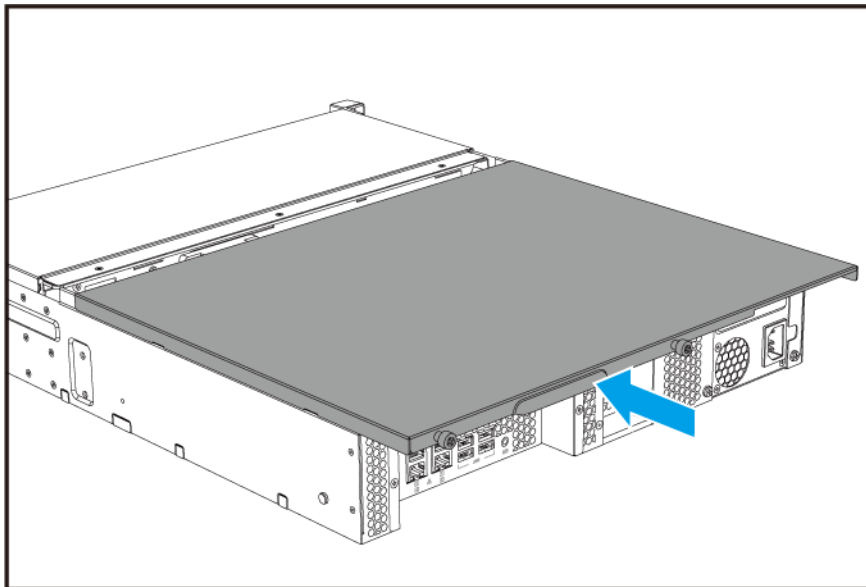


8. 安裝上蓋。

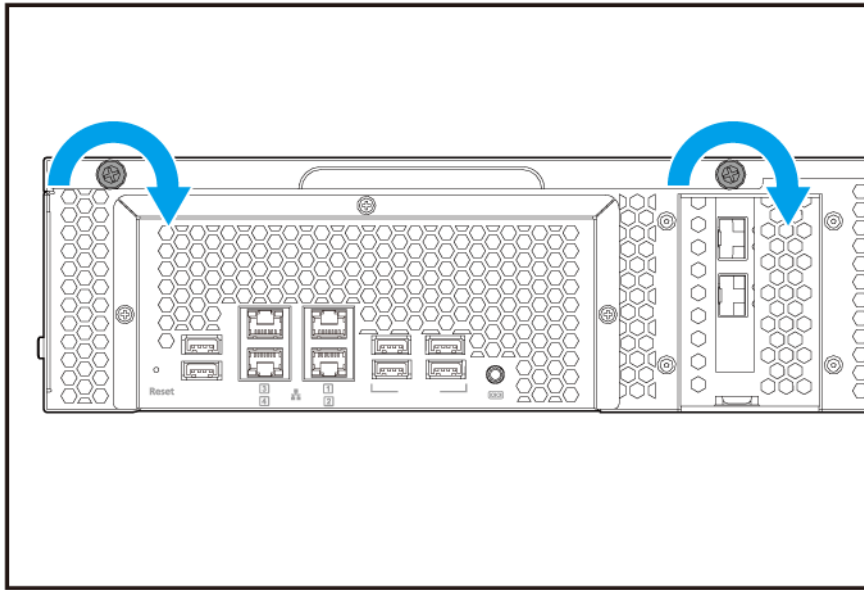
a. 將殼蓋放在 NAS 上。



b. 將殼蓋推回 NAS。



c. 鎖緊螺絲。



9. 連上所有連接線和外接裝置。
10. 將電源線插入電源插座。
11. 打開 NAS 電源。

安裝擴充卡

PCIe 插槽已預先安裝一個雙埠 10 GbE SFP+ 網路擴充卡。您可以將它替換為另一個支援的 PCIe 擴充卡。

在公司網站購買的 QNAP 品牌擴充卡會隨附所有 QNAP NAS 型號適用的必要固定片。TS-873U、TS-873U-RP、TS-1273U 以及 TS-1273U-RP 使用短檔板；TS-1673U 和 TS-1673U-RP 使用長檔板。



警告

- 僅限合格人員可執行下列步驟。未遵照指示操作可能導致嚴重傷害或死亡。
- 請遵守靜電放電 (ESD) 程序以防止元件損壞。



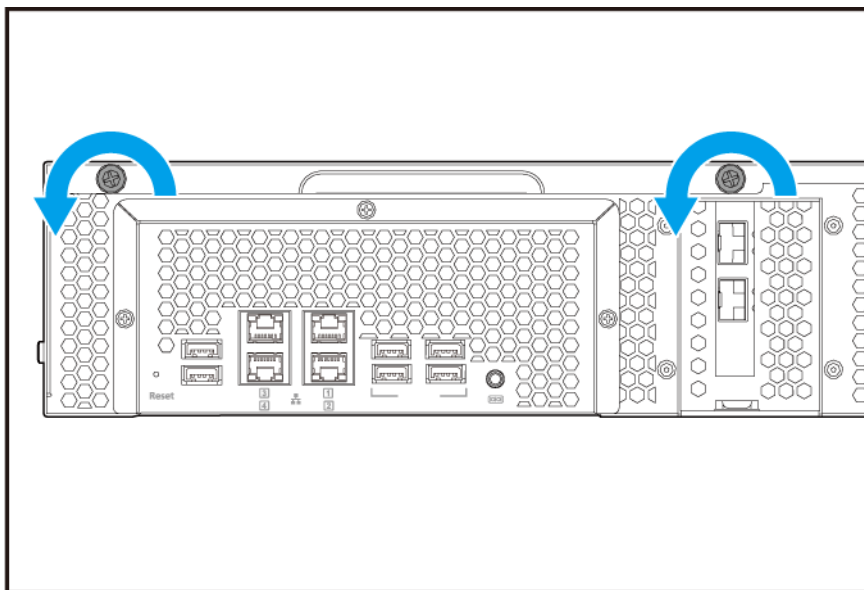
轉動中之風扇葉片：使雙手及其他身體部位遠離轉動中之風扇葉片。



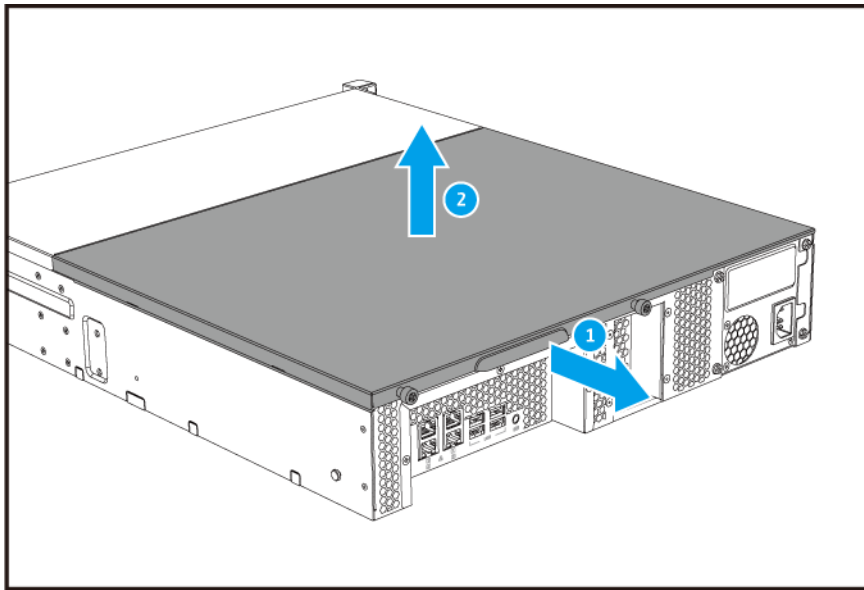
其他移動元件：使雙手及其他身體部位遠離其他移動元件。

1. 在 QNAP 網站查看您型號適用的擴充卡和固定片。
 - a. 前往 www.qnap.com/compatibility。
 - b. 按一下 [依 NAS 搜尋]。

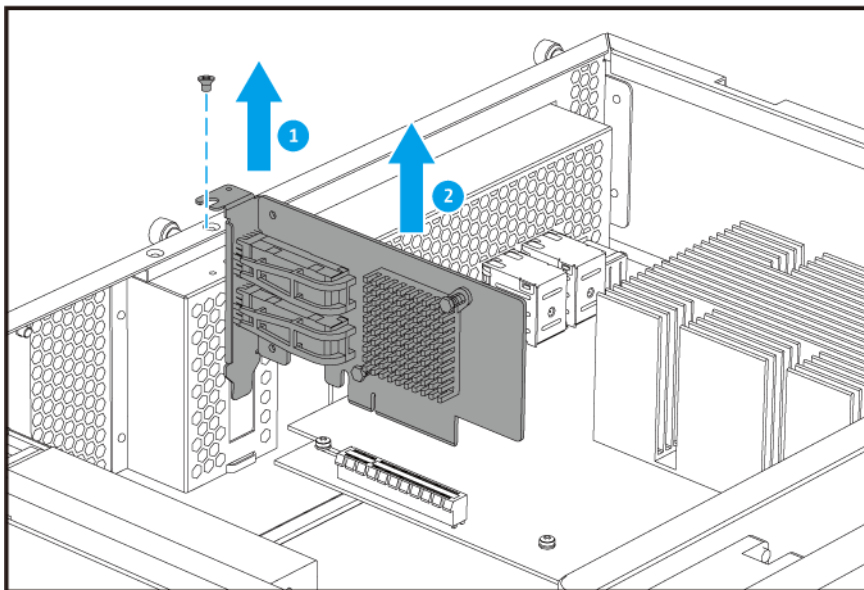
- c. 指定插槽數目以及您 NAS 的特定型號。
 - d. 在 [類別] 底下，選擇元件或裝置類型。
 - e. 在清單中找出特定元件或裝置型號。
 - f. 選擇性: 按一下對應的 [備註] 圖示可查看詳細資訊。
2. 關閉 NAS 電源。
 3. 從電源插座拔下電源線。
 4. 中斷所有連接線和外接裝置的連線。
 5. 卸除上蓋。
 - a. 鬆開殼蓋背面的螺絲。



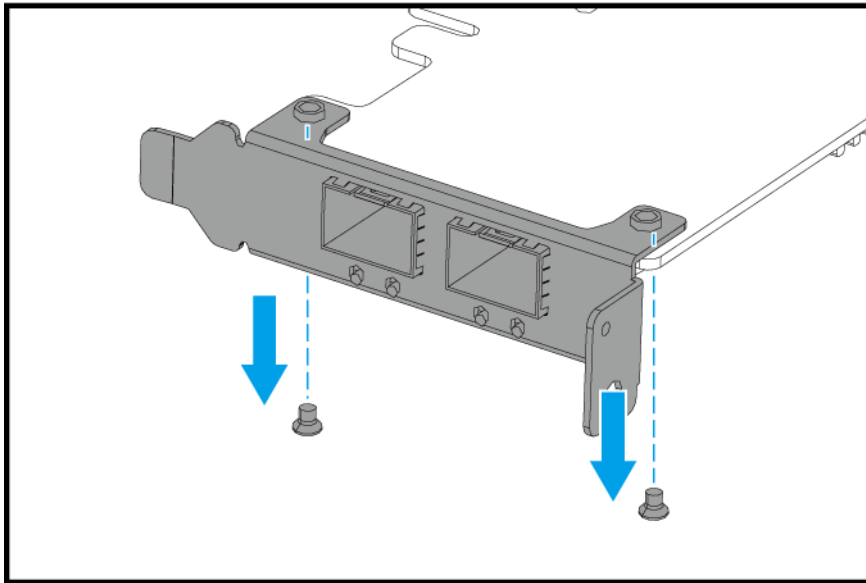
- b. 使用把手將殼蓋從 NAS 拉開
- c. 拿起殼蓋。



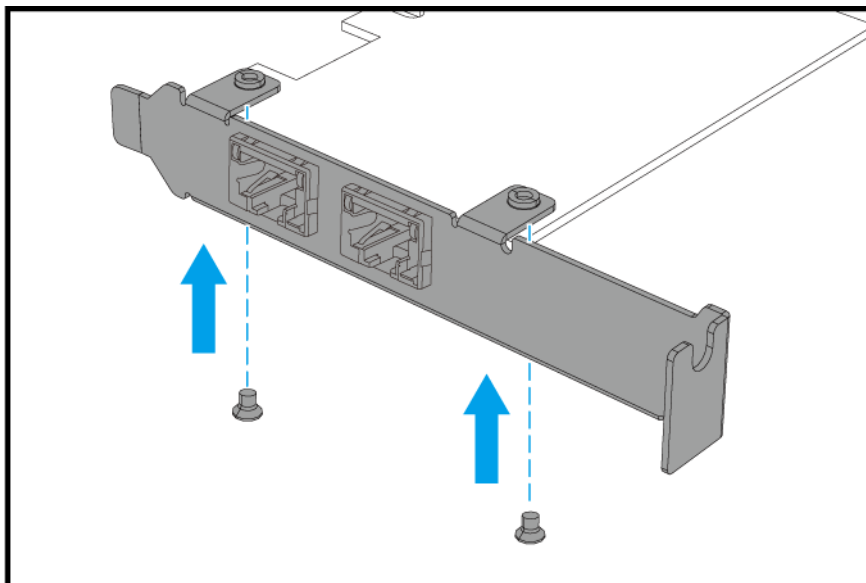
6. 取下現有的擴充卡。
 - a. 取下用於固定 PCIe 檔板和機殼的螺絲。
 - b. 握住擴充卡的邊緣，然後小心地將它從插槽拉出。



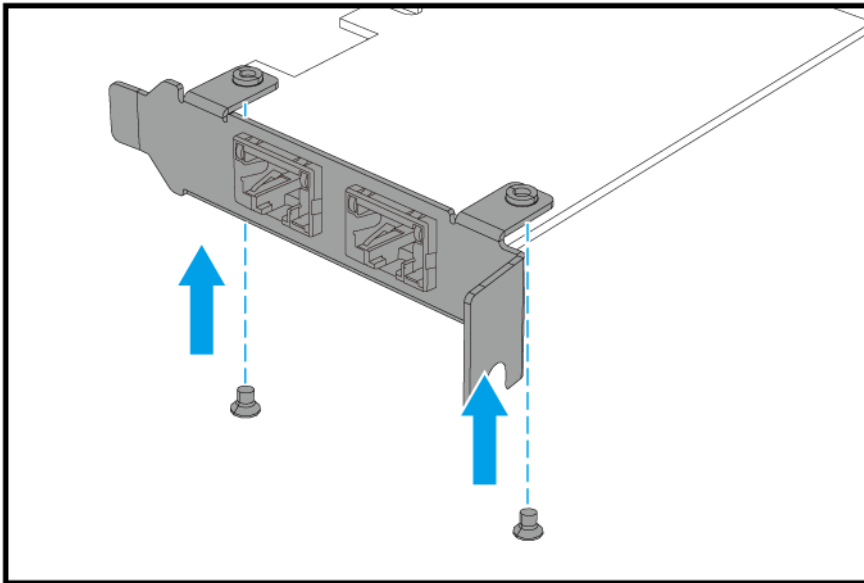
7. 選擇性: 將 QNAP 固定片裝至擴充卡。
 - a. 取下現有固定片的所有螺絲。



- b. 小心地將固定片與擴充卡分開。
- c. 利用相同的螺絲將 QNAP 固定片裝至擴充卡。

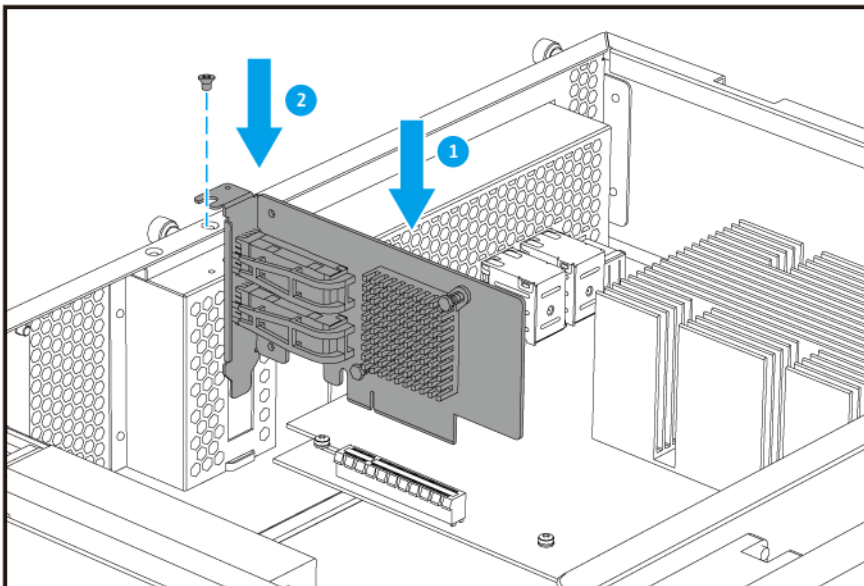


TS-1673U、TS-1673U-RP

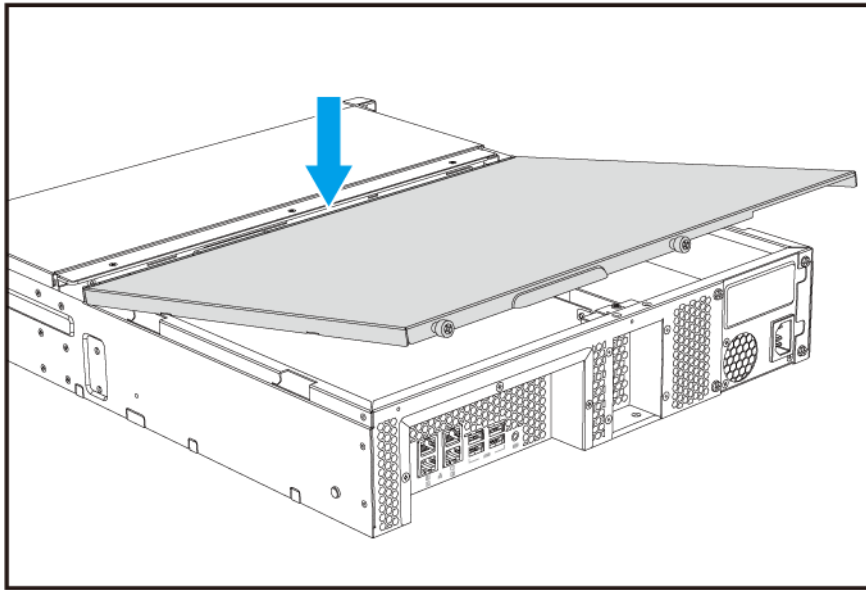


TS-873U、TS-873U-RP、TS-1273U、TS-1273U-RP

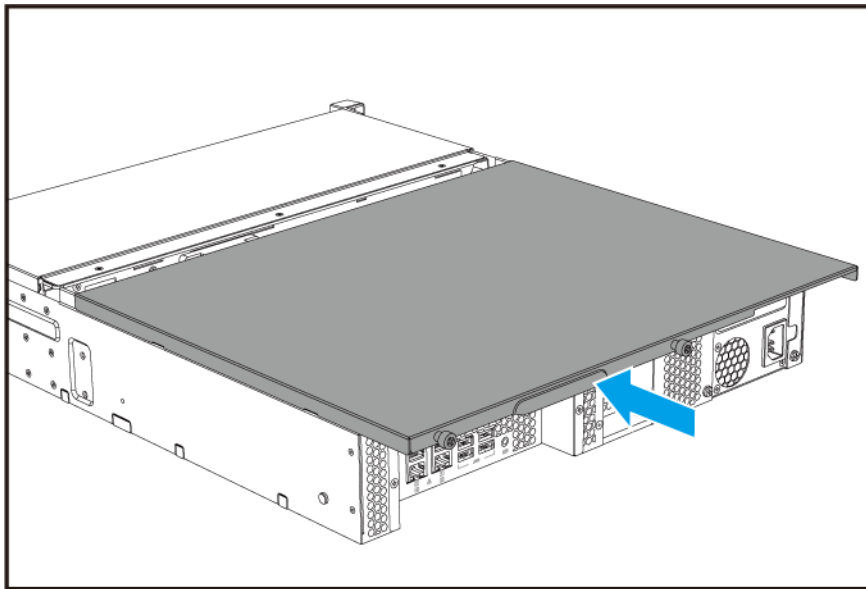
- d. 確認固定片是否牢固不動。
8. 安裝擴充卡。
 - a. 握住擴充卡的邊緣。
 - b. 將擴充卡插入插槽。
 - c. 鎖上螺絲。



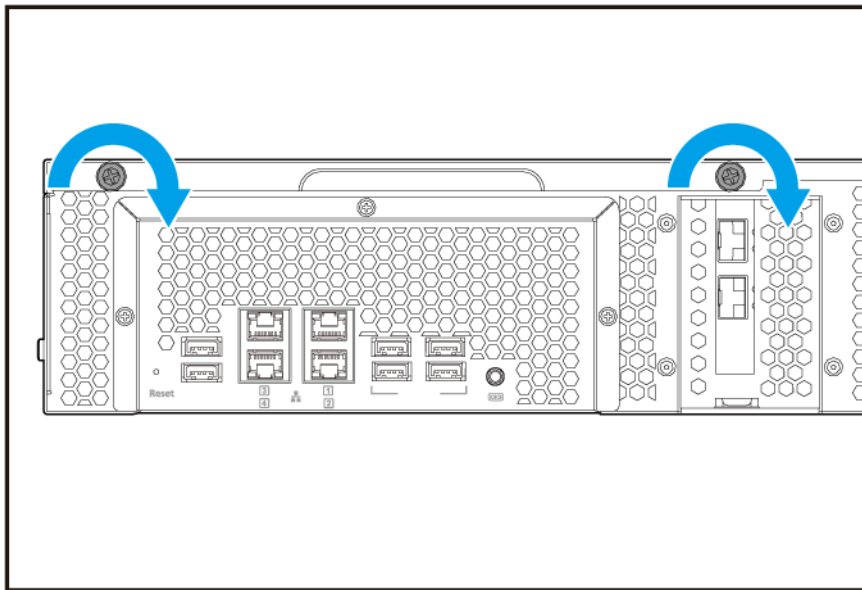
9. 安裝上蓋。
 - a. 將殼蓋放在 NAS 上。



b. 將殼蓋推回 NAS。



c. 鎖緊螺絲。



10. 連上所有連接線和外接裝置。
11. 將電源線插入電源插座。
12. 打開 NAS 電源。

擴充設備

TS-x73U 支援 SAS 與 USB 擴充設備。

類型	說明	必要配件
SAS	<ul style="list-style-type: none"> • 使用 SAS 12 Gbps 介面 • 支援最多八個擴充設備 • 支援 SAS 12 Gbps 與 6 Gbps 硬碟 	<ul style="list-style-type: none"> • SAS-12G2E 儲存擴充卡 • Mini-SAS SFF-8644 連接線 • RAIL-A03-57 機架滑軌
USB	<ul style="list-style-type: none"> • 使用 USB 3.0 A 型介面 • 支援最多兩個擴充設備 • 支援 SATA 6 Gbps 硬碟 	RAIL-B01 機架滑軌

連接 SAS 擴充設備

TS-x73U 最多支援八個 SAS 擴充設備；以下為相容的型號：

- REXP-1220U-RP
- REXP-1620U-RP

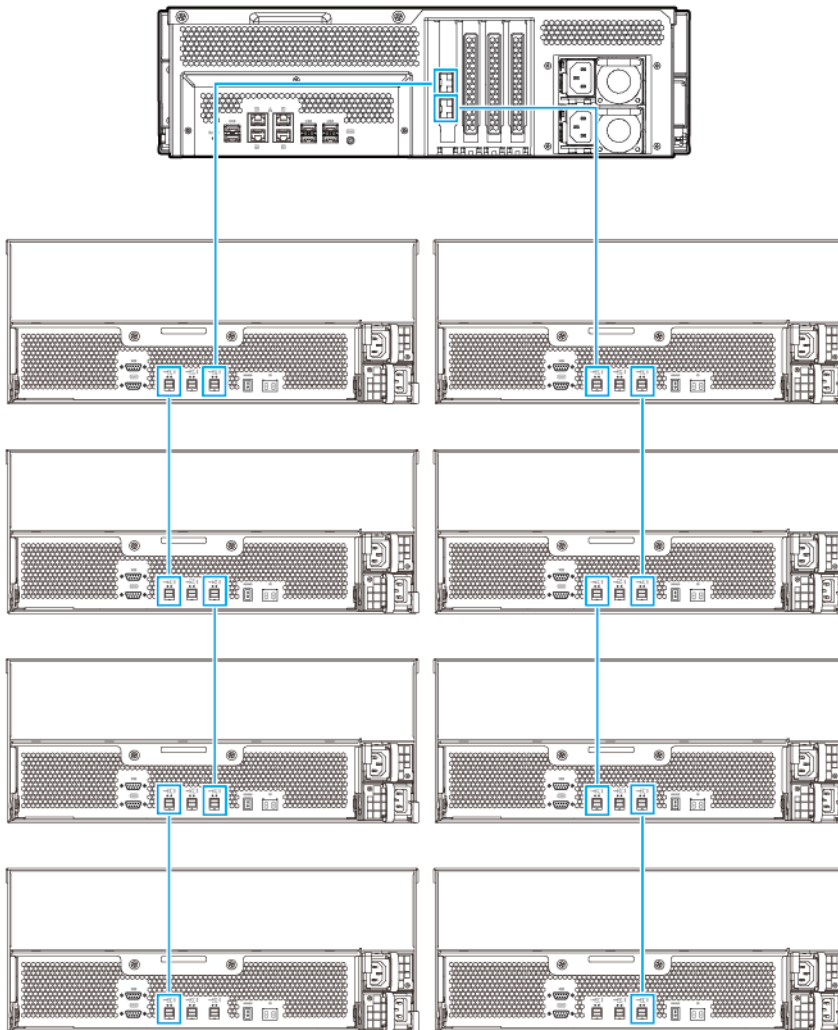
若要使用 SAS 擴充設備，您必須在 NAS 上安裝 SAS-12G2E 儲存擴充卡，並使用 Mini-SAS SFF-8644 連接線將擴充卡與擴充設備連接起來。您可以向 QNAP 或授權經銷商購買儲存擴充配件。

如需詳細資訊，請瀏覽：<https://shop.qnap.com/>。

1. 在 PCIe 插槽安裝儲存擴充卡。

如需詳細資訊，請參見 [安裝擴充卡](#)

- 請按照下列拓撲圖，使用 Mini-SAS SFF-8644 連接線將擴充設備連接到 NAS。



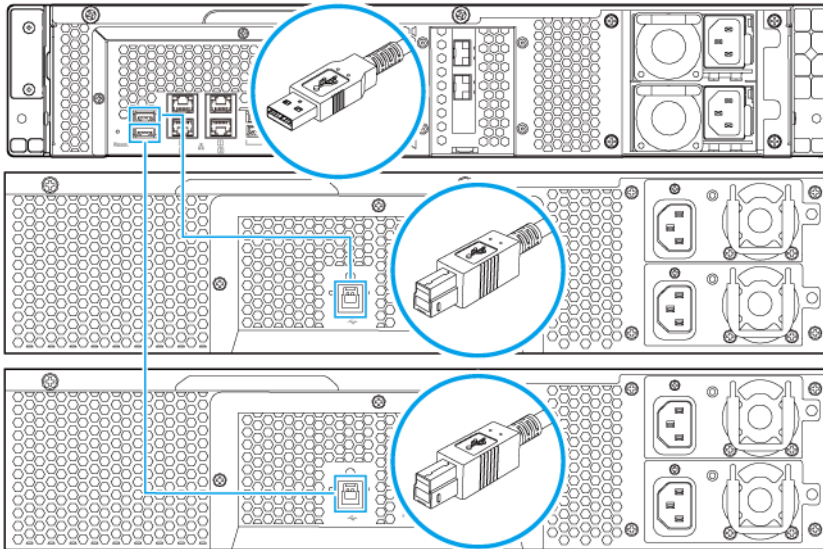
- 開啟擴充設備的電源。
- 確認 NAS 可辨識所有擴充設備。
 - 以管理員身份登入 QTS。
 - 前往 [主選單] > [儲存與快照總管] > [總覽] > [系統]。
 - 確認畫面列出擴充設備。

連接 USB 擴充設備

TS-x73U 最多支援兩個 USB 擴充設備；以下為相容的型號：

- UX-800U-RP
- UX-1200U-RP

1. 將擴充設備連接至 NAS。
 - a. 將 USB 連接線接至擴充設備上的 USB 3.0 Type-B 連接埠。
 - b. 將 USB 連接線接至 NAS 上的 USB 3.0 Type-A 連接埠。



2. 開啟擴充設備的電源。
3. 確認 NAS 可辨識所有擴充設備。
 - a. 以管理員身份登入 QTS。
 - b. 前往 [主選單] > [儲存與快照總管] > [總覽] > [系統]。
 - c. 確認畫面列出擴充設備。

更換記憶體模組

NAS 具有四個記憶體插槽。您透過可以升級記憶體模組來增加 NAS 的記憶體容量。使用多個記憶體模組時，請一律用相同類型與容量的 QNAP 記憶體模組，以維持系統效能和穩定性。您可向授權經銷商購買 QNAP 記憶體模組。

更換記憶體模組時，請確定以下事項：

1. 其中一個記憶體模組須裝在插槽 1。
2. 只安裝兩個記憶體模組時，請裝在插槽 1 和插槽 3。

如需插槽編號的詳細資訊，請參見：[系統板](#)。



警告

- 僅限合格人員可執行下列步驟。未遵照指示操作可能導致嚴重傷害或死亡。
- 請遵守靜電放電 (ESD) 程序以防止元件損壞。

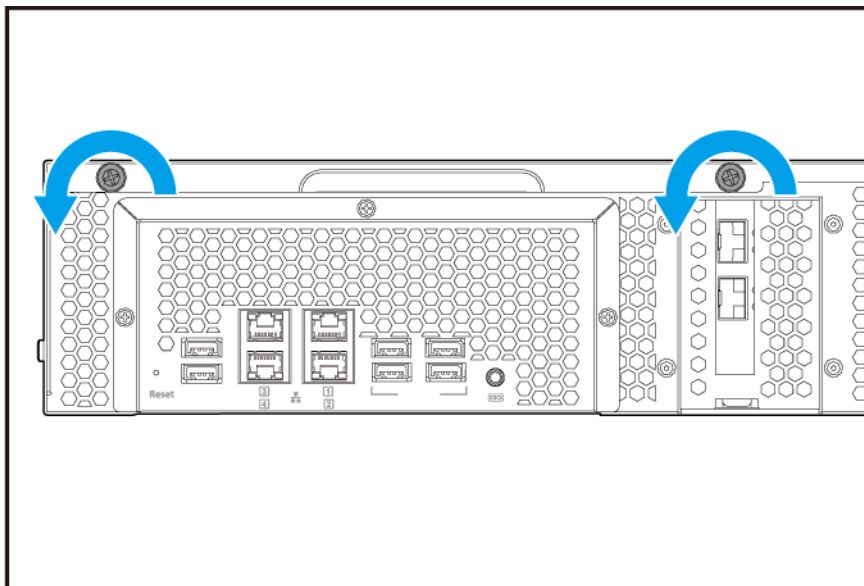


轉動中之風扇葉片：使雙手及其他身體部位遠離轉動中之風扇葉片。

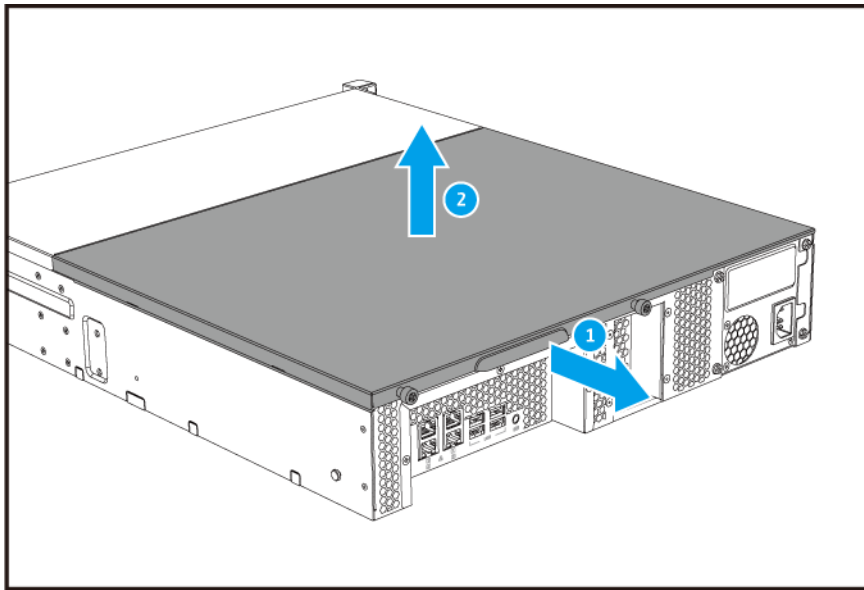


其他移動元件：使雙手及其他身體部位遠離其他移動元件。

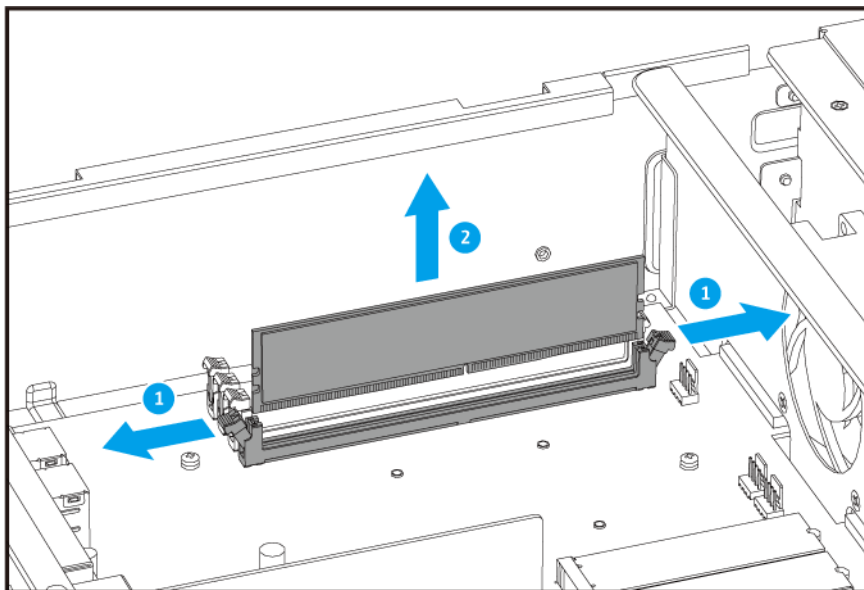
1. 關閉 NAS 電源。
2. 從電源插座拔下電源線。
3. 中斷所有連接線和外接裝置的連線。
4. 卸除上蓋。
 - a. 鬆開殼蓋背面的螺絲。



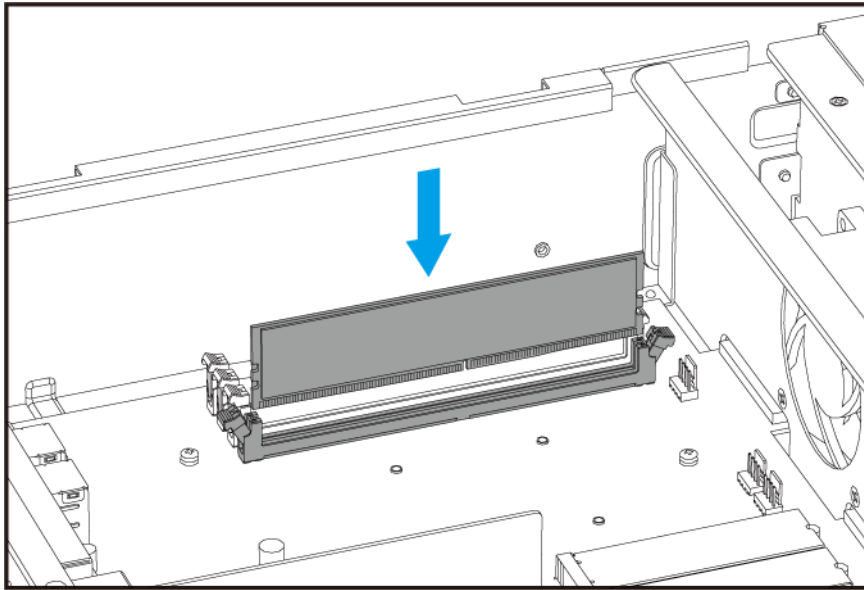
- b. 使用把手將殼蓋從 NAS 拉開。
- c. 拿起殼蓋。



5. 取下現有的記憶體模組。
 - a. 將固定夾往外推以鬆開記憶體模組。
 - b. 握住記憶體模組的邊緣，然後小心地將它從插槽拉出。



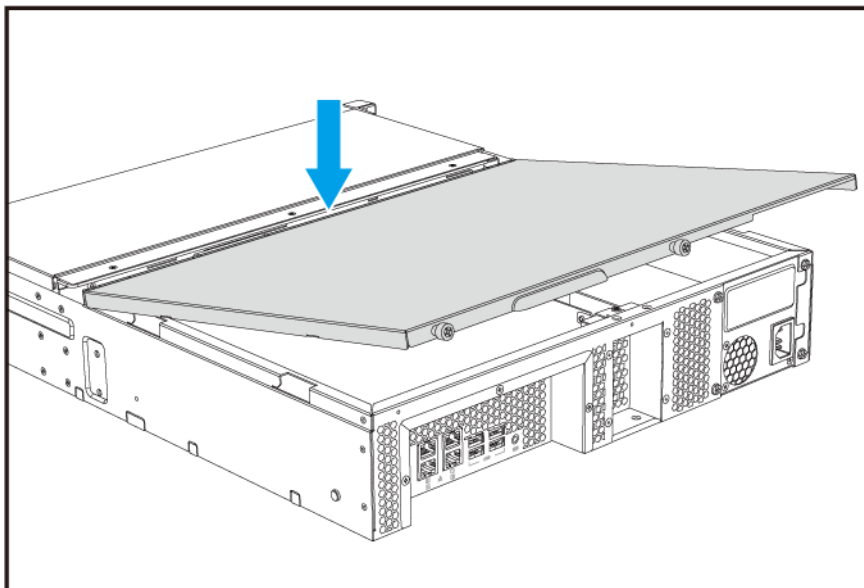
6. 安裝新的記憶體模組。
 - a. 將接口與插槽的凸出部分對齊。
 - b. 將記憶體模組插入插槽，然後輕輕按下記憶體模組。



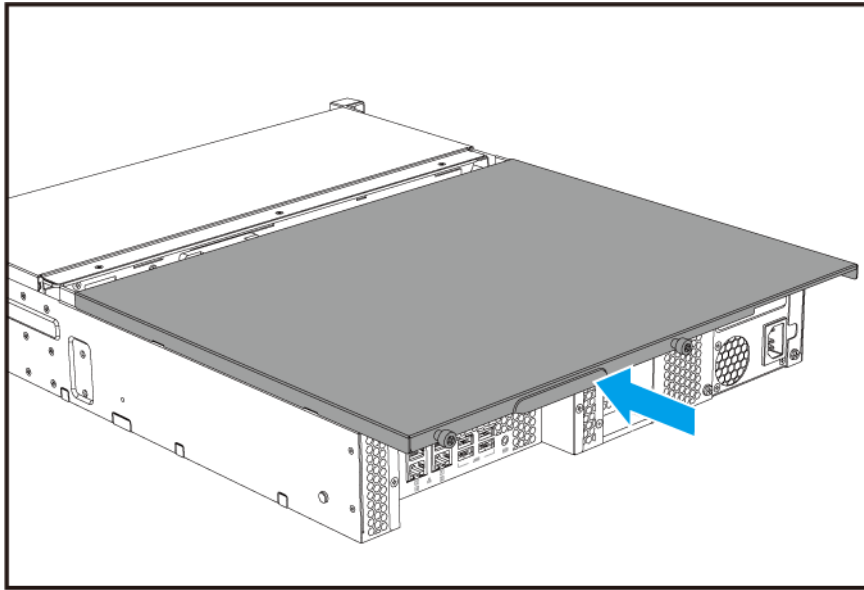
c. 將固定夾往內推以鎖住記憶體模組。

7. 安裝上蓋。

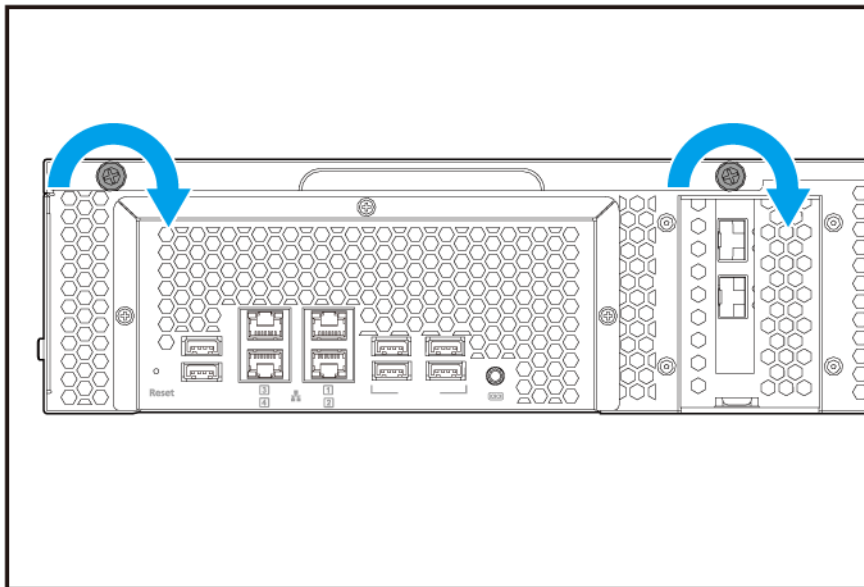
a. 將殼蓋放在 NAS 上。



b. 將殼蓋推回 NAS。



c. 鎖緊螺絲。



8. 連上所有連接線和外接裝置。
9. 將電源線插入電源插座。
10. 打開 NAS 電源。
11. 確認 NAS 可辨識記憶體模組。
 - a. 請以管理員身分登入 QTS。
 - b. 前往 [主選單] > [控制台] > [系統] > [系統狀態] > [系統資訊]。
 - c. 確認 [記憶體總容量] 的值。

熱抽換備援電源供應器

隨附備援電源供應器 (PSU) 的 NAS 裝置支援熱抽換。

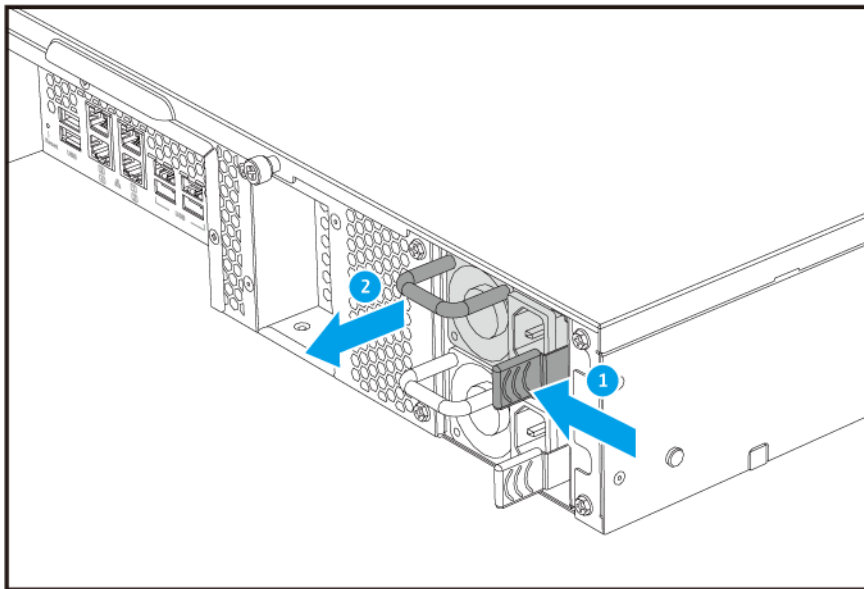


警告

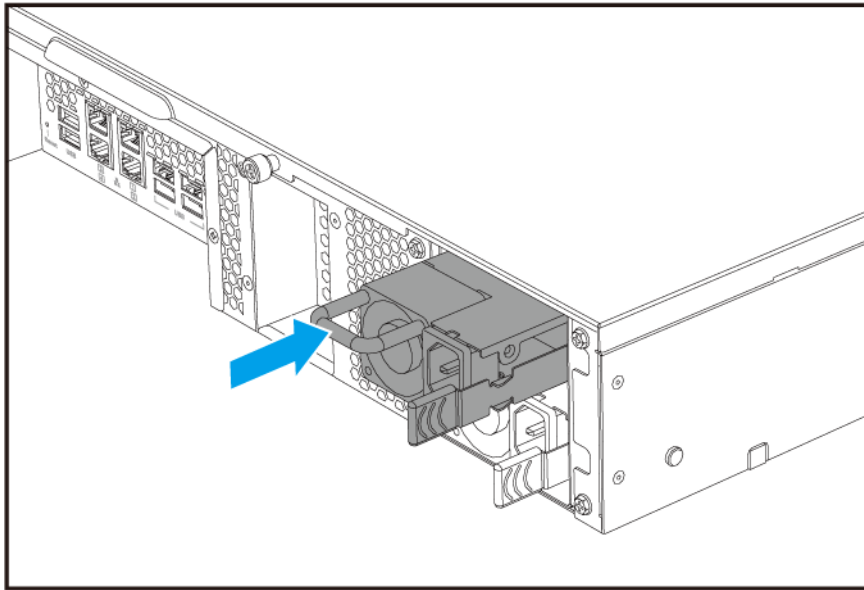


NAS 至少配備一條電源供應器 (PSU) 的電源線。為防止嚴重傷害事故發生，在安裝或替換系統元件前，應由受過訓練的技術人員拔下所有 PSU 電源線。

1. 從電源插座和需要更換的電源供應器拔下電源線。
2. 朝把手方向按下門門，然後拉出電源供應器。



3. 插入新的電源供應器。



4. 將電源線連上電源供應器並插入電源插座。
5. 打開 NAS 電源。
6. 選擇性: 啟用電源供應器故障警訊。
 - a. 請以管理員身分登入 QTS。
 - b. 前往 [控制台] > [系統] > [硬體] > [一般]。
 - c. 選擇 [啟動備援電源模式]。
 - d. 按一下 [全部套用]。

機架滑軌

TS-x73U 與下列型號相容：

型號	機架滑軌
TS-873U TS-873U-RP TS-1273U TS-1273U-RP	RAIL-B02
TS-1673U TS-1673U-RP	RAIL-A03-57

NAS 不含機架滑軌，必須另外購買。如需詳細資訊，請聯絡授權經銷商或前往 <http://shop.qnap.com>。

您可以在機架滑軌的包裝中找到安裝資訊。

QTS 安裝

TS-x73U 支援 QNAP QTS 作業系統。您可以使用下列其中一種方式安裝 QTS。

方法	說明	需求
Qfinder Pro 安裝 (建議使用)	<p>如果 NAS 已連接您的區域網路，您可以執行下列操作：</p> <ul style="list-style-type: none"> • 使用 Qfinder Pro 定位 NAS。 • 完成 [智慧安裝導引] 精靈中的步驟。 <p>如需詳細資訊，請參見 使用 Qfinder Pro 安裝 QTS。</p>	<ul style="list-style-type: none"> • 電腦 • 網路線 • Qfinder Pro 安裝程式
雲端安裝	<p>如果 NAS 已連接網際網路，您可以執行下列操作：</p> <ul style="list-style-type: none"> • 掃描 NAS 上的 QR 碼。 • 登入 myQNAPcloud 帳號。 • 使用 CloudLink 遠端存取您的 NAS。 • 完成 [智慧安裝導引] 精靈中的步驟。 	<ul style="list-style-type: none"> • 電腦或行動裝置。 • myQNAPcloud 帳號 • CloudKey

使用 Qfinder Pro 安裝 QTS



警告

安裝 QTS 會刪除硬碟上的所有資料。繼續操作前請先備份資料。

1. 打開 NAS 電源。
2. 連接 NAS 與區域網路。
3. 在連接相同區域網路的電腦上執行 Qfinder Pro。



注意

若要下載 Qfinder Pro，請前往 <https://www.qnap.com/utilities>。

4. 在清單中找到 NAS，然後按兩下它的名稱或 IP 位址。
[智慧安裝導引] 隨即在預設的網頁瀏覽器中開啟。
5. 按一下 [啟動智慧安裝導引]。
6. 指定下列資訊：
 - **NAS 名稱**：指定 1 到 14 個字元的名稱。名稱支援使用英文字母 (A 到 Z、a 到 z)、數字 (0 到 9) 以及連字號 (-)，但不能以連字號做結尾。
 - **密碼**：指定 1 到 64 個字元的管理員密碼。密碼支援使用所有 ASCII 字元。
7. 按一下 [下一步]。
8. 指定時區、日期和時間。



提示

QNAP 建議連接至 NTP 伺服器，以確保 NAS 符合國際標準時間 (UTC) 的標準。

9. 按一下 [下一步]。

10. 選擇 [自動取得 IP 位址 (DHCP)] 。
11. 按一下 [下一步] 。
12. 選擇將用於存取 NAS 共用資料夾的裝置類型。
13. 按一下 [下一步] 。
14. 選擇 [稍後設定硬碟] 。

**注意**

如需設定硬碟的詳細資訊，請參見《QTS 使用者指南》的 < 儲存空間總管 > 一節。

15. 按一下 [下一步] 。
16. 選擇 [否] 。

**注意**

- 若啟用多媒體功能，您就能在 [儲存空間總管] 中設定硬碟之後，安裝多媒體應用程式。
- 如需在 QTS 啟用多媒體功能的詳細資訊，請參見《QTS 使用者指南》的 < 系統管理 > 一節。

17. 按一下 [下一步] 。
 18. 檢視設定值。
 19. 按一下 [套用] 。
- 確認訊息隨即出現。

**警告**

按**確認**會在安裝 QTS 前，刪除硬碟的所有資料。

20. 按一下 [確認] 。
- QTS 安裝完成。

使用 Cloud Key 安裝 QTS

**警告**

安裝 QTS 會刪除硬碟上的所有資料。繼續操作前請先備份資料。

1. 打開 NAS 電源。
2. 將 NAS 連接至網際網路。
3. 使用下列其中一種方式前往 QNAP 雲端安裝頁面：
 - 使用電腦前往 <http://install.qnap.com/> 。
 - 使用行動裝置掃描 NAS 上的 QR 碼。

該網頁列出區域網路內所有未初始化的 QNAP NAS 裝置。

4. 在清單中找出自己的 NAS，然後按一下 [初始化] 。

**注意**

如果未列出您的 NAS，請按照網頁上的指示指定 NAS 的 Cloud Key。

安裝精靈隨即在預設的網頁瀏覽器中開啟。

5. 建立帳號或登入 myQNAPcloud。



注意

您建立帳號之後，必須返回此頁面完成安裝步驟。

6. 指定 NAS 的 myQNAPcloud 裝置名稱。



注意

遠端存取 NAS 時，需要用到 myQNAPcloud 裝置名稱。

7. 選擇性：選擇 [**CloudLink**]。



注意

- 透過 CloudLink，您無須在路由器設定連接埠轉址功能，即可遠端存取 NAS。您可以登入 QTS 或使用行動應用程式來遠端存取 NAS。
- 您也可以 NAS 上安裝 CloudLink 應用程式，藉此啟用 CloudLink。

8. 按一下 [下一步]。
[智慧安裝導引] 隨即在預設的網頁瀏覽器中開啟。

9. 按一下 [啟動智慧安裝導引]。

10. 指定下列資訊：

- **NAS 名稱**：指定 1 到 14 個字元的名稱。名稱支援使用英文字母 (A 到 Z、a 到 z)、數字 (0 到 9) 以及連字號 (-)，但不能以連字號做結尾。
- **密碼**：指定 1 到 64 個字元的管理員密碼。密碼支援使用所有 ASCII 字元。

11. 按一下 [下一步]。

12. 指定時區、日期和時間。



提示

QNAP 建議連接至 NTP 伺服器，以確保 NAS 符合國際標準時間 (UTC) 的標準。

13. 按一下 [下一步]。

14. 選擇 [自動取得 IP 位址 (DHCP)]。

15. 按一下 [下一步]。

16. 選擇將用於存取 NAS 共用資料夾的裝置類型。

17. 按一下 [下一步]。

18. 選擇 [稍後設定硬碟]。



注意

如需設定硬碟的詳細資訊，請參見《QTS 使用者指南》的 < 儲存空間總管 > 一節。

19. 按一下 [下一步]。

20. 選擇 [否]。

**注意**

- 若啟用多媒體功能，您就能在 [儲存空間總管] 中設定硬碟之後，安裝多媒體應用程式。
- 如需在 QTS 啟用多媒體功能的詳細資訊，請參見《QTS 使用者指南》的 <系統管理> 一節。

21. 按一下 [下一步] 。

22. 檢視設定值。

23. 按一下 [套用] 。

確認訊息隨即出現。

**警告**

按**確認**會在安裝 QTS 前，刪除硬碟的所有資料。

24. 按一下 [確認] 。


QTS 安裝完成。

4. 基本操作

本章介紹 NAS 的基本操作。

電源按鈕

操作	使用者動作	結果
開啟電源	按一下按鈕。	NAS 電源開啟。
關閉電源	按住按鈕 1.5 秒。	NAS 電源關閉。
強制關機	按住按鈕 5 秒。	NAS 關機。



重要
僅在 NAS 沒有回應時使用此方法。

重設按鈕

操作	使用者動作	結果
系統基本重設	按住按鈕 3 秒。	以下設定將回復至預設值： <ul style="list-style-type: none"> • 系統管理員密碼：admin • TCP/IP 設定： <ul style="list-style-type: none"> • 透過 DHCP 自動取得 IP 位址設定 • 停用 Jumbo Frame • 若已啟用 Port Trunking (僅適用於支援多 LAN 的型號)，系統將重設為「Active Backup (網路容錯)」模式。 • 系統通訊埠：8080 (系統服務埠) • 安全等級：低 (接受所有連線) • LCD 面板密碼：(空白) • VLAN：停用
系統進階重設	按住按鈕 15 秒。	回復為出廠預設值。 <ul style="list-style-type: none"> • 若要在系統進階重設後取得舊有資料，請在 NAS 上重建先前的資料夾結構。

LED 燈號

LED 燈號指示 NAS 開機時的系統狀態與相關資訊。下列 LED 燈號資訊僅適用於已正確安裝硬碟且 NAS 已連接至網路的情況。

如需 LED 燈號的位置資訊，請參見[元件](#)。

LED 燈號	狀態	說明
系統狀態	綠燈與紅燈每 0.5 秒交錯閃爍	<ul style="list-style-type: none"> • 硬碟正在格式化。 • NAS 正在初始化。 • 作業系統更新中。 • RAID 重建作業進行中。 • 線上 RAID 容量擴充進行中。 • 線上 RAID 組態遷移進行中。
	紅燈	<ul style="list-style-type: none"> • 硬碟無效。 • 磁碟區容量已滿。 • 磁碟區容量將滿。 • 系統風扇異常。 • 資料存取 (讀寫) 錯誤。 • 硬碟壞軌。 • NAS 處於降階唯讀模式 (RAID 5 或 RAID 6 有兩個硬碟故障，但資料仍可讀取) 。 • 硬體自我檢查錯誤
	紅燈每 0.5 秒閃爍	NAS 處於降階模式 (RAID 1、RAID 5 或 RAID 6 有一個硬碟故障) 。
	綠燈每 0.5 秒閃爍	<ul style="list-style-type: none"> • NAS 開啟中。 • NAS 未設定。 • 硬碟未格式化。
	綠燈每 2 秒閃爍	NAS 處於 S3 睡眠狀態。
	綠燈	NAS 已就緒。
	關閉	所有硬碟處於待命模式。
硬碟/SSD	紅燈閃爍	硬碟定位中。
	紅燈	發生硬碟讀寫錯誤。
	綠燈閃爍	資料存取中。
	綠燈	可存取硬碟。
	關閉	偵測不到硬碟。
M.2 SSD	紅燈閃爍	硬碟定位中。
	紅燈	發生硬碟讀寫錯誤。
	綠燈閃爍	資料存取中。
	綠燈	可存取硬碟。
	關閉	偵測不到硬碟。

嗶聲警示

時間長度	頻率	說明
短嗶 (0.5 秒)	1 聲	<ul style="list-style-type: none"> • NAS 開啟中。 • NAS 關閉中 (軟體關機)。 • 使用者按下 [重設] 按鈕。 • 作業系統已更新。
	3 聲	使用者嘗試將 NAS 資料複製到正面 USB 埠中的外接儲存裝置，但資料無法複製。
短嗶 (1.5 秒)	3 聲 (每 5 分鐘)	系統風扇異常。
	2 聲	<ul style="list-style-type: none"> • 磁碟區容量將滿。 • 磁碟區容量已滿。 • 硬碟進入降階模式。 • 使用者開始硬碟重建程序。 • 硬碟插入或拔掉電源。
	1 聲	<ul style="list-style-type: none"> • NAS 強制關機 (硬體關機)。 • NAS 成功開機且可供使用。

5. 疑難排解

本章介紹基本的疑難排解資訊。

強制 Qfinder Pro 或 myQNAPcloud 定位 NAS

如果在 QTS 安裝期間，Qfinder Pro 或 myQNAPcloud 找不到 NAS，表示硬碟或資料發生問題。

1. 關閉 NAS 電源。
2. 移除所有硬碟。
3. 打開 NAS 電源。
4. 使用 Qfinder Pro 或 myQNAPcloud 定位 NAS。
5. 將硬碟重新插入。
6. 繼續執行 QTS 安裝作業。

熱插拔故障硬碟

NAS 支援熱插拔下列情況的硬碟：

- RAID 1：一個硬碟故障
- RAID 5：一個硬碟故障
- RAID 6：一或兩個硬碟故障

1. 登入 QTS。
2. 前往 [主選單] > [儲存空間總管] > [儲存空間] > [硬碟/VJBOD]。
3. 找出故障的硬碟。
4. 準備一個新的硬碟，其容量不低於故障硬碟的容量。
5. 將 NAS 的故障硬碟拔出。
6. 等待 20 秒或等到 NAS 發出兩次嗶聲。
7. 將故障硬碟從硬碟托盤取下。
8. 將新的硬碟插入硬碟托盤。
9. 安裝新的硬碟。
NAS 會發出兩次嗶聲。
10. 前往 [主選單] > [儲存空間總管] > [儲存空間]。
11. 找出新硬碟所在的磁碟區，然後確認其狀態為 [重建中]。

復原意外移除的正常硬碟

NAS 支援獨家 RAID 復原技術，若有硬碟意外斷線或遭到移除，使用者可以復原失效的 RAID 硬碟磁碟區。使用者可以將失效的 RAID 1、RAID 5 或 RAID 6 磁碟區回復至降階模式，或將失效的 RAID 0 和 JBOD 組態回復至正常模式。

硬碟磁碟區	RAID 復原支援	遭移除的硬碟最大數目
單一	否	N/A
JBOD	是	1
RAID 0	是	1
RAID 1	是	1
RAID 5	是	2
RAID 6	是	3
RAID 10	否	N/A

支援和其他資源

QNAP 提供下列資源：

資源	URL
文件	http://docs.qnap.com
服務中心	http://helpdesk.qnap.com
下載	http://download.qnap.com
社群論壇	http://forum.qnap.com

6. 詞彙

CloudKey

指定至每個 NAS 裝置的唯一 8 位數代碼

CloudLink

讓您可透過網際網路存取 NAS 而不需配置複雜的連接埠轉址設定

myQNAPcloud

提供各種遠端存取服務，例如 DDNS 與 CloudLink

myQNAPcloud ID

用來註冊 myQNAPcloud 帳號的電子郵件地址

Qfinder Pro

協助您找到並存取區域網路內的 QNAP NAS 裝置

QTS

QNAP NAS 作業系統

7. 聲明

本章介紹擔保、免責聲明、授權以及聯辦法規的相關資訊。

有限保固

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建議定期備份系統資料，以避免發生任何資料遺失意外。QNAP 不負責任何資料遺失或復原。

如要把 NAS (網路儲存裝置) 等 QNAP 產品的包裝內任何元件退回以要求退款或維修，請確定貨品妥善包裝以利運送。若貨品運送期間因不妥善包裝造成任何損壞，QNAP 一概不予負責。

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Version 3, 29 June 2007

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SJ/T 11364-2006



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