



QNAP

TS-x77XU

TS-877XU
TS-877XU-RP
TS-1277XU-RP

使用手冊

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1. 前言





關於本指南

本指南涵蓋 QNAP TS-x77XU 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。本手冊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、受傷甚至死亡事故。

2. 產品概觀

本章介紹 QNAPTS-x77XU NAS 的基本資訊。

關於 TS-x77XU

TS-x77XU NAS 搭載 AMD Ryzen™ 處理器，是資料儲存、備份、分享和集中化管理的卓越解決方案。其具備四個記憶體插槽，可將記憶體擴充至 64 GB，另附有四個 PCIe 擴充卡插槽；，因此能滿足變化多端的業務需求。TS-x77XU 還配備四個網路連接埠（兩個 10GbE SFP+ 以及兩個 1GbE RJ45），可因應日益增長的頻寬和傳輸量。此外，TS-x77XU 也能運用 AES-NI 加密引擎來提升加密檔案的傳輸速度。

硬體規格



警告

如果您的 QNAP 產品有硬體瑕疵，請將產品寄回 QNAP 或 QNAP 授權服務中心進行維修或換貨。只要您或未經授權的第三方嘗試修復產品或執行產品維修流程，皆會導致產品保固失效。

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。

如需詳細資訊，請參見：[QNAP 產品保固服務條款](#)。








提示

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>。

訂購料號	CPU	記憶體	電源供應器
TS-877XU-1200-4G	Ryzen 3 1200	4 GB	Single
TS-877XU-RP-1200-4G	Ryzen 3 1200	4 GB	備援
TS-877XU-RP-2600-8G	Ryzen 5 2600	8 GB	備援
TS-877XU-RP-3600-8G	Ryzen 5 3600	8 GB	備援
TS-1277XU-RP-1200-4G	Ryzen 3 1200	4 GB	備援
TS-1277XU-RP-2600-8G	Ryzen 5 2600	8 GB	備援

元件	TS-877XU TS-877XU-RP	TS-1277XU-RP
處理器		
CPU	<ul style="list-style-type: none"> TS-877XU、TS-1277XU-RP-1200-4G： AMD Ryzen™ 3 1200 4 核心/4 執行緒 3.1 GHz Base/3.4 GHz Turbo TS-877XU-RP、TS-1277XU-RP-2600-8G： AMD Ryzen™ 5 2600 6 核心/12 執行緒 3.4 GHz Base/3.9 GHz Turbo TS-877XU-RP-3600-8G： AMD Ryzen™ 5 3600 6 核心/12 執行緒 3.6 GHz Base/4.2 GHz Turbo 	
架構	x86 64 位元	
加密引擎	AES-NI	
記憶體		

元件	TS-877XU TS-877XU-RP	TS-1277XU-RP
預載記憶體	<ul style="list-style-type: none"> • 4 GB RAM : 1 x 4 GB DDR4 • 8 GB RAM : 2 x 4 GB DDR4 	
記憶體插槽	4 x LDIMM DDR4  重要 僅限使用 QNAP 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 記憶體模組。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。	
最大記憶體	64 GB RAM : 4 x 16 GB	
快閃記憶體	4 GB	
儲存空間		
硬碟插槽	8 x 3.5 吋 SATA 6 Gbps	12 x 3.5 吋 SATA 6 Gbps
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  重要 2.5 吋硬碟托盤僅可容納高度不超過 9.5 mm 的硬碟。	
網路		
10 Gigabit 乙太網路埠	2 x 10 GbE SFP+ SmartNIC	
Gigabit 乙太網路埠	2 x GbE RJ45	
外接 I/O 埠和擴充插槽		
PCIe 插槽	<ul style="list-style-type: none"> • 2 x PCIe 3.0 x8 • 2 x PCIe 3.0 x4  提示 請前往 https://www.qnap.com/compatibility 查看相容硬碟型號及擴充卡清單。	
USB 連接埠	<ul style="list-style-type: none"> • 1 x USB 3.2 Gen 2 (10Gbps) 5V/1A Type-A • 1 x USB 3.2 Gen 2 (10Gbps) 5V/3A Type-C • 4 x USB 3.2 Gen 1 Type-A 	
HDMI 連接埠	選擇性步驟：PCIe 擴充卡	
介面		
按鈕	<ul style="list-style-type: none"> • 電源設定 • 重設 	
尺寸		
外型	2U 機架式	2U 機架式
尺寸 (高 x 寬 x 深)	88.3 x 482 x 562 mm (3.47 x 18.98 x 22.13 in)	88.3 x 482 x 562 mm (3.47 x 18.98 x 22.13 in)

元件	TS-877XU TS-877XU-RP	TS-1277XU-RP
淨重	<ul style="list-style-type: none"> TS-877XU : 10.99 kg (24.23 lbs) TS-877XU-RP : 12.17 kg (26.83 lbs) 	11.75 kg (25.9 lbs)
其他		
滑軌相容性	RAIL-B02  注意 <ul style="list-style-type: none"> 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。 如需安裝機架滑軌的相關資訊，請參見機架滑軌包裝中的安裝指南。 	
電源供應器	<ul style="list-style-type: none"> TS-877XU : 350W, 100-240V AC, 50/60 Hz TS-877XU-RP : 2 x 300W · 100-240V AC · 50/60 Hz 	2 x 300W · 100-240V AC · 50/60 Hz
系統電池	CR2032 鋰電池 (3V · 225 mAh)	
噪音值	<ul style="list-style-type: none"> TS-877XU : 35.2 dB(A) TS-877XU-RP : 37.7 dB(A) 	37.2 dB(A)
	 注意 從旁觀者位置 (距 NAS 一公尺內) 測試噪音值。在測試用的 NAS 中安裝最多數量的硬碟，並以低速運行。	
風扇	系統：2 x 70 mm · 12V DC 風扇	
操作溫度	0°C 到 40°C (32°F 到 104°F)	
相對濕度	<ul style="list-style-type: none"> 不凝結相對溼度：5% to 95% 濕球溫度：27°C (80.6°F) 	

**提示**

請前往 <https://www.qnap.com/compatibility> 查看相容硬碟型號及擴充卡清單。

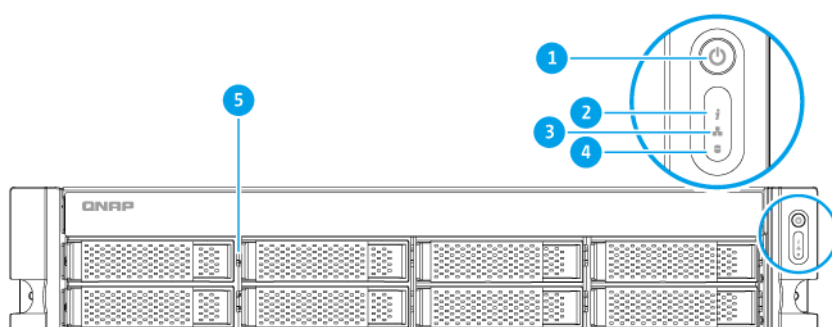
包裝內容

項目	數量
TS-x77XU NAS	1
電源線	<ul style="list-style-type: none"> TS-877XU : 1 TS-877XU-RP : 2 TS-1277XU-RP : 2

項目	數量
乙太網路線	2
2.5 吋硬碟用螺絲	TS-877XU、TS-877XU-RP : 24 TS-1277XU-RP : 36
3.5 吋硬碟用螺絲	TS-877XU、TS-877XU-RP : 32 TS-1277XU-RP : 48
快速安裝手冊 (QIG)	1

元件

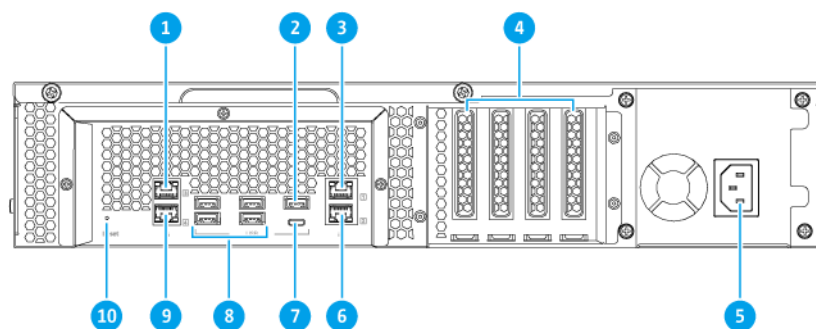
前面板



TS-877XU、TS-877XU-RP、TS-1277XU-RP

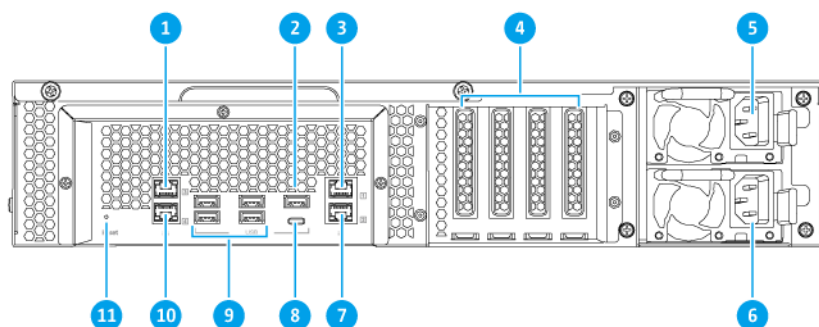
編號	元件	編號	元件
1	電源按鈕	4	擴充設備 LED 燈
2	狀態 LED 燈	5	硬碟 LED 燈
3	LAN LED 燈	-	-

背面板



TS-877XU

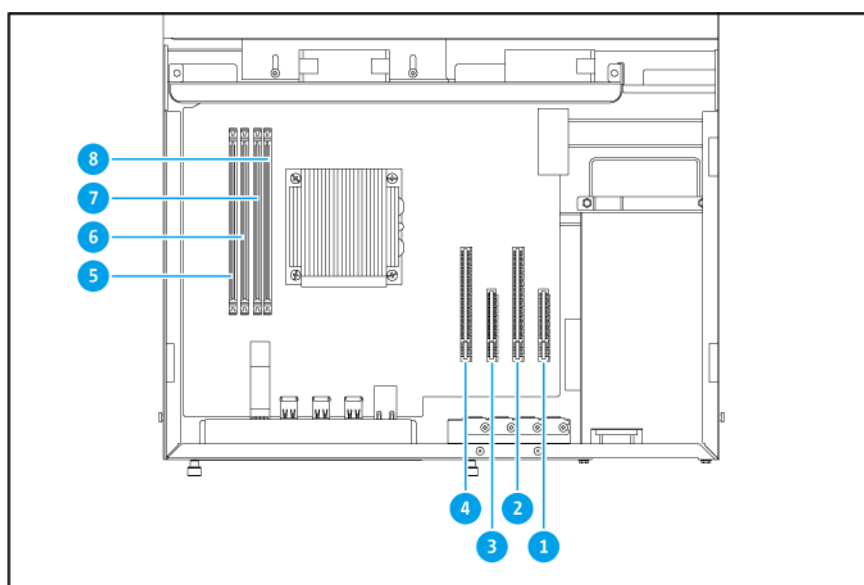
編號	元件	編號	元件
1	乙太網路埠 3 (10 GbE SFP+)	6	乙太網路埠 2 (GbE RJ45)
2	USB 3.2 Gen 2 Type-A 連接埠	7	USB 3.2 Gen 2 Type-C 連接埠
3	乙太網路埠 3 (10 GbE SFP+)	8	USB 3.2 Gen 1 Type-A 連接埠
4	PCIe 短蓋	9	乙太網路埠 4 (10 GbE SFP+)
5	電源輸入	10	重設按鈕



TS-877XU-RP、TS-1277XU-RP

編號	元件	編號	元件
1	乙太網路埠 3 (10 GbE SFP+)	7	乙太網路埠 2 (GbE RJ45)
2	USB 3.2 Gen 2 Type-A 連接埠	8	USB 3.2 Gen 2 Type-C 連接埠
3	乙太網路埠 1 (GbE RJ45)	9	USB 3.2 Gen 1 Type-A 連接埠
4	PCIe 短蓋	10	乙太網路埠 4 (10 GbE SFP+)
5	電源供應器 1	11	重設按鈕
6	電源供應器 2	-	-

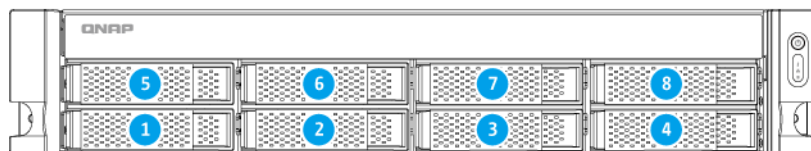
系統板



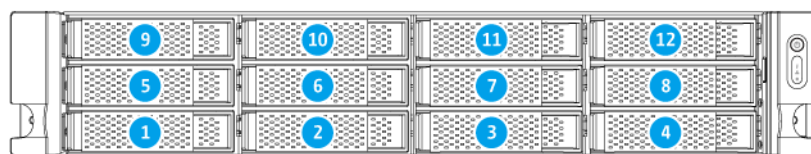
TS-877XU、TS-877XU-RP、TS-1277XU-RP

編號	元件	編號	元件
1	PCIe 插槽 1 (PCIe 3.0 x4)	5	記憶體插槽 4 (通道 B · DIMM 4)
2	PCIe 插槽 2 (PCIe 3.0 x8)	6	記憶體插槽 3 (通道 B · DIMM 3)
3	PCIe 插槽 3 (PCIe 3.0 x4)	7	記憶體插槽 2 (通道 A · DIMM 2)
4	PCIe 插槽 4 (PCIe 3.0 x8)	8	記憶體插槽 1 (通道 A · DIMM 1)

前端硬碟編號



TS-877XU、TS-877XU-RP



TS-1277XU-RP

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

- 裝置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裝置；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正確接地的電源插座。



具有備援電源供應器的裝置可能配備一條或多條電源供應器 (PSU) 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。

移動的零件



轉動的風扇葉片：裝置連接至電源時，請使身體部位遠離正在轉動的風扇葉片。



移動的元件：使身體部位遠離正在移動的其他元件。

安裝需求

類別	項目
環境	<ul style="list-style-type: none"> • 室溫：0°C 到 40°C (32°F 到 104°F) • 不凝結相對溼度：5% 至 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，亦不與液體或化學物質接觸
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，請詳閱所有安全要求及資訊。

1. 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](#)。
2. 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](#)
3. 連接電源線與所有適用的網路線。
4. 開啟 NAS。
5. 安裝 QTS。
如需詳細資訊，請參見：[QTS 安裝](#)。
6. 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。

硬碟安裝

TS-x77XU 與 3.5 吋 和 2.5 吋硬碟以及 2.5 吋固態硬碟相容。

在 3.5 吋托盤上安裝 3.5 吋硬碟



警告

- 安裝硬碟與 QTS 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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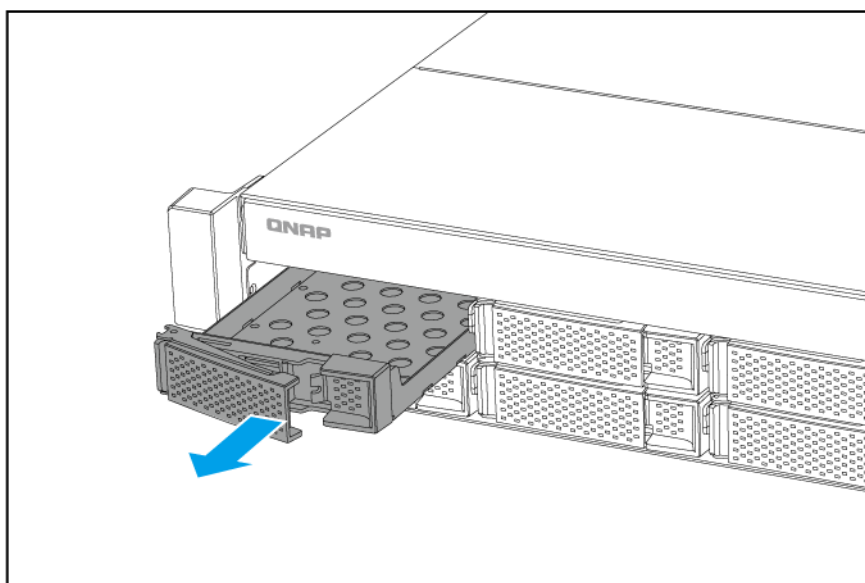
轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

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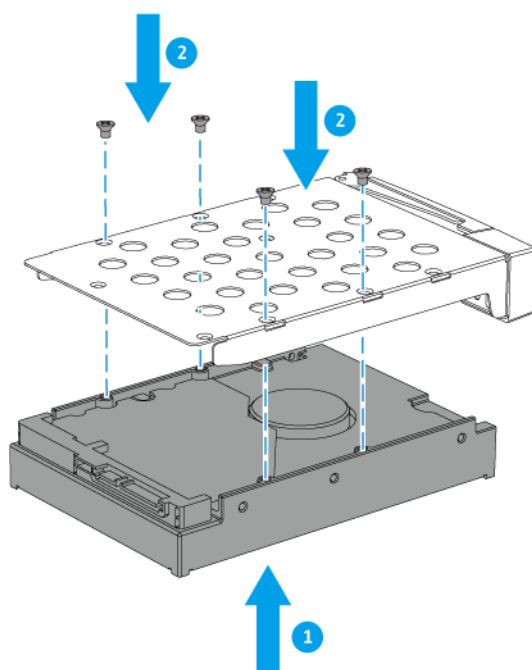
其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 NAS。
2. 取出硬碟托盤。
 - a. 將托盤把手往外拉。
 - b. 將托盤拉出。



3. 在托盤上安裝硬碟。

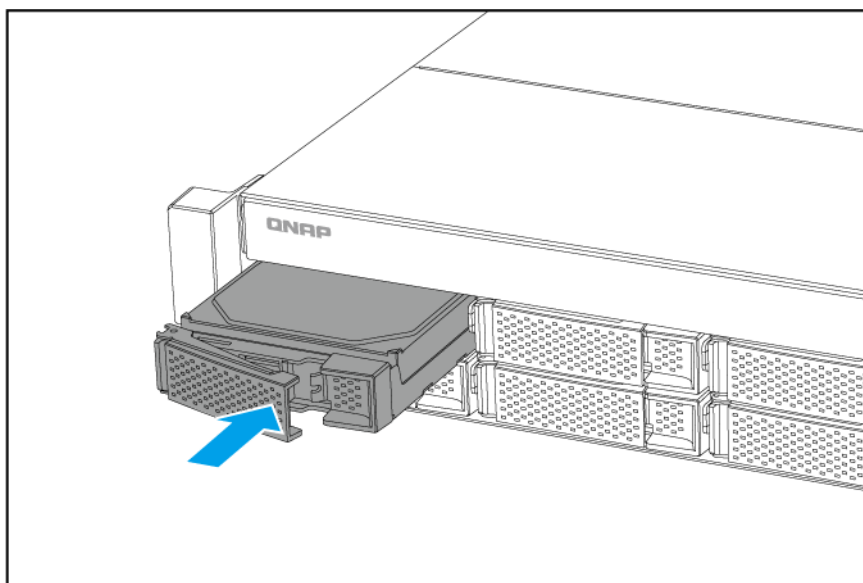
- a. 將硬碟放在托盤上，讓硬碟底部的孔洞與托盤底部的孔洞對齊。
- b. 鎖上螺絲。



4. 將托盤裝入插槽。

- a. 將托盤插入插槽。

- b. 推入把手。



5. 開啟 NAS。

在 3.5 吋托盤上安裝 2.5 吋硬碟或固態硬碟



警告

- 安裝硬碟與 QTS 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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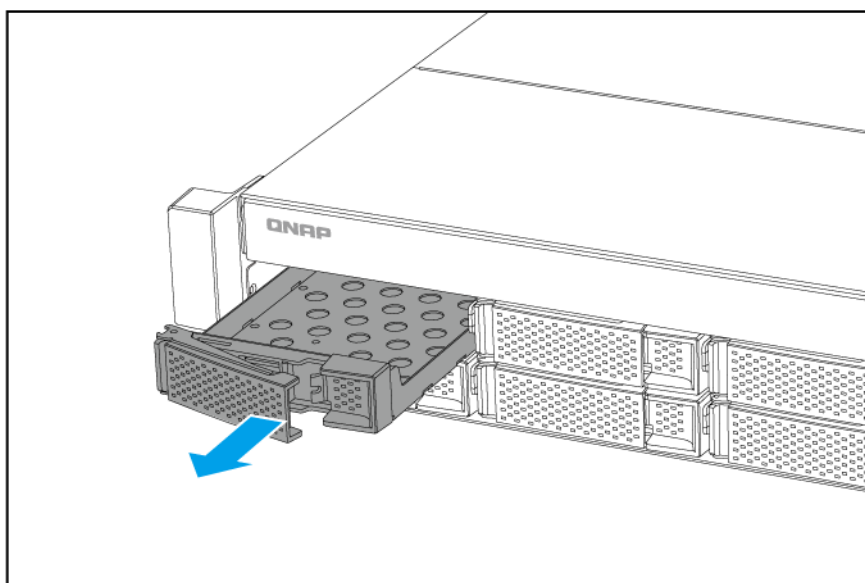
轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

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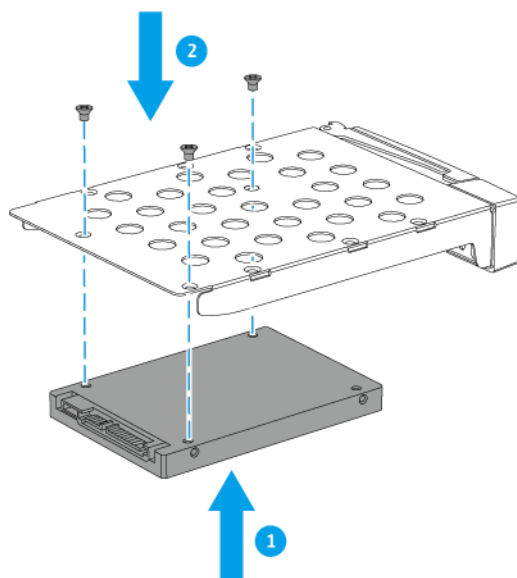
其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 NAS。
2. 取出硬碟托盤。
 - a. 將托盤把手往外拉。
 - b. 將托盤拉出。



3. 在托盤上安裝硬碟。

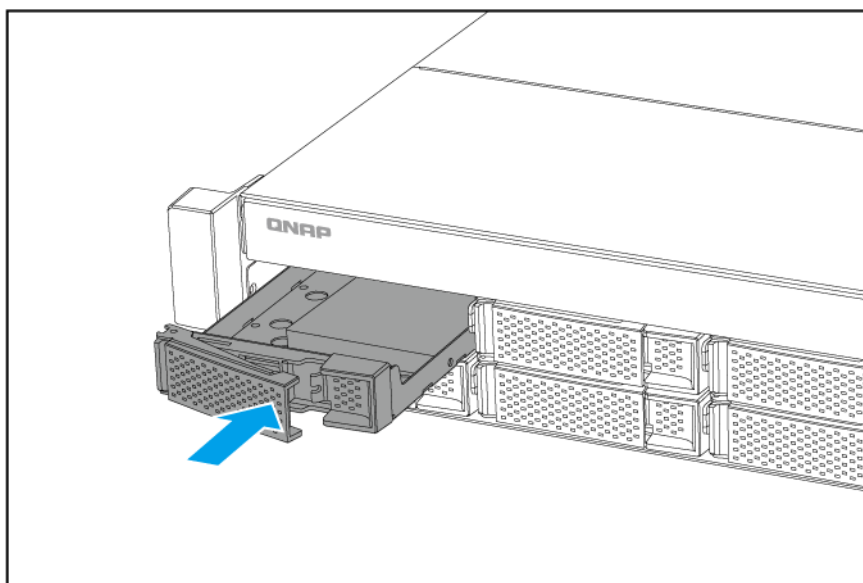
- a. 將硬碟放在托盤上，讓硬碟底部的孔洞與托盤底部的孔洞對齊。
- b. 鎖上螺絲。



4. 將托盤裝入插槽。

- a. 將托盤插入插槽。

- b. 推入把手。



5. 開啟 NAS。

更換記憶體模組

TS-x77XU 具有四個記憶體插槽，您可以透過升級記憶體模組來增加 NAS 的記憶體容量。若要獲得最佳的雙通道效能，請成對更換記憶體模組。

僅限使用 QNAP 記憶體模組以維護系統效能和穩定性。您可向授權經銷商購買 QNAP 記憶體模組。



重要

QNAP 建議您成對安裝模組，以執行雙通道模式。更換記憶體模組時，請確認下列事項：

- 確認每個記憶體通道皆使用相同的記憶體模組。請參閱下表的詳細資料。

頻道名稱	插槽編號
通道 A	插槽 1、2
通道 B	插槽 3、4

- 當安裝一個模組時，請使用距離 CPU 最遠的插槽（插槽 4）。
- 安裝兩個記憶體模組時，請裝在插槽 2 和插槽 4。
- 安裝四個記憶體模組時，請將第一對模組裝在插槽 2 和插槽 4，第二對模組裝在插槽 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。

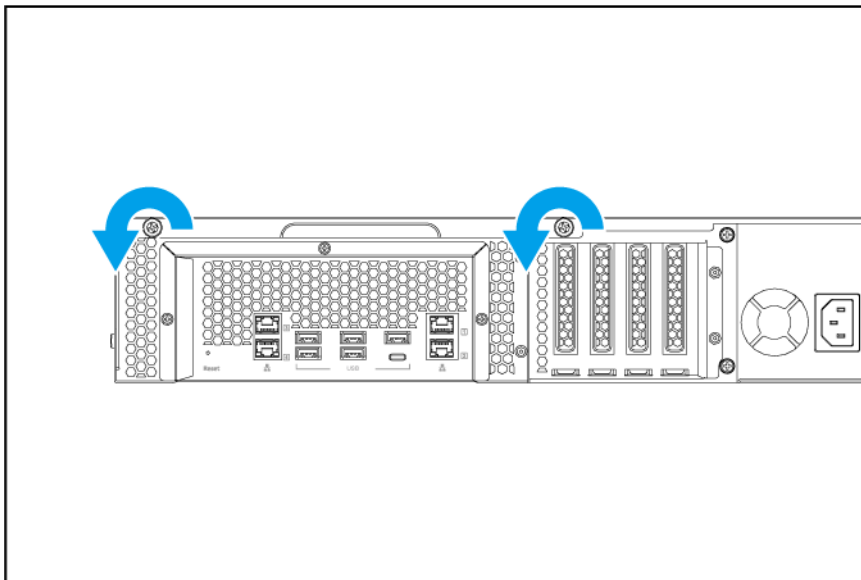


轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

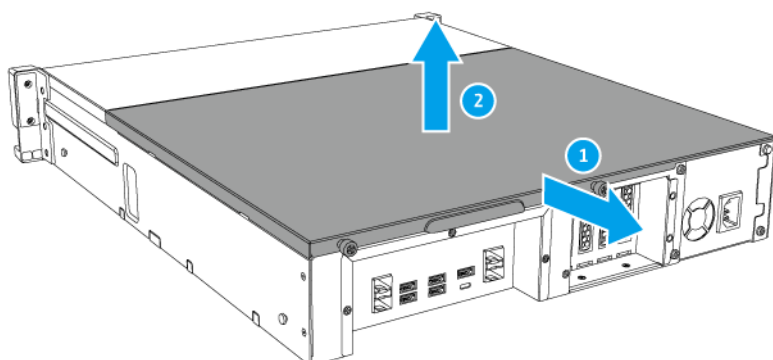


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉裝置的電源。
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. 取下機殼蓋。
 - a. 鬆開螺絲。



- b. 將殼蓋往後推。
- c. 提起殼蓋，使其脫離裝置。



5. 取下現有的記憶體模組。

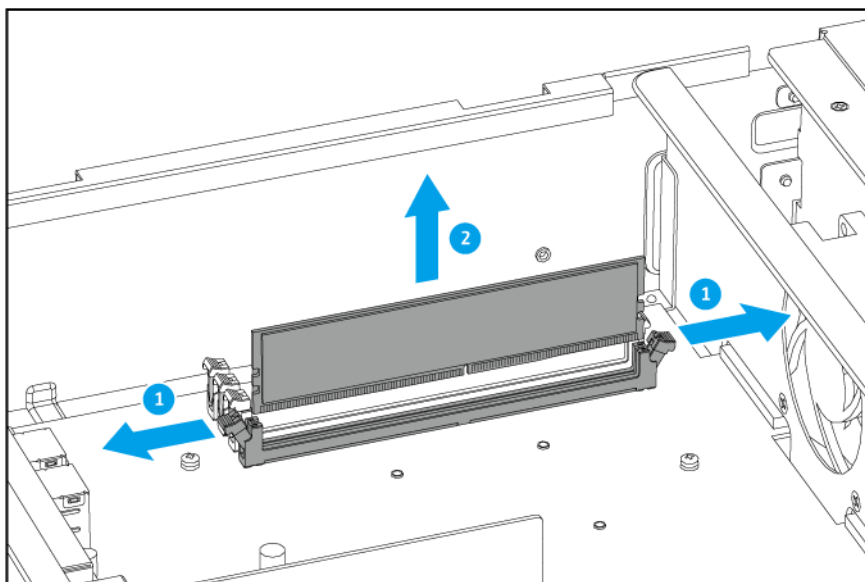
- a. 將固定夾同時往外推以鬆開記憶體模組。



警告

若嘗試取下未完全鬆脫的記憶體模組，可能會損壞記憶體模組與主機板。

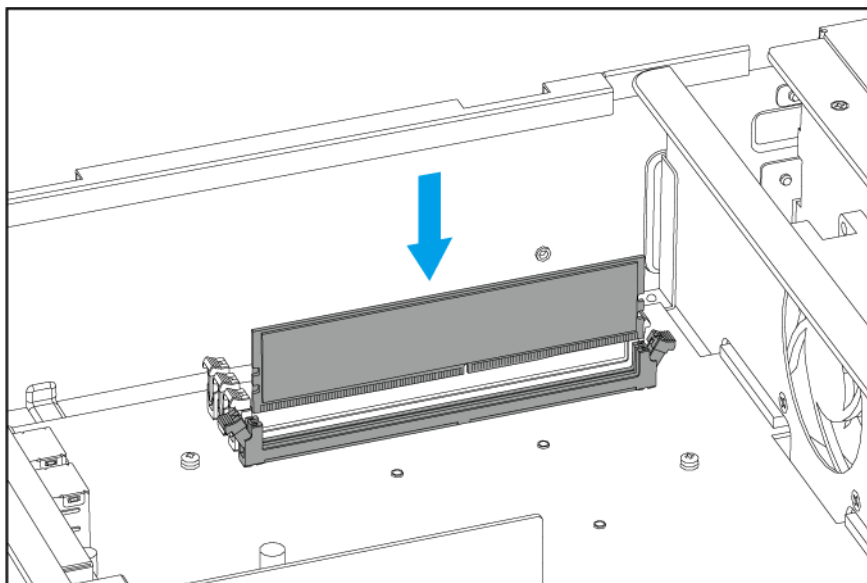
- b. 握住模組的邊緣。



6. 安裝新的記憶體模組。

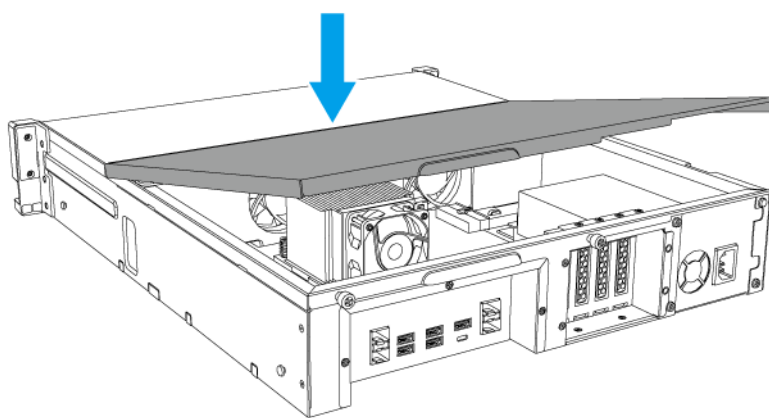
- a. 將接口與插槽的凸出部分對齊。
- b. 將記憶體模組插入插槽。
- c. 確認金屬接頭已完全插入插槽。

- d. 小心按下記憶體模組，直到固定夾正確扣住記憶體模組。

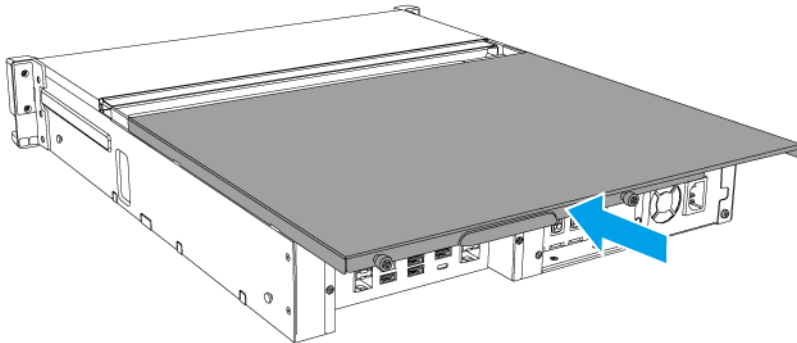


7. 裝上機殼蓋。

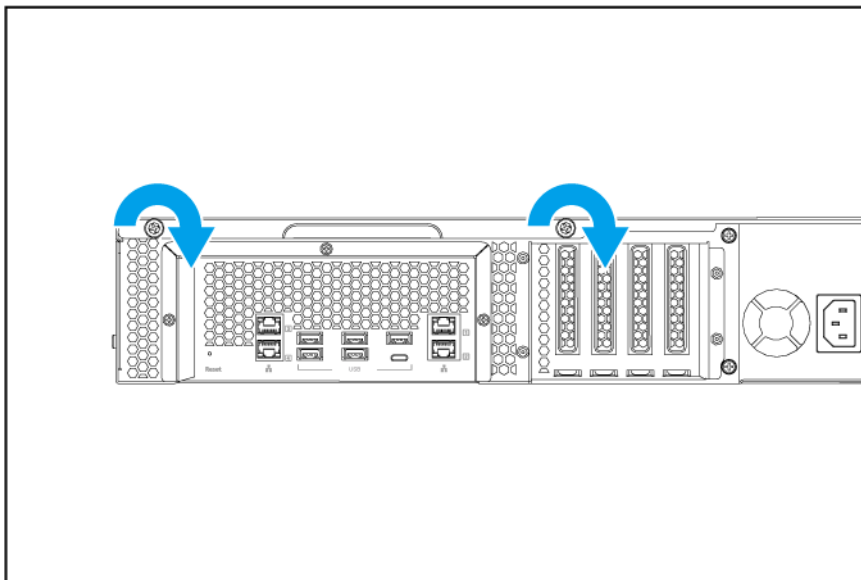
- a. 將殼蓋放在裝置上。



- b. 將殼蓋往前推。



c. 鎖緊螺絲。



8. 連上所有連接線和外接裝置。
9. 開啟裝置電源。
10. 確認裝置可辨識記憶體模組。
 - a. 使用管理員身分登入 QTS。
 - b. 前往 [控制台] > [系統] > [系統狀態] > [硬體資訊]。
 - c. 查看 [記憶體總容量] 的值。

安裝擴充卡

裝置支援特定的擴充卡，其中部分需要使用 QNAP PCIe 固定片。在公司網站所購買的 QNAP 品牌擴充卡，會隨附裝置適用的必要固定片。



注意

- 如果擴充卡安裝在插槽 1，插槽 2 的速度將從 x8 降到 x4。
- 如果擴充卡安裝在插槽 3，插槽 4 的速度將從 x8 降到 x4。

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。

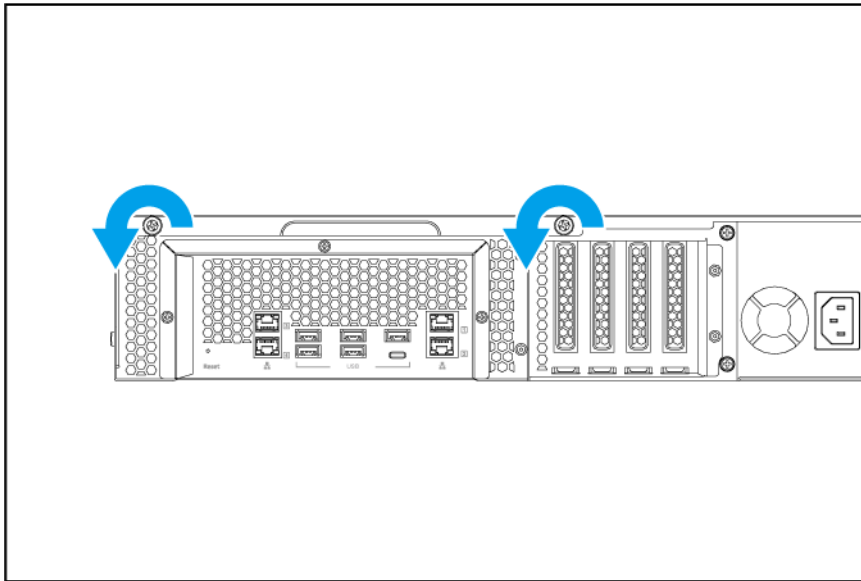


轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

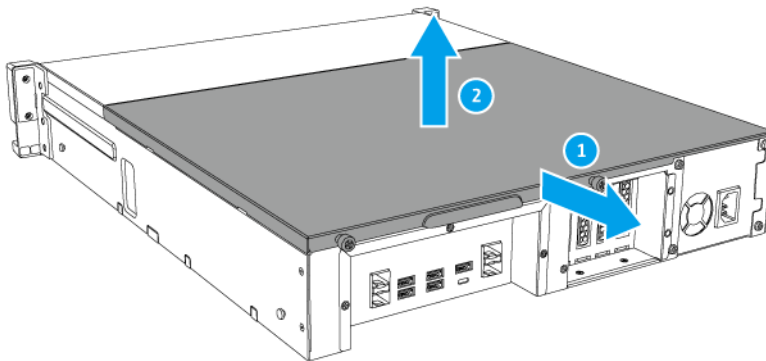


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

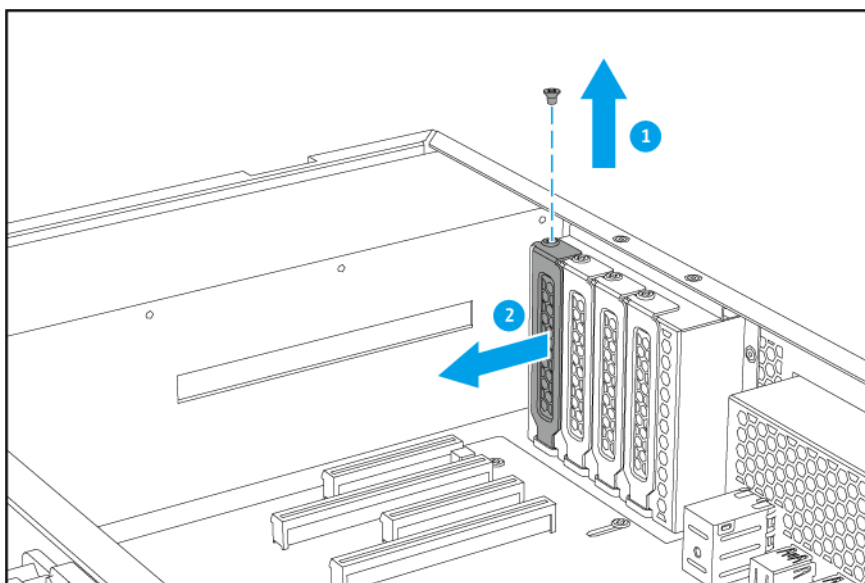
1. 請在 QNAP 網站上查看機型所適用的擴充卡和固定片。
 - a. 前往 www.qnap.com/compatibility。
 - b. 按一下 [依 NAS 搜尋]。
 - c. 指定插槽數目以及您 NAS 的特定型號。
 - d. 在 [裝置類型] 底下，選擇元件或裝置類型。
 - e. 在清單中找出特定元件或裝置型號。
 - f. 選擇性: 按一下對應的 [備註] 圖示可查看詳細資訊。
2. 關閉裝置的電源。
3. 從電源插座拔下電源線。
4. 中斷所有連接線和外接裝置的連線。
5. 卸除上蓋。
 - a. 鬆開螺絲。



- b. 將殼蓋往後推。
- c. 提起殼蓋，使其脫離裝置。

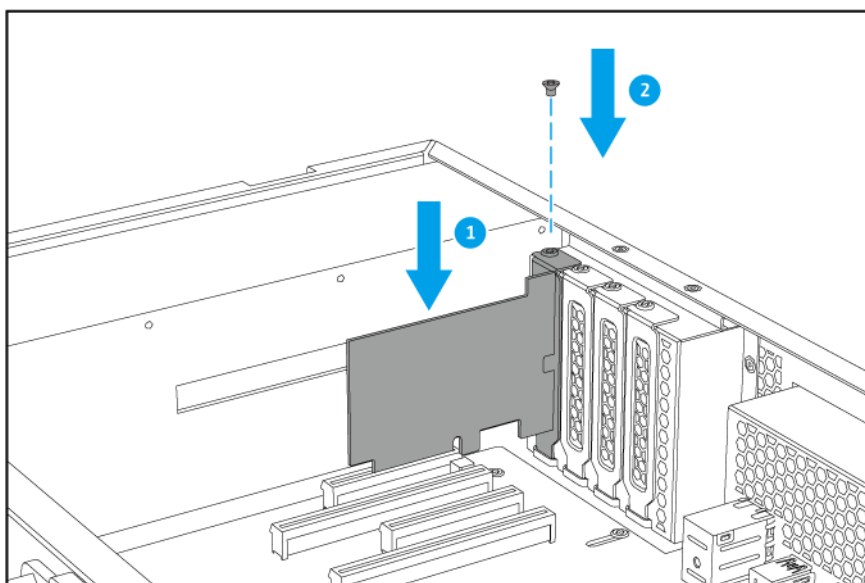


- 6. 取下 PCIe 蓋。
 - a. 取下用於固定殼蓋和檔板的螺絲。
 - b. 將殼蓋從插槽抽出。



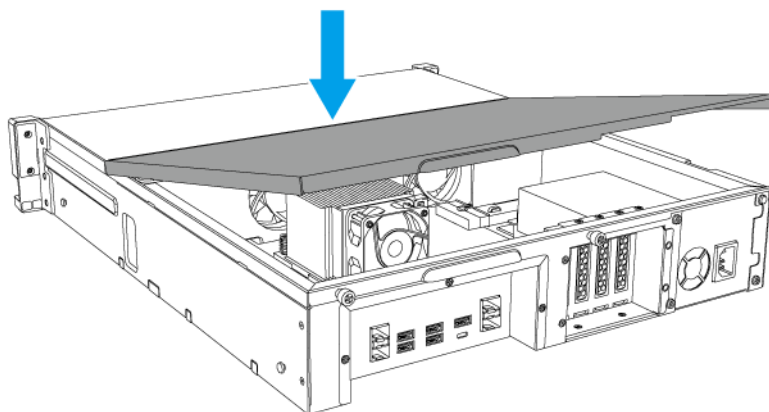
7. 安裝擴充卡。

- a. 握住擴充卡的邊緣。
- b. 將擴充卡插入插槽。
- c. 鎖上螺絲。

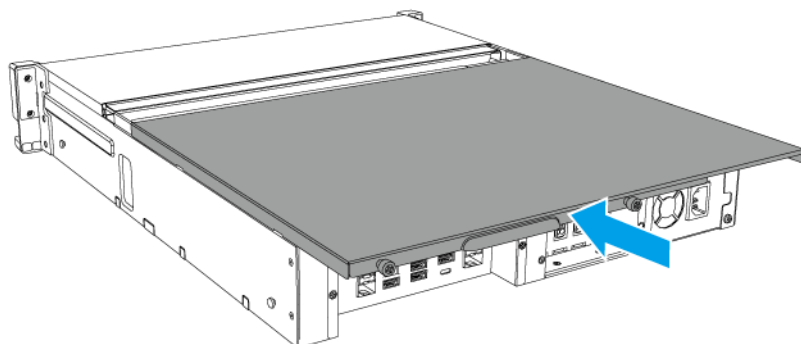


8. 裝上機殼蓋。

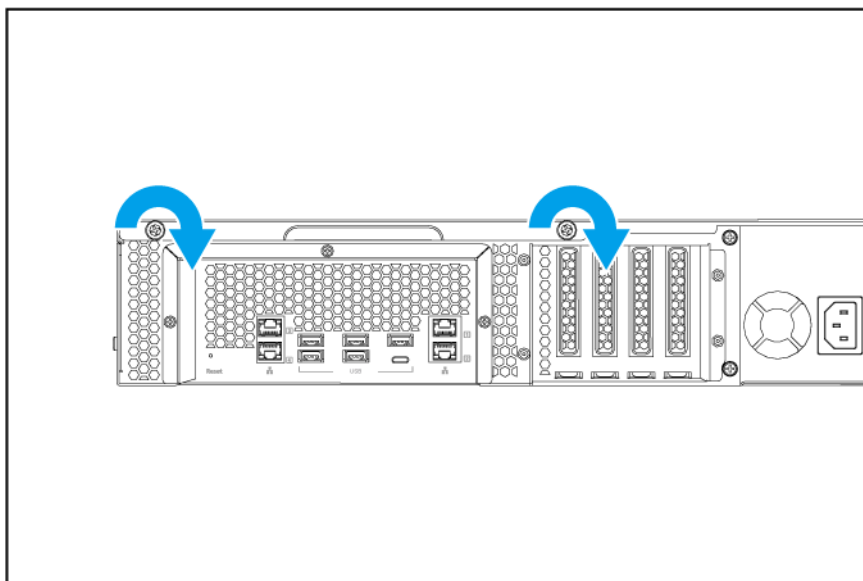
- a. 將殼蓋放在裝置上。



b. 將殼蓋往前推。



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. 開啟裝置。

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。

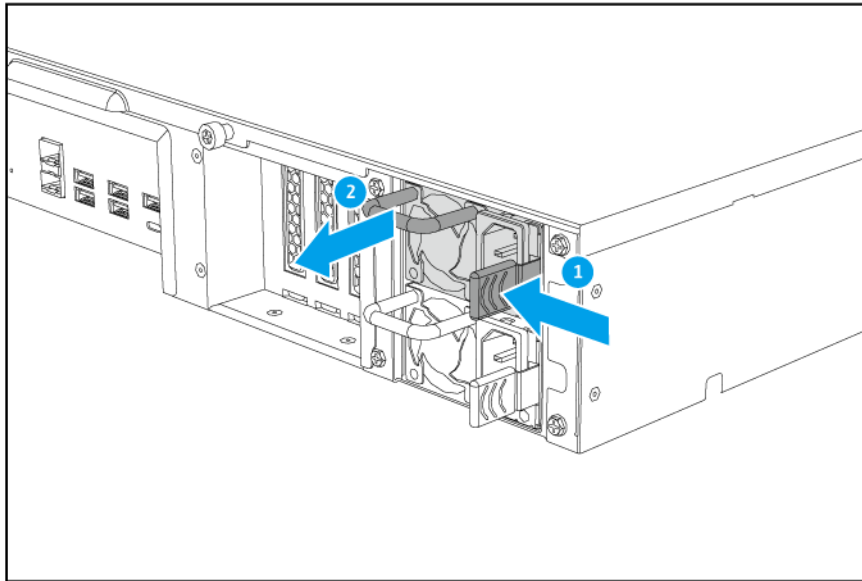


警告

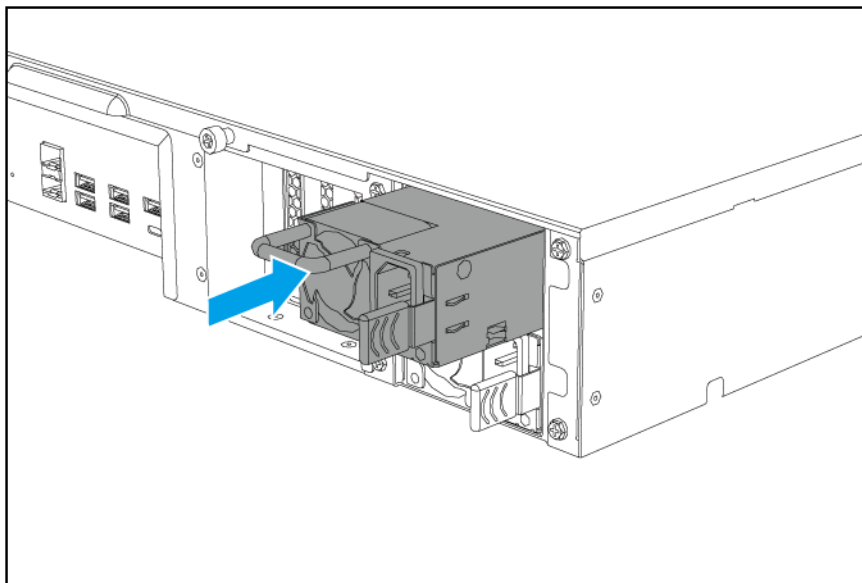


NAS 至少配備一條電源供應器 (PSU) 的電源線。為防止嚴重傷害事故發生，在安裝或替換系統元件前，應由受過訓練的技術人員拔下所有 PSU 電源線。

1. 關閉 NAS。
2. 從電源插座和您要更換的電源供應器 (PSU) 拔下電源線。
3. 朝把手方向按住門門，然後拉出電源供應器。



4. 插入新的電源供應器。



5. 將電源線連上電源供應器並插入電源插座。

6. 開啟裝置電源。

7. 啟用電源供應器故障警訊。

- a. 使用管理員身分登入 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

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>。

TS-x77XU 與下列機架滑軌型號相容：

型號	相容機架滑軌
<ul style="list-style-type: none"> • TS-877XU • TS-877XU-RP • TS-1277XU-RP 	RAIL-B02

您可以在機架滑軌的包裝中找到安裝資訊。

擴充設備安裝

TS-x77XU 支援 SAS 與 USB 擴充設備。

擴充設備型號	說明	必要配件
REXP-1000 Pro	<ul style="list-style-type: none"> • 使用 SAS 6 Gbps (SFF-8088) 介面 • 支援 SATA/HDD/SSD 	<ul style="list-style-type: none"> • SAS-6G2E 儲存擴充卡 • Mini-SAS SFF-8088 連接線
TL-D800C	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 2 Type-C 介面 • 支援 SATA 硬碟 	<ul style="list-style-type: none"> • USB 3.2 Gen 2 Type-A 轉 Type-C 連接線 • USB 3.2 Gen 2 Type-C 轉 Type-C 連接線
TL-D400S	<ul style="list-style-type: none"> • 使用 SATA 6 Gbps (SFF-8088) 介面 • 支援 SATA/HDD/SSD 	<ul style="list-style-type: none"> • 1 x SFF-8088 接頭線 • QXP-400eS-A1164 主機匯流排介面卡
TL-D800S	<ul style="list-style-type: none"> • 使用 SATA 6 Gbps (SFF-8088) 介面 • 支援 SATA/HDD/SSD 	<ul style="list-style-type: none"> • 2 x SFF-8088 接頭線 • QXP-800eS-A1164 主機匯流排介面卡
TL-D1600S	<ul style="list-style-type: none"> • 使用 SATA 6 Gbps (SFF-8088) 介面 • 支援 SATA/HDD/SSD 	<ul style="list-style-type: none"> • 4 x SFF-8088 轉 SFF-8644 接頭線 • QXP-1600eS 主機匯流排介面卡
TR-002	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 2 Type-C 介面 • 支援 SATA 硬碟 	<ul style="list-style-type: none"> • USB 3.2 Gen 2 Type-A 轉 Type-C 連接線 • USB 3.2 Gen 2 Type-C 轉 Type-C 連接線
TR-004	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 1 Type-C 介面 • 支援 SATA 硬碟 	<ul style="list-style-type: none"> • USB 3.2 Gen 2 Type-A 轉 Type-C 連接線 • USB 3.2 Gen 2 Type-C 轉 Type-C 連接線
TR-004U	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 1 Type-C 介面 • 支援 SATA 硬碟 	<ul style="list-style-type: none"> • USB 3.2 Gen 1 Type-A 轉 Type-C 連接線 • USB 3.2 Gen 2 Type-C 轉 Type-C 連接線 • RAIL-B02

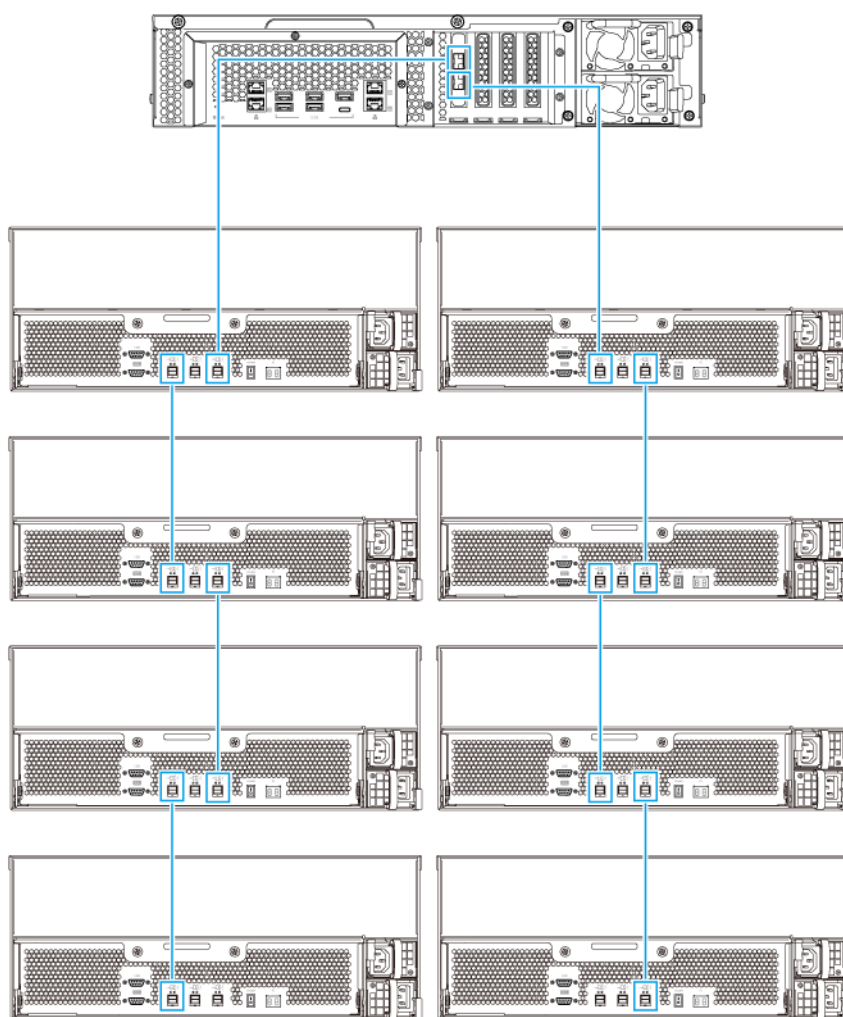
擴充設備型號	說明	必要配件
TL-R400S	<ul style="list-style-type: none"> • 使用 SATA 6 Gbps (SFF-8088) 介面 • 支援 SATA/HDD/SSD 	<ul style="list-style-type: none"> • 1 x SFF-8088 接頭線 • QXP-400eS-A1164 主機匯流排介面卡 • RAIL-B02
TL-R1200C-RP	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 2 Type-C 介面 • 支援 SATA 硬碟 	<ul style="list-style-type: none"> • USB 3.2 Gen 2 Type-A 轉 Type-C 連接線 • USB 3.2 Gen 2 Type-C 轉 Type-C 連接線 • RAIL-B02

連接 SAS 擴充設備

若要連接裝置至 SAS 擴充設備，裝置必須安裝儲存擴充卡。

如需必要配件的詳細資訊，請參見：[擴充設備安裝](#)。

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](#)
2. 請按照下列拓樸圖，將擴充設備連接到裝置。



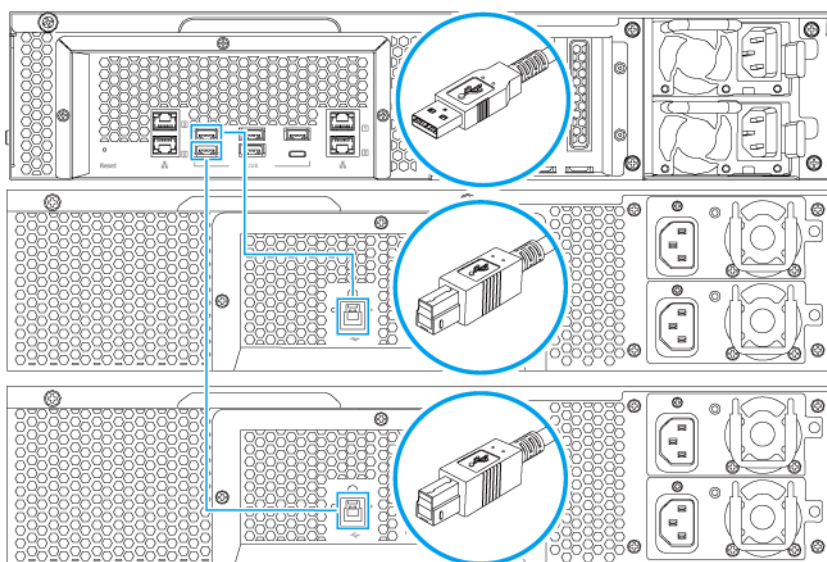
3. 開啟擴充設備的電源。
4. 確認裝置可辨識所有擴充設備。
 - a. 使用管理員帳號登入 QTS。
 - b. 前往 [主選單] > [儲存與快照總管] > [總覽] > [系統]。
 - c. 確認畫面列出擴充設備。

連接 USB 擴充設備

若要將裝置連接到 USB 擴充設備，需要使用 USB Type-A 轉 USB Type-C 或 USB Type-C 轉 USB Type-C 連接線。

如需必要配件的詳細資訊，請參見：[擴充設備安裝](#)。

1. 確認 NAS 已關閉電源。
2. 將擴充設備連接至 NAS。
 - a. 將 USB 連接線接至 NAS 上的 USB 3.2 Gen 2 Type-A 連接埠。
 - b. 將 USB 連接線接至 NAS 上的 USB Type-A 連接埠。



3. 開啟擴充設備的電源。
4. 確認 NAS 可辨識所有擴充設備。
 - a. 使用管理員帳號登入 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。

QTS 安裝

TS-x77XU 使用 QNAP QTS 作業系統。您可以使用下列其中一種方式安裝 QTS。

方式	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

方式	說明	需求
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 myQNAPcloud Link 遠端存取 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 Cloud Key 安裝 QTS。</p>	<ul style="list-style-type: none"> • 電腦或行動裝置。 • 網路線 • myQNAPcloud 帳號 • Cloud Key

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. 開啟 NAS。
2. 將 NAS 連接至區域網路。
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，然後在它的名稱或 IP 位址按兩下。
[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]。
[輸入 NAS 名稱和管理員密碼] 畫面隨即出現。
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]。
[設定日期和時間] 畫面隨即出現。
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]。
[編輯網路設定] 畫面隨即出現。
10. 選擇 [自動取得 IP 位址 (DHCP)]。
11. 按一下 [下一步]。

[跨平台檔案傳輸服務] 畫面隨即出現。

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]。
[摘要] 畫面隨即出現。
14. 檢視設定值。
15. 按一下 [套用]。
確認訊息隨即顯示。



警告

按一下 [確認] 後，系統會在安裝 QTS 前刪除硬碟的所有資料。

16. 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. 開啟 NAS。
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

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。
- 基於安全考量，NAS 將於初始化後停用 myQNAPcloud Link 遠端連線服務。日後若要再度啟用，請透過 LAN 連接至 QTS，然後安裝 myQNAPcloud Link。

7. 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。

8. 按一下 [啟動智慧安裝導引] 。
9. 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。
10. 按一下 [下一步] 。
- [設定日期和時間] 畫面隨即出現。
11. 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。

12. 按一下 [下一步] 。
- [編輯網路設定] 畫面隨即出現。
13. 選擇 [自動取得 IP 位址 (DHCP)] 。
14. 按一下 [下一步] 。
- [跨平台檔案傳輸服務] 畫面隨即出現。
15. 選擇將用於存取 NAS 共用資料夾的裝置類型。
16. 按一下 [下一步] 。
- [摘要] 畫面隨即出現。
17. 檢視設定值。
18. 按一下 [套用] 。
- 確認訊息隨即顯示。

**警告**

按一下 [確認] 後，系統會在安裝 QTS 前刪除硬碟的所有資料。


19. 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	使用者操作	結果
開啟電源	按一下按鈕。	裝置開機。
關閉電源	按住按鈕 1.5 秒。	裝置關機。
強制關機	按住按鈕 5 秒。	裝置關機。



重要
請在裝置沒有回應時才使用此方法。

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。	<p>以下設定將回復至預設值：</p> <ul style="list-style-type: none"> 系統管理員密碼：預設密碼為第一個 MAC 位址 (不含特殊字元)。例如，若第一個 MAC 位址為 00-08-9B-F6-15-75，則管理員密碼為 00089BF61575。 <p> 提示 您可以透過 Qfinder Pro 找到第一個 MAC 位址。黏貼至裝置的標籤亦將位址列為 MAC1。</p> <ul style="list-style-type: none"> 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 (允許所有連線) LCD 面板密碼：(空白) VLAN：已停用
系統進階重設	按住按鈕 10 秒。	<p>回復為出廠預設值。</p> <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。

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。	<p>以下設定將回復至預設值：</p> <ul style="list-style-type: none"> 系統管理員密碼：預設密碼為第一個 MAC 位址 (不包含特殊字元)。例如，若第一個 MAC 位址為 00-08-9B-F6-15-75，則管理員密碼為 00089BF61575。 <p> 提示 您可以透過 Qfinder Pro 找到第一個 MAC 位址。黏貼至裝置的標籤亦將位址列為 MAC1。</p> <ul style="list-style-type: none"> 系統會自動啟用 admin 帳戶 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 (允許所有連線) LCD 面板密碼：(空白) VLAN：已停用
系統進階重設	按住按鈕 15 秒。 按住按鈕 10 秒。	<p>回復為出廠預設值。</p> <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 已連線至網路的狀態下。

如需 LED 燈號的位置資訊，請參見：[元件](#)。

LED	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。 • 作業系統正在更新。 • RAID 重建作業正在進行。 • 線上 RAID 容量擴充正在進行。 • 線上 RAID 組態遷移正在進行。
	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)。 • 硬體自我檢查發生錯誤。
	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 啟動中。 • NAS 未設定。 • 硬碟未格式化。
	綠燈	NAS 已就緒。
	關閉	所有硬碟處於待命模式。
LAN	橙燈	其他裝置存取資料時發生讀寫錯誤。
	橙燈閃爍	使用者正從網路存取 NAS。
硬碟	紅燈閃爍	硬碟存取中並發生讀寫錯誤。
	紅燈	發生硬碟讀寫錯誤。
	綠燈閃爍	資料存取中。
	綠燈	硬碟可供存取。
擴充	橙燈	<ul style="list-style-type: none"> • 已偵測到 USB JBOD 擴充設備。 • 已偵測到 SAS JBOD 擴充設備。 • 已偵測到 REXP 擴充設備。
	熄滅	未偵測到擴充設備。

警示音

持續時間	頻率	說明
短嗶 (0.5 秒)	1 次	<ul style="list-style-type: none"> NAS 啟動中。 按住重設按鈕 3 秒鐘後，NAS 將重設配置。 按住重設按鈕 10 秒鐘後，NAS 將重設配置並重新啟動。 作業系統已更新。 裝置正在啟動 USB 單鍵備份。
	2 次	USB 裝置已移除 (USB 單鍵備份按鈕)。
	3 次	<ul style="list-style-type: none"> 偵測不到安裝的硬碟。 韌體已更新。
長嗶 (1.5 秒)	3 次 (每 5 分鐘)	<ul style="list-style-type: none"> 電源發生錯誤。 系統風扇異常。 風扇模組已移除。 無法將 NAS 資料複製到連接正面 USB 埠的外接硬碟。
	2 次	<ul style="list-style-type: none"> 儲存池容量即將用盡。 儲存池容量已滿。 發生儲存池狀態錯誤。 共用資料夾容量將滿。 共用資料夾容量已滿。 硬碟進入降階模式。 磁碟重建中。 USB 裝置正在移除 (USB 單鍵備份按鈕)。 共用資料夾狀態發生錯誤。 插入或抽出硬碟。 iSCSI 容量即將用盡。
	1 次	<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。
長嗶聲及短嗶聲	1 次長嗶聲及 2 次短嗶聲	JBOD 擴充設備已移除。

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 Qfinder Pro 或 myQNAPcloud 在 QTS 安裝的期間找不到 NAS，表示硬碟或資料發生問題。

1. 關閉 NAS。
2. 移除所有硬碟。
3. 開啟 NAS。
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。

熱抽換故障硬碟

NAS 於下列情況支援硬碟熱抽換：

RAID 類型	硬碟數量	情況
RAID 1	2	一個硬碟故障。
RAID 5	≥ 3	一個硬碟故障。
RAID 6	≥ 4	一或兩個硬碟故障。
RAID 10	≥ 4 (必須是偶數)	在兩個不同組的硬碟中有一或兩個硬碟故障。
RAID 50	≥ 6	每個子群組有一個硬碟故障。
RAID 60	≥ 8	每個子群組有兩個硬碟故障。

1. 登入 QTS。
2. 前往 [主選單] > [儲存與快照總管] > [儲存空間] > [磁碟/VJBOD]。
3. 找出故障的硬碟。
4. 準備一個新的硬碟，且容量至少與故障硬碟相同。
5. 將裝置的故障硬碟拔出。
6. 等待 20 秒或等待裝置發出兩次嗶聲。
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] > [儲存與快照總管] > [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]。

支援和其他資源

QNAP 提供下列資源：

資源	URL
文件	https://download.qnap.com
相容性列表	https://www.qnap.com/compatibility
NAS 遷移相容性	https://www.qnap.com/en/nas-migration
擴充設備相容性	http://www.qnap.com/go/compatibility-expansion
服務入口網站	https://service.qnap.com
產品支援狀態	https://www.qnap.com/en/product/eol.php
下載	https://download.qnap.com
社群論壇	https://forum.qnap.com
QNAP 配件商店	https://shop.qnap.com

6. 詞彙

Cloud Key

指定至每個 NAS 裝置的唯一 8 位數代碼

myQNAPcloud

提供各種遠端存取服務，例如 DDNS 與 myQNAPcloud Link

myQNAPcloud Link

讓您透過網際網路存取 QNAP 裝置，無需配置複雜的連接埠轉送設定

QNAP ID

讓您使用 myQNAPcloud 遠端存取及其他 QNAP 服務的使用者帳戶

Qfinder Pro

QNAP 應用工具可讓您定位和存取區域網路內的 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。

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經濟部標準檢驗局聲明



D33B77
RoHS

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CE 聲明



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FCC 聲明

FCC A 級聲明



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Version 3, 29 June 2007

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"Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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