



QNAP

TS-h1283XU-RP

使用手冊



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1. 前言





關於本手冊

本手冊涵蓋 QNAP TS-hx83XU-RP NAS 的相關資訊，以及安裝硬體的逐步指示。此外，本手冊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儲存裝置管理員。本手冊預設使用者具有相關知識概念，且有能力安裝、維護儲存裝置並排解有關伺服器、伺服器元件和儲存系統的相關問題。本手冊亦預設使用者受過相關訓練，能夠識別各種危險跡象，在發生危險時也知道該如何處理，以避免受傷及資料/資產受損。

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 QNAP TS-hx83XU-RP NAS 的基本資訊。

關於 TS-hx83XU-RP

TS-hx83XU-RP 是一種企業級 NAS，搭載 Intel®Xeon®E -2236 處理器，並且可於最新的 QNAP QuTS hero 作業系統上執行。全新 QuTS hero 作業系統於功能強大的 ZFS 檔案系統上最佳化了 QuTS hero 應用程式。TS-hx83XU-RP 支援不同硬碟儲存設定，可加以滿足各類虛擬化和資料儲存需求。其同時配備四個長 DIMM 記憶體插槽（記憶體可擴充至 128 GB）、擴充卡插槽，以及各式輸入/輸出 (I/O) 連接埠，擴充性與靈活性十足。

硬體規格





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	記憶體	電源供應器
TS-h1283XU-RP-E2236-32G	32 GB	備援
TS-h1283XU-RP-E2236-128G	128 GB	備援
TS-h1283XU-RP-E2136-32G	32 GB	備援
TS-h1283XU-RP-E2136-128G	128 GB	備援

元件	TS-h1283XU-RP-E2236-32G	TS-h1283XU-RP-E2236-128G
處理器		
CPU	Intel® Xeon® E 系列	
核心/執行緒	6 核心/12 執行緒	
架構	x86 64 位元	
加密引擎	AES-NI	
記憶體		
預載記憶體	32 GB RAM：2 x 16 GB UDIMM DDR4 ECC	128 GB RAM：4 x 32 GB UDIMM DDR4 ECC
記憶體插槽	4 x Long-DIMM DDR4	
	<div style="display: flex; align-items: center;"> <div style="text-align: center; margin-right: 10px;"> </div> <div> <p>重要</p> <ul style="list-style-type: none"> • 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。 </div> </div>	
最大記憶體	128 GB：4 x 32 GB	
快閃記憶體	5 GB（雙啟動作業系統防護）	
儲存空間		
硬碟插槽	12 x 3.5 吋 SATA 6 Gbps	
	<div style="display: flex; align-items: center;"> <div style="text-align: center; margin-right: 10px;"> </div> <div> <p>提示</p> <p>硬碟插槽與 SATA 3 Gbps 硬碟回溯相容。</p> </div> </div>	

元件	TS-h1283XU-RP-E2236-32G	TS-h1283XU-RP-E2236-128G
硬碟相容性	3.5 吋插槽： <ul style="list-style-type: none"> • 3.5 吋 SATA 硬碟 • 2.5 吋 SAS 硬碟 • 2.5 吋 SATA 固態硬碟 	
SSD 快取加速技術支援	3.5 吋硬碟插槽：1 至 12	
熱抽換	此裝置支援熱抽換硬碟（SSD 快取硬碟除外）。	
網路		
10 Gigabit 網路介面	<ul style="list-style-type: none"> • 2 x 10GbE SFP+ SmartNIC • 2 x 10GBase-T RJ45 	
Gigabit 網路介面	4 x GbE RJ45	
外接 I/O 埠和擴充插槽		
PCIe 插槽	<ul style="list-style-type: none"> • 1 x PCIe Gen 2.0 x4 • 2 x PCIe Gen 3.0 x4 • 1 x PCIe Gen 3.0 x8 <div style="border-left: 2px solid orange; padding-left: 10px; margin-top: 10px;"> <p> 提示</p> <ul style="list-style-type: none"> • 兩個 PCIe 插槽已預先安裝 10GbE 網路擴充卡。如需詳細資訊，請參見：更換記憶體模組。 • 請前往 https://www.qnap.com/compatibility 查看相容的擴充卡清單。 </div>	
USB 連接埠	<ul style="list-style-type: none"> • 2 x USB 3.2 Gen 2 10Gbps Type-C • 4 x USB 3.2 Gen 2 10Gbps Type-A 	
介面		
按鈕	<ul style="list-style-type: none"> • 電源 • 重設 	
尺寸		
外型	2U 機架式	
尺寸（高 x 寬 x 深）	88.3 x 482 x 562 mm (3.48 x 18.98 x 22.13 in)	
淨重	11.75 kg (25.90 lbs)	
其他		
滑軌相容性	RAIL-B02 <div style="border-left: 2px solid blue; padding-left: 10px; margin-top: 10px;"> <p> 注意</p> <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。 • 您可以在機架滑軌的包裝中找到安裝資訊。 </div>	
電源供應器	TS-hx83XU-RP：2 x 300W、100-240V AC、50/60 Hz	

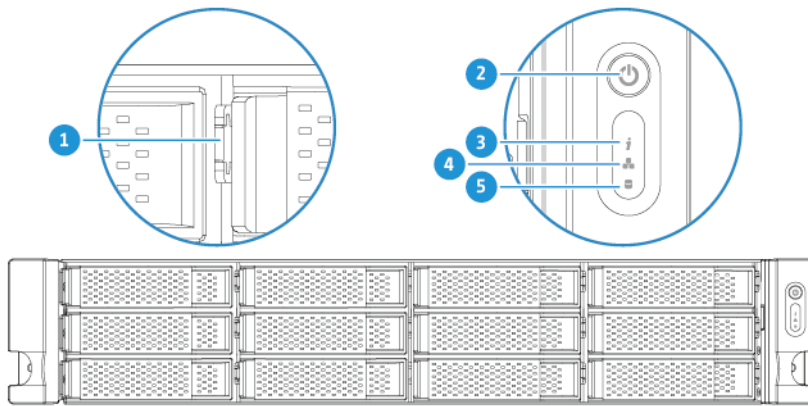
元件	TS-h1283XU-RP-E2236-32G	TS-h1283XU-RP-E2236-128G
系統電池	CR2032 鋰電池 (3V, 225 mAh)	
	 重要 請遵照當地法規或電池製造商的指示處置廢棄電池。	
噪音值	40.6 db(A)	
	 注意 從旁觀者位置（距 NAS 一公尺內）測試噪音值。在測試用的 NAS 中安裝最多數量的硬碟，並以低速運行。	
風扇	系統：2 x 60mm，12V DC 風扇	
操作溫度	0°C 至 40°C (32°F 至 104°F)	
相對濕度	<ul style="list-style-type: none"> 不凝結相對濕度：5% 至 95% 濕球溫度：27°C (80.6°F) 	

包裝內容

項目	數量
TS-hx83XU-RP	1
電源線	2
乙太網路線	<ul style="list-style-type: none"> 2 x 1GbE (黑色 Cat5e) 2 x 10GbE (藍色 Cat6a)
2.5 吋硬碟用螺絲	36
3.5 吋硬碟用螺絲	48
快速安裝手冊 (QIG)	1

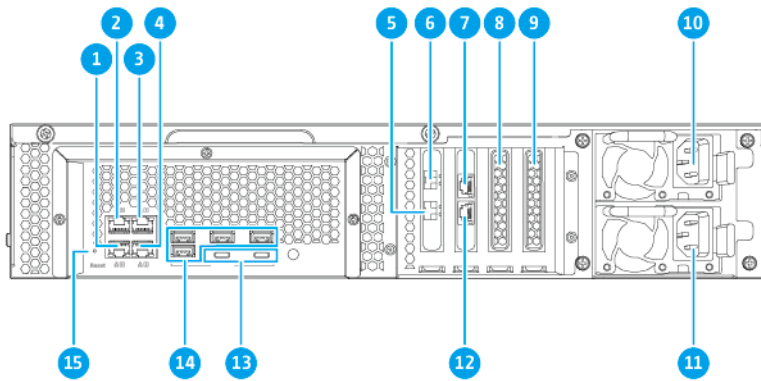
元件

前面板



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

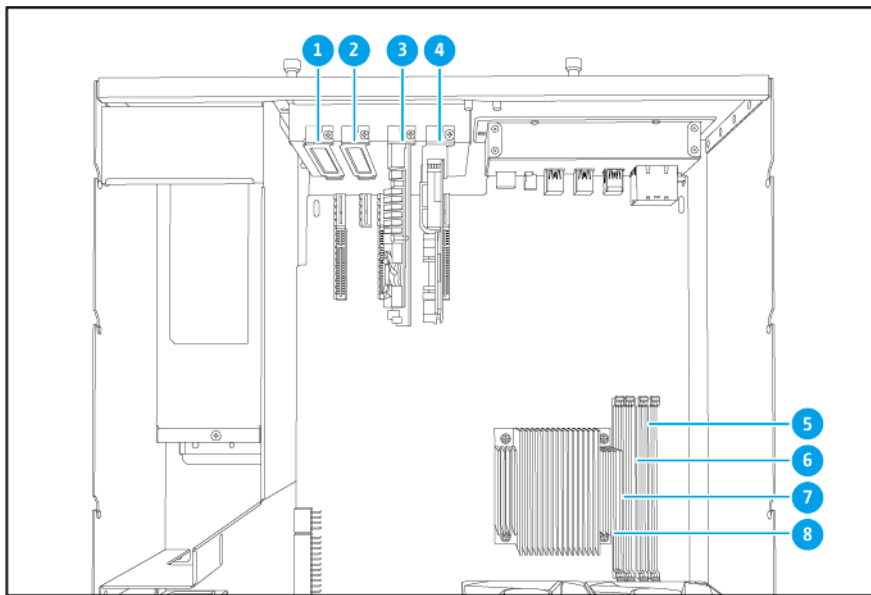
後面板





編號	元件	編號	元件
1	乙太網路埠 4 (GbE RJ45)	9	PCIe 2.0 x4 插槽 1
2	乙太網路埠 3 (GbE RJ45)	10	電源供應器 1

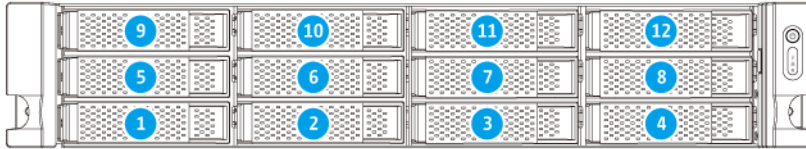
編號	元件	編號	元件
3	乙太網路埠 1 (GbE RJ45)	11	電源供應器 2
4	乙太網路埠 2 (GbE RJ45)	12	乙太網路埠 5 (10GbaseT RJ45)
5	乙太網路埠 7 (10GbE SFP+)	13	USB 3.2 Gen 2 Type-C 連接埠
6	乙太網路埠 8 (10GbE SFP+)	14	USB 3.2 Gen 2 Type-A 連接埠
7	乙太網路埠 6 (10GbaseT RJ45)	15	重設按鈕
8	PCIe 3.0 x8 插槽 2	—	—

主機板



編號	元件	編號	元件
1	PCIe 2.0 x4 插槽 1	5	記憶體插槽 1 (通道 B, DIMM 2)
2	PCIe 3.0 x8 插槽 2	6	記憶體插槽 2 (通道 B, DIMM 1)
3	PCIe 3.0 x4 插槽 3	7	記憶體插槽 3 (通道 A, DIMM 2)
	 注意 此 PCIe 槽已安裝一個雙埠 10GBase-T RJ45 擴充卡。		
4	PCIe 3.0 x4 插槽 4	8	記憶體插槽 4 (通道 A, DIMM 1)
	 注意 此 PCIe 插槽已安裝一個雙埠 10 GbE SFP+ 擴充卡。		

硬碟編號



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 請前往 https://www.qnap.com/compatibility 以查看相容的硬碟機型清單。 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

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正確接地的電源插座。



裝置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，在安裝或更換系統元件前，經訓練的維修技術人員必須先拔除所有電源供應器的電源線。

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。

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](#)。
- 選擇性: 更換記憶體模組。
如需詳細資訊，請參見：[更換記憶體模組](#)。
- 選擇性: 更換擴充卡。
如需詳細資訊，請參見：[更換擴充卡](#)。
- 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
- 連接電源線與所有適用的網路線。
- 開啟 NAS。
- 安裝 QuTS hero。
如需詳細資訊，請參見：[QuTS hero 安裝](#)。

8. 登入 QuTS hero ◦

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。

取下機殼蓋



警告

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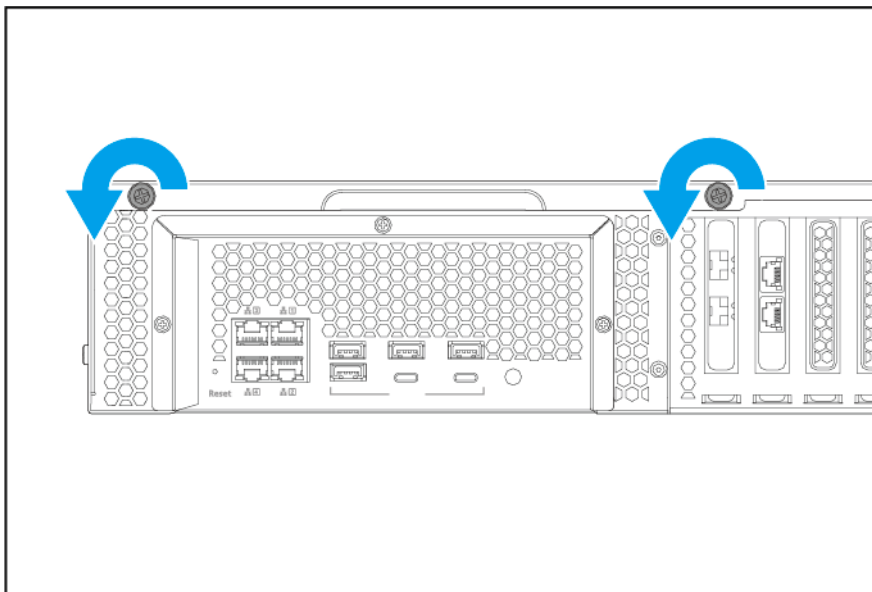
轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

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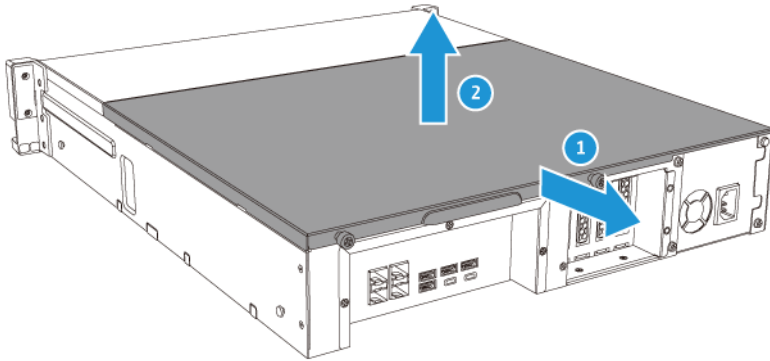
其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 NAS 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 NAS。



裝上機殼蓋



警告

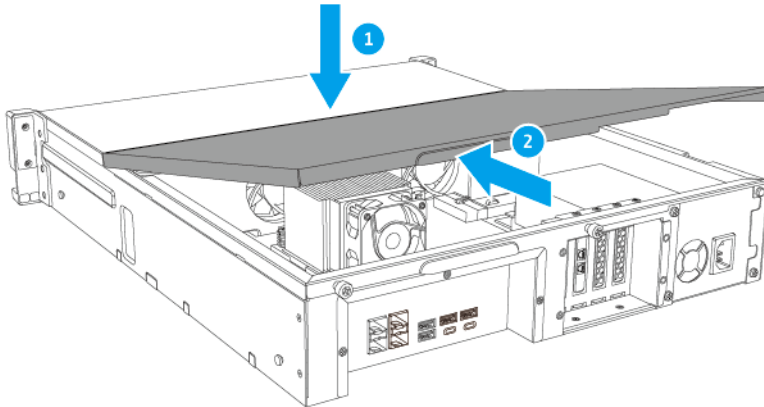


轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

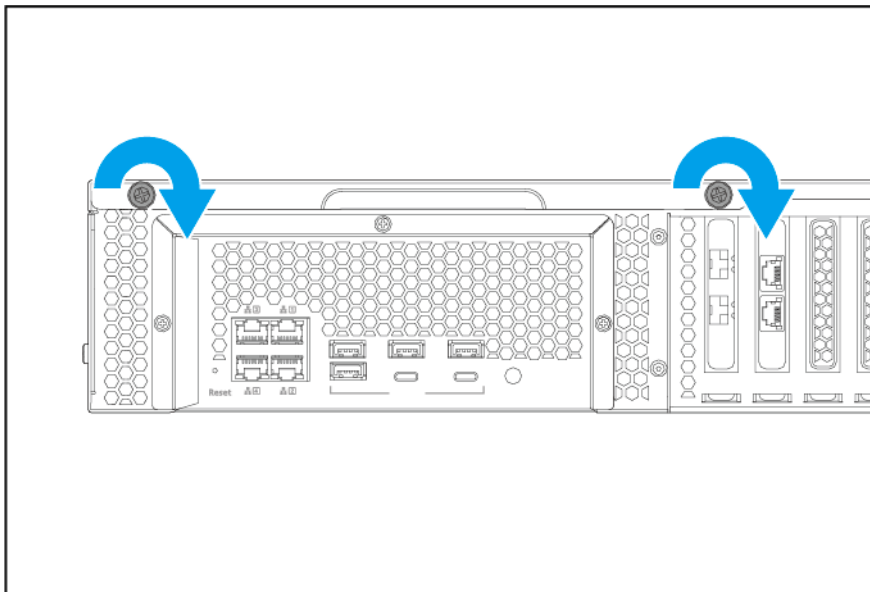


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 將機殼蓋放在 NAS 上。
2. 將殼蓋往前推。



3. 鎖緊螺絲。



4. 連上所有連接線和外接裝置。
5. 將電源線插入電源插座。
6. 開啟 NAS 電源。

硬碟安裝

TS-hx83XU-RP 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

請前往 <https://www.qnap.com/compatibility> 以查看相容的硬碟機型清單。

**警告**

- 安裝硬碟與安裝 QuTS hero 會刪除硬碟上的所有資料。

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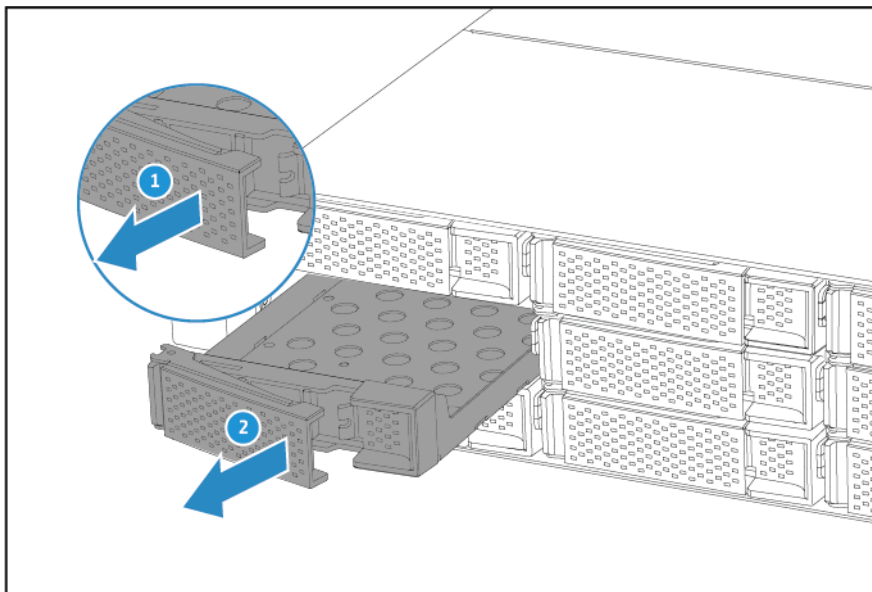
轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

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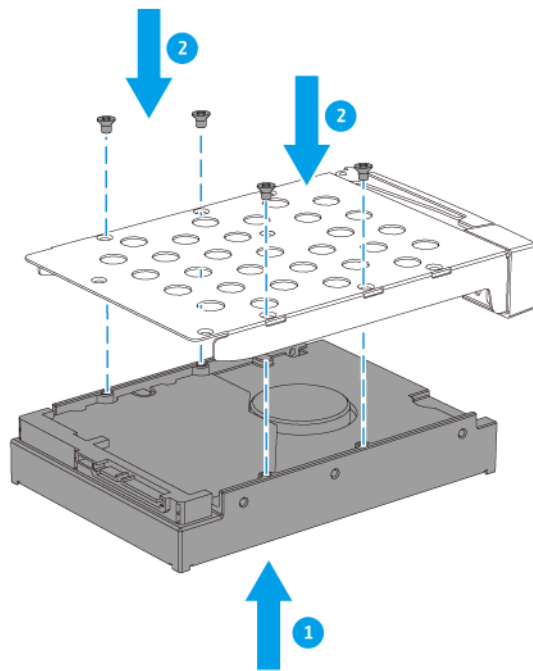


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

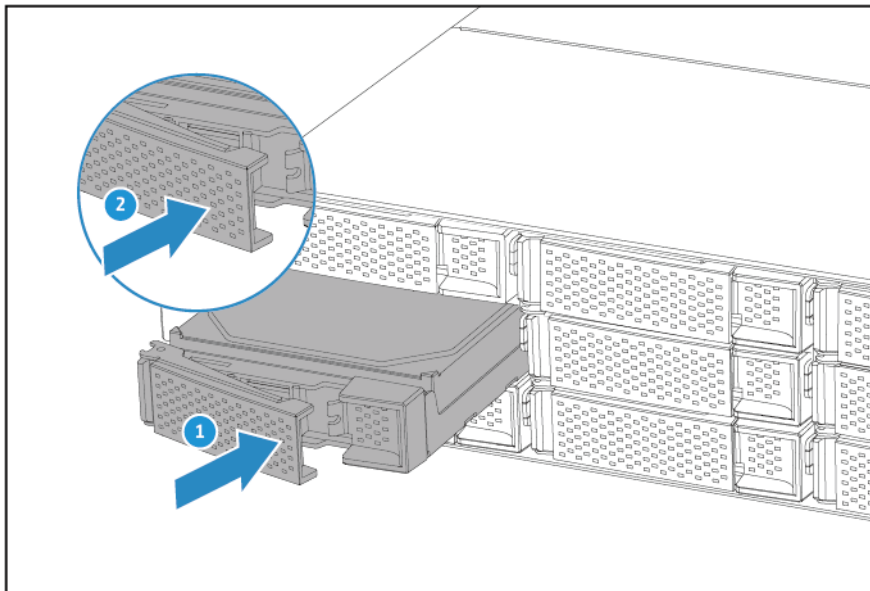
1. 關閉 NAS 電源。
2. 取出硬碟托盤。
 - a. 拉把手以鬆開托盤。
 - b. 將托盤拉出。



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

請前往 <https://www.qnap.com/compatibility> 以查看相容的硬碟機型清單。

**警告**

- 安裝硬碟與安裝 QuTS hero 會刪除硬碟上的所有資料。

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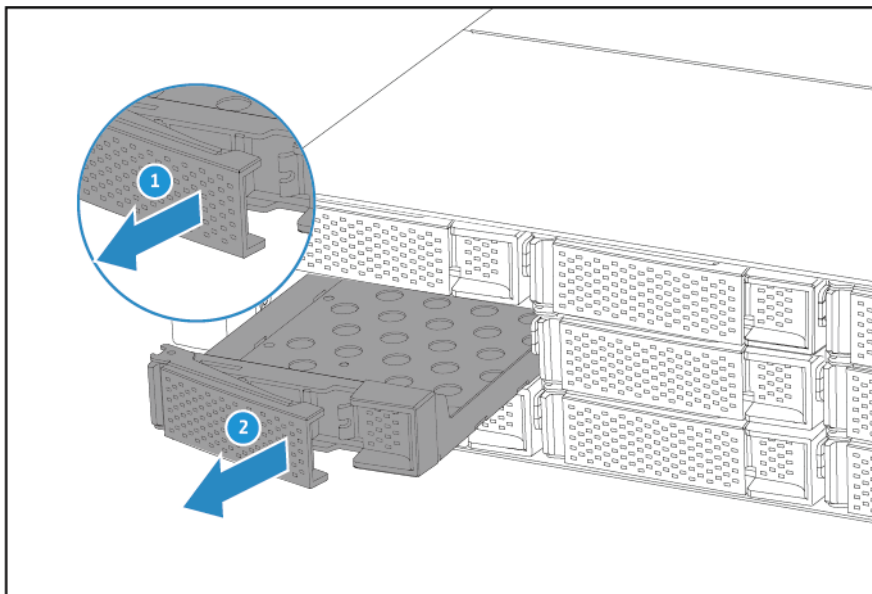
轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。

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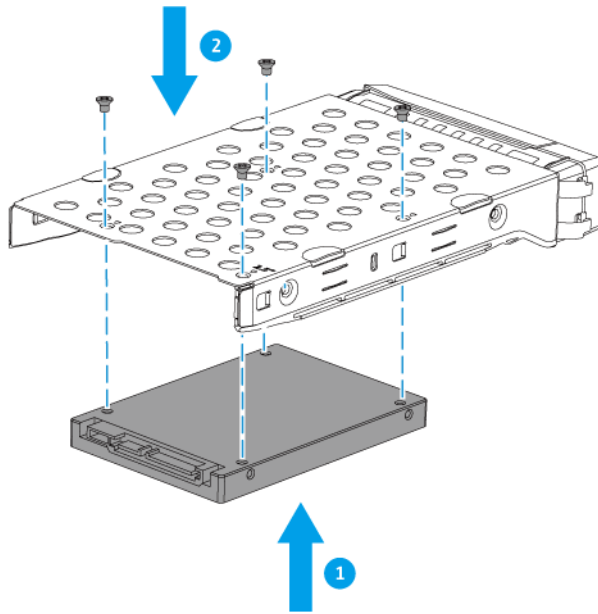


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

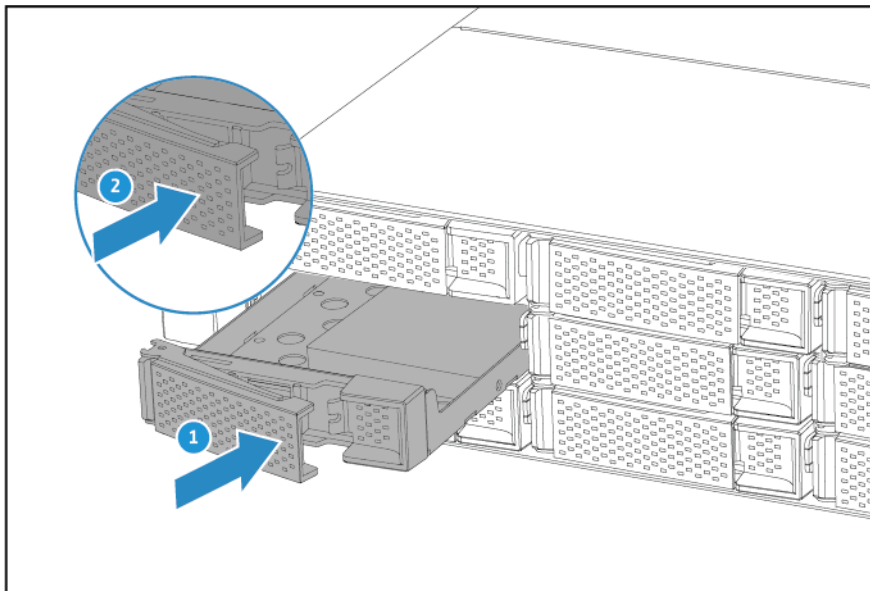
1. 關閉 NAS 電源。
2. 取出硬碟托盤。
 - a. 拉把手以鬆開托盤。
 - b. 將托盤拉出。



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

NAS 具有四個記憶體插槽。您可以升級記憶體模組以增加 NAS 的記憶體容量。

僅使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。



重要

QNAP 建議成對安裝記憶體模組。

- 確認每對皆使用相同的記憶體模組。
- 按順序安裝記憶體模組組合，並依照文中指示裝在指定插槽。
- 將記憶體模組以兩個或四個為一組進行安裝。當安裝兩個記憶體模組時，請將記憶體安裝在插槽 1 和 3。當安裝四個模組時，則請將記憶體安裝在插槽 1、3、2 和 4。

如需插槽編號的詳細資訊，請參見：[主機板](#)。



警告

•



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。

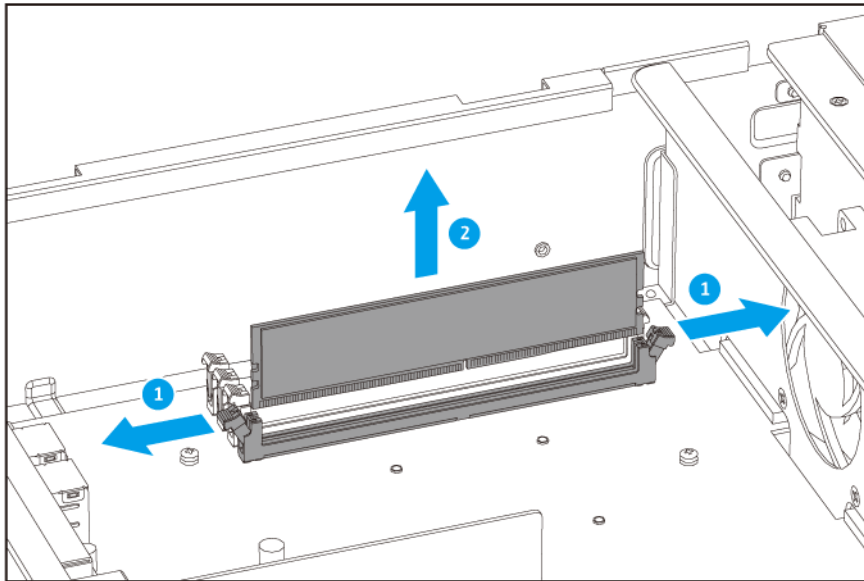
1. 關閉 NAS 電源。
2. 從電源插座拔下電源線。
3. 中斷所有連接線和外接裝置的連線。
4. 取下機殼蓋。
如需詳細資訊，請參見：[取下機殼蓋](#)。
5. 取下現有的記憶體模組。
 - a. 將固定夾同時往外推以鬆開記憶體模組。



警告

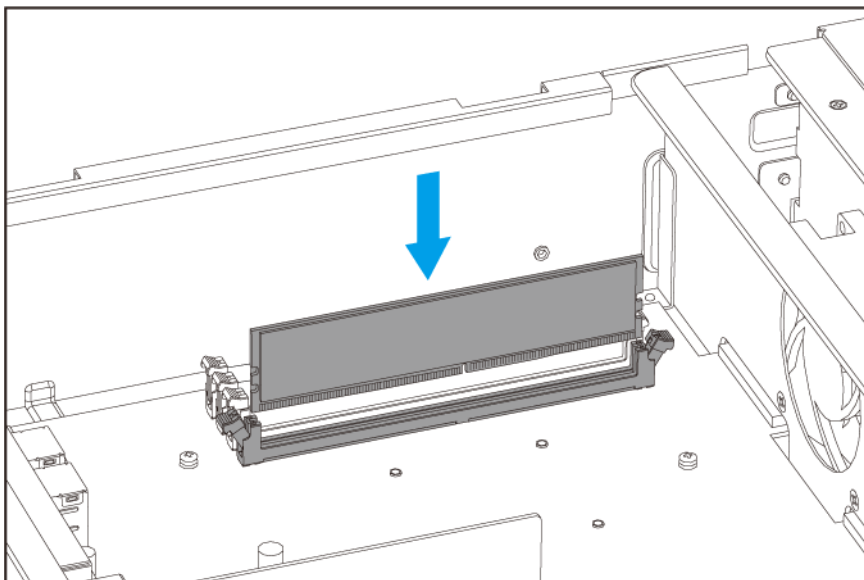
若嘗試取下未完全鬆脫的記憶體模組，可能會損壞記憶體模組與主機板。

- 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。
如需詳細資訊，請參見：[裝上機殼蓋](#)。
8. 連上所有連接線和外接裝置。
9. 開啟 NAS。

10. 確認 NAS 可辨識記憶體模組。
 - a. 以管理員身分登入 QuTS hero。
 - 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。

更換擴充卡

TS-hx83XU-RP 支援特定的擴充卡，其中部分需要使用 QNAP 短版 PCIe 固定片。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。



注意

PCIe 3.0 插槽 3 已預載雙埠 10Gbase-T RJ45 網路擴充卡，而 PCIe 3.0 插槽 4 上則預載了雙埠 10 GbE SFP+ 網路擴充卡。



警告



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。

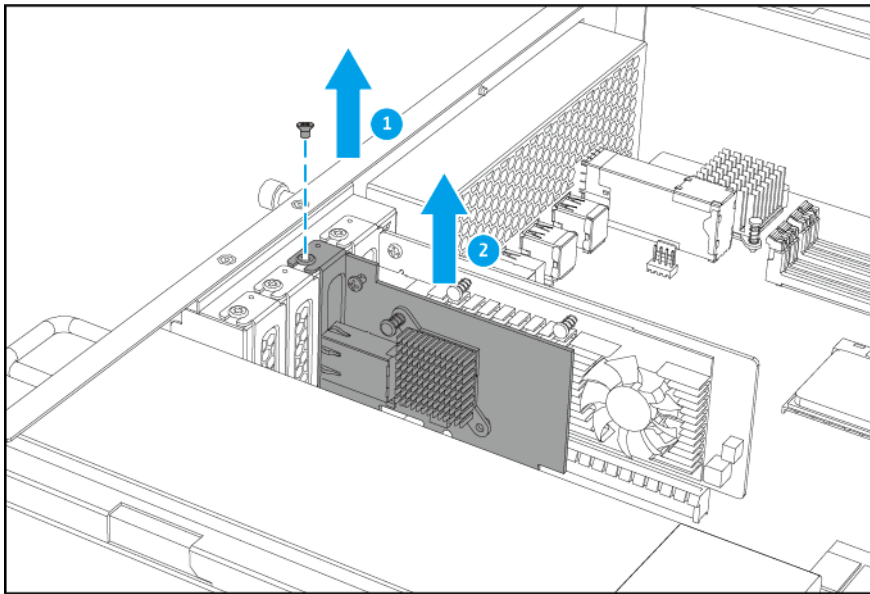
1. 關閉 NAS 電源。
2. 從電源插座拔下電源線。
3. 中斷所有連接線和外接裝置的連線。
4. 取下機殼蓋。
如需詳細資訊，請參見：[取下機殼蓋](#)。



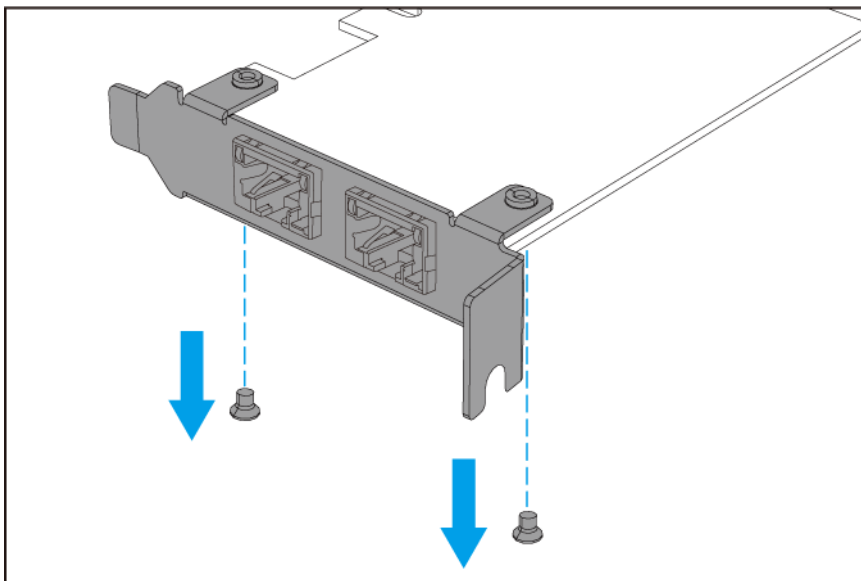
警告

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。

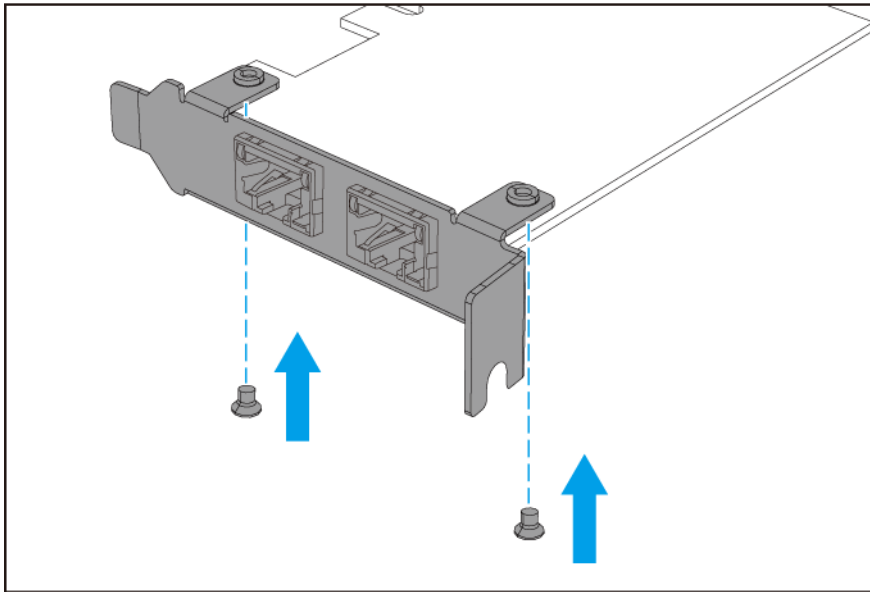
5. 取下現有的擴充卡。
 - a. 取下用於固定 PCIe 固定片和機殼的螺絲。
 - b. 握住擴充卡的邊緣。
 - c. 小心將卡拉出插槽。



6. 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。

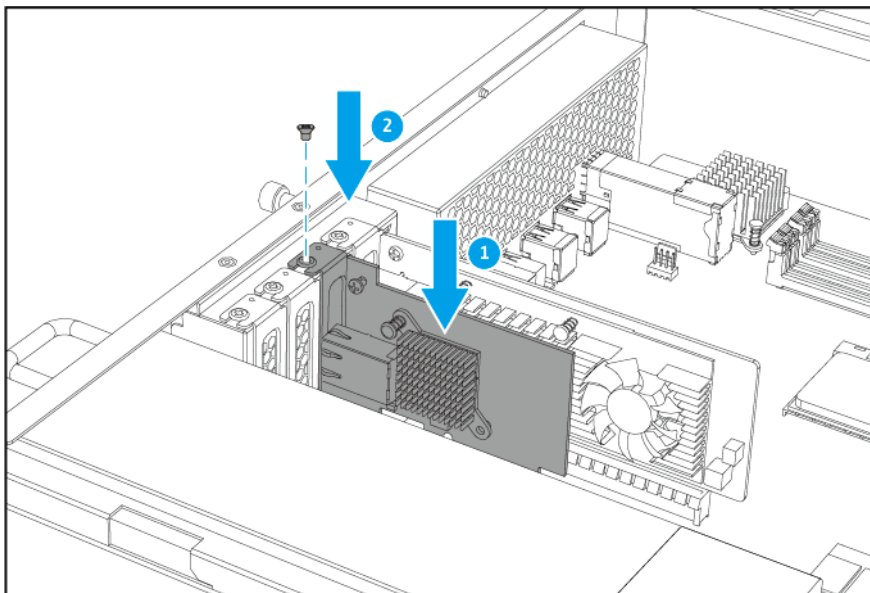


- c. 利用相同的螺絲將 QNAP 固定片裝至擴充卡。
- d. 確認固定片是否牢固不動。



7. 選擇性: 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。**
如需詳細資訊，請參見：[裝上機殼蓋](#)。
- 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 NAS 電源。**

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。

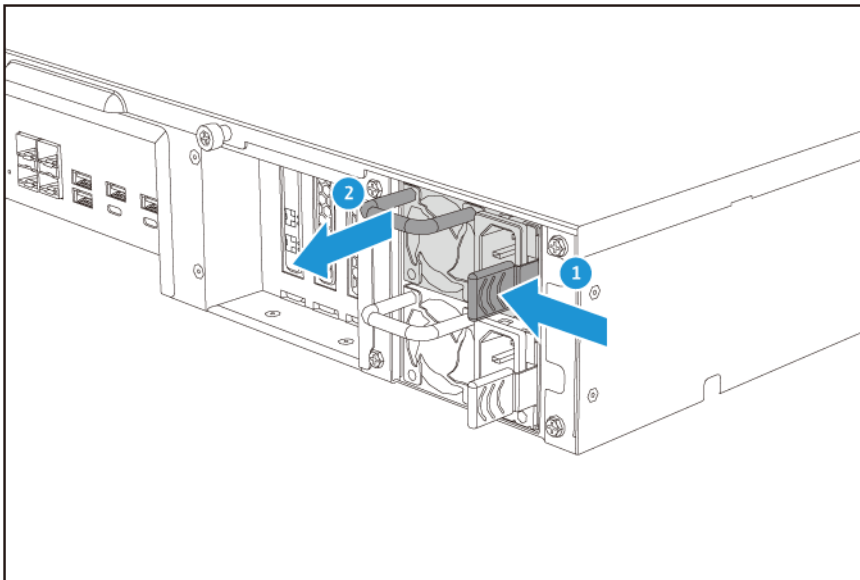


警告

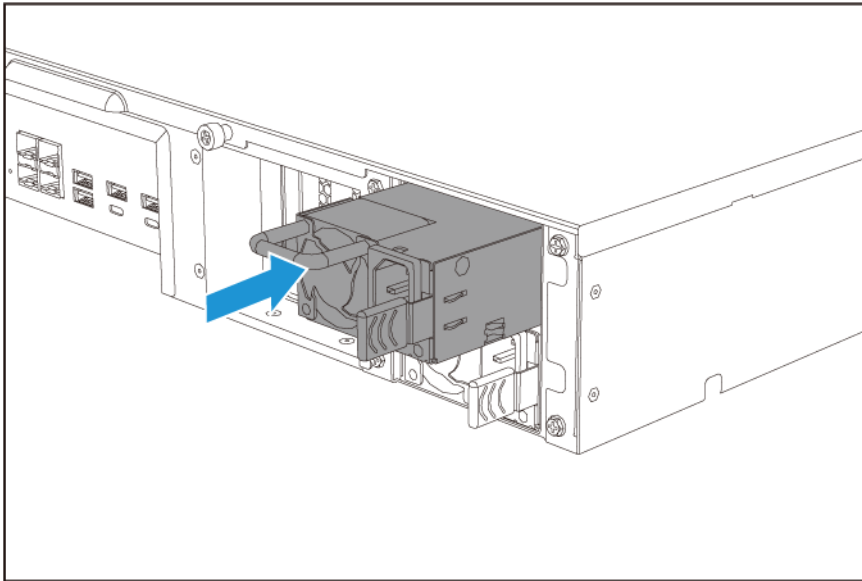


NAS 至少配備一條電源供應器 (PSU) 的電源線。為防止嚴重傷害事故發生，在安裝或更換系統元件前，經訓練的維修技術人員必須先拔除所有電源供應器的電源線。

1. 關閉 NAS 電源。
2. 從電源插座和更換的電源供應器上拔下電源線。
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 NAS。
7. 啟用電源供應器故障警訊。
 - a. 以管理員身分登入 QuTS hero。
 - 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-hx83XU-RP 與下列機架滑軌型號相容：

- RAIL-B02

您可以在機架滑軌的包裝中找到安裝資訊。

安裝擴充設備

TS-hx83XU-RP 支援 SAS 擴充設備、USB 擴充設備和 SATA JBOD 擴充設備。如需詳細資訊，請參見下方表格。

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/>。

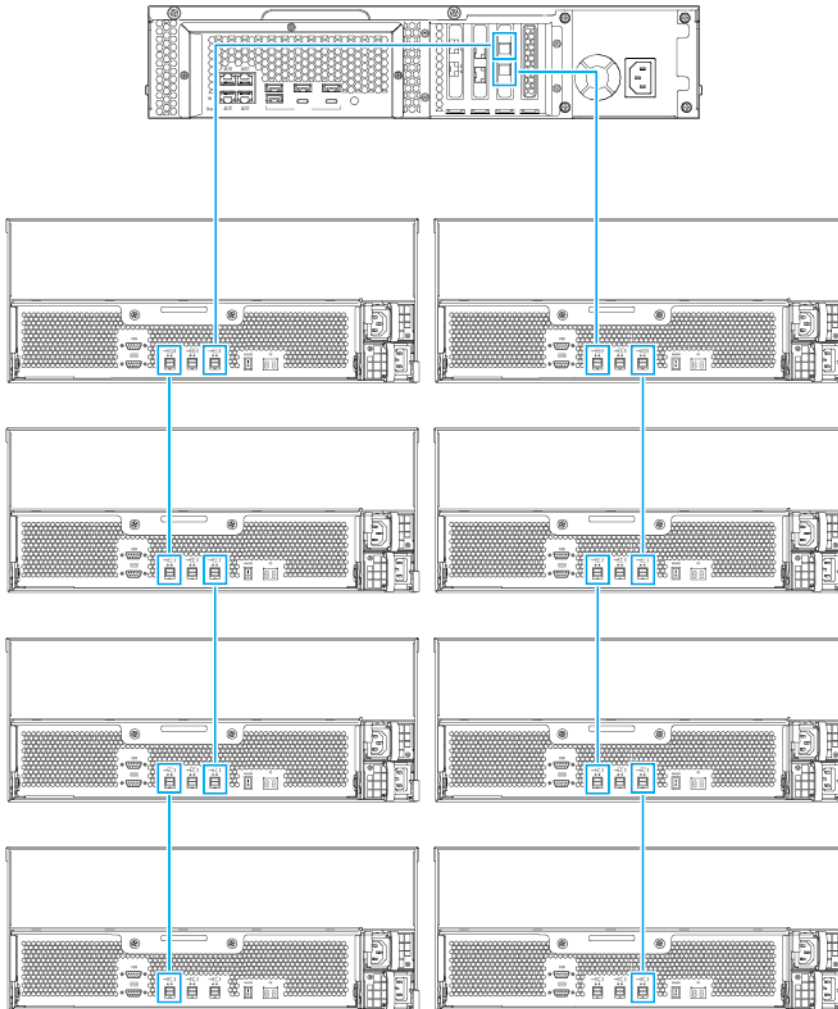
如需相容擴充設備清單以及適用擴充設備的數量上限，請前往：<http://www.qnap.com/go/compatibility-expansion>。

擴充設備類型	說明	必要配件
REXP-1620U-RP	<ul style="list-style-type: none"> • 使用 SAS 12 Gbps (SFF-8644) 介面 • 支援 SAS/SATA HDD/SSD 	<ul style="list-style-type: none"> • SAS-12G2E 儲存擴充卡 • Mini-SAS SFF-8644 連接線 • RAIL-A03-57
REXP-1220U-RP		
REXP-1610U-RP	<ul style="list-style-type: none"> • 使用 SAS 6 Gbps (SFF-8644) 介面 • 支援 SATA/HDD/SSD 	
REXP-1210U-RP		
TL-D400S	<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"> • 1 x SFF-8088 接頭纜線 • QXP-400eS-A1164 主機匯流排介面卡
TL-D800S		<ul style="list-style-type: none"> • 2 x SFF-8088 接頭纜線 • QXP-800eS-A1164 主機匯流排介面卡
TL-D1600S		<ul style="list-style-type: none"> • 4 x SFF-8088 轉 SFF-8644 接頭纜線 • QXP-1600eS 主機匯流排介面卡
TL-R400S		<ul style="list-style-type: none"> • 1 x SFF-8088 接頭纜線 • QXP-400eS-A1164 主機匯流排介面卡 • RAIL-B02
TL-R1200S-RP		<ul style="list-style-type: none"> • 3 x SFF-8088 轉 SFF-8644 接頭纜線 • QXP-1600eS 主機匯流排介面卡 • RAIL-B02
TR-002	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 2 Type-C 介面 • 支援 SATA 	USB 3.2 Gen 2 Type-A 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 	USB 3.2 Gen 1 Type-A 轉 Type-C 連接線
TR-004U		<ul style="list-style-type: none"> • USB 3.2 Gen 1 Type-A 轉 Type-C 連接線 • RAIL-B02
TL-D800C	<ul style="list-style-type: none"> • 使用 USB 3.2 Gen 2 Type-C 介面 • 支援 SATA 	USB 3.2 Gen 2 Type-A 轉 Type-C 連接線
TL-R1200C-RP		<ul style="list-style-type: none"> • USB 3.2 Gen 2 Type-A 轉 Type-C 連接線 • RAIL-B02

連接 SAS 擴充設備

若要連接 TS-hx83XU-RP 至 SAS 擴充設備，NAS 必須安裝儲存擴充卡。如需必要配件的詳細資訊，請參見：[安裝擴充設備](#)。

1. 在 PCIe 插槽安裝儲存擴充卡。
如需詳細資訊，請參見：[更換擴充卡](#)。
2. 請按照下列拓樸圖，將擴充設備連接到 NAS。



3. 開啟擴充設備的電源。
4. 確認 NAS 可辨識所有擴充設備。
 - a. 以管理員身分登入 QuTS hero。
 - 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。

連線 SATA JBOD 擴充設備

若要連接 TS-hx83XU-RP 至 SATA JBOD 擴充設備，必須先在 NAS 安裝主機匯流排介面卡。如需必要配件的詳細資訊，請參見：[安裝擴充設備](#)。

1. 關閉 NAS 電源。
2. 在 PCIe 插槽安裝主機匯流排介面卡。

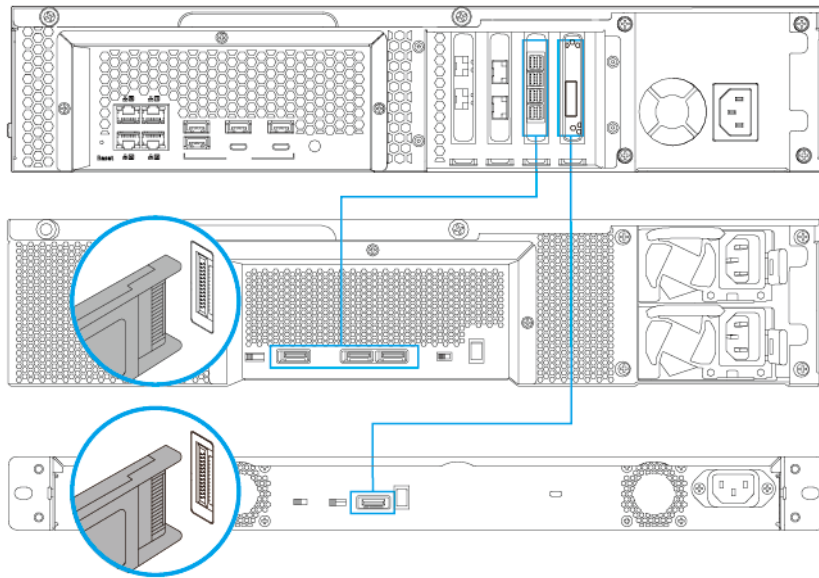


重要

連接 SATA JBOD 擴充裝置至主機裝置需要 QNAP QXP 主機匯流排介面卡。第三方主機匯流排介面卡與 QNAP JBOD 擴充裝置不相容。

如需詳細資訊，請參見：[更換擴充卡](#)。

3. 請按照下列拓模圖，將擴充設備連接到 NAS。



注意

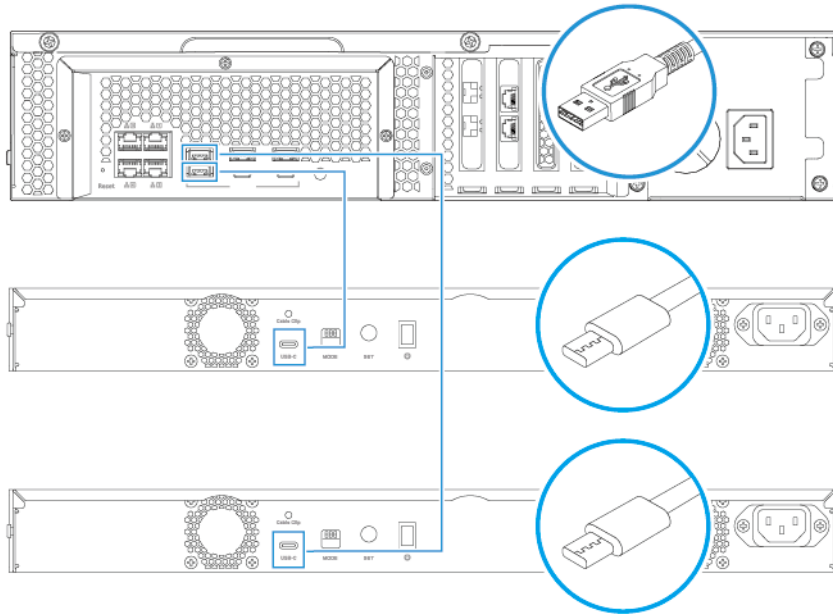
本圖顯示 NAS 連接至 JBOD 擴充設備 TL-R400S 及 TL-R1200S-RP。

4. 開啟 SATA JBOD 擴充設備的電源。
5. 開啟 NAS。
6. 確認 NAS 可辨識所有擴充設備。
 - a. 以管理員身分登入 QuTS hero。
 - 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

若要将 TS-hx83XU-RP 連接到 USB 擴充設備，需要使用 USB Type-A 轉 USB Type-C 的連接線或轉接器。如需必要配件的詳細資訊，請參見：[安裝擴充設備](#)。

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 Type-C 連接埠。
 - b. 將 USB 連接線接至 NAS 上的 USB 3.2 Gen 1 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. 以管理員身分登入 QuTS hero。
 - 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。

QuTS hero 安裝

TS-hx83XU-RP 使用 QNAP QuTS hero 作業系統。您可以使用下列其中一種方式安裝 QuTS hero：

方法	描述	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 QuTS hero。</p>	<ul style="list-style-type: none"> • 電腦 • 網路線 • Qfinder Pro 安裝程式

方法	描述	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 遠端存取您的 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 QuTS hero。</p>	<ul style="list-style-type: none"> • 電腦或行動裝置。 • 網路線 • myQNAPcloud 帳號 • CloudKey

使用 Qfinder Pro 安裝 QuTS hero



警告

安裝 QuTS hero 會刪除硬碟上的所有資料。繼續操作前請先備份資料。



注意

您可以隨時回復到 QTS 作業系統。如需詳細資訊，請參見《QuTS hero 使用者指南》。

1. 打開 NAS 電源。
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. 檢視設定值。
15. 按一下 [套用]。
確認訊息隨即出現。

**警告**

按一下 [確認] 後，系統會在安裝 QuTS hero 前刪除硬碟的所有資料。

16. 按一下 [確認]。
QuTS hero 已安裝。

使用 Cloud Key 安裝 QuTS hero

**警告**

安裝 QuTS hero 會刪除硬碟上的所有資料。繼續操作前請先備份資料。

**注意**

您可以隨時回復到 QTS 作業系統。如需詳細資訊，請參見《QuTS hero 使用者指南》。

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**

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，請透過區域網路連接至 QuTS hero，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**] 。
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)**] 。
- 您也可以選擇固定 IP 位址配置選項來滿足網路需求。您只能應用一種網路配置方法。
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] 視窗隨即顯示。
17. 檢視設定值。
18. 按一下 [**套用**] 。
- 確認訊息隨即出現。

**警告**


按一下 [**確認**] 後，系統會在安裝 QuTS hero 前刪除硬碟的所有資料。

19. 按一下 [**確認**] 。
- QuTS hero 已安裝。

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。	<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：無特殊字元的介面卡 1 MAC 位址。例如，若介面卡 1 的 MAC 位址為 11:22:33:44:55:66，則管理員密碼為 112233445566。 <p> 提示 您可以透過 Qfinder Pro 找到介面卡 1 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"> 使用動態 IP 位址 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：已停用
系統進階重設	按住按鈕 15 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：[前面板](#)。

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。
硬碟	綠燈	硬碟已就緒。
	綠燈閃爍	正在存取硬碟。
	紅燈	發生讀寫錯誤。
	紅燈閃爍	在 QuTS hero 上找到硬碟。
擴充設備	橙燈	已連接一個擴充設備。
	關閉	未連接擴充設備。
LAN	橙燈	NAS 網路連線使用中。
	橙燈閃爍	正在存取 NAS。
	關閉	無網路連結。

警示音

期間	頻率	描述
短嗶 (0.5 秒)	1 聲	<ul style="list-style-type: none"> NAS 啟動中。 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。
長嗶 (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。 插入或抽出硬碟。
	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. NAS 遷移

您可以透過將所有硬碟從來源 NAS 安裝到目標 NAS，將資料和設定從目前的 NAS 遷移到另一個 NAS 機型，使遷移的干擾程度降到最低。遷移後，RAID 配置和其他設定將保留在目標 NAS 上。

NAS 遷移需求

您只能根據來源 NAS，將硬碟和系統設定遷移到特定的 NAS 機型。有關相容於直接 NAS 遷移的機型，請參閱：<https://www.qnap.com/en/nas-migration> 中的清單。

裝置應符合以下要求：

- 目標 NAS 必須在與來源 NAS 相同的 QuTS hero 版本上執行（或更高版本）。



重要

由於檔案系統不相容，因此不支援 QTS NAS 和 QuTS hero NAS 之間的系統遷移。



警告

在 QTS NAS 和 QuTS hero NAS 之間遷移硬碟可能會造成資料損毀。

- 目標 NAS 必須具有足夠的可用硬碟插槽，以容納要從來源 NAS 遷移的所有硬碟。

對於不支援 NAS 遷移的 NAS 機型，請參閱：[如何利用 HBS3 在 QTS 和 QuTS hero 之間遷移資料與資料夾權限](#)。

NAS 遷移後的狀態和設定變更

NAS 遷移之後，資料和設定的狀態會隨著改變。

資料和設定	NAS 遷移後
myQNAPcloud 註冊名稱	您的 myQNAPcloud 註冊名稱不會遷移。
加密共用資料夾	如果您的 NAS 不支援檔案系統加密，加密共用資料夾就不會遷移。  警告 為避免資料遺失，請備份加密共用資料夾的加密金鑰並將其保存在安全的地方。您也可以選擇在遷移之前解密共用資料夾。
共用資料夾	所有共用資料夾及其中的檔案會被保留。  警告 為避免資料遺失，請在遷移之前將加密金鑰或加密共用資料夾的密碼備份並保存在安全的地方。  重要 遷移後，必須重新設定目標 NAS 上的資料夾權限。
網路	如果目標 NAS 上的網路連接埠數量或網路連接埠規格與來源 NAS 不同，以下網路和虛擬設定可能會變更並需要重新設定：Port Trunking、虛擬機器、Thunderbolt 等。
Windows AD 配置	Windows AD 必須重新配置。
授權	授權不會遷移。  警告 QNAP 建議在資料遷移前停用來源 NAS 的授權。

資料和設定	NAS 遷移後
應用服務	如果目標 NAS 的記憶體少於來源 NAS 的記憶體，以下功能和應用服務可能無法執行：Virtualization Station、Qsirch 和快照。
服務	只能使用目標 NAS 所支援的服務。
多媒體功能	部分多媒體功能預設停用。

遷移 NAS



重要

在執行 NAS 遷移之前，請確保您了解所有要求以及遷移後可能發生的變化。如需詳細資訊，請參見下列主題。

- [NAS 遷移需求](#)
- [NAS 遷移後的狀態和設定變更](#)

1. 關閉來源 NAS 和目標 NAS 的電源。
2. 取出硬碟。



重要

QNAP 建議在安裝硬碟時遵照來源 NAS 硬碟的順序。要移除硬碟時，請記下硬碟托盤順序。

- a. 從來源 NAS 取出硬碟。
- b. 從目標 NAS 取出硬碟托盤。
3. 安裝硬碟。
 - a. 將來源 NAS 硬碟安裝到目標 NAS 硬碟托盤上。
 - b. 將硬碟托盤插入目標 NAS。
4. 打開目標 NAS 的電源。
5. 在目標 NAS 上以管理員身份登入 QuTS hero。目標 NAS 自動檢查最新的韌體更新。

6. 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 在安裝 QuTS hero 期間找不到 NAS，表示硬碟或資料出現問題。

1. 關閉 NAS 電源。
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 QuTS hero 安裝作業。

熱抽換故障硬碟

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 QuTS hero。
2. 前往 **[主選單]** > **[儲存空間總管]** > **[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 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]**。

支援和其他資源

QNAP 提供下列資源：

資源	URL
文件	https://docs.qnap.com
服務入口網站	https://service.qnap.com
下載	https://download.qnap.com
社群論壇	https://forum.qnap.com

7. 詞彙

CloudKey

指定至每個 NAS 裝置的唯一 8 位數代碼

myQNAPcloud Link

讓您透過網際網路存取 NAS，無需配置複雜的連接埠轉送設定

myQNAPcloud

提供各種遠端存取服務，例如 DDNS 與 myQNAPcloud Link

myQNAPcloud ID

用來註冊 myQNAPcloud 帳號的電子郵件地址

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

QuTS hero

QNAP NAS 作業系統配備 ZFS 檔案系統

8. 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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Version 3, 29 June 2007

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