

The QNAP logo is displayed in white, bold, uppercase letters within a blue rounded rectangular box in the top-left corner of the page.

TS-431KX

TS-431KX

TS-431X3

使用手冊

目錄

1. 重要資訊

安全資訊.....	3
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2. 產品概觀

關於 TS-431KX.....	6
關於 TS-431X3.....	6
硬體規格.....	6
元件.....	9
前面板.....	9
後面板.....	10
系統板.....	12
硬碟編號.....	13
包裝內容.....	13
安裝需求.....	14
設定 NAS.....	14

3. 安裝與設定

硬體安裝.....	16
硬碟安裝.....	16
更換記憶體模組.....	23
連接 USB 擴充設備.....	34
QTS 安裝.....	35
使用 Qfinder Pro 安裝 QTS.....	36
使用 Cloud Key 安裝 QTS.....	37

4. 基本操作

電源按鈕.....	40
重設按鈕.....	40
LED 燈號.....	41
USB 單鍵備份按鈕.....	44
警示音.....	44

5. 疑難排解

熱抽換故障硬碟.....	45
強制 Qfinder Pro 或 myQNAPcloud 定位 NAS.....	45
復原意外移除的正常硬碟.....	46
支援和其他資源.....	46

6. 詞彙

Cloud Key.....	47
myQNAPcloud Link.....	47
myQNAPcloud.....	47
myQNAPcloud ID.....	47
Qfinder Pro.....	47

QTS.....	47
----------	----

7. 聲明

有限保固.....	48
免責聲明.....	48
著作權與商標.....	48
GNU General Public License.....	48
CE 聲明.....	57
UKCA 聲明.....	58
FCC 聲明.....	58
VCCI 聲明.....	59
BSMI 聲明.....	59
SJ/T 11364-2006.....	59

1. 重要資訊

原包裝

請保留原包裝及包裝材料。當產品需要退回或送修時請使用原包裝，以免損壞產品。

若因包裝不當導致運送中產品發生之損壞，QNAP 恕不提供退款或保固服務。

硬體瑕疵

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](#)。

安全資訊

以下指示可協助確保人身安全及環境安全。在執行任何操作前，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安全場所，並透過包括工具、鎖鑰或其他安全機制來控管。
- 唯有具技能且獲得授權的合格裝置管理員才能實際接觸裝置；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。

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。



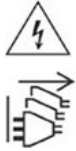
請遵守靜電放電 (ESD) 程序以防止潛在傷害或元件損壞。

電源

警告



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，經訓練的維修技術人員必須先從裝置上拔除所有電源供應器的電源線。

移動的零件

警告



轉動的風扇葉片：裝置接上電源時，請使身體部位遠離任何正在轉動的風扇葉片。



移動的元件：使身體部位遠離其他任何正在移動的元件。

該裝置不適合在兒童可能在場的地方使用。

系統電池

警告



吞食危險

- 本產品可能含有鈕扣電池。
- 請將電池放在兒童接觸不到的地方。
- 如果吞下鈕扣型鋰電池，可能會在 2 小時內造成嚴重或致命的傷害。
- 如果您認為電池可能已被吞下或位於身體的任何部位，請立即就醫。

- 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使元件損壞。
- 請遵照當地法規或電池製造商的指示，妥善處置廢棄電池。
- 即使是使用過的電池也可能導致嚴重傷害或死亡。
- 致電當地毒物防治中心以取得治療資訊。

- 有關裝置中鈕扣電池的類型及電壓資訊，請參閱硬體規格表。
- 不得將非充電電池進行充電。
- 請勿強制放電、充電、拆解、加熱或焚燒。這樣做可能會因外洩、洩漏或爆炸導致化學灼傷的傷害。
- 確保依據極性 (+ 和 -) 正確地安裝電池。
- 請勿混合使用新舊電池或不同品牌或類型的電池，例如鹼性電池、碳鋅電池或充電電池。
- 取出長期未使用設備中的電池，並根據當地法規立即回收或進行處理。
- 務必完全固定電池盒。如果電池盒未關緊，請停止使用本產品，並取出電池，將其放在遠離兒童的地方。

機架滑軌

機架式機型可能需要機架滑軌才能安裝到伺服器機架或機櫃。

為確保設備及人身安全，在安裝機架滑軌並安裝裝置之前，請仔細閱讀機架滑軌的安裝說明。

若要檢查您的裝置是否為機架式裝置，請參閱硬體規格表。

警告

- 當機架滑軌安裝在伺服器機架時，除非正在安裝或卸下裝置，否則請勿完全展開及鬆開滑軌。
- 將滑軌完全展開並鬆開可能會導致重型設備掉落。這可能會導致設備損壞、破壞，甚至致命的傷害。
- 在準備將滑軌進行裝置安裝或拆卸之前，請仔細閱讀並確保您瞭解安裝說明。
- 切勿在安裝或拆卸裝置時，將任何物體放置在裝置或滑軌上，或增加裝置或滑軌任何額外的負荷。
- 在安裝裝置時，將裝置完全滑入伺服器機架，以完全鎖定滑軌，並將裝置固定到伺服器機架。

2. 產品概觀

本章介紹 QNAP TS-431KX 及 TS-431X3 NAS 的基本資訊。

關於 TS-431KX

TS-431KX 搭載 Annapurna Labs Alpine AL-214 1.7 GHz 處理器，用以進行多工運算與順暢的資料串流。TS-431KX 專為繁忙的辦公環境而設計，透過內建 AES 256 加密引擎確保資料安全及效能。其具備支援快捷備份與資料傳輸的 USB 單鍵備份埠。TS-431KX 支援 4 個硬碟插槽和 SATA 6 Gbps，可加快資料傳輸。NAS 亦提供一個 10 Gigabit Ethernet SFP+ 介面及兩個 Gigabit Ethernet RJ45 連接埠，達到資料的快速傳輸。

關於 TS-431X3

TS-431X3 搭載 Annapurna Labs Alpine AL-314 四核心 1.7 GHz 處理器，提供商業環境一個高效能資料處理及高成本效益的儲存空間。TS-431X3 專為 SMB 辦公環境而設計，透過內建加密引擎確保資料安全性及效能。其具備支援快捷備份與資料傳輸的 USB 單鍵備份埠。TS-431X3 支援 4 個硬碟插槽和 SATA 6 Gbps，可加快資料傳輸。NAS 同時提供三種類型的 Gigabit 乙太網路連接埠，包含 10 Gigabit Ethernet SFP+、2.5 Gigabit Ethernet RJ45 及 Gigabit Ethernet RJ45，達成快速資料傳輸。

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-431KX-2G	Annapurna Labs Alpine AL-214	2 GB	單獨
TS-431X3-4G	Annapurna Labs Alpine AL-314	4 GB	單獨

元件	TS-431KX-2G	TS-431X3-4G
處理器		

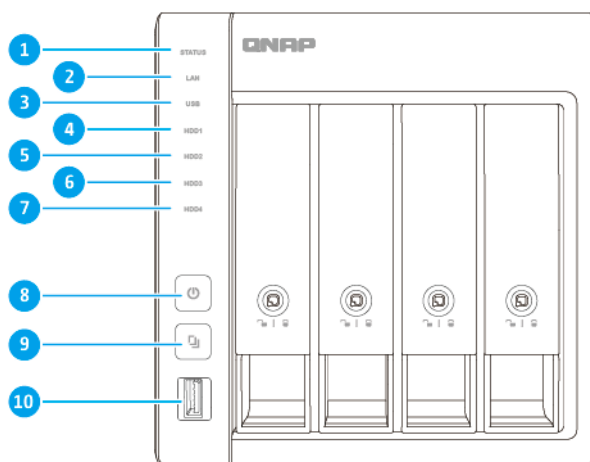
元件	TS-431KX-2G	TS-431X3-4G
CPU	Annapurna Labs Alpine AL-214	Annapurna Labs Alpine AL-314
頻率	4 核心 / 1.7 GHz	4 核心 / 1.7 GHz
架構	ARM 32 位元	
加密引擎	AES-256	
記憶體		
預載記憶體	2GB RAM：1 x 2 GB SODIMM DDR3L	4 GB RAM：1 x 4 GB SODIMM DDR3L
記憶體插槽	1 x SODIMM DDR3L	
	<p>重要</p> <ul style="list-style-type: none"> • 僅限使用 QNAP 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。 	
最大記憶體	8GB RAM：1 x 8 GB	
快閃記憶體	512 MB（雙啟動作業系統防護）	
儲存空間		
硬碟插槽	4 x 3.5 吋 SATA 6 Gbps	
	<p>注意</p> <p>SATA 6 Gbps 硬碟插槽與 SATA 3 Gbps 硬碟回溯相容。</p>	
硬碟相容性	<p>3.5 吋插槽：</p> <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 	

元件	TS-431KX-2G	TS-431X3-4G
SSD 快取加速技術支援	3.5 吋硬碟插槽：1 至 4	
熱抽換	支援	
網路		
10 Gigabit 乙太網路埠	1 x 10 GbE SFP+	
2.5 Gigabit 乙太網路埠	無	1 x 2.5 GbE RJ45
Gigabit 乙太網路埠	2 x GbE RJ45	1 x GbE RJ45
網路喚醒	是 (GbE RJ45)	
外接 I/O 埠和擴充插槽		
USB 連接埠	前面板： <ul style="list-style-type: none"> • 1 x USB 3.2 Gen 1 (5Gbps) Type-A 連接埠 <div style="border: 1px solid #ccc; border-radius: 10px; background-color: #e6f2ff; padding: 5px; margin: 10px 0;"> <p>注意 此 USB 連接埠支援單鍵備份功能。</p> </div> 後面板： <ul style="list-style-type: none"> • 2 x USB 3.2 Gen 1 (5Gbps) Type-A 連接埠 	
介面		
按鈕	<ul style="list-style-type: none"> • 電源 • 重設 • USB 單鍵備份 	
尺寸		
外型	直立式	
尺寸 (高 x 寬 x 深)	169 x 160 x 219 mm (6.65 x 6.3 x 8.62 吋)	

元件	TS-431KX-2G	TS-431X3-4G
淨重	3 kg (6.61 lbs)	
其他		
電源供應器	90W，100-240V AC，50/60 Hz	
系統電池	CR2032 鋰電池 (3V，225 mAh)	
噪音值	19.5 dB(A)	
	<p>注意</p> <p>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。</p>	
風扇	系統風扇：1 x 120mm，12V DC 智慧型風扇	
操作溫度	0°C 至 40°C (32°F 至 104°F)	
相對濕度	<ul style="list-style-type: none"> 不凝結相對溼度：5% 至 95% 濕球溫度：27°C (80.6°F) 	
安全鎖	Kensington 安全插槽	

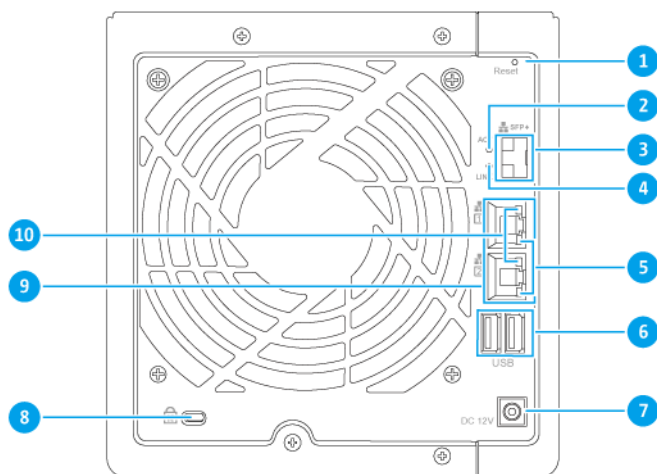
元件

前面板



編號	元件	編號	元件
1	狀態 LED 燈	6	硬碟 3 LED 燈
2	LAN LED 燈	7	硬碟 4 LED 燈
3	USB LED 燈	8	電源按鈕
4	硬碟 1 LED 燈	9	USB 單鍵備份按鈕
5	硬碟 2 LED 燈	10	USB 3.2 Gen 1 單鍵備份 Type-A 連接埠

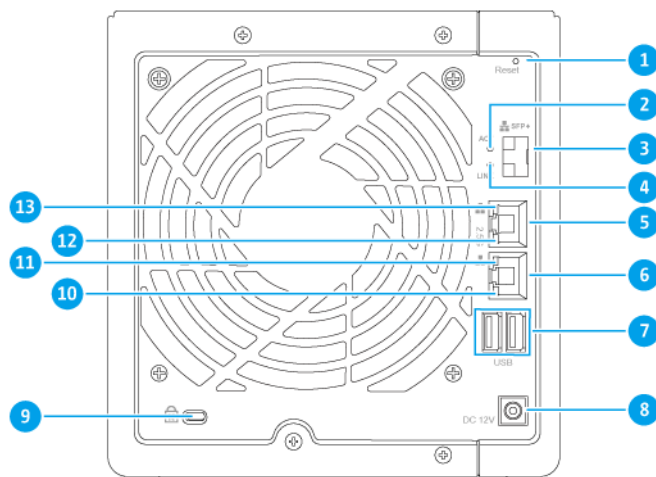
後面板



TS-431KX

編號	元件	編號	元件
1	重設按鈕	6	USB 3.2 Gen 1 (5Gbps) Type-A 連接埠
2	10 Gigabit 乙太網路活動 LED 燈	7	電源輸入
3	10 Gigabit 乙太網路埠 (SFP+)	8	Kensington 安全插槽

編號	元件	編號	元件
4	10 Gigabit 乙太網路連線 LED 燈	9	Gigabit 乙太網路埠 (RJ45) 注意 只有這些連接埠支援網路喚醒設定。
5	Gigabit 乙太網路活動 LED 燈	10	Gigabit 乙太網路速度 LED 燈

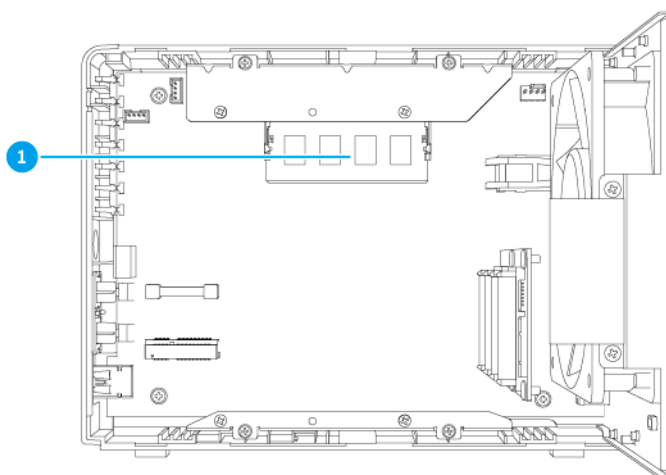


TS-431X3

編號	元件	編號	元件
1	重設按鈕	8	電源輸入
2	10 Gigabit 乙太網路活動 LED 燈	9	Kensington 安全插槽
3	10 Gigabit 乙太網路埠 (SFP+)	10	Gigabit 乙太網路活動 LED 燈
4	10 Gigabit 乙太網路連線 LED 燈	11	Gigabit 乙太網路速度 LED 燈
5	2.5 Gigabit 乙太網路埠 (RJ45)	12	2.5 Gigabit 乙太網路活動 LED 燈

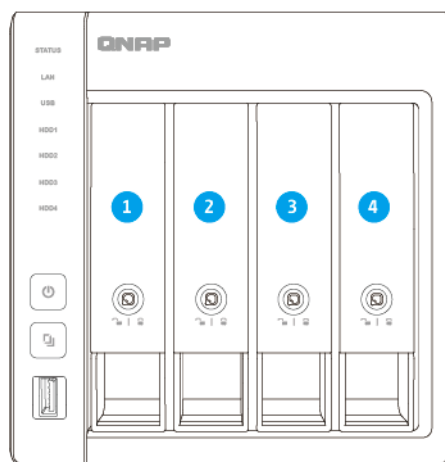
編號	元件	編號	元件
6	Gigabit 乙太網路埠 (RJ45) 注意 只有此連接埠支援網路喚醒設定。	13	2.5 Gigabit 乙太網路速度 LED 燈
7	USB 3.2 Gen 1 (5Gbps) Type-A 連接埠	-	-

系統板



編號	元件	編號	元件
1	記憶體插槽	-	-

硬碟編號



包裝內容

項目	數量
TS-431KX 或 TS-431X3	1
AC 電源變壓器	1
電源線	1
乙太網路線	TS-431KX : 2 x Cat5e TS-431X3 : 1 x Cat5e
3.5 吋硬碟用螺絲	16
2.5 吋硬碟用螺絲	12
快速安裝手冊 (QIG)	1

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 • 沒有物體會阻礙 NAS 通風或者對 NAS 或電源線產生壓力
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 • 平頭螺絲起子 • 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。

1. 將 NAS 裝置放置在符合需求的環境。

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](#)

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

3. 將 NAS 連接至網路。

4. 連接 USB 擴充設備。

如需詳細資料，請參見：[連接 USB 擴充設備](#)。

5. 連接電源線與所有適用的網路線。

6. 開啟 NAS。

如需詳細資訊，請參見：[前面板](#)。

7. 安裝 QTS。
如需詳細資訊，請參見：[QTS 安裝](#)。

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-431KX 和 TS-431X3 與 3.5 吋硬碟、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。

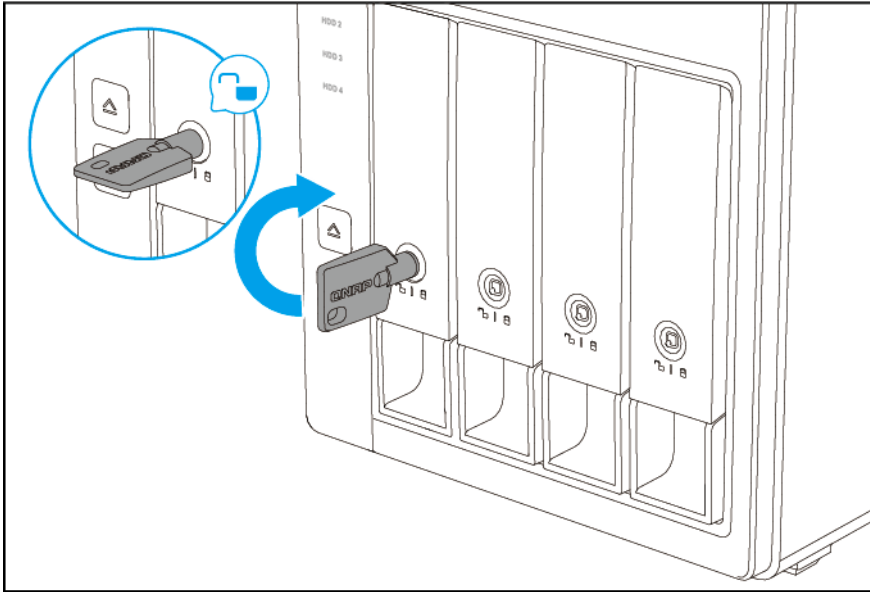


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 NAS 電源。

2. 取出硬碟托盤。

a. 選擇性: 將托盤解鎖。



注意

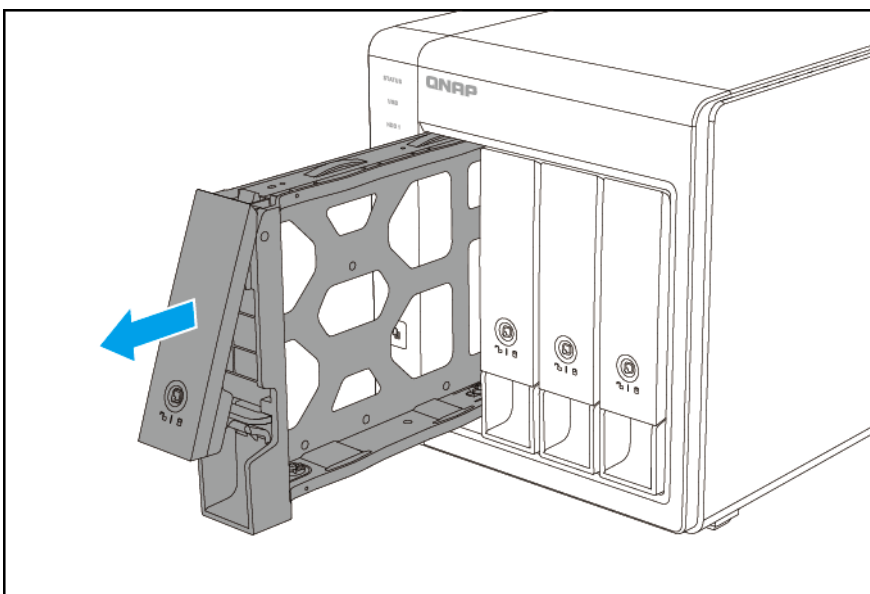
預載的硬碟托盤會變成解鎖狀態。

重要

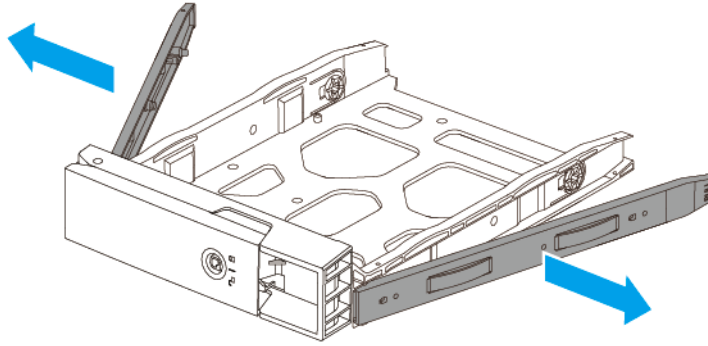
確認已將硬碟托盤鑰匙放置在安全位置。

b. 拉把手以鬆開托盤。

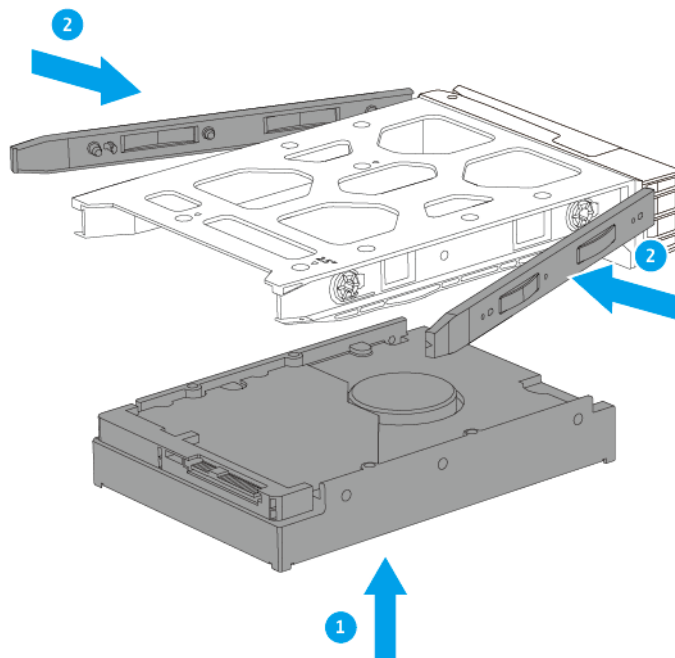
c. 將托盤拉出。



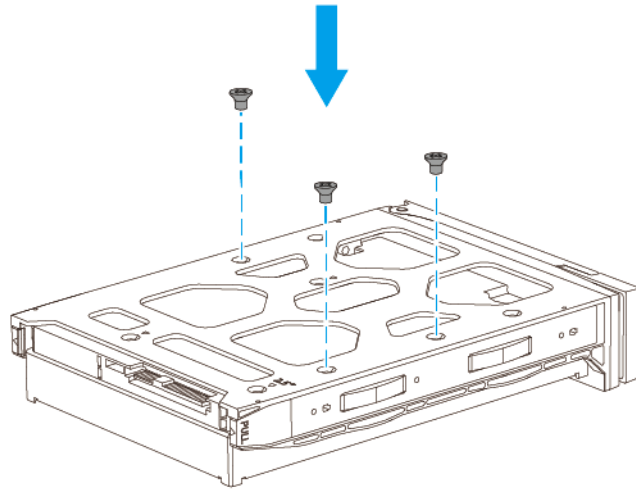
3. 在托盤上安裝硬碟。
 - a. 取下硬碟托盤兩側的固定面板。



- b. 將硬碟放在托盤上，讓硬碟兩側的孔洞與托盤兩側的孔洞對齊。
 - c. 裝上固定面板。

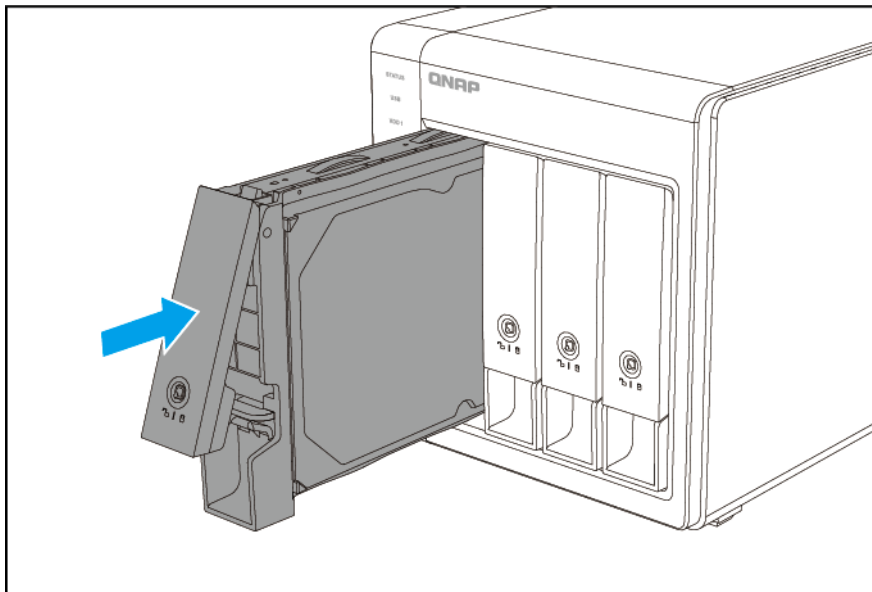


- d. 選擇性: 鎖上螺絲，使硬碟更加穩固。

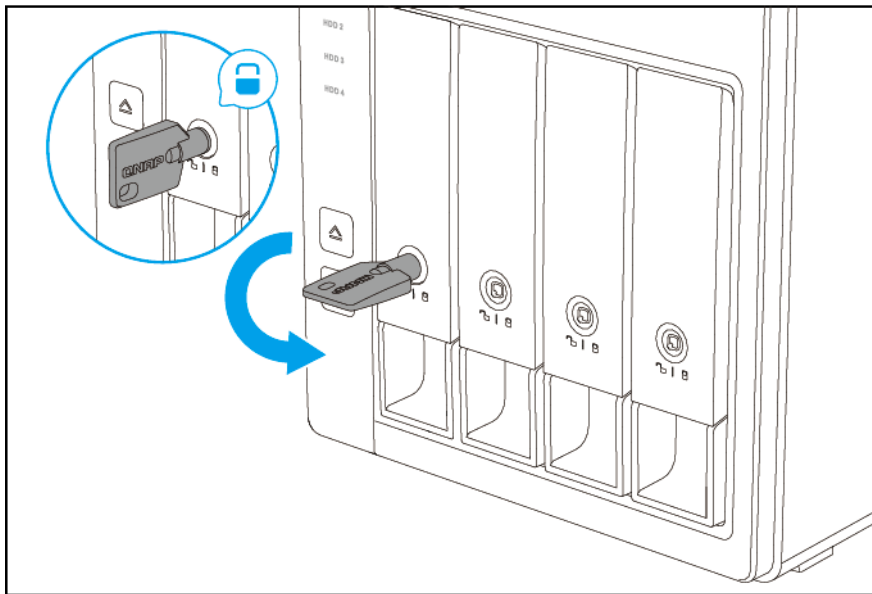


4. 將托盤裝入插槽。

- a. 將托盤插入插槽。
- b. 推入把手。



- c. 將托盤上鎖。



5. 開啟 NAS。

在 3.5 吋托盤上安裝 2.5 吋硬碟以及固態硬碟

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。

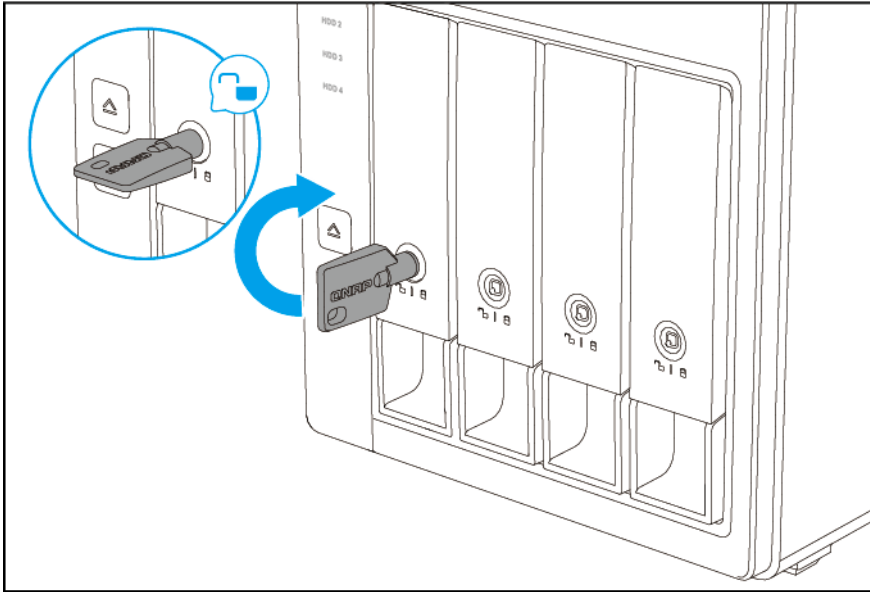


其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 NAS 電源。

2. 取出硬碟托盤。

a. 選擇性: 將托盤解鎖。



注意

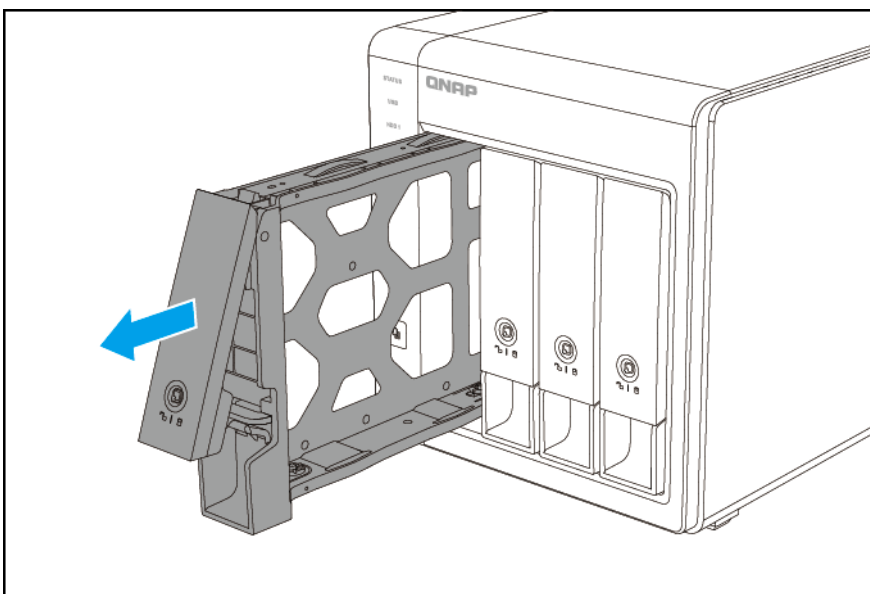
預載的硬碟托盤會變成解鎖狀態。

重要

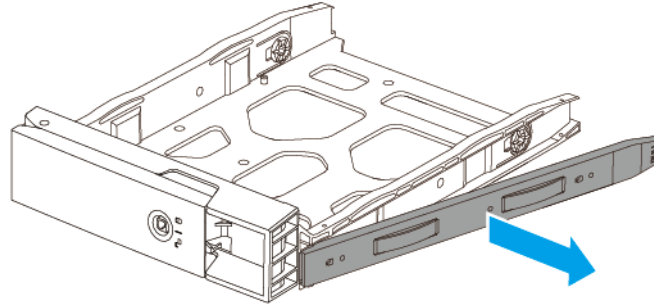
確認已將硬碟托盤鑰匙放置在安全位置。

b. 拉把手以鬆開托盤。

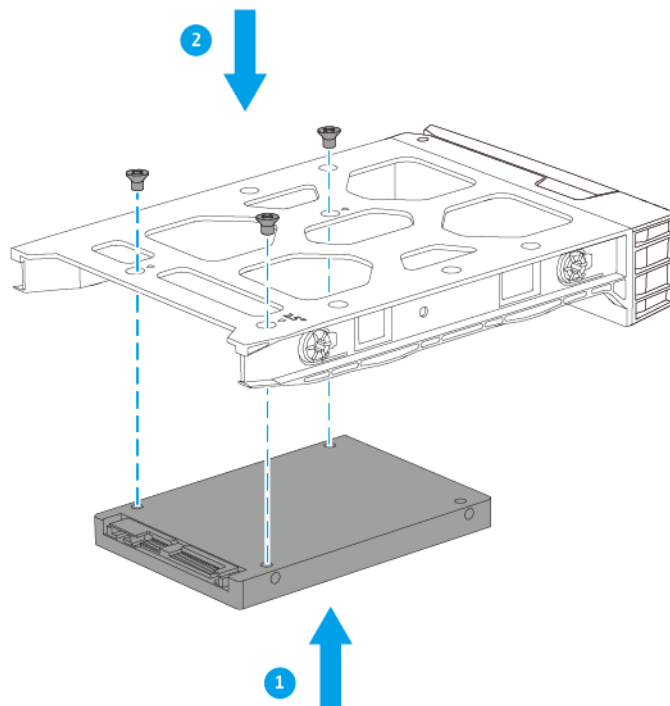
c. 將托盤拉出。



3. 在托盤上安裝硬碟。
 - a. 取下硬碟托盤兩側的固定面板。

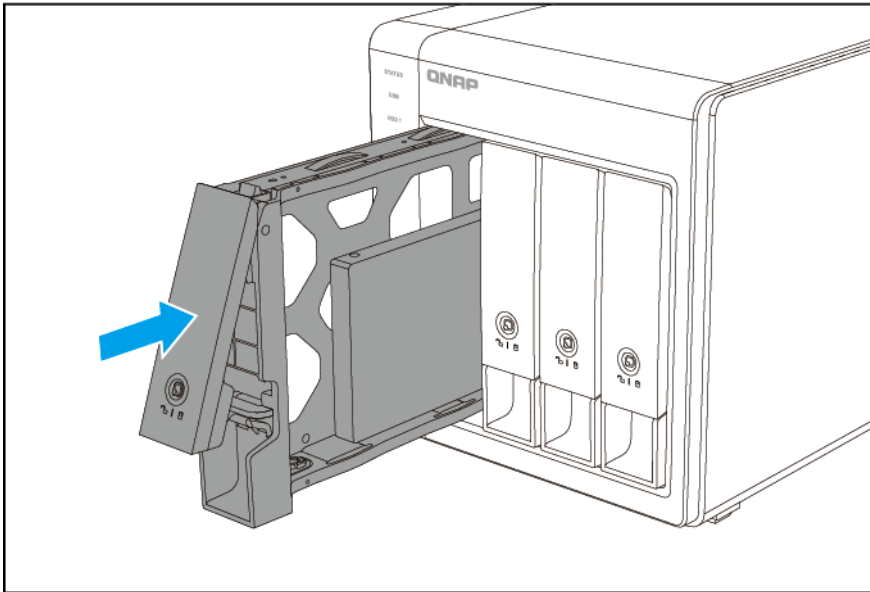


- b. 將硬碟放在托盤上，讓硬碟兩側的孔洞與托盤兩側的孔洞對齊。
 - c. 鎖上螺絲。

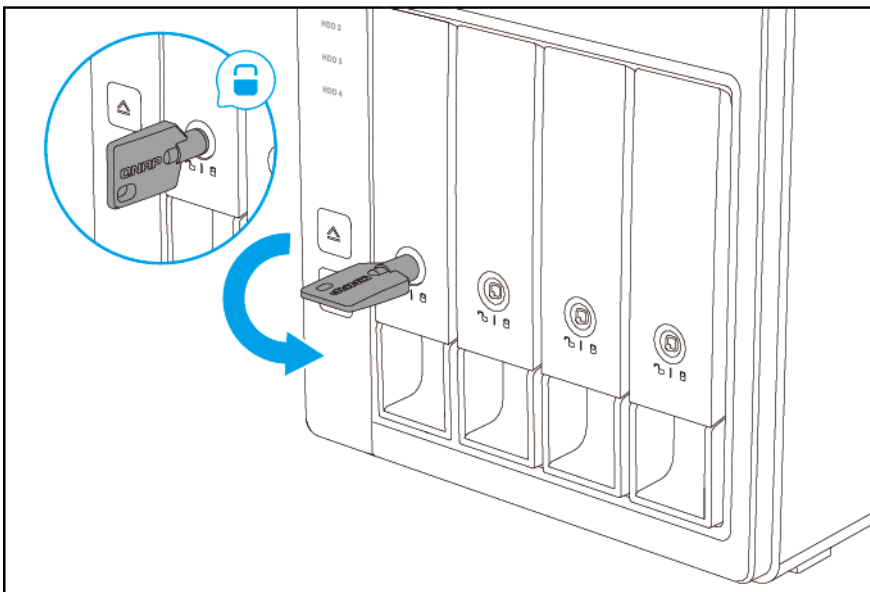


4. 將托盤裝入插槽。
 - a. 將托盤插入插槽。

b. 推入把手。



c. 將托盤上鎖。



5. 開啟 NAS。

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。

警告

- 請遵守靜電放電 (ESD) 程序以防止元件損壞。

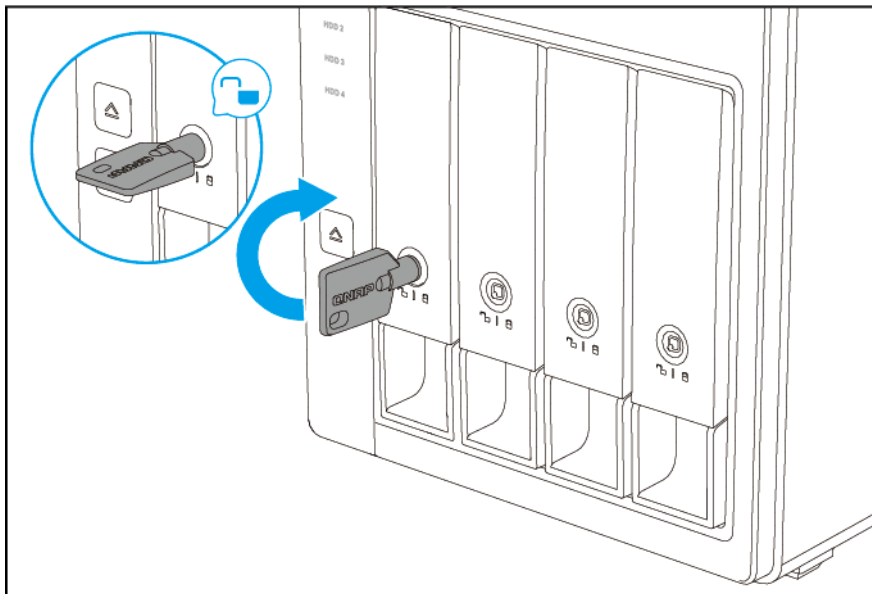


轉動的風扇葉片：使雙手及身體其他部位遠離正在轉動的風扇葉片。



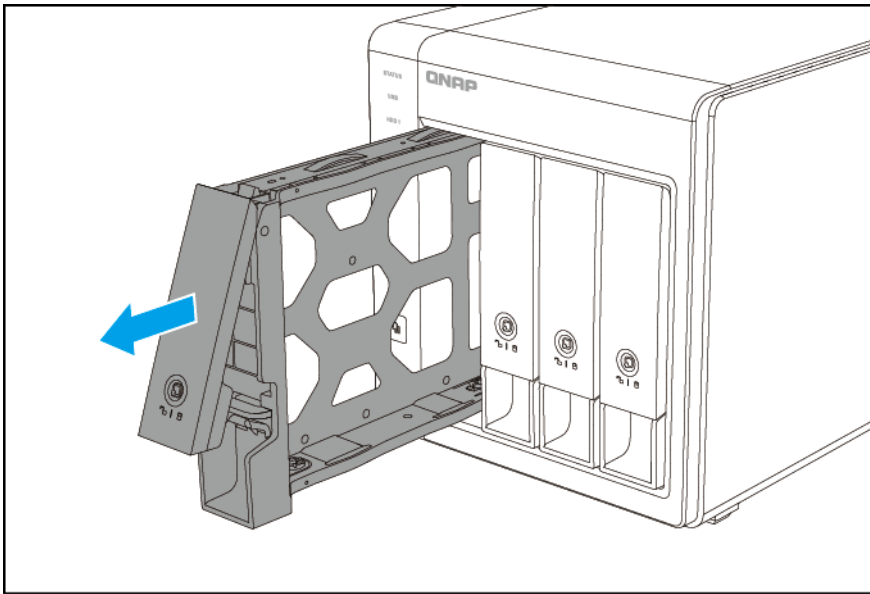
其他移動的元件：使雙手及身體其他部位遠離正在移動的其他元件。

- 關閉 NAS 電源。
- 從電源插座拔下電源線。
- 中斷所有連接線和外接裝置的連線。
- 取出硬碟托盤。
 - 選擇性: 解除鎖定硬碟托盤。

**注意**

- 預載的硬碟托盤會變成解鎖狀態。
- 確認已將硬碟托盤鑰匙放置在安全位置。

- b. 同時按下門栓並拉出硬碟托盤，將每個托盤取下。

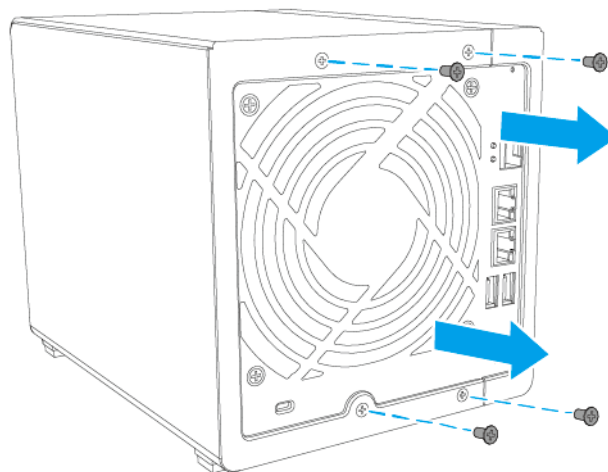


重要

- 請記下每個硬碟的編號，硬碟托盤之後必須再放回原本的插槽。

5. 取下機殼蓋。

- a. 鬆開螺絲。

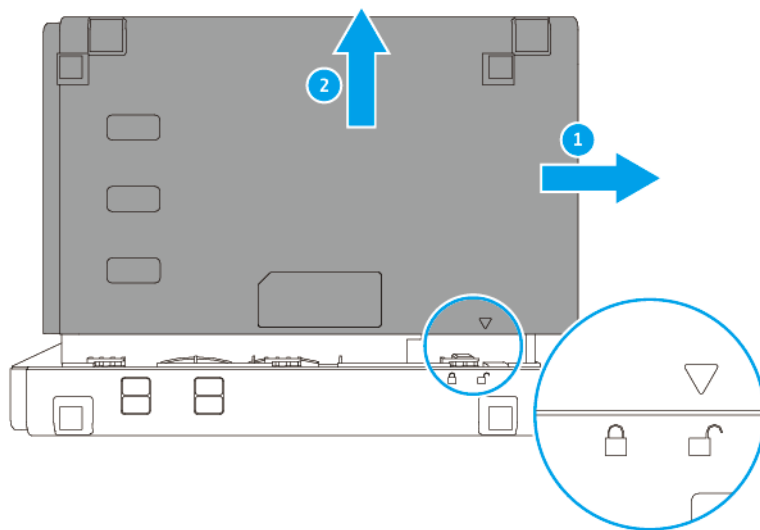


注意

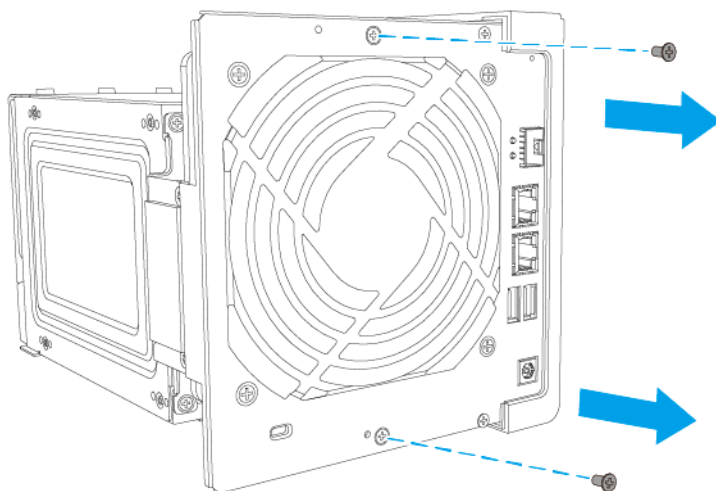
機殼蓋螺絲比其他移除的螺絲還長。

- b. 將 NAS 左側朝下放置。

- c. 將機殼蓋向右推，使其三角形圖示對齊解鎖圖示。
- d. 向上提起機殼蓋，使它完全脫離機殼。

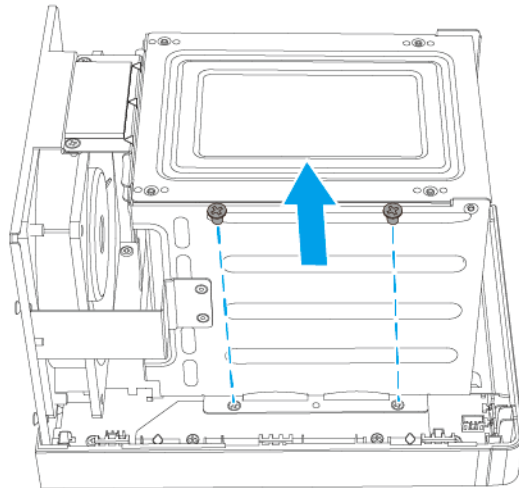
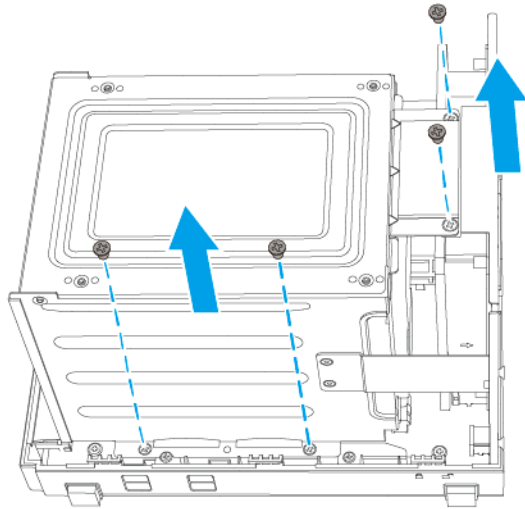


- 6. 取下 NAS 背面最上方與最下方的螺絲。

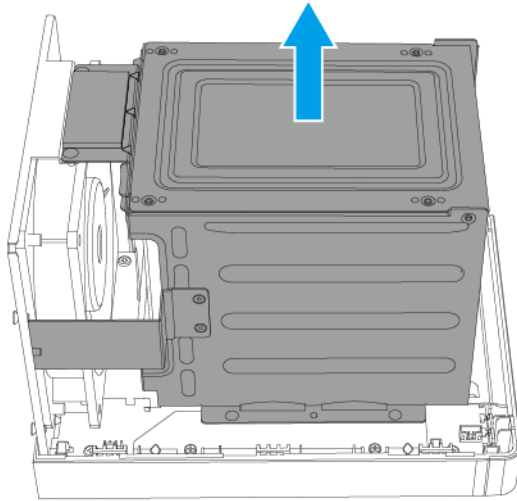


- 7. 將 NAS 左側朝下放置。

8. 取下用於固定硬碟托盤機殼與 NAS 的 6 個螺絲。

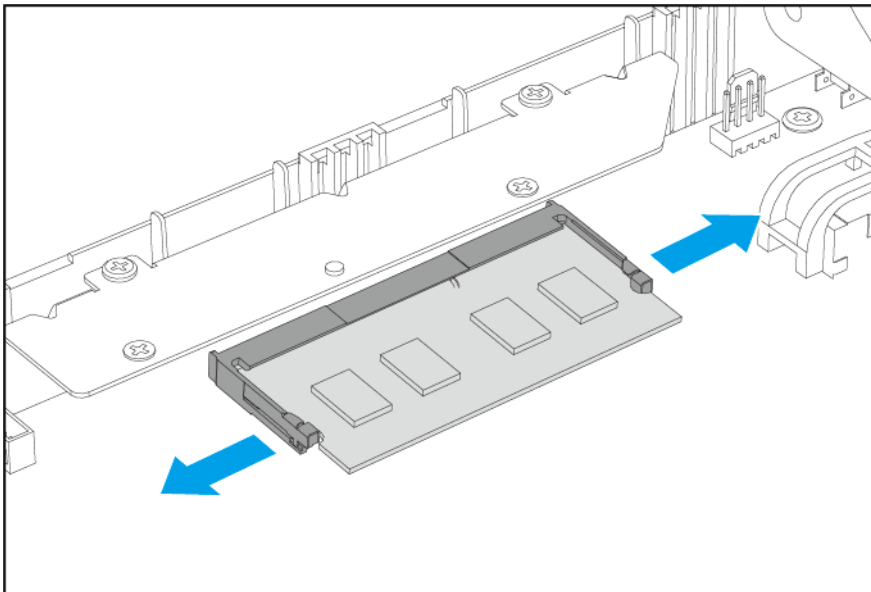


9. 小心卸下硬碟托盤機殼。



10. 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。



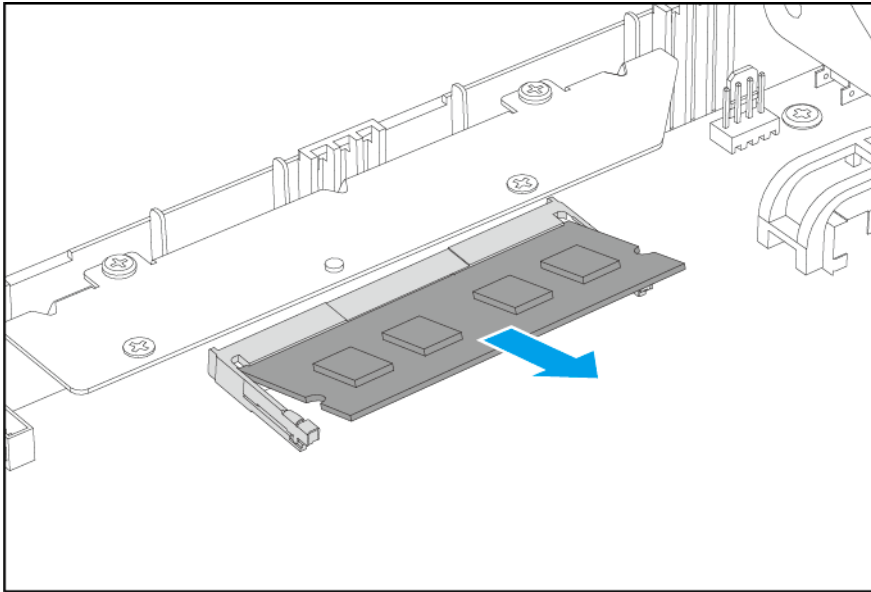
- b. 確認記憶體模組已向上傾斜且完全從插槽鬆脫。

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。

- c. 握住模組的邊緣。

- d. 小心地將模組滑出插槽。

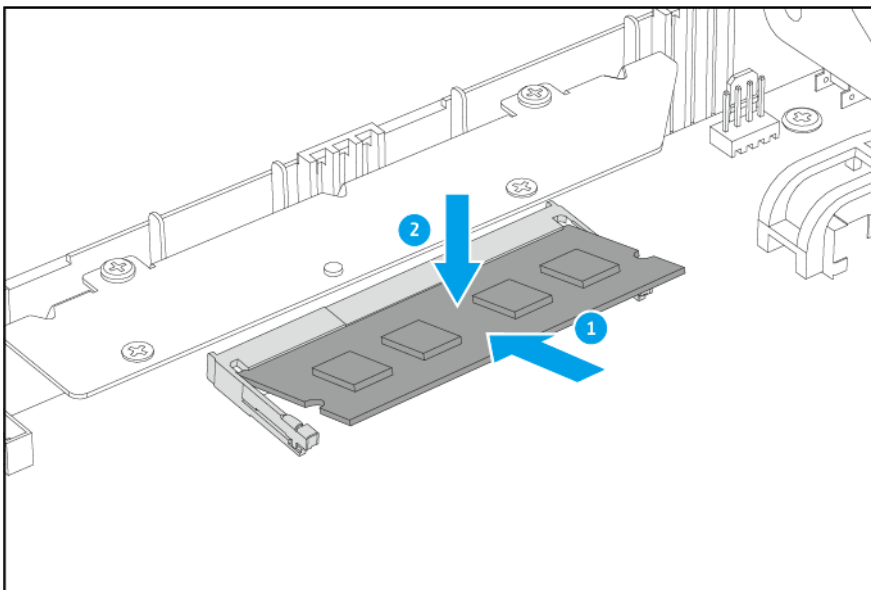


警告

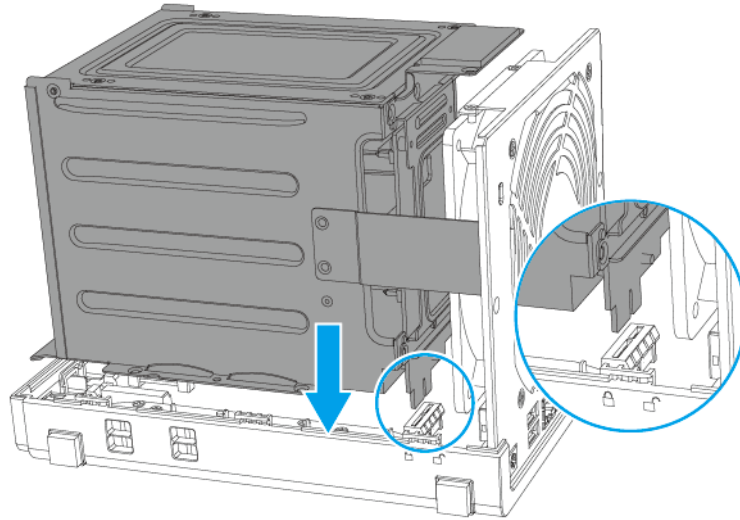
- 請勿觸碰內部元件，尤其是金屬接頭。
- 請勿彎折記憶體模組。

11. 安裝新的記憶體模組。

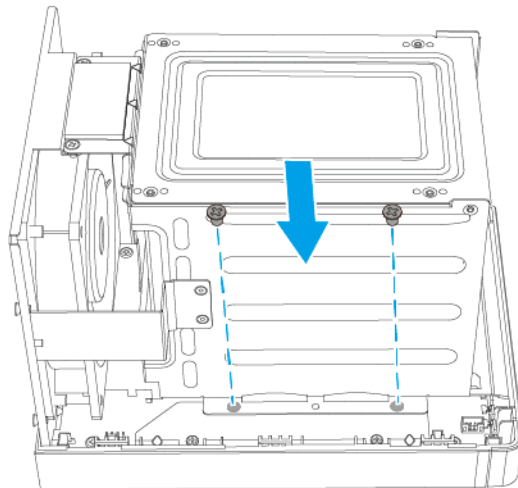
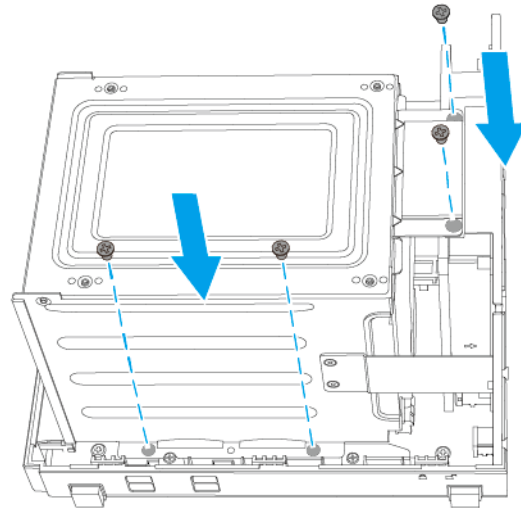
- 將接口與插槽的凸出部分對齊。
- 將記憶體模組插入插槽。
- 確認金屬接頭已完全插入插槽。
- 小心按下記憶體模組，直到固定夾正確扣住記憶體模組。



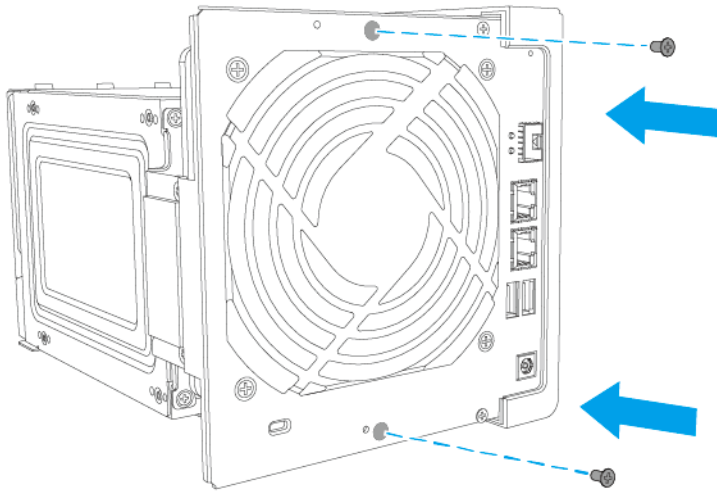
12. 將硬碟托盤機殼置於 NAS 上。
- 將硬碟托盤機殼的 SATA 接頭對準主機板上的 SATA 插槽。
 - 小心地將 SATA 接頭插入 SATA 插槽。



13. 鎖上用於固定硬碟托盤機殼與 NAS 的 6 個螺絲。

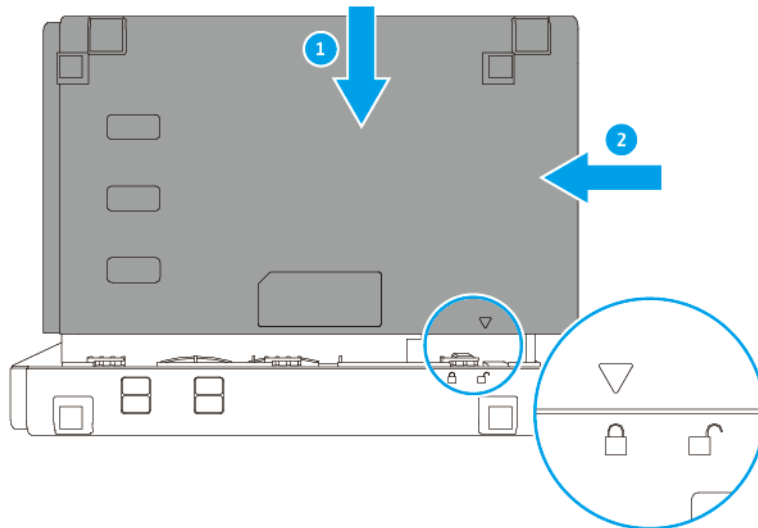


14. 鎖上 NAS 背面最上方與最下方的螺絲。

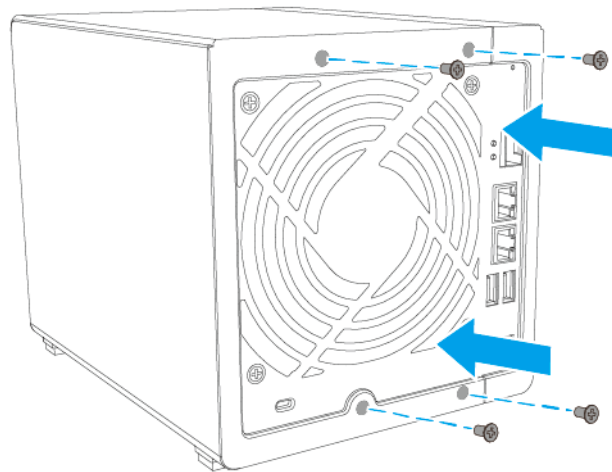


15. 裝上機殼蓋。

- a. 將 NAS 左側朝下放置。
- b. 將機殼蓋的三角形圖示對齊機殼上的解鎖圖示。
- c. 將機殼蓋蓋上機殼。
- d. 將機殼蓋向左推，使其三角形圖示對齊鎖頭圖示。

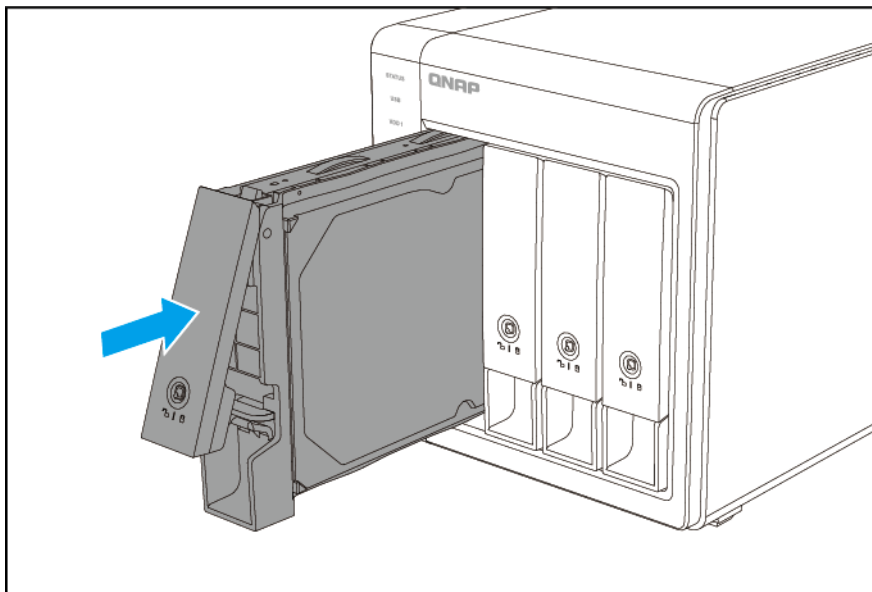


- e. 鎖上機殼背面的螺絲。



16. 將硬碟托盤放回原本的插槽。

- a. 將硬碟托盤推入硬碟插槽。
- b. 推入把手



17. 連上所有連接線和外接裝置。

18. 打開 NAS 電源。

19. 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 [控制台] > [系統] > [系統狀態] > [硬體資訊]。
- c. 查看 [記憶體總容量] 的值。

連接 USB 擴充設備

TS-431KX 和 TS-431X3 支援 USB 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>。

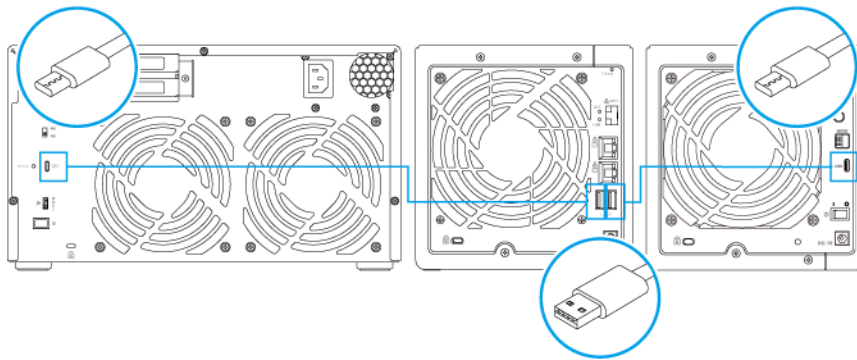
如需相容擴充設備清單以及適用擴充設備的數量上限，請前往：<http://www.qnap.com/go/compatibility-expansion>。

注意

USB 3.2 Gen 2 Type-C 轉 Type-C 連接線及 RAIL-B02 為選購項目，必須另行購買。

擴充設備型號	說明	必要配件
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 	
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
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-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

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. 請以管理員身分登入 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

方法	說明	需求
Qfinder Pro 安裝 (建議使用)	如果 NAS 已連接您的區域網路，您可以執行下列操作： <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。 	<ul style="list-style-type: none"> • 電腦 • 網路線 • Qfinder Pro 安裝程式

方法	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。 • 指定 Cloud Key。 • 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。 	<ul style="list-style-type: none"> • 完成 [智慧安裝導引] 精靈中的步驟。 • 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. 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。
5. 您可以執行下列動作。
 - 若要取得最新提供的版本，請按一下 **[開始]**。
安裝精靈隨即開始下載最新版本；下載完畢後，NAS 會重新啟動。如果沒有較新的版本，安裝精靈將自動顯示 **[智慧安裝導引]**。
 - 若要安裝「開箱即用」(out-of-the-box) 的版本，請按一下 **[略過]**。
6. 按一下 **[啟動智慧安裝導引]**。
7. 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。
8. 按一下 **[下一步]**。

- 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。

- 按一下 [下一步]。
- 選擇 [自動取得 IP 位址 (DHCP)]。
- 按一下 [下一步]。
- 選擇將用於存取 NAS 共用資料夾的裝置類型。
- 按一下 [下一步]。
- 檢視設定值。
- 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 QTS 前刪除硬碟的所有資料。

- 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。

- 打開 NAS 電源。
- 將 NAS 連接至網際網路。
- 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。

- 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。
- 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]。

8. 您可以執行下列動作。

- 若要取得最新提供的版本，請按一下 [開始]。
安裝精靈隨即開始下載最新版本；下載完畢後，NAS 會重新啟動。如果沒有較新的版本，安裝精靈將自動顯示 [智慧安裝導引]。
- 若要安裝「開箱即用」(out-of-the-box) 的版本，請按一下 [略過]。

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. 檢視設定值。

19. 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 QTS 前刪除硬碟的所有資料。

20. 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
基本系統重設	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"> 系統會自動啟用 admin 帳戶 系統管理員密碼：如需預設密碼的詳細資訊，請參閱此常見問題。 TCP/IP 設定： <ul style="list-style-type: none"> 透過 DHCP 自動取得 IP 位址設定 停用巨型訊框 若已啟用 Port Trunking (僅適用於多 LAN 型號)，系統將重設為「主動備份 (容錯移轉)」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：停用

操作	使用者動作	結果
進階系統重設	按住按鈕 15 秒。	回復為出廠預設值。 <ul style="list-style-type: none"> 若要在進階系統重設後取回舊資料，請在 NAS 上重建先前的資料夾結構。

LED 燈號

LED 燈號指示裝置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，且裝置已連線至網路或主機的狀態下。

如需 LED 燈號的位置資訊，請參見：[元件](#)。

注意

2.5 Gigabit 乙太網路 LED 燈僅適用 TS-431X3。

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。 韌體正在更新。 <div style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>重要</p> <p>請勿在韌體更新期間拔下電源線或 USB 連接線，也不要強制結束應用程式。</p> </div>

LED	狀態	說明
系統狀態	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。
區域網路	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。
10 Gigabit 乙太網路連線	綠燈	網路執行速度為 10 Gbps。
	關閉	無網路連線。
10 Gigabit 乙太網路活動	橙燈	網路連線已建立。
	橙燈閃爍	正在傳送資料。
	關閉	無網路連線。
2.5 Gigabit 乙太網路速度	綠燈	網路執行速度為 2.5 Gbps。
	橙燈	網路執行速度為 1 Gbps。

LED	狀態	說明
2.5 Gigabit 乙太網路速度	關閉	<ul style="list-style-type: none"> 網路執行速度為 100 Mbps。 無網路連線。
2.5 Gigabit 乙太網路活動	橙燈	網路連線已建立。
	橙燈閃爍	使用者正從網路存取 NAS。
	關閉	無網路連線。
1 Gigabit 乙太網路速度	綠燈	網路執行速度為 1 Gbps。
	橙燈	網路執行速度為 100 Mbps。
	關閉	<ul style="list-style-type: none"> 網路執行速度為 10 Mbps。 無網路連線。
1 Gigabit 乙太網路活動	綠燈	網路連線已建立。
	綠燈閃爍	使用者正從網路存取 NAS。
	關閉	無網路連線。
硬碟	紅燈閃爍	硬碟存取中並發生讀寫錯誤。
	紅燈	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。
	綠燈	硬碟可供存取。
USB	藍燈每 0.5 秒閃爍	<ul style="list-style-type: none"> 偵測到 USB 裝置連接至前方 USB 埠。 正在移除連接至 NAS 正面 USB 埠的 USB 裝置。 正在存取連接至 NAS 前方 USB 埠的 USB 裝置。 正將資料複製到 USB 或 eSATA 裝置，或從 USB 或 eSATA 裝置複製資料。
	藍燈	偵測到有 USB 裝置連接至前方的 USB 埠。

LED	狀態	說明
USB	關閉	<ul style="list-style-type: none"> 沒有偵測到任何 USB 裝置。 NAS 已將資料複製到與前方 USB 埠連接的 USB 裝置，或已從與前方 USB 埠連接的 USB 裝置複製資料。

USB 單鍵備份按鈕

您可以使用 [USB 單鍵備份] 按鈕，將資料從 USB 裝置備份至 NAS，或從 NAS 備份至 USB 裝置。

本功能支援增量備份。NAS 僅複製上次備份後修改或新增的檔案。

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. 疑難排解

本章介紹基本的疑難排解資訊。

熱抽換故障硬碟

NAS 於下列情況支援硬碟熱抽換：

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

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 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]。

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 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 QTS 安裝作業。

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	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

6. 詞彙

Cloud Key

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

QTS

QNAP NAS 作業系統

7. 聲明

本章介紹擔保、免責聲明、授權以及聯合法規的相關資訊。

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Version 3, 29 June 2007

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