



**QNAP**

# JBOD 擴充裝置

TL-R1620Sdc

使用手冊

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# 1. 前言





## 關於本指南

本指南涵蓋裝置的相關資訊以及安裝硬體的步驟指示。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 QNAP 裝置的基本資訊。

### 關於 QNAP JBOD 擴充裝置

QNAP JBOD 擴充裝置的目的在於提升 NAS 或伺服器的容量及利用率，支援大範圍的儲存應用。您可以獨立管理已安裝的硬碟，或透過主機裝置設置為軟體 RAID 群組。TL-R1620Sdc 配備 16 個 3.5 吋 SAS 12 Gbps 硬碟插槽，每個控制器都有三個 SFF-8644 連接埠。

### 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](#)。



#### 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>。

元件	TL-R1620Sdc
儲存空間	
硬碟插槽	<ul style="list-style-type: none"> <li>• 16 x 3.5 吋 SAS 12 Gbps</li> <li>• 16 x 3.5 吋 SAS 6 Gbps</li> </ul>
硬碟相容性	<p>3.5 吋插槽：</p> <ul style="list-style-type: none"> <li>• SAS 硬碟               <ul style="list-style-type: none"> <li>• 3.5 吋 SAS 硬碟</li> <li>• 2.5 吋 SAS 硬碟</li> <li>• 2.5 吋 SAS 固態硬碟</li> </ul> </li> <li>• SATA 硬碟               <ul style="list-style-type: none"> <li>• 3.5 吋 SATA 硬碟</li> <li>• 2.5 吋 SATA 硬碟</li> <li>• 2.5 吋 SATA 固態硬碟</li> </ul> </li> </ul> <p> <b>注意</b> 3.5 吋 SATA 硬碟需要 QDA-SA 硬碟介面卡。 2.5 吋 SATA 硬碟需要 QDA-SA 或 QDA-SA2 硬碟介面卡。</p>
熱抽換	支援
外接 I/O 埠和擴充插槽	

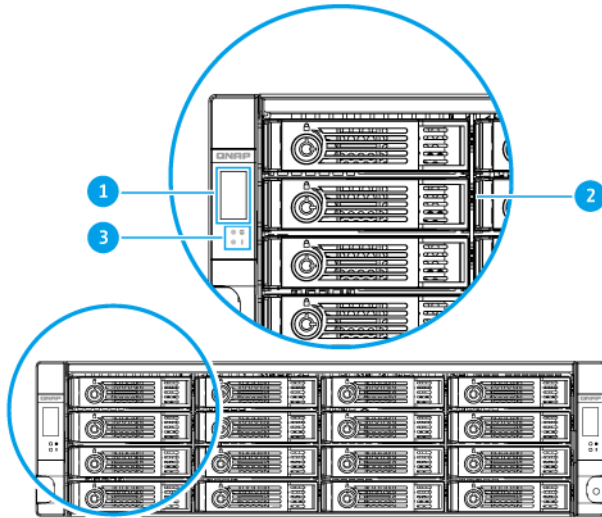
元件	TL-R1620Sdc
SFF 連接埠	3 x SFF-8644 (每個控制器)
RJ45	每個控制器 1 個   <b>注意</b> 此連接埠僅供工程用途。
介面	
按鈕	<ul style="list-style-type: none"> <li>• 電源：每個控制器 1 個</li> <li>• OLED 面板電源：每個控制器 1 個</li> </ul>
尺寸	
外型	3U 機架式
尺寸 (高 x 寬 x 深)	131.3 x 482.2 x 425.3 mm (5.17 x 18.98 x 16.74 in)
淨重	12.26 kg (27.03 lb)
其他	
電源供應器	2 x 550W、100-240V AC、50/60 Hz
系統電池	CR2032 鋰電池 (3V、225 mAh)
噪音值	28.8 db(A)   <b>注意</b> 從旁觀者位置 (距裝置一公尺內) 測試噪音值。在測試用的裝置中安裝最多數量的硬碟，並以低速運行。
風扇	3 x 80 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"> <li>• 不凝結相對溼度：5% 至 95%</li> <li>• 濕球溫度：27°C (80.6°F)</li> </ul>

**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
JBOD 擴充裝置	1
SAS 連接線	2
電源線	2
3.5 吋硬碟用螺絲	64
2.5 吋硬碟用螺絲	48
快速安裝手冊 (QIG)	1

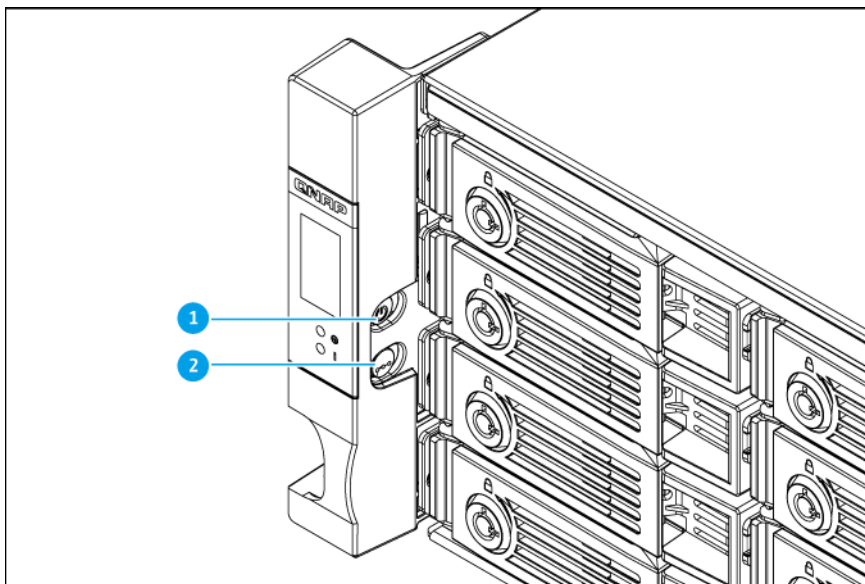
**元件**

## 前面板




編號	元件	編號	元件
1	OLED 面板	3	前面板 LED 燈
2	硬碟 LED 燈	-	-

## 前面板按鈕



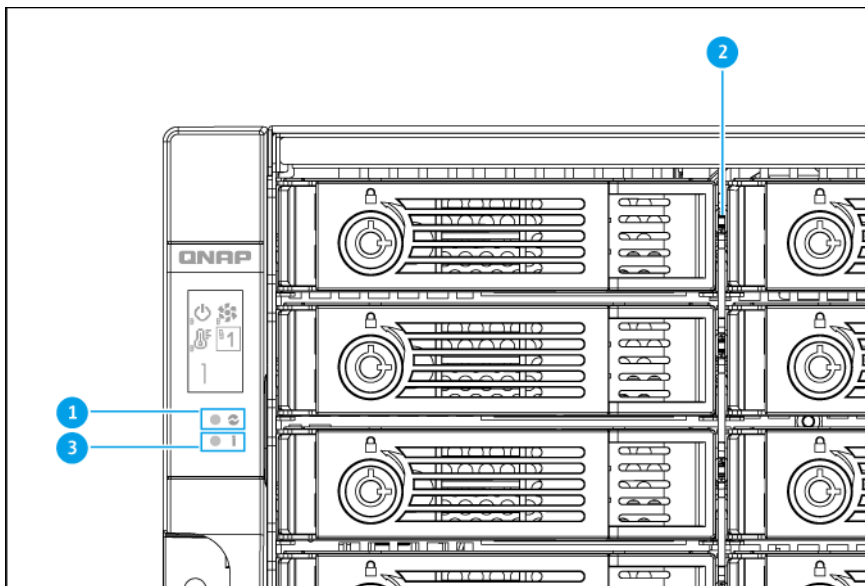
**注意**  
每個控制器都有自己的電源和 OLED 按鈕。

編號	元件	編號	元件
1	電源按鈕	2	OLED 面板電源按鈕

操作	使用者操作	結果
開啟控制器的電源。	按下電源按鈕	控制器電源開啟。  <b>提示</b> <ul style="list-style-type: none"> <li>QNAP 建議從後方面板打開控制器的電源。如需詳細資訊，請參見：<a href="#">後面板</a>和<a href="#">儲存控制器電源按鈕</a>。</li> <li>系統啟動需 10 到 15 分鐘，視安裝的硬碟和連線的裝置數量而定。請查看後方面板的 LED 燈來判斷啟動狀態。如需詳細資訊，請參見：<a href="#">後面板 LED 燈</a>。</li> </ul>
開啟 OLED 顯示器的電源	按下 OLED 按鈕。	OLED 顯示器隨即開啟。
關閉 OLED 顯示器的電源	按下 OLED 按鈕。	OLED 顯示器隨即關閉。

## 前面板和硬碟 LED

前面板 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的狀態下。



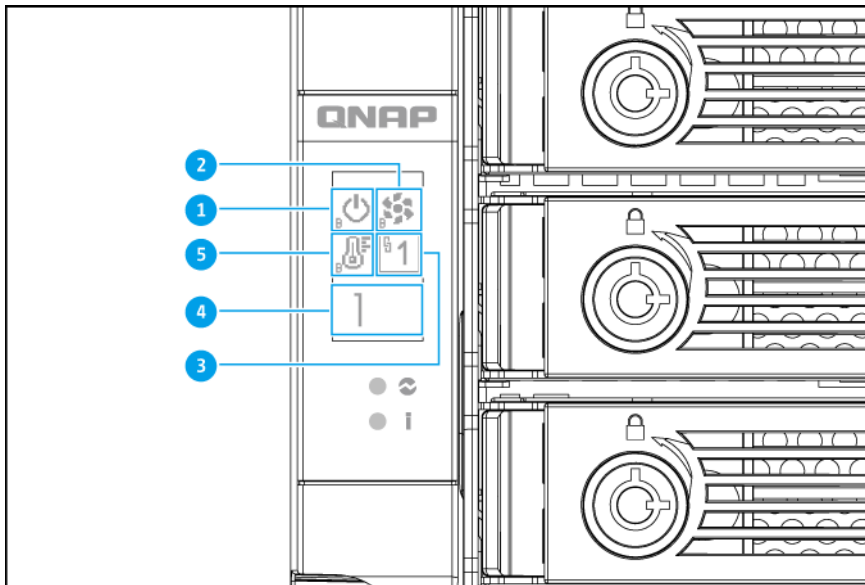
編號	元件	編號	元件
1	系統電源 LED 燈	3	系統狀態 LED 燈
2	硬碟 LED 燈	-	-

LED	狀態	說明
系統電源	藍燈	控制器已開機。
	關閉	控制器已關機。

LED	狀態	說明
系統狀態	綠燈	裝置已就緒。
	紅燈	<ul style="list-style-type: none"> <li>• 電源供應異常。</li> <li>• 系統風扇異常。</li> <li>• 系統溫度太高。</li> <li>• 硬碟溫度太高。</li> <li>• 電源供應器已拔除。</li> </ul>
	熄滅	<ul style="list-style-type: none"> <li>• 所有硬碟處於待命模式。</li> <li>• 裝置已關機。</li> </ul>
硬碟	綠燈	<ul style="list-style-type: none"> <li>• JBOD 擴充裝置電源已開啟。</li> <li>• 硬碟可供存取。</li> </ul>
	綠燈閃爍	正在存取硬碟。
	紅燈	硬碟讀寫錯誤。
	紅燈每秒閃爍五次	作業系統正在尋找硬碟。
	熄滅	偵測不到硬碟。

### 前面板 OLED 顯示器

OLED 顯示器可顯示控制器和主要元件的狀態。

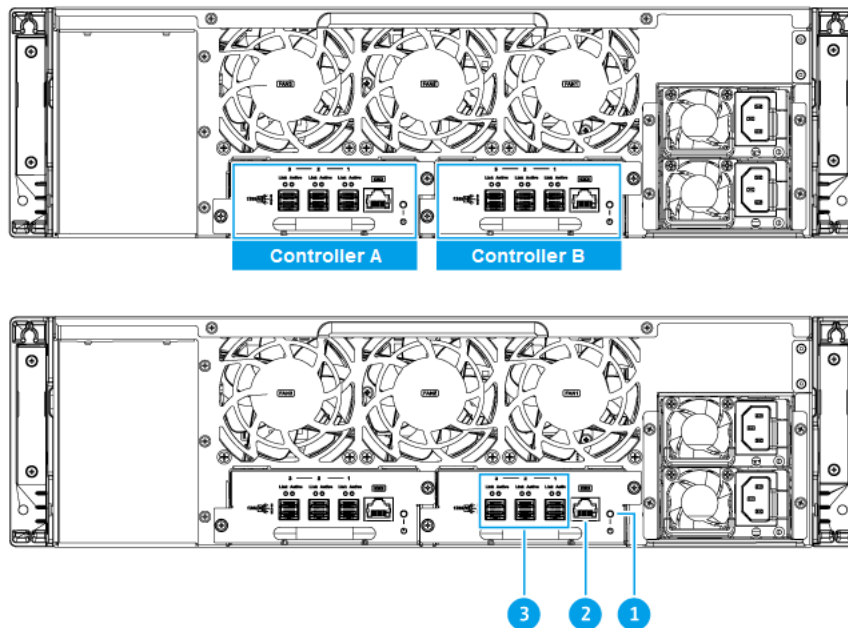


編號	元件	編號	元件
1	控制器電源狀態	4	機箱 ID
2	風扇狀態	5	溫度狀態
3	SAS 連接器狀態	-	-



圖示名稱	圖示	說明
控制器電源狀態		<ul style="list-style-type: none"> <li>亮起：控制器已開機。</li> <li>熄滅：控制器已關機。</li> </ul>
控制器風扇狀態		<ul style="list-style-type: none"> <li>亮起：控制器風扇模組運作正常。</li> <li>閃爍：控制器風扇模組運作異常或未安裝。</li> <li>熄滅：控制器已關機。</li> </ul>
控制器溫度狀態		<ul style="list-style-type: none"> <li>亮起：控制器溫度正常。</li> <li>閃爍：控制器溫度過高或過低。</li> <li>熄滅：控制器已關機。</li> </ul>
控制器 SAS 連接器狀態		<ul style="list-style-type: none"> <li>亮起：SAS 連接器狀態會顯示所有連結的 SAS 連接埠號碼。</li> <li>閃爍：任一實體層發生錯誤。以下是可能的錯誤清單。 <ul style="list-style-type: none"> <li>其中一個實體層中斷連線或連結速率低（6 Gbps 或 3 Gbps）。</li> <li>還有其他連結錯誤。</li> </ul> </li> <li>熄滅：控制器已關機。</li> </ul>
控制器擴充裝置 ID		<ul style="list-style-type: none"> <li>主機已設定機箱 ID。</li> <li>機箱 ID 代表全域控制器識別碼。</li> </ul>

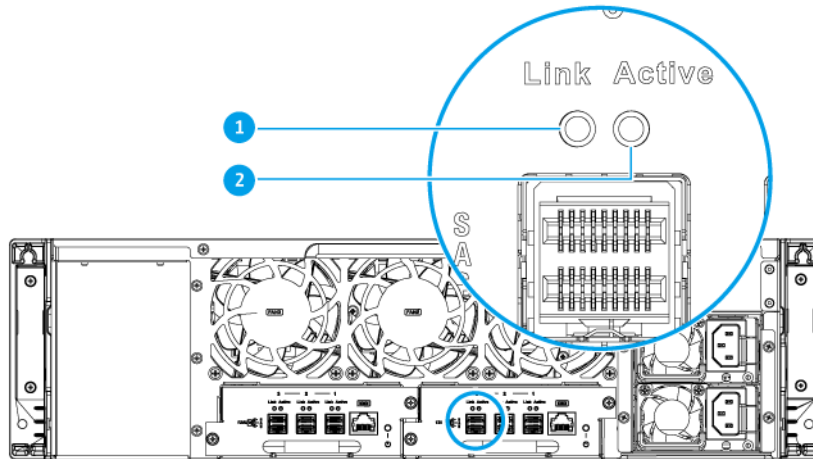
## 後面板



編號	元件	編號	元件
1	控制器電源開關	3	SFF-8644 連接埠
2	RJ45 主控台連接埠	-	-

 **注意**  
此連接埠僅供工程用途。

## 後面板 LED 燈



編號	元件	編號	元件
1	Mini-SAS 連結 LED 燈	2	Mini-SAS 活動 LED 燈

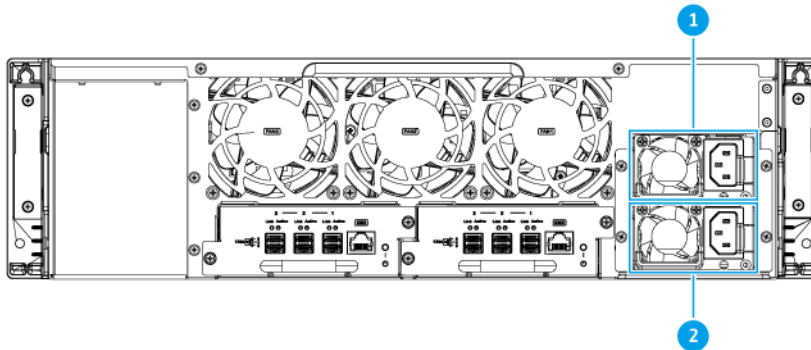
LED	狀態	說明
Mini-SAS 連線連接器	綠燈	裝置已連接至主機。
	橙燈	裝置未連接至主機。
Mini-SAS 活動連接器	藍燈	裝置已啟用。
	熄滅	裝置已停用。

## 儲存控制器電源按鈕

操作	使用者操作	結果
開啟電源	按一下按鈕。	<ul style="list-style-type: none"> <li>• OLED 面板開啟。</li> <li>• 控制器電源開啟。</li> </ul> <p> <b>注意</b> 視您按下控制器上的按鈕而定，控制器 A 或 B 隨即開啟電源。</p>

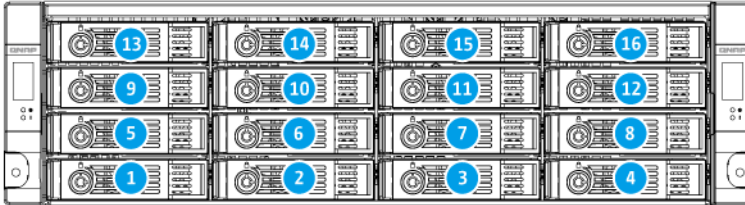
操作	使用者操作	結果
關閉電源	按住按鈕 4 秒。	<ul style="list-style-type: none"> <li>• OLED 面板關閉。</li> <li>• 控制器電源關閉。</li> </ul> <p><b>注意</b> 視您按下控制器上的按鈕而定，控制器 A 或 B 隨即關閉電源。</p>
強制關機	按住按鈕 10 秒。	<ul style="list-style-type: none"> <li>• OLED 面板關閉。</li> <li>• 控制器電源關閉。</li> </ul> <p><b>注意</b> 視您按下控制器上的按鈕而定，控制器 A 或 B 隨即關閉電源。</p> <p><b>警告</b> 請在儲存控制器沒有回應時才使用此方法。執行此動作可能導致資料遺失。</p>

## 電源供應器



編號	元件	編號	元件
1	電源供應器 1	2	電源供應器 2

## 硬碟編號



## 音訊警示

持續時間	頻率	說明
長嗶	3 次 (每 5 分鐘)	<ul style="list-style-type: none"> <li>系統風扇未安裝。</li> <li>系統風扇異常。</li> <li>系統溫度超過臨界值。</li> </ul> <p><b>注意</b> 預設溫度警示臨界點為 55°C。您可以使用 QNAP JBOD Manager 將臨界溫度設定為 55°C 和 69°C 之間。</p>
	1 (每秒)	QES 或 QNAP JBOD Manager 正在尋找裝置。
短嗶	1 次	<ul style="list-style-type: none"> <li>在裝置與主機之間已建立纜線連結。</li> <li>在裝置與主機之間已移除纜線連結。</li> </ul>

## 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"> <li>室溫：0°C 到 40°C ( 32°F 到 104°F )</li> <li>不凝結相對溼度：5% 至 95%</li> <li>濕球溫度：27°C (80.6°F)</li> <li>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</li> </ul>
硬體和週邊設備	<ul style="list-style-type: none"> <li>NAS 或伺服器</li> <li>儲存硬碟</li> </ul> <p> <b>提示</b> 請前往 <a href="https://www.qnap.com/compatibility">https://www.qnap.com/compatibility</a> 查看相容的硬碟機型清單。</p> <ul style="list-style-type: none"> <li>一條或多條 SFF-8644 或 SFF-8644 轉 SFF-8088 接頭線</li> <li>主機匯流排介面卡</li> </ul>
工具	<ul style="list-style-type: none"> <li>1 號或 2 號十字螺絲起子</li> <li>防靜電腕帶</li> </ul>

## 設定 JBOD 擴充裝置



### 注意

設定 JBOD 擴充裝置或安裝 JBOD 擴充裝置元件前，請詳閱所有安全要求及資訊。

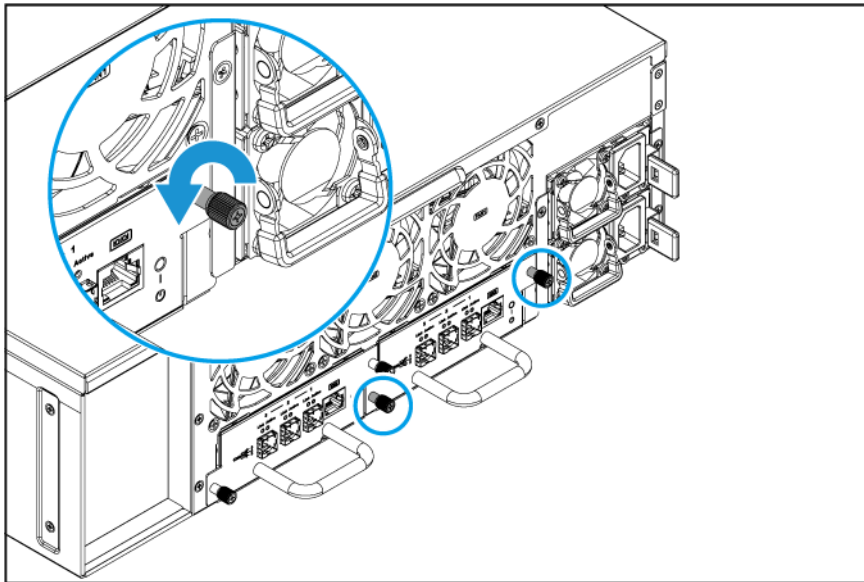
1. 將 JBOD 擴充裝置放置於符合需求的環境。  
如需詳細資訊，請參見：[安裝需求](#)。
2. 將 JBOD 擴充裝置安裝到機架上。  
如需詳細資訊，請參見：[機架滑軌](#)。
3. 安裝硬碟。  
如需詳細資訊，請參見下列主題：
  - [在 3.5 吋托盤上安裝 3.5 吋硬碟](#)
  - [在 3.5 吋托盤上安裝 2.5 吋硬碟或固態硬碟](#)
4. 連接電源線與所有適用的網路線。
5. 將 JBOD 擴充裝置連接至 NAS 或伺服器。  
如需詳細資訊，請參見下列主題：
  - [連接 TL-R1620Sdc 至 NAS](#)
  - [連接 TL-R1620Sdc 至伺服器](#)
6. 開啟 JBOD 擴充裝置。

### 3. 硬體安裝

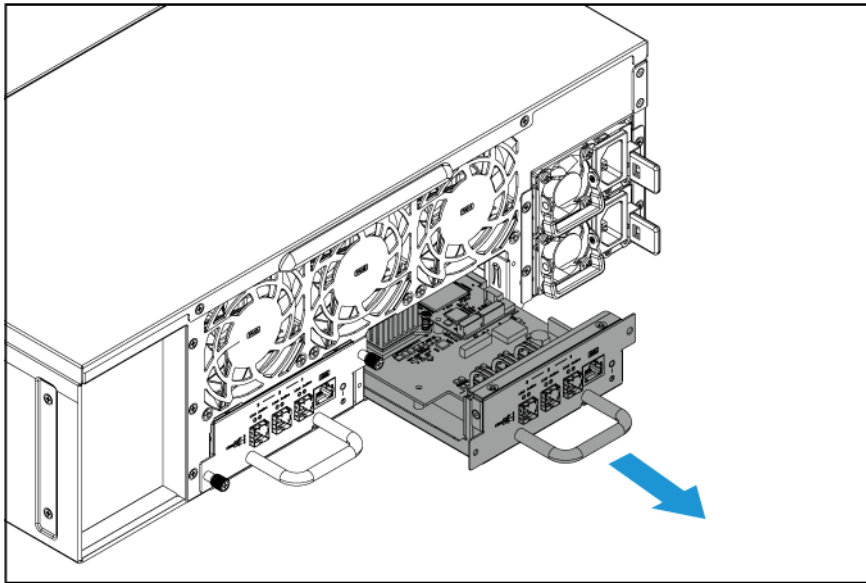
本節提供有關安裝控制器、安裝硬碟、將 JBOD 擴充裝置連接至 NAS 或伺服器、熱插拔備援電源裝置，以及導軌套件等資訊。

#### 移除控制器

1. 關閉 JBOD 擴充裝置。
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. 移除控制器。
  - a. 鬆開螺絲

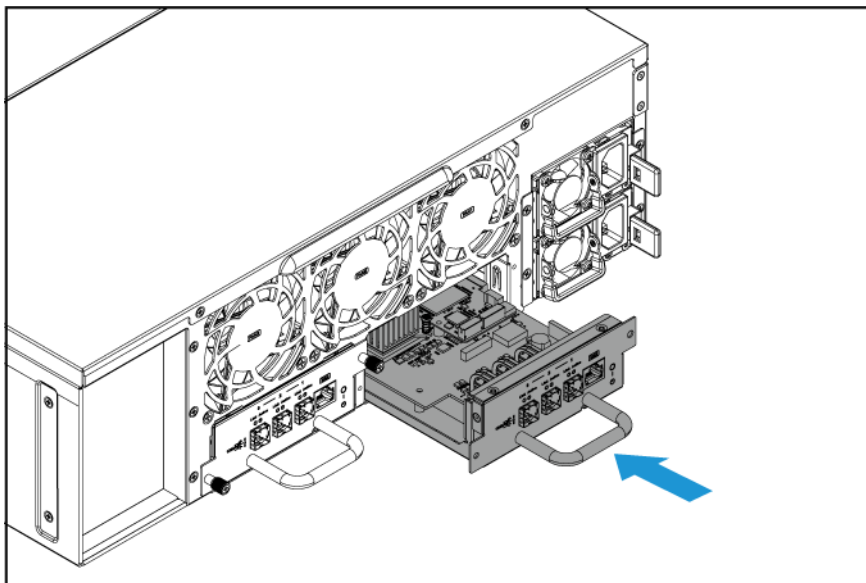


- b. 將把手向外拉以取出控制器。



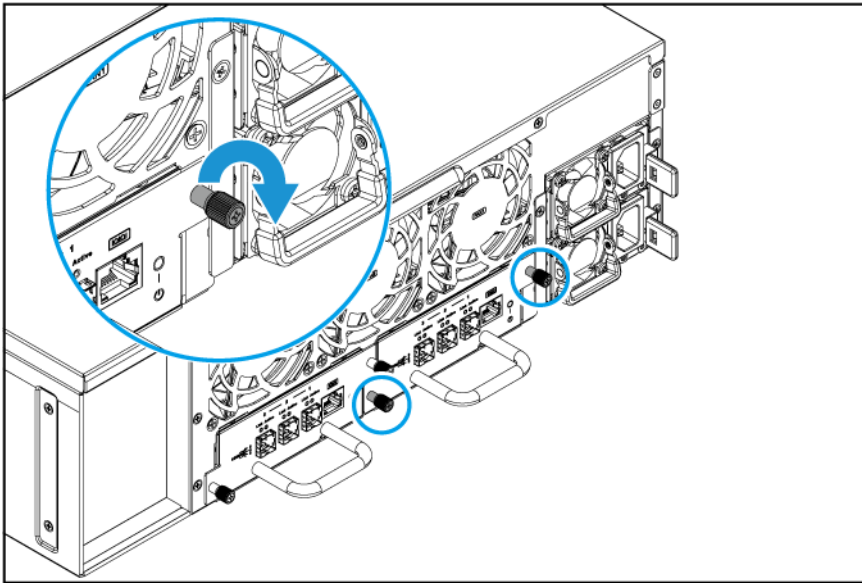
## 安裝控制器

1. 將控制器裝入 JBOD 裝置。
  - a. 將控制器插入機殼。



2. 鎖緊螺絲。





3. 連上所有連接線和外接裝置。
4. 開啟裝置電源。

## 硬碟安裝

TL-R1620Sdc 相容於 3.5 吋硬碟、2.5 吋硬碟以及 2.5 吋固態硬碟。

### 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。
- 



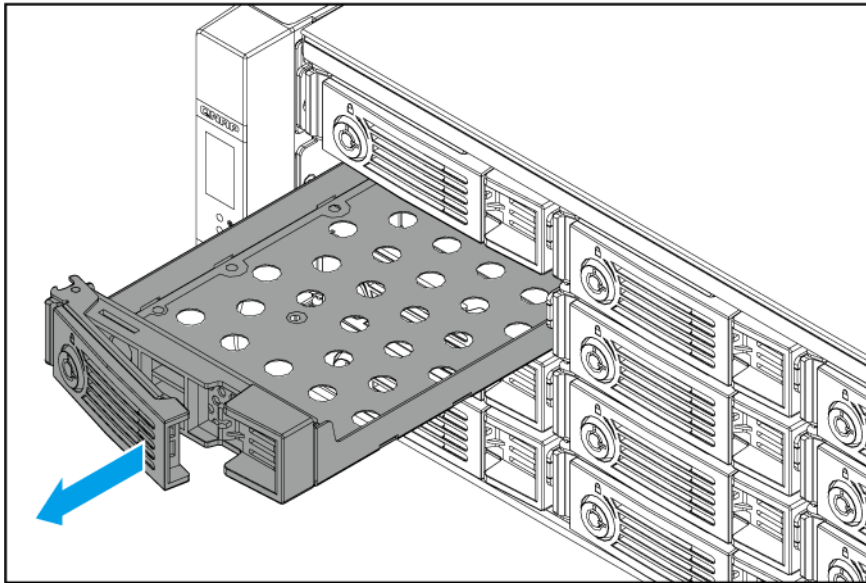
**轉動的風扇葉片：**使雙手及身體其他部位遠離正在轉動的風扇葉片。

•



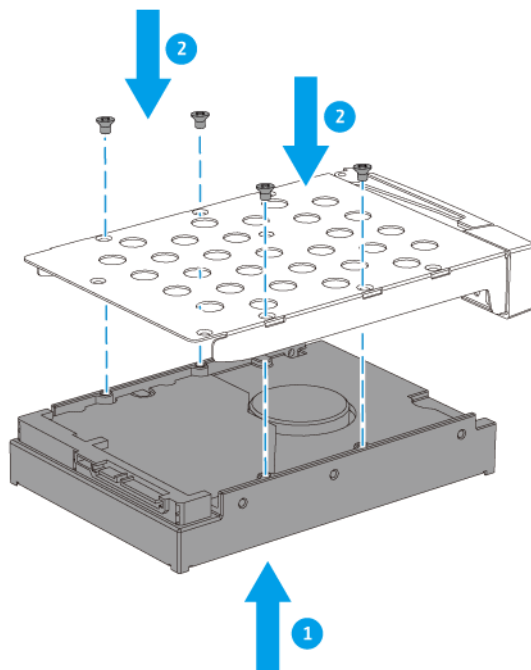
**其他移動的元件：**使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 JBOD 擴充裝置。
2. 取出硬碟托盤。
  - a. 拉把手以鬆開托盤。
  - b. 將托盤拉出。



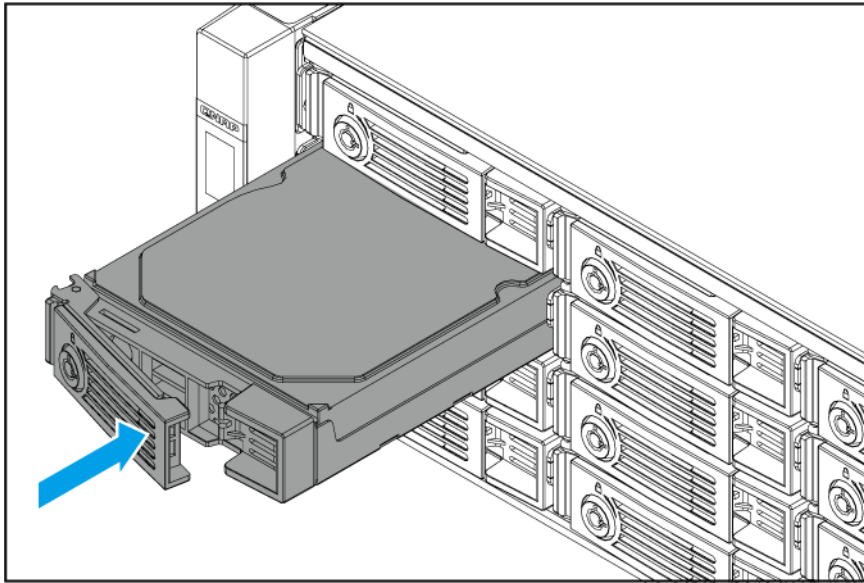
**3. 在托盤上安裝硬碟。**

- 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 JBOD 擴充裝置。



#### 注意

JBOD 擴充裝置可能需要長達 30 秒的時間，才能偵測到新的裝置。

### 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。

- 



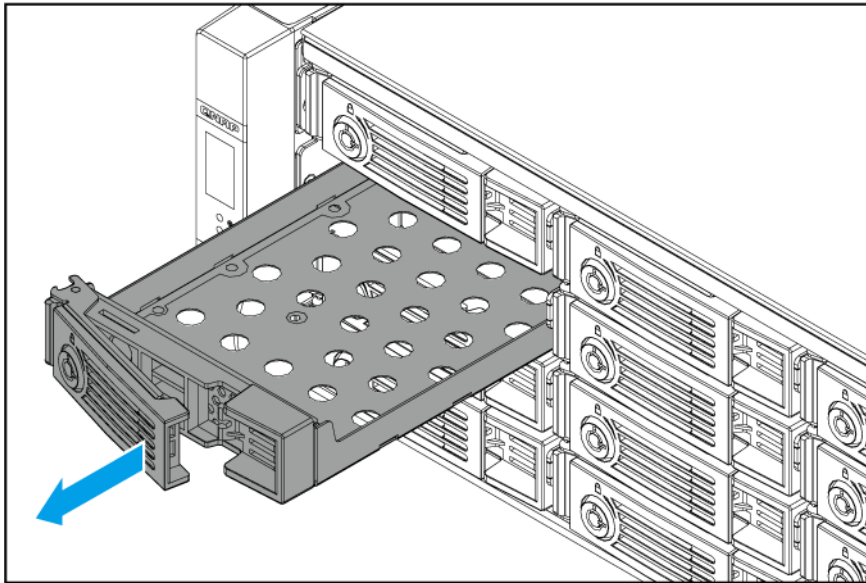
**轉動的風扇葉片：**使雙手及身體其他部位遠離正在轉動的風扇葉片。

- 



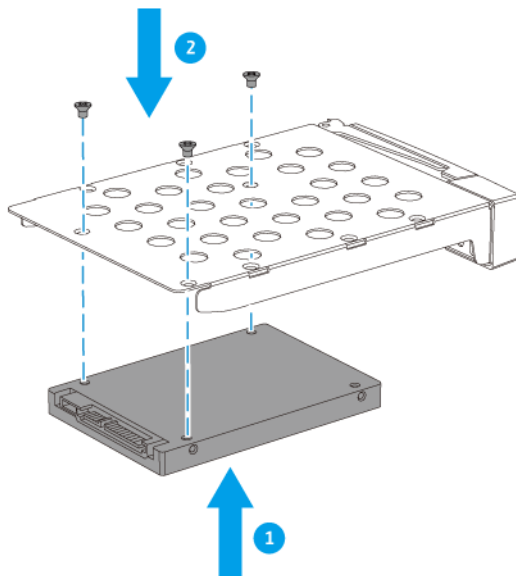
**其他移動的元件：**使雙手及身體其他部位遠離正在移動的其他元件。

1. 關閉 JBOD 擴充裝置。
2. 取出硬碟托盤。
  - a. 拉把手以鬆開托盤。
  - b. 將托盤拉出。



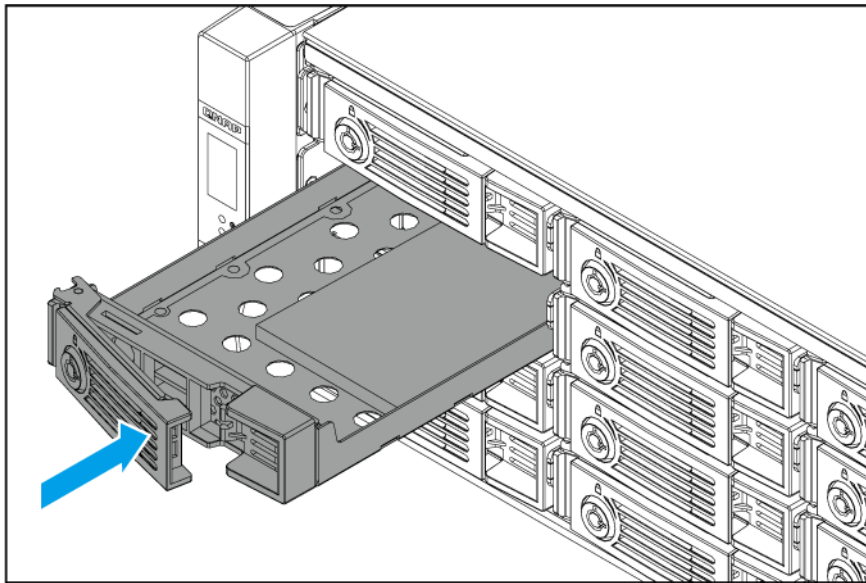
**3. 在托盤上安裝硬碟。**

- 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 JBOD 擴充裝置。



#### 注意

JBOD 擴充裝置可能需要長達 30 秒的時間，才能偵測到新的裝置。

## JBOD 連線

本章節針對 JBOD 擴充裝置的多種連線提供相關資訊。

### 連接 TL-R1620Sdc 至 NAS

NAS 必須執行 QES 2.1.1 ( 或更新版本 )，並需要 Mini-SAS HD 連接埠 (SAS 12Gb/s SFF-8644)、Mini-SAS 連接埠 (SAS 6Gb/s SFF-8088)，或安裝 SAS 擴充卡 ( SAS-12G2E、QXP-820S-B3408 或 QXP-1620S-B3616W )。

如需詳細了解 NAS 支援的最大擴充裝置數目，請前往：<https://www.qnap.com/go/compatibility-expansion>。



#### 重要

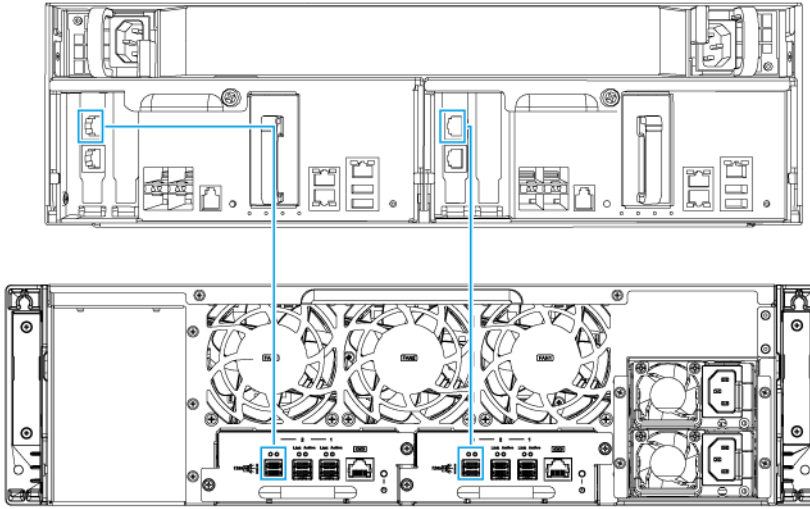
為了您的安全，請在開始前確認 NAS 和 JBOD 擴充裝置的電源已關閉。

1. 連接 JBOD 擴充裝置至 NAS。
  - a. 將一條或以上的 SFF-8644 接頭纜線連接至 JBOD 擴充裝置的 SFF-8644 連接埠。
  - b. 將一條或多條 SFF-8644 或 SFF-8644 轉 SFF-8088 接頭纜線連接至 NAS 的 SFF-8644 或 SFF-8088 連接埠或 NAS 上安裝的主機匯流排。

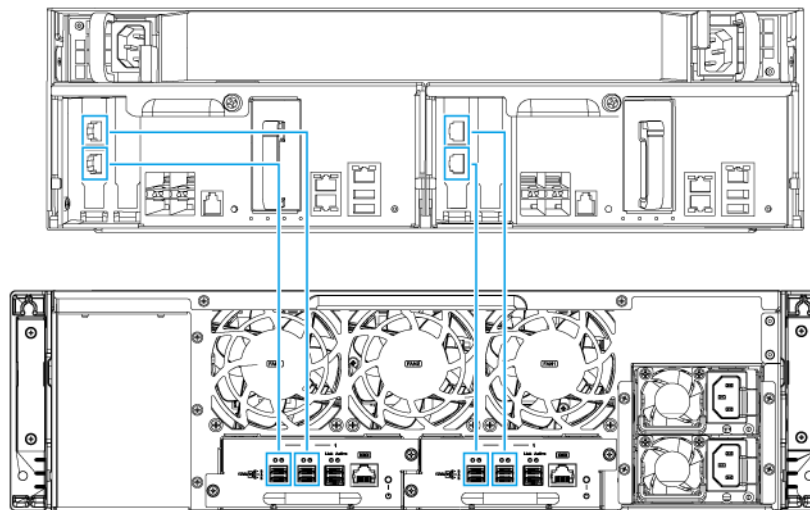


#### 注意

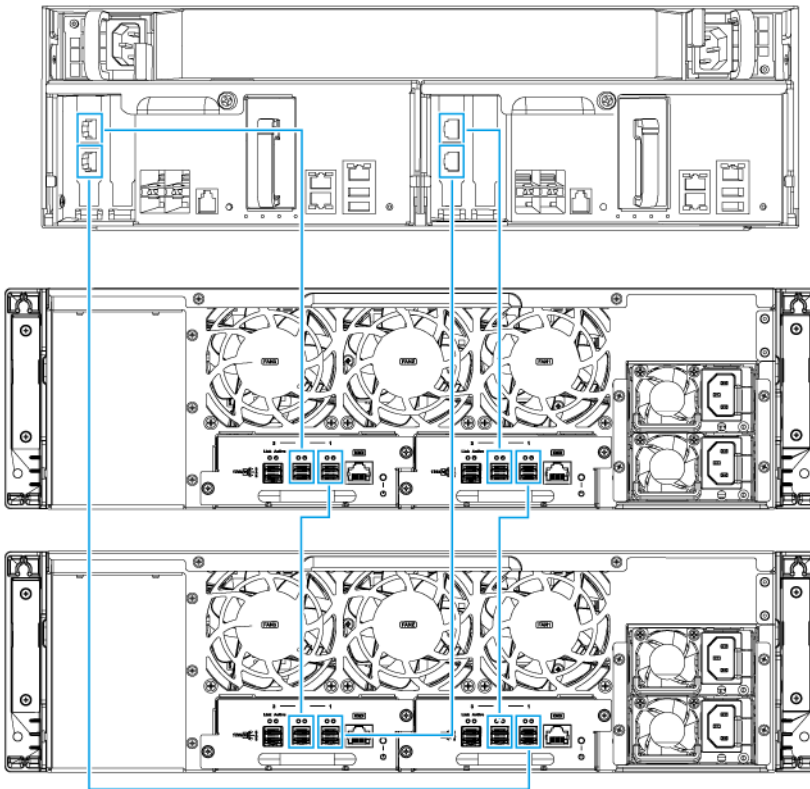
參照 NAS 使用手冊的硬體安裝章節中關於安裝擴充卡之指示。



單路徑設定



單路徑連結彙總設定



### 雙路徑設定

2. 開啟 JBOD 擴充裝置。
3. 開啟 NAS。
4. 確認 NAS 可辨識 JBOD 擴充裝置。
  - a. 以管理員身分登入 QES。
  - b. 前往 [ 主選單 ] > [ 儲存空間總管 ] > [ 總覽 ] > [ 系統 ]。
  - c. 確認畫面列出擴充設備。

### 連接 TL-R1620Sdc 至伺服器



#### 重要

為了您的安全，請在啟動前確認伺服器和 JBOD 擴充裝置都已關閉。

1. 連接 JBOD 擴充裝置至伺服器。
  - a. 將一條或以上的 SFF-8644 接頭纜線連接至 JBOD 擴充裝置的 SFF-8644 連接埠。
  - b. 將一條或多條 SFF-8644 接頭纜線連接至伺服器的 SFF-8644 連接埠。



#### 注意

如需有關有效連線組態的圖解，請參閱：[連接 TL-R1620Sdc 至 NAS](#)。

- c. 連接額外 JBOD 擴充裝置至伺服器。
2. 開啟 JBOD 擴充裝置。
3. 開啟伺服器。
4. 確認伺服器已辨識 JBOD 擴充裝置。
  - a. 前往伺服器的硬碟管理工具程式，或開啟 Windows 或 Linux 中的 QNAP External RAID Manager。



#### 注意

若要下載 QNAP JBOD Manager，請前往 <https://download.qnap.com>。

- b. 確認畫面列出 JBOD 擴充裝置。

### 熱抽換備援電源供應器

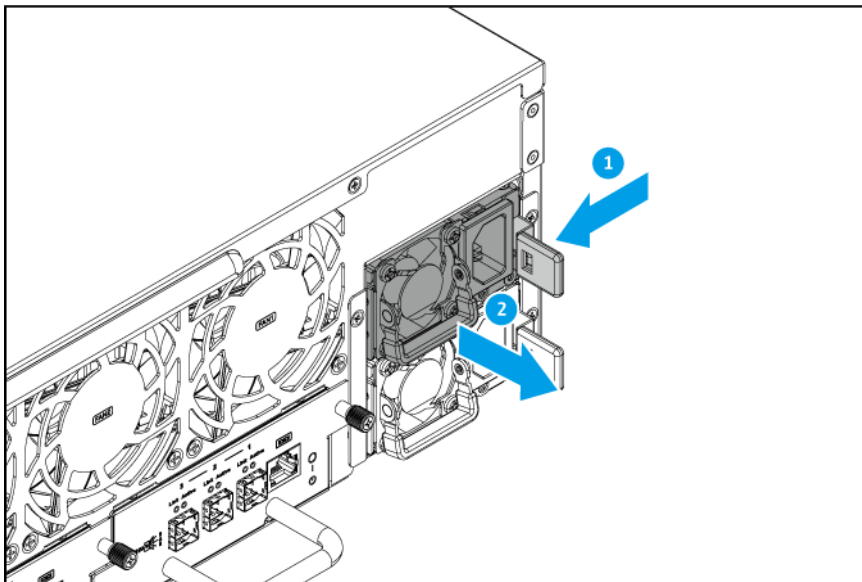


#### 警告



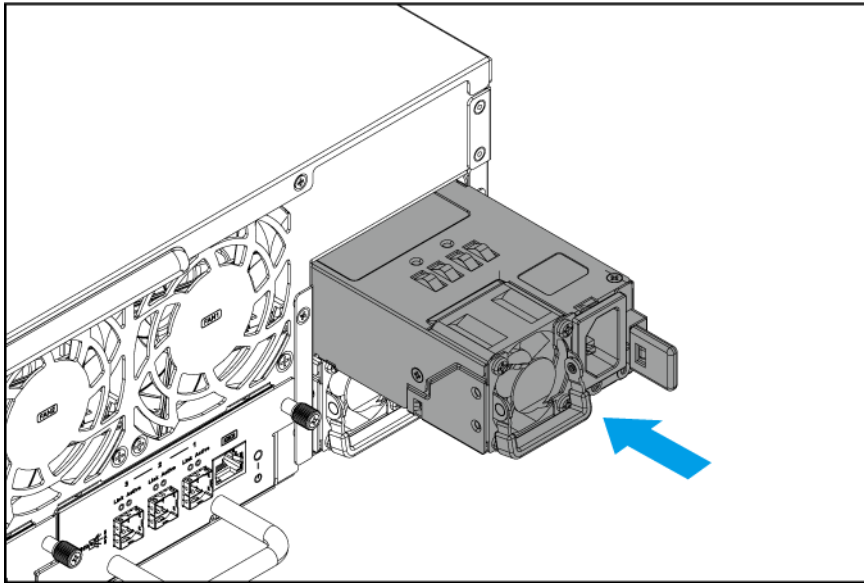
NAS 至少配備一條電源供應器 (PSU) 的電源線。為防止嚴重傷害事故發生，在安裝或替換系統元件前，應由受過訓練的技術人員拔下所有 PSU 電源線。

1. 關閉 JBOD 裝置。
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 JBOD。

### 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>。

型號	相容機架滑軌
TL-R1620Sdc	RAIL-B02

您可以在機架滑軌的包裝中找到安裝資訊。

## 4. 疑難排解

本章介紹基本的疑難排解資訊。

### 強制 [ 儲存空間總管 ] 或 QNAP JBOD Manager 辨識 JBOD 擴充裝置

如果 [ 儲存空間總管 ] 或 QNAP JBOD Manager 於運作中無法找到 JBOD 擴充裝置，表示硬碟或資料可能損壞。

1. 關閉 JBOD 擴充裝置。
2. 移除所有硬碟。
3. 開啟 JBOD 擴充裝置。
4. 使用 [ 儲存空間總管 ] 或 QNAP JBOD Manager 來尋找 JBOD 擴充裝置。
5. 將硬碟重新插入。
6. 繼續操作。

### 熱抽換故障硬碟

在連接 QES NAS 時，JBOD 擴充裝置可在下列情況下支援熱抽換硬碟：

RAID 類型	硬碟數量	情況
RAID 1	2	一個硬碟故障。
RAID 5	3 到 16	一個硬碟故障。
RAID 6	5 到 16	一或兩個硬碟故障。
RAID 10	4 至 16 ( 建立中 ) 2 至 16 ( 擴充中 )	在兩個不同組的硬碟中有一或兩個硬碟故障。
RAID 50	3 到 16	每個子群組有一個硬碟故障。
RAID 60	5 到 16	每個子群組有兩個硬碟故障。
三重鏡像	3 的倍數。( 例如，3、6、9、12 個硬碟等。 )	一或兩個硬碟故障。
RAID-TP	8 到 16	一、二或三個硬碟故障。



#### 注意

QES 僅支援每個 RAID 群組 16 個硬碟。

1. 登入 QES。
2. 前往 [ 主選單 ] > [ 儲存空間總管 ] > [ 儲存空間 ] > [ 磁碟 ]。
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。  
JBOD 擴充裝置發出兩次嗶聲。
10. 等待 30 秒或等到 JBOD 擴充裝置發出兩次嗶聲。
11. 前往 [ 主選單 ] > [ 儲存空間總管 ] > [ 儲存空間 ]。
12. 找到新硬碟並驗證其狀態。

## 支援和其他資源

QNAP 提供下列資源：

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

## 5. 詞彙

### QES

QNAP NAS 作業系統

### QNAP JBOD Manager

讓您檢視及設置 QNAP JBOD 擴充裝置的 Windows、Linux 和 macOS 軟體工具

### 儲存空間總管

QES 應用工具可讓您檢視並設定與 QNAP NAS 相連的 QNAP 外接儲存裝置

## 6. 聲明

本章介紹擔保、免責聲明、授權以及聯邦法規的相關資訊。

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Version 3, 29 June 2007

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