



QNAP

JBOD 设备

TL-D400S
TL-D800S
TL-D1600S

用户指南

内容

| | |
|--|----|
| 1. 前言 | |
| 关于本指南..... | 2 |
| 受众..... | 2 |
| 文档约定..... | 2 |
| 2. 产品概述 | |
| 关于 QNAP JBOD 设备..... | 3 |
| 硬件规格..... | 3 |
| 包装内容..... | 5 |
| 组件..... | 5 |
| 前面板..... | 6 |
| 后面板..... | 8 |
| 硬盘编号..... | 10 |
| 安全信息..... | 11 |
| 安装要求..... | 12 |
| 设置 JBOD 设备..... | 13 |
| 3. 硬件安装 | |
| 硬盘安装..... | 14 |
| 在 3.5 英寸托盘上安装 3.5 英寸硬盘..... | 14 |
| 在 3.5 英寸托盘上安装 2.5 英寸硬盘..... | 17 |
| 在固态硬盘托盘上安装固态硬盘..... | 20 |
| 将 JBOD 设备连接到 NAS..... | 23 |
| 将 JBOD 设备连接到计算机..... | 25 |
| 4. 基本操作 | |
| LCD 面板..... | 28 |
| LED..... | 29 |
| 警告音..... | 30 |
| 风扇转速开关..... | 30 |
| 5. 故障排除 | |
| 强制存储与快照总管或 QNAP JBOD Manager 识别 JBOD 设备..... | 31 |
| 热插拔故障硬盘..... | 31 |
| 支持和其他资源..... | 32 |
| 6. 术语表 | |
| QTS..... | 33 |
| QNAP JBOD Manager..... | 33 |
| 存储与快照总管..... | 33 |
| 7. 声明 | |
| 有限保修..... | 34 |
| 免责声明..... | 34 |
| GNU Public License..... | 34 |
| FCC 声明..... | 42 |
| CE 声明..... | 42 |
| SJ/T 11364-2006..... | 42 |
| VCCI 公告..... | 43 |
| BSMI 公告..... | 43 |

1. 前言





关于本指南

本指南提供有关 QNAP TL-D400S、TL-D800S 和 TL-D1600S JBOD 设备的信息以及有关硬件安装的分步说明。此外，还提供了有关基本操作和故障排除信息的说明。

受众

本文档的目标读者为用户和存储管理员。本指南假定用户已对存储和备份概念有基本了解。

文档约定

| 符号 | 描述 |
|---|-------------------------------------|
|  | 注释，提供默认配置设置和其他补充信息。 |
|  | 重要注释，提供有关所需配置设置的信息以及其他关键信息。 |
|  | 提示，提供有关执行任务或配置设置的建议或备选方法。 |
|  | 警告，提供警告信息，如果忽略此信息，可能会导致潜在损失、伤害甚至死亡。 |

2. 产品概述

本章提供有关 QNAP TL-D400S、TL-D800S 和 TL-D1600S JBOD 设备的基本信息。

关于 QNAP JBOD 设备

QNAP JBOD 设备可提高 NAS 或计算机的容量和实用性，并提供多种存储应用程序。安装在 JBOD 设备中的硬盘可以通过主机设备单独管理，也可以配置为软件 RAID 进行管理。TL-D400S、TL-D800S 和 TL-D1600S 采用 SFF-8088 端口，以确保 JBOD 设备和主机设备之间的数据传输快速且高效。

硬件规格



警告





如果您的 QNAP 产品有硬件方面的缺陷，请将产品退回 QNAP 或 QNAP 授权的服务中心进行维修或更换。您本人或未经授权的第三方对产品进行的任何维修或维护流程均会使保修失效。

对于因未经授权进行的修改和安装不受支持的第三方应用程序而造成的任何损坏或数据丢失，QNAP 概不负责。

有关详细信息，请参见 [QNAP 保修条款和条件](#)。

扩展设备

| 组件 | TL-D400S | TL-D800S | TL-D1600S |
|----------------|--|------------------------|--|
| 订购信息 | | | |
| 订购部件号 | TL-D400S | TL-D800S | TL-D1600S |
| 存储 | | | |
| 硬盘架 | 4 x 3.5 英寸 SATA 6 Gbps | 8 x 3.5 英寸 SATA 6 Gbps | <ul style="list-style-type: none"> • 12 x 3.5 英寸 SATA 6 Gbps 硬盘架 • 4 x 2.5 英寸 SATA 6 Gbps 硬盘架 |
| 硬盘兼容性 | <ul style="list-style-type: none"> • 3.5 英寸 SATA 机械硬盘 • 2.5 英寸 SATA 机械硬盘 • 2.5 英寸 SATA 固态硬盘 | | <ul style="list-style-type: none"> • 3.5 英寸硬盘架： <ul style="list-style-type: none"> • 3.5 英寸 SATA 机械硬盘 • 2.5 英寸 SATA 机械硬盘 • 2.5 英寸 SATA 固态硬盘 • 2.5 英寸硬盘架： <ul style="list-style-type: none"> • 2.5 英寸 SATA 固态硬盘 |
| 硬盘托盘类型 | 锁头式 | | |
| 热插拔 | 支持 | | |
| 外部 I/O 端口和扩展插槽 | | | |

| 组件 | TL-D400S | TL-D800S | TL-D1600S |
|---|--|---|--|
| SFF 端口 | 1 x SFF-8088 (硬盘架 1-4) | 2 x SFF-8088 <ul style="list-style-type: none"> • 端口 1: 硬盘架 1-4 • 端口 2: 硬盘架 5-8 | 4 x SFF-8088 <ul style="list-style-type: none"> • 端口 1: 3.5 英寸硬盘架 1-4 • 端口 2: 3.5 英寸硬盘架 5-8 • 端口 3: 3.5 英寸硬盘架 9-12 • 端口 4: 2.5 英寸硬盘架 1-4 |
|  重要 <ul style="list-style-type: none"> • 每个 SFF-8088 端口支持四个 SATA 6 Gb/s 通道。 • 这些端口仅用于将主机总线适配器连接到 JBOD 设备。 | | | |
| 接口 | | | |
| 开关 | <ul style="list-style-type: none"> • 电源  重要 <p>QNAP 建议在关闭 JBOD 设备的电源后至少等待两秒钟，然后再接通电源。</p> <ul style="list-style-type: none"> • 风扇转速 • 警告音 | | |
| 尺寸 | | | |
| 外形规格 | 立式 | | |
| 尺寸 (高 x 宽 x 深) | 168.5 x 160.2 x 219.0 mm (6.63 x 6.31 x 8.62 英寸) | 188.2 x 329.3 x 279.6 mm (7.41 x 12.96 x 11.01 英寸) | 303.8 x 369.9 x 319.8 mm (11.96 x 14.56 x 12.59 英寸) |
| 净重 | 3.66 kg (8.06 磅) | 6.17 kg (13.6 磅) | 11.59 kg (25.5 磅) |
| 其他 | | | |
| 电源单元 | 65W, 100-240V AC, 50/60 Hz | 250W, 100-240V AC, 50/60 Hz | 250W, 100-240V AC, 50/60 Hz |
|  警告 <p>为降低失火或触电风险，请确保只将电源线连接到接地良好的电源插座。</p> | | | |
| 噪声声级 | 19.7 dB(A) | 21 dB(A) | 25 dB(A) |
|  注 <p>噪声声级在距 JBOD 设备一米以内的旁观者位置测得。测试设备安装了最大数量的硬盘以低速运行。</p> | | | |
| 风扇 | 系统: 1 x 12 cm, 12V DC 智能风扇 | 系统: 2 x 12 cm, 12V DC 智能风扇 | 系统: 3 x 9.2 cm, 12V DC 智能风扇 |
|  警告 <p>为避免潜在伤害或组件的损坏，设备连接电源时，切勿触及风扇。</p> | | | |
| 工作温度 | 0°C 至 40°C (32 至 104°F) | | |

| 组件 | TL-D400S | TL-D800S | TL-D1600S |
|------|--|----------|-----------|
| 相对湿度 | <ul style="list-style-type: none"> • 无冷凝相对湿度：5% 至 95% • 湿球温度：27°C (80.6°F) | | |
| 安全锁孔 | Kensington 安全锁孔 | | |

主机总线适配器

| 组件 | QXP-400eS-A1164 | QXP-800eS-A1164 | QXP-1600eS |
|---------------|--|--|--|
| 接口 | PCIe Gen3 x2 (16Gbps) | PCIe Gen3 x4 (32Gbps) | PCIe Gen3 x8 (64Gbps) |
| 外形规格 | 半高 | 半高 | 半高 |
| 尺寸（高 x 宽 x 深） | 104.65 x 68.9 x 12 mm 4.12 x 2.71 x 0.47 英寸 | 119.65 x 68.9 x 12 mm 4.71 x 2.71 x 0.47 英寸 | 119.65 x 68.9 x 12 mm 4.71 x 2.71 x 0.47 英寸 |



提示

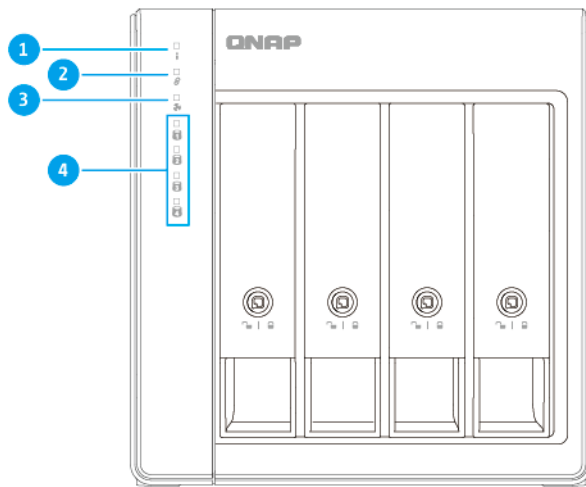
型号规格如有更改，恕不另行通知。要查看最新规格，请转到 <https://www.qnap.com>。

包装内容

| 项目 | 数量 |
|-----------------|--|
| JBOD 设备 | 1 |
| 交流电源适配器 | TL-D400S: 1 |
| 电源线 | 1 |
| 连接器线缆 | <ul style="list-style-type: none"> • TL-D400S: 1 x SFF-8088 • TL-D800S: 2 x SFF-8088 • TL-D1600S: 4 x SFF-8088 至 SFF-8644 |
| QXP 主机总线适配器 | <ul style="list-style-type: none"> • TL-D400S: QXP-400eS-A1164 • TL-D800S: QXP-800eS-A1164 • TL-D1600S: QXP-1600eS |
| 硬盘托盘钥匙 | 2 |
| 适用于 2.5 英寸硬盘的螺丝 | <ul style="list-style-type: none"> • TL-D400S: 12 • TL-D800S: 24 • TL-D1600S: 48 |
| 适用于 3.5 英寸硬盘的螺丝 | <ul style="list-style-type: none"> • TL-D400S: 16 • TL-D800S: 32 • TL-D1600S: 64 |
| 快速安装指南 (QIG) | 1 |

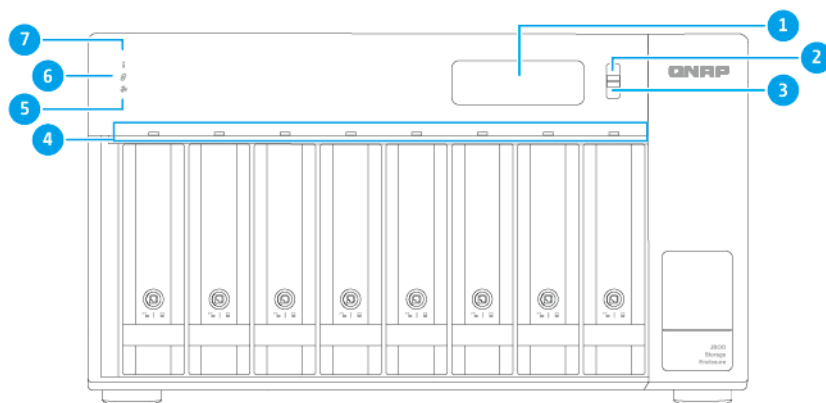
组件

前面板



TL-D400S

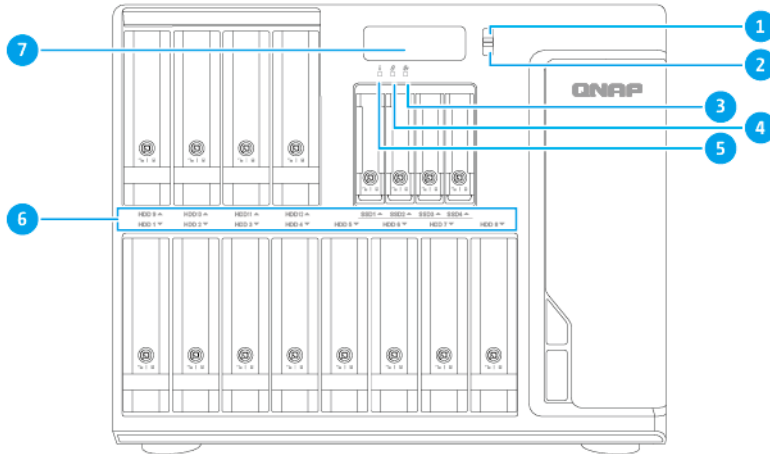
| 编号 | 组件 | 编号 | 组件 |
|----|--------|----|----------|
| 1 | 状态 LED | 3 | 风扇错误 LED |
| 2 | 链接 LED | 4 | 硬盘 LED |



TL-D800S

| 编号 | 组件 | 编号 | 组件 |
|----|---------------|----|----------|
| 1 | LCD 面板 | 5 | 风扇错误 LED |
| 2 | Enter (确认) 按钮 | 6 | 链接 LED |

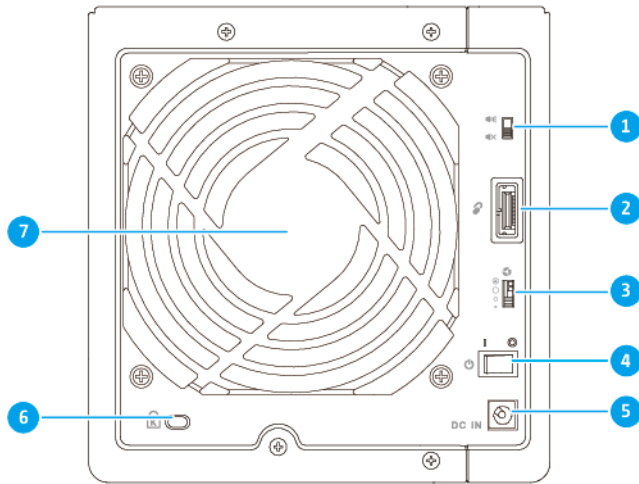
| 编号 | 组件 | 编号 | 组件 |
|----|----------------|----|--------|
| 3 | Select (选择) 按钮 | 7 | 状态 LED |
| 4 | 硬盘 LED | - | - |



TL-D1600S

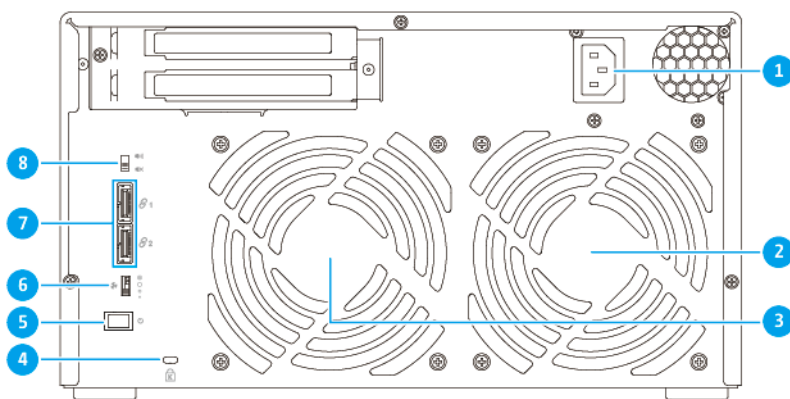
| 编号 | 组件 | 编号 | 组件 |
|----|----------------|----|--------|
| 1 | Enter (确认) 按钮 | 5 | 状态 LED |
| 2 | Select (选择) 按钮 | 6 | 硬盘 LED |
| 3 | 风扇错误 LED | 7 | LCD 面板 |
| 4 | 链接 LED | - | - |

后面板



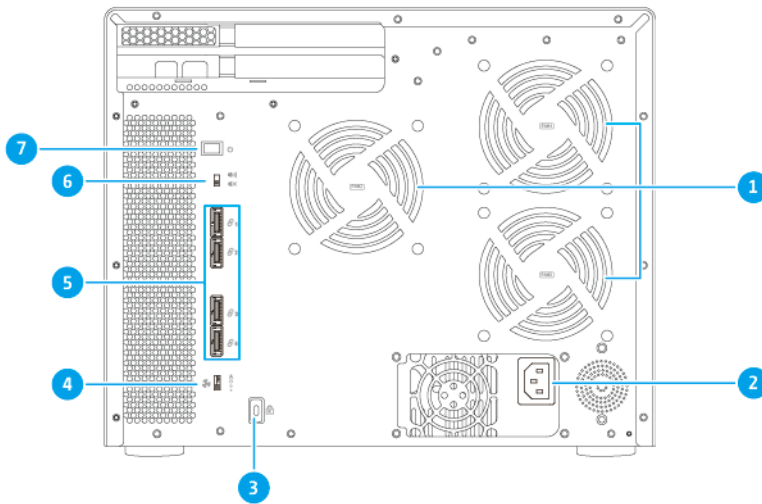
TL-D400S

| 编号 | 组件 | 编号 | 组件 |
|----|-----------------------|----|-----------------|
| 1 | 警告音开关 | 5 | 电源输入 |
| 2 | SFF-8088 端口 (硬盘架 1-4) | 6 | Kensington 安全锁孔 |
| 3 | 风扇转速开关 | 7 | 系统风扇 |
| 4 | 电源开关 | - | - |



TL-D800S

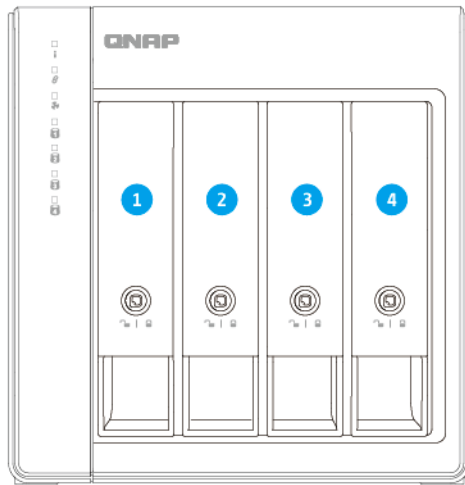
| 编号 | 组件 | 编号 | 组件 |
|----|-----------------|----|--|
| 1 | 电源输入 | 5 | 电源开关 |
| 2 | 系统风扇 1 | 6 | 风扇转速开关 |
| 3 | 系统风扇 2 | 7 | SFF-8088 端口 <ul style="list-style-type: none"> • 端口 1: 硬盘架 1-4 • 端口 2: 硬盘架 5-8 |
| 4 | Kensington 安全锁孔 | 8 | 警告音开关 |



TL-D1600S

| 编号 | 组件 | 编号 | 组件 |
|----|-----------------|----|---|
| 1 | 系统风扇 | 5 | SFF-8088 端口 <ul style="list-style-type: none"> • 端口 1: 3.5 英寸硬盘架 1-4 • 端口 2: 3.5 英寸硬盘架 5-8 • 端口 3: 3.5 英寸硬盘架 9-12 • 端口 4: 2.5 英寸硬盘架 1-4 |
| 2 | 电源输入 | 6 | 警告音开关 |
| 3 | Kensington 安全锁孔 | 7 | 电源开关 |
| 4 | 风扇转速开关 | - | - |

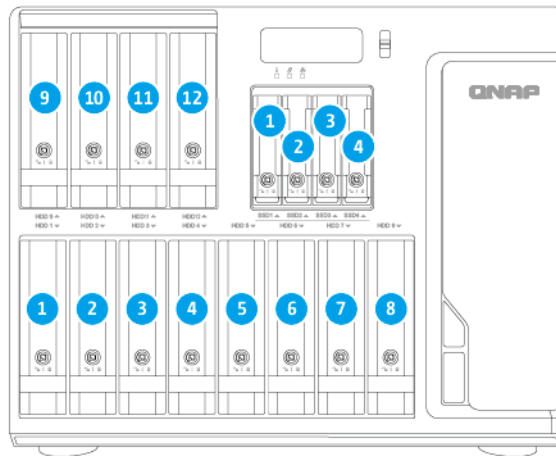
硬盘编号



TL-D400S



TL-D800S



TL-D1600S

安全信息

以下说明有助于确保个人安全和环境安全。在执行任何操作之前，请仔细阅读这些说明。

一般说明

- 设备应存放在通过器具、锁和钥匙或任何安保措施限制进入的安全场所。
- 只有经过授权并掌握技能的合格人员才能实际接触设备，相关人员需了解所有限制措施、安全预防措施和安装维护流程。
- 为避免潜在伤害或组件的损坏，请务必等硬盘和其他内部系统组件冷却后再触碰。
- 请执行静电放电 (ESD) 规程，以避免可能的人员受伤或组件受损。

电源

- 为降低失火或触电风险，请确保只将电源线连接到接地良好的电源插座。



配备冗余电源的设备可能有一条或多条电源单元 (PSU) 线。为避免受到严重伤害，安装或更换系统组件前，必须由经培训的维修技师从设备拔下所有 PSU 线。

系统电池

- 为避免潜在的电池爆炸、导致人员受伤或组件受损，请确保使用同型电池更换现有电池。
- 请按当地法规或电池制造商的指示正确处置使用过的电池。

运动的部件



转动的风扇叶片： 在设备连接到电源时，使您的身体各部位远离正在转动的风扇叶片。



运动的组件： 使您的身体各部位远离正在运动的其他组件。

安装要求

| 类别 | 项目 |
|---------|--|
| 环境 | <ul style="list-style-type: none"> • 室温：0°C 至 40°C（32 至 104°F） • 无冷凝相对湿度：5% 至 95% • 湿球温度：27°C (80.6°F) • 平坦的防静电表面，无直射阳光、液体或化学药剂 <p>重要</p> <ul style="list-style-type: none"> • 设备应存放在通过器具、锁和钥匙或任何安保措施限制进入的安全场所。 • 只有经过培训和授权的合格管理员才能实际接触设备，管理员需了解所有限制措施、安全预防措施和安装维护流程。 |
| 硬件和外围设备 | <ul style="list-style-type: none"> • NAS 或计算机 • 存储硬盘 <p>提示</p> <p>有关兼容硬盘型号的列表，请转到 https://www.qnap.com/compatibility。</p> <ul style="list-style-type: none"> • 一条或多条 SFF-8088 连接器线缆 • QXP 主机总线适配器 <p>重要</p> <p>将 JBOD 设备连接到主机设备时，需要 QNAP QXP 主机总线适配器。第三方主机总线适配器可能与 QNAP JBOD 设备不兼容。</p> |
| 工具 | <ul style="list-style-type: none"> • 1 号或 2 号十字螺丝刀 • 防静电腕带 |

设置 JBOD 设备

1. 将 JBOD 设备置于符合要求的环境中。
有关详细信息，请参见[安装要求](#)。
2. 安装硬盘。
有关详细信息，请参见以下主题：
 - [在 3.5 英寸托盘上安装 3.5 英寸硬盘](#)
 - [在 3.5 英寸托盘上安装 2.5 英寸硬盘](#)
 - [在固态硬盘托盘上安装固态硬盘](#)
3. 连接电源线。
4. 将 JBOD 设备连接到 NAS 或计算机。
有关详细信息，请参见以下主题：
 - [将 JBOD 设备连接到 NAS](#)
 - [将 JBOD 设备连接到计算机](#)
5. 启动 JBOD 设备电源。

3. 硬件安装

本节提供有关安装硬盘以及将 JBOD 设备连接到 NAS 或计算机的信息。

硬盘安装

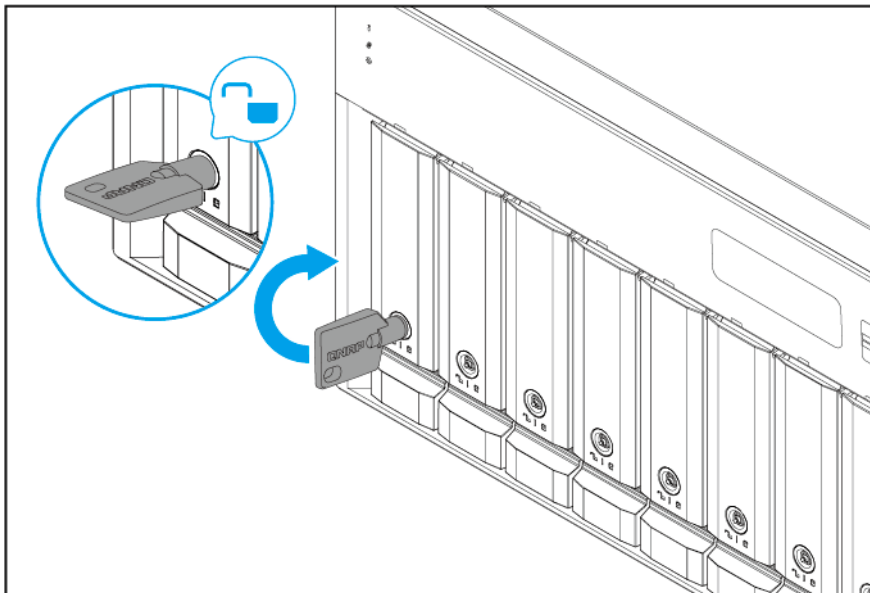
QNAP JBOD 设备兼容 3.5 英寸和 2.5 英寸硬盘以及 2.5 英寸固态硬盘。

在 3.5 英寸托盘上安装 3.5 英寸硬盘

**警告**

请执行静电放电 (ESD) 规程，以避免组件损坏。

1. 关闭 JBOD 设备电源。
2. 取下硬盘托盘。
 - a. 可选: 解除对托盘的锁定。

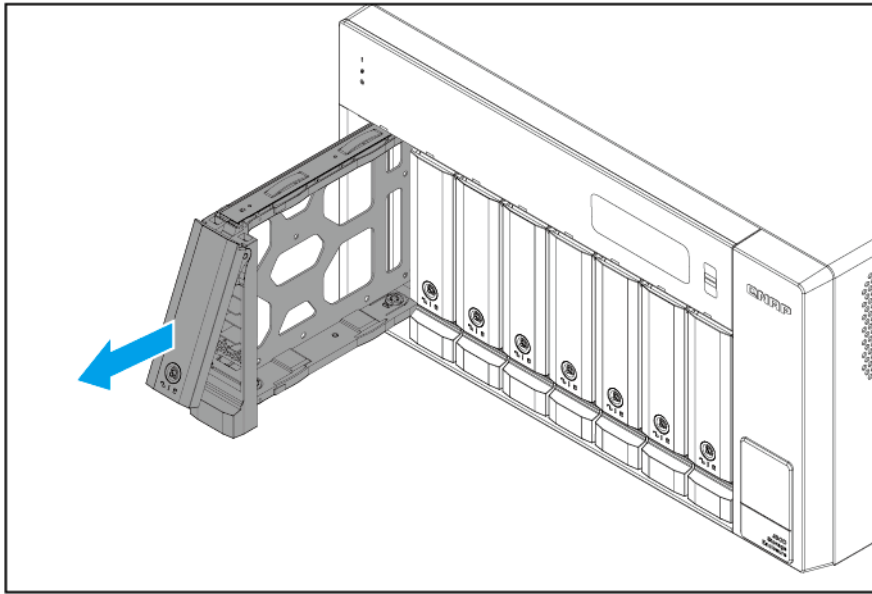
**注**

预装硬盘托盘未锁定。

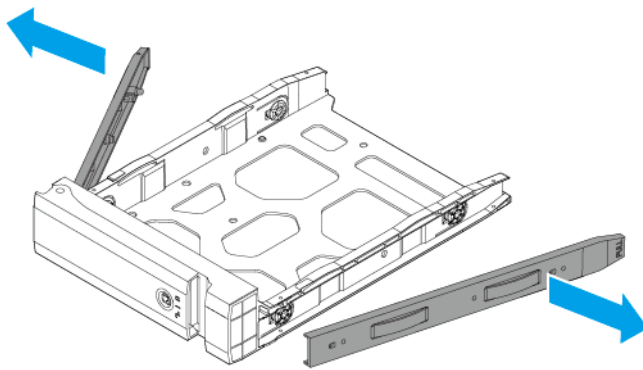
**重要**

请确保将硬盘托盘钥匙存放在安全的地方。

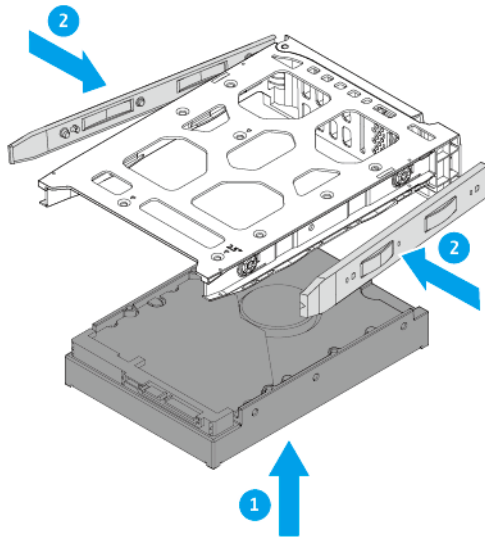
- b. 拉动手柄以松开托盘。
- c. 拉出托盘。



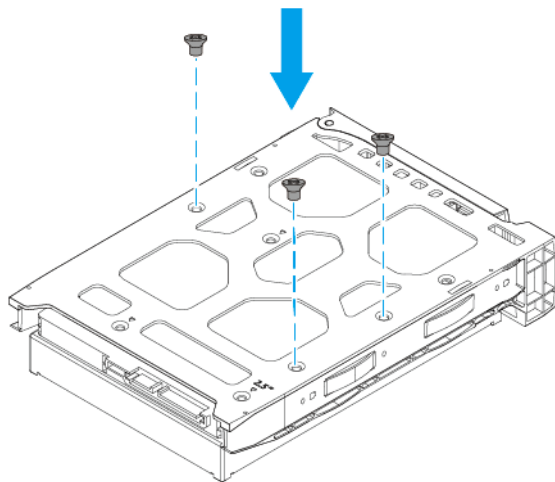
3. 将硬盘安装到托盘上。
 - a. 取下托盘两侧的固定面板。



- b. 将硬盘放在托盘上，使硬盘两侧的孔与托盘两侧的孔对齐。
 - c. 装上固定面板。



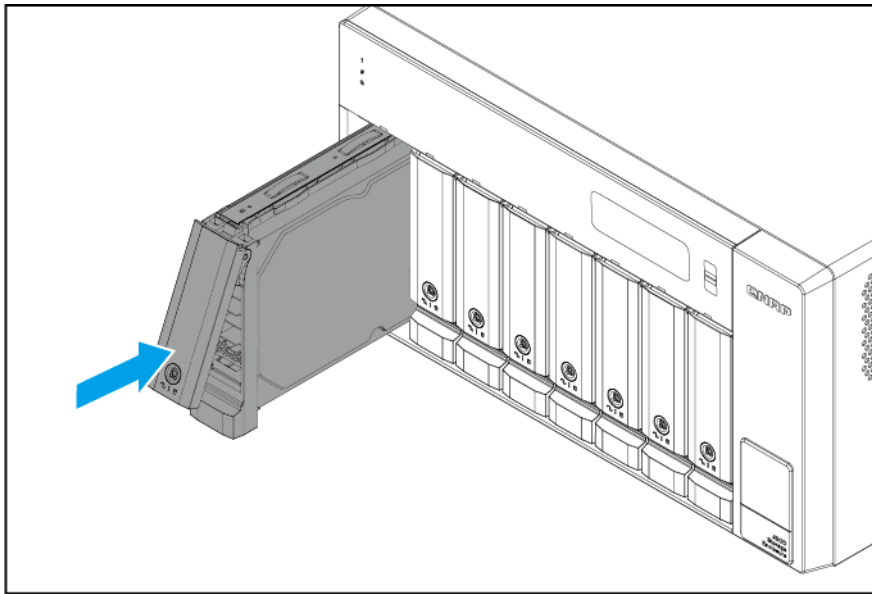
d. 可选: 装上螺丝, 进一步固定硬盘。



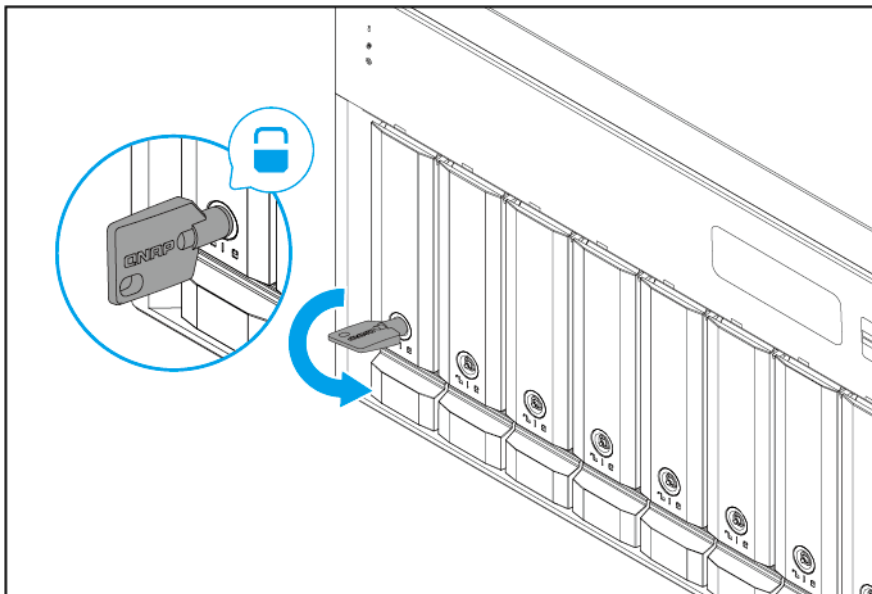
重要

QNAP 建议在转运设备时将螺丝装到硬盘托盘上。

4. 将托盘装入硬盘架。
 - a. 将托盘插入硬盘架。
 - b. 推动手柄。



c. 可选: 锁住托盘。



5. 启动 JBOD 设备电源。



注
JBOD 设备最长可能需要 30 秒才能检测到新硬盘。

在 3.5 英寸托盘上安装 2.5 英寸硬盘

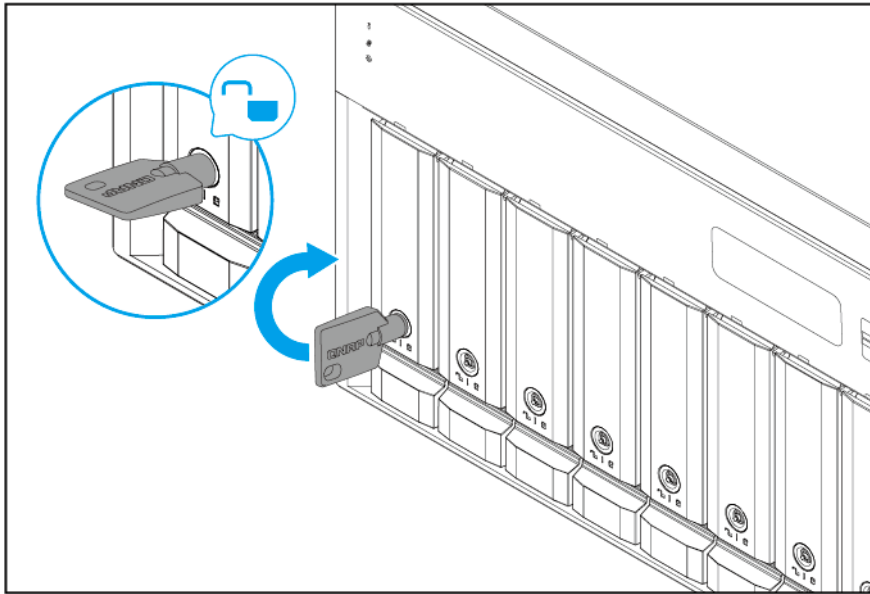


警告
请执行静电放电 (ESD) 规程，以避免组件损坏。

1. 关闭 JBOD 设备电源。

2. 取下硬盘托盘。

a. 可选: 解除对托盘的锁定。



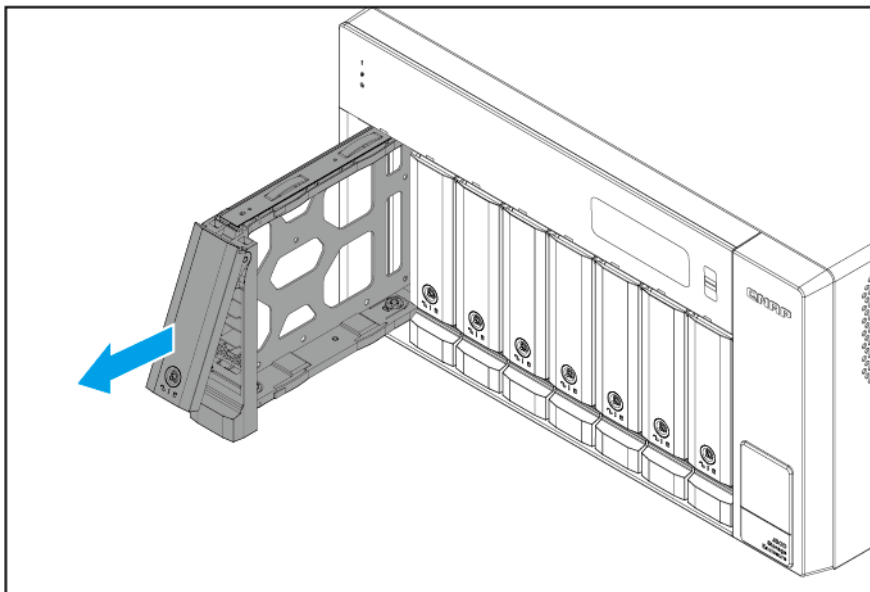
注
预装硬盘托盘未锁定。



重要
请确保将硬盘托盘钥匙存放在安全的地方。

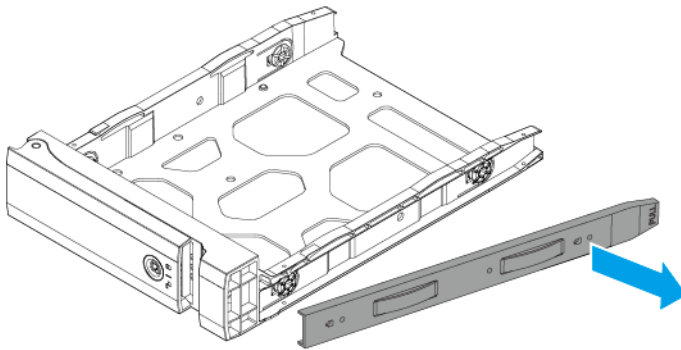
b. 拉动手柄以松开托盘。

c. 拉出托盘。

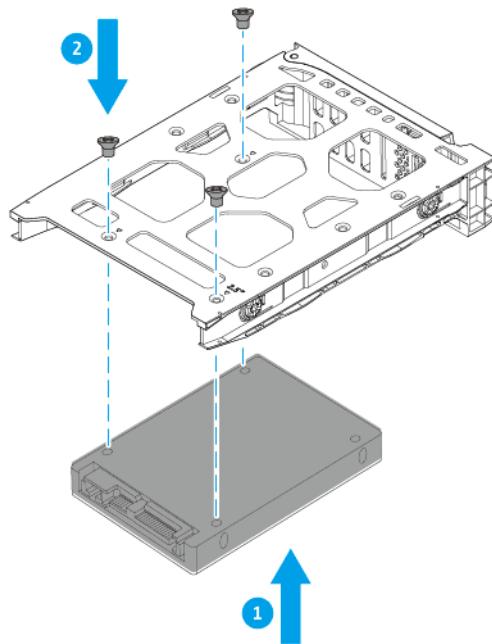


3. 将硬盘安装到托盘上。

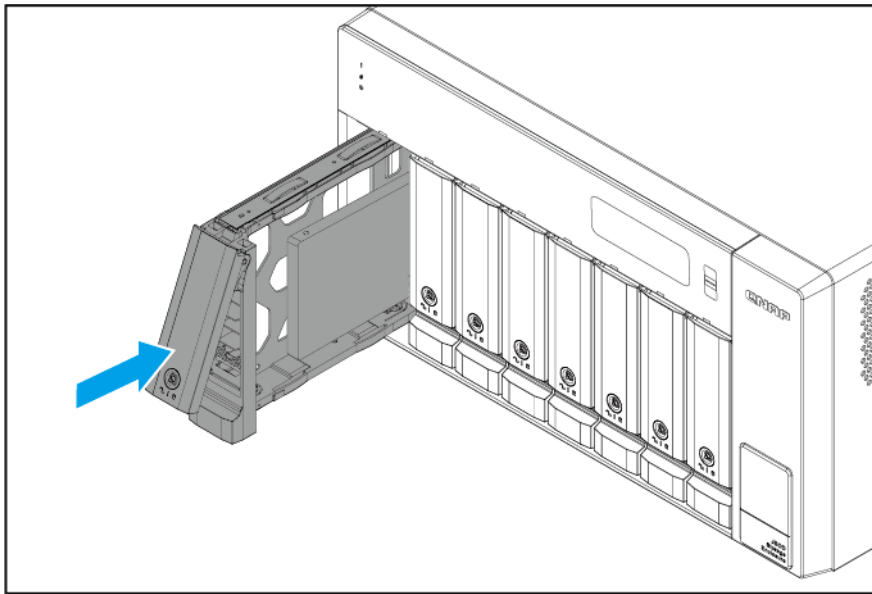
- a. 取下托盘右侧的固定面板。



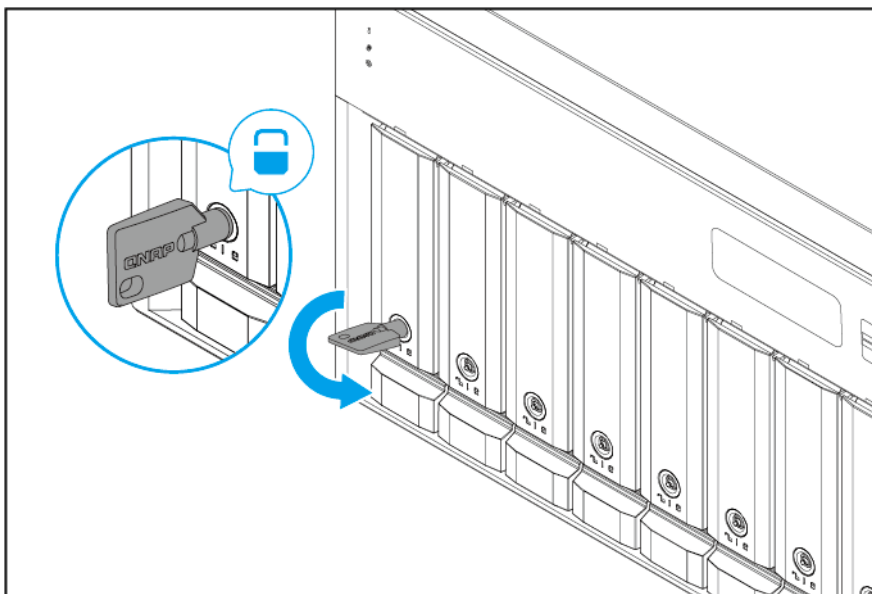
- b. 将硬盘放在托盘上，使硬盘底部的孔与托盘底部的孔对齐。
c. 安装螺丝。



4. 将托盘装入硬盘架。
a. 将托盘插入硬盘架。
b. 推动手柄。



c. 可选: 锁住托盘。



5. 启动 JBOD 设备电源。



注
JBOD 设备最长可能需要 30 秒才能检测到新硬盘。

在固态硬盘托盘上安装固态硬盘

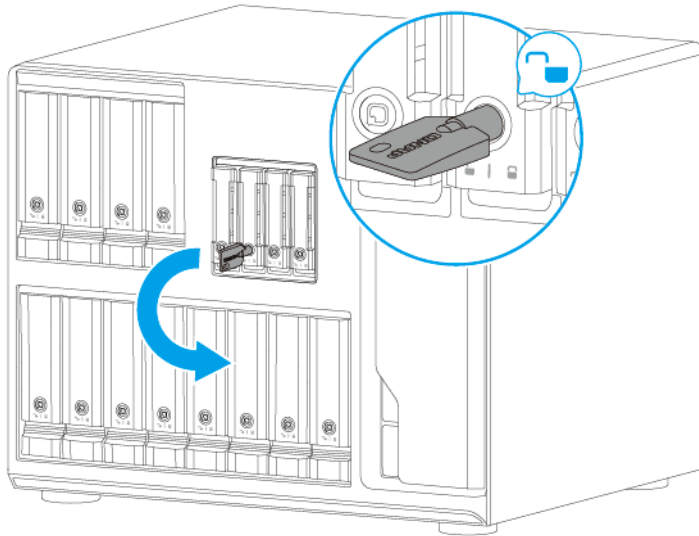


警告
请执行静电放电 (ESD) 规程，以避免组件损坏。

1. 关闭 JBOD 设备电源。

2. 取下硬盘托盘。

- a. 可选: 解除对托盘的锁定。

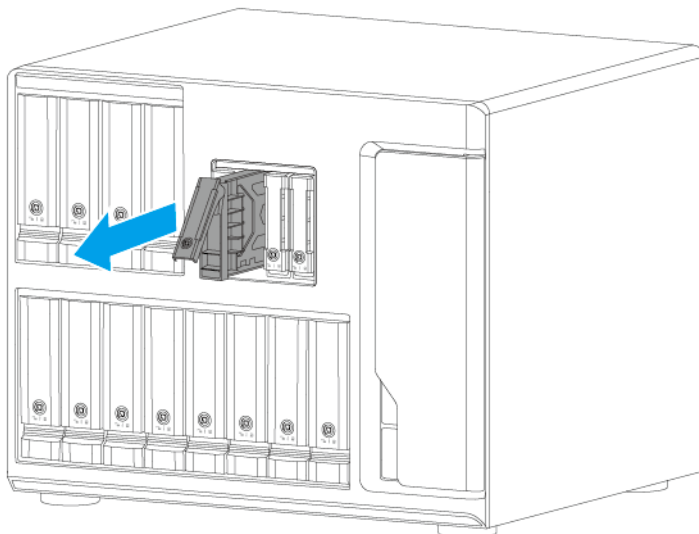


注
预装硬盘托盘未锁定。



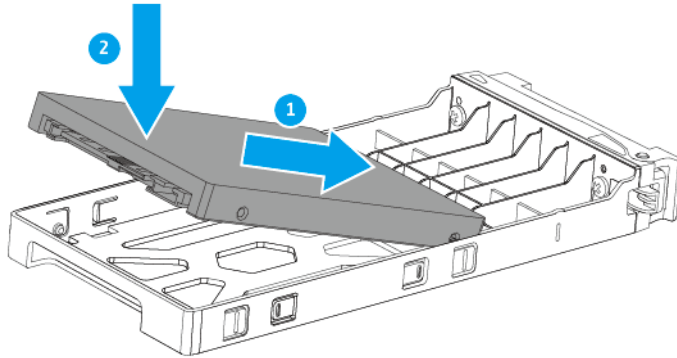
重要
请确保将硬盘托盘钥匙存放在安全的地方。

- b. 向外拉动托盘手柄。
- c. 拉出托盘。

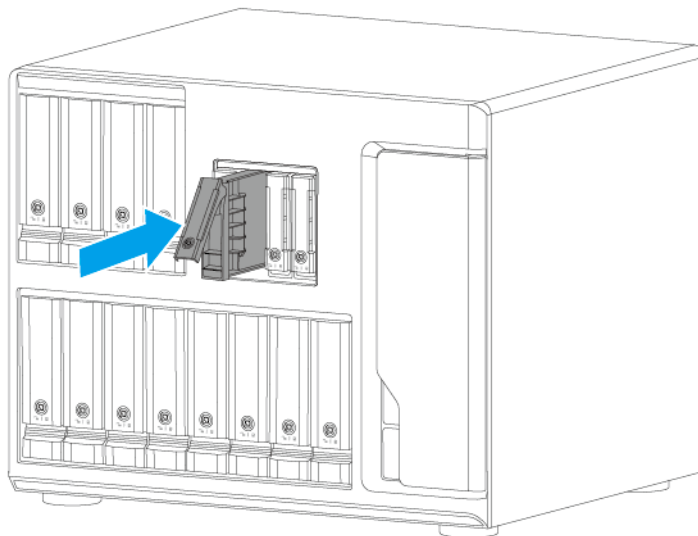


3. 将硬盘安装到托盘上。

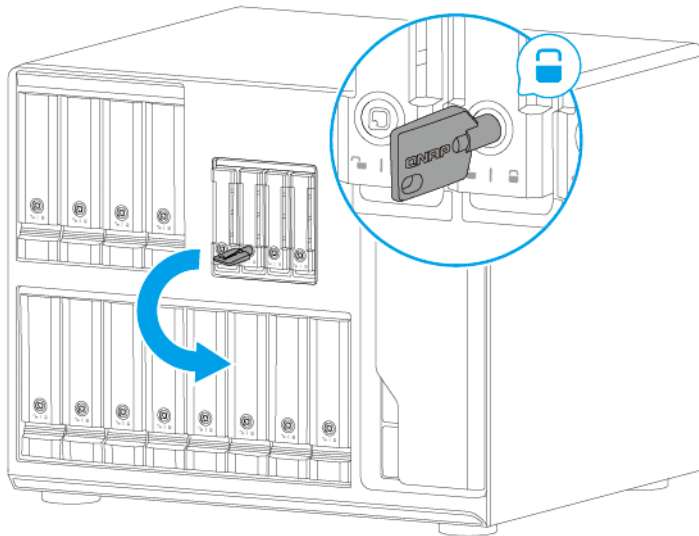
- a. 将硬盘上的 SATA 连接器与托盘末端的开口对齐。
- b. 将硬盘放在托盘上。



4. 将托盘装入硬盘架。
 - a. 将托盘插入硬盘架。
 - b. 推动手柄。



- c. 可选: 锁住托盘。



5. 启动 JBOD 设备电源。



注
JBOD 设备最长可能需要 30 秒才能检测到新硬盘。

将 JBOD 设备连接到 NAS



重要

- QTS 最多可以支持两个 JBOD 设备。
- QNAP JBOD 设备不能同时连接到多个主机。

1. 关闭 NAS 电源。
2. 关闭 JBOD 设备电源。
3. 将 JBOD 设备连接到 NAS。
 - a. 将一条或多条 SFF-8088 连接器线缆连接到 JBOD 设备上的 SFF-8088 端口。
 - b. 将一条或多条 SFF-8088 连接器线缆连接到安装在 NAS 中的主机总线适配器上的 SFF-8088 或 SFF-8644 端口。

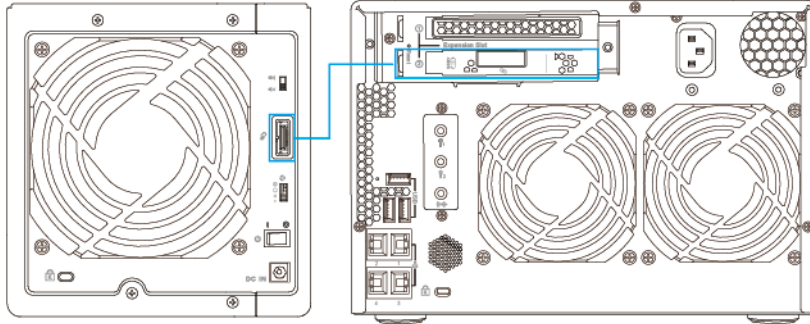


注
请参阅 NAS 用户指南的硬件安装部分，了解安装扩展卡的说明。

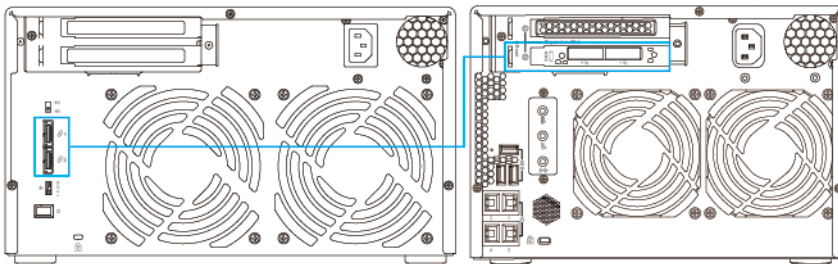


重要

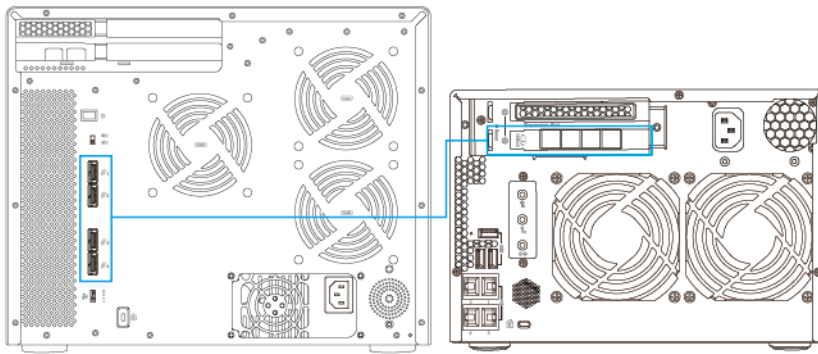
将 JBOD 设备连接到主机设备时，需要 QNAP QXP 主机总线适配器。第三方主机总线适配器可能与 QNAP JBOD 设备不兼容。



TL-D400S



TL-D800S



TL-D1600S

4. 启动 JBOD 设备电源。
5. 启动 NAS 电源。
6. 确认 NAS 能够识别该 JBOD 设备。
 - a. 以管理员身份登录 QTS。
 - b. 转到主菜单 > 存储与快照总管 > 概述 > 存储。
 - c. 确认 JBOD 设备已列出。



注
NAS 最长可能需要 30 秒才能检测到 JBOD 设备和安装的硬盘。

将 JBOD 设备连接到计算机



重要
QNAP JBOD 设备不能同时连接到多个主机。

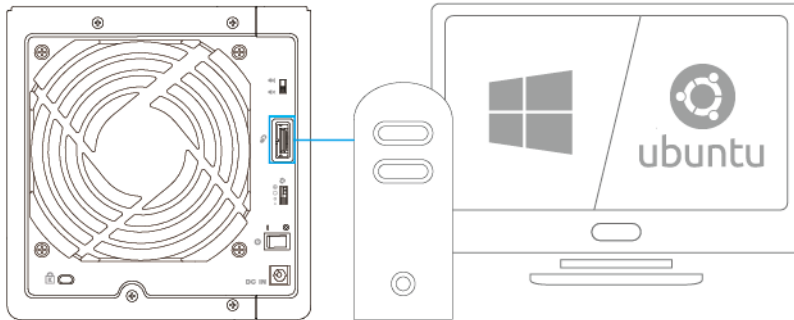
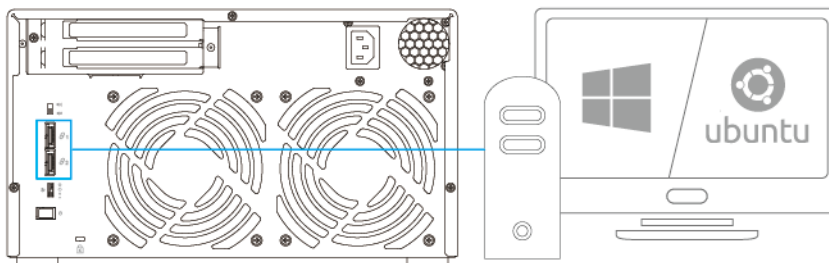
1. 关闭计算机电源。
2. 关闭 JBOD 设备电源
3. 将 JBOD 设备连接到计算机。
 - a. 将一条或多条 SFF-8088 连接器线缆连接到 JBOD 设备上的 SFF-8088 端口。
 - b. 将一条或多条 SFF-8088 连接器线缆连接到安装在计算机中的主机总线适配器上的 SFF-8088 或 SFF-8644 端口。

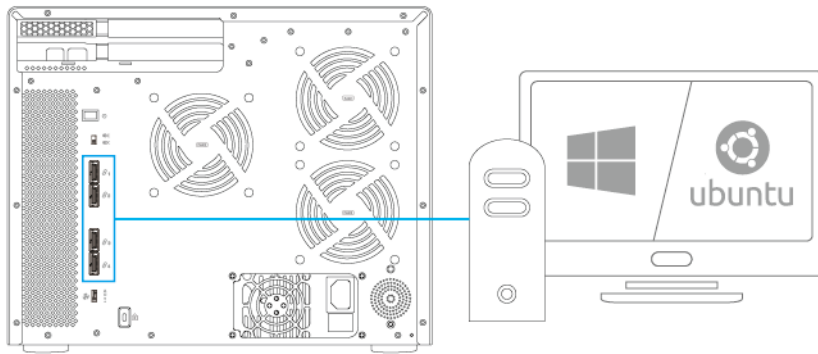


注
请参阅计算机的硬件安装说明，了解有关安装扩展卡的信息。

**重要**

将 JBOD 设备连接到主机设备时，需要 QNAP QXP 主机总线适配器。第三方主机总线适配器可能与 QNAP JBOD 设备不兼容。

**TL-D400S****TL-D800S**



TL-D1600S

4. 启动 JBOD 设备电源。
5. 启动计算机电源。
6. 确认计算机能够识别该 JBOD 设备。
 - a. 转到计算机的磁盘管理实用程序或在 Microsoft Windows 或 Linux Ubuntu 中打开 QNAP JBOD Manager。



注
要下载 QNAP JBOD Manager，请转到 <https://download.qnap.com>。

- b. 确认 JBOD 设备已列出。

4. 基本操作

本章介绍 JBOD 设备的基本操作。

LCD 面板

某些 JBOD 设备具有 LCD 面板，可用于查看状态信息。



提示

- 按 **Enter**（确认）可查看 JBOD 设备名称和固件版本。
- 按 **Select**（选择）可浏览状态消息。

| 消息类型 | 系统消息 | 描述 |
|------|------------------------|--|
| 系统状态 | 系统正在启动 | JBOD 设备正在启动。 |
| | SFF8088 端口 {1} {2} | 主机已连接到端口。 <ul style="list-style-type: none"> • {1}: 端口 ID • {2}: 主机服务器名称 |
| | SFF8088 端口 {1} 未知主机 | 主机已连接到端口，但无法识别该主机。 {1}: 端口 ID |
| | SFF8088 端口 {1} --- | 主机未连接到端口。 {1}: 端口 ID |
| | 型号名称 {1} | {1}: JBOD 设备型号名称 |
| | 风扇转速设置 为 {1} | {1}: 风扇转速设置: <ul style="list-style-type: none"> • 自动 • 高 • 中 • 低 |
| | 存储模式 {1} | {1}: 存储模式: <ul style="list-style-type: none"> • 外部存储 • NAS 存储 |

| 消息类型 | 系统消息 | 描述 |
|------|--------------------|---|
| 事件 | 端口 {1} 已连接至 {2} | 主机已连接到端口。 <ul style="list-style-type: none"> • {1}: 端口 ID • {2}: 主机服务器名称 |
| | 风扇转速设置为 {1} | 风扇转速设置已更改。 {1}: 风扇转速设置: <ul style="list-style-type: none"> • 自动 • 高 • 中 • 低 |
| 错误 | 端口 {1} 已断开连接。从 {2} | 主机已从端口断开连接。 <ul style="list-style-type: none"> • {1}: 端口 ID • {2}: 主机服务器名称 |
| | 风扇 {1} 错误 | 风扇无法正常工作。 {1}: 风扇 ID |
| | 温度警告 | JBOD 设备过热。  注 默认温度警告阈值为 65°C。 |
| | 温度临界点 | JBOD 设备严重过热。  注 温度临界阈值为 70°C。 |
| 确认 | 清除消息? | 清除事件和错误消息。  提示 <ul style="list-style-type: none"> • 按 Select (选择) 可在 Yes (是) 和 No (否) 之间切换。 • 按 Enter (确认) 进行确认。 |

LED

开启设备电源后，LED 指示灯会指示系统状态和相关信息。以下 LED 信息仅适用于硬盘已正确安装并且设备已连接到网络或主机的情况。

有关 LED 位置的详细信息，请参见[前面板](#)。

| LED | 状态 | 描述 |
|------|----|--|
| 系统状态 | 绿色 | 设备已就绪。 |
| | 红色 | <ul style="list-style-type: none"> • 系统风扇故障。 • 系统温度超过阈值。 |

| LED | 状态 | 描述 |
|------|-----------------|---|
| 链路 | 绿色 | 设备已连接至主机。 |
| | 熄灭 | 设备未连接至主机。 |
| 风扇错误 | 红色 | 系统风扇故障。 |
| 硬盘 | 绿色 | <ul style="list-style-type: none"> 设备已开机。 硬盘可供访问。 |
| | 红绿交替闪烁，间隔 0.5 秒 | 正在访问数据。 |
| | 红色 | <ul style="list-style-type: none"> 发生硬盘读/写错误。 硬盘温度超过阈值。 |

警告音



注 使用后面板上的警告音开关可以打开和关闭警告音。

| 时长 | 频率 | 描述 |
|--------------|------------|--|
| 短提示音 (0.5 秒) | 1 | <ul style="list-style-type: none"> 链路正常。 链路中断。 |
| 长提示音 (2 秒) | 3 (每 5 分钟) | <ul style="list-style-type: none"> 系统风扇故障。 系统温度超过阈值。 <div style="margin-top: 10px;"> 注 <ul style="list-style-type: none"> 默认的温度警告阈值为 65°C。您可以使用 QNAP JBOD Manager 将该阈值设置为介于 55°C 至 69°C 之间的温度。 温度临界阈值为 70°C。 </div> |

风扇转速开关

后面板有一个风扇转速开关，用于手动配置系统风扇的转速。

风扇转速设置：

- 自动
当设置为“自动”时，风扇转速会根据设备的内部温度自动改变。
- 高
- 中
- 低

5. 故障排除

本章介绍基本故障排除信息。

强制存储与快照总管或 QNAP JBOD Manager 识别 JBOD 设备

如果“存储与快照总管”或 QNAP JBOD Manager 在运行期间找不到 JBOD 设备，则硬盘或数据可能有故障。

1. 关闭 JBOD 设备电源。
2. 取下所有硬盘。
3. 启动 JBOD 设备电源。
4. 使用“存储与快照总管”或 QNAP JBOD Manager 找到 JBOD 设备。
5. 重新插入硬盘。
6. 继续操作。

热插拔故障硬盘

在以下情况下，JBOD 设备支持热插拔硬盘：

- RAID 1: 一个成员硬盘有故障
- RAID 5: 一个成员硬盘有故障
- RAID 10:
 - 一个成员硬盘有故障
 - 两个成员硬盘有故障（一个在硬盘架 1 或 2 上，另一个在硬盘架 3 或 4 上）

1. 登录 QTS。
2. 转到主菜单 > 存储与快照总管 > 存储 > 外部存储。
3. 找到发生故障的硬盘。
4. 准备一个与故障硬盘具有相同或更大容量的新硬盘。
5. 从 JBOD 设备中取下故障硬盘。
6. 等待 30 秒或 JBOD 设备发出提示音。
7. 从硬盘托盘中取下故障硬盘。
8. 将新硬盘插入硬盘托盘中。
9. 安装新硬盘。
JBOD 设备发出提示音。
10. 等待 30 秒或 JBOD 设备发出提示音。
11. 转到主菜单 > 存储与快照总管 > 存储 > 存储/快照
12. 找到包含新硬盘的卷，然后确认状态为正在重建。

支持和其他资源

QNAP 提供了以下资源：

| 资源 | URL |
|------|---|
| 文档 | https://docs.qnap.com |
| 服务门户 | https://service.qnap.com |
| 下载 | https://download.qnap.com |
| 社区论坛 | https://forum.qnap.com |

6. 术语表

QTS

QNAP NAS 操作系统

QNAP JBOD Manager

适用于 Windows、Linux 和 macOS 的软件实用程序，可用于查看和配置 QNAP JBOD 设备

存储与快照总管

可用于查看和配置连接到 QNAP NAS 的 QNAP JBOD 设备的 QTS 实用工具

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Version 3, 29 June 2007

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2. Source Code.

The “source code” for a work means the preferred form of the work for making modifications to it.

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A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

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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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END OF TERMS AND CONDITIONS

FCC 声明

FCC B 类声明



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SJ/T 11364-2006



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