



QNAP

JBOD 设备

TL-R400S
TL-R1200S-RP

用户指南

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1. 前言





关于本指南

本指南提供有关 QNAP TL-R400S 和 TL-R1200S-RP 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-R400S 和 TL-R1200S-RP JBOD 设备的基本信息。

关于 QNAP JBOD 设备

QNAP JBOD 设备旨在提高 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-R400S 和 TL-R1200S-RP 采用 SFF-8088 SATA 6 Gb/s 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](#)。

组件	TL-R400S	TL-R1200S-RP
订购信息		
订购部件号	TL-R400S	TL-R1200S-RP
存储		
硬盘架	4 x 3.5 英寸 SATA 6 Gbps	12 x 3.5 英寸 SATA 6 Gbps
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 	
热插拔	支持	
外部 I/O 端口和扩展插槽		
SFF 端口	1 x SFF-8088 (硬盘架 1-4)	3 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 • 端口 3: 硬盘架 9-12
	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		

组件	TL-R400S	TL-R1200S-RP
开关	<ul style="list-style-type: none"> 电源 <p> 重要 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	1U 机架式	2U 机架式
尺寸（高 x 宽 x 深）	4.39 x 43.89 x 29.11 mm （1.73 x 17.28 x 11.46 英寸）	89 x 482 x 534 mm （3.50 x 18.98 x 21.02 英寸）
净重	3.66 kg（8.06 磅）	6.17 kg（13.6 磅）
其他		
导轨兼容性	RAIL-B02 <p> 注 导轨套件未随 NAS 提供，必须单独购买。有关详细信息，请联系授权经销商或转到 http://shop.qnap.com。</p>	
电源单元	100W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz
	<p> 警告 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	22.1 dB(A)	33.7 dB(A)
	<p> 注 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：2 x 4 cm, 12V DC 智能风扇	系统：2 x 7 cm, 12V DC 智能风扇
	<p> 警告 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）	
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	

**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>。

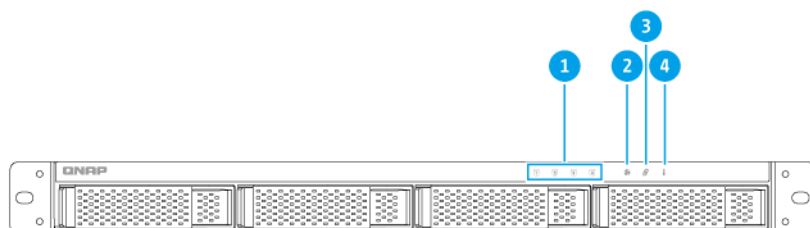
包装内容

项目	数量
JBOD 设备	1
交流电源适配器	TL-R400S: 1
电源线	1

项目	数量
SFF-8088 连接器线缆	TL-R400S: 1
SFF-8088 至 SFF-8644 线缆	TL-R1200S-RP: 3
QXP-x00eS 主机总线适配器	<ul style="list-style-type: none"> TL-R400S: QXP-400eS-A1164 TL-R1200S-RP: QXP-1600eS
适用于 2.5 英寸硬盘的螺丝	<ul style="list-style-type: none"> TL-R400S: 12 TL-R1200S-RP: 36
适用于 3.5 英寸硬盘的螺丝	<ul style="list-style-type: none"> TL-R400S: 16 TL-R1200S-RP: 48
快速安装指南 (QIG)	1

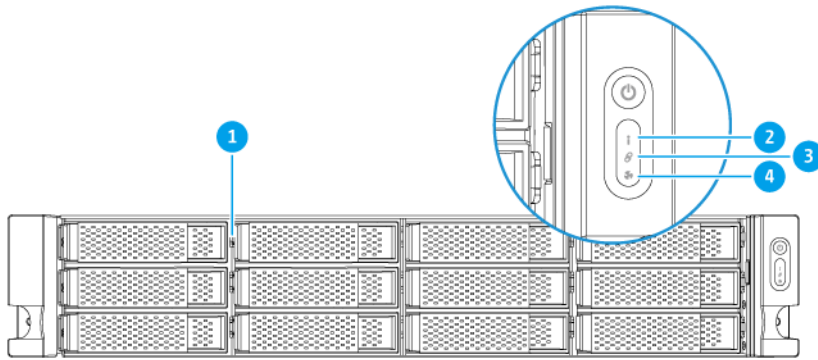
组件

前面板



TL-R400S

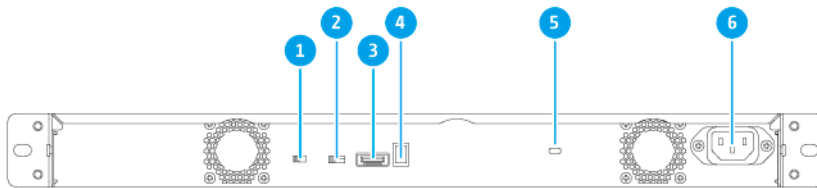
编号	组件	编号	组件
1	硬盘 LED	3	链路 LED
2	风扇错误 LED	4	状态 LED



TL-R1200S-RP

编号	组件	编号	组件
1	硬盘 LED	3	链路 LED
2	状态 LED	4	风扇错误 LED

后面板

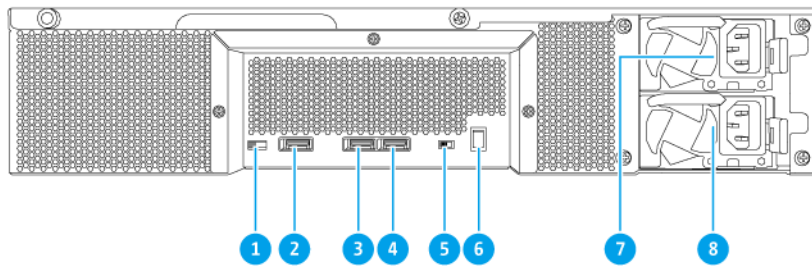


TL-R400S

编号	组件	编号	组件
1	警告音开关	4	电源开关
2	风扇转速开关	5	Kensington 安全锁孔

编号	组件	编号	组件
3	SFF-8088 端口 (硬盘架 1-4)	6	电源输入

TL-R1200S-RP

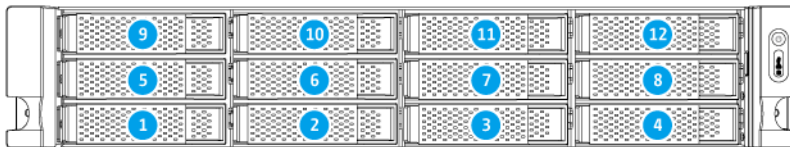


编号	组件	编号	组件
1	风扇转速开关	5	警告音开关
2	SFF-8088 端口 (硬盘架 1-4)	6	电源开关
3	SFF-8088 端口 (硬盘架 5-8)	7	电源单元 1
4	SFF-8088 端口 (硬盘架 9-12)	8	电源单元 2

硬盘编号



TL-R400S



TL-R1200S-RP

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

- NAS 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 NAS，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 • 限制进入 <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设备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。

类别	项目
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 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 SF-8088 连接器线缆 • 主机总线适配器 <p> 重要 将 JBOD 设备连接到主机设备时，需要 QNAP QXP-400eS-A1164 和 QXP-1600eS 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. 将 JBOD 设备安装在机架上。
有关详细信息，请参见以下主题：
 - [安装手柄](#)
 - [导轨套件](#)
3. 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 3.5 英寸托盘上安装固态硬盘](#)
4. 连接电源线。
5. 将 JBOD 设备连接到您的 NAS 或服务器。
有关详细信息，请参见以下主题：
 - [将 JBOD 设备连接到 NAS](#)
 - [将 JBOD 设备连接到服务器](#)
6. 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。

-



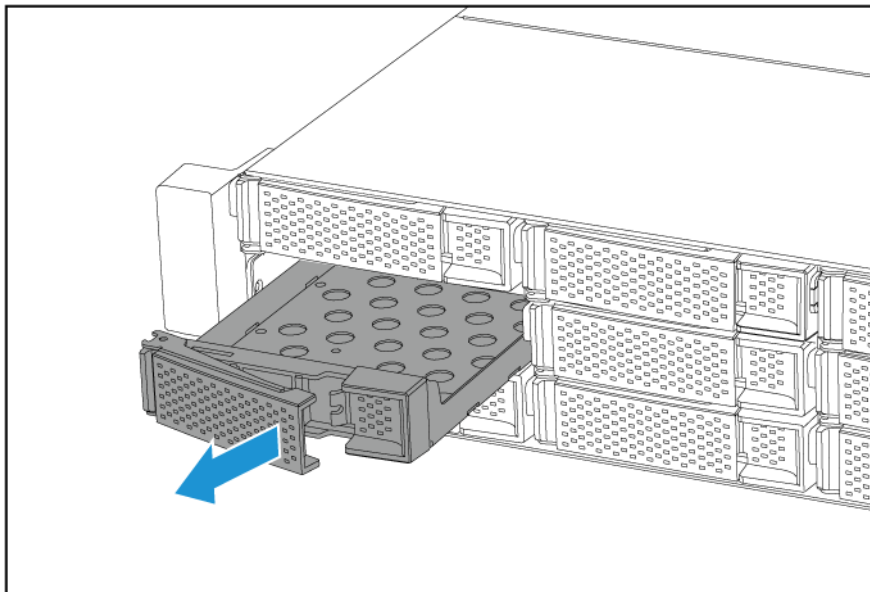
转动的风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。

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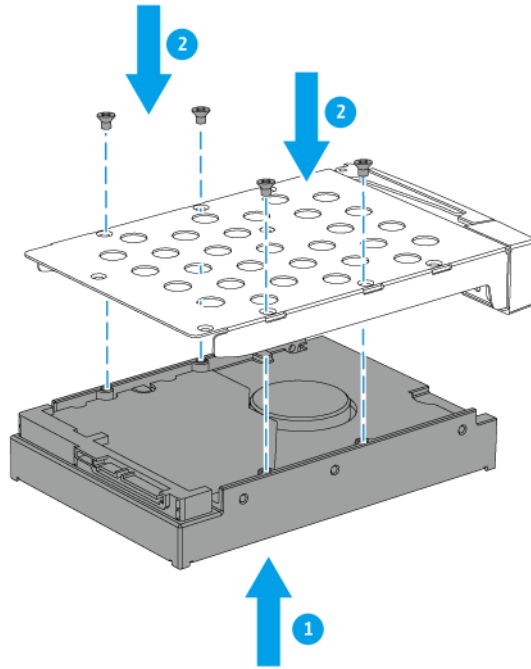
其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

1. 关闭 JBOD 设备电源。
2. 取下硬盘托盘。
 - a. 拉动手柄以松开托盘。
 - b. 拉出托盘。

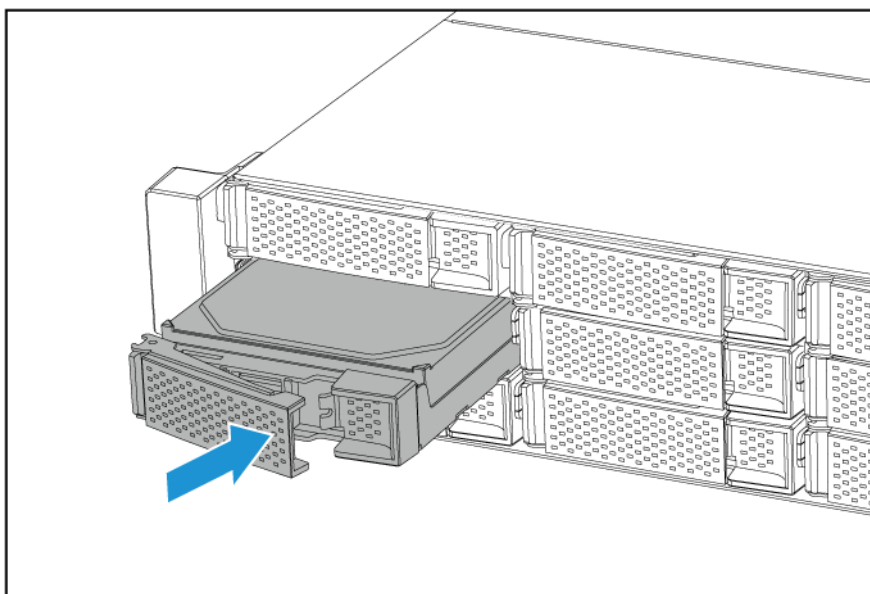


3. 将硬盘安装到托盘上。

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



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。

-



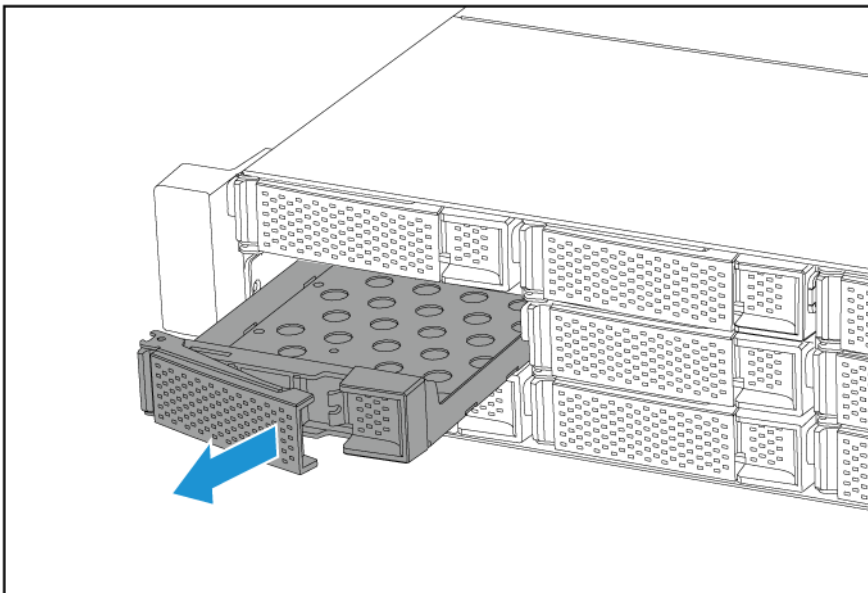
转动的风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。

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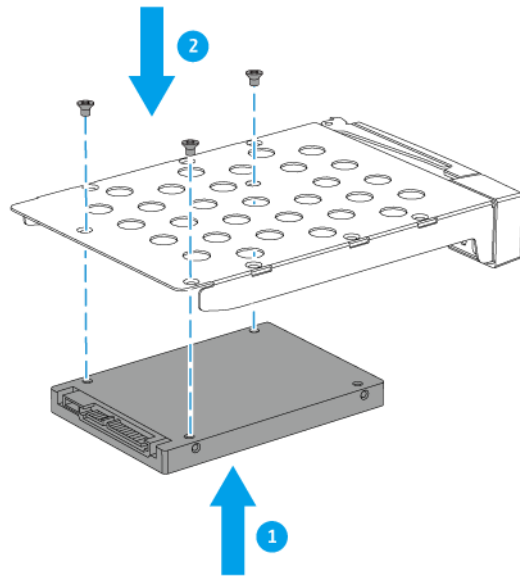


其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

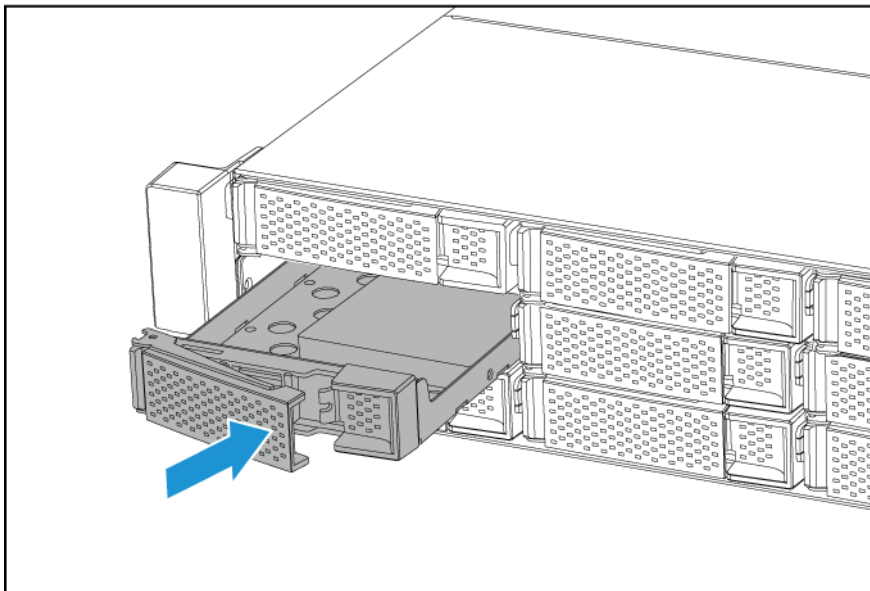
1. 关闭 JBOD 设备电源。
2. 取下硬盘托盘。
 - a. 拉动手柄以松开托盘。
 - b. 拉出托盘。



3. 将硬盘安装到托盘上。
 - a. 将硬盘放在托盘上，使硬盘底部的孔与托盘底部的孔对齐。
 - b. 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。



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 英寸托盘上安装固态硬盘



警告

- 请执行静电放电 (ESD) 规程，以避免组件损坏。

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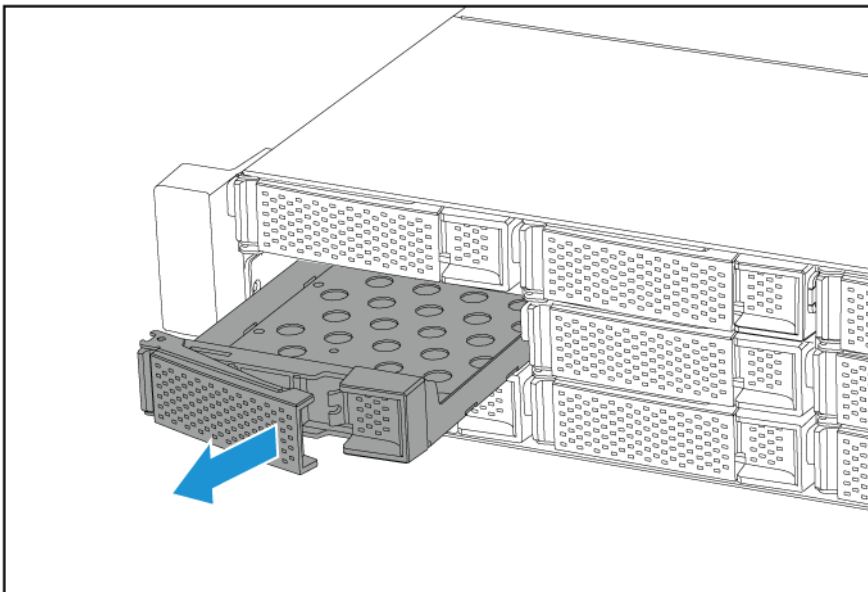
转动的风扇叶片：使您的双手和身体其他部位远离正在转动的风扇叶片。

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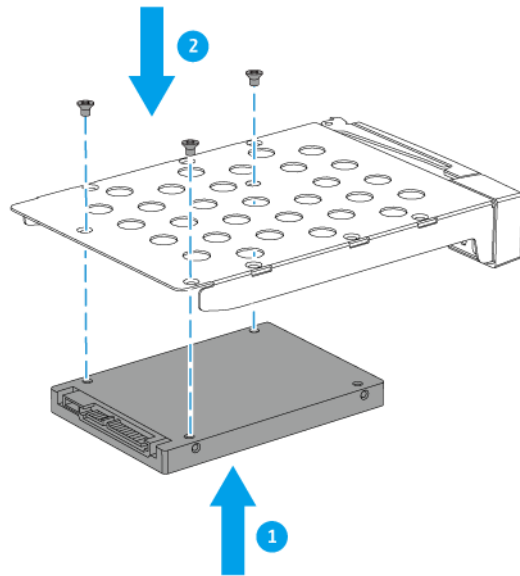


其他运动的组件：使您的双手和身体其他部位远离正在运动的其他组件。

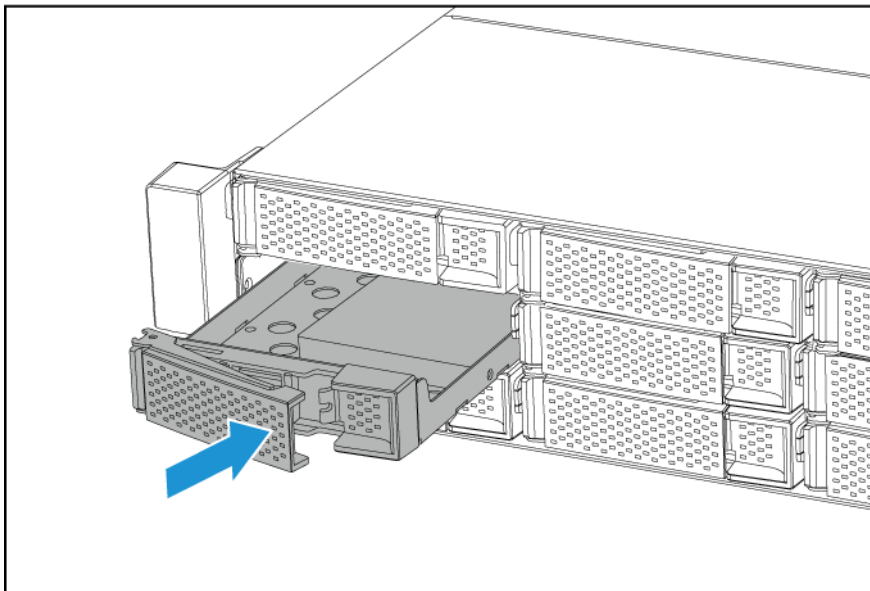
1. 关闭 JBOD 设备电源。
2. 取下硬盘托盘。
 - a. 拉动手柄以松开托盘。
 - b. 拉出托盘。



3. 将硬盘安装到托盘上。
 - a. 将硬盘放在托盘上，使硬盘底部的孔与托盘底部的孔对齐。
 - b. 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。



5. 启动 JBOD 设备电源。

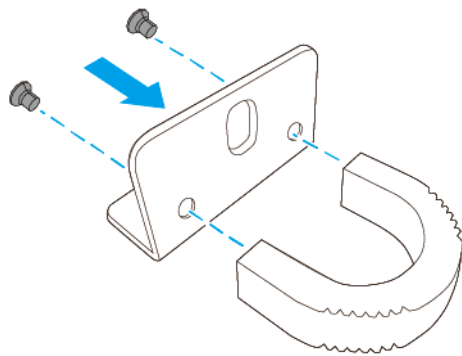


注
JBOD 设备最长可能需要 30 秒才能检测到新硬盘。

安装手柄

安装手柄可以便于拿取和固定 TL-R400S JBOD 设备。

1. 关闭 JBOD 设备电源。
2. 将手柄安装到角码上。
 - a. 将手柄上的开孔对准角码上的两个圆螺丝孔。
 - b. 装上螺丝，将手柄固定在角码上。

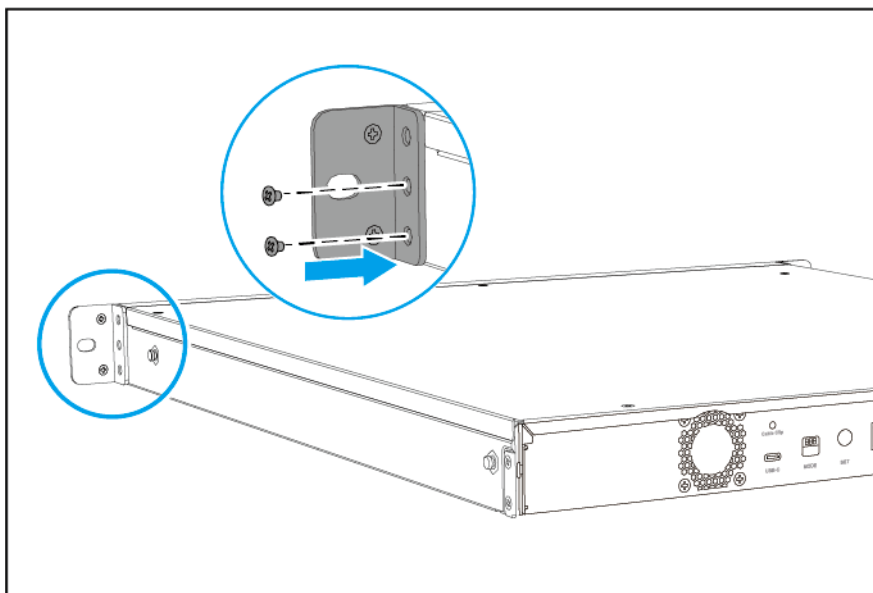


3. 将角码安装到 JBOD 设备上。
 - a. 将角码上的孔对准机箱上的孔。



注
确保手柄与前面板朝向一致。

- b. 安装螺丝。



4. 将第二个手柄安装到机箱的另一侧。
5. 启动 JBOD 设备电源。

将 JBOD 设备连接到 NAS



重要

QTS 最多可以支持两个 JBOD 设备。
NAS 必须运行 QTS hero 或 QTS 4.4.2（或更高版本）。

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。



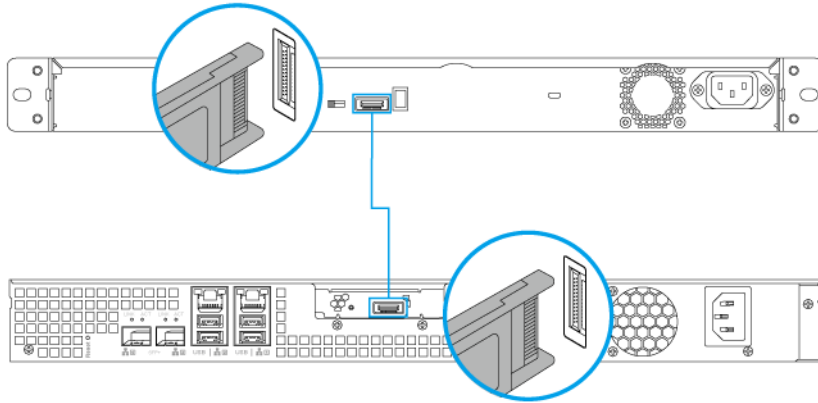
注

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。
建议的 SFF 线缆最大长度为 1 米。使用超出此长度的线缆会影响信号或使性能下降。

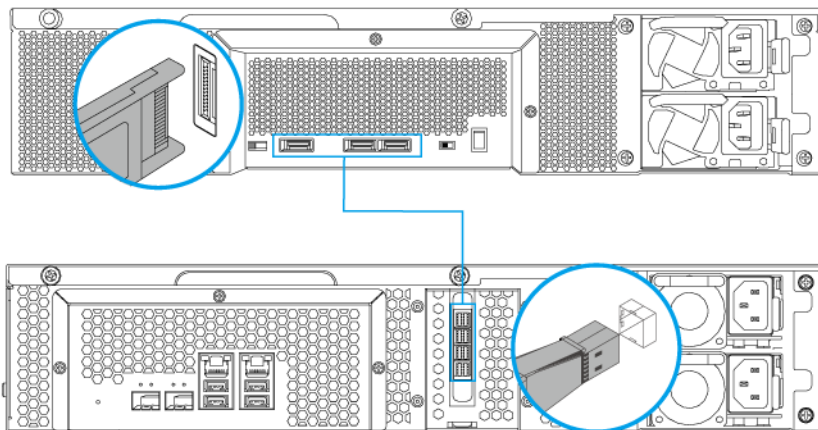


重要

将 JBOD 设备连接到主机设备时，需要 QNAP QXP-400eS-A1164 和 QXP-1600eS 主机总线适配器。第三方主机总线适配器与 QNAP JBOD 设备不兼容。



TL-R400S



TL-R1200S-RP

4. 启动 JBOD 设备电源。
5. 启动 NAS 电源。
6. 确认 NAS 能够识别 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 > 总览 > 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 设备连接到服务器

**注**

Windows 或 Linux 服务器不限制可以支持的 JBOD 设备数量。

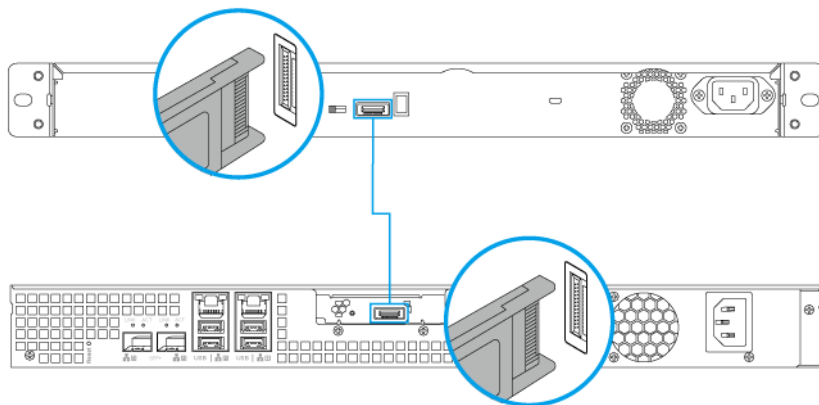
1. 关闭服务器电源。
2. 关闭 JBOD 设备电源。
3. 将 JBOD 设备连接到服务器。
 - a. 将一条或多条 SFF-8088 连接器线缆连接到 JBOD 设备上的 SFF-8088 端口。
 - b. 将一条或多条 SFF-8088 连接器线缆连接到安装在 NAS 中的主机总线适配器上的 SFF-8088 或 SFF-8644 端口。

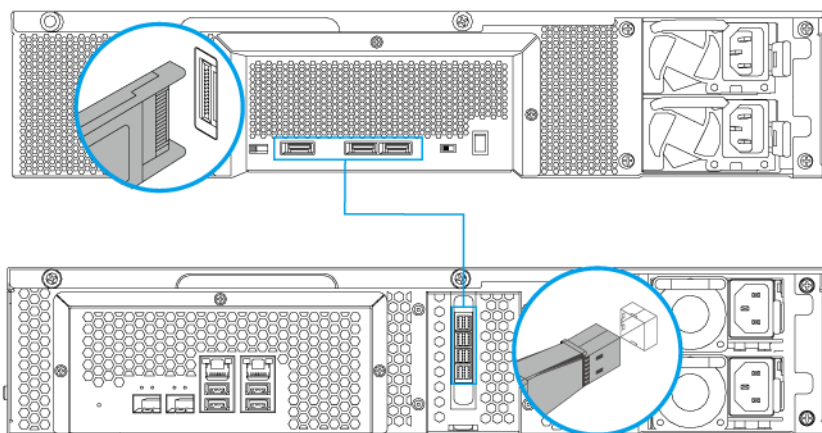
**注**

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。
 建议的 SFF 线缆最大长度为 1 米。使用超出此长度的线缆会影响信号或使性能下降。

**重要**

将 JBOD 设备连接到主机设备时，需要 QNAP QXP-400eS-A1164 和 QXP-1600eS 主机总线适配器。第三方主机总线适配器与 QNAP JBOD 设备不兼容。

**TL-R400S**



TL-R1200S-RP

- c. 可选: 将其他 JBOD 设备连接到服务器。
4. 启动 JBOD 设备电源。
5. 启动服务器电源。
6. 确认服务器能够识别该 JBOD 设备。
 - a. 转到服务器的磁盘管理实用程序或在 Windows 或 Linux 中打开 QNAP External RAID Manager。



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

- b. 确认 JBOD 设备已列出。

热插拔冗余电源单元



警告

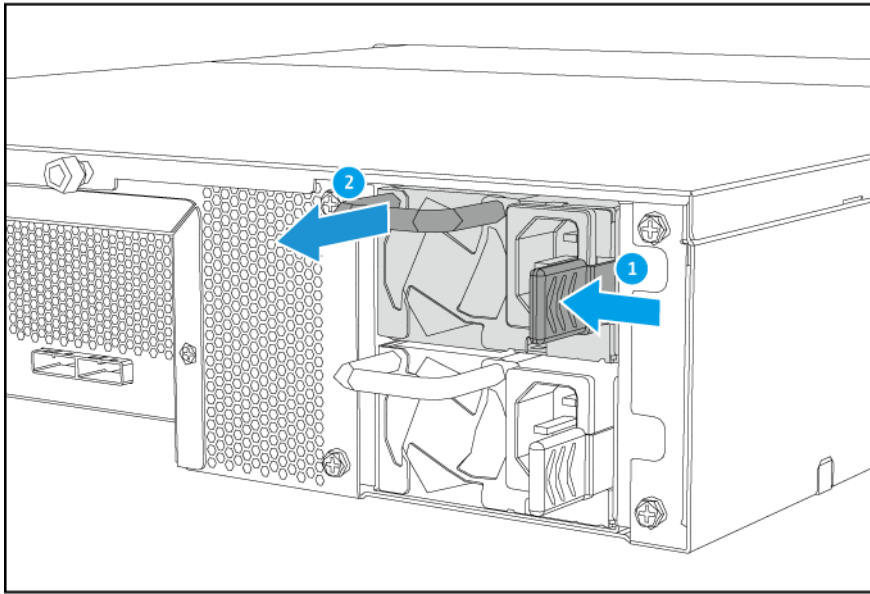


NAS 可能有一条或多条冗余电源单元 (PSU) 线。为避免受到严重伤害, 安装或更换系统组件前, 必须由经培训的维修技师拔下所有 PSU 线。

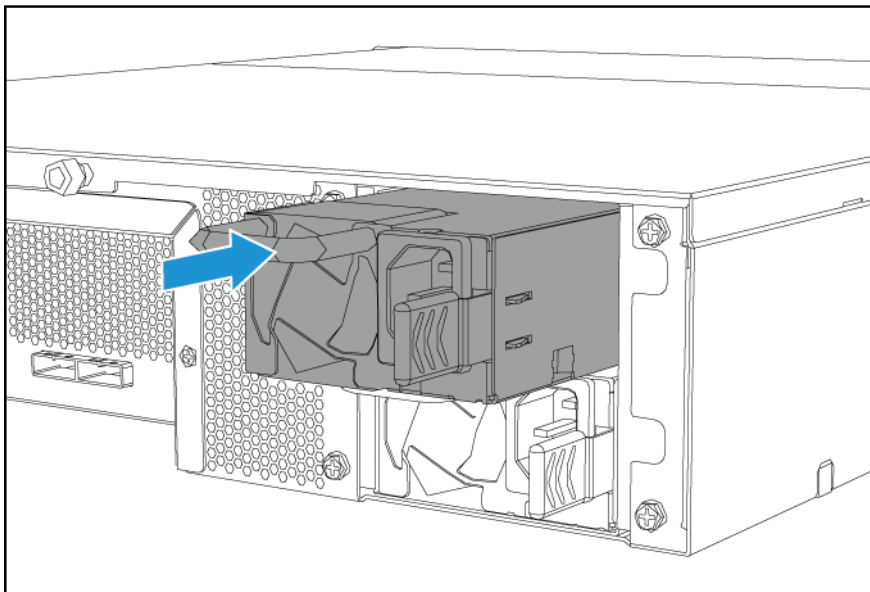


注
此任务适用于 TL-R1200S-RP JBOD 设备。

1. 关闭 NAS 电源。
2. 从插座和要更换的 PSU 上拔下电源线。
3. 向手柄方向紧按闩锁并拉出 PSU。



4. 插入新 PSU。



5. 将电源线连接到 PSU 和插座。
6. 启动 NAS 电源。
7. 启用 PSU 故障警报。
 - a. 以管理员身份登录 QTS。
 - b. 转到控制台 > 系统 > 硬件 > 一般设置。
 - c. 选择启用冗余电源模式。
 - d. 单击全部应用。

导轨套件

TL-R400S 和 TL-R1200S-RP 兼容以下型号：

- RAIL-B02

导轨套件未随 JBOD 设备提供，必须单独购买。有关详细信息，请联系授权经销商或转到 <http://shop.qnap.com>。

安装信息位于导轨套件包中。

4. 基本操作

本章介绍 JBOD 设备的基本操作。

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	JBOD 设备准备就绪。
	红色	<ul style="list-style-type: none"> 系统风扇故障。 系统温度超过 65°C。
链路	绿色	JBOD 设备已连接至主机设备。
	熄灭	JBOD 设备未连接至主机设备。
风扇	红色	系统风扇故障。
硬盘	绿色	<ul style="list-style-type: none"> JBOD 设备已开机。 硬盘可供访问。
	红色	发生硬盘读/写错误。



注
只有在连接至 NAS 或运行 QTS、QTS hero 或 QNAP JBOD Manager 的计算机时，硬盘 LED 才能工作。

警告音



注
使用 JBOD 设备后面板上的警告音开关可以打开和关闭警告音。
有关详细信息，请参见[后面板](#)。

时长	频率	描述
短提示音 (0.5 秒)	1	<ul style="list-style-type: none"> 与 JBOD 设备的链路已接通。 与 JBOD 设备的链路已中断。
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。 <p>注</p> <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。

风扇转速开关

JBOD 设备的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 JBOD 设备的内部温度自动改变。
- 高
- 中
- 低

有关详细信息，请参见[后面板](#)。

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
- RAID 50: 每个磁盘子组一个成员硬盘有故障
- RAID 60: 每个磁盘子组两个成员硬盘有故障

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 设备发出两次提示音。
7. 从硬盘托盘中取下故障硬盘。
8. 将硬盘插入硬盘托盘中。
9. 安装新硬盘。
JBOD 设备发出两次提示音。
10. 等待 30 秒或 JBOD 设备发出两次提示音。

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.

“Object code” means any non-source form of a work.

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.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

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6. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

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7. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c. Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d. Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

- e. Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

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