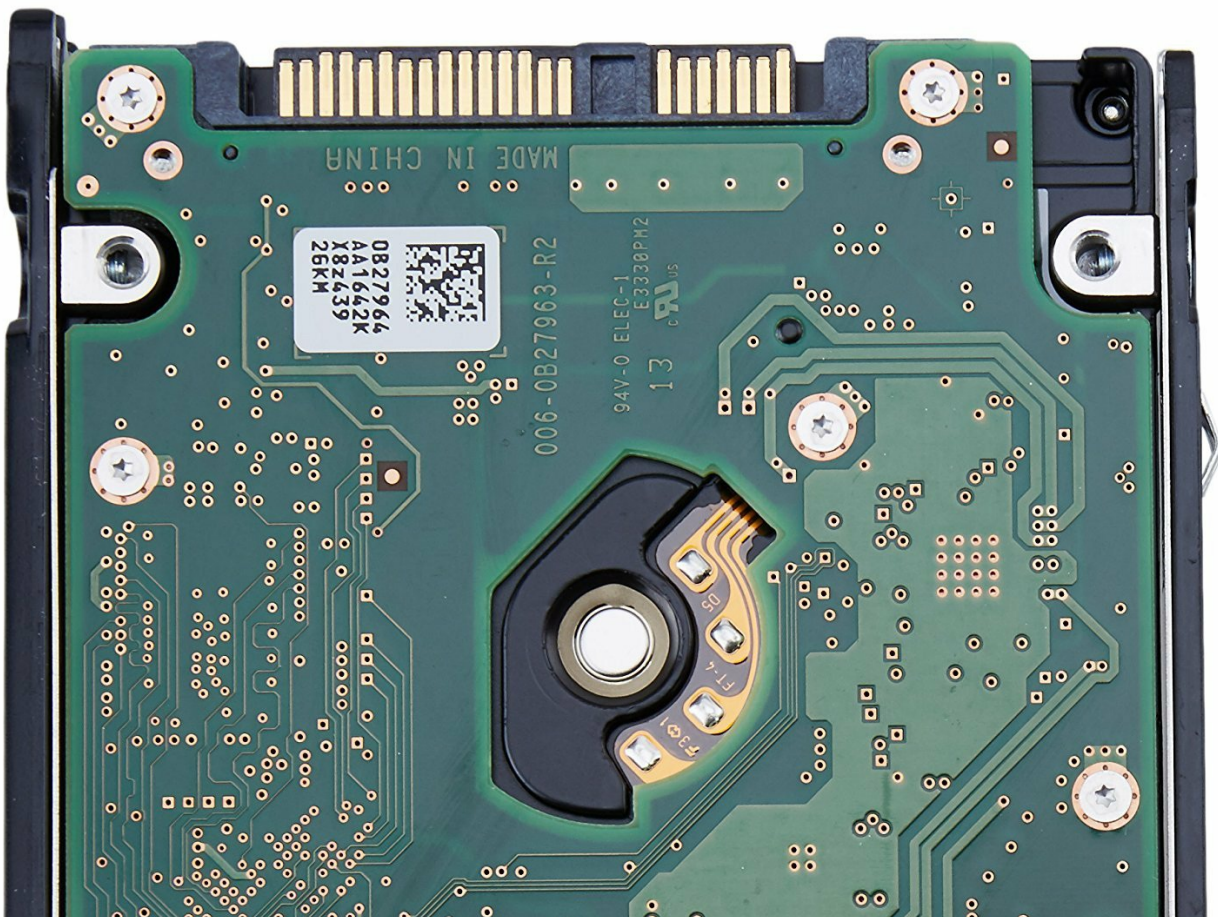


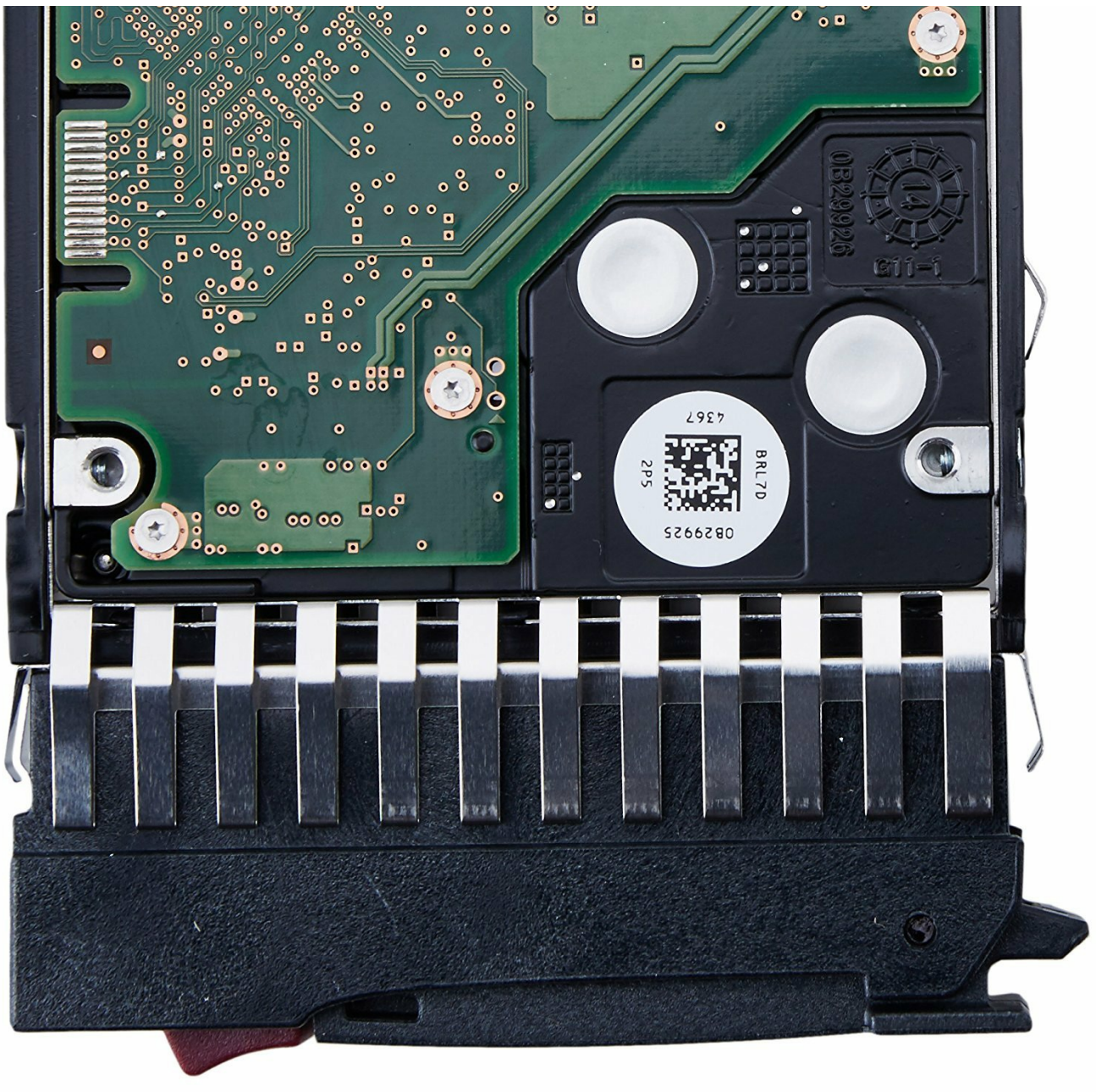
HP 507127-B21

HP 507284-001 300GB 10K DP 6G SAS Drive Instruction Manual

1. INTRODUCTION

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of your HP 507284-001 300GB 10K DP 6G SAS Drive. This Serial Attached SCSI (SAS) drive is designed for enterprise storage environments, offering high performance and reliability for server applications.





This image displays the HP 300GB 10K SAS hard drive. The top view shows the green circuit board with various components and the silver data transfer pins. The drive is housed in a black caddy, with a red release tab visible at the front. A label on the caddy indicates '6G DP 10K SAS 300 GB SPARE: 507284-001'.

2. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your SAS drive. Always handle the drive with care to prevent damage.

2.1 Safety Precautions

- Ensure the server or storage system is powered off and disconnected from the power source before installation.
- Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to the drive and other components.
- Avoid touching the circuit board or connector pins directly.

2.2 Physical Installation

1. Identify an available drive bay in your server or storage enclosure.

2. If the drive is not already mounted in a hot-swap caddy, secure it into an appropriate 2.5-inch SAS drive caddy using the provided screws.
3. Carefully slide the drive caddy into the empty drive bay until it clicks securely into place. Ensure the drive is fully seated in the backplane connector.
4. Close any drive bay latches or locks to secure the drive.

2.3 Initial Configuration

- After physical installation, power on the server.
- Access the server's BIOS or RAID controller configuration utility during startup.
- Verify that the newly installed SAS drive is detected by the system.
- Configure the drive as part of a RAID array or as a standalone drive, as required by your system architecture. Refer to your server or RAID controller documentation for detailed configuration steps.
- Install or configure your operating system to recognize and format the new storage volume.

3. OPERATING THE SAS DRIVE

Once installed and configured, the HP SAS drive operates as an integral part of your server's storage subsystem. It functions under the control of the operating system and RAID controller.

- **Data Access:** The drive provides high-speed data access for read and write operations, supporting demanding enterprise applications.
- **Performance:** With a 10,000 RPM spindle speed and 6Gbps SAS interface, the drive delivers fast data transfer rates.
- **Hot-Swap Capability:** If installed in a hot-swap bay, the drive can typically be replaced without powering down the server, provided the RAID configuration supports it. Always follow your server's hot-swap procedures.

4. MAINTENANCE

Regular maintenance helps ensure the reliability and longevity of your SAS drive and the data stored on it.

- **Data Backup:** Implement a robust data backup strategy. Regularly back up critical data to prevent loss in case of drive failure or other unforeseen events.
- **Monitor Drive Health:** Utilize server management software or RAID controller utilities to monitor the drive's health status (e.g., SMART data). Pay attention to any warnings or error messages.
- **Environmental Control:** Ensure the server environment maintains proper temperature and humidity levels. Excessive heat can degrade drive performance and lifespan.
- **Firmware Updates:** Periodically check the HP support website for firmware updates for your drive model. Firmware updates can improve performance, stability, and compatibility.

5. TROUBLESHOOTING

If you encounter issues with your HP SAS drive, consider the following troubleshooting steps:

- **Drive Not Detected:**
 - Verify that the drive is correctly seated in its bay and that all connections are secure.
 - Check the server's BIOS or RAID controller settings to ensure the drive is enabled and recognized.
 - Ensure the drive bay is receiving power.
- **Performance Issues:**

- Check server resource utilization (CPU, RAM) to rule out bottlenecks.
 - Verify that the RAID array is healthy and not in a degraded state.
 - Ensure the drive firmware is up to date.
- **Error Lights/Indicators:**
 - Consult your server or storage enclosure documentation for the meaning of specific LED indicators on the drive caddy or bay.
 - A flashing amber light often indicates a drive fault or impending failure.
- **Data Corruption/Loss:**
 - Immediately stop using the drive/system to prevent further data loss.
 - Restore data from your most recent backup.
 - If data recovery is critical and backups are unavailable, consult a professional data recovery service.

6. SPECIFICATIONS

Feature	Specification
Product Type	Hard Drive
Storage Capacity	300 GB
Drive Interface	SAS (Serial Attached SCSI)
Data Transfer Rate	6 Gbps (600 Megabytes Per Second)
Spindle Speed	10,000 RPM
Form Factor	2.5 Inches
Compatible Devices	Server
Installation Type	Internal Hard Drive
Model Number	507127-B21
Part Numbers	507284-001, 616671-001, 619286-001
Manufacturer	HP

7. WARRANTY AND SUPPORT

7.1 Warranty Information

This HP SAS drive typically comes with a **90-day limited warranty**. Please refer to your purchase documentation or contact your vendor for specific warranty terms and conditions, as these may vary.

7.2 Technical Support

For technical assistance, troubleshooting beyond the scope of this manual, or warranty claims, please contact your product vendor or HP customer support. Have your product model number (507127-B21) and any relevant part numbers (e.g., 507284-001) ready when contacting support.

