Western Digital WD23PURZ

Western Digital WD Purple WD23PURZ 2TB Surveillance Internal Hard Drive User Manual

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Western Digital WD Purple WD23PURZ 2TB Surveillance Internal Hard Drive. This drive is specifically engineered for 24/7 video surveillance recording environments, offering reliability and performance for Network Video Recorders (NVRs) and Digital Video Recorders (DVRs).

2. PRODUCT OVERVIEW

The WD Purple drive is designed to handle the demanding workloads of continuous surveillance recording. Its robust design helps withstand the elevated heat fluctuations and equipment vibrations common in NVR systems.

This image displays the top label of the Western Digital WD Purple 2TB Surveillance Hard Drive, model WD23PURZ. Key information such as capacity, model number, SATA interface, and features like 'Designed for 24x7 systems' and 'AllFrame 4K' are visible. It also includes manufacturing details and various compliance certifications.

A front view of the Western Digital WD Purple 3.5 inch Surveillance HDD, featuring its distinctive purple label and branding. This image represents the physical appearance of the drive.

3. FEATURES

- **Optimized for Surveillance:** Engineered for 24/7, always-on, high-definition surveillance systems.
- **AllFrame Technology:** Helps reduce frame loss, improve overall video playback, and supports ATA streaming.
- **High Workload Rating:** Designed to handle the demands of modern surveillance systems.
- **Broad Compatibility:** Tested for compatibility across a wide range of security systems.
- **Capacity:** 2TB storage capacity for extended recording periods.
- **Interface:** SATA 6 Gb/s for fast data transfer.
- **Cache:** 64 MB buffer for improved performance.
- **Form Factor:** Standard 3.5-inch internal hard drive.

4. INSTALLATION

4.1. Physical Installation

1. **Prepare Your System:** Power down your NVR/DVR or computer and disconnect all power cables.
2. **Open the Enclosure:** Carefully open the casing of your NVR/DVR or computer to access the drive bays.

3. **Mount the Drive:** Secure the WD Purple drive into an available 3.5-inch drive bay using appropriate screws. Ensure it is firmly seated to prevent vibration.

4.2. Connection

1. **Connect SATA Data Cable:** Attach one end of a SATA data cable to the drive's SATA data port and the other end to an available SATA port on your system's motherboard or NVR/DVR controller.
2. **Connect SATA Power Cable:** Connect a SATA power cable from your system's power supply to the drive's SATA power port.
3. **Close Enclosure:** Once connections are secure, close the system enclosure and reconnect power cables.

5. OPERATION

5.1. Initializing the Drive

After physical installation, the drive may need to be initialized and formatted by your operating system or NVR/DVR software before use.

- **For Windows:** Go to Disk Management, find the new drive, initialize it (MBR or GPT), and create a new simple volume.
- **For NVR/DVR Systems:** Refer to your NVR/DVR's user manual for specific instructions on how to detect, initialize, and format new hard drives. Most systems will guide you through this process automatically upon startup.

5.2. Continuous Recording

WD Purple drives are designed for 24/7 continuous recording. Ensure your surveillance software or NVR/DVR is configured to record continuously or based on your desired schedule and motion detection settings.

6. MAINTENANCE

- **Regular Backups:** While WD Purple drives are reliable, regular backups of critical surveillance footage are recommended.
- **Monitor Drive Health:** Utilize S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) tools or your NVR/DVR's built-in diagnostics to monitor the drive's health.
- **Ensure Proper Ventilation:** Maintain adequate airflow around the drive to prevent overheating, which can impact performance and lifespan.
- **Firmware Updates:** Check the Western Digital support website periodically for any available firmware updates for your drive model.

7. TROUBLESHOOTING

7.1. Drive Not Detected

- **Check Cables:** Ensure both the SATA data and power cables are securely connected to the drive and the system.
- **Verify Power:** Confirm that the system's power supply is functioning correctly and providing power to the drive.
- **BIOS/UEFI Settings:** Check your system's BIOS/UEFI settings to ensure the SATA port is enabled

and the drive is recognized.

- **Disk Management:** For Windows, check Disk Management to see if the drive appears as uninitialized.

7.2. Poor Recording Performance / Frame Loss

- **System Resources:** Ensure your NVR/DVR or computer has sufficient CPU, RAM, and network bandwidth to handle the number of cameras and resolution being recorded.
- **Drive Health:** Run diagnostic tools to check the drive's health. A failing drive can cause performance issues.
- **Firmware:** Ensure the drive's firmware is up to date.

7.3. Unusual Noises

- **Vibration:** Ensure the drive is securely mounted and not vibrating against the enclosure.
- **Diagnostic Test:** If unusual clicking, grinding, or loud noises persist, perform a diagnostic test. This may indicate a drive failure. Back up data immediately if possible and consider replacement.

8. SPECIFICATIONS

Feature	Specification
Model Number	WD23PURZ-SPC5HY0
Storage Capacity	2 TB (2000 GB)
Interface	SATA 6 Gb/s (Serial ATA-600)
Form Factor	3.5 Inches
Cache Buffer	64 MB
Rotational Speed	5400 RPM
Designed For	24/7 Surveillance Systems
Max Cameras Supported	Up to 64 HD cameras
Technology	AllFrame Technology
Dimensions (LxWxH)	5.79 x 4 x 1.03 inches
Weight	15.8 ounces
World Wide Name (WWN)	50014EEL12345678

9. WARRANTY INFORMATION

Western Digital products come with a limited warranty. The duration and terms of the warranty may vary by region and product. Please retain your proof of purchase. For detailed warranty information, including terms and conditions, and to check your product's specific warranty period, please visit the official Western Digital support website.

10. SUPPORT

For technical assistance, product registration, or to access additional resources, please visit the Western Digital support website:

https://support.wdc.com

You can also find FAQs, drivers, and software downloads on the support portal.