Western Digital WD10PURX

WD Purple 1TB Surveillance Hard Drive (Model WD10PURX) User Manual

Western Digital - Model: WD10PURX

1. INTRODUCTION AND OVERVIEW

The Western Digital Purple 1TB Surveillance Hard Drive (Model WD10PURX) is specifically engineered for 24/7 surveillance systems. This drive is optimized for write-intensive, low bit-rate, high stream-count applications typical in security camera environments. It features a SATA 6 Gb/s interface, 64MB cache, and a 5400 RPM class rotational speed, ensuring reliable performance for continuous video recording.
Key features include:

- Engineered specifically for surveillance security systems.
- Reduced video frame loss for critical footage.
- Tuned for write-intensive, low bit-rate, high stream-count applications.
- Prioritized write-operations for maximized surveillance performance.
- TLER & ATA streaming support.

2. WHAT'S IN THE BOX

Your package includes the following:

- WD Purple 1TB Surveillance Hard Drive (Model WD10PURX)

Note: Mounting screws, cables, and additional manuals are not included and must be purchased separately if necessary. The drive ships in a WD-certified box for safe transit.

Figure 2.1: Front view of the WD Purple 1TB Surveillance Hard Drive, showing the purple label with 'WD Purple Surveillance Hard Drive' branding.

3. SETUP AND INSTALLATION

This section outlines the general steps for installing your WD Purple surveillance hard drive. Always refer to your Digital Video Recorder (DVR) or Network Video Recorder (NVR) system's specific manual for detailed installation instructions, as procedures may vary.

3.1 Safety Precautions

- Always power off and unplug your DVR/NVR system before installation.
- Discharge any static electricity by touching a grounded metal object before handling the drive.
- Handle the hard drive by its edges; avoid touching the circuit board or connectors.

3.2 Physical Installation

1. **Open the DVR/NVR Casing:** Carefully open your surveillance system's casing according to its manufacturer's instructions.
2. **Mount the Hard Drive:** Secure the WD Purple drive into an available 3.5-inch drive bay using appropriate mounting screws (not included). Ensure it is firmly seated to prevent vibration.
3. **Connect Cables:**
   - Connect a SATA data cable from the hard drive to an available SATA port on your DVR/NVR motherboard.
   - Connect a SATA power cable from your system's power supply to the hard drive.
4. **Close the Casing:** Once connections are secure, carefully close the DVR/NVR casing.

Figure 3.1: Angled view of the WD Purple hard drive, highlighting the SATA power and data connectors for system integration.

3.3 Initializing and Formatting

After physical installation, power on your DVR/NVR system. The system should detect the new hard drive. You will likely need to initialize and format the drive through your system's software interface. Consult your DVR/NVR manual for specific steps on how to do this. This process prepares the drive for recording surveillance footage.

Figure 3.2: Back label of the WD Purple drive, displaying the model number WD10PURX and a QR code linking to WD Purple product information.

4. Operating the Hard Drive

The WD Purple drive is designed for continuous, 24/7 operation within a surveillance system. Its primary function is to reliably store video streams from connected cameras.

4.1 Continuous Recording

In a typical surveillance setup, the drive will continuously record video footage. When the drive reaches its capacity, the system will usually overwrite the oldest footage with new recordings, ensuring that the most recent events are always captured. This behavior is managed by your DVR/NVR system settings.

4.2 Motion-Triggered Recording

Many surveillance systems offer motion-triggered recording, where the drive only records when motion is detected. This can conserve storage space. The WD Purple drive is optimized to handle the sudden start/stop demands of such recording modes without compromising data integrity.

4.3 Video Playback

Accessing recorded footage for playback is done through your DVR/NVR system's interface. The drive's design helps ensure smooth playback of recorded video, even when multiple streams are being accessed simultaneously.
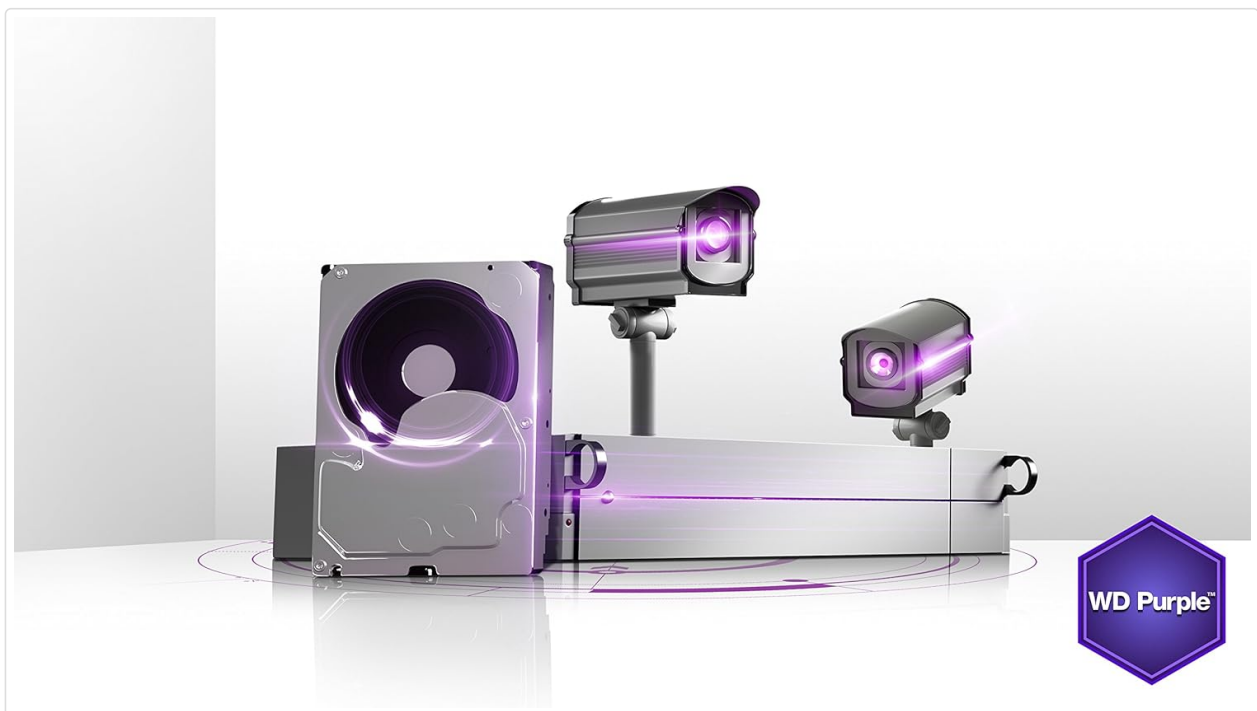

Figure 4.1: The WD Purple hard drive shown as part of a complete surveillance system, including cameras and a recording unit.

Your browser does not support the video tag.

Video 4.1: An official Western Digital video demonstrating the benefits of WD Purple Surveillance Hard Drives, including reduced frame loss compared to standard desktop drives. This video highlights the drive's reliability and suitability for continuous surveillance recording.

5. MAINTENANCE

To ensure the longevity and optimal performance of your WD Purple hard drive, consider the following maintenance practices:

- **Ensure Proper Ventilation:** Make sure your DVR/NVR system has adequate airflow to prevent overheating, which can degrade hard drive performance and lifespan.
- **Regular System Checks:** Periodically check your surveillance system's health status through its software interface. This can help identify potential issues with the hard drive early.
- **Firmware Updates:** Keep your DVR/NVR system's firmware updated. Manufacturer updates often include improvements for hard drive compatibility and performance.
- **Avoid Physical Shocks:** Hard drives are sensitive to physical impact. Ensure your surveillance system is placed in a stable location where it won't be bumped or dropped.

6. TROUBLESHOOTING

If you encounter issues with your WD Purple hard drive, consider these common troubleshooting steps:

6.1 Drive Not Detected

- **Check Cables:** Ensure both the SATA data and power cables are securely connected to the hard drive and the DVR/NVR system.
- **Power Cycle:** Power off your DVR/NVR system, unplug it, wait 30 seconds, then plug it back in and restart.
- **System BIOS/Settings:** Verify that the SATA port is enabled in your DVR/NVR's system settings or BIOS (if accessible).
- **Try Another Port/Cable:** If possible, try connecting the drive to a different SATA port or using different SATA cables to rule out faulty connections.

6.2 Recording Errors or Frame Loss

- **Check Drive Health:** Use your DVR/NVR's diagnostic tools to check the health status of the hard drive.
- **System Resources:** Ensure your DVR/NVR system is not overloaded with too many cameras or high-resolution streams beyond its capacity.
- **Firmware Update:** Ensure your DVR/NVR system's firmware is up to date.
- **Drive Compatibility:** Confirm that your DVR/NVR system officially supports the WD Purple drive model.

For persistent issues, consult your DVR/NVR system's manual or contact Western Digital support.

7. SPECIFICATIONS

Feature	Specification
Brand	Western Digital
Series	Purple
Model Number	WD10PURX
Digital Storage Capacity	1 TB
Hard Disk Form Factor	3.5 Inches
Hard Disk Interface	Serial ATA-600 (SATA 6 Gb/s)
Hard Drive Rotational Speed	5400 RPM Class

Feature	Specification
Cache	64 MB
Item Weight	15.9 ounces
Product Dimensions (LxWxH)	5.8 x 4 x 1 inches
Hardware Platform	PC; Mac (for general compatibility, primary use is DVR/NVR)
Operating System	Windows/Mac (for general compatibility, primary use is DVR/NVR)

8. WARRANTY AND SUPPORT

Western Digital provides a 3-year worldwide limited warranty for the WD Purple Surveillance Hard Drive. For detailed warranty terms and conditions, please refer to the official Western Digital website or contact their customer support.

8.1 Contacting Support

For technical assistance, warranty claims, or further information, please visit the official Western Digital support website or contact their customer service. You can often find support resources, FAQs, and driver downloads on their website.

Please have your product model number (WD10PURX) and serial number ready when contacting support.