Western Digital WD30PURX

Western Digital Purple 3TB Surveillance Hard Drive (WD30PURX) User Manual

Model: WD30PURX | Brand: Western Digital

Installation	Operation	Maintenance	Introduction Troubleshooting	Setup & Specifications	Warranty & Support

1. INTRODUCTION

The Western Digital Purple 3TB Surveillance Hard Drive (model WD30PURX) is specifically engineered for 24/7, high-definition surveillance security systems. This drive incorporates advanced technologies like AllFrame to enhance performance and reliability in write-intensive, low bit-rate, high stream-count applications. It is designed to support up to 32 HD cameras and a workload rate of up to 180TB per year, ensuring continuous and dependable video recording.

Figure 1: Western Digital Purple 3TB Surveillance Hard Drive (WD30PURX)

2. SETUP AND INSTALLATION

This section outlines the general steps for installing your WD Purple surveillance hard drive. Always refer to your surveillance system's or computer's specific manual for detailed installation instructions, as procedures may vary.

2.1. Before You Begin

- **Compatibility:** Ensure your surveillance system (DVR/NVR) or computer supports 3.5-inch SATA hard drives and has available SATA power and data connectors.
- **Safety:** Disconnect power from your system before opening the casing. Wear an anti-static wrist strap to

prevent electrostatic discharge (ESD) damage to components.

- **Tools:** You will typically need a Phillips head screwdriver. The product includes the hard drive only; mounting hardware or cables are not included.

2.2. Physical Installation Steps

1. **Open System Casing:** Carefully open the casing of your surveillance system or computer.
2. **Locate Drive Bay:** Identify an available 3.5-inch drive bay. Some systems may require a mounting bracket (not included with the hard drive).
3. **Mount the Drive:** Slide the WD Purple hard drive into the drive bay. Secure it with screws on both sides of the drive, if applicable.
4. **Connect Cables:**

   - Connect a SATA data cable from the hard drive to an available SATA port on your system's motherboard or DVR/NVR board.
   - Connect a SATA power cable from your system's power supply to the hard drive.

5. **Close Casing:** Once connections are secure, close the system casing.

Figure 2: WD Purple Hard Drive with SATA Connectors and Product Label. Scan the QR code for more information: http://qr.wd.com/wdpurple

2.3. Initializing and Formatting (Software Setup)

After physical installation, the drive needs to be recognized and prepared by your operating system or surveillance software.

1. **Power On:** Reconnect power and turn on your system.
2. **System Recognition:**

   - **For DVR/NVR Systems:** The system should detect the new drive automatically. Follow on-screen prompts to initialize and format the drive for surveillance recording.
   - **For PC/Mac:** Access Disk Management (Windows) or Disk Utility (macOS). The drive will appear as unallocated space. Initialize the disk (MBR or GPT, typically GPT for drives over 2TB) and then create and format a new volume.

3. **Configuration:** Configure your surveillance software or operating system to use the newly formatted drive for recording.

3. OPERATION

The WD Purple hard drive is optimized for continuous operation in surveillance environments. Its design ensures reliable performance for video recording and playback.

3.1. Key Features for Surveillance

- **24/7 Reliability:** Engineered for always-on, always-recording surveillance systems.
- **AllFrame Technology:** Reduces video frame loss, improves playback, and supports more camera bays. This technology works with ATA streaming to reduce errors and ensure smooth video capture.
- **High Workload Rate:** Supports up to 180TB/year workload rate, suitable for demanding surveillance applications.
- **Multiple Camera Support:** Designed to support up to 32 HD cameras simultaneously.
- **IntelliSeek™ Technology:** Calculates optimum seek speeds to lower power consumption, noise, and vibration, which is crucial for 24/7 environments.

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Video 1: An official Western Digital video demonstrating the benefits of WD Purple Surveillance Hard Drives, highlighting features like 24/7 reliability and AllFrame technology for reducing lost footage compared to standard desktop drives. While the video mentions a 1TB drive, the features apply to the WD Purple series, including this 3TB model.

Figure 3: WD Purple Hard Drive in a typical surveillance system environment.

4. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your WD Purple hard drive.

- **Ventilation:** Ensure your surveillance system or computer has adequate ventilation to prevent overheating, which can degrade drive performance and lifespan.

- **Firmware Updates:** Periodically check the Western Digital support website for any available firmware updates for your specific model (WD30PURX). Firmware updates can improve performance and stability.
- **Data Backup:** While WD Purple drives are highly reliable, no storage solution is infallible. Regularly back up critical surveillance footage to another storage medium or cloud service, especially for long-term retention.
- **Physical Handling:** Avoid dropping or subjecting the drive to physical shocks, even when not in operation.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your WD Purple hard drive.

Problem	Possible Cause	Solution
Drive not detected by system.	Loose cables, incorrect installation, uninitialized drive.	Check SATA data and power cable connections. Ensure the drive is properly seated in its bay. Verify the drive is initialized and formatted (refer to Section 2.3). Test with different SATA cables or ports.
Video footage is choppy or missing frames.	Drive not optimized for surveillance, excessive workload, drive errors.	Ensure the drive is a WD Purple series, designed for surveillance. Reduce the number of cameras or lower recording quality if exceeding system limits. Check for firmware updates for the drive or DVR/NVR. Run a diagnostic tool on the drive (if supported by your system).
Unusual noises from the drive.	Physical damage, drive failure, loose mounting.	Ensure the drive is securely mounted to reduce vibration. Back up data immediately if possible. Contact Western Digital support if noises persist and indicate potential failure.

6. SPECIFICATIONS

Key technical specifications for the Western Digital Purple 3TB Surveillance Hard Drive (WD30PURX).

Feature	Detail
Model Number	WD30PURX
Capacity	3 TB
Interface	SATA 6 Gb/s
Form Factor	3.5 Inch
Cache	64 MB
RPM Class	5400 RPM Class

Feature	Detail
Workload Rate	Up to 180 TB/year
Max HD Cameras Supported	32
Dimensions (LxWxH)	5.8 x 4 x 1 inches (147.00mm x 101.60mm x 26.10mm)
Item Weight	1.7 ounces
Operating System Compatibility	PC; Mac (Mac OS X 10.6 -10.12/ Windows XP SP3, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows10)

Feature	Detail
Workload Rate	Up to 180 TB/year
Max HD Cameras Supported	32

Figure 4: Internal components of a WD Purple Hard Drive.

7. WARRANTY AND SUPPORT

7.1. Limited Warranty

The Western Digital Purple 3TB Surveillance Hard Drive (WD30PURX) comes with a **3-year limited warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

7.2. Customer Support

For technical assistance, warranty claims, or further information, please visit the official Western Digital support website. You can find drivers, firmware updates, and knowledge base articles specific to your product model.

- **Western Digital Support Website:** https://support.wdc.com
- **Product Registration:** Register your product online to receive updates and streamline support processes.