

TRENDnet TV-NVR416

TRENDnet 16-Channel H.264/H.265 PoE+ NVR User Manual

MODEL: TV-NVR416

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your TRENDnet 16-Channel H.264/H.265 PoE+ Network Video Recorder (NVR), model TV-NVR416. This standalone NVR is designed to manage and power up to sixteen PoE cameras, offering a comprehensive surveillance solution with support for up to 12TB of storage.

IMPORTANT SAFETY INFORMATION

- Ensure the NVR is installed in a well-ventilated area to prevent overheating.
- Use only the power adapter supplied with the device.
- Do not expose the NVR to water or excessive moisture.
- This device is intended for indoor use only.
- Professional installation is recommended for optimal performance and safety.
- Disconnect power before performing any maintenance or hardware installation.

PACKAGE CONTENTS

- TV-NVR416 Unit
- Power cord (1.4 m/5 ft.)
- Network cable (1.4 m / 5 ft.)
- HDMI cable (1.8 m / 6 ft.)
- Optical mouse

- SATA data cables / power cables
- Quick Installation Guide

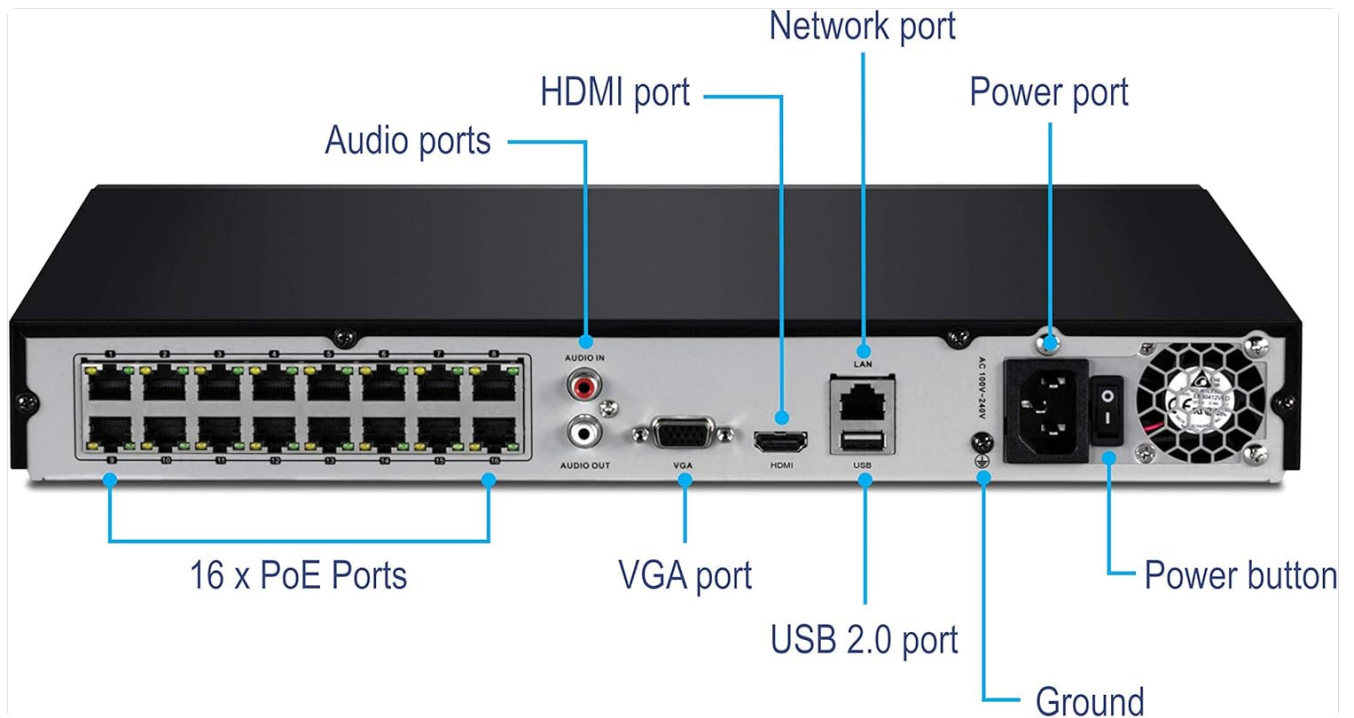
PRODUCT OVERVIEW

Front Panel



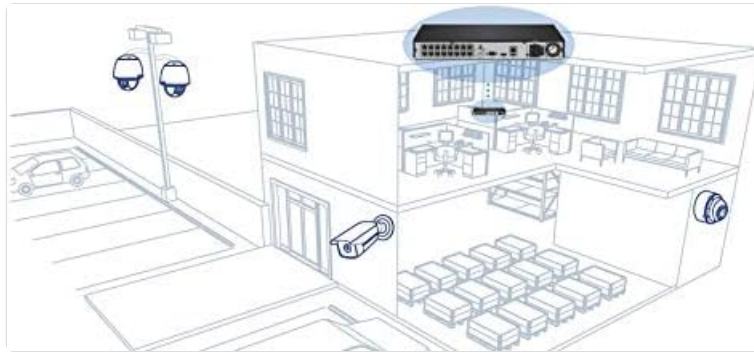
The front panel of the TV-NVR416 features a USB 2.0 port for connecting peripherals like a mouse or USB storage, LED indicators for power and status, push-button controls for menu navigation, and dedicated menu controls for system interaction.

Rear Panel



The rear panel provides all necessary connectivity, including 16 PoE+ ports for camera connections, audio input/output ports, VGA and HDMI ports for display output, a network port for LAN connection, a USB 2.0 port, the power port, and a power button. A grounding point is also present for safety.

System Diagram



This diagram illustrates a typical deployment scenario for the TRENDnet TV-NVR416 NVR system, showing how the NVR integrates with various camera types in different environments, such as indoor offices and outdoor areas, to provide comprehensive surveillance coverage.

SETUP AND INSTALLATION

Hardware Installation

1. **Hard Drive Installation (Optional):** The NVR supports up to two 3.5" SATA II hard drives (up to 6TB per bay, 12TB total). Ensure the NVR is powered off. Remove the cover, connect the SATA data and power cables to the hard drives, and secure them in the bays. Replace the cover.
2. **Connect Cameras:** Connect your PoE cameras to the 16 PoE+ ports on the rear panel. The NVR will automatically recognize and power compatible TRENDnet PoE cameras.
3. **Connect Display:** Connect a monitor to the NVR using either the HDMI or VGA port. For 4K resolution support, use the HDMI port with a 4K compatible display.
4. **Connect Mouse:** Plug the included optical mouse into one of the USB 2.0 ports (front or rear) for easier navigation.
5. **Network Connection:** Connect an Ethernet cable from the NVR's network port to your router or network switch.
6. **Power On:** Connect the power cord to the NVR and a power outlet. Press the power button on the rear panel to turn on the NVR.

OPERATION

Initial Configuration

Upon first boot, the NVR will guide you through an initial setup wizard to configure basic settings such as language, date/time, network settings, and hard drive initialization.

Live View

After setup, the NVR will display the live view from connected cameras. Use the mouse or front panel controls to switch between camera views, adjust display modes, and access the main menu.

Recording Management

The NVR supports continuous, scheduled, and motion-detection recording. Configure recording settings via the system menu. Recorded footage is stored on the installed hard drives.

Supports up to **12TB** of storage



This standalone H.265 HD NVR supports a total storage capacity of up to 12TB and powers up to sixteen PoE network cameras

HDDs, cameras, and display not included

The TRENDnet TV-NVR416 supports up to 12TB of storage across two 3.5-inch SATA II bays, allowing for extensive video recording. This image shows the NVR connected to a monitor displaying a 'REC' indicator, signifying active recording.

Playback

Access the playback menu to review recorded video. You can search by date, time, and event type. The NVR features advanced video playback capabilities.

Remote Access

The NVR can be accessed remotely via a web browser or the dedicated mobile application (iOS/Android). Note that for web browser access, Internet Explorer may be required for full functionality due to specific plugin requirements.

MAINTENANCE

- Regularly check for firmware updates to ensure optimal performance and security.
- Ensure proper ventilation around the NVR to prevent overheating.

- Periodically back up important recorded footage to external storage.
- Clean the NVR's exterior with a soft, dry cloth. Do not use liquid cleaners.

TROUBLESHOOTING

Problem	Solution
No Power	Check power cord connection, power outlet, and power button.
No Video Output	Verify monitor connection (HDMI/VGA), ensure correct input selected on monitor. Check NVR power and status LEDs.
Cameras Not Displaying	Ensure cameras are properly connected to PoE+ ports. Verify camera power and network status. Check NVR's camera management settings.
Cannot Access NVR Remotely	Verify network connection. Check NVR's IP address and port forwarding settings on your router. Ensure correct browser (e.g., Internet Explorer) is used for web access.
Recording Issues	Check hard drive status and capacity. Ensure recording schedules are correctly configured. Verify camera connectivity.

TECHNICAL SPECIFICATIONS

Feature	Detail
Model	TV-NVR416
Channels	16-Channel
Video Encoding	H.264/H.265
Max Resolution	1080p HD (supports one 4K camera channel)
Storage Capacity	Up to 12TB (2 x 6TB 3.5" SATA II HDDs, not included)
PoE+ Ports	16
PoE Power Budget	150W
Connectivity	Wired (Ethernet)
Video Output	HDMI, VGA
USB Ports	2 x USB 2.0

Feature	Detail
Audio Ports	Audio In/Out
Dimensions	15 x 12 x 1.8 inches
Weight	2.84 pounds
ONVIF Compliant	Yes

WARRANTY AND TECHNICAL SUPPORT

TRENDnet products are backed by a manufacturer's warranty. For detailed warranty information, please refer to the official TRENDnet website or the warranty card included with your product.

For technical assistance, troubleshooting, or to download the latest drivers and firmware, please visit the TRENDnet support page or refer to the official documentation:

- [Installation Manual \(PDF\)](#)
- [User Guide \(PDF\)](#)