Amcrest NV4108E-IP8M-T2599EW4-2TB

Amcrest 4K POE Security Camera System User Manual

Model: NV4108E-IP8M-T2599EW4-2TB | Brand: Amcrest

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Amcrest 4K POE Security Camera System. This system includes an 8-channel Network Video Recorder (NVR) with a pre-installed 2TB hard drive and four 8-megapixel (4K) IP PoE outdoor turret cameras. The system is designed for comprehensive surveillance, offering Ultra HD resolution, advanced video compression, and remote access capabilities.

Image: The Amcrest 4K POE Security Camera System, featuring the NVR unit, a 2TB hard drive, and four 4K turret cameras.

2. WHAT'S IN THE BOX

Verify that all components are present before proceeding with installation:

- 1x Amcrest 8-Channel PoE NVR (Model: NV4108E-A2)
- 1x Pre-Installed 2TB Seagate SkyHawk Security Surveillance Hard Drive
- 4x Amcrest 8-Megapixel (4K) IP PoE Outdoor Turret Cameras (Model: IP8M-T2599EW)
- 4x Ethernet Cables (60ft each)
- 1x USB Mouse
- 1x Network Cable
- 1x Power Adapter for NVR
- Quick Start Guide

3. SETUP GUIDE

3.1 NVR Connections

Familiarize yourself with the NVR's front and back panels for proper connections.

Front Panel

① USB 2.0 Port   ② LED Display

Back Panel

① DC Power Port   ③ Ethernet Port   ⑤ Audio Input/Output   ⑦ USB 2.0 Port

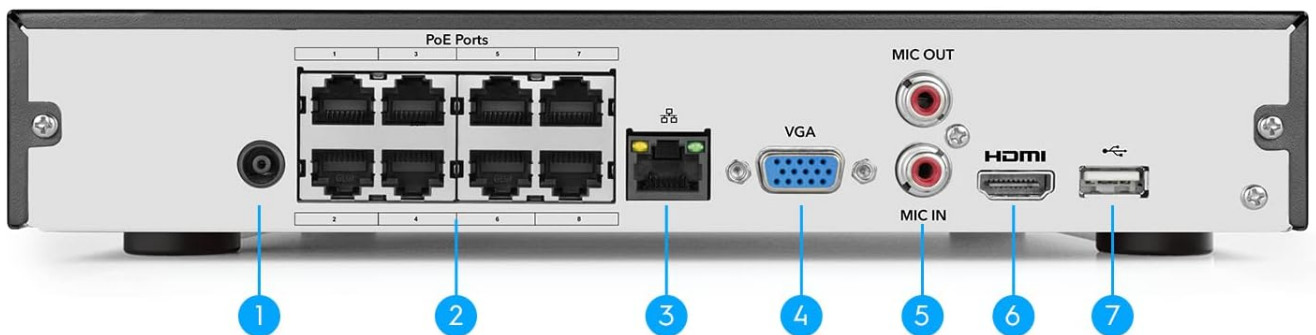② 8 PoE Ports   ④ VGA Output   ⑥ HDMI Output

Image: Detailed view of the NVR's front panel (USB 2.0 Port, LED Display) and back panel (DC Power Port, 8 PoE Ports, Ethernet Port, VGA Output, Audio Input/Output, HDMI Output, USB 2.0 Port).

1. **Connect Cameras:** Plug each PoE camera into one of the 8 PoE ports on the NVR's back panel using the provided Ethernet cables. These ports supply both power and data.

2. **Connect to Network:** Connect the NVR's Ethernet port to your router or network switch using the provided network cable.

3. **Connect Display:** Connect a monitor to the NVR using either the HDMI or VGA output port.

4. **Connect USB Mouse:** Plug the USB mouse into one of the USB 2.0 ports (front or back panel) for NVR navigation.

5. **Power On:** Connect the NVR's power adapter to the DC Power Port and then to a power outlet. The NVR will power on automatically.

3.2 Initial Configuration

Upon first boot, follow the on-screen wizard to set up basic NVR settings, including language, date/time, network settings, and password creation.

Image: Illustration demonstrating the simple plug-and-play setup, connecting a camera directly to the NVR via an Ethernet cable.

3.3 Mobile App Setup

For remote viewing and control, download the Amcrest View Pro app on your smartphone or tablet.

- Download the Amcrest View Pro app from the Apple App Store or Google Play Store.
- Create an account or log in.
- Scan the QR code displayed on your NVR's monitor (or found in the NVR's network settings) to add your device.
- Follow the in-app instructions to complete the setup and access live view and playback.
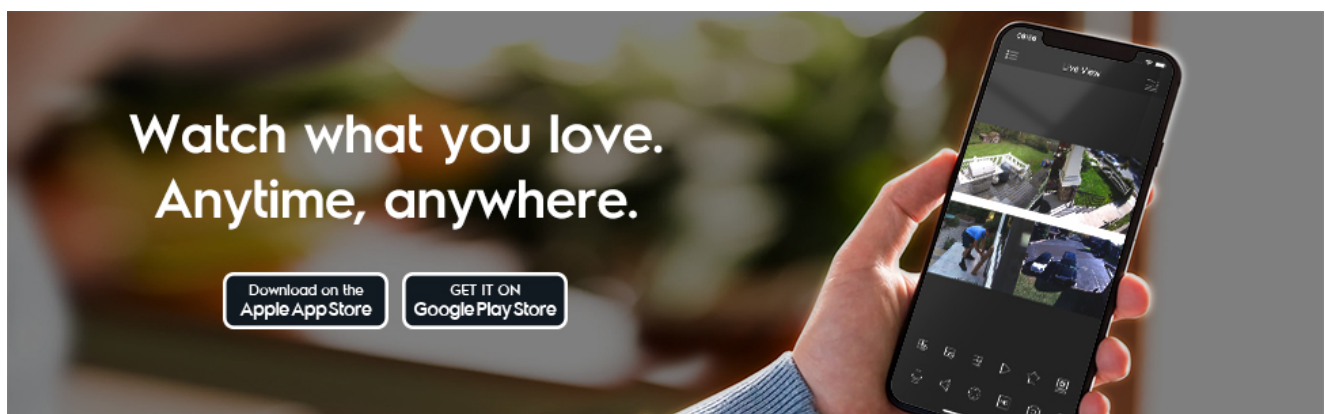

Image: A smartphone displaying the Amcrest View Pro app interface, showing multiple camera feeds for remote monitoring.

4. OPERATING INSTRUCTIONS

4.1 Live View and Playback

Access live camera feeds and review recorded footage directly from the NVR's connected monitor or via the Amcrest View Pro app.

- **Live View:** The NVR will automatically display live feeds from connected cameras. Use the mouse to navigate the interface, switch views, and access settings.
- **Playback:** Right-click on the live view screen and select 'Playback' to access recorded footage. Use the timeline to select specific dates and times for review.

4.2 Recording Modes

The NVR supports various recording modes, including continuous recording and motion detection recording. The pre-installed 2TB hard drive provides ample storage, enhanced by H.265 compression.

Motion Detection Recording

RESOLUTION	BITRATE (KBPS)	FPS	STORAGE CAPACITY	DURATION	NUMBER OF EVENTS	TOTAL TIME (H.265)	TOTAL TIME (H.264)
5MP (2592 X 1944)	H.264: 1978KBPS H.265: 1147KBPS	30FPS	2TB	30s CLIPS	10/HR	26 DAYS	15 DAYS
5MP (2592 X 1944)	H.264: 1978KBPS H.265: 1147KBPS	30FPS	4TB	30s CLIPS	10/HR	52 DAYS	30 DAYS
5MP (2592 X 1944)	H.264: 1978KBPS H.265: 1147KBPS	30FPS	6TB	30s CLIPS	10/HR	78 DAYS	45 DAYS
8MP (3840 X 2160)	H.264: 3248KBPS H.265: 1879KBPS	30FPS	2TB	30s CLIPS	10/HR	15 DAYS	9 DAYS
8MP (3840 X 2160)	H.264: 3248KBPS H.265: 1879KBPS	30FPS	4TB	30s CLIPS	10/HR	30 DAYS	18 DAYS
8MP (3840 X 2160)	H.264: 3248KBPS H.265: 1879KBPS	30FPS	6TB	30s CLIPS	10/HR	45 DAYS	26 DAYS

* This chart is an estimation of storage capacity based on an average of 10 events per hour with 8 cameras running simultaneously.

24/7 Continuous Recording

RESOLUTION	BITRATE (KBPS)	FPS	STORAGE CAPACITY	DURATION	STORAGE/DAY (H.265)	STORAGE/DAY (H.264)	TOTAL TIME (H.265)	TOTAL TIME (H.264)
5MP (2592 X 1944)	H.264: 1978KBPS H.265: 1147KBPS	30FPS	2TB	24/7	992GB/DAY	1.7TB/DAY	2 DAYS	1 DAY
5MP (2592 X 1944)	H.264: 1978KBPS H.265: 1147KBPS	30FPS	4TB	24/7	992GB/DAY	1.7TB/DAY	4 DAYS	2 DAYS
5MP (2592 X 1944)	H.264: 1978KBPS H.265: 1147KBPS	30FPS	6TB	24/7	992GB/DAY	1.7TB/DAY	6 DAYS	4 DAYS
8MP (3840 X 2160)	H.264: 3248KBPS H.265: 1879KBPS	30FPS	2TB	24/7	1.6TB/DAY	12.8TB/DAY	1 DAY	17 HOURS
8MP (3840 X 2160)	H.264: 3248KBPS H.265: 1879KBPS	30FPS	4TB	24/7	1.6TB/DAY	2.8TB/DAY	2 DAYS	1 DAY
8MP (3840 X 2160)	H.264: 3248KBPS H.265: 1879KBPS	30FPS	6TB	24/7	1.6TB/DAY	2.8TB/DAY	4 DAYS	2 DAYS

* This chart is an estimation of recording time based on an resolution, bitrate and total HDD space available on your NVR.

Image: Table illustrating estimated storage capacity and recording duration for motion detection and 24/7 continuous recording at various resolutions (5MP, 8MP) and H.264/H.265 compression, based on 2TB, 4TB, and 6TB HDD.

More video, Less Storage

Amcrest H.265 Compression reduces bandwidth by maximum 50% of conventional H.264 Compression.

H.264   H.265

50%

Reliable security-grade hard drive pre-installed

Pre-Installed 2TB Seagate SkyHawk Security Surveillance Hard Drive (Supports hard drives up to 6TB)

2TB

Image: Visual representation of H.265 compression reducing storage requirements by up to 50% compared to H.264, alongside an image of the NVR with a 2TB hard drive.

4.3 Advanced Camera Features

The 4K turret cameras offer several advanced features for enhanced surveillance.

Image: Overview of Amcrest 4K camera features including Premium UltraHD, Starlight Technology, Built-in IVS Features, Wide Dynamic Range (WDR), Wide View Angle, HEVC Compression (H.265), Flexible Storage, One-Way Audio, Weatherproof (IP67), and PoE Networking.

- **4K UltraHD Resolution:** Provides 8-megapixel (3840x2160) video for clear imaging.
- **Starlight Technology:** Enhances visibility in low-light conditions.
- **Built-in IVS Features:** Includes intelligent video analytics such as Tripwire and Intrusion detection.
- **Wide Dynamic Range (WDR):** Balances exposure in scenes with both bright and dark areas.
- **105° Wide Viewing Angle:** Covers a broad area with a 2.8mm super-wide angle lens.
- **One-Way Audio:** Built-in microphone allows for audio monitoring.
- **IP67 Weatherproof:** Cameras are designed to withstand harsh weather conditions.

4.4 Perimeter Protection (IVS)

Configure Intelligent Video System (IVS) rules to trigger events based on specific activities within defined areas.

Image: Illustration of Perimeter Protection features, showing how Tripwire (trigger an event when a human or vehicle crosses a set line) and Intrusion (be alerted when a human or vehicle enters a defined area) work.

- **Tripwire:** Draw a virtual line in the camera's field of view. An event is triggered when an object crosses this line.
- **Intrusion:** Define a virtual area. An event is triggered when an object enters or exits this area.

These features help in reducing false alarms and focusing on relevant events.

5. MAINTENANCE

- **Regular Cleaning:** Periodically clean camera lenses with a soft, damp cloth to ensure clear image quality. Avoid abrasive cleaners.
- **Firmware Updates:** Check the Amcrest website for the latest firmware updates for your NVR and cameras. Keeping firmware updated ensures optimal performance and security.
- **Hard Drive Health:** The NVR's pre-installed 2TB Seagate SkyHawk hard drive is designed for surveillance. Monitor its health through the NVR's system settings. Consider replacing it if signs of failure appear or if more storage is

needed (supports up to 10TB).

- **USB Backup:** Utilize the USB backup feature to regularly save important footage to an external USB drive for archiving or evidence.

6. TROUBLESHOOTING

6.1 No Video/Offline Cameras

- **Check PoE Connection:** Ensure the Ethernet cable is securely connected to both the camera and the NVR's PoE port.
- **Power Cycle:** Disconnect and reconnect the NVR's power adapter.
- **Cable Integrity:** Inspect Ethernet cables for damage. Try a different cable if necessary.
- **NVR Port Status:** Check the NVR's interface to see if the specific PoE port is active.

6.2 Remote Access Issues

- **Network Connection:** Verify the NVR is connected to the internet. Check network cable and router status.
- **App Login:** Ensure you are logged into the Amcrest View Pro app with the correct credentials.
- **Firewall/Port Forwarding:** If direct access is configured, ensure necessary ports are forwarded on your router. Consult your router's manual or ISP for assistance.
- **NVR Network Settings:** Confirm the NVR's IP address, subnet mask, gateway, and DNS settings are correct.

6.3 Poor Image Quality

- **Clean Lens:** Ensure the camera lens is clean and free from dirt, dust, or water spots.
- **Resolution Settings:** Verify that the camera's resolution is set to 4K (3840x2160) in the NVR settings. Note that displaying 4K on a non-4K monitor will downscale the image.
- **Lighting Conditions:** Ensure adequate lighting for optimal performance, especially for night vision.
- **WDR Settings:** Adjust Wide Dynamic Range (WDR) settings if there are significant light contrasts in the scene.

Image: A visual comparison demonstrating the difference in detail between Full HD (1920x1080) and 4K UltraHD (3840x2160) resolutions, highlighting the superior clarity of 4K.

7. SPECIFICATIONS

7.1 NVR (NV4108E-A2)

4K UltraHD | 8 Channel
8 Port PoE Network Video Recorder
MODEL: NV4108E-A2

1.9in

10.2in

9.15in

Technical Specifications

RECORDING
Compression H.265/H.264
Recording Mode Manual, Schedule, Motion Detection, Alarm
Resolution Record 8 channels up to 4K UltraHD (3840 × 2160) at 30fps

AUDIO
Mic Input/Output 1/1 (RCA)

STORAGE
HDD Capacity 1 × SATA port, Up to 10TB

VIDEO
Input 8 IP Cameras
Network Bandwidth 80 Mbps for access, 80 Mbps for storage and 60 Mbps for forwarding
Output HDMI, VGA
Resolution HDMI 8MP/5MP/4MP/3MP/1080P

CONNECTION
Network Interface 1 × RJ-45 port (100MB)
USB Interface 2 × USB 2.0

SOFTWARE
Operating Systems Windows PC, MAC
Mobile Devices iOS, Android

CONSTRUCTION
Operating Temperature 14°F - 131°F
Dimensions 10.2" × 9.15" × 1.98"
Weight 2.03 lbs (without HDD)

Image: Technical specifications for the Amcrest 4K UltraHD 8 Channel 8 Port PoE Network Video Recorder, including recording compression, video input/output, storage, network interface, and physical dimensions.

- **Model:** NV4108E-A2
- **Channels:** 8-Channel
- **Video Compression:** H.265/H.264
- **Video Input:** 8 IP Cameras
- **Video Output:** HDMI (up to 4K), VGA
- **Incoming Bandwidth:** Max 80Mbps
- **Storage:** 1 SATA Port, up to 10TB (2TB pre-installed)
- **PoE Ports:** 8
- **USB Interface:** 2x USB 2.0
- **Dimensions (L x W x H):** 10.2 x 9.15 x 1.9 inches
- **Weight:** 2.03 lbs (without HDD)

7.2 4K Turret IP Cameras (IP8M-T2599EW)

Amcrest

4K ULTRA HD

8-Megapixel PoE
Outdoor Security
Turret IP Camera
with Perimeter Protection

Model IP8M-T2599EW

4.33"

3.97"

2.8mm Lens

Technical Specifications

CAMERA
Image Sensor 1/2.7" 8MP CMOS
Resolution Up to 4K UltraHD (3840x2160)
Night Vision Up to 98 ft (2 IR LED)
Wide Dynamic Range Up to 120dB

LENS
Lens 2.8mm (Fixed)
Field of View H: 105˚, V: 56˚, D: 125˚
Manual Pan/Tilt 360˚ Pan, 78˚ Tilt

AUDIO
1-Way Audio with Built-in Mic

VIDEO
Compression H.265 / H.264
Frame Rate Main stream: 4K(1~15fps),
3MP (1~25/30fps)

NETWORK
Power Over Ethernet
RJ-45 (10/100 Base-T)

STORAGE
MicroSD (Up to 256GB)
Local PC - NAS - FTP -
Amcrest NVR - Amcrest Cloud

MOBILE VIEWING
iOS and Android Devices

CONSTRUCTION
IP67 Weatherproof
Operating Temperature
-40˚ F ~ 131˚ F
Dimensions 3.97" x 4.33"
Weight 1.1 lbs

Image: Technical specifications for the Amcrest 8-Megapixel PoE Outdoor Security Turret IP Camera, including camera sensor, resolution, lens, audio, video compression, frame rate, network, storage, construction, and dimensions.

- **Model:** IP8M-T2599EW
- **Image Sensor:** 1/2.7" 8MP CMOS
- **Resolution:** 4K UltraHD (3840x2160) @ 15fps
- **Lens:** 2.8mm Fixed, Super-Wide Angle
- **Viewing Angle:** 105° (Horizontal), 56° (Vertical), 125° (Diagonal)
- **Night Vision Range:** Up to 98 ft (2 IR LEDs)
- **Audio:** 1-Way Audio with Built-in Mic
- **Weatherproof Rating:** IP67
- **Power:** Power over Ethernet (PoE)
- **Dimensions:** 3.97" x 4.33"
- **Weight:** 1.1 lbs

8. WARRANTY AND SUPPORT

Your Amcrest 4K POE Security Camera System is backed by a **1-Year US Warranty** from the date of purchase. Amcrest also provides **Lifetime US Support** for this product.

For technical assistance, troubleshooting, or warranty claims, please contact Amcrest customer support directly. Refer to the official Amcrest website for the most current contact information and support resources.