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JOOAN ZG2321M

JOOAN 3MP Security Camera System User Manual

Model: ZG2321M

1. INTRODUCTION

This user manual provides detailed instructions for the installation, operation, and maintenance of your JOOAN 3MP IP67 Weatherproof Security Camera System. Please read this manual thoroughly before using the product to ensure proper setup and functionality. This system is designed for both indoor and outdoor surveillance, offering high-definition video recording and advanced security features.

2. PACKAGE CONTENTS

Verify that all items listed below are present in your package. If any items are missing or damaged, please contact customer support.

Router Built NVR



with obstacles (1 wall) up to 200ft



In open space up to 1640ft



Image: Components of the JOOAN Security Camera System. This includes the NVR unit, four wireless cameras, power adapters for the NVR and each camera, a USB mouse, an Ethernet cable, mounting screws, and a warning sticker.

- 1 x 10-Channel NVR (Network Video Recorder)
- 4 x 3MP Wireless IP Cameras
- 1 x NVR Power Adapter
- 4 x Camera Power Adapters
- 1 x USB Mouse
- 1 x Ethernet Cable
- Mounting Screw Kits
- 1 x Warning Sticker
- 1 x User Manual (this document)

3. PRODUCT OVERVIEW

The JOOAN Security Camera System consists of a Network Video Recorder (NVR) and multiple wireless IP cameras. The NVR acts as the central hub for recording, managing, and accessing video footage, while the cameras capture high-definition video and audio.



Image: The JOOAN 3MP Security Camera System, showing the main NVR unit and four wireless cameras with antennas, illustrating the complete system setup.

3.1 NVR Features

- 10-Channel support for up to 10 cameras.
- H.265+ Video Compression for efficient storage.
- Supports up to 6TB HDD (not included).
- Built-in WiFi module for automatic camera connection.
- Multiple alarm options: APP, Email, NVR buzzer.

3.2 Camera Features

- 3.0MP (2304*1296) HD resolution.
- IP67 Weatherproof rating for indoor/outdoor use.
- One-way audio capability.

- 4pcs Array Infrared LEDs for up to 100ft night vision.
- AI Human Shape Detection to reduce false alarms.
- Camera Cascaded Technology for extended wireless signal.

4. SETUP GUIDE

Follow these steps to set up your JOOAN Security Camera System.

4.1 Initial Power-Up and Connection

1. Connect the NVR to a monitor using an HDMI or VGA cable.
2. Connect the USB mouse to the NVR's USB port.
3. Plug the NVR power adapter into the NVR and then into a power outlet.
4. Plug each camera's power adapter into the camera and then into a power outlet.
5. The cameras will automatically connect to the NVR within a few minutes. Images should appear on the connected monitor.

Advanced H265+ Compression



The Storage will be occupied under 3MP Recording One Day

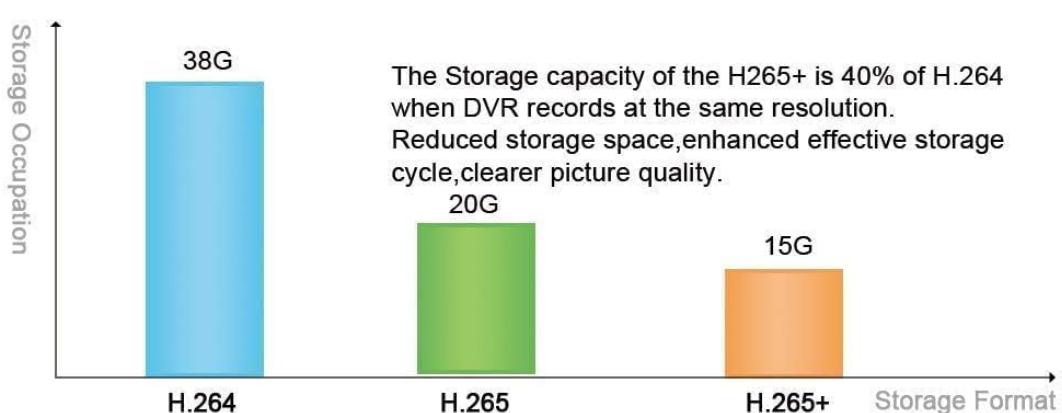


Image: Illustration of the simple plug-and-play setup, showing a camera connected to power and the NVR connected to a monitor, displaying live feeds from multiple cameras.

4.2 Hard Drive Installation (Optional)

While the system can function for live viewing without a hard drive, an HDD is required for recording and playback. The system supports up to 6TB HDD.

1. Unplug the NVR from power.
2. Open the NVR casing (refer to the NVR's specific diagram for screw locations).
3. Connect the SATA power and data cables from the NVR to the HDD.
4. Secure the HDD inside the NVR using the provided screws.
5. Close the NVR casing and reconnect power.
6. Upon startup, right-click on the NVR interface, go to 'System Setup' > 'HDD Setup' to format the newly installed HDD.

4.3 Network Connection for Remote Access

To access your system remotely via smartphone or PC, connect the NVR to your router.

1. Connect one end of the Ethernet cable to the NVR's LAN port and the other end to an available LAN port on your router.
2. Ensure your router has internet access.
3. On the NVR interface, right-click and navigate to 'Network Setup' to confirm the NVR has obtained an IP address.
4. Download the free 'Eseecloud' APP from your smartphone's app store (iOS/Android) or the PC client from the JOOAN website.
5. Register an account and add your NVR device by scanning the QR code displayed on the NVR's monitor (found in 'System Setup' > 'Version' or 'Cloud ID').



Image: A user viewing live camera feeds on a smartphone and laptop via the Eseecloud app, demonstrating remote access capabilities.

5. OPERATING INSTRUCTIONS

Learn how to operate your security camera system for effective surveillance.

5.1 Live View

After successful setup, the NVR will display live feeds from all connected cameras on the monitor. You can switch between single-camera view and multi-camera view using the NVR interface.

5.2 Recording Modes

The system supports various recording modes:

- **24/7 Continuous Recording:** Records continuously, overwriting oldest footage when the HDD is full.
- **Motion Detection Recording:** Records only when motion is detected.
- **Scheduled Recording:** Records during specific times of the day.

To configure recording settings, right-click on the NVR interface, go to 'Record Setup'.

5.3 Playback

To review recorded footage:

1. Right-click on the NVR interface and select 'Playback'.
2. Select the camera(s) and date you wish to review.
3. Use the timeline to navigate through recorded events.

5.4 Two-Way Audio (One-Way Audio for this model)

This system supports one-way audio, allowing you to hear audio from the camera's location. For models with two-way audio, you can also speak through the camera.

3 Night-vision modes



B/W night vision



Smart Color Night



Color night vision

Image: A delivery person at a door, with a speech bubble indicating they are speaking, and a camera mounted above. This illustrates the one-way audio feature where you can hear what's happening at the camera's location.

5.5 Night Vision Modes

The cameras offer enhanced night vision capabilities:

- **Infrared Mode (B/W Night Vision):** Standard black and white night vision using IR LEDs.
- **Smart Color Night Vision:** Automatically switches to color night vision when motion is detected in low-light conditions.
- **Full Color Night Vision:** Provides full-color images in low light using built-in spotlights (if equipped).

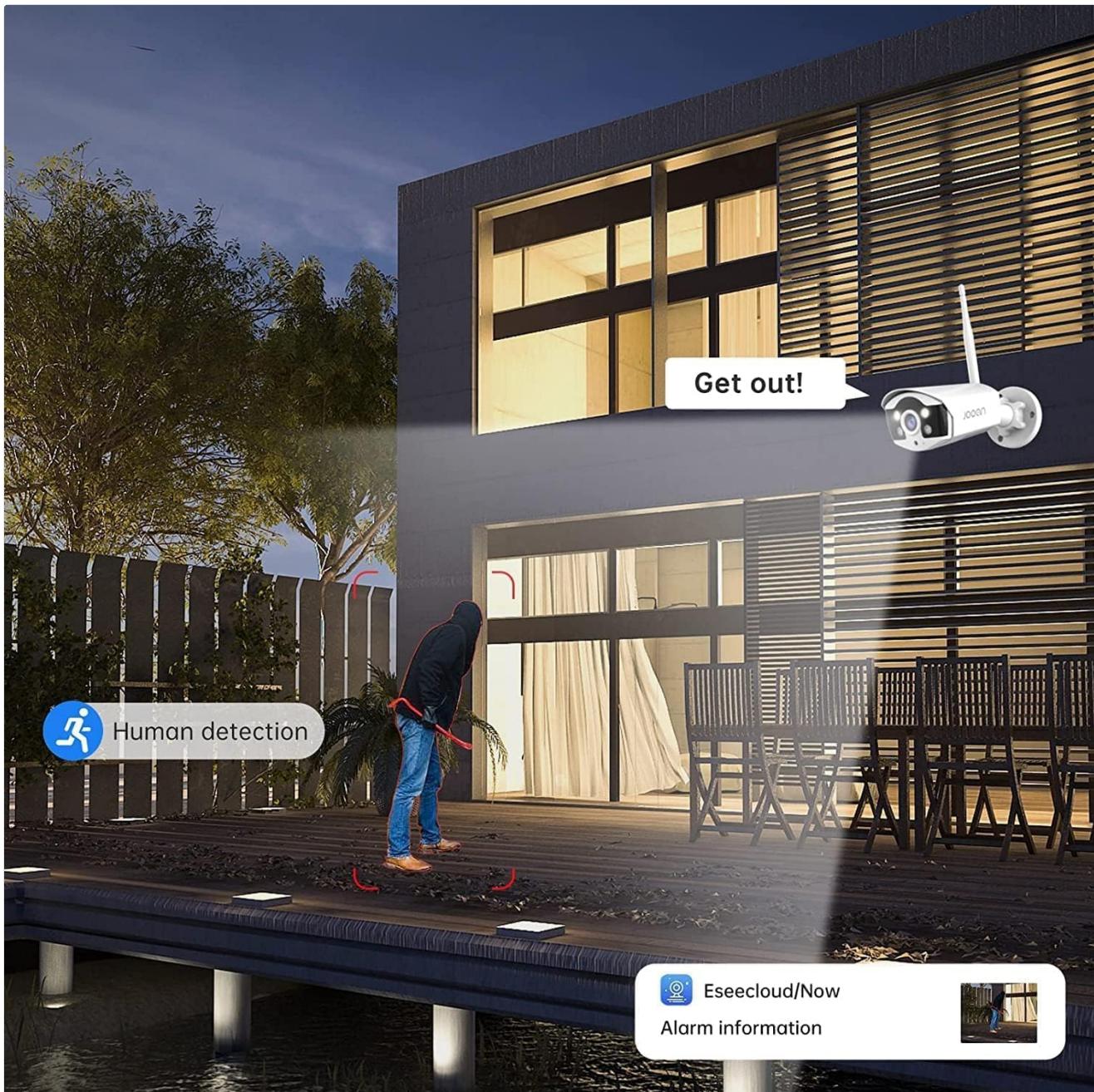


Image: Comparison of three night vision modes: traditional black and white infrared, smart color night vision (activates color upon motion), and full-color night vision (constant color in low light).

5.6 AI Human Shape Detection

This feature distinguishes human shapes from other moving objects, significantly reducing false alarms triggered by animals, leaves, or vehicles. When a human shape is detected, the system can trigger various alarms (APP, Email, NVR buzzer) and begin recording.

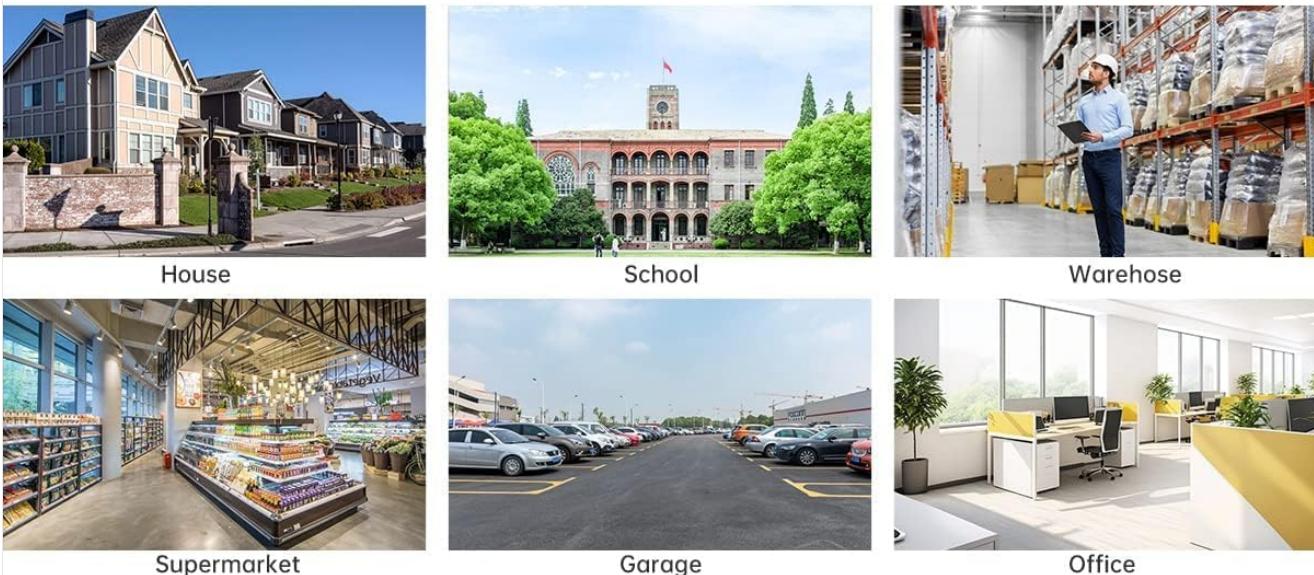


Image: A person walking near a building at night, with an overlay highlighting human detection and an alarm notification from the Eseecloud app, demonstrating the AI human shape detection feature.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your security system.

- **Cleaning:** Regularly clean camera lenses with a soft, dry cloth to prevent dust and smudges from affecting image quality. Ensure the NVR is free from dust buildup, especially around ventilation areas.
- **Firmware Updates:** Check the JOOAN official website periodically for firmware updates for your NVR and cameras. Updates can improve performance, add features, and enhance security. Follow the provided instructions carefully during updates.
- **Storage Management:** Monitor your HDD storage capacity. If using continuous recording, older footage will be overwritten. For important events, back up footage to an external device (e.g., USB drive) before it is overwritten.
- **Power Supply Check:** Ensure all power adapters are securely connected and not damaged. Unstable power

can affect system performance.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

7.1 No Image on Monitor

- Check if the NVR and monitor are powered on.
- Verify the HDMI/VGA cable connection between the NVR and monitor.
- Ensure the correct input source is selected on your monitor.

7.2 Cameras Not Displaying

- Ensure cameras are powered on and their power adapters are working.
- Check the distance between cameras and NVR. Walls and obstacles can weaken the signal.
- If a camera was moved, it might need to be re-paired. Right-click on the NVR interface, go to 'Video Manage' and follow instructions to add/re-pair cameras.
- Utilize the Camera Cascaded Technology to extend wireless signal range if needed.

7.3 No Recording or Playback

- Verify that an HDD is installed and formatted correctly (refer to Section 4.2).
- Check recording schedules and motion detection settings in 'Record Setup'.
- Ensure the HDD is not full.

7.4 Remote Access Issues

- Ensure the NVR is connected to your router via Ethernet cable and has internet access.
- Verify your smartphone/PC has a stable internet connection.
- Double-check the Cloud ID/QR code entered in the Eseecloud app.
- Ensure router firewall settings are not blocking the NVR's connection.

7.5 False Alarms

- Adjust the sensitivity of motion detection in the NVR settings.
- Utilize the AI Human Shape Detection feature to filter out non-human movements.
- Define specific detection zones to exclude areas with frequent irrelevant motion (e.g., busy roads, swaying trees).

8. SPECIFICATIONS

Detailed technical specifications for the JOOAN 3MP Security Camera System.

Feature	Specification
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Feature	Specification
Brand	JOOAN
Model Number	ZG2321M
Connectivity Technology	Wireless
Video Capture Resolution	3MP (2304*1296)
Video Compression	H.265+
Number of Channels	8 (Expandable to 10)
Memory Storage Capacity	Supports up to 4 TB (HDD not included)
Color	Black and White
Power Source	AC/DC
Item Dimensions (L x W x H)	33.8 x 32.4 x 17.8 cm
Item Weight	3.5 kg
Operating System Support	Android, iOS
Special Features	Local monitoring, Remote Access, AI Human Motion Detection, IP67 Waterproof, Audio
Operating Temperature Range	-35°C to 60°C (-31°F to 140°F)

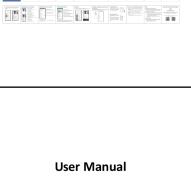
9. WARRANTY AND SUPPORT

JOOAN products come with a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included in your package or visit the official JOOAN website.

9.1 Customer Support

If you encounter any issues or have questions not covered in this manual, please contact JOOAN customer support. Provide your product model number (ZG2321M) and a detailed description of the issue for faster assistance. For the latest support information and resources, please visit the JOOAN store on Amazon or their official website.

[Visit the JOOAN Store on Amazon](#)

 <p>1 NVR system operation</p> <p>Format the hard disk</p> <p>Step: After installing the hard disk, go to → System Setup → System Details → Hard Disk → Format → Format Step → Format the hard disk.</p> <p>Process will choose an unformatting dedicated hard disk or not. If not, the hard disk needs to be formatted.</p> <p>Step: Format disk → System Setup → Record Setup → Record Disk.</p> <p>Notes:</p> <ul style="list-style-type: none"> Recording function can be used after installing a hard disk. The recording depends on the capacity of hard disk. When the hard disk is full, the system will automatically delete the oldest video. If the hard disk is full after 1 day, then the 8th day video will cover the 1st day video. Users can set up any period of time for the want. When NVR detects hard disk, the default setting will be 8 hours. 	<p>JOOAN NVR Security Camera System User Guide: Setup, Operation, and WiFi Extension</p> <p>Comprehensive user guide for the JOOAN 8CH NVR security camera system. Covers installation, hard drive formatting, video recording and playback, motion detection, email alerts, system menu functions, and extending Wi-Fi range using repeaters and antenna extensions.</p>
 <p>WIRELESS KIT QUICK USER GUIDE</p>	<p>Jooan Wireless Security Camera System Quick User Guide</p> <p>A comprehensive guide to setting up and operating the Jooan Wireless Security Camera System, including NVR and IPC installation, recording, playback, motion detection, email setup, and remote access via PC and mobile devices.</p>
	<p>JOOAN Smart Video Doorbell Installation and User Guide</p> <p>A comprehensive guide to installing and using the JOOAN Smart Video Doorbell, covering setup, Wi-Fi connection, chime pairing, and feature explanations.</p>
 <p>User Manual ...Wireless NVR Kit</p>	<p>User Manual for Wireless NVR Kit</p> <p>Comprehensive user manual for the Wireless NVR Kit, detailing product functions, installation, system setup, video management, network configuration, and client access for both PC and mobile devices.</p>
 <p>User Guid and trouble shooting For Analog camera</p> <p>Content</p> <ul style="list-style-type: none"> Details about the camera How to use the camera FAQs Warranty <p>JOOAN Analog CCTV Camera User Guide and Troubleshooting</p>	<p>Comprehensive user guide and troubleshooting tips for JOOAN analog CCTV security cameras. Learn about camera features, connection setup, and how to resolve common issues like no image or black and white display. Includes details on warranty and technical support.</p>
 <p>WIRELESS KIT QUICK USER GUIDE</p>	<p>Jooan Wireless Kit Quick User Guide</p> <p>A comprehensive quick user guide for the Jooan Wireless Kit, covering installation, setup, operation, and troubleshooting of the NVR and IP cameras.</p>