

Dahua DH-HAC-HDBW1231RAN-Z-A

Dahua DH-HAC-HDBW1231RAN-Z-A 2MP Starlight HDCVI Dome Camera User Manual

Model: DH-HAC-HDBW1231RAN-Z-A | Brand: Dahua

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Dahua DH-HAC-HDBW1231RAN-Z-A 2MP Starlight HDCVI Dome Camera. This camera features advanced Starlight technology for superior low-light performance, 130dB true Wide Dynamic Range (WDR), 3D Noise Reduction (NR), and a versatile 2.7mm to 12mm motorized lens. It supports switchable video outputs including HD-CVI, AHD, HD-TVI, and standard analog, configurable via the On-Screen Display (OSD) menu or PFM820 controller. Key features also include image optimization, a built-in microphone, and IR LED illumination up to 60 meters with Smart IR for enhanced night vision. Designed for both indoor and outdoor use, it boasts IP67 weather resistance and IK10 vandal resistance, operating on DC12V/1A power.

2. SETUP AND INSTALLATION

Careful installation is crucial for optimal camera performance and longevity. Ensure all power is disconnected before beginning installation.

2.1 Package Contents

- Dahua DH-HAC-HDBW1231RAN-Z-A Camera
- Mounting hardware
- Quick Start Guide

2.2 Physical Installation

1. **Select Mounting Location:** Choose a suitable indoor or outdoor location, considering the camera's IP67 and IK10 ratings. Ensure a clear field of view and adequate lighting.
2. **Mounting:** Use the provided mounting template to drill pilot holes. Secure the camera base firmly to the mounting

surface using the supplied screws.

3. **Cable Connection:** Connect the DC12V/1A power supply to the camera's power input. Connect the video output cable to your Digital Video Recorder (DVR) or monitor.
4. **Adjust Camera Angle:** Loosen the adjustment screws to position the dome camera for the desired viewing angle. Tighten the screws once adjusted.

2.3 Initial Configuration (Video Output)

The camera supports multiple video formats (HDCVI, AHD, HD-TVI, Analog). The default format is typically HDCVI. If your DVR requires a different format, you can switch it:

- **Via OSD Menu:** Access the camera's OSD menu through a compatible DVR or test monitor. Navigate to the video format settings and select the appropriate output.
- **Via PFM820 Controller:** Use a Dahua PFM820 UTC controller (sold separately) to switch video formats directly via the coaxial cable.

2.4 Mobile Application Setup

To view live footage and manage your camera remotely, download the official Dahua mobile application.



Image: Dahua mobile application interface on smartphones and tablets, showing live video feeds, alongside a QR code and links to download the app from Apple App Store and Google Play.

1. **Download App:** Scan the QR code shown in the image or visit <http://mobile.easy4ipcloud.com/DMSSPlus/DMSSPlus.html> to download the DMSS Plus app for your iOS or Android device.
2. **Create Account:** Open the app and follow the on-screen instructions to create a new user account or log in if you already have one.
3. **Add Device:** Use the app's 'Add Device' function. You may scan the QR code on the camera or manually enter its serial number to add it to your account.
4. **Live View:** Once added, you can access live video feeds, playback recordings, and configure camera settings directly from your mobile device.

3. OPERATING INSTRUCTIONS

This section details the key operational features of your Dahua camera.

3.1 Video Monitoring

- **Live View:** Access live video streams through your connected DVR/NVR or the mobile application.
- **Playback:** Review recorded footage stored on your DVR/NVR. The mobile app also allows remote playback.

3.2 Advanced Imaging Features

- **Starlight Technology:** Provides enhanced color images in extremely low-light conditions, beyond what standard cameras can achieve.
- **130dB True WDR:** Compensates for extreme lighting conditions, ensuring clear images in both bright and dark areas of a scene simultaneously.
- **3D NR (Noise Reduction):** Digitally removes noise from the image, especially in low-light, resulting in a cleaner and sharper picture.
- **Motorized Lens (2.7mm-12mm):** Allows for remote adjustment of the camera's focal length and zoom, providing flexibility in field of view without manual intervention at the camera site.

3.3 Night Vision and Audio

- **IR LED Illumination (up to 60m):** Built-in infrared LEDs provide illumination for clear black-and-white video in complete darkness, up to a distance of 60 meters.
- **Smart IR:** Automatically adjusts the intensity of the camera's infrared LEDs to prevent overexposure of objects closer to the camera, ensuring consistent illumination.
- **Built-in Microphone:** Captures audio within the camera's vicinity, providing an additional layer of surveillance information.

4. MAINTENANCE

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

- **Cleaning:** Periodically clean the camera's dome cover with a soft, damp cloth to remove dust, dirt, or smudges that may obstruct the view. Avoid abrasive cleaners.
- **Check Connections:** Regularly inspect all cable connections (power and video) to ensure they are secure and free from corrosion or damage.
- **Firmware Updates:** Check the Dahua official website for any available firmware updates for your camera model. Firmware updates can improve performance, add features, or fix bugs. Follow the manufacturer's instructions carefully when performing updates.

- **Environmental Check:** For outdoor installations, ensure that no new obstructions (e.g., growing foliage) are blocking the camera's field of view.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your camera.

5.1 No Video Output

- **Check Power:** Ensure the camera is receiving proper DC12V/1A power. Verify the power adapter and connections.
- **Check Video Cable:** Ensure the video cable is securely connected to both the camera and the DVR/monitor.
- **Verify Video Format:** Confirm that the camera's video output format (HDCVI/AHD/HD-TVI/Analog) matches the input format supported by your DVR. Adjust if necessary using the OSD menu or PFM820.
- **Test with Another Input:** If possible, test the camera with a different DVR input or a compatible test monitor.

5.2 Poor Image Quality

- **Clean Lens:** Clean the camera's dome cover and lens to remove any dirt or smudges.
- **Adjust Focus/Zoom:** If using the motorized lens, adjust the focus and zoom settings via your DVR or mobile app to ensure a clear image.
- **Check Lighting:** Ensure adequate lighting in the surveillance area. While Starlight and IR LEDs help, extreme conditions can still affect quality.
- **WDR/NR Settings:** Adjust WDR and 3D NR settings in the OSD menu if experiencing issues with backlighting or image noise.

5.3 Mobile App Connection Issues

- **Network Connectivity:** Ensure your DVR/NVR is connected to the internet and your mobile device has a stable internet connection.
- **App Version:** Ensure your DMSS Plus app is updated to the latest version.
- **Device Status:** Check the camera's status on your DVR/NVR to ensure it is online and functioning correctly.

6. SPECIFICATIONS

Feature	Description
Model Number	DH-HAC-HDBW1231RAN-Z-A
Resolution	2 Megapixel
Technology	Starlight, HDCVI
Lens Type	2.7mm ~ 12mm Motorized Lens
Dynamic Range	130dB True WDR
Noise Reduction	3D NR
Video Output	Switchable HD-CVI / AHD / HD-TVI / Analog
Audio	Built-in Microphone
IR LED Distance	Max 60m with Smart IR
Ingress Protection	IP67 (Waterproof/Dustproof)
Vandal Resistance	IK10
Power Supply	DC12V / 1A
Recommended Use	Home Security



7. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided at the time of purchase or contact your vendor. For technical support, product inquiries, or further assistance, please contact your authorized Dahua dealer or visit the official Dahua Technology website for support resources.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question