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› SUNBA 4K 8MP High Speed PTZ Camera Outdoor (Model 405-D20X 4K) - Instruction Manual

SUNBA 405-D20X 4K

SUNBA 4K 8MP High Speed PTZ Camera Outdoor

MODEL: 405-D20X 4K

Instruction Manual

1. Introduction

This instruction manual provides comprehensive guidance for the installation, operation, and maintenance of your SUNBA 4K 8MP High Speed PTZ Camera Outdoor, Model 405-D20X 4K. This camera is designed for outdoor surveillance, offering advanced features such as 4K Ultra HD resolution, 20X optical zoom, auto tracking, two-way audio, and robust night vision capabilities. Please read this manual thoroughly before using the product to ensure proper setup and optimal performance.

2. Safety Information

- **Power Supply:** Use only the specified power adapter (12V2A) or a compatible PoE+ (802.3at, at least 25W single port) injector/switch. Incorrect power supply may damage the device and void the warranty.
- **Installation:** Ensure the camera is securely mounted to prevent falls. Professional installation is recommended for outdoor setups.
- **Water Resistance:** The camera is IP66 rated for outdoor use. Ensure all cable connections are properly sealed to maintain water resistance.
- **Operating Temperature:** Do not operate the camera outside its specified temperature range.
- **Laser Safety:** The camera's laser infrared LED is IEC 60825-1 certified. Avoid direct eye exposure to the laser.
- **Cleaning:** Disconnect power before cleaning. Use a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.

3. Package Contents

Verify that all items are present in the package:

- SUNBA 4K 8MP PTZ Camera (Model 405-D20X 4K)
- Wall Bracket (plastic)

- 12V2A Power Adapter (PoE adapter is not included)
- CD-Rom (containing software and documentation)
- Instruction Manual (this document)

4. Product Overview

The SUNBA 405-D20X 4K camera is a high-performance outdoor surveillance solution. Key components and features are detailed below.



Figure 4.1: Camera Component Diagram

This diagram illustrates the main components of the SUNBA 405-D20X 4K camera, including the Wall Bracket, Long Range Infrared LED (high beam), Light Sensor, Low Range Infrared LED (low beam), Built-in Mic, RJ45 Network Port, and DC12V Female Port.

4.1 Key Features

- **4K Ultra HD Resolution:** Captures video at 3840x2160 pixels, providing clear and detailed images.
- **20X Optical Zoom:** Allows for detailed viewing of distant objects with an 8-55.4 degree viewing angle.
- **High-Speed PTZ:** Pan, Tilt, and Zoom functions with pan speeds up to 90 degrees/second. Offers 360-degree rotation, 90-degree downward tilt, and an additional 5-degree upward tilt.
- **Auto Tracking:** Automatically follows detected movement.

- **2-Way Audio:** Built-in microphone and audio interface for two-way communication.
- **Night Vision:** IR-Cut infrared night vision up to 328ft (100m) with automatic day/night switching.
- **PoE+ Connectivity:** Simplifies installation by delivering both power and network signal through a single Ethernet cable (802.3at standard).
- **TF Card Slot:** Supports local storage for recordings.
- **ONVIF Compliant:** Ensures compatibility with various NVRs and software like Blue Iris, QNAP, and Security Spy.



Figure 4.2: 4K Ultra HD Resolution

This image demonstrates the clarity of 4K Ultra HD (3840x2160) resolution compared to lower resolutions like 5MP, 3MP, and 1080P, highlighting the increased detail captured by the camera.



Figure 4.3: 20X Optical Zoom

An illustration showing the powerful 20X optical zoom, allowing users to magnify distant scenes for clearer identification of details.



Figure 4.4: Day and Night Vision

A comparison showing the camera's clear image quality during the day and its effective infrared night vision capability in low-light conditions.

Ultra-Durable Military-Grade Motor +360° Zero-Loss Slip Ring Rotation



- ✓ Seamless 360°PTZ Rotation
- ✓ Industrial -Grade Build Quality
- ✓ Zero Signal Interference

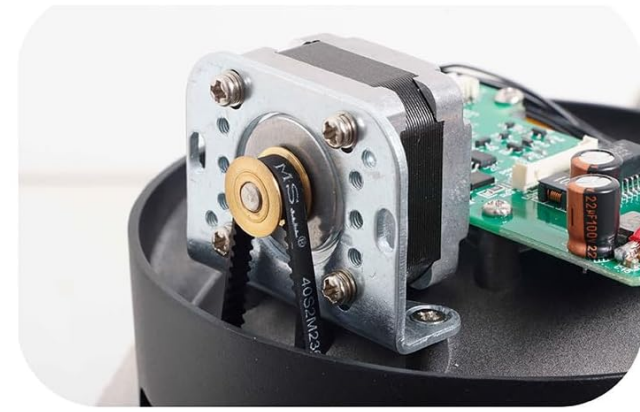


Figure 4.5: Internal Motor and Slip Ring

Detailed views of the camera's internal components, including the ultra-durable military-grade motor and 360-degree zero-loss slip ring, ensuring seamless PTZ rotation and industrial-grade build quality with zero signal interference.

5. Setup

5.1 Mounting the Camera

The camera comes with a wall bracket for secure outdoor installation. Choose a mounting location that provides the desired field of view and is within reach of your network and power connections.

1. Securely attach the wall bracket to a sturdy surface using appropriate screws and anchors (not included).
2. Attach the camera to the wall bracket, ensuring it is firmly locked in place.

5.2 Power and Network Connection

The camera supports Power over Ethernet Plus (PoE+) for simplified wiring.

1. **PoE+ Connection:** Connect an Ethernet cable from a PoE+ (802.3at) switch or injector to the camera's RJ45 Network Port. This single cable will provide both power and network connectivity.
2. **DC12V Power (Alternative):** If not using PoE+, connect the provided 12V2A power adapter to the DC12V Female Port and plug it into a power outlet. Then, connect an Ethernet cable from your router/switch to the RJ45 Network Port for network access.

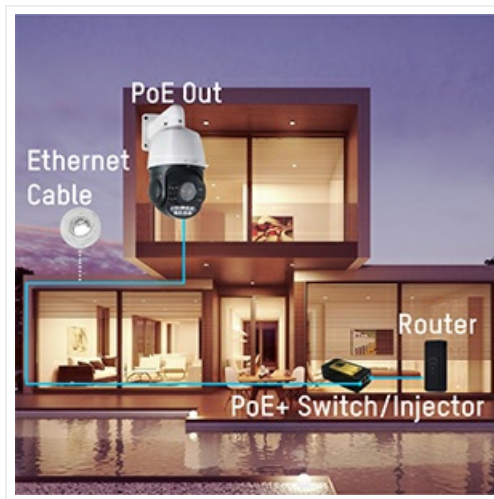


Figure 5.1: PoE+ Connection

This diagram illustrates how to connect the camera using a single Ethernet cable for both power and network via a PoE+ switch or injector.

5.3 Initial Network Configuration

After connecting the camera, it will obtain an IP address from your network's DHCP server. You can find the camera's IP address using:

- Your router's connected devices list.
- The complimentary VMS client software provided on the CD-Rom or available for download from the SUNBA website.

Once the IP address is identified, open a web browser (Internet Explorer recommended for full functionality) and enter the IP address to access the camera's web interface. The default username is **admin** and the password field is typically left blank initially. You will be prompted to set a new password for security.

6. Operation

6.1 Remote Live View

Access your camera's live feed and controls through various platforms:

- **Smartphone App:** Download the official SUNBA P2P app for iOS or Android devices. Follow the in-app instructions to add your camera using its UID or QR code.
- **Web Browser:** Access the camera's web interface by entering its IP address in a browser.
- **Desktop Client:** Use the complimentary VMS client software for PC and Mac for advanced management and viewing.



Figure 6.1: Remote Live View

An example of accessing the camera's live feed and controls via a smartphone application, enabling remote monitoring.

6.2 PTZ Control

The camera offers extensive Pan, Tilt, and Zoom capabilities:

- **Pan:** Rotate the camera horizontally 360 degrees.
- **Tilt:** Adjust the camera vertically from 0 to 90 degrees downward, with an additional 5 degrees upward.
- **Zoom:** Utilize the 20X optical zoom to magnify or widen the field of view.
- **Presets and Tours:** Configure preset positions and automatic PTZ tours through the camera's interface or client software.



Figure 6.2: PTZ Movement

This diagram illustrates the camera's pan (360 degrees), downward tilt (0-90 degrees), and upward tilt (5 degrees) capabilities.

6.3 Auto Tracking

Enable the auto tracking feature in the camera's settings to allow the camera to automatically follow detected moving objects within its field of view. Adjust sensitivity and tracking duration as needed.

6.4 2-Way Audio

The built-in microphone captures audio. Connect an external speaker to the audio output interface (if available) for two-way communication. Manage audio settings through the web interface or client software.

6.5 Recording Options

The camera offers multiple recording solutions:

- **TF Card:** Insert a TF (microSD) card into the camera's slot for local storage. Refer to the camera's detailed instructions for accessing the TF card slot (typically requires removing a cover).
- **Network Attached Storage (NAS):** Configure the camera to record to a compatible NAS device.
- **Network Video Recorder (NVR):** Connect the camera to an ONVIF-compatible NVR for centralized recording and management.
- **Computer:** Use the VMS client software or other compatible third-party software (e.g., Blue Iris, Security Spy) to record video directly to a computer.

Be Aware of the Size of the Camera



Figure 6.3: Recording Options

This image illustrates various recording options available for the camera, including TF card, NAS, NVR, and direct recording to a computer with compatible software.

7. Maintenance

- **Cleaning:** Regularly clean the camera lens and housing with a soft, damp cloth to remove dust and dirt. Avoid using abrasive materials or harsh chemicals.
- **Firmware Updates:** Check the SUNBA official website periodically for firmware updates. Keeping your camera's firmware up-to-date ensures optimal performance, security, and access to new features. Follow the provided instructions carefully when performing updates.
- **Cable Inspection:** Periodically inspect all cables and connections for signs of wear or damage, especially in harsh outdoor environments. Ensure all waterproof seals are intact.

8. Troubleshooting

If you encounter issues with your camera, refer to the following common troubleshooting steps:

- **No Power:**

- Check if the power adapter is securely connected and the outlet is functional.
- If using PoE+, ensure your PoE+ switch/injector is powered on and providing sufficient power (802.3at, at least 25W).

- **No Video/Offline:**

- Verify the Ethernet cable is securely connected to both the camera and the network device.
- Check network connectivity for your router/switch.
- Ensure the camera's IP address is correct and accessible from your viewing device.
- Restart the camera by disconnecting and reconnecting power.

- **PTZ Not Responding:**

- Ensure the camera has power and network connectivity.
- Check if the control software/app is properly configured and connected to the camera.
- Some NVRs may have limited PTZ control compatibility; verify ONVIF settings.

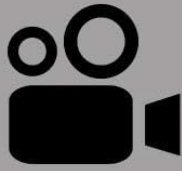
- **Poor Image Quality:**

- Clean the camera lens.
- Check network bandwidth; insufficient bandwidth can cause choppy or low-resolution video.
- Adjust image settings (brightness, contrast, resolution) in the camera's web interface.

For further assistance, please refer to the support section.

9. Specifications

Feature	Specification
Brand	SUNBA
Model Name	405-D20X 4K-N
Recommended Uses	Outdoor Security
Connectivity Technology	Ethernet
Special Feature	Waterproof
Indoor/Outdoor Usage	Outdoor
Compatible Devices	ONVIF
Controller Type	Remote Control
Mount Type	Wall Mount
Color	White
Connectivity Protocol	Ethernet
Power Source	Corded Electric
Batteries Required	No
Video Capture Format	MPEG-4
Item Dimensions (LxWxH)	8 x 12.2 x 7.5 inches
Unit Count	1.0 Count
Video Capture Resolution	4K
Night Vision	Component (IR-Cut)



Recording Options

1. TF Card

Follow instructions to remove the camera cover first.



4. Computer



2. NAS



3. NVR



Figure 9.1: Relative Size of SUNBA Dome Cameras

This image provides a size comparison of the 405 Series camera relative to other SUNBA dome camera series (601 and 305) and a common smartphone for scale.

10. Warranty and Support

10.1 Warranty Information

Your SUNBA 4K 8MP High Speed PTZ Camera Outdoor (Model 405-D20X 4K) is covered by a **2-Year US manufacturer's warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty documentation included with your product or visit the official SUNBA website.

10.2 Customer Support

If you require technical assistance, have questions about installation, or need to report an issue, please contact SUNBA customer support. You can typically find contact information (email, phone, or support portal) on the official SUNBA website. When contacting support, please have your product model number (405-D20X 4K) and purchase details ready.

