

## Hikvision DS-2CD2086G2H-IU

# Hikvision 8MP Pro Bullet PoE IP Security Camera DS-2CD2086G2H-IU(2.8mm)(eF) User Manual

## INTRODUCTION

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The Hikvision DS-2CD2086G2H-IU(2.8mm)(eF) is an 8MP Pro Bullet PoE IP Security Camera designed for outdoor surveillance. It features a 1/1.8" CMOS sensor, delivering 4K resolution (3840 × 2160) for high-quality images. Equipped with DarkFighter technology, it provides excellent low-light performance, capturing color images down to 0.0008 Lux. The camera includes a 2.8mm fixed lens offering a 105.1° horizontal field of view, ideal for wide area coverage. Intelligent IR LEDs provide night vision up to 40 meters, automatically adjusting intensity to prevent overexposure. This camera also features 120dB WDR for clear images in strong backlight, efficient H.265+ compression, and deep learning-based human and vehicle classification. An integrated microphone ensures real-time audio security, and its IP67 rating guarantees resistance to water and dust.

## PRODUCT FEATURES

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- High-quality images with 8 MP resolution.
- 2.8 mm fixed optics.
- Excellent low-light performance with Powered-by-DarkFighter technology.
- Clear images even in intense backlight thanks to 120 dB WDR technology.
- Efficient H.265+ compression technology.
- Focus on human and vehicle classification based on deep learning.
- Integrated microphone for real-time audio security.
- Water and dust resistant (IP67).

## SETUP

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### 1. Unboxing

Carefully unpack the camera and verify all components are present: Hikvision DS-2CD2086G2H-IU camera,

mounting accessories, and documentation.

## 2. Physical Installation

The camera is designed for outdoor wall mounting. Select a suitable location that provides the desired field of view and is within reach of an Ethernet cable. Use the provided mounting template and hardware to securely attach the camera to a stable surface. Ensure the camera is positioned to avoid direct sunlight or strong artificial light sources that could cause glare.



Image: Side view of the Hikvision DS-2CD2086G2H-IU camera, showing the integrated wall mount bracket.

## 3. Network Connection

Connect an Ethernet cable from your PoE (Power over Ethernet) switch or PoE injector to the camera's Ethernet port. The camera will power on automatically. If not using PoE, a 12V DC power adapter (not included) will be required in addition to the Ethernet connection.

## 4. Software Configuration

Access the camera's web interface via a web browser using its default IP address (refer to the separate Quick Start Guide for default IP and login credentials). Follow the on-screen prompts to set a strong password, configure network settings, and adjust image parameters. For advanced features like human/vehicle classification and recording schedules, refer to the comprehensive user manual available on the Hikvision support website.

# OPERATING

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## 1. Live View

Once configured, access the live video feed through the web interface or a compatible Hikvision client software (e.g., iVMS-4200) or mobile application (e.g., Hik-Connect). This allows real-time monitoring of the surveillance area.



Image: Front view of the Hikvision DS-2CD2086G2H-IU camera, highlighting the lens and integrated microphone.

## 2. Recording and Playback

Configure recording settings via the web interface. The camera supports continuous recording, event-triggered recording (e.g., motion detection), and scheduled recording. Recordings can be stored on a Network Video Recorder (NVR), a local SD card (if supported and installed), or network storage. Use the client software or web interface to search and play back recorded footage.

## 3. Smart Features

The camera's deep learning capabilities enable accurate classification of humans and vehicles, reducing false alarms from other movements. Configure these smart event detections in the camera's settings to trigger alerts or recordings only when relevant objects are detected.

## 4. Audio Monitoring

The integrated microphone allows for real-time audio monitoring of the surveillance area. Ensure local regulations permit audio recording before enabling this feature.

# MAINTENANCE

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## 1. Cleaning

Regularly clean the camera lens and housing with a soft, damp cloth to remove dust, dirt, or water spots. Avoid abrasive cleaners or solvents that could damage the surface. For outdoor installations, check for spiderwebs or debris that might obstruct the view.

## 2. Firmware Updates

Periodically check the Hikvision official website for firmware updates. Keeping the camera's firmware up-to-date ensures optimal performance, security, and access to new features. Follow the provided instructions carefully when performing firmware upgrades.

## 3. Environmental Check

Inspect the camera's mounting and cabling periodically to ensure they remain secure and undamaged, especially after severe weather conditions. Verify that the IP67 seal is intact.

## TROUBLESHOOTING

### 1. No Image/Video Feed

- **Check power supply:** Ensure the PoE connection is active or the 12V DC adapter is properly connected and functioning.
- **Network connectivity:** Verify the Ethernet cable is securely connected and the network status indicator lights on the camera and switch are active. Confirm the camera's IP address is correct and accessible on your network.
- **Software issues:** Restart the viewing software or web browser. Ensure necessary plugins are installed and enabled.

### 2. Poor Image Quality

- **Clean the lens:** Dust or smudges on the lens can degrade image quality.
- **Lighting conditions:** Adjust camera position or lighting if glare or insufficient light is an issue. Ensure IR LEDs are functioning correctly at night.
- **Focus adjustment:** While this model has a fixed lens, ensure no physical obstruction is interfering with the optical path.

### 3. Recording Problems

- **Storage capacity:** Check if the NVR or SD card storage is full. Configure storage overwrite settings if desired.
- **Recording schedule:** Verify that the recording schedule is correctly configured.
- **Network stability:** Unstable network connections can interrupt recording to network storage.

### 4. Camera Not Responding

- **Power cycle:** Disconnect and reconnect power to the camera.
- **Reset to factory defaults:** If issues persist, a factory reset might be necessary. Refer to the separate Quick Start Guide for instructions on performing a hardware reset.

## SPECIFICATIONS

<b>Brand</b>	Hikvision
<b>Model Name</b>	DS-2CD2086G2H-IU(2.8mm)(eF)
<b>Usage</b>	Outdoor
<b>Connectivity Protocol</b>	Ethernet (PoE)
<b>Mounting Type</b>	Wall Mount
<b>Video Recording Resolution</b>	8MP (4K, 3840 × 2160)
<b>Color</b>	White
<b>Included Components</b>	Camera
<b>Item Dimensions (L x W x H)</b>	17.9 x 7.5 x 7.5 cm

<b>Batteries Required</b>	No
<b>Image Sensor</b>	1/1.8" CMOS
<b>Lens</b>	2.8mm fixed, F1.0 aperture
<b>Field of View</b>	Horizontal 105.1°
<b>Minimum Illumination</b>	0.0008 Lux (color), 0 Lux with IR
<b>IR Range</b>	Up to 40 meters
<b>WDR</b>	120 dB
<b>Video Compression</b>	H.265+
<b>Smart Features</b>	Deep learning-based human and vehicle classification
<b>Audio</b>	Integrated microphone
<b>Ingress Protection</b>	IP67 (Water and Dust Resistant)
<b>Manufacturer Part Number</b>	6942160432595

## SAFETY INFORMATION

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- Read all instructions carefully before installation and use.
- Installation must be performed by qualified personnel and conform to all local codes.
- Use only manufacturer-recommended accessories.
- Do not expose the camera to extreme temperatures, humidity, or corrosive environments beyond its specified operating conditions.
- Ensure proper grounding to prevent electrical hazards.
- Avoid pointing the lens directly at strong light sources for extended periods, as this may damage the image sensor.
- Disconnect power before servicing or cleaning the camera.

## WARRANTY AND SUPPORT

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This Hikvision product is covered by a limited manufacturer's warranty. For detailed warranty terms and conditions, please refer to the official Hikvision website or contact your authorized dealer.

For technical support, firmware downloads, and additional documentation, visit the Hikvision support portal or contact their customer service.