Honeywell

Honeywell 35 Series

IP Cameras

HC35W43R3
HC35WE3R3
HC35WB5R3
HC35W25R3
HC35WB8R2
HC35WZ5R30
HC35W43R2
HC35WE3R2
HC35WB5R2
HC35W48R3
HC35WE8R3
HC35WZ5R30W
HC35WB3R3
HC35W45R3
HC35WE5R3
HC35W48R2
HC35WE8R2
HC35WB3R2
HC35W45R2
HC35WE5R2
HC35WB8R3
HC35WZ2R25

use-IP

User Guide

Recommended

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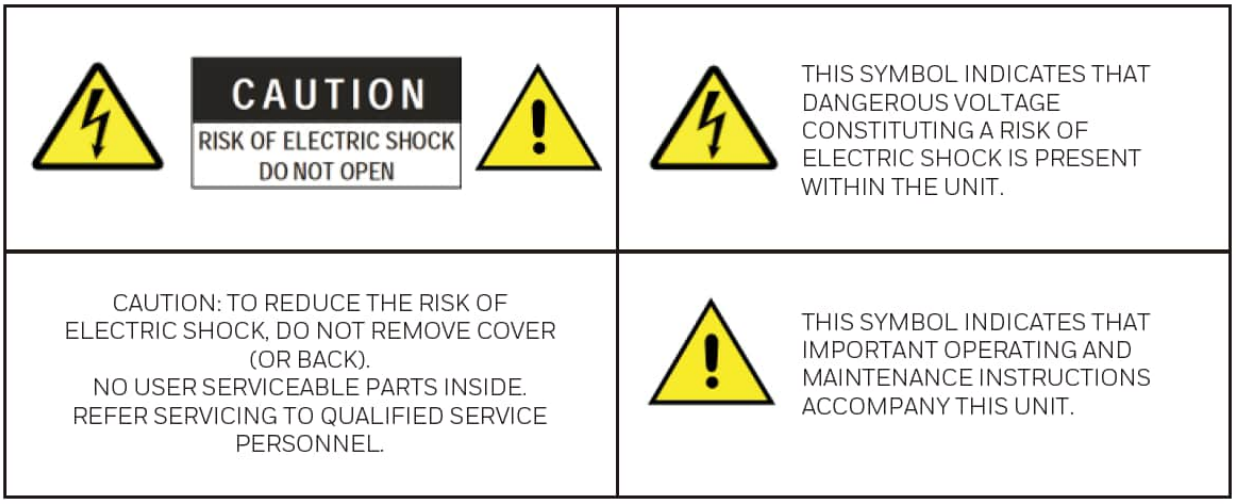
Revision

Issue	Date	Revisions
A	03/2022	New document.
B	05/2022	Add wiper camera

Cautions and Warnings



Warning: **To ensure compliance with electrical safety standards, Local Certified / CSA Certified / UL Listed LPS or Class 2 power adapters are required. Power over Ethernet (PoE) shall be provided by listed Information Technology Equipment meeting the IEEE 802.3at PoE standard. The PoE is not intended to be connected to exposed (outside plant) networks.**
Consult Honeywell for the recommended adapter.

Caution: **Invisible LED radiation (850 nm). Avoid exposure to beam.**

Regulatory Statements

Photobiological safety

This product fulfills the requirements for photobiological safety according to IEC/ EN 62471 (risk group 1).

General Data Protection Regulation

Please be aware that this product can store personal data. Personal data is protected by the General Data Protection Regulation (2016/679) in Europe and therefore the owners of personal data have obtained certain rights thanks to this regulation.

We strongly advise you to be fully aware of these owner (“data subjects”) rights as well as which limitations you have to obey regarding the use and distribution of this data.

Further details can be found on the GDPR website of the EU

FCC Compliance Statement

Information to the User: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This Class A digital apparatus complies with Canadian ICES-003.

Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Manufacturer’s Declaration of Conformance

North America

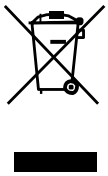
The equipment supplied with this guide conforms to UL 62368-1 and CSA C22.2 No. 62368-1 (except for HC35WZ5R30W).

Europe

The manufacturer declares that the equipment supplied with this guide is compliant with the European Parliament and Council Directive on the Restrictions of the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU) as

Amended by RoHS 3 (2015/863), and the essential requirements of the EMC Directive (2014/30/EU), conforming to the requirements of standards EN 55032 for emissions, EN 50130-4 for immunity, and EN 62368 for electrical equipment safety.

Waste Electrical and Electronic Equipment (WEEE)



Correct Disposal of this Product (applicable in the European Union and other European countries with separate collection systems).

This product should be disposed of, at the end of its useful life, as per applicable local laws, regulations, and procedures.

Check Local Waste Guidelines

Components of this product require separate waste collection. Check local waste guidelines for sorting rules.

Safety Instructions

Before installing or operating the unit, read and follow all instructions. After installation, retain the safety and operating instructions for future reference.

1. HEED WARNINGS - Adhere to all warnings on the unit and in the operating instructions.
2. INSTALLATION

- Install in accordance with the manufacturer's instructions.
- Installation and servicing should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.
- Any wall or ceiling mounting of the product should follow the manufacturer's instructions and use a mounting kit approved or recommended by the manufacturer.
- It is not allowed to install the PTZ camera upside down.

3. POWER SOURCES - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your facility, consult your product dealer or local power company.
4. MOUNTING SYSTEM - Use only with a mounting system recommended by the manufacturer or sold with the product.
5. ATTACHMENTS/ACCESSORIES - Do not use attachments/accessories not recommended by the product manufacturer as they may result in the risk of fire, electric shock, or injury to persons.

6. CLEANING - Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
7. SERVICING - Do not attempt to service this unit yourself. Refer all servicing to qualified service personnel.
8. REPLACEMENT PARTS - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards. Using replacement parts or accessories other than the original manufacturers may invalidate the warranty.

Warranty and Service

Subject to the terms and conditions listed on the product warranty, during the warranty period Honeywell will repair or replace, at its sole option, free of charge, any defective products returned prepaid.

In the event you have a problem with any Honeywell product, please call Customer Service at 1.800.323.4576 for assistance or to request a **Return Merchandise Authorization (RMA)** number.

Be sure to have the model number, serial number, and the nature of the problem available for the technical service representative.

Prior authorization must be obtained for all returns, exchanges, or credits. **Items shipped to Honeywell without a clearly identified Return Merchandise Authorization (RMA) number may be refused.**

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CHAPTER

1 INTRODUCTION

This document provides instructions for accessing, configuring, and operating the Honeywell 35 Series cameras. This document is intended for system installers, administrators, and operators.

Overview

Honeywell 35 Series IP cameras integrate traditional camera and network video technology, combining video data collection and transmission. These flexible, fully featured cameras are the ideal choice for a wide range of surveillance applications.

The cameras offer 2 megapixel resolution at up to 60 frames per second and 8 megapixel resolution at up to 30 frames per second and use video compression technology to save bandwidth and storage while ensuring maximum video quality. All the cameras are True Day/Night with intelligent IR capability, providing illumination in low-light and nighttime scenes up to 60m for IPC models and 150m for PTZ models. Also, all the cameras support WDR function at up to 120 DB. Each camera comes with configurable motion detection and camera tamper detection and supports up to 5 user-defined privacy mask areas. In addition to a 12V DC adapter for IPC models and 24V AC for PTZ models, all the IPC cameras support Power over Ethernet (PoE) and PTZ cameras support POE+, eliminating the need for a separate power supply and associated wiring. All models also support local video storage on two micro SDHC cards (up to 512 GB) when network service is interrupted.

Supported Browsers

Note: *35 Series cameras support Windows desktop system and don't support mobile system.*

Chrome and Edge browsers are supported:

Browser	Version
Chrome	91.0.4472.164 (Official Build) (64-bit)
Edge	92.0.902.7 (Official Build) (64-bit)

Key Features

The key features in Honeywell Series 35 IP camera are:

Camera

- Up to 8MP (3840 x 2160) cameras
- Video parameter setup, such as electronic shutter and gain
- Video Analytics: Motion Detection, Smart Motion, Tampering, Intrusion, Multi Loitering, People Counter
- True WDR (120 dB)
- True day/night mode using a removable IR cut filter
- Low-light with 2D/3D noise reduction saving storage and bandwidth together with smart codec
- For use as part of Video Systems which comply with NDAA

Storage

- Central server backup
- Series 35 camera has one SD card slot, files stored on SD card

Network

- Up to 10 connections
- Compatible with the following network protocols: IPv4, IPv6, TCP/IP, HTTP, HTTPS, RTSP/RTP/RTCP, IGMP/Multicast, SMTP, DHCP, NTP, DNS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS
- Support the following security modes: User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128 / 256, SSH / Telnet closed, PCI-DSS compliance
- Support the following languages: Arabic, Czech, Dutch, English, French, German, Italian, Japanese, Korean, Polish, Portuguese (Brazil), Russian, Spanish, Turkish
- Camera configuration and management via Ethernet

Events and Analytics

- Support the following Video Analytics types: Motion Detection, Smart Motion, Tampering, Intrusion, Multi Loitering, People Counter.
- Support the following event types: Video motion detection, Alarm input, Recording

notification, Tampering

- Support the following event linkage mode: Event notification using digital output, Email and MicroSD card.

User Management

- Each user belongs to specific group
- Different user rights for each group

System Management

- Log function
- Support controlling access permission by verifying the client PC's IP address

CHAPTER

2 ACCESSING THE CAMERA

This chapter contains the following sections:

- Installing the Unified Tool, page 4
- Discovering Your Camera on the Network, page 4
- Initializing Cameras, page 7
- Assigning a New IP Address to Your Camera, page 8
- Upgrading the Camera's Firmware, page 9
- Accessing the Camera from a Web Browser, page 10

Installing the Unified Tool

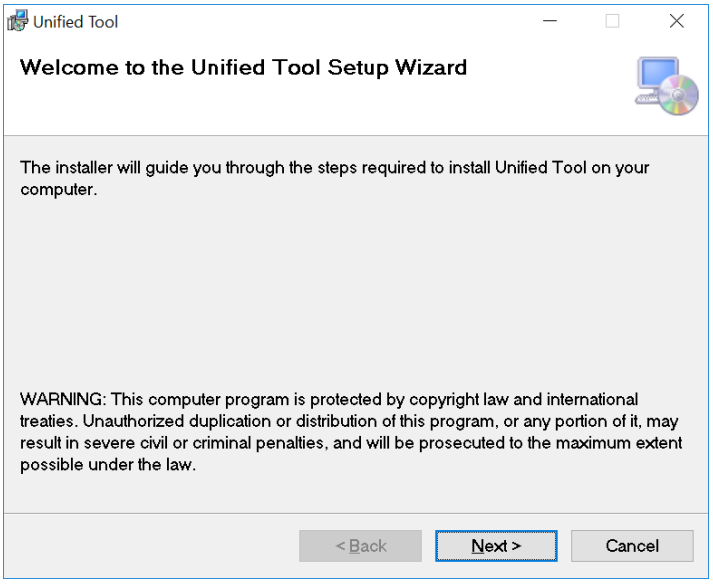
To get the installation package of Unified Tool:

Visit https://myhoneywellbuildingsuniversity.com/ and login. Navigate to **Download Center**, search and download the installation package of Unified Tool to your computer. You need to unzip the package.

To install the Unified Tool:

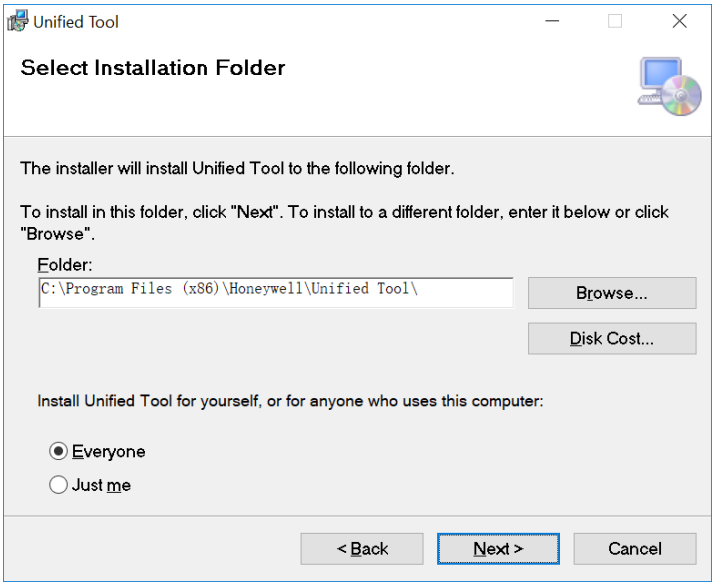
1. Double-click the installation program in the installation package.

Figure 1 Install Unified Tool



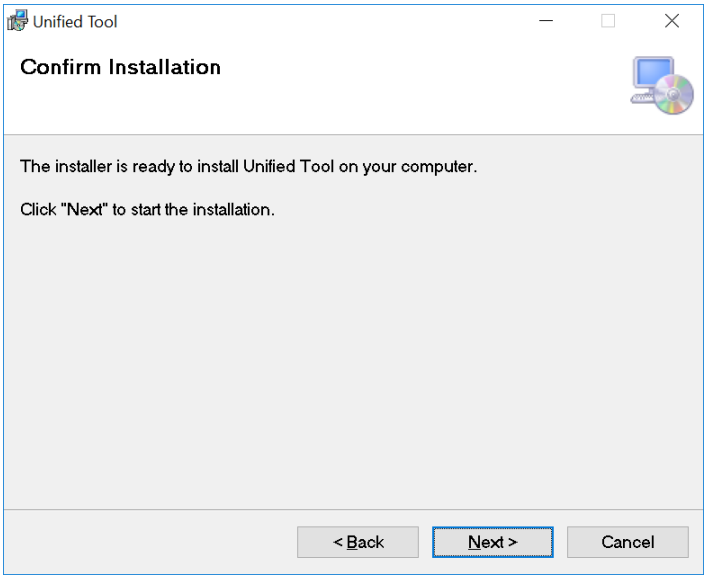
2. Click Next and the following figure is displayed:

Figure 2 Select Installation Folder



3. Follow the on-screen instructions to configure your settings and click Next. The following figure is displayed:

Figure 3 Confirm Installation



4. Click Next. When the installation is completed, click Close. A shortcut of Unified Tool will be displayed on your desktop.

Discovering Your Camera on the Network

1. Double-click on the desktop and the following figure is displayed:

Figure 4 Splash Screen

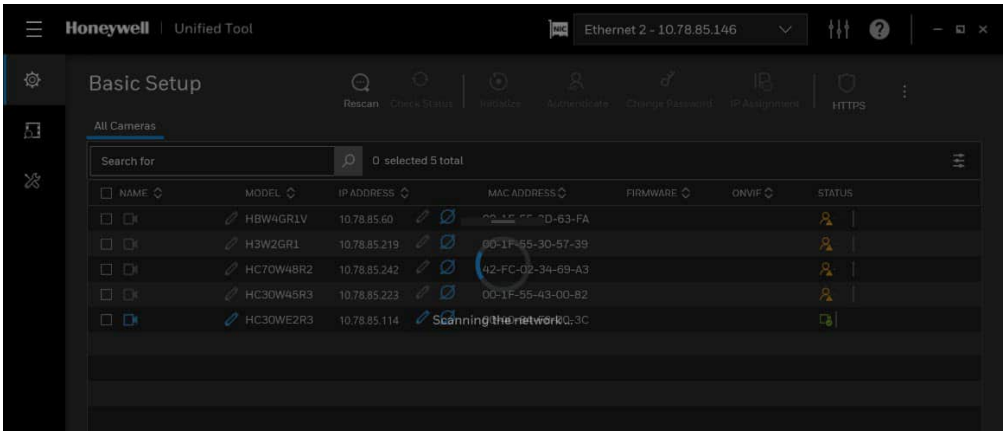
2. Select your language from the dropdown list of Language. Currently, only English is supported.

3. Check “Don’t show the splash window on startup” and this page can be skipped next time.

   If you want to check the splash window again, click as shown in Figure 5 and select the checkbox of Show the splash page on startup.

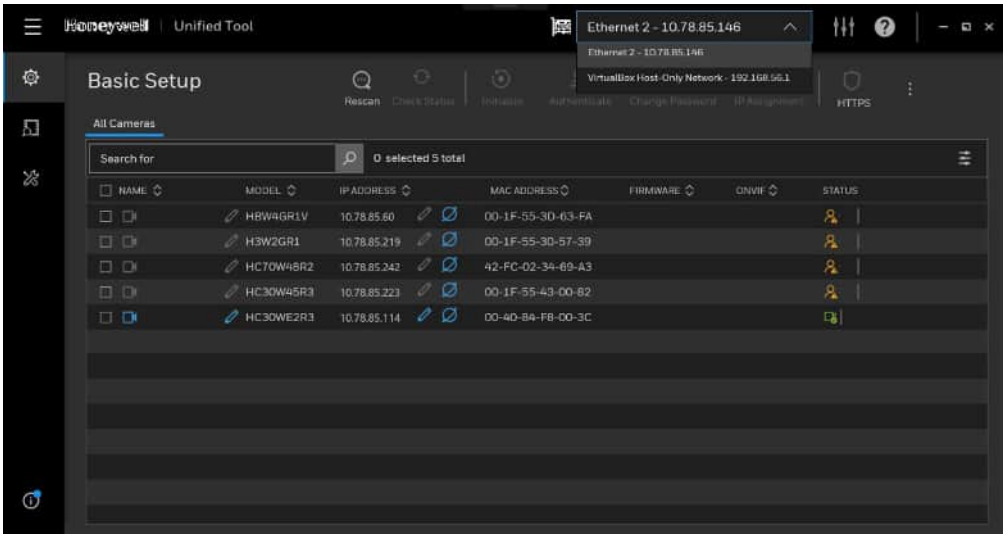
4. Click CONTINUE. It will scan devices in the network automatically.

Figure 5 Scanning the Network

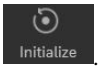


After the scanning, all scanned devices in the same subnet and different subnet will be displayed in the devices list.

Figure 6 Device List

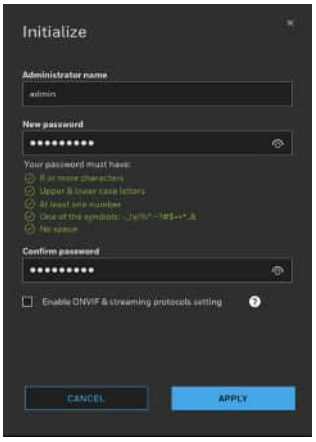


Initializing Cameras

It is recommended to initialize the 35 series cameras by clicking 

. By initialization, you can set the camera password in batch.

Figure 7 Initialize Page 1

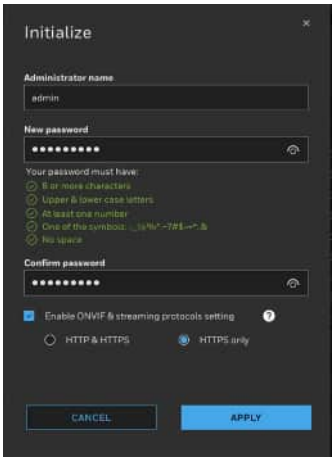


On the **Initialize** page, set **Administrator name** and **New password**. Select the checkbox to enable **ONVIF & streaming protocols setting**. Select **HTTPS only**. Click **APPLY**.

Note:

- *Honeywell strictly recommends to use HTTPs only and Honeywell will not hold responsible for the consequences.*
- *ONVIF & streaming protocols setting only supports 35 & 70 series camera. Unsupported model will be skipped.*

Figure 8 Initialize Page 2



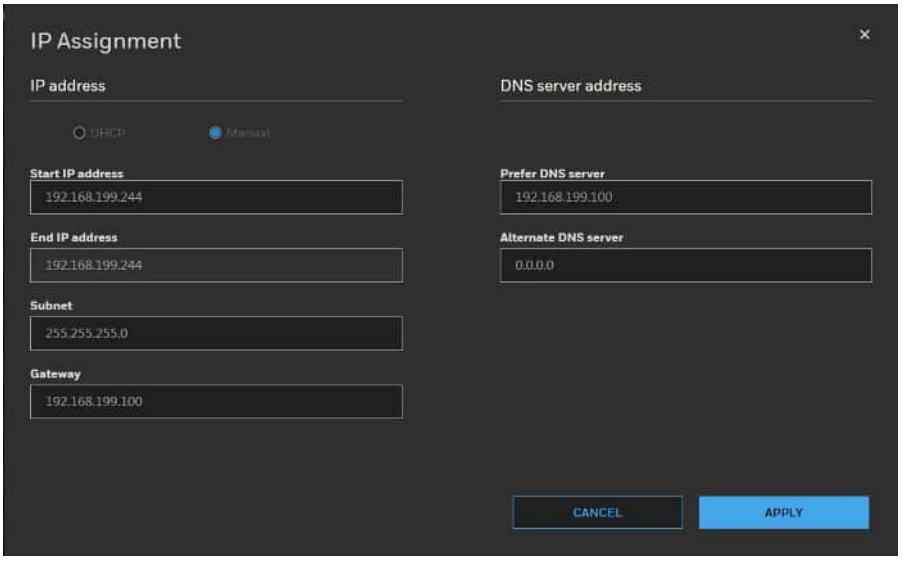
After initializing successfully, you can authenticate the camera and configure other setting.

Assigning a New IP Address to Your Camera

The current IP address of your camera appears in the **IP ADDRESS** column of the devices list. If you want, you can assign a new static IP address to the camera.

Select the target device(s) as shown in Figure 5, click IP Assignment and the following figure is displayed:

Figure 9 IP Assignment



Configure IP Address Setting

- To obtain IP address, subnet mask, and default gateway settings automatically, select the check box of **DHCP**.
- To configure IP address, subnet mask, and default gateway settings manually, select the check box of **Manual** and enter the settings. If you enter the start IP address, the system can calculate the end IP address automatically according to the number of your selected device(s).
- After all settings are completed, click **APPLY**.

Configure DNS Server Address

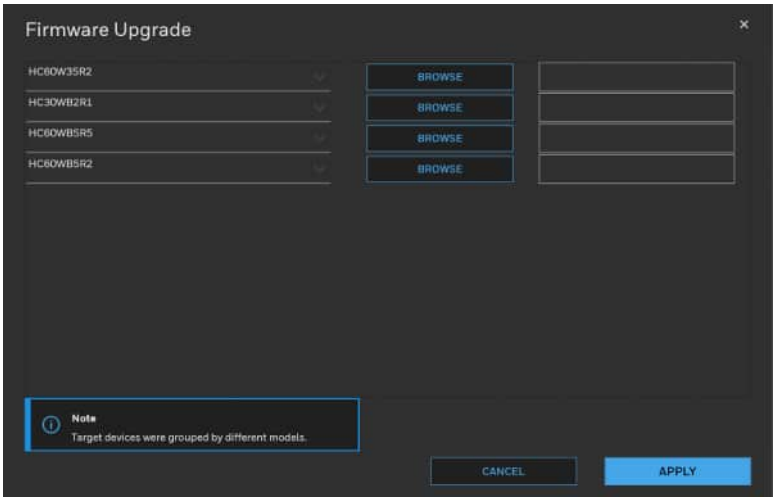
Configure the DNS server address and click **APPLY**.

Upgrading the Camera's Firmware

Before you begin using your camera, make sure you have the latest firmware installed. You can upgrade a single camera or multiple cameras at the same time.

Select the **Maintenance** tab from the left pane as shown in Figure 5, select target device(s) and click Firmware Update and the following window is displayed:

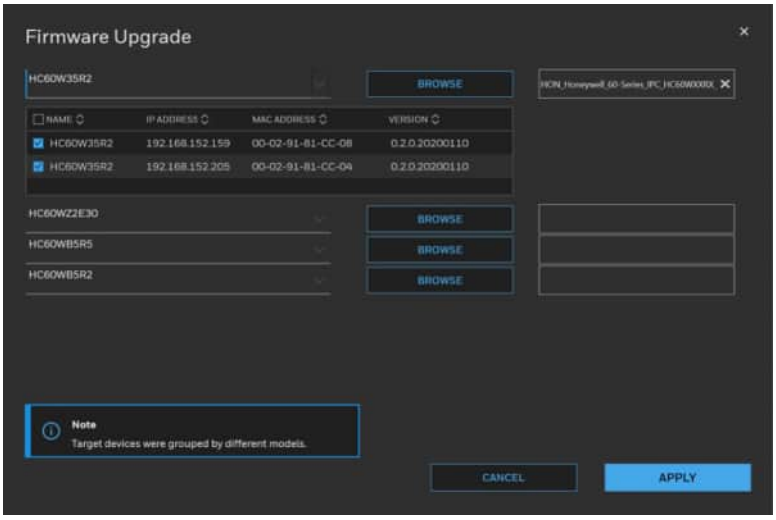
Figure 10 Firmware Upgrade 1



The devices were grouped by model. To upgrade the firmware:

1. Select the target device(s) under a model.
2. Click BROWSE and select the upgrade file from your computer.

Figure 11 Firmware Upgrade 2



3. Click APPLY. You can check the progress status in the device list.

Accessing the Camera from a Web Browser

To access the camera from a web browser, click next to the IP address of the device as shown in Figure 6.

CHAPTER

3

LOGGING IN & VIEWING LIVE VIDEO

This chapter contains the following sections:

- Logging in to the Camera via the Web Client, page 11
- Using the Main Page, page 13

Logging in to the Camera via the Web Client

Using the web client, you can monitor live video, play back recorded video, and configure camera settings.

Before You Begin

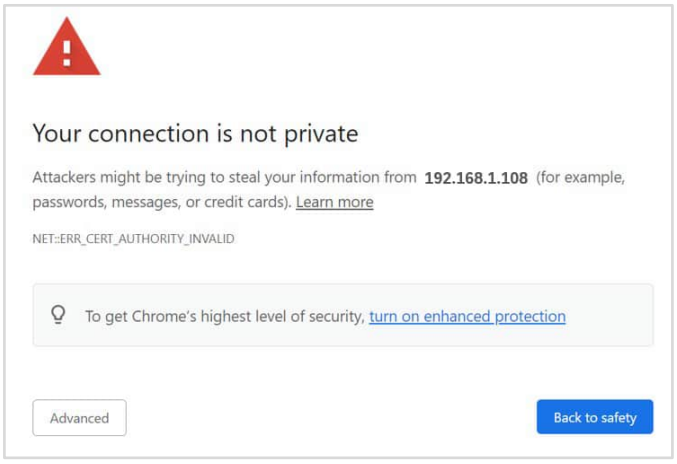
Before you log in to the web client, ensure that the following conditions are met:

- The camera is properly connected to the network.
- The camera's IP address and the PC's IP address are in the same network segment. If there is a router, set the corresponding gateway and subnet mask.
- A network connection has been established. To check this, ping the camera's IP address. (Enter "ping [IP address]").

Note: *The new security enhancements do not allow pinging the camera IP address.*

Logging in to the Camera

1. Open Google Chrome, type the camera's IP address in the address bar, and then click Enter. For example, if your camera's IP address is 192.168.1.108, you would type https://192.168.1.108.
2. The following window is displayed. Click Advanced.



3. The following window is displayed. Click Proceed to 192.168.1.108 (unsafe).

4. For security purposes, you are required to create a new secure password at the first login.

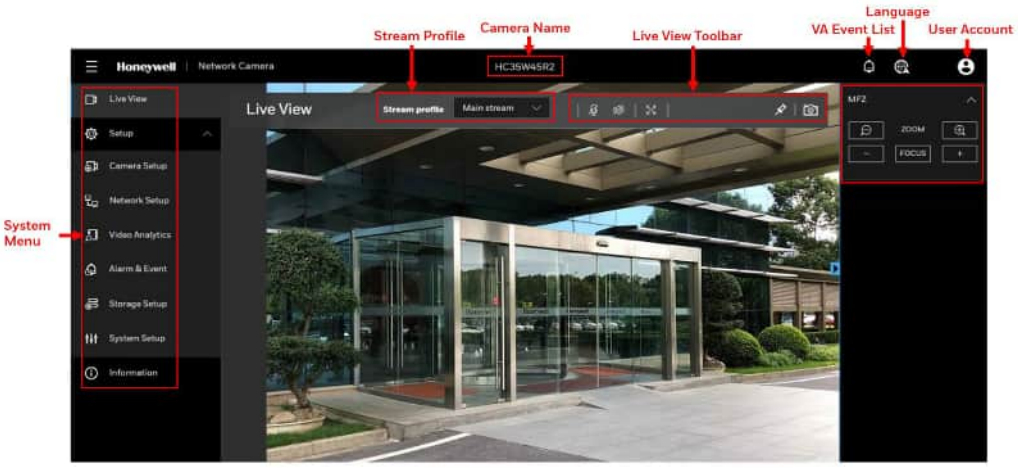
The password must be at least 8 characters in length and contain at least one uppercase letter, one lowercase letter, one number, and one special character (-_!@%^.~?#$=+*:,&). The password cannot be blank. Click **SAVE**.

5. The login screen is displayed. Enter the admin user name and password, and then click LOGIN.

Using the Main Page

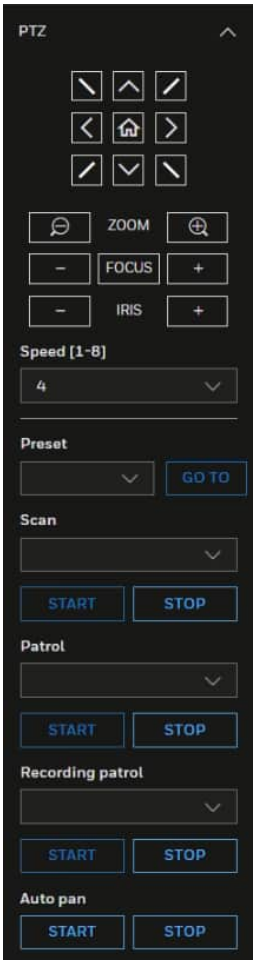
The main page includes the following areas: system menu, live view toolbar, VA event list, language selection and user account settings.

Figure 12 Main Page



- For MFZ IPC model, an MFZ panel can be accessed by clicking on the right as shown in Figure 12.
- For PTZ model, a PTZ panel can be accessed by clicking on the right as shown in Figure 13.
- For HC35WZ5R30W model, you can use in the Live View Toolbar to control the camera wiper. Each time you click , the camera wiper swipes once.

Figure 13 PTZ Panel



For details on PTZ operation, see Configuring PTZ Settings on page 59.

System Menu

When you log in to the camera by using the web client, the main page opens by default. To access the setup page or information page, select the corresponding tab.

Stream Profile

To set the stream profile, in the **Stream profile** list, select **Main stream**, **Sub stream**, or **Third stream**.

Main stream: Delivers high definition video for real-time monitoring, recording, and storage. Uses the most bandwidth.

Sub stream: Delivers high-definition video for real-time monitoring, recording, and storage. Uses the most bandwidth.

Third stream: Delivers low-definition video.

The properties for each stream type are configured on the **Setup > Camera Setup > Video** page (see Configuring Video Settings on page 17).

Camera Name

You can change the camera name according to your needs. For more information, see Configuring System General Settings on page 52.

Live View Toolbar

The Live View toolbar allows you to take snapshot. The following table lists the controls in more detail.

Figure 14 Live View Toolbar

Table 1 Live View Toolbar Icons

Icon	Description
	By default this option is enabled. You can talk and audience can listen throughin built camera speakers, Click to disable this option.
	Click to turn on the audio to listen to the monitoring site. Click it again to turnoff the audio.
	Click to switch to the full screen mode.
	Click to Pin the live view to the toolbar. Click once again to unpin.
	Click to capture and save video images. The captured images will be displayed in a pop-up window. Right click the image and select Save pictureas to save it in JPEG (*.jpg).

VA Event List

To view the list of VA events, click the icon on the Main Page. The icon will be blinking when VA alarm comes in.

Note:

Max 100 VA alarms will be listed after clicking *to display event information by cycling. Please go to Information > Logs > Alarm log to see or search more alarm log records. Refer to Alarm Log.*

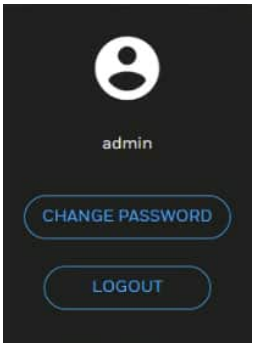
Language

To switch a language, click the icon on the Main Page.

Administrator Account

Note: *The Administrator's account name and password is set by the user at the first login.*

To configure current login user's password or log out the current user account, click the icon on the Main Page. The following window is displayed.



Click **CHANGE PASSWORD** to change the current login user's password.
Click **LOG OUT** to log out the current account.

CHAPTER

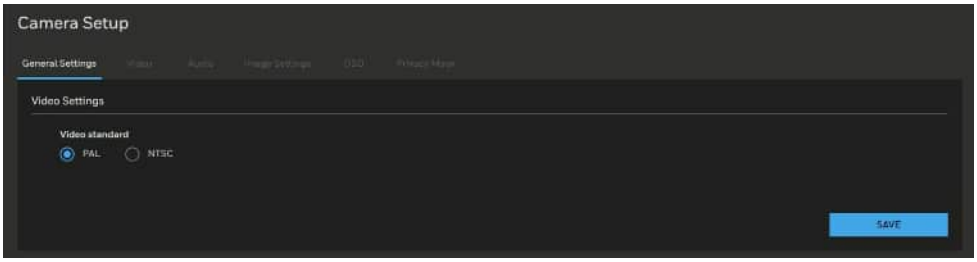
4

CONFIGURING CAMERA SETTINGS

Configuring General Settings

Go to **Setup > Camera Setup > General Settings**.
On this page, you can configure the general video settings.
To change the video standard, select PAL or NTSC. Click **SAVE**.

Figure 15 General Settings



Configuring Video Settings

Go to **Setup > Camera Setup > Video**.
This section describes how to configure Video stream and ROI settings.

Mode

Go to **Setup > Camera Setup > Video > MODE**.

Note:
- *The Mode function is applicable for HC35WZ2R25.*
- *Changing the video mode will clear the following settings: privacy mask, image setting, motion, preset position and focus window.*

Figure 16 Mode Tab

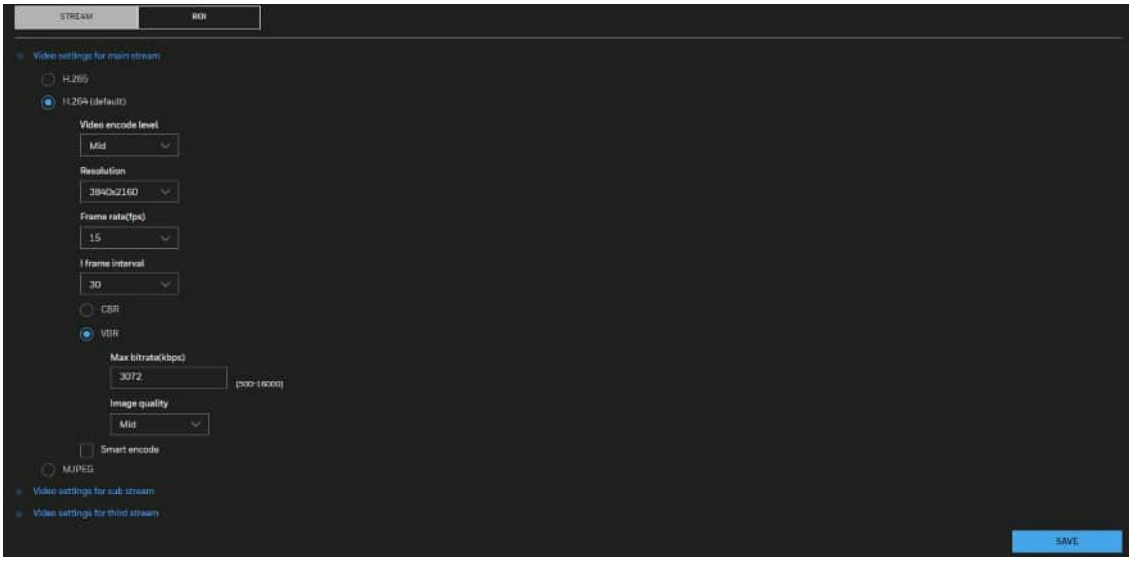
2-Megapixel (16:9) (Max 30fps): Select it and the maximum resolution will be 1920x1080.

2-Megapixel (16:9) (Max 60fps): Select it and the maximum resolution will be 1920x1080. It's non-true WDR mode.

Video Stream

Go to **Setup > Camera Setup > Video > STREAM**.

Figure 17 Video Stream



Select H.265, H.264(Default), or MJPEG, and apply the video settings for main stream, sub stream and third stream.

Note: *It is recommended to use camera with no more than 5 fps when MJPEG is applied as it consumes large bandwidth.*

Video encode level: Select a value from the drop-down list box.
Resolution: Select a value from the drop-down list box. A higher resolution means better image quality.
See the following table for resolution of each model:

Table 2 Cameras Resolution

Model	Main Stream	Sub Stream	Third Stream
HC35W43R3/HC35W43R2/HC35WB3R3/HC35WB3R2/HC35WE3R3/HC35WE3R2	2304x1296/1920x1080/1280x720	704x576(PAL)/704x480(NTSC)/640x480/352x288(PAL)/352x240(NTSC)	640x480/352x288(PAL)/352x240(NTSC)/320x240
HC35W45R3/HC35W45R2/HC35WB5R3/HC35WB5R2/HC35WE5R3/HC35WE5R2/HC35W25R3	2592x1944/2592x1520/1920x1080/1280x720	704x576(PAL)/704x480(NTSC)/640x480/352x288(PAL)/352x240(NTSC)	1920x1080 (MAX 12 fps)/640x480/352x288(PAL)/352x240(NTSC)/320x240
HC35W48R3/HC35W48R2/HC35WB8R3/HC35WB8R2/HC35WE8R3/HC35WE8R2	3840x2160/2592x1944/2592x1520/2560x1440/2304x1296/1920x1080/1280x720	704x576(PAL)/704x480(NTSC)/640x480/352x288(PAL)/352x240(NTSC)	640x480/352x288(PAL)/352x240(NTSC)/320x240
HC35WZ2R25	1920x1080/1280x720	704x576(PAL)/704x480(NTSC)/640x480/352x288(PAL)/352x240(NTSC)	640x480/352x288(PAL)/352x240(NTSC)/320x240
HC35WZ5R30	2592x1944/2592x1520/1920x1080/1280x720	704x576(PAL)/704x480(NTSC)/640x480/352x288(PAL)/352x240(NTSC)	640x480/352x288(PAL)/352x240(NTSC)/320x240

Frame rate(fps):

This limits the maximum refresh frame rate per second. Set the frame rate higher for smoother video quality and for recognizing moving objects in the field of view.

If the video standard is set to **PAL**, the frame rates are selectable from 1-50 fps. If the video standard is set to **NTSC**, the frame rates are selectable from 1-60 fps.

The frame rate will decrease if you select a higher resolution.

See the following table for frame rate of each model:

Table 3 Cameras Frame Rate

Main Stream	Sub Stream	Third Stream
MAX 30fps MAX 15fps for encryption under HTTPS **Note**: For HC35WZ2R25, refer to the frame rate below MAX 30fps (WDR On) MAX 60fps (WDR Off) MAX 15fps for encryption under HTTPS	MAX 30fps MAX 15fps for encryption under HTTPS	MAX 30fps (Not available for encryption)

I-frame interval: Determine within how many frames interval the firmware will plant an I frame. The shorter the duration, the more likely you will get better video quality, but at the cost of higher network bandwidth consumption.
CBR: Constant Bit Rate
The bit rate remains constant (recommended for low-bandwidth environments). Required if MJPEG compression is used.
VBR: Variable Bit Rate

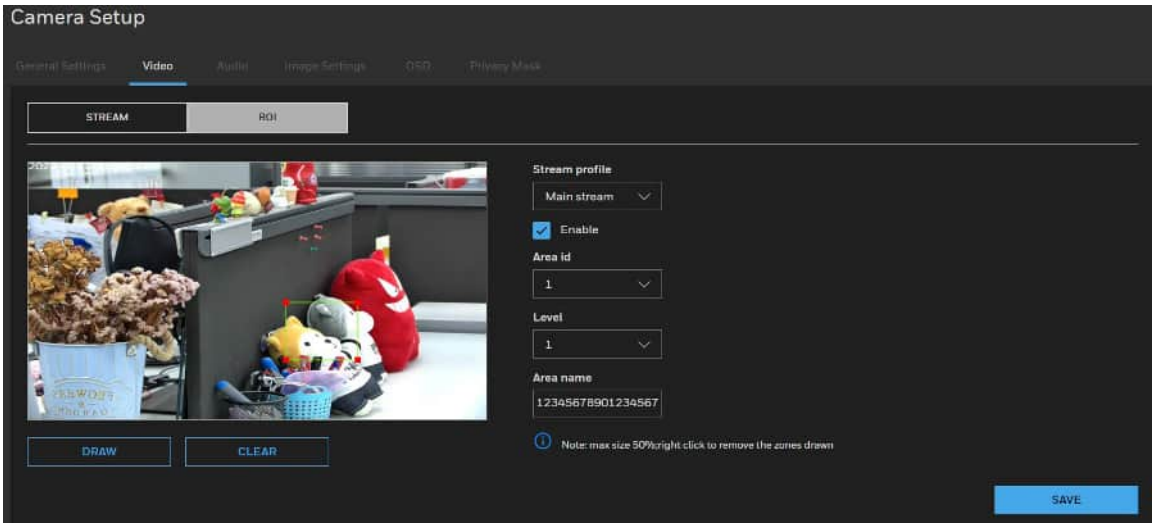
The bit rate changes according to the complexity of the scene.
Max bitrate(kbps): Indicates the maximal value of the bit rate. Set 500~12000 for max bitrate.
Image Quality: Select a desired quality ranging from Lowest to Highest.
Smart encode: Check the checkbox to enable Smart Encode.

- Smart encode includes H.264 & H.265.
- The storage space will be reduced fifty percent when smart encode is enabled.
- Only main stream supports smart encode.

ROI

The ROI function allows you to configure 8 ROI windows (Region of Interest, with Foreground quality) on the screen. Areas not included in any ROI windows will be considered as the non-interested areas. The details in the ROI areas will be transmitted in a higher-quality video format. you may set up an ROI window as a privacy mask by covering a protected area using an ROI window, while the rest of the screen becomes the non-interested area.
Go to **Setup > Camera Setup > Video > ROI**.

Figure 18 ROI Settings



Stream profile: select **Main stream**, **Sub stream**, or **Third stream** to set the stream profile.

Enable: Check the checkbox to enable the ROI (Region of Interest).

Area id: Select a value from the drop-down list box to set the ROI area ID. You can add 8 areas in total.

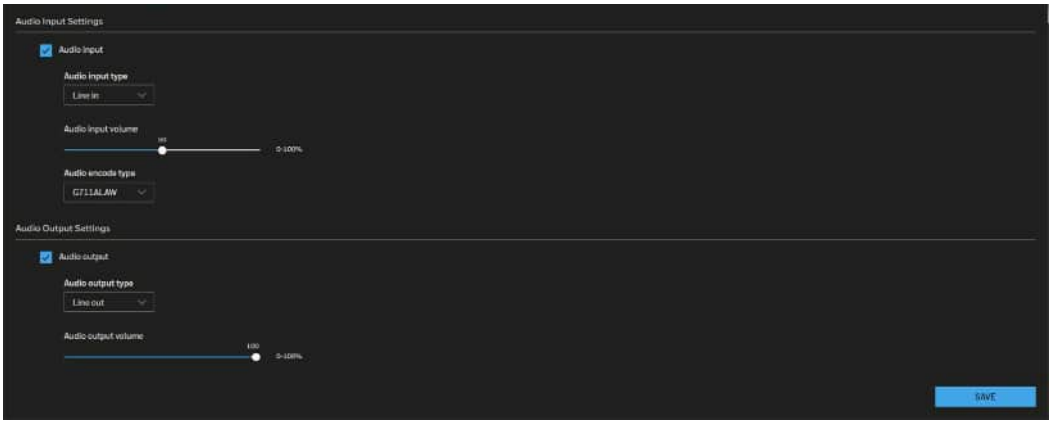
Level: Select a value from the drop-down list box to set the visual effect of ROI. Setting as Level 1 will get the best effect for highest quality video within the interested area and the fuzziest video for non-interested areas.

Area name: Enter a customized name for areas. The maximum value cannot exceed 32 bytes.

Configuring Audio Settings

Go to **Setup > Camera Setup > Audio**.

Figure 19 Audio Settings



Audio Input Settings
Audio input: Check the checkbox to enable Audio input.
Audio input type: Select the Microphone or Line-in option.

Note: *The Microphone option is only applicable for Micro Dome cameras.*

Audio input volume: Microphone gain or Line-in gain. The Microphone gain or Line-in gain option is displayed according to the Audio input option selected. Select the gain of the external audio input according to ambient conditions. Adjust the gain from 0% (least) to 100% (most).
Audio encode type: Select audio codec as **G711ALAW** and **G711ULAW** and the bit rate.
Audio Output Settings
Audio output: Check the checkbox to enable Audio output.
Audio output type: Select the Line-out option.
Audio output volume: The Line-out option is displayed according to the Audio output option selected. Select the volume of the external audio input according to ambient conditions. Adjust the volume from 0% (least) to 100% (most).
After you complete the settings on this page, click **SAVE** to enable the settings.

Configuring Image Settings

Go to **Setup > Camera Setup > Image Settings**.
On this page, you can configure the parameters for **Image**, **Scene**, **Exposure**, **WB**, **DayNight**, **Noise Reduction** and **Enhance Image**.

Figure 20 Image Settings

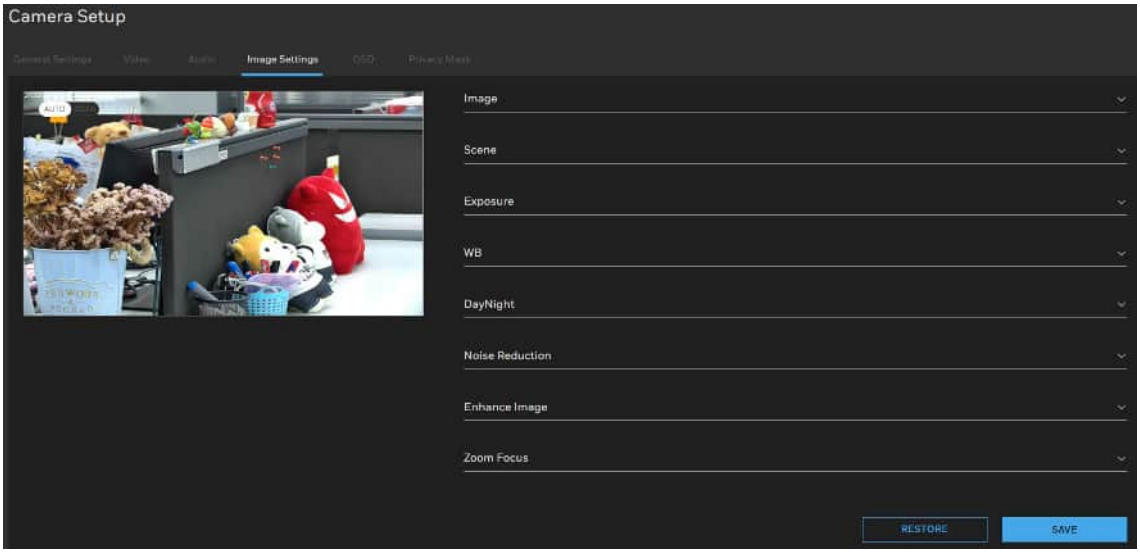


Image Adjustment

Brightness: Adjust the image brightness level (0 to 100).
Saturation: Adjust the image saturation level (0 to 100).
Contrast: Adjust the image contrast level (0 to 100).
Sharpness: Adjust the image sharpness level (0 to 100).

Scene Mode

Scene: Select indoor/outdoor to change the scene mode.
Mirror: Select Normal/Horizontal/ Vertical/ Horizontal + Vertical to mirror the image.
Aisle Mode: The image rotates 90 degrees clockwise when aisle mode is enabled.

Note:

- *It will not be able to stream out when the aisle mode is enabled and sub stream or third stream is set on 352*240 or 320*240.*
- *When the aisle mode is enabled, the people counting function is invalid.*

Normal	Vertical	Normal	Horizontal	Normal	Horizontal + Vertical	Aisle

Exposure

Meter area is used to select the exposure area. Select Whole/Center spot/Center area for different area exposure settings.
Exposure mode: The exposure modes include:

- **Auto**: The system performs auto exposure based on the monitoring environment.
- **Manual**: Set **Shutter Setting**/**Iris Setting**/**Gain Setting** to manually adjust the exposure level for getting the best image quality.
- **Shutter priority**: you can select fixed shutter and the camera will automatically tune the gain and iris to match an optimal exposure level. Gain range will be under Max value.
- **IRIS priority**: you can select IRIS F-number and the camera will automatically tune the gain and exposure time to match an optimal exposure level. Gain range and exposure time will be under Max value.

Max shutter: The device automatically adjusts the shutter time based on the ambient light under Max value setting.
Max gain: The device automatically adjusts the gain based on the ambient light under Max value setting.

White Balance (WB) Setting

Mode: Adjust the value for the best color temperature.

- Auto: Select it and the camera will automatically adjust the color temperature.
- Tungsten/ Fluorescent/ Daylight/Shadow: Select it and the camera will change to Tungsten/ Fluorescent/ Daylight/Shadow color temperature.

Note: *For PTZ models, Tungsten/Daylight color temperature is supported.*

- Manual: You may manually tune the color temperature by dragging the R Gain and B Gain slider.

DayNight Setting

The day night mode settings vary based on device models.
D/N setting: It can be set to Auto, Day mode, Night mode or Timing.

- Auto

The camera automatically removes the filter by judging the level of ambient light.

Note: *Camera will turn on IR LED in night mode if you select IR LED under Light mode.*

- Day mode

In day mode, the camera switches on the IR cut filter at all times to block infrared light from reaching the sensor so that the colors will not be distorted.

- Night mode

In night mode, the camera switches off the IR cut filter at all times for the sensor to accept infrared light, thus helping to improve low light sensitivity.

- Timing

The camera switches between day mode and night mode based on a specified schedule. Enter the start and end time for day mode. The time format is [hh:mm] and is expressed in 24-hour clock time. By default, the start and end time of day mode are set to 07:00 and 18:00.

DTN time: Switch time for day mode to night mode
NTD time: Switch time for night mode to day mode
Delay(s): Set the delay time for switching day to night or night to day when the camera detect to switch.
D/N switch sensitivity: Set the sensitivity for switching day to night/night to day.
Light mode: Select IR led to enable the IR led light. Select None to disable the IR led light.
IR led:

- Auto: The infrared lamp is enabled or disabled based on the external environment identified by the light dependent resistor (LDR). Smart IR is supported for Auto.
- Manual: Select it to control the luminance of IR lights manually. For Near/Center/Far distance, to increase the luminance of IR lights, drag the slider to the right; to decrease the luminance of IR lights, drag the slider to the left for different distance.

Noise Reduction

Drag the slider to adjust the reduction strength (from low to high).

2D NR/3D NR: Reduce noise of image.
Max Strength: To get better 3D noise reduction performance, please choose a higher value to set.

Note: *3D Noise Reduction is mostly applied in low-light conditions. Applying a high level 3D Noise Reduction will cause lag or motion blur in a low-light condition with fast moving objects, suggest to select a lower level of 3D Noise Reduction in this situation*

All changes made to image settings are directly shown on screen. To recall the original settings without incorporating the changes, click **RESTORE**. After you completed the settings, click **SAVE**.

Enhance Image

To enhance image, you can apply the below functions to adjust the image.

Note: *The functions may vary according to different camera models.*

WDR (Wide Dynamic Range)
By lowering the brightness of the brightest area, and enhancing the brightness of the darkest area, WDR balances brightness and darkness in a scene so that both the darkest area and the lightest area can be seen clearly at the same time.
This value ranges from 1 to 100. The default value is 50.
BLC (Backlight Compensation)
The camera automatically adjusts the exposure to suit the conditions, so that the darkest area of the video can be seen.
This value ranges from 1 to 100. The default value is 50.
HLC (Highlight Compensation)
When the HLC function is enabled, the camera can lower the brightness of the brightest section of video, according to the selected HLC control level. HLC can reduce the amount of halo and lower the brightness of the entire video image.
This value ranges from 1 to 100. The default value is 50.
DeFog: Check the checkbox to enable defog. The image quality is compromised in foggy or hazy environment and defog can be used to improve image clarity.
Anti-shake: Check the checkbox to enable **Anti-shake**.
The system provides smooth video (Electronic Image Stabilization) after enabling anti-shake. The quality of the images is affected by the vibration intensity of the camera.

Note: *The Anti-shake functions is only applicable for PTZ model HC35WZ2R25 and HC35WZ5R30.*

Configuring OSD

Go to **Setup > Camera Setup > OSD**. The **OSD** page is displayed,

Time: Enable it to display time information in live view image.

Video title: Enable and enter video title to display video title in live view image.

(for PTZ model only) PTZ coordinates: Enable to display PTZ coordinates when moving PTZ.

Position: Set the OSD display+ position.

Font size: Set the font size of OSD display.

Configuring Privacy Mask

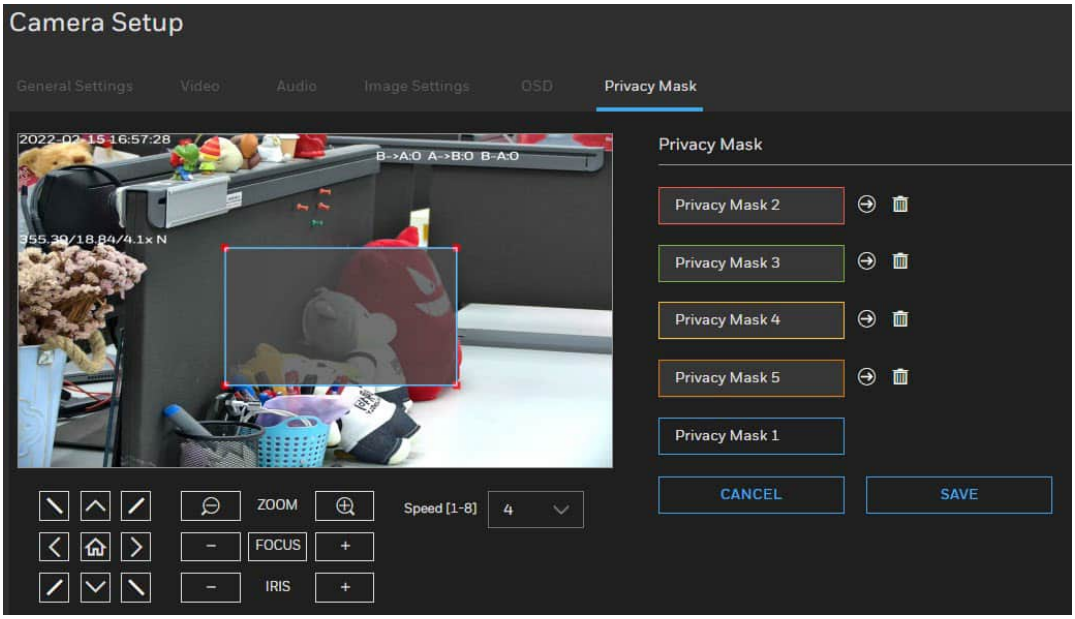
On this page, you can block out sensitive view areas to address privacy concerns. Go to **Setup > Camera Setup > Privacy Mask**.

To configure privacy masks:

1. Click ADD MASK to add a new privacy mask window on the video screen.

2. Drag the corner of the rectangle to create a new masking window.
3. Enter a name for the privacy mask and click SAVE to enable the setting.

Figure 21 Privacy Mask



Note:

- *The object should be in the middle of the video screen and the setting size of privacy mask should be 1.5~2.5 times of the object size.*
- *Up to 4/5 privacy mask windows for IPC/PTZ cameras can be configured on the same screen.*
- *If you want to delete the privacy mask window, click* *on the right side of privacy mask window name. Click* *to go to the relate privacy mask position.*

CHAPTER

5

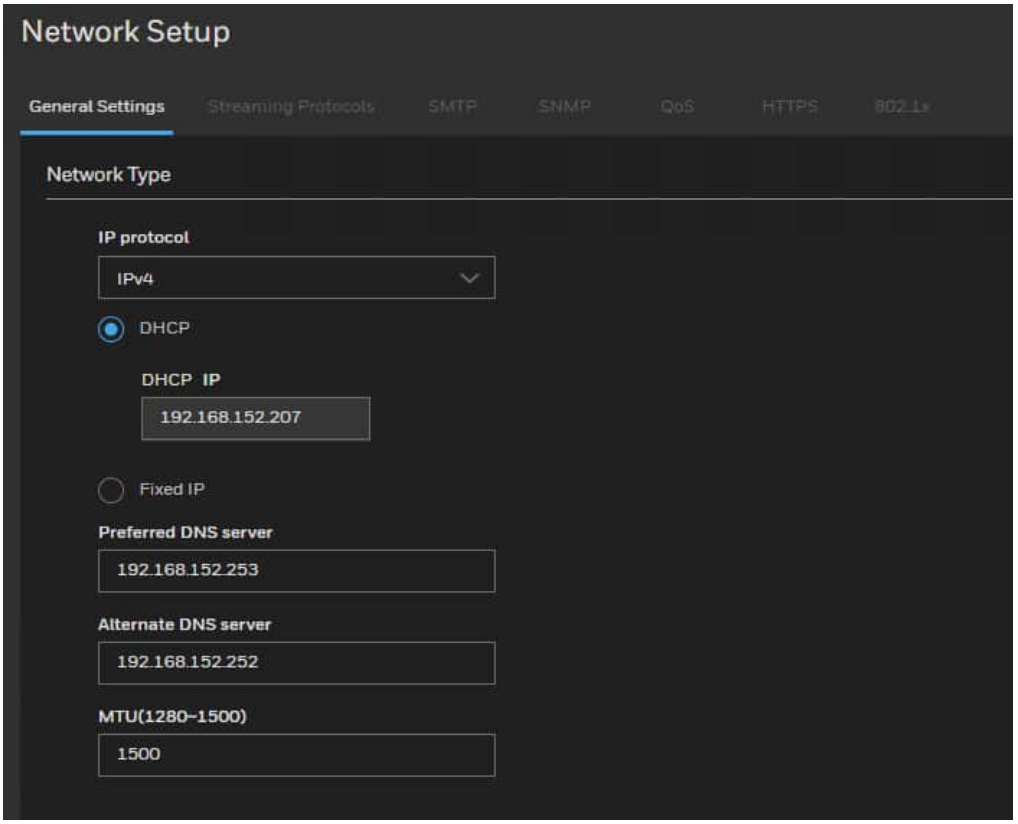
CONFIGURING NETWORK SETTINGS

Configuring Network General Settings

This section describes how to configure a wired network connection for the camera.

Go to **Setup > Network Setup > General Settings**.

Figure 22 Network General Settings



Select IPv4/IPv6 for IP protocol.

When IPv4/IPv6 is enabled, by default, the network camera will listen to router advertisements and be assigned with a link-local IPv4/IPv6 address accordingly.

DHCP: Select this option to obtain an available dynamic IP address assigned by the DHCP server each time the camera is connected to the LAN.

Fixed IP: Select this option to manually assign a static IP address to the camera.

IP address:

You can make use of Unified Tool in the software CD to easily set up the camera on LAN. See Accessing the Camera on page 4.

Enter the Static IP, Subnet mask, Default gateway, and Primary DNS provided by your ISP or network administrator.

Subnet mask: This is used to determine if the destination is in the same subnet. The default value is “255.255.255.0”.

Default gateway: This is the gateway used to forward frames to destinations in a different subnet. Invalid router setting will disable the transmission to destinations across different subnets.

Preferred DNS Server: The primary domain name server that translates hostnames into IP addresses.

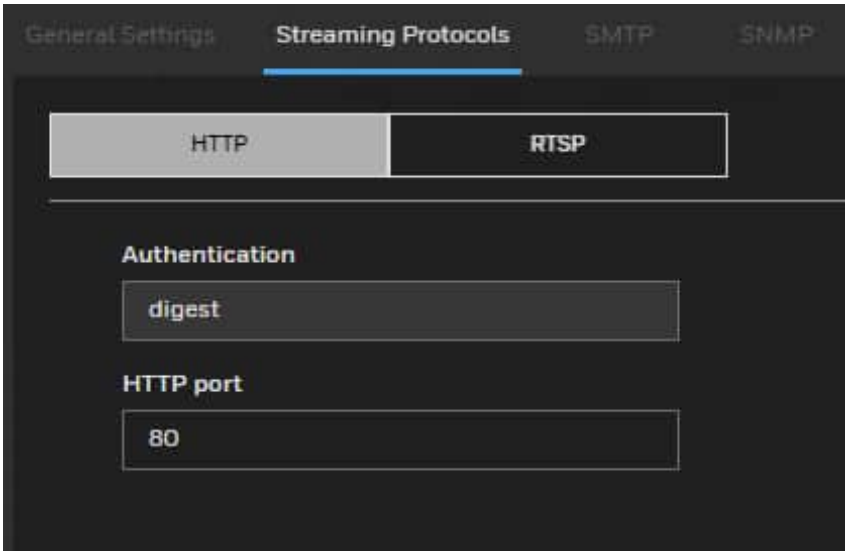
Alternate DNS Server: Secondary domain name server that backups the Primary DNS.

MTU (1280~1500): Set the maximum value of network transmission data packets.

Configuring Streaming Protocols

Go to **Setup > Network Setup > Streaming Protocols**.

Figure 23 Streaming Protocols-HTTP

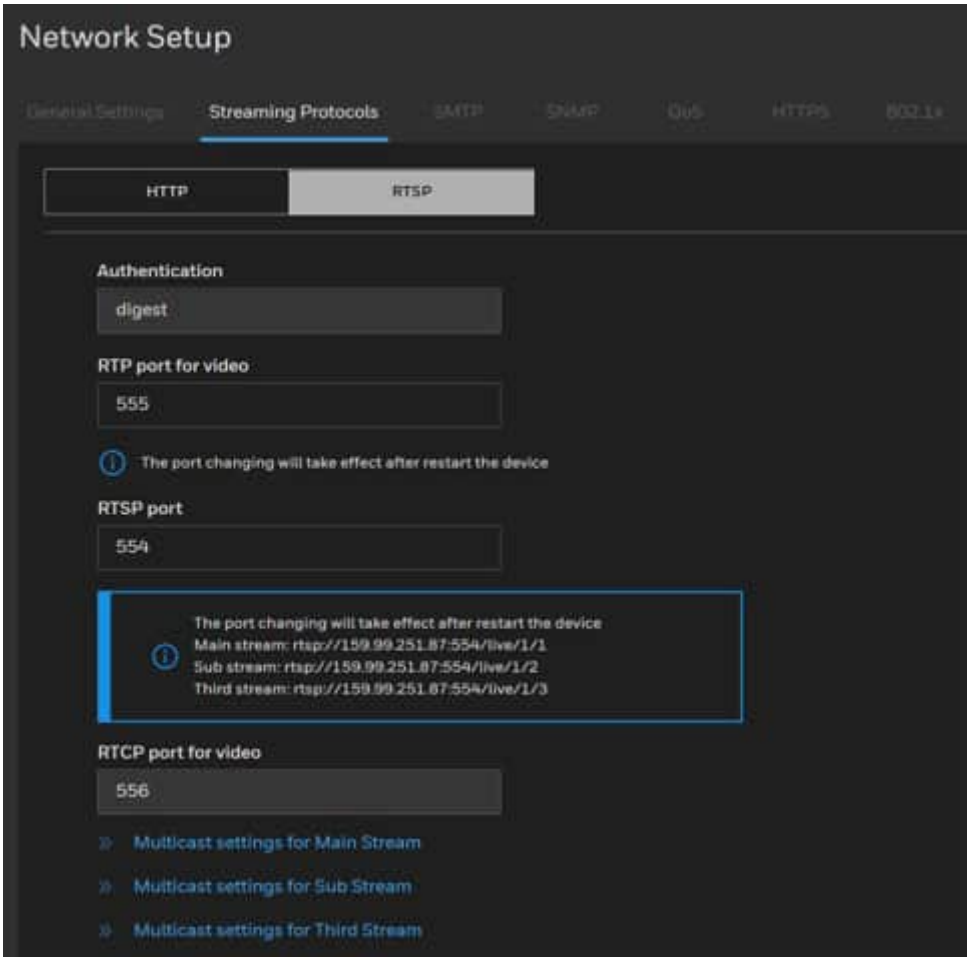


To utilize **HTTP** authentication, make sure that you have set a password for the camera first. For more information, see Configuring User Accounts Settings on page 56.

Authentication: User credentials are encrypted with MD5 algorithm which provide better protection against unauthorized accesses.

HTTP port: By default, the HTTP port is set to 80. It can also be assigned to another port number between 1025 and 65535.

Figure 24 Streaming Protocols-RTSP



To utilize RTSP streaming authentication, make sure that you have set a password for controlling the access to video stream first. For more information, see Configuring User Accounts Settings on page 56.

Authentication: Authentication provides better protection against unauthorized access.

If you want to use an RTSP player to access the camera, you have to set the video mode to H.264 or H.265 and use the following RTSP URL command to request transmission of the streaming data.

Use rtsp://IP address: Port/live/Camera ID/Streaming ID for pulling RTSP streaming.

Note:

- *IP address: The device IP address*
- *Port: RTSP port, default is 554*
- *Live: Keep Live as default.*

- *Camera ID: 1*
- *Streaming ID: 1 for Mainstream, 2 for Sub stream, 3 for 3rd stream.*

For example: Follow below step to stream out rtsp streaming.

1. Launch an RTSP player.
2. Choose File > Open URL. A URL dialog box will pop up.
3. Type the below URL command in the text box for each stream.

   Mainstream: rtsp://192.168.0.108:554/live/1/1

   Sub stream: rtsp://192.168.0.108:554/live/1/2

   Third stream: rtsp://192.168.0.108:554/live/1/3
4. The live video will be displayed in your player.

RTSP port /RTP port for video / RTCP port for video:

- The RTP (Real-time Transport Protocol) is used to deliver video data to the clients. By default, the RTP port for video is set to 555.
- RTSP (Real-Time Streaming Protocol) controls the delivery of streaming media. By default, the RTSP port number is set to 554.
- The RTCP (Real-time Transport Control Protocol) allows the camera to transmit the data by monitoring the Internet traffic volume. By default, the RTCP port for video is set to 556.

The ports can be changed to values between 1025 and 65535. The RTP port must be an even number and the RTCP port is the RTP port number plus one, and thus is always an odd number. When the RTP port changes, the RTCP port will change accordingly.

Multicast settings for streams: Click to display the detailed configuration information.

Multicast group address: Enter the Multicast group address.

Multicast video port: The ports can be changed to values between 1025 and 65535. The default value is 25330.

Multicast audio port: The ports can be changed to values between 1025 and 65535. The default value is 25430.

Multicast metadata port: The ports can be changed to values between 1025 and 65535. The default value is 25530

Multicast TTL: The multicast TTL (Time To Live) is the value that tells the router the range a packet can be forwarded. The default value is 60.

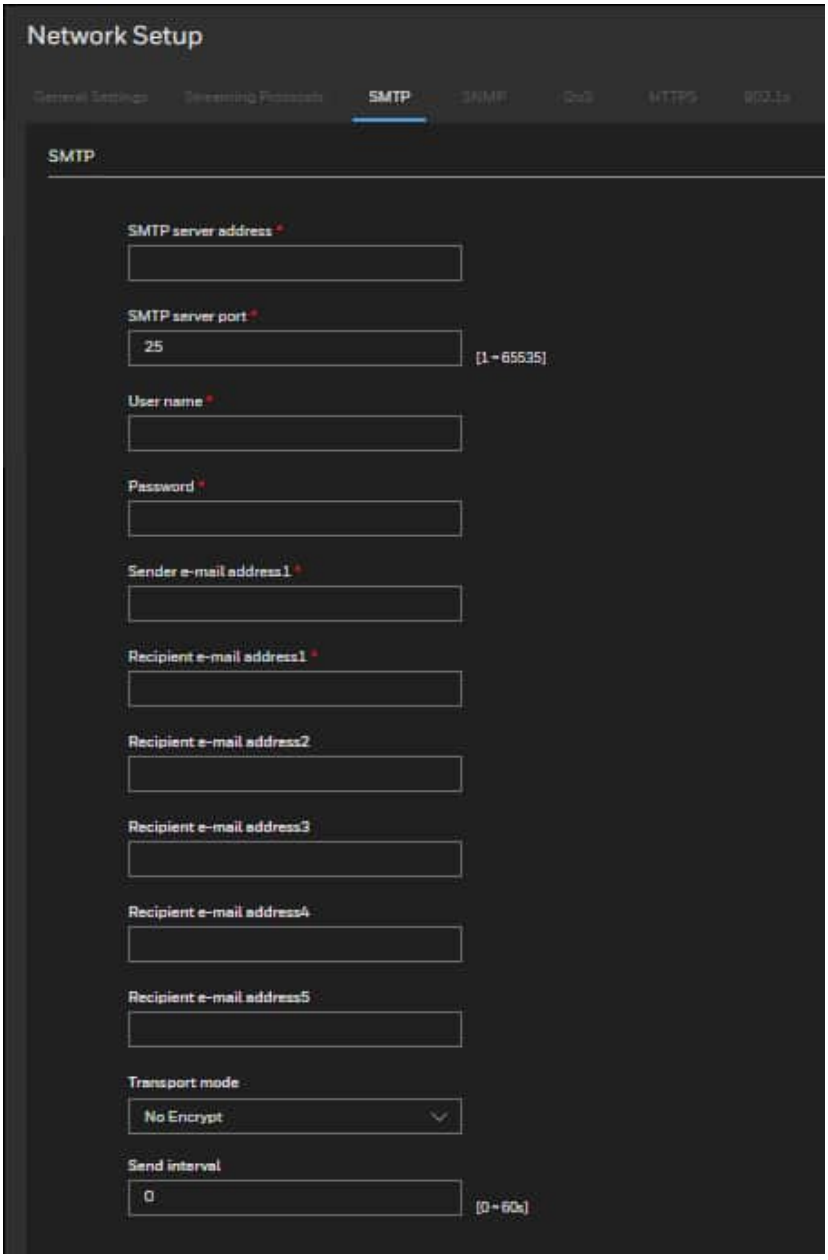
Note: *Multicast is enabled by default in camera.*

Configuring SMTP Settings

If the Simple Mail Transfer Protocol (SMTP) function is enabled, the device automatically sends JPG images and alarm information to specified email addresses when an alarm is generated.

Go to **Setup > Network Setup > SMTP**.

Figure 25 SMTP Settings



SMTP server address: IP address of the SMTP server.

SMTP server port: Port number of the SMTP server.

User name: User name of the mailbox for sending emails.

Password: Password of the mailbox for sending emails.

Sender e-mail address1: Mailbox for sending emails.

Recipient_e-mail_address1: Email address of recipient 1.

Recipient_e-mail_address2: Email address of recipient 2.

Recipient_e-mail_address3: Email address of recipient 3.

Recipient_e-mail_address4: Email address of recipient 4.

Recipient_e-mail_address5: Email address of recipient 5.

Transport mode: Email encryption mode. Set this parameter based on the encryption modes supported by the SMTP server.

Send interval: The interval for sending ranges from 0 to 60 seconds. The system will not immediately send the email when the alarm occurs. When an alarm, motion detection, or other event occurs to activate an email, the system sends one email within the interval that you have specified here. This reduces the load on the email server when multiple emails are triggered simultaneously.

Configuring SNMP Settings

Go to **Setup > Network Setup > SNMP**.

SNMP (Simple Network Management Protocol) is a protocol for collecting, organizing, and exchanging management information between managed devices on a network.

The SNMP consists of the following three key components:

- **Manager**: Network-management station (NMS), a server which executes applications that monitor and control managed devices.
- **Agent**: A network-management software module on a managed device which transfers the status of managed devices to the NMS.
- **Managed device**: A network node on a managed network. For example: routers, switches, bridges, hubs, computer hosts, printers, IP telephones, network cameras, web server, and database.

Before configuring SNMP settings on the page, enable your NMS first.

Enable SNMPv1, SNMPv2c: Check to enable SNMPv1, SNMPv2c. SNMPv1 and SNMPv2c use communities to establish trust between managers and agents. Agents support three community names, write community, read community and trap.

Write community: Name of write community. The write community only can modify data.

Read community: Name of read community. The write community only can read data.

Trap address: IP address of the trap.

Trap port: Management port of accepting message from trap.

Trap community: community string of trap. The trap community string allows the manager to receive asynchronous information from the agent.

Enable SNMPv3: Check to enable SNMPv3 which contains cryptographic security, a higher security level.

SNMPv3 uses community strings but allows for secure authentication and communication between SNMP manager and agent.

Read security name: Name of read security.

Write security name: Name of write security.

Security level: Security Level between SNMP manager and agent, includes three levels:

- Noauth: No authentication and no encryption
- Auth: Authentication but no encryption
- Priv: Authentication and encryption

Auth algorithm: Authentication Algorithm, includes MD5and SHA.

Auth password: Authentication password.

Encry Algorithm: Encryption Algorithm, includes DES and AES.

Encry Password: Encryption password.

SNMP Port: Port of SNMP.

Configuring QoS Settings

Go to **Setup > Network Setup > QoS**.

Quality of Service (QoS) is a network security mechanism. It fixes problems with network delays and jams. For network service, the quality of service includes the transmission bandwidth, delay, and packet loss, for example. Through QoS, you can guarantee the transmission bandwidth, reduce the delay, reduce the loss of data packets, and enhance the transmission quality with packet prioritization.

To utilize QoS in a network environment, the following requirements must be met:

- All network switches and routers in the network must include support for QoS.
- The network video devices used in the network must be QoS-enabled.

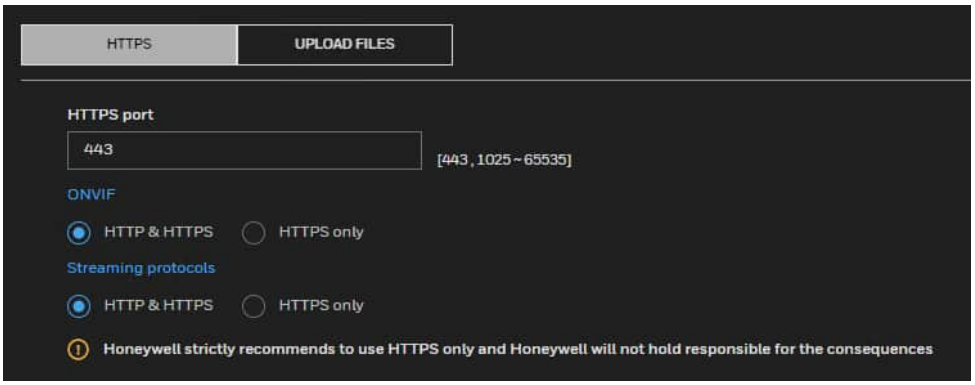
Configuring HTTPS Settings

HTTPS

Go to **Setup > Network Setup > HTTPS > HTTPS**.

This section explains how to enable authentication and encrypted communication. It helps protect streaming data transmission over the Internet on higher security level.

Figure 26 HTTPS Settings



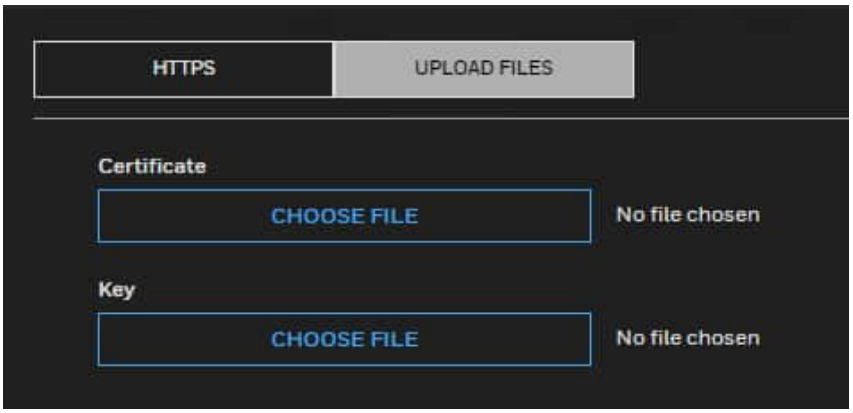
Note: *Honeywell strictly recommends using HTTPS only.*

HTTP & HTTPS: Select it and the web browser can be accessed via HTTP or HTTPS.

HTTPS only: Select it and the web browser can only be accessed via HTTPS with higher security level.

Upload Files

Go to **Setup > Network Setup > HTTPS > UPLOAD FILES**. You can import the certificate from third party here.



To import the certificate from third party:

1. In the Certificate field, click CHOOSE FILE to select a certificate file you have already applied from 3rd party or CA domain.
2. In the Key field, click CHOOSE FILE to select a certificate key you have already applied from 3rd party or CA domain.
3. Click UPLOAD and reboot camera.

After the certificate file is uploaded successfully, if you want to remove the certificate, click **REMOVE**.

- Supported certificate type: HTTPS protocol.
- Supported certificate file format: *.cert format.
- Supported Key format: PEM format.

Configuring IEEE 802.1x Settings

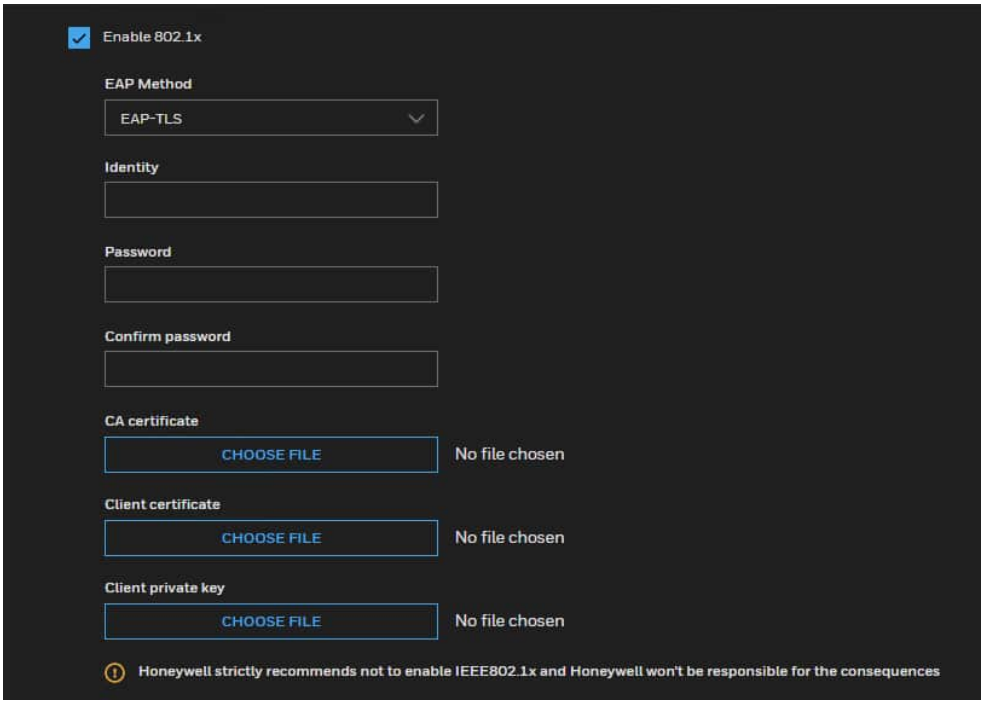
Go to **Setup > Network Setup > 802.1x**.

IEEE802.1x is the access control and authentication protocol for local and metropolitan area networks. It uses a port-based network access control protocol to restrict unauthorized user and/or device access to the LAN. The network devices, intermediary switch/access point/hub, and RADIUS server must support and enable 802.1x settings.

To configure IEEE 802.1x settings:

1. Before connecting the camera to the protected network with 802.1x, apply a digital certificate from a Certificate Authority (i.e., your network administrator) which can be validated by a RADIUS server.
2. Connect the camera to a PC or notebook outside of the protected LAN. Open the configuration page of the camera as shown below.

Figure 27 IEEE 802.1x Configurations – EAP-TLS



Note: *Honeywell doesn't recommend enabling IEEE 802.1x.*

Select EAP-TLS as the EAP method. Enter your ID and password issued by the CA, and then upload related certificate(s).

3. When all settings are complete, move the camera to the protected LAN by connecting it to an 802.1x enabled switch. The devices will then start the authentication automatically.

CHAPTER

6 CONFIGURING VIDEO ANALYTICS

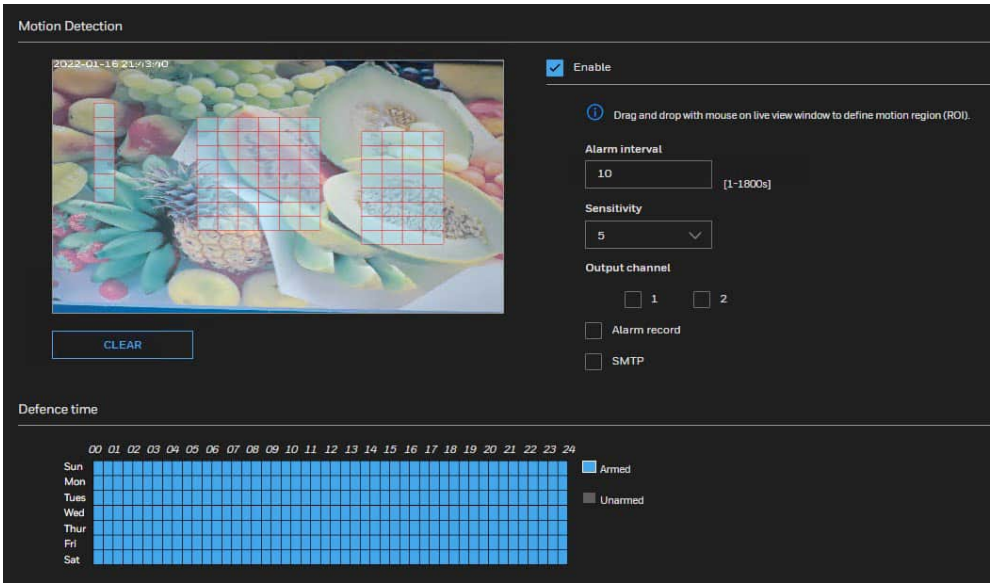
Video Analytics provides the following features: motion detection, smart motion, tampering, intrusion, multi loitering and people counter.
Video Analytics detects one or a group of the following objects:

- Vehicle
- Human

Motion Detection

1. Go to Setup > Video Analytics > Motion Detection.

Figure 28 Motion Detection



2. Check the Enable checkbox to enable motion detection.
3. Configure the Alarm interval and Sensitivity.
4. Configure the detection area.
    - Press and hold the left mouse button, and drag in the video area to draw a

detection area

- Click ClEAR to delete a detection area.

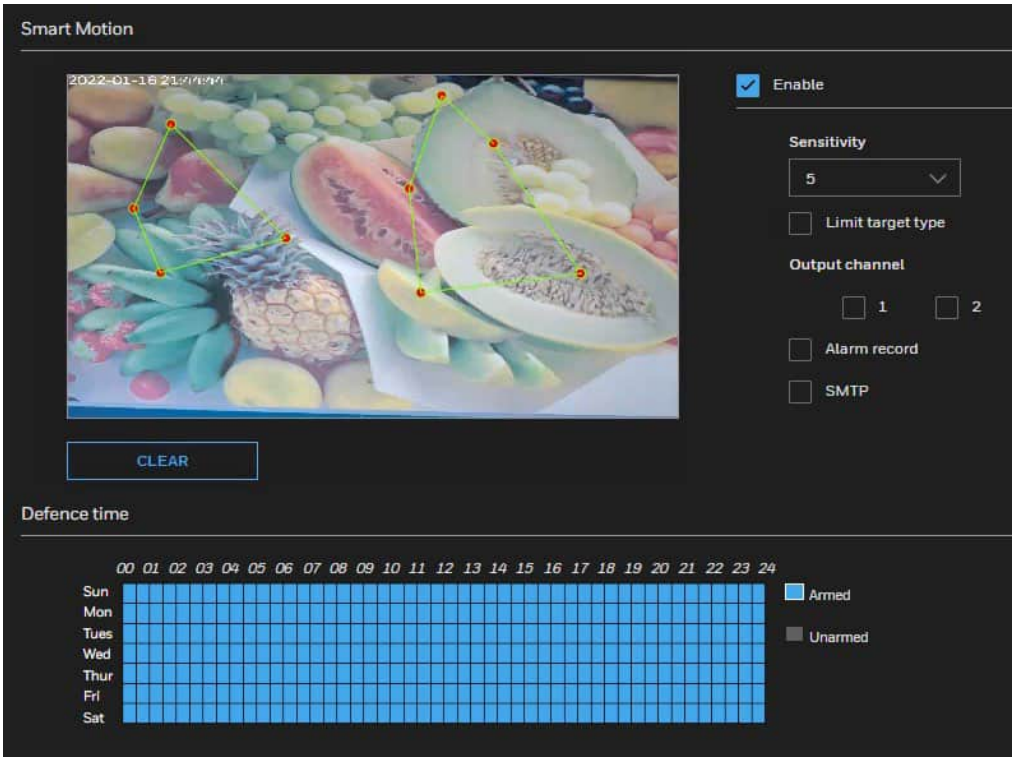
5. Select the Output channel.
6. Check the check boxes to enable Alarm record and SMTP.
7. Click SAVE.

Smart Motion Detection

Smart Motion detection identifies one or more detection objects (human, pat, vehicle) in motion. The applicable scenario includes motion of humans in a restricted area.

1. Go to Setup > Video Analytics > Smart Motion.

Figure 29 Smart Motion



2. Check the Enable checkbox to enable smart motion detection.
3. Configure the Sensitivity.
4. Configure the detection area.
   - Press and hold the left mouse button, and drag in the video area to draw a detection area
   - Click CLEAR to delete a detection area.
5. Select the Output channel.

6. Check the check boxes to enable Alarm record and SMTP.
7. Click SAVE.

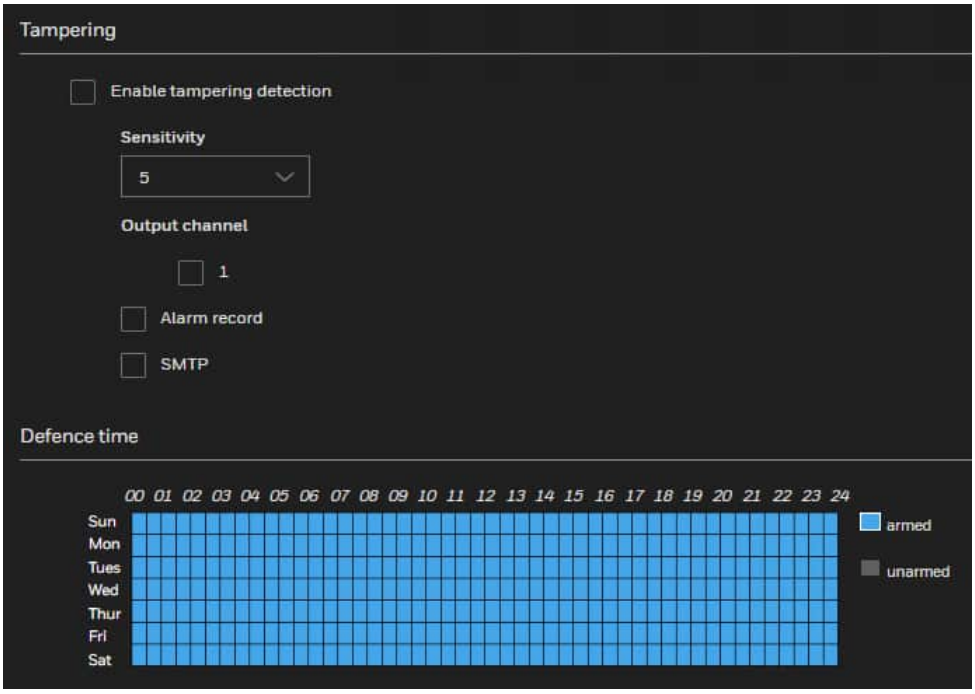
Tampering Detection

Tampering detection identifies the camera tampering based on a set tampering sensitivity value.

Note: *All VA functions are disabled because camera is not on home position. Click* *to go home position before setting Tampering.*

1. Go to Setup > Video Analytics > Tampering.

Figure 30 Tampering Detection



2. Check the Enable checkbox to enable tampering detection.
3. Configure the Sensitivity.
4. Configure the detection area.
   - Press and hold the left mouse button, and drag in the video area to draw a detection area
   - Click CLEAR to delete a detection area.
5. Select the Output channel.

6. Check the check boxes to enable Alarm record and SMTP.
7. Click SAVE.

Intrusion Detection

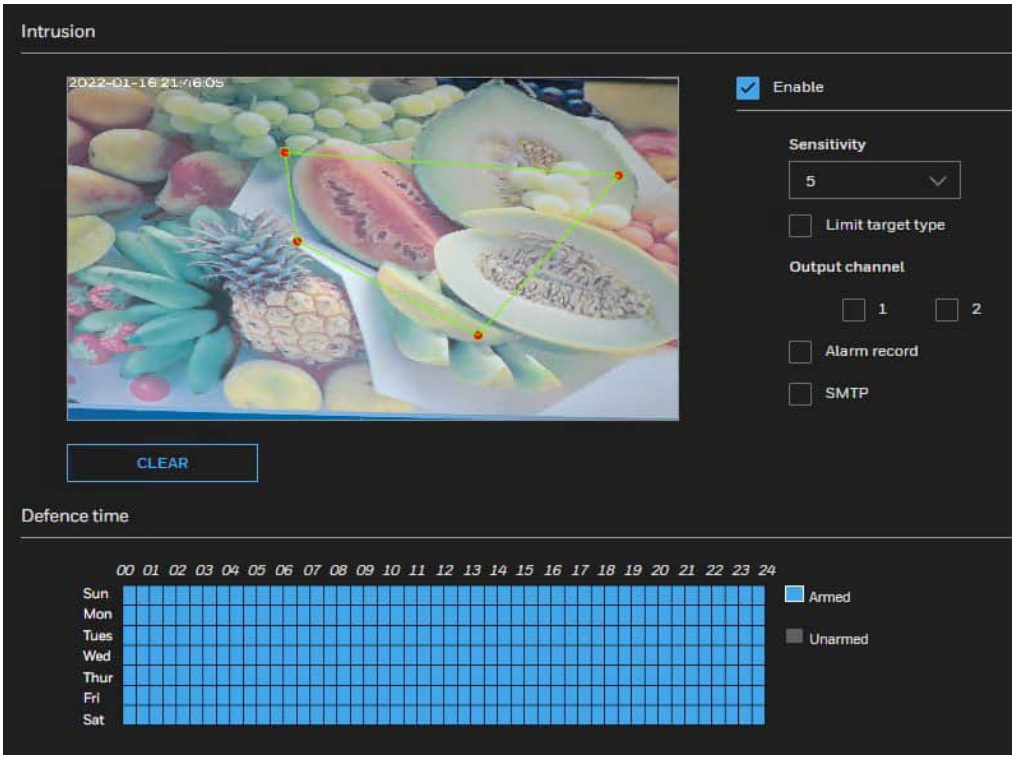
Intrusion Detection can be used to detect objects entering or leaving a virtual area in the camera field of view.

The applicable scenarios of this feature can be:

- Detects when a person enters a bank vault or school after the office hours.
- Detects when a person leaves an emergency exit or fire escape, or any place that is normally forbidden from access.

1. Go to Setup > Video Analytics > Intrusion.

Figure 31 Intrusion Detection



2. Check the Enable checkbox to enable intrusion detection.
3. Configure the Sensitivity.
4. Configure the detection area.
    - Press and hold the left mouse button, and drag in the video area to draw a detection area
    - Click CLEAR to delete a detection area.

5. Select the Output channel.
6. Check the check boxes to enable Alarm record and SMTP.
7. Click SAVE.

Multi Loitering

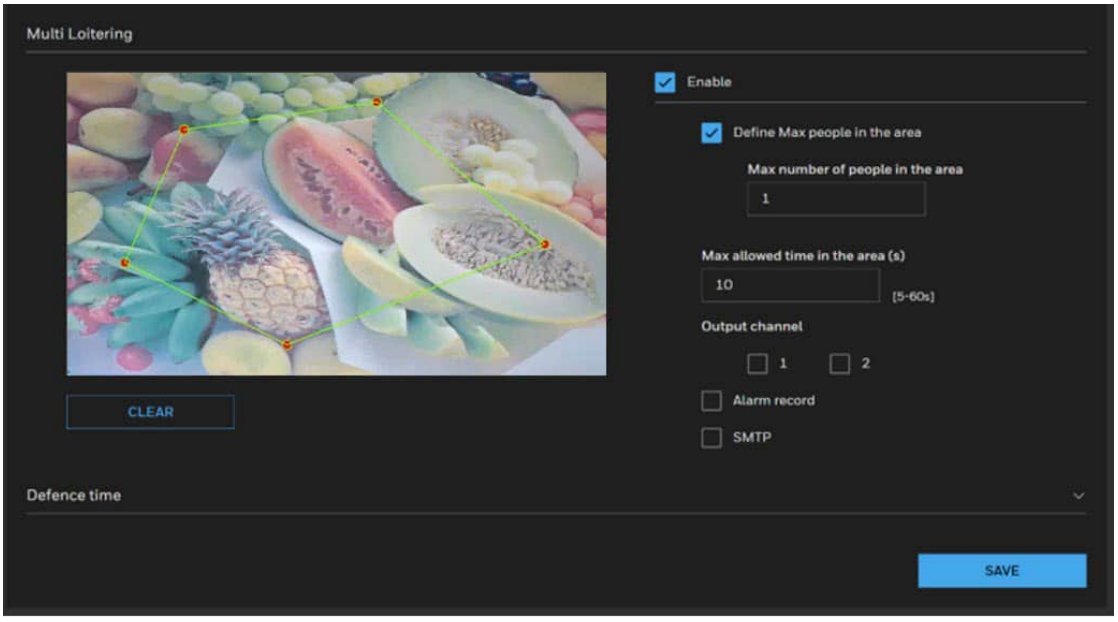
The Loitering detection can be used for a detection object or a group of detection objects lingering in an area for longer than a preset time threshold.

The applicable scenarios of this feature can be:

- Detects when a person is loitering at a walk-up of ATM lane.
- Detects when a person is loitering in a high-theft area of a store, or to prevent vandalism and break-ins.
- Detects when a person is loitering in an area that is normally not an access for visitors.

1. Go to Setup > Video Analytics > Multi Loitering.

Figure 32 Multi Loitering



2. Check the Enable checkbox to enable multi loitering detection.
3. Check the checkbox of Define Max people in the area.
4. Configure Max number of people in the area.
5. Configure Max allowed time in the area (s).
6. Configure the detection area.
    - Press and hold the left mouse button, and drag in the video area to draw a detection area

- Click CLEAR to delete a detection area.

7. Select the Output channel.
8. Check the check boxes to enable Alarm record and SMTP.
9. Click SAVE.

People Counter

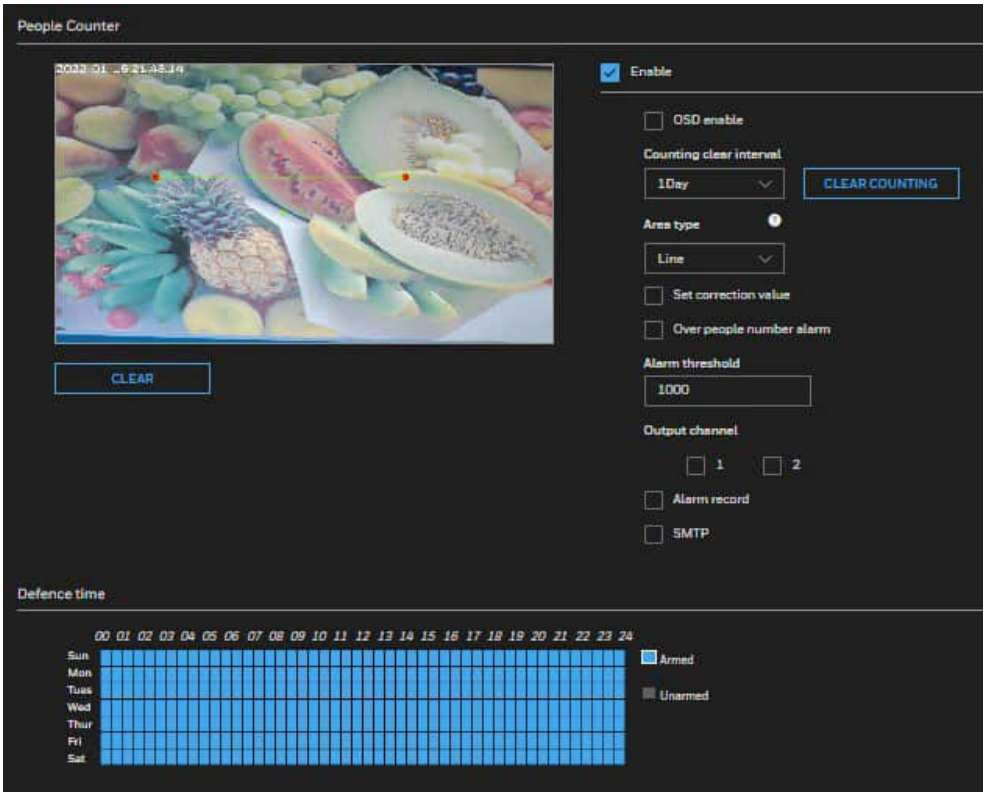
People Counter detects the presence of human faces in the field of view. The applicable scenarios of this feature can be:

By tagging the video frames which contain facial features, the administrator can later search for the video clips with the presence of these faces in a more efficient manner. Instead of searching through hours of recordings, face detection can facilitate the process of forensic search in recorded videos. Objects irrelevant to facial features will be filtered out.

Note: *When the aisle mode is enabled, the people counting function is invalid.*

1. Go to Setup > Video Analytics > People Counter.

Figure 33 People Counter



2. Check the Enable checkbox to enable people countering.
3. Configure the detection area.
    - Press and hold the left mouse button, and drag in the video area to draw a detection area
    - Click CLEAR to delete a detection area.
4. Check the OSD enable checkbox to enable OSD display of people countering.
5. Configure the Countering clear interval, Area type and Alarm threshold.
    a Select interval time to configure the Countering clear interval, the camera will clear counting numbers within every setting time interval. Click CLEAR COUNTING to clear current counting number.

    b Check the enable checkbox of Set correction value to enable counting correction which already stay on the In area. Input people number which is already stay in the In area.

    c Check the enable checkbox of Over people number alarm to enable alarm function when stay people number over the number setting in Alarm threshold box.
6. Select the Output channel.
7. Check the check boxes to enable Alarm record and SMTP.
8. Click SAVE.

CHAPTER

7

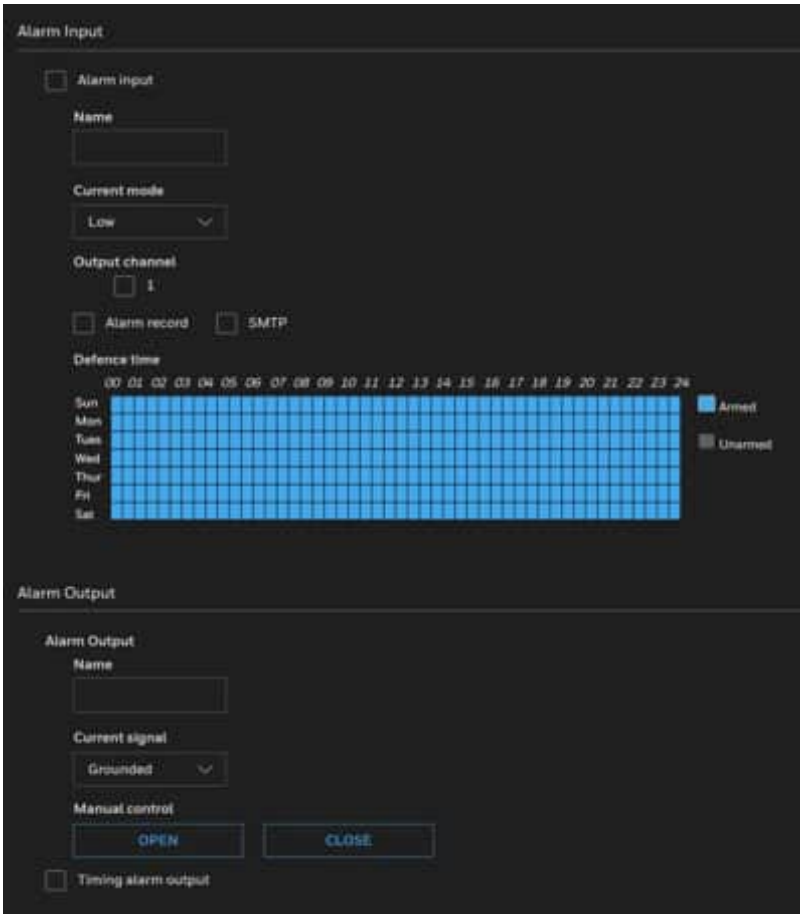
CONFIGURE ALARM AND EVENT

This section describes the alarm and event settings.

Configuring Alarm In and Alarm Out

Go to Setup > Alarm & Event > Alarm In and Alarm Out.

Figure 34 Alarm In and Alarm Out



Alarm Input

Alarm input: Check the checkbox of Alarm input.

Name: Enter the alarm input name.

Current mode: Select the current mode from the drop-down list box.

Defence time: Configure the schedule by using one of the methods below.

- Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday.
- Hold down the left mouse button, drag and release mouse to select the schedule within 0:00-24:00 from Monday to Sunday.

Output channel: Select the Output channel.

Alarm record/SMTP: Check the check boxes to enable Alarm record and SMTP.

PTZ linkage: Check the check boxes to enable **PTZ linkage**.

After the event is triggered, the system will run or stop the movement of the corresponding type according to the settings.

- **PTZ type**: Select **Preset**/**Scan**/**Patrol**/**Recording Patrol**.
- **Value**: Select the value.
- **Operate**: Select **Invoke**/**Pause**/**Continue** when PTZ type is **Patrol**.
  - **Invoke**: Call related PTZ linkage for running **Patrol**.
  - **Pause**: Pause related PTZ linkage **Patrol**.
  - **Continue**: Continue related PTZ linkage running **Patrol**.

Note: *PTZ linkage function is only applicable for PTZ models HC35WZ2R25/HC35WZ5R30/HC35WZ5R30W.*

Alarm Output

Name: Alarm output name

Current Signal: Select **Grounded** or **Open** to define normal status for the alarm output. Connect the output cable to an external device, the camera will report the current signal output status according to alarm event setting.

- **Grounded**: Camera alarm relay is **Normal Open**. It will turn to **Grounded/Closed** when an alarm event is generated to trigger it.

- **Open**: Camera alarm relay is **Normal Closed** (**Grounded**). It will turn to **Open** state when an alarm event is generated to trigger it.

Note: *The signal status will take effect after one alarm out is triggered.*

Manual control: If alarm out signal is coming, click **Close** to disable alarm out or click **Open** to keep alarm out status.

If alarm out signal is not coming, it is opposite with above.

Timing alarm output: Enable **Timing alarm output** and set time for alarm out. The device will continue trigger alarm out during the selecting time slot.

Note: *For 5M/8M models (HC35WX5RX/HC35WX8RX), an alarm input and an alarm output can be configured.*
For PTZ models HC35WZ5R30/HC35WZ2R25, alarm input1/input2 and alarm output1/ output2 can be configured.
For PTZ model HC35WZ5R30W, alarm input1~7, and alarm output1/ output2 can be configured.

Configuring SD Card Alarm

Go to Setup > Alarm & Event > SD Card Alarm.

SD card alarm: Check the checkbox to enable **SD card alarm**.

Alarm threshold(used space): The camera will alarm when used space achieves the alarm threshold.

Alarm interval: Set the interval.

Output channel: Check the checkbox to set the Output channel

CHAPTER

8 CONFIGURE STORAGE SETTINGS

SD Card Management

Go to **Setup > Storage Setup > SD Card Management**.
This section describes how to manage the local storage on the camera. Here you can view SD card status, and implement SD card control.
See the following table for compatible SD Card.

Table 4 Compatible SD Card

SD Card Brand	Model	Size
SanDisk	microSDHC A1 C10	16 GB
Kingston	microSDHC V10	16 GB
SanDisk	microSDHC V30	32 GB
SanDisk	microSDXC V30	128 GB
Toshiba	microSDXC M303 V30	128 GB
Micron	microSDXC A2 C10	128 GB
Samsung	microSDXC C10	256 GB
Kingston	microSDXC V30	256 GB
SanDisk	microSDXC C10	256 GB

Note:

- *It is recommended to turn OFF the recording activity before you remove an SD card from the camera.*
- *The lifespan of an SD card is limited. Regular replacement of the SD card can be necessary.*
- *Camera file system takes up several megabytes of memory space. The storage space cannot be used for recording.*
- *Using an SD card that already contains data recorded by another device should not be used in this camera.*
- *Do not modify or change the folder names in the SD card. That may result in camera malfunctions.*
- *If you want to use the SD card in another camera, format the SD card in another camera first. For how to format the SD card, see* SD Card Format *on page* 48*.*

SD Card Status

This tab shows the status and reserved space of your SD card. Up to two SD cards are supported. Redundant storage mode can be enabled with two SD cards.
Remember to format the SD card when using it for the first time, see SD Card Format on page 48.

Figure 35 No SD Card

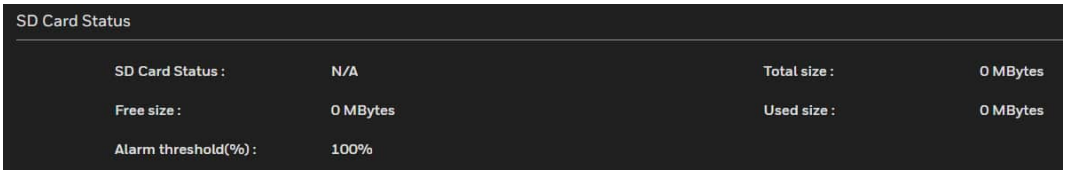
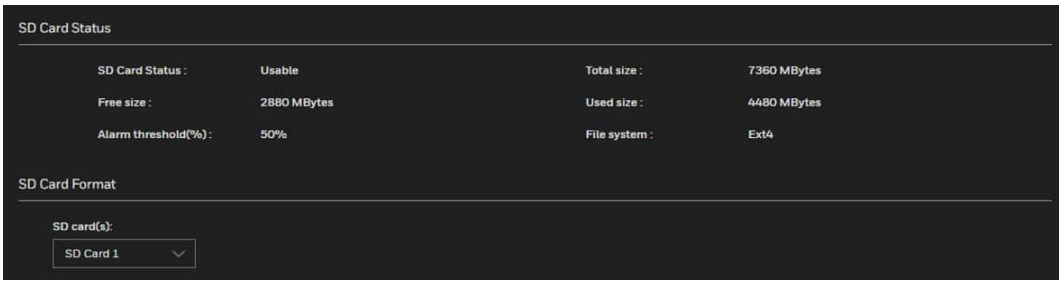


Figure 36 SD Card Onboard



SD Card Format

To format the SD Card, select the SD card and click FORMAT.

Insert/detach SD Card

The following instructions apply while inserting and detaching the SD card from the camera.

Caution: Do not detach the SD card while the formatting is going on.

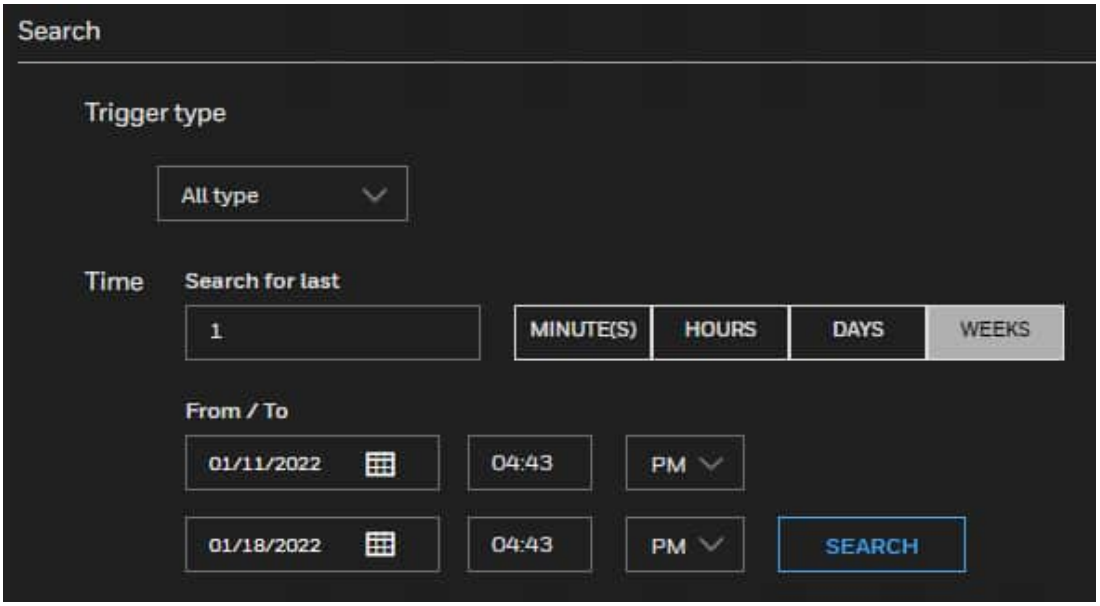
Warning: Check if any recording such as continuous recording is running anddisable the event or recording rule before detaching the SD card. TheSD card has unformatted status after reinserting into the camera if the recording was on while you removed it from the camera.

Content Management

Go to **Setup > Storage Setup > Content Management**.
This section describes how to manage the content of recorded videos on the camera. Here you can search and view the records and view the searched results.

Searching and Viewing the Records

This tab allows the user to set up search criteria for recorded data. If you do not select any criteria and click **SEARCH**, all recorded data will be listed in the **Search Results** tab.

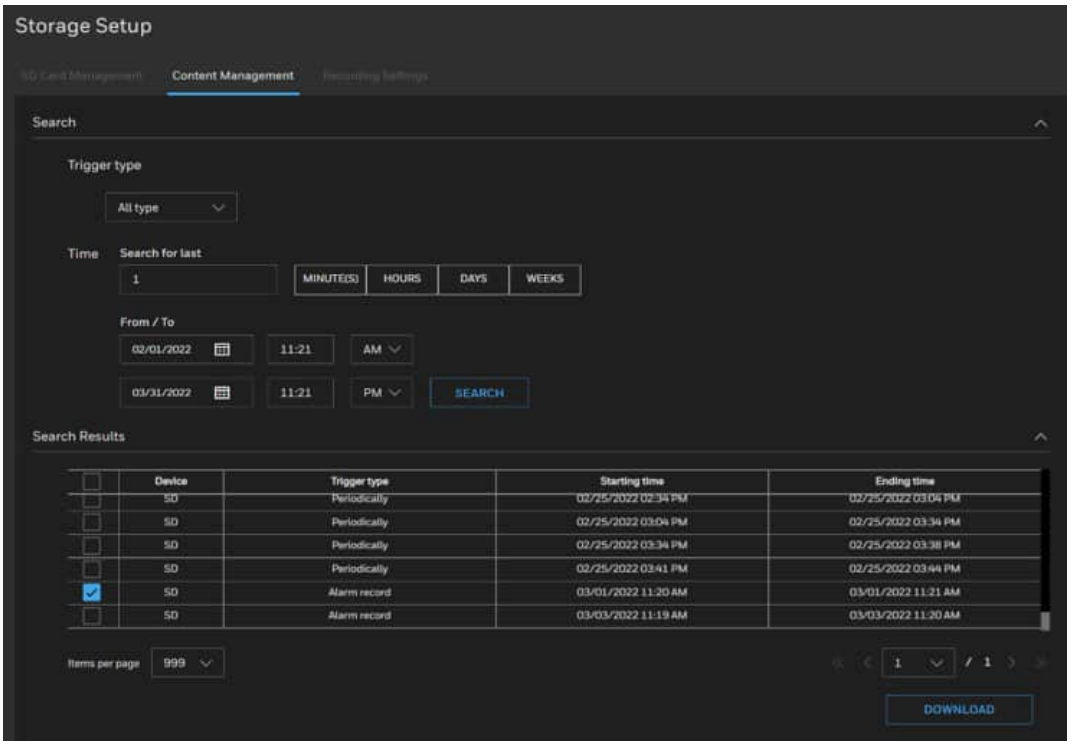


- **Trigger type**: Select one or more triggers from Backup, System boot, Alarm input, Motion, Network failure, Recording notification, Periodically, Tampering detection, and VADP.
- **Time**: Manually enter the time range you want to search for contents created at a specific point in time.

Click **SEARCH** and the recorded data corresponding to the search criteria will be listed in **Search Results** tab.

Search Results

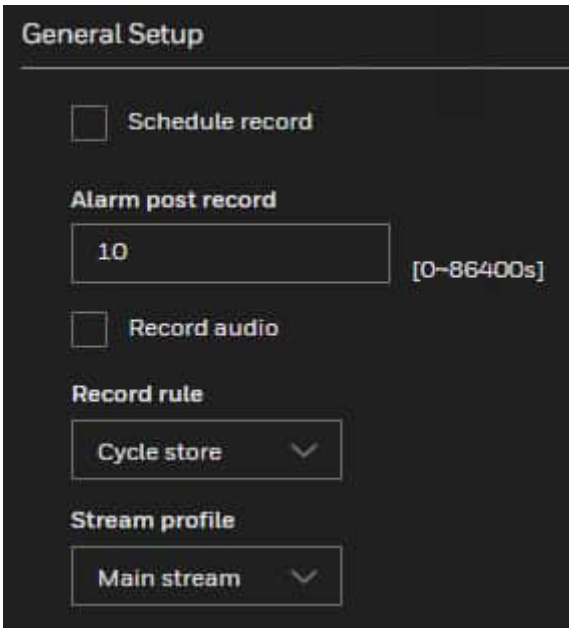
To sort the search results, click each column header.
Download: Click on a search result and click **DOWNLOAD**, and a file download window will pop up for you to save the file. You can play the video clip by VLC player.



Note: *The alarm records sorted in Trigger type are alarm type recording, not periodically recording. It includes Motion alarm, I/O alarm, Intrusion alarm, Multi loiter alarm, Smart motion alarm, Camera tamper alarm, Personnel count threshold alarm.*

Recording Settings

Go to **Setup > Storage Setup > Recording Settings**.
This section describes how to configure the recording settings for the camera.



Schedule record: Enables schedule record that you can configure the time policy.
Alarm post record: Recording duration (in seconds) after an alarm is generated.
Record audio: Indicates whether to record audios together with videos.
Record rule: Rule for saving recordings. The options are as follows:
Cycle Store: Saves recordings in cycles.
Save Days: Duration (in days) for saving a recording. The duration can be a maximum of 99999 days.
The value 0 indicates that recordings are not overwritten.
Stream profile: Select from the dropdown list: Main stream, Sub stream, Third stream.

Note: *Above settings will be applied to all video recording behaviors globally.*

Defence time: Left-click or drag the mouse to select any time within 0:00-24:00 from Monday to Sunday.

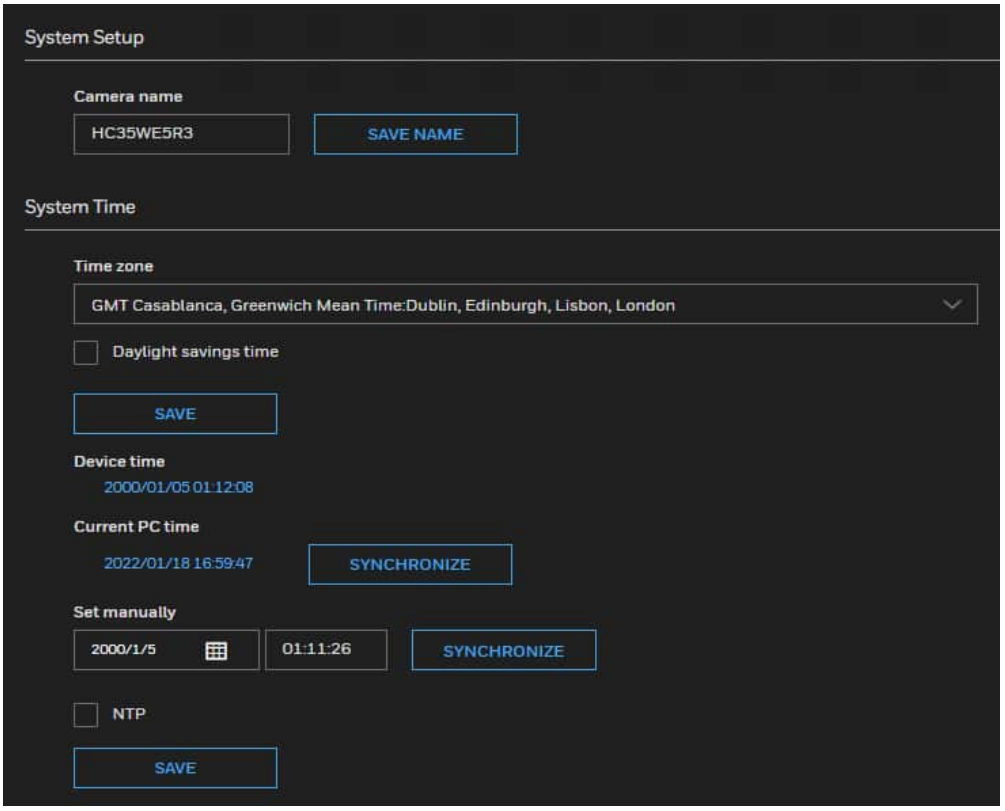
CHAPTER

9 CONFIGURE SYSTEM SETTINGS

Configuring System General Settings

Go to **Setup > System Setup > General Settings**.
This section explains how to configure the basic settings for the camera, such as the host name and system time.

Figure 37 System General Settings



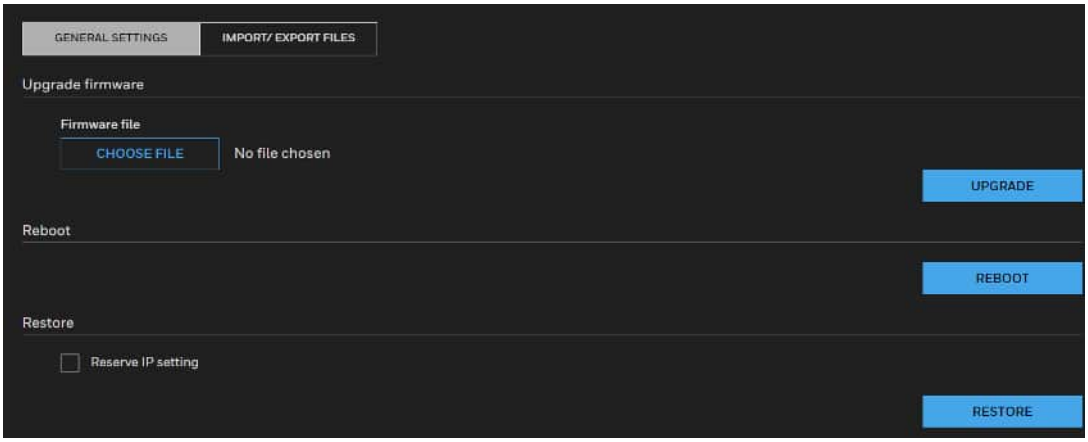
Camera Name: Enter a name for the camera. The text will be displayed at the top of the main page.
Time zone: Select the appropriate time zone from the dropdown list. If you want to upload Daylight Savings Time rules, see **Configuring Maintenance Settings** on page 53.
Daylight savings time: Check the checkbox to enable Daylight savings time and specify the DST start time and end time.

- When the DST start time arrives, the device time automatically goes forward one hour.
- When the DST end time arrives, the device time automatically goes backward one hour.

Device time: Device display time.
Current PC time: Time on the current PC.
Set manually: Enables you to manually set the device time.
NTP: IP address or domain name of the NTP server. Check the checkbox to enable NTP.
NTP server addr: The NTP server IP.
NTP Port: Port number of the NTP server.
Check the time interval(at least 10 s): Set time interval to check if the device time synchronizes with the NTP server time.

Configuring Maintenance Settings

Go to **Setup > System Setup > Maintenance**.
This chapter describes how to restore the camera to factory default, upgrade firmware version, etc.



Upgrading Firmware

On this page, you can upgrade the firmware of the camera. It takes a few minutes to complete the process.

Note:
- *Do not power off the camera during the upgrade.*
- *If an SD card is used in your camera, backup your SD card contents if necessary before the upgrade.*

Follow the steps below to upgrade the firmware:

1. Click CHOOSE FILE and locate the firmware file.
2. Click UPGRADE. The camera starts to upgrade and will reboot automatically when

the upgrade completes.

- If an SD card is used in your camera, it will be formatted automatically after the upgrade. The formatting may take 5 to 20 minutes.
- After the SD card is formatted, it will be encrypted and its content cannot be read on other cameras.
- If you want to use the SD card in another camera, format the SD card in another camera first. For how to format the SD card, see SD Card Format on page 48.
- A new SD card inserted to camera will also be formatted automatically after the camera is upgraded.
- If the upgrade is successful, the “Reboot system now!! This connection will close” message will be displayed. After that, re-access the camera. If an SD card is inserted to the camera, wait for the SD card formatting to complete.

Rebooting the Camera

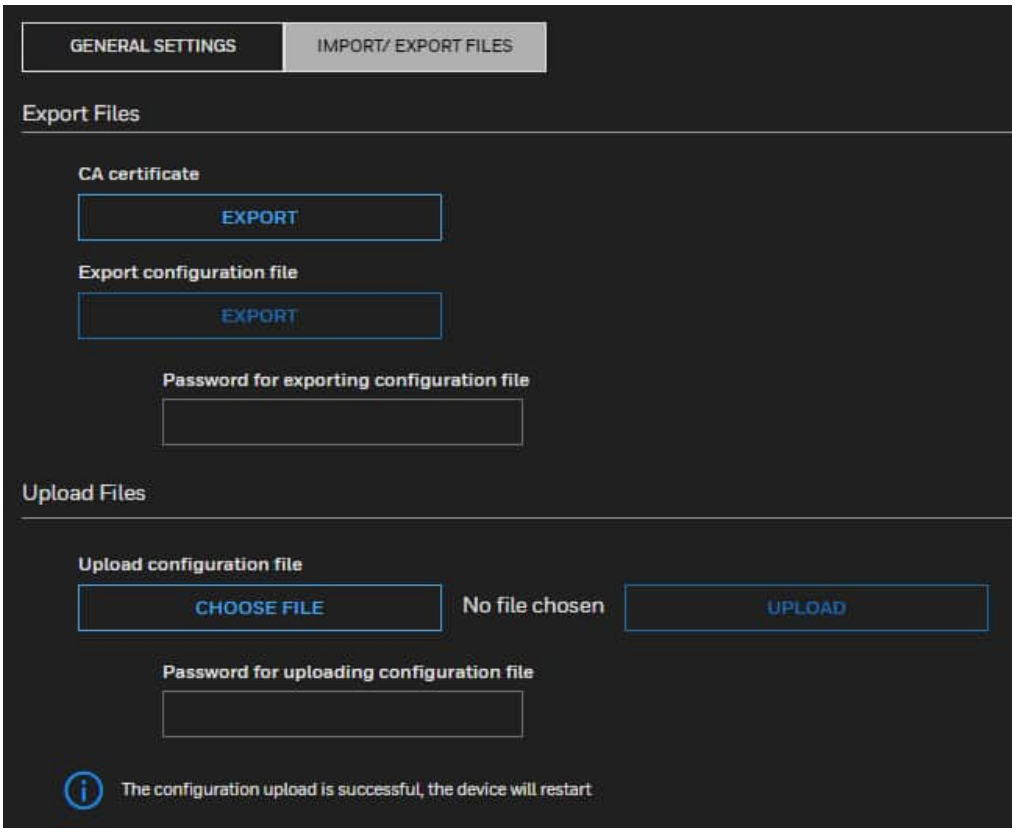
On this page, you can reboot the camera. It takes about one minute to complete. After it is completed, the live video page will be displayed in your browser.
If the connection fails after rebooting, manually enter the IP address of the camera in the address field to resume the connection.

Restoring the Camera

Restore the camera to factory default settings.
Network Setup: Check to retain the Network Type settings (see Configuring Network General Settings on page 27).
Daylight Saving Time: Check to retain the Daylight Saving Time settings (see Importing/Exporting Files on page 54).
Focus position: Check to retain the lens focus position using the previously saved position parameters.
If none of the options is selected, all settings will be restored to factory default. Click RESTORE and the camera will be rebooted.
After it is completed, the live video page will be displayed in your browser.
If the connection fails after rebooting, manually enter the IP address of the camera in the address field to resume the connection.

Importing/Exporting Files

Export / Upload daylight saving time rules, custom language file, configuration file, and server status report.



Export CA Certificate

The camera uses HTTPS, a secure communication protocol that verifies the identities of visited websites and servers and encrypts data exchanged between the client and the server. When you log in to the camera's web client for the first time, some browsers may display a warning that the connection is not private/secure. To access the web client, you must install a Honeywell-signed security certificate.

1. Click Export to save the root certificate (ca.crt) on your local computer.
2. Go to the directory where you saved the certificate and double-click the certificate. The Certificate window opens.
3. In the Certificate window, on the General tab, click Install Certificate to open the Certificate Import Wizard.
4. Click Next to continue.
5. Click Place all certificates in the following store, click Browse, click Trusted Root Certification Authorities, and then click OK.
6. Click Next, and then click Finish to close the Certificate Import Wizard. A confirmation dialog box appears with the message "The import was successful."
7. Click OK, and then click OK to close the Certificate window. And now your browser will not display a warning that the connection is not private/ secure.

Please ensure to install the certificate to ensure a secure communication with the camera and to avoid delays in the web page navigation.

Export Configuration File

Click **EXPORT** to export all parameters for the camera and user-defined scripts.

Note: *User needs to specify the password before exporting the configuration file.*

Upload Configuration File

Follow the steps below to upload a configuration file:

1. Enter the password for uploading the configuration file. The password must be the same with the password of the configuration file you set for exporting, or the uploading will be failed. For example, if you set the password A for the configuration file A and you set the password B for the configuration file B. When you want to upload the configuration file B, you must use the password B.
2. Click CHOOSE FILE to locate the configuration file and then click UPLOAD to upload the configuration file.

The model and firmware version of the device should be the same as the configuration file. If you have set up a fixed IP or other special settings for your device, it is not suggested to update a configuration file.
If the power is disconnected during firmware upgrade or if there is unknown reason causing abnormal LED status, and a Restore cannot recover normal working condition, you can perform the following steps to activate the camera with its backup firmware:

a) Press and hold down the reset button for at least one minute.

b) Power on the camera until the Red LED blinks rapidly.

c) After boot up, the firmware should return to the previous version before the camera hanged. (The procedure should take 5 to 10 minutes, longer than the normal boot-up process). When this process is completed, the LED status should return to normal.

Configuring User Accounts Settings

Go to **Setup > System Setup > User Accounts**.
This section describes how to create multiple accounts and grant privileges to these accounts.

Account Management

The administrator account name is “admin”, which is permanent and cannot be deleted. The administrator can create up to 20 user accounts. To create a new user:

1. Select New user from the dropdown list.
2. Enter the new user’s name and password and confirm the password. Some, but not all special ASCII characters are supported. You can use “!?@#$%=+*-_:,.&^~” in the password combination.
3. Select the privilege level for the new user account. Click ADD to enable the setting.

The privilege levels are listed below:

Role	Privilege
Administrator	Full control
Viewer	Live, Language

Access rights are sorted by user privilege (Administrator, Operator, and Viewer). Only administrators can access the Configuration page. Viewers can only access the main page for live viewing.

To change a user’s access rights or delete user accounts:

1. Select an existing account.
2. Make necessary changes and click UPDATE to enable the setting or click DELETE to delete the account.

Configuring Access List Settings

Go to **Setup > System Setup > Access List**.

This section describes how to control access permission by verifying the client PC’s IP address.

IP filter: Check this item and click SAVE to enable the IP filtering function.

Filter type: Select **Allow** or **Deny** as the filter type. If you choose Allow Type, only those clients whose IP addresses are on the Access List below can access the camera, and the others cannot. On the contrary, if you choose Deny Type, those clients whose IP addresses are on the Access List below will not be allowed to access the camera, and the others can.

Click **ADD** and you can add a filter address.

Note:
- *The IPv6 access list column will not be displayed unless you enable IPv6 on the Network page. For more information about IPv6 Settings, see Enable IPv6 on page 49.*
- *The Range rule only applies to IPv4 addresses.*

CHAPTER

10 CONFIGURING PTZ SETTINGS

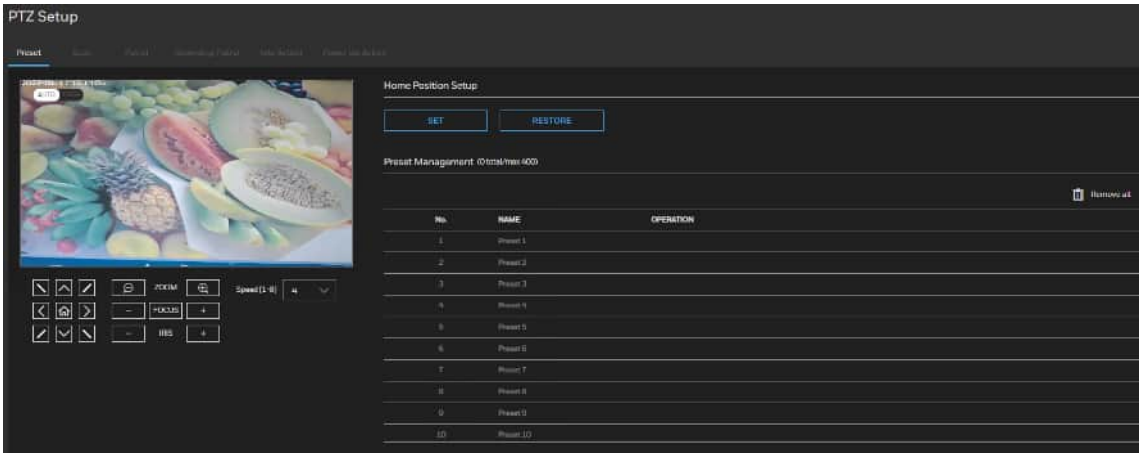
This section describes how to control the camera's Pan/Tilt/Zoom operation.

Note: *The functions in this section are applicable for PTZ cameras only.*

Preset

Go to **Setup → PTZ Setup → Preset**.

Figure 38 Preset Settings



: Click the buttons to move the video image up/right/down/left/45-degree tilt and click to return to the home location.

ZOOM: Click to zoom out the video image or click to zoom in the video image.

FOCUS: Click − and + to adjust the **Focus** setting.

IRIS: Click − and + to adjust the **IRIS** setting.

Speed [1-8]: Select the movement speed for camera view. The speed range is 1 to 8 and the default setting is 5.

Home Position Setup

- **SET**: Click to set the current position as the home location.
- **RESTORE**: Click to restore the home position to default.

Preset Management

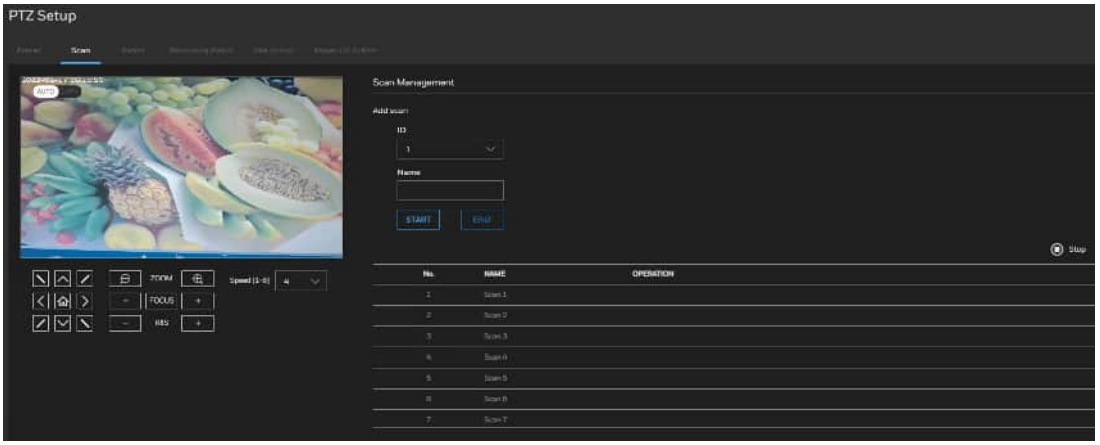
- Click Remove all to delete all the preset list.
- Click to go to this preset.
- Click to replace this preset with current position.
- Click to remove the preset.

Note: Preset point 80~115 are reserved for special presets. And calling special preset 103 will run wiper once.

Scan Management

Go to **Setup → PTZ Setup → Scan**.

Figure 39 Scan Settings



: Click the buttons to move the video image up/right/down/left/45-degree tilt and click to return to the home location.

ZOOM: Click to zoom out the video image or click to zoom in the video image.

FOCUS: Click − and + to adjust the **Focus** setting.

IRIS: Click − and + to adjust the **IRIS** setting.

Speed [1-8]: Select the movement speed for camera view. The speed range is 1 to 8 and the default setting is 5.

Scan Management

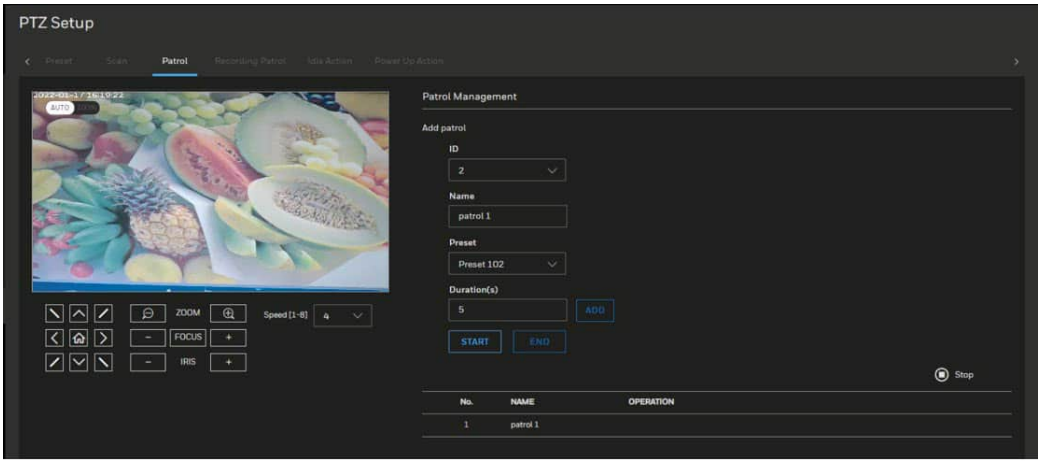
Add scan: Set the scan ID and name. Click **START** to start record. Click **END** to end record.

- Click ▶ to start this scan.
- Click ■ to stop the scan setting.
- Click 🗑 to remove the scan.

Patrol

Go to **Setup → PTZ Setup → Patrol**.

Figure 40 Patrol Settings



: Click the buttons to move the video image up/right/down/left/45-degree tilt and click ⌂ to return to the home location.

ZOOM: Click ⊖ to zoom out the video image, or click ⊕ to zoom in the video image.

FOCUS: Click − and + to adjust the **Focus** setting.

IRIS: Click − and + to adjust the **IRIS** setting.

Speed [1-8]: Select the movement speed for camera view. The speed range is 1 to 8 and the default setting is 5.

Patrol Management
Add patrol: Set the patrol ID/Name/Preset/Duration(s). Click **START** to start record. Click **END** to end record.

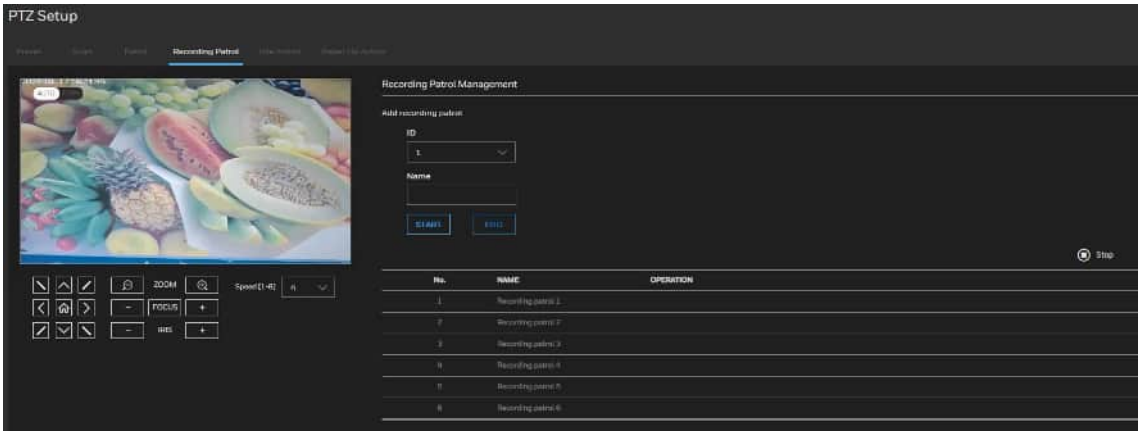
- Click review your recorded patrol.
- Click to stop the patrol review.
- Click to remove the patrol.

This patrol list displays the configured patrols. Note that only one patrol can be applied at a time.

Recording Patrol

Go to **Setup → PTZ Setup → Recording Patrol**.

Figure 41 Recording Patrol



: Click the buttons to move the video image up/right/down/left/45-degree tilt and click to return to the home location.

ZOOM: Click to zoom out the video image, or click to zoom in the video image.

FOCUS: Click and to adjust the **Focus** setting.

IRIS: Click and to adjust the **IRIS** setting.

Speed [1-8]: Select the movement speed for camera view. The speed range is 1 to 8 and the default setting is 5.

Recording Patrol Management
Add recording patrol: Set the recording patrol ID and Name. Click **START** to start record. Click **END** to end record.

- Click review your recording

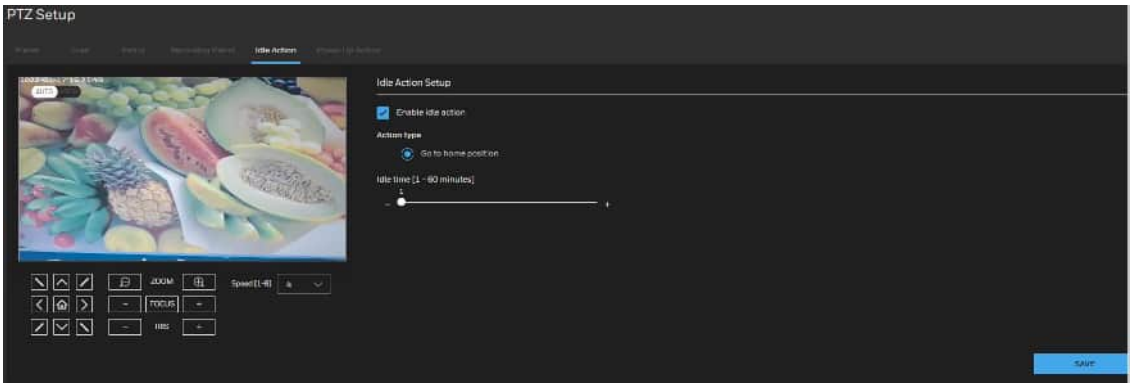
patrol.

- Click to stop the recording patrol review.
- Click to remove the recording patrol.

Idle Action

Go to **Setup → PTZ Setup → Idle Action**.

Figure 42 Idle Action



: Click the buttons to move the video image up/right/down/left/45-degree tilt and click to return to the home location.

ZOOM: Click to zoom out the video image, or click to zoom in the video image.

FOCUS: Click and to adjust the **Focus** setting.

IRIS: Click and to adjust the **IRIS** setting.

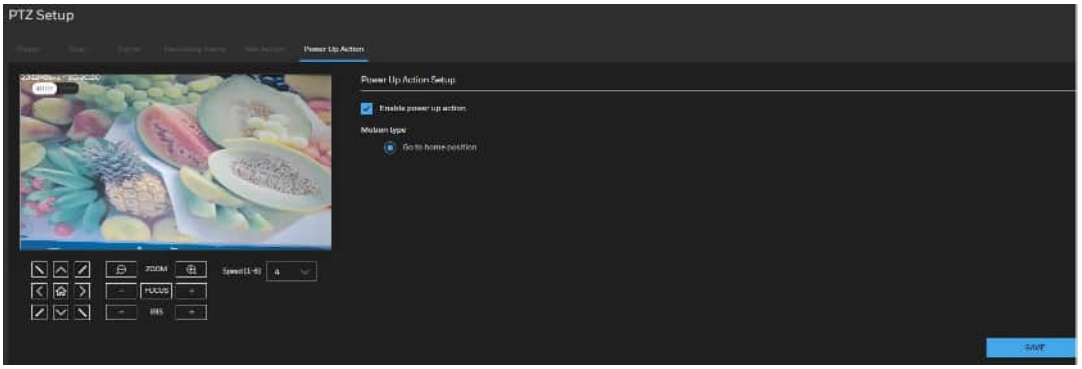
Speed [1-8]: Select the movement speed for camera view. The speed range is 1 to 8 and the default setting is 5.

Check the checkbox to enable idle action. Set the idle time. Click **SAVE**.

Power Up Action

Go to **Setup → PTZ Setup → Power Up Action**.

Figure 43 Power Up Action



: Click the buttons to move the video image up/right/down/left/45-degree tilt and click to return to the home location.

ZOOM: Click to zoom out the video image, or click to zoom in the video image.

FOCUS: Click and to adjust the **Focus** setting.

IRIS: Click and to adjust the **IRIS** setting.

Speed [1-8]: Select the movement speed for camera view. The speed range is 1 to 8 and the default setting is 5.

Check the checkbox to enable power up action. Click **SAVE**.

CHAPTER

11 VIEWING SYSTEM INFORMATION

Log

Go to **Setup > Information > Logs**.

Operation Log

Operation logs record user operations and scheduled task commands during the running of the device. Operation logs can be classified into the following types: permission management, system maintenance, device configuration, recording operation, video control, and real-time video.

1. Select the type of operation logs to be queried from the drop-down list box.
2. Set the start time and end time as required.
3. Click SEARCH.

   The operation logs are displayed.
4. Click Download on the right of the page to download the operation logs.

Alarm Log

An alarm log records information about an alarm generated on a device, including the security, disk, and recording alarms.

1. Select the type of alarm logs to be queried from the drop-down list box.

2. Set the start time and end time as required.
3. Click SEARCH.
4. The alarm logs are displayed.
5. Click Download on the right of the page to download the operation logs.

Collect Log

You can collect logs about a device, which help you analyze and solve possible problems occurring on the device with one click.

1. Click **COLLECT**, the download page is displayed.

2. Select the path to save the logs.

Version

Go to **Setup > Information > Version**.

On the **Version** page, you can view the software version.

CHAPTER

12 TROUBLE SHOOTING

Troubleshooting for Common Issues

Refer to the following guidelines to troubleshoot any performance issues. If you require additional assistance, contact Honeywell Technical Support (see back cover for contact information).

Table 5 Troubleshooting for Common Issues

Issues	Solutions
Power supply is unstable.	Use of a UPS power supply is strongly recommended.
Camera webpage has abnormal display.	Clear the cache of browser. • If the pc screen width is 1366px, it is recommended to zoom the browser to 80%. • If the pc screen width is 1920px, it is recommended to zoom the browser to 100%.

CHAPTER

13 APPENDIX

List of Symbols

The following is a list of symbols that may appear on the camera:

Table 6 List of Symbols

Symbol	Explanation
	The WEEE symbol. This symbol indicates that when the end-user wishes to discard this product, it must be sent to separate collection facilities for recovery and recycling. By separating this product from other household-type waste, the volume of waste sent to incinerators or landfills will be reduced, and thus natural resources will be conserved.
	The UL compliance logo. This logo indicates that the product has been tested and is listed by UL (formerly Underwriters Laboratories).
	The FCC compliance logo. This logo indicates that the product conforms to Federal Communications Commission compliance standards.
	The direct current symbol. This symbol indicates that the power input/output for the product is direct current.
	The alternating current symbol. This symbol indicates that the power input/output for the product is alternating current.
	The RCM compliance logo. This logo indicates that the product conforms with Australian RCM guidelines.
	The CE compliance logo. This logo indicates that the product conforms to the relevant guidelines/standards for the European Union harmonization legislation.

	The caution symbol. This symbol indicates important information.
	The protective earth (ground) symbol. This symbol indicates that the marked terminal is intended for connection to the protective earth/grounding conductor.
	Eurasian Conformity (EAC) RoHS

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Document 800-26904 Rev B – 05/2022