

Performance Series

5 MP Fisheye IP Cameras

HFD5PR1

User Guide

Recommended

Find the latest version of this and other Performance Series IP camera documents on the Honeywell Video website. Go to <http://www.honeywellvideo.com/products/cameras/ip/index.html> to find your camera and view/download the latest documentation.



Refer to the Honeywell Open Technology Alliance to learn more about our open and integrated solutions (go to: <http://www.security.honeywell.com/hota/>).



Revisions

Issue	Date	Revisions
A	01/2017	New document for 5 MP Fisheye IP cameras, based on 800-21358-A.
B	04/2017	Corrected the HFD5PR1 operating temperature specification.

Cautions and Warnings

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN		THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THE UNIT.
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.			THIS SYMBOL INDICATES THAT IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS ACCOMPANY THIS UNIT.

⚠ WARNING Installation and servicing should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.

⚠ WARNING To ensure compliance with electrical safety standards this product is intended for use with a Listed Power Adapter marked with “Limited Power Source”, “LPS”, on the unit, output rated 12 V DC, minimum 0.7 A, Tma=60°C or from Power over Ethernet (PoE) provided by Listed Information Technology Equipment meeting the IEEE 802.3af PoE standard.

The Ethernet connection is not intended to be connected to exposed (outside plant) networks. Do not connect two power sources to the camera at the same time.

CAUTION Invisible LED radiation (850 nm). Avoid exposure to beam.

Regulatory Statements

FCC Compliance Statement

Information to the User: This equipment has been tested and found to comply with the limits for a Class B 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 instruction manual, 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.

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

Canadian Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

Manufacturer's Declaration of Conformance

The equipment supplied with this guide meets the provisions of the following European Union council directives 2014/30/EU for EMC, 2001/95/EC for safety, and 2011/65/EU for RoHS compliance.

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.

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.
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.**

List of Symbols

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

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.

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About This Document

This document provides instructions for accessing, configuring, and operating the Performance Series 5 MP Fisheye IP cameras. It is intended for system installers, administrators, and operators.

Overview of Contents

This document contains the following chapters and appendixes:

- [Chapter 1, Introduction](#), provides an overview of the main features of the Performance Series 5 MP Fisheye IP cameras.
- [Chapter 2, Getting Started with the ConfigTool](#), describes how to install the Config Tool to access the camera remotely from a web browser. It also describes how to update your camera's firmware.
- [Chapter 3, Logging In and Viewing Live Video](#), describes how to log in to a camera and the Live View interface.
- [Chapter 4, Playing Back Video](#), describes how to search for recorded video and snapshots, and how to export them.
- [Chapter 5, Configuring Camera Settings](#), describes all camera configurations, including network and storage configurations.
- [Chapter 6, Configuring Events and Alarms](#), shows how to set up notifications for alarm inputs, motion detection, and network failure events.
- [Appendix A, Troubleshooting](#), lists common problems and solutions.
- [Appendix B, Camera Specifications](#), lists the specifications of the Performance Series 5 MP Fisheye IP cameras.

Typographical Conventions

This document uses the following typographical conventions:

Font	What it represents	Example
Helvetica Narrow	Keys on the keyboard	Press Ctrl+C
Lucida	Values of editable fields that are mentioned in the body text of the document for reference purposes, but do not need to be entered as part of a procedure	The Time from field can be set to Hours:Minute:Seconds.
	Text strings displayed on the screen	The message Vali d displays.
Swiss721 BT Bold	Words or characters that you must type. The word “enter” is used if you must type text and then press the Enter or Return key.	Enter the password .
	Menu titles and other items you select	Double-click Open from the File menu.
	Buttons you click to perform actions	Click Exit to close the program.
<i>Italic</i>	Placeholders: words that vary depending on the situation	Enter your <i>user name</i> .
	Cross-reference to external source Cross-reference within document	Refer to the System Administrator Guide . See Chapter 2, Installation .

Introduction

This chapter contains the following sections:

- [Overview, page 11](#)
- [Key Features, page 12](#)

Overview

Honeywell's Performance Series 5 Megapixel Fisheye IP cameras integrate an incredibly wide-angle fisheye 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 indoor surveillance applications.

Plug-and-play compatible with Honeywell 8-/16-/32-/64-Channel Focus 4K Embedded NVRs, the cameras offer 1080p, 3M, or 5M resolution at up to 12 frames per second with 5 megapixels and use H.264 video compression technology to save bandwidth and storage while ensuring maximum video quality. The cameras are True Day/Night using a removable IR cut filter.

Each camera comes with configurable motion detection and face detection video analytics.

In addition to a 12 V DC adapter, the fisheye cameras support Power over Ethernet (PoE), eliminating the need for a separate power supply and associated wiring. The cameras also support local video storage on microSDHC cards (up to 64 GB) to continue recording when network service is interrupted.

You can monitor Performance Series 5 MP Fisheye IP cameras from anywhere, at any time, using the free HonView Touch mobile app for both Apple and Android smartphones and tablets.

Key Features

Key features of the Performance Series 5 MP Fisheye IP cameras include the following:

Camera	• Day/Night mode auto-switch • Picture parameter setup, such as electronic shutter and gain • Motion detection • Backlight compensation • Video watermark function to prevent modification
Storage	• Central server backup (configure in Alarm or Schedule settings) • Recording over Internet, files stored on client PC • Network storage (FTP) • Micro SDHC card storage (up to 64 GB)
Network Monitoring	• One-channel video data transmission to a network terminal and decoding • Delay time less than 270 ms (network bandwidth support required) • Up to 20 connections • Compatible with the following network protocols: IPv4/IPv6, HTTP, HTTPS, TCP/IP, UDP, UPnP, ICMP, IGMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS
Network Management	• Camera configuration and management via Ethernet • Device management via Internet or client PC
User Management	• Each user belongs to specific group • Different user rights for each group • User rights cannot exceed group rights
System Management	• Log function • System resource information and running real-time status display

Getting Started with the ConfigTool

This chapter contains the following sections:

- *Installing the ConfigTool IP Utility, page 13*
- *Discovering Your Device on the Network, page 14*
- *Assigning a New IP Address to Your Device, page 14*
- *Upgrading the Device's Firmware, page 15*
- *Opening a Web Client, page 18*

Installing the ConfigTool IP Utility

Before you can start using your camera, you must install the ConfigTool IP utility on your PC.

1. Insert the software CD that came with your camera into your PC's disk drive.
2. Open the **Honeywell Config Tool** folder, and then double-click **Honeywell ConfigTool.exe**.
3. Click **Next** on the ConfigTool welcome screen.
4. Read the User License Agreement. If you agree, select **I agree**.
5. If you want, you can change the installation directory (by default, ConfigTool will be installed in C:\Program Files). To proceed with the installation, click **Install**.
6. If the installation is successful, the message **Installation is complete!** appears. Click **Enjoy Now** to open the ConfigTool.

Discovering Your Device on the Network

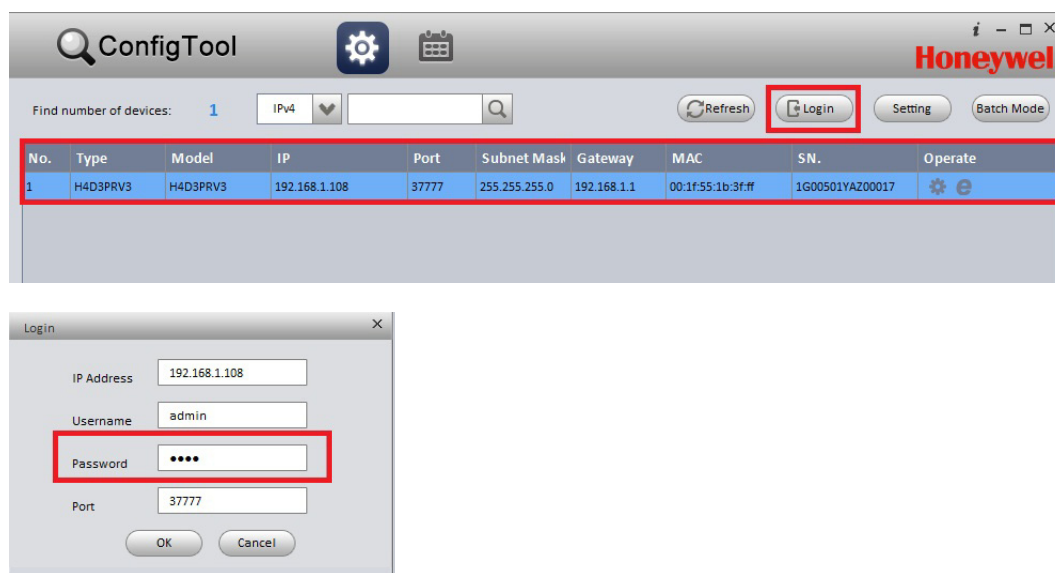
Use ConfigTool to discover your IP device(s) on the network. To discover your device(s), open ConfigTool. All of the connected IP devices on the network are listed. To refresh the list, click **Refresh**.

Assigning a New IP Address to Your Device

The current IP address of your device appears in the **IP** column of the ConfigTool main interface. If required, you can assign a new static IP address to the device.

1. From the list of devices in ConfigTool, select the device that you want to assign a new IP address to.
2. Click **Login**. Enter the login user name and password for the device (the default user name is **admin** and the default password is **1234**), and click **OK**.

Figure 2-1 Log In to a Device



3. Click the **Net** tab on the **Config** screen (see [Figure 2-2](#)). Enter the new IP settings in the **IP Address**, **Subnet Mask**, and **Gateway** fields, and click **Save**.

Figure 2-2 Network Settings

The screenshot shows the 'Config' window with the 'Net' tab selected. The settings are as follows:

Field	Value
Ethernet Card	Wired
IP Version	IPv4
IP Address	169.254.243.100
Subnet Mask	255.255.255.0
Gateway	169.254.243.1
MAC	3c:ef:8c:f9:fa:25
TCP	37777 (1025 ~ 65534)
HTTP	80
UDP	37778
RTSP	554

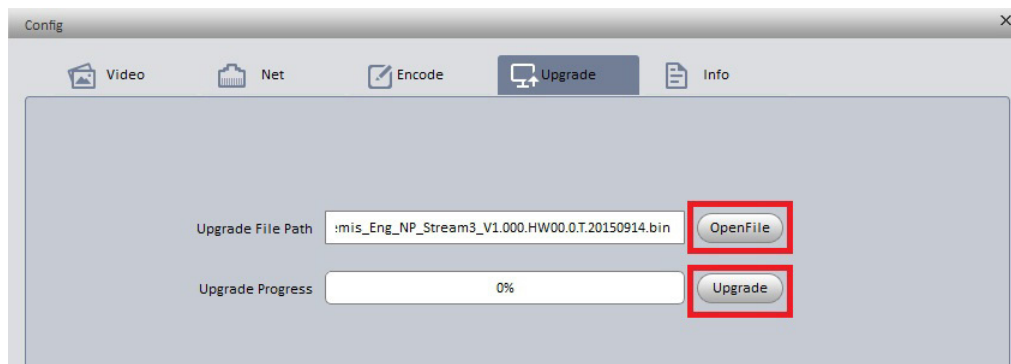
At the bottom right, there are 'Save' and 'Return' buttons. The 'Save' button is highlighted with a red box.

Upgrading the Device's Firmware

Before using the camera, make sure that the latest firmware is installed. You can upgrade a single device or multiple devices at the same time.

To upgrade a single device:

1. Select the device to upgrade from the list of devices in ConfigTool.
2. Click **Login**. Enter the login user name and password for the device (the default user name is **admin** and the default password is **1234**), and click **OK**.
3. Click the **Upgrade** tab on the **Config** screen (see [Figure 2-3](#)).
4. Click **OpenFile**, navigate to the directory that contains the firmware file, and then click **Upgrade**.

Figure 2-3 Upgrade Screen

The device will reboot when the upgrade is complete. The message Device is offline: [device IP address] appears while the device is rebooting.

To upgrade multiple devices simultaneously:

1. Click **Batch Mode** in ConfigTool.

Figure 2-4 Select Batch Mode

2. Click to select all of the devices that you want to upgrade from the list of devices, and then click **Start** (see [Figure 2-5](#)). Hold **Ctrl** while selecting to select multiple devices.

Figure 2-5 Batch Mode Screen

No.	Type	Model	IP	Port	Username	MAC	SN.
1	HBD3PR2	HBD3PR2	192.168.1.210	37777	admin	00:1f:55:1b:3f:fe	1H01112YAZ00003
2	H4D3PRV3	H4D3PRV3	192.168.1.108	37777	admin	00:1f:55:1b:3f:ff	1G00501YAZ00017

Buttons: Manual Add, Delete, Import, Export, Modify User, Batch Upgrade, **Start**

- Click **Open** on the **Batch Upgrade** screen (see [Figure 2-6](#)). Navigate to the directory that contains the firmware file, and click **OK**.

Figure 2-6 Batch Upgrade Dialog Box

Batch Upgrade

Selected number of devices: 2

Upgrade File Path: **Open**

OK **Cancel**

The devices will reboot when the upgrade is complete. The message Device is offline: [device IP address] appears while a device is rebooting.

Opening a Web Client

You can configure individual camera settings using the web client (see [Chapter 5, Configuring Camera Settings](#) for more information). To open the web client from ConfigTool, select the device to open a web client for, and then click the Microsoft Internet Explorer icon in the **Operate** column. The web client opens in your browser.

Logging In and Viewing Live Video

This chapter contains the following sections:

- *Logging In to the Camera via the Web Client, page 19*
- *Using the Live View Interface, page 21*

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 logging 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]").

Logging In to the Camera

1. Open **Internet Explorer**, enter the camera's IP address in the address bar, and then press **Enter**. For example, if your camera's IP address is **192.168.1.108**, you would type **http://192.168.1.108**.
2. On the login screen, enter the admin user name and password, and then click **Login**.
The default user name is **admin** (case-sensitive) and the default password is **1234**.

Figure 3-1 Login Window

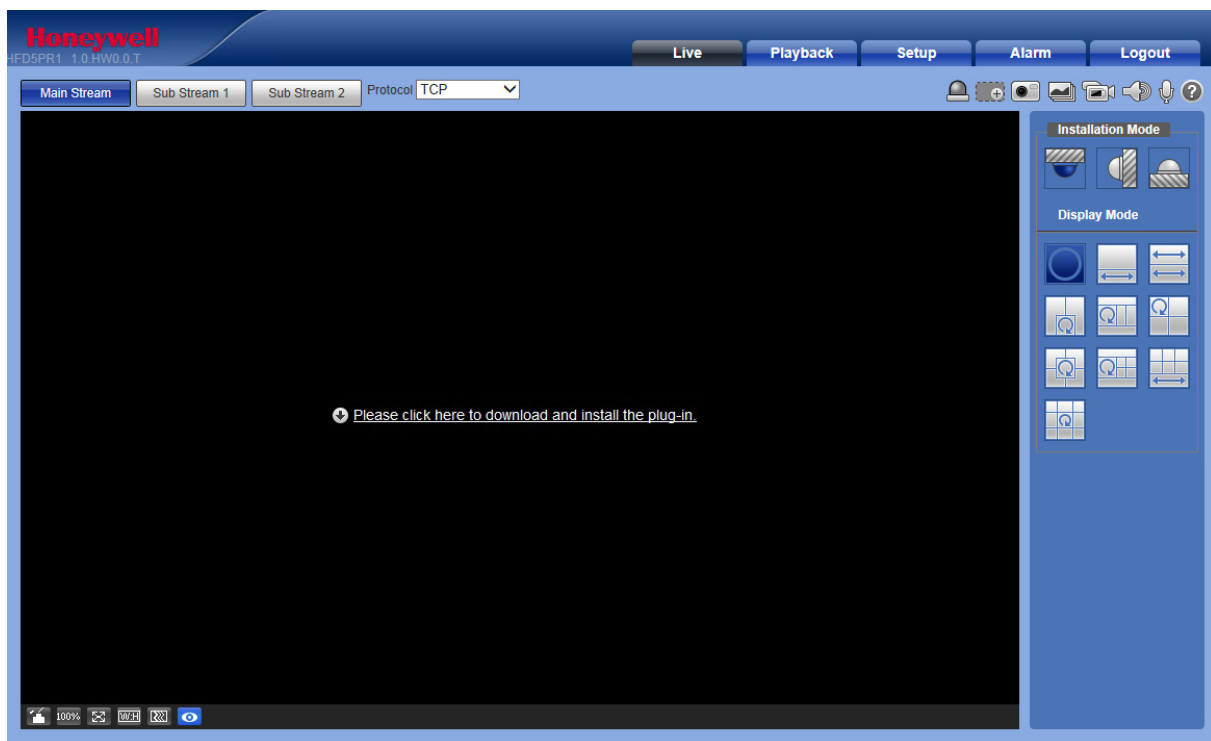
 A screenshot of the Honeywell login window. It has a blue header with the Honeywell logo in red. Below the header, there are two input fields: "Username:" with "admin" entered, and "Password:" which is empty. At the bottom, there are two buttons: "Login" and "Cancel".

Installing the Browser Plug-In

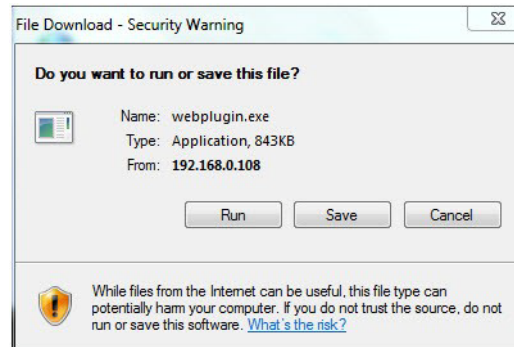
If you are logging in for the first time, you will be prompted to download and install a browser plug-in (see [Figure 3-2](#)). Follow the on-screen instructions to install the plug-in. When the installation is complete, the web client automatically refreshes and the Live View interface opens ([Figure 3-5](#)).

If this is your first time logging in, you will see the following message:

Please click here to download and install the plug-in.

Figure 3-2 First-time Login Message

1. Click **Please click here to download and install the plug-in.** A **File Download-Security Warning** popup message appears ([Figure 3-3](#)) that asks if you would like to run or save the file.

Figure 3-3 File Download Security Warning Message for the Plug-in

2. Click **Run**. An **Internet Explorer - Security Warning** appears.

Figure 3-4 Internet Explorer - Security Warning

3. Click **Run** to start the installation. A **Ready to Install** window appears.
4. Click **Install**. A progress window appears.

When the plug-in installation is complete, the installation page will close. Then the web client automatically refreshes, and the Live View interface ([Figure 3-5](#)) opens.

Using the Live View Interface

The Live View interface has four sets of control areas (see [Figure 3-5](#)).

Figure 3-5 Live View Interface



- 1 Video encoder controls (see [Video Encoder Controls](#), page 22)
- 2 System menus (see [System Menus](#), page 23)
- 3 Live View controls toolbar (see [Live View Controls](#), page 23)
- 4 Live View window settings toolbar (see [Live View Window Configuration](#), page 23)
- 5 Fisheye Installation and Display Mode controls (see [Fisheye Installation and Display Mode Configuration](#) on page 24).

Video Encoder Controls

You can choose a stream and set the stream protocol with the video encoder controls.

Figure 3-6 Video Encoder Controls

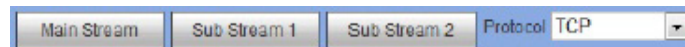


Table 3-1 Video Encoder Controls

Setting	Description
Main Stream	In a normal network bandwidth environment, the main stream can record audio/video files and support a network monitor. Set the main stream resolution if your camera supports it.
Sub Stream 1/ Sub Stream 2	If the network bandwidth is not sufficient, you can use the sub stream with lower resolution to support a network monitor.
Protocol	You can select the stream media protocol from the drop-down list. There are three options: TCP , UDP , or Multicast .

System Menus

Figure 3-7 System Menu



When you log in to the camera using the web client, the Live View interface opens by default. To access the Playback, Setup, and Alarm interfaces, or to log out, select the corresponding tab in the system menu.

Live View Controls

From the Live View controls toolbar, you can zoom in on a scene, take a snapshot, or manually record video. These controls are described with detail in [Table 3-2](#).

Figure 3-8 Live View Window Controls



Table 3-2 Live View Window Controls

Icon	Control	Description
	Alarm Output	Shows the alarm output status. When red the alarm output is active. Grey means there is no alarm. Click  to manually turn the alarm output on or off.
	Digital Zoom	While viewing live video, click  and hold down the left mouse button to zoom in on a specific area. Right-click the mouse to return to the previous magnification.
	Snapshot	Click to take a snapshot, saved as a JPEG at the default location (picture download). To change the save path, see Path on page 61 . Or go to Setup > Camera > Video > Path .
	Triple Snap	Click to take three snapshots at 1 fps. All images are saved to the path as set in Setup > Camera > Video > Path .
	Record	Click to start manual recording. All video is saved to Setup > Camera > Video > Path .
	Audio Output	Click to enable/disable audio when monitoring a scene.
	Bidirectional Talk	Click to enable/disable bidirectional talk to communicate with someone within range of the camera.
	Help	Click to open Help .

Live View Window Configuration

From the Live View window configuration toolbar, you can adjust the screen brightness, contrast, hue, or saturation; change the screen size and/or aspect ratio; and adjust image fluency. These controls are described in more detail in [Table 3-3](#).

Figure 3-9 Live View Window Configuration Toolbar



Table 3-3 Live View Window Configuration Tools

	Image Control	Click to open the Image Adjustment panel. Drag the sliders to set brightness, contrast, hue, and saturation, or click reset to return to the default settings. Alternatively, you can go to Setup > Camera > Conditions to adjust these settings. Note Image adjustments apply only to video displayed with the web client interface.
	Original Size	Click to return video display to its original size (the size will depend on the resolution setting of the bit stream).
	Full Screen	Click to enter full-screen mode. Press Esc or double-click the mouse to exit full screen.
	Width and Height Ratio	Click to return the video display to the original aspect ratio (or an aspect ratio suitable for the window).
	Adjust Fluency	Click to select a fluency level based on your network connection. The default setting is Normal. If your network connection is slow, you can select Fluent to make the video appear smoother (however, this may result in a decrease in image quality).
	Fisheye Controls	Click to open the Fisheye Installation and Display mode panel. Use these controls to change the type of display generated by the fisheye camera. See <i>Fisheye Installation and Display Mode Configuration on page 24</i> for more information.

Fisheye Installation and Display Mode Configuration

The 5 MP Fisheye IP Cameras support a variety of installation and display modes to suit many different surveillance requirements. See

Figure 3-10 Fisheye Installation Modes and Corresponding Display Modes

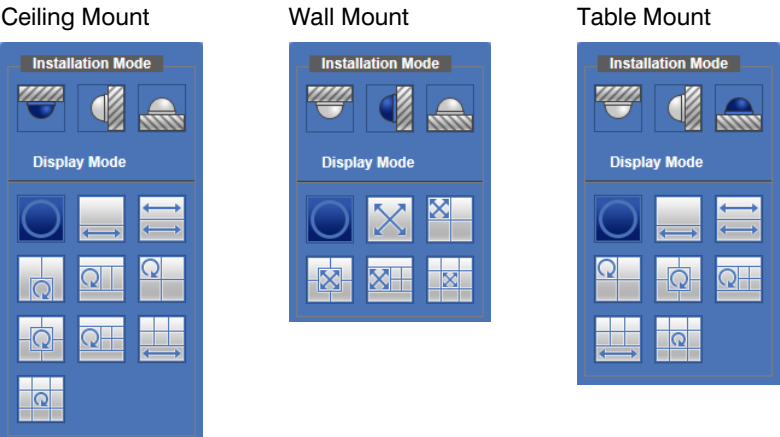


Table 3-4 Fisheye Installation and Display Modes

Mode	Button	Description
Installation Modes		Ceiling Mount installation mode: Select this mode if your camera is installed on the ceiling.
		Wall Mount installation mode: Select this mode if your camera is installed on a wall.
		Ceiling Mount installation mode: Select this mode if your camera is installed on the ceiling.
Ceiling, Wall and Table Display Mode		Original Image: Display mode for the original fisheye image without any de-warping or modification.
Ceiling and Table Display Modes		360° Expanded Panorama + Sub Image: Display mode that displays an expanded rectangular panorama image of the 360° display with a sub image focusing on one area of the 360° area. The panorama image supports side-to-side scrolling with the mouse, and the sub image supports pan/tilt movement by dragging the sub image or the inset outline within the panorama image.
		Two 180° Expanded Panorama: Display mode that displays two expanded rectangular panorama images that each displays 180° of the entire 360° area. The panorama image supports side-to-side scrolling with the mouse.
		Original Image + 3 Sub Images: Display mode that displays the original fisheye image and 3 sub images that focus on different areas within the 360° area. The sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the original image.
		Original Image + 4 Sub Images: Display mode that displays the original fisheye image and 4 sub images that focus on different areas within the 360° area. The original image is an inset image that only displays when you hover the mouse over the middle of the display. The sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the original image.
		Original Image + 4 Sub Images: Display mode that displays the original fisheye image and 4 sub images that focus on different areas within the 360° area. The sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the original image.
		360° Expanded Panorama + 6 Independent Sub Images: Display mode that displays an expanded rectangular panorama image of the 360° display with 6 sub images focusing on different parts of the 360° area. The panorama image supports side-to-side scrolling with the mouse, and the sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the panorama image.
		Original Image + 8 Sub Images: Display mode that displays the original fisheye image and 8 sub images that focus on different areas within the 360° area. The sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the original image.

Table 3-4 Fisheye Installation and Display Modes

Mode	Button	Description
Ceiling-Only Display Modes		Original Image + 2 Sub Images: Display mode that displays the original fisheye image and 2 portrait-sized sub images that focus on different areas within the 360° area. The sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the original image.
		Original Image + 2 Sub Images: Display mode that displays the original fisheye image and 2 portrait-sized sub images that focus on different areas within the 360° area. The original image is an inset image that only displays when you hover the mouse over the lower-middle of the display. The sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the original image.
Wall-Only Display Modes		180° Expanded Rectangular Panorama: Display mode that displays an expanded 180° vertical panorama view. The vertical panorama image supports top-to-bottom scrolling with the mouse.
		180° Expanded Panorama + 3 Sub Images: Display mode that displays an expanded 180° vertical panorama view and 3 sub images that focus on different areas within the 180° area. The vertical panorama image supports top-to-bottom scrolling with the mouse and the sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the 180° panorama image.
		180° Expanded Panorama + 4 Sub Images: Display mode that displays an expanded 180° vertical panorama view and 4 sub images that focus on different areas within the 180° area. The vertical panorama image is an inset image that only displays when you hover the mouse over the middle of the display. The panorama view supports top-to-bottom scrolling with the mouse and the sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the 180° panorama image.
		180° Expanded Panorama + 4 Sub Images: Display mode that displays an expanded 180° vertical panorama view and 4 sub images that focus on different areas within the 180° area. The vertical panorama image supports top-to-bottom scrolling with the mouse and the sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the 180° panorama image.
		180° Expanded Panorama + 8 Sub Images: Display mode that displays an expanded 180° vertical panorama view and 8 sub images that focus on different areas within the 180° area. The vertical panorama image supports top-to-bottom scrolling with the mouse and the sub images support pan/tilt movement by dragging the sub image or the corresponding inset outline within the 180° panorama image.

Playing Back Video

This chapter contains the following sections:

- [Introduction, page 27](#)
- [Playing Back Recorded Video, page 28](#)
- [Using the Playback Assistant, page 31](#)
- [Creating a Video Clip, page 32](#)
- [Viewing Snapshots, page 33](#)

Introduction

This chapter describes how to play back recorded video and saved snapshots on 5 MP fisheye IP cameras using the web client, how to take snapshots while playing back recorded video using the Playback Assistant, and how to create custom video clips.

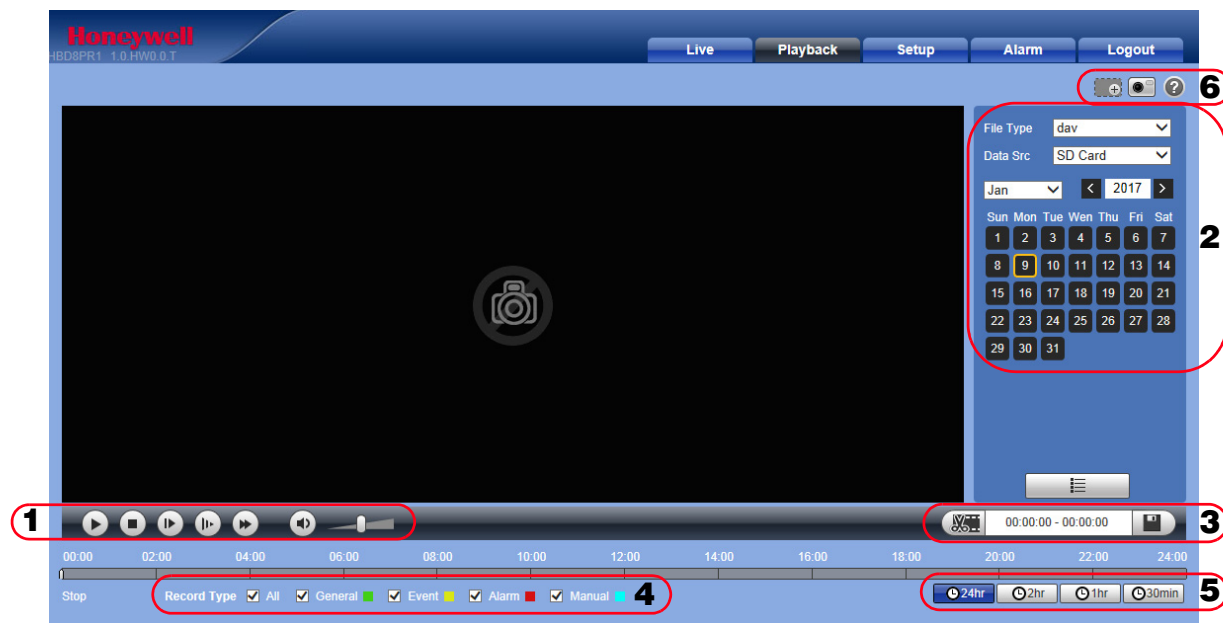
Note Before you can play back recorded video or saved snapshots, you must first configure storage settings in the **Setup** menu. See [Configuring Storage Settings on page 59](#) for more information.

Click the **Playback** tab to display the playback interface.

Overview of the Playback Interface

The Playback interface has six areas with controls and options for playback (see [Figure 4-1](#)).

Figure 4-1 Playback Interface



- 1 Playback controls (see [Playback Controls on page 28](#))
- 2 Calendar area (see [Playing a Recorded File from the Calendar on page 29](#))
- 3 Clip selection (see [Creating a Video Clip on page 32](#))
- 4 Record type (see [Searching for a File by Recording Type on page 31](#))
- 5 Timeline configuration (see [Timeline Configuration on page 31](#))
- 6 Playback Assistant (see [Using the Playback Assistant on page 31](#))

Playing Back Recorded Video

Playback Controls

Figure 4-2 Playback Controls

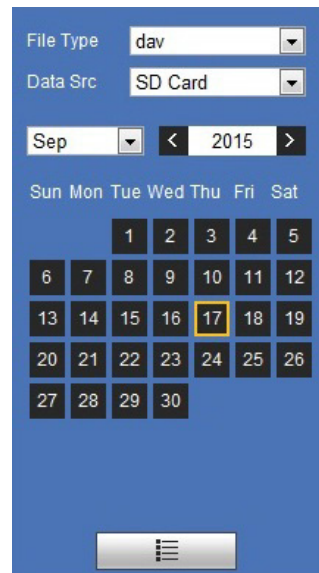


Table 4-1 Playback Controls

Control	Description
	Click to play video. While in Play mode, this button changes to the Pause button.
	Click to stop video playback.
	Click to go to the next frame.
	Note Video playback must be paused before you can use this function.
	Slow playback.
	Fast playback.

Playing a Recorded File from the Calendar

On the playback calendar, a day in **BLUE** indicates a day on which video was recorded.

Figure 4-3 Playback Calendar

For the **File Type**, select **dav** for video playback and **jpg** for snapshots.

The default **Data Source** is **SD Card**.

Playing a Recorded File

1. In the Playback interface, in the calendar area, use the options to find a recording:
 - a. Select **dav** in the **File Type** box.
 - b. Select **SD Card** in the **Data Src** box.

- c. Select the month and year that you want to search. Dates with recorded video are shown in blue.
- d. Click the date (in blue) that you want to view video from. The timeline ([Figure 4-4](#)) displays the recordings for that day as color-coded bars.
 - Green indicates normal recording.
 - Yellow indicates motion detection recording.
 - Red indicates alarm-triggered recording.
 - Blue indicates manual recording.

Figure 4-4 Recording Timeline



2. Click on the timeline to select a playback time.
3. Click  to open the list of recorded files.
4. Double-click a file in the file list to begin playback, and to see the file size, start time, and end time. Use the [Playback Controls, page 28](#), to review the video.

Figure 4-5 Playback File Details

00 : 00 : 00 - 23 : 59 : 59 

Download Format ☒ dav ☐ mp4

	Start Time	File Type
1	11:12:28	
2	11:13:48	

Begin Time:
End Time:
File Size:

Click to return to the calendar interface.

Note You can download a file to your local computer from the playback interface.

Note Select **dav** for the recording type. **MP4** is not currently supported.

Searching for a File by Recording Type

By selecting a recording file type, you can filter by a particular recording type so that the timeline and file list display only those types of recorded files. You can also select the record type to display in the Playback window. The filter is at the bottom of the Playback window (see [Figure 4-1](#)).

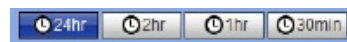
Figure 4-6 Recording Type Filter in Playback



Timeline Configuration

You can configure the playback timeline to show the last 24 hours, 2 hours, 1 hour, or 30 minutes of recorded video. Click to select.

Figure 4-7 Playback Timeline Configuration



Using the Playback Assistant

The Video Playback Assistant buttons allow you to zoom in and out on video, and to take snapshots.

Zooming In and Out

To zoom in, in the Playback Assistant area (see [Figure 4-1](#)), click the **Zoom In** button , and then use the scroll wheel on your mouse to zoom in on an area of the video.

Right-click the mouse to return the video to its original picture without zooming.

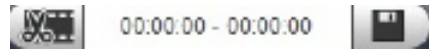
Taking a Snapshot

Click  while playing video to manually take a snapshot. The snapshot is saved to the file path on your local PC. To configure the file path, see [Path on page 61](#).

Creating a Video Clip

You can clip and save a section of recorded video during video playback using the clip function.

Figure 4-8 Clip Function Controls

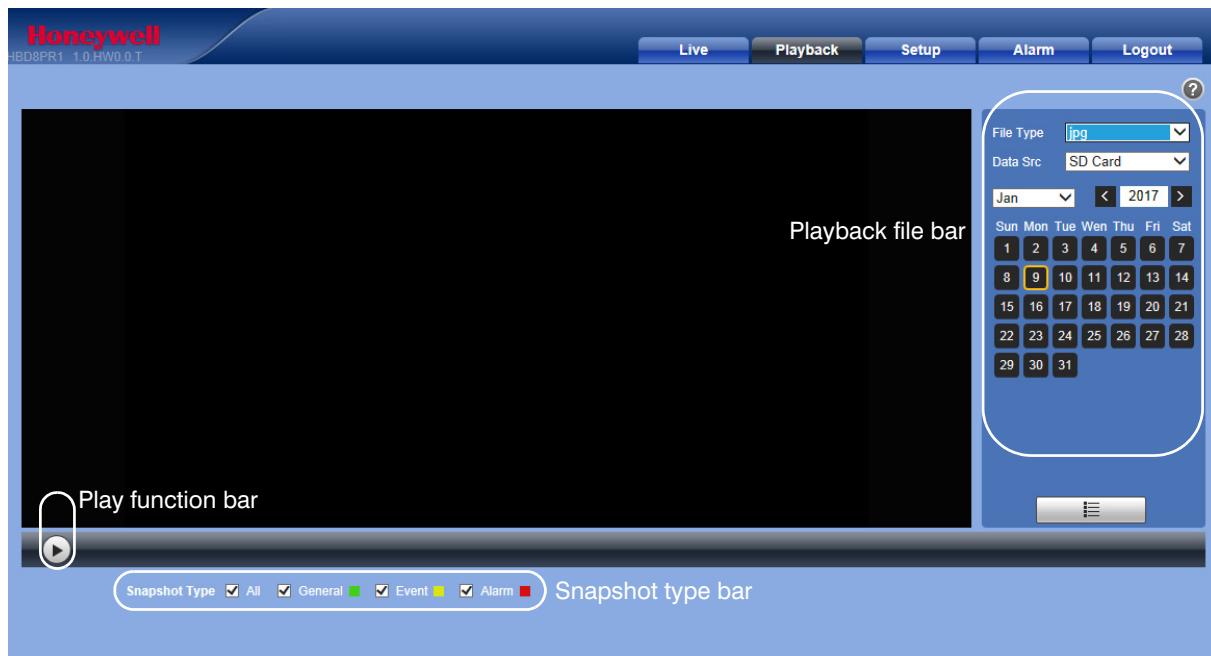


Note Playback of recorded video is automatically paused during clipping.

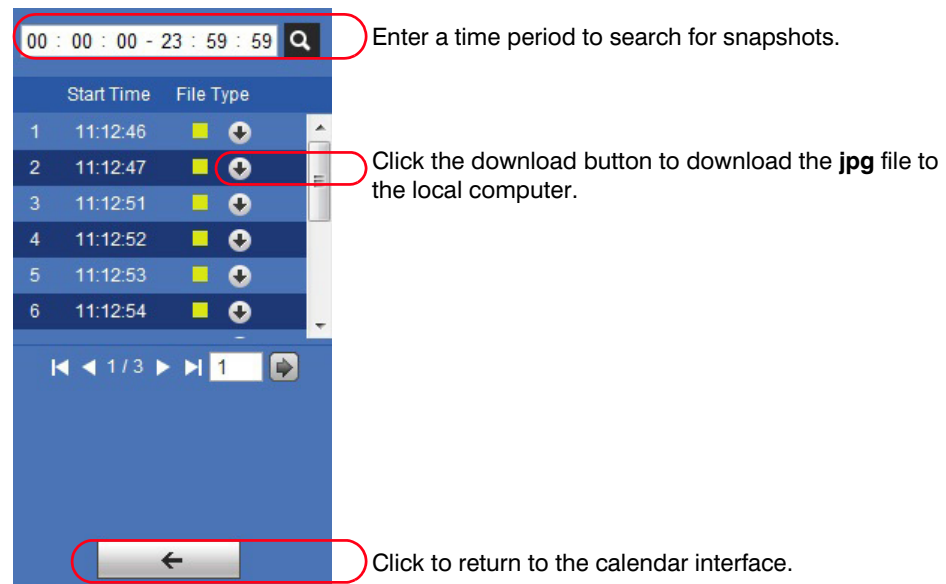
1. Find the recording that you want to create a clip from (see [Playing Back Recorded Video on page 28](#)).
2. On the timeline, click the recording at the time you want to start the clip, and then click . This designates the start time of the clip.
3. Next, click the recording at the time you want to end the clip, and click . This designates the end time of the clip.
4. Click  to save the clipped file to your local PC. To configure the saving path, see [Path on page 61](#).

Viewing Snapshots

Figure 4-9 Snapshot Playback Control Interface



1. In the Playback interface, in the calendar area, do the following:
 - a. Select **jpg** in the **File Type** box.
 - b. Select **SD Card** in the **Data Src** box.
 - c. Select the month and year that you want to search. Dates with snapshots are shown in blue.
 - d. Click the date (in blue) that you want to view snapshots for.
2. In the **Snapshot Type** area, you can refine your search results by selecting specific snapshot types to search for (**General**, **Motion**, or **Alarm**).
3. Click the file list button  below the calendar to display a list of snapshots for the selected date.

Figure 4-10 List of Snapshots

4. If you want, you can refine your search results further by entering a specific time range to search.
5. To view a snapshot, double-click the file name (start time). To download a snapshot to your local PC, click the download button next to the file name. To configure the saving path/location, see [Path on page 61](#).

Configuring Camera Settings

This chapter contains the following sections:

- [Configuring Camera Settings, page 35](#)
- [Configuring Network Settings, page 46](#)
- [Configuring Storage Settings, page 59](#)
- [Configuring System Settings, page 64](#)
- [Viewing System Information, page 71](#)

Configuring Camera Settings

Conditions

On the **Conditions** tab, you can view the camera settings. Configuration changes become valid immediately after they are saved.

Note The settings that are available on the **Conditions** tab may differ depending on the selections made in the **Profile Management** setup (see [Profile Management on page 39](#) for more information).

Figure 5-1 Camera Setup Window



Table 5-1 Camera Configurations

Parameter	Function
Profile	Select from Normal , Day , Night . Settings changed will only affect the selected profile.
Brightness	Adjusts video brightness. Choosing a higher value increases the video brightness. Adjustments to this value affects the brightness of the video. Select from 0 to 100. The recommended range is between 40 and 60. The default value is 50. Note The video can become hazy if this value is too high.
Contrast	Adjusts video contrast. Choosing a higher value increases the contrast. Select from 0 to 100. The recommended range is between 40 and 60. The default value is 50. Note The video can become hazy if this value is too low. If this value is too high, then the dark parts of the video could lose details, and the bright parts of the video could become overexposed.
Saturation	Adjusts video color saturation. Choosing a higher value increases the color saturation/strength. This value has no effect on the general brightness of the video. Select from 0 to 100. The recommended range is between 40 and 60. The default value is 50. Note You might see a distortion in grays if the white balance is turned off.
Sharpness	Adjusts video sharpness. Choosing a higher value increases the sharpness of the video. Select from 0 to 100. The recommended range is between 40 and 60. The default value is 50. Note Choosing a higher value can introduce video noise to the image.
Gamma	Adjusts dynamic range. Choosing a higher value increases the brightness of the image non-linearly. Select from 0 to 100 . The recommended range is between 40 and 60 . The default value is 50 .

Table 5-1 Camera Configurations (cont'd)

Parameter	Function
Anti-flicker	Outdoor: In Outdoor mode, you can select any exposure mode to avoid flicker.
	50Hz: When the current is 50Hz (power company's electrical frequency), the system can automatically adjust the exposure according to the environment's brightness to prevent stripes in the video.
	60Hz: When the current is 60Hz (power company's electrical frequency), the system can automatically adjust the exposure according to the environment's brightness to prevent stripes in the video.
Exposure	Auto The image automatically compensates for changes in the scene's lighting.
	Low Noise The image automatically compensates for changes in the scene's lighting. Adjusting the Gain can enhance the low light areas of the scene; however, noise will increase as the gain is increased. In the same environments, the noise with the Low Noise mode enabled shall be less than the noise with Auto mode enabled.
	Low Motion Blur Select this exposure option when the image scene includes lots of motion that needs to be captured clearly. Change the Shutter value to adjust the scene's exposure to the light level required. In the same environments, the distortion (motion blur) with the Low Motion Blur mode enabled will be less than the distortion with the Auto mode enabled.
	Manual Shutter speed and gain settings can be manually adjusted to set the scene exposure.
White Balance	Sets the White Balance mode, which affects the general hue of the video. This function is on by default.
	You can select different scene modes such as Auto , Sunny , Outdoor , Night , or Customized , to achieve the best quality video for the camera.
	Auto: Auto white balance is on. The system automatically adjusts the color temperature to ensure that the video color is correct.
	Sunny: The white balance threshold is set to the best setting for sunny scenes.
	Night: The white balance threshold is set to the best setting for night scenes.
	Customized: You can manually set the gain for the red/blue settings. The value ranges from 0 to 100 .
	Outdoor: The white balance threshold is set to the best setting for outdoor scenes.

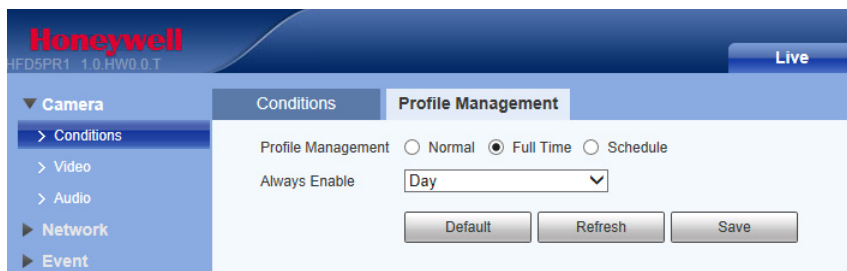
Table 5-1 Camera Configurations (cont'd)

Parameter	Function	
Day & Night	Sets the camera color and B/W mode switch. When the Configuration Profile is set to Normal or Night , then the default is Auto . When the Profile is set to Day , then the default is Color . See Profile, page 36 , at the beginning of this table to set the profile required. See Profile Management on page 39 for more information the configuration profile.	
	Color: The camera outputs video in color.	
	Auto: The camera switches from Color to Black & White according to the scene conditions, such as if the scene is generally bright.	
	Black & White: The camera outputs black and white video.	
D&N Sensitivity	Adjusts the sensitivity threshold at which the camera switches from Color to Black & White mode. Set to Low , Middle (default), or High . Note Available only when Day & Night is set to Auto .	
D&N Delay	Adjusts the delay value of the switch from Color to Black & White mode. The value ranges from 2 to 10 . The default value is 6 seconds. Note Available only when Day & Night is set to Auto .	
BLC Mode (Backlight Compensation)	OFF	BLC is off. BLC is disabled by default.
	BLC (Default or Customized)	The camera automatically adjusts the exposure to suit the scene conditions, so that the darkest area of the video can be seen. Default applies BLC to the entire scene. The Customized option allows the user to apply BLC to a specified area of the scene.
	WDR	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 . Note When you switch the camera from non-WDR to WDR mode, there might be a few seconds lapse in video.
	HLC	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 when HLC is turned on. HLC is only available when Anti-flicker is set to Outdoor , and the Exposure is set to Auto .
3D Noise Reduction	3D noise reduction is enabled by default.	
3D NR Level	This value ranges from 0 to 100 . The default is 50 when 3D NR is on.	

Table 5-1 Camera Configurations (cont'd)

Parameter	Function
Full-screen Test	Click the  button on the bottom left of the video window to begin a full-screen test. Double-click to return to the normal screen.
Default	Click to return the camera to the default setup.
Cancel	Click to cancel the current operation and restore the previously saved operation.
Save	Click to save the currently configured customized settings.

Profile Management

Figure 5-2 Profile Management Tab

Profile management has three modes: **Normal**, **Full Time**, and **Schedule**.

- Select **Normal** to configure the video as normal.
- Select **Full Time**, and you must select either **Day** or **Night** for the video.
- Select **Schedule**, and you can configure a detained time interval.

Note When you make changes to the video configuration, you will immediately see the effects of those changes in the video. However, you must click **Save** to save and apply these settings.

Video Configuration

Video Stream

Figure 5-3 Video Stream Configuration Window



Table 5-2 Video Stream Configurations

Parameter		Function
Main Stream	Code-Stream Type	The General stream is currently the only available setting. You can select different encoder frame rates for different recording events. The system supports the Active Control Frame (ACF) function. This allows you to record in different frame rates. For example, you can use a high frame rate to record important events, use a lower frame rate to record scheduled events, and set a different frame rate for recording motion detection events.
	Encode Mode	Select from three options for Encode Mode: H.264 High Profile: High performance profile encoding mode. H.264 Main Profile: Main profile encoding mode. MJPEG: Legacy profile encoding mode with high bandwidth.
	Resolution	You can select from multiple resolutions in the drop-down list. The recommended bit stream value is different for each resolution.
	Frame Rate (FPS)	PAL: 1~25 fps; NTSC: 1~30 fps. (Max 12 fps for 5M resolution.)
	Bit Rate Type	Select either VBR (variable bit rate) or CBR (constant bit rate). Note You can set the video quality in VBR mode. The value ranges from 1 to 6.

Table 5-2 Video Stream Configurations (cont'd)

Parameter	Function
Main Stream	Reference Bit Stream Displays the Reference Bit Rate value according to the resolution and frame rate that you have selected.
	Bit Rate With Bit Rate Type: VBR , the Bit Rate here is the maximum value. In CBR , the bit rate is a fixed value. See the Reference Bit Stream for a recommended value.
	I Frame Interval Set the number of P-frames between I-frames. The value ranges from 25 to 150 . The default value is 50 . The recommended value for I Frame Interval is <i>2 times</i> the frame rate setting.
	Watermark This function allows you to verify that the video has not been altered. Select to enable the watermark function, and then type the watermark text. The default watermark text is DigitalCCTV . The maximum length is 85 digits. Only numbers, letters, and the underscore character (<code>_</code>) can be used.
	Enable Click the check box to enable the secondary stream. This function is enabled by default. Select the secondary stream to enable and modify its settings.
Sub Stream	Code-stream Type General bit stream.
	Encode Mode Select from three options for Encode Mode : H.264 High Profile : High performance profile encoding mode. H.264 Main Profile : Main profile encoding mode. MJPEG : Legacy profile encoding mode with high bandwidth.
	Resolution You can select from multiple resolutions in the drop-down list. The recommended bit stream value is different for each resolution.
	Frame Rate PAL: 1~25 fps; NTSC: 1~30 fps.
	Bit Rate Type Select either VBR (variable bit rate) or CBR (constant bit rate). Note You can select the video quality in VBR mode. The value ranges from 1 to 6 .
	Reference Bit Rate Recommended bit rate value according to the resolution and frame rate you have set.
	Bit Rate With Bit Rate Type: CBR , the bit rate here is the maximum value. In dynamic video, the system needs a lower frame rate or lower video quality to adapt to the current bandwidth.
	I Frame Interval Set the number of P-frames between I-frames. The value ranges from 25 to 150 . The default value is 50 . The recommended value for I Frame Interval is <i>2 times</i> the frame rate setting.

Snapshot

Figure 5-4 Snapshot Configuration Interface

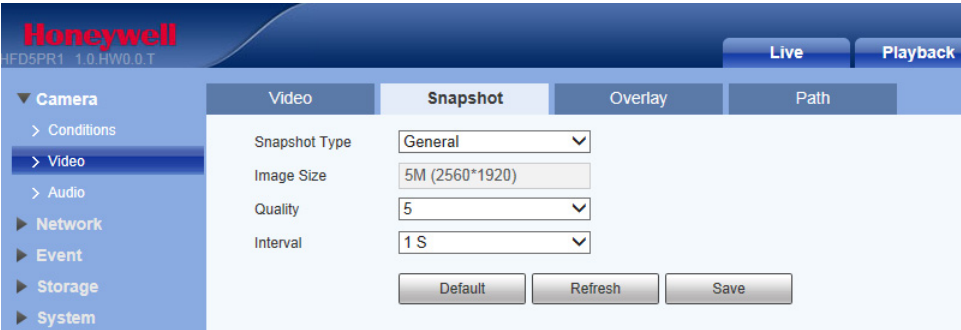


Table 5-3 Snapshot Configurations

Parameter	Function
Snapshot Type	Select from either General (scheduled) or Event (user activated).
Image Size	Same as the main stream resolution.
Quality	Select from six levels of image quality.
Interval	Set the snapshot frequency from 1s to 7s .

Note See [Path on page 44](#) for information about configuring where snapshots are saved. Snapshots are saved as JPEGs.

Video Overlay

Figure 5-5 Video Overlay Configuration Interface



Table 5-4 Video Overlay Configurations

Parameter	Function
Privacy Mask	Masks areas of the video for privacy. When enabled, you can configure up to four privacy mask zones. Use the video image to move and size the mask area(s).
Channel Title	Enable this function to overlay channel title in the video window. Use the mouse to drag the channel title to the desired position. Enter the channel title in the field provided.
Time Title	Enable this function to overlay time information in the video window. Use the mouse to drag the time to the desired position. Select Week display to display the date and time together.
Text Overlay	Enable this function to overlay text in the video window. Enter the text to be overlaid in the Input field and select Right or Left alignment from the drop-down menu.
Picture Overlay	Enable this function to overlay a picture, such as a company logo, in the video window. Upload the image to view it in the preview window. Use the mouse to drag the picture to the desired position.

Path

Figure 5-6 Storage Path Interface

	Video	Snapshot	Overlay	Path
Live Snapshot		C:\Honeywell Video Systems\LiveSnapshot		Browse...
Live Record		C:\Honeywell Video Systems\LiveRecord		Browse...
Playback Snapshot		C:\Honeywell Video Systems\PlaybackSnapshot		Browse...
Playback Download		C:\Honeywell Video Systems\PlaybackRecord		Browse...
Video Clips		C:\Honeywell Video Systems\VideoClips		Browse...

Default Save

Set the storage path for snapshots ( in the live interface) and for recorded video ( in the live interface). The default path for snapshots is **C:\Honeywell Video Systems\LiveSnapshot**. The default path for recorded video is **C:\Honeywell Video Systems\LiveRecord**. Click **Browse** to select a new storage path, if required.

Click **Save** to save any changes to the storage paths.

Audio

Figure 5-7 Audio Configuration Interface

Audio

Encode

Main Stream

☒ Enable

Encode Mode: G.711A

Sampling Frequency: 16k

Sub Stream

☐ Enable

Sub Stream 1

Encode Mode: G.711A

Sampling Frequency: 16k

Attribute

AudioIn Type: LineIn

Noise Filter: Enable

Microphone Volume: 50

Speaker Volume: 50

Default Refresh Save

Table 5-5 Audio Configurations

Parameter	Function
Enable	Select the check box to enable the main and/or sub audio streams. The main stream is enabled by default.
Encode Mode	Select the Audio Encode modes for the main and sub streams from either G.711A or G.711Mu . G.711A is the default setting. The Encode Mode setting applies to both the audio output and bidirectional talk modes.
Sampling Frequency	The camera supports two settings of sampling frequency: 8K and 16K . 8K is the default setting.
AudioIn Type	The camera supports two settings of AudioIn Type: LineIn and Mic . LineIn is the default setting. When LineIn is selected, users will need to connect an external audio input source to the camera. When Mic is selected, the built-in microphone is used and no external input is required.
Noise Filter	Enable the noise filter to filter out background noise from the audio stream.
Microphone Volume	Adjust the microphone volume from 0~100 .
Speaker Volume	Adjust the speaker volume from 0~100 .

Configuring Network Settings

TCP/IP

Figure 5-8 TCP/IP Interface

Table 5-6 TCI/IP Configuration

Parameter	Function
Host Name	Configure to set the current host camera's name. Maximum 32 characters.
Ethernet Card	Select an Ethernet port. The default is Wire .
Mode	Select Static or DHCP mode. If Static mode is selected, you must manually assign the IP Address, Subnet mask, and Default Gateway values. If DHCP mode is selected, the IP Address, Subnet mask, and Default Gateway are assigned automatically and the fields are grayed out. Note IP Address, Subnet mask, Default Gateway, and DHCP are read-only when PPPoE is enabled.
MAC Address	Displays the MAC address.
IP Version	Select the IP version you are using: IPv4 or IPv6 .

Table 5-6 TCI/IP Configuration (cont'd)

Parameter	Function
IP Address	If Static mode is selected, type values for the IP Address , Subnet mask , and Default Gateway .
Preferred DNS Server	Enter the preferred DNS server IP address.
Alternate DNS Server	Enter an alternate DNS server IP address.

Enabling ARP/Ping to set IP Address Service

If you know the camera's MAC address, then use the ARP/Ping command to modify or set the camera's IP address.

Before operating the camera, please ensure that the network camera and the PC are in the same LAN. This function is **On** by default. To enable ARP/Ping to set the IP address service:

1. Get an IP address. Set up the network camera and the PC in the same LAN.
2. Get the physical address (MAC) from the label on the network camera.
3. Open the **Run** interface (**Start menu** ➤ **Run**), and then type the following commands:
 - a. **arp -s <IP Address> <MAC>**
 - b. **ping -l 480 -t <IP Address>**

For example:

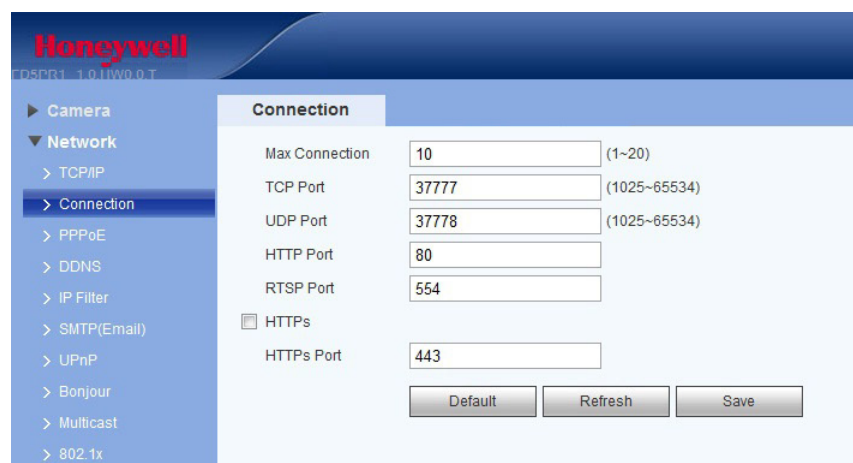
 - a. **arp -s 192.168.0.125 11-40-8c-18-10-11**
 - b. **ping -l 480 -t 192.168.0.125**
4. Reboot the camera. If the setup was successful, output information such as **Reply from 192.168.0.125...** will appear in the command output lines.
5. Close the command line.
6. Open your browser, type **http://<IP address>** in the address bar, and then press Enter.

P2P

P2P is an easy connection method that can make it simple to connect to your network devices with your mobile device with the HonView Touch App. First you will need to download the HonView Touch app and then register/create an account. When the app is setup, select to add a device and use the mobile device's camera to view the QR Code on the P2P screen of your camera's web client (see [Figure 5-9](#)). The device's information and connection will automatically be downloaded to the HonView Touch app and you can now connect to the network camera using your mobile device.

Figure 5-9 P2P Configuration Interface

Connection

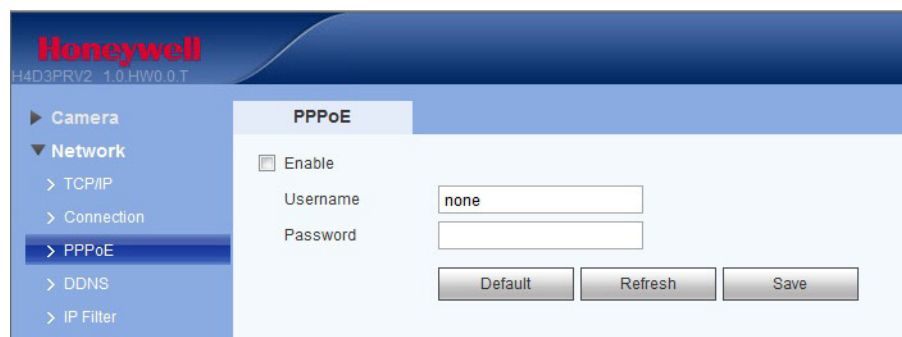
Figure 5-10 Connection Configuration Interface**Table 5-7 Connection Configurations**

Parameter	Function
Max Connection	This shows the maximum number of network connections for the same camera. The value ranges from 1 to 20 . The maximum number of connections is 20 .
TCP Port	The default setting is 37777 . You can modify this setting as necessary.
UDP Port	The default setting is 37778 . You can modify this setting as necessary.
HTTP Port	The default setting is 80 . You can modify this setting as necessary.

Table 5-7 Connection Configurations (cont'd)

Parameter	Function
RTSP Port	The default setting is 554. The RTSP stream query format is: Main stream: rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=0 Sub stream: rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=1 You are required to manually enter the following four items: Username, Password, IP, and Port. IP: The camera's IP address. Port: The default is 554. You can leave this field blank if you are using the default value. Follow standard RTP protocols. When the encode mode is MJPEG, the maximum supported resolution is 2040×2040.
HTTPs	Enable the HTTPs port.
HTTPs Port	The default is 443 .

PPPoE

Figure 5-11 PPPoE Configuration Interface

1. Enter the **PPPoE Username** and **Password** that you received from the Internet Service Provider (ISP), and enable the **PPPoE** function.
2. Click to **Save** the current setup, and then reboot the camera to activate the PPPoE setup. The camera connects to the Internet via PPPoE after rebooting.
3. Find the IP address in the WAN from the IP address column.

Note When **PPPoE** is enabled, disable **UPnP** so that it does not interfere with **PPPoE**.

Note You must go to the IP address to check the camera's current information. You can access the web client through this address.

DDNS

Manually Configuring the DDNS

Figure 5-12 DDNS Configuration Interface

To set the DDNS, go to the corresponding service website to apply a domain name, and then access the system through that domain. This works even if your IP address has changed.

Table 5-8 DDNS Configurations

Parameter	Function
Server Type	You can select the DDNS protocol from the drop-down list, and then enable the DDNS function. Select the Honeywell DDNS server (which is free) to enable the DDNS function.
Server Address	The DDNS server IP address.
Domain Name	Your self-defined domain name.
Username	The user name for logging into the server.
Password	The password for logging into the server.
Update Period	The frequency at which the camera regularly sends out the life signal (heartbeat) to the server. You can set the interval value between the camera and the DDNS server here.

Using Honeywell DDNS to Configure DDNS

Figure 5-13 Using Honeywell DDNS to Configure DDNS

The screenshot shows the Honeywell DDNS configuration page. On the left, a sidebar lists navigation options: Camera, Network (expanded), TCP/IP, Connection, PPPoE, DDNS (selected), IP Filter, SMTP(Email), and UPnP. The main content area is titled 'DDNS' and includes the following fields and controls:

- Server Type:** A dropdown menu set to 'Honeywell DDNS'.
- Server Address:** A text box containing 'www.hennvr-ddns.com'.
- Mode:** Radio buttons for 'Auto' (selected) and 'Manual'.
- Domain Name:** A text box containing '9002A90902D4' followed by '.hennvr-ddns.com'.
- Username:** An empty text box with a note '(Optional) Please input the mailbox'.
- Buttons:** 'Default', 'Refresh', and 'Save' buttons at the bottom.

Set the DDNS to connect to the **Honeywell DDNS** server so that you can access the system through the servers.

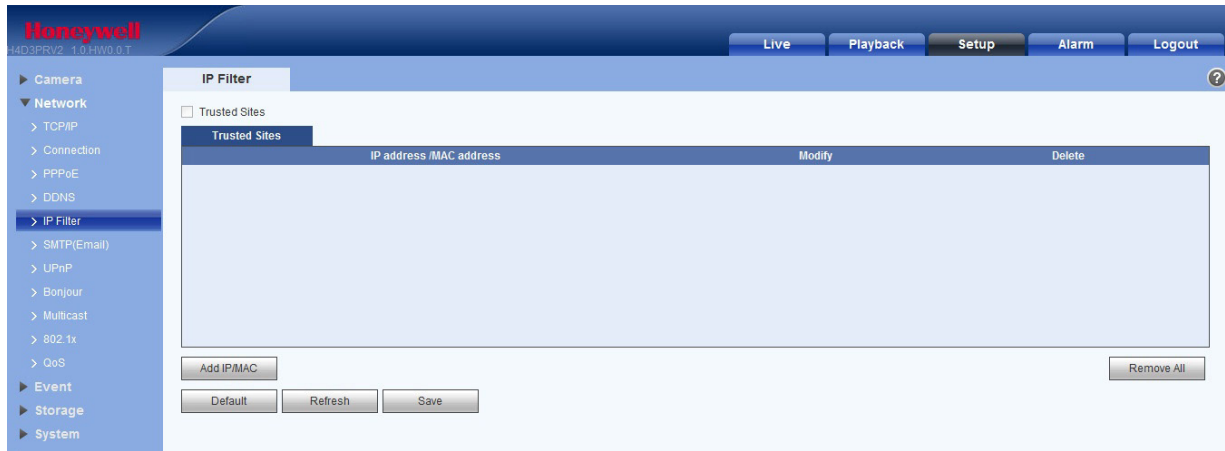
Table 5-9 Honeywell DDNS Configurations

Parameter	Function
Server Type	You can select the DDNS protocol from the drop-down list, and then enable the DDNS function. Select the Honeywell DDNS server (which is free) to enable the DDNS function.
Server Address	This is the DDNS server IP address. Under Honeywell DDNS , the default server address is www.hennvr-ddns.com .
Mode	Select Auto or Manual . The default is Auto . If you select Manual , then you must enter a domain name.
Domain Name	Auto and self-defined domain names are both MAC address.hennvr-ddns.com . You can define the prefix.
Username	The user name you enter to log in the server (optional).

IP Filter

Enable the IP filter function so that only the specified IP/MAC addresses can access the network camera. You can specify an IP address or an IP address segment (for example, from 192.168.1.1 to 192.168.1.100). If you do not check the box to enable **Trusted Sites**, there will be no access limitation for the camera.

Figure 5-14 IP Filter Configuration Interface



Before you can restrict access to the cameras through the IP filter, you must first configure the Trusted Sites here (see [Figure 5-14](#)). Under **Trusted Sites**, click **Add IP/MAC** to add the IP or MAC addresses of the sites that will be trusted to access the camera.

Note Add the addresses that will be allowed to access the camera before enabling **Trusted Sites**.

Note If you specify a MAC address limitation here, the computer with the specified MAC address must be in the same network subnet as the IP camera.

CAUTION If you setup the IP Filter/Trusted sites options and forget the IP/MAC address that is allowed to access the camera, you will have to return the camera to the factory to repair the problem.

SMTP (Email)

Figure 5-15 SMTP Configuration Interface

Honeywell
H4D3PRV2 1.0 HW0.0.T

Camera

Network

- > TCP/IP
- > Connection
- > PPPoE
- > DDNS
- > IP Filter
- > SMTP(Email)**
- > UPnP
- > Bonjour
- > Multicast
- > 802.1x
- > QoS

Event

Storage

System

Information

SMTP(Email)

SMTP Server: none

Port: 25

☐ Anonymity

Username: anonymity

Password: ••••

Sender: none

Authentication: None

Title: IPC Message

☒ Attachment

Mail Receiver: [List of addresses with + and - buttons]

Interval: 0 Second (0~3600)

☐ Health Mail

Update Period: 60 Second (1~3600)

Email Test

Default Refresh Save

Table 5-10 SMTP (Email) Configurations

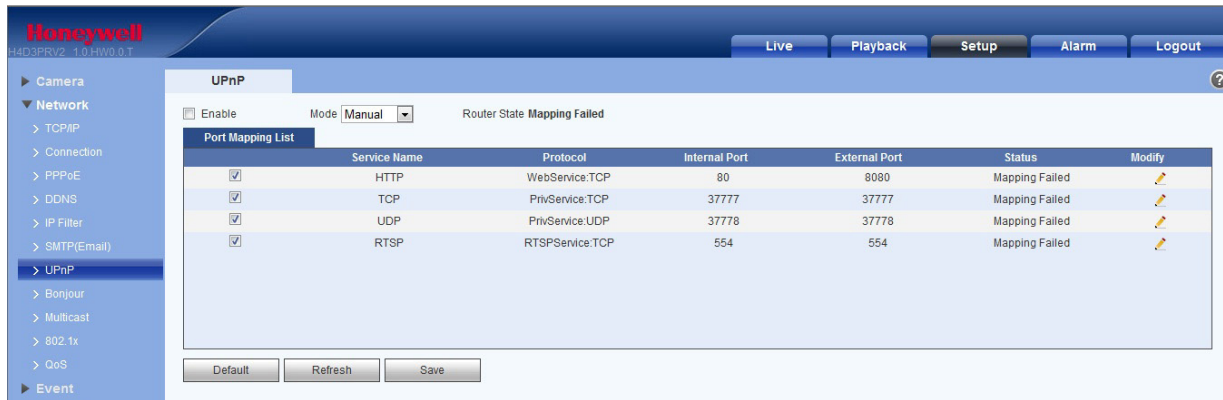
Parameter	Function
SMTP Server	Enter the server address.
Port	The default Port setting is 25 . You can modify this setting as necessary.
Anonymity	Supports the anonymity function for the server when enabled. You can automatically login anonymously. You do not need to enter the user name, password, and the sender information.
Username	The username for the sender's email account.
Password	The password for the sender's email account.
Sender	The sender's email address.
Authentication	This is the encryption mode. Select SSL , TLS , or None .
Title	Enter the subject line for the email here.
Attachment	Check this box to have the system send out an email with the snapshot picture attached.
Mail Receiver	Enter the receiver's email address here. You can add up to three addresses. To add an address, enter it in the field and click +. To delete an address, select it from the list and click -.

Table 5-10 SMTP (Email) Configurations (cont'd)

Parameter	Function
Interval	The delay interval for sending the email ranges from 0 to 3600 seconds. 0 seconds means that there is no delay interval. The system will not immediately send the email when the alarm occurs. When an alarm, motion detection, or abnormality occurs to activate an email, the system sends the email according to the interval that you have specified here. This reduces the load on the email server when numerous emails are triggered simultaneously.
Health Mail	Select the check box to enable the health email function.
Update Period (interval)	This allows the system to send a test email to check the connection. Select the check box to enable this function, and then set the corresponding email interval. You can set the Update Period so that the system sends out regularly scheduled emails.
Email Test	The system will automatically send an email to test the connection. Before you can send an email test, you must save the email setup information.

UPnP

UPnP lets you establish the mapping relationship between the LAN and the public network. In the UPnP configuration interface, you can add, modify, or remove a UPnP item.

Figure 5-16 UPnP Configuration Interface

Enabling UPnP in Windows

When UPnP is enabled in Windows, the camera can be detected automatically through **My Network Places**.

Note UPnP is enabled by default on Windows 7 systems. This procedure applies to Windows XP.

1. Go to **Start > Control Panel > Add or remove programs**.
2. Click **Add or remove programs**, and then select **Network Services** from the **Windows Components Wizard**.
3. Click **Details**, and then click to select **Internet Gateway Device Discovery and Control client** and **UPnP User Interface**.
4. Click **OK** to begin the installation.

SNMP

SNMP is a popular protocol for network management that allows the communication between the network management work station software (or enterprise switch with SNMP management) and the proxy of the managed device (IP camera). Please install the software such as MG MibBrowser 8.0c, MG-Soft MIB suite, iReasoning MIB Browser, or just about any MIB browser that is in use today to establish the SNMP service before you use this function. You will need to reboot the device to activate the new setup.

Figure 5-17 SNMP Configuration Interface

Honeywell
HFD5PR1 1.0.HW0.0.T

Live

SNMP

SNMP Version ☐ SNMP v1 ☐ SNMP v2 ☒ SNMP v3

SNMP Port (1~65535)

Read Community

Write Community

Trap Address

Trap Port

Read-only Username

Authentication Type ☒ MD5 ☐ SHA

Authentication Password

Encryption Type ☒ CBC-DES

Encryption Password

Read&write Username

Authentication Type ☒ MD5 ☐ SHA

Authentication Password

Encryption Type ☒ CBC-DES

Encryption Password

Default Refresh Save

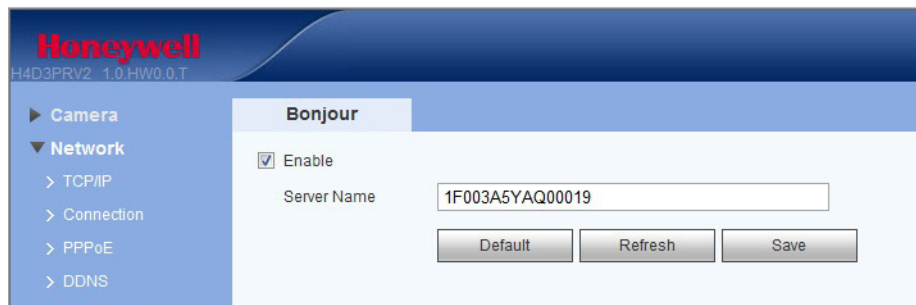
Table 5-11 SNMP Configurations

Parameter	Function
SNMP Version	Select the check box for the SNMP version(s) that you want to use: • SNMP v1: the device only processes v1 info (such as UDP, IP, CLNS, DDP and IPX). • SNMP v2: the device only processes v2 info (v1 info with improved performance, security, and confidentiality). • SNMP v3: to set a username, password and encryption method for the SNMP communication.
SNMP Port	The listening program of the proxy program of the device. The default Port setting is 161 . You can modify this setting as necessary, from 1 to 65535.
Read Community	Read-only access to all SNMP targets. The default is public . Note: only numbers, letters, _, and - are supported in this field.
Write Community	Read/write access to all SNMP targets. The default is private . Note: only numbers, letters, _, and - are supported in this field.
Trap Address	The destination address of the Trap information message from the proxy program of the device.
Trap Port	The port which sends the Trap message (default is 162, range 1~65535).
Authentication Type	Only available when SNMP v3 is selected. You may select either MD5 or SHA authentication (MD5 is default).
Authentication Password	Only available when SNMP v3 is selected. You may enter a password not less than 8 characters.
Encryption	Only available when SNMP v3 is selected. CBC-DES is the default encryption. Enter a password not less than 8 characters.

Note SNMP v3 has a higher level of cyber security than SNMP v1 and v2. Honeywell recommends that customers use SNMP v3.

Bonjour

Bonjour is based on the multicast DNS service from Apple. It can automatically broadcast its service information and listen to the camera information from the other camera.

Figure 5-18 Bonjour Configuration Interface

If you do not know the network camera's information, such as its IP address, you can use Bonjour's browser in the same LAN to search for and access network cameras. After the network camera is detected by Bonjour, you can see the server name.

1. Click **Display All Bookmarks** in your browser.
2. Open **Bonjour**. The system should automatically detect network cameras through Bonjour on the LAN.

Multicast

Multicast is a transmission mode for data packets. When there are multiple hosts to receive the same data packet, multiple cast (multicast) is the best option for reducing the bandwidth and the CPU load. The source host can send out just one data packet. This function depends on the relationship between group members and the router's group.

In the **Multicast** configuration interface, you can set the multicast address and port.

Note You also need to go to the **Live** interface to set the protocol to **Multicast**. See Protocols in [Video Encoder Controls on page 22](#).

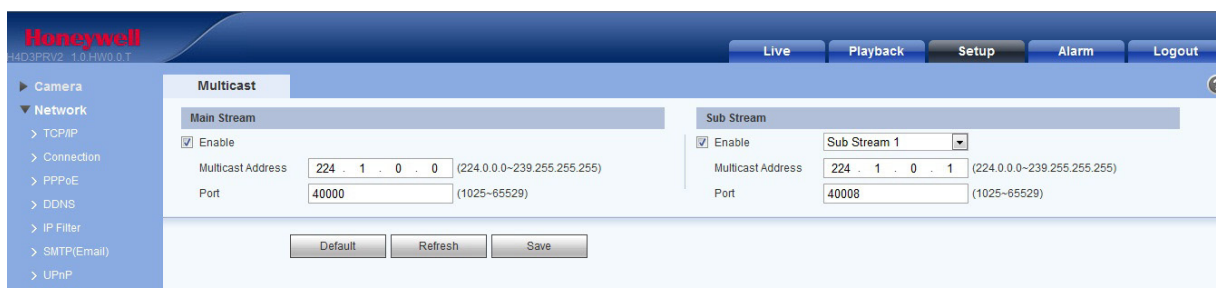
Figure 5-19 Multicast Configuration Interface

Table 5-12 Multicast Configurations

Parameter	Function
Enable	Select the check box to enable the multicast function. Note Main stream and sub stream cannot be used at the same time.
Multicast Address	The main/sub stream multicast address is 239.255.42.42 and its range is 224.0.0.0~239.255.255.255 .
Port	The Multicast port. The main stream is 36666 ; the sub stream is 36667 , and the range is 1025~65534 .

IEEE802.1X

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.

IEEE802.1X supports the client's ability to manually choose how authentication works for accessing the LAN or not. IEEE802.1X supports the ability to:

- authenticate
- calculate the fee
- ensure security
- maintain requirements

Figure 5-20 802.1X Configuration Interface
Table 5-13 802.1X Configurations

Parameter	Function
Enable	Check to enable the IEEE802.1X function.
Authentication	PEAP (protected EAP protocol)
Username	Enter a username to log in. This username is authenticated by the server.
Password	Enter a password.

QoS

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

Figure 5-21 QoS Configuration Interface

Table 5-14 QoS Configurations

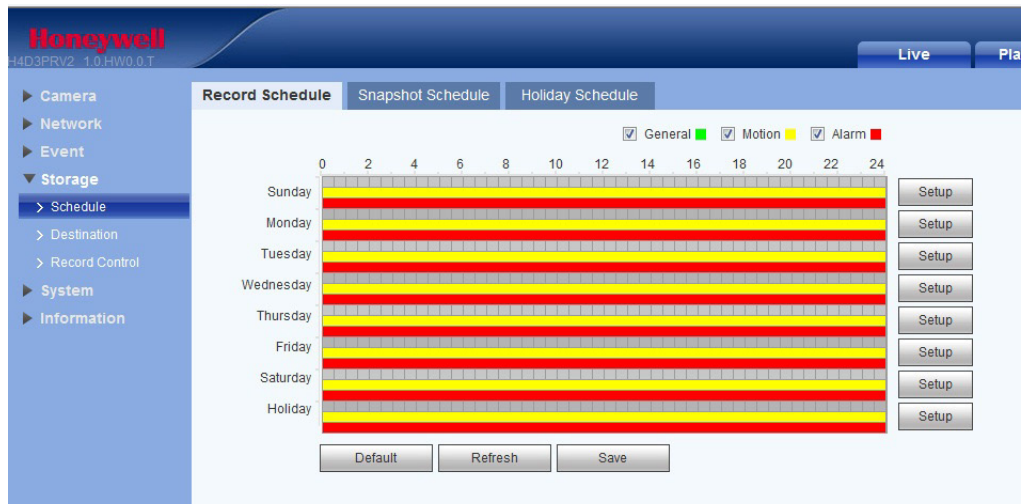
Parameter	Function
Realtime Monitor	This value ranges from 0 to 63 . The router or the switcher can provide different service for different packets.
Command	This value ranges from 0 to 63 . The router or the switcher can provide different service for different packets.

Configuring Storage Settings

Recording Schedule and Snapshot Schedule

You can add or remove schedules for recording and snapshots. There are three recording modes: **General** (auto), **Motion Detection** and **Alarm**. You can configure up to six recording periods per day.

Note Ensure that you have enabled the corresponding recording mode in **Setup > Storage > Conditions**.

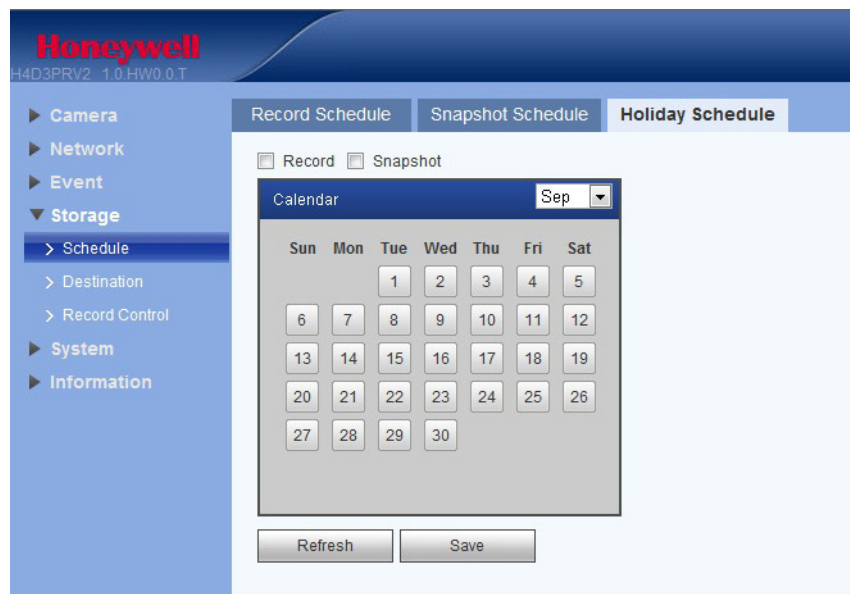
Figure 5-22 Recording Schedule Configuration Interface

Recording Schedule Color Codes:

- **Green:** General recording/snapshot
- **Yellow:** Motion detection recording/snapshot
- **Red:** Alarm recording/snapshot

Setting Holidays

You can set specific days as holidays, for which the recording schedule can have a different setup. When enabled, the selected/configured dates will record according to the Holiday schedule setup.

Figure 5-23 Holiday Schedule

Destination

Path

On the **Path** tab, you can assign where recorded video files or snapshots will be saved. Depending on your camera model, you can save recorded video or snapshots to a Micro SD card, an FTP server, and/or an NAS disk.

You can also set up the system to save recorded video and snapshots files according to event type (Scheduled, Motion Detect, Alarm), corresponding to the three record modes in the Schedule Interface (General, Motion, Alarm).

Figure 5-24 Path Configuration Interface

Record				Snapshot			
Event Type	Scheduled	Motion Detect	Alarm	Event Type	Scheduled	Motion Detect	Alarm
Local	☒	☒	☒	Local	☒	☒	☒
FTP	☐	☐	☐	FTP	☐	☐	☐
NAS	☐	☐	☐	NAS	☐	☐	☐

Buttons: Default, Refresh, Save

Table 5-15 Path Configurations

Parameter	Function
Event Type	Select Scheduled , Motion Detect , or Alarm .
Local	Select to saves files to the Micro SD card
FTP	Select to save files to the FTP server.
NAS	Select to save files to the NAS disk.

Local

On the **Local** tab, you can view local Micro SD card disk information (such as capacity). You can also access the **Read Only**, **Read & Write**, **Hot Swap**, and **Format** functions.

Figure 5-25 Local Storage Configuration Interface

Device Name	Status	Attribute	Used Capacity/Total Capacity
Disk1	Normal	Read & Write	353.4M/7574.1M

Buttons: Read Only, Read & Write, Hot Swap, Refresh, Format

FTP

On the **FTP** tab, you can enable the FTP storage function. When enabled, event-triggered video and snapshots (either scheduled or motion detection, depending on what you chose in [Path on page 61](#)) will be saved to the specified FTP server.

Figure 5-26 FTP Configuration Interface

Table 5-16 FTP Configurations

Parameter	Function
Enable	Check this box to enable the FTP option.
Server Address	Set the IP address of the FTP server.
Port	The default setting is 21 . You can modify this setting as necessary.
User Name	Enter the server user name.
Password	Enter the server password.
Remote Directory	Set storage directory where recorded video and snapshots will be stored.
Emergency (Local)	Enable Emergency (Local) to save to the local Micro SD card when the network connection to FTP is unavailable.

NAS

On the **NAS** tab, you can enable the NAS storage function. When enabled, event-triggered video and snapshots (either scheduled or motion detection, depending on what you chose in [Path on page 61](#)) will be saved to the specified NAS server.

Figure 5-27 NAS Configuration Interface

Table 5-17 NAS Configurations

Parameter	Function
Enable	Check this box to enable the NAS option.
Server Address	Set the IP address of the NAS server.
Remote Directory	Set storage directory where recorded video and snapshots will be stored.

Record Control

Figure 5-28 Record Control Configuration Interface

Table 5-18 Record Control Configurations

Parameter	Function
Pack Duration	Select the file size. The default is 8 minutes .
Pre-event Record	Enter a pre-record value. The number of seconds to be recorded before the event trigger. For example, the system can record the four seconds of video in the buffer. Recording begins up to five seconds before the event trigger.

Table 5-18 Record Control Configurations (cont'd)

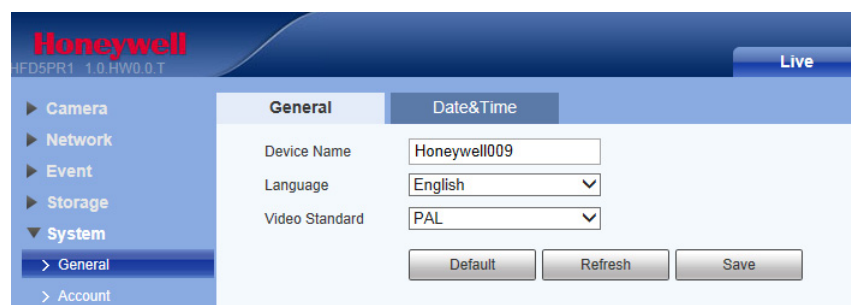
Parameter	Function
Disk Full	Select to Stop Recording or Overwrite the previous files when the HDD is full. Overwrite: If the current working HDD is full, then the system will overwrite the oldest file. Stop: If the current working HDD is full or is overwriting, the system will stop recording.
Record Mode	Select Auto , Manual , or Off .
Record Stream	Select to record from the Main Stream or a Sub Stream .

Configuring System Settings

General System Setup

The general system interface includes the local host setup (including the camera name and GUI language), and the date/time setup.

General

Figure 5-29 General System Configuration Interface**Table 5-19 General System Configurations**

Parameter	Function
Device Name	Enter the camera's name.
Language	Select a language from the drop-down list.
Video Standard	Select the video standard: NTSC or PAL .

Date and Time

Figure 5-30 Date and Time Configuration Interface

Table 5-20 Date and Time Configurations

Parameter	Function
Date Format	Select a date format from the drop-down list.
Time Format	Select a time format, either 24-hour or 12-hour .
Time Zone	Select the time zone for the camera.
Current Time	Set the camera's time and date. Click Save to activate this time.
Sync PC	Click to sync the camera's time with your PC's time.
DST	Set when Daylight Saving Time begins and ends. Select either Date or Week mode.
NTP	Click to enable NTP.
NTP Server	Enter the NTP time server name/address.
Port	Configure the port for the NTP time server.
Update Period	Configure the synchronization periods between the camera and the time server.

Account Setup

The system supports up to 15 characters for the user name or user group name. You can use letters, numbers, and the underscore character (_) for the user or group name.

You can configure up to 18 users and eight groups (default factory settings). The factory default setup includes two user levels: **user** and **admin** (case-sensitive).

When configuring groups, you can configure the rights of those groups. You can also set the rights for individuals within groups.

Note User management adopts group/user modes. The user name and the group name should be unique. A user can be included in only one group at a time.

User Name

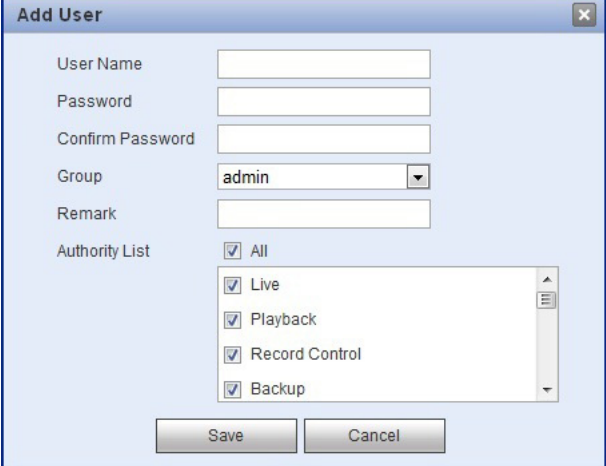
In the **Username Configuration** interface, you can enable anonymous login, add/remove users, and modify a username.

Figure 5-31 Username Configuration Interface



Enable Anonymous Login: Click to enable. When enabled and you enter an IP, no username or password is required. You can log in anonymously (with limited rights). Click **Logout** to end your anonymous session.

Add User: Add a user to a group and configure that user's rights (see [Figure 5-32](#)).

Figure 5-32 Add User Configuration Interface


The 'Add User' dialog box contains the following fields and controls:

- User Name:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Group:** A dropdown menu with 'admin' selected.
- Remark:** A text input field.
- Authority List:** A list of permissions with checkboxes:
 - ☒ All
 - ☒ Live
 - ☒ Playback
 - ☒ Record Control
 - ☒ Backup
- Buttons:** 'Save' and 'Cancel' buttons at the bottom.

There are two types of default user groups to add users to:

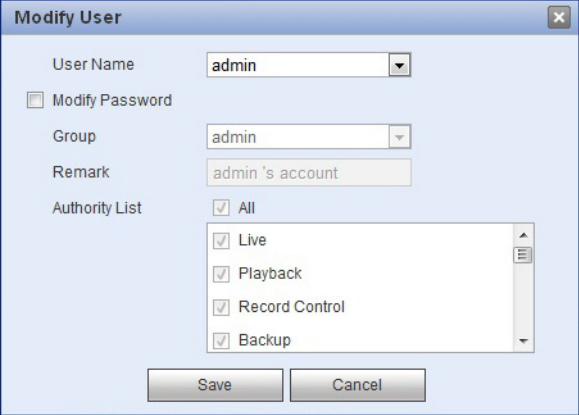
- **admin**
- hidden user "default"

The hidden user "default" is for internal system use only and cannot be deleted. When there is no login user, this hidden user "default" is automatically used for logging in. You can configure some rights for the hidden user, such as monitoring ability, so that the user can view channels without logging in.

To add a user, in the **Add User** configuration interface (see [Figure 5-32](#)), enter a user name and password, then select a group. Ensure that the general user has fewer rights than the admin user.

Note User rights cannot exceed the rights of the group to which that user belongs.

Modifying Users: Click  to modify a user's properties, including their group, password, and rights.

Figure 5-33 Modifying User Interface


The 'Modify User' dialog box contains the following fields and controls:

- User Name:** A dropdown menu with 'admin' selected.
- Modify Password:** A checkbox that is currently unchecked.
- Group:** A dropdown menu with 'admin' selected.
- Remark:** A text input field containing 'admin's account'.
- Authority List:** A list of permissions with checkboxes:
 - ☒ All
 - ☒ Live
 - ☒ Playback
 - ☒ Record Control
 - ☒ Backup
- Buttons:** 'Save' and 'Cancel' buttons at the bottom.

Modifying a Password: Enter the old password once, and then enter the new password twice to confirm the new password. Click **Save** to save the new settings.

Note Passwords can contain up to 32 characters, using only numbers and letters.

Only users with account rights can modify other users' passwords.

Group

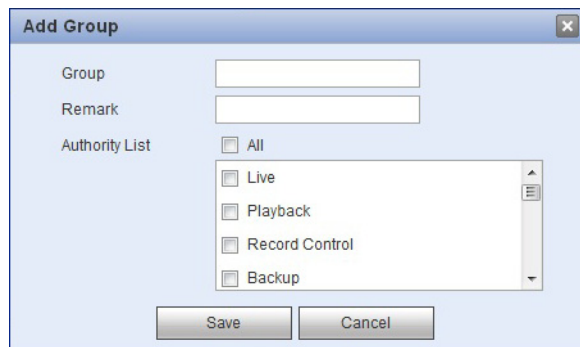
In the **Group** configuration interface, you can add, remove and modify groups.

Figure 5-34 Group Configuration Interface



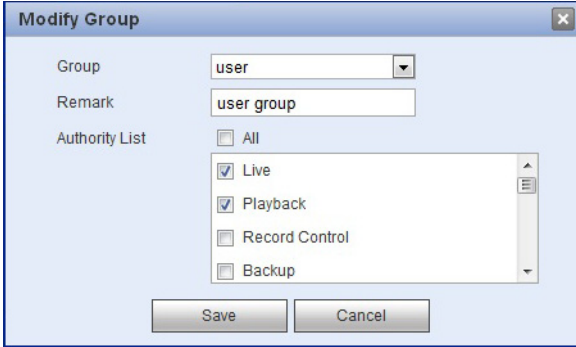
Adding a Group: Add a group and configure that group's rights. Enter the group name, and then check the box to select the corresponding rights for the group (such as **Live**, **Record Control**, and **Account**).

Figure 5-35 Add Group Interface



Modifying a Group: Click **Modify Group** () to open the **Modify Group** interface (see [Figure 5-36](#)).

Figure 5-36 Modify Group Interface

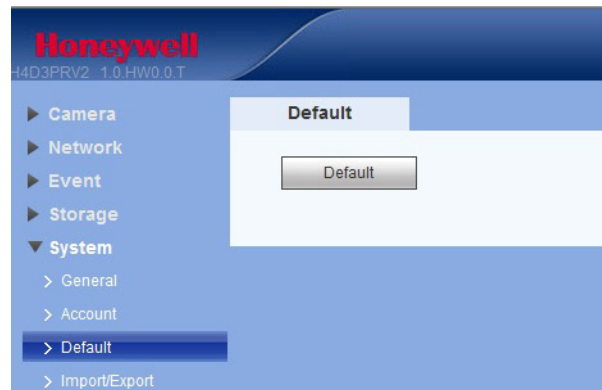


In the **Modify Group** Interface, you can edit the Remarks and/or Rights.

Restoring Default Settings

Click **Default** to restore the camera to its factory default settings.

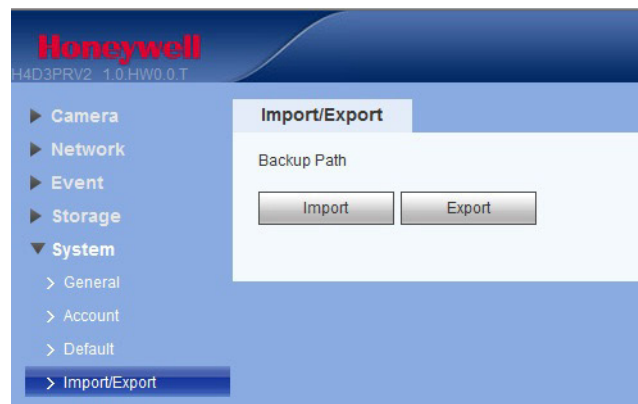
Figure 5-37 Default Interface



Note The system cannot reset some information, such as the network IP address.

Import/Export

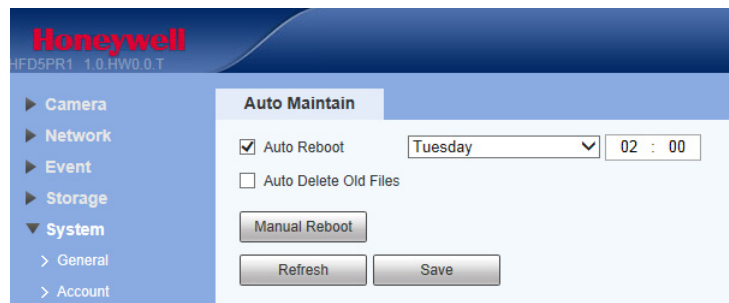
You can save the configuration (export) so it can be used later or import a previously exported configuration to the camera.

Figure 5-38 Import/Export Configuration Interface**Table 5-21 Import/Export Configurations**

Parameter	Function
Import	Click to import local setup files to the system.
Export	Click to export the current system setup to your local PC.

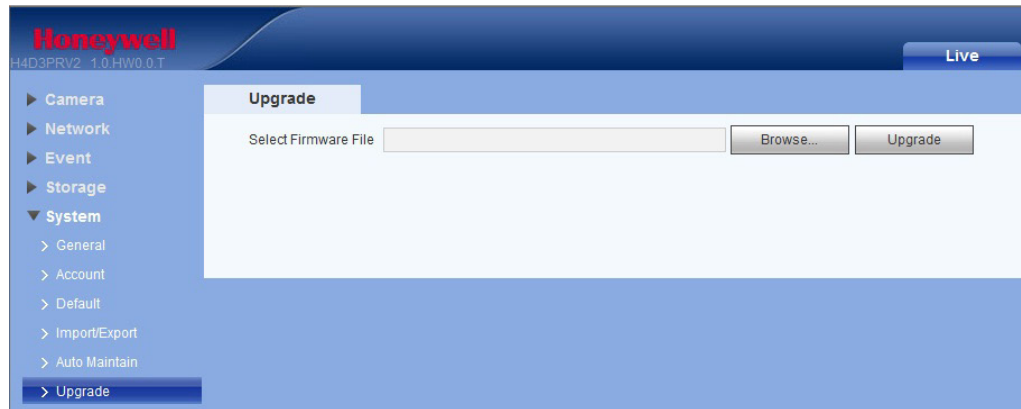
Automatic Maintenance

You can perform either **Auto Reboot**, **Auto Delete Old Files**, or **Manual Reboot** from this configuration screen.

Figure 5-39 Auto Maintain Configuration Interface

Upgrade

Figure 5-40 Upgrade Interface



Click **Browse** and select the upgrade file, and then click **Upgrade** to begin the firmware update.

CAUTION Selecting the incorrect upgrade file might cause a camera malfunction.

Viewing System Information

Version

In the **Version** interface, you can view the system hardware features, the software version, and the release date. This information is for reference only.

Figure 5-41 Version Interface



Log

Use the Log interface to search through the log entries.

Figure 5-42 Log Interface

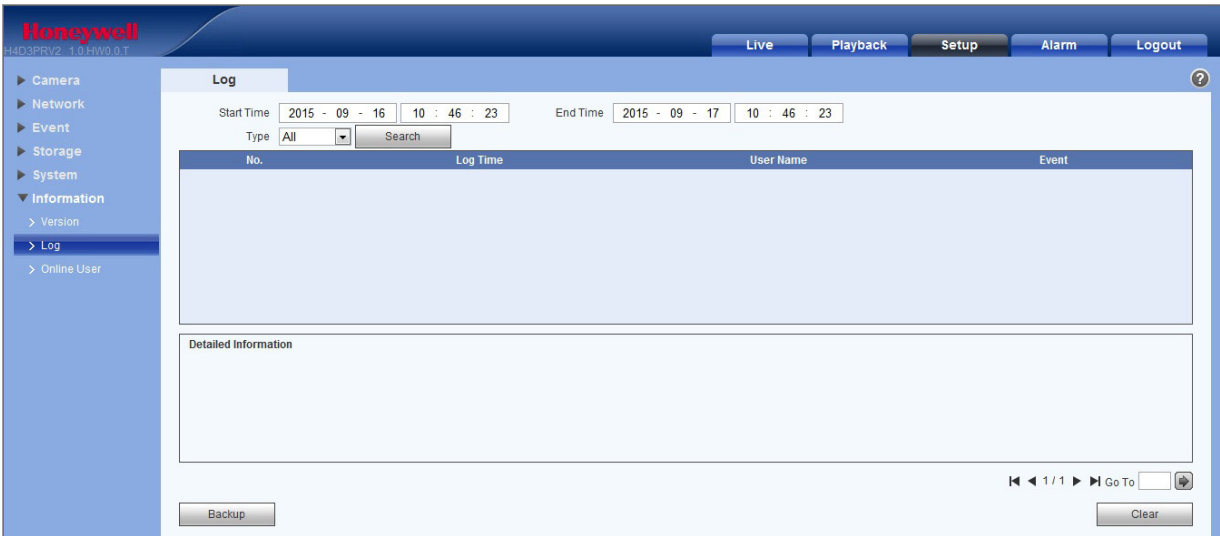


Table 5-22 Log Interface Configurations

Parameter	Function
Start Time	Configure the start time for the requested log.
End Time	Configure the end time for the requested log.
Type	Select a log type: System, Operation, Configuration Operation, Data Operation, Event Operation, Record Operation, Account Management, Log Clearing and All .
Search	Select a log type from the drop-down list, and then click Search to view the log list that is generated by the search. Click Stop to terminate the current search.
Detailed Information	Select one item to view its detailed information.
Backup	Click Backup to back up log files to the currently selected PC.
Clear	Click Clear to delete all the displayed log files.
	Note The system does not support clearing by type.

Online User

You can view the current online user, group name, IP address, and login time on this page (see [Figure 5-43](#)).

Figure 5-43 Online User Interface

The screenshot displays the Honeywell Online User Interface. The top navigation bar includes tabs for Live, Playback, Setup (selected), Alarm, and Logout. The left sidebar contains a menu with options: Camera, Network, Event, Storage, System, Information (expanded), Version, Log, and Online User (selected). The main content area, titled 'Online User', features a table with the following data:

No.	Username	User Local Group	IP Address	User Login Time
1	admin	admin	192.168.1.111	2015-09-17 10:00:25

Below the table is a 'Refresh' button.

6

Configuring Events and Alarms

This chapter contains the following sections:

- [Configuring for Motion Detection on page 75](#)
- [Configuring Video Tampering on page 78](#)
- [Configuring for Abnormalities on page 82](#)
- [Configuring Alarms on page 85](#)

Configuring Events

Configuring for Motion Detection

Configure the motion detection options to set up motion detection alarms and recording when the specified motion is detected.

Video Motion Detection

Figure 6-1 Motion Detection - Video Detection Configuration Interface

Table 6-1 Motion Detection Configurations

Parameter	Function
Enable	Check to enable motion detection.
Working Period	Configure the arm/disarm schedule. Click Setup to open the Working Period page. See Configuring the Working Period on page 77 for more information.
Anti Dither	The system logs and records only one event during the anti-dither period. Choose an anti-dither period from 0 to 100 seconds.
Area	Configure the motion detection region, its sensitivity, and area. The default settings covers the entire area. See Configuring the Motion Detection Area on page 77 for more information.
Record	When Record is enabled, motion detection will trigger a recording.
Record Delay	The system can delay stopping a recording for a specified time after the alarm has ended. Choose a delay period from 10 to 300 seconds.
Send Email	When this function is enabled, the system sends an email alert to you when an alarm occurs. The email settings must be configured for this feature to be used (see SMTP (Email) on page 53).
Snapshot	Check to enable the system to save motion detection snapshot files (still images) while the motion detection event is activated. See Path on page 61 for information about configuring where snapshots are saved.

Configuring the Working Period

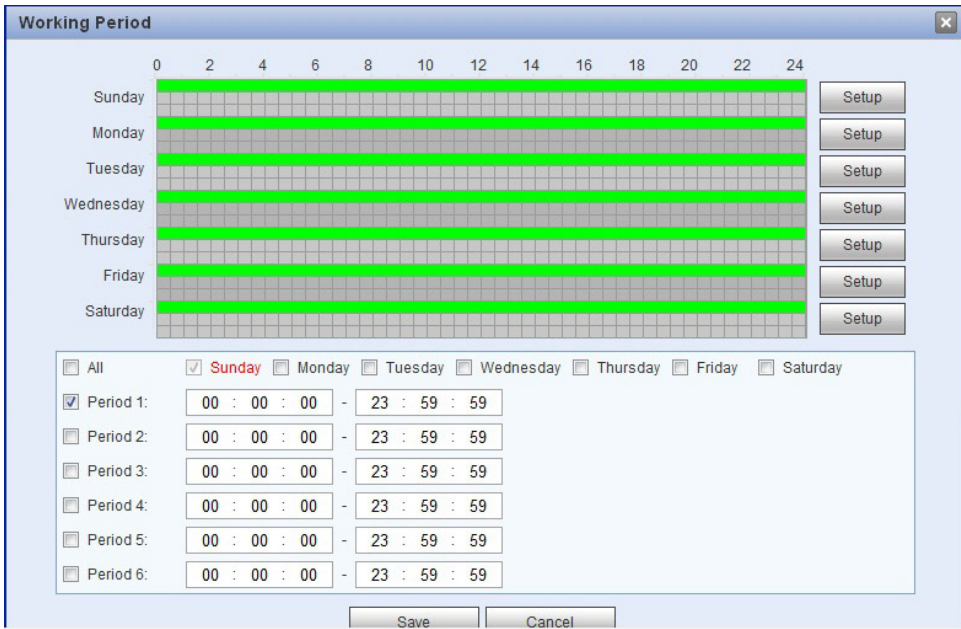
Configure the arm/disarm schedule. Click **Setup** to open the Working Period page. See [Recording Schedule and Snapshot Schedule on page 59](#) for more information.

You can configure up to six periods per day. Draw a circle in the table to enable the corresponding time period.

Select a date. If you do not select a date, the current setup will be applied to today only. You can select **All** to apply the working period to the whole week.

Click **Save** to save the changes. The system goes back to the **Motion Detection** interface. Click **Save** to exit.

Figure 6-2 Configuring the Working Period



Configuring the Motion Detection Area

Configure the motion detection region, its sensitivity, and area. The default settings covers the entire area. You must click **Save** to enable any changes to these settings.

Figure 6-3 Configuring the Motion Detection Area

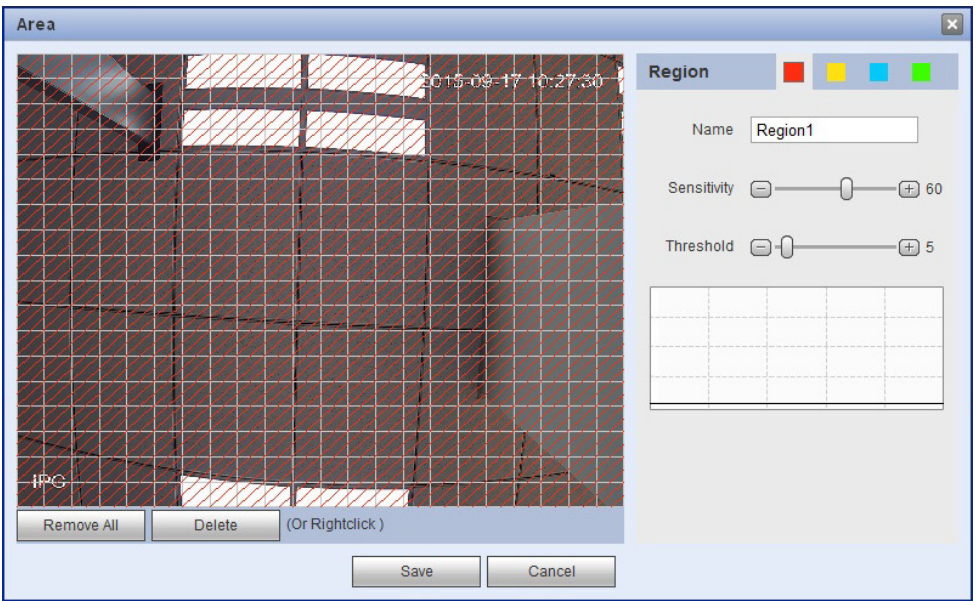


Table 6-2 Motion Detection Area Configuration

Parameter	Function
Region	You can configure up to four regions with different motion detection settings (sensitivity and threshold).
Sensitivity	Adjust the brightness sensitivity. You might need to increase the brightness sensitivity to trigger motion detection. You can configure a different sensitivity for each of the four regions. The sensitivity ranges from 0 to 100 . We recommend that you choose a sensitivity between 30 to 70 . The default is 50 .
Threshold	The threshold determines how much change in a scene is required to trigger a motion detection alarm. The lower the threshold setting, the easier it is to trigger an alarm. You can configure a different threshold for each of the four regions. The sensitivity ranges from 0 to 100 . We recommend that you choose a sensitivity between 10 to 50 .
Delete All	Delete all motion detection areas.
Delete	Delete the selected motion detection region.

Configuring Video Tampering

Figure 6-4 Tampering Configuration Interface

Honeywell
HFD5PR1 1.0.HW0.0.T

Live

► Camera
► Network
▼ Event
 > Video Detection
 > Heat Map
 > Alarm
 > Abnormality
► Storage
► System
► Information

Motion Detection **Video Tamper**

☐ Enable

Working Period Setup

☒ Record
 Record Delay 10 Second (10~300)

☒ Relay-out
 Alarm Delay 10 Second (10~300)

☐ Send Email
☐ Snapshot

Default Refresh Save

Table 6-3 Tampering Configurations

Parameter	Function
Enable	Check to enable the Video Tampering function.
Working Period	The video masking feature is activated during the specified period. See Configuring the Working Period on page 76. You can configure up to six periods per day. Draw a circle in the table to enable the corresponding time period. Select a date. If you do not select a date, the current setup will be applied to today only. You can select All to apply the working period to the whole week. Click Save to save the changes. The system goes back to the Video Tampering interface. Click Save to exit.
Record	When Record is enabled, video tampering will trigger a recording.
Record Delay	The system will wait for the specified time before it ends recording. Select from 10 to 300 seconds.
Send Email	When this function is enabled, the system sends an email alert to you when an alarm occurs. The email settings must be configured for this feature to be used (see SMTP (Email) on page 53).
Snapshot	Check to enable the system to save tampering snapshot files (still images) while the video tampering event is activated. See Path on page 61 for information about configuring where snapshots are saved.

Configuring Heat Mapping

The heat mapping feature detects moving objects in the camera scene that can be generated as a report based on the object's heat. The heat colors range from blue to red, with blue representing the minimum heat value and red representing the maximum heat value. This information can then be searched and generate reports (see [Heat Map Reports, page 80](#)).

Figure 6-5 Heat Mapping Configuration Interface

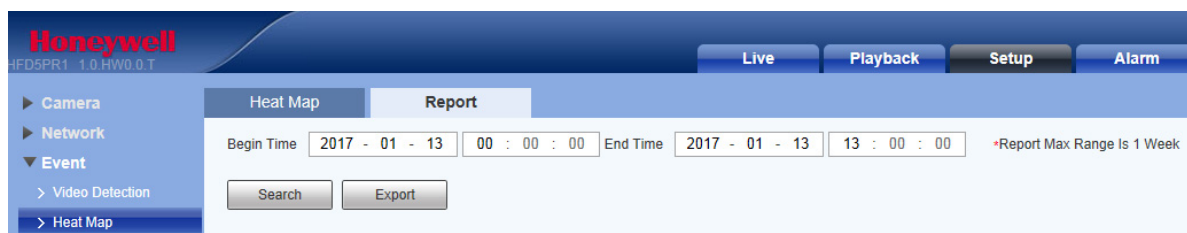
Table 6-4 Heat Mapping Configurations

Parameter	Function
Enable	Check to enable the Heat Mapping function.
Working Period	The heat mapping function is activated during the specified period. See Configuring the Working Period on page 76. Click Setup. You can configure up to six periods per day. Draw a circle in the table to enable the corresponding time period. Select a date. If you do not select a date, the current setup will be applied to today only. You can select All to apply the working period to the whole week. Click Save to save the changes. The system goes back to the Heat Map interface. Click Save to exit.

Heat Map Reports

You can search through the heat map data on the Report interface (see [Figure 6-6](#)) and generate a report based on the search results.

1. Enter a **Begin Time** and **End Time** to search for the heat map data. The search time range should be one week or less.
2. Click **Search** to generate the report data from the time period entered.
3. If the search results are acceptable, click **Export** to generate the heat map data as a report. If needed, perform a new search to find the required heat map data.

Figure 6-6 Heat Map Reports Interface

Configuring Alarms Input Options

The alarms feature uses the alarm input built-in to the camera to connect to an external device, such as a sensor, to activate an alarm with the camera and generate a response. To use the alarms feature you must connect an external alarm device to the alarm input on the camera before configuring the Alarms options interface (see [Figure 6-7](#) and [Table 6-5](#)).

Figure 6-7 Alarms Input Configuration Interface
Table 6-5 Alarms Input Configurations

Parameter	Function
Enable	Check to enable the alarm function.
Relay-in	Use the drop-down list to select the alarm input to configure. Default is Alarm1 .
Working Period	The alarm is activated during the specified period. See Configuring the Working Period on page 76. Click Setup. You can configure up to six periods per day. Draw a circle in the table to enable the corresponding time period. Select a date. If you do not select a date, the current setup will be applied to today only. You can select All to apply the working period to the whole week. Click Save to save the changes. The system goes back to the Alarm interface. Click Save to exit.
Anti-Dither	The system logs and records only one alarm during the anti-dither period. Choose an anti-dither period from 0 to 100 seconds.
Sensor Type	Use the drop-down list to select the alarm Sensor Type for normally open (NO) or normally closed (NC).
Record	When Record is enabled, the alarm input will trigger a recording.
Record Delay	The system will wait for the specified time before it ends recording. Select from 10 to 300 seconds.
Relay-out	When Relay-out is enabled, the alarm input will trigger an alarm output signal to the connected relay alarm output device. Users must connect an alarm output device to the relay out connection on the camera for this feature to function.
Alarm Delay	The system will wait for the specified time after the alarm ends before it sends the alarm output. Select from 10 to 300 seconds.

Table 6-5 Alarms Input Configurations (cont'd)

Parameter	Function
Send Email	When this function is enabled, the system sends an email alert to you when an alarm occurs. The email settings must be configured for this feature to be used (see SMTP (Email) on page 54).
Snapshot	Check to enable the system to save snapshot files (still images) while the scene change event is activated. See Path on page 62 for information about configuring where snapshots are saved.

Configuring for Abnormalities

Abnormalities include **No SD Card**, **Capacity Warning**, **SD Card Error**, **Network Disconnection**, **IP Conflict**, and **Unauthorized Access**.

Configuring for Micro SD Card Abnormalities

Micro SD card Abnormalities include **No SD Card**, **SD Card Error**, and **Capacity Warning**.

Note Only cameras with Micro SD cards can detect the following abnormalities: **No SD Card**, **Capacity Warning**, and **SD Card Error**.

Figure 6-8 No SD Card Warning Configuration Interface

Figure 6-9 SD Card Error Warning Configuration Interface

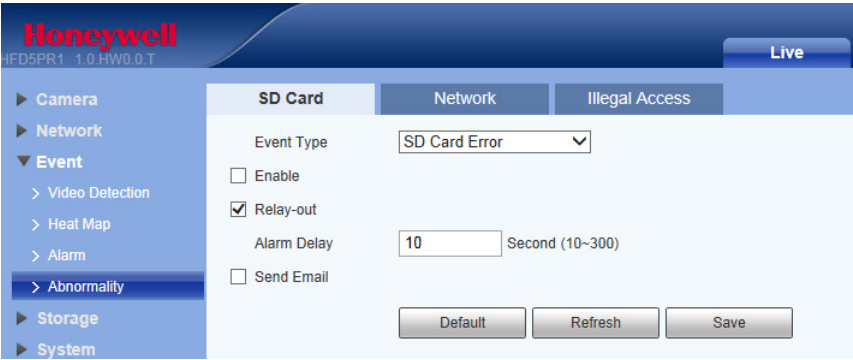
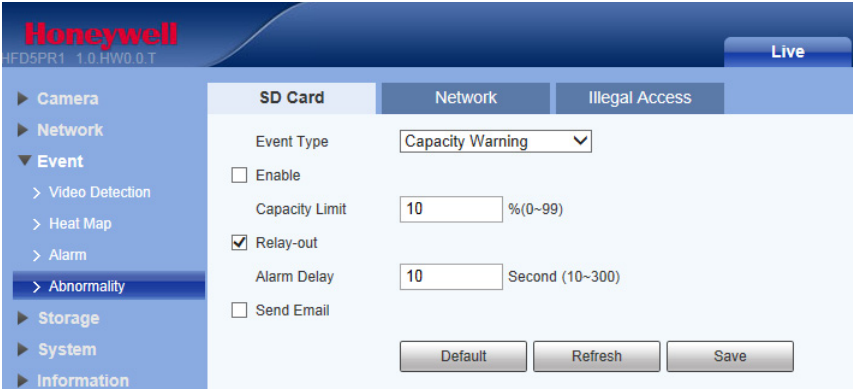


Figure 6-10 Capacity Warning Configuration Interface



1. Click **Enable** so that an alarm is triggered when the selected Micro SD card error occurs.
2. Click **Email** so that an email is sent to a specified receiver if the selected Micro SD card error occurs.

Note Emails cannot be sent if the network is offline or if there is an IP conflict. The email settings must be configured for this feature to be used (see [SMTP \(Email\) on page 53](#)).

3. Enter a **Capacity Limit** for the **Capacity Warning** Micro SD card error as the threshold for how full the SD card will get before the Capacity Warning is sent.

Configuring for Network Abnormalities

Use these options to configure for Network Abnormalities such as network **Disconnection** and **IP Conflict**.

Figure 6-11 Network Disconnection Configuration Interface

The screenshot shows the Honeywell web interface for the Performance Series 5 MP Fisheye IP Camera. The left sidebar contains a menu with categories: Camera, Network, Event, Storage, System, and Information. Under the 'Event' category, 'Abnormality' is selected. The main panel has tabs for 'SD Card', 'Network', and 'Illegal Access'. The 'Network' tab is active, and the 'Event Type' dropdown is set to 'Disconnection'. The configuration options are as follows:

Option	Value	Unit/Range
Enable	☐	
Record	☒	
Record Delay	10	Second (10~300)
Relay-out	☒	
Alarm Delay	10	Second (10~300)

At the bottom of the configuration area are three buttons: 'Default', 'Refresh', and 'Save'.

Figure 6-12 IP Conflict Configuration Interface

This screenshot shows the same Honeywell web interface as Figure 6-11, but with the 'Event Type' dropdown set to 'IP Conflict'. The configuration options are identical to those in Figure 6-11:

Option	Value	Unit/Range
Enable	☐	
Record	☒	
Record Delay	10	Second (10~300)
Relay-out	☒	
Alarm Delay	10	Second (10~300)

The 'Default', 'Refresh', and 'Save' buttons are also present at the bottom.

1. Click **Enable** so that an alarm is triggered when a network disconnection or an IP conflict occurs.
2. Click **Record** so that the system records video to the Micro SD card when a network disconnection or an IP conflict occurs.
3. Enter a **Record Delay** value for the amount of time recording will last after the abnormality is detected.

Configuring for Illegal Access

If someone attempts multiple times to login using an incorrect password, and **Illegal Access** is enabled, an alarm will occur. You can specify how many attempts can be made before the Illegal Access alarm occurs.

Figure 6-13 Illegal Access Configuration Interface

Honeywell
HFD5PR1 1.0.HW0.0.T

Live

Camera
Network
Event
 > Video Detection
 > Heat Map
 > Alarm
 > Abnormality
Storage
System

SD Card Network **Illegal Access**

☐ Enable

Login Error 3 time (3~10)

☒ Relay-out

Alarm Delay 10 Second (10~300)

☐ Send Email

Default Refresh Save

1. Select the **Enable** check box so that an alarm is triggered when someone tries to illegally access the camera.
2. Enter the number of times a user can attempt to log in before **Illegal Access** is triggered. Select from **3** to **10** login attempts.
3. Select the **Email** check box so that an email is sent to a specified receiver if someone attempts to illegally access the camera.

Configuring Alarms

Click the **Alarm** tab to open the alarm configuration interface.

Figure 6-14 Alarm Configuration Interface

Honeywell
HFD5PR1 1.0.HW0.0.T

Live Playback Setup **Alarm** Logout

?

Alarm Type

☐ Motion Detection ☐ Disk Full
☐ Disk Error ☐ Video Tamper
☐ External Alarm ☐ Illegal Access

Operation

☐ Prompt

Alarm Tone

☐ Play Alarm Tone

Tone Path Browse...

No.	Time	Alarm Type	Alarm Channel
-----	------	------------	---------------

Table 6-6 Alarm Configurations

Type	Parameter	Function
Alarm Type	Motion Detection	System alarms when a motion detection event occurs.
	Video Tamper	System alarms when the camera has been tampered with.
	Disk Full	System alarms when the disk (Micro SD card) is full.
	Disk Error	System records alarm information when a disk error occurs.
	External Alarm	System alarms when an external alarm input is triggered.
	Illegal Access	System alarms when someone attempts to illegally access the camera.
Operation	Prompt	System pops up an alarm dialog box when an alarm occurs.
Alarm Tone	Play Alarm Tone	When an alarm occurs, the system automatically generates an audible sound. You can select a tone from your PC for the alarm tone prompt.
	Tone Path	Select the alarm sound file.



Troubleshooting

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).

Cannot play downloaded file.	• Use the player located on the CD that came with your camera. • Ensure that DirectX8.1 or higher is installed on your PC. • Install the DivX503Bundle.exe plugin for playing AVI files. • If you are running Windows XP, install the ffdshow codec.
Cannot set camera frame rate above 20 fps when Embedded NVR resolution set at 1080p or lower.	1. On the NVR, go to NVR setup and set the resolution to 1080p and click Save. 2. Go to Remote Device and click Delete to remove the camera. Then select the camera in the Searched Device area and click Add. 3. Click Modify for the camera in the Added device area. Select ONVIF from the drop-down list of manufacturers and click Save. You can now set the frame rate at 20 fps or above for 1080p or lower resolutions at the NVR end.
Cannot get 3 MP resolution at the NVR.	1. Make sure the NVR supports 3 MP (2304×1296) resolution. 2. On the NVR, go to NVR setup ► Remote Device and click Modify for the 3 MP camera in the added device area. Select ONVIF from the drop-down list of manufacturers and click Save. You can now setup 3 megapixel resolution on the NVR end.
IR video is poor.	• Ensure that the power supply is adequate. An inadequate power supply may not be able to support the IR lights. • Ensure that the objects to be illuminated are within the camera's IR range. • If the IR-cut filter does not switch to Night mode, the photosensitive chip at the front of the camera may be malfunctioning.
Cannot upgrade firmware through the network	• If you cannot upgrade firmware over the network, try using port 3800.

Cannot install/log in to web client.	• Ensure that your browser's security settings allow ActiveX controls. • Ensure that DirectX8.1 or higher is installed on your PC. • Ensure that you have a valid network setup and that you are using the correct login user name and password.
Water leaking into camera housing.	• Ensure that the front glass cap and rear waterproof cap are tightly secured. Loosening or removing the front and rear caps will allow water to enter the housing.
Power supply is unstable.	• The operating temperature range for the supplied power adapter is approximately 32°F to 104°F (0°C to 40°C). Replace with an industrial-level power adapter if operating the camera in temperatures below 32°F (0°C). • Use of a UPS power supply is strongly recommended.



Camera Specifications

HFD5PR1 Fisheye Cameras

Table B-1 HFD5PR1 Specifications

Camera	
Image Sensor	1/3" 5 Megapixel progressive scan CMOS
Max. Effective Pixels (H×V)	2592×1944 (5M)
Min. Illumination	0.01 lux @ F2.6 (Color)/0.001 lux @ F2.6 (B/W)
Lens	Fixed, 1.42 mm @ F2.6
Horizontal Angle of View	185°
Automatic Electronic Shutter	Auto/Manual, 1/3(4)–1/100000 s
S/N Ratio	50 dB
Shutter WDR	120 dB
Day/Night	Auto(ICR)/Color/BW
BLC/WDR	BLC/HLC/DWDR
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual/Regional Custom
Gain Control	Auto/Gain Priority/Shutter Priority/Manual
Noise Reduction	3D DNR
Motion Detection	Up to 4 areas; On/Off/By Schedule
Privacy Masking	Up to 4 areas
Video	
Compression	H.264/MJPEG
Frame Rate	1–25/30 fps @ 2560×1920 (5M), 2048×1520 (3M), 1280×960 (1.3M), 1280×720 (720p), 704×576/704×480 (D1), 352×288/352×240 (CIF)
Bit Rate (H.264)	20–8192 kbps
Local Storage	microSD, 64 GB max.

Table B-1 HFD5PR1 Specifications (cont'd)

Network	
Ethernet	RJ-45 (10/100Base-T)
Supported Protocols	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS, Bonjour
User Access	20 users max.
Mobile App	HonView Touch for iPhone, Android Phone and Tablet
General	
Power Supply	12 VDC, PoE (802.3af)
Power Consumption	6.0 W max.
Operating Temperature Range	-22°F to 104°F (-30°C to 40°C)
Relative Humidity	Less than 95%, non-condensing
Impact Rating	IK10
Dimensions	4.33 × 2.13 in. (110.0 × 54.0 mm)
Weight	0.55 lb (0.25 kg)
Regulatory	FCC: Part 15B Class B
System Compatibility (* = Storage in TB)	HEN081*4 H.265 8-Channel, 8 PoE, 2 HDD, 4K Embedded Network Video Recorder HEN161*4 H.265 16-Channel, 16 PoE, 2 HDD, 4K Embedded Network Video Recorder HEN321*4 H.265 32-Channel, 16 PoE, 2 HDD, 4K Embedded Network Video Recorder HEN162*4 H.265 16-Channel, 16 PoE, 4 HDD, 4K Embedded Network Video Recorder HEN322*4 H.265 32-Channel, 16 PoE, 4 HDD, 4K Embedded Network Video Recorder HEN642*4 H.265 64-Channel, 16 PoE, 4 HDD, 4K Embedded Network Video Recorder HEN163*4 H.265 16-Channel, 16 PoE, 8 HDD, 4K Embedded Network Video Recorder, RAID 5&6 HEN323*4 H.265 32-Channel, 16 PoE, 8 HDD, 4K Embedded Network Video Recorder, RAID 5&6 HEN643*4 H.265 64-Channel, 16 PoE, 8 HDD, 4K Embedded Network Video Recorder, RAID 5&6

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