

PERFORMANCE SERIES HQA DIGITAL VIDEO RECORDER

HRHQ104*	HRHQ1040L
HRHQ108*	HRHQ1080L
HRHQ116*	

USER GUIDE

User Guide

Revisions

Issue	Date	Revisions
A	08/2017	New document.

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** Use only with the supplied power adapter. The Ethernet connection is not intended to be connected to an exposed (outside plant) network.

 **CAUTION** There is a risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries in accordance with local laws.

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

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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

North America

The equipment supplied with this guide conforms to UL 60950-1 and CSA C22.2 No. 60950-1.

Europe

The manufacturer declares that the equipment supplied is compliant with the European Parliament and Council Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU), Low Voltage Directive (2014/35/EU), and the essential requirements of the EMC directive (2014/30/EU), conforming to the requirements of standards EN 55032 for emissions, EN 50130-4 for immunity, and EN 60950-1 for electrical equipment safety.

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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 operating or installing 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.
 - Do not install the unit in an extremely hot or humid location, or in a place subject to dust or mechanical vibration. The unit is not designed to be waterproof. Exposure to rain or water may damage the unit.
 - 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. **HEAT** - Situate away from items that produce heat or are heat sources such as radiators, heat registers, stoves, or other products (including amplifiers).
5. **WATER AND MOISTURE** - Do not use this unit near water or in an unprotected outdoor installation, or any area classified as a wet location.
6. **MOUNTING SYSTEM** - Use only with a mounting system recommended by the manufacturer, or sold with the product.
7. **ATTACHMENTS** - Do not use attachments not recommended by the product manufacturer as they may result in the risk of fire, electric shock, or injury to persons.
8. **ACCESSORIES** - Only use accessories specified by the manufacturer.
9. **CLEANING** - Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
10. **SERVICING** - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
11. **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.
12. **DAMAGE REQUIRING SERVICE** - Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power supply cord or plug is damaged.
 - If liquid has been spilled, or objects have fallen into the unit.
 - If the unit has been exposed to rain or water.
 - If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
 - If the unit has been dropped or the enclosure has been damaged.
 - When the unit exhibits a distinct change in performance - this indicates a need for service.
13. **SAFETY CHECK** - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

Warranty and Service

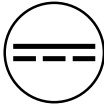
Subject to the terms and conditions listed on the Product warranty, during the warranty period Honeywell will repair or replace, at its sole option, free of charge, any defective products returned prepaid.

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 table contains a list of symbols that may appear on the DVR:

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 is intended for system installers, administrators, and operators of Honeywell HRHQ DVRs.

Overview of Contents

This document contains the following chapters and appendixes:

- [Chapter 1, Introduction](#), describes the front and rear panel layout and mouse functions.
- [Chapter 2, Getting Started](#), describes how to connect the DVR and log in to its user interface.
- [Chapter 3, Viewing Live Video](#), describes the DVR's real-time monitoring mode and associated DVR operations, including controlling a PTZ camera (if connected).
- [Chapter 4, Playing Back Video](#), describes how to play back and export recorded video and snapshots.
- [Chapter 5, Configuring Camera Settings](#), describes how to configure camera image settings, encoder settings, snapshot settings, privacy mask settings, camera name settings, and channel type settings.
- [Chapter 6, Configuring Network Settings](#), describes how to configure the DVR's network settings, including connection settings, email settings, FTP settings, registration settings, and alarm center settings.
- [Chapter 7, Configuring Event Settings](#), describes how to configure the DVR's alarm settings, including settings for motion detection, video loss, camera tampering, and system events.
- [Chapter 8, Configuring Storage Settings](#), describes how to configure the DVR's storage settings, including recording settings and HDD management settings.
- [Chapter 9, Configuring System Settings](#), describes how to configure DVR system settings, display settings, and user accounts; export and import configuration settings to and from other DVRs; restore default settings; and upgrade the system firmware.
- [Chapter 10, Viewing Information](#), describes how to view system, event, network, and log information.
- [Appendix A, Connecting Alarm Input/Outputs](#), provides guidelines for connecting alarm inputs and outputs.
- [Appendix B, Installing Hard Drives](#), provides instructions for installing HDDs.

Related Documents

The following related documents are supplied with the DVR:

- *Performance Series HQA DVRs Quick Networking Guide* (800-23284)
- *Performance Series HQA DVRs Quick Installation Guide* (800-23285) or *Performance Series HQA DVRs Quick Installation Guide* (800-23288).

To view these documents online, visit the Performance Series HQA DVR product page at www.honeywellvideo.com/products/video-systems/recording-devices/index.html.

Introduction

This chapter contains the following sections:

- [Front and Rear Panel Layouts, page 15](#)
- [Mouse Operation, page 19](#)

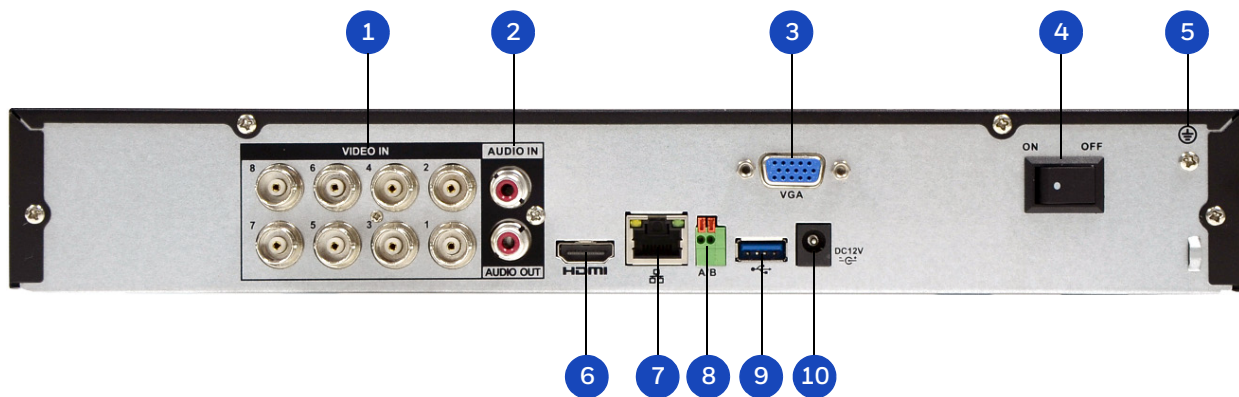
Front and Rear Panel Layouts

4-channel DVR Front Panel



	Name	Function
1	HDD indicator	Lights red when HDD error has occurred or when HDD capacity below specified threshold.
2	NET indicator	Lights red when a network error has occurred or when there is no network connection.
3	POWER indicator	Lights blue when the DVR is receiving power.
4	USB 2.0 port	Connects USB devices (USB flash drive, mouse).

4-channel DVR Rear Panel



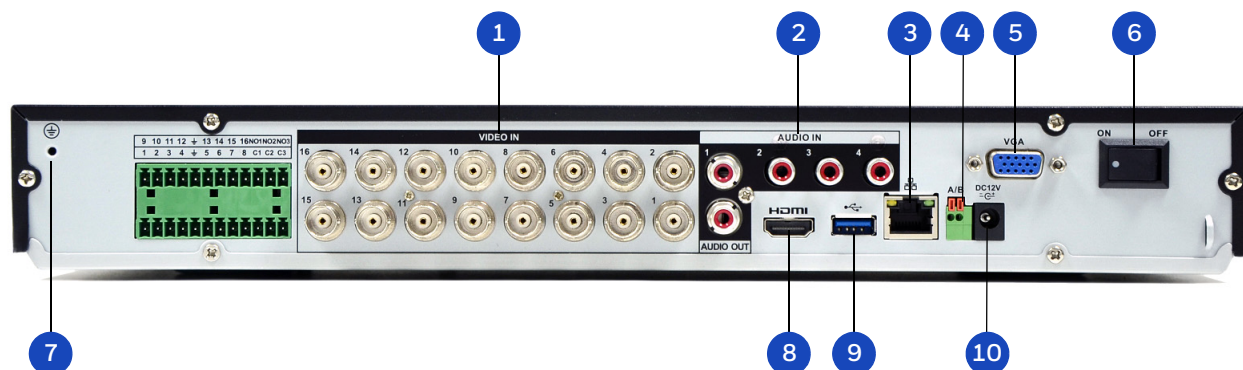
Name	Function
1 Video in	BNC connectors for HD-over-coax/CVBS video input
2 Audio in/out ports	RCA connectors for audio input (microphone) and audio output (speaker, headphones)
3 VGA port	VGA connector for analog video output
4 Power switch	Switch for turning DVR on/off
5 Ground	Ground terminal
6 HDMI port	HDMI interface for transmitting high definition audio and video output
7 Network port	RJ45 100M Ethernet interface for connecting to local area network (LAN)
8 RS485 port	RS485 interface for connecting to RS485 devices (PTZ cameras)
9 USB 2.0 port	USB 2.0 interface for connecting to USB device (mouse, USB flash drive, portable HDD)
10 Power input	12 VDC power input

8/16-channel DVR Front Panel



Name	Function
1 HDD indicator	Lights red when HDD error has occurred or when HDD capacity below specified threshold.
2 NET indicator	Lights red when a network error has occurred or when there is no network connection.
3 Power button	Turns DVR on/off.
4 IR receiver	Receives IR signal from remote control.
5 SHIFT	Text mode: Switches to uppercase letters.
6 FN	Switches between function input and number/letter input. Single-window live view mode: Displays Assistant function or configures image color. Text mode: Deletes last entered character when pressed and held for 1.5 seconds. HDD management: Switches HDD recording information.
7 Record button	Live view mode: Starts/stops recording.
8 Play Previous button / 0	Playback mode: Plays the previous video. Text mode: Enters the number 0.
9 Play Next button / 9	Playback mode: Plays the next video. Text mode: Enters the number 9.
10 Slow Play button / 8	Playback mode: Plays back video at various speeds. Text mode: Enters the number 8 or the letters T, U, or V.
11 Fast Forward button / 7	Playback mode: Plays back video at various speeds. Text mode: Enters the number 7 or the letters P, Q, R, or S.
12 Reverse/Pause button / 6	Playback mode: Plays back video in reverse, pauses playback. Text mode: Enters the number 6.
13 Play/Pause button / 5	Playback mode: Plays back video, pauses playback. Text mode: Enter the number 5 or letter J, K, or L.
14 ESC	Live view mode: Returns to previous menu or cancels current operation. Playback: Returns to live view mode.
15 Direction keys (▲◀▶▼) / 1, 2, 3, 4	Menu setup: Navigate up and down, increase or decrease numbers. PTZ mode: Call up the assistant function for the PTZ menu. Text mode: Enter the numbers 1, 2, 3, or 4 or the letters A, B, C, D, E, F, G, H, or I.
Enter	Menu setup: Confirms selection. Go to Default. Go to Menu.

8/16-channel DVR Rear Panel

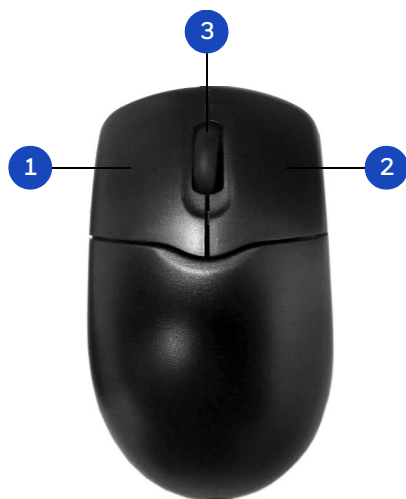


* 16-channel DVR shown

Name	Function
1 Video in	BNC connectors for HD-over-coax/CVBS video input
2 Audio in/out	RCA connectors for audio input (microphone) and output (speaker, headphones).
3 Network port	RJ45 100M Ethernet interface for connecting to local area network (LAN)
4 RS485 port	RS485 interface for connecting to RS485 devices (PTZ cameras)
5 VGA port	VGA connector for analog video output
6 Power switch	Switch for turning DVR on/off
7 Ground	Ground terminal
8 HDMI port	HDMI interface for transmitting high definition audio and video output
9 USB 2.0 port	USB 2.0 interface for connecting to USB device (mouse, USB flash drive, portable HDD)
10 Power input	12 V DC power input

Mouse Operation

Your Performance Series HQA DVR is optimized for mouse navigation. Use the supplied mouse to set up the DVR.



Button	Action
1 Left	- Click to select a menu option. - Click in text field to display on-screen keyboard. - Click on-screen keyboard to input letters/numbers. - In multi-screen view, double-click to view the channel full screen. Double-click again to exit full screen mode. - Double-click video filename to play video.
2 Right	- Click to close menu window without saving changes. - Click to exit main menu to return to live view screen. - Click to open shortcut menu from live view screen.
3 Wheel	Scroll up/down.

Using the On-Screen Keyboard

- To display the on-screen keyboard, click in a text box. The keyboard appears directly below the text box.



- Click the key corresponding to the letter/number/special character that you want to input in the text box.
 - To switch between lowercase and uppercase letters, click **Shift**.
 - To delete the previous character, click the **←** key.
 - To insert a space, click the **␣** key.
- Click **Enter** to close the on-screen keyboard.

2

Getting Started

This chapter contains the following sections:

- [Unpacking the DVR, page 21](#)
- [Connecting External Devices, page 22](#)
- [Starting the DVR, page 24](#)
- [Setting Up the DVR with the Startup Wizard, page 24](#)

Unpacking the DVR

Before you set up the DVR, make sure that you have received the following items:

- Quick Installation Guide
- Quick Networking Guide
- Certificate Installation Guide
- Software CD
- Power adapter and cable
- Mouse
- Serial ATA (SATA) cable(s) (×1 for 4-channel; ×2 for 8-/16-channel)
- CAT5e network cable
- Terminal block connectors (×2, except for HRHQ1040L and HRHQ1080L)
- Screws (×4 for 4-channel; ×10 for 8-/16-channel)
- Power cable(s)

If any of the items listed above are missing or damaged, contact your Honeywell dealer immediately.

Connecting External Devices

Step 1: Connect the cameras

Connect the coaxial cables from the cameras to the VIDEO IN connectors (1 Vp-p, 75 ohm).

Step 2: Connect the monitor

Connect a VGA cable (not supplied) to the VGA interface and/or an HDMI cable (not supplied) to the HDMI interface. Connect the other end to a monitor (do not use a TV). Simultaneous VGA and HDMI output is supported.

Step 3: Connect the mouse

Connect the supplied USB mouse to the USB 2.0 interface.

Step 4: Connect the Ethernet cable

Connect the supplied CAT5e Ethernet cable to the network port. Connect the other end to a router on your network.

Step 5: Connect audio devices (if applicable)

To record audio, connect the audio sources to the AUDIO IN connectors. To play audio, connect an audio output device (low-impedance headphones, speaker, or amplifier) to the AUDIO OUT connector (200 mV / 1 kilohm).

Step 6: Connect a PTZ camera (if applicable)

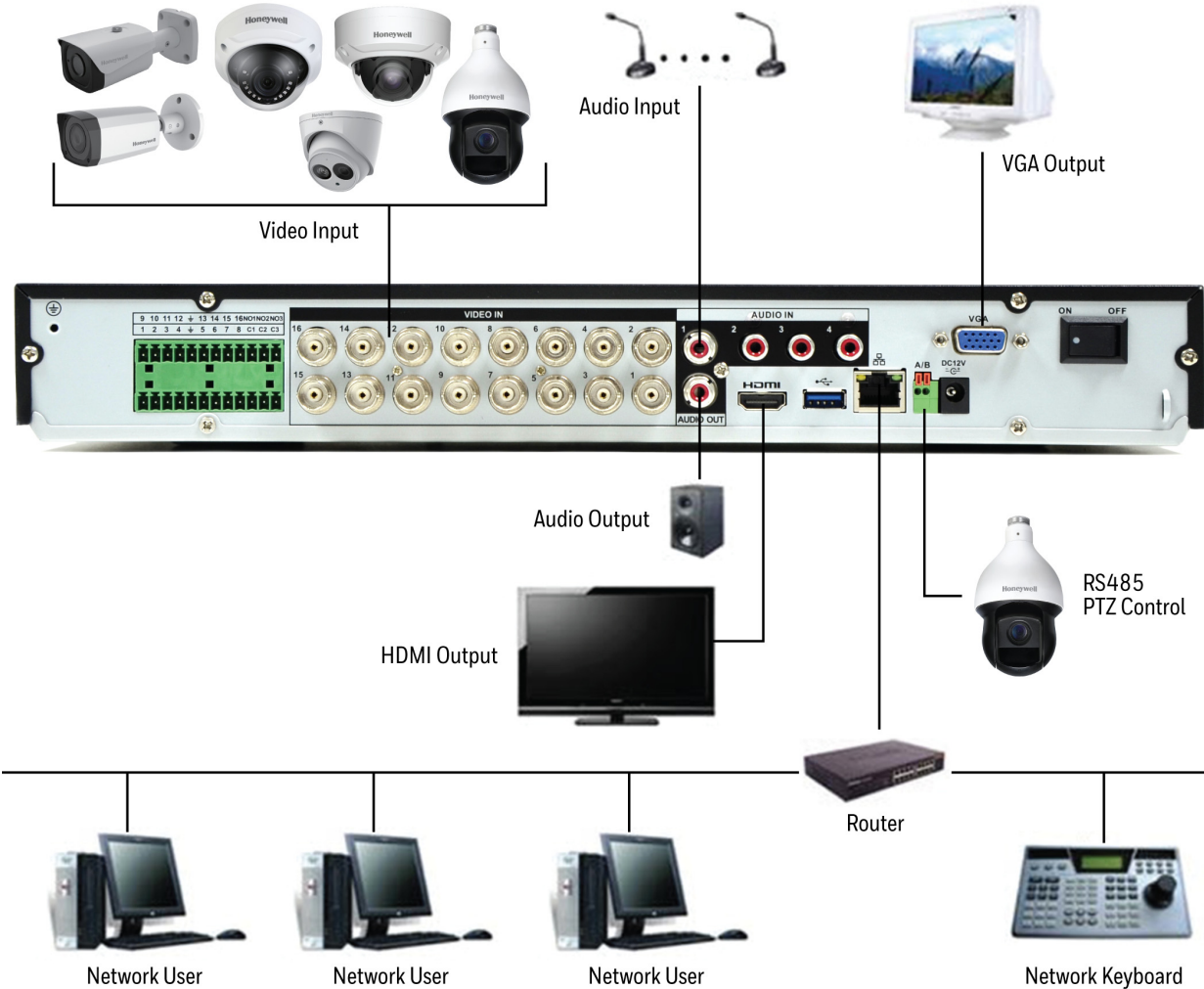
To communicate with a PTZ camera, connect it to the RS485 A and B input. It is recommended to use shielded twisted pair cable with the shielded layer used to connect to the ground. The ground should be the same as for the DVR and the voltage between the A and B lines should be less than 5 V.

Step 7: Connect the power cable

Connect the supplied 12 VDC power adapter to the power input. Use of an uninterruptible power supply (UPS) is strongly recommended.

Typical DVR Installation

The following diagram shows a typical DVR installation:



Starting the DVR

1. Verify that the DVR is connected to an appropriate power source.
2. Turn on the power switch on the rear panel to start the DVR.

Note The beep at startup is normal.

Setting Up the DVR with the Startup Wizard

The Startup Wizard opens by default when you turn on the DVR.



Using the wizard, you can:

- Configure general settings (device name, number, language, video standard).
- Set the date and time.
- Configure network settings.
- Link your HonView Touch smartphone app to the DVR.
- Configure video encoding settings.
- Set up a recording schedule.

Note If you want to bypass the wizard and go directly to live view, click **Cancel**. To prevent Startup Wizard from opening the next time you start the DVR, clear the **Startup** check box.

Using the Startup Wizard

1. Click **Next Step** to go to the **System Login** window.

2. Click inside the **Password** box to display the on-screen keyboard, click the numbers **1**, **2**, **3**, and **4** on the on-screen keyboard (**1234** is the default admin password), and then click **Enter**.
3. Click **OK** to go to the **General** window.

For more information about configuring settings in the **General** window, see [Configuring General System Settings](#) on page 118.

4. Click **Next Step** to go to the **Network** window.



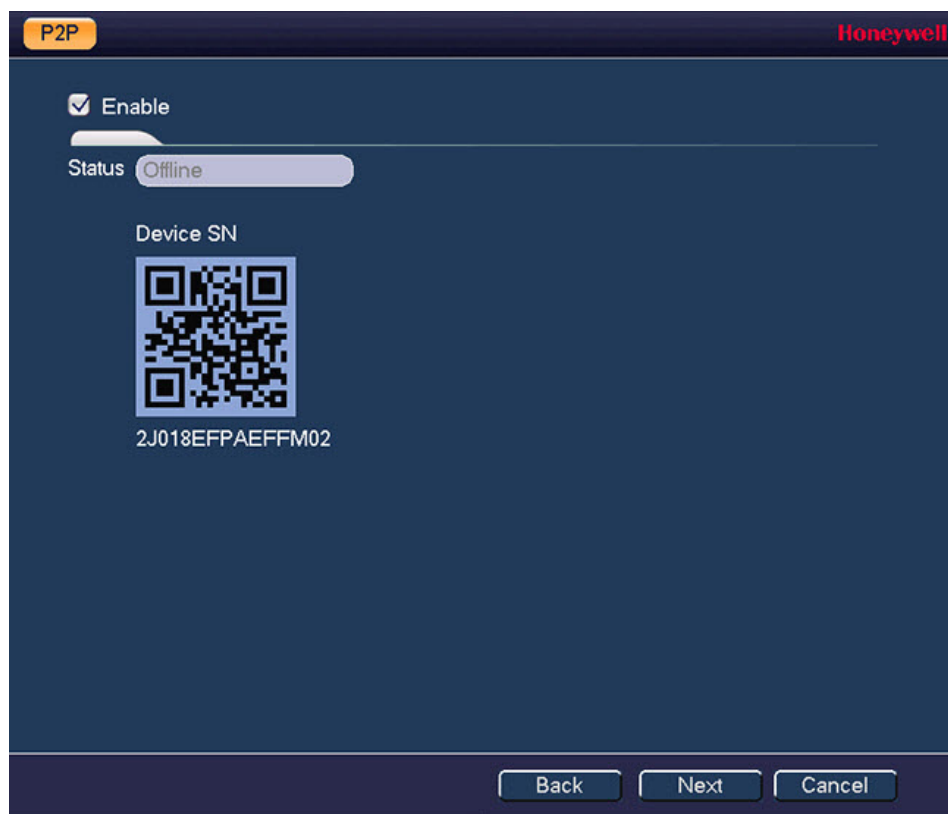
The screenshot shows the 'NETWORK' configuration window in the Honeywell interface. The window has a dark blue background with a title bar that says 'NETWORK' in an orange button and the 'Honeywell' logo in red. The settings are as follows:

- IP Version: IPv4 (dropdown)
- MAC Address: 3C:EF:8C:13:9B:3C (text field)
- Mode: ☒ STATIC ☐ DHCP
- IP Address: 172 . 8 . 1 . 33 (text field with a 'Test' button to its right)
- Subnet Mask: 255 . 255 . 0 . 0 (text field)
- Default Gateway: 172 . 8 . 0 . 1 (text field)
- Preferred DNS: 8 . 8 . 8 . 8 (text field)
- Alternate DNS: 8 . 8 . 4 . 4 (text field)
- MTU: 1500 (text field)
- LAN Download: ☐ (checkbox)

At the bottom of the window are four buttons: 'Default', 'Back', 'Next', and 'Cancel'.

For more information about configuring settings in the **Network** window, see [Configuring TCP/IP Settings](#) on page 68.

5. Click **Next Step** to go to the **P2P** window.



For more information about P2P, see [Connecting to the DVR Remotely](#) on page 80.

6. Click **Next Step** to go to the **Encode** window.

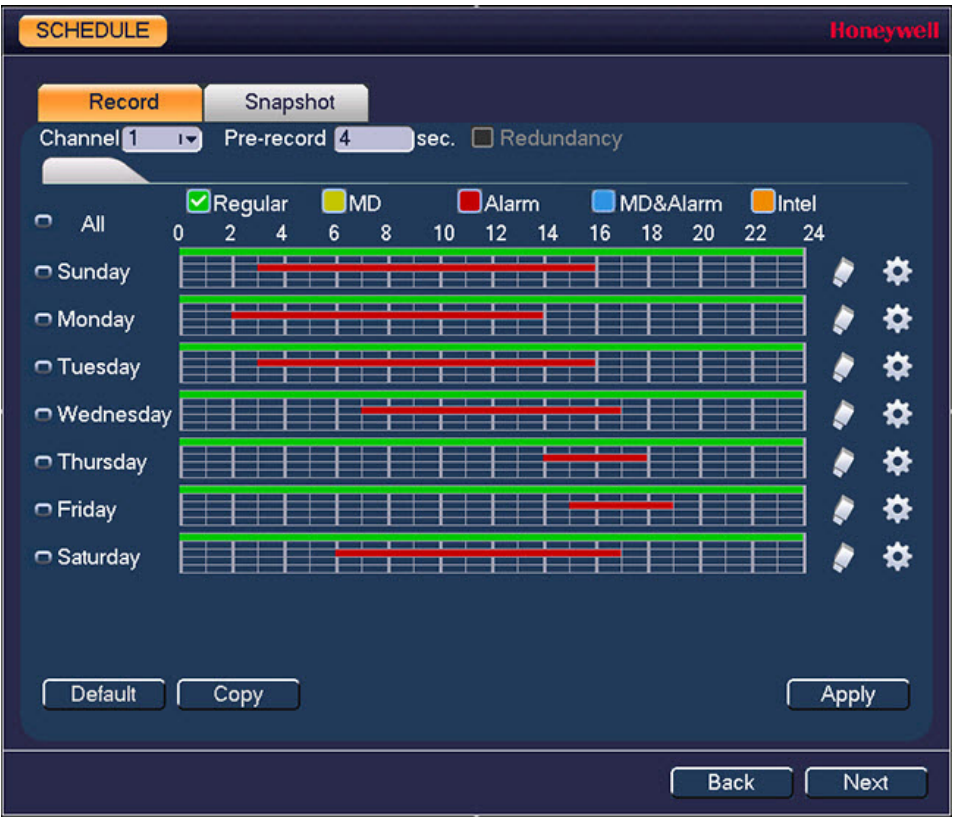
The screenshot shows the Honeywell ENCODE window with three tabs: Encode, Snapshot, and Overlay. The Encode tab is active. The settings are as follows:

Setting	Value	Setting	Value
Channel	1	Sub Stream1	
Type	Regular		
Compression	H.264H		H.264H
Smart Codec	Stop		
Resolution	960*576(960H)		352*288(CIF)
Frame Rate(FPS)	25		15
Bit Rate Type	CBR		CBR
I Frame Interval	1 S		1 S
Bit Rate(Kb/S)	1024		320
Reference Bit Rate	256-3072Kb/S		32-640Kb/S
Audio/Video	☐		☒
Audio Format	G711a	Audio Source	LOCAL

Buttons at the bottom: Default, Copy, Apply, Back, Next.

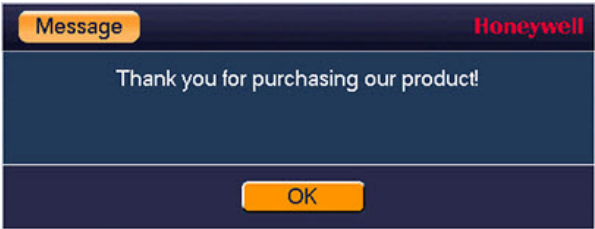
For more information about configuring settings in the **Encode** window, see [Configuring Encoding Settings](#) on page 59.

7. Click **Next Step** to go to the **Schedule** window.



For more information about configuring settings in the **Schedule** window, see [Configuring the Video Recording Schedule](#) on page 47.

8. Click **Next**. A thank-you message appears:



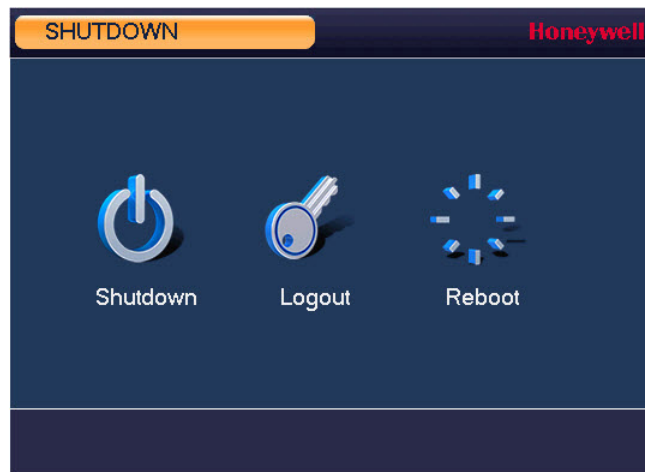
9. Click **OK** to close the wizard.

Shutting Down the DVR

Note To shut down the DVR, you must be logged in as the admin user or have shutdown privileges assigned to you. See [Configuring Account Settings](#) on page 130.

To prevent damage to the hard drive, follow these steps to shut down the DVR:

1. In live view mode, click anywhere on the screen to display the shortcut menu, then click **Main Menu**.
2. In the **Main Menu** window, click **Shutdown**. The **Shutdown** window opens.



3. Click **Shutdown** or **Reboot**.

Viewing Live Video

This chapter contains the following sections:

- [About Live View, page 31](#)
- [Configuring Live View, page 34](#)
- [Controlling PTZ Cameras, page 36](#)

About Live View

Live view is the DVR's default mode. When you start the DVR, live video from the connected cameras is displayed on the screen in a multi-channel layout (the number of channels displayed depends on whether you are using a 4-channel, 8-channel, or 16-channel DVR).



Camera Status

Camera status icons appear at the bottom of the channel window.



Video is being recorded

Motion is being detected



There is no video signal

The camera is locked

Camera Toolbar

A camera toolbar is located at the top of each channel window. To display the toolbar, move the mouse pointer to the top of the channel window.



	Instant Play	Plays back the previous 5 to 60 minutes of recorded video. Note The playback time is set to 5 minutes by default. You can change this setting in Main Menu > Setting > System > General > General > Instant Play .
	Zoom	Click to enable digital zoom, then drag the mouse over the area that you want to enlarge. Right-click to undo digital zoom.
	Realtime Backup	Click to start recording video to a connected USB storage device. Click again to stop recording. To view the video clip, go to Main Menu > Operate > Search , select From I/O Device , and then double-click the file.
	Manual Snap	Click to save a still image of the video to a connected USB storage device. To view the captured image, go to Main Menu > Operate > Search , and then click the File List button.
	Mute	Click to mute the video sound (if applicable). Click again to enable sound. Note Mute only works in single-channel view.

Live View Toolbar

If enabled, the live view toolbar appears along the bottom of the live view screen.

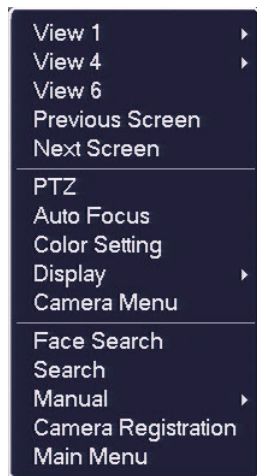


The toolbar is disabled by default. To enable it, right-click and go to **Main Menu > Setting > System > General > General** and select the **Navigation Bar** check box. Right-click twice to return to the live view screen. Click anywhere on the screen to display the toolbar.

	Main Menu	Opens the Main Menu .
	Expand/Collapse Toolbar	
	Screen Layout	Sets the screen layout to single-channel or multi-channel view.
	Previous/Next Screen	Navigate to the previous or next screen/channel.
	Tour Switch	Enables automatic cycling through channel views. See Configuring Tour Settings on page 124.
	Favorites	Add/edit favorites. You can configure and save your favorite screen layout(s) so you can access them quickly.
	Channel	Click to select a channel.
	Pan/Tilt/Zoom	Opens the PTZ control panel. See Controlling PTZ Cameras on page 36.
	Color	Opens the color setting window. See Setting the Monitor Picture on page 35.
	Search	Opens the playback interface. See Playing Back Video on page 45.
	Event	Opens the Event information window.
	Channel Info	Opens the Channel Info window.
	Network	Opens the Network window. See Configuring TCP/IP Settings on page 68.
	HDD Manage	Opens the HDD Manage window. See Configuring HDD Settings on page 111.
	USB Manager	Opens the USB Manager window.

Shortcut Menu

The shortcut menu is displayed by right-clicking anywhere on the screen in live view mode.



Configuring Live View

Setting the Screen Layout

The live view interface is configurable as a single-channel or multi-channel display.

To change the screen display format using the shortcut menu:

1. Right-click anywhere on the screen to display the shortcut menu.
2. Point to the view that you want (**View 1** is a single-channel layout, the rest are multi-channel layouts), and then click the channel(s) that you want to display.

To change the screen display format using the live view toolbar:

- Click a screen layout button on the live view toolbar.

To change the screen display format using the mouse:

- Rotate the mouse wheel button.

To move a channel to a different location in the multi-channel grid:

- Drag the channel to a new location in the multi-channel grid.
For example, to move channel 2 to the top left position occupied by channel 1, click channel 2, drag it to channel 1's position, then release the mouse button.

Setting the Monitor Picture

You can configure different monitor picture settings for up to two time periods per day to accommodate changing lighting conditions.

To configure monitor picture settings:

1. Right-click anywhere on the screen to display the shortcut menu.
2. Click **Color Setting**. The **Color** window opens.



3. In the **Effective Time** box, enter the time range during which the settings will apply (for example, during daylight conditions from 07:00 - 19:00).
4. In the **Color Mode** box, select one of the preconfigured modes (**Standard**, **Soft**, **Bright**, **Colorful**, **Bank**, or **Customized 1-4**) or customize your own settings.

To customize your own settings, click **Customized** and define the following settings:

- **Sharpness** (0–15)
- **Hue** (0–100)
- **Brightness** (0–100)
- **Contrast** (0–100)
- **Saturation** (0–100)

5. To configure settings for the remaining time, in the **Period** box, select **Time Period 2**, input the **Effective Time**, and select a **Color Mode** or adjust the settings manually.
6. Click **OK** to save your settings.

Controlling PTZ Cameras

This section describes how to configure PTZ connection settings, how to access the PTZ control panel, and how to configure and call PTZ presets, tours, and patterns.

Configuring PTZ Connection Settings

Before you can control a PTZ camera with the DVR, you must configure connection settings. The settings at the DVR must match the settings at the PTZ.

To configure the PTZ connection settings:

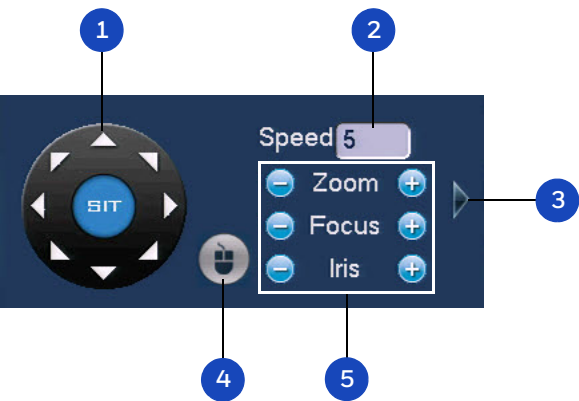
1. Go to **Main Menu > Setting > System**.
2. In the left navigation pane, click **PTZ**.

3. Configure the following settings:
 - **Channel** Select the channel (camera) that you want to configure PTZ settings for.
 - **Control Mode** If you want to control the PTZ camera via RS485 serial communication, select **Serial**. Otherwise, leave it as **HQA**.
 - **Protocol** Select the protocol used by the PTZ camera.
 - **Address** If there are multiple PTZ cameras, enter the PTZ camera's address (ID).
 - **Baudrate** Select a value between **1200** and **115200**. The default setting is **9600**.
 - **Data Bits** Select a value between **5** and **8**. The default setting is **8**.
 - **Stop Bits** Select **1**, **1.5**, or **2**. The default setting is **1**.
 - **Parity** Select **None**, **Odd**, **Even**, **Mark**, or **Space**.
4. Click **Apply**, and then click **Save** to save your settings and exit.

Working with the PTZ Control Panel

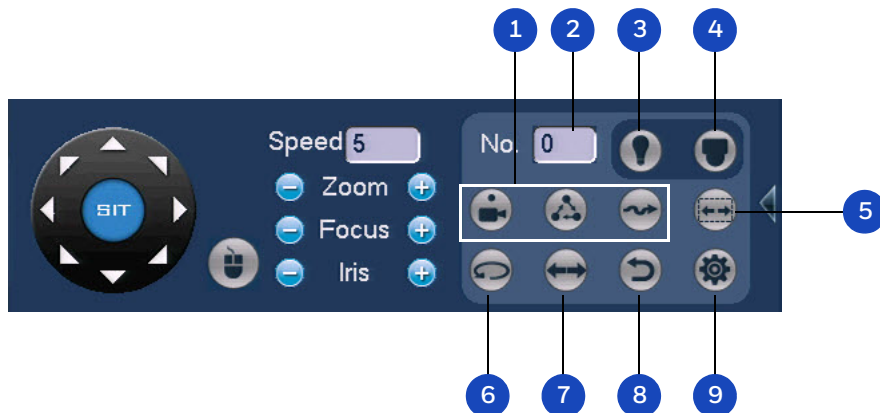
You can control a PTZ camera connected to the DVR's RS485 serial port using the on-screen PTZ control panel.

Basic PTZ Control Panel



#	Name	Function
1	Direction keys	Direct camera movement.
2	Speed	Adjust the camera speed. Select a value between 1 and 8 .
3	Expand Arrow	Expand the control panel to display additional options.
4	PTZ Trace	Direct camera movement by dragging the mouse. Zoom in and out by rotating the wheel button.
5	Zoom, Focus, Iris	Adjust the camera's zoom, focus, and iris settings: - Decrease zoom (–), increase zoom (+) - Focus near (–), focus far (+) - Iris close (–), iris open (+)

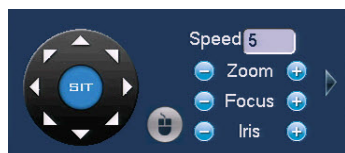
Expanded PTZ Control Panel



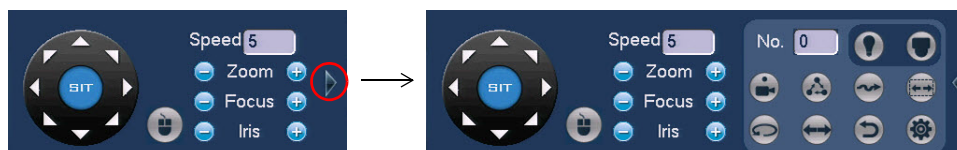
#	Name	Function
1	Preset, Tour, Pattern	Configures/calls PTZ functions.
2	No.	Enter number of PTZ function to call.
3	AUX	Calls auxiliary functions.
4	Enter Menu	Enables up-the-coax OSD menu configuration for non-PTZ cameras.
5	AutoScan	Causes camera to continually pan between two points that you have defined.
6	AutoPan	Causes camera to continually rotate 360 degrees.
7	Flip	Causes camera to rotate 180 degrees.
8	Reset	Restores default settings.
9	AUX Config	Opens menu for configuring auxiliary settings.

To display the PTZ control panel:

1. Right-click anywhere on the screen to display the shortcut menu.
2. Click **Pan/Tilt/Zoom**. The PTZ control panel opens.



3. To expand the PTZ control panel, click the arrow at the right side of the panel.



Configuring PTZ Functions

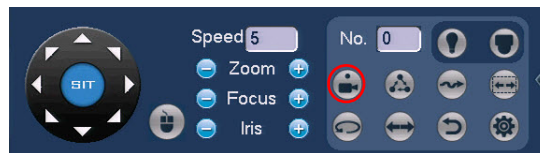
You can configure presets, tours, patterns, and borders using the PTZ control panel.

Configuring PTZ Presets

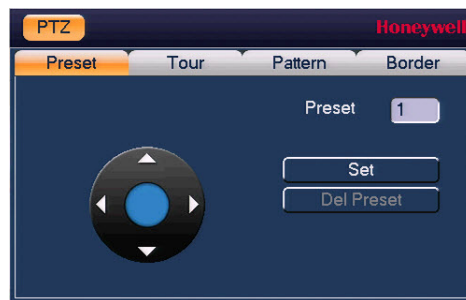
You can program preset positions for the PTZ camera. For example, you can point the camera at a specific location, such as a doorway, when an alarm event occurs.

To program a preset:

1. On the expanded PTZ control panel, click the **Preset** button.



2. Use the direction arrows to point the camera where you want to set as the preset, and then click **Set**.



3. In the **Preset** box, enter a number for the preset, and then click **Set** to save your settings.
- To program additional presets, repeat steps 1 through 3.
 - To delete a preset, enter the number of the preset that you want to delete in the **Preset** box, and then click **Del Preset**.

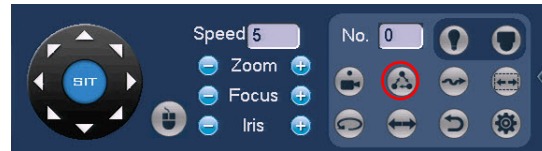
Note Some protocols do not support the **Del Preset** function.

Configuring PTZ Tours

You can set up the PTZ camera to go from preset to preset in a specific order.

To program a tour:

1. On the expanded PTZ control panel, click the **Tour** button.



2. In the **Preset** box, enter the number of the first preset that you want to add to the tour.



3. In the **Patrol No.** box, enter a number for the tour.
4. Click **Add Preset** to add the preset to the tour.
5. Repeat steps 1 through 5 to add additional presets to the tour.
 - To delete a preset, enter the number of the preset that you want to delete in the **Preset** box, and then click **Del Preset**.
 - To delete a tour, enter the number of the tour that you want to delete in the **Patrol No.** box, and then click **Del Tour**.

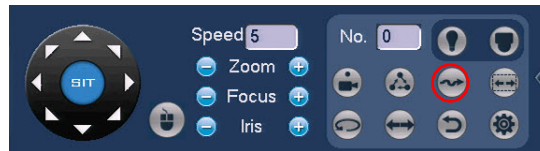
Note Some protocols do not support the **Del Preset** function.

Configuring PTZ Patterns

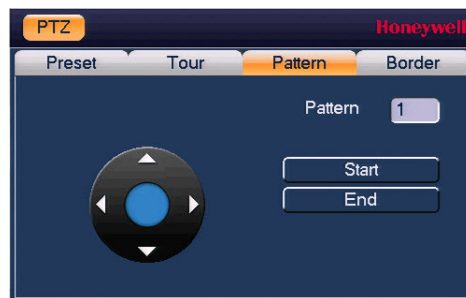
You can record a series of PTZ movements as a pattern. When you call the pattern in live view mode, the PTZ camera automatically moves along the path you have defined.

To program a pattern:

1. On the expanded PTZ control panel, click the **Pattern** button.



2. In the **Pattern** box, enter a number for the pattern.



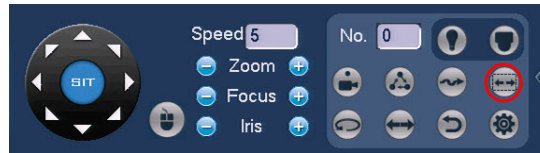
3. Click **Start**, and then use the direction arrows to direct the camera.
4. When you have finished directing the camera, click **End**.

Configuring PTZ Borders

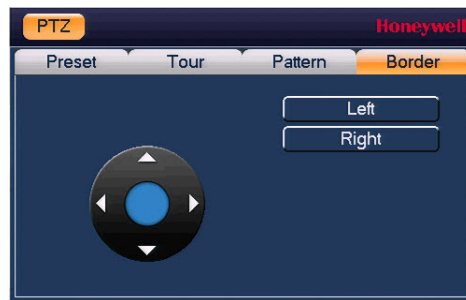
You can define the left and right borders of the PTZ camera's pan movement.

To program a scan:

1. On the expanded PTZ control panel, click the **AutoScan** button.



2. Use the direction arrows to set the camera's leftmost limit, then click **Left**.

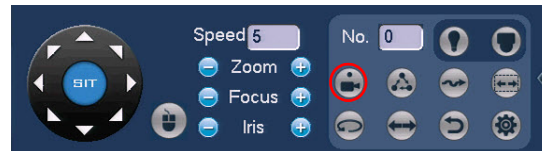


3. Use the direction arrows to set the camera rightmost limit, then click **Right**.

Calling Presets, Tours, and Patterns

To call a preset:

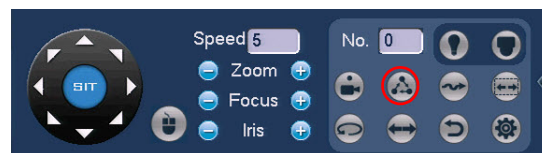
1. On the expanded PTZ control panel, in the **No.** box, enter the number of the preset that you want to call, and then click the **Preset** button.



2. Click the **Preset** button again to stop calling the preset.

To call a tour:

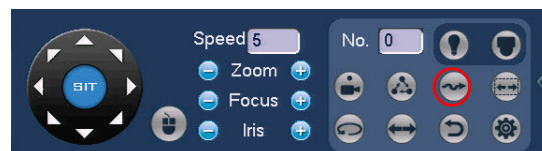
1. On the expanded PTZ control panel, in the **No.** box, enter the number of the tour that you want to call, and then click the **Tour** button.



2. Click the **Tour** button again to stop calling the tour.

To call a pattern:

1. On the expanded PTZ control panel, in the **No.** box, enter the number of the pattern that you want to call, and then click the **Pattern** button.



2. Click the **Pattern** button again to stop calling the pattern.

4

Playing Back Video

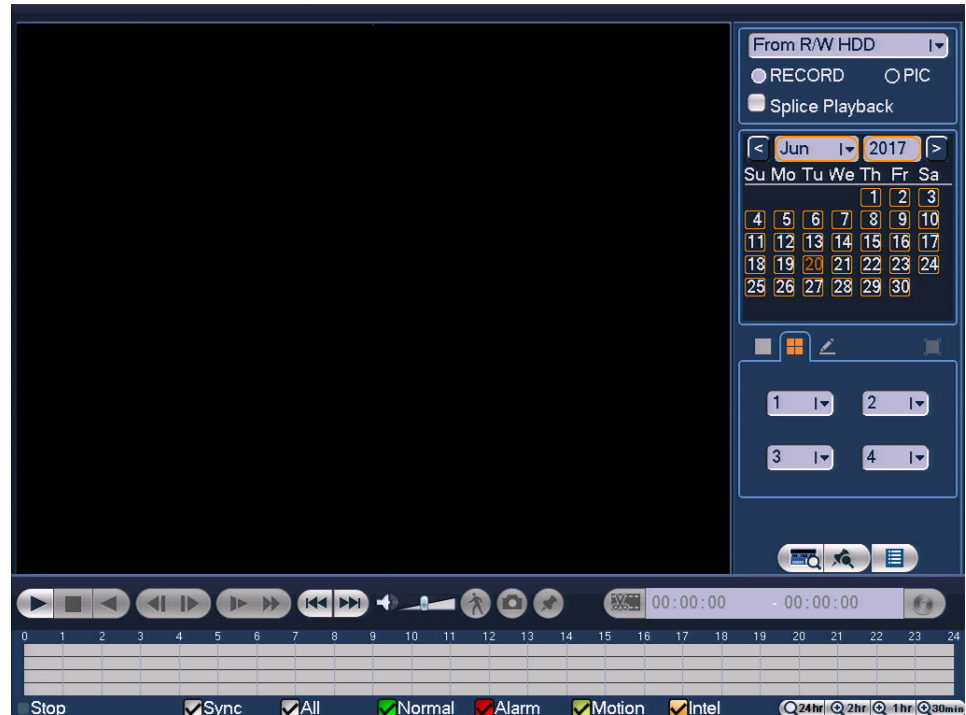
This chapter contains the following sections:

- [*Searching For and Playing Back Video, page 46*](#)
- [*Playing Back Video Using Smart Search, page 47*](#)
- [*Marking Video, page 48*](#)
- [*Splicing Playback, page 50*](#)
- [*Playing Back Snapshots, page 51*](#)
- [*Backing Up Video and Snapshots, page 52*](#)

Searching For and Playing Back Video

To search for and play back recorded video by date:

1. Go to **Main Menu > Operate > Search**. The playback interface opens.

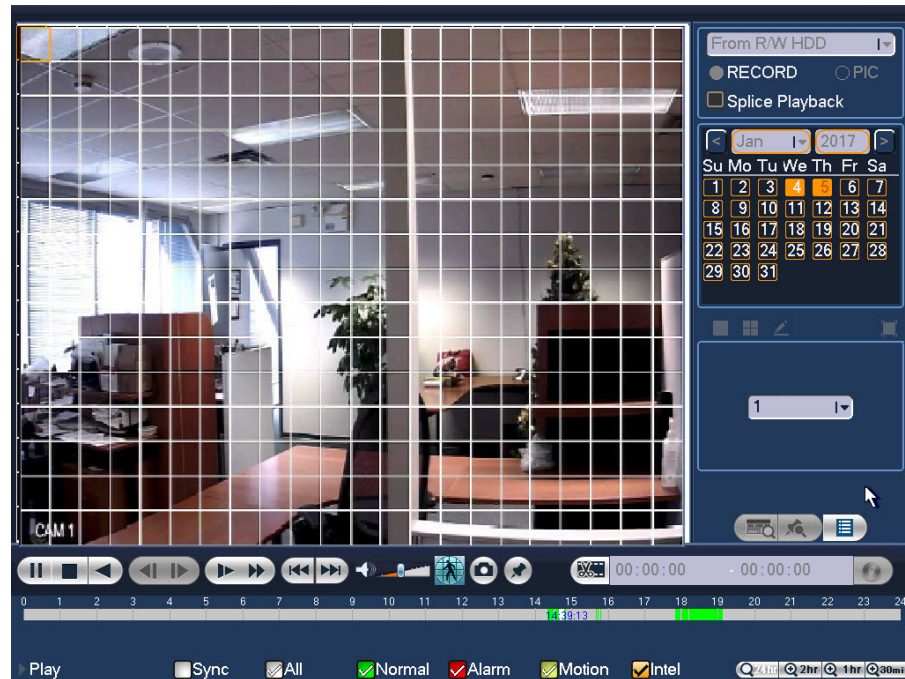


2. On the right panel of the playback interface, in the calendar area, click the date(s) that you want to search. Dates with recorded video are solid orange.
3. Below the calendar, select the screen layout that you want to use, and then select the channel(s) that you want to search.
4. At the bottom of the screen, select the recording type(s) that you want to search (**Normal**, **Alarm**, **Motion**, **Intel**) or select **All** to search all recording types.
5. Click the **File List** button  to display the list of search results.
6. From the list of search results, double-click the recorded video file that you want to play back. The video begins playing in the playback window.
7. Use the playback controls at the bottom of the screen to control playback. Playback modes include slow play, fast play, reverse play, and frame-by-frame playback.
8. To jump forward or backward in the video, click in the timeline at the desired time. To zoom in or out on the timeline, click one of the options in the lower right corner of the screen: **24 h**, **12 h**, **1 h**, or **30 min**.

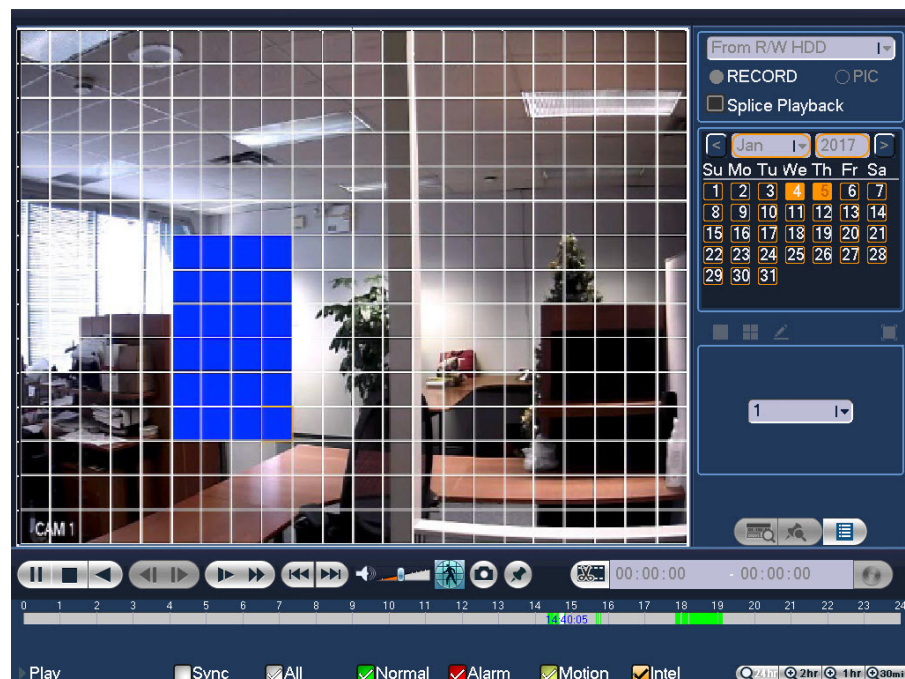
Playing Back Video Using Smart Search

To quickly locate activity using Smart Search:

1. During video playback, click the **Smart Search** button. A grid is superimposed over the playback window.



2. Drag the mouse over the area that you want to search for activity.



- Click the **Smart Search** button again. Playback jumps to all the parts of the video where there is activity in that area.



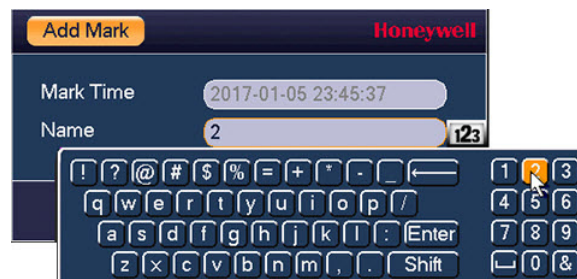
- To exit Smart Search, click the **Smart Search** button again. A confirmation message appears. Click **OK** to continue.

Marking Video

During video playback, you can mark the video where something important happens.

To mark video during playback:

- Click the **Add Mark** button . The **Add Mark** window opens.
- Enter an identifying name or description in the **Name** field, and then click **OK**.



To view marked video:

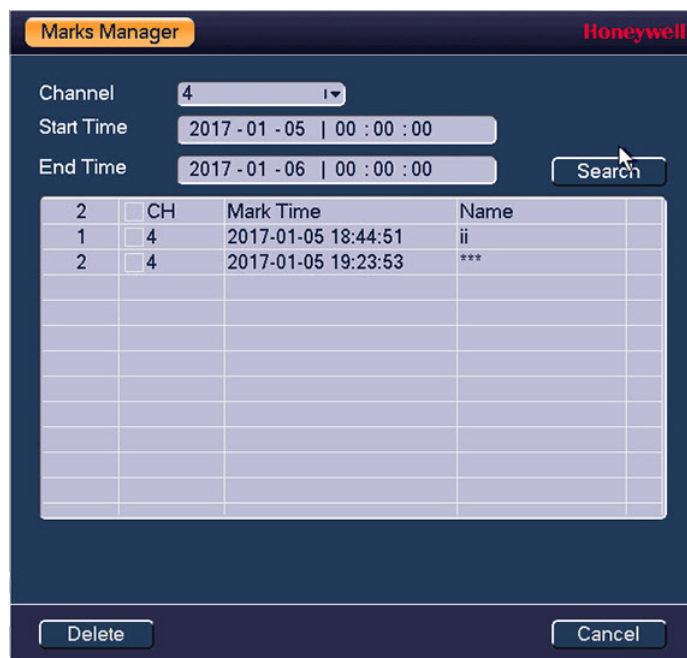
1. Click the **Mark List** button . A list of marked video files appears, sorted by time and name.
2. You can search the list by time or by name.
 - To search by time, enter a time in the search box above the list, then click the **Search** button .
 - To search by name, enter the name in the **Name** field.
3. To start playing before the marked time, enter the lead-in time in seconds in the **Play time before the mark** field.
4. Double-click a marked video file to start playing it.



Note You must be in the single-channel layout mode to access the list of marked files.

To manage marked video files:

1. Below the list of marked video files, click the **Marks Manager** button . The **Marks Manager** window opens.



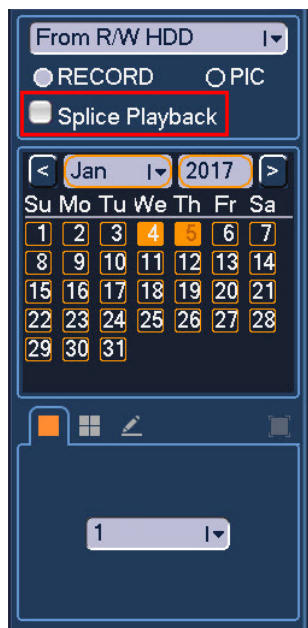
2. To edit the name of a marked video file, double-click it, enter a new name, and then click **OK**.
3. To delete a marked video file, select it, and then click **Delete**.

Splicing Playback

You can play different sections of the same video file simultaneously using the **Splice Playback** feature.

To simultaneously view multiple sections of a recorded video file:

1. In the playback interface, select the **Splice Playback** check box.



2. Select the recorded video that you want to view.

Triangles appear in the timeline to mark each section of the file.



3. Click **Play** to view the file.

Note The minimum period for each section is 5 minutes. If a recording is less than 20 minutes, select 4-channel view mode.

Playing Back Snapshots

To search for and play back snapshot images by date:

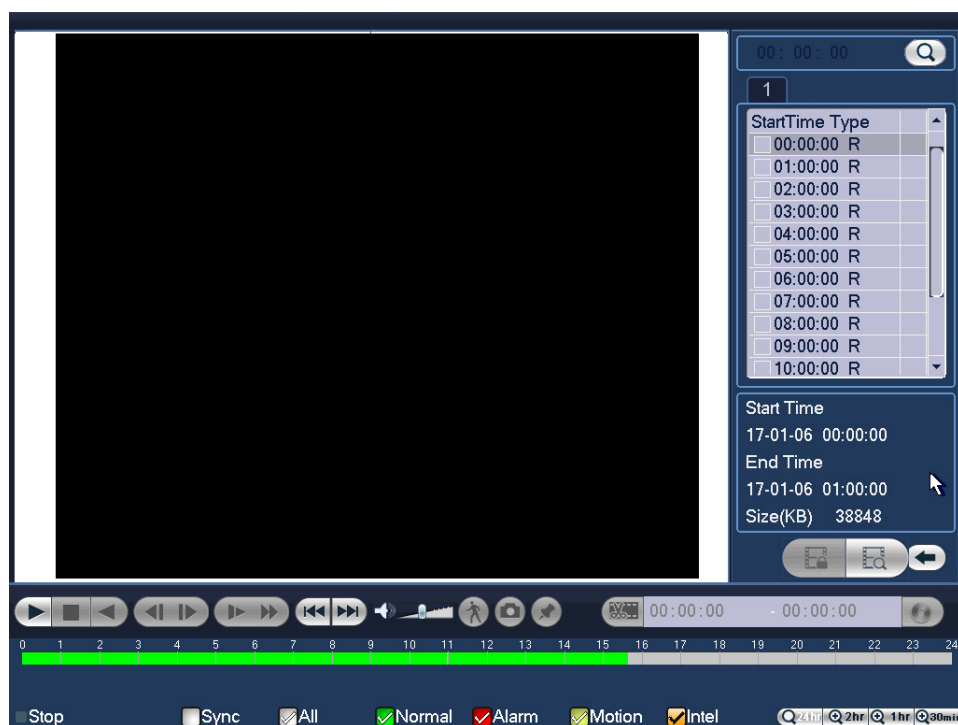
1. Go to **Main Menu > Operate > Search**. The playback interface opens.
2. On the right panel, below the search type box at the top of the panel, select **PIC**.
3. In the **Interval** box, enter the playback interval in seconds. Enter a time between **1** and **60** seconds. The default setting is **1** second.
4. In the calendar area, click the date(s) that you want to search. Dates with saved snapshots are solid orange.
5. Below the calendar, select the screen layout that you want to use, and then select the channel(s) that you want to search.
6. Click the **File List** button to display the list of search results.
7. In the list of search results, double-click the snapshot file that you want to play back. The snapshot appears in the playback window.
8. Playback cycles through all of the snapshot files in the file list at the interval you specified in the **Interval** box. To pause playback, click the **Pause** button in the control panel below the playback window. To go to the next snapshot, click the **Next Frame** button. To go to the previous snapshot, click the **Prev Frame** button.

Note The green time bar in the snapshot playback interface only shows approximately when snapshots were taken. Click **File List** to do an accurate search.

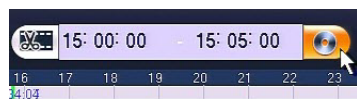
Backing Up Video and Snapshots

To back up from inside the playback interface:

1. Insert a USB storage device (such as a USB flash drive) into one of the USB ports on the DVR.
2. Search for the recorded video or snapshot file(s) that you want to back up (see [Searching For and Playing Back Video](#) on page 46 and [Playing Back Snapshots](#) on page 51).
3. Click the **File List** button to display the list of search results.
4. In the list of search results, select the check box(es) of the file(s) that you want to back up.



Alternatively, during video playback, in the video clip time field, enter the desired start time and end time, and then click the **Backup** button.



The **Backup** window opens, displaying the selected video file/clip.

5. In the **Backup** window, click **Backup**.

0	Name(Type)	Free Space/Total Space	Device Status

1	CH	Type	Start Time	End Time	Size(KB)
1	✓	1 R	17-12-22 15:00:00	17-12-22 15:05:00	1589

Space Required / Space Remaining: 1.55 MB/0.00 KB

The **Browse** window of the USB storage device opens.

Device Name:

Total Space: Free Space:

Address:

Name	Size	Type	Delete
urDrive		Folder	X
..Trashes	4.0 KB	File	X
unInstaller.exe	352.8 KB	File	X
urDrive.exe	1.85 MB	File	X

6. Click **Start** to back up the file(s). If the backup is successful, the message "Backup finished" appears.

Note If there are too many files in the selected time, only the first 1024 files in the search period will be displayed. Refine the **Start Time** and **End Time** to find the desired files for backup.

5. Select the check box(es) of the file(s) that you want to back up, then click **Backup**. The **Browse** window of the USB storage device opens.
6. Click **OK** to back up the file(s).

Configuring Camera Settings

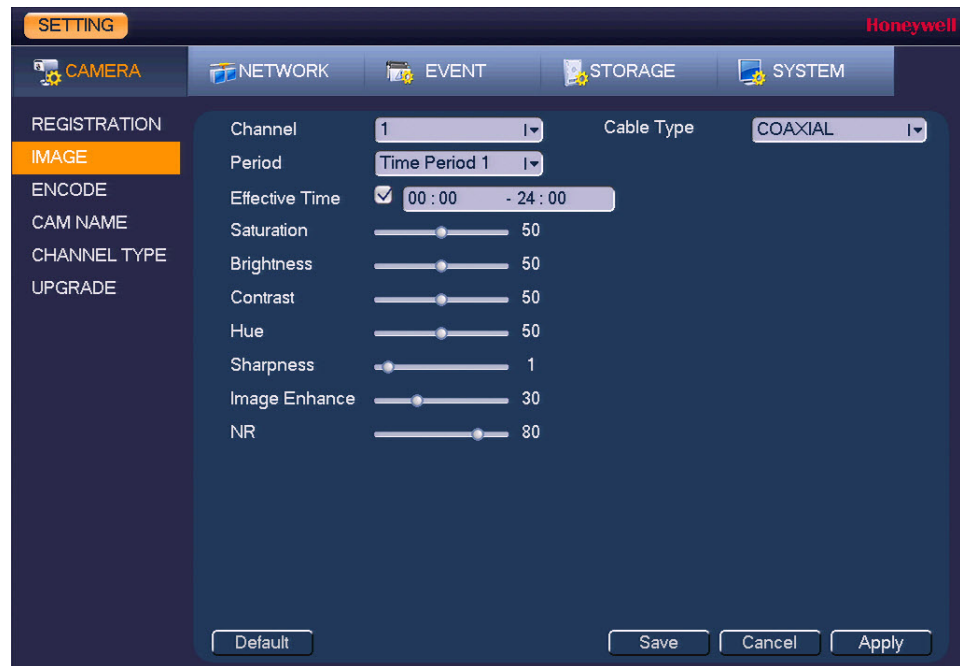
This chapter contains the following sections:

- [Configuring Image Settings, page 58](#)
- [Configuring Encoding Settings, page 59](#)
- [Configuring Snapshot Settings, page 60](#)
- [Configuring Privacy Mask Settings, page 61](#)
- [Configuring the Text Overlay, page 62](#)
- [Changing a Camera Name, page 63](#)
- [Changing a Channel Type, page 64](#)
- [Adding an IP Camera, page 65](#)

Configuring Image Settings

To configure a camera's image settings:

1. Go to **Main Menu > Setting > Camera > Image**.



2. In the **Channel** box, select the camera that you want to configure.
3. If the camera is an analog camera, in the **Cable Type** box, select the camera cable type: **Coaxial** or **UTP**.
4. In the **Period** box, select a time period for the image settings. These image settings will be used only during this period.
5. In the **Effective Time** box, click to enter the start and end times for the period you selected.
6. Configure the image saturation, brightness, contrast, hue, sharpness, enhancement, and noise reduction settings by moving the slider to the desired value.
 - **Saturation** Select a value between **0** and **100**. The default setting is **50**.
 - **Brightness** Select a value between **0** and **100**. The default setting is **50**.
 - **Contrast** Select a value between **0** and **100**. The default setting is **50**.
 - **Hue** Select a value between **0** and **100**. The default setting is **50**.
 - **Sharpness** Select a value between **0** and **15**. The default setting is **1**.
 - **Image Enhance** Select a value between **0** and **100**. The default setting is **30**.
 - **NR** Select a value between **0** and **100**. The default setting is **50**.
7. Click **Apply** to save your settings.

Configuring Encoding Settings

To configure camera video and audio encoding settings:

1. Go to **Main Menu > Setting > Camera > Encode**.

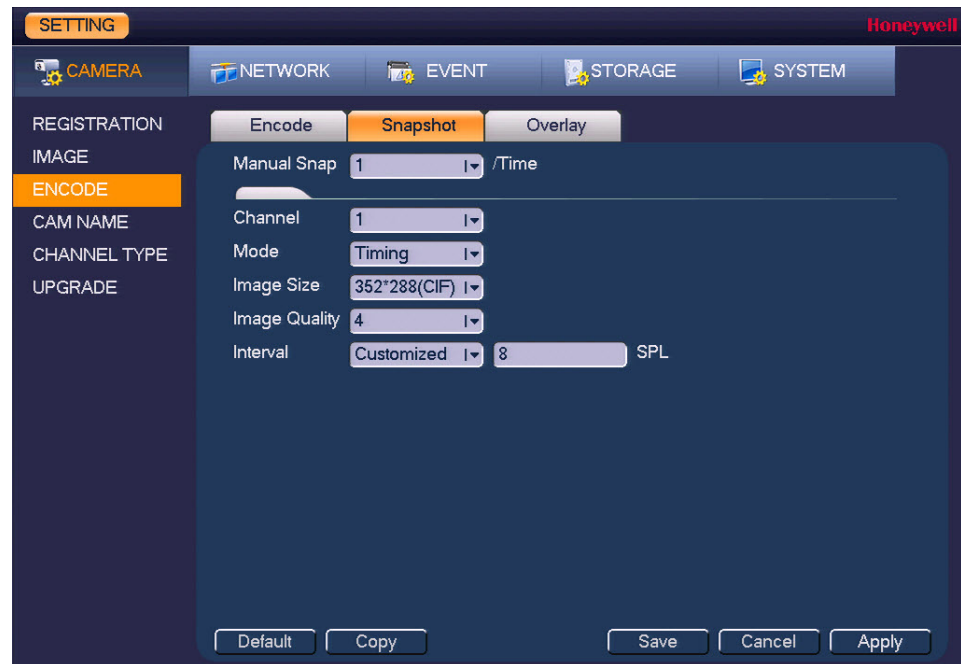
2. On the **Encode** tab, in the **Channel** box, select the camera that you want to configure.
3. Configure the following settings for the primary stream and secondary stream:
 - **Type** Set the primary stream type as **Regular**, **MD** (Motion Detection), or **Alarm**. The secondary stream type is not configurable.
 - **Compression** Select a compression standard from the list.
 - **Smart Codec** Reduces the video bit stream for unimportant recorded video to maximize storage space. To enable this function, select **Start**.
 - **Resolution** Select a resolution from the list.
 - **Frame Rate** Select a frame rate from the list (**1–30** for NTSC; **1–25** for PAL).
 - **Bit Rate Type** Set as **CBR** (constant bit rate) or **VBR** (variable bit rate).
 - **Quality** If the bit rate type is set to **VBR**, select a value between **1** (lowest quality) and **6** (highest quality).
 - **I Frame Interval** Set as **1 S** or **2 S** (default).
 - **Bit Rate** Select a bit rate from the list or click **Customized** to enter a different bit rate.
 - **Audio/Video** Select or clear the check boxes to enable or disable audio and/or video.
 - **Audio Format** Set to **G711a**, **PCM**, or **G711u** (=G711μ).
 - **Audio Source** Set to **Local**.
4. Click **Apply** to save your settings.

5. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Snapshot Settings

To configure camera snapshot settings:

1. Go to **Main Menu > Setting > Camera > Encode > Snapshot**.

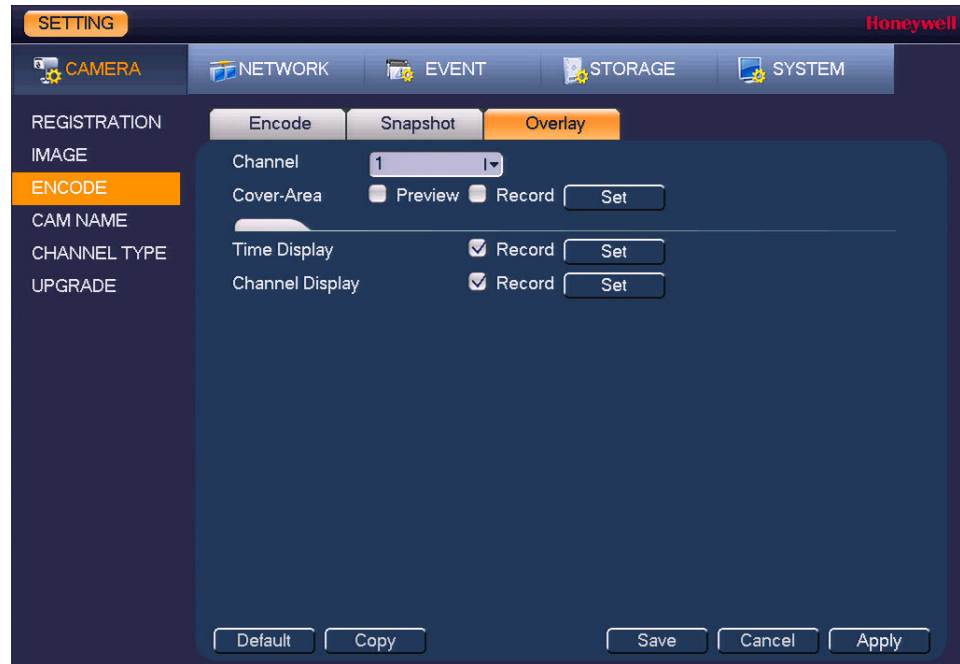


2. In the **Channel** box, select the camera that you want to configure snapshot settings for.
3. Set **Mode** to **Timing** or **Trigger**.
 - **Timing** Use this setting for scheduled snapshots.
 - **Trigger** Use this setting for snapshots triggered by motion, video loss, video tampering, or alarm events.
4. Set **Image Quality** to a value between **1** (lowest quality) and **6** (highest quality).
5. Set **Interval** to a value between **1 SPL** (shortest interval) and **7 SPL** (longest interval). It is the period, in seconds, that the DVR waits between each snapshot.
6. Click **Apply** to save your settings.
7. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Privacy Mask Settings

To configure camera privacy mask settings:

1. Go to **Main Menu > Setting > Camera > Encode > Overlay**.

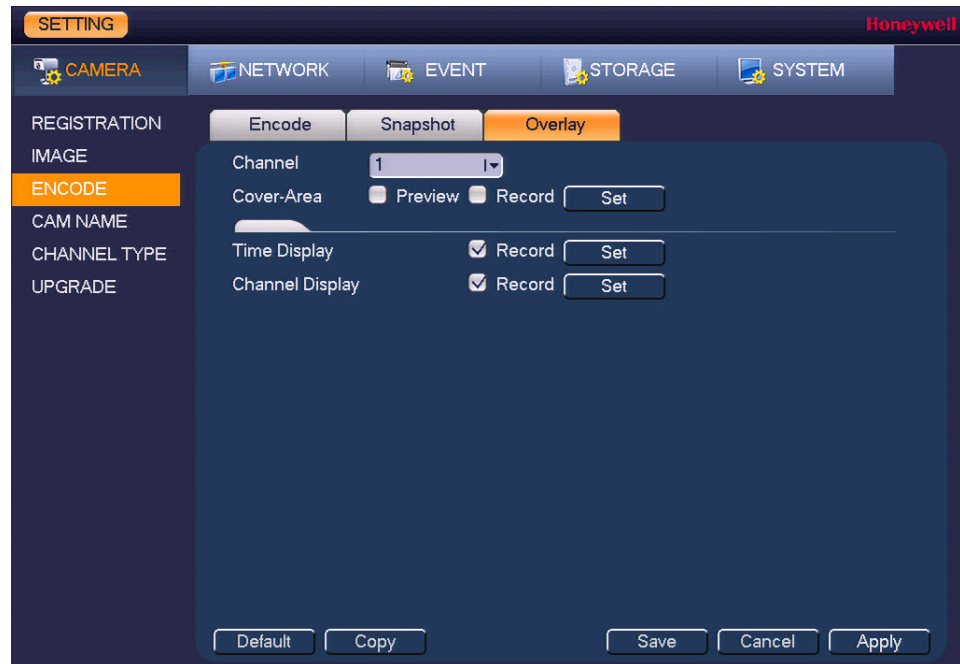


2. In the **Channel** box, select the camera that you want to configure privacy mask settings for.
3. Next to **Cover-Area**, select one or both of the following options:
 - **Preview** Use this setting to apply privacy masks in live view mode.
 - **Record** Use this setting to apply privacy masks in recording mode.
4. Select the number of privacy masks to apply by selecting the numbered check boxes. To apply only one privacy mask, select only one of the check boxes. To apply four privacy masks, select all of the check boxes.
5. Click **Set**. The privacy mask(s) appear on the screen.
6. Set the position and size of the privacy mask(s):
 - To change the position of the privacy mask, place the mouse pointer in the center of the mask. When the border turns green and the pointer becomes a four-headed arrow, drag the mask to the desired position on the screen.
 - To change the size/shape of the privacy mask, place the mouse pointer over one of the edges or corners of the mask. When the border turns green and the pointer becomes a double-headed arrow, drag the edge or corner as needed.
7. Right-click to return to the previous configuration page, then click **Apply** to save your settings.
8. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring the Text Overlay

To configure camera text overlay settings:

1. Go to **Main Menu > Setting > Camera > Encode > Overlay**.



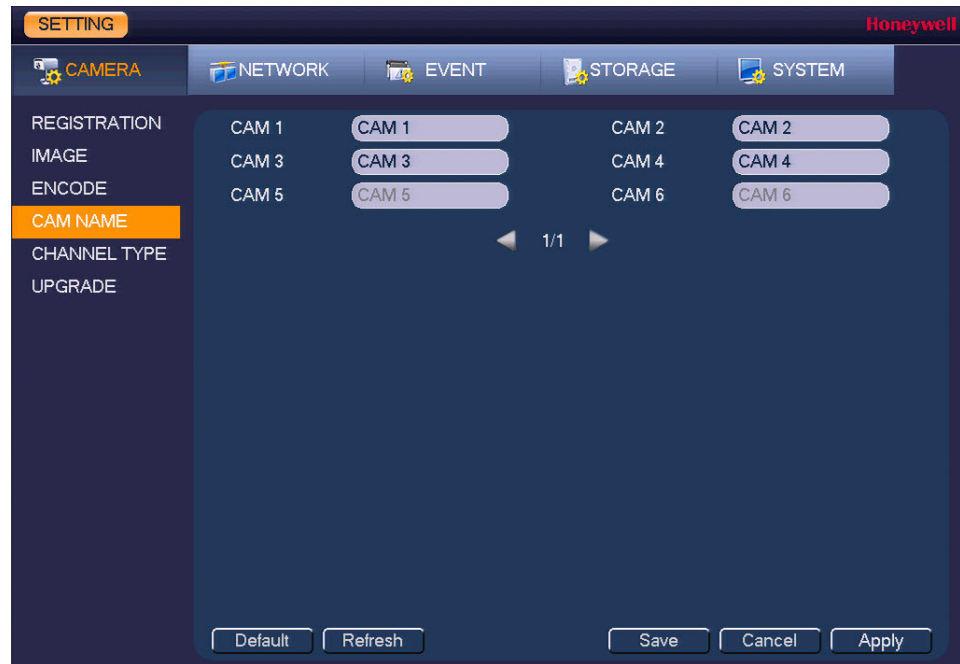
2. In the **Channel** box, select the camera that you want to configure text overlay settings for.
3. Set the time and/or channel displays:
 - To set the time display, next to **Time Display**, select the **Record** check box, and then click **Set**. Drag the time display to the desired position on the screen, right-click, and then click **Apply**.
 - To set the channel display, next to **Channel Display**, select the **Record** check box, and then click **Set**. Drag the channel display to the desired position on the screen, right-click, and then click **Apply**.
4. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Changing a Camera Name

By default, the cameras are named "CAM 1", "CAM 2", "CAM 3," and so on. You can assign each camera a descriptive name specific to your application (for example, "Front Entrance").

To rename a camera:

1. Go to **Main Menu > Setting > Camera > Cam Name**.



2. Click the text box of the camera that you want to rename, then enter the new name.
3. Click **Apply** to save your settings.

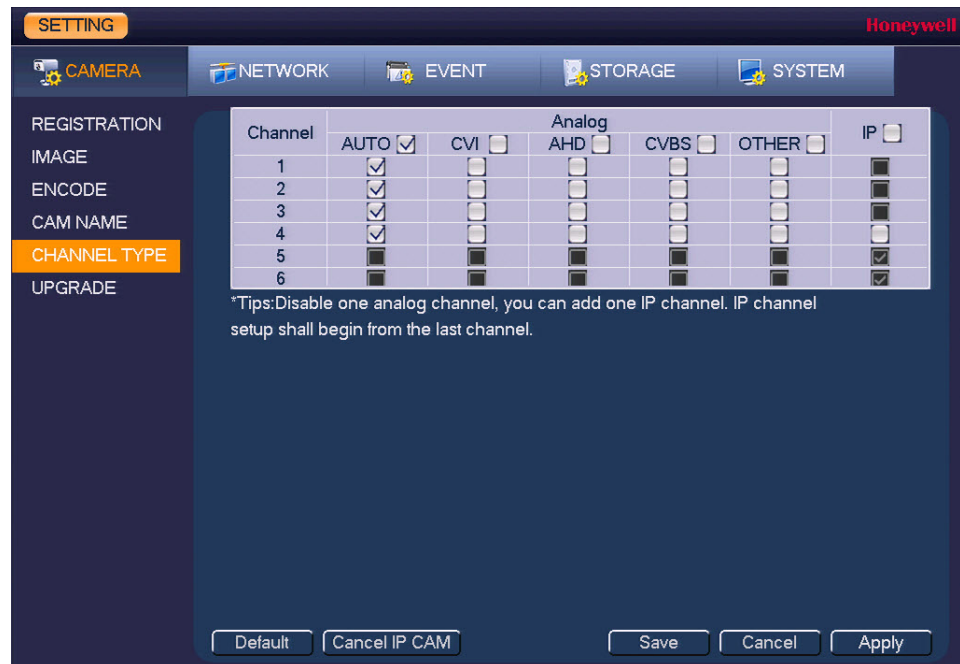
Changing a Channel Type

The 4-channel DVR (pictured) supports up to 4 analog channels and 2 IP channels. The 8-channel DVR supports up to 8 analog channels and 4 IP channels. The 16-channel DVR supports up to 16 analog channels and 8 IP channels.

By default, the channel type is set to **Auto**. Other analog options are **CVI**, **AHD**, **CVBS**, or **Other**. You can also designate 2 or more channels for IP cameras.

To change a channel type:

1. Go to **Main Menu > Setting > Camera > Channel Type**.



2. Select the check box(es) of the desired channel type(s).
3. Click **Apply**, and then click **Save** to save your settings.

Designating IP Channels

You can let the DVR designate IP channels automatically or you can designate them manually. If you want to add more IP channels than the default amount (2, 4, or 8, depending on your DVR model), you can manually designate analog channels as IP channels.

To designate IP channels automatically:

1. Go to **Main Menu > Setting > Camera > Channel Type**.
2. Click **Add IP CAM**.
3. A message appears prompting you to restart the DVR. Click **OK** to continue.

When the DVR restarts, new IP channels are added to the list of channels. On a 4-channel DVR, channels 5 and 6 are the default IP channels. On an 8-channel DVR, channels 9–12 are the default IP channels. On a 16-channel DVR, channels 17–24 are the default IP channels.

To designate IP channels manually:

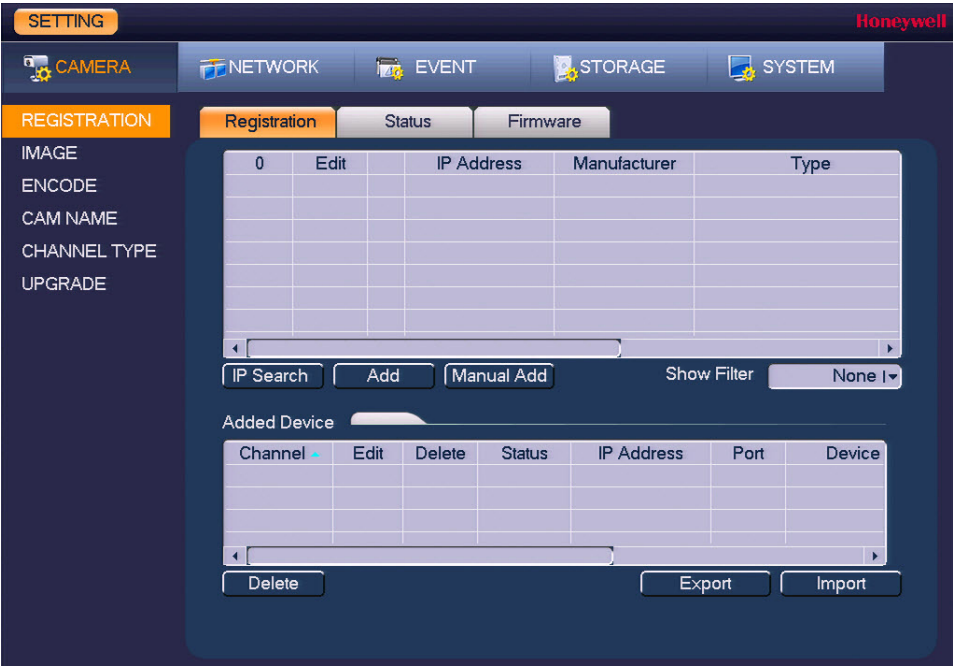
1. Go to **Main Menu > Setting > Camera > Channel Type**.
2. Select one or more available check boxes in the **IP** column, or select the **IP** check box to designate all the channels as IP.
3. Click **Apply**.
4. A message appears prompting you to restart the DVR. Click **OK** to continue.
You are now ready to add IP cameras to the channels that you have designated.

Adding an IP Camera

You must first designate IP channels and restart the DVR before you can see the **Registration** tab. See [Designating IP Channels](#) on page 64.

To add an IP camera to the DVR:

1. Go to **Main Menu > Setting > Camera > Registration**.



2. Click **IP Search** to discover any IP cameras on the network. All discovered cameras appear in the top list.
3. To add a discovered camera, select the camera, and then click **Add**. Or, if you want, click **Manual Add** to create a profile manually. The camera is added to the **Added Device** list.

Note If you intend to configure the offline alarm function for the IP camera (see [Configuring IP Camera Offline Alarms](#) on page 101), you should add the camera manually.

To edit the settings of an IP camera that you have added:

1. In the **Added Device** list, select the camera whose settings you want to edit, and then click **Edit**.
2. You can edit the following settings:
 - **Channel** Select a channel from the list.
 - **Manufacturer** Select a manufacturer from the list.
 - **IP Address** Enter the camera's IP address.
 - **TCP Port** Enter the camera's TCP port (optional).
 - **User Name** Enter the camera's admin user name.
 - **Password** Enter the camera's admin user password.
 - **Remote Channel** Select the video stream that you want to view.
 - **Decoder Buffer** Select a decoder buffer from the drop-down list: **Default**, **Realtime**, or **Fluent**.
3. Click **OK** to save your settings. If you want to export the IP camera settings to a connected USB storage device, click **Export**.

To import previously saved IP camera configuration settings:

1. Connect a USB storage drive containing the configuration file (RemoteConfig_YYYYMMDDXXXXX.csv).
2. On the **Main Menu > Setting > Camera > Registration** page, click **Import**.
3. Select the configuration file, and then click **OK**.

To remove an IP camera from the DVR:

- On the **Main Menu > Setting > Camera > Registration** page, in the **Added Device** list, select the camera that you want to remove, and then click **Delete**.

6

Configuring Network Settings

This chapter contains the following sections:

- [Configuring TCP/IP Settings, page 68](#)
- [Configuring Port Settings, page 69](#)
- [Configuring Wireless Connection Settings, page 70](#)
- [Configuring Advanced Network Settings, page 72](#)
- [Connecting to the DVR Remotely, page 80](#)

Configuring TCP/IP Settings

On the **TCP/IP** page, you can set your IP protocol version and configure a static or dynamic IP address. By default, the DVR is assigned a static IP address: **192.168.1.108**. In most cases, you will want to switch to a dynamic address.

To configure TCP/IP settings:

1. Go to **Main Menu > Setting > Network > TCP/IP**.

The screenshot shows the Honeywell DVR's web interface for configuring TCP/IP settings. The top navigation bar includes 'SETTING', 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The 'NETWORK' menu is selected, and the 'TCP/IP' sub-menu is active. The main configuration area includes the following fields and options:

- IP Version:** A dropdown menu set to 'IPv4'.
- MAC Address:** A text field displaying '20:13:12:26:12:23'.
- Mode:** Radio buttons for 'STATIC' (selected) and 'DHCP'.
- IP Address:** A text field displaying '192 . 168 . 1 . 108' with a 'Test' button to its right.
- Subnet Mask:** A text field displaying '255 . 255 . 255 . 0'.
- Default Gateway:** A text field displaying '192 . 168 . 1 . 1'.
- Preferred DNS:** A text field displaying '8 . 8 . 8 . 8'.
- Alternate DNS:** A text field displaying '8 . 8 . 4 . 4'.
- MTU:** A text field displaying '1500'.
- LAN Download:** A checkbox that is currently unchecked.

At the bottom of the configuration area, there are four buttons: 'Default', 'Save', 'Cancel', and 'Apply'.

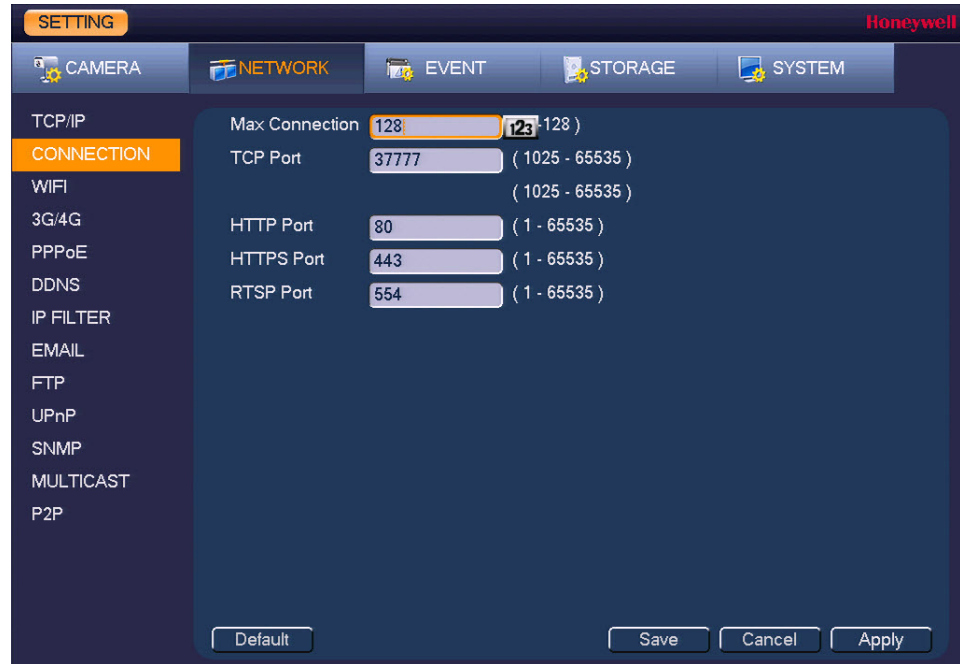
2. In the **IP Version** box, select **IPv4** or **IPv6**, depending on the Internet protocol that you want to use.
3. By default, **Mode** is set to **Static**. To configure a dynamic IP address, select **DHCP**, click **Apply**, and then click **Save**. Re-enter the **Network** screen. The **IP Address**, **Subnet Mask**, and **Default Gateway** fields will have populated with new settings. Click **Test** to ensure that the new IP address works.
4. If **Mode** is set to **Static**, you can manually enter **IP Address**, **Subnet Mask**, and **Default Gateway** information. Click **Test** to ensure that the new IP address works.
5. If you want, enter **Preferred DNS** and **Alternate DNS** addresses.
6. By default, the **MTU** value is set to **1500** bytes. The MTU value specifies the maximum amount of data a single network packet is able to transfer. If you want, you can change this value.
7. To increase the download speed over the local area network (LAN), select the **LAN Download** check box. Data is downloaded 1.5 to 2 times faster than normal.
8. Click **Apply**, and then click **Save** to save your settings.

Configuring Port Settings

On the **Connection** page, you can set the maximum number of simultaneous users and view and edit port information. Many ISPs block port 80, the default HTTP port, so you may want to change it to a non-standard port number (such as 37776) if you want to log in to the DVR remotely over an HTTP connection.

To configure port settings:

1. Go to **Main Menu > Setting > Network > Connection**.



2. You can configure the following settings:
 - **Max Connection** Select a value between **0** and **128**. The default setting is **128**.
 - **TCP Port** Select a value between **1025** and **65535**. The default setting is **37777**.
 - **HTTP Port** Select a value between **0** and **65535**. The default setting is **80**.
 - **HTTPS Port** Select a value between **0** and **65535**. The default setting is **443**.
 - **RTSP Port** Select a value between **0** and **65535**. The default setting is **554**.
3. Click **Apply**.
4. You are prompted to restart the DVR. Click **OK** to continue. After the DVR restarts, return to the **Connection** page to verify that the port settings have changed.

Note Ensure that the port settings do not conflict with each other and that the ports are open. You can verify if a port is open or closed by visiting www.canyouseeme.org. If a port is not open, you can set up port forwarding on your router.

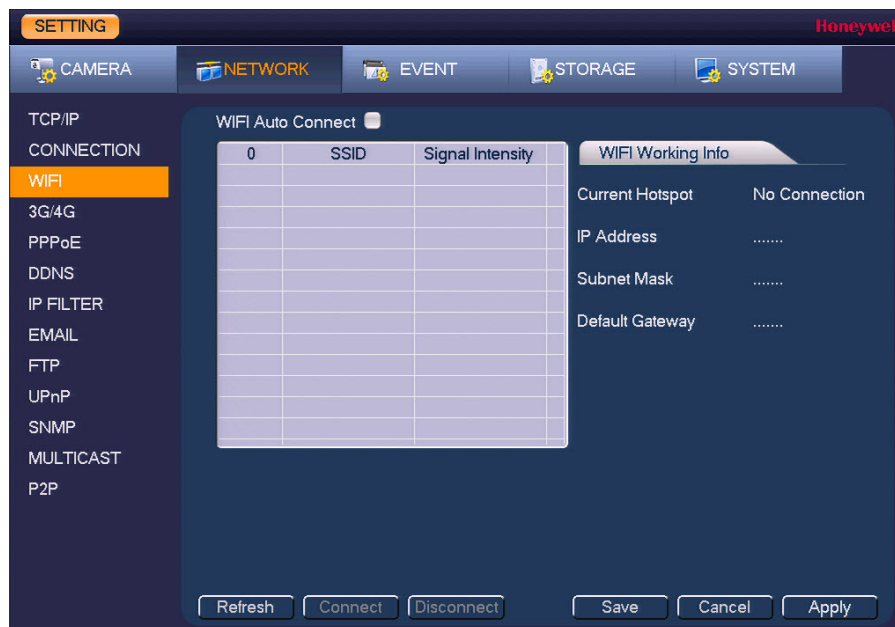
Configuring Wireless Connection Settings

To access the DVR's wireless capability, you must connect a wireless USB adapter to the one of the DVR's USB ports. Tested models include the following:

Manufacturer	Model	Description
Huawei	E1550	3G USB modem for accessing CDMA 3G/4G mobile broadband networks.
	EC122	3G USB modem for accessing CDMA 3G/4G mobile broadband network
Zone Bridge	ZBL-RT3070-3	Wi-Fi USB adapter for accessing 802.11b/g/n wireless networks

To manage Wi-Fi connections:

1. Go to **Main Menu > Setting > Network > WiFi**.



2. To enable automatic connections to Wi-Fi hotspots, select the **WiFi Auto Connect** check box, and then click **Apply**. To disable automatic connections to Wi-Fi hotspots, clear the **WiFi Auto Connect** check box, and then click **Apply**.
3. To search for Wi-Fi hotspots, click **Refresh**.
4. To manually connect to a Wi-Fi hotspot, click **Connect**. To disconnect from a Wi-Fi hotspot, click **Disconnect**.

If a Wi-Fi connection is successfully established, the Wi-Fi hotspot name and connection details are displayed in the **WiFi Working Info** area.

5. Click **Save** to save your settings.

Note The system does not support WPA and WPA 2 verification types.

To configure 3G/4G wireless connections:

1. Go to **Main Menu > Setting > Network > 3G/4G**.

The screenshot shows the Honeywell network configuration interface. The top navigation bar includes 'SETTING', 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The left sidebar lists various network settings: TCP/IP, CONNECTION, WIFI, 3G/4G (highlighted), PPPoE, DDNS, IP FILTER, EMAIL, FTP, UPnP, SNMP, MULTICAST, and P2P. The main content area is titled '3G/4G' and shows a 'No signal' status. It includes fields for 'Ethernet Card' (a dropdown menu), an 'Enable' checkbox, 'Network Type' (a dropdown menu), 'APN' (a text field), 'AUTH' (a dropdown menu with 'NO_AUTH' selected), 'Dial No.' (a text field), 'User Name' (a text field), 'Password' (a text field), and 'Pulse Interval' (a text field with '0' and a unit of 'sec.'). There is a 'Dial' button. Below these fields is a 'Wireless Network' section with status indicators for 'Module State', 'SIM State', 'PPP State', 'IP Address', 'Subnet Mask', and 'Default Gateway'. At the bottom are 'Default', 'Save', 'Cancel', and 'Apply' buttons.

2. You can configure the following settings:

- **Ethernet Card** Select the adapter name.
- **Enable** Select or clear the check box to enable or disable 3G/4G connectivity.
- **Network Type** Select your 3G/4G network type (for example, WCDMA, CDMA2000).
- **APN** Enter the Access Point Name (APN) of your 3G/4G service. You can get this information from your mobile broadband service provider.
- **AUTH** Select the authentication type that you want to use: **PAP**, **CHAP**, or **NO AUTH** (no authentication type).
- **Dial Number** Enter the dial (or access) number of your 3G/4G service. You can get this information from your mobile broadband service provider.
- **User Name/Password** If **AUTH** is set to **PAP** or **CHAP**, enter the user name and password required to log in to your 3G/4G service. You can get this information from your mobile broadband service provider.
- **Pulse Interval** Enter the time, in seconds, that you want the 3G/4G connection to continue after the secondary stream is closed. If the pulse interval is set to 0, the 3G/4G connection does not end after the secondary stream is closed.

3. Click **Apply**, and then click **Save** to save your settings.

Configuring Advanced Network Settings

This section describes how to configure PPPoE, DDNS, IP Filter, Email, FTP, UPnP, SNMP, and multicast settings.

Configuring PPPoE Settings

To configure a Point-to-Point Protocol over Ethernet (PPPoE) network connection:

1. Go to **Main Menu > Setting > Network > PPPoE**.

2. Select the **Enable** check box to enable a PPPoE network connection.
3. In the **User Name** and **Password** boxes, enter the user name and password provided by your Internet service provider for PPPoE access.
4. Click **Apply**, and then click **Save** to save your settings.
5. Restart the DVR for the new network connection settings to take effect. Go to **Main Menu > Operate > Shutdown > Reboot**.

The DVR's new IP address appears on the **PPPoE** page. Use this address when accessing the DVR remotely.

Configuring DDNS Settings

To configure a Dynamic DNS (DDNS) network connection:

1. Go to **Main Menu > Setting > Network > DDNS**.

The screenshot shows the Honeywell DDNS configuration window. The sidebar on the left lists various settings categories: CAMERA, NETWORK, EVENT, STORAGE, SYSTEM, TCP/IP, CONNECTION, WIFI, 3G/4G, PPPoE, DDNS (selected), IP FILTER, EMAIL, FTP, UPnP, SNMP, MULTICAST, and P2P. The main content area is titled 'DDNS' and includes an 'Enable' checkbox. Below this, there are fields for 'DDNS Type' (set to 'Honeywell DDNS'), 'Host IP' (set to 'www.hennvr-ddns.com'), 'Domain Mode' (with radio buttons for 'Default Domain' and 'Custom Domain Name'), 'Domain Name' (set to '201312261223.hennvr-ddns.com'), and 'Email Address' (with a placeholder 'Please input an email address.'). A note at the bottom states: 'Note: System will reclaim the domain that is idle for more than one year. You can get a notification email one month before the reclaim if your email address setup is right.' At the bottom of the window are buttons for 'Default', 'Test', 'OK', 'Cancel', and 'Apply'.

2. Select the **Enable** check box to enable a DDNS network connection.
3. In the **DDNS Type** box, select the DDNS service that you want to use.
4. Depending on the service you select, you may need to enter the following details:
 - **Host IP** The address appears automatically unless **DDNS Type** is set to **Private DDNS**. In that case, enter the server IP address of your DDNS service provider.
 - **Domain Mode** If **DDNS Type** is set to **Honeywell DDNS**, click **Default Domain** to use the default domain name or click **Custom Domain Name** to create your own domain name.
 - **Domain Name** Enter a domain name (if you are not using a default domain name). You can get this from your DDNS service provider.
 - **User Name/Password** If applicable, enter a user name and password to access your DDNS service.
 - **Email Address** Unused Honeywell DDNS domain names will expire after a year. Enter your email address if you want to receive a notification before an unused domain name is reclaimed.
5. Click **Apply**, and then click **OK**.
6. Restart the DVR for the new network connection settings to take effect. Go to **Main Menu > Operate > Shutdown > Reboot**.
7. To test the settings, on the **DDNS** page, click **Test**.

Configuring IP Filter Settings

On the **Access Right** tab, you can create a list of IP addresses that are either allowed or not allowed to access the DVR. On the **Sync Time Right** tab, you can create a list of IP addresses that are either allowed to time sync (Trusted Sites) or not allowed to time sync (Blocked Sites) with the DVR.

To allow specific sites to access the DVR:

1. Go to **Main Menu > Setting > Network > IP Filter**.

The screenshot shows the Honeywell IP Filter configuration window. The 'Enable' checkbox is checked. The 'Type' dropdown is set to 'Trusted Sites'. There are input fields for 'Start Address', 'End Address', and 'MAC Address', each with a corresponding 'Add' button. Below these is a table with columns 'Start Address', 'End Address', 'Edit', and 'Delete'. At the bottom are 'Default', 'Save', 'Cancel', and 'Apply' buttons.

2. Select the **Enable** check box, and then, next to it, click **Trusted Sites**.
3. In the **Type** box, select **Trusted Sites**.
4. To add a single IP address, in the **Start Address** box, enter the IP address of the site that you want to allow, and then click **Add IP Address**. To add a range of IP addresses, enter the starting address in the **Start Address** box and the ending address in the **End Address** box, and then click **Add IP Segment**. Both IPv4 and IPv6 address are supported.
5. After you have finished adding IP addresses to the list, click **Apply** to save your settings.

To block specific sites from accessing the DVR:

1. Go to **Main Menu > Setting > Network > IP Filter**.
2. Select the **Enable** check box, and then, next to it, click **Blocked Sites**.
3. In the **Type** box, select **Blocked Sites**.
4. To add a single IP address, in the **Start Address** box, enter the IP address of the site that you want to block, and then click **Add IP Address**. To add a range of IP addresses, enter the starting address in the **Start Address** box and the ending address in the **End Address** box, and then click **Add IP Segment**. Both IPv4 and IPv6 address are supported.
5. After you have finished adding IP addresses to the list, click **Apply** to save your settings.

Configuring Email Settings

To configure email notifications:

1. Go to **Main Menu > Setting > Network > Email**.

2. Select the **Enable** check box to enable email notifications.
3. Configure the following settings:
 - **SMTP Server** Enter the SMTP server address of the sender's email account.
 - **Port** The default port used for SMTP is 25.
 - **Anonymous** Select check box to hide the sender's address in sent email.
 - **User Name** Enter the user name of the sender's email account.
 - **Password** Enter the password of the sender's email account.
 - **Receiver** Enter the email address where you want to send the notification. You can enter up to three email addresses.
 - **Sender** Enter the sender's email address.
 - **Subject** If you want, edit the email subject line.
 - **Attachment** Select check box to enable sending a snapshot attachment with the email.
 - **Encrypt Type** Select an encryption type: **None**, **SSL**, or **TLS**.
 - **Interval** This is the interval for sending emails. Enter a time between **0** and **3600** seconds. **0** means that there is no interval.
 - **Health Enable** Select check box to enable a health check. The system sends a test email to check the connection.
 - **Interval** This is the interval the DVR waits before sending out email notifications after an event is detected. Enter a time between **0** and **1440** minutes. **0** means that there is no interval.
4. Click **Apply** to save your settings. To send a test email, click **Test**.

Configuring FTP Settings

You can configure an FTP connection to upload images at regular intervals to an FTP server for remote storage.

To configure FTP settings:

1. Go to **Main Menu > Setting > Network > FTP**.

2. Select the **Enable** check box to enable uploading images to an FTP server.
3. Configure the following settings:
 - **Host IP** Enter the address of the FTP server.
 - **Port** Enter the port of the FTP server.
 - **User Name** Enter the user name for logging on to the FTP server.
 - **Password** Enter the password for logging on to the FTP server.
 - **Anonymous** Select check box to hide user name when logged on to the FTP server.
 - **Remote Directory** Enter a name for the remote directory. If this is left blank, the DVR will create folder names automatically.
 - **File Length** This is the maximum size for image files being uploaded to the FTP server. Enter a value between **0** and **65535** MB.
 - **Image Upload Interval** This is the interval for uploading images to the FTP server. Enter a time between **0** and **3600** seconds.
 - **Channel** Select a channel to upload images from, or select **All** to select all channels.
 - **Week Day** Select a day of the week to upload images on, or select **All** to upload images every day.
 - **Period 1/Period2** You can configure up to two time periods for uploading images. For each period, select either **Alarm**, **Intel**, **Motion**, or **Regular** images.
4. Click **Apply** to save your settings. To test the FTP connection, click **Test**.

Configuring UPnP Settings

You can configure the DVR to forward ports automatically to the router and communicate with the I-View Now™ central station using the UPnP (Universal Plug and Play) function.

To configure UPnP settings:

1. Ensure that UPnP port forwarding is enabled on your router.
2. At the DVR, go to **Main Menu > Setting > Network > UPnP**.

SETTING Honeywell

NETWORK

TCP/IP
CONNECTION
WIFI
3G/4G
PPPoE
DDNS
IP FILTER
EMAIL
FTP
UPnP
SNMP
MULTICAST
P2P

PAT ☐ Enable ☒ Disable
UPnP VAV Reporting ☐ Enable ☒ Disable
Status
LAN IP
WAN IP

PAT Table

	Service Name	Protocol	Int.Port	Ext.Port	Edit
1	HTTP	TCP	80	80	
2	TCP	TCP	37777	37777	
3	UDP	UDP	37778	37778	
4	RTSP	UDP	554	554	
5	RTSP	TCP	554	554	
6	SNMP	UDP	161	161	
7	HTTPS	TCP	443	443	

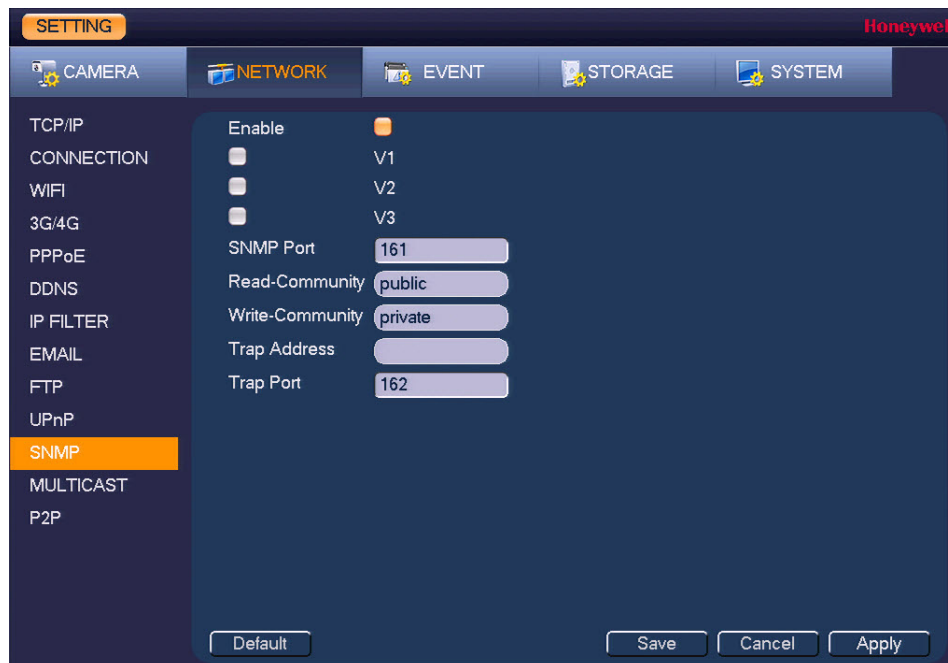
3. Ensure that the port settings in the **PAT Table** match the port settings at the router and at the DVR. The internal port is mapped at the router. The external port is mapped locally at the DVR (see [Configuring Port Settings](#) on page 69). To edit an external port setting, double-click the port name or click .
4. UPnP port forwarding is disabled by default. To enable it, set **PAT** to **Enable**.
5. UPnP I-View Now reporting is disabled by default. To enable it, set **UPnP VAV Reporting** to **Enable**, enter your I-View Now password, and then click **OK**.
6. In the **LAN IP** field, enter the DVR's IP address from the **TCP/IP** page.
7. In the **WAN IP** field, enter the router's IP address.
8. Click **Apply**, and then click **Save** to save your settings.
9. Re-enter the **Network** screen and verify that the word "Success" appears next to **Status**, indicating that UPnP is enabled.

Configuring SNMP Settings

If you have Simple Network Management Protocol (SNMP) management software installed on a PC, you can receive information from the DVR remotely via SNMP. Refer to the software's user documentation for detailed setup instructions.

To configure SNMP settings:

1. Go to **Main Menu > Setting > Network > SNMP**.



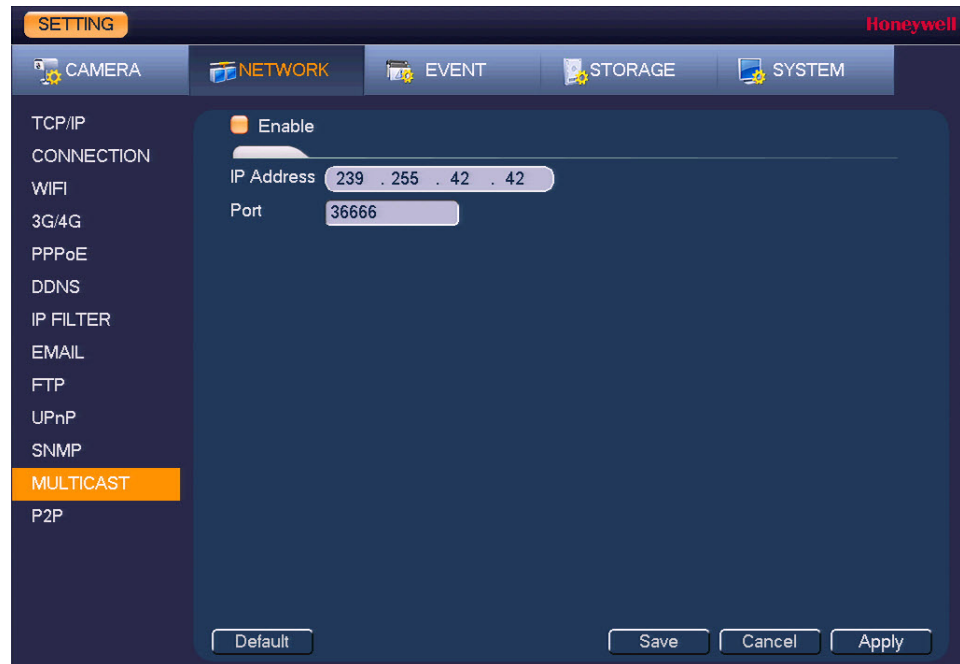
2. Select the **Enable** check box to enable SNMP.
3. Configure the following settings:
 - **V1/V2/V3** Select the check boxes of the SNMP version(s) that you are using.
 - **SNMP Port** The default setting is **161**. The SNMP port and trap port cannot be the same.
 - **Read-Community** The default setting is **public**.
 - **Write-Community** The default setting is **private**.
 - **Trap Address** Enter the IP address of the computer running SNMP software.
 - **Trap Port** The default setting is **162**. The trap port and SNMP port cannot be the same.
4. Click **Apply**, and then click **Save** to save your settings.

Configuring Multicast Settings

Multicast allows for simultaneous real-time monitoring of live video from the DVR at multiple remote locations over the network.

To configure multicast settings:

1. Go to **Main Menu > Setting > Network > Multicast**.



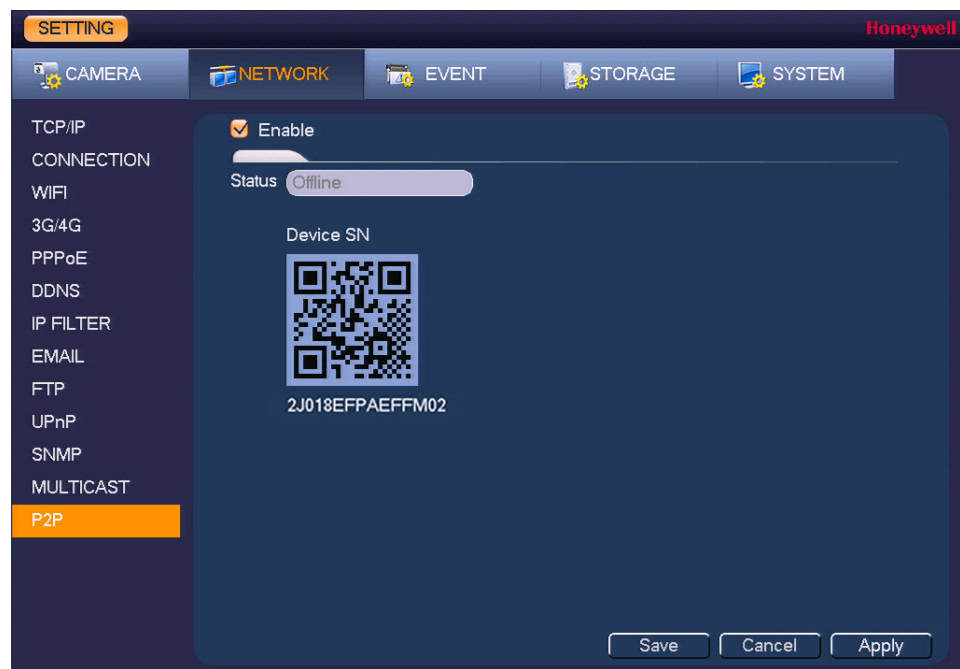
2. Select the **Enable** check box to enable multicast.
3. In the **IP Address** box, enter a multicast IP address. The address must be valid for multicasting and should be in the range 224.0.0.0 to 239.255.255.255 for IPv4 or have the prefix ff00::/8. An address in the range 239.252.0.0 to 239.255.255.255 is recommended.
4. In the **Port** box, enter a multicast port number or use the default setting (**36666**).
5. Click **Apply**, and then click **Save** to save your settings.

Connecting to the DVR Remotely

You can connect to the DVR remotely using the HonView Touch mobile app. An iOS version of the app is available on Apple's App Store and an Android version is available on Google Play.

To connect to the DVR using the HonView Touch app:

1. Go to **Main Menu > Setting > Network > TCP/IP** and ensure that **Mode** is set to **DHCP**. (If it is not, click **DHCP**, click **Apply**, and then click **Save**.)
2. Go to **Main Menu > Setting > Network > P2P**.



3. Select the **Enable** check box, click **Apply**, and then click **Save**.
4. Re-enter the **Network** screen and verify that the **Status** has changed to **Online**.
5. Open the HonView Touch app on your smartphone or tablet device.
6. Tap  to open the menu.
7. Tap **Device Manager**, tap the plus sign  (or **Add Device**), and then tap **P2P**.
8. Tap the QR code symbol  on the app's **P2P** screen, then scan the QR code on the DVR's **P2P** page. The QR code's device serial number (SN) automatically populates the **SN** field on the app.
9. Enter a name for the DVR in the app's **Name** field, enter the DVR's admin **Username** and **Password**, and then tap  to save your settings.
10. Tap **Start Live Monitoring** (or **Start Live Preview**) to view live video from the DVR.

Configuring Event Settings

This chapter contains the following sections:

- [*Configuring Motion Detection Settings, page 82*](#)
- [*Configuring Video Loss Settings, page 87*](#)
- [*Configuring Video Tampering Settings, page 89*](#)
- [*Configuring Diagnosis Settings, page 91*](#)
- [*Configuring Face Detection Settings, page 93*](#)
- [*Configuring Alarms, page 94*](#)
- [*Configuring System Event Settings, page 104*](#)
- [*Configuring Alarm Output Settings, page 108*](#)

Configuring Motion Detection Settings

You can set up the DVR to generate an alarm response when motion within a defined region of the scene exceeds the parameters that you have set.

Setting up motion detection has three parts:

- setting up a motion detection schedule on the **Setting > Storage > Schedule** page
- applying the schedule to a specific cameras on the **Setting > Storage > Record** page
- configuring the motion detection settings on the **Setting > Event > Video Detect > Motion Detect** page

To set up motion detection regions:

1. Go to **Main Menu > Setting > Event > Video Detect > Motion Detect**.

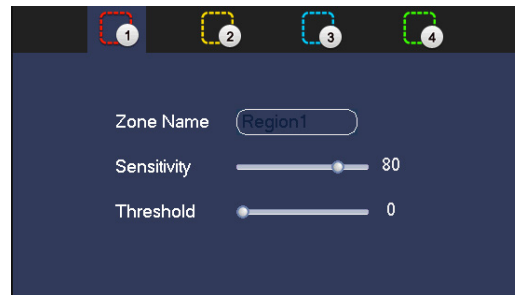
The screenshot displays the 'Motion Detect' configuration page in the Honeywell DVR web interface. The top navigation bar includes 'SETTING', 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The left sidebar lists 'VIDEO DETECT', 'FACE DETECT', 'ALARM', 'ABNORMALITY', and 'ALARM OUTPUT'. The main content area is titled 'Motion Detect' and contains the following settings:

- Channel:** 1 (dropdown menu)
- Region:** Set (button)
- Enable:** ☒
- Period:** Set (button)
- Anti-dither:** 5 sec.
- Latch:** 10 sec.
- Alarm Out:** ☒ 2 3
- Show Message:** ☐
- Record Channel:** ☒ 2 3 4
- PTZ Activation:** Set (button)
- Tour:** ☒ 2 3 4
- Snapshot:** ☒ 2 3 4
- Buzzer:** ☐
- Voice Prompts:** ☐
- Alarm Upload:** ☐
- Send Email:** ☐
- Delay:** 10 sec.
- File Name:** None (dropdown menu)

At the bottom of the page, there are buttons for 'Default', 'Copy', 'Test', 'Save', 'Cancel', and 'Apply'.

2. In the **Channel** box, select the channel (camera) that you want to configure motion detection settings for.
3. Select the **Enable** check box to enable motion detection for the selected channel.

4. Next to **Region**, click **Set** to define the motion detection region. A grid appears over the live view screen and the following dialog box appears:



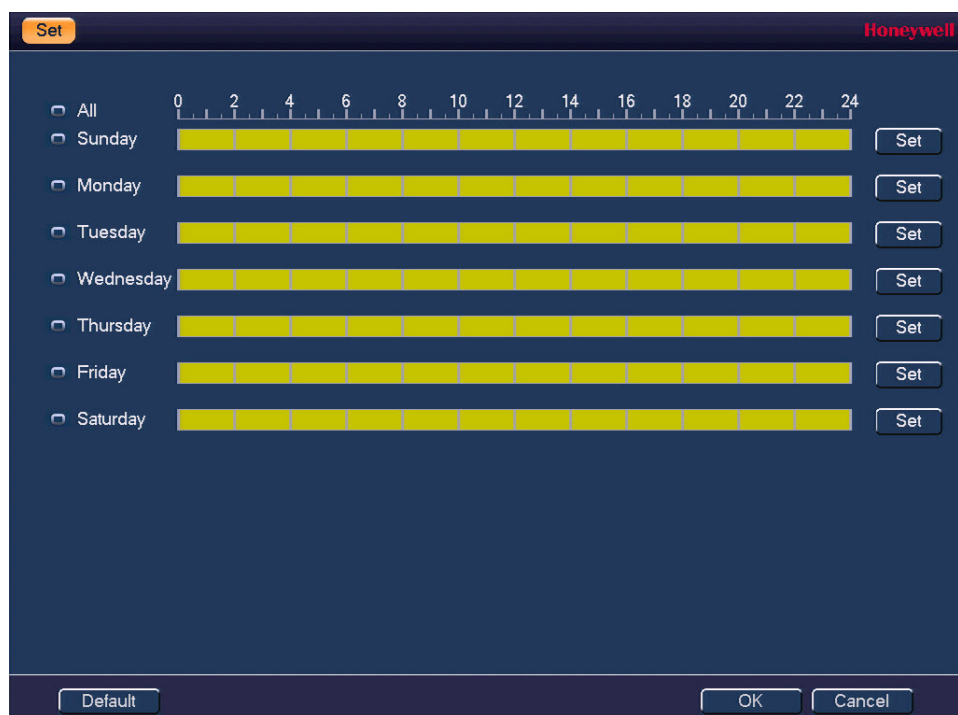
5. Set the **Sensitivity** level (0–100) and **Threshold** level (0–100) for **Region1**.
Sensitivity refers to the amount of change (as a percentage) in the image pixels between frames. Moving the **Sensitivity** slider to the left decreases the sensitivity of the motion detection and therefore more movement is required to trigger an event. Threshold is the amount of motion required to trigger an event.

Note The best way to configure motion detection is to experiment with the sensitivity and threshold settings while someone is walking in front of the camera.

6. By default, motion detection **Region1** covers the whole screen.
 - To disable motion detection in part of the image, drag the mouse over the area of the image that you want to exclude. The areas *not* covered by red boxes are *not* sensitive to motion.
 - To change the threshold level in part of the image, select a different motion detection region (**Region2**, **Region3**, or **Region4**), set the **Threshold** level for that region, and then drag the mouse to define the region.
7. Right-click to return to the **Setting** menu.
8. Click **Apply** to save your settings.

To set up motion detection periods:

1. On the **Motion Detect** tab, next to **Period**, click **Set**. The **Set** window opens.



2. By default, when motion detection is enabled, it is active all the time. To modify the periods when motion detection for the selected channel is active, on each day's timeline, click the half-hour blocks when you want motion detection to be *disabled*.

3. Alternatively, for the day of the week that you want to configure, click **Set**. The **Period** window opens.

Period

Honeywell

Current Date: Sunday

Period 1 00: 00 - 24: 00 ☒

Period 2 00: 00 - 24: 00 ☐

Period 3 00: 00 - 24: 00 ☐

Period 4 00: 00 - 24: 00 ☐

Period 5 00: 00 - 24: 00 ☐

Period 6 00: 00 - 24: 00 ☐

Copy

☐ All ☒ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday

OK

- a. Set up to six periods in the day when you want the motion detection settings for the selected channel to be active.
 - b. Select the check box next to each configured period to enable it.
 - c. To copy the settings to additional days, select the appropriate check box(es) under **Copy**.
 - d. Click **OK** to return to the previous window.
4. After you have finished setting up the motion detection periods, click **OK**.

To set up motion detection event alarm actions:

- Select the alarm actions that you want the system to initiate when a motion detection event occurs:
 - Anti-dither** Enter a value between **0** and **600** seconds. If anti-dither is set to 10 seconds, all motion detected within that period is treated as part of the same event. This is to prevent multiple alarms, email notifications, and so on, from being generated by the same event. After the anti-dither period has ended, additional motion will be treated as a new event, generating new alarm responses.
 - Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - Latch** Enter the number of seconds (0–300) that the system will delay detecting new motion after the previous event has ended.
 - Show Message** Select the check box to generate a pop-up message on your local PC.
 - Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
 - Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - Record Channel** Select the channel(s) that you want to record.
Note You must also set the motion detection (**MD**) recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.
 - PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:



For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - Tour** Select the check box to start a tour of the selected channel(s).
 - Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - Buzzer** Select the check box to activate a buzzer at the DVR.
 - Log** Select the check box to create a log entry.
 - Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
- Click **Apply** to save your settings.
 - To test the settings, click **Test**.
 - To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Video Loss Settings

You can set up the DVR to generate an alarm response when the video signal from a camera is lost.

To configure video loss settings:

1. Go to **Main Menu > Setting > Event > Video Detect > Video Loss**.

The screenshot shows the 'Video Loss' configuration window in a Honeywell DVR interface. The 'EVENT' menu is selected, and 'Video Loss' is the active sub-menu. The 'Channel' is set to 1. The 'Enable' checkbox is checked. Under 'Period', the 'Set' button is highlighted. The 'Alarm Out' checkbox is checked, and the 'Show Message', 'Record Channel', 'PTZ Activation', 'Tour', and 'Snapshot' checkboxes are also checked. The 'Buzzer' and 'Voice Prompts' checkboxes are unchecked. The 'CAM AntiDither' is set to 0 seconds, 'Latch' is 10 seconds, and 'Delay' is 10 seconds. The 'Alarm Upload' checkbox is checked, and 'Send Email' is unchecked. The 'Log' checkbox is checked. The 'File Name' is set to 'None'. At the bottom, there are buttons for 'Default', 'Copy', 'Save', 'Cancel', and 'Apply'.

2. In the **Channel** box, select the channel (camera) that you want to configure video loss detection settings for.
3. Select the **Enable** check box to enable video loss detection for the selected channel.
4. Next to **Period**, click **Set**, then set the period(s) when video loss detection will be active.
5. Select the alarm actions that you want the system to initiate when a video loss event occurs:

- **CAM AntiDither** Enter a value between **0** and **600** seconds. If anti-dither is set to 10 seconds, all video loss incidents within that period are treated as part of the same event.
- **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
- **Latch** Enter the number of seconds (0–300) that the system will delay detecting new video losses after the previous event has ended.
- **Show Message** Select the check box to generate a pop-up message on your local PC.
- **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
- **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
- **Record Channel** Select the channel(s) that you want to record.

- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
6. Click **Apply** to save your settings.
 7. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Video Tampering Settings

You can set up the DVR to generate an alarm response when a camera is moved or covered up or when there is a sudden dramatic change in lighting.

To configure video tampering settings:

1. Go to **Main Menu > Setting > Event > Video Detect > Tampering**.

The screenshot shows the Honeywell DVR configuration interface. The top navigation bar includes 'SETTING', 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The 'EVENT' tab is selected, and the 'Tampering' sub-tab is active. On the left, a sidebar lists 'VIDEO DETECT', 'FACE DETECT', 'ALARM', 'ABNORMALITY', and 'ALARM OUTPUT'. The main configuration area for 'Tampering' includes the following settings:

- Channel:** 1 (dropdown)
- Enable:** ☒
- Sensitivity:** 3 (dropdown)
- Period:** Set (button)
- Alarm Out:** ☒ 2 3
- Show Message:** ☒
- Record Channel:** ☒ 2 3 4
- PTZ Activation:** Set (button)
- Tour:** ☒ 2 3 4
- Snapshot:** ☒ 2 3 4
- Buzzer:** ☒
- Voice Prompts:** ☐
- CAM AntiDither:** 0 sec.
- Latch:** 10 sec.
- Alarm Upload:** ☒
- Send Email:** ☐
- Delay:** 10 sec.
- Log:** ☒
- File Name:** None (dropdown)

At the bottom, there are buttons for 'Default', 'Copy', 'Save', 'Cancel', and 'Apply'.

2. In the **Channel** box, select the channel (camera) that you want to configure video tampering detection settings for.
3. Select the **Enable** check box to enable video tampering detection for the selected channel.
4. In the **Sensitivity** box, set the sensitivity level. This setting mainly has to do with brightness. Select a value between **1** and **6**, with **6** being the highest sensitivity. The default setting is **3**.
5. Next to **Period**, click **Set**, then set the period(s) when video tampering detection will be active.
6. Select the alarm actions that you want the system to initiate when a video tampering detection event occurs:
 - **CAM AntiDither** Enter a value between **0** and **600** seconds. If anti-dither is set to 10 seconds, all video tampering incidents within that period are treated as part of the same event.
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new tampering after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.

- **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
- **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
- **Record Channel** Select the channel(s) that you want to record.
- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

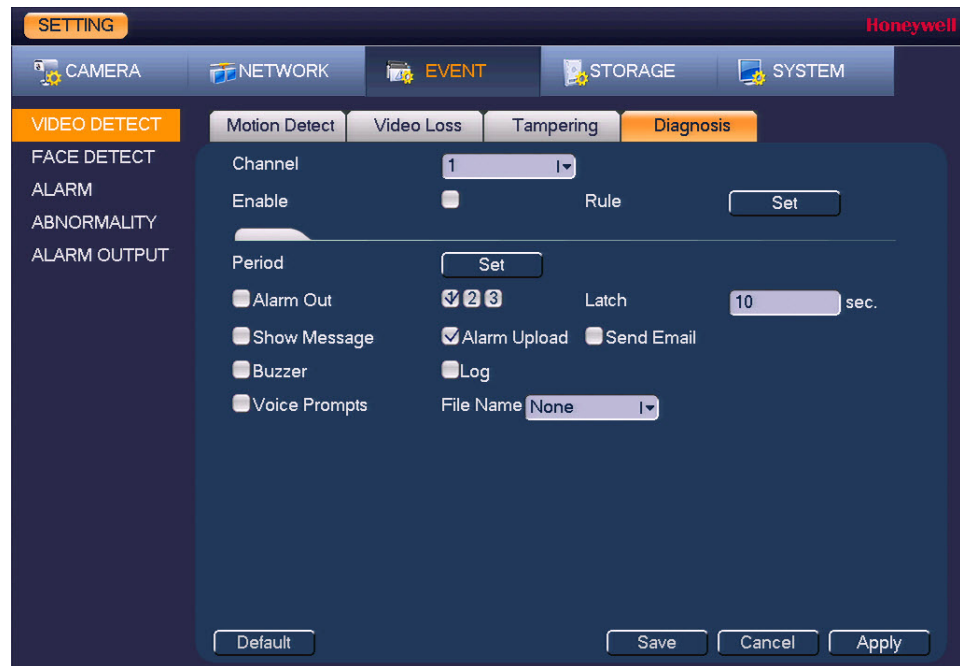
- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
7. Click **Apply** to save your settings.
 8. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Diagnosis Settings

You can set up the DVR to generate an alarm response when video is blurry, overexposed, or the color changes.

To configure diagnosis settings:

1. Go to **Main Menu > Setting > Event > Video Detect > Diagnosis**.



2. In the **Channel** box, select the channel (camera) that you want to configure diagnosis settings for.
3. Select the **Enable** check box to enable the diagnosis function for the selected channel.
4. Next to **Rule**, click **Set**. The **Diagnosis** window opens.



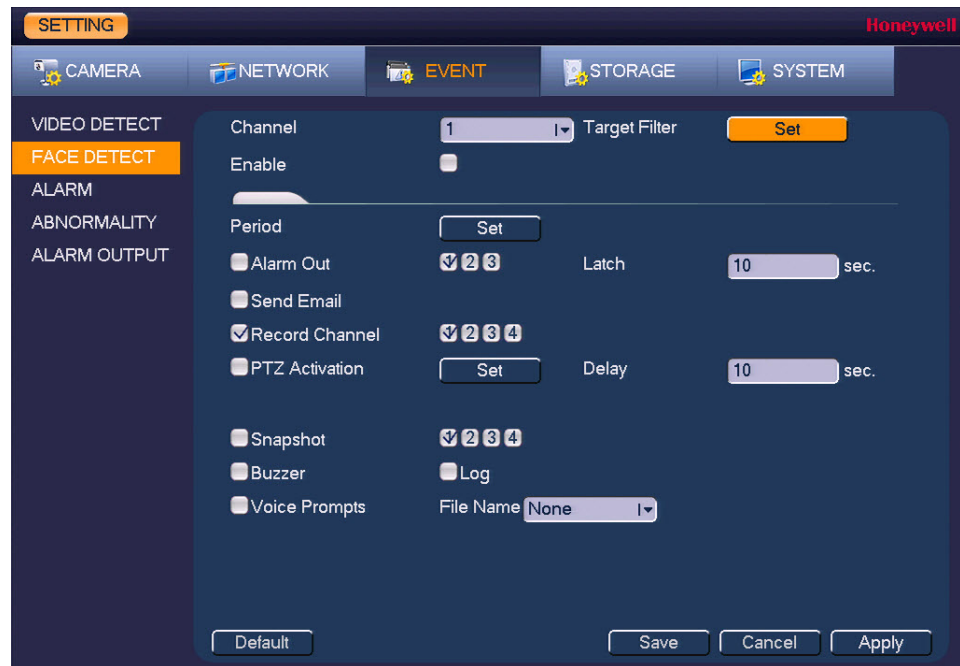
5. Configure the following settings:
 - **Stripe** Set the DVR's sensitivity to vertical, horizontal, or diagonal stripes in the video (due to electronic interference or age of the device).
 - **Noise** Set the DVR's sensitivity to video noise, including blurry video and optical distortion.
 - **Color Cast** Set the DVR's sensitivity to variations in normal RGB appearance.
 - **Out of Focus** Set the DVR's sensitivity to focus issues, including blurry video and optical distortion.
 - **Overexposure** Set the DVR's sensitivity to video brightness. If the brightness of the entire image exceeds the defined threshold, the image is overexposed.
6. Click **OK** to return to the previous window.
7. Next to **Period**, click **Set**, then set the period(s) when the diagnosis function will be active.
8. Select the alarm actions that you want the system to initiate when a diagnosis event occurs:
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new diagnoses after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.
 - **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
9. Click **Apply** to save your settings.
10. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Face Detection Settings

You can set up the DVR to recognize human faces and generate an alarm response when a face is detected.

To configure face detection settings:

1. Go to **Main Menu > Setting > Event > Face Detect**.



2. In the **Channel** box, select the channel (camera) for which you want to configure face detection settings.
3. Select the **Enable** check box to enable face detection for the selected channel.
4. Next to **Target Filter**, click **Set** to set up the face detection area. Use your mouse to move and resize the **Max Size** and **Min Size** frames.
5. Next to **Period**, click **Set**, then set the period(s) when face detection will be active.
6. Select the alarm actions that you want the system to initiate when a face detection event occurs:
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new faces after the previous event has ended.
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - **Record Channel** Select the channel(s) that you want to record.
Note You must also set the **Intel** recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.

- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
7. Click **Apply** to save your settings.
 8. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Alarms

Before you configure the alarm settings, make sure you have connected alarm inputs and outputs (light, siren, etc.) to the DVR.

There are five types of alarms that can be configured in the **Alarm** area:

- Local alarms (see [Configuring Local Alarms](#) on page 95)
- Network alarms ([Configuring Network Alarms](#) on page 97)
- IP camera external alarms ([Configuring IP Camera External Alarms](#) on page 99)
- IP camera offline alarms ([Configuring IP Camera Offline Alarms](#) on page 101)
- Remote alarms ([Configuring Remote Alarms](#) on page 103)

Configuring Local Alarms

You can set up the DVR to generate an alarm response when a local alarm signal is received.

To configure local alarm settings:

1. Go to **Main Menu > Setting > Event > Alarm > Local**.

The screenshot shows the 'SETTING' menu with tabs for CAMERA, NETWORK, EVENT, STORAGE, and SYSTEM. The 'EVENT' tab is selected, and the 'Local' sub-tab is active. The 'ALARM' section is highlighted in the left sidebar. The configuration fields are as follows:

Field	Value	Field	Value
Alarm In	1	Alarm Name	Alarm In1
Enable	☒	Type	NO
Period	Set	Anti-dither	5 sec.
Alarm Out	☒ 2 3	Latch	10 sec.
Show Message	☐	Alarm Upload	☒
Record Channel	☒ 2 3 4	Send Email	☐
PTZ Activation	Set	Delay	10 sec.
Tour	☒ 2 3 4		
Snapshot	☒ 2 3 4		
Buzzer	☒	Log	☒
Voice Prompts	☐	File Name	None

Buttons at the bottom: Default, Copy, Save, Cancel, Apply.

2. In the **Alarm In** box, select the local alarm input that you want to configure.
3. If you want to rename the alarm, in the **Alarm Name** box, enter a new name.
4. Select the **Enable** check box to enable the local alarm function.
5. In the **Type** box, select the alarm input type: **NO** (Normally Open) or **NC** (Normally Closed).
6. Next to **Period**, click **Set**, then set the period(s) when the local alarm will be armed.
7. Select the alarm actions that you want the system to initiate when a local alarm is triggered:
 - **Anti-Dither** Enter a value between **0** and **600** seconds. If anti-dither is set to 10 seconds, all local alarms triggered within that period are treated as part of the same event.
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new local alarms after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.
 - **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.

- **Record Channel** Select the channel(s) that you want to record.
Note You must also set the **Alarm** recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.
- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
8. Click **Apply** to save your settings.
 9. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring Network Alarms

You can set up the DVR to generate an alarm response when a network alarm signal is received.

To configure network alarm settings:

1. Go to **Main Menu > Setting > Event > Alarm > Net.**

The screenshot shows the 'SETTING' menu with 'EVENT' selected. Under 'EVENT', 'Net' is selected. The 'Alarm In' dropdown is set to '1' and 'Alarm Name' is 'Alarm In1'. The 'Enable' checkbox is checked. The 'Period' is set to 'Set'. The 'Alarm Out' checkbox is checked, and the 'Latch' is set to '10' seconds. The 'Show Message' checkbox is checked. The 'Record Channel' is set to '1 2 3 4'. The 'PTZ Activation' is set to 'Set'. The 'Tour' checkbox is checked. The 'Snapshot' checkbox is checked. The 'Buzzer' checkbox is checked. The 'Voice Prompts' checkbox is checked. The 'File Name' is set to 'None'. The 'Delay' is set to '10' seconds. The 'Send Email' checkbox is unchecked. At the bottom, there are buttons for 'Default', 'Copy', 'Save', 'Cancel', and 'Apply'.

2. In the **Alarm In** box, select the network alarm input that you want to configure.
3. If you want to rename the alarm, in the **Alarm Name** box, enter a new name.
4. Select the **Enable** check box to enable the network alarm function.
5. Next to **Period**, click **Set**, then set the period(s) when the network alarm will be armed.
6. Select the alarm actions that you want the system to initiate when a network alarm is triggered:

- **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
- **Latch** Enter the number of seconds (0–300) that the system will delay detecting new network alarms after the previous event has ended.
- **Show Message** Select the check box to generate a pop-up message on your local PC.
- **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
- **Record Channel** Select the channel(s) that you want to record.

Note You must also set the **Alarm** recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.

- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
7. Click **Apply** to save your settings.
 8. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring IP Camera External Alarms

If a connected IP camera is equipped with an alarm, you can set up the DVR to generate an alarm response when an alarm signal is received from the camera's external alarm.

To configure IP camera external alarm settings:

1. Go to **Main Menu > Setting > Event > Alarm > IPC Ext.**

The screenshot shows the Honeywell DVR configuration interface. The top navigation bar includes 'SETTING', 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The 'EVENT' menu is selected, and the 'IPC Ext' sub-menu is active. The left sidebar lists 'VIDEO DETECT', 'FACE DETECT', 'ALARM', 'ABNORMALITY', and 'ALARM OUTPUT'. The 'ALARM' section is expanded, showing 'Local', 'Net', 'IPC Ext', 'IPC Offline', and 'Remote Alarm' tabs. The 'IPC Ext' tab is selected, displaying various configuration options: 'Channel' (dropdown), 'Alarm Name' (text box), 'Enable' (checkbox), 'Type' (dropdown with 'NC' selected), 'Period' (dropdown with 'Set' button), 'Anti-dither' (text box with '0' and 'sec.'), 'Latch' (text box with '0' and 'sec.'), 'Alarm Out' (checkbox), 'Show Message' (checkbox), 'Record Channel' (checkbox), 'PTZ Activation' (checkbox), 'Tour' (checkbox), 'Snapshot' (checkbox), 'Buzzer' (checkbox), 'Voice Prompts' (checkbox), 'Alarm Upload' (checkbox), 'Send Email' (checkbox), 'Delay' (text box with '10' and 'sec.'), and 'File Name' (dropdown with 'None'). At the bottom are buttons for 'Default', 'Copy', 'Test', 'Save', 'Cancel', and 'Apply'.

2. In the **Channel** box, select the channel (camera) for which you want to configure external alarm settings.
3. If you want to rename the alarm, in the **Alarm Name** box, enter a new name.
4. Select the **Enable** check box to enable the external alarm function.
5. In the **Type** box, select the alarm input type: **NO** (Normally Open) or **NC** (Normally Closed).
6. Next to **Period**, click **Set**, then set the period(s) when the external alarm will be armed.
7. Select the alarm actions that you want the system to initiate when an external alarm is triggered:
 - **Anti-dither** Enter a value between **0** and **600** seconds. If anti-dither is set to 10 seconds, all external alarms triggered within that period are treated as part of the same event.
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new external alarms after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.

- **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
- **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
- **Record Channel** Select the channel(s) that you want to record.
Note You must also set the **Alarm** recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.
- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

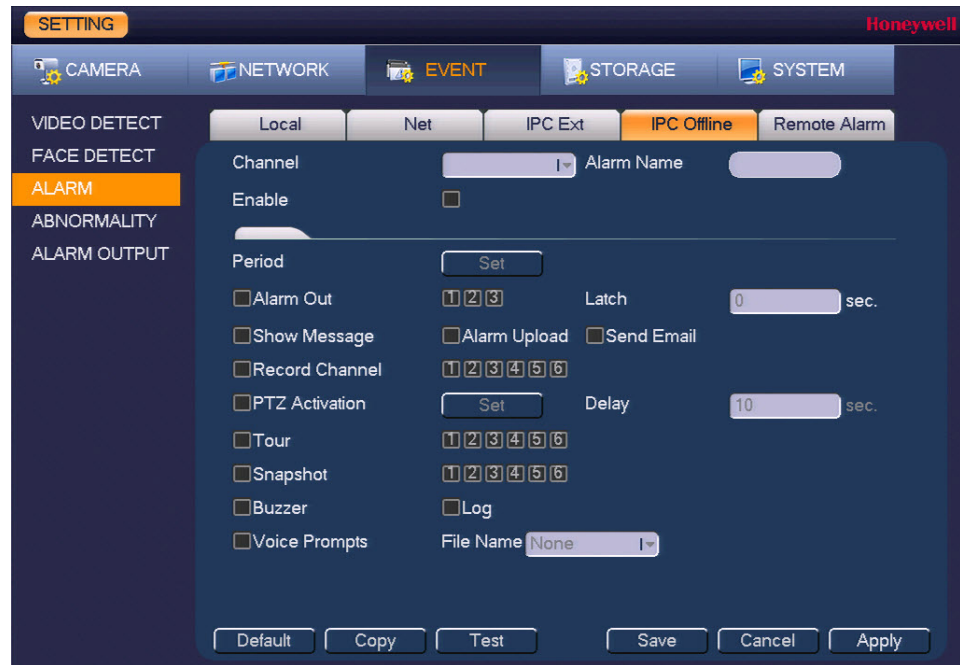
- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
8. Click **Apply** to save your settings.
 9. To test the settings, click **Test**.
 10. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring IP Camera Offline Alarms

You can set up the DVR to generate an alarm response when an IP camera is disconnected from the DVR.

To configure offline alarm settings:

1. Go to **Main Menu > Setting > Event > Alarm > IPC Offline**.



2. In the **Channel** box, select the channel (camera) for which you want to configure offline alarm settings.
3. If you want to rename the alarm, in the **Alarm Name** box, enter a new name.
4. Select the **Enable** check box to enable the offline alarm function.
5. Next to **Period**, click **Set**, then set the period(s) when the offline alarm will be armed.
6. Select the alarm actions that you want the system to initiate when an offline alarm is activated:

- **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
- **Latch** Enter the number of seconds (0–300) that the system will delay detecting new offline alarms after the previous event has ended.
- **Show Message** Select the check box to generate a pop-up message on your local PC.
- **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
- **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
- **Record Channel** Select the channel(s) that you want to record.

Note You must also set the **Alarm** recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.

- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
7. Click **Apply** to save your settings.
 8. To test the settings, click **Test**.
 9. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

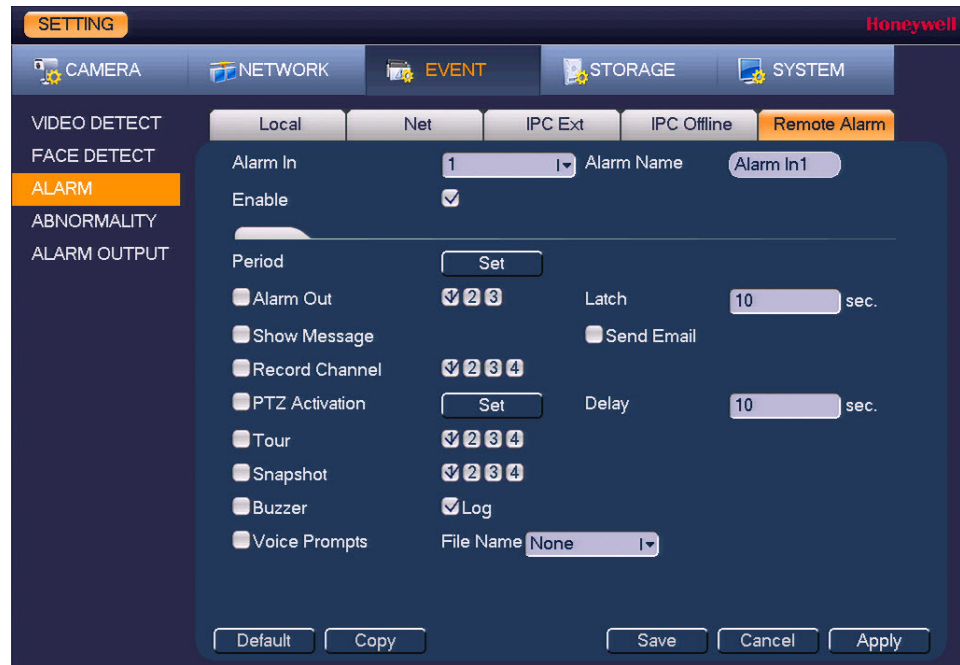
Note You may need to add the IP cameras manually for the offline alarm function to work. See [Adding an IP Camera](#) on page 65.

Configuring Remote Alarms

You can set up the DVR to generate an alarm response when it detects a problem with the I-View Now video verification software.

To configure remote alarm settings:

1. Go to **Main Menu > Setting > Event > Alarm > Remote Alarm**.



2. In the **Alarm In** box, select the remote alarm input that you want to configure.
3. If you want to rename the alarm, in the **Alarm Name** box, enter a new name.
4. Select the **Enable** check box to enable the remote alarm function.
5. Next to **Period**, click **Set**, then set the period(s) when the remote alarm function will be armed.
6. Select the alarm actions that you want the system to initiate when a remote alarm is activated:
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new remote alarms after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - **Record Channel** Select the channel(s) that you want to record.
Note You must also set the **Alarm** recording period in **Setting > Storage > Schedule**. See [Configuring the Video Recording Schedule](#) on page 47.

- **PTZ Activation** Select the check box to activate PTZ functions, then click **Set**. The **PTZ Activation** window opens:

PTZ Activation			Honeywell		
CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0

OK Cancel

For each PTZ camera, select the preset, tour, or pattern that you want to be called, then click **OK**.

- **Delay** Enter the number of seconds (10–300) that the system will continue recording after the event has ended.
 - **Tour** Select the check box to start a tour of the selected channel(s).
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
7. Click **Apply** to save your settings.
 8. To copy the settings to additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to, and then click **OK**.

Configuring System Event Settings

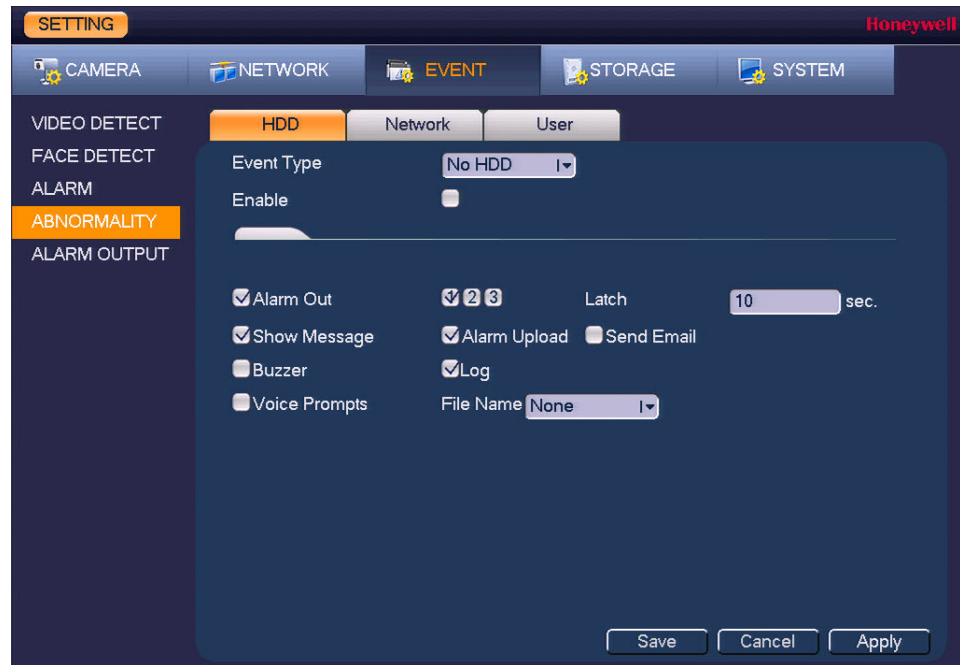
There are three types of system events that can be configured in the **Abnormality** area:

- HDD errors ([Configuring HDD Event Settings](#) on page 105)
- Network errors ([Configuring Network Event Settings](#) on page 106)
- User errors ([Configuring User Event Settings](#) on page 107)

Configuring HDD Event Settings

To configure HDD event settings:

1. Go to **Main Menu > Setting > Event > Abnormality > HDD**.

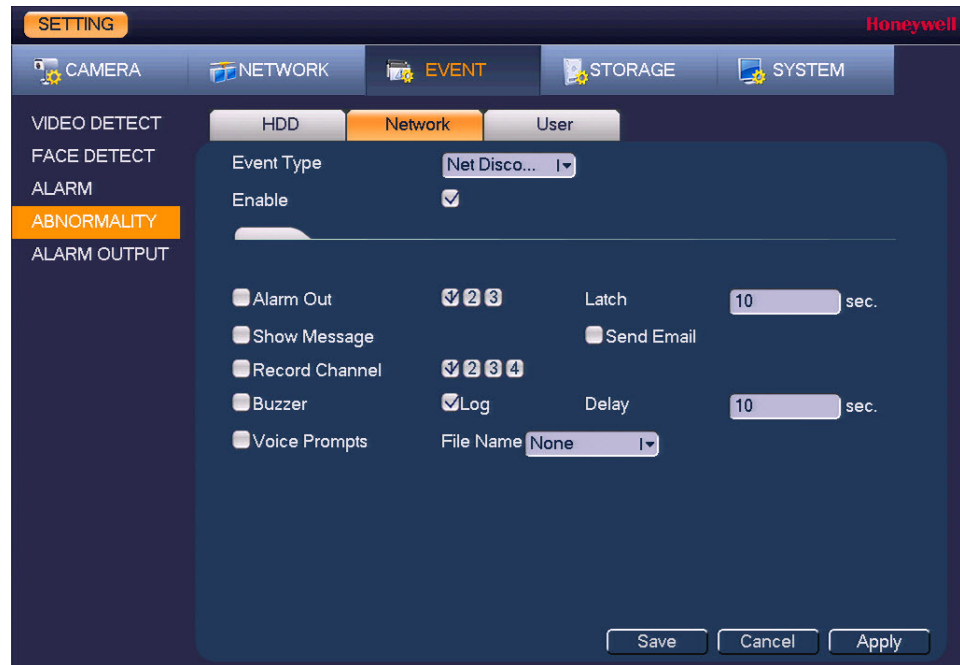


2. In the **Event Type** box, select the event type that you want to configure settings for: **No HDD**, **HDD Error**, or **HDD No Space**.
3. Select the **Enable** check box to enable HDD error detection.
4. Select the alarm actions that you want the system to initiate when the selected event occurs:
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new HDD events after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.
 - **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
5. Click **Apply** to save your settings.

Configuring Network Event Settings

To configure network event settings:

1. Go to **Main Menu > Setting > Event > Abnormality > Network**.



2. In the **Event Type** box, select the event type that you want to configure settings for: **Net Disconnection**, **IP Conflicted**, or **MAC Conflicted**.
3. Select the **Enable** check box to enable HDD error detection.
4. Select the actions that you want the system to initiate when the selected event occurs:
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new network events after the previous event has ended.
 - **Show Message** Select the check box to generate a pop-up message on your local PC.
 - **Alarm Upload** Select the check box to upload an alarm signal to the network (including to an alarm center and/or web client).
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - **Snapshot** Select the check box to take a snapshot of the selected channel(s).
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
5. Click **Apply** to save your settings.

Configuring User Event Settings

To configure user event settings:

1. Go to **Main Menu > Setting > Event > Abnormality > User**.

The screenshot shows the Honeywell configuration interface. The top bar has 'SETTING' and 'Honeywell'. Below it are tabs for 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The 'EVENT' tab is active, and within it, the 'User' sub-tab is selected. The left sidebar lists 'VIDEO DETECT', 'FACE DETECT', 'ALARM', 'ABNORMALITY' (highlighted), and 'ALARM OUTPUT'. The main content area shows settings for 'Illegal Login'. The 'Event Type' is 'Illegal Login'. The 'Enable' checkbox is checked. The 'Attempt(s)' field is set to 3. The 'Lock Time' field is set to 30 min. The 'Alarm Out' checkbox is checked, and the 'Latch' field is set to 10 sec. The 'Send Email' checkbox is unchecked. The 'Buzzer' checkbox is checked. The 'Log' checkbox is checked. The 'Voice Prompts' checkbox is unchecked. The 'File Name' dropdown is set to 'None'. At the bottom right are 'Save', 'Cancel', and 'Apply' buttons.

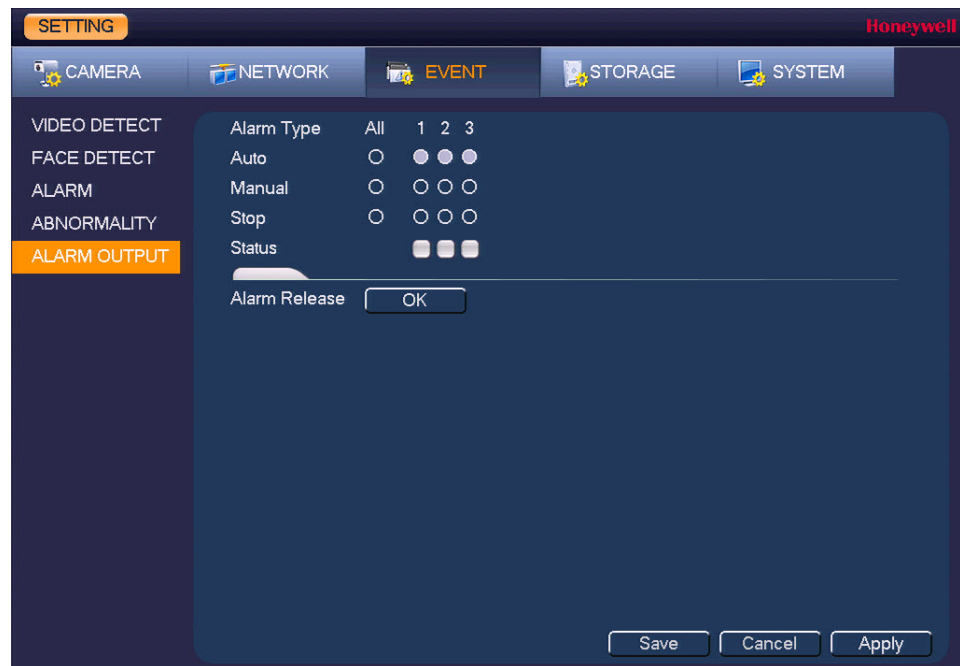
2. Select the **Enable** check box to enable illegal login detection.
3. In the **Attempt(s)** box, enter the number of failed login attempts allowed before the user is locked out. Enter a value between **0** and **255**.
4. In the **Lock Time** box, enter the number of minutes the lockout will last. Enter a value between **0** and **60**.
5. Select the actions that you want the system to initiate when the selected event occurs:
 - **Alarm Out** Select the check box to generate an alarm output signal, then select the specific alarm output(s) that you want to enable.
 - **Latch** Enter the number of seconds (0–300) that the system will delay detecting new illegal login events after the previous event has ended.
 - **Send Email** Select the check box to send an email notification. The DVR must be set up to send emails. See [Configuring Email Settings](#) on page 75.
 - **Buzzer** Select the check box to activate a buzzer at the DVR.
 - **Log** Select the check box to create a log entry.
 - **Voice Prompts** Select the check box to enable a voice prompt. Then, in the **File Name** box, select the audio file that you want to play.
6. Click **Apply** to save your settings.

Configuring Alarm Output Settings

You can let the DVR activate and cancel alarm outputs automatically or you can control these settings manually.

To configure alarm output settings:

1. Go to **Main Menu > Setting > Event > Alarm Output**.



2. By default, each alarm output is set to **Auto**. When an event occurs, the DVR automatically activates the alarm output. When the event ends, the DVR automatically cancels the alarm.
 - To manually activate an alarm output, select **Manual**, then click **Apply**.
 - To manually cancel an alarm output, select **Stop**, then click **Apply**.
 - To clear all alarm output statuses, next to **Alarm Release**, click **OK**, then click **Apply**.
3. Click **Save** to exit.

Configuring Storage Settings

This chapter contains the following sections:

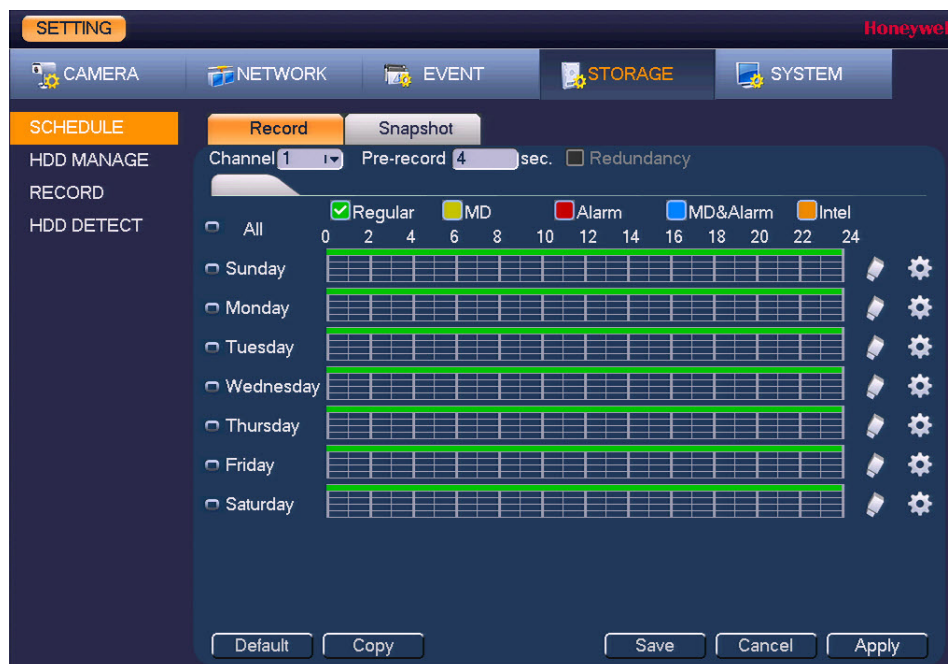
- [Configuring the Recording Schedule, page 109](#)
- [Configuring HDD Settings, page 111](#)
- [Configuring Record Settings, page 112](#)
- [Configuring HDD Diagnostic Settings, page 113](#)

Configuring the Recording Schedule

You can set up the DVR to record video and snapshots to the hard drive all the time or only when specific events occur (for example, when motion is detected or when an alarm is triggered).

To configure the video recording schedule:

1. Go to **Main Menu > Setting > Storage > Schedule > Record**.



2. On the **Record** tab, in the **Channel** box, select the camera that you want to configure a recording schedule for.
3. In the **Pre-record** box, enter a time between **0** and **30** seconds. For example, if the pre-record time is set to 30 seconds, and a window is broken, triggering an alarm or motion detection event, the DVR will preserve the previous 30 seconds of video, potentially providing important context for the event.
4. If the DVR has two HDDs, select the **Redundancy** check box to enable redundant recording on the second HDD. This HDD must first be configured as redundant on the **HDD Manage** page (see [Configuring HDD Settings](#) on page 111).
5. At the top of the scheduling table, select the check box of the recording type that you want to schedule:
 - **Regular** The regular recording schedule is indicated by a green bar.
 - **MD** The motion detection recording schedule is indicated by a yellow bar.
 - **Alarm** The alarm recording schedule is indicated by a red bar.
 - **MD&Alarm** The motion detection and alarm schedule is indicated by a blue bar.
 - **Intel** Intelligent identification recording, or Face Detection recording, is indicated by an orange bar.
6. Click or drag the mouse in the scheduling table to set a recording period. Alternatively, click the gear icon at the right of the table, and set up to six recording periods per day. To copy the settings to additional days, select the appropriate check box(es) under **Copy**, and then click **Save**.
7. To delete a daily recording period, click the eraser icon at the right of the table.
8. Click **Apply** to save your settings.
9. To copy the settings to one or more additional cameras, click **Copy**, click the camera(s) that you want to copy the settings to (or click **All** to select all cameras), and then click **OK**.

To configure the snapshot recording schedule:

1. Go to **Main Menu > Setting > Storage > Schedule > Snapshot**
2. Follow the same steps as for configuring video recording (see steps 5 to 9 above).

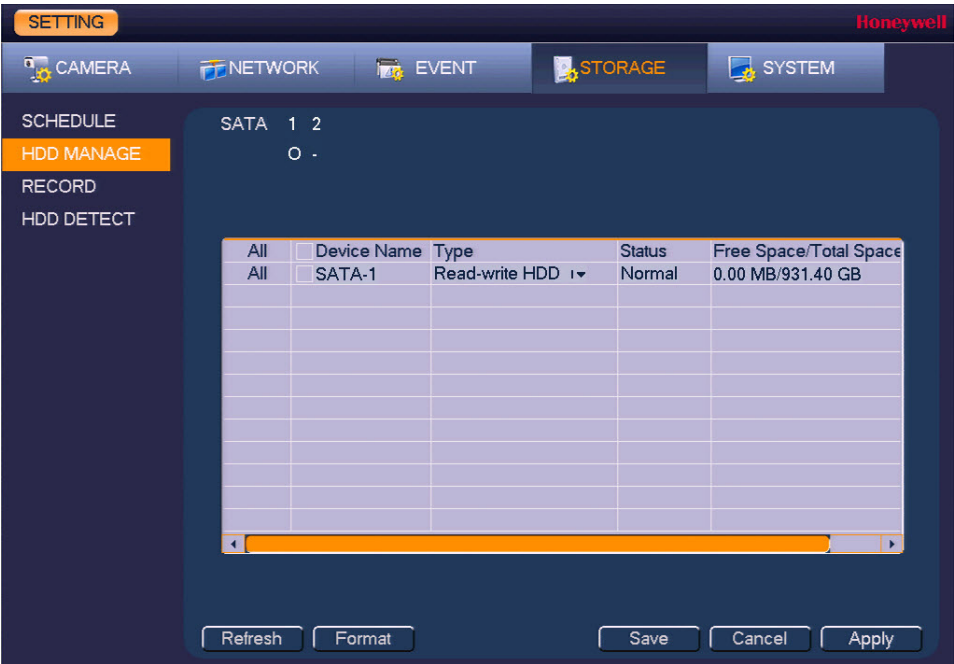
Note After you have set up a recording schedule, apply the schedule to specific cameras on the **Record** page (see [Configuring Record Settings](#) on page 112). If you have scheduled an event recording type (MD, Alarm, MD&Alarm, Intel), ensure that the specific events that you want to record are enabled (see [Configuring Event Settings](#) on page 81).

Configuring HDD Settings

On the **HDD Manage** page, you can view information about your hard drive(s), change the drive type (read-write or read-only), and format a drive.

To configure HDD settings:

1. Go to **Main Menu > Setting > Storage > HDD Manage**.



SATA	o indicates the current HDD is normal. x indicates there is an error. - indicates that there is no HDD. ? indicates that a HDD is damaged.
Device Name	The HDD name.
Type	The HDD type (read-write or read-only).
Status	The current operating status of the HDD.
Free Space/ Total Space	The amount of free space remaining on the HDD/ The total capacity of the HDD.

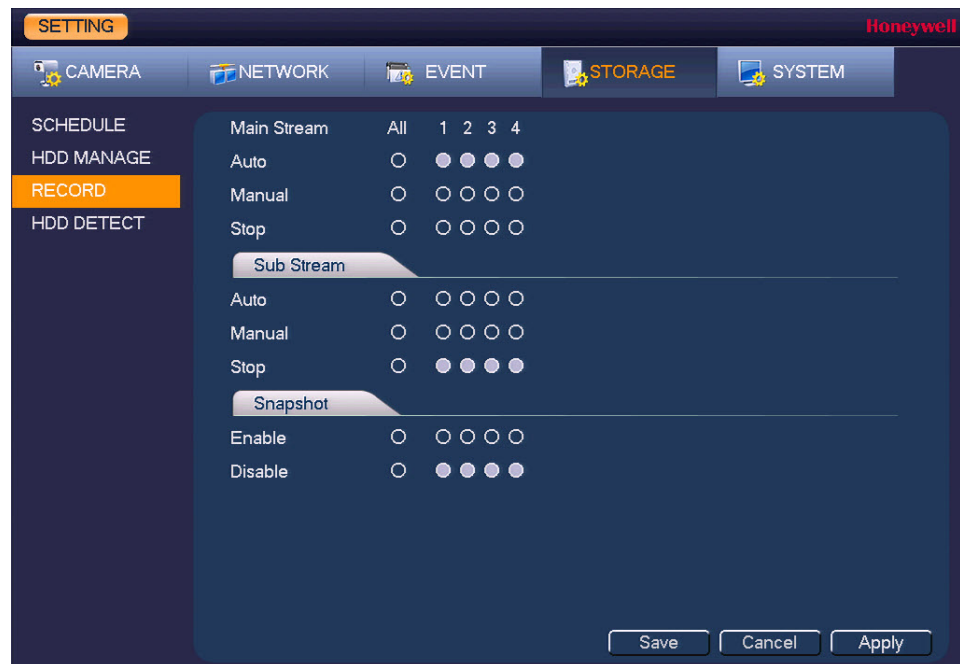
2. The drive is configured as read-write by default. To change it to read-only, in the **Type** column, select **Read-only HDD**. The DVR restarts to apply the new setting.
3. To erase all data from the drive, click **Format** (the drive must be set to “read-write” before you can format it). The message "Confirm format on the selected device?" appears. Click **OK** to continue.

Configuring Record Settings

On the **Record** page, you can specify which video record settings you want to apply to a particular camera.

To configure record settings:

1. Go to **Main Menu > Setting > Storage > Record**.



2. Select the record settings (**Auto**, **Manual**, **Stop**) that you want to enable for each camera for both the main stream and the secondary stream (sub stream).
3. Under **Snapshot**, enable or disable snapshot recording on each channel.
4. Click **Apply**, and then click **Save** to save your settings.

For example, if you have set up a video recording and snapshot schedule for Camera 1 (see [Configuring the Recording Schedule](#) on page 109), under column **1**, **Auto** (scheduled recording) should be selected for the main stream and/or sub stream, and **Snapshot** should be set to **Enable**.

Configuring HDD Diagnostic Settings

On the **HDD Detect** page, you can run diagnostic tests to measure hard drive performance and generate reports of test results.

To run a diagnostic test on the HDD:

1. Go to **Main Menu > Setting > Storage > HDD Detect > Detect**.



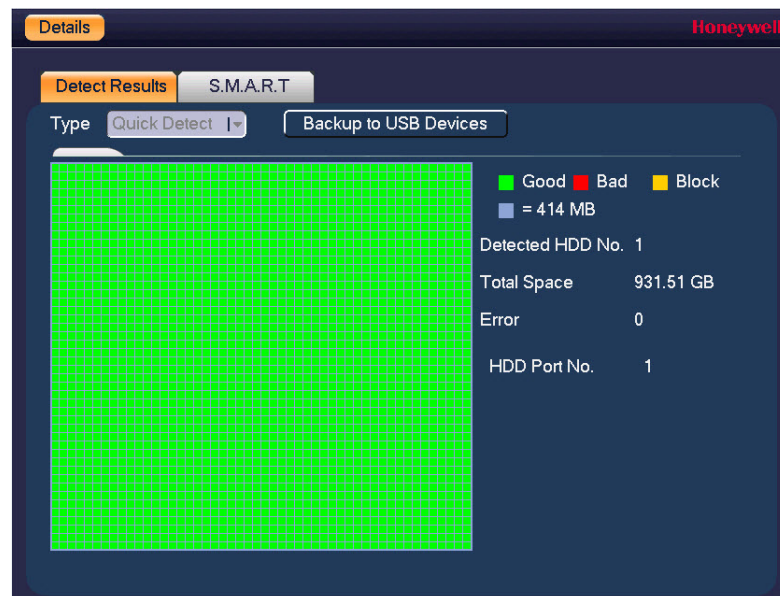
2. On the **Detect** tab, in the **Type** box, select the diagnostic test that you want to run: **Quick Detect** or **Global Detect**.
3. In the **HDD** box, select the HDD that you want to test.
4. Click **Start Detect** to start the diagnostic test.

To view and/or back up the diagnostic test results:

1. Click the **Report** tab.



2. Select the report that you want to view from the list, and then click the **View** button . (If the **View** button isn't visible in the window, drag the scroll bar at the bottom of the list to the right). The **Details** window opens.



3. In the **Details** window, on the **Detect Results** tab, you can view a graphical depiction of the HDD's overall health. Any bad sectors are marked red.

- 4. To back up the test results to an external USB storage device, ensure that a USB storage device (such as a USB flash drive) is connected to one of the USB ports on the DVR, and then click **Backup to USB Devices**.
- 5. To view S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) details, click the **S.M.A.R.T** tab.

Details

Honeywell

Detect Results

S.M.A.R.T

Port 1

Model ST1000VM002-1ET162

No. W511NAX6

Status OK

Describe:

Smart ID	Attribute	Threshold	Value	Worst Value
1	Read Error Rate	6	115	100
3	Spin Up Time	0	99	98
4	Start/Stop Count	20	100	100
5	Reallocated Sector Count	10	100	100
7	Seek Error Rate	30	100	253
9	Power On Hours Count	0	100	100
10	Spin-up Retry Count	97	100	100
12	Power On/Off Count	20	100	100
184	End-to-End Error	99	100	100

Configuring System Settings

This chapter contains the following sections:

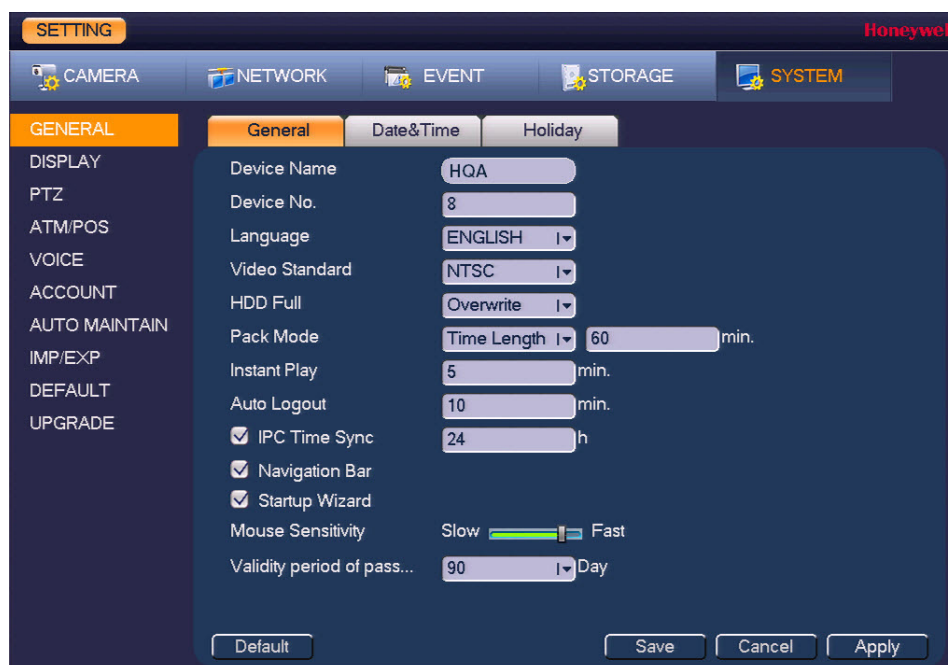
- [*Configuring General System Settings, page 118*](#)
- [*Configuring Display Settings, page 123*](#)
- [*Configuring Pan/Tilt/Zoom Settings, page 126*](#)
- [*Configuring ATM/POS \(Card Overlay\) Settings, page 126*](#)
- [*Configuring Voice Settings, page 128*](#)
- [*Configuring Account Settings, page 130*](#)
- [*Configuring Automatic Maintenance Settings, page 136*](#)
- [*Exporting and Importing System Configurations, page 137*](#)
- [*Restoring Default Settings, page 139*](#)
- [*Upgrading the DVR, page 140*](#)

Configuring General System Settings

Configuring Device Settings

To configure general settings:

1. Go to **Main Menu > Setting > System > General > General**.



2. On the **General** tab, configure the following settings:
 - **Device Name** Enter a device name for the DVR.
 - **Device No.** Enter a device number for the DVR.
 - **Language** Set the language of the user interface.
 - **Video Standard** Set the video standard to **NTSC** or **PAL**.
 - **HDD Full** Set to **Overwrite** to continue recording when the HDD is full. Set to **Stop Record** to stop recording when the HDD is full. The default setting is **Overwrite**.
 - **Pack Mode** Select either **Time Length** or **File Length**. Then specify a time between **1** and **60** minutes (default is **60 min**) or a file size (from **1** to **2048** MB).
 - **Instant Play** Set the length of time to play back video using the realtime playback function in live view mode. Specify a time between **5** and **60** minutes. The default setting is **5 min**.
 - **Auto Logout** Set the length of time the DVR waits before logging out an inactive user. Specify a time between **0** and **60** minutes. The default setting is **10 min**.
 - **IPC Time Sync** Enter the interval (in hours) at which the time on the connected IP cameras will sync with the DVR system time.

- **Navigation Bar** Select the check box to display the live view toolbar on the live view screen. Clear the check box to hide the live view toolbar.
- **Startup Wizard** Select the check box to display the Startup Wizard at startup. Clear the check box to bypass the Startup Wizard at startup.
- **Mouse Sensitivity** Set the desired mouse speed using the slider.
- **Validity period of password** Set the number of days that the login password will be valid before it needs to be changed (**None, 30, 60, 90**).

3. Click **Apply** to save your settings.

Configuring Date and Time Settings

To configure the system time setting:

1. Go to **Main Menu > Setting > System > General > Date&Time**.

The screenshot shows the Honeywell system settings interface. The top navigation bar includes tabs for CAMERA, NETWORK, EVENT, STORAGE, and SYSTEM. The left sidebar lists various settings categories: GENERAL, DISPLAY, PTZ, ATM/POS, VOICE, ACCOUNT, AUTO MAINTAIN, IMP/EXP, DEFAULT, and UPGRADE. The main content area is titled 'Date&Time' and contains the following settings:

- Date Format:** A dropdown menu showing 'YYYY MM DD'.
- Time Format:** A dropdown menu showing '24-HOUR'.
- Date Separator:** A dropdown menu showing '-'.
- System Time:** A text input field showing '2017 - 06 - 20 | 11 : 19 : 27' and a time zone dropdown showing 'GMT+00:00'.
- DST (Daylight Saving Time):** A checkbox that is currently unchecked.
- DST Type:** Radio buttons for 'Week' and 'Date', with 'Date' selected.
- Start Time:** A text input field showing '2000 - 01 - 01 | 00 : 00'.
- End Time:** A text input field showing '2000 - 01 - 01 | 00 : 00'.
- NTP (Network Time Protocol):** A checkbox that is currently unchecked.
- Host IP:** A text input field showing 'time.windows.com' and a 'Manual Update' button.
- Port:** A text input field showing '123'.
- Interval:** A text input field showing '60' and a 'min.' label.

At the bottom of the settings area, there are buttons for 'Default', 'Save', 'Cancel', and 'Apply'.

2. On the **Date&Time** tab, configure the following settings:

- **Date Format** Select the date format that you want to use for the system time: **YYYY MM DD, MM DD YYYY, or DD MM YYYY**.
- **Time Format** Select the time format that you want to use for the system time: **24-Hour or 12-Hour**.
- **Date Separator** Select the separator that you want to use for the system time: period (.), hyphen (-), or forward slash (/).
- **System Time** Enter the system time and time zone, and then click **Save**.

3. Click **Apply** to save your settings.

To configure the Daylight Saving Time (DST) setting:

1. On the **Date&Time** tab, select the **DST** check box.
2. Specify when Daylight Saving Time begins and ends.
 - a. Since the specific dates change every year, select **Week** as the **DST Type**.
 - b. Set the **Start Time** as **Mar 2nd Su 02:00** (the second Sunday in March at 2:00 a.m.).
 - c. Set the **End Time** as **Nov 1st Su 02:00** (the first Sunday in November at 2:00 a.m.).
3. Click **Apply** to save your settings.

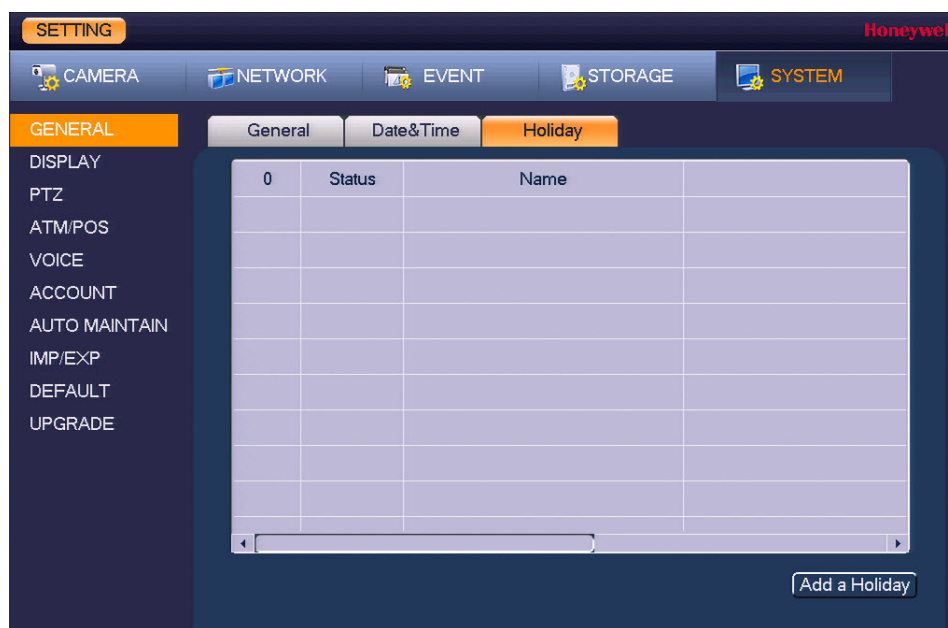
To synchronize the system time with the Network Time Protocol (NTP):

1. Ensure that the DVR is connected to the Internet.
2. On the **Date&Time** tab, select the **NTP** check box.
3. In the **Host IP** box, enter the IP address of the NTP server that you want to use (for example, time.nist.gov).
4. Ensure that **Port** is set to **123**.
5. To change the frequency with which the system time synchronizes with the NTP server, enter a new time in the **Interval** box. The default setting is **60 min**.
6. Click **Manual Update** to manually synchronize your system time with the NTP server.
7. Click **Apply** to save your settings.

Configuring Holiday Settings

To add a holiday:

1. Go to **Main Menu > Setting > System > General > Holiday**.



- On the **Holiday** tab, click **Add a Holiday**. The **Add Holidays** window opens.

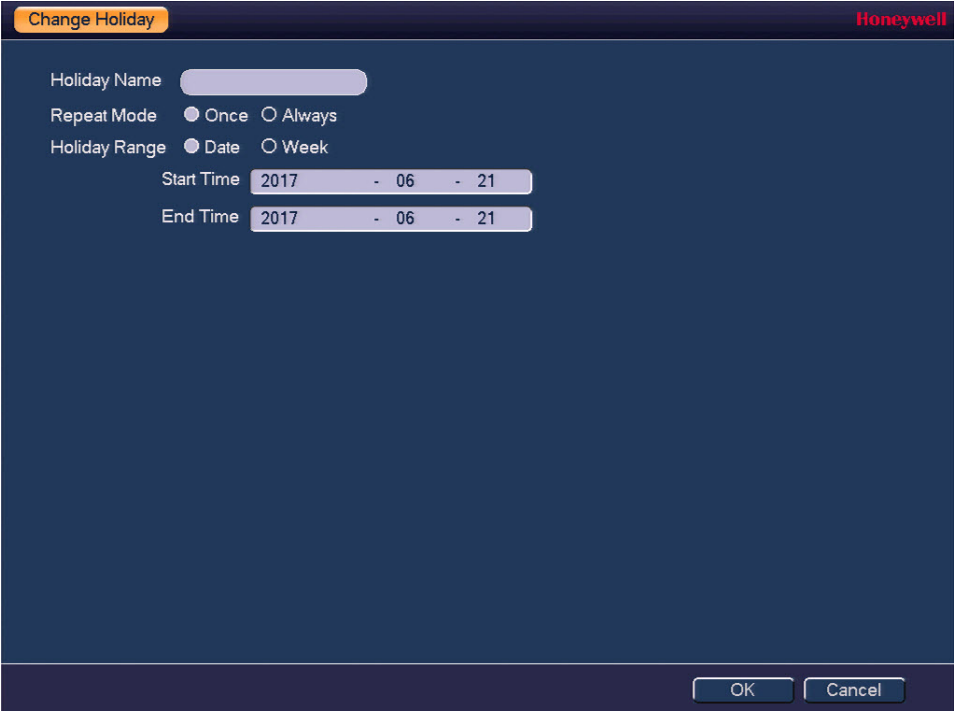
- In the **Holiday Name** box, enter the name of the holiday that you want to add.
- Set **Repeat Mode** to **Once** or **Always**.

Note If you want the DVR to recognize a particular day of the week as a holiday year-round (for example, every Friday), set **Repeat Mode** to **Always**.

- Set **Holiday Range** to **Date** or **Week** depending on whether you want to designate a single day or one or more weeks as a holiday.
 - If **Date** is selected, enter the year, month, and day in the **Start Time** and **End Time** boxes.
 - If **Week** is selected, enter the year, month, week of the month (1st, 2nd, 3rd, 4th, Last), and day.
- If you want to add more holidays, select the **Add More** check box.
- Click **Add** to add the holiday. The holiday is added to the list of holidays on the **Holiday** tab and the status is set to **Enable**.

To edit a holiday:

1. On the **Holiday** tab, select the holiday that you want to edit from the list of holidays, then, under **Operation**, click the modify icon . The **Change Holiday** window opens.

The image shows a 'Change Holiday' window from the Honeywell security system. The window has a dark blue background. At the top left is a yellow button labeled 'Change Holiday'. At the top right is the 'Honeywell' logo. The main area contains several fields: 'Holiday Name' with a text input box; 'Repeat Mode' with two radio buttons, 'Once' (selected) and 'Always'; 'Holiday Range' with two radio buttons, 'Date' (selected) and 'Week'; 'Start Time' with a date picker showing '2017 - 06 - 21'; and 'End Time' with a date picker showing '2017 - 06 - 21'. At the bottom right are two buttons: 'OK' and 'Cancel'.

2. Enter the desired changes, and then click **OK**.

To disable a holiday:

- On the **Holiday** tab, select the holiday that you want to disable from the list of holidays, and then, under **Status**, select **Disable**.

To delete a holiday:

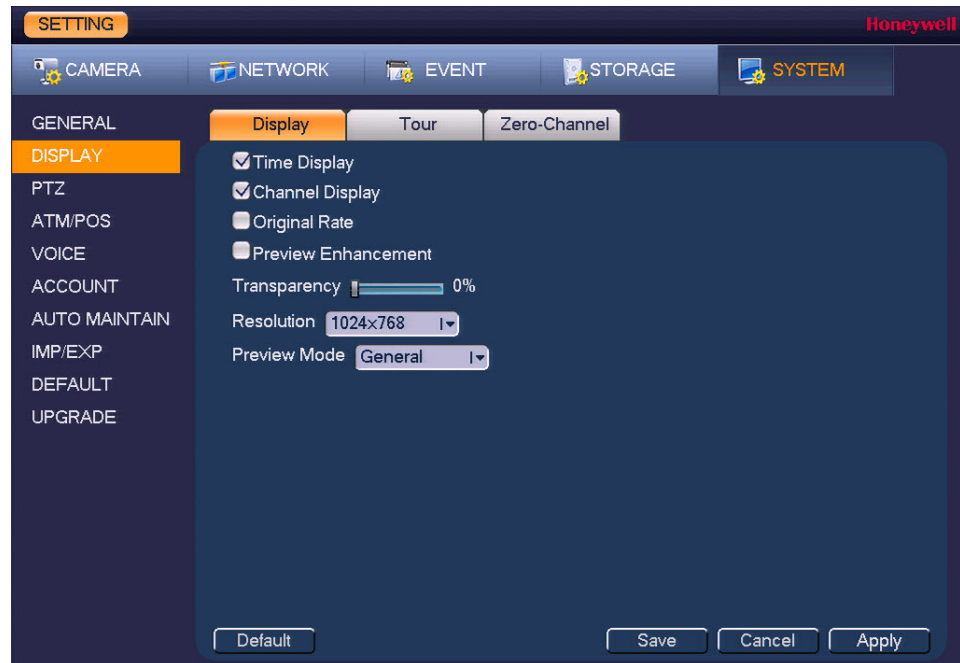
- On the **Holiday** tab, select the holiday that you want to delete from the list of holidays, and then click the **Delete** icon .

Configuring Display Settings

Configuring Display Settings

To configure the display settings:

1. Go to **Main Menu > Setting > System > Display > Display**.



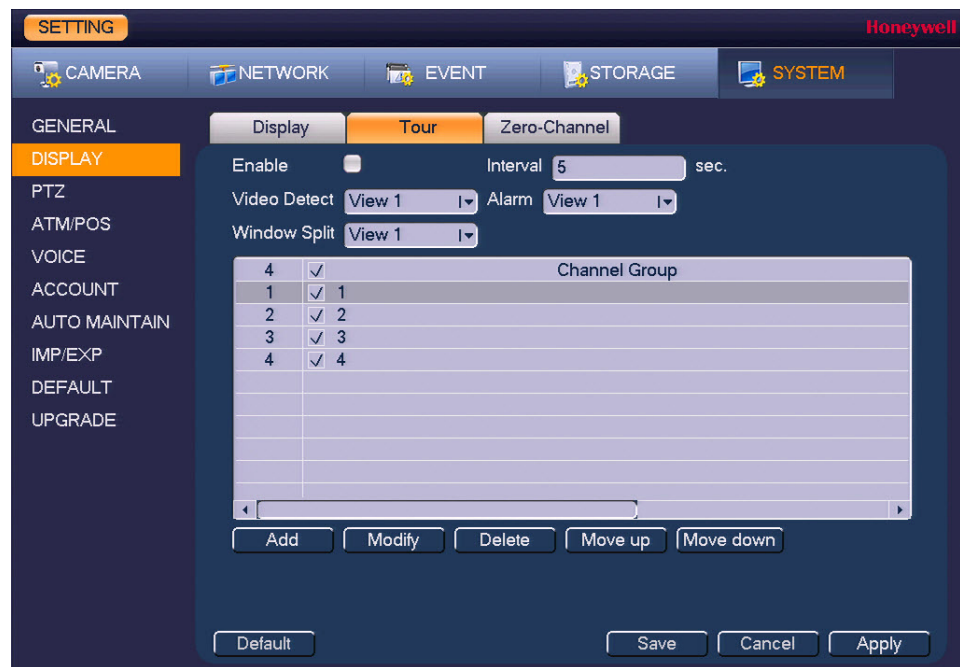
2. On the **Display** tab, configure the following settings:
 - **Time Display** To display the current time in each channel window in live view mode, select the check box. To hide the time, clear the check box.
 - **Channel Display** To display the camera name, status, and channel number in each channel window, select the check box. To hide the camera name, status, and channel number, clear the check box.
 - **Original Rate** Check to display the image in its actual size/proportion.
 - **Preview Enhancement** To enhance the display image, select the check box. To keep the default settings, clear the check box.
 - **Transparency** Set the transparency of the graphical user interface (GUI) to a value between **0** (totally opaque) and **100** (totally transparent).
 - **Resolution** Set the resolution of your display. You must restart the DVR for new display resolution settings to take effect.
 - **Preview Mode** Select **Show Face List** to see, in live view mode, all the snapshots taken as a result of face detection.
3. Click **Apply** to save your settings.

Configuring Tour Settings

In a tour, the DVR cycles through different channel views. You can specify which views and cameras you want to appear in the tour.

To configure a tour:

1. Go to **Main Menu > Setting > System > Display > Tour**.



2. On the **Tour** tab, select the **Enable** check box to enable the tour function.
3. In the **Interval** box, enter the amount of time in seconds that you want each view to appear on the screen. The default setting is **5** seconds.
4. Do one of the following:
 - To cycle through all of the cameras in all of the available views, keep the default settings.
 - To create a custom tour, for each view in the **Window Split** list (**View 1**, **View 4**, ...), clear the check box on the top row of the **Channel Group** list to deselect all of the cameras for that view, then select the cameras for each view that you want to appear in the tour.

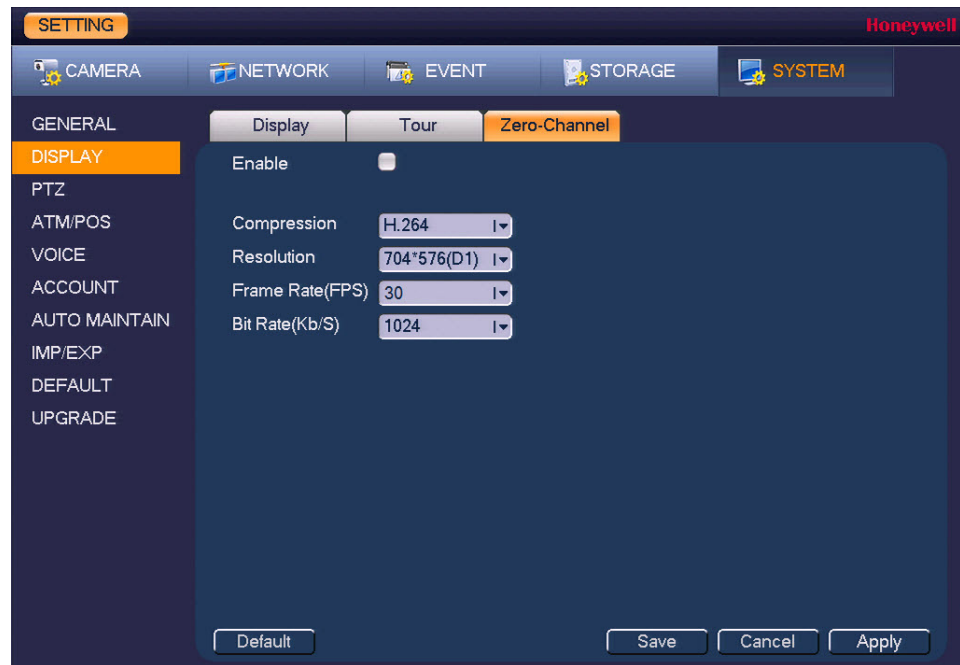
For example, to create a tour showing only cameras 2, 3, and 5 in single-channel view, set **Window Split** to **View 1** and then select cameras **2**, **3**, and **5**. There should be no other cameras selected in View 1 or in any of the other views.
5. If you want, you can add, modify, or delete cameras from the **Channel Group** list. You can only add cameras that do not already appear in the list. On some DVR models you can change the **Motion Tour Type** and **Alarm Tour Type** from **View 1** (single-channel view) to **View 4** (four-channel view).
6. Click **Apply** to save your settings.

Configuring Zero-Channel Settings

The zero channel function lets you view several video sources on one channel in a web browser, saving bandwidth and improving upload speeds.

To configure zero channel encoding:

1. Go to **Main Menu > Setting > System > Display > Zero-Channel**.



2. On the **Zero-Channel** tab, configure the following settings:
 - **Enable** Select the check box to enable the zero-channel function.
 - **Compression** Select the desired video compression standard from the list. The default setting is **H.264**.
 - **Resolution** Select the desired video resolution from the list. The default setting is **D1**.
 - **Frame Rate (FPS)** Select a value between **1** and **30** (NTSC) or between **1** and **25** (PAL).
 - **Bit Rate (Kb/S)** Select a value between **896** and **4096**. The default setting is **1024**.
3. Click **Apply** to save your settings.
4. Log in to the DVR remotely via a web browser, and then, in the lower right corner of the main **Preview** window, click one of the available layout options, and select the range of cameras that you want to view.



The selected cameras will display in the selected layout in one of the channels.

Configuring Pan/Tilt/Zoom Settings

See [Configuring PTZ Functions](#) on page 39.

Configuring ATM/POS (Card Overlay) Settings

The ATM/POS (card overlay) settings allow the DVR to communicate with automated teller machines (ATMs) and point of sale (POS) machines in a retail environment.

Configuring Net Settings

You can configure the network settings with or without the ATM/POS protocol.

To configure the network settings with the ATM/POS protocol:

1. Go to **Main Menu > Setting > System > ATM/POS > Net**.

The screenshot shows the 'SETTING' menu with 'SYSTEM' selected. Under 'SYSTEM', 'ATM/POS' is selected, and the 'Net' sub-tab is active. The 'Protocol' is set to 'ATM/POS'. The 'Current Sniffer Mode is NET'. The 'Overlay Mode' has checkboxes for 'Preview' and 'Record', both of which are checked. The 'Overlay Position' is set to 'Top Left'. The 'Data Group' is set to 'Data Group1'. The 'Source IP' and 'Destination IP' are both set to '0 . 0 . 0 . 0'. The 'Port' for both is set to '0'. The 'Record Channel' is set to '1 2 3 4'. Below this, there is a table for 'Frame ID' settings:

Frame ID	StartPosition	Length	Key
Frame ID1	1	0	Data
Frame ID2	1	0	Data
Frame ID3	1	0	Data
Frame ID4	1	0	Data
Frame ID5	1	0	Data
Frame ID6	1	0	Data

At the bottom right, there are buttons for 'Save', 'Cancel', and 'Apply'.

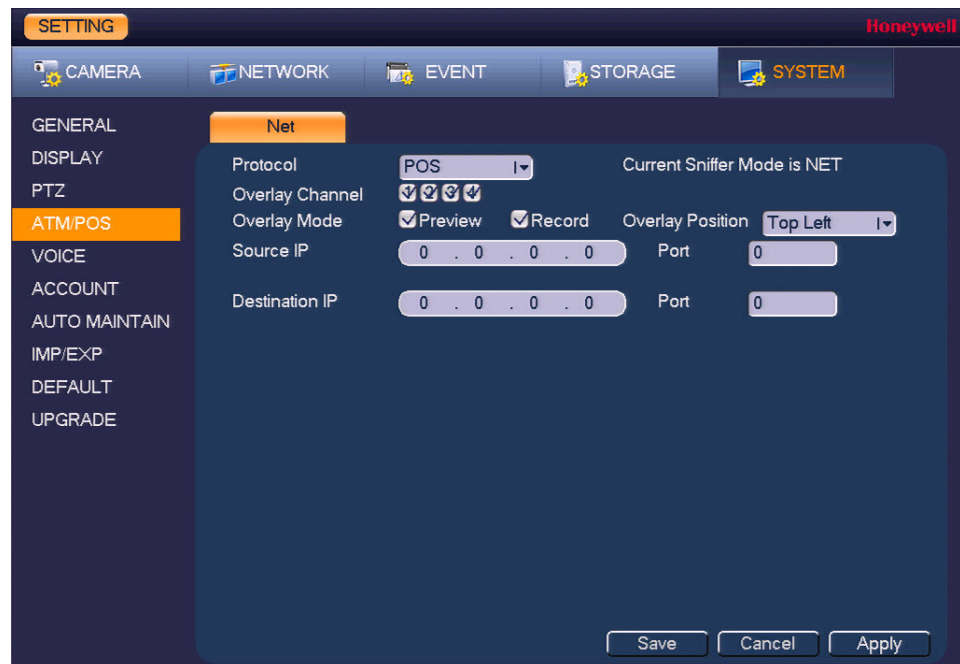
2. On the **Net** tab, configure the following settings:
 - **Protocol** Select **ATM/POS**.
 - **Overlay Mode** The **Preview** and **Record** overlay modes are enabled by default. Clear the check boxes if you want to disable them.
 - **Overlay Position** Select **Top Left**, **Bottom Left**, **Top Right**, or **Bottom Right**.
 - **Data Group** Select the data group that you want to configure (**Data Group1**, **Data Group2**, **Data Group3**, **Data Group4**).
 - **Source IP/Port** Enter the source IP and port. The source IP refers to the host IP address that sends out the information.

- **Destination IP/Port** Enter the destination IP and port. The destination IP refers to the IP address of the device that receives the information.
- **Record Channel** Select a camera.
- **Frame ID** Configure up to 6 Frame IDs to ensure valid and legal information.
Enter the **StartPosition**, **Length**, and **Key**. Click **Data** to enter **Start Position**, **Length**, and **Title** information for up to four fields, and then click **Save**.

3. Click **Apply** to save your settings.

To configure the network settings without the ATM/POS protocol:

1. Go to **Main Menu > Setting > System > ATM/POS > Net**.



2. On the **Net** tab, configure the following settings:

- **Protocol** Select **POS**.
- **Overlay Channel** Select a camera.
- **Overlay Mode** The **Preview** and **Record** overlay modes are enabled by default. Clear the check boxes if you want to disable them.
- **Overlay Position** Select **Top Left**, **Bottom Left**, **Top Right**, or **Bottom Right**.
- **Source IP/Port** Enter the source IP and port. The source IP refers to the host IP address that sends out the information.
- **Destination IP/Port** Enter the destination IP and port. The destination IP refers to the IP address of the device that receives the information.

3. Click **Apply** to save your settings.

Configuring the Voice Schedule

To configure the active schedule:

1. Go to **Main Menu > Setting > System > Voice > Schedule**.

The screenshot shows the Honeywell system settings interface. The top navigation bar includes 'SETTING' (highlighted), 'CAMERA', 'NETWORK', 'EVENT', 'STORAGE', and 'SYSTEM'. The left sidebar lists various settings categories: GENERAL, DISPLAY, PTZ, ATM/POS, VOICE (highlighted), ACCOUNT, AUTO MAINTAIN, IMP/EXP, DEFAULT, and UPGRADE. The main content area is titled 'Schedule' and contains a table with columns: Period, File Name, Interval, Repeat, and Output. There are six rows, each with a checkbox to its left. The first row is selected. At the bottom right, there are 'Save', 'Cancel', and 'Apply' buttons.

	Period	File Name	Interval	Repeat	Output
☒	00:00 - 24:00	None	60 min.	0	Mic
☐	00:00 - 24:00	None	60 min.	0	Mic
☐	00:00 - 24:00	None	60 min.	0	Mic
☐	00:00 - 24:00	None	60 min.	0	Mic
☐	00:00 - 24:00	None	60 min.	0	Mic
☐	00:00 - 24:00	None	60 min.	0	Mic

2. In the **Period** box, define the time period(s) that you want the function to be active. Select the check box to the left of the **Period** box to make it active.
3. In the **File Name** box, select the audio file that you want to play.
4. In the **Interval** box, enter the interval between playings of the audio file.
5. In the **Repeat** box, enter the number of times that you want the audio file to repeat.
6. Click **Apply** to save your settings.

2. On the **User** tab, click **Add User**. The **Add User** page opens.

3. On the **Add User** page, configure the following settings:

- **User Name** Enter a user name for the account.
- **Password** Enter a password for the account.
- **Confirm Password** Re-enter the password.
- **Memo** Optionally, enter a brief description of the account.
- **User MAC** Optionally, record the user's MAC address so that user can only log in on a specific device on the network. If this field is left blank, the user can log in on any connected device on the network.
- **Group** Assign the user to a group (**admin**, **user**, or another group that you have defined).
- **Period** Click **Set**, then, next to the day that you want to configure, click **Set**. Enter the period(s) when the account will be active, then click **OK**. Click **OK** again to exit.
- **Authority** Assign privileges by selecting or clearing check boxes on the **System**, **Playback**, and **Monitor** tabs.

Note By default, the **user** group is set up to allow a new user to monitor live video from all cameras, play back recorded video from all cameras, control PTZ cameras, view information, manually control the DVR, back up files, and adjust color settings. To assign additional privileges, change the **user** settings on the **Group** tab.

4. Click **Save** to save your settings.

To edit a user account:

1. Go to **Main Menu > Setting > System > Account > User**.
2. On the **User** tab, click the **Modify** icon  of the user account that you want to edit. The **Modify User** page opens.
3. On the **Modify User** page, you can change any of the following settings:
 - **User Name**
 - **Password**
 - **User Group**
 - **User MAC**
 - **Memo**
 - **Authority (System, Playback, Monitor)**
4. When you have finished making changes, click **Save** to save your settings.

To delete a user account:

1. Go to **Main Menu > Setting > System > Account > User**.
2. On the **User** tab, click the **Delete** icon  of the user account that you want to delete.
3. The message "Are you sure that you want to remove this?" appears. Click **OK** to delete the account.

Note You can only delete an account that you have created. You cannot delete the admin and default user accounts.

3. On the **Add Group** page, enter a name for the group in the **Group Name** box, enter a description of the group in the **Memo** box, and then assign user permissions on the **System**, **Playback**, and **Monitor** tabs.
4. Click **Save** to save your settings.

To edit a user group:

1. Go to **Main Menu > Setting > System > Account > Group**.
2. On the **Group** tab, click the **Modify** icon  of the user group that you want to edit. The **Modify Group** page opens.
3. On the **Modify Group** page, you can change any of the following settings:
 - **Group**
 - **Group Name**
 - **Memo**
 - **Authority (System, Playback, Monitor)**
4. When you have finished making changes, click **Save** to save your settings.

To delete a user group:

1. Go to **Main Menu > Setting > System > Account > Group**.
2. On the **Group** tab, click the **Delete** icon  of the user group that you want to delete.
3. The message "Are you sure that you want to remove this?" appears. Click **OK** to delete the group.

Configuring Security Questions

To configure security questions:

1. Go to **Main Menu > Setting > System > Account > Secure Question**.

The screenshot shows the Honeywell system settings interface. At the top, there's a 'SETTING' tab and a 'Honeywell' logo. Below this, there are tabs for CAMERA, NETWORK, EVENT, STORAGE, and SYSTEM. The SYSTEM tab is selected. On the left, there's a sidebar with options: GENERAL, DISPLAY, PTZ, ATM/POS, VOICE, ACCOUNT (highlighted), AUTO MAINTAIN, IMP/EXP, DEFAULT, and UPGRADE. Under the ACCOUNT tab, there are sub-tabs: User, Group, and Secure Question (highlighted). The main area displays a form for setting security questions. It starts with the instruction: 'Please set a security question so that you can find the password of (admin) again.' There are two questions: 'Question 1' with the text 'What's your favorite pet?' and 'Question 2' with the text 'What's your first car model?'. Each question has a corresponding 'Answer' field. At the bottom right, there are 'Set' and 'Delete' buttons.

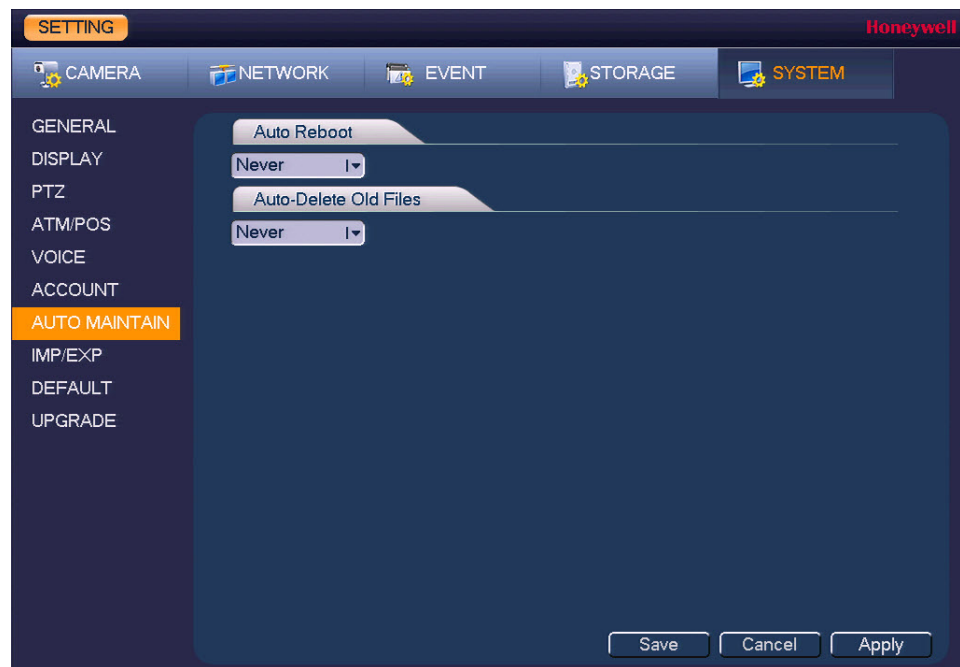
2. In the **Question 1** and **Question 2** boxes, select a question from the list or click **Customized** to create a new security question.
3. In the **Answer** boxes, enter the answers.
4. Click **Set** to save your settings.

Configuring Automatic Maintenance Settings

You can set up the DVR to automatically restart and/or to automatically delete old files.

To configure the auto reboot function:

1. Go to **Main Menu > Setting > System > Auto Maintain**.



2. Under **Auto Reboot**, select one of the following options: **Never**, **Everyday**, **Sunday**, **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, or **Saturday**.
3. Click **Apply** to save your settings.

To configure the auto-delete old files function:

1. Under **Auto-Delete Old Files**, select **Never** or **Customized**.
2. If **Customized** is selected, in the **Day(s) Ago** box, enter the number of days to keep old files before they are automatically deleted.
3. Click **Apply** to save your settings.

Exporting and Importing System Configurations

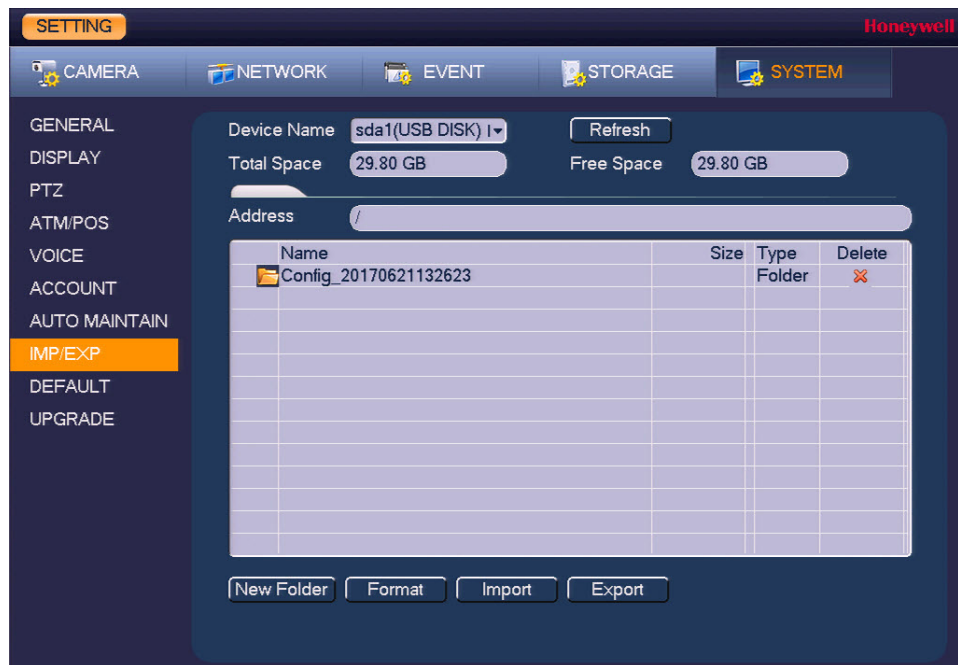
You can export and/or import DVR system configurations if you are installing several DVRs requiring the same setup.

To export a system configuration

1. Go to **Main Menu > Setting > System > IMP/EXP.**
2. Insert a USB storage device (such as a USB flash drive) into one of the USB ports on the DVR. The **Find USB device** window opens.



3. Click **Config Backup**.
4. On the **Config Backup** page, click **Refresh**. The page populates with the details of the storage device.
5. Click **Export**. A message appears confirming that the export was successful and the system configuration file (named Config_[YYYYMMDDhhmmss]) is added to the file list.



To import a system configuration:

1. Insert a USB storage device containing a system configuration file (exported from another DVR) into one of the USB ports on the DVR. The **Find USB device** window opens.
2. Click **Config Backup**.
3. On the **Config Backup** page, click the configuration file that you want to import (named Config_[YYYYMMDDhhmmss]), and then click **Import**.
4. Restart the DVR to apply the new settings.

To format an external USB storage device:

1. Go to **Main Menu > Setting > System > Config Backup**.
2. Insert a USB storage device (such as a USB flash drive) into one of the USB ports on the DVR. The **Find USB device** window opens.
3. Click **Config Backup**.
4. On the **Config Backup** page, click **Refresh**. The page populates with the details of the storage device.
5. Click **Format**.
6. The message "Confirm format on the selected device?" appears. Click **OK** to format the storage device.

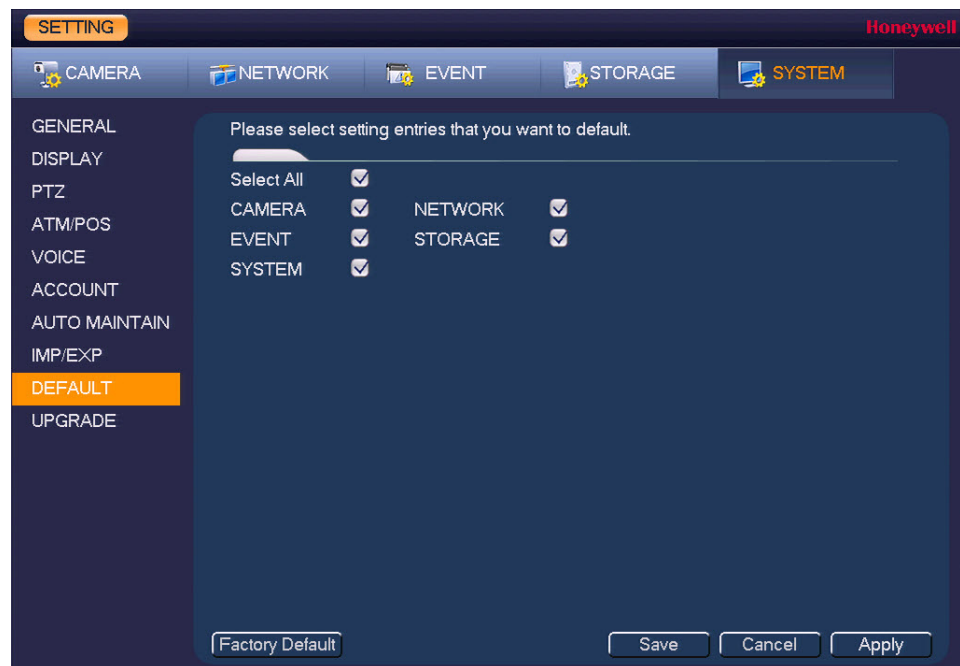
Restoring Default Settings

You can restore camera, network, event, storage, and system default settings.

Note Restoring the default settings will cause all changes to the system menu color, language, time display mode, video format, IP address, and user accounts to be lost.

To restore default settings:

1. Go to **Main Menu > Setting > System > Default**.



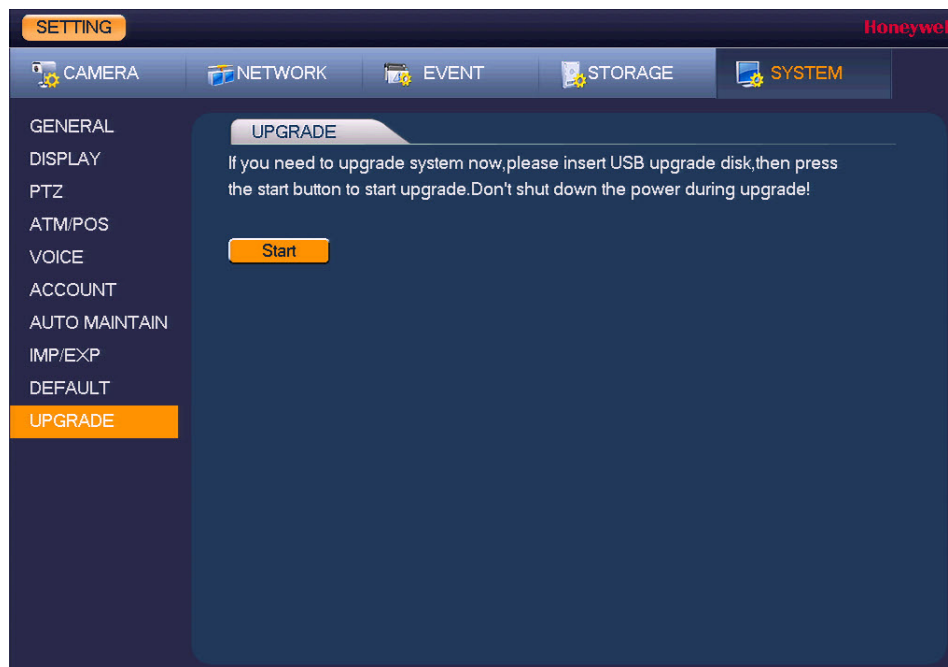
2. Select the check boxes of the items that you want to restore to their default settings, or click **Select All** to restore all of them to their default settings.
3. Click **Apply** to save your settings.

Upgrading the DVR

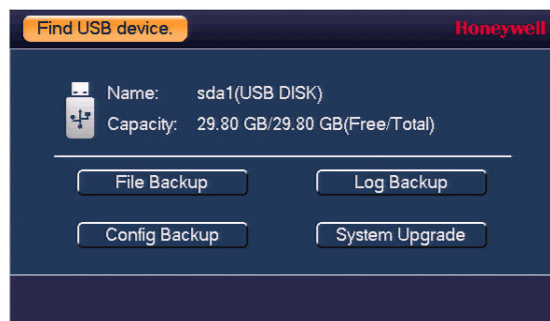
You can upgrade the system firmware locally at the DVR.

To upgrade the firmware:

1. Go to **Main Menu > Setting > System > Upgrade**.



2. Insert a USB storage device (such as a USB flash drive) containing the new firmware into one of the USB ports on the DVR. The **Find USB device** window opens.



3. Click **System Upgrade**.
4. On the **Upgrade** page, click **Start**. The **System Upgrade** window opens.
5. Select the firmware file from the file list, and then click **Start**.

Viewing Information

This chapter contains the following sections:

- [Viewing System Information, page 141](#)
- [Viewing Event Information, page 148](#)
- [Viewing Network Information, page 148](#)
- [Viewing Log Information, page 152](#)

Viewing System Information

In the system information interface you can view HDD information, record information, bit stream statistics, channel information, and version details.

Viewing HDD Information

To view HDD information:

1. Go to **Main Menu** > **Info** > **System** > **HDD Info**.

[illegible]

2. Refer to the following table to interpret the HDD information:

SATA	o indicates the current HDD is normal. x indicates there is an error. - indicates that there is no HDD. ? indicates that a HDD is damaged.
Type	Indicates the HDD type (for example, Read/Write).
Total Space	Indicates the total capacity of the HDD.
Free Space	Indicates the amount of free space remaining on the HDD.
Status	Indicates the operating status of the HDD.
S.M.A.R.T.	Indicates S.M.A.R.T (Self-Monitoring, Analysis, and Reporting Technology) status.

3. In the list of HDDs, double-click an HDD to view more details.

Smart Info Honeywell

Port 1

Module WDCWD10EURX-73FH1Y0

Serial No. WD-WMC1U8912682

Status OK

Describe:

Smart ID	Attribute	Threshold	Value	Worst	Status
1	Read Error Rate	51	200	200	OK
3	Spin Up Time	21	149	135	OK
4	Start/Stop Count	0	100	100	OK
5	Reallocated Sector Count	140	200	200	OK
7	Seek Error Rate	0	200	200	OK
9	Power On Hours Count	0	94	94	OK
10	Spin-up Retry Count	0	100	253	OK
11	Calibrate Retry Count	0	100	253	OK
12	Power On/Off Count	0	100	100	OK
192	Power-Off Retract Cycle	0	200	200	OK
193	Load/Unload Cycle Count	0	200	200	OK
194	Temperature	0	107	95	OK
196	Reallocated Event Count	0	200	200	OK
197	Current Pending Sector Count	0	200	200	OK
198	Off-line Scan Uncorrectable Count	0	100	253	OK

4. Right-click to return to the previous screen.

Viewing Recording Information

To view recording information:

- Go to **Main Menu > Info > System > Record**.

The screenshot shows the Honeywell recording information interface. The sidebar on the left includes options: HDD, RECORD (highlighted in orange), REC ESTIMATE, BPS, CHANNEL INFO, and VERSION. The main content area displays SATA drive information (1, 2) and a table of recorded video segments. The table has columns for Start Time and End Time. The first row is highlighted in orange.

	Start Time	End Time
All	2017-11-13 20:07:09	2017-11-18 13:10:57
1*	2017-11-17 04:17:36	2017-11-18 13:10:57
	2017-11-13 20:07:09	2017-11-14 07:14:34
	2017-11-14 07:14:35	2017-11-15 10:47:14
	2017-11-15 10:47:07	2017-11-16 09:06:34
	2017-11-16 09:06:27	2017-11-17 04:17:44

On the **Record Info** page, you can view the start and end times for recorded video.

Estimating Recording Time and Space

You can calculate the amount of recorded video that can be stored recording time based on the available HDD space, or you can calculate the HDD space needed for a given recording time.

To estimate recording time:

1. Go to **Main Menu > Info > System > Rec Estimate**.

Channel	Edit	Bit Rate(Kb/S)	Record Time	Resolution
☒ 1		2048	24	1920*1080(1080P)
☒ 2		2048	24	1280*720(720P)
☒ 3		2048	24	1280*720(720P)
☒ 4		2048	24	1280*720(720P)
☐ 5		2048	24	1280*720(720P)
☐ 6		2048	24	1280*720(720P)

Known Space Known Time

Capacity TB = GB

Time Days

Note: The record estimation data here is for reference only. Please be cautious when you are calculating record period.

2. For each channel, click the **Edit** button , specify the **Resolution**, **Frame Rate**, **Bit Rate**, and **Record Time** of the channel (in days), and then click **OK**.
3. In the **Known Space** area, click **Select**, select the HDD(s) that you plan to record to, and then click **OK**.

The DVR will estimate how much how many days of recorded video can be stored on the HDD(s). Please note that this is an estimate only.

To estimate recording space:

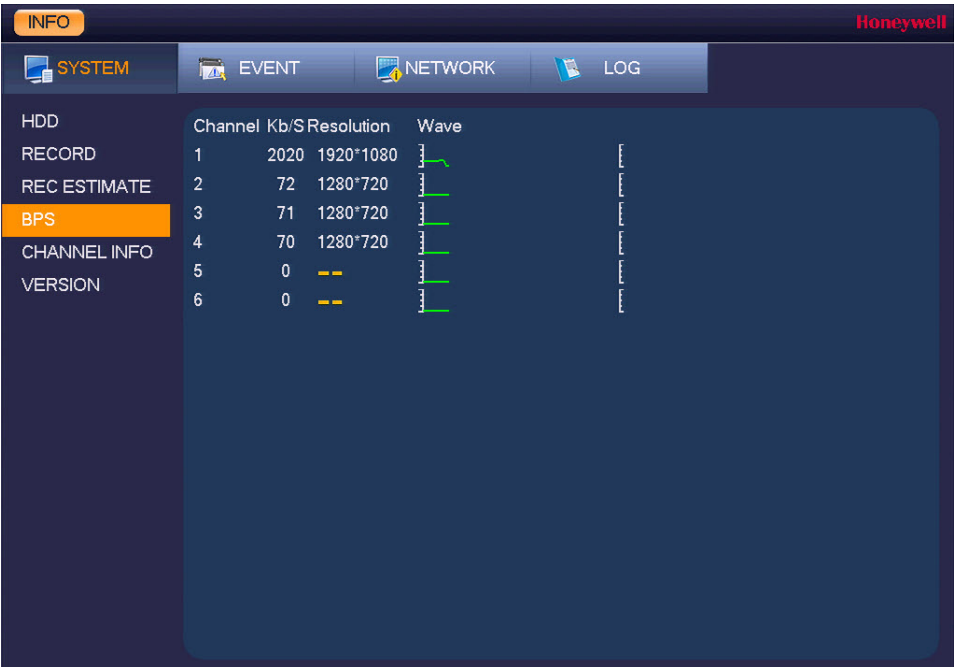
1. Go to **Main Menu > Info > System > Rec Estimate**
2. For each channel, click the **Edit** button, specify the **Resolution**, **Frame Rate**, **Bit Rate**, and **Record Time** of the channel (in days), and then click **OK**.
3. Click the **Known Time** tab.
4. In the **Time** box, enter the number of days you want to record video for.

Based on the HDD capacity, the DVR will estimate how much storage space will be required for the number of days of recorded video.

Viewing Data Stream Information

To view data stream information:

- Go to Main Menu > Info > System > BPS.

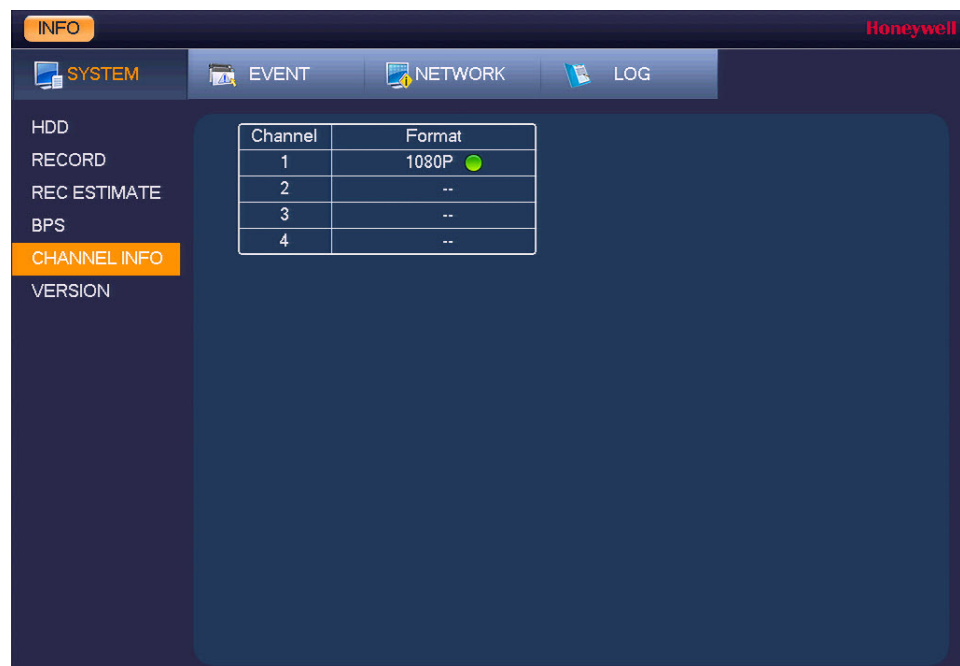


On the **BPS** page, you can view the current video data stream rates and resolutions for each channel.

Viewing Channel Information

To view channel information:

- Go to **Main Menu > Info > System > Channel Info**.

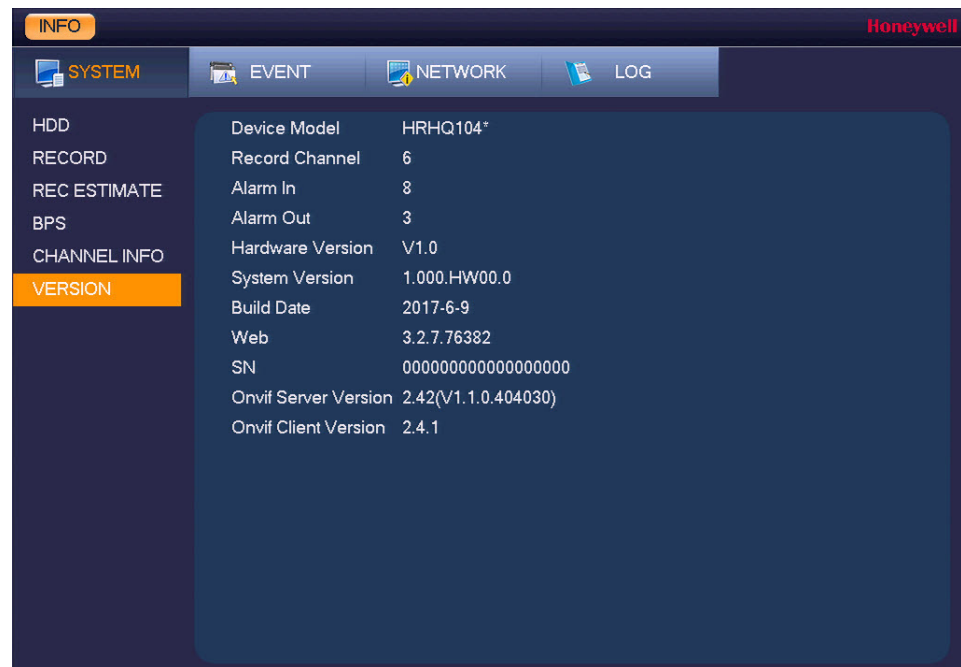


On the **Channel Info** page, you can view the resolution for each channel and whether or not it is working correctly.

Viewing Version Information

To view version information:

- Go to **Main Menu > Info > System > Version**.

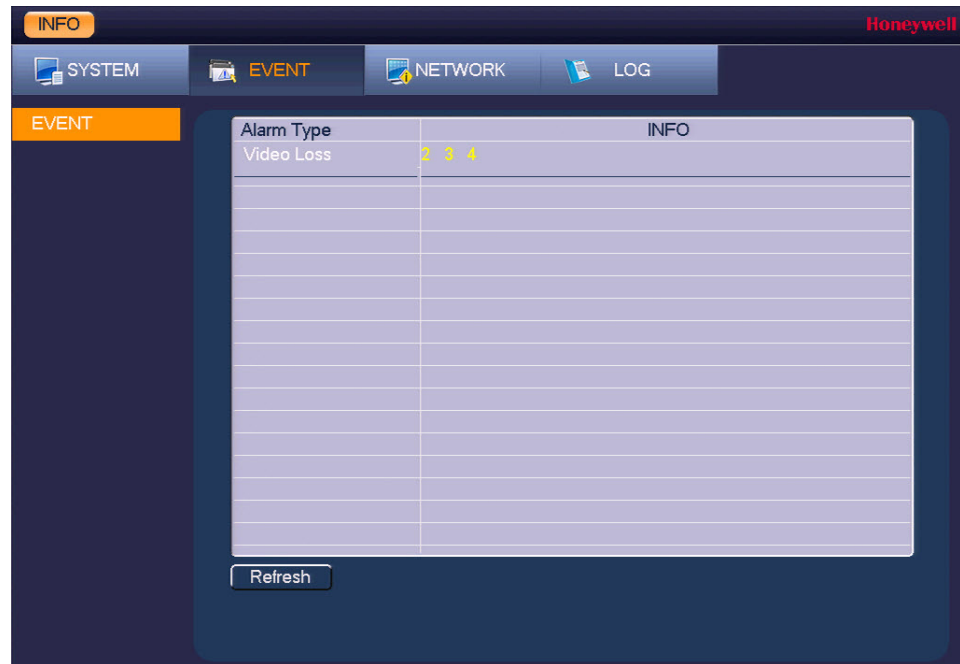


On the **Version** page, you can view the DVR model type, number of channels, number of alarm inputs and outputs, hardware version, firmware version, build date, web client version, serial number, and ONVIF version.

Viewing Event Information

To view event information:

- Go to **Main Menu > Info > Event**.



On the **Event** page, you can view event information at the device level and at the channel level. Click **Refresh** to view the most up-to-date information.

Viewing Network Information

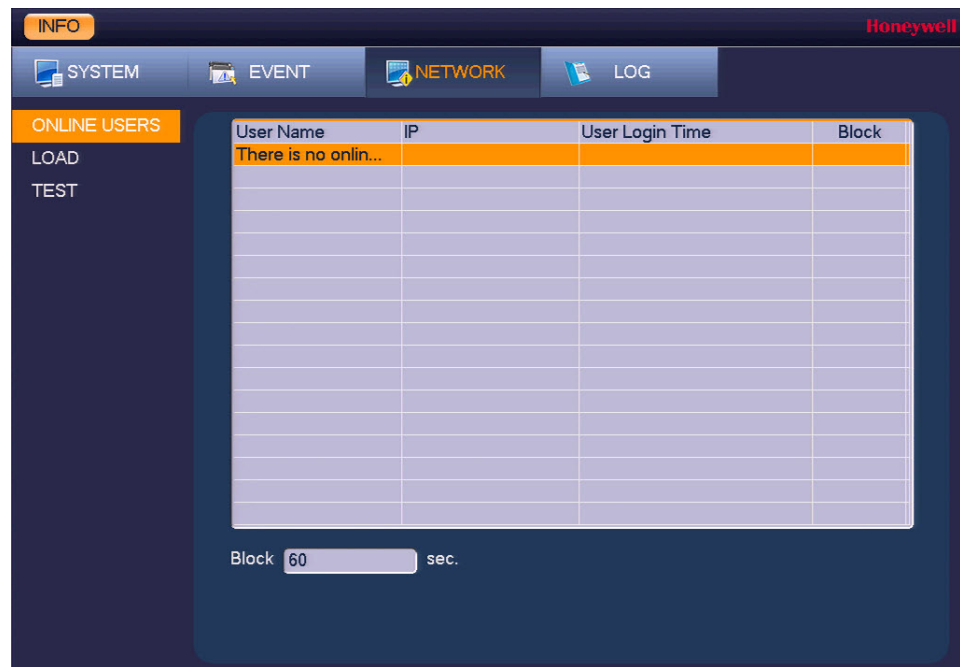
In the network information interface you can view and/or block online users, view network data transmission details, and perform network tests.

Viewing Online Users

You can view the user name, IP address, and login time of all online users. You can also block an online user for a specified period of time.

To view online users:

- Go to **Main Menu > Info > Network > Online Users**.



Note Every five seconds, the DVR system detects newly added or dropped users, and updates the list of online users.

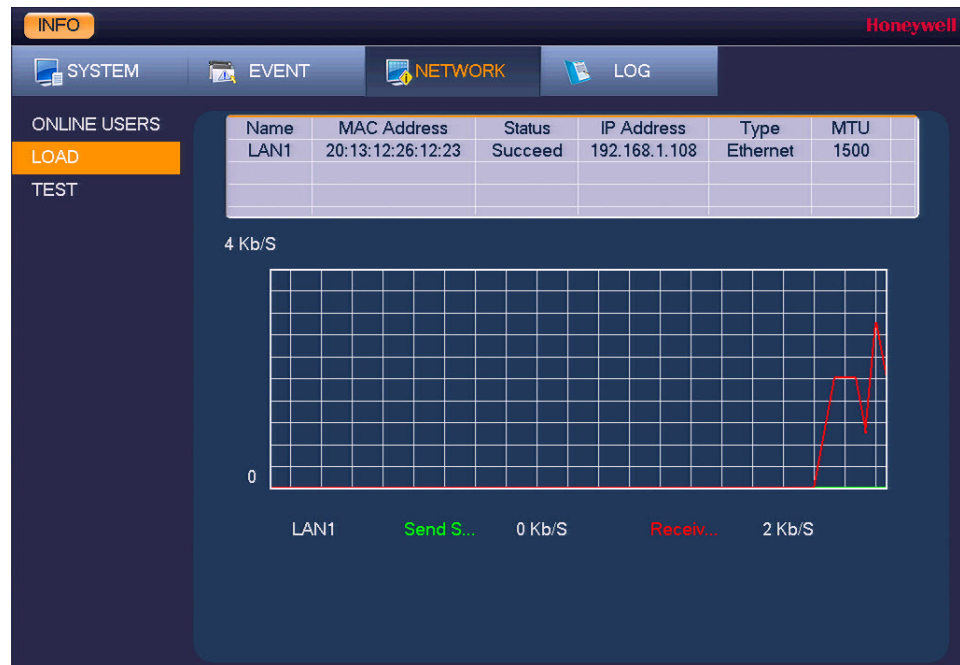
To temporarily block an online user:

- Go to **Main Menu > Info > Network > Online Users**.
- Click the **Block** icon in the user list, and then, in the **Block** box at the bottom of the screen, enter the amount of time that you want to block the user for. You can enter up to **65535** seconds (18.2 hours).

Viewing Network Load Information

To view network load information:

- Go to **Main Menu > Info > Network > Load**.



On the **Load** page, you can view the network adapter name, MAC address, status (**Succeed** or **Failed**), device IP address, network type, and maximum transmission unit (MTU) value.

Select the network adapter (LAN1) to monitor its send and receive speed.

Viewing Network Test Information

To test the network:

1. Go to **Main Menu > Info > Network > Test**.

Name	IP	Sniffer Packet Size	Sniffer Packet Backup
LAN1	192.168.1.108	0KB	

2. On the **Test** page, under **Network Test**, enter a valid IPv4 address or domain name in the **Destination Address** box, and then click **Test**.

The test result displays the average delay and packet loss rate. It also indicates if the network status is **OK**, **Bad**, or **No Connection**.

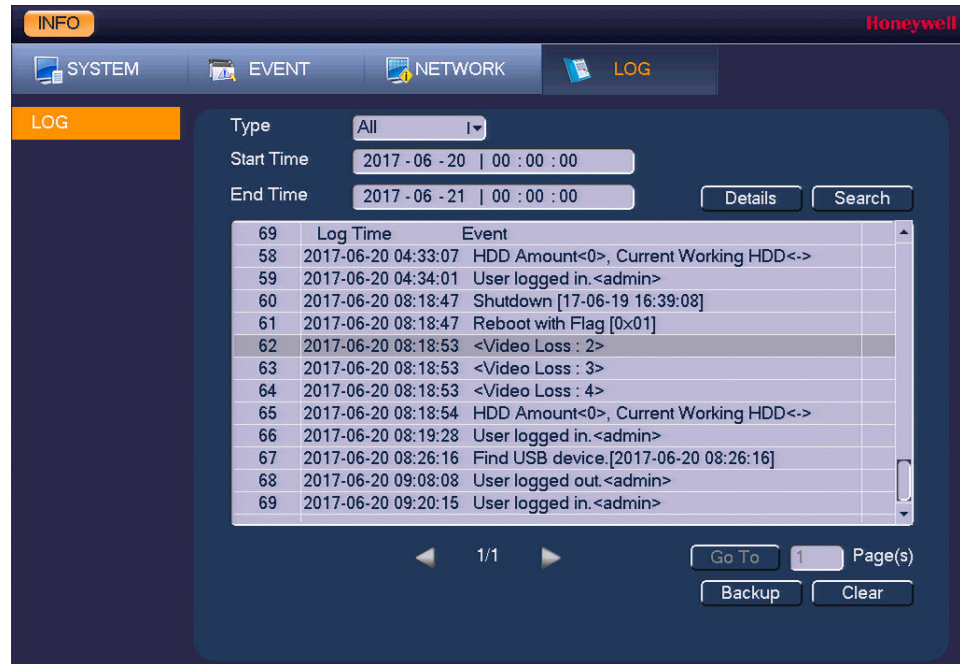
To back up network packet data to an external USB storage device:

1. Insert a USB storage device (such as a USB flash drive) into one of the USB ports on the DVR.
2. On the **Test** page, under **Network Sniffer Packet Backup**, click **Refresh**. The connected USB storage device should appear in the **Device Name** box.
3. If you want, click **Browse** to set the saving path.
4. In the network devices list, in the **Sniffer Packet Backup** column, click the green arrow button to start capturing the data. Click the button again to stop capturing the data.

Viewing Log Information

To view log information:

1. Go to **Main Menu > Info > Log**.



2. In the **Type** box, select a specific log type to view (**System, Config, Storage, Alarm, Record, Account, Clear, Playback**) or select **All** to view all logs.
3. In the **Start Time** and **End Time** boxes, enter the time period to search, then click **Search**.
The search results are displayed in an ordered list. The DVR can save up to **1024** log files.
4. To view more details about a log entry, click **Details**.



To back up log information to an external USB storage device:

1. Insert a USB storage device (such as a USB flash drive) into one of the USB ports on the DVR. The **Find USB device** window opens.



2. Click **Log Backup**.
3. On the **Log** page, click **Backup**. The log file (FileLog.txt) is located in a folder named Log_[YYYYMMDDhhmmss] on your storage device.



Connecting Alarm Input/Outputs

This appendix contains the following sections:

- [Before Connecting Alarm Inputs and Outputs, page 155](#)
- [Alarm Input and Output Rear Panel Connections, page 155](#)
- [Guidelines for Connecting Alarm Input Ports, page 156](#)
- [Guidelines for Connecting Alarm Output Ports, page 156](#)

Before Connecting Alarm Inputs and Outputs

- Ensure that the alarm input mode is set to ground.
- Ensure that the signal is grounded.
- The alarm inputs require low-level voltage signals.
- The alarm input mode is set to either NC (normally closed) or NO (normally open).
- Use a relay if you are connecting two DVRs, or a DVR plus another device, to separate them.
- The alarm output port should not be directly connected to a high-power load. The load should be less than 1 A to avoid damage.
- Use the contactor to make the connection between the alarm output port and the load.

Alarm Input and Output Rear Panel Connections

The connections for the alarm input and output channels are described below:

Input/Output	Description
1 to 16	Alarms inputs 1 to 16. The inputs becomes active with low voltage.
NO1 C1, NO2 C2, NO3 C3	Normally open activation outputs (on/off)
	Ground

Guidelines for Connecting Alarm Input Ports

- Ground alarm inputs. Choose from normally open (NO) or normally closed (NC).
- Connect the COM end and GND end of the alarm detector in parallel. Supply external power to the alarm detector.
- Connect the ground of the DVR and the ground of the alarm detector in parallel.
- Connect the NC port of the alarm sensor to the DVR alarm input.
- Use the same ground as the DVR if you are supplying external power to the alarm device.

Guidelines for Connecting Alarm Output Ports

- Provide external power to external alarm device.
- To prevent overloading, carefully review the following relay specifications:

Material	Nickel/silver contacts with gold plating	
Rating (Resistance Load)	Rated switch capacity	30 V DC 2A; 125 V AC 1A
	Maximum switch power	125 V A, 160 W
	Maximum switch voltage	250 V AC; 220 V DC
	Maximum switch current	1 A
Insulation	Between touches with same polarity	1000 V AC/1 minute
	Between touches with different polarity	1000 V AC/1 minute
	Between touch and winding	1000 V AC/1 minute
Surge voltage	Between touches with same polarity	1500 V (10 × 160 us)
Length of open time	3 ms maximum	
Length of closed time	3 ms maximum	
Longevity	Mechanical	50 × 10 ⁶ times (3 Hz)
	Electrical	200 × 10 ³ times (0.5 Hz)
Temperature	-40°F to 158°F (-40°C to 70°C)	

B

Installing Hard Drives

This appendix contains the following sections:

- [Installing a Hard Drive, page 157](#)
- [List of Compatible SATA HDDs, page 158](#)

Installing a Hard Drive

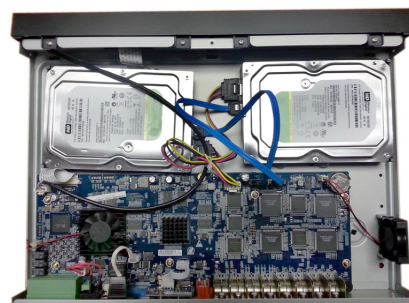
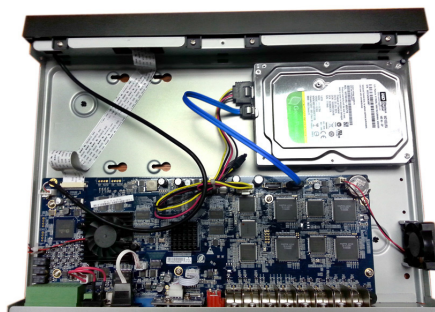
On some HRHH DVR models, you can install an additional hard disk drive (HDD). For a list of compatible HDDs, see the [List of Compatible SATA HDDs on page 158](#). A 7200 rpm or higher HDD is recommended.



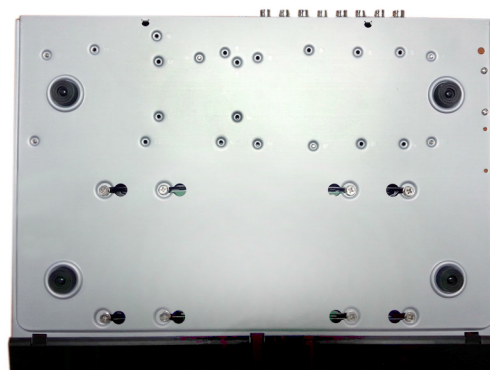
CAUTION Risk of electric shock. Disconnect power before removing cover.

To install an additional HDD:

1. If the DVR is connected to a power source, disconnect it before continuing.
2. Remove the top cover from the DVR housing by removing the four screws securing it to the housing and then sliding the cover backwards.
3. Connect the SATA and power cables to the new HDD.
4. Position the new HDD over the four open screw holes in the base of the housing, adjacent to the existing HDD.



5. Turn over the DVR housing and secure the new HDD to the housing using the four supplied HDD mounting screws.
6. Attach the HDD to housing with the four screws removed in step 4.
7. Replace the DVR top cover on the DVR housing and secure it with the four screws removed in step 2.



List of Compatible SATA HDDs

The DVR is compatible with a wide range of 3.5-inch SATA hard drives (up to 6 TB). A partial list of compatible hard drives is shown below.

Manufacturer	Series	Model Number	Capacity
Seagate	Video 3.5 HDD	ST1000VM002	1 TB
		ST2000VM003	2 TB
		ST3000VM002	3 TB
		ST4000VM000	4 TB
	SkyHawk™	ST1000VX005	1 TB
		ST2000VX008	2 TB
		ST3000VX010	3 TB
		ST4000VX007	4 TB
		ST6000VX0023	6 TB
	SV35™	ST1000VX000	1 TB
		ST2000VX000	2 TB
		ST2000VX002	2 TB
		ST3000VX000	3 TB
Western Digital	WD Purple™	WD10PURZ	1 TB
		WD20PURZ	2 TB
		WD30PURZ	3 TB
		WD40PURZ	4 TB
		WD60PURZ	6 TB
Toshiba	MD03ACA-V	MD03ACA200V	2 TB
		MD03ACA300V	3 TB
		MD03ACA400V	4 TB
	DT01ABA-V	DT01ABA100V	1 TB
		DT01ABA200V	2 TB
		DT01ABA300V	3 TB

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