IP4M-1063EW-AI / IP4M-1063EB-AI
4MP Outdoor POE+ PTZ AI Speed Dome Camera
User Manual

Version: 1.0.0
November 6th, 2020

Contents

Welcome

Thank you for purchasing an Amcrest camera!

This user manual is designed to be a reference tool for the installation and operation of your AI camera.
Here you can find information about the camera's features, functions, and information to aid in troubleshooting.

Many of the setup and installation sections below have corresponding videos on YouTube
To access the setup videos, please go to http://amcrest.com/videos

For access to the quick start guide and other support information visit: http://amcrest.com/support
To contact Amcrest support, please do one of the following: visit http://amcrest.com/contacts

Important Security Warning

To keep your Amcrest camera secure and prevent unauthorized access, please make sure to follow the steps below:

- Always make sure that your camera has the latest firmware as listed on www.amcrest.com/firmware
- Never use the default password for your camera. Always ensure that your password is at least 810 characters long and contains a combination of lowercase characters, uppercase characters as well as numbers.

Important Safeguards and Warnings

1. Electrical Safety

All installation and operation should conform to your local electrical safety codes.
The product must be grounded to reduce the risk of electric shock.
We assume no liability or responsibility for any fires or electrical shock caused by improper handling or installation.

2. Transportation Security

Heavy stress, violent vibrations, and excess moisture should not occur during transportation, storage, and installation of the device.

3. Installation

Handle the device with care. The camera requires a PoE+ connection (802.3at) or a DC 12V/3A power adapter can be used to power the device.
Note: This is a POE+ powered device. Make sure to use the proper POE+ switch when operating. For more information on POE+ please go to http://amcrest.com/poeplus

Please ensure the installation surface can handle up to 3x the weight of the camera (6.61lbs.) before installation.

4. Repair Professionals

All the examination and repair work should be done by qualified service engineers. We are not liable for any problems caused by unauthorized modifications or user-attempted repair.

5. **Environment**

The camera should be kept in a cool, dry place away from direct sunlight, flammable materials, explosive substances, etc. This product should be transported, stored, and used only in the specified environments as stated above. Do not aim the camera at a strong light source, as it may cause overexposure of the picture, and may affect the longevity of the camera's sensors. Ensure that the camera is in a well-ventilated area to prevent overheating.

6. Operation and Maintenance

Do not touch the camera sensor or lens directly. To clean dust or dirt from the lens, use an air blower or a microfiber cloth.

7. Accessories

Be sure to use only the accessories recommended by manufacturer. Before installation, please open the package and check to ensure that all the components are present. Contact the retailer that you purchased from, or Amcrest directly if anything is broken or missing in the package.

Features and Specifications

Overview

Amcrest provides an excellent digital surveillance product that can be useful to a wide variety of users. This camera connects uses an internet connection to allow the user to access all its features. It is easy to use and can be viewed on a computer via the built-in web user interface or on your smartphone using the Amcrest View Pro app.

This camera adopts a high-quality design to achieve high levels of reliability and security. It can be configured to work locally, as well as on a network. This camera works using a POE connection and interfaces with most networks through the Ethernet port of your router, POE injector or POE switch.

Features

This camera has the following features:

Network Access

The camera can be accessed remotely from a wide variety of internet connected devices, including PCs, Mac, iOS, and Android devices.

Cloud Storage Functionality

Amcrest offers premium cloud storage options to enable long-term storage. Amcrest Cloud also allows the user to easily locate and view recordings for playback from any internet connected computer or smartphone (iOS/Android).

Advanced Network Protocol Support

This camera is UPnP compatible, and includes functionality for use with DDNS, and other protocols to allow remote and local connection with a large variety of network hardware.

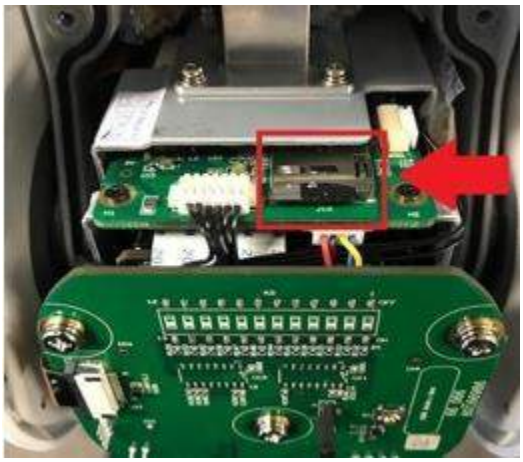
AI Features

This camera includes advanced IVS features such as tripwire, intrusion, etc. which help to increase the overall efficiency and accuracy of the camera. The camera also includes face detection as well as the ability to detect and retain video metadata types such as motor vehicles, non-motor vehicles, or people.

Device Overview

The diagram below shows the camera's rear panel.

The images below show the microSD card slot for the camera. The microSD card slot can be found on the board behind the reset switch:



Connection & Installation

This section provides information about the connection and installation of the Amcrest Outdoor PTZ camera.

Note: This is a POE+ device and requires a POE+ compatible router/switch to function. For more information on POE+ visit: http://amcrest.com/poeplus

Installation Guide

Important Notice: Prior to installation ensure that the installation environment can support at least 3 times the weight of the camera.

Note: THIS CAMERA REQUIRES A POE+ CONNECTION TO OPERATE. PLEASE ENSURE THE DEVICE IS PLUGGED INTO A POE+ SWITCH OR INJECTOR AND POWERS ON BEFORE INSTALLATION.

When accessing your camera, you will notice a few additional wiring connections associated with the device. These connections contain a power connection and ground, an Ethernet connection, audio wires, and alarm wiring.

POWER - This connection is optional for this device since the device will draw power via an Ethernet cable (PoE+) however, the option is there. The camera will require a basic DC 12V/3A power adapter. This wire also has an optional grounding (EARTH) wire for additional grounding of the unit.
Ethernet Connection - This connection is used to transmit data and transmit PoE+ power to the unit. The unit is **PoE +** (802.3at) compatible.
AUDIO - This connection provides two-way audio to the unit. The red wire is for
AUDIO OUT, the white wire is for
AUDIO IN, and the black wire is there to ground the audio.
ALARM - This connection provides alarm in and alarm out features to an external alarm or security system. The basic overview of these wires are as follows:

Blue	Alarm OUT1
Green	Alarm COM1
Yellow & Green	Alarm Ground
Red	Alarm IN1
Brown	Alarm IN2

MicroSD card Installation

To install a microSD card into your camera, please refer to the step by step guide below.

1. Locate the microSD card slot can be found on the board behind the reset switch.
2. Slide the microSD card into the SD card slot, gold pins down.
3. Gently press the card into place within the slot to click and lock the microSD card into place.

Physical Installation Guide

This installation guide will highlight how to properly install and mount your camera in several different environments. These environments including wood, masonry (brick /block walls), and cement. Prior to installation, please ensure that the installation environment can support at least three times the weight of the camera and the installation bracket.

Note: There maybe 3 carabiners included with the camera. These carabiners will be used to provide additional support to the camera after installation. To install, link one carabiner to the mounting bracket then link the third carabiner to the camera.
The camera will come with proper installation materials such as screws and anchors already, however, if replacements are needed a 9/16 lag bolt, masonry anchor, cement anchor will be required. Please ensure the following tools are available and ready for use:

- Power Drill/impact Drill
- 9/16 Drill Bit (Masonry)
- 9/16 Hex Head Drill Bit
- Marker or Sharpie

- Hammer/Impact
- Safety Glasses
- 3/16 Allen wrench
- 1” Paddle Bit (In-wall Installation)

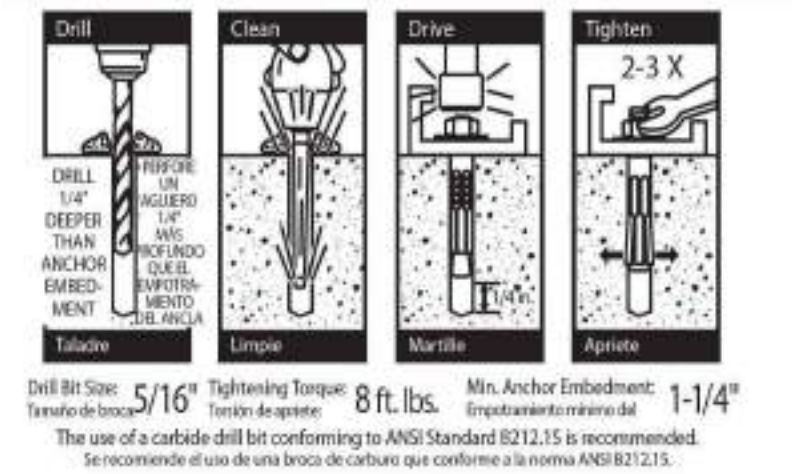
Note: In-wall installation is when the cables run hidden inside the ceiling or wall.

Wood Installation

1. Using a 3/16 Allen wrench, remove the three security screws from the mounting bracket of the camera to remove the unit from its base.
2. Using the mounting bracket, mark holes in the appropriate areas you would like to mount the camera.
3. Remove the mounting bracket and using a 1” paddle bit, drill a hole into the center of the surface area.
4. Run the camera wiring through the mounting bracket and to the applied 1” hole created for in-wall installation.
5. Using a 9/16 drill bit, drill additional holes into each marked area to insert the appropriate lag bolt screws.
6. Align the mounting bracket to the drilled holes and place a 5/16 lag bolt into the mounting bracket holes. 7. Using a 9/16 Hex Head drill bit, drill the lag bolts into the applied holes to secure the camera to the surface area. 8. Secure the camera back to the mounting bracket with the three provided bolts using a 3/16 Allen wrench.

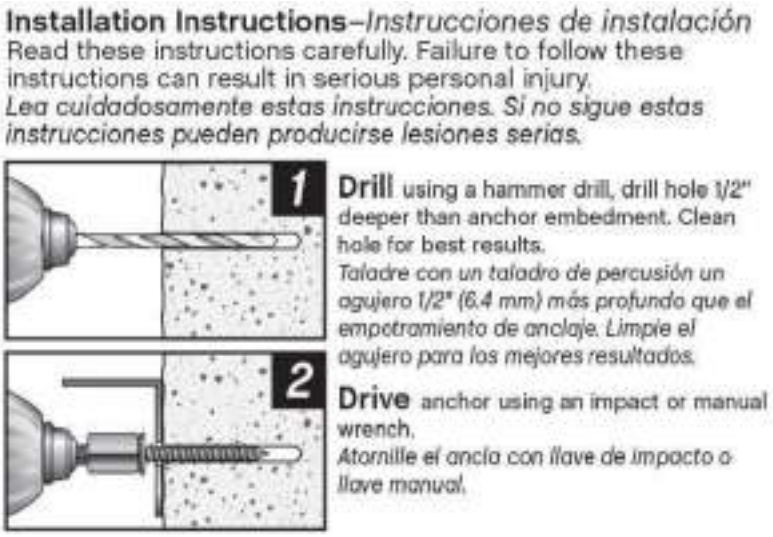
Masonry Installation (Brick/Block)

1. Using a 3/16 Allen wrench, remove the three security screws from the mounting bracket of the camera to remove the unit from its base.
2. Using the mounting bracket, mark holes in the appropriate areas you would like to mount the camera.
3. Remove the mounting bracket and using a 1” masonry paddle bit, drill a hole into the center of the surface area.
4. Run the camera wiring through the mounting bracket and to the applied 1” hole created for in-wall installation.
5. Using a 9/16 masonry bit, drill a hole into each marked area to insert the appropriate sleeve anchors.
6. Align the mounting bracket to the drilled holes and place the 9/16 sleeve anchors to the mounting bracket.
7. Using a hammer, drive the sleeve anchors into the hole, the tightening torque applied should be roughly 8ft lbs. for each anchor.
8. Tighten the anchors down to secure and lock the sleeve anchors into the surface area. This should only require about two to three turns to secure each sleeve anchor into place.
9. Secure the camera back to the mounting bracket with the three provided bolts using a 3/16 Allen wrench.



Cement Installation

1. Using a 3/16 Allen wrench, remove the three security screws from the mounting bracket to remove the unit from its base.
2. Using the mounting bracket, mark holes in the appropriate areas you would like to mount the camera.
3. Remove the mounting bracket and using a 1” drill bit, drill a hole into the center of the surface area.
4. Run the camera wiring through the mounting bracket and to the applied 1” hole created for in-wall installation.
5. Using a 9/16 drill bit, drill a hole into each marked area to insert the appropriate concrete anchor screw into the hole.
6. Align the mounting bracket to the drilled holes and place the 9/16 concrete anchor screw to the mounting bracket.
7. Using an impact or manual wrench, drive the concrete anchors into the appropriate hole to secure the bracket to the surface area.
8. Secure the camera back to the mounting bracket with the three provided bolts using a 3/16 Allen wrench.



Camera Access Setup

This section of the guide will provide the user with information on how to setup access to the camera through any of the following methods.

Default Username and Password

To login to the system for the first time, use one of the following default username/password combinations. Once you have successfully logged in, it is highly recommended to change the password for security reasons.

Username: admin

Password: admin

Note: Logging in for the first time will prompt the user to change the password to the admin account.

How to Setup the Camera

To make your experience with your Amcrest camera easy and simple, we have provided multiple ways to set up, view, and operate your camera depending on your needs. Please follow the instructions on this page to set up your camera in the way that works best for you.

App Setup

Amcrest cameras can be used on your mobile device using the following apps:

- Amcrest Cloud
- Amcrest View Pro

Both apps are free and available in the App Store and Google Play store. Please note, each app requires an iOS 6.0 or later version. Android will require a 3.0 or later version OS to run these apps.

For purposes of this guide, we will use iOS, though both apps. The App Interface may differ slightly from the screenshots below as updates are released. Below, you will find instructions on how to set up your camera up on the Amcrest cloud app as well as the Amcrest View Pro app.

Amcrest Cloud App Setup

Amcrest Cloud allows you to access your device from anywhere in the world. Please note, you will need an Amcrest Cloud account to proceed with Amcrest Cloud app setup. You can register for a cloud account in the Amcrest Cloud app or from the Amcrest Cloud website at https://amcrest.com/cloud/

- Please make sure your camera is plugged into a power source and your Ethernet cable is connected from the camera to your router.
- Make sure your camera and mobile device are on the same network during setup.
- To ensure the camera connects to the cloud, a reboot of your camera is recommended. To add your camera onto the Amcrest Cloud app, follow these steps:

1. Download and open the Amcrest Cloud app from the App Store or Play Store.

Note: Connect your mobile device to the same network that your camera is on.

2. Register for an Amcrest Cloud account. To register click on **Sign Up** and fill out the form to complete registration.

	
3. Tap on **Add Camera**	4. Give your camera a name (Ex. Garage, Living Room, Kitchen, etc.) and tap **Next** to continue.
	
5. Scan the QR code on the back/side/bottom of the camera or manually enter the camera's serial number into the **Enter camera S/N (serial number)** field. Press **Next** to continue.	6. If you are adding a new camera that does not have a set password the app will automatically detect that a new camera is being added. Tap **OK** to proceed.

	
7. Set a new password for your camera. The password must be between 8 to 32 characters long and contain only letters and numbers. When you have finished setting the password for your camera, enter the password again in the **Confirm Camera Password** section. Tap **Next** to continue.	8. Confirm and adjust any needed settings for your camera. When all settings have been confirmed, tap **Finish**.

For more information about the Amcrest Cloud app and its features, visit amcrest.com/support

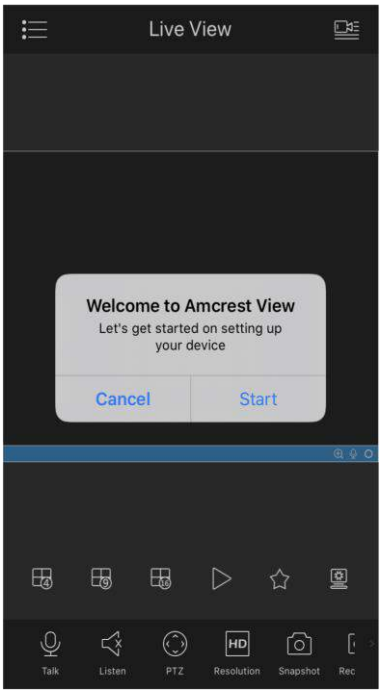
Amcrest View Pro Setup

To add your PoE camera to the Amcrest View Pro app follow these steps:

The following steps will continue the app setup process for an Android phone and, though the iPhone version of the app has slightly different steps, most of this process is identical and easy.

Download and install the Amcrest View Pro app for the App Store or Google Play Store.

Open the app on your mobile device and allow the app to load.

<table>
<tr>
<td> 
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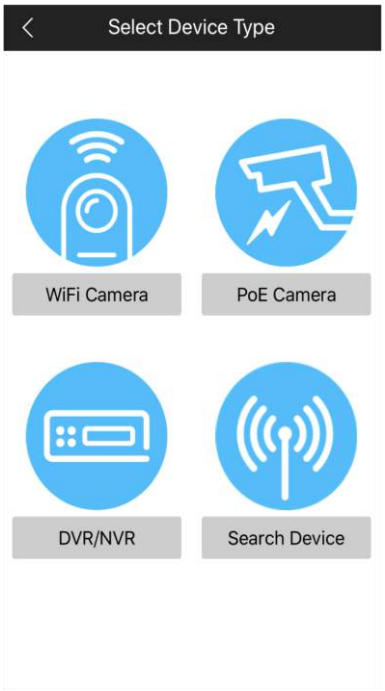
<td> 
</td>
</tr>
<tr>
<td>3. Tap “Start”.</td>
<td>4. Tap “POE Camera”.</td>
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<td>5. Tap “P2P Connection”.

Note: IP/Domain/DDNS can be used to establish a DDNS connection. For more information on how to setup a DDNS connection, visit amcrest.com/support</td>
<td>6. Scan the QR code. The QR code can be found on the serial tag along with a scannable barcode.</td>
</tr>
</table>

	
7. Create a name for the device and enter a username and password. The default username and password will be admin. Tap **"Start Live View".**	8. Update the default password for the device and tap **"Start Live View"** to view the device.

For more information about Amcrest View Pro and its functionalities visit amcrest.com/support

Desktop Access Setup

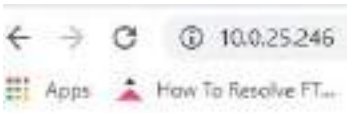
The AI features associated with your camera are only accessible and customizable using the built-in web user interface via a web browser.

This camera features the latest in JS technology which allows you to access your camera via a wide variety of web browsers including, Google Chrome, Firefox, Safari and other mainstream web browsers via your PC or Mac computer**.** For more information on how to access your camera from your computer please refer to the information below.

To access your camera from your computer you will need to first locate the camera's IP address. To locate the camera's IP address is it highly recommended to download our free Amcrest IP Config Tool software. The Amcrest IP Config Tool can be downloaded at the following web page: amcerest.com/downloads

In the **All Downloads** menu, click on **IP Config Software** to begin the free download. Once the download has completed installing, locate the IP address associated with the device you would like to view in the browser.

Open a web browser and enter this IP address for your camera into browser and press Enter.



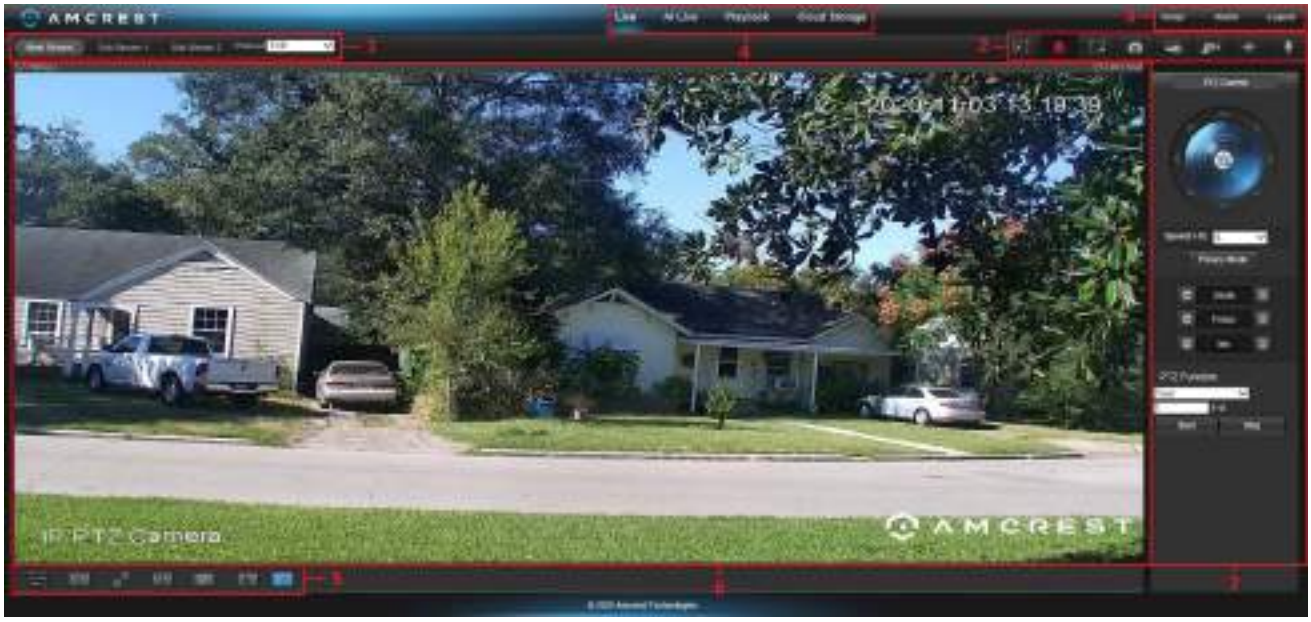
In the web user interface, enter the login credentials for your device. If this is the first time accessing the device, the username and password will both be **admin.** Click on **Login**.

If this is the first-time logging into your device, you will be prompted to modify the password for your device. To modify the password, enter the new password you would like to use in the **New Password** field and confirm. The password used should be between 8 and 32 characters long with a combination of letters and numbers.

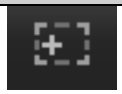
Click **OK** when and allow the stream to load.

Live

This section of the manual details the camera's interface, as well as all the operations the camera can perform.
The live view tab allows the user to see a live video feed from the camera. The live view tab has five main sections:



Section 1: This bar allows the user to select which stream type and which protocol they want to choose.
Section 2: The functions bar allows the user to perform different camera functions while in live mode. See the table below for an explanation of the different functions available:

Button	Function Name	Function Description
	Regional Focus	This option allows the user to select a region on the live view interface which can be automatically focused by the camera.
	Alarm Output	This option is used to generate an alarm output signal. This button becomes red/grey depending on alarm output activation or cancellation.
	Digital Zoom	This option allows the user to select a region on the live view interface which can be digitally zoomed in or out.
	Snapshot	Click this button to take a screenshot of the live feed. The picture is saved at the path specified in Setup -> Camera -> Video -> Path.
	Triple Snapshot	Click this button to take 1 screenshot per second for 3 seconds. The pictures are saved at the path specified in Setup -> Camera -> Video -> Path.
	Manual Record	Click this button to manually record video. The video is saved at the path specified in Setup -> Camera -> Video -> Path.
	Audio	Click this button to enable or disable audio output from the camera. This feature allows the user to listen in on the audio the camera's microphone is picking up.

	Bidirectional Talk	Click and hold this button to enable bidirectional talk. This feature allows the user to broadcast audio from their computer to the camera. While this is active, the camera's speaker is shut off to keep audio quality high.

Section 3: These options are used to access camera setup options (Setup), configure alarms (Alarm), or logout of the web user interface (Logout).
Section 4: These options are used to access the live view interface (Live), access video metadata using the AI Live menu, access playback, as well as a shortcut to cloud storage. For more information about Amcrest Cloud storage, please visit https://amcrest.com/cloud
Section 5: This bar allows the user to change video settings for the live playback screen. See the below table for an explanation of the video settings:

Button	Function Name	Function Description
	Image Adjustment	This button opens the image adjustment toolbar, which allows the user to adjust brightness, contrast, saturation, and hue for the live feed's picture.
	Adapt/Original Size	This button allows the user to switch between displaying the original size of the stream in its set resolution, or to adapt to the size of the monitor display the feed is being viewed on.
	Full Screen	This button allows the user to make the live feed go into full screen mode. Double click the mouse or click the ESC button to exit full screen mode.
	Width/Height Ratio	This button allows the user to change the width/height ratio for the live feed. The options are Original and Adaptive. Original uses the aspect ratio of the stream's set resolution, and adaptive fits the feed to the aspect ratio of the monitor display the feed is being viewed on.
	IVS Overlay	his button allows the user to enable or disable IVS overlays on the live view screen.
	Stream Fluency	This button allows the user to change the stream fluency. There are 3 options. Realtime reduces delay and decreases fluency, and Fluency has a larger delay, but the video stream becomes more fluid.
	Pan Tilt Zoom	This button allows the user to show or hide the pan tilt zoom control panel on the live view screen.

Section 6: This section of the Live tab shows the picture that the camera is broadcasting. The bitrate is shown in the top left corner, the native resolution is shown in the top right corner, the time stamp is shown below the native resolution, and the camera type is shown in the bottom left corner.
Section 7: This section of the Live tab shows the PTZ functionality of the camera, zoom, focus, as well as other PTZ functions such as tour presets, etc.

PTZ Control

The PTZ tab allows the user to pan, tilt, zoom and focus the camera. Below is a screenshot of the PTZ Control menu.

The PTZ control panel allows the user to position the camera in different ways

The arrows on the PTZ control panel allow the user to move the camera's position in a specific direction. The button in the middle of the direction arrow allows the user to select an area in the live view to zoom in on. The speed dropdown box allows the user to control the speed at which the camera moves. The values range from 1 to 8, 8 being the fastest.

The zoom, focus, and iris buttons allow the user to digitally zoom in and out, focus, and just the camera's image on the live screen.

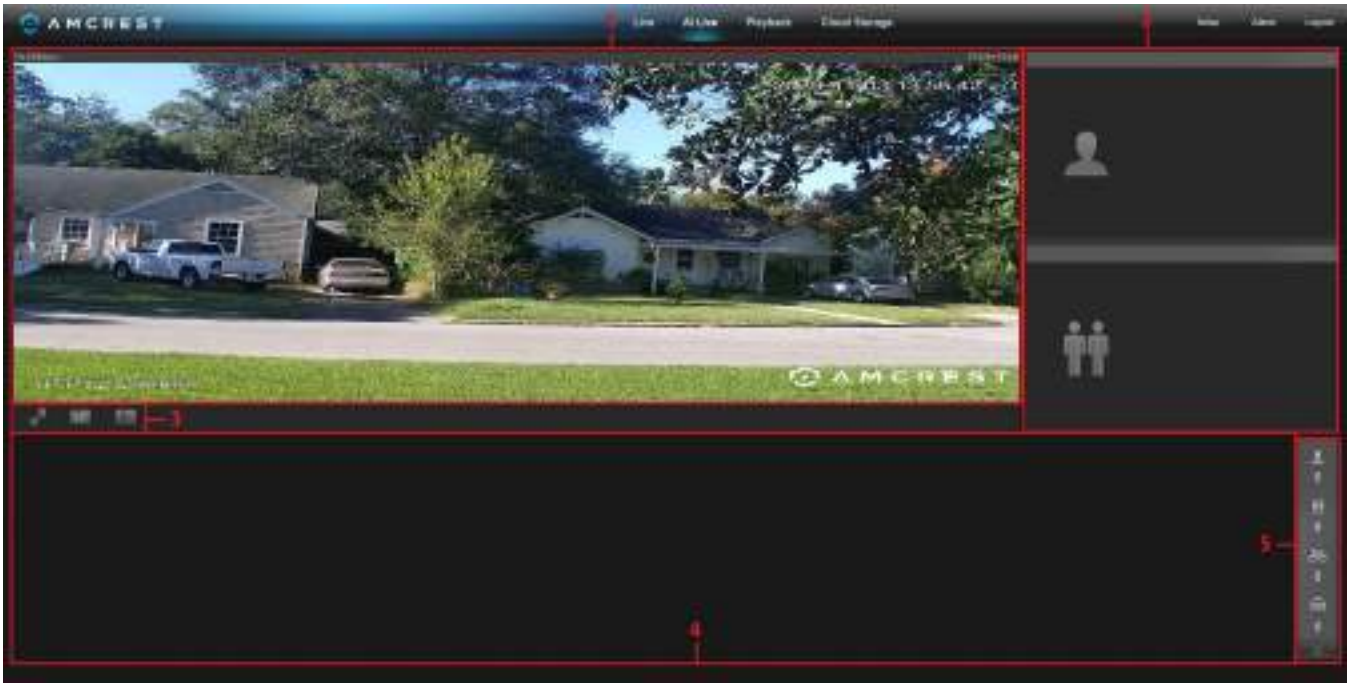
The dropdown box under **PTZ Function** allows the user to configure presets, scans, tours, etc. Preset allows the user to designate specific PTZ positions for the camera. To create and manage presets, follow the steps below:

Configure the camera positioning as needed.
Input the preset number, and then click the + Add button
Click - Del to delete the current preset.
Click Go To access a preset.
Tour allows the user to string multiple presets together. To create and manage tours, follow the steps below:
Ensure you have more than 1 preset configured already.
Input the tour value and click Start.
Input the preset value and then click the Add Preset button to add a preset.
Continue adding presets as needed.
Click Del Preset to remove a preset from the tour.
Click - Del to delete the entire tour.
Pattern allows the user to set specific PTZ patterns. The set patterns allow the camera to move in specific or focus on specific areas automatically. To create a pattern, follow these steps:
From the PTZ Function dropdown box, select Pattern
Ensure you have a preset initially setup for the camera.

Input the preset value and click Start.
To stop the pattern, click Stop.
Pan allows the user to set pan presets. The set pan preset allows the camera to pan to specific areas automatically.
To create a pan, follow these steps:
From the PTZ Function dropdown box, select Pan.
Ensure you have a preset initially setup for the camera.
Input the preset value and click Start.
To stop the pattern, click Stop.
Assistant allows the use to set assigned presets via an auxiliary device. This function may vary model to model and may not be available in every model camera. To establish an assistant preset, follow the steps provided below:
From the PTZ Function dropdown box, select Assistant.
Ensure you have a preset initially setup for the camera.
Input the preset value and click Aux On.
To stop the pattern, Aux Off.
Position ABS allows the user to set horizontal, vertical, and zoom values. Once set, the camera will zoom to the indicated input values. To set a position ABS preset follow the steps provided below:
From the PTZ Function dropdown box, select position ABS.
Type in the horizontal angle value, this can range from 0 ~ 3600.
Type in the vertical angle value, this can range from 150 ~ 900.
Type in the zoom value, this can range from 1 ~ 128.
Click **Go To** to have to have the camera position itself to the entered values.

AI Live

The AI Live tab allows the user to access video metadata such as detected people, faces, motor vehicle, and non-motor vehicles such as, bikes, mopeds, etc. in real time. Please note, a video metadata preset must be set for this feature to function, for more information on using video metadata, please refer to section, *"Video Metadata".*
Below is a screenshot of the AI Live menu.



Below is a description of the features in this menu:

Section 1: Provides a live view of the camera.
Section 2: Allows the user to view human figures detected by the camera as well as facial images if a face is detected.
Section 3: Allows the user to change video settings related to the AI Live interface.

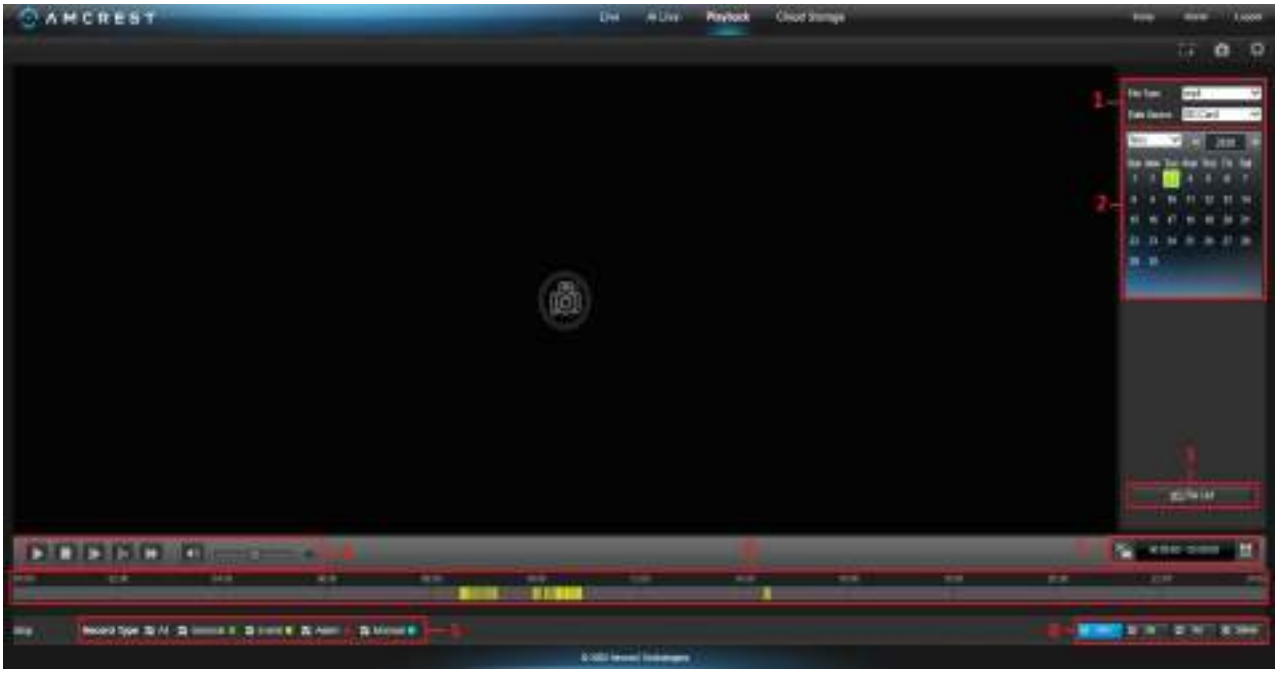
	Full Screen	This button allows the user to make the live feed go into full screen mode. Double click the mouse or click the ESC button to exit full screen mode.
	Stream Fluency	This button allows the user to change the stream fluency. There are 3 options. Realtime reduces delay and decreases fluency, and Fluency has a larger delay, but the video stream becomes more fluid.
	IVS Overlay	This button allows the user to enable or disable IVS overlays on the live view screen.

Section 4: The area in which snapshots of video metadata, such as motor vehicle, non-motor vehicle, facial and people images will be shown. Please note, the images in this menu will only be visible based on how often the interface is refreshed.
Section 5: These options provide a tally of how many facial images, people, non-motor vehicle, and vehicles were detected by the camera. Please note, click the gear wheel option to select between viewing a Smart Plan such as Face Detection or Video Metadata.

Playback

The Playback tab allows the user to playback the camera's recorded video. Please note, for a better experience it is recommended to use a plugin-based browser such as Internet Explorer.

Below is a screenshot of the Playback tab:



This is the interface for the playback menu. There are 8 main sections:

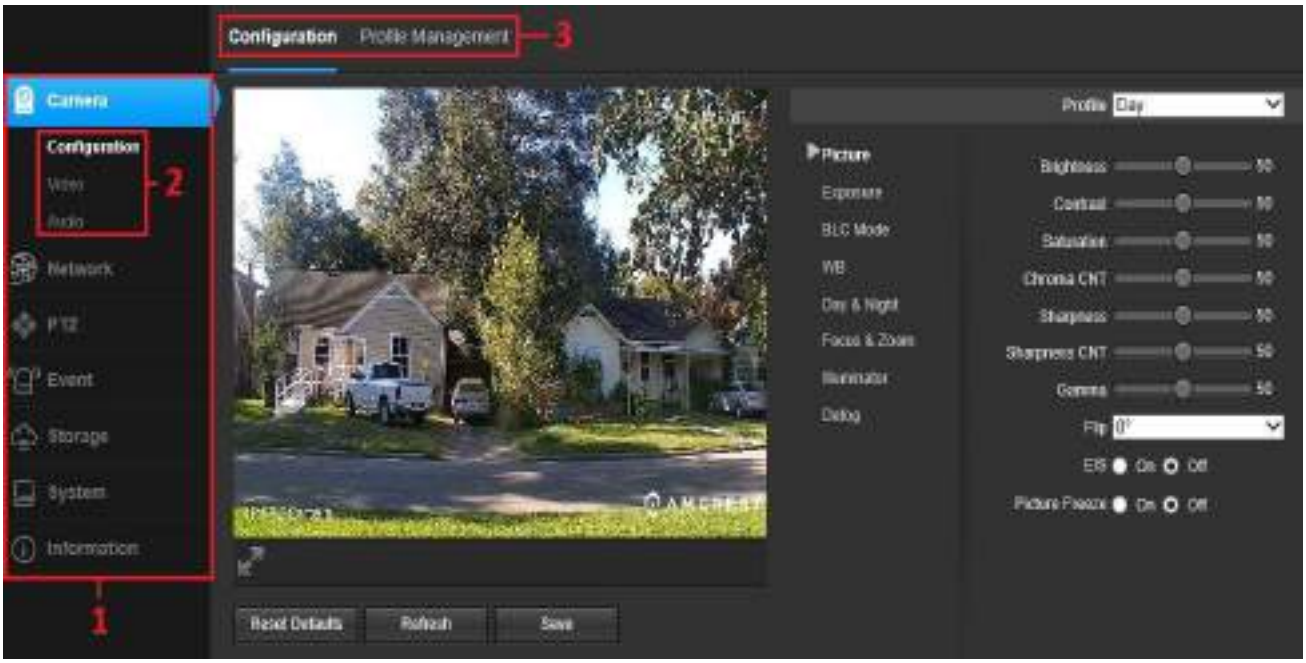
Section 1: Allows the user to filter between video (.mp4) or snapshots (.jpg).
Section 2: Allows the user to playback events based on calendar dates. If events are detected via the microSD card the days will be highlighted indicating recordings are available for that day.
Section 3: The File List option provides a list of all recorded file types reported on a specific day. The files represented in the file list can be played back and downloaded from this menu.
Section 4: Use the play option to play all recordings provided in the time bar. To stop a recording press the Stop button. Click the Next Frame button to view the recording frame by frame. Click the Slow button to play the recording in slow motion. Click the Fast button to fast forward the recording. Use the volume bar to increase or decrease the audio of the recording.
Section 5: These options allow the user to filter between recording types such as, General, Motion, Alarm, or Manual events. The "All" option will select all recording types in the interface.
Section 6: Provides a timeline of each recording detected for a selected day. Use your mouse to scroll back and forth on the timeline to view a recording at a specific time.
Section 7: Use these options to cut and download a specific recording from the timeline. Enter a start and end time and click the cut (scissors) icon. Once the recording has been cut, click the download icon to download the cut recordings.
Section 8: Use these options to select between a 24-hour, 2-hour, 1 hour, or 30-minute intervals on the timeline.

Cloud Storage

The Cloud Storage tab allows the user quick access to the Amcrest Cloud website. On this website users can register for new accounts as well as view or modify existing accounts. For more information on Amcrest Cloud visit: amcrest.com/cloud

Setup

The Setup tab allows the user to change different camera settings Below is a screenshot of the setup tab:



There are 3 main sections to note in the Setup tab:

Menu Bar: The menu bar is composed of menu sections, which when clicked display any menu items that fall under their category.
Menu Items: These menu items each open a different menu that allows the user to change specific settings for the camera.
Menu Tab: These tabs open menu options for certain menu items.

Camera

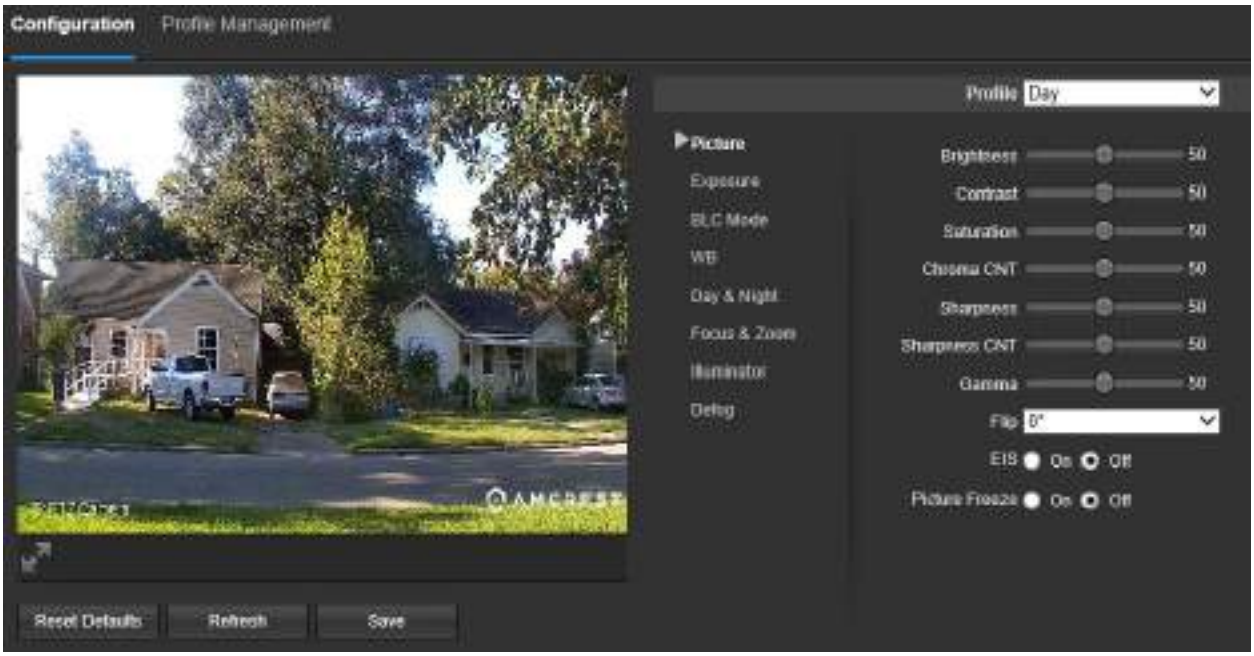
This menu section allows the user to change different camera settings for video, audio, and to manage image profiles.

Configuration

This menu allows the user to configure image profiles for normal, day, and night usage.

Picture

Below is a screenshot that shows the Configuration tab in the Configuration menu item:



Below is an explanation for each of the fields on the Configuration tab in the Configuration menu item:

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Brightness: This slider is used to adjust playback and recorded video window brightness. The value ranges from 0 to 100. The default value is 50. The larger the number, the brighter the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.

Contrast: This slider is used to adjust playback and recorded video window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. You can use this function when the whole video brightness is OK but the contrast is not correct. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may overexpose. The recommended value ranges from 40 to 60.
Saturation: This slider is used to adjust playback and recorded video window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the stronger the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, distortion may occur if the white balance is not accurate. Please note the video may not be clear if the value is too low. The recommended value ranges from 40 to 60.
Chroma CNT: This slider is used to adjust how pure or monochromatic the image will be compared to a white surface. The value ranges from 0 to 100. The default value is 50. The larger the number, the stronger the purity of the color. The value has no effect on general brightness or clarity of the video stream however, if the values are too high it could cause stream issues. It is recommended to keep this value at the default setting of 50 to avoid streaming issues.
Sharpness: This slider is used to adjust the sharpness of the video. The value ranges from 0 to 100. The larger the value is, the clearer the edges are and vice versa. Note: The higher the value, the higher likelihood of picture noise occurring. The default value is 50 and the recommended value ranges from 40 to 60.
Sharpness CNT: This slider is used to adjust how pure or monochromatic the sharpness of the image will be compared to a white surface. The default value is 50. The larger the number, the stronger the purity of the sharpness. The value has no effect on general brightness or clarity of the video stream however, if the values are too high it could cause stream issues. It is recommended to keep this value at the default setting of 50 to avoid streaming issues.
Gamma: This slider is used to adjust the gamma of the video. The larger the number, the brighter the video is. The default value is 50 and the recommended value ranges from 40 to 60.
Flip: This dropdown box allows the user to flip the video feed picture. Flipping the picture is recommended only if the camera is mounted upside down.
EIS: This radio button enables or disables Electronic Image Stabilization. EIS is a family of techniques that help to reduce blurring associated with motion of the camera during exposure.
Picture Freeze: This radio button enables or disables the scene/view to skip a rotation period and directly show the next preset image when running a tour.

To reset to default settings, click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

Exposure

This menu allows users to select and adjust key exposure features. For more information on the items listed in this menu, refer to the information provided below.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Anti-Flicker: These radio buttons allow the user to select what type of antiflicker technology should be used for the video feed. The three options are 50 Hz, 60 Hz, and Outdoor. The desired option should offset any flickering effect caused by the electrical current used in the specific area.
Mode: This dropdown box allows the user to select different exposure settings such as, Auto, Aperture Priority, Shutter Priority, Gain Priority or manual settings. For more information on these settings, refer to the information provided below:

Auto: Allows the user to automatically set exposure settings based on surrounding environments.

Aperture Priority: Allows the use to set aperture settings in the camera. This allows the camera to automatically detect shutter speeds based on surrounding environments. The default iris setting is 10 ~ 50, however, it can range from 0 ~ 100.

Shutter Priority: Allows the user to set shutter settings in the camera. This allows the camera to automatically detect optimal aperture settings based on surrounding environments. The default shutter speed is 1/30, however, it can range to 1/30000.

Gain Priority: Allows the user to prioritize gain levels based on the surrounding environment of the camera. The default gain value is from 0 ~ 50, however, can range from 0 ~ 100.

Manual: Allows the user to manually control and adjust aperture, shutter, and gain priorities. Each value will be set to default unless modified by the user.

Exposure Comp: Use this slider to adjust the exposure composition. The default composition is 50 however it can range between 0~100.

AE Recovery: Allows the user to set a period of time after which the camera's exposure settings will be reset. This option defaults at 15 minutes, however, if activated can range up to 2 hours.

2D NR: This radio button allows the user to turn the 2D Noise Reduction feature on or off.

Grade: This slider allows the user to specify the level of 2D noise reduction level. The value ranges from 1 -50 **3D**

3D NR: This radio button allows the user to turn the 3D Noise Reduction feature on or off.

3D NR Level: This slider allows the user to specify the 3D Noise Reduction level. The value ranges from 1-50.

To reset to default settings, click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

BLC Mode

This menu allows the user to set backlight composition settings to enhance image quality. For more information on the items provided in this menu, refer to the information provided below.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.

Mode: These modes allow the user to set compensation settings within the camera. The items listed in this dropdown box are; BLC, HLC, and WDR.

BLC: Stands for backlight compensation. Select this option to optimize exposure in the foreground and background of the video stream.

HLC: Stands for highlight compensation. Select this option to reduce glare or other high-level light spots. This is typically useful for night vision or in other dark or low-level light environments.

WDR: Stands for Wide Dynamic Range. Like BLC, select this option to help balance out washed out video due to high levels of natural light in the environment.

To reset to default settings, click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

WB

This menu allows the user to apply white balance presets to the video stream. The different options in this menu are auto, indoor, outdoor, ATW, customized, sodium lamp, sunny, night. For more information on the items listed in this menu refer to the information provided below.

Auto: Allows the user to automatically set white balance settings based on surrounding environments

Indoor: Allows the user to set preset settings for indoor use.

Outdoor: Allows the user to set preset white balance settings for outdoor use.
ATW: Stands for auto tracing white balance. This setting allows the user to allow the camera to automatically detect white balance values based on the surrounding environment of the camera. This can be set for indoor or outdoor use.
Customized: Allows the user to adjust the red and blue colors of the video stream. The default settings for both values are 50, but they can range from 0 ~ 100.
Sodium Lamp: Allows the white balance of the video stream to be adjust according to light and dark environments. The overall effect is based on the concept of a sodium lamp which adjusts different light spectrums of the video stream based on its surrounding environment.
Sunny: Allows the user to automatically set white balance settings based on heavily lite or sunny environments.
Night: Allows the user to automatically set white balance settings based on low light or dark environments.

To reset to default settings, click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

Day & Night

Used to determine when black and white mode is turned on in a dark environment. Below is a screenshot of this menu:

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Type: These radio buttons are used to process and filter day & night transitions. ICR will be enabled by default.
Electrical: This option uses an image processing method for day & night transition.
ICR: This option uses an IR filter for day and night transitions.
Mode: This menu allows user to select day & night presets based on the surrounding environment of the camera. For more information on the items listed in this field, refer to the information provided below:
Auto: Uses day and night sensitivity settings to change between color mode, infrared, and black& white modes.
Color - Always represents picture in color, does not use IR or black and white mode. Performs poorly in dimly lit areas unless you are using the Starlight series cameras.
Black & White: Allows the user to set the video stream to black and white, however, if the illuminated image is too dark it will switch to IR mode.
Sensitivity: This option allows the user to change the Day/Night Sensitivity of the camera. The three options are Low, Middle, and High. The higher the sensitivity, the quicker the camera will change into another mode depending on the light levels.
Delay: This dropdown box allows the user to set a delay in seconds for how long it takes to switch between Day and Night modes. The values range from 2 seconds to 10 seconds.

To reset to default settings, click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

Focus & Zoom

This menu allows the user to adjust digital focus and zoom settings.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Digital Zoom: These radios buttons allow the user to turn digital zoom on and off.
Zoom Speed: This slider allows the user to adjust the zoom speed of the lens. The default should be 100, but it can range from 0 ~ 100.
Focus Mode: This dropdown menu is used to set focus settings for the camera. The items listed in this menu are as follows:

Auto: Allows the user to set auto focus settings for the camera.
Semi Auto: Allows the user to set focus settings as well as having the camera automatically detect optimal focus settings.
Manual: Allows the user to have full manual control of focus control settings.

Focus Limit: Allows the user to set focus limits (in cm) within the camera. The default is set to auto, which automatically will control focus limits, however, the settings can range from 5cm ~ 10cm.
Sensitivity: This menu allows the user to set sensitivity settings for focus limits. The camera is usually set to Default which allows the focus limits to be adjusted automatically, however, they can also be set to high or low.
PFA: These radio buttons are used to regulate the zoom feature. When enabled, the image is relatively clearer while zooming and slower. If you disable this function, the speed is higher while zooming and less clear.
Lens Initialization: This option allows the user to reset their focus & zoom settings to default.

To reset to default settings, you can also click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

Illuminator

This menu allows users to choose different modes for the infrared light.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Mode: Allows the user to choose between different IR modes:

Manual: Allows the user to adjust near and far light between values of 0 ~ 100.
Smart IR: Allows the user to automatically set the camera's IR lights to on and off positions based on Day & Night conditions.
ZoomPrio: Allows the user to adjust correction settings for IR functionality. The default value is 50, however, it can range from 0 ~ 100.
OFF: Permanently turns off the IR lights.

To reset to default settings, you can also click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

Defog

This menu allows the user to set defog settings which can be useful in foggy or hazy weather. For more information on this feature refer to the information provided below:

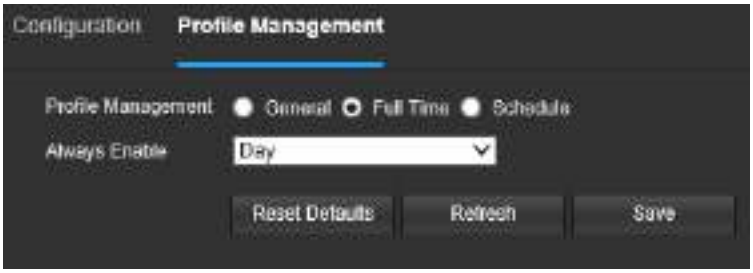
Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Mode: Allows the user to adjust defog settings.

OFF: Allows the user to turn off defog mode.
Manual: Allows the user to manually control defog settings.
Auto: Allows the user to let the camera automatically detect defog settings.

To reset to default settings, you can also click the **Reset Defaults** button. To refresh the screen, click on Refresh. To save the settings, click the **Save** button.

Profile Management

Below is a screenshot that shows the Profile Management tab in the Configuration menu item:



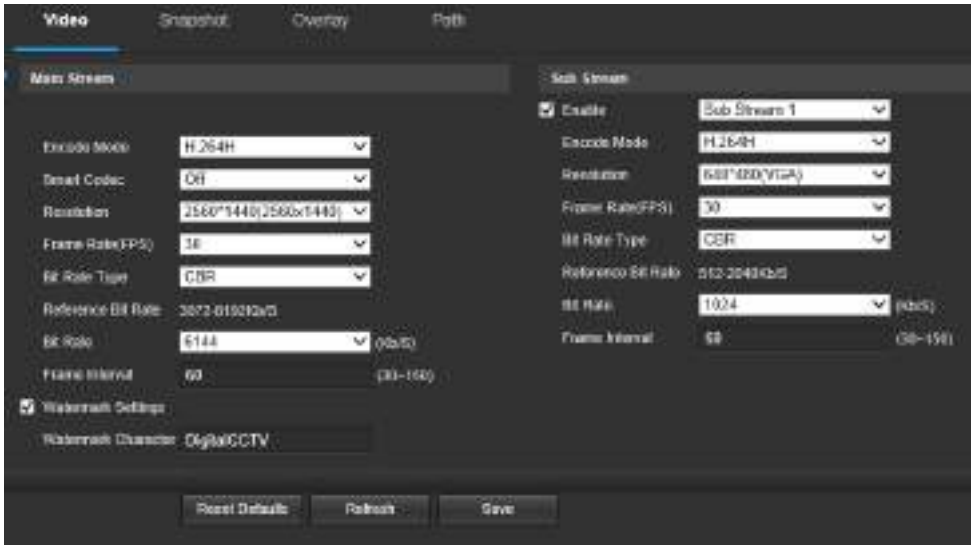
Below is an explanation for each of the fields on the Profile Management tab in the Configuration menu item:

Profile Management: This set of radio buttons allow the user to set what basis the profile management settings run on. There are 3 options: Normal, Full Time, and Schedule. Normal means that the system can automatically alternate between night and day based on the profiles for each. Full Time means that the system sticks to one profile the entire time it is running. Schedule allows the user to dictate which times of the day are designated for the day profile and the night profile.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Video

Below is a screenshot that shows the Video tab in the Video menu item:



Below is an explanation for each of the fields on the Video tab in the Video menu item:

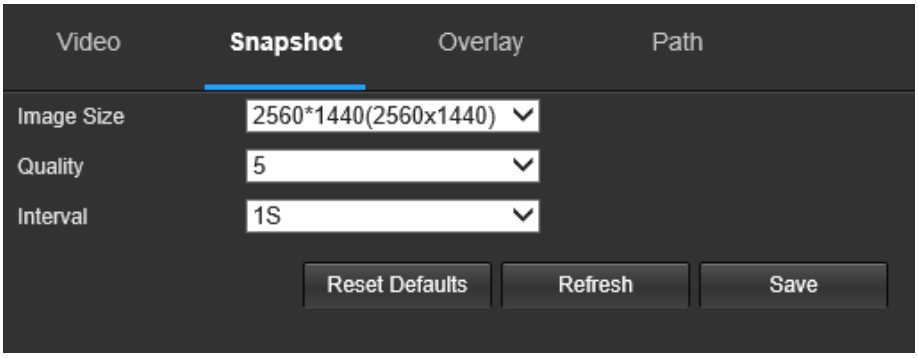
Encode Mode: This dropdown box allows the user to select a compression protocol. The system supports H.264 and MJPEG video compression protocols.
Smart Codec: a function in most Amcrest cameras which aim to reduce bandwidth consumption without losing visible image quality by intelligently increasing compression where it will not make a visible difference in the scene.
Resolution: This dropdown box allows the user to set the resolution. The system supports various resolutions, and they can be selected from this dropdown list.
Frame Rate (FPS): This dropdown box allows the user to select a frame rate. Frame rate settings are measured in frames per second (FPS) and can range from 1f/s to 25f/s in PAL mode and 1f/s to 30f/s in NTSC mode.
Bit Rate Type: This dropdown box allows the user to select a bit rate type. The system supports two bit rate types: CBR and VBR. In VBR mode, video quality can be set.
Reference Bit Rate: This is the recommended bit rate value according to the resolution and frame rate selected.
Bit Rate: This dropdown box allows the user to select a bit rate.
Frame Interval: This field allows the user to set the P frame amount between two I frames. The value ranges from 1 to 150 seconds. Default value is 50. Recommended value is frame rate *2.
Watermark Settings: This function allows the user to verify if the video has been tampered with.
Watermark Character: This field allows the user to set the watermark's text. The default string is Digital CCTV. The maximum length is 85 characters. This string can only include numbers, characters, and underscores.

Sub Stream is a lower quality stream that allows the feed to take up less resources and bandwidth when streaming. The Main Stream and the Sub Stream have the same fields. Sub Stream can be enabled by checking the box next to Enable.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Snapshot

Below is a screenshot that shows the Snapshot tab in the Video menu item:



Below is an explanation for each of the fields on the Snapshot tab in the Video menu item:

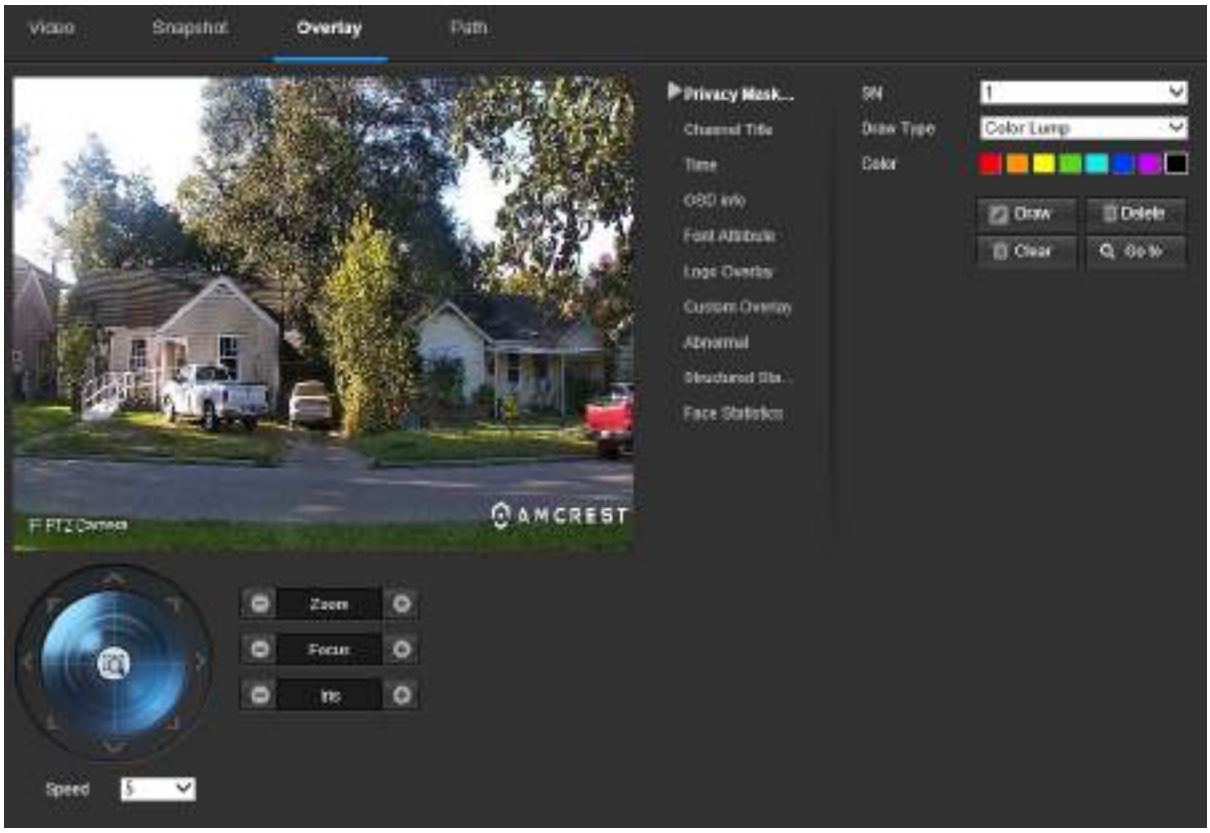
Image Size: This dropdown box shows the image size. By default, the screenshot size is the same size as the video feed's resolution.
Quality: This dropdown box allows the user to select image quality. Quality is adjusted on a scale of 1-6.

Interval: This is to set snapshot frequency. The value ranges from 1 to 7 seconds. The maximum setting for a customized interval is 3600s/picture.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Overlay

Below is a screenshot that shows the Overlay tab in the Video menu item:



Privacy Masking

Privacy masking is used to block or mask certain areas of the live view screen. To use privacy masking, use the **Draw** tool to draw areas on the live view screen that you wish to mask. Each area can be denoted with a specific color is necessary. To delete the privacy mask, press **Delete**, to clear a mask press **Clear** to access a specific set privacy mask, press **Go To**.

In this field you will also notice an additional quick access to the PTZ control panel.

The arrows on the PTZ control panel allow the user to move the camera's position in a specific direction. The button in the middle of the direction arrow allows the user to select an area in the live view to zoom in on. The speed dropdown box allows the user to control the speed at which the camera moves. The values range from 1 to 8, 8 being the fastest.

The zoom, focus, and iris buttons allow the user to digitally zoom in and out, focus, and just the camera's image on the live screen.

Channel Title

The channel title menu allows the user to customize a channel overlay text For **Channel Title**, the radio button enables or disables the overlay.

To customize a channel title overlay, enter the text into the Input Channel Title box and choose an alignment setting from the Text Align dropdown menu. Click on the overlay in the interface and use your mouse to place the overlay where you would like to on the screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Time

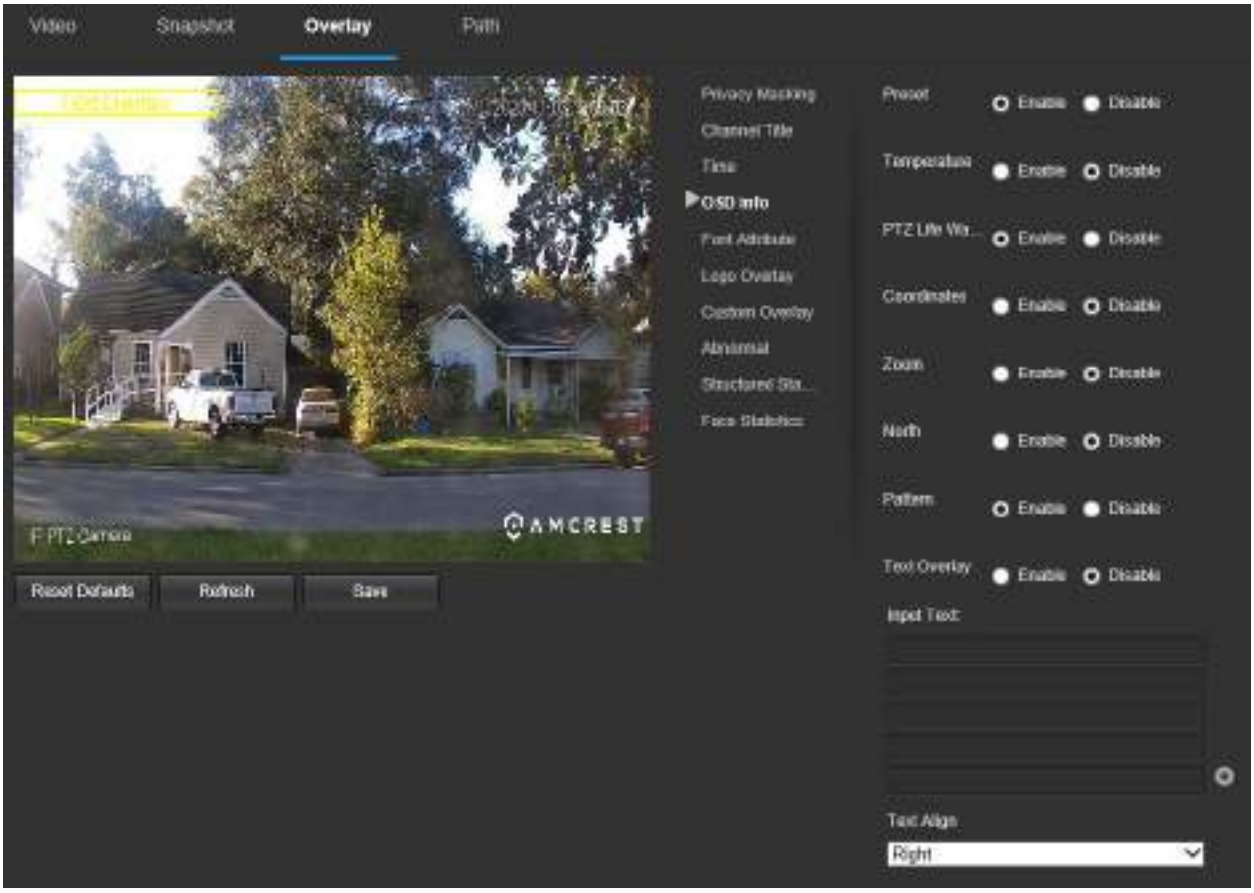
The Time menu allows the user to enable or disable the date/time overlay on the live view screen.

Click on the enable or disable radio button to enable or disable the overlay. Click on Display Day of the Week to display the current day of the week in the time overlay. Click on the overlay in the interface and use your mouse to place the overlay where you would like to on the screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

OSD Info

The OSD info menu allows the user to enable certain OSD overlay options such as presets, temperature, PTZ Life Warning, Coordinates, Zoom, North, Pattern, Text Overlays, and Input Texts. Below is a screenshot of the OSD Info menu.



Below is a description of the options provided in this menu.

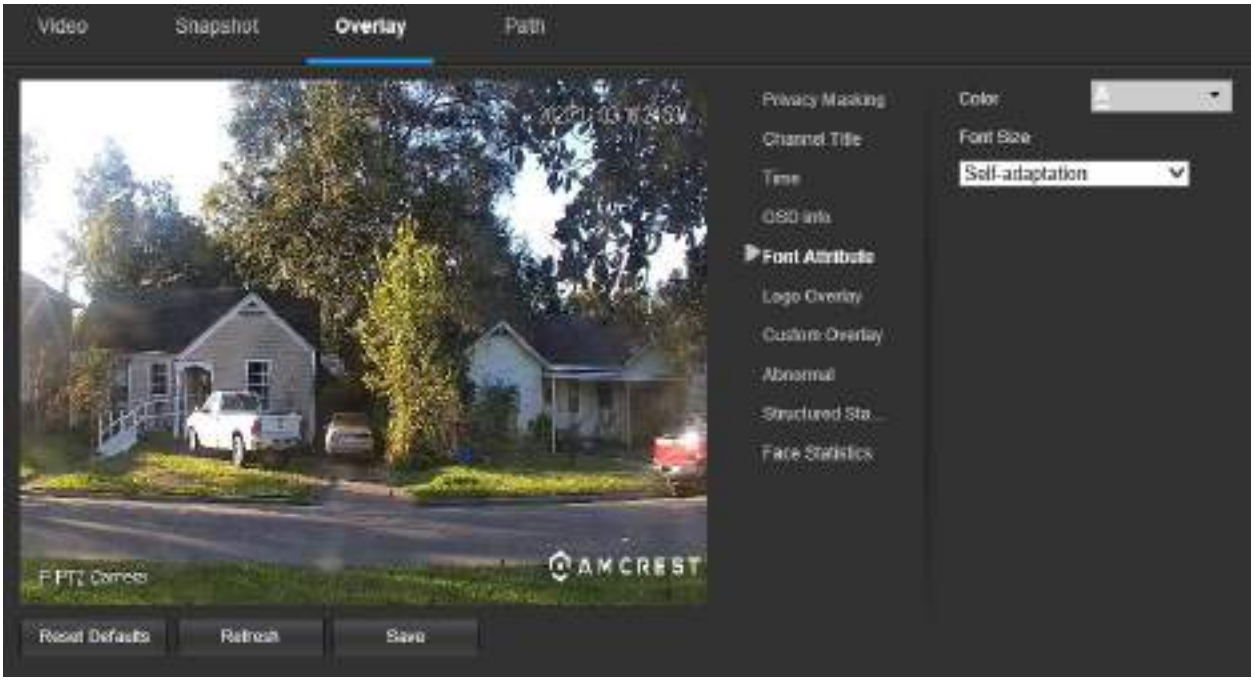
Preset: Displays an overlay of a preset on the live view screen when a preset is activated.
Temperature: Displays the current temperature of the internal components of the device.
PTZ Life Warning: Displays on overlay if the lifespan of the PTZ is close to reaching its threshold.
Coordinates: Displays the latitude and longitude coordinates of the device.
Zoom: Displays the current optical zoom distance while zooming. The camera can zoom up to 25x.
North: Provides an arrow overlay which displays the current position of the camera. To recalibrate this option, click on the ( ) icon once the option has been enabled. Use the PTZ control to adjust the live view if needed.

Pattern: Displays an overlay of a pattern on the live view screen when a pattern is activated.
Text Overlay: Allows the user to customize and display a text overlay on the live view screen. To use this feature, enter customized text into the Input Text boxes and click Save to set the overlay. Use the Text Align dropdown menu to align the text. Click Save to set the overlay.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Font Attribute

The Font Attribute menu allows the user to change the color and size of the font related to items listed in the OSD Info menu. Below is a screenshot of the font attribute menu.



To use this option, click on the color dropdown menu and select a color. The default font color is white and the size is self-adaptive to the current default settings, however, can be modified to 64*64, 48*48, 32*32, 16*16 sizes.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Logo Overlay

This option is used to enable or disable the Amcrest logo on the live view screen. By default, the Amcrest logo will be enabled, however, to remove the Amcrest logo, click on the disable option and **Save**.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Custom Overlay

This option is used to enable or disable a customized logo on the live view interface.

Below is a screenshot of the custom overlay menu.

To set a custom overlay, click on the enable radio button. Enter the custom text into the Input Custom OSD box and use the Text Align dropdown box to align the text. To enter multiple custom overlays, click on the (+) option and enter the texts into the appropriate boxes.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Abnormal

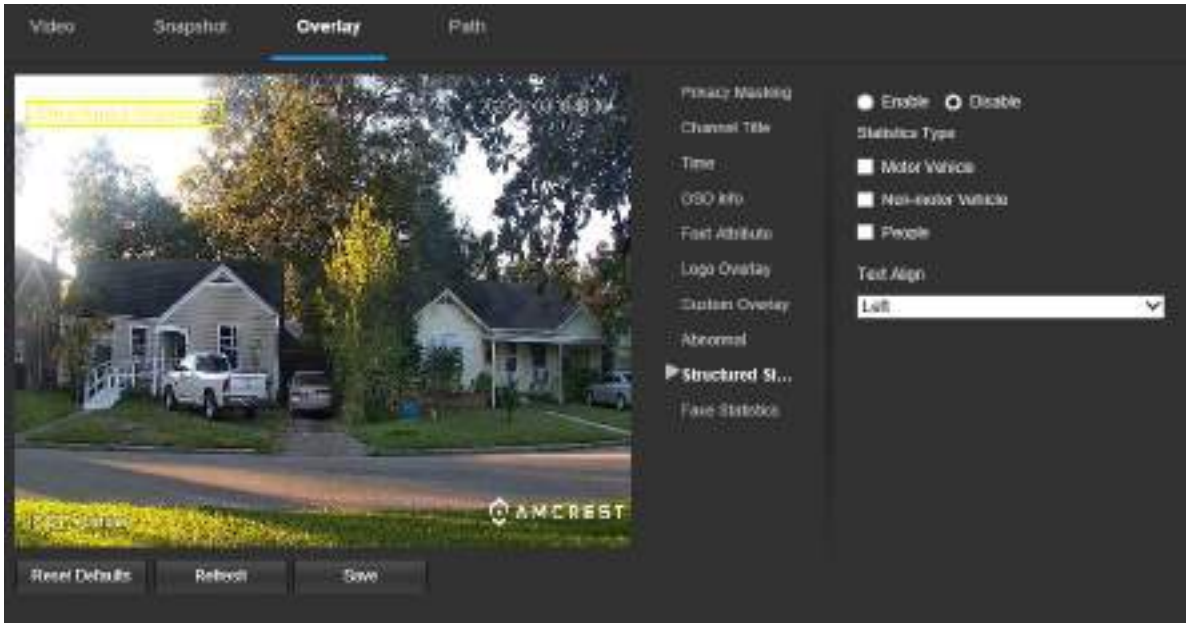
This option is used to display an overlay on the live view screen if an abnormality, such as SD Card, Network, Illegal Access, etc. were to occur. To use this option, click on the enable radio button and click **Save**.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Structured Statistics

The structured statistics overlay is used to display an overlay of all video metadata detected by the camera for the day. Please note, the video metadata and the AI Live interface will display metadata information such as, motor vehicle, non-motor vehicle, and people once the event has been detected.

A video metadata smart plan (preset) must be enabled and selected for the overlay to be displayed on the interface. Below is a screenshot of the structured statistics overlay menu.

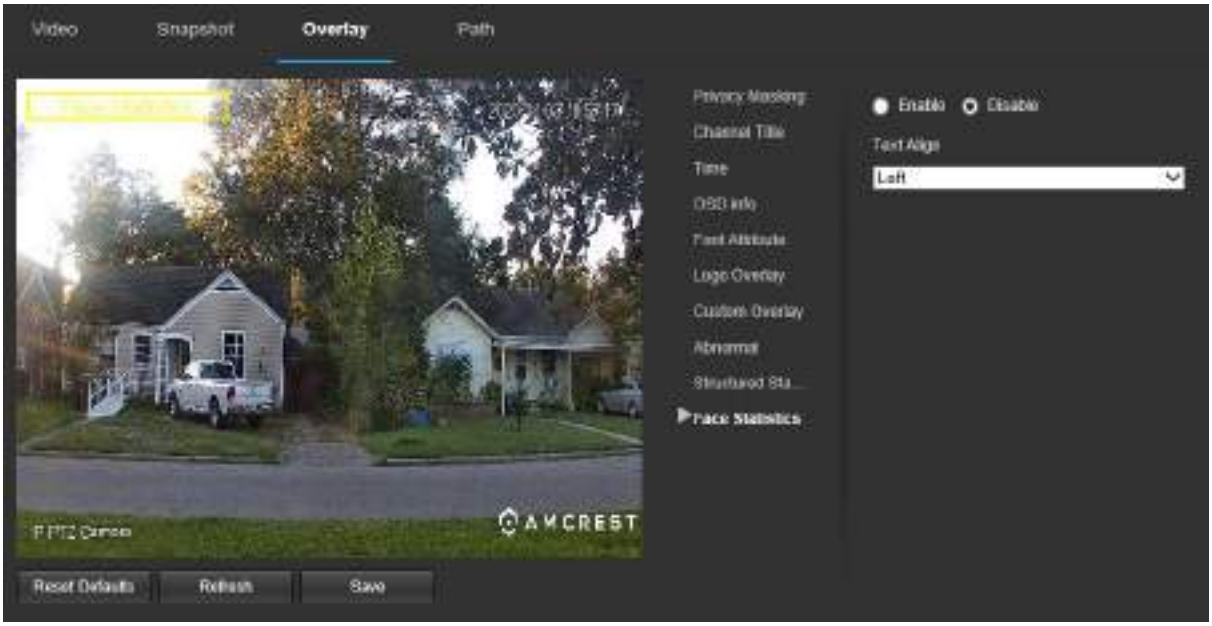


For more information on how to setup video metadata on your camera, please refer to section, "*Video Metadata*". Once the metadata smart plan (preset) and rules have been setup, click on the enable radio button and select the statistics types

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Face Statistics

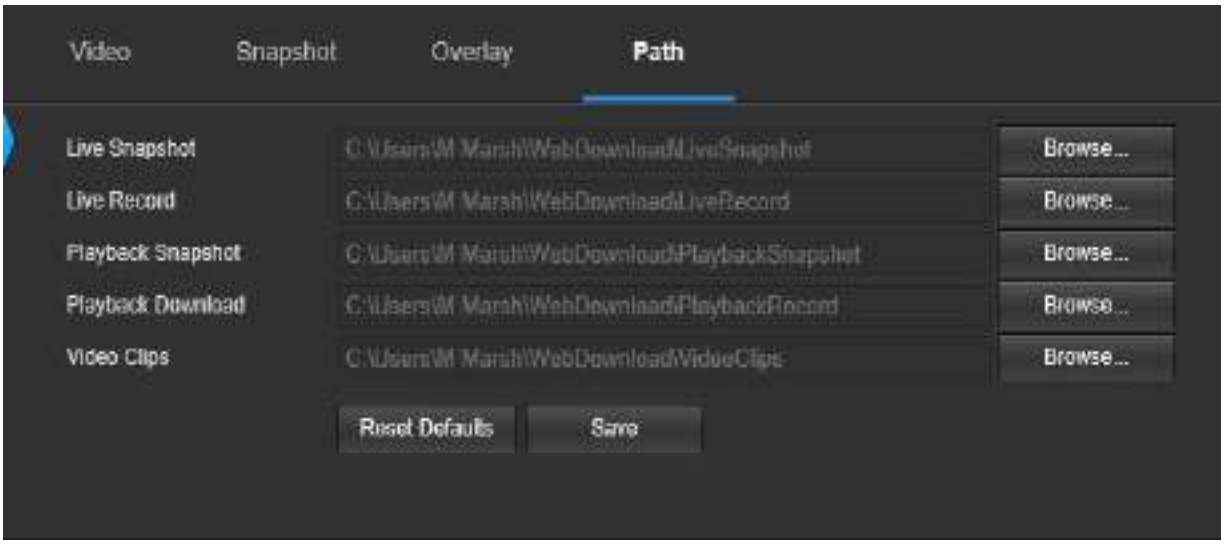
The face statistics overlay is used to display an overlay of all face detection events for the day. Please note, the face detection smart plan (preset) and rule must be setup first before enabling this overlay. For more information on how to setup face detection, please refer to section "*Face Detection"*.



To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Path

Below is a screenshot that shows the Path tab in the Video menu item:



Below is an explanation for each of the fields on the Path tab in the Video menu item:

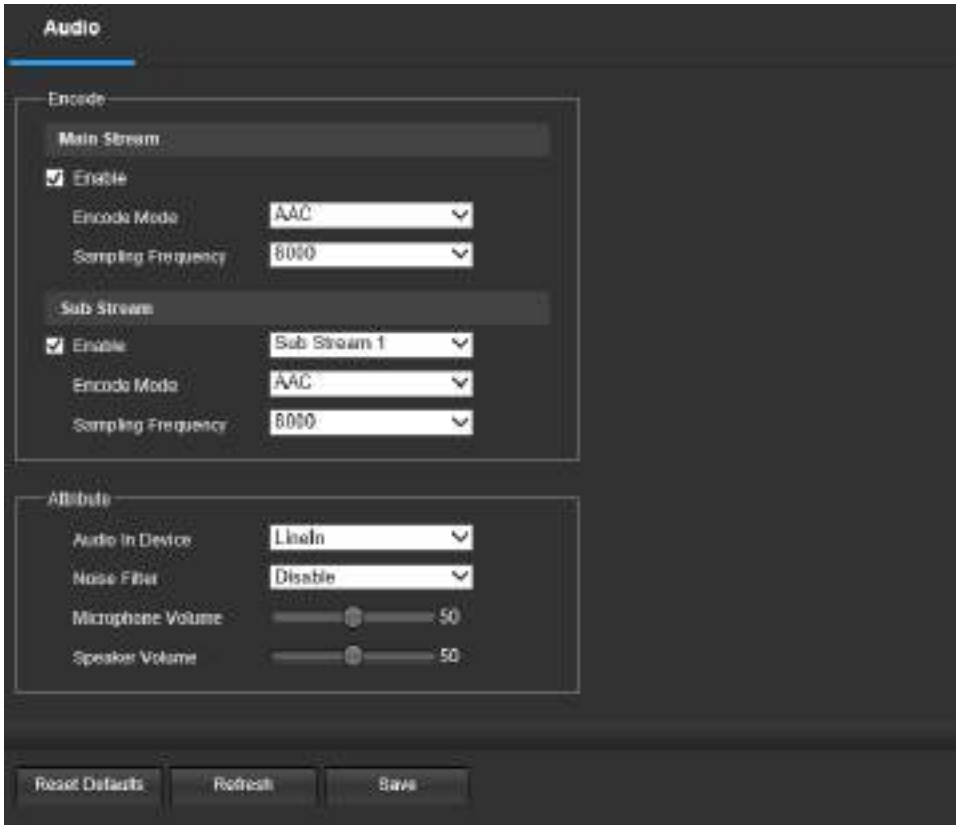
Live Snapshot field allows the user to select where to save live snapshots to. Click the Browse button to select a different destination folder.
Live Record field allows the user to select where to save live recordings to. Click the Browse button to select a different destination folder.
Playback Snapshot field allows the user to select where to save playback snapshots to. Click the Browse button to select a different destination folder.
Playback Download field allows the user to select where to save playback video downloads to. Click the Browse button to select a different destination folder.
Video Clips field allows the user to select where to save video clips to. Click the Browse button to select a different destination folder.

To reset to default settings, click the **Reset Defaults** button. To save the settings, click the **Save** button.

Audio

This menu allows the user to modify audio settings for the camera. Please note, the camera does not have built-in audio or speakers and will require an external microphone or speaker to be connected to the audio in or out dongle wires to function.

Below is a screenshot that shows the Audio menu item under the Camera menu section:



Below is an explanation for each of the fields on the Audio menu:

Enable: This checkbox allows the user to enable audio recording for either the main stream or sub stream.
Encode Mode: This dropdown box allows the user to select what audio format the audio should be recorded in.
Sampling Frequency: This dropdown box allows the user to select a sampling frequency for the audio. The options are 8k and 16k. 16k audio sampling allows for higher sound quality.
Audio in Device: This field allows the user to select what source to get audio from. The default is the camera's built-in mic. Alternatively, the line in mic can be selected.
Noise Filter: This dropdown box allows the user to enable or disable the audio noise filter function. This function provides cleaner audio quality when enabled.
Microphone Volume: This slider allows the user to modify the microphone volume via the audio in dongle wire connection. The value ranges from 0 to 100. The default value is 50.
Speaker Volume: This slider allows the user to modify the speaker volume via the audio out dongle wire connection. The value ranges from 0 to 100. The default value is 50.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

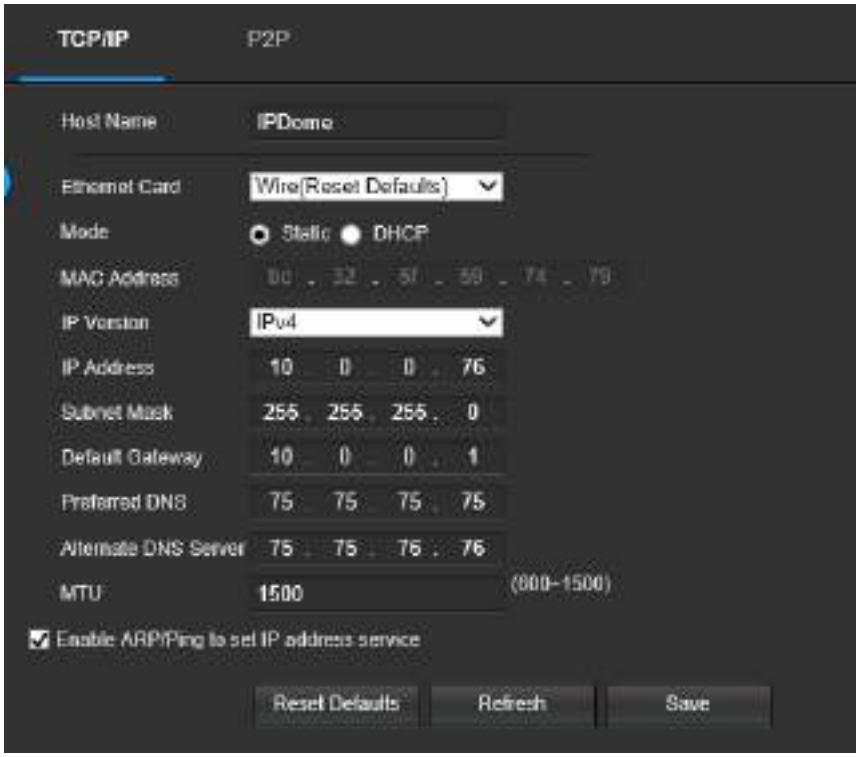
Network

This menu section allows the user to change network settings for the camera.

TCP/IP

The TCP/IP menu item has two tabs: TCP/IP and P2P.

TCP/IP stands for Transmission Control Protocol/Internet Protocol and it is the language/protocol that allows communication between internet connected devices, whether on a local network, or a on the Internet at large. This screen allows for TCP/IP settings to be modified for the camera to establish a connection to the network. Below is a screenshot of the TCP/IP settings tab:



Below is an explanation of the fields on the TCP/IP settings tab:

Host Name: This text field allows the user to change the host device name for the camera. This field supports a maximum of 15 characters.
Ethernet Card: This dropdown box allows the user to select which internet access device to use. If the device is connected to a wired connection and a wireless one at the same time, then this box will have options to pick either of the connections. The Set as Default button allows the user to select one of the connection methods as the default one.
Mode: Static vs DHCP: These radio buttons allows the user to choose between a static IP address, and a dynamic IP address. DHCP stands for Dynamic Host Configuration Protocol, and this enables the camera to automatically obtain an IP address from another network device such as a server or more commonly, a router. When the DHCP function is enabled, the user cannot modify the IP address, Subnet Mask, or Default Gateway, as these values are obtained from the DHCP function. To view the current IP address, DHCP needs to be disabled.
MAC Address: This field shows the camera's MAC address, which is unique to this device. This number is read only and is used to access a local area network (LAN).
IP Version: This dropdown allows the user to select the IP version. The two options are IPV4 and IPV6.
IP Address: This field allows the user to enter a custom IP address.
Subnet Mask: This field allows the user to enter a custom subnet mask.
Default Gateway: This field allows the user to enter a custom default gateway.
Preferred DNS Server: This field allows the user to enter the preferred DNS server

IP address.
Alternate DNS Server: This field allows the user to enter the alternate DNS server IP address.
Maximum Transmission Unit (MTU): A maximum transmission unit (**MTU**) is the largest packet or frame size, specified in octets (eight-bit bytes) that can be sent in a packet- or frame-based network such as the internet. The internet's transmission control protocol (TCP) uses the MTU to determine the maximum size of each packet in any transmission. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or you can click Cancel button to terminate current modification. Before the modification, you can check the MTU of the gateway; the MTU of the NVR shall be the same as or is lower than the MTU of the gateway. In this way, you can reduce packets and enhance network transmission efficiency.

The following MTU value is for reference only. Please note, PPPoE is not supported.

1500: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch, or the network adapter.
1492: Recommend value for PPPoE
1468: Recommend value for DHCP.
Preferred DNS server: DNS server IP address.
Alternate DNS server: DNS server alternate address.
Transfer mode: Here you can select the priority between fluency/video qualities.
LAN download: System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.
LAN download: System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

Enable ARP/Ping to set IP Address Service: This checkbox allows the user to enable the ARP/Ping service to change the IP address service. For more information on this feature, click the help button while on the TCP/IP settings tab.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

P2P

The P2P settings screen is where users can use a QR code to connect their smartphone or tablet to the camera. This feature needs to be enabled for use with the Amcrest View app, Amcrest Cloud, or AmcrestView.com.

Below is an explanation of the fields on the P2P settings tab:

Enable: This checkbox allows the user to enable the P2P feature for the camera. This feature must be enabled for the camera to connect to a smartphone or tablet via the Amcrest View app. It is enabled by default.
Status: This field displays the status of the P2P connection. Once the camera is connected to a device, this field should display the word Online.
S/N: This field displays the Token ID for the camera. The Token ID can be used to manually enter the camera's information on a mobile or tablet device in case the QR code scanning feature cannot be used.
QR Code: This image is a Quick Response (QR) code. By scanning this image using the Amcrest View app, this camera can establish a connection with the app.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Connection

The Connection menu item has two tabs: Connection and ONVIF. The Connection tab is where users can configure port connections. Below is a screenshot of the Connection settings tab:

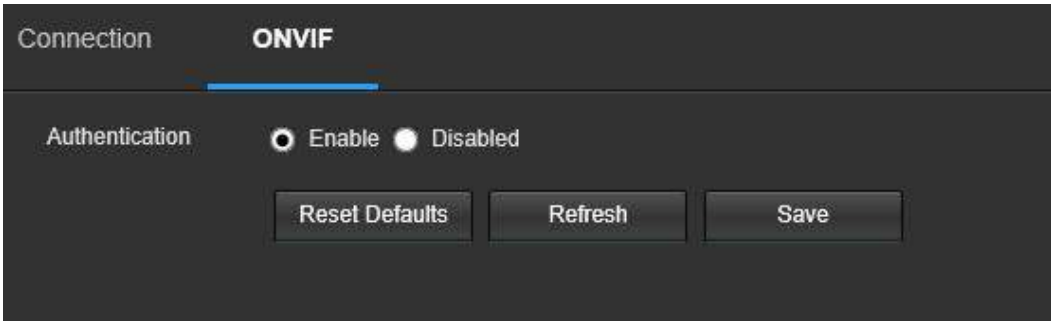
Below is an explanation of the fields on the Connection settings tab:

Max Connections: This field allows the user to specify the maximum number of users that can be connected to the camera at the same time. The maximum number of users the camera can support at one time is 20.
TCP Port: This field designates the Transmission Control Protocol (TCP) port number. The default value is 37777.
UDP Port: This field designates the User Datagram Protocol (UDP) port number. The default value is 37778.
HTTP Port: This field designates the Hypertext Transfer Protocol (HTTP) port number. The default value is 80.
RTSP Port: This field designates the Real Time Streaming Protocol (RTSP) port number. The default value is 554.
HTTPS: This field enables the use of the HTTPS protocol for accessing the camera.
HTTPS Port: This field designates the Hypertext Transfer Protocol Secure (HTTPS) port number. The default value is 443.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

ONVIF

The ONVIF tab is where users can configure authentication via the ONVIF standard. Below is a screenshot of the ONVIF settings tab:



To enable ONVIF, click the radio button next to Enable, and then click the save button.

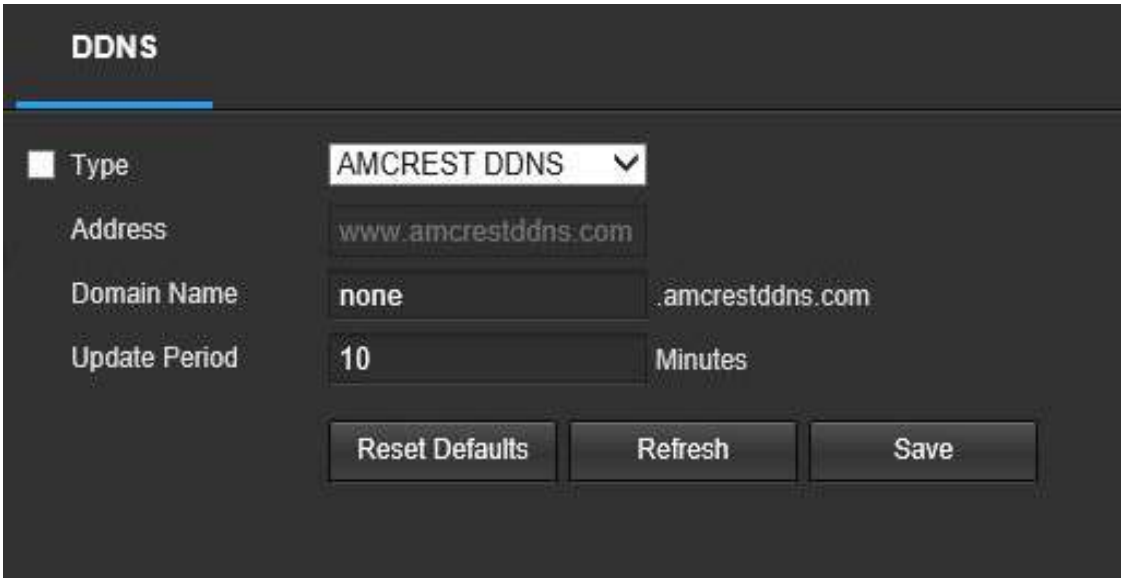
To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

DDNS

DDNS stands for Dynamic Domain Name Server. This technology is used to automatically update name servers in real time to help the camera maintain a persistent address despite changes in location or configuration. What this means is that even when the camera is restarted, moved, or reconfigured, it can keep the same IP address, thus allowing remote users uninterrupted access to the camera, rather than having to request a new IP address to use for remote access anytime a change is made.

To use this feature, users will need to setup an account with a DDNS service. The camera supports a variety of DDNS services such as AmcrestDDNS, NO-IP DDNS, CN99 DDNS, and Dyndns DDNS. Based on which service is selected, different options may show on this screen. For purposes of this guide, AmcrestDDNS will be used. AmcrestDDNS is a free DDNS service provided by Amcrest, and it must be renewed every year. A renewal reminder email will be sent to the email entered in the username field below.

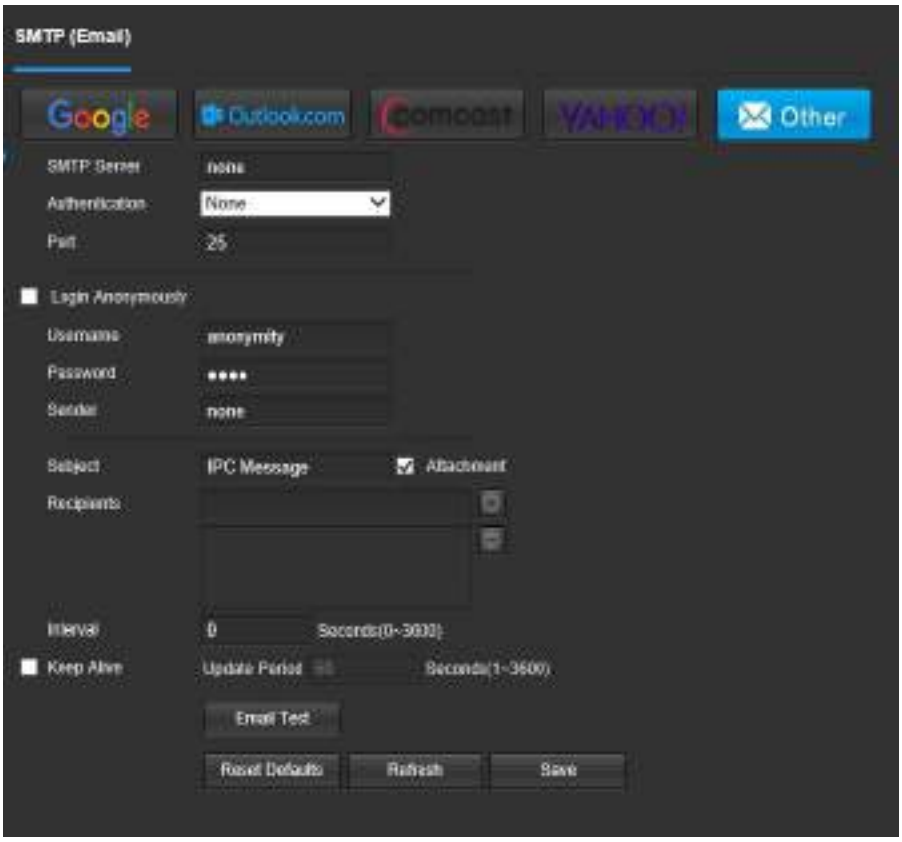
Below is a screenshot of the DDNS settings screen, configured to AmcrestDDNS:



To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

SMTP (Email)

This screen allows for the configuring of email settings to permit the camera to send emails when an alarm is triggered. Below is a screenshot of the email settings screen:



Below is an explanation of fields on the SMTP (Email) settings screen:

SMTP Server: SMTP stands for Simple Mail Transfer Protocol. This field allows the user to enter the SMTP server used by the email service.
Authentication: This dropdown box allows the user to select an encryption type. There are two types of email encryption protocols that are available.

SSL: Secure Socket Layer
TLS: Transport Layer Security

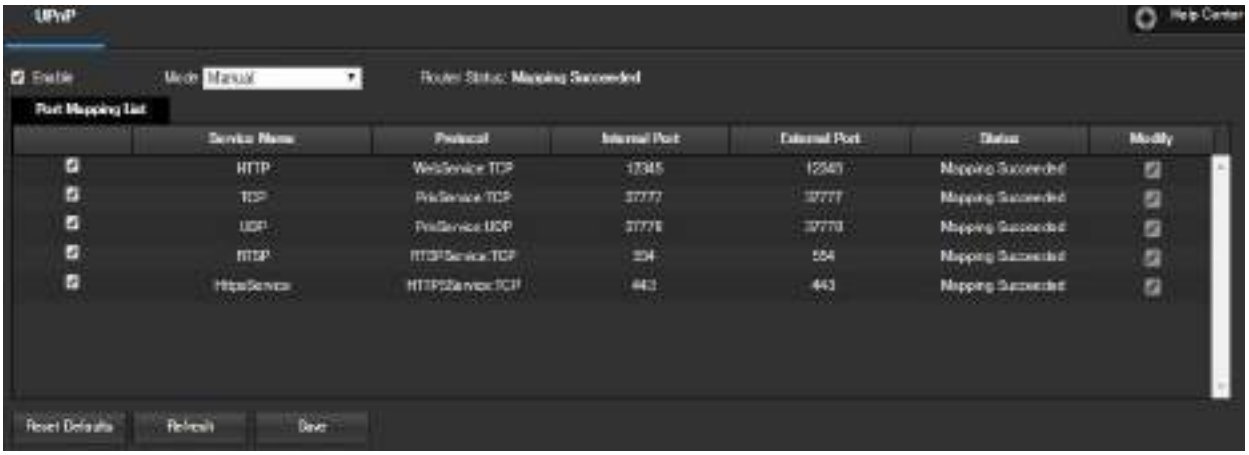
Port: This field allows the user to enter the port that corresponds to the selected SMTP server.
Login Anonymously: This checkbox allows the user to anonymously login to the server.
Username: This field allows the user to enter the SMTP username.
Password: This field allows the user to enter the password associated with the SMTP username.
Sender: This field allows the user to enter the sender email address. This email address will be the one that sends out all emails pertaining to the alerts and alarm emails sent by the camera.
Subject: This field allows the user to define the subject line of the email that is sent to the receivers. Click on the attachment option to allow an attachment to be sent in the subject line.
Recipients: This field allows the user to enter the receiver email address. These email addresses are the ones that will receive any emails pertaining to alert and alarm emails sent by the camera. Up to 3 email addresses can be entered in this field.
Interval: This field allows the user to define, in seconds, how long the system should wait between sending emails. This prevents multiple emails from being sent out.
Keep Alive: This checkbox allows the user to enable a function to periodically check in with the SMTP server to ensure it can connect correctly.

Test: This button causes the system to automatically send out an email to test the connection is OK or not. Prior to the email test, please save the email setup information.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

UPnP

UPnP stands for Universal Plug and Play, and it is a protocol used to easily connect devices to the internet. In the case of this camera, it allows the camera to connect to the router in an easy manner to quickly allow for remote access. Below is a screenshot of the UPnP settings screen:



Below is an explanation of fields on the UPnP settings screen:

Enable: This checkbox allows the user to enable the UPnP function.
Mode: This dropdown menu allows the user to select a Customized UPnP mode or reset to default settings.
Router Status: This field shows the UPnP status and has two options:

Mapping Failed: This means that UPnP mapping has failed.

Mapping Successful: This means that UPnP mapping has succeeded.

Port Mapping List: This table is used to show how the ports for each protocol listed below have been remapped by the UPnP protocol.

first column shows the checkboxes to enable the corresponding service on the table.

The second column shows the name of the services. To edit this, double click on the service line item.

The third column shows the name of the protocol used by that service. To edit this, click the pencil button in the modify column for that line item.

The fourth column shows the Internal Port used by that service to establish communication from the router to the camera. To edit this, click the pencil button in the modify column for that line item.

The fifth column shows the External Port used by that service to establish communication from the router to the internet. To edit this, click the pencil button in the modify column for that line item.

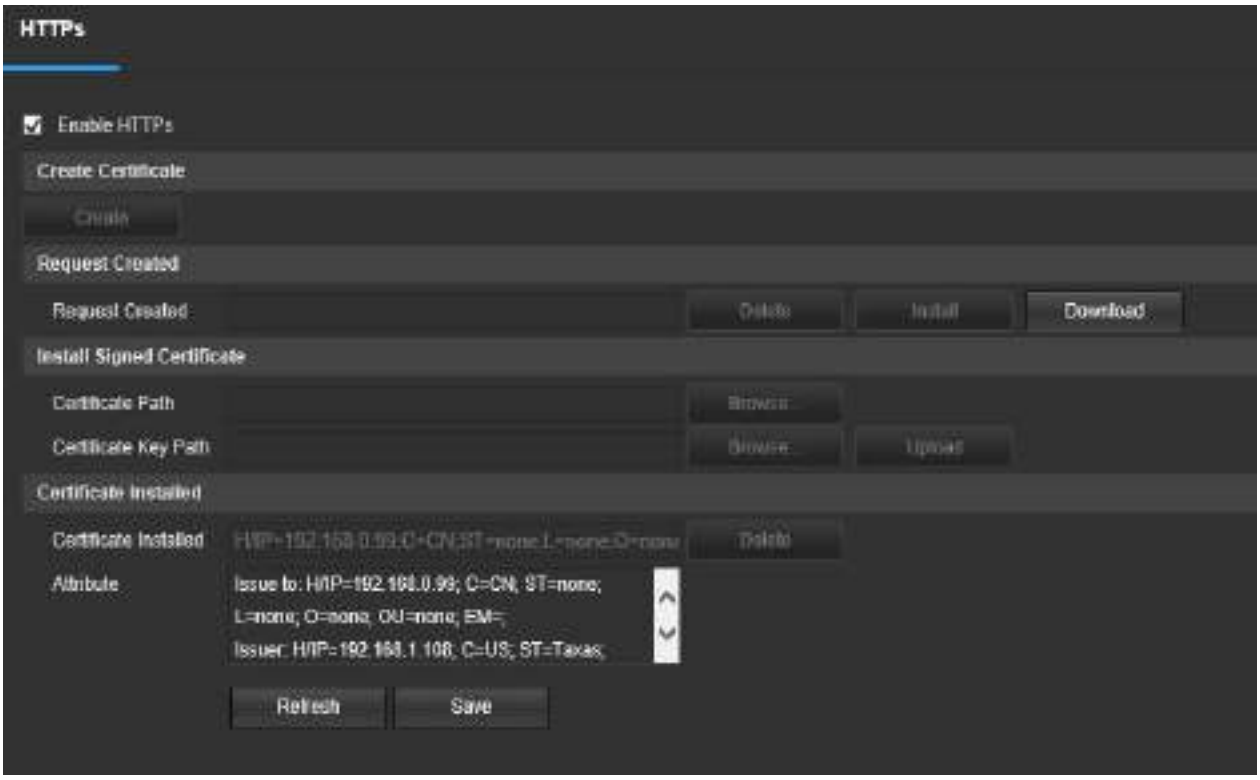
The sixth column shows the status of the protocol. If the protocol was mapped successfully, this field will say “Mapping Succeeded”.

The seventh column allows the user to open a dialog box and edit the service’s information.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

HTTPS

This menu allows the user to enable and create HTTPS certificates. Below is a screenshot of this menu:

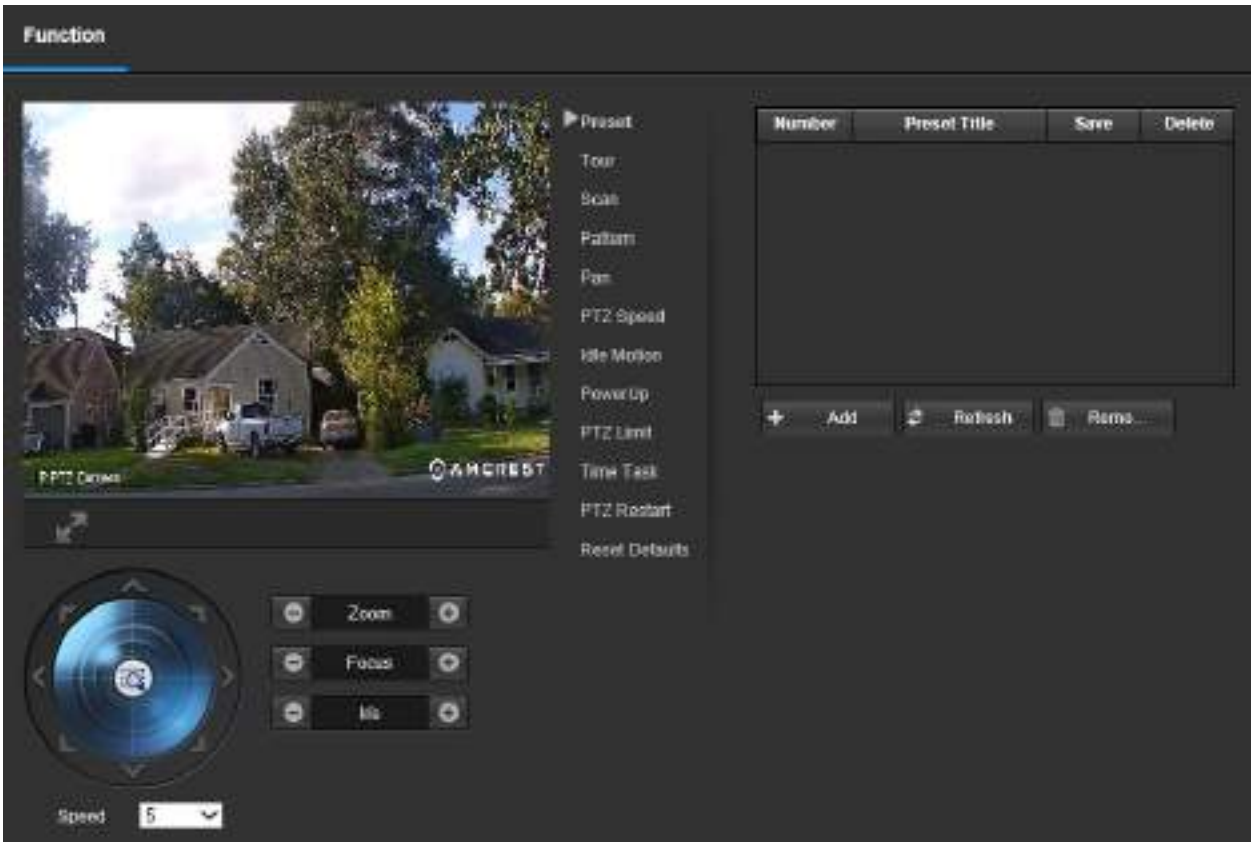


Before you create certificate or download certificate, from main window->Setup->Network >Connection, set the HTTPS port values and then check the box to enable HTTPS

For more information on how to setup HTTPS in the web user interface visit
https://www.youtube.com/watch?v=gkjlaf-Iuso

PTZ

This menu allows the user to set PTZ presets, tours, scans, patterns, pan settings, and other related functions to the camera. **Please note, to set additional Smart Plans, or Deep IVS rules, a preset must be saved in the Function menu.** Below is a screenshot of this menu:



Below is an explanation of the features listed in this menu:

Preset: A preset must be added to set a smart plan for Deep IVS or if multiple smart plans need to be applied to the system. To begin adding a preset to your camera, click the **Add** button. To refresh the screen click **Refresh**, to delete a preset, press **Delete** or to remove all the presets, click **Remove All**. Please note a **Tour**: Allows the user to string multiple presets together.
Scan: Allows the user to set automatic scan presets to the camera.
Pattern: Allows the user to set specific PTZ pattern presets to the camera.
Pan: Allows the user to adjust pan speeds related to established pan presets.
PTZ Speed: Allows the user to adjust pan, tilt, and zoom speeds. There are 3 separate PTZ speeds for this function: Low, Middle, and High.
Idle Motion: Allows the user to set intervals of idle time before the preset quits. The idle time can be set from 1 ~ 60 minutes.
Power Up: Allows the user to set the device to automatically enable certain presets, such as tours, scans, etc. to initiate once the camera has been powered on.
PTZ Limit: Allows the user to set a specific area in which the PTZ move. This is possible by setting a Up and Down line on the interface.
Time Task: Allows the user to set scheduled periods for PTZ presets to occur. To set a schedule, click the **Enable** check box and select the time task action from the **Task Set action** menu. If you want the time task to automatically return to a specific position in a certain period of time, enter the value in the **Auto Home** field. This option is set to default every 30 seconds; however, this can be adjusted from 5 ~ 3600 seconds. Once this value is set, click the **Scheduled** button:

Click and drag to set motion detection for certain days of the week. Also, periods of motion detection can be set for each day and enabled using the period settings on the bottom half of the screen. There are a total of 6 periods that can be set. Once you have completed the time task schedule, click the **Save** button to save the settings to your camera.

PTZ Restart: Allows the user to refresh and restart the PTZ function being performed. To restart the PTZ function, click the **PTZ Restart** button.

Reset Defaults: Allows the user to reset all PTZ functions set in the camera to default. Click the **Reset Default** button to reset any set PTZ functions.

In this field you will also notice an additional quick access to the PTZ control panel.

The arrows on the PTZ control panel allow the user to move the camera's position in a specific direction. The button in the middle of the direction arrow allows the user to select an area in the live view to zoom in on. The speed dropdown box allows the user to control the speed at which the camera moves. The values range from 1 to 8, 8 being the fastest.

The zoom, focus, and iris buttons allow the user to digitally zoom in and out, focus, and just the camera's image on the live screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Event

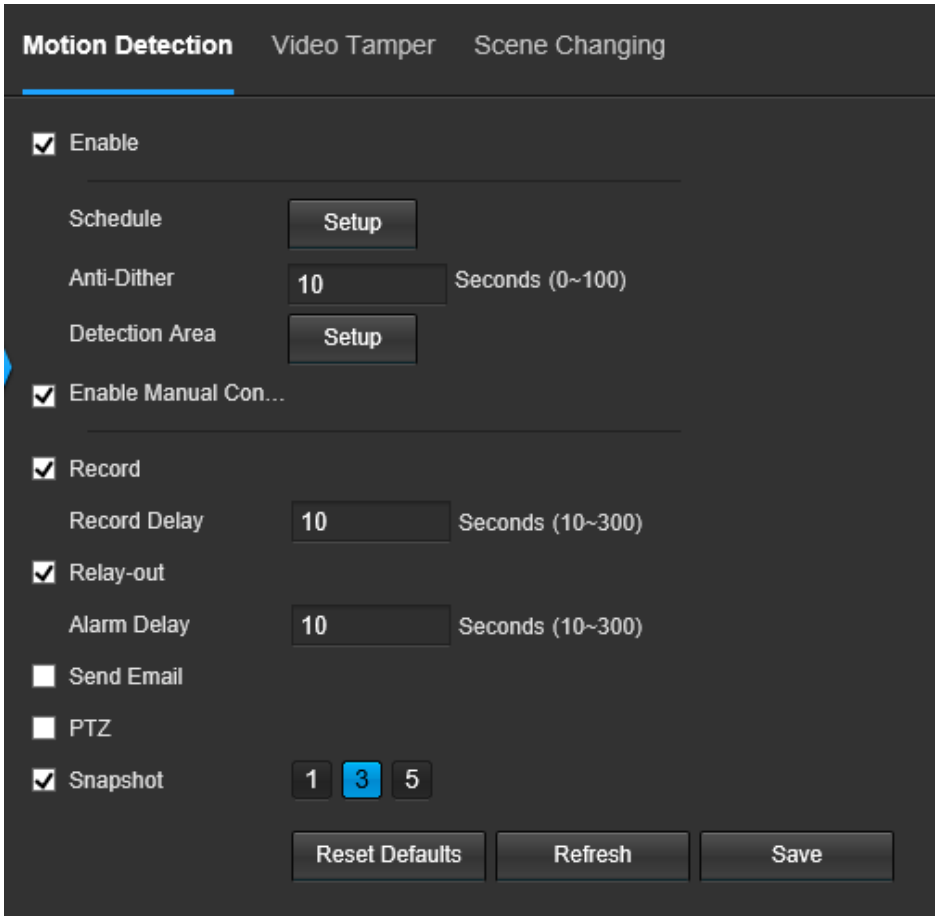
This menu section allows the user to change different settings for triggering events.

Video Detection

The video detection menu has two tabs: Motion Detect and Video Tamper.

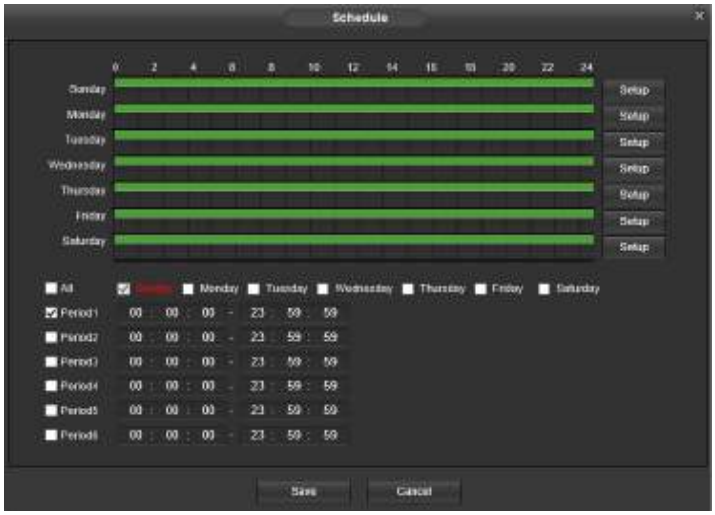
Motion Detect

This tab allows the user to modify motion detection settings. Below is a screenshot of the Motion Detect tab:



Below is an explanation of the fields on the Motion Detect tab:

Enable: This checkbox enables motion detection for the camera.
Schedule: Clicking this button opens a weekly schedule that can be used to set times.

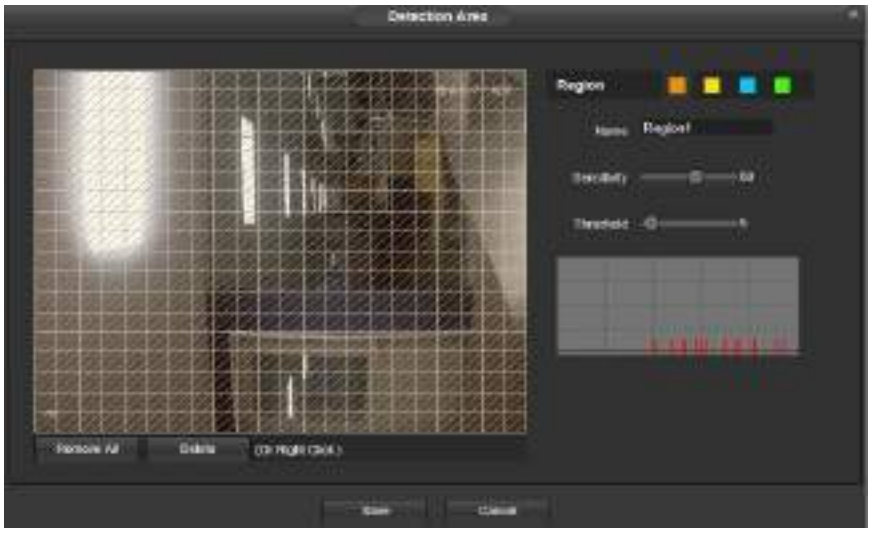


Click and drag to set motion detection for certain days of the week. Also, periods of motion detection can be set for each day and enabled using the period settings on the bottom half of the screen. There are a total of 6 periods that can be set.

Anti-Dither: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin, a snapshot can be taken, or the camera can begin recording.

For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.

Detection Area: Clicking this button opens a pop-up screen that can be used to set detection areas.



When the setup button is clicked, a live stream of the video is shown. The user can then set up to 4 regions, each with their own region name, sensitivity (1-100), and threshold (1-100). Each region has a specific color, and the region selector tool is displayed when the mouse is moved to the top of the screen.

Sensitivity is the amount of change required to increase the motion detected by a percentage. The lower the sensitivity, the more movement is required to trigger an alarm.

Threshold is the level that the motion detection needs to reach to trigger an alarm. The lower the threshold, the more likely that motion will trigger an alarm.

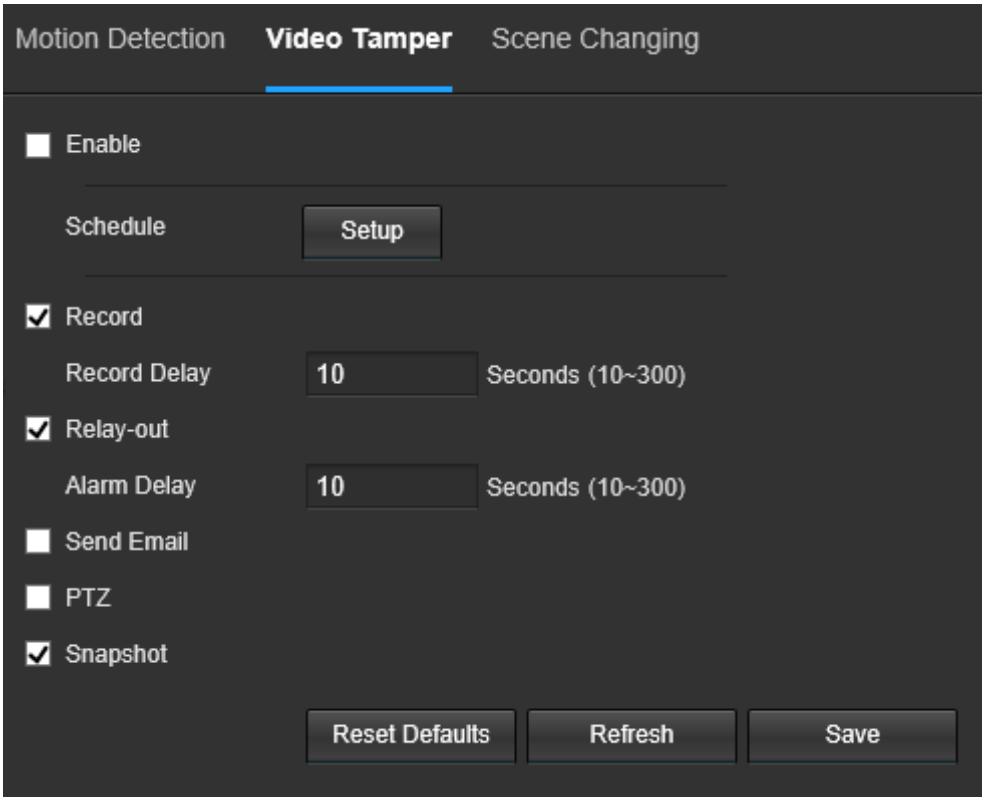
To designate a zone, click and drag the mouse over the area desired. When a colored box is displayed over the live feed, that area is now enabled for motion detection.

After the motion detection zone is set, click the enter button to exit the motion detection screen.
Remember to click the save button on the motion detection settings screen, otherwise the motion detection zones will not go into effect. Clicking the cancel button to leave the motion detection zone and will not save the zone setup.
Enable Manual Control Trigger: This checkbox allows the user to enable manual PTZ control triggered events.
Record: This checkbox allows the user to enable the camera to record video when a motion detection alarm is triggered.
Record Delay: This field specifies in seconds how long the delay between alarm activation and recording should be.
Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a motion detection alarm is triggered.
Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.
Send Email: This checkbox allows the user to enable the camera to send an email when a motion detection alarm is triggered.
PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.
Snapshot: This checkbox allows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

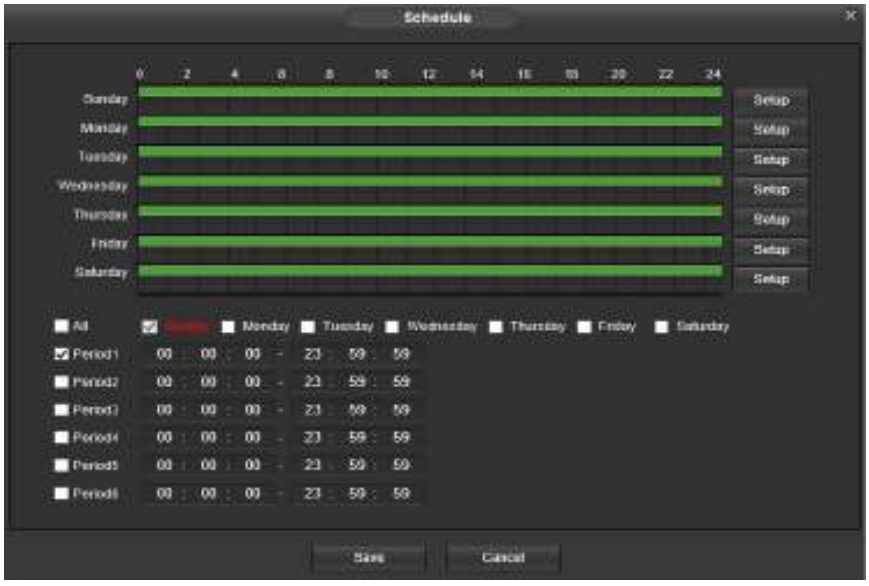
Video Tamper

This tab allows the user to modify video tamper settings. Below is a screenshot of the Video Tamper tab:



Below is an explanation of the fields on the Video Tamper tab:

Enable: This checkbox enables a video tamper alarm for the camera.
Schedule: Clicking this button opens a weekly schedule that can be used to set times.



Click and drag to set video tampering for certain days of the week. Also, periods of video tampering can be set for each day and enabled using the period settings on the bottom half of the screen. There are a total of 6 periods that can be set.

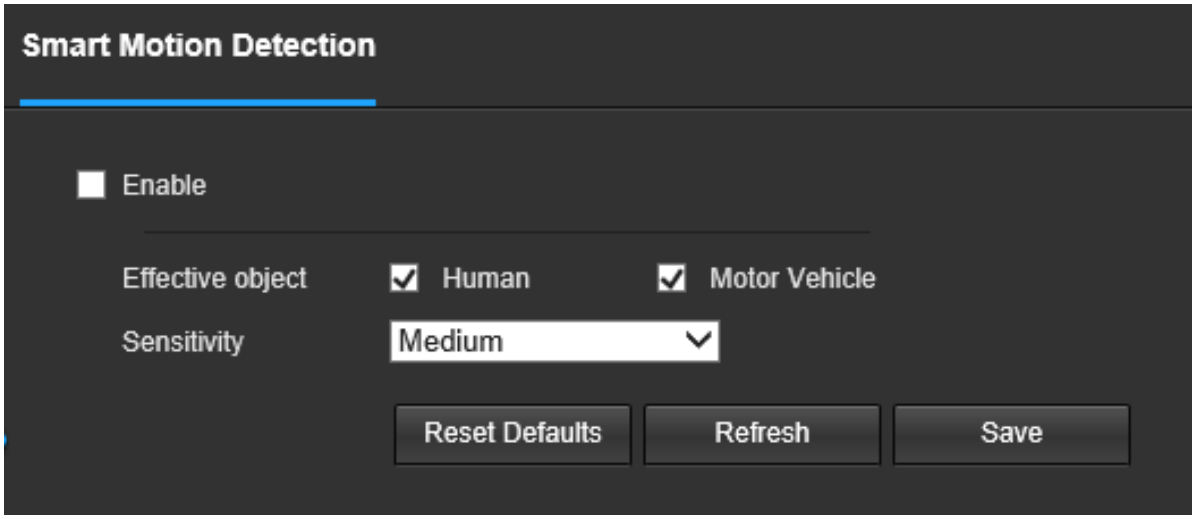
Record: This checkbox allows the user to enable the camera to record video when a video tampering alarm is triggered.
Record Delay: This field specifies in seconds how long the delay between alarm activation and recording should be.
Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a video tamper alarm is triggered.
Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.
Send Email: This checkbox allows the user to enable the camera to send an email when a video tampering alarm is triggered.
PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.
Snapshot: This checkbox allows the user to enable the camera to take a snapshot when a video tampering alarm is triggered.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Smart Motion Detection

Smart Motion Detection (SMD) uses an advanced algorithm to differentiate between human and motor vehicle shapes within a scene and send alarms only when a person or vehicle is detected.

Below is a screenshot of the **Smart Motion Detection** menu:



Enable: Use this checkbox to enable Smart Motion Detection.
Effective Object: The object filter checkboxes allow the camera to be triggered only when a specific object, such as a human or car, is detected by the camera. Both effective object checkboxes can be activated at the same time.

Human: This checkbox allows the camera to be triggered only when a human figure is detected.

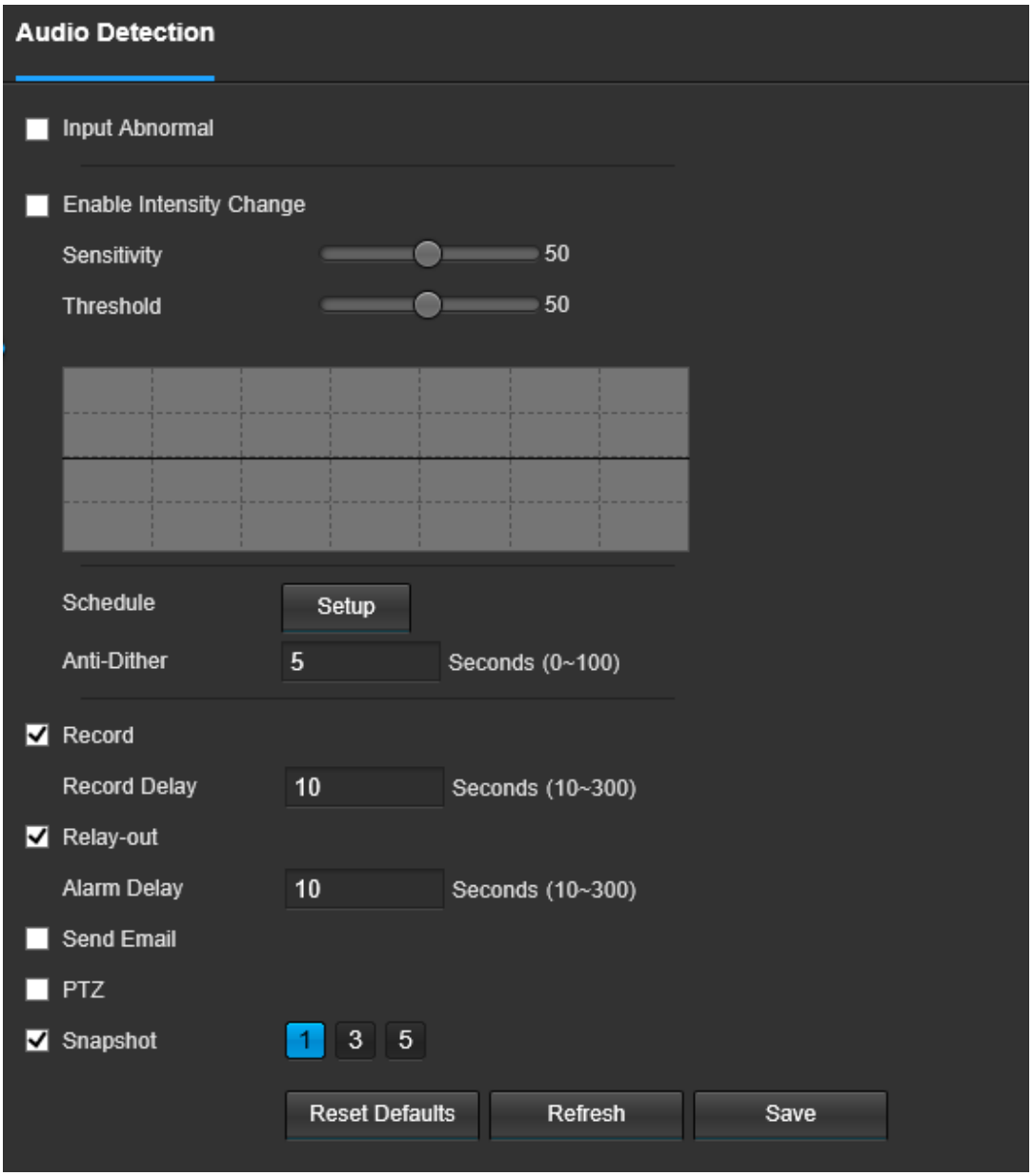
Motor Vehicle: This checkbox allows the camera to be triggered only when a vehicle has been detected.

Sensitivity: Use this dropdown menu to select a sensitivity setting for smart motion detection. The sensitivity can be set as low, medium, or high.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Audio Detection

This menu allows the user to modify audio detection settings. Below is a screenshot of the Audio Detect screen: Below is an explanation of the fields on the Audio Detection tab:

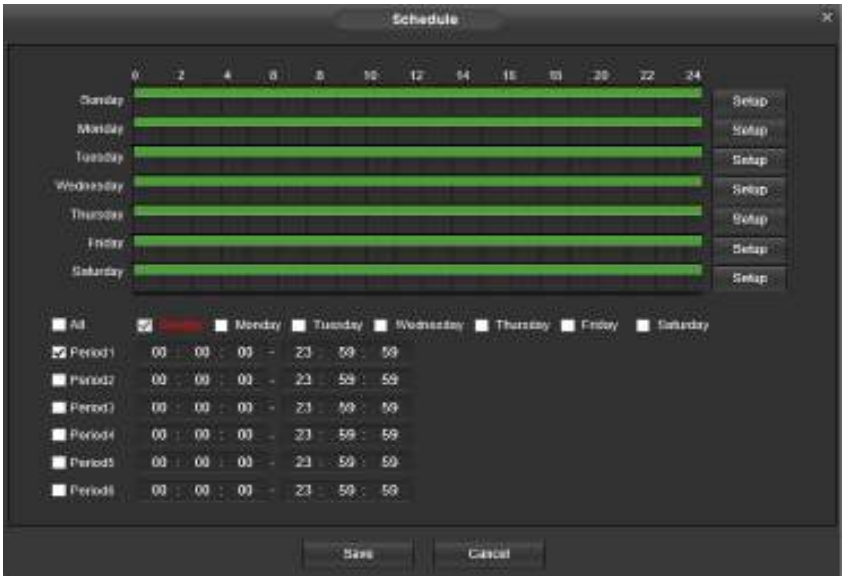


Input Abnormal: This checkbox enables an audio detection alarm for the camera.
Enable Intensity Change: This checkbox enables the user to adjust sensitivity and threshold settings for audio detection.

Sensitivity: The higher the sensitivity, the more likely that audio will trigger an alarm.

Threshold: The lower the threshold, the more likely that audio will trigger an alarm.

Schedule: Clicking this button opens a weekly schedule that can be used to set times.



Click and drag to set audio tampering for certain days of the week. Also, periods of audio detection can be set for each day and enabled using the period settings on the bottom half of the screen. There are a total of 6 periods that can be set. 93.

Anti-Dither: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on audio detection, a buzzer can go off, a tour can begin, PTZ can be activated, a snapshot can be taken, or the camera can begin recording.

For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.

Record: This checkbox allows the user to enable the camera to record video when an audio detection alarm is triggered.

Record Delay: his field specifies in seconds how long the delay between alarm activation and recording should be.

Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a video tamper alarm is triggered.

Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.

Send Email: This checkbox allows the user to enable the camera to send an email when an audio detection alarm is triggered.

PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.

Snapshot: This checkbox allows the user to enable the camera to take a snapshot when an audio detection alarm is triggered.

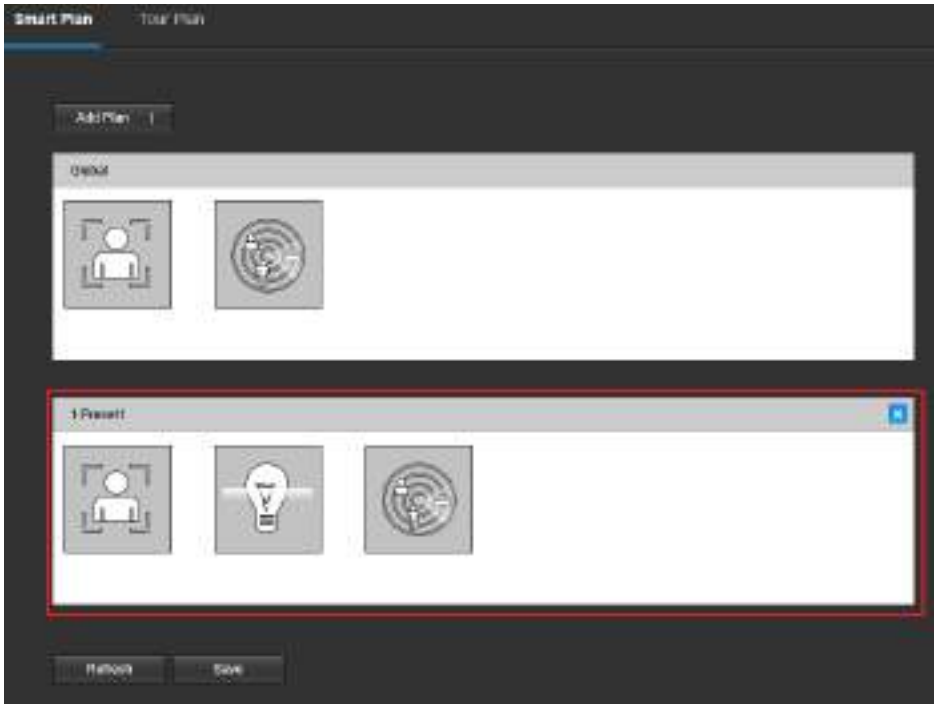
To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Smart Plan

A smart plan acts as the “master switch” for all AI features and video metadata associated with your camera.

Please note, before setting a smart plan, a preset for the smart plan must be setup first in the PTZ (function) menu before a smart plan can be activated.

Once a preset and smart plan has been added in the smart plan menu, AI features such as face detection, deep IVS, and video metadata can be setup in the camera.



Tour Plan

A tour plan allows the user to set a schedule for a set tour preset.

Enable: Enables a tour plan schedule.

Tour Mode Select: Provides "Scene Priority" to the selected tour dates and times.
Idle Time: The time in between each tour movement. The default is 10 seconds however, it can range from 10-3600 seconds.
If multiple tours are enabled on your device, enter a start and end time in which the tour will occur. To clear the time, click Clear Time, you can also click "Clear All" to clear each start and end time in the interface. Click the Copy button to copy your schedule settings to multiple days of the week. Click Save to save the tour plan schedule.

Deep IVS

IVS stands for stands for intelligent video system analytics and is the basis for all the AI rules associated with your camera. Deep IVS allows the user to customize and set IVS rules that allows the camera to produce general behavior analytics and reporting directly from the web user interface. Please note, a preset and smart plan for deep IVS must be enabled to begin setting up IVS rules. For more information on how to setup a preset and smart plan, please refer to section, *"Smart Plan".*

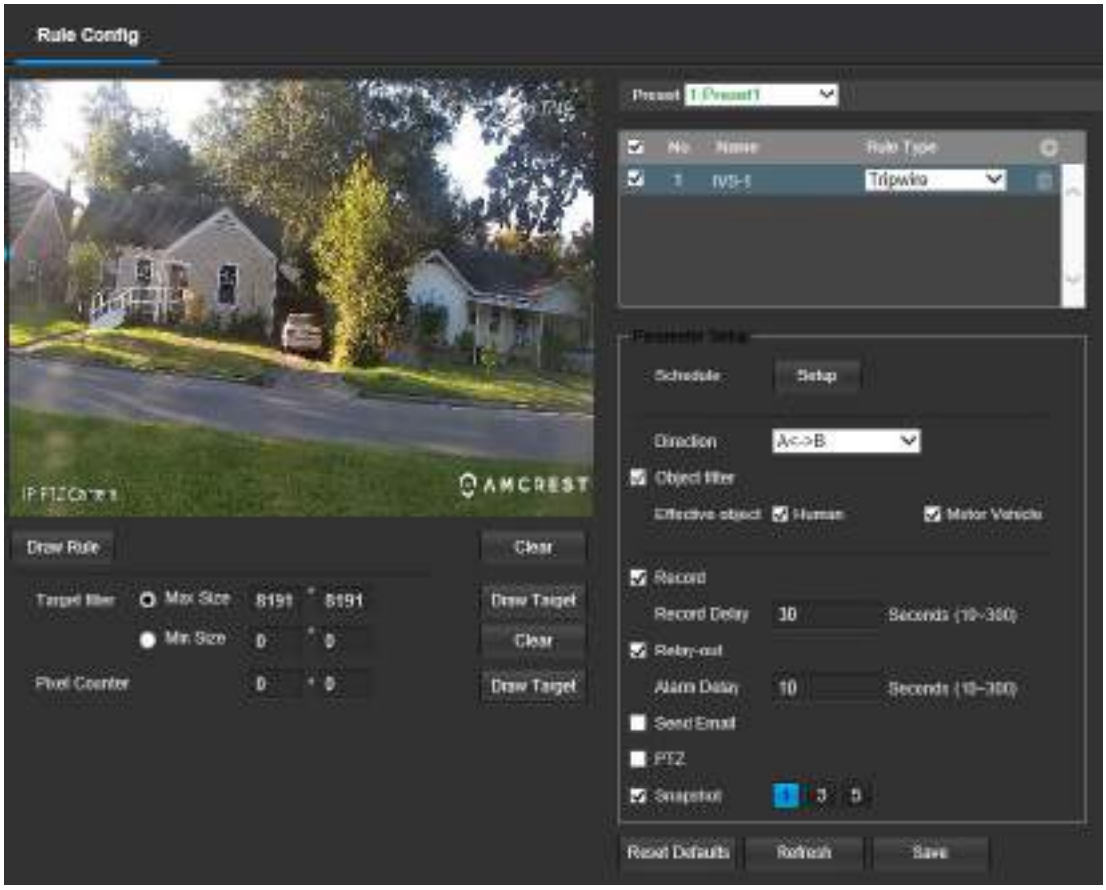
Setting an IVS Rule

All IVS rules can only be set and/or modified using the web user interface. They **cannot** be set using the Amcrest View Pro app or any other platforms associated with your device. For more information on setting IVS rule, refer to the information below.

1. Ensure a Smart Plan has been activated in the Smart Plan menu for IVS.
2. Access the IVS menu and click on the Add () icon to begin customizing IVS rules.
3. Use the dropdown menu in the Rule Type column to select which IVS rule you want to use.

Tripwire

Tripwire allows the camera to trigger an event if an object, such as a human or vehicle, crosses the set tripwire line. Below is a screenshot of the Tripwire menu:



Below is a description of the features in this menu:

Preset: Use this dropdown menu to select a preset. Please note the preset and smart plan must be enabled to add an IVS rule type.

No.: Provides the order in which the IVS rules will be displayed in the menu.

Name: Allows the user to customize a name for their rule. Double click the name in the Name column to modify.

Rule Type: This dropdown menu allows the user to select an IVS rule type (Tripwire or Intrusion).

Schedule: Allows the user to set a schedule in which the IVS rule will be triggered.

Direction: This dropdown menu allows the user to set which direction the object will be going for the tripwire to be triggered. It can be set left, right, or in both directions (A<->B).

Object filter: The object filter checkboxes allow the camera to be triggered only when a specific object, such as a human or car, is detected by the camera. Both effective object checkboxes can be activated at the same time.

Human: This checkbox allows the camera to be triggered only when a human figure is detected.

Motor Vehicle: This checkbox allows the camera to be triggered only when a vehicle has been detected.

Record: This checkbox allows the user to enable the camera to record video when an IVS event is triggered.

Record Delay: This field specifies, in seconds, how long the delay between IVS events should be. The default is 10 seconds however this can be modified between 10~300 seconds.

Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a motion detection alarm is triggered.

Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.

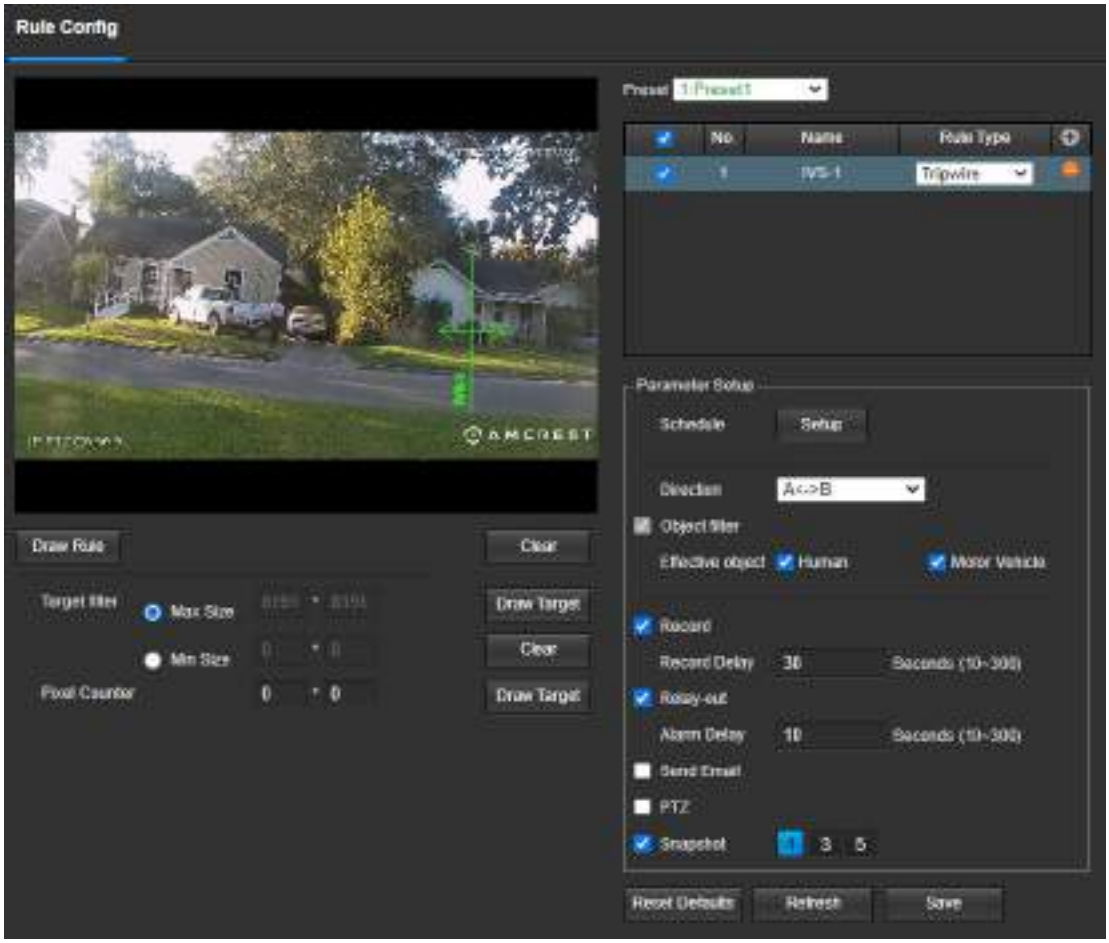
Send Email: This checkbox allows the user to enable the camera to send an email when an IVS event is triggered.

PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent via Email when triggered.
Draw Rule: This option allows the user to use their mouse to customize (draw) a rule/area on the screen. This will be the area or line in which an IVS rule will be triggered.
Clear: This option is used to clear the drawn rule set on the live monitor screen.
Target filter: Sets a maximum and minimum size in which an event will be triggered.
Clear: Clears the modified target area to draw the target area on the live monitoring screen.
Draw Target: Allows the user to set a target area on the live monitor screen. **An IVS event will not occur outside the target box.**
Pixel Counter: Used to measure and set the number of pixels in the target area on the live monitoring screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Setting a Tripwire

1. Select Tripwire from the **Rule Type** drop down menu. Set a name for the rule by double clicking the mouse over the Name of the rule.
2. Click on **Setup** to set a schedule, set your periods (if any) and click **Save** to continue.
3. In the **Direction** menu, choose which direction the object will be going for the tripwire to be triggered.
4. Enable the Record checkbox to record the event.
5. Check the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the camera prior to enabling this setting.
6. Click the **Draw Rule** option and use your mouse to draw the rule on the live monitoring screen. Once the rule has been drawn click the monitoring screen to finish setting the rule. The drawn line will turn blue/green when set depending on the browser you are using.



Note: The target filtering and pixel counter can be used to refine the set rule however for optimal experience it is highly recommended to leave these settings as default

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Intrusion

Intrusion allows the camera to trigger an event if an object, such as a human or vehicle, appears or crosses a set intrusion area set by the user.

Below is a screenshot of the Intrusion menu:

Below is a description of the features in this menu:

Preset: Use this dropdown menu to select a preset. Please note the preset and smart plan must be enabled to add an IVS rule type.
No.: Provides the order in which the IVS rules will be displayed in the menu.
Name: Allows the user to customize a name for their rule. Double click the name in the Name column to modify.
Rule Type: This dropdown menu allows the user to select an IVS rule type.
Schedule: Allows the user to set a schedule in which the IVS rule will be triggered.

Action: These checkboxes allow the user to choose a parameter filter that will activate a trigger if an object were to cross or appear in the set intrusion area.

Cross: The rule will trigger when a target enters or exits the area.

Appears: The rule will trigger when a target appears inside the area.

Direction: This dropdown menu allows the user to choose whether the rule will be triggered if an object enters, exits, or enters & exits a set line or area.

Object filter: The object filter checkboxes allow the camera to be triggered only when a specific object, such as a human or car, is detected by the camera. Both effective object checkboxes can be activated at the same time.

Human: This checkbox allows the camera to be triggered only when a human figure is detected.

Motor Vehicle: This checkbox allows the camera to be triggered only when a vehicle has been detected.

Record: This checkbox allows the user to enable the camera to record video when an IVS event is triggered.

Record Delay: This field specifies, in seconds, how long the delay between IVS events should be. The default is 10 seconds however this can be modified between 10~300 seconds.

Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a motion detection alarm is triggered.

Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.

Send Email: This checkbox allows the user to enable the camera to send an email when an IVS event is triggered.

PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.

Snapshot: This checkbox allows a snapshot of the IVS event to be sent via Email when triggered.

Draw Rule: This option allows the user to use their mouse to customize (draw) a rule/area on the screen. This will be the area or line in which an IVS rule will be triggered.

Clear: This option is used to clear the drawn rule set on the live monitor screen.

Target filter: Sets a maximum and minimum pixel size in which an event will be triggered.

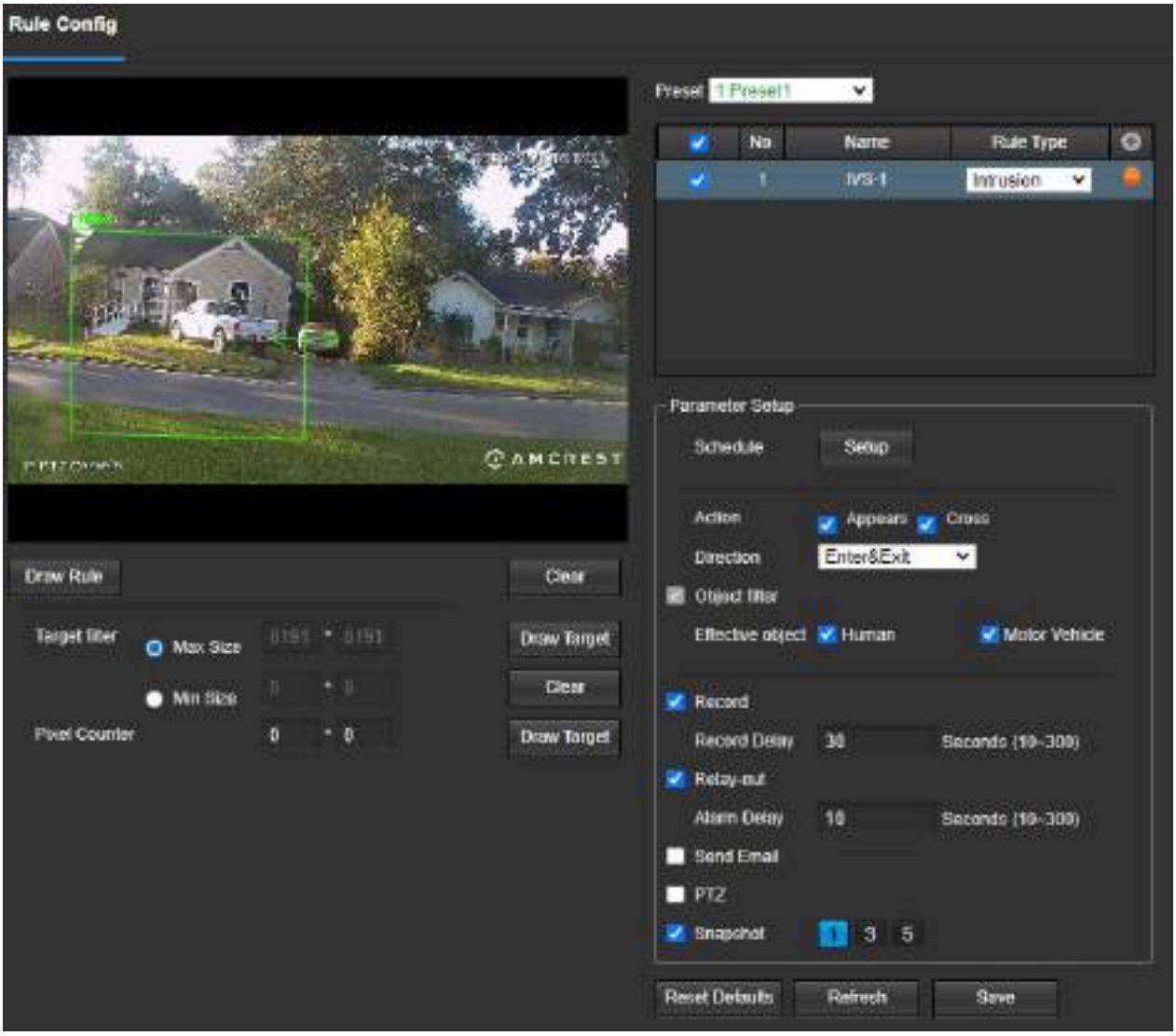
Clear: Clears the modified target area to draw the target area on the live monitoring screen

Draw Target: Allows the user to set a target area on the live monitor screen. **An IVS event will not occur outside the target box.**

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Setting an Intrusion Area

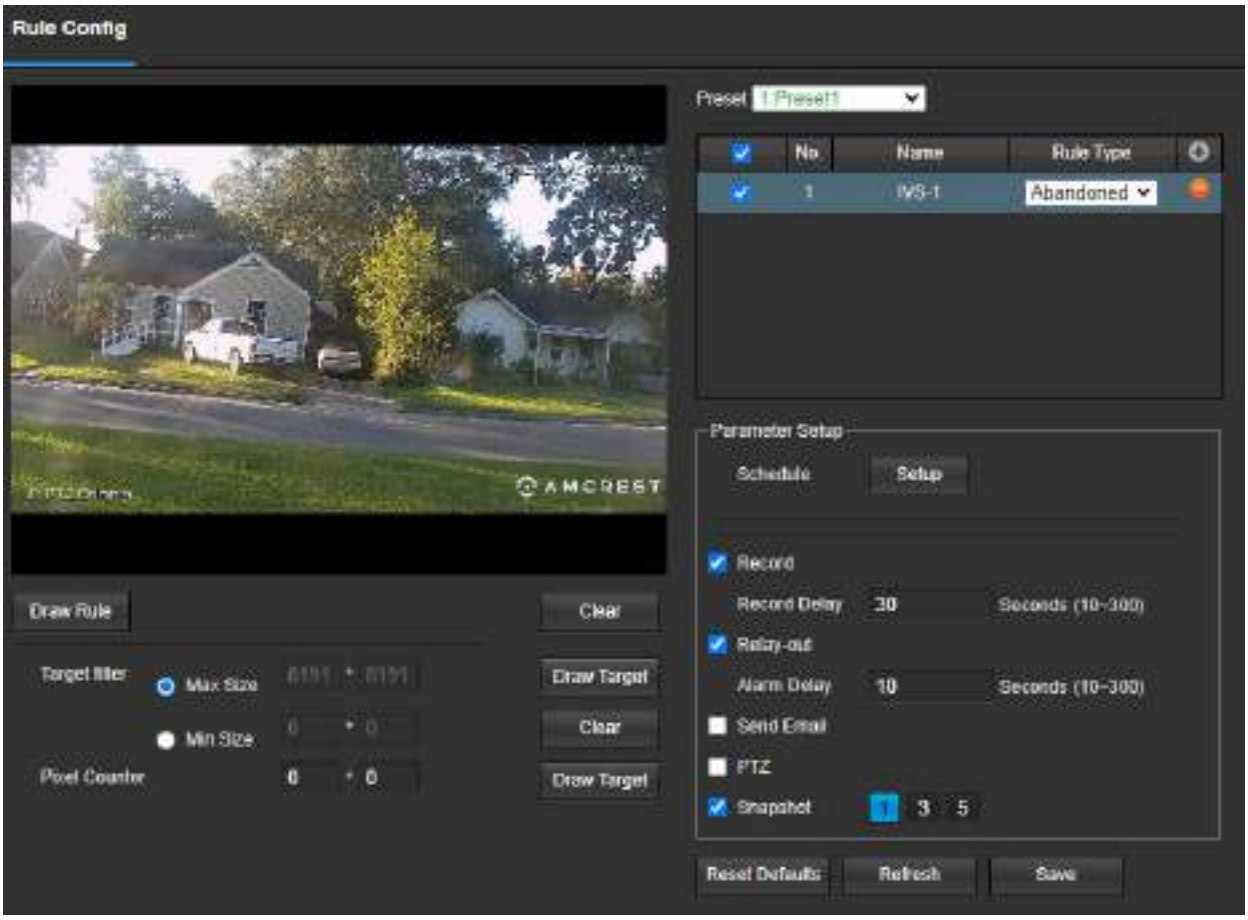
1. Select Intrusion from the Rule Type drop down menu. Set a name for the rule by double clicking the mouse over the Name of the rule.
2. Click on **Setup** to set a schedule, set your periods (if any) and click **Save** to continue.
3. In the **Action** menu, choose whether the rule will be triggered if an object appears or crosses the set region. Both options can be enabled at the same time if needed.
3. In the **Direction** menu, choose if the rule will be triggered if the object enters only, exits only, or enters & exits a set region.
4. Enable the **Record** checkbox to record the event.
7. Check the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the camera prior to enabling this setting. For more information on setting up email alerts, please refer to section, "*SMTP (Email*)".
5. Click the **Draw Rule** option and right click on the live monitoring screen. Use the mouse to draw your initial line. Once the initial line is set, right click the mouse again to continue drawing the region. Repeat the process and left click the mouse to complete the region. Right click on the live monitoring screen when finished to set the rule.



To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Abandoned Object

Abandoned Object allows the camera to trigger an event if an object is placed in a set area for a specified amount of time. Below is a screenshot of the Abandoned Object menu:



Below is a description of the features in this menu:

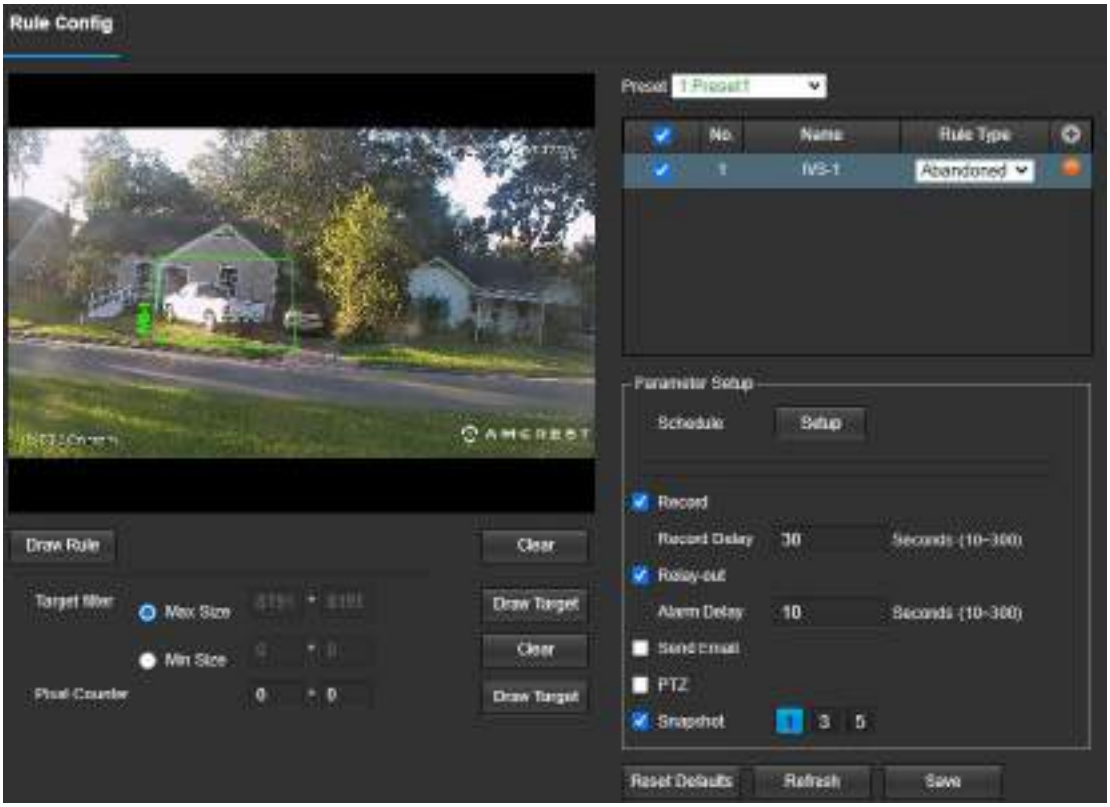
Preset: Use this dropdown menu to select a preset. Please note the preset and smart plan must be enabled to add an IVS rule type.
No.: Provides the order in which the IVS rules will be displayed in the menu.
Name: Allows the user to customize a name for their rule. Double click the name in the Name column to modify.
Schedule: Allows the user to set a schedule in which the IVS rule will be triggered.
Record: This checkbox allows the user to enable the camera to record video when an IVS event is triggered.
Record Delay: This field specifies, in seconds, how long the delay between IVS events should be. The default is 10 seconds however this can be modified between 10~300 seconds.
Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a motion detection alarm is triggered.
Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.
Send Email: This checkbox allows the user to enable the camera to send an email when an IVS event is triggered.
PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent via Email when triggered.
Draw Rule: This option allows the user to use their mouse to customize (draw) a rule/area on the live monitoring screen. This will be the area or line in which an IVS rule will be triggered.
Clear: This option is used to clear the drawn rule set on the live monitor screen.

Target filter: Sets a maximum and minimum pixel size in which an event will be triggered.
Draw Target: Allows the user to set a target area on the live monitor screen. **An IVS event will not occur outside the target box.**
Clear: Clears the modified target area to draw the target area on the live monitoring screen.
Pixel Counter: Used to measure and set the number of pixels in the target area on the live monitoring screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Setting an Abandoned Object Rule

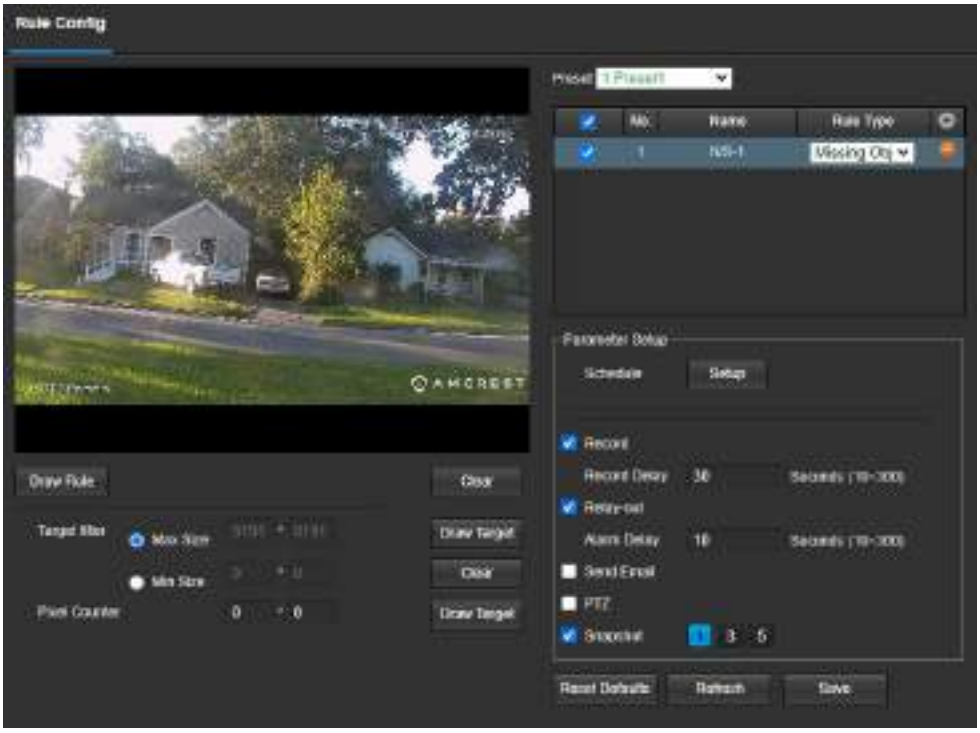
1. Select Abandoned Object from the Rule Type menu. Set a name for the rule by double clicking the mouse over the Name of the rule.
2. Click on **Setup** to set a schedule, set your periods (if any) and click **Save** to continue.
3. In the Duration menu, type in the number of seconds you would like to have before an abandoned object triggers an event. For best results, it is recommended to keep this option as default (10 seconds).
4. Enable the **Record** checkbox to record the event.
5. Enable the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the camera prior to enabling this setting.
6. Click the **Draw Rule** option and right click on the live monitoring screen. Use the mouse to draw your initial line. Once the initial line is set, right click the mouse again to continue drawing the region. Repeat the process and left click the mouse to complete the region. Right click on the live monitoring screen when finished to set the rule.



To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Missing Object

Missing Object allows the user to set a region around an object and if the object is moved or missing from the set region an alarm will be triggered. Below is a screenshot of the Missing Object menu:



Below is a description of the features in this menu:

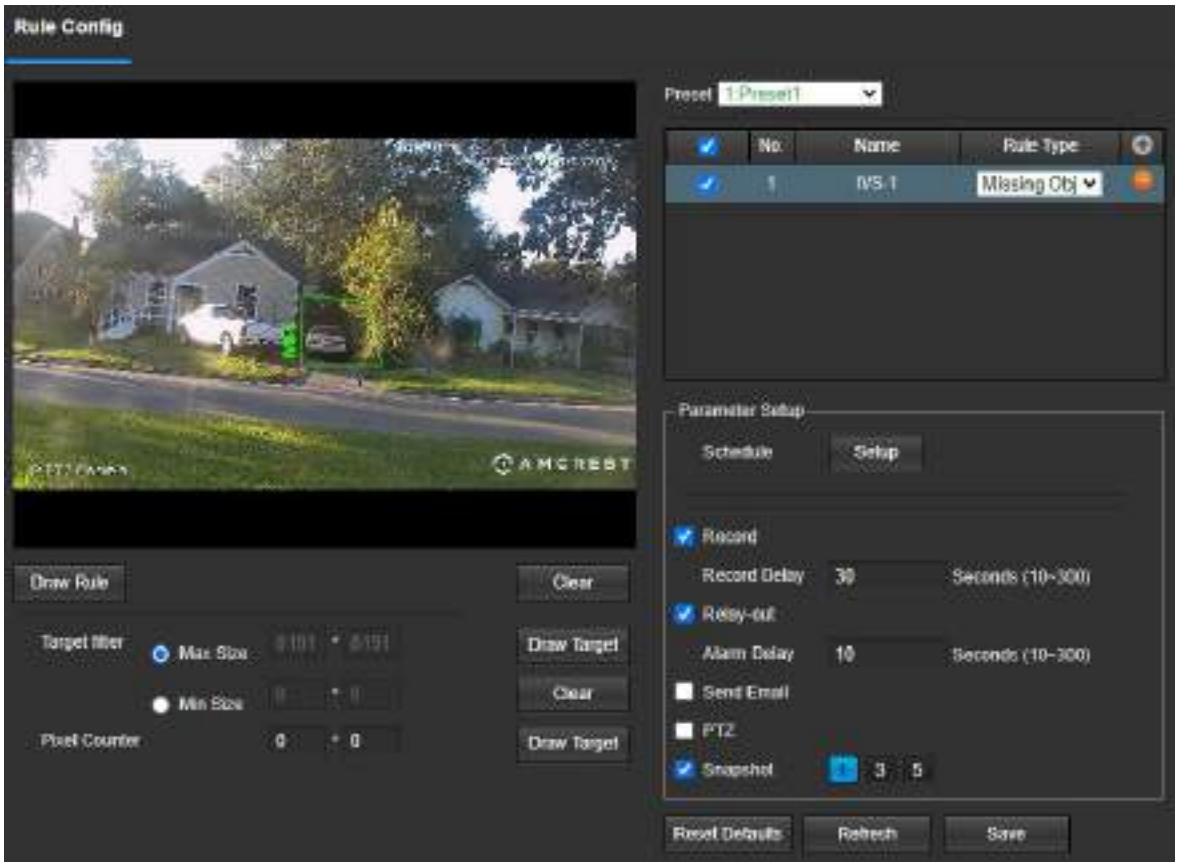
Preset: Use this dropdown menu to select a preset. Please note the preset and smart plan must be enabled to add an IVS rule type.
No.: Provides the order in which the IVS rules will be displayed in the menu.
Name: Allows the user to customize a name for their rule. Double click the name in the Name column to modify.
Rule Type: Use the rule type dropdown menu to select an IVS rule.
Schedule: Allows the user to set a schedule in which the IVS rule will be triggered.
Record: This checkbox allows the user to enable the camera to record video when an IVS event is triggered.
Record Delay: This field specifies, in seconds, how long the delay between IVS events should be. The default is 10 seconds however this can be modified between 10~300 seconds.
Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a motion detection alarm is triggered.
Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.
Send Email: This checkbox allows the user to enable the camera to send an email when an IVS event is triggered.
PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent via Email when triggered.
Draw Rule: This option allows the user to use their mouse to customize (draw) a rule/area on the live monitoring screen. This will be the area or line in which an IVS rule will be triggered.
Clear: This option is used to clear the drawn rule set on the live monitor screen.

Target filter: Sets a maximum and minimum pixel size in which an event will be triggered.
Draw Target: Allows the user to set a target area on the live monitor screen. **An IVS event will not occur outside the target box.**
Clear: Clears the modified target area to draw the target area on the live monitoring screen.
Pixel Counter: Used to measure and set the number of pixels in the target area on the live monitoring screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Setting a Missing Object Rule

1. Select Missing Object from the Rule Type menu. Set a name for the rule by double clicking the mouse over the Name of the rule.
2. Click on **Setup** to set a schedule, set your periods (if any) and click **Save** to continue.
3. In the **Duration** menu, type in the number of seconds you would like to have before an abandoned object triggers an event. For best results, it is recommended to keep this option as default (10 seconds).
4. Enable the **Record** checkbox to record the event.
5. Set the number of seconds the event will be delayed in between triggers. It is recommended to leave this as default.
6. Enable the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the camera prior to enabling this setting.
7. Click the **Draw Rule** option and right click on the live monitoring screen. Use the mouse to draw your initial line. Once the initial line is set, right click the mouse again to continue drawing the region around the object. Repeat the process and left click the mouse to complete the region. Right click on the live monitoring screen when finished to set the rule.

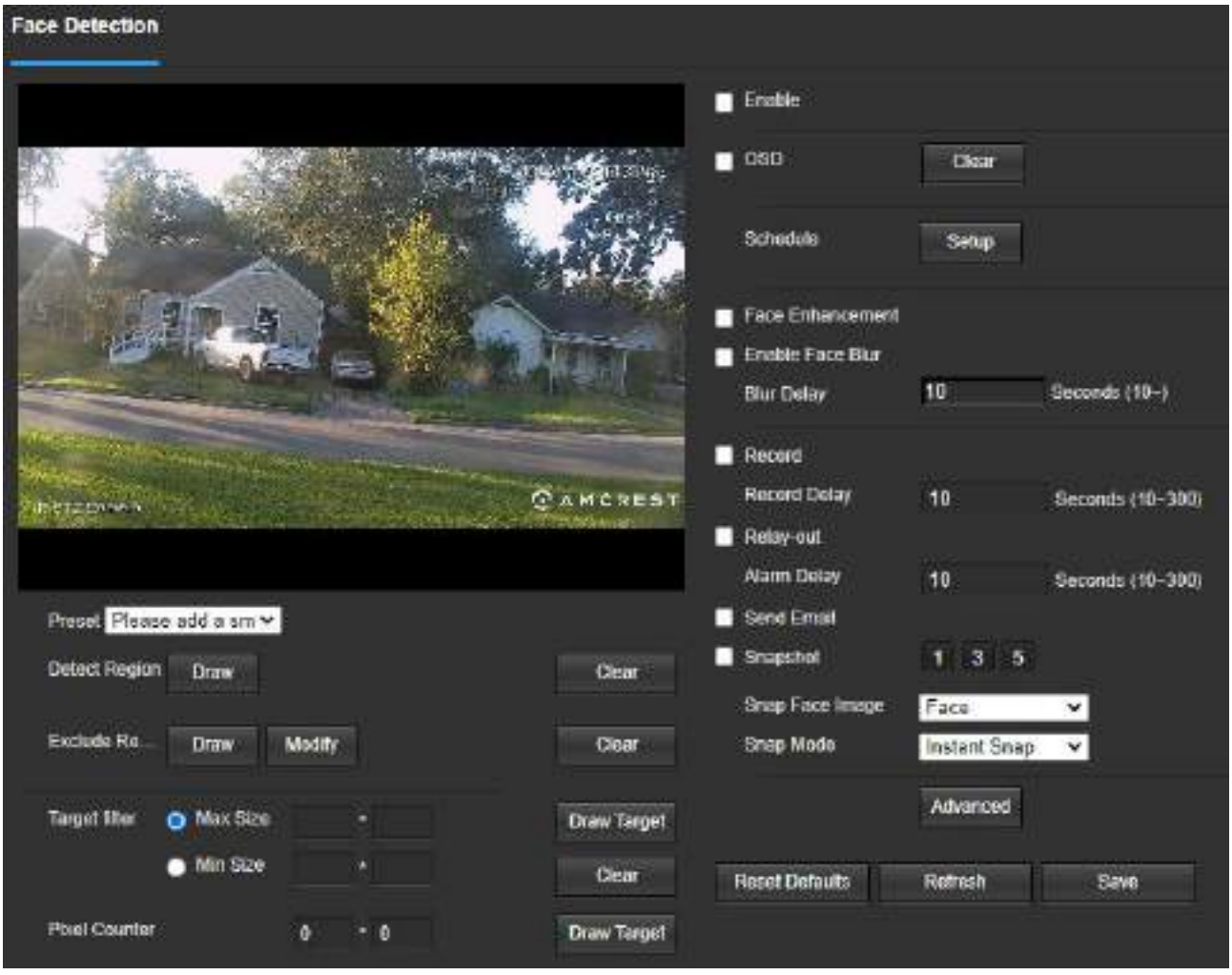


To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Face Detection

Face Detection is used in conjunction with video metadata or an AI NVR to detect facial images. Please note, face detection can be activated using a global preset or set preset in the smart plan menu. Please ensure a Face Detection smart plan is enabled in the Smart Plan menu before configuring any face detection settings.

Below is a screenshot of the **Face Detection** menu:



Below is a description of the options in this menu:

Enable: This checkbox is used to enable face detection.
OSD: This checkbox is used to enable face detection OSD information in the face statistics overlay.
Schedule: Allows the user to set a schedule in which face detection will be triggered.
Face Enhancement: This checkbox is used to enhance the accuracy of a detected face image.
Enable Face Blur: Use this checkbox to blur a detected facial image.
Blur Delay: The amount of delay, in seconds, before the facial image is blurred.

Record: This checkbox allows the user to enable the camera to record video when an IVS event is triggered.
Record Delay: This field specifies, in seconds, how long the delay between IVS events should be. The default is 10 seconds however this can be modified between 10~300 seconds.
Relay-Out: This checkbox allows the user to enable a third-party external alarm if one is connected to the dongle wires on the device.
Alarm Delay: This field specifies, in seconds, how long the delay between IVS events will be in relation to a connected external alarm. The default is 10 seconds however this can be modified between 10~300 seconds.
Send Email: This checkbox allows the user to enable the camera to send an email when an IVS event is triggered.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent via Email when triggered.

Snap Face Image: This dropdown menu allows the user to select different snapshot options:

Face: An image of only the face will be sent.

One-inch Photo: A 1-inch snapshot of the face will be sent.

Snap Mode: This dropdown menu allows the user to select different snapshot mode options:
Instant Snap: Sends a lower quality image of the snapshot the moment it occurs.
Optimized Snap: A higher quality image of the snapshot. There will be a short delay fur to the optimization of the image.
Quality Priority: Sets priority of higher quality snapshots to be sent.

Advanced: This menu allows the user to set advanced face detection options:

Quality Threshold: Click on the checkbox to set a quality threshold for the snapshot. Once enabled, use this slider to increase or decrease the threshold quality of the snapshot. The default threshold will be set to 70, however, it can be adjusted between 1~100.
Duration Optimal: This option allows the user to set, in seconds, the optimal time in which a snapshot will be sent. The default duration is set to 10 seconds, however, can be adjusted between 1~300 seconds.

Preset: Use this dropdown menu to select a preset. Please note a face detection smart plan must be enabled to select a preset.
Detect Region: This option is used to set a face detection area. The area will be full screen by default.
Clear: This option is used to clear any face detection areas currently set.
Exclude Region: This option is used to set an area in which the face detection rule will not apply.
Clear: This option is used to clear any excluded face detection areas.
Target Filter: This option allows the user to set a maximum and minimum size of the target area. By default, this option will be set to the max resolution, however, it can be manually adjusted.
Draw Target: Allows the user to set a target area on the live monitor screen.
Clear: Clears the modified target area to draw the target area on the live monitoring screen.
Pixel Counter: Used to measure and set the number of pixels in the target area on the live monitoring screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Using Face Detection

Face detection is a tool used to detect

1. Click **Enable** to enable face detection.
2. Click **Setup** to set a schedule, set your periods (if any) and click **Save** to continue.
   Note: If needed, click on the **Enable Face Enhancement** checkbox to enhance the accuracy of the face detection image.
3. Enable the **Record** checkbox to record the event.

4. Check the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the device prior to enabling this setting. For more information on setting up email alerts, please visit amcrest.com/support.

Note: If needed, click on the **Enable Face Exposure** checkbox to automatically increase, or decrease the exposure of the image once a face is detected.

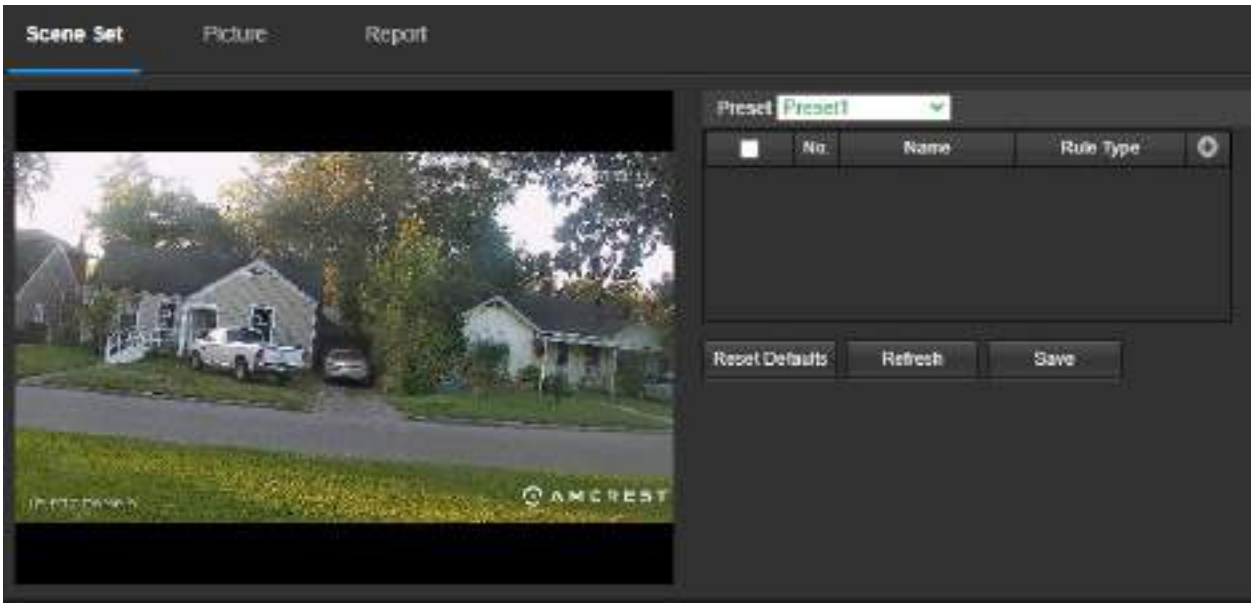
5. **This is not necessary** however, to exclude a specific area on the interface from being able to detect faces, click on the **Exclude Region** button then draw the excluded area on the interface. Click **Save** to save the settings to your camera.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

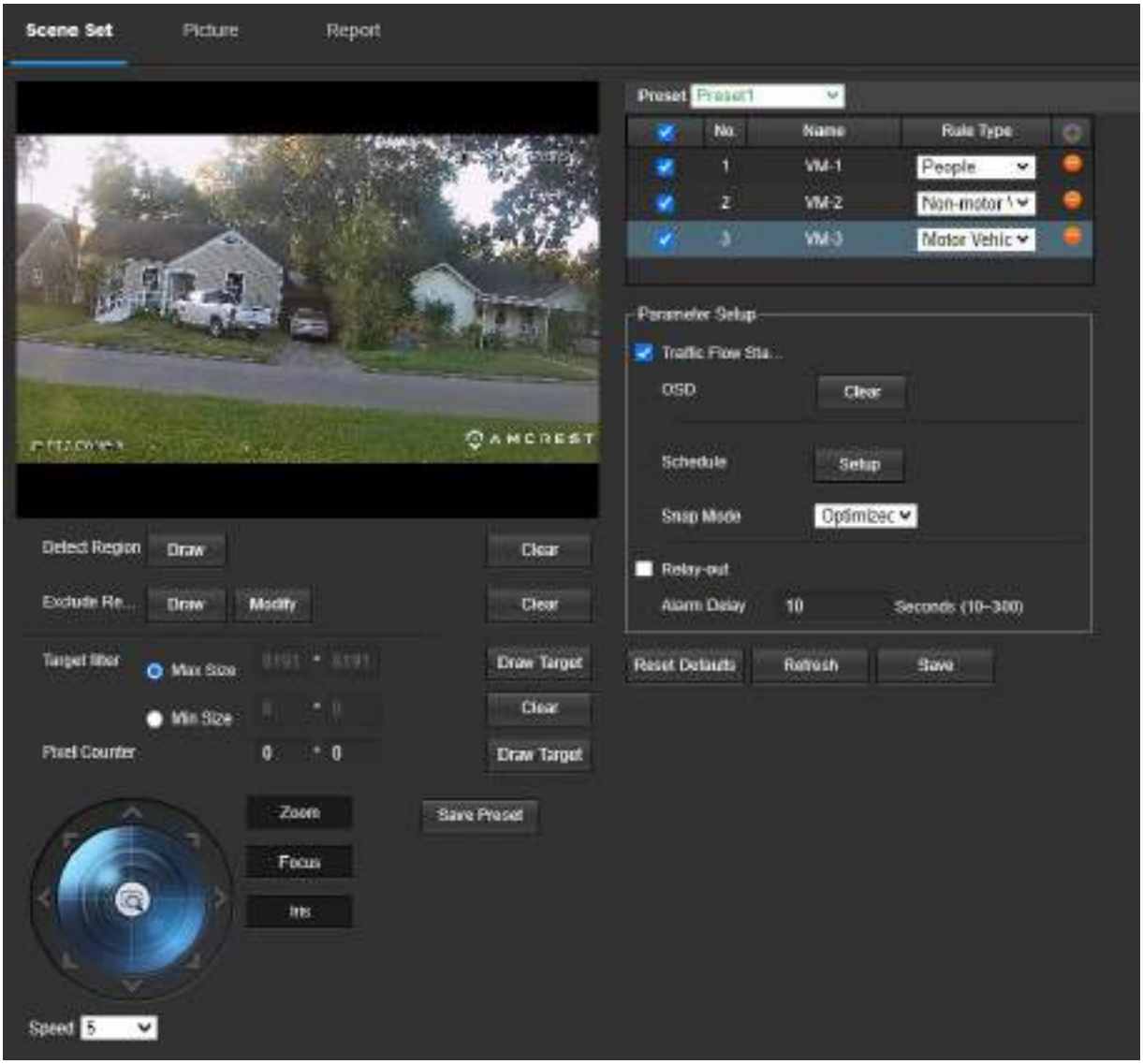
Video Metadata

Video metadata is used to detect and retain specific rule types such as people, non-motor vehicle, and motor vehicles. Video metadata is typically used in conjunction with AI Live snapshots and other various metadata options such as a structured statistic overlay and video metadata report.

Below is a screenshot of the video metadata menu.



Video metadata can be setup using a global preset or a custom preset. Please ensure a video metadata smart plan is enabled and set in the PTZ (function) menu before adding any video metadata rules. Click the (+) icon in the video metadata menu to begin adding video metadata rules. Please note, a max of 3 video metadata rules can be established on this device. Click the (+) button to add additional rule types. Use the rule type dropdown menu to select a specific video metadata rule type.



Below is a description of the options in the metadata menu.

Preset: Use this dropdown menu to select a preset. Please note the preset and smart plan must be enabled to add any video metadata rule types.
No.: Provides the order in which the video metadata rules will be displayed in the menu.
Name: Allows the user to customize a name for their rule. Double click the name in the Name column to modify.
Rule Type: Use the rule type dropdown menu to select a video metadata rule.
(+): Used to add a video metadata preset into the interface.
People Flow Statistics: Enable this checkbox to allow flow statistics to be displayed in the OSD overlay.
Schedule: Allows the user to set a schedule in which video metadata will be triggered.
Relay Out: This checkbox allows the user to enable the camera to trigger a connected alarm (connected to the alarm port on the back of the camera) when a motion detection alarm is triggered.
Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.
Detect Region: This option is used to set a face detection area. The area will be full screen by default.

Clear: This option is used to clear any face detection areas currently set.
Exclude Region: This option is used to set an area in which the face detection rule will not apply.
Clear: This option is used to clear any excluded face detection areas.
Target Filter: This option allows the user to set a maximum and minimum size of the target area. By default, this option will be set to the max resolution, however, it can be manually adjusted.
Draw Target: Allows the user to set a target area on the live monitor screen.
Clear: Clears the modified target area to draw the target area on the live monitoring screen.
Pixel Counter: Used to measure and set the number of pixels in the target area on the live monitoring screen.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Picture

This menu allows the user to customize snapshot descriptions for different video metadata types. Below is a screenshot of this menu.

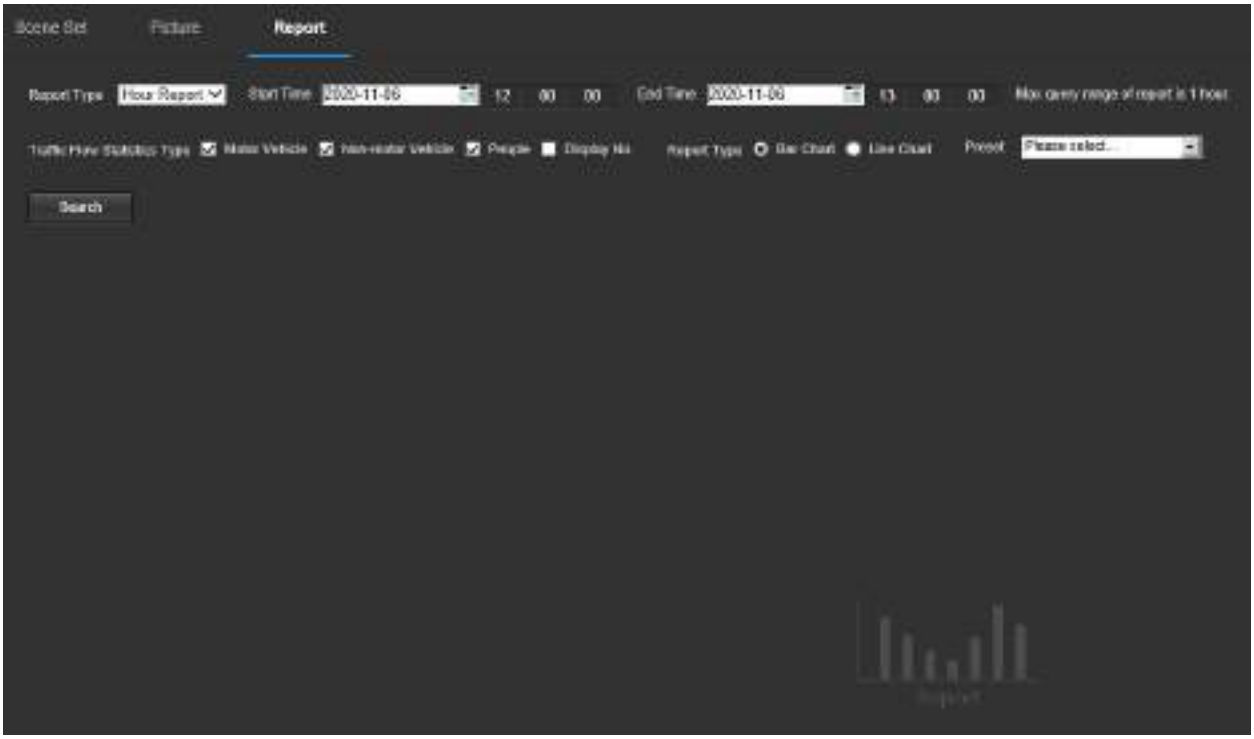
Below is description of the features in this menu:

Time/Location: Click and use your mouse to select which order the time or location will be displayed in the snapshot description.
Type: Use this dropdown menu to select a video metadata type that will be
Time: Enable the date and time in the snapshot description.
Location: Customize a location that will be displayed in the snapshot description.
Vehicle Body Picture: Enable this checkbox to allow a vehicle body snapshot to be uploaded when detected.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Report

The report tab allows the user to generate a reporting of the video metadata detected by the device via an hourly, daily, monthly, or yearly reporting. Below is a screenshot of the report menu.



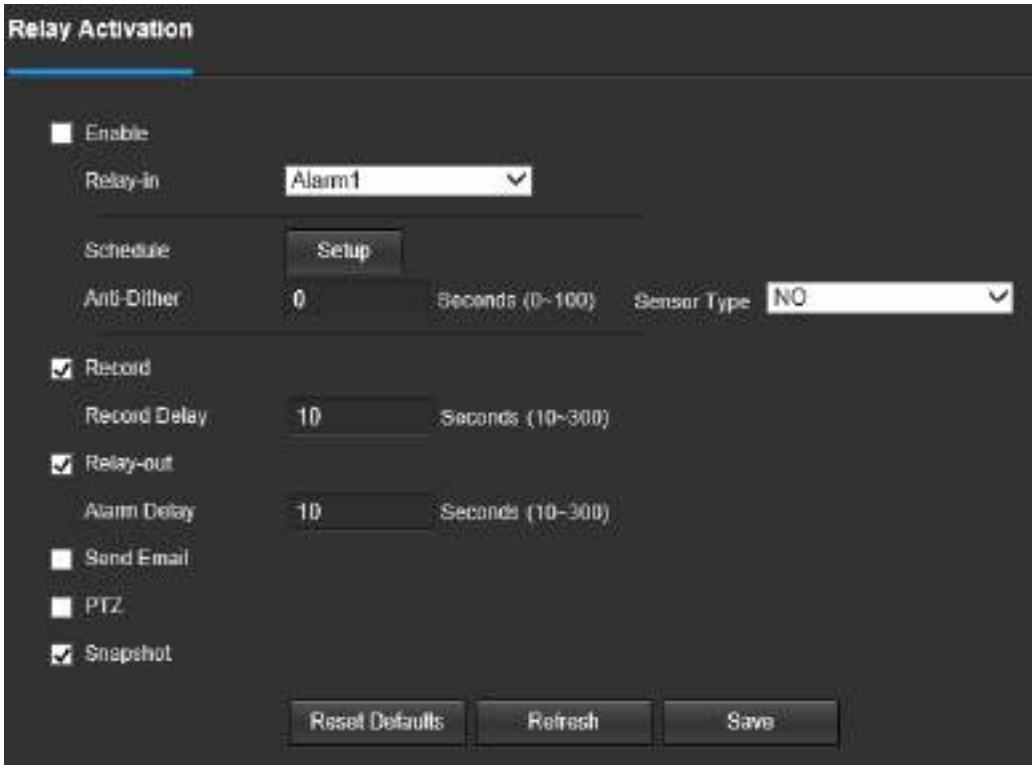
Below is a description of the features in this menu.

Report Type: Use this dropdown menu to choose between an hourly, daily, monthly, or yearly report. Please note, an hourly report will be retained in the device for up to 1 week.
Start Time: Choose a start date and time in which to report.
End Time: Choose an end date and time in which to report.
Note: The max query range of each report is 1 hour.
Traffic Flow Statistics Type: Choose which video metadata types will be represented in the report.
Report Type: Choose whether a bar chart or line chart will be generated.
Preset: Select a preset (smart plan) which will be represented in the report.
Search: Click **Search** to generate the report.

The data will be represented with color coded bars or lines depending on which report type was chosen. The number of events will be represented on the left side whereas the time increments will be represented on the bottom of the graph.

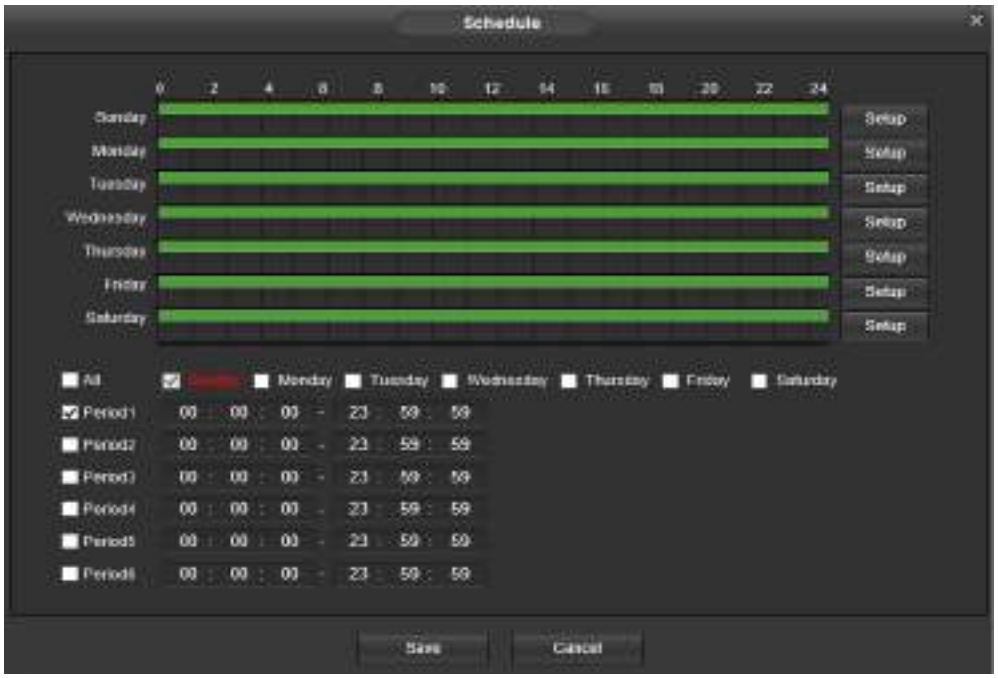
Alarm

This menu allows the user to set and schedule replay activated alarms. Below is a screenshot of this menu:



Below is a description of each field in this menu:

Enable: Allows the user to enable the relay activation function
Relay-In: Allows the user to set specific relayed alarms to the camera.
Schedule: Clicking this button opens a weekly schedule that can be used to set times.



Click and drag to set motion detection for certain days of the week. Also, periods of motion detection can be set for each day and enabled using the period settings on the bottom half of the screen. There are a total of 6 periods that can be set.

Anti-Dither: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin a snapshot can be taken, or the camera can begin recording.

For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.

Sensor Type: There are two types of sensors, normally open (NO) and normally closed (NC). Switch from normally open to normally closed, open the alarm. Switch from normally closed to normally open, shut the alarm.

Record: This checkbox allows the user to enable the camera to record video when an audio detection alarm is triggered.

Record Delay: his field specifies in seconds how long the delay between alarm activation and recording should be.

Relay Out: This checkbox allows the user to enable the camera to trigger an alarm when an alarm is detected.

Alarm Delay: This field specifies in seconds how long the delay between alarm activation and Relay alarm activation should be.

Send Email: This checkbox allows the user to enable the camera to send an email when an audio detection alarm is triggered.

PTZ: This checkbox allows the user to enable PTZ events to be sent from the camera. This event can be sent via email alerts or via the web interface directly.

Snapshot: This checkbox allows the user to enable the camera to take a snapshot when an audio detection alarm is triggered.

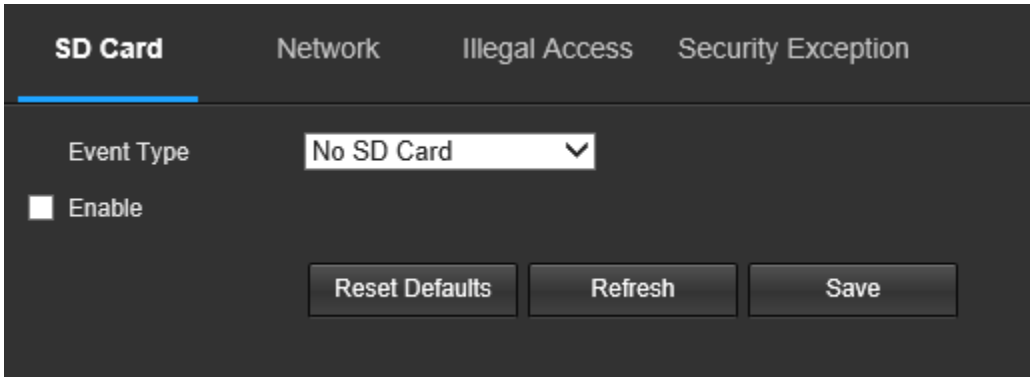
To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Abnormality

This menu allows the user to adjust abnormality event settings. This menu has 3 tabs: SD Card, Network, and Illegal Access.

SD Card

This tab allows the user to set the camera's response to an SD card related abnormality. Below is a screenshot of the SD card tab screen:



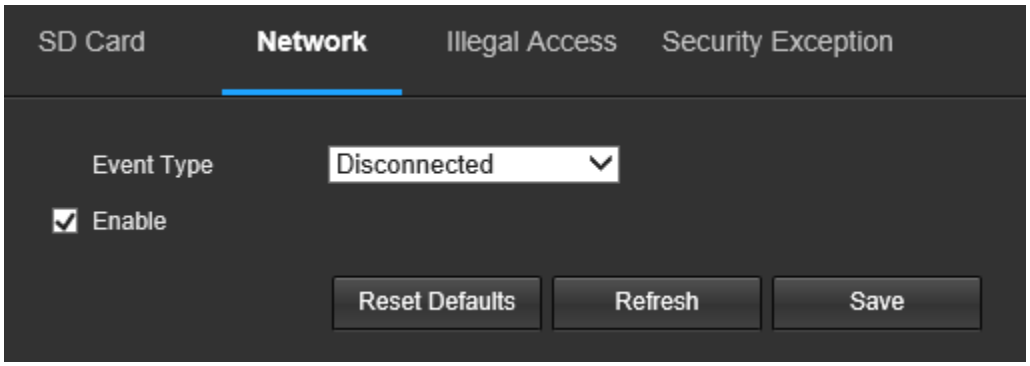
Below is an explanation of the fields on the SD Card settings tab:

Event Type: This dropdown box allows the user to select which SD card abnormality to set event triggers for. The 3 options are No SD Card, SD Card Error, and Capacity Warning.
Enable: This checkbox enables the SD Card abnormality trigger for the camera.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Network

This tab allows the user to set the camera's response to a Network related abnormality. Below is a screenshot of the Network tab screen:



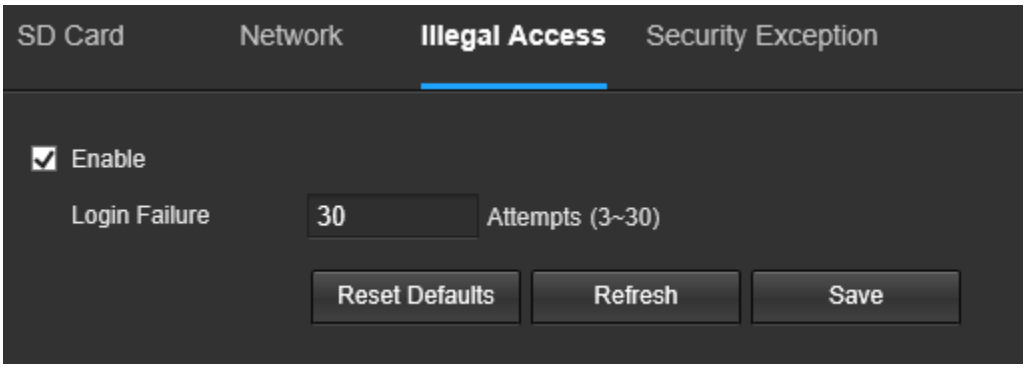
Below is an explanation of the fields on the Network settings tab:

Event Type: This dropdown box allows the user to select which Network abnormality to set event triggers for. The 2 options are Disconnection and IP Conflict.
Enable: This checkbox enables the Network abnormality trigger for the camera.

To reset to default settings, click the Reset Defaults button. To refresh the page, click the Refresh button. To save the settings, click the Save button.

Illegal Access

This tab allows the user to set the camera's response to an Illegal Access related abnormality. Below is a screenshot of the Illegal Access tab screen:



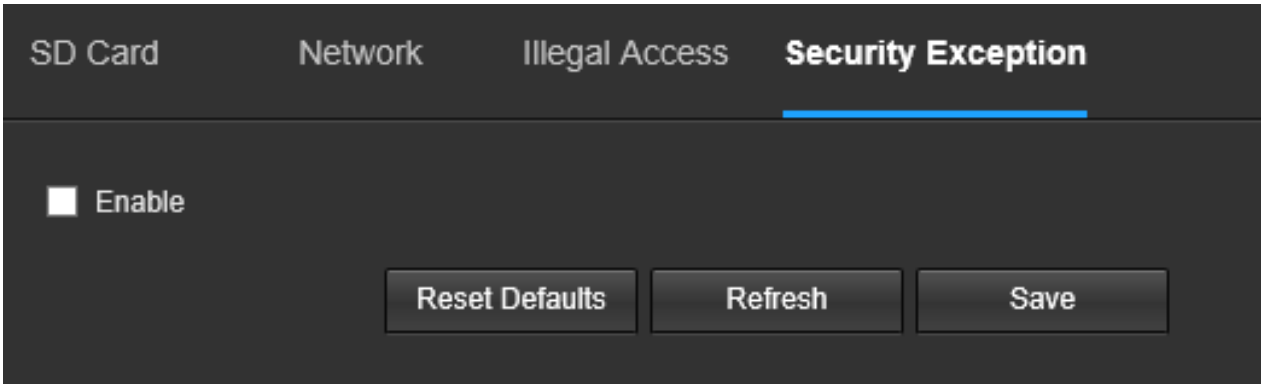
Below is an explanation of the fields on the Illegal Access settings tab:

Enable: This checkbox enables the Illegal Access abnormality trigger for the camera.
Login Failure: This field allows the user to specify how many failed login attempts must be attempted to trigger an Illegal Access abnormality event.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Security Exception

This tab allows the user to set the camera to produce an abnormality alert if a brute force attack of the Web path is detected, a brute force attack of session ID is attempted, a session connection over-limit, or an abnormal program is activated in the trusted environment, etc.



Click the Enable check box to enable or disable this feature.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Storage

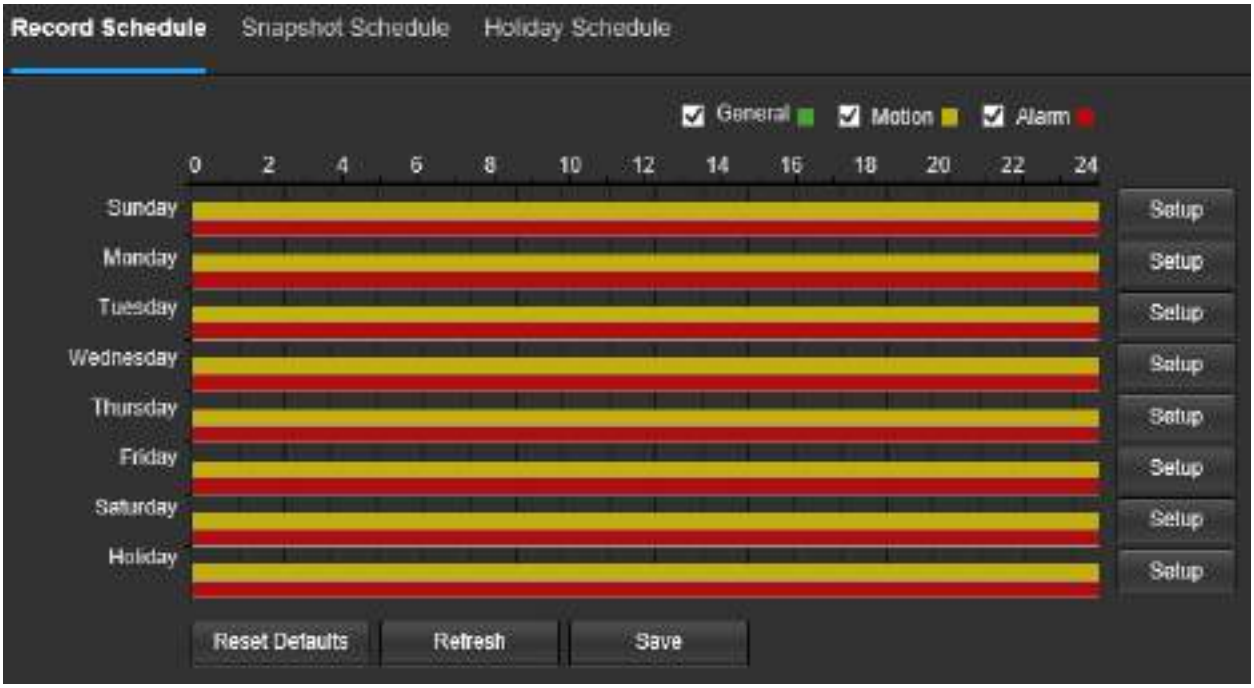
This menu section allows the user to change storage settings for the camera.

Schedule

The schedule menu manages the recording schedule for the camera. This menu has 3 tabs: Record Schedule, Snapshot Schedule, and Holiday Schedule.

Record Schedule

This tab is where video recording settings are configured. Below is a screenshot of the Record Schedule settings screen:



Below is an explanation of the fields on the Record Schedule settings tab:

Record Type: These checkboxes allow the user to select which recording type they want to configure on the schedule. There are 3 types of recordings:

General: General recording means that the camera captures all footage for the specified time period. General recording is represented by the color green.

Motion: Motion Detection recording means that the camera captures only footage when the motion detection alarm is activated. Motion recording is represented by the color yellow.

Alarm: Alarm recording means that the camera captures only footage when an alarm is activated. Alarm recording is represented by the color red.

Video Recording Schedule: To specify a video recording range, first select the type of recording desired, then click and drag on time bar for the desired date. To edit multiple days at once, drag the cursor further up or down to cover the other days.

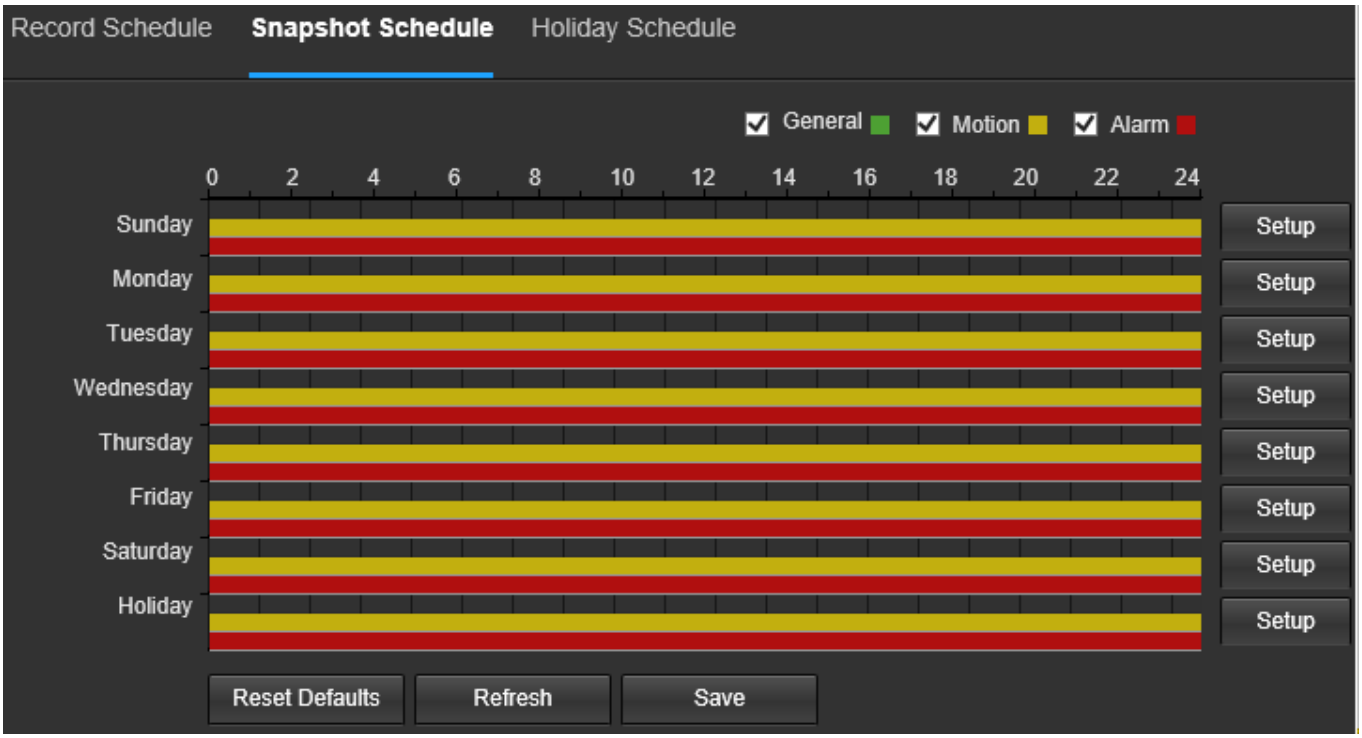
Setup: Clicking this button opens a screen that allows for recording periods to be set for each day and for each recording type. There are a total of 6 periods that can be set.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Snapshot Schedule

This tab is where snapshot recording settings are configured.

Below is a screenshot of the Snapshot Schedule settings screen:



Below is an explanation of the fields on the Snapshot Schedule settings tab:

Record Type: These checkboxes allow the user to select which snapshot type they want to configure on the schedule. There are 3 types of snapshots:

General: General means that the camera will take snapshots during the specified time period. General recording is represented by the color green.

Motion: Motion Detection means that the camera only takes snapshots when the motion detection alarm is activated. Motion recording is represented by the color yellow.

Alarm: Alarm means that the camera only takes snapshots when an alarm is activated. Alarm recording is represented by the color red.

Snapshot Recording Schedule: To specify a snapshot range, first select the type of snapshot desired, then click and drag on time bar for the desired date. To edit multiple days at once, drag the cursor further up or down to cover the other days.

Setup: Clicking this button opens a screen that allows for snapshot periods to be set for each day and for each snapshot type. There are a total of 6 periods that can be set.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Holiday Schedule

This tab is where holiday settings are configured. Below is a screenshot of the Holiday Schedule settings screen:

Below is an explanation of the fields on the Holiday Schedule settings tab:

Record Type: These checkboxes allow the user to select which recording type they want to configure on the schedule. There are 2 types of recordings:

Record: This checkbox is referring to video recording.

Snapshot: This checkbox is referring to snapshot recording.

Calendar: This calendar allows the user to select days to designate as holidays. Once a day is designated, it can be customized to stop recording or snapshots for that day by using the Record and Snapshot checkboxes.

To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Destination

This menu controls where recorded media is stored. There are 4 tabs in this menu: Path, SD Card, FTP, and NAS.

Path

This tab is where the user can designate a path for recorded video and snapshots to reside in. Below is a screenshot of the Path tab:

Below is an explanation of the fields on the Path settings tab:

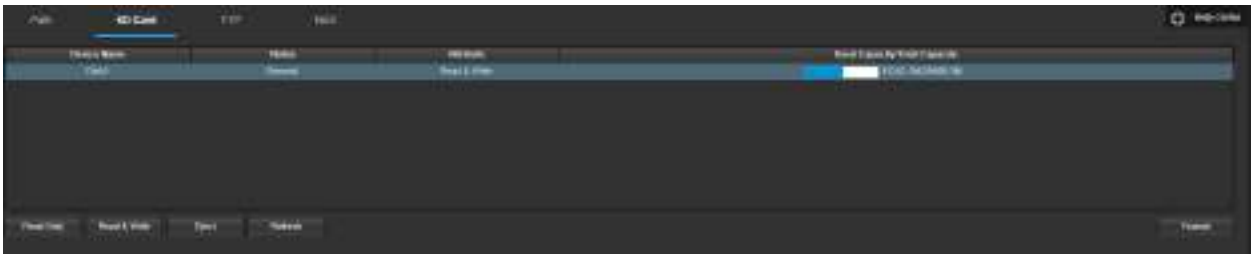
Event Type: This column designates storage options available to the camera. The options are SD Card, FTP, and NAS.

Record Type: These columns designate which recording type should be recorded to which event type. Check the box at the intersection of the record type and event type to designate where that recording should be sent to.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

SD Card

This tab is where the user can change SD card settings. Below is a screenshot of the SD Card tab:



Below is an explanation of the fields on the SD Card settings tab:

Device Name: This column designates the name of the SD card that is currently in the camera.
Status: This column designates the status of the SD card.
Attribute: This column designates the read/write attributes for the SD card. By default, this is Read & Write.
Used Capacity/Total Capacity: This column shows the available memory on the SC card.
Read Only: This button allows the user to designate an SD card as read only.
Eject: This button allows the user to physically remove the SD card and replace it with another safely.
Refresh: This button refreshes the SD card table.
Format: This button formats the SD card.

FTP

This tab is where the user can change FTP settings. Below is a screenshot of the FTP tab:

Below is an explanation of the fields on the FTP settings tab:

Enable: This checkbox allows the user to enable FTP uploading for the camera's recorded media.
Server Address: This field allows the user to designate a DDNS address for the FTP server.
Connection: This field allows the user to designate the port number for the FTP server.
Username: This field allows the user to input the username used to login to the FTP server.
Password: This field allows the user to input the password used to login to the FTP server.
Remote Directory: This field allows the user to specify a remote directory on the FTP to send the recorded media to.
Emergency (Store on SD Card): This checkbox allows the camera to store recorded media on the SD card in case the FTP server is unavailable.
Test: Click the **Test** button to test the FTP connection.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

NAS

This tab is where the user can change NAS settings. Below is a screenshot of the NAS tab:

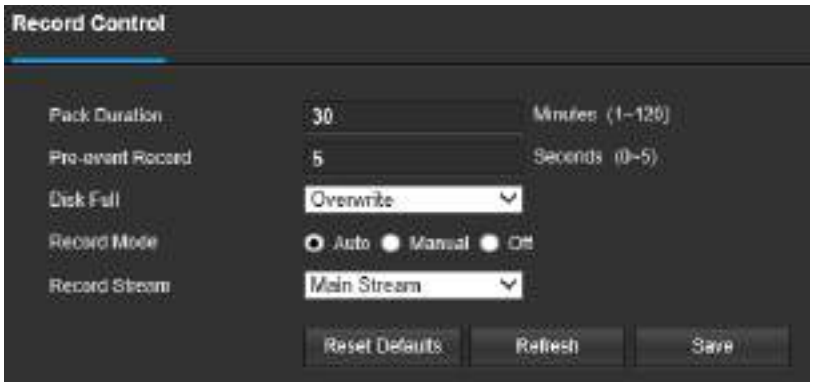
Below is an explanation of the fields on the NAS settings tab:

Enable: This checkbox allows the user to enable NAS uploading for the camera's recorded media.
Server Address: This field allows the user to designate a DDNS address for the NAS server/device.
Remote Directory: This field allows the user to specify a remote directory on the NAS to send the recorded media to.
Emergency (Store on SD Card): This checkbox allows the camera to store recorded media on the SD card in case the NAS server is unavailable.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Record Control

This menu is where general recording settings are configured. Below is a screenshot of the record control menu:



Below is an explanation of the fields on the Record Control settings tab:

Pack Duration: This field allows the user to set how many minutes each file is comprised of.
Pre-event Record: This field allows the user to specify how many seconds before an event should be recorded.
Disk Full: This dropdown box allows the user to designate what the camera should do when the disk is full. There are 2 options: Overwrite or Stop.
Record Mode: This set of radio buttons allows the user to designate the recording mode. The options are Auto, Manual, and Off.
Record Stream: This dropdown box allows the user to specify which stream to record. The options are main stream and sub stream.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

System

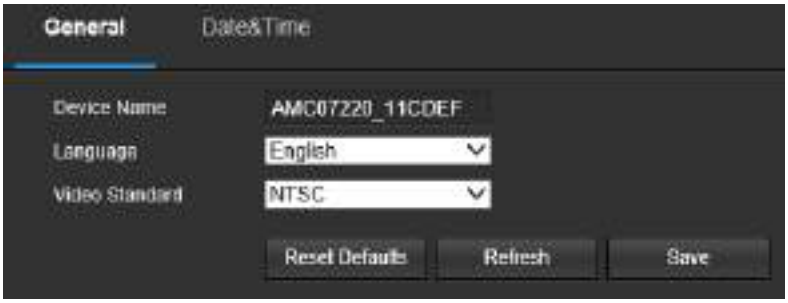
This menu section allows the user to change general settings for the camera.

General

This menu controls where general settings are configured. There are 2 tabs in this menu: General and Date & Time.

General

This tab is where the user can configure some basic camera settings. Below is a screenshot of the General tab:



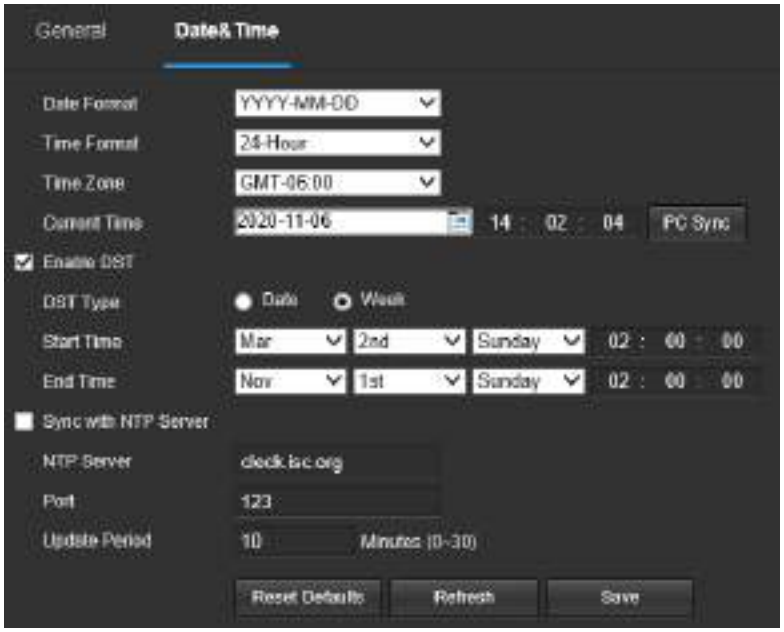
Below is an explanation of the fields on the General settings tab:
Device Name: This field allows the user to change the device's name.
Language: This dropdown box allows the user to change the language used in the camera.

Video Standard: This dropdown box allows the user to select either the NTSC or PAL video standard.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Date & Time

This tab is where the user can configure the date and time settings for the camera. Below is a screenshot of the Date & Time tab:



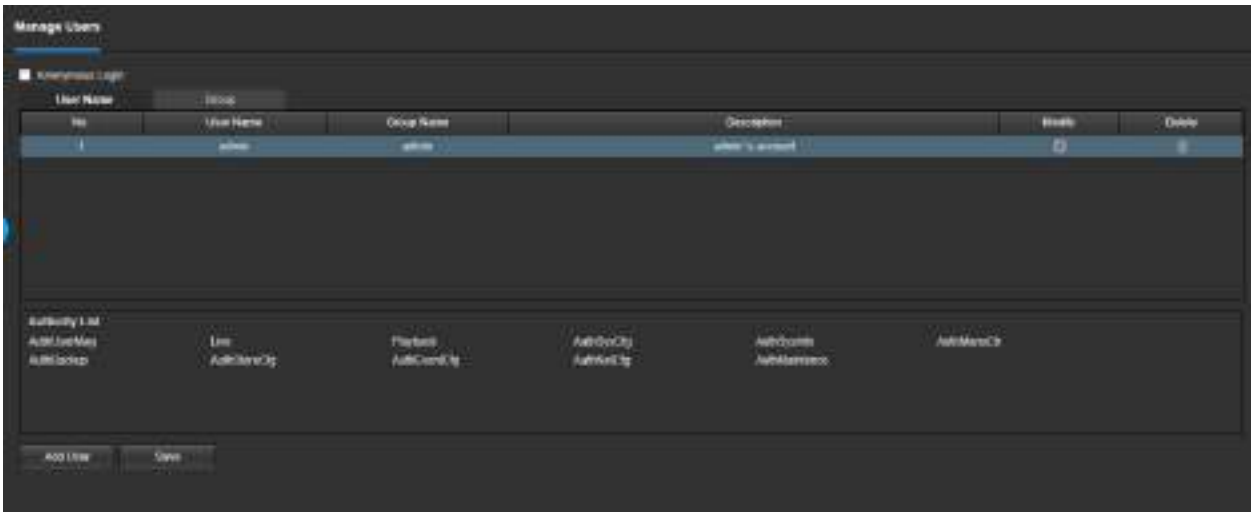
Below is an explanation of the fields on the Date & Time settings tab:

Date Format: This dropdown box allows the user to change the date format used in the camera.
Time Format: This dropdown box allows the user to change the time format used in the camera.
Time Zone: This dropdown box allows the user to change the time zone used in the camera.
Current Time: This field allows the user to enter in the date and time manually. Clicking the PC Sync button allows the camera to sync with a Network Time Protocol (NTP) server.
Enable DST: This checkbox allows the user to enable daylight savings time for the camera.
DST Type: This radio button allows the user to select whether DST is based on the week, or a specific day.
Start Time: This dropdown box and field allow the user to enter in the start time for DST.
End Time: This dropdown box and field allow the user to enter in the end time for DST.
Sync with NTP: This checkbox allows the user to enable the camera's synchronization with an NTP server.
NTP Server: This field allows the user to enter in an NTP server.
Port: This field allows the user to enter in the port number for the NTP server.
Update Period: This field allows the user to enter in the update period time. This number designates how frequently the camera pings the NTP server to ensure it has the correct time. The range is from 0-30 minutes.

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Manage Users

This menu allows the user to change the user accounts on the camera. By default, the camera only has the admin account which has all rights/authorities. Additional accounts can be created on this screen. Below is a screenshot of the account screen:

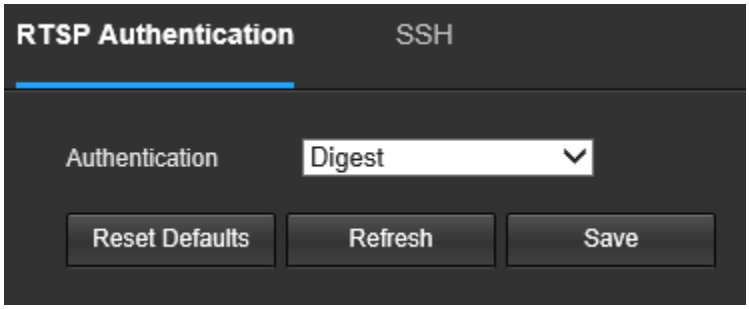


Below is an explanation of the fields on the Account screen:

Anonymous Login: This checkbox allows the user to enable the anonymous login feature. This allows all user account names to remain hidden on this screen.
Username: This tab shows the usernames available on the camera.
Group: This tab shows the user groups available on the camera.
No.: This column shows the user's number on the user list.
Username: This column shows the usernames of the different accounts on the camera.
Group Name: This column shows the group of the different accounts on the camera.
Description: This column shows a description of the account.
Modify: This column allows the user to modify the user account.
Delete: This column allows the user to delete a user account. Note: The admin account cannot be deleted.
Authority List: This box shows which user rights/authorities are assigned to an account.
Add User: This button allows the user to add a new user to the camera.

Safety

This menu allows the user to set basic RTSP and SSH authentications for the camera. Below is a screenshot of this menu:



Below is an explanation of the settings in the RTSP Authentication field:

RTSP Authentication: Allows the user to set basic and digest RTSP authentications. To save an authentication to the camera click on the **Save** button.
SSH: This checkbox allows the user to enable secure shell authentication protocols from the camera. Below is a screenshot of this menu:

To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Default Settings

This screen allows the user to reset the camera and all its settings to the factory settings.

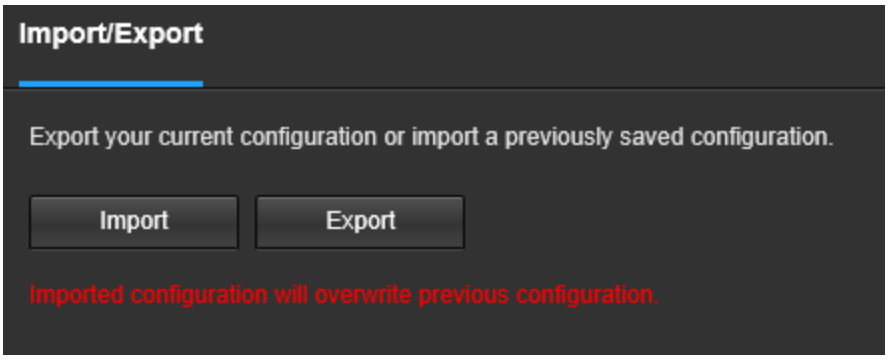
Below is a screenshot of the Default screen:

Below is an explanation of the items listed in this field:

Default Settings: Only the IP address, user management, and other settings can be recovered after reset. **Factory Default**: Completely resets the camera to factory default settings. No settings can be recovered after the camera has been returned to its factory default settings.

Import/Export

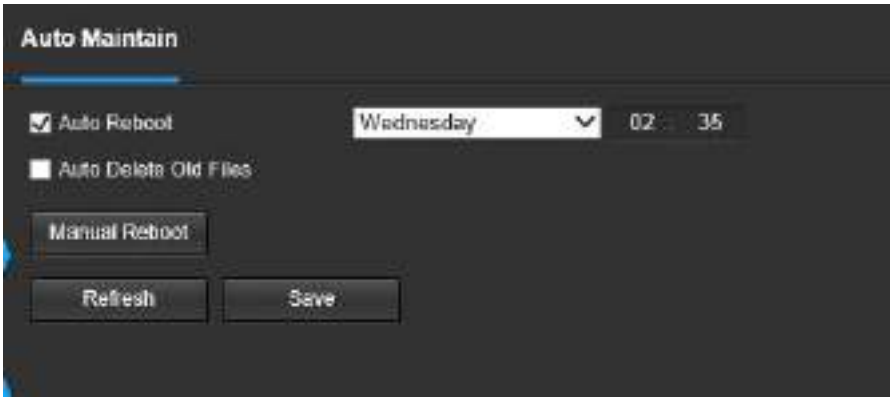
This screen allows the user to import or export settings from the camera. Below is a screenshot of the Import/Export screen:



To import settings, click the **Import** button. To export settings, click the **Export** button.

Auto Maintain

This screen allows the user to set auto maintenance settings for the camera. Below is a screenshot of the Auto Maintain screen:



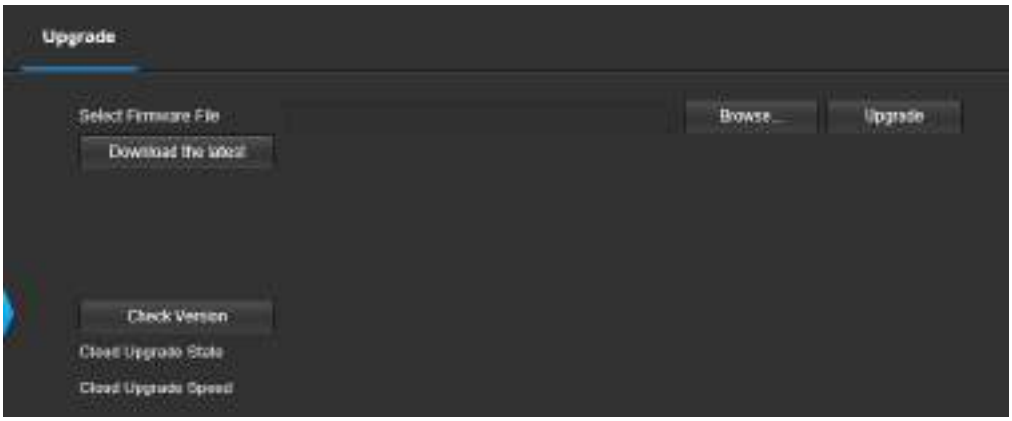
Below is an explanation of the fields on the Auto Maintain screen:

Auto Reboot: This checkbox allows the user to enable the auto reboot function. The dropdown box and field to the right of this checkbox allow the user to specify what date and time of the week the camera will auto reboot.
Auto Delete Old Files: This checkbox allows the user to enable the auto deletion of old files on the camera.
Manual Reboot: This button allows the user to manually reboot the camera.

To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

Upgrade

This menu allows the user to upgrade the camera's firmware. Below is a screenshot of the Upgrade screen:



To upgrade the firmware for your camera, follow the steps provided below:

Go to amcrest.com/firmware-subscribe
Search for the model number of your camera and download the latest firmware file.
Return to the web user interface for your camera and press the **Browse** button to locate and import the firmware file you just downloaded.
Once the firmware file has been imported, click **Upgrade**.
The device will reset, return to the web user interface. The upgrade is now complete.

Note: When upgrading the camera's firmware, do not disconnect the internet or power from the camera.

Information

This menu section allows the user to view information about the camera for reference purposes.

Version

This screen allows the user to see various information about the camera's software versions, as well as other information. On this screen, software version, web interface version, and ONVIF version are displayed. Also, the S/N (Token ID) is displayed here.

Log

This screen is where the camera's activity log is kept. To view logs for a specific time period, modify the start time and end time fields, choose the type of event (system, setting, data, event, record, manage users, clear log), and click search.

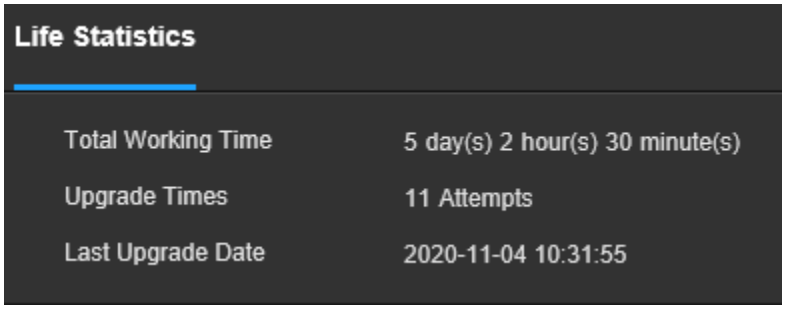
To backup the log, click the Backup button. To clear the log, click the Clear button.

Online Users

This screen allows the user to see which users are online. Below is a screenshot of the Online Users screen:

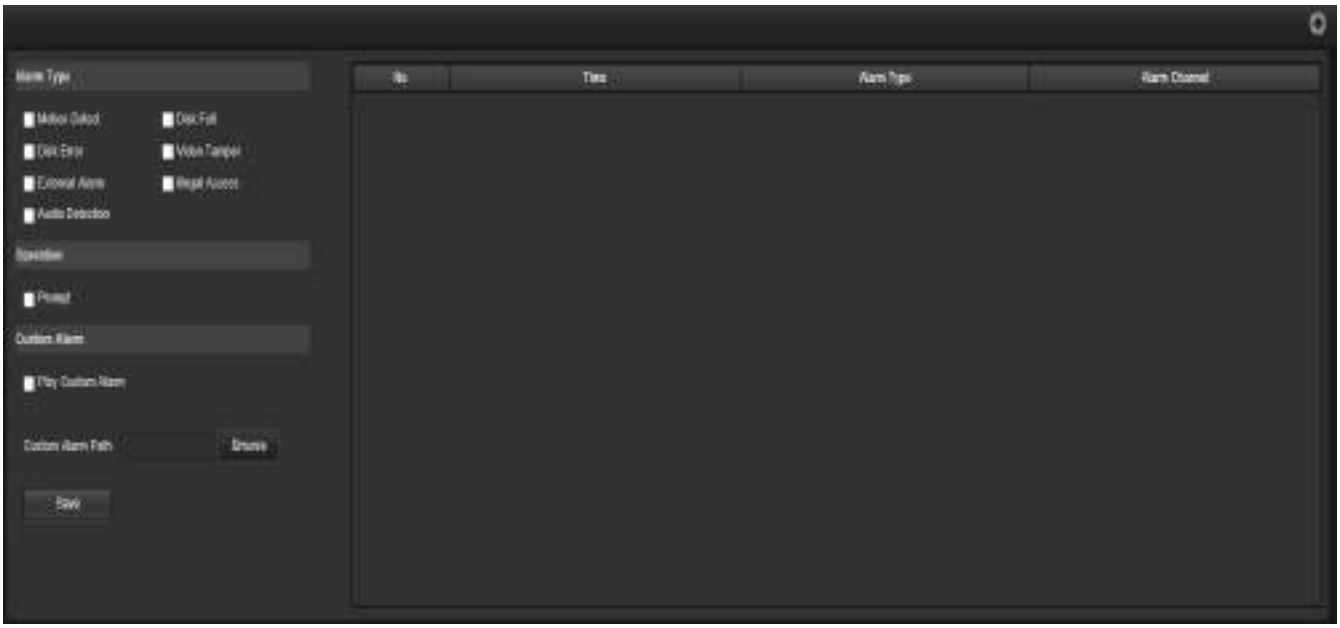
Life Statistics

This menu allows users to see full life details of the camera. Below is a screenshot of the items found in this menu:



Alarm

This screen is where the alarm log is kept. Below is a screenshot of the alarm screen:



The table on the right shows the alarm log and all the alarm instances that have occurred.
The checkboxes allow the user to narrow down which alarms they want to see in the alarm log. Clicking the checkbox next to Prompt will cause the system to pop up a dialog box anytime an alarm is triggered. Clicking the

checkbox next to Play Custom Alarm will use a custom alarm sound for the alarm prompt. Click the Browse button to search for a custom alarm sound to use.

Logout

Clicking the logout button will log out the user.

FAQs/Troubleshooting

1. The camera does not boot up properly.

Below are a few possible reasons why this may be occurring:

- The power input is not correct voltage.
- The power cable connection is not secured correctly.
- The firmware was upgraded incorrectly.

2. Camera often automatically shuts down or stops running.

Below are a few possible reasons why this may be occurring:

- The input voltage is too low or is not stable.
- The insides of the camera have accumulated too much dust.
- The temperature is either too hot or too cold.
- The hardware is malfunctioning.

3. Real-time video color is distorted.

Below are a few possible reasons why this may be occurring:

- The camera is not compatible with the monitor.
- The camera color or brightness settings are not correctly configured.

4. The timestamp is not displaying the correct time.

The time and date settings may not be configured correctly. You can take the following steps to resolve the issue:

- Log into your camera's web user interface via a laptop or PC.
- Navigate to **Setup>>System>>General**
- Click on the **Date & Time** tab.
- Click on **PC Sync** to sync the date and time.
- Click **Save** to save and apply the new date and time settings.

5. Motion detection does not work.

Below are a few possible reasons why this may be occurring:

- The motion detection time period may be incorrectly configured.
- Motion detection zone setup is not correctly configured.
- Motion detection sensitivity is too low.

6. Web Access is not working.

Below are a few possible reasons why this may be occurring:

- Windows version is pre -Windows 2000 service pack 4. Use a more recent version of Windows.
- ActiveX controls have been disabled.
- The PC is not using DirectX 8.1 or higher. Upgrade to a more recent version of DirectX.
- The camera is having network connection errors.
- Web access may be setup incorrectly.
- The username or password may be incorrect.

7. Web Access live view is only displaying a static picture.

Below are a few possible reasons why this may be occurring:

- The network speed is not enough to transfer video data via web access.
- The client PC may have limited resources.
- Multicast mode may be causing this issue.
- A privacy mask or screensaver may be enabled.
- The logged in user may not have enough rights to monitor real-time playback.
- The camera's local video output quality is not enough.

8. Network connection is not stable.

Below are a few possible reasons why this may be occurring:

- The network is not stable.
- There may be an IP address conflict.
- There may be a MAC address conflict.
- The PC or camera network card may be defective.
- The Ethernet cable is too long

9. The alarm signal cannot be disarmed.

Below are a few possible reasons why this may be occurring:

- An alarm may be setup incorrectly.
- An alarm output may have been manually opened.
- There may be an error in the camera's firmware.

10. Alarms are not working.

Below are a few possible reasons why this may be occurring:

- The alarm is not setup correctly.

- The alarm cable is not connected correctly.
- The alarm input signal is not correctly configured.
- There are two loops connected to one alarm device.

11. Downloaded files cannot be played back.

Below are a few possible reasons why this may be occurring:

- The media player software on the PC may not be able to read the file format.
- The PC may not have DirectX 8.1 or higher.
- The PC may not have Windows XP or higher.

Glossary of Terms

- Abnormality – Any malfunction in terms of storage of data to the SD card.
- Alarm Delay – The gap in time between alarm activation and Relay alarm activation.
- Alternate Gateway – The node on the computer network that the network software uses when an IP address does not match any other routes in the routing table, and when the default gateway is not available.
  Anti-Dither – This time value controls how long the alarm signal lasts. The values in this field can range from 5 to 600 seconds. Based on motion detection, a buzzer can go off, a tour can begin, a snapshot can be taken, or the camera can begin recording.
- DDNS – Stands for Dynamic Domain Name System. DDNS is a method of automatically updating a name server in the Domain Name System (DNS), often in real time, with the active DNS configuration of its configured hostnames, addresses or other information.
- Default Gateway – The node on the computer network that the network software uses when an IP address does not match any other routes in the routing table.
- DHCP – Dynamic Host Configuration Protocol is a network protocol that enables a server to automatically assign an IP address to a computer from a defined range of numbers (i.e., a scope) configured for a given network.
- Fluency – Fluency described the lack of stuttering or excessive delay in a video stream. Fluency usually comes at the expense of video quality when a network is constrained.
- IP Address – Internet Protocol Address is a unique numerical label assigned to each device connected to a computer network. The IP address allows communication between different devices on a network.
- Main Stream – Main Stream is the main streaming protocol for the camera. Main stream uses more bandwidth and attempts to keep quality and fluency high.
- NO/NC – Normally Open and Normally Closed are options for sensor type. These settings allow for different exposure types when capturing video and still images.
- NTP – Network Time Protocol is a networking protocol for clock synchronization between computer systems over packet-switched, variable-latency data networks.
- P2P – Peer-to-Peer is a decentralized communications model in which each party has the same capabilities and either party can initiate a communication session.
- QR Code – Quick Response code is a type of digital barcode that enables devices to share complex data strings quickly.
- Record Delay – Record Delay specifies in seconds how long the delay between alarm activation and recording should be.
- Relay Out – Relay Out triggers a connected alarm (connected to the alarm port on the back of the camera) when an alarm on the camera is triggered.
- S/N – S/N stands for serial number. The S/N is unique to each camera and can be used to connect to different Amcrest apps and services to provide different methods of access to the camera.
- Sensitivity – Sensitivity is the amount of change required to increase the motion detected by a percentage. The lower the sensitivity, the more movement is required to trigger an alarm.
- SMTP – Simple Main Transfer Protocol is an Internet standard for electronic mail (e-mail) transmission.

- Static IP – An IP address that does not change.
- Sub Stream – Sub Stream is an alternative streaming protocol for the camera. Sub stream uses less bandwidth and attempts to keep fluency high at the expense of quality.
- Subnet Mask – a 32-bit number that masks an IP address, and divides the IP address into network address and host address.
- TCP/IP – TCP/IP stands for Transmission Control Protocol/Internet Protocol and it is the language/protocol that allows communication between internet connected devices, whether on a local network, or a on the Internet at large.
- Threshold – Threshold is the level that the motion detection needs to reach to trigger an alarm.
- UPnP – UPnP stands for Universal Plug and Play, and it is a protocol used to easily connect devices to the internet.
- Video Tamper – Video Tamper refers to any major changes happening to the video feed such as it being blocked out, interfered with, or disconnected.

FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2. The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes, or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

3. (b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual: NOTE: 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.

4. RF exposure warning This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.
End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC Warning Statement

TThis device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body. Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil ettoutes les personnes.

Appendix A: Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal(Case)	o	o	o	o	o	o
Plastic Parts （Panel）	o	o	o	o	o	o
Circuit Board	o	o	o	o	o	o
Fastener	o	o	o	o	o	o
Wire and Cable/Ac Adapter	o	o	o	o	o	o
Packing Material	o	o	o	o	o	o
Accessories	o	o	o	o	o	o

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.
X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate

so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.
X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note:

- **To view setup videos for many of the steps outlined in this guide, go to http://amcrest.com/videos**
- **This user manual is for reference only. Slight differences may be found in the user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **All trademarks and registered trademarks mentioned are the properties of their respective owners.**

To contact Amcrest support, please do one of the following:

Visit http://amcrest.com/contacts and use the email form.
Call Amcrest Support using one of the following numbers:
Toll Free US: (888) 212-7538
International Callers (Outside of US): +1-713-893-8956
USA: 713-893-8956
Canada: 437-888-0177
UK: 203-769-2757
Email Amcrest Customer Support support@amcrest.com