

IP4M-T1044EW-AI / IP4M-T1044EB-AI
4MP Dual Lens POE AI Turret Camera
User Manual

Version 1.0.0
January 26th, 2023

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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, go to http://amcrest.com/support
To contact Amcrest support, please do one of the following:

Visit http://amcrest.com/contact

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.

Overview

This 4MP dual lens security camera delivers stunning ultra-high-definition video in 4-megapixel resolution, at 30 frames per second. It features dual AI sensors with multi-spectral imaging technology that produces colorful images in low light conditions. The 2.8mm angled lenes provide a full 115° viewing angle. The camera features three different night vision modes which allows the camera to view objects at night up to 164ft away. It features an IR mode, which allows the camera to use IR LEDs to see at night, a white light mode, which allows the camera to use white light LEDs to achieve color night vision, and a soft light mode which allows the white light LEDs to illuminate at night for color night vision however with less intensity.

Note: Some models may not have "E" in the model number. This was due to a manufacturer error on the label. The cameras are still PoE, **not Wi-Fi**. If PoE is not being used, the camera will require a 12V DC, 1A power adapter to function.

The camera also features a built-in microphone, on-board motion detection, built-in AI features, such as IVS, which can be used for enhanced perimeter protection, smart motion detection, which allows the camera to detect only human and vehicles in the area, face detection, people counting, and heat map reporting. The camera also features flexible storage options to store recordings to a microSD card (up to 256GB), SFTP/FTP, NAS, NVR, or using the Amcrest Cloud. All these features can be accessed and customized using a web browser or even using the Amcrest View Pro app using a mobile device.

Installation Guide

Follow the steps and use the diagram in this section to install the POE cameras.

MicroSD Card Installation

A microSD card can be used to store and view local recordings/snapshots. This camera requires a class 10 or above microSD card formatted to FAT32 to function. The camera can handle a max of 256GB of microSD card storage.

1. Locate the **Reset** cover on the top of the camera. This area will provide access to the factory reset button as well as the microSD card slot.

2. Remove the cover. If you are having trouble removing the cover, use the provided torx wrench to remove the camera's dome enclosure.

3. Locate the microSD card slot, and with the gold pins forward towards the lens, insert the microSD card into the slot.

4. Gently press in until you hear a click. This click indicates the microSD card has been properly secured.

5. Place the cover back onto the camera and secure it to the camera. If you have removed the dome enclosure, please the enclosure back onto the camera and secure it tightly with the torx wrench.

Physical Installation

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

1.Place the installation sticker onto the mounting surface.
2.Drill bottom holes according to the installation position map and insert the included wall anchors into the holes. If running wires through a wall/ceiling a 1" paddle bit can be used to drill the center portion of the sticker.
3.Use the included torx wrench to remove the security screw on the front of the casing. This will disassemble the camera from its case.
4.Align the holes on the bottom installation bracket to the wall anchors on your mounting surface. Run the wiring through the newly drilled hole or on the side of the camera keeping the camera and mounting bracket level with the mounting surface.
5.Use a Phillips head screwdriver (not included) to secure the bottom bracket and camera to the mounting surface.
6.Place the top portion of the casing over the camera and installation bracket and use the included torx wrench to tighten the security screw back onto the casing. Do not overtighten the security screw as it may not properly be secured if overtightened.

Camera Access Setup

This section will provide information on how to setup and access your camera through the following methods:

Desktop Access (Web UI)
Amcrest View Pro app.
Amcrest Cloud

Note: Additional software such as Amcrest Surveillance Pro can be used to access the camera. For more information on Amcrest Surveillance Pro, please visit amcrest.com.

Desktop Access Setup

The AI features associated with your camera are only accessible and customizable using the built-in web user interface using a web browser. This camera features the latest in JavaScript technology which allows you to access your camera using a wide variety of web browsers including, Google Chrome, Firefox, Safari, or other mainstream browsers using your PC or Mac. Please note, for an optimal experience with a web browser, it is highly recommended to use Internet Explorer or IE mode on Edge as some features may still require the use of a plugin. 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: amcrest.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 the web browser and enter this IP address into the browser. Press enter to access the web user interface. 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.

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

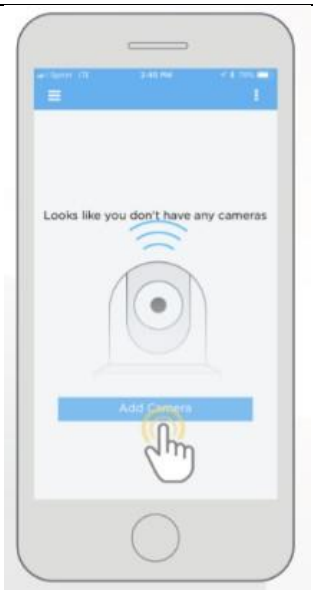
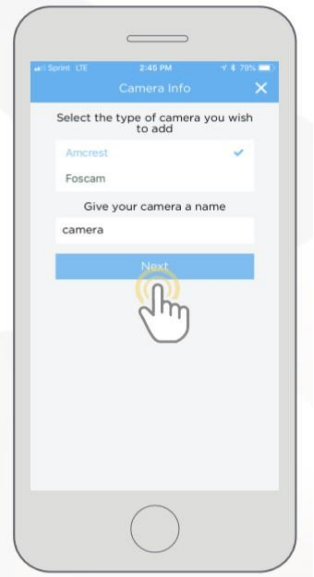
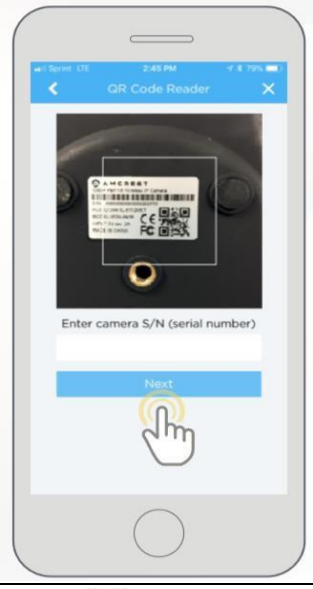
Amcrest Cloud allows you to access your device from anywhere in the world. Please note, you will need an Amcrest Cloud account to proceed with Amcrest Cloud app setup. You can register for a cloud account in the Amcrest Cloud app or from the Amcrest Cloud website at amcrestcloud.com

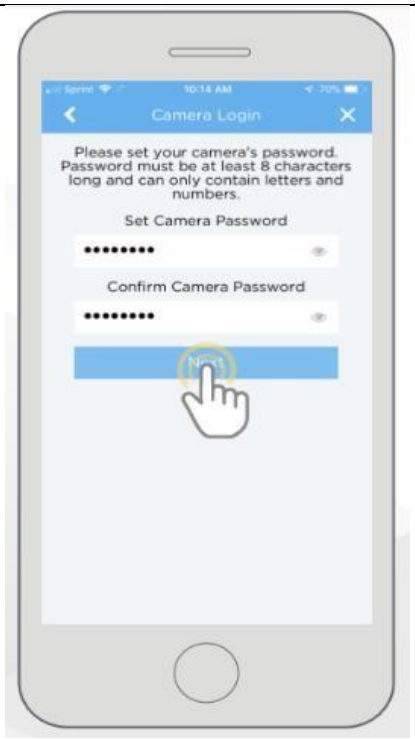
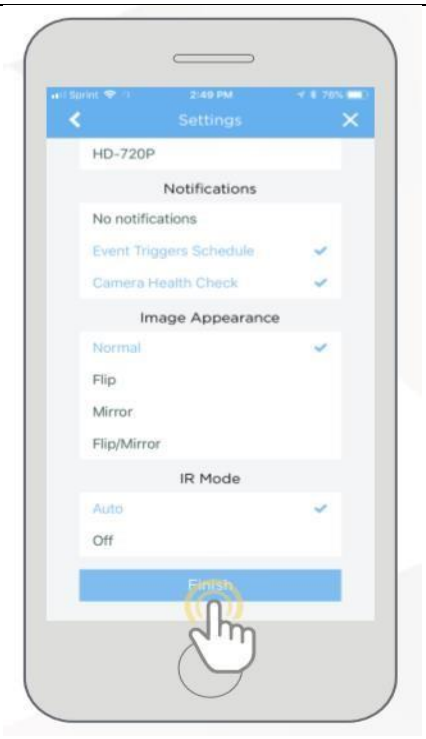
Please make sure your camera is plugged into a power source and your Ethernet cable is connected from the camera to your router.
Make sure your camera and mobile device are on the same network during setup.
To ensure the camera connects to the cloud, a reboot of your camera is recommended. To add your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

<table>
<tr><td>
</td><td>
</td></tr>
<tr><td>3. Tap on Add Camera</td><td>4. Give your camera a name (Ex. Garage, Living Room, Kitchen, etc.) and tap Next to continue.</td></tr>
<tr><td>
</td><td>
</td></tr>
<tr><td>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.</td><td>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.</td></tr>
</table>

	
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.

ANDROID APP ON Google play Download on the App Store

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

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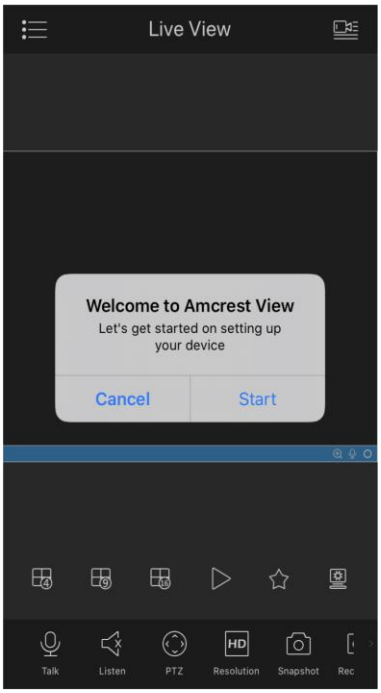
<tr>
<td>
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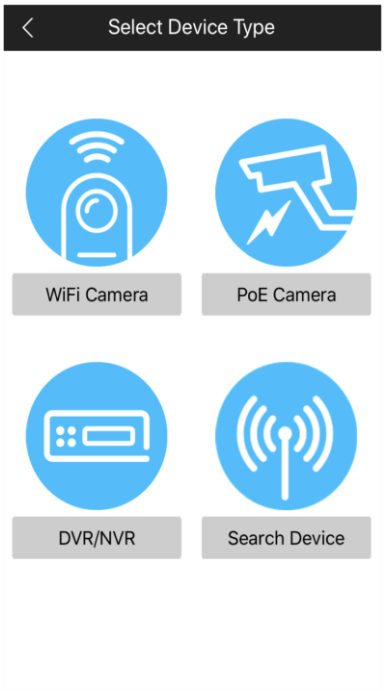
<td>
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<tr>
<td>3. Tap “Start”.</td>
<td>4. Tap “POE Camera”.</td>
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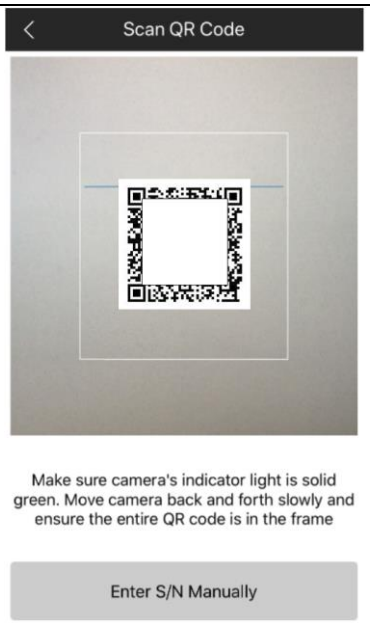
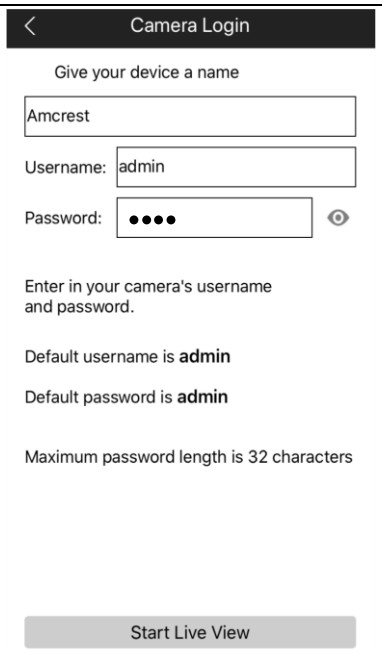
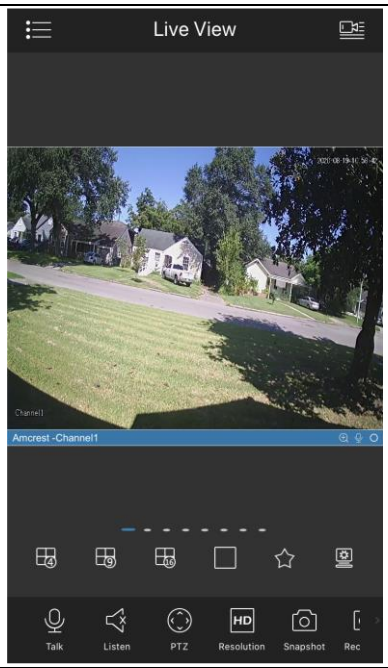
<td>
</td>
</tr>
<tr>
<td>5. Tap “P2P Connection”.

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

Using the Web UI

The web user interface (web UI) will be the recommended method for accessing the AI features and settings for your camera. When initially accessing the web UI, please make sure the computer you are using is connected to the same network as the device.

For an optimal user experience, it is best to use IE mode using Microsoft Edge, as some features may require the use of a plugin, however, other browsers such as Google Chrome, Mozilla Firefox, etc. maybe used if needed. For more information on using the web UI, please refer to the information provided in this section of the user manual.

Live

By default, the interface opens on the Live tab. The live view tab allows the user to see a live video feed from the camera. Use the Live, Playback, and Cloud Storage options to access these features. For more information on the features provided in this menu, please refer to the details provided below.

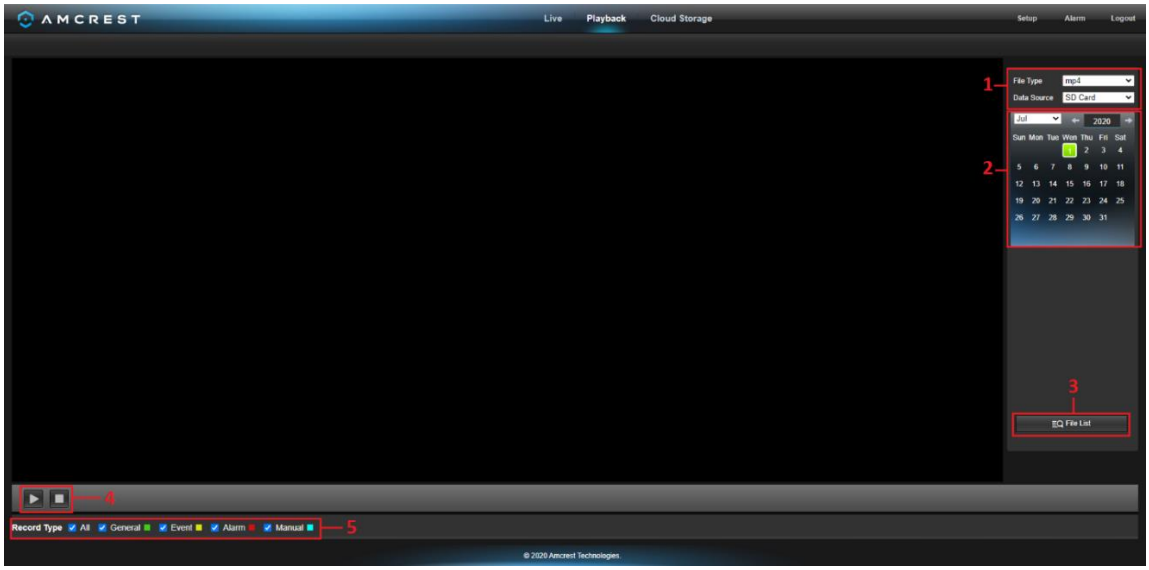
Mainstream: Displays the main stream feed of the camera.
Substream: Displays the substream of the camera (704*480(D1) resolution).
Sub Stream 2: Will not be displayed. Not for viewing purposes.
Protocol: Switch between TCP and UDP protocols.
Setup: Access and customize the camera's features and sub menus.
Alarm: View specific alarm types detected by the camera.
Logout: Log the user out of the interface.

Button	Function Name	Function Description
	Relay Out	Click this option to manually activate an alarm if an external alarm is connected.
	White Light	Click this option to manually activate the white light LEDs.
	Siren Activation	Click this option to manually activate the built-in siren (IE Mode only).
	Digital Zoom	Click this option and use your mouse on the interface to digitally zoom in on an area. **Only available in IE Mode**
	Snapshot	Click this button to manually take a snapshot of the live view.
	Triple Snapshot	Click this button to manually take 3 consecutive snapshots of the live view. **Only available in IE Mode**
	Manual Record	Click this button to manually record video of the live view **Only available in IE Mode.**
	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.
	Talk	Click 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. **Only available in IE Mode**

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. **Only available in IE Mode**
	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. **Only available in IE Mode**
	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. **Only available in IE 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. **Only available in IE 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. **Only available in IE Mode**
	IVS Overlay	Click this button to enable or disable the IVS overlay if enabled. **Only available in IE Mode**

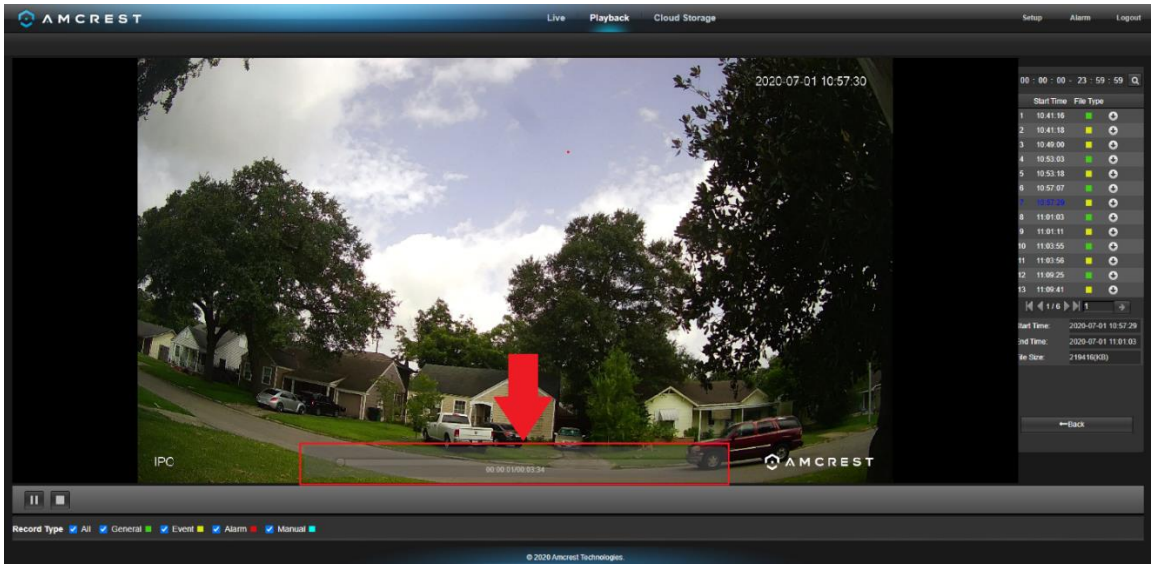
Playback

The Playback tab allows the user to playback the camera's recorded video. Below is a screenshot of the Playback tab:



This is the interface for the playback menu. There are 5 main sections:

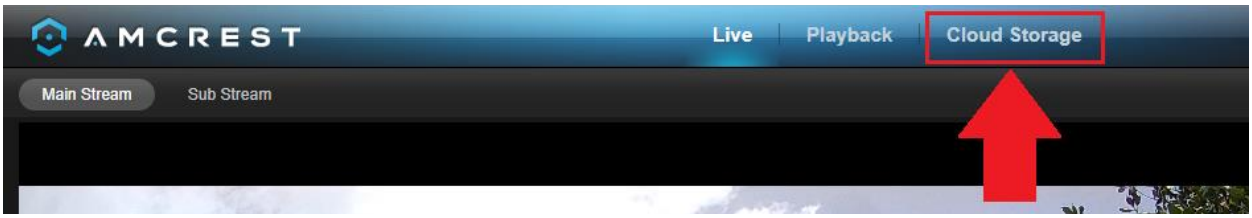
Section 1: Allows the user to filter between video (.mp4) or snapshots (.jpg).
Section 2: Allows the user to playback events based on calendar dates. If events are detected via the microSD card the days will be highlighted indicating recordings are available for that day.
Section 3: The File List option 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: Once a recording is selected from the file list, use the play, and stop button to play or stop the recording. An additional slider option will be displayed by hovering the mouse pointer over the playback interface.



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.

Cloud Storage

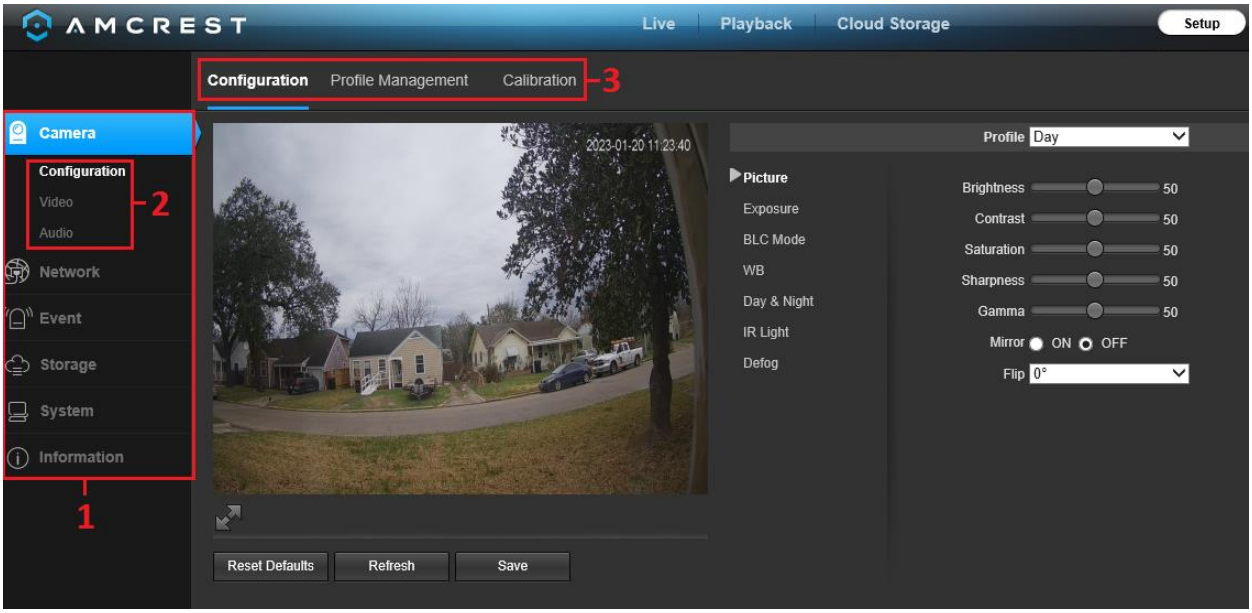
The Cloud Storage tab allows the user quick access to the Amcrest Cloud website.



At this website (amcrestcloud.com) 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:

1. **Menu Bar**: Displays different tabs related to a selected menu option (Camera, Network, Event, etc.)
2. **Menu Items**: Each menu option opens a different menu which allows the user to change between specific settings configurations.
3. **Menu Tab**: Allows the user to select Configuration, Profile Management, and calibration options.

Camera

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

Configuration

The Configuration menu allows the user to configure image profiles for normal, day, and night usage. Below is an explanation for each of the fields on the Configuration tab in the Configuration menu item:

Picture

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
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.
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.
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.
Mirror: This radio button allows the user to turn the mirroring feature on or off. Turning mirroring on will mirror the picture.
Flip: This dropdown box allows the user to flip the video feed picture.

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 the user to adjust exposure settings. Below is an explanation of the features listed in this menu.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
Anti-Flicker: These options allow the user to select what type of anti-flicker technology will 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 menu allows the user to modify certain exposure settings related to the device such as, gain priority, shutter priority or setting a manual gain setting.

Auto: This setting allows the camera to automatically adjust exposure settings while in use.
gain First: This setting will maximize the gain for the ideal exposure. Low Noise Basically turns up the ISO to the best setting without sacrificing exposure timing.

Shutter Priority: This setting will maximize the fastest shutter speed and will sacrifice the gain in return.
Manual - This setting lets you select your shutter speed and have the gain adjust automatically. Selecting customized range will let you both the shutter speed an adjust the gain manually.

Exposure Comp: Use this slider to adjust the exposure compensation. The values range from 0 – 100, 50 is default.
3D NR: Allows the user to enable or disable 3D noise reduction.
Advanced 3D: This slider allows the user to specify the 3D Noise Reduction level. The value ranges from 1-100.
Advanced 2D: This slider allows the user to specify the 2D Noise Reduction level. The value ranges from 1-100.

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 adjust back light compensation settings. Below is an explanation of the features provided in this menu.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
Mode: This dropdown menu allows the user to select different backlight compensation modes:

OFF: Disables BLC mode.
BLC: Backlight compensation: Default will use the whole image to balance the lighting settings, and Customized will allow you to balance the lighting settings from the target area.
HLC: Highlight compensation is a feature that came out of necessity due to overexposure from strong light sources like headlights or spotlights.
WDR: Wide Dynamic Range makes multiple scans of a scene to provide one balanced and unwashed image that is clear for the user.

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 adjust white balance settings. Below is an explanation of the features provided in this menu.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
Mode: This option allows the user to choose between different white balance modes.

Auto: Allows the camera to automatically adjust white balance settings while in use.
Sunny: Allows the camera to automatically adjust white balance settings in sunny or bright conditions.
Night: Allows the camera to automatically adjust white balance settings in nighttime or dark conditions.
Outdoor: Allows the camera to automatically adjust white balance settings while in outdoor (sunny or dark environments.
Customized: Displays options that will allow the user to manually adjust specific red or blue values related to white balance.
Regional Custom: Allows the user to select an area (region) on the live view screen in which white balance will be most applicable.

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

This menu allows the user to adjust day and nighttime settings. Below is an explanation of the features provided in this menu.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
Mode: This dropdown box allows the user to select different Day & Night balance modes. The 2 options are Color and B&W.

Color - Preset which allows the camera to compensate color in day or night profiles.
B&W - Sets the picture to black and white, however when illumination is too dark it switches on IR mode.

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.

IR Light

This menu allows the user to set light settings. The IR light on your camera allows the device the ability to activate night vision. Below is an explanation of the features provided in this menu.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and Normal.
Fill Light: This dropdown menu allows the user to select between various night vision modes.

IR Mode: Allows the camera to switch on the IR LEDs for B&W night vision.
White Light: Allows the camera to switch on the white light LED for color night vision.
Soft Light Mode: Allows the camera to switch on the white light LEDs however provide a lower intensity.

Mode: This dropdown box allows the user to select whether to turn the IR light on or off.

Auto – Sets the IRs to automatically turn on or off based on Day & Night conditions.
Manual – Manually turns the IRs on.
Off – Manually turns the IR LEDs off. Please note, IR LEDs will not turn on at all when this option is selected.

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.

Defog

This menu allows the user to set defog settings which can be used during foggy or hazy weather. Below is an explanation of the features provided in this menu.

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

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

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.

Profile Management

The profile management menu allows the user to manage global profile settings. Below is an explanation for each of the fields on the **Profile Management** tab:

Profile Management: This set of radio buttons allow the user to set what basis the profile management settings run on. There are 4 options: General, Full Time, Schedule, and Day/Night.

General: The system can automatically alternate between night and day based on the profiles for each.
Full Time: 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.
Day/Night: The system maintains one profile (Day or Night) for each mode set by the user.

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.

Calibration

The calibration menu allows the user to automatically calibrate the built-in dual AI sensors for optimal settings based on the environment the camera is located. During calibration, please make sure the image is stable and ambient light in the area is sufficient before calibrating the camera.

Reset Defaults: Sets the calibration to default setting.
Calibrate: Automatically calibrates the sensors.
Save: Saves the calibration settings.

Once the calibration settings are saved, the device will need to reboot. The settings will not be applied until the device has been rebooted. Click **Reboot Now** and allow the device to reboot for the calibration to take effect.

Video

The video menu allows the user to view and adjust encode, snapshot, overlay, and path settings. 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.
Smart Codec: This option allows the user to enable or disable the smart codec. Smart codec is 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 Mainstream 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 screen, click on Refresh. To save the settings, click the **Save** button.

Snapshot

The snapshot tab allows the user to adjust all snapshot settings sent by the camera. This includes the type, size, quality and intervals. Below is an explanation of the features provided in this menu.

Snapshot Type: This dropdown box allows the user to select a snapshot mode. There are two snapshot modes:
- **General:** Snapshots are taken as scheduled.
- **Event:** Snapshots occur when a motion detection alarm or tampering alarm is triggered

Image Size: By default, the screenshot size is the same size as the video feed's resolution.
Quality: Allows the user to select image quality. Quality is adjusted on a scale of 1-6 (Best).
Interval: This is to set snapshot frequency. The value ranges from 1 to 7 seconds. The maximum setting for a customized interval is 50000s/picture.

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.

Overlay

The overlay tab allows the user to customize channel titles, time, OSD information (such as logo overlays and face counting), custom titles, etc.

Privacy Masking

Privacy Masking allows the user to enable and disable up to 4 privacy masking blocks on the live view window. To set a privacy mask, click one of the boxes in the live view window, and position or resize it as needed. To remove a box, click on it, then click the delete button. To remove all privacy filter boxes, click the remove all button.

To remove all the settings applied in this menu, click **Remove All**. To delete a specific setting, select the setting you wish to delete can click **Delete**. 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.

Channel Title

The Channel Title menu allows the user to enable, disable, and customize channel titles in the interface.

Enable – This radio button allows the user to enable the channel title. The channel title can be placed in different areas of the interface by clicking the title on the interface and moving it with your mouse to a desired area.

Disable – This radio button is used to disable the channel title feature.
Input Channel Title: This field allows the user to customize the text in the channel title.
Text Align: This dropdown menu allows the user to align the text associated with this option.

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.

Time

The time menu allows the user to enable or disable the date & time overlay on the live view screen. Enable the Display Day of the Week option to display the day of the week as well in the overlay.

Enable – This radio button allows the user to enable the time overlay. The time overlay can be placed in different areas of the interface by clicking the overlay on the interface and moving it with your mouse to a desired area.
Disable – This radio button is used to disable the time overlay.
Display Day of the Week: This checkbox is used to allow the day of the week to be displayed in the time overlay.

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.

Text Overlay

This menu allows the user to enter customized text overlays onto the live view menu. A total of 5 custom text lines can be used. To use this option, click the enable button and enter the text you would like to use into the respective fields. Click **Save** to apply the text overlay. Use your mouse to move the overlay on the interface.

Enable: Enable text overlays
Input Text: Enter the text into these fields.
Text Align: Align the text to the right or left in the overlay.

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.

Logo Overlay

The logo overlay menu allows the user to enable or disable the Amcrest overlay logo in the interface. Click the enable option to enable the Amcrest overlay and click save to apply the setting. To disable the Amcrest overlay, click disable, then click save to apply the setting. Use the text align feature to align if needed.

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.

Face Counting

This menu allows the user to enable or disable the face counting overlay. This overlay will display the number of faces counted in the area when using face detection. Please note, it is recommended to make sure this option is enabled if using face detection. To enable this overlay, click enable, and select save to apply the setting. Use your mouse to move the overlay to a designated area of the live view feed. To disable this overlay, click disable, and click save to disable the overlay. Use the text align option to align the text in the overlay if needed.

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.

Path

The path menu allows the user to designate a file path on the computer for downloading recordings. Please note, if you are using a browser that does not support a plugin, such as Google Chrome, Firefox, Safari, etc. the default file path will be set as the browser's default download folder. However, this can be updated if accessing the camera in IE mode on Edge, for more information please visit amcrest.com/support

Audio

This menu allows the user to modify audio settings for the camera. Please note, this device has a dongle wire connection which allows the user to connect an external RCA microphone or speaker. If using an external microphone, make sure to enable the "Line In" option located in the Audio In Device dropdown menu.

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

Main Stream: Sets the audio settings for the main stream:
Enable: This checkbox allows the user to enable audio recording.
Encode Mode: This dropdown box allows the user to select an audio format. By default, the camera will be set to AAC encoding.
Sampling Frequency: This dropdown box allows the user to select a sampling frequency for the audio.
Sub Stream: Sets the audio settings for the sub stream:
Enable: This checkbox allows the user to enable audio recording.
Encode Mode: This dropdown box allows the user to select an audio format. By default, the camera will be set to AAC encoding.
Sampling Frequency: This dropdown box allows the user to select a sampling frequency for the audio.
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 select the microphone volume. 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.

Alarm Audio

The audio files in this menu can be used as an audible siren for your camera. By default, the default siren will be an alarm.wav however to choose another file, select a file from the **Choose** section. To test the siren, return to the Live menu and click the siren icon () located on the interface.

A custom audio file can also be used if necessary. The audio file must be in .wav format and no less than 1 to 2 seconds long. To add a custom siren, click on **Add Audio File** and import the .wav file into the interface. Choose the file and exit the interface. The siren options chosen will be applicable to all siren options available on the camera.

Network

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

TCP/IP

TCP/IP stands for Transmission Control Protocol/Internet Protocol and it is the language/protocol that allows communication between an internet-connected device, whether on a local network and the Internet. This screen allows for TCP/IP settings to be modified for the camera to establish a connection to the network.

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: This radio button 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. Note: When PPPoE is enabled, modification of the IP Address, Subnet Mask, and Gateway becomes prohibited.
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.
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, or other software that requires P2P.

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 tab is where users can configure port connections. 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 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. 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.

RTMP

RTMP stands for **real-time messaging protocol**. It provides a high-performance transmission of video, and data from an encoder such as an IP camera to a server, which distributes the signal across the internet. Below is an explanation of the options provided in this menu.

Enable: Enable/disable this feature.
Stream Type: Allows the user to choose which stream will be used for RTMP such as mainstream, substream 1 or substream 2.
Address Type: Allows the user to choose between a non-custom or customized stream address.
Encryption: Allows a non-customized stream address to be either encrypted or not encrypted.
IP address: Allows the user to enter an IP address of the RTMP platform if needed.
Connection: The port number of the RTMP protocol. The default port number is 1935.
Custom Address: A custom address is typically used using a custom address type and is formatted as the stream URL/Stream Key

To enable RTMP and live stream the camera to platforms such as YouTube, click the enable option. Enable the stream type, which in this case is mainstream, and select the "Customized" option in the address type field. Navigate to YouTube and select Go Live. Copy and paste the stream URL and stream key (Stream URL/Stream Key) Click Save and allow the stream to load into YouTube. Please note, it is recommended to reduce the resolution to 4MP or below if using RTMP.

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, 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. To use AmcrestDDNS, enter the domain name set for the camera in the Domain Name field and enable the Type option. Click Save. The URL format for AmcrestDDNS is "domainname.amcrestddns.com:HTTPportnumber" the HTTP port number must be port forwarded for this to function.

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.

IP Filter

This screen allows for the filtering of IP addresses, either blocking them, or granting them access to the camera. This feature helps make the camera more secure by limiting remote access only to approved users. Below is an explanation of fields on the IP Filter settings screen:

Trusted Sites: This checkbox allows the user to enable the IP Filter feature for trusted sites.
Add IP/MAC: This button opens a popup that allows the user to add IP or MAC addresses to the trusted site list.
Note: When accessing the camera externally, please add the MAC address of the router on the PC end.
Remove All: This button allows the user to remove all sites from the trusted IP/MAC list.

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. For more information on

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

Connection: 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.
Title: This field allows the user to define the subject line of the email that is sent to the receivers.
Attachment: This checkbox allows a snapshot of the event to be attached to the email notification.
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.
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.
Update Period: This field allows the user to define, in minutes, how long the system should wait between sending emails. This prevents multiple emails from being sent out.
Email 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 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 set UPnP modes:

Customized: Allows the user to set customized UPnP settings.
Reset Defaults: Resets the UPnP settings to default.

Router State: 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.
The 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

Hypertext Transfer Protocol Secure (https) is a combination of the Hypertext Transfer Protocol (HTTP) with the Secure Socket Layer (SSL)/Transport Layer Security (TLS) protocol. This menu allows the user to enable and create HTTPS certificates.

To enable HTTPS, click Create. Enter the requested information related to the certificate, region, IP or domain name of the camera, state, location, etc., and click Create. Click Install and allow the cert to be created. Click the download button to download the root cert to your computer. Right click on the root cert and install the certificate to your machine (be sure to place the cert in the Trusted Root Certification Authorities folder).

Once the cert has been installed and properly imported, navigate back to the web interface and click Enable HTTPS, then click Save. The camera will restart, allow the camera to reset. Once the page refreshes, the IP address for the camera will now be secured. A lock icon ( ) will appear next to the IP address.

Event

This menu allows the user to select and customize different settings for triggering events such as motion detection, smart motion detection, IVS, face detection, people counting, and setting up heat map reporting. Please note, for optimal performance, it is recommended to use a browser which supports the .exe plugins, such as IE mode in Microsoft Edge since certain AI features or functions may require the use of a plugin to fully function.

Video Detection

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

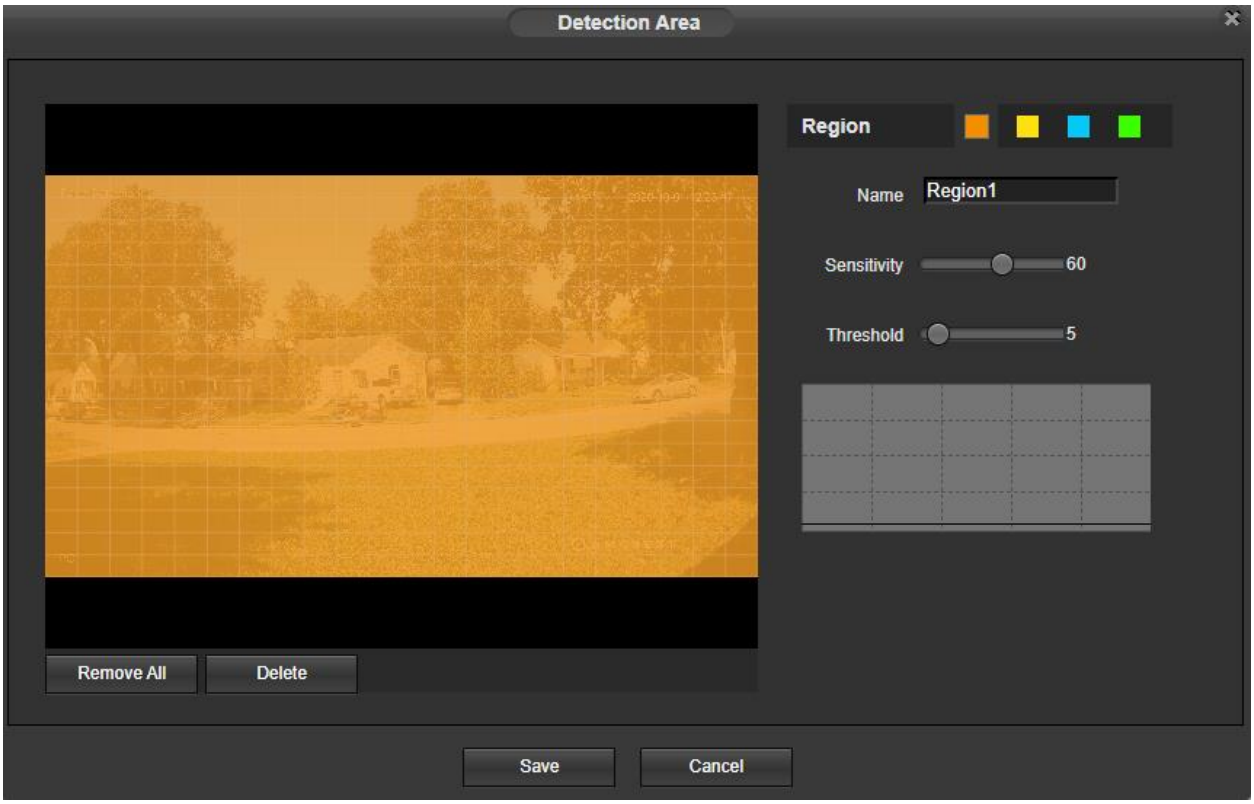
Motion Detection

This tab allows the user to modify motion detection settings. Below is an explanation of the fields on the **Motion Detection** 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: Refers to the amount of time, in seconds, the event will last. For instance, once motion is detected by the camera, the event will last 30 seconds before it ends. However, this can be adjusted between 0 and 100 seconds if needed.
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.
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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren once motion is detected.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

Flicker: Allows the white light LED to flash once motion is detected. Select "Normally On" if you would like the white light LEDs to remain solid after an event has been triggered.
Flicker Frequency: The speed of the white light LED flash (low, middle, or high)
Duration: How long the flash will last. Default is 10 seconds however can range between 5 and 30.
Period: Set a schedule in which the flash will apply.

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 an explanation of the fields on the Video Tamper tab:

Enable: This checkbox enables a video tamper alarm for the camera.
Tamper Area: The percentage of the detection area on the screen.
Duration: The amount of time before the tamper rule is triggered.
Anti-Dither: The amount of time, in seconds, the event will last.
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.
Send Email: This checkbox allows the user to enable the camera to send an email when a video tampering alarm is triggered.
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.

Enable: This checkbox enables or disables smart motion detection options.
Effective object: Select between human or vehicle object types. Both can be enabled if needed.

Sensitivity: Choose between low, middle, or high sensitivity. The higher the sensitivity, the more events will be 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.

Audio Detection

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

Input Abnormal: Enable or disable audio detection.
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: The amount of time, in seconds, the event will last.
Record: This checkbox allows the user to enable the camera to record video when an audio detection alarm is triggered.
Record Delay: This field specifies in seconds how long the delay between alarm activation and recording should be.
Send Email: This checkbox allows the user to enable the camera to send an email when an audio detection alarm is triggered.
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 associated with the camera. A smart plan must be enabled for an AI feature to function. Choose an AI smart plan before enabling an AI feature such as IVS, people counting, face detection, or heat map. Please note, IVS and heat map can be enabled at the same time if needed.

To refresh the menu to its original format, click the **Refresh** button. To save a smart plan to your camera, click the **Save** button.

IVS

IVS stands for stands for intelligent video system analytics and is the basis for all the AI rules associated with your camera. The IVS menu allows the user to customize and set IVS rules which allows the camera to produce general behavior analytics and reporting directly from the web user interface.

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.

• Ensure a Smart Plan has been activated in the Smart Plan menu for IVS.
• Access the IVS menu and click on the Add () icon to begin customizing IVS rules.
• 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 description of the features in this menu:

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 Rule 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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

Flicker: Allows the white light LED to flash once the area has been triggered. "Normally on" allows the white light LEDs to remain solid after the rule is triggered.
Flicker Frequency: The speed of the white light LED flash (low, middle, or high)
Duration: How long the flash will last. Default is 10 seconds however can range between 5 and 30.
Period: Set a schedule in which the flash will apply.

Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

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. In the **Direction** menu, choose if the rule will be triggered if the object enters only (A->B), exits only (B->A), or enters & exits (A<->B) either direction of the line.
4. Select an object filter, human or vehicle. This will allow only human or vehicles in the detection area to trigger an event.
5. Enable the **Record** checkbox to record the event.
6. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
7. Click the **Draw Rule** option and use your mouse to draw a detection line. Once the detection line is created, click **Save** to apply the settings.

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 description of the features in this menu:

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 Rule 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.
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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

Flicker: Allows the white light LED to flash once the area has been triggered. "Normally on" allows the white light LEDs to remain solid after the rule is triggered.
Flicker Frequency: The speed of the white light LED flash (low, middle, or high)
Duration: How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**
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 Intrusion Area

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

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. 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. Select an object filter, human or vehicle. This will allow only human or vehicles in the detection area to trigger an event.
5. Enable the **Record** checkbox to record the event.
6. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.

7. Click the **Draw Rule** option and use your mouse to draw a detection area. Once the detection area is created, click Save to apply the settings.

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.

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 description of the features in this menu.

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 Rule 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.
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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

- **Flicker:** Allows the white light LED to flash once the area has been triggered. “Normally on” allows the white light LEDs to remain solid after the rule is triggered.
- **Flicker Frequency:** The speed of the white light LED flash (low, middle, or high)
- **Duration:** How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**
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

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Select **Abandoned Object** 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. Enable the **Record** checkbox to record the event.
3. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
4. Locate an area you would like the rule to apply and click the **Draw Rule** option. Use your mouse to draw a detection area.
5. Click **Save** to apply the settings. Once an object is placed in the detection for more than 10 seconds, the rule will be triggered.

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.

Fast-Moving

Fast-Moving allows the camera to trigger an event if an object, such as a human or vehicle, quickly moves in an area set by the user. Below is a description of the features in this menu.

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 Rule 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.
Sensitivity: This slider allows the user to adjust the sensitivity of the rule being triggered. The default sensitivity is 5 however it can range from 1 ~ 10.
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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.

Mode: Select between different white light LED modes.

Flicker: Allows the white light LED to flash once the area has been triggered. “Normally on” allows the white light LEDs to remain solid after the rule is triggered.

Flicker Frequency: The speed of the white light LED flash (low, middle, or high)

Duration: How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.

Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**

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 Fast-Moving Rule

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Select **Fast-Moving** 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. Adjust the sensitivity slider if needed. The recommended sensitivity threshold is 5, however, can range to 10.
3. Select an object filter, human or vehicle. This will allow only human or vehicles in the detection area to trigger an event.
5. Enable the **Record** checkbox to record the event.
6. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
7. Click the **Draw Rule** option and use your mouse to draw a detection area. Once the detection area is created, click **Save** to apply the settings.

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

Parking Detection

Parking Detection allows the camera to trigger an event if an object, such as a motor vehicle is parked in a set area for a specified amount of time. Below is a description of the features provided in this menu.

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 Rule 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.

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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

- **Flicker:** Allows the white light LED to flash once the area has been triggered. "Normally on" allows the white light LEDs to remain solid after the rule is triggered.
- **Flicker Frequency:** The speed of the white light LED flash (low, middle, or high)
- **Duration:** How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**
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 Parking Detection Rule

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Select **Parking Detection** 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. Enable the **Record** checkbox to record the event.
3. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
7. Click the **Draw Rule** option and use your mouse to draw a detection area. Once the detection area is created, click **Save** to apply the settings. If an object is idle in the detection area for an extended period, the rule will be triggered.

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

Crowd Gathering Estimation

Crowd Gathering Estimation is used to detect a group of people that enter or exit a specific area set by the user. Below is a description of the features in this menu.

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 Rule 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.
Sensitivity: Use the sensitivity slider to adjust the sensitivity of the rule. A general formula for the Crowd Gathering Estimation is as follows:

10 – [Sensitivity Value] x 3 = # of people required to trigger an event.

Sensitivity Value	1	2	3	4	5	6	7	8	9	10
# of People	30	27	24	21	18	15	12	9	6	3

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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

- **Flicker:** Allows the white light LED to flash once the area has been triggered. "Normally on" allows the white light LEDs to remain solid after the rule is triggered.
- **Flicker Frequency:** The speed of the white light LED flash (low, middle, or high)
- **Duration:** How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**
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 Crowd Estimation Gathering Rule

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Select **Crowd Gathering Estimation** 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. Adjust the sensitivity slider if needed. The recommended sensitivity threshold is 5, however, can range to 10.
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 camera prior to enabling this setting. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
5. Click the **Draw Rule** option and use your mouse to draw a detection area. Once the detection area is created, click **Save** to apply the settings. Once a specified number of people have been detected by the camera in the detection area, the rule will be triggered.

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

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 description of the features in this menu.

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 Rule 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.
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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

- **Flicker:** Allows the white light LED to flash once the area has been triggered. “Normally on” allows the white light LEDs to remain solid after the rule is triggered.
- **Flicker Frequency:** The speed of the white light LED flash (low, middle, or high)
- **Duration:** How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**
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

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Select **Missing Object** 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. Enable the **Record** checkbox to record the event.
3. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
4. Click the **Draw Rule** option and use your mouse to draw a detection area around the object. Once the detection area is created, click **Save** to apply the settings. Once the object has been removed from the detection an extended period of time, the rule will be triggered.

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.

Loitering Detection

Loitering Detection is used to detect if a person or group are loitering in a specific area set by the user. Below is a description of the features in this menu.

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 Rule 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.
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.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.

Mode: Select between different white light LED modes.

Flicker: Allows the white light LED to flash once the area has been triggered. “Normally on” allows the white light LEDs to remain solid after the rule is triggered.

Flicker Frequency: The speed of the white light LED flash (low, middle, or high)

Duration: How long the flash will last. Default is 10 seconds however can range between 5 and 30.

Period: Set a schedule in which the flash will apply.

Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once 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.**

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 Loitering Detection Rule

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Select **Loitering Detection** 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. Enable the **Record** checkbox to record the event.
3. 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. If you would like warning light or siren to activate when the rule is triggered, make sure to select these options.
4. Click the **Draw Rule** option and use your mouse to draw a detection area. Once the detection area is created, click **Save** to apply the settings. Once a person, or persons, is detected and idle in the detection area for an extended period of time, the rule will be triggered.

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.

Global Setup

The Global Setup menu allows the user to calibrate specified IVS areas on the live monitoring menu. Calibration is used to increase the efficiency of the overall reporting and detection of IVS events. Below is a description of the features listed in this menu.

Add Calibration: Allows the user to create a detection area in which IVS rules will be calibrated.

Remove Calibration: Clears the set detection area from the live monitoring screen.

Ruler: These radio buttons allow the user to set either vertical or horizontal rulers on the live monitoring screen.

Note: You can add a total of 3 vertical rulers and 1 horizontal ruler. A horizontal ruler must be used to properly calibrate.

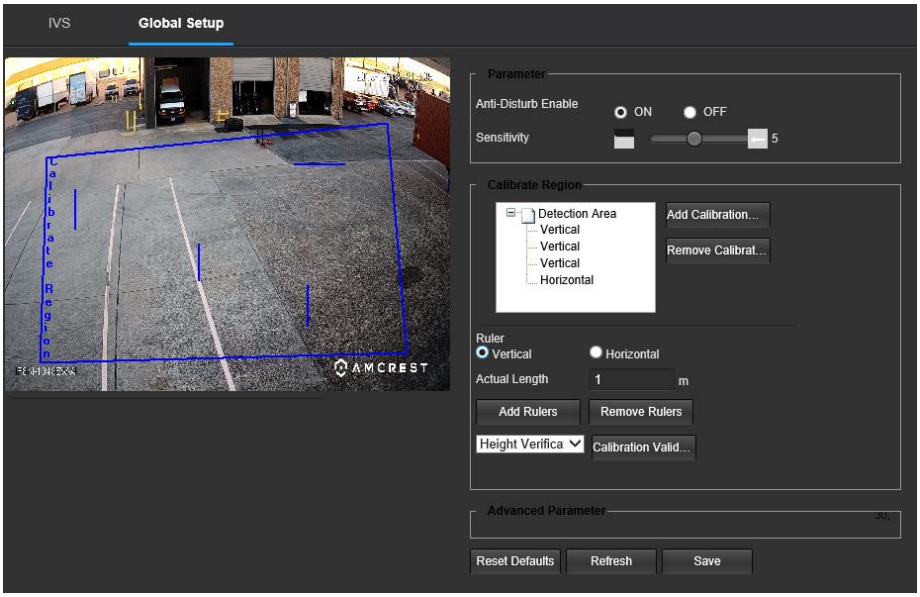
Actual Length: Represents the actual length of the ruler on the live monitoring screen in meters.
Add Rulers: This option allows the user to add and adjust a ruler on the live monitoring screen. Rulers are used to adjust calibration for IVS rules. Use your mouse to draw rulers on the live monitoring screen.
Remove Rulers: Removes rulers set in the detection area menu. To remove a ruler, select the ruler from the detection area menu and click Remove Rulers.
Weight Verification: Used to test the width calibration accuracy in meters of a set ruler. A horizontal ruler must be set, and the detection area must be saved first to use this feature.
Height Verification: Used to test the height calibration accuracy in meters of a set ruler. A horizontal ruler must be set, and the detection area must be saved first to use this feature.
Calibration Validation: Used to draw the calibration test line 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 Global Setup

Global setup is a great tool to use to calibrate a detection area. This helps to increase the overall accuracy of the IVS rules being used as well as validate their It is highly recommended to use global access setup before setting up multiple IVS rules.

1. Open the **Global Setup** tab located in the IVS menu.
2. Click on the **Add Calibration** button to set a detection area.
3. Left click on the live monitoring screen and draw your custom detection area. The detection area must be a closed area.
4. Click on **Add Rulers** to add your initial calibration ruler to the detection area. Draw a vertical line in the detection area. Each vertical line must be separately drawn. You can add up to 3 vertical calibration lines Left click on the live monitoring screen to set the vertical rulers.
5. Click on the **Horizontal** ruler radio button and click **Add Rulers**. Draw a horizontal line in the detection area. Only one horizontal line can be used in the detection area. Left click on the live monitoring screen to set the horizontal ruler.
6. Click **Save** to save the detection area and calibration rulers.



To verify the width and height accuracy of the detection area you can use the weight and height verification options via the dropdown box. To begin, choose your verification method from the dropdown menu and click on the **Calibration Validation** button. Left click on the live monitoring screen and draw a vertical or horizontal line to verify the calibration. The line drawn will be the width or height of the area set in meters.

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.

People Counting

People Counting is used to provide a statistic based up the number of people who enter and exit a certain area. This device features both in area and general people counting features. A people counting report can also be generated using this menu. Before proceeding, ensure the people counting smart plan is enabled in the smart plan menu.

People Counting

This rule applies to general people counting. When enabled, it will allow the camera to detect and count the number of people who have entered or exited the detection area**. This rule requires the use of a plugin to view the people counting OSD displayed in live view, IE mode on Microsoft Edge is recommended**. Below is a description of the features in this menu.

No.: Provides the order in which the rules will be displayed in the menu.
Name: Allows the user to customize a name that will be applied to the detection line. Double click the name in the Rule column to modify.
Rule Type: This dropdown menu allows the user to select between people counting and in area only counting.
OSD: Clears any OSD (On-Screen Display) information on the live monitoring screen. **IE Mode only.**
Schedule: Allows the user to set a schedule in which the people counting feature will be used.
Enter No.: The amount of people it takes to trigger a person entering the set area to be counted. For efficiency, it is highly recommended to leave this as default (0).
Leave No.: The amount of people it takes to trigger a person exiting the set area to be counted. For efficiency, it is highly recommended to leave this as default (0).
Stranded No.: The amount of people it takes to generate an alarm who loiter in the set area. For efficiency, it is highly recommended to leave this as default (0).
Record: This checkbox allows the user to enable the camera to record when an event is triggered.
Record Delay: This field specifies, in seconds, how long the delay between events will 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 event is triggered.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Snapshot: This checkbox allows a snapshot of the IVS event to be sent to registered email address once triggered.
Draw Rule: This option allows the user to customize the detection area.
Clear: Clears the set detection area.
Draw Line: This option allows the user to customize the detection line.
Clear: Clears the set detection line.

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 People Counting

People Counting is a great tool to use to keep track and provide insight into the number of people entering or exiting a certain area. For more information on how to use People Counting refer to the information below:

1. Ensure the People Counting smart plan is enabled in the Smart Plan menu.
2. Enter a people number threshold in the "Flowrate Alarm" values (Enter No., Leave No., Stranded No.) This will determine how many people it will take before the rule is triggered.
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 camera prior to enabling this setting. If you would like the siren to activate when the rule is triggered, make sure to select **Siren**.
5. Click **Save** to save these settings.

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.

In Area People Counting

This option allows the user to draw a detection area and provides an overlay of how many people have entered a custom detection area. Please note, this feature can be used along with general people counting, however **requires the use of a plugin to view the people counting OSD displayed in live view, IE mode on Microsoft Edge is recommended**. Below is a description of the features in this menu.

No.: Provides the order in which the rules will be displayed in the menu.
Name: Allows the user to customize a name that will be applied to the detection line. Double click the name in the Rule column to modify.
Rule Type: This dropdown menu allows the user to select between people counting and in area only counting.
Schedule: Allows the user to set a schedule in which the people counting feature will be used.
Regional Number Statistics Alarm: Refers to the total number of people detected before the rule is triggered.
- **Inside Number:** The number of people required for the rule to be triggered (0 -80).
- **Type:** Select whether the threshold is greater than, less than, equal, or not equal to the inside number for the rule to be triggered.

Stranding Alarm: Refers to the total number of people detected idle in the area for a specific amount of time. The default idle time is 2 seconds however can range between 1 – 1800 seconds.
Record: This checkbox allows the user to enable the camera to record when an event is triggered.
Record Delay: This field specifies, in seconds, how long the delay between events will 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 event is triggered.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Snapshot: This checkbox allows a snapshot of the event to be sent to registered email address once triggered.

Global Setup: Use the sensitivity slider to adjust the sensitivity of the detection area. The default value is 5 however can go up to 10 (not recommended).
Draw Rule: This option allows the user to customize the detection area.
Clear: Clears the set detection area.

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 In Area People Counting

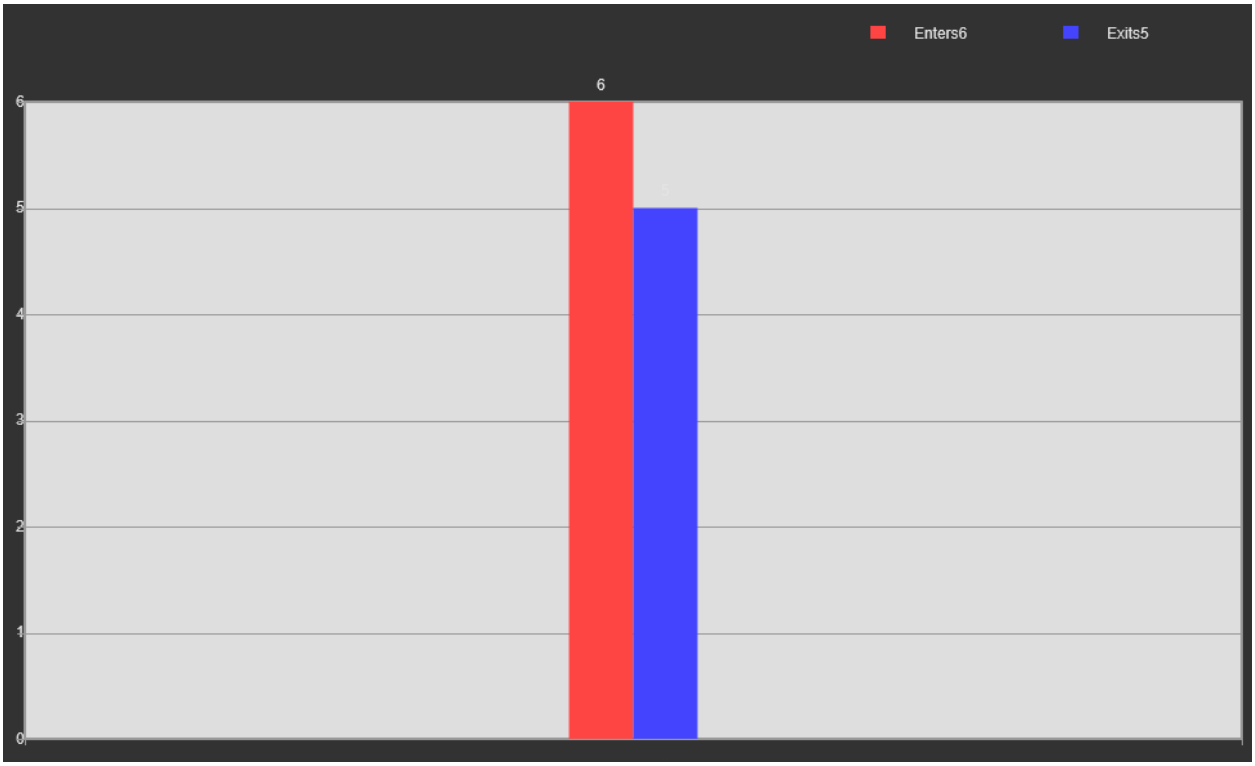
1. Ensure the People Counting smart plan is enabled in the Smart Plan menu.
2. In the People Counting menu, select the Rule Type dropdown menu and select **In Area No**.
3. Enable the **Regional Number Statistics Alarm** option and enter the threshold number of people allowed in the detection area before the alarm is triggered into the **Inside Number** field. Default is 30 people however can range between 0 and 80 if needed. Use the **Type** dropdown menu to set the rule to trigger if the threshold is less than, greater than, equal, or not equal to the value provided in the Inside Number field.
4. Enable the **Stranding Alarm** option and enter the amount of time in which the target will remain idle in the detection area before the rule is triggered into the **Stranding Time** field. The default value will be 30 seconds, however, can range from 1-1800 seconds if needed.
5. Enable the **Record** checkbox to record the event.
6. 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. If you would like the siren to activate when the rule is triggered, make sure to select **Siren**.
7. Click **Save** to save these settings.

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 view people counting reports. To retain reports, please ensure a microSD card has been inserted into the camera before setup. To view a people counting report, select a time range (daily, monthly, yearly) and select a date & time (start & end) range using the provided calendar options. Select a flow direction, this can be a report of how many have entered or exited and select a chart type (bar chart, line chart). Once this information has been entered, click **Search**.

An image of the report will be generated displaying the number of people who have entered or exited the area.



The report can also be exported to your computer if needed. To export this report, click Export to save the .bmp image to your device.

Face Detection

Face Detection is used to detect face events and receive facial image snapshots using email alerts. An OSD overlay of the total number of faces counted can also be displayed on live view as well if needed. Before proceeding, please make sure the face detection smart plan is enabled in the smart plan menu. Below is a description of the features provided in this menu.

Enable: Enable or disable face detection.
OSD: Enable or disable the face detection OSD overlay. Click clear to clear this number back to 0.
Schedule: Schedule a specific date & time for face detection.
Face Enhancement: This checkbox is used to enhance the accuracy of a detected face image.
Record: Enable this option to retain face events.
Record Delay: This field specifies, in seconds, how long the delay between events will 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 event is triggered.
Snapshot: This checkbox allows a snapshot of the event to be sent to registered email address once triggered.
Enable Face Exposure: Automatically regulates exposure to provided optimal performance of face recognition if installed outdoors.
Detect Area: Use this option to customize the detection area. The detection area will be full screen by default.

Clear: Remove the set detection area.
Exclude Region: Draw or modify the area in which face detection will not apply.
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.
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

Before setting up this rule, ensure the camera is facing an area in which objects can be easily detected, away from obstructions or other objects that may produce a false alert.

1. Ensure the Face Detection smart plan is enabled in the Smart Plan menu.
2. Return to the Face Detection menu and select Enable.
3. Ensure the OSD, Face Enhancement, and Record options are enabled. If you would like an email alert and snapshot of the event sent after the rule is triggered, select **Send Email** and **Snapshot**.
4. The detection area will be set to full screen by default however to adjust the detection area, click Detect Region and use your mouse to customize the detection area.
5. Click **Save**. The Face Detection counting overlay will be displayed on the live view 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.

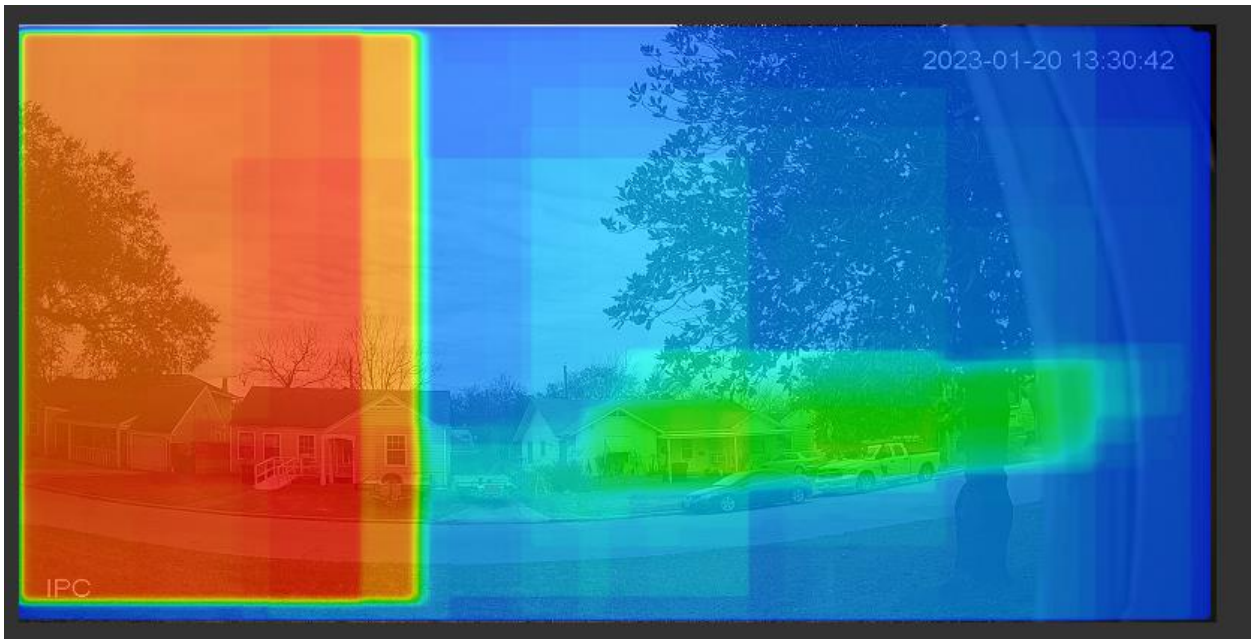
Heat Map

The Heat Map function provides a general reporting of crowd density statistics based on color levels detected by the camera. Color levels are divided into, red, orange, yellow, green, and blue which represent crowd density ranges; red being the densest area and blue representing areas with the lowest density.

To enable this feature, please make sure to enable the Heat Map option located in the Smart Plan menu. Navigate back to the Heat Map menu and click Enable. A schedule can be set to allow the heat map only to apply to specific times if needed by selecting the Schedule option. Click **Save** when complete.

Heat Map Reports

A heat map report can only be generated using a web browser that supports the .exe plugin provided by the camera. When viewing a heat map report, please use IE mode in Microsoft Edge. To view a report, select the start and end times of the report range using the calendars provided and click Search. An image of the report will be displayed.



An image of the report can also be exported to your computer if needed. To export a heat map report, click the Export option and save the image to your computer.

Alarm

This menu allows the user to configure external alarm settings if an external alarm system is connected to the dongle connection of the camera.

Enable: Enable or disable the external alarm function
Relay-in: Set to Alarm1 by default.
Schedule: Set a schedule in which the external alarm settings will apply.
Anti-Dither: Refers to the amount of time, in seconds, the event will last. For instance, once motion is detected by the camera, the event will last 30 seconds before it ends. However, this can be adjusted between 0 and 100 seconds if needed.
Sensor Type: Select between a NO (Normally Open) or NC (Normally closed) alarm protocol.
Record: This checkbox allows the user to enable the camera to record when an event is triggered.
Record Delay: This field specifies, in seconds, how long the delay between 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 event is triggered.
Siren: This checkbox allows the user to enable the camera to trigger an audible siren sound once the rule is triggered.
Warning Light: This checkbox allows the user to enable the camera to trigger the white light LED to turn on once an object has been detected.
Mode: Select between different white light LED modes.

- **Flicker:** Allows the white light LED to flash once the area has been triggered. “Normally on” allows the white light LEDs to remain solid after the rule is triggered.

Flicker Frequency: The speed of the white light LED flash (low, middle, or high)
Duration: How long the flash will last. Default is 10 seconds however can range between 5 and 30.
Period: Set a schedule in which the flash will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent to registered email address once 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 4 tabs: SD Card, Network, Illegal Access, and Security Exception.

SD Card

This tab allows the user to set the camera's response to an SD card related abnormality. 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.
Send Email: This checkbox allows the user to enable the camera to send an email when an SD Card abnormality is 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.

Network

This tab allows the user to set the camera's response to a Network related abnormality. 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.
Record: This checkbox allows the user to enable the camera to record video when a network abnormality is detected.
Record Delay: This field specifies in seconds how long the delay between alarm activation and recording should be.

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 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.

Send Email: This checkbox allows the user to enable the camera to send an email when illegal access is attempted.

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.

Disarming

The disarming menu allows the camera to automatically disarm any motion activated features that are currently enabled in the camera. Below is an explanation of the features provided in this menu.

Disarming: Enable or disable (close) the disarming feature.

Disarm by Period: Allow the device to only disarm based on a schedule.

Disarm Period: Sets a disarming schedule to allow the rule only to apply to certain times of the day.

Disarm Alarm Linkage Action: Select which action that will still occur when an alarm is triggered.

Select all: Enable both send email or white light options.

Relay-Out: Enable an alarm to an external alarm when actively disarmed.

Send Email: Enable an email to be sent when actively disarmed.

Siren: Enable the siren to sound when actively disarmed.

Warning Light: Enable the white light LED to illuminate or flash when actively disarmed.

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

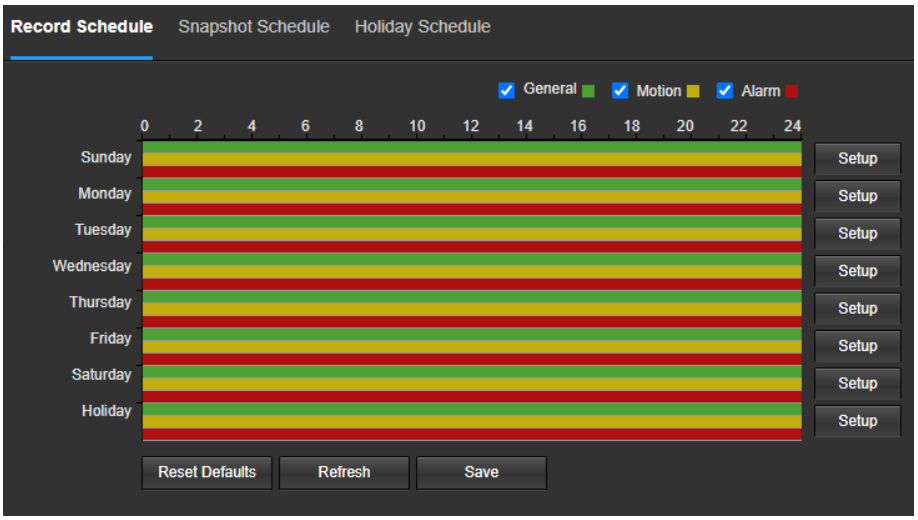
This menu section allows the user to change storage settings for the camera.

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.

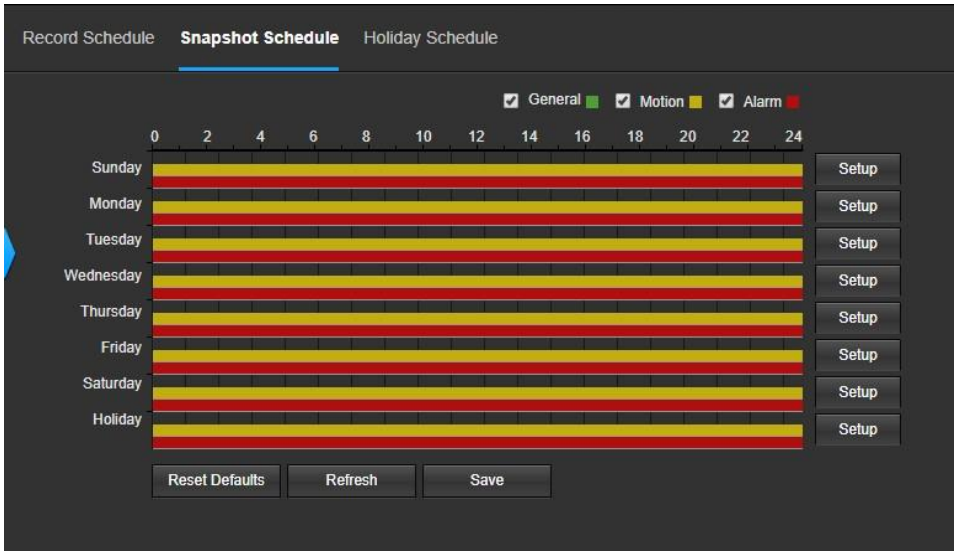
Video Recording Schedule: To specify a video recording range, first select the type of recording desired, then click and drag on the time bar for the desired date. To edit multiple days at once, drag the cursor further up or down to cover the other days.

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.

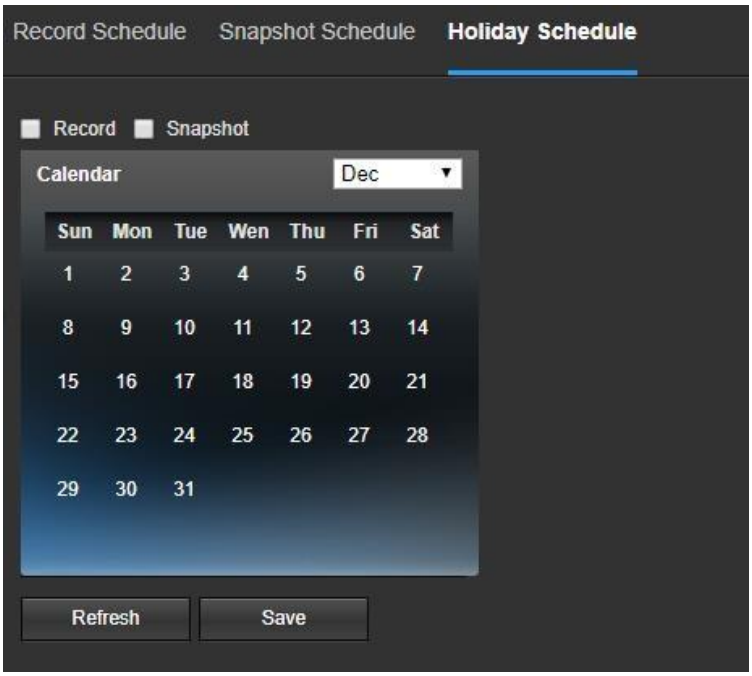
Snapshot Recording Schedule: To specify a snapshot range, first select the type of snapshot desired, then click and drag on time bar for the desired date. To edit multiple days at once, drag the cursor further up or down to cover the other days.

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.

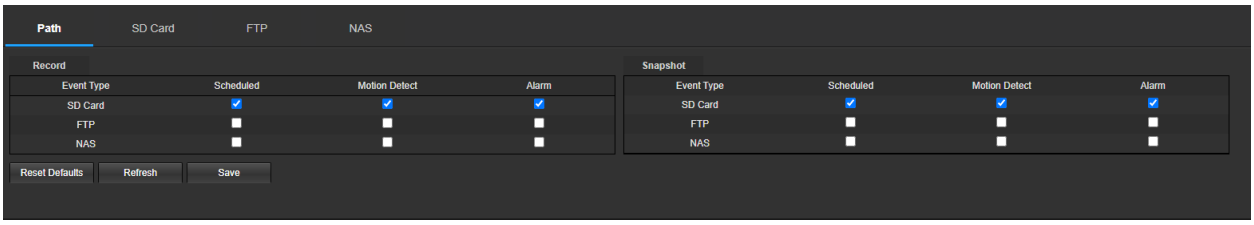
To refresh the page, click the Refresh button. To save the settings, click the Save button.

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.
Scheduled: This checkbox allows a schedule to be enabled for the record path.
Motion Detect: This checkbox allows motion detection record types to be sent to the record path.
Alarm: This checkbox allows alarm record types to be sent to the record path.

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 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.
Read & Write: This button allows the user to designate an SD card to read and & write privileges.
Eject: This button is used to eject the SD card from the interface.
Refresh: This button refreshes the SD card table.
Format: This button formats the SD card.

FTP

This tab allows the user to set events to be stored onto an SFTP or FTP server. By default, this option will be set using an SFTP protocol as it is the most secure method, however, an FTP server address can be set as well. Please note, if saving events to an FTP, please make sure the FTP option is enabled in the Path tab before proceeding. Below is an explanation of the fields provided in this menu.

Enable: Enable an SFTP or FTP protocol.
Server Address: Enter the IP address of the SFTP or FTP server.
Port: Enter the port number of the SFTP or FTP server. SFTP port will be 22, FTP port will be 21.

Username: Enter the username of the SFTP or FTP server.
Password: Enter the password associated with the SFTP or FTP server.
Remote Directory: Enter the directory information in which the events will be stored.
Emergency (Store on SD Card): Allows the camera to store events onto an SD card if the FTP 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.

NAS

This tab is where the user can change NAS settings. Before proceeding, please make sure the NAS option is selected in the Path menu. Below is an explanation of the fields on the NAS settings tab:

Enable: Enable the NAS protocol.
Server Address: Enter the server address of the NAS.
Remote Directory: Enter the directory information in which the events will be stored.

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 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 mainstream 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.

Cloud Storage

This menu redirects the user to the Amcrest Cloud web site. At this website (amcrestcloud.com) users can register for new accounts as well as view or modify existing accounts.

For more information on Amcrest Cloud visit: amcrestcloud.com

System

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

General

This tab is where the user can configure some basic camera settings. 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 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.

Synchronize 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 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.
Save: This button is used to save the settings.

Default Settings

This screen allows the user to reset the camera and all its settings to the factory settings. 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. To export the settings, click the Export button. The settings file will be downloaded to your device. Click the Import button to import the settings back into the camera.

Auto Maintain

This tab allows the user to set auto maintenance settings for the camera. 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. To upgrade the firmware for your camera, follow the steps provided below:

Go to amcrest.com/firmware
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 back up the log, click the Backup button. To clear the log, click the **Clear** button.

Remote Log

The Remote Log menu allows users to retain log information from other remotely connected devices. Below is an explanation of the details in this menu.

Enable: Enables the remote log feature.
IP Address: The IP address of the remote device
Connection: The port number set for the remote device (1~65534) **Device Number:** The number of the device in the network segment.

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.

Online Users

This screen allows the user to see which users are online. Click **Refresh** to refresh this table.

Alarm

This screen is where the alarm log is kept. 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 you out of the interface and return you to the main login page.

Remote Web Access Setup

There are two main methods for setting up remote access: UPnP/DDNS, and Port Forwarding.

UPnP/DDNS Remote Web Access Setup

Using Universal Plug and Play (UPnP) and Dynamic Domain Name Server (DDNS) functionality is the easiest way to setup stable remote access. For this method, your router should support the uPnP networking protocol and the protocol should be enabled. Please refer to your router manufacturer's documentation to learn how to enable uPnP on your router.

Below is a step-by-step walkthrough that details how to setup Amcrest cameras for Remote Web Access using UPnP and DDNS:

1. Login to your camera's web interface, open the main menu then go to Setup -> Network.
2. Using the left-hand menu, go to the Connection menu, and write down the HTTP port. It is recommended to ensure the port number is at least 5 digits long to prevent any port conflicts. If need be, change the port to a 5digit number that is less than 65535, note the number down, and click save before proceeding to the next step.
3. The system will prompt you to reset the camera. Click OK and wait for the camera to restart.
4. Restarting the camera may cause the device to use another IP address. Use the included IP Config tool to find the IP address as detailed previously in this document.
5. Login to your camera, open the main menu then go to Setup -> Network.
6. Click the Connections menu item on the left-hand menu and ensure that the HTTP port has changed.
7. Click the DDNS menu item on the left-hand menu, pick Amcrest DDNS from the drop-down box, click the checkbox next to Server Type, and then click the Save button on the bottom right.
8. To set a custom DDNS name, fill out the Domain Name field and click Save.
9. Write down the entire Domain Name field, including the white text that says.AmcrestDDNS.com
10. Click the UPnP menu item on the left-hand menu and click the enable checkbox at the top.
11. While in the UPnP menu, double click the HTTP port, and change both the internal and external HTTP ports to match the number that was used in step 2.
12. Uncheck the last 4 checkboxes in the PAT table on the UPnP menu.
13. Click apply, then exit this menu to go back to the main menu, then re-enter the UPnP menu, and ensure the UPnP status says, "Mapping Successful".
14. Open a web browser and enter in the DDNS domain name address from step 9, enter in a colon, then type the port number from step 4 on to the end.
    a. For example, if the DDNS domain name is http://abc123456789.AmcrestDDNS.com and your HTTP Port is 33333, the URL would be http://abc123456789.AmcrestDDNS.com:33333
15. The browser may prompt you to install a plugin. Click install to download the plugin, and then click on the plugin installation file to install the plugin.
16. If the browser prompts you to allow the plugin to work on the computer, hit Allow to ensure the plugin can run successfully.
17. Enter in login details into the username and password fields and click login.
    If the process above is not working, please contact Amcrest Support via one of the following options:

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

Port Forwarding Remote Web Access Setup

Port Forwarding is an alternative method to setting up remote access for Amcrest cameras. This method should only be used if the UPnP/DDNS Remote Access method did not work.

Below is a step-by-step walkthrough that details how to setup the camera for Remote Web Access using Port Forwarding:

1. Login to your camera, open the main menu then go to Setup -> Network.
2. Open the TCP/IP settings screen.
3. By default, the camera has the mode set to DHCP. Ensure that DHCP is selected. The IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all be 0s if DHCP is selected.
4. Click Save to save these settings. This should now open the main menu.
5. From the main menu, go to **Setup -> Network**.
6. On the TCP/IP settings screen, the IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all be populated.
7. Click the radio button next to Static, to change the mode to Static.
8. Write down the IP Address that is currently in the IP address field.
9. Click the **Save** button.
10. Using the left-hand menu, go to the Connection menu, and write down the TCP, UDP, and HTTP port number. It is recommended to ensure that these port numbers are at least 5 digits long to prevent any port conflicts. If need be, change each of these port numbers to a 5-digit number that is less than 65535, note the numbers down, and click save before proceeding to the next step.
11. Go to http://www.canyouseeme.org/ and check to ensure each of the port numbers specified in step 10 is open.
12. Write down the manufacturer name, brand, and model name for the router that the camera is connected to, and then proceed to http://www.portforward.com on your web browser.
13. Open the port forwarding guide section on the left-hand side menu.
14. Find the router brand name in the list and click it.
15. Find the router model number and click it.
16. Click the Default Guide link near the middle of the page.
17. This guide will help you take the step necessary to port forward on the router. Follow these steps, and then return to the camera.
18. Login to your camera, open the main menu then go to Setup -> Network.
19. Click the DDNS menu item on the left-hand menu, pick AMCRESTDDNS from the drop-down box, click the checkbox next to Server Type, and then click the Save button on the bottom right.
20. To set a custom DDNS name, fill out the Domain Name field and click Save.
21. Write down the entire Domain Name field, including the white text that says.AmcrestDDNS.com
22. Open a web browser and enter in the DDNS domain name address from step 21, enter in a colon, then type the HTTP port number from step 10 on to the end.
    For example, if the DDNS domain name is http://abc123456789.AmcrestDDNS.com and your HTTP Port is 33333, the URL would be http://abc123456789.AmcrestDDNS.com:33333
23. Enter in login details into the username and password fields and click login.

If the process above is not working, please contact Amcrest Support via one of the following options:

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USA: (888) 212-7538
Canada: 437-888- 0177
UK: 203-769-2757
Email Amcrest Customer Support support@amcrest.com

Amcrest Cloud Desktop Setup

Amcrest cameras can sync with Amcrest Cloud; a service that stores recorded video streams to enable long-term storage. Amcrest Cloud also allows the user to easily find and download recorded video for playback from any internet connected PC or Mac computer.

For more information on how to setup your camera on Amcrest Cloud please follow the steps provided below:

1. Connect the camera to power and wait 30 seconds for the camera to start-up and initialize.
2. Using a web browser on your PC or Mac, visit www.amcrest.com/cloud and register for a cloud account. Once registered, click the "**Add Camera**" button. Select "Amcrest", give the camera a name, and enter the camera's SN (located on the bottom of the camera), then click "Next".
3. On the settings page, you can adjust optional preferences for your camera. Once settings have been adjusted, click "Finish". Your camera is now successfully set up for cloud access and storage.
4. View your camera live or watch recorded clips using the menu button on the top of the page. You can also use the Amcrest Cloud app on iOS and Android to add more cameras, play recordings, and view your camera live, from anywhere. For more information visit amcrest.com/support
5. For additional assistance, please contact us at www.amcrest.com or give us a call at 1-888-212-7538. Step by step video tutorials available at http://www.amcrest.com/videos

Web Access Setup (AmcrestView.com)

1. Connect the camera to power and wait 30 seconds for the camera to start-up and initialize.
2. Using Internet Explorer or Safari, go to **www.AmcrestView.com** and register an account. You will be required to activate your account by e-mail (double-check your spam folder).
3. Once activated, download, and install the plugin for your web browser. The installation of the plugin will require all web browsers to close.
4. Log in to your account. To add a camera, click the "Add Device" button. Give the camera a name, enter the UID (found on the bottom of your camera), then enter the login details for the camera. The default username and password for the camera is admin.
5. Once added, the camera should appear in the device list. Click the  icon next to the camera's UID to open the live viewing and playback interface.
6. The device is now successfully setup for live viewing and playback!
   For additional assistance, please contact us at www.amcrest.com or give us a call at 1-888-212-7538. Step by step video tutorials available at www.amcrest.com/videos

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.

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	O	O	O	O	O	O
Plastic Parts	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.

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