

4MP Thermal Network Camera
User Manual

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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 thermal 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 hybrid thermal camera offers 2 separate channels, a thermal channel, and a visible channel for dual image fusion. It offers various AI functions such as IVS for increased perimeter protection, call detection, smoking detection, and other features necessary for short-distance protection and monitoring. The device is perfect for factories, parking lots, villas, and more.

The camera features 1 IR LED which allows the camera to detect objects from up to 98ft away as well as a designated warning light that can be set to flash and act as a deterrent once certain rules are triggered. The camera can be accessed in most mainstream web browsers. However, for optimal use, it is highly recommended to **use IE mode in Microsoft Edge** as most options and smart thermal features require the use of a .exe plugin. However, the camera features flexible storage options to store recordings to a microSD card (up to 256GB) or SFTP/FTP, all these features can be accessed and customized using a web browser.

Initialization

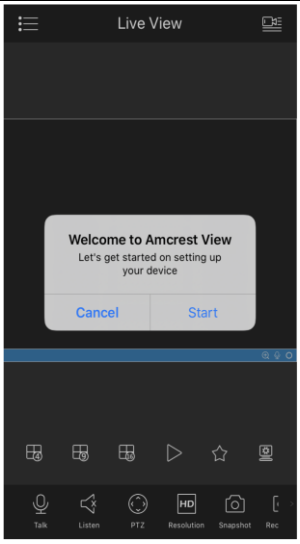
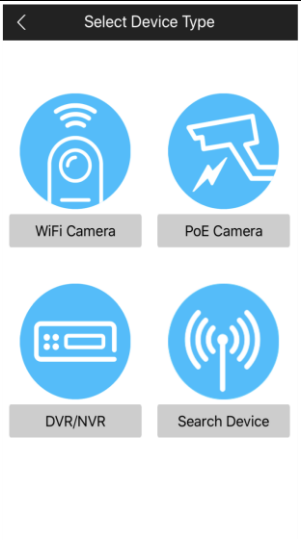
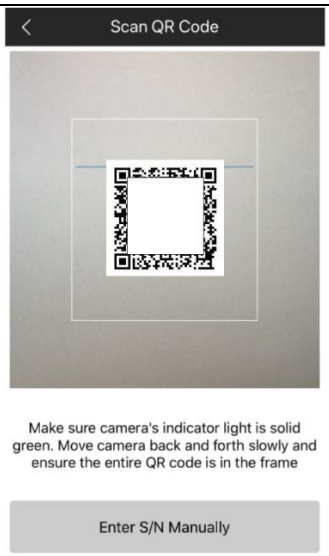
The camera can be accessed in a web browser using an IP address. The IP address for your camera can be located using the Amcrest IP config tool. Before locating the IP address, please make sure the camera and the computer are on the same network. To download the Amcrest IP config tool, please visit **amcrest.com/downloads** and download the IP config software.

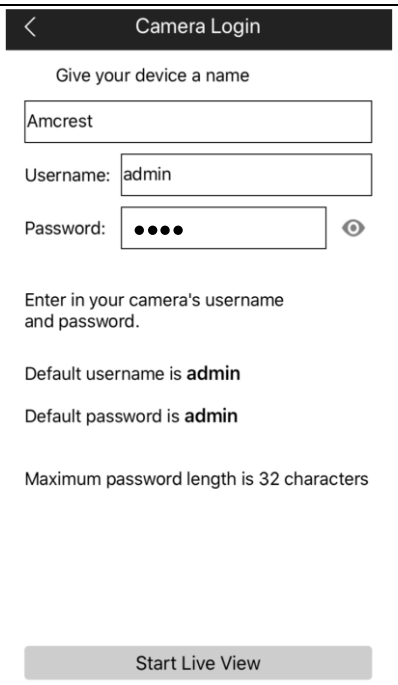
After obtaining the IP address, the camera can be viewed using most mainstream web browsers, such as Google Chrome, Firefox, Safari, Microsoft Edge, etc., however most thermal features will require the use of a .exe plugin. **For an optimal experience it is highly recommended to use IE mode in Edge or other browser option that supports this function**. Please ensure all plugins are allowed and running before initialization is complete. To begin, enter the IP address for your camera into the browser.

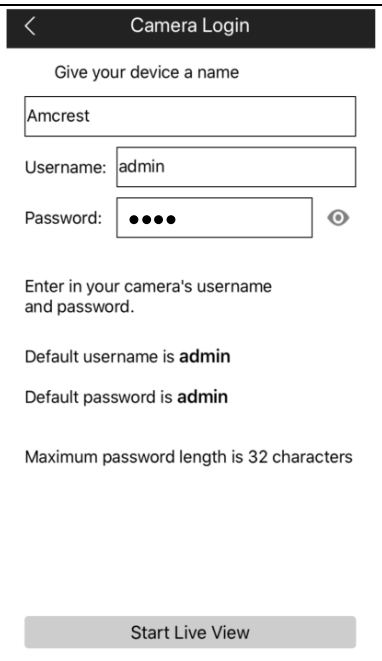
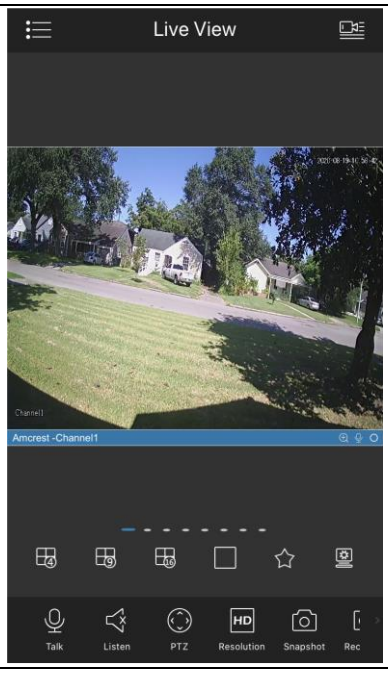
Enter a unique password for the camera into the modify password menu and click Save. This will be the password used to access your camera, the default username will be admin. Once the password has been entered, you will be directed to the live view interface.

Amcrest View Pro

Download the Amcrest View Pro app to your smartphone using the App Store or Play Store. After the app has been successfully downloaded to your mobile device, open the app and follow the instructions below to add the camera.

<table>
<tr><td>
</td><td>
</td></tr>
<tr><td>3. Tap “Start”.</td><td>4. Tap “POE Camera”.</td></tr>
<tr><td>
</td><td>
</td></tr>
<tr><td>5. Tap “P2P Connection”.</td><td>6. Scan the QR code or enter the serial number of the</td></tr>
</table>

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	device manually if the device's QR code is not available.
	
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.

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. To view the thermal feed, swipe left on the live view screen.

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

Installation Guide

Before setting up your camera, please ensure the installation surface can support at least 3 times the weight of the camera and the camera has been initialized.

MicroSD Card Installation

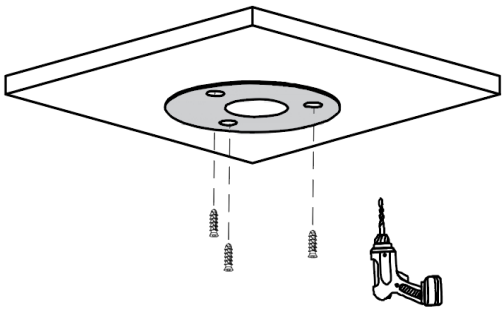
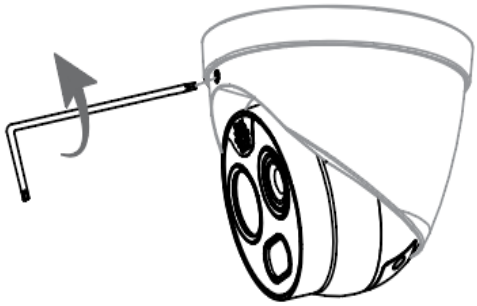
The camera is compatible with up to a 256GB microSD card. Please make sure the microSD card is rated class 10 or above and properly formatted before installing it into the camera.

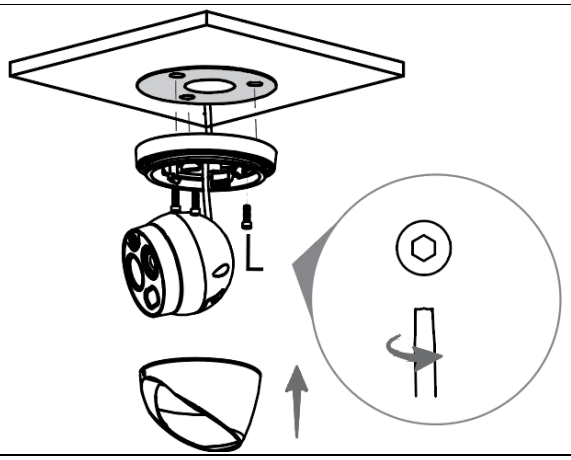
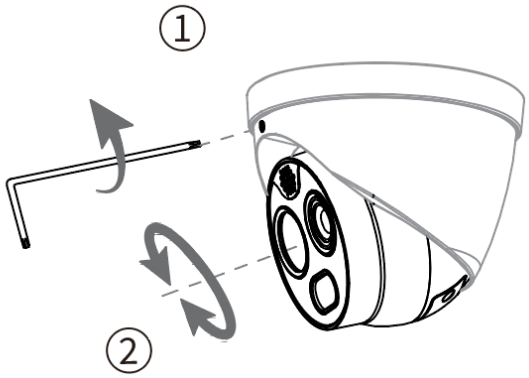
1. Remove the hatch on the camera and locate the microSD card slot.
2. Insert the microSD card into the slot and press in to secure.
3. Place the hatch back onto the camera and tightly secure.

Installing the Camera

Included with your camera is an installation bracket that can be used to mount your camera to an installation surface. As stated, please make sure the installation surface can support at least 3 times the weight of the bracket and camera. For more information, please refer to the installation guide included with this device.

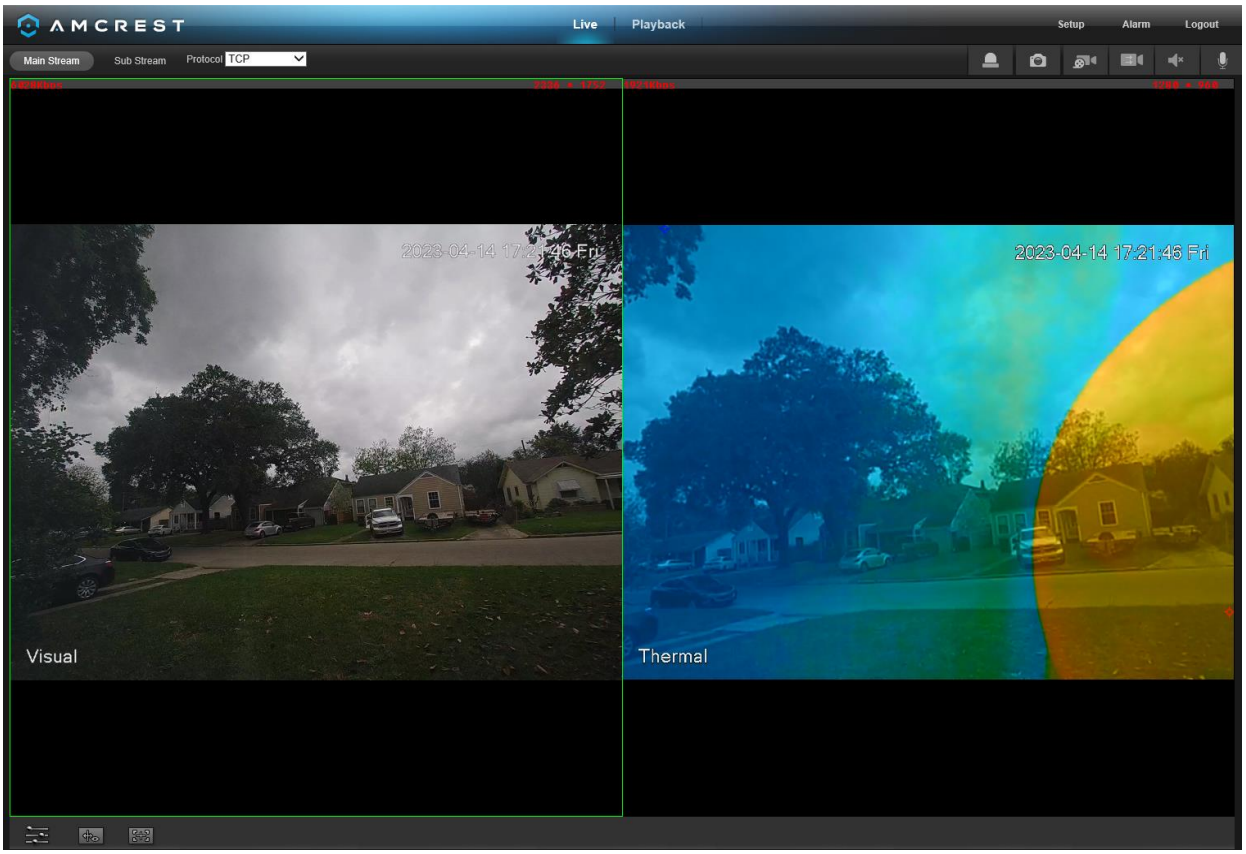
Note: When installing the camera, please make sure to position the viewing angle of the camera in a manner that is optimal for capturing thermal data. A junction box or wall mount can be applied, however will be sold separately.

	
1. Apply the installation sticker to the mounting surface. Use a drill head to drill the holes on the sticker and insert the wall anchors. Please note, a 1" paddle bit can be used to run any cabling through the surface.	2. Use the included torx wrench to remove the camera from the installation bracket.

	
3. Align the holes of the installation bracket to the holes provided on the installation sticker and wall anchors. Connect any wiring, apply the installation bracket to the surface and secure using the provided installation screws. Place the turret cover over the camera.	4. Adjust the camera to a desired position and use the torx wrench to secure the camera to the installation bracket.

Live

The live view interface allows you to view and monitor real time visual and thermal data detected by the camera. These feeds will be represented as separate channels within the camera.



Mainstream: Displays the main stream feed of the camera.
Substream: Displays the substream of the camera (704*480(D1) resolution).
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.
	Snapshot	Click this button to manually take a snapshot of the live view.
	Manual Record	Click this button to manually record video from the visual channel.
	Record All	Click this button to manually record video from all channels.
	Audio	Click this button to enable or disable audio output from the camera using an external RCA microphone
	Talk	Click and hold this button to enable bidirectional talk. from the camera using an external RCA speaker.

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.
	IVS Overlay	Click this button to enable or disable the IVS overlay if enabled.

Playback

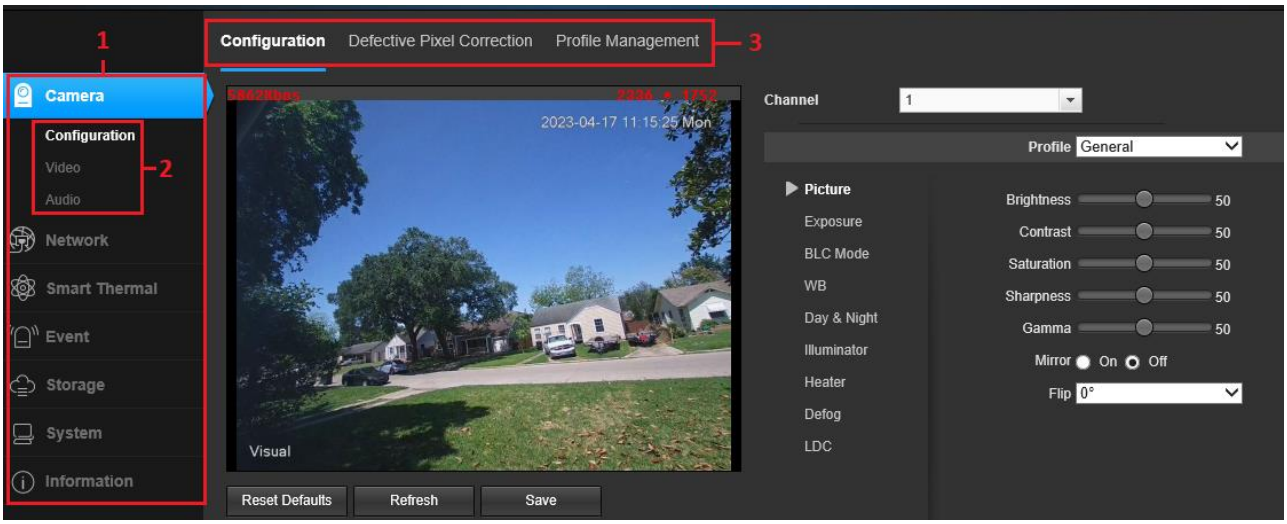
The playback menu allows the user to search and view both visual and thermal events captured by the camera. This includes motion detection and continuous recording events. Please make sure a microSD card is inserted into the camera before using this feature. Below is a description of the features provided in this menu.

	This button allows the user to take a manual snapshot of an event.
File Type	Filter between video (mp4) and snapshot (jpg) events.
Data Source	Access events from a microSD card or local path.
Channel	View either visual or thermal channel events.
Calendar	Use the calendar option to select a date to view events. If events are present in that timeframe the date on the calendar will be highlighted in green.
	This button allows the user to view all events in a specific date in a list

File List	style menu. To download a recording, click on the icon next to the event.
	Play, stop, frame by frame, slow motion, fast forward, and audio options.
Timeline	Use the timeline to scroll through and view recordings.
Record Type	Select a record type to filter through specific event types such as general (continuous recordings, motion, alarm, or manual events).
	Use these options to view 24hr, 2hr, 1hr, or 30 min intervals of recordings in the timeline.
	Use the clip options to clip a recording and save it to your computer. To clip a recording, enter the start and end time and click the clip button. Click the save icon to save it to your computer.

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**: Allows the user to access camera, network, smart thermal, and other options.
2. **Menu Items**: Allows the user to select different options related to a selected menu.
3. **Menu Tab**: Allows the user to switch between configuration, defective pixel correction, and profile management.

Camera

This menu tab allows the user to customize or set different camera settings for video as well as manage image and audio settings. Please note, there are 2 separate options in this menu, one for the visual channel (channel 1) and one for the thermal channel (channel 2). To switch channels, use the channel dropdown menu.



Configuration

The Configuration menu allows the user to configure image profiles for general, day, and night usage. Please note, these options are available for the visual channel. Below is a description 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 a description 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.
Basic NR: Allows the user to enable or disable 2D noise reduction.
Grade: Allows the user to select the sensitivity levels for 2D noise reduction.
Advanced NR: Allows the user to enable or disable 3D noise reduction.
3D NR Level: Allows the user to select the sensitivity levels for 3D noise reduction.

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 a description 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 a description 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.
Indoor: Allows the camera to automatically adjust white balance settings while indoors (Indoor lights)
Outdoor: Allows the camera to automatically adjust white balance settings while outdoors. (Natural light).
ATW: Stands for auto tracing white balance. This setting allows the user to allow the camera to automatically detect white balance values based on the surrounding environment of the camera. This can be set for indoor or outdoor use.
Customized: Displays options that will allow the user to manually adjust specific red or blue values related to white balance.

Sunny: Allows the camera to automatically adjust white balance settings in sunny or bright conditions.
Street Lamp: Allows the white balance of the video stream to be adjusted according to light and dark environments or areas with large amount of street lamp activity.

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 a description 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.
Type: These radio buttons are used to process and filter day & night transitions. ICR will be enabled by default.
Electrical: This option uses an image processing method for day & night transition.
ICR: This option uses an IR filter for day and night transitions.
Mode: This dropdown box allows the user to select different Day & Night balance modes. The 3 options are Auto, Color, and B&W.
Auto - Uses D&N Sensitivity setting to change between color mode and infrared and black and white mode.
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.
Sensitivity: This option allows the user to change the Day/Night Sensitivity of the camera. The three options are Low, Middle, and High. The higher the sensitivity, the quicker the camera will change into another mode depending on the light levels.
Delay: This dropdown box allows the user to set a delay in seconds for how long it takes to switch between Day and Night modes. The values range from 2 seconds to 10 seconds.

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

Illuminator

This menu allows the user to set night vision settings. The IR light on your camera allows the device to activate night vision. Below is a description 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 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.

Heater

This menu allows the user to adjust and control different heater options related to the internal heating components of the device. Below is a description 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.
Heater Type: Displays the heating component used, the internal heating unit will be enabled by default.
Mode: This dropdown box allows the user to select or test the heating function.

- **Auto:** Automatically set the heater to activate once a temperature threshold is detected.
- **Manual:** Manually enable or disable the heater. Please note, if above 136.4°F (58°C) the heater will not be enabled.
- **Test:** Allow the camera to test the heating function. Only use in icy or extremely cold conditions.

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 description 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.

LDC

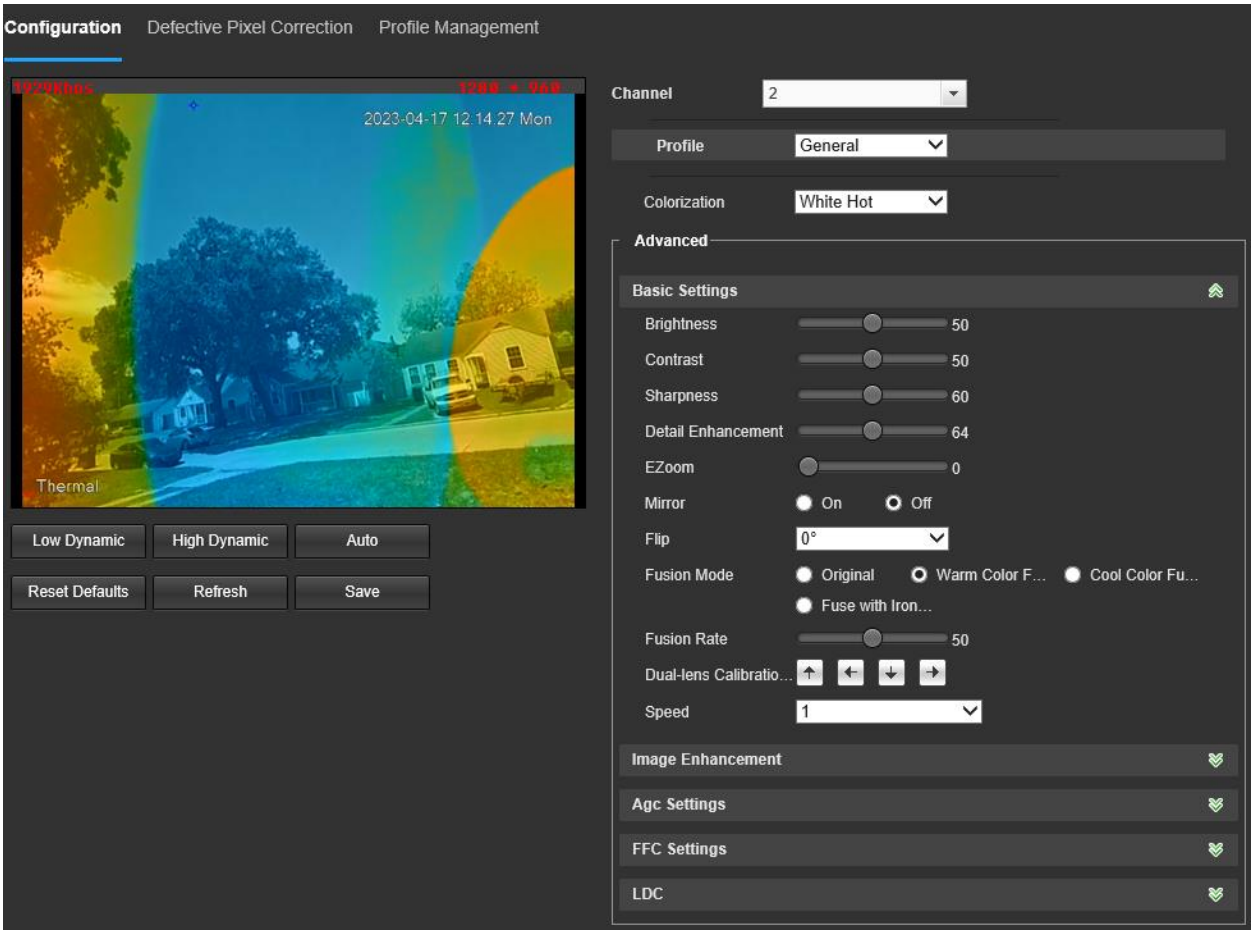
This menu allows the user to adjust the lens distortion correction. This allows the camera to straighten barrel distortion of the lens. Please note, when enabled, it will cut a considerable portion of the image. Below is an description of the features provided in this menu.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
LDC: Enable or disable lens distortion correction.

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

This option allows the user to select between the visual channel (channel 1) and the thermal channel (channel 2) settings. Select channel 2 to access the thermal channel settings. Below is a description of the options provided in this menu.



Low Dynamic: Click to apply the thermal settings to the low dynamic scene.
High Dynamic: Click to apply the thermal settings to the high dynamic scene.
Auto: Click to apply the thermal settings to be automatically applied to the low and high dynamic scenes.

Profile: This dropdown box allows the user to select which profile to modify. The 3 options are Day, Night, and General.
Colorization: Allows the user to switch between different coloring schemes related to the heat/thermal levels detected in the feed. It will be set to white hot by default however other color schemes such as black hot, fusion, etc. can be selected.
Basic Settings: Allows the user to access picture settings for the thermal channel.

Brightness: This slider is used to adjust playback and record 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.

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.

Detail Enhancement: 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.

EZoom: This option allows the user to enlarge the thermal image according to any zoom times that have been set.

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.

Fusion Mode: Allows the user to select between different color modes of thermal heat detection. Please note, for better fusion calibration, you are recommended to enable the lens correction switch of Channel 1 and Channel 2 simultaneously.

Original: Displays a black and white color scheme of the thermal heat detected.

Warm Color Fusion: Displays different colors based on the level of thermal heat detected. Blue is cooler, the redder the color the more heat that has been detected. This will be activated by default.

Cool Color Fusion: Displays the cooler areas of the thermal image more intensely than heat.

Fusion with Iron Red: Displays the cooler thermal areas in purple and areas with more thermal heat as orange or pink.

Fusion Rate: Use this slider to adjust the levels of or saturation of colors in a selected fusion mode. The default value is 50, however can range between 0 and 100.

Dual-lens Calibration: Use these options to calibrate the visual and thermal lens up, down, left, or right.

Speed: Adjust the speed of the dual lens calibration. It is recommended to keep this option as 1, however it can range between 1 and 10.

Image Enhancement

This menu allows the user to adjust the noise reduction options for the thermal channel. Below is a description of the options provided on this menu.

Basic NR (Noise Reduction): Use this slider to adjust the 2D noise reduction levels.

Advanced NR (Front Module): Use this slider to adjust the 3D noise reduction levels of the front module.

Advanced NR (Rear Module): Use this slider to adjust the 3D noise reduction levels of the rear module.

AGC Settings

This menu allows the user to adjust the gain control for the thermal channel. Use this slider to increase or decrease the level of gain in the thermal feed. This will be set to 1 by default, however, can range between 0 and 255.

FFC Setting

This menu allows the user to adjust the FFC mode and time. FFC modes relate to the shutter correction speed of the thermal module. Below is a description of the features in this menu.

FFC Mode: Allows the user to set the FFC to automatically or manually enabled.

FFC Period: Allows the user to adjust the shutter correction time, in seconds. By default, the period will be set to 300 seconds, however, can range from 10 to 1000 seconds.

Do FFC: Allows the user to activate FFC settings applied.

LDC

This menu allows the user to enable or disable the LDC settings of the thermal module. LDC will be enabled by default, however, to disable this option, click off and select save to apply the 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.

Defective Pixel Correction

This menu allows the user to automatically calibrate optimal pixelization settings for the thermal channel. This will be enabled by default, however, below is a description of the options provided in this menu. Please note, if adding a new defective pixel correction mode, please make sure the LDC option is disabled in the thermal channel before continuing.

Enable: Enable or disable defective pixel correction.
Calibration Mode: Use the dropdown menu to select either picture (snapshot) or video calibration.
Coordinates: Displays the x and y pixel coordinates of the thermal sensor as it pertains to the feed.
"+": Click this option to add additional calibration coordinates into the interface.
Setup: Allow the device to pinpoint coordinates on the feed for calibration and detect defective pixels.
Save: Click this option to save the calibration settings to the interface.

Profile Management

The profile management menu allows the user to manage global profile settings for the visual and thermal channels. Below is a description 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 3 options: General, Full Time, and Schedule.

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.

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.

Video

The video menu allows the user to view and adjust encode, snapshot, overlay, and path settings for the visual and thermal channels. Below is a description 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.
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 settings for the visual and thermal channels. This includes the type, size, quality and intervals. Below is a description 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, and/or custom titles. This menu also allows the user to enable or disable the Amcrest overlay on the live view screen for the visual and thermal channels. Please note, due to certain limitations within the camera, it does not offer features such as privacy masking. Below is a description of the features in this menu.

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. Please note, privacy masking can be used on both the visual and thermal channels of the camera.

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 enable or disable a customized logo on the live view interface.

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

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.

Font

The font attribute menu allows the user to change the color and size of the font related to items listed in the OSD Info menu. To use this option, click on the color dropdown menu and select a color. The default font color is white and the size is self-adaptive to the current default settings, however, can be modified to 128*128, 96*96, 64*64, 48*48, 32*32, 16*16 sizes.

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.

Enable – This radio button allows the user to enable the Amcrest Overlay. The logo 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 allows the user to disable the Amcrest 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.

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 description 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 a description 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 a description 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 a description 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 description 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, CN99 DDNS, and Dyndns DDNS. Based on which service is selected, different options may show on this screen. For purposes of this guide, AmcrestDDNS will be used. AmcrestDDNS is a free DDNS service provided by Amcrest, and it must be renewed every year. A renewal reminder email will be sent to the email entered in the username field below.
To reset to default settings, click the **Reset Defaults** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Save** button.

SMTP (Email)

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

Smart Thermal

The smart thermal menu allows the user to configure AI settings for both the visual and thermal channels. The camera features IVS (tripwire and intrusion), fire detection, call detection, smoking detection, hot trace, and picture-in-picture. Below is a description of each feature and how they are applied in the camera.

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. A smart plan can be applied to either the visual or thermal channel 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.

Select a channel and 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 Channel: Select which channel (visual or thermal) the rule will apply.
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: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email once the rule is triggered.
Siren: Allow an audible alert to be activated once the rule has been triggered.
Play Count: The number of times the alarm will sound before it stops.
File: The sound bite that will play once the rule has been triggered.
Warning Light: Enable or disable the white light LED to illuminate once the rule is triggered.
Mode: Allow the warning light to flash (flicker) or remain solid (normally on).
Flicker Frequency: The intensity of the white light LED as it flashes, high, medium, or low.
Duration: How long the white light LED will flash or remain solid after it has been triggered.
Period: Set a schedule in which the warning light will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent via email when triggered.
Draw Rule: This option allows the user to use their mouse to customize (draw) a rule/area on the screen. This will be the area or line in which an IVS rule will be triggered.
Clear: This option is used to clear the drawn rule set on the live monitor screen.
Target filter: Sets the 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.**

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

Setting a Tripwire

1. Select Tripwire from the **Rule Type** drop down menu. Set a name for the rule by double clicking the mouse over the Name of the rule.
2. Click on **Setting** to set a schedule, set your periods (if any) and click **Save** to continue.
3. In the **Direction** menu, choose which direction the object will be going for the tripwire to be triggered.
4. Enable the Record checkbox to record the event.
5. Check the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the camera prior to enabling this setting.
6. Use your mouse to adjust the tripwire on the screen.

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 Channel: Select which channel (visual or thermal) the rule will apply.
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: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email once the rule is triggered.
Siren: Allow an audible alert to be activated once the rule has been triggered.

- **Play Count:** The number of times the alarm will sound before it stops.
- **File:** The sound bite that will play once the rule has been triggered.

Warning Light: Enable or disable the white light LED to illuminate once the rule is triggered.
Mode: Allow the warning light to flash (flicker) or remain solid (normally on).
Flicker Frequency: The intensity of the white light LED as it flashes, high, medium, or low.
Duration: How long the white light LED will flash or remain solid after it has been triggered.
Period: Set a schedule in which the warning light will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent via email when triggered.
Draw Rule: This option allows the user to use their mouse to customize (draw) a rule/area on the screen. This will be the area or line in which a rule will be triggered.
Clear: This option is used to clear the drawn rule set on the live monitor screen.
Target filter: Sets a maximum and minimum pixel size in which an event will be triggered.
Clear: Clears the modified target area to draw the target area on the live monitoring screen
Draw Target: Allows the user to set a target area on the live monitor screen. **An IVS event will not occur outside the target box.**

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

Setting an Intrusion Area

1. Select Intrusion from the Rule Type drop down menu. Set a name for the rule by double clicking the mouse over the Name of the rule.
2. Click on **Setting** to set a schedule, set your periods (if any) and click **Save** to continue.
3. In the **Action** menu, choose whether the rule will be triggered if an object appears or crosses the set region. Both options can be enabled at the same time if needed.
3. In the **Direction** menu, choose if the rule will be triggered if the object enters only, exits only, or enters & exits a set region.
4. Enable the **Record Channel** checkbox to record the event.
7. Check the **Send Email** and **Snapshot** checkboxes if you would like a snapshot of the event emailed to you. A valid Email address must be established in the camera prior to enabling this setting.
8. Use your mouse to adjust the intrusion box on the screen.

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

Fire Detection

The fire detection feature allows the camera to detect high levels of heat caused by a fire or flame in the area or set region. Once detected an alarm or notification will be sent. Below is a description of the features provided in this menu.

Enable: Enable or disable the fire detection feature.
Mode: Select between anti-jamming or high response modes.

Anti-jamming: Only detect objects with high temperatures that are newly discovered by the camera. This means when using anti-jamming mode, an object with a constant high temperature, such as a boiler for example, will be excluded from the rule.

High Response: The camera will detect any hidden fire danger and send an alert.

Region: The fire detection rule can be divided into 4 different color-coded sections if needed. The rule will only apply to the selected regions. By default, the rule will apply to full screen, however, can be adjusted if needed. Select a color from the region list and use your mouse to apply the detection region to a specific area of the screen.
Sensitivity: Use the sensitivity slider to adjust how sensitive the rule will be in a specified region.
Schedule: Use the Setting icon to set a schedule in which the rule will apply. By default, it will be set to 24/7, however it can be adjusted if needed.
Anti-Dither: The amount of time, in seconds, the event will last.
Record Channel: Select which channel (visual or thermal) the rule will apply.
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: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email once the rule is triggered.
Siren: Allow an audible alert to be activated once the rule has been triggered.

Play Count: The number of times the alarm will sound before it stops.

File: The sound bite that will play once the rule has been triggered.

Warning Light: Enable or disable the white light LED to illuminate once the rule is triggered.
Mode: Allow the warning light to flash (flicker) or remain solid (normally on).
Flicker Frequency: The intensity of the white light LED as it flashes, high, medium, or low.
Duration: How long the white light LED will flash or remain solid after it has been triggered.
Period: Set a schedule in which the warning light will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent via email when triggered.
Remove All: Click to remove all region settings applied to the interface.
Delete: Click to delete a specific region applied to the interface.

Setting A Fire Detection Rule

The fire detection rule does not require a smart plan to function. However, it is recommended to face the camera in a direction in which a high heat source or flame may be present.

1. Access the fire detection option from the smart thermal menu and click **Enable**.
2. If multiple detection regions need to be applied, use the color-coded options in the region section, then use your mouse to apply them to the screen.
3. Select any additional options such as send email, siren, or warning light that will be activated once the rule has been triggered.
4. Click the save button to apply the rule.

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

Call Detection

The call detection feature allows the camera to detect whether a human in detection area is on the phone or actively making a phone call. Once detected an alarm or notification will be sent. Below is a description of the features provided in this menu.

Enable: Enable or disable the call detection feature.
Schedule: Schedule a time or date in which the rule will apply.
Duration: The amount of time in which the alarm will sound before it stops.
Sensitivity: Use this slider to adjust the sensitivity of the detection region.
Record Channel: Select which channel (visual or thermal) the rule will apply.
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: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email once the rule is triggered.
Siren: Allow an audible alert to be activated once the rule has been triggered.
    Play Count: The number of times the alarm will sound before it stops.
    File: The sound bite that will play once the rule has been triggered.
Warning Light: Enable or disable the white light LED to illuminate once the rule is triggered.
Mode: Allow the warning light to flash (flicker) or remain solid (normally on).
Flicker Frequency: The intensity of the white light LED as it flashes, high, medium, or low.
Duration: How long the white light LED will flash or remain solid after it has been triggered.
Period: Set a schedule in which the warning light will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent via email when triggered.

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

Setting A Call Detection Rule

Select a channel and ensure a Smart Plan has been activated in the Smart Plan menu for call detection before proceeding.

1. Access the call detection menu and click Enable.
2. A schedule can be set if needed, however will be active to monitor and retain information 24/7.
3. Use your mouse to adjust or drag the detection area on the screen (4 corners of the area).
4. Select any additional options such as send email, siren, or warning light that will be activated once the rule has been triggered.
5. Click the save button to apply the rule.

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

Smoking Detection

The smoking detection feature allows the camera to detect whether a human in detection area is actively smoking or about to smoke (using a lighter) in the area. Please note, this is only applicable to the thermal channel of the device. Once detected an alarm or notification will be sent. Below is a description of the features provided in this menu.

Enable: Enable or disable the call detection feature.
Schedule: Schedule a time or date in which the rule will apply.
Interval Time: The amount of time in which the alarm will sound before it stops.
Sensitivity: Use this slider to adjust the sensitivity of the detection region.
Record Channel: Select which channel (visual or thermal) the rule will apply.
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: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email once the rule is triggered.
Siren: Allow an audible alert to be activated once the rule has been triggered.
- **Play Count:** The number of times the alarm will sound before it stops.
- **File:** The sound bite that will play once the rule has been triggered.

Warning Light: Enable or disable the white light LED to illuminate once the rule is triggered.
Mode: Allow the warning light to flash (flicker) or remain solid (normally on).
Flicker Frequency: The intensity of the white light LED as it flashes, high, medium, or low.
Duration: How long the white light LED will flash or remain solid after it has been triggered.
Period: Set a schedule in which the warning light will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent via email when triggered.

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

Setting A Smoking Detection Rule

Select a channel and ensure a Smart Plan has been activated in the Smart Plan menu for smoking detection before proceeding.

1. Access the smoking detection menu and click Enable.
2. A schedule can be set if needed, however will be active to monitor and retain information 24/7.
3. Use your mouse to adjust or drag the detection area on the screen (4 corners of the area).
4. Select any additional options such as send email, siren, or warning light that will be activated once the rule has been triggered.
5. Click the save button to apply the rule.

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

Hot Trace

The hot trace feature is used to track and spot areas of the interface with the highest and lowest temperatures. The thermal information is colored automatically or manually in the interface. To color code it manually, click the Manual button located in the Color Mode field. Use the high CTmaker color or low CTmaker color options to set a color palette for the high and low temperatures detected in the thermal channel.

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

Picture-In-Picture

The picture in picture option allows the thermal channel to be displayed within the visual channel. To activate this option, click the Enable button, then use your mouse to click and drag the picture-in-picture box within the interface.

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

Event

This menu allows the user to change different settings for triggering events such as motion detection.

Video Detection

The video detection menu has two tabs: Motion Detect and Video Tamper. This tab allows the user to modify motion detection settings. Below is a description 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: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin, a snapshot can be taken, or the camera can begin recording.
For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.
Detection Area: Clicking this button opens a pop-up screen that can be used to set detection areas.
When the setup button is clicked, a live stream of the video is shown. The user can then set up to 4 regions, each with their own region name, sensitivity (1-100), and threshold (1-100). Each region has a specific color, and the region selector tool is displayed when the mouse is moved to the top of the screen.
Sensitivity is the amount of change required to increase the motion detected by a percentage. The lower the sensitivity, the more movement is required to trigger an alarm.
Threshold is the level that the motion detection needs to reach to trigger an alarm. The lower the threshold, the more likely that motion will trigger an alarm.
To designate a zone, click and drag the mouse over the area desired. When a colored box is displayed over the live feed, that area is now enabled for motion detection.
After the motion detection zone is set, click the enter button to exit the motion detection screen.
Remember to click the save button on the motion detection settings screen, otherwise the motion detection zones will not go into effect. Clicking the cancel button to leave the motion detection zone and will not save the zone setup.
Record Channel: 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.
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 description 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.

Audio Detection

This menu allows the user to modify audio detection settings. Below is a screenshot of the Audio Detection screen: Below is a description 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.

Alarm

This menu allows the user to set and schedule replay activated alarms. Below is a description of each field in this menu:
Enable: Allows the user to enable the relay activation function
Relay-In: Allows the user to set specific relayed alarms to the camera.

Schedule: Clicking this button opens a weekly schedule that can be used to set times. Click and drag to set motion detection for certain days of the week. Also, periods of motion detection can be set for each day and enabled using the period settings on the bottom half of the screen. There are a total of 6 periods that can be set.
Anti-Dither: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin a snapshot can be taken, or the camera can begin recording.
For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.
Sensor Type: There are two types of sensors, normally open (NO) and normally closed (NC). Switch from normally open to normally closed, open the alarm. Switch from normally closed to normally open, shut the alarm.
Record Channel: Select which channel (visual or thermal) the rule will apply.
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: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email once triggered.
Siren: Allow an audible alert to be activated once the rule has been triggered.

Play Count: The number of times the alarm will sound before it stops.
File: The sound bite that will play once the rule has been triggered.

Warning Light: Enable or disable the white light LED to illuminate once the rule is triggered.
Mode: Allow the warning light to flash (flicker) or remain solid (normally on).
Flicker Frequency: The intensity of the white light LED as it flashes, high, medium, or low.
Duration: How long the white light LED will flash or remain solid after it has been triggered.
Period: Set a schedule in which the warning light will apply.
Snapshot: This checkbox allows a snapshot of the event to be sent via email when 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 Burn Warning.

SD Card

This tab allows the user to set the camera's response to an SD card related abnormality. Below is a description 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.
Relay-out: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email 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.

Network

This tab allows the user to set the camera's response to a Network related abnormality. Below is a description 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 Channel: Select between visual or thermal channels.
Record Delay: This field specifies in seconds how long the delay between alarm activation and recording should be.
Relay-out: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.

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

Illegal Access

This tab allows the user to set the camera's response to an Illegal Access related abnormality. Below is an description 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.
Relay-out: Allow an alert to be sent to an external alarm if applicable.
Alarm Delay: The amount of delay in between an external alarm event.
Send Email: This checkbox allows the user to enable the camera to send an email 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.

Burn Warning

The burn warning abnormality allows the camera to send a notification if it detects flames or becomes too hot.

Enable: This checkbox enables the abnormality.
Sensitivity: Use this slider to adjust the sensitivity of the thermal sensor
Energy Threshold: Use this slider to adjust the threshold of the thermal sensor.
Send Email: This checkbox allows the user to enable the camera to send an email once triggered.
Snapshot: Allow the camera to send a snapshot of the event if the abnormality 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.

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. This can be able to both the visual and thermal channels of the camera. Below is a description 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. This can be able to both the visual and thermal channels of the camera. Below is a description 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 an description 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.

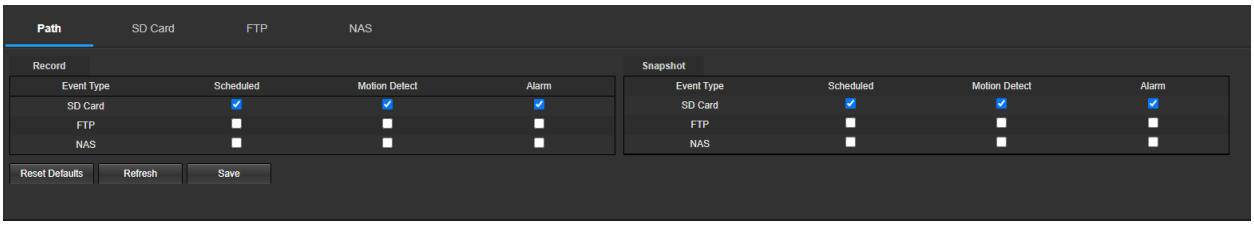
To refresh the page, click the Refresh button. To save the settings, click the Save button.

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 a description 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 description 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 a description 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 a description 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 description 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.

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 description 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 description 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 description 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 description 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 description 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 description 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

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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