IP4M-1062EW-AI
4MP UltraHD License Plate Reader ANPR POE Bullet Camera
User Manual

Version 1.0.0

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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 camera.
Here you can find information about the camera's features, functions, and information to aid in troubleshooting.

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

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

Visit http://amcrest.com/contact

Important Security Warning

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



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

Overview

This 4MP ANPR license plate reader camera features a high-performance CMOS image sensor and independently developed processor capable of reading and extracting detailed vehicle information and license plate data in both daytime and nighttime conditions. The intelligent, deep learning algorithm allows recognition and retention of such metadata as license plates, vehicle brands, model, logo, and color and is a great tool for monitoring such areas as community roads, parking lots, or other surveillance scenarios.

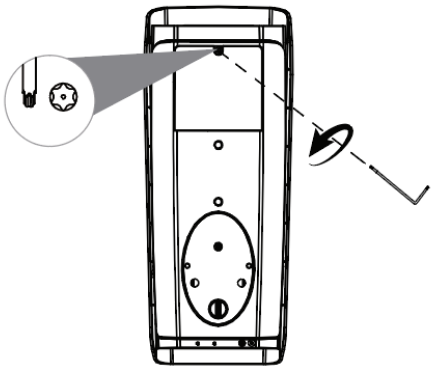
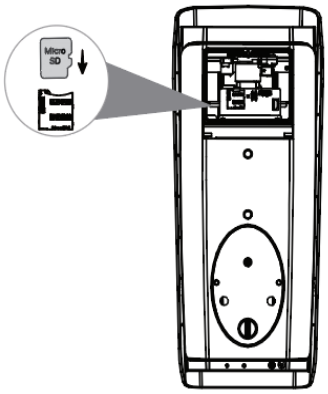
The lens provides a full 47° - 11° viewing angle. The camera 6 built-in white light LEDs for full color night vision which allows the camera to detect vehicle information from up to 98ft away. The camera can be accessed in most mainstream web browsers however, for optimal use, it is highly recommended to use IE mode in Microsoft Edge as most query options require the use of a .exe plugin for viewing or downloading images or reports. However, the camera features flexible storage options to store snapshots to a microSD card (up to 256GB) or SFTP/FTP, all these features can be accessed and customized using a web browser.

Installation Guide

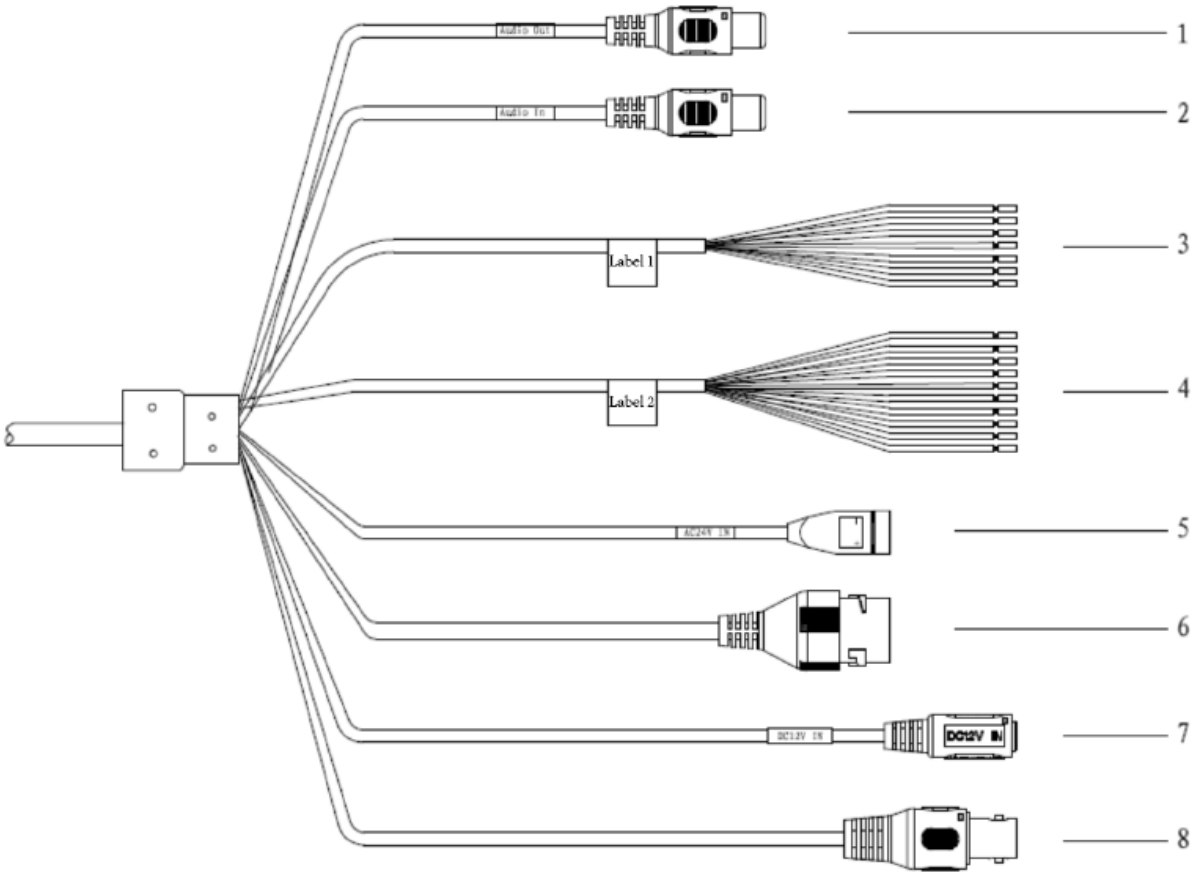
Before installing your camera, please make sure the installation surface can support at least 3x the weight of the camera. It is highly recommended to put a MicroSD card into the camera before physical installation. For more information about the installation of your new ANPR camera, please refer to the information provided in this section.

MicroSD Card Installation

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

	
Use the included torx wrench to remove the bottom panel.	Insert the MicroSD card into the MicroSD card slot of the camera and secure the back panel back onto the camera using the included torx wrench.

Camera Wiring



No.	Function	Description
1	Ethernet Connection	Provides power and data using an Ethernet cable using POE+.
2	Audio In	Connect an external RCA audio input device.
3	Audio Out	Connect an external RCA audio output device.
4	BNC	Sends a video out signal through a BNC (analog) connection.
5	Power Input	Connect a 12V DC power adapter.
6	RS-485	Optional Wiegand connections that connect to RS485 ports. This allows the camera to send license plate information captured through its Automatic Number Plate Recognition (ANPR) feature to an access control system. White & Red: RS485_A1 White & Orange: RS485_B1 Yellow & Green: RS485_A2 Yellow & Black: RS485_B2 White & Yellow: RS232_RXD White & Brown: RS232_TXD White & Black: GND
7	Alarm	Connections for an external alarm input and alarm output. **Output Connections** Brown: ALARM_OUT1 Green: ALARM_OUT_GND1 Red: ALARM_OUT2 Black: ALARM_OUT_GND2 **Input Connections** Blue: ALARM_IN1 White: ALARM_IN2 Yellow: ALARM_IN3 Gray: ALARM_IN_GND
8	24V AC Port	Connect to a 24V AC power connection.

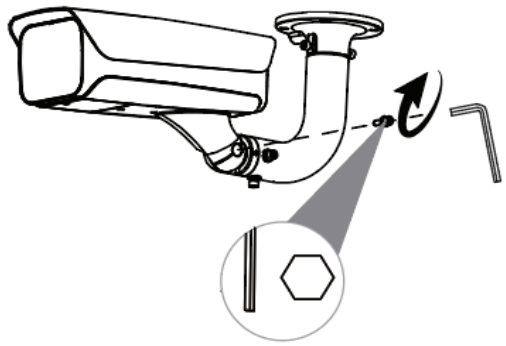
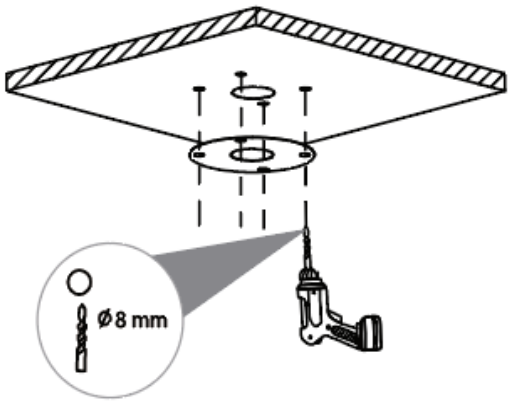
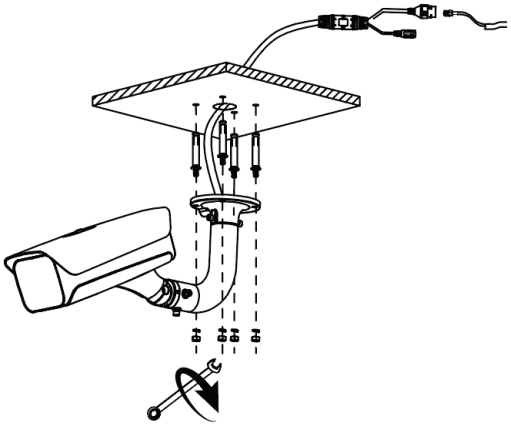
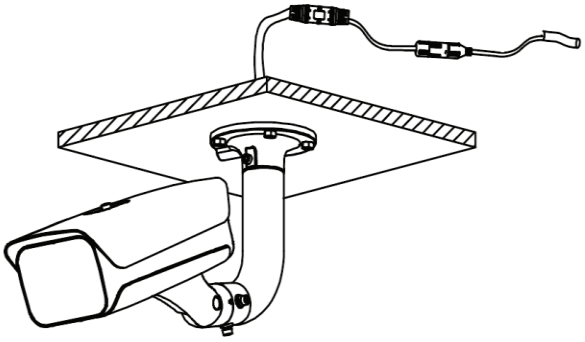
Physical Installation

Included with your camera is an installation bracket that can be used to mount your camera to an installation surface such as a wall or pole. 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 set the viewing angle in a manner that is optimal for capturing license plate data in the area such as in the front of the road, street, or at an angle that can easily capture license plate information.

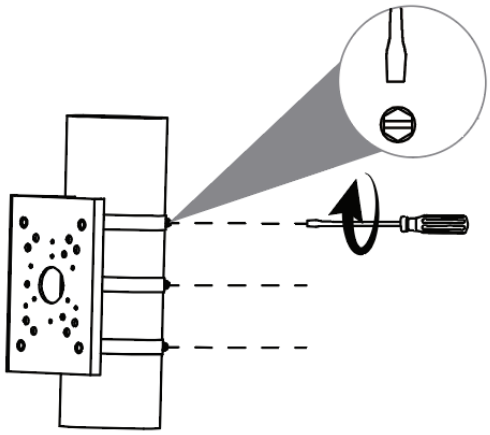
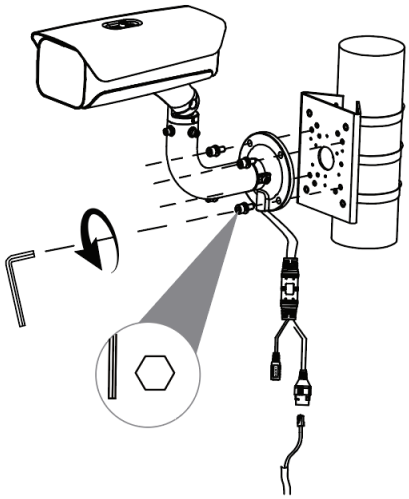
Ceiling/Wall Mounting

A drill with an 8mm diameter head as well as a wrench will be required to complete this process. The same concept can be applied as well if mounting to side wall or other similar mounting surface.

	
Insert the bottom bracket of the camera into the top of the installation bracket and secure it using the included Allen wrench. Run the wiring through the tube of the installation bracket.	Apply the installation sticker to the mounting surface. Use a 8mm diameter drill head to drill the holes provided on the sticker.
	
Insert the installation bolts into the installation bracket into the holes. Use a wrench to secure the installation bracket to the mounting surface and connect all wiring.	Ensure all screws are tightened and all wiring is properly connected to complete the installation process.

Pole Mounting

If mounting to a pole, please make sure the pole and installation area can support 3 times the weight of the camera. A flathead screwdriver and applicable Allen wrench should be used to complete this process.

	
Attach the pole mounting bracket to the installation surface and tighten the bolts using a flathead screwdriver.	Attach the installation bracket to the pole mount and secure it using an Allen wrench. Run all wiring through the installation bracket and through the pole mount. Insert the bottom bracket of the camera into the top of the installation bracket and secure it to the installation bracket.

Camera Access Setup

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

Desktop Access (Web UI)
Amcrest View Pro (live view)

Desktop Access Setup

The features associated with your camera are only accessible and customizable using the web user interface in a web browser. This camera features the latest in JavaScript technology which allows you to access your camera using a wide variety of web browsers including, Google Chrome, Firefox, Safari, or other mainstream browsers using your PC or Mac. Please note, for an optimal experience, **it is highly recommended to use IE mode on Microsoft Edge as some query features will require the use of a .exe plugin.** For more information on how to access your camera from your computer please refer to the information below.

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

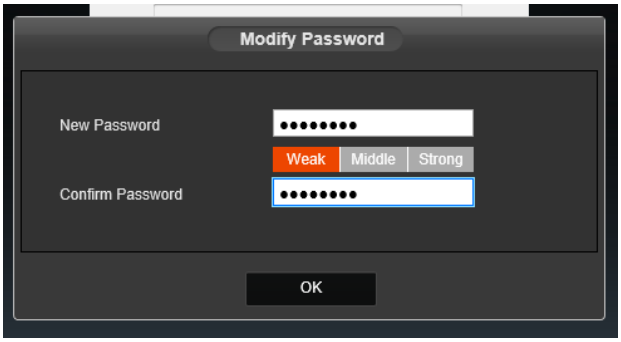
In the All Downloads menu, click on IP Config Software to begin the free download. Once the download has completed installing, locate the IP address associated with the device you would like to view in the browser. Open the web browser and enter this IP address into the browser. Press enter to access the web user interface. In the web user interface, enter the login credentials for your device. If this is the first time accessing the device, the username and password will both be admin. Click on **Login**.

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

Using the Web UI

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

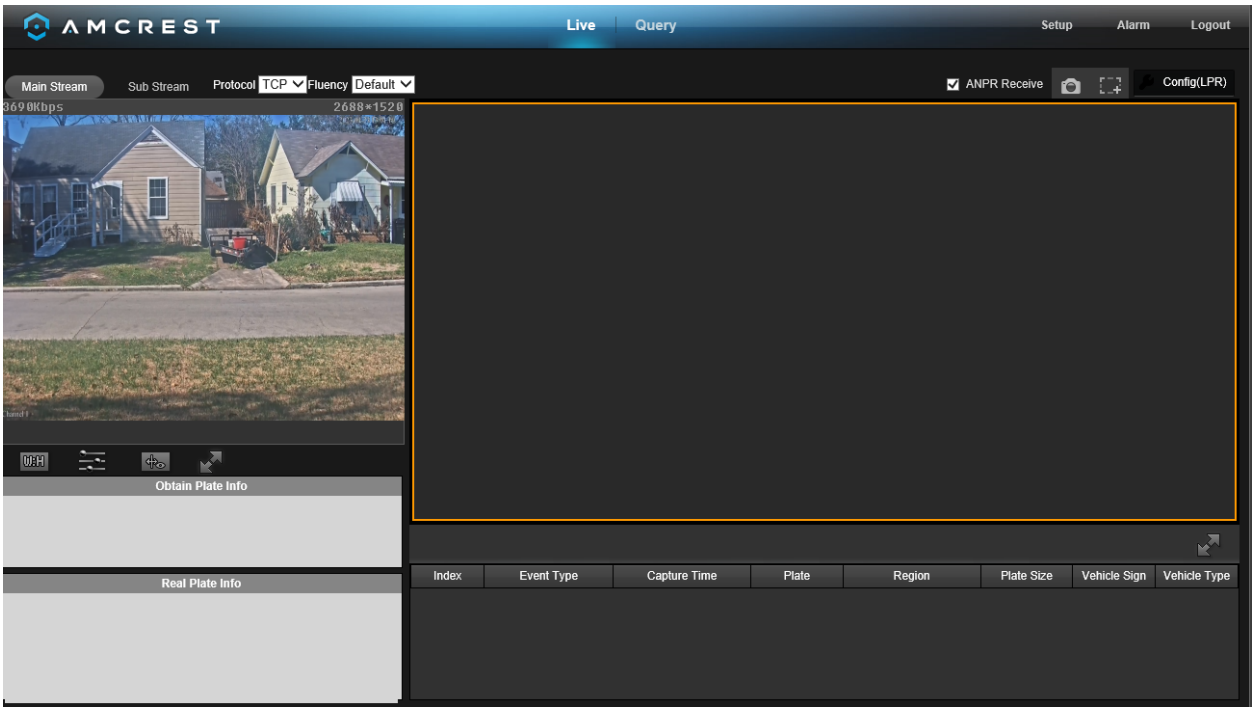
For an optimal user experience, it is **best to use IE mode using Microsoft Edge, as some features may require the use of a .exe plugin**, however, other browsers such as Google Chrome, Mozilla Firefox, etc. maybe used if needed. After accessing the camera in the web browser, enter a password for the device, confirm, and click **OK**.



Enter the username (admin) and password you just set up into the interface and click **Login**. Please download and allow all plugins if accessing the camera in IE mode.

Live

By default, the interface opens to the Live tab. The live view tab allows the user to see the live feed of the camera as well as provides an area to view real time metadata captured by the camera and adjust configuration settings.

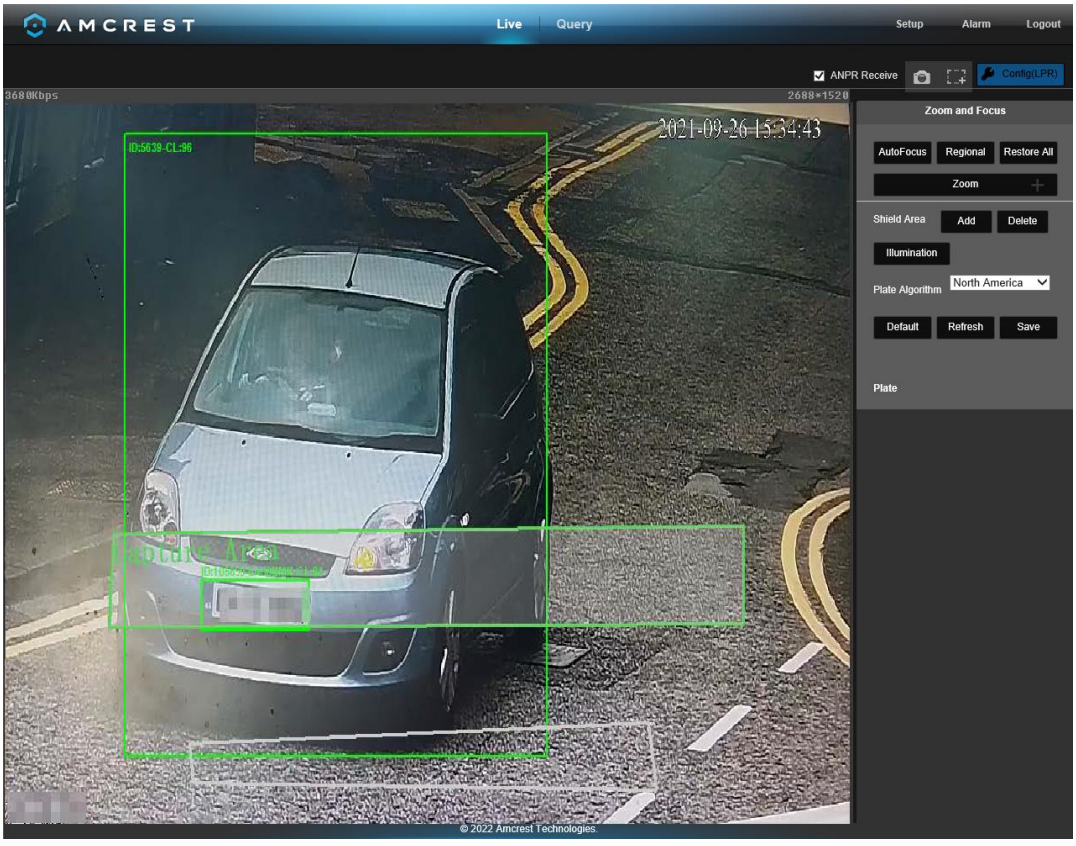


Mainstream: Displays the mainstream feed. The default resolution for mainstream is 4MP (2688*1520) @ 25fps)
Substream: Displays the sub stream feed. The default resolution for sub stream is704*480 (D1)

Protocol: Display the current TCP/IP protocol, the default protocol is TCP.
Fluency: The larger the fluency of the stream the more delay is present however becomes more fluent.
ANPR: Automatically receives vehicle snapshots and detects event metadata. Must remain enabled.
Manual snapshot: Manually take a snapshot of the feed.
Digital Zoom: Use your mouse to highlight an area of the screen to zoom in on. **Only available in IE mode.**
Config LPR: Adjust focus, zoom, capture area, and other LPR settings.
W:H: Change the width/height ratio of the live feed.
Image Adjustment: Enlarge to adjust brightness, contrast, saturation, and hue.
IVS Overlay: Enable or disable the IVS pattern frame.
Full Screen: Click to enlarge the live feed to full screen.
Obtain plate Info: Displays the plate number of a selected event.
Real Plate Info: Displays a screen shot of the selected plate.
Index: The event number retained in the interface.
Event type: The type of event retained in the interface (ANRP, Manual, etc.)
Capture Time: The time the event was captured and retained in the system.
Plate: The plate number (text) of the license plate or vehicle detected.
Region: The location of the event that was retained in the system.
Plate Size: The dimensions of the plate that was captured by the camera.
Vehicle Sign: Displays the make of the vehicle detected.
Vehicle Type: Displays whether it was a car, truck, or other vehicle type that was detected.

Config(LPR)

This menu allows the user to adjust the focus, zoom, capture area, and other settings related to the ANPR camera. The camera will come default with the recommended capture area however can be adjusted if needed.



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

Auto Focus: Automatically adjusts the focus to optimal settings.
Regional: Use your mouse to adjust the focus of a specific area of the live feed.
Restore All: Restore all zoom and focus settings to default values.
Shield Area: Create an area on the screen in which the camera will not detect events.
Illumination: Automatically be taken to the general settings menu to adjust color night vision settings.
Plate Algorithm: The current algorithm used to detect license plates. The default will be North America.

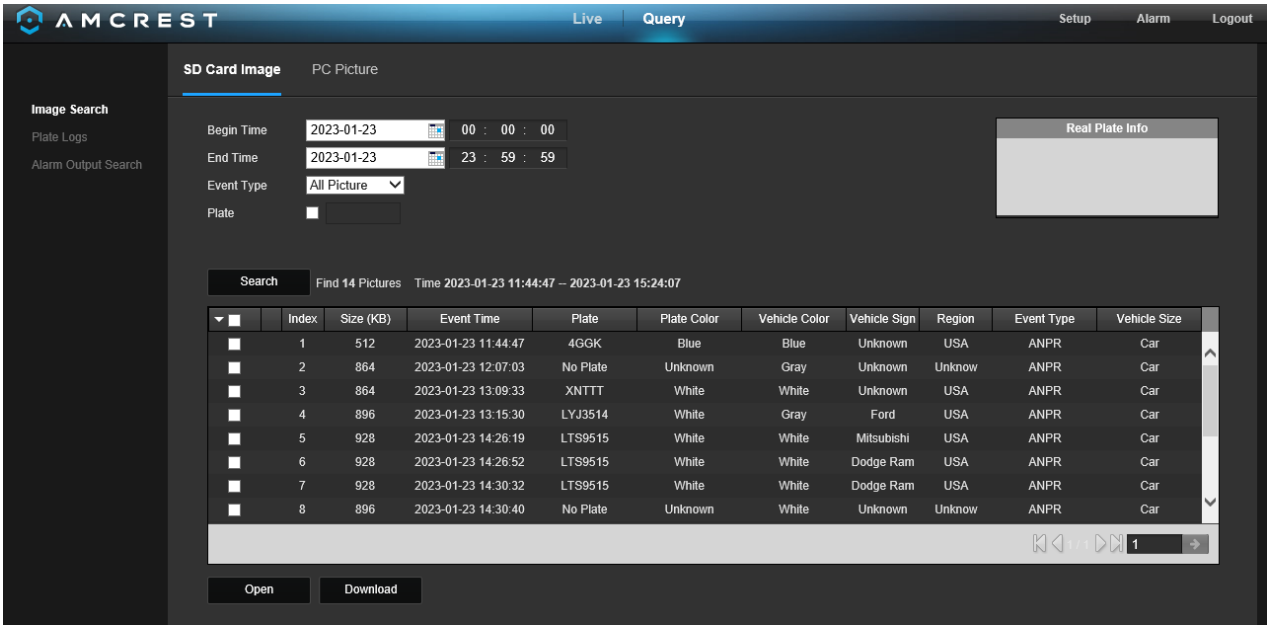
To reset to default settings, click the **Default** button. To refresh the screen, click on **Refresh**. To save the settings, click the **Save** button.

Query

The Query menu allows the user to search for events, snapshots, and export plate logs (reports). Please note, the features provided in this menu will require the use of a .exe plugin. To use these features, please make sure to use IE Mode in Microsoft Edge for optimal use.

Image Search

The image search menu allows the user to search, view, and download events to your computer. To search for events (ANPR or Manual events) retained on your camera, use the calendar option to select a specific date and time of the event. Select the Event Type, if needed and click search to display all the events retained on the MicroSD card.

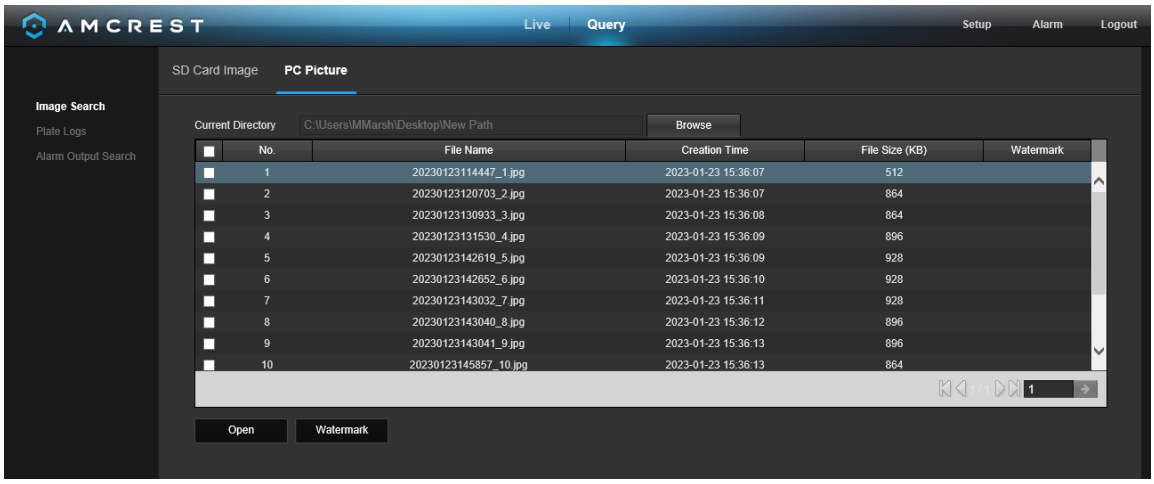


Note: If you are searching for a specific plate number, click on the Plate option, enter the plate number into this field and click Search. To display a snapshot of the Real Plate Info, select the event from the list of events. An image of the plate will be displayed in the **Real Plate Info** menu.

To open an event, select an event or events from the event list and click Open. A .jpg will be displayed showing a snapshot of the event. To download an event, select the event from the events list and click Download. Select download path for the event and click OK. The .jpg file of the event will be stored to your computer.

PC Picture

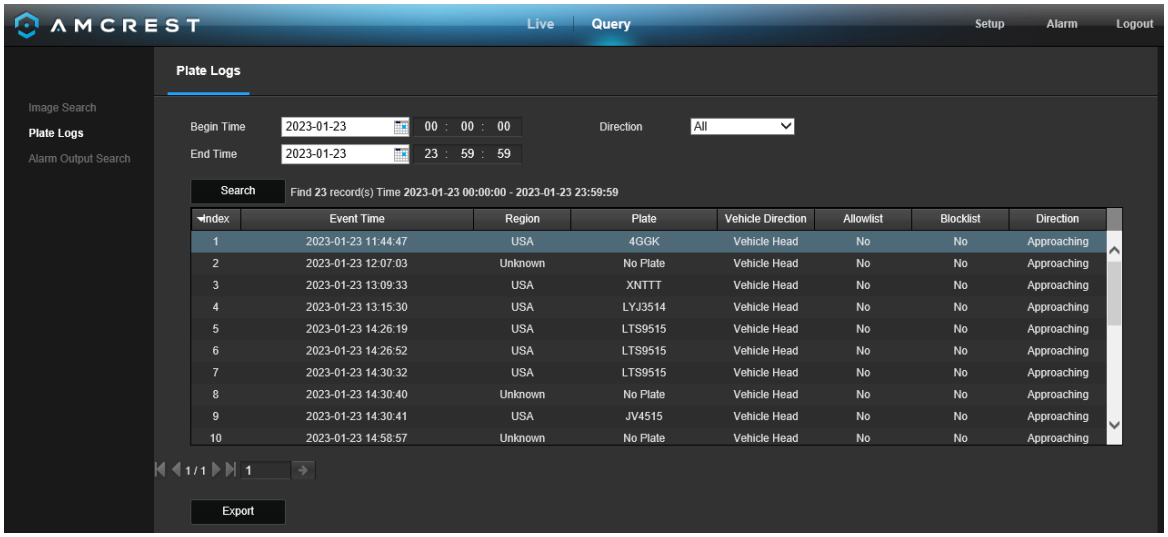
The PC Picture menu allows the user to search and view snapshots that have been stored to a local file path on your computer. To use this feature, click **Browse** and locate the folder in which snapshots are being retained on your computer and select **OK** to import the snapshots into the interface.



To open an image, select an event or events from the event list and click Open. Click **Watermark**. The camera will verify whether the picture has watermark and displays the results on the event list under **Watermark.**

Plate Logs

The **Plate Logs** menu allows the user to search and export events from a specified period of time. The plate logs can also be filtered by direction (approaching, departing, etc.) if needed. To search for a log, use the provided calendar option to select a begin time and end time. Click **Search** to view the log.



To export a .csv (excel sheet) of the log, click the **Export** button. Choose a file path in which the .csv will be downloaded and click Save to export the log sheet. The file name by default is “TrafficSnapEventInfo” locate this file and open it to view event log information.

Alarm Output Search

The **Alarm Output Search** menu allows the user to search and export external alarm event logs from the system to your computer. Like the plate logs, a .csv (excel sheet) of this information can be generated and saved to your computer.

To export this information, use the calendar option provided in the interface and enter a begin and end time. Click Search to view the log. To export a .csv (excel sheet) of the log, click the **Export** button. Choose a file path in which the .csv will be downloaded and click Save to export the log sheet. The file name by default will be “TrafficAlarmOutRecord”. The same concept can be applied when using the export by time option if needed.

Setup

The Setup tab allows the user to modify and update settings related to the overall functionality of the camera.

ITC

The ITC menu allows the user to set and adjust general ANPR settings. This includes settings such as snapshot, block/allow list, device tests, etc.

Snapshot Setting

This menu allows the user to set general parameter options for snapshots taken by the camera. These include snapshots that are manually taken by the camera as well as ANRP. Below is a description of the options provided in this menu.

Number of Snapshots: The number of snapshots that are retained once an event is detected.
Capture Direction: Set whether the event will be triggered if the vehicle is approaching, departing, or coming either way.
Same Plate Filtering: The amount of delay, in seconds, in which the same license plate will be detected.
Scene: Select which vehicle types can be detected in the scene. Choose between small or large vehicles.
Unlicensed Motor Category: Detect vehicles with or without license plates. Unlicensed plates will be enabled by default.
Licensed Vehicle Frame Threshold: Configure the frame number of capturing licensed vehicle. **1** (default) means to capture when detecting one frame of licensed vehicle passing detection area.
Unlicensed Vehicle Frame Threshold: Configure the frame number of capturing unlicensed vehicle. **10** (default) means to capture when detecting 10 frames of unlicensed vehicle passing detection area.

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

Intelligence

This menu allows the user to set vehicle parameters and AI attributes such as vehicle types, sign, vehicle color, etc. Below is a description of the options provided in this menu.

Vehicle Detection Sensitivity: Set the sensitivity of vehicle detection. The higher the value, the more sensitive the detection.
AI Attribute Settings: Select parameters such as vehicle type, car series, vehicle sign and vehicle color which can be recognized by the camera.

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

Scene

This menu allows the user to configure the advanced functions of plate recognition, mounting heights, and positions.



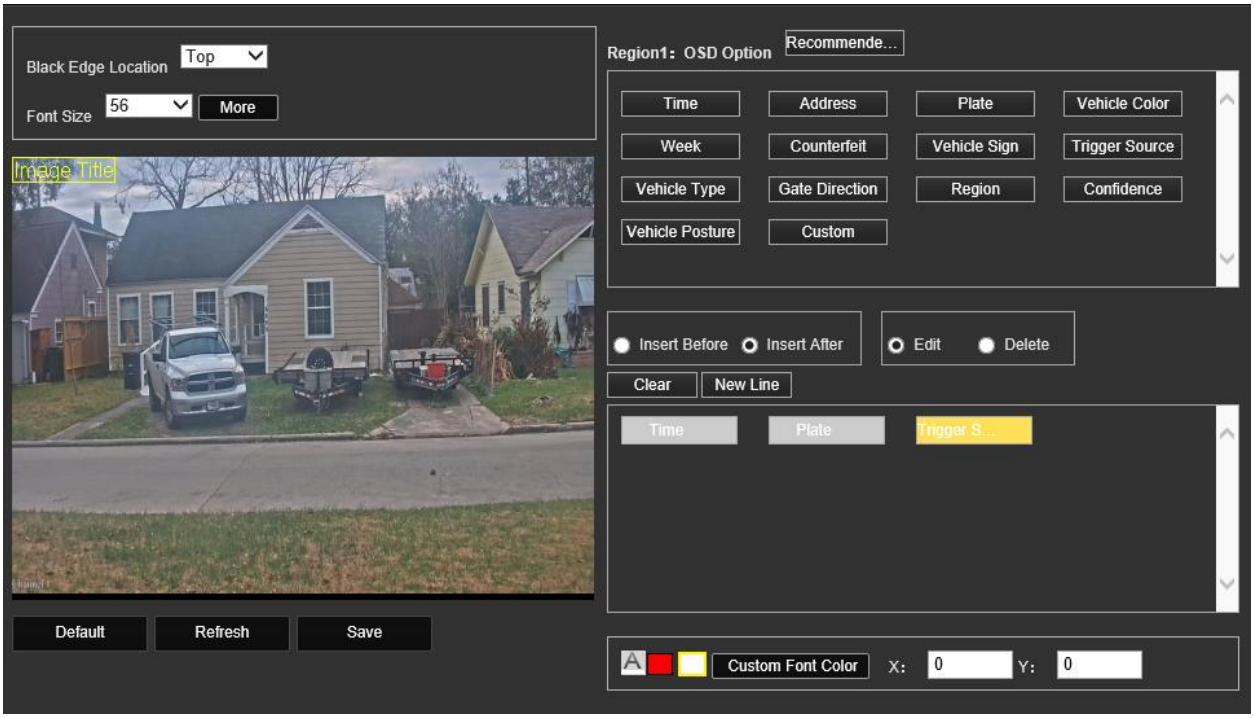
Select detection scene as needed.

Head first: Higher recognition sensitivity towards plate on head.
Tail first: Higher recognition sensitivity towards plate on tail.
Bicycle (electric bicycle or motorcycle): Higher recognition sensitivity towards electric bicycle or motorcycle plate.
Height: Higher recognition sensitivity when the camera is installed on higher place.

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

OSD

This menu allows the user to set ODS overlay information such as font size, channel titles, time titles, or custom titles. The overlay can be placed in different areas of the live view screen. Use your mouse to place the “Image Title” overlay in a desired area of the screen and click **Save**.



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

Black Edge Location: Place a black edge along the top or bottom of the snapshot. This can be disabled by selecting None.
Font Size: Set the font size of the text located in the snapshot overlay. For more options, click **More**.

NewLine: Create a separate line of text in the overlay.

OMicroSD Separator: Add a vertical or custom line in between new lines of text.

Recommended: Import recommended information into an overlay.
Time: Display time stamp details into the snapshot overlay.
Address: Display the IP address of the device in the snapshot overlay.
Plate: Display the license plate details into the snapshot overlay.
Vehicle Color: Add the color of the detected vehicle into the snapshot overlay.
Week: Works with time to display the day of the week into the snapshot overlay.
Counterfeit: Displays a error code if the vehicle detected is
Vehicle Sign: Display the make of the vehicle detected into the snapshot overlay.
Trigger Source: Display the source of the snapshot, such as ANPR or Force (Manual).
Vehicle Type: Display the type of vehicle detected into the snapshot overlay.
Gate Direction: Display the direction in which the vehicle detected is displayed in the snapshot overlay.
Region: Displays the country in which the vehicle was detected in the snapshot overlay.
Confidence Level: Displays the plate ID and vehicle ID of the vehicle detected in the snapshot overlay.
Vehicle Posture: Displays the area of the vehicle that was detected into the snapshot overlay.
Custom: Create a custom text overlay that will be placed into the snapshot overlay. To create a custom overlay, select Edit, and click on the overlay option in the interface. Enter the text into their respective fields and click Yes to save.
Insert Before: Choose whether the oldest selected overlay comes before the newest selected overlay.
Insert After: Choose whether the oldest selected overlay comes after the newest selected overlay.
Clear: Clear all overlay options from the snapshot overlay interface.

New Line: Add a new line of text into the
Edit: Choose an overlay from the overlay list. Enter the changes you would like to make into their respective fields and click **Yes** to edit.
Delete: Check an overlay from the overlay list to remove it from the list.
Custom Font Color: Create a custom color for the text in a selected snapshot overlay.
X/Y: The coordinates of the overlay located in the snapshot overlay.

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

Cutout

This menu allows the user to have a cutout image of the plate and snapshot of the whole vehicle to a designated storage path. Both options can be enabled if needed. Below is a description of the features in this menu.

Enable: Allow a snapshot of the cutout type to be sent to a designated storage path.
Motor Vehicle: Choose whether to send only snapshots of the plate details or entire vehicle images.
Plate: Send a snapshot of the plate details
Whole Vehicle: Send a snapshot of the entire vehicle detected by the camera.

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

Plate Overlay

This menu allows the user to enable and adjust the PIP plate overlay located in a snapshot image. Below is a description of the of the features in this menu.

Enable: Enable or disable the PIP plate image overlay in the snapshot.
Overlay Position: Choose whether the PIP image of the plate will be in the top left, top right, lower left, or lower right corner of the snapshot.
Overlap Size: Choose whether the PIP plate image in the snapshot is small, medium, or large.

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

Blocklist and Allowlist

This menu allows the user to add vehicles into an allow or block list. An allow list allows the camera to not trigger an event if a certain vehicle and its plate details are detected by the camera. A blocklist allows the camera to trigger an alarm if a specific vehicle is detected by the camera.

Allow list

This menu allows the user to search and add plate numbers into a list that will allow the camera to not trigger an event if the vehicle is detected. Below is a description of the features in this menu.

Plate No.: Search whether a specific license plate number has been added into the list. Enter the plate number into this field and click **Search** to find the records.

Add: Select this option to add plate numbers, card IDs, vehicle owner, as well as schedule a time of day in which the filter will apply. To add more vehicle data into the list, select the **Continue Adding** option. Click **Save** to apply.
Browse: Allows the user to download or import a list of vehicle data into the interface. Click Download to download a current list template (.csv) to your computer. To import a list, click **Browse** and select the .csv file from your computer. Click **Save** to apply the settings and import the list.
Export: Enable or disable export encryption. This will be disabled by default however exporting without encryption may have security risks.
Clear Invalid Data: Deletes all list data saved in the list interface.
Clear All: Clears all data from the list interface.
Plate fuzzy match: Enable this option to allow the camera to apply the list rules if the license plate data detected is not in focus, or fuzzy, and matches the vehicle data entered in the list. Use the additional match rules if such as missing first or last character, allow misread characters, etc. Use the Add Pairs (+) option to add specific characters into the interface that can be misread or fuzzy.

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

Blocklist

This menu allows the user to search and add plate numbers into a list that will allow the camera to not trigger an event if the vehicle is detected. Below is a description of the features in this menu.

Plate No.: Search whether a specific license plate number has been added into the list. Enter the plate number into this field and click **Search** to find the records.
Add: Select this option to add plate numbers, card IDs, vehicle owner, as well as schedule a time of day in which the filter will apply. To add more vehicle data into the list, select the **Continue Adding** option. Click **Save** to apply.
Browse: Allows the user to download or import a list of vehicle data into the interface. Click Download to download a current list template (.csv) to your computer. To import a list, click **Browse** and select the .csv file from your computer. Click **Save** to apply the settings and import the list.
Export: Enable or disable export encryption. This will be disabled by default however exporting without encryption may have security risks.
Clear Invalid Data: Deletes all list data saved in the list interface.
Clear All: Clears all data from the list interface.

Barrier Control

This menu allows the user to configure and set information related to opening and closing an alarm barrier. Below is a description of the features in this menu.

Barrier Always Open: Enable this option to allow a barrier to remain open within the defined period.
Enable: Enable barrier control and configuration.
Barrier Opening Control: Trigger an alarm through different modes and remotely control the barrier opening and closing.

- **Every Trigger (Camera):** Capture any vehicle and output open barrier signal.
- **Every plate (Camera):** Capture any plated vehicle and output open barrier signal.
- **Allowlist Open (Camera):** Capture a vehicle that is only listed in the allowlist or fuzzy matching list and then output the open barrier signal.

- **Order (Server):** The platform will send commands and output the open barrier signal. Please note, you can configure barrier opening control as Allowlist Open (Camera) and Order (Server) at the same time, however, the Allowlist Open (Camera) option will take priority.

Manually Open: Click to manually open a barrier trigger.
Manually Close: Click to manually close or stop a barrier trigger.
Barrier Opening Config: These options allow you to configure external alarm connections once the barrier is open.

- **Relay out:** Select which alarm output (NO1, NO2, NO3) that will apply to this function.
- **Signal Duration:** The number of seconds the alarm will sound after the barrier is opened.

Barrier Closing Config: These options allow you to configure external alarm connections once the barrier is closed.

- **Relay out:** Select which alarm output (NO1, NO2, NO3) that will apply to this function.
- **Signal Duration:** The number of seconds the alarm will sound after the barrier is closed.

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

Device Test

This menu allows the user to test specific barrier controls such as opening and closing, capture, display content, voice broadcast etc. and provide a log of this information. Below is a description of the features in this menu.

Barrier Opening and Closing: Click Open to test the barrier click Close to stop it.
Capture: Enter a plate number (or use the default) and click Test.
Display Content: Enter a message or use the default (Welcome) text to test the function.
Voice Broadcast: Click Test to test whether the device plays sound normally. (Not available on certain models).
Abnormal Config: Click Check to test for any system abnormalities automatically.
Export Device Info: Export a general info, device config, or log text file to your computer. To encrypt a log backup file, select Encrypt Log Backup, enter the password for the device and click Log.

Note: If saving an encrypted log file, the browser may block this file as a pop-up. Click always allow pop up from this IP to save the .zip file to your computer.

Capturing Commissioning

This menu allows the user to test if lines and tracking information is being displayed properly in the device. To use this option, enable the Overlay lines and tracking info button and click **Save**.

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

Operation Log Collection

This menu allows the user to set a file path destination for operational log collection. This includes general information retained by the camera. Below is a description of the features in this menu.

Enable: Enables optional log collection.
Subscribe Log: Enable the camera to retain subscribe logs.
Log Saving Path: Choose which file path the log information will be saved.

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

Camera

This menu tab allows the user to change or modify specific camera configuration and image settings.

Configuration

The Configuration menu allows the user to configure general settings such as image brightness and saturation, night vision, and other settings related to image quality. Below is a description of the features in this menu.

Brightness: This slider is used to adjust image and live feed brightness. The value ranges from 0 to 100, however the default value is 50.
Contrast: This slider is used to adjust image and live feed contrast. The value ranges from 0 to 100. The value ranges from 0 to 100, however the default value is 50. Please note the feed 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 image and live feed saturation. The value ranges from 0 to 100. The value ranges from 0 to 100, however the default value is 50. Please note the feed 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.
Gamma: This slider is used to adjust the gamma of the image and live feed. The larger the number, the brighter the video is. The default value is 50 and the recommended value ranges from 40 to 60.
White Light: Adjust the color night vision settings. Auto allows the camera to automatically turn on the white light LEDs once the darkness threshold has been met. On will activate the white light LEDs and Off will disable them. Use the schedule option to set a specific time of the day you would like the white light LEDs to turn on. Once enabled, click **Schedule** to create a schedule, click Save when done.
General Illumination Intensity: Use this slider to set the illumination intensity when there are no vehicles passing. Illumination Intensity when Vehicle Pass: Use this slider to set the illumination intensity when a vehicle passes.

Note: The Illumination Intensity When Vehicle Passes value must be equal to or larger than the General Illumination Intensity value.

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.

Shutter

This menu allows the user to adjust and configure camera features including exposure, gain, and scene modes. Below is a description of the features provided in this menu.

3D NR: Allows the user to configure noise reduction settings.

- **Tridim Denoise:** Enable or disable 3D noise reduction.
- **Live Stream Spatial:** Use this slider to adjust spatial denoising (The higher the value the less the noise).
- **Live Stream Temporal**: Use this slider to adjust temporal denoising (The higher the value the less flicker noise.)

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

Picture

This menu allows the user to set and adjust the sharpness and wide dynamic range settings. Below is a description of the features provided in this menu.

Scene: This dropdown box allows the user to select which profile to modify. The 3 options are Dawn/Dusk, Daytime and Night.
Sharpness: This slider is used to adjust image and live feed sharpness. The value ranges from 0 to 100. The value ranges from 0 to 100, however the default value is 50. Please note the feed 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.
WDR: Enable or disable wide dynamic range. Use the slider to just WDR settings if needed.

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

Exposure

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

Iris Adjust Mode: Allows the camera to automatically just the iris according to the distance of an object captured in the live feed. This is enabled automatically by default however can be switched to manual by selecting Manual.
Mode: Use this dropdown menu to select exposure modes. The camera can be set to manual, which allows the user to manually adjust these settings or auto, which allows the camera to automatically compensate for these functions.

- **Shutter:** Allows the user, while in manual mode, to select a shutter range. A custom range can be entered by selecting Customized Range from the dropdown menu.
- **Shutter Scope:** Set the time range of the shutter.
- **Gain Scope:** Set the value of the gain as it pertains to scope range.

To reset to default settings, click the **Default** 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 of the device. Below is a description of the features provided in this menu.

Mode: Use this menu to select a white balance setting.

Auto: Allows the camera to automatically adjust white balance settings while in use.
Outdoor: Allows the camera to automatically adjust white balance settings while in outdoor (sunny or dark environments.
Manual: Displays options that will allow the user to manually adjust specific red or blue values related to white balance.
Part White Balance: Use this slider to adjust the weight or intensity of the white balance in the area.
Natural: Allows the camera to automatically adjust white balance settings in areas with high natural light.
Streetlamp: Allows the camera to compensate white balance settings in areas with heavy streetlamp 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.

Metering Zone

This menu allows the user to make adjust to the backlight or front light image intensity of the image. The measuring mode can be set globally or partially within the device. Below is a description of the features provided in this menu.

Plate Light: Allows the user to enable or disable backlight or the front light intensity in scene. This helps to improve the backlight and brightness of the image.
Measure Mode: Select between a global or partial measuring model.

> **Global Measure:** Measure the brightness of the whole image area and intelligently adjust the overall image brightness.
> **Partial Measure:** Measure the brightness of the sensitivity area and intelligently adjust the overall image brightness. If the measured area becomes bright, then the whole area becomes dark, and vice versa. If using partial measure, use your mouse on the screen to drag and select the measured area. The system will display a yellow box. Drag the box to the proper location and click Confirm to set the area.

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

Live Stream

This menu allows the user to view and adjust encode, snapshot, quality, and path settings. Below is a description of the features provided in this menu.

Stream Type: Displays which type of stream is being produced by the camera. The default is Normal.
Encode Mode: This dropdown box allows the user to select a compression protocol (H.265, H.264M, H.264H, MJPEG)
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.
Quality: Select the overall quality of the stream. The default will be Good however can range from worst to best.
Reference Bit Rate: This is the recommended bit rate value according to the resolution and frame rate selected.
Max 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 **Default** button. To refresh the screen, click on **Refresh**. To save the settings, click the **Save** button.

Snapshot

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

Snapshot Type: This dropdown box allows the user to select a snapshot mode. It will be set to General by default.
Resolution: This dropdown box allows the user to set a resolution of the snapshot. Default is 4MP.
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 from worst to best.
Picture Coding Size (KB): Allows the user to adjust how large the image will be in Kb. The default is 300Kb however can range up to 1024Kb. A custom value can be entered as well with a range up to 1024Kb.

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

Interest Area

This menu allows the user to adjust the overall quality in different areas on the live view. The quality can range from worst to best however for optimal performance it is recommended to leave it as Good.

To adjust the quality, use your mouse on the feed to draw an area of interest, then use the dropdown menu provided and select the image quality needed. Click **Save** to apply the settings to the area.

To reset to default settings, click the **Default** 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 events. 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

Network

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

TCP/IP

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

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

Host Name: This text field allows the user to change the host device name for the camera. This field supports a maximum of 15 characters.

Ethernet Card: This dropdown box allows the user to select which internet access device to use. If the device is connected to a wired connection and a wireless one at the same time, then this box will have options to pick either of the connections. The Set as Default button allows the user to select one of the connection methods as the default one.
Mode: Static vs DHCP: This radio button allows the user to choose between a static IP address, and a dynamic IP address. DHCP stands for Dynamic Host Configuration Protocol, and this enables the camera to automatically obtain an IP address from another network device such as a server or more commonly, a router. When the DHCP function is enabled, the user cannot modify the IP address, Subnet Mask, or Default Gateway, as these values are obtained from the DHCP function. To view the current IP address, DHCP needs to be disabled. Note: When PPPoE is enabled, modification of the IP Address, Subnet Mask, and Gateway becomes prohibited.
MAC Address: This field shows the camera's MAC address, which is unique to this device. This number is read only and is used to access a local area network (LAN).
IP Version: This dropdown allows the user to select the IP version. The two options are IPV4 and IPV6.
IP Address: This field allows the user to enter a custom IP address.
Subnet Mask: This field allows the user to enter a custom subnet mask.
Default Gateway: This field allows the user to enter a custom default gateway.
Preferred DNS Server: This field allows the user to enter the preferred DNS server IP address.
Alternate DNS Server: This field allows the user to enter the alternate DNS server IP address.
Enable ARP/Ping to set IP Address Service: This checkbox allows the user to enable the ARP/Ping service to change the IP address service. For more information on this feature, click the help button while on the TCP/IP settings tab.

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

P2P

This feature needs to be enabled for use with the Amcrest View app, or other software that requires P2P. Please note, the LPR camera can be added to the Amcrest View Pro app if needed, however, is only applicable to live view as the camera does not support video playback, motion detection, or push notifications. It is for **live view purposes only**. Below is a description of the features provided in this menu.

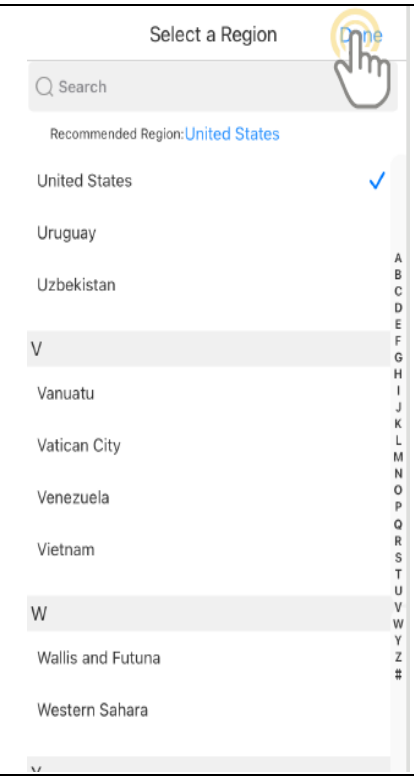
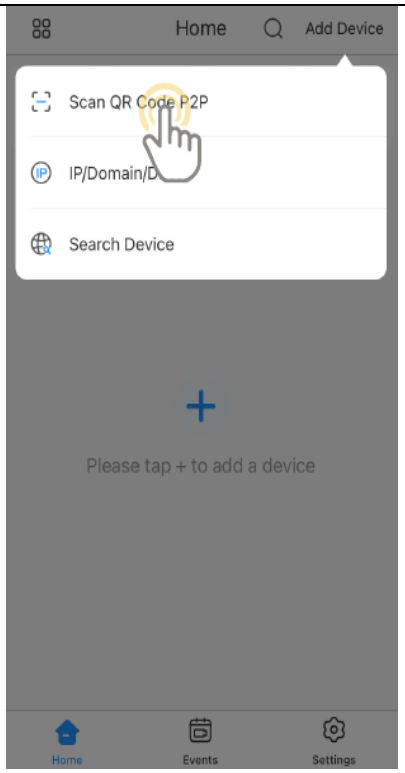
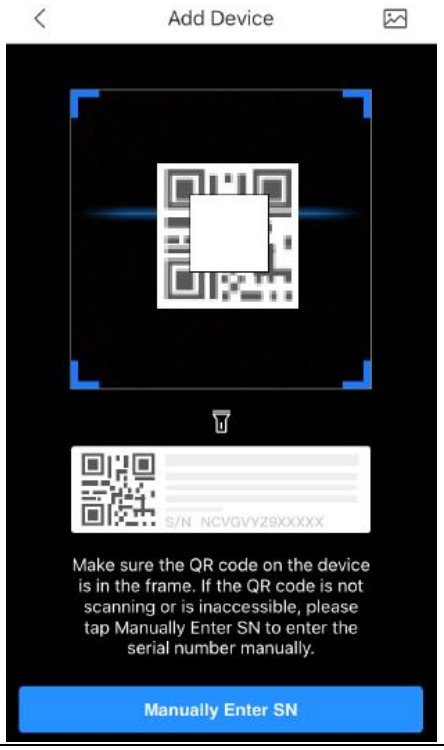
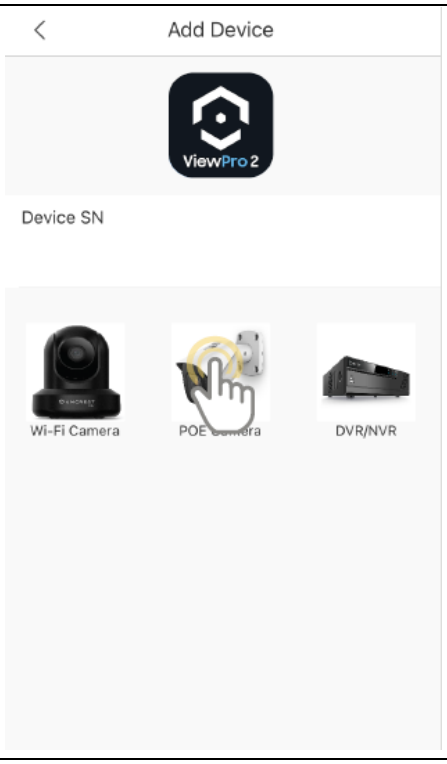
Enable: This checkbox allows the user to enable the P2P feature for the camera. This feature must be enabled for the camera to connect to the Amcrest View app. It is enabled by default.
Status: This field displays the status of the P2P connection. Once the camera is connected to a device, this field 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.

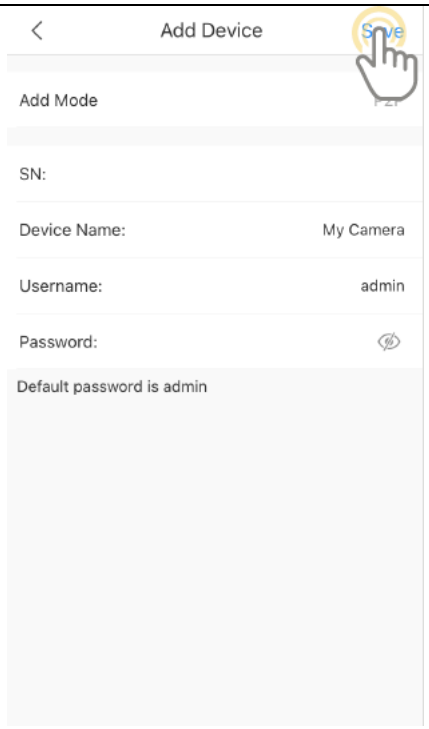
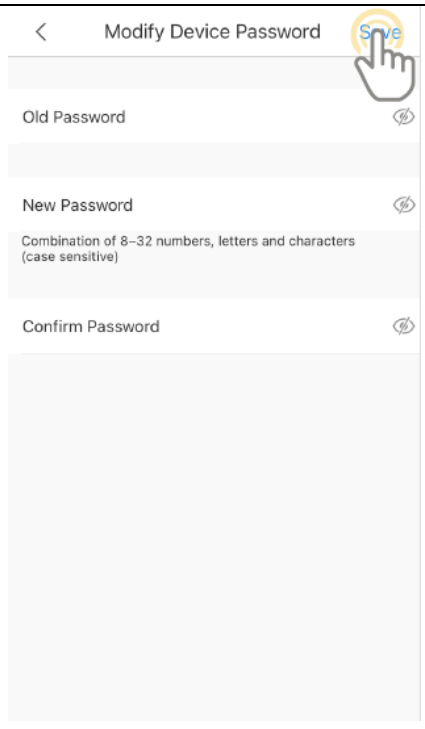
To reset to default settings, click the **Default** button. To refresh the screen, click on **Refresh**. To save the settings, click the **Save** button.

Amcrest View Pro Setup

The camera can be added to the Amcrest View Pro 2 app if needed, however, is only applicable to live view as the camera does not support video playback, motion detection, or push notifications. It is for **live view purposes only**.

The Amcrest View Pro 2 app can be downloaded in both the App Store and Play Store.

	
Select a **Region**. Click **Done**.	Tap **Add Device** and select **Scan QR Code P2P.**
	
Scan the QR code on the camera or manually enter the device's serial number into the **Enter camera S/N** (serial number) field.	Tap **POE Camera**.

	
Enter the name for the device in the Device Name field. Enter the default password for the camera in the Password field. The default password will be **admin**. Tap **Save**.	Enter the default password into the **Old Password** field, enter a new password in the **New Password** field and confirm. Tap **Save** to view the device.

Connection

The Connection tab is where users can configure port connections. Below is an explanation of the fields on the Connection settings tab:

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

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

DDNS

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

To use this feature, users will need to setup an account with a DDNS service. The camera supports a variety of DDNS services such as AMCRESTDDNS, NO-IP DDNS, and Dyndns DDNS. Based on which service is selected, different options may show on this screen. For purposes of this guide, AmcrestDDNS will be used. AmcrestDDNS is a free DDNS service provided by Amcrest, and it must be renewed every year. A renewal reminder email will be sent to the email entered in the username field below. To use AmcrestDDNS, enter the domain name set for the camera in the Domain Name field and enable the Type option. Click Save. The URL format for AmcrestDDNS is "domainname.amcrestddns.com:HTTPportnumber" the HTTP port number must be port forwarded for this to function.

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

Multicast

This menu allows the user to configure multicast settings. Multicast is a transmission mode of data packets. When there is multiple-hosts to receive the same data packets, it is best to use this option to reduce bandwidth as well as CPU load. The source host can send out one piece of data to transit. Below is a description of the features provided in this menu.

Enable: Enable or disable multicast for the mainstream and substream.
Multicast address: Main/sub stream multicast default address is 224.1.2.4 and its range is 224.0.0.0～239.255.255.255.
Port: Multicast port. Main stream is 40000, sub stream is 40002 and the range is 1025～65534.

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

SMTP (Email)

This menu allows for the configuring of email settings to permit the camera to send emails when an alarm is triggered. Below is a description of the features provided in this menu. Please note, email alerts in this device **only pertain to device abnormalities or blocklist items.**

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 **Default** button. To refresh the screen, click on **Refresh**. 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.

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

Event

This menu allows the user to select different external alarm attributes as well as configure abnormalities related to the device. For more information, please refer to the information provided below.

Alarm

This menu allows the user to configure any external alarms or relays associated or connected to the camera. Below is a description of the features provided in this menu. Please note, this is only for external alarms.

Relay Activation

This tab allows the user to configure relay in and relay out settings for a connected external alarm.

Enable: Enable or disable the relay in function. Please note, IN1 will be enabled by default.
Period: Set a schedule for relay activation.
Anti-Dither: The amount of time, in seconds, in between specific alarm activations. Can range between 0 and 100.
Sensor Type: Select between a normally open (NO) or a normally closed (NC) sensor activation type.
Relay-out: Enable or disable a relay out. Select between 3 different relay out outputs (NO1, NO2, or NO3).
Signal Duration: The number of seconds in which the alarm will trigger. Can range from 10 to 300 seconds.

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

Relay out

This menu allows the user to manually test the relay out alarm. To use this option, select a relay out option (NO1, NO2, or NO3) and click **Trigger** to test and manually trigger the alarm. Use the **Refresh** option to refresh the interface.

Abnormality

This menu allows the user to adjust abnormality event settings that allow the user to be notified if any errors or abnormalities have occurred while in operation. This includes if a microSD card, network errors, illegal access, or other abnormalities were to occur. For more information, please refer to the information provided below.

SD Card

This tab allows the user to set the camera's response to a microSD card related abnormality. Below is an explanation of the fields on the **microSD Card** settings tab:

Event Type: This dropdown box allows the user to select which microSD card abnormality to set event triggers for. The 3 options are No Storage, Storage Error, and Scarcity of storage.
Enable: This checkbox enables the microSD Card abnormality trigger for the camera.
Relay Out: If an external alarm is connected, an alarm can be sent if the abnormality is triggered. Please note, outputs 1 and 2 are generally used to control the barrier.
Signal Duration: The number of seconds in which the alarm will be triggered.

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

Network error

This tab allows the user to set the camera's response to a Network related abnormality. Below is an explanation of the fields on the **Network** settings tab:

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

Relay Out: If an external alarm is connected, an alarm can be sent if the abnormality is triggered. Please note, outputs 1 and 2 are generally used to control the barrier.
Signal Duration: The number of seconds in which the alarm will be triggered.

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

Illegal Access

This tab allows the user to set the camera's response to an Illegal Access related abnormality. Below is an explanation of the fields on the **Illegal Access** settings tab:

Enable: This checkbox enables the Illegal Access abnormality trigger for the camera.
Login Error: This field allows the user to specify how many failed login attempts must be attempted to trigger an Illegal Access abnormality event.
Relay Out: If an external alarm is connected, an alarm can be sent if the abnormality is triggered. Please note, outputs 1 and 2 are generally used to control the barrier.
Signal Duration: The number of seconds in which the alarm will be triggered.
Send Email: Allow an email alert to be sent if the alarm or abnormality is triggered. Please note, email alerts must be set up in the SMTP (Email) menu for email alerts to function. For more information on setting up email alerts, please visit amcrest.com/support

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

Security Exception

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

Enable: Enable or disable this function.
Relay Out: If an external alarm is connected, an alarm can be sent if the abnormality is triggered. Please note, outputs 1 and 2 are generally used to control the barrier.
Signal Duration: The number of seconds in which the alarm will be triggered.

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

Blocklist Car

This tab allows the user to set the camera to trigger an abnormality alert if the camera detects a vehicle that is provided in the blocklist of the camera. To add a vehicle's plate to a blocklist, go to ITC and select Blocklist and Allowlist, select the Blocklist tab, enable and enter the plate number into the interface.

Enable: Enable or disable this function.
Relay Out: If an external alarm is connected, an alarm can be sent if the abnormality is triggered. Please note, outputs 1 and 2 are generally used to control the barrier.
Signal Duration: The number of seconds in which the alarm will be triggered.

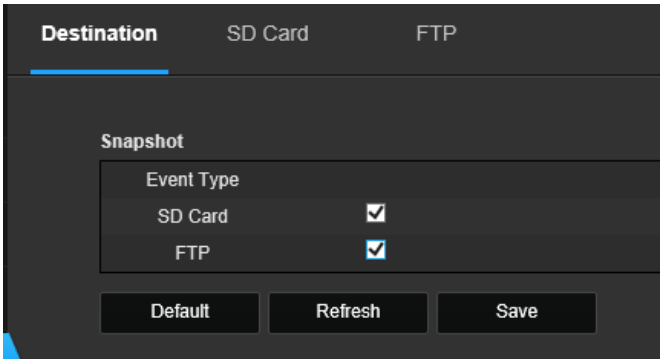
Send Email: Allow an email alert to be sent if the alarm or abnormality is triggered. Please note, email alerts must be set up in the SMTP (Email) menu for email alerts to function. For more information on setting up email alerts, please visit amcrest.com/support

Storage

This menu section allows the user to change storage settings for the camera. This includes MicroSD cards and FTP settings.

Destination

This menu allows the user to choose a destination or protocol in which snapshots of the event will be stored. By default, they will be set to store to a MicroSD card (if one is inserted) however can also go to an SFTP/FTP. Each protocol can be enabled at the same time if needed.



SD Card

This tab is where the user can change microSD card settings. Below is an explanation of the fields on the microSD card settings tab:

Disk Full: Select whether the card will be overwritten after it is full or to stop after it is full.
Device Name: This column designates the name of the microSD card that is currently in the camera.
State: This column designates the status of the microSD card.
Configuration: This column designates the read/write attributes for the microSD card. By default, this is Read & Write.
Free Capacity/Total Capacity: This column shows the available memory on the microSD card.
Hot Swap: This button is used to eject the microSD card from the interface.
Format: This button formats the microSD card. Please note, the camera may reset after it has been formatted.

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

FTP

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

Offline Transfer: Allows the events to be sent to a microSD card if the network disconnects or fails.
Enable: Enable an SFTP or FTP protocol.
Protocol: Select either a SFTP or FTP protocol is being used.
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 Path: Enter the directory information in which the events will be stored.
Upload Type: Allows the user to choose which file types are uploaded the to the FTP (All, ANPR or Manual Snapshots).
Test: Test the connection between the camera and the SFTP or FTP server.

To reset to default settings, click the **Default** button. To refresh the screen, click on **Refresh**. 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 explanation of the fields on the **General** settings tab:

Device Name: This field allows the user to change the device's name.
Language: This dropdown box allows the user to change the language used in the camera.
Live Stream Standard: This dropdown box allows the user to select either the NTSC or PAL video standard.

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

Date & Time

This tab is where the user can configure the date and time settings for the camera. Below is an explanation of the fields on the Date & Time settings tab:

Date Format: This dropdown box allows the user to change the date format used in the camera.
Time Format: This dropdown box allows the user to change the time format used in the camera.
Time Zone: This dropdown box allows the user to change the time zone used in the camera.
System 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.
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.
- **Begin 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.

NTP Setting: 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.

Interval: 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 **Default** button. To refresh the screen, click on **Refresh**. To save the settings, click the **Save** button.

Account

This menu allows the user to change the user, group, and Onvif users on the camera. By default, the camera only has an admin account which has all rights/authorities. Additional accounts can be created on this screen. Below is an explanation of the fields on the Account screen:

Anonymous Login: This checkbox allows the user to enable the anonymous login feature. This allows all user account names to remain hidden on this screen.
Username: This tab shows the usernames available on the camera.
Group Name: 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.
Onvif User: Use this tab to add an Onvif user access to the camera.

Default Settings

This screen allows the user to reset the camera and all its settings to the factory settings. Below is an explanation of the items listed in this field:

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

Import/Export

This screen allows the user to import or export settings from the camera. To export the settings, click the Export button. The settings file will be downloaded to your device. Click the Import button to import the settings back into the camera.

Auto Maintain

This tab allows the user to set auto maintenance settings for the camera. Below is an explanation of the fields on the Auto Maintain screen:

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

Manual Reboot: This button allows the user to manually reboot the camera.

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

Upgrade

This menu allows the user to upgrade the camera's firmware. To upgrade the firmware for your camera, follow the steps provided below:

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

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

Information

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

Version

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

Log

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

To back up the log, click the Backup button. To clear the log, click the **Clear** button.

Remote Log

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

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

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

Online Users

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

Running Status

This menu allows the user to view CPU usage, number of CPUs the camera is connected to, total working time, etc of the camera. Click the Refresh button to refresh the status.

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.

DDNS Remote Web Access Setup

Dynamic Domain Name Server (DDNS) functionality is the easiest way to setup stable remote access.
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 login details into the username and password fields and click login.

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:

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

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.

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

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