



HD119IR

9MP OUTDOOR FISHEYE CAMERA
WITH BUSINESS ANALYTICS

User Manual



AVX-HD119IR 9MP Outdoor 360° Fisheye camera with Business Analytics

Operations Manual

Manual Edition 37601AC – July 2021

©2021, AvertX

All Rights Reserved

No part of this document may be reproduced by any means, electronic or mechanical, for any purpose, except as expressed in the Software License Agreement. AVERTX shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is subject to change without notice.

The information in this publication is provided “as is” without warranty of any kind. The entire risk arising out of the use of this information remains with recipient. In no event shall AVERTX be liable for any direct, consequential, incidental, special, punitive, or other damages whatsoever (including without limitation, damages for loss of business profits, business interruption or loss of business information), even if AVERTX has been advised of the possibility of such damages or whether in an action, contract or tort, including negligence.

This software and documentation are copyrighted. All other rights, including ownership of the software, are reserved to AvertX. AVERTX, and AvertX, are registered trademarks of AVERTX in the United States and elsewhere; Windows is a registered trademark of Microsoft Corporation. All other brand and product names are trademarks or registered trademarks of the respective owners.

The following words and symbols mark special messages throughout this guide:

WARNING: Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

IMPORTANT SAFEGUARDS

1. **Read Instructions**
Read all of the safety and operating instructions before using the product.
2. **Retain Instructions**
Save these instructions for future reference.
3. **Attachments / Accessories**
Do not use attachments or accessories unless recommended by the appliance manufacturer as they may cause hazards, damage product and void warranty.
4. **Installation**
Do not place or mount this product in or on an unstable or improperly supported location. Improperly installed product may fall, causing serious injury to a child or adult, and damage to the product. Use only with a mounting device recommended by the manufacturer, or sold with the product. To ensure proper mounting, follow the manufacturer's instructions and use only mounting accessories recommended by manufacturer.
5. **Power source**
This product should be operated only from the type of power source indicated on the marking label.

Precautions

Operating

- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact AvertX Customer Support.

Handling

- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- Care must be taken when you clean the clear lens cover. Scratches and dust will ruin the image quality of your camera. Do not use strong or abrasive detergents when cleaning the camera body. Use a dry cloth to clean the camera when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the camera gently.

Installation and Storage

- Do not install the camera in areas of extreme temperatures in excess of the allowable range. -40°F ~ 140°F (-40° ~ 60°C)
- Avoid installing in humid or dusty places. The relative humidity must be below 95%.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the camera would be subject to strong vibrations.
- Never face the camera toward the sun. Do not aim at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise the camera may be damaged.

REGULATION

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.

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste in accordance with Directive 2002/96/EC. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By proper waste handling of this product you ensure that it has no negative consequences for the environment and human health, which could otherwise be caused if this product is thrown into the garbage bin. The recycling of materials will help to conserve natural resources.

For more details information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Compliance is evidenced by written declaration from our suppliers, assuring that any potential trace contamination levels of restricted substances are below the maximum level set by EU Directive 2002/95/EC, or are exempted due to their application.

WARNING

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

CAUTION



TABLE OF CONTENTS

INTRODUCTION.....	7
Overview.....	7
Camera Default Settings	7
Product Features	7
GETTING STARTED	8
Box Contents	8
Camera Overview	9
Camera Diagram	9
Dimensions.....	10
Installing the Camera	11
Resetting the Camera	15
CONNECTING	16
Bench Test	16
Network Camera Manager.....	16
Launch Network Camera Manager	16
Connecting to the Camera.....	17
Connecting in a Web Browser	17
Username and Password	17
Connecting a Stream.....	17
Logging Into the Web Interface.....	18
LIVE VIEW	19
REPORTS.....	20
People Counting Statistics.....	20
List.....	20
Bar Chart.....	21
Line Chart.....	21
Line Chart.....	21
Heat Map Statistics	22
ADVANCED.....	23
System.....	23
System Settings	23
Basic Information	23
Time Settings	24
DST (Daylight Savings Time).....	25
About.....	25
Maintenance.....	26
Upgrade & Maintenance.....	26
Log	27
System Service	27
Security	28
Authentication	28
IP Address Filter.....	28

User Management	29
Online Users	29
Network	30
Basic Settings	30
Basic Settings > TCP/IP	30
Basic Settings > DDNS	31
Basic Settings > Port	31
Advanced Settings	32
Advanced Settings > HTTPS	32
Stream Settings	33
Video	33
Image	35
Display Settings	35
Image Adjustment	35
Exposure Settings	36
Day/Night Switch	36
Backlight Settings	37
White Balance	38
Image Enhancement	38
Video Adjustment	38
OSD Settings	39
Privacy Mask	40
Event	41
Motion Detection	41
Set the Arming Schedule for Motion Detection	42
Set the Linkage Method for Motion Detection	43
Storage	44
Schedule Settings	44
Schedule Settings > Record Schedule	44
Schedule Settings > Capture Schedule	45
Schedule Settings > Capture Parameters	46
Storage Management	47
People Counting	48
Data Uploading	50
Advanced	50
Heat Map Configuration	51

INTRODUCTION

OVERVIEW

Camera Default Settings

IP Address	192.168.51.2
Username	admin
Password	<p>This AvertX camera model does not have a default password</p> <p>The admin user password can be set using the following methods:</p> <ol style="list-style-type: none">1. ProConnect recorders running software version 2.1 or newer will automatically set a new unique password by:<ul style="list-style-type: none">➤ Connecting to the built-in PoE switch➤ Connecting to a network switch through the camera network port and selected then adding the camera in setup2. Connect to the camera directly through a Web Browser and follow the onscreen prompts.3. Use the Network Camera Manager (NCM) Utility.





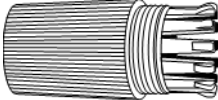


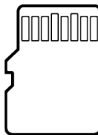
Product Features

- Heatmapping & People Counting Business Analytics
- 9MP Resolution
- Two-way audio with built-in microphone & speaker
- Edge Storage on a MicroSD Card (up to 512GB)
 - 16GB microSD card included
- Integrated IR
- Record still shots to edge storage
- H.264+ Smart Compression
- Dual Streaming
- True Day/Night
- Weatherproof (IP67 Outdoor Rated)
- Vandal Resistant (IK10 Rated)

GETTING STARTED

BOX CONTENTS

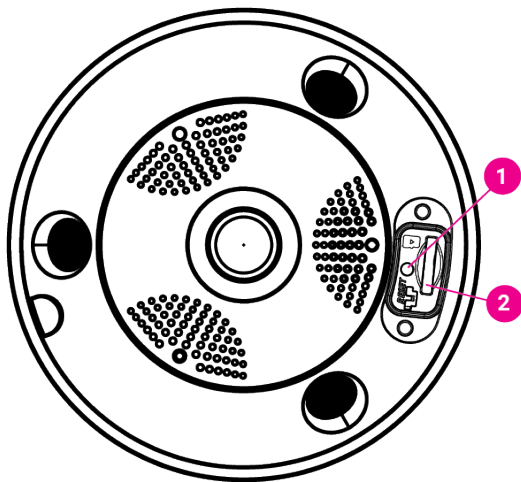
Before proceeding, please check that the box contains the items listed here. If any item is missing or has defects, do not install or operate the product and contact your dealer for assistance.

		
AVX-HD119IR Camera	Mounting Screws	Plastic Anchors
		
Quick Start Guide	IP66 Cable Connector	T10 Torx Tool
		
Mounting Template	16GB MicroSD Card	

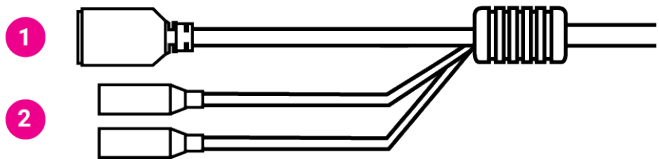
CAMERA OVERVIEW

Before installing or connecting the camera, please refer to this section and complete preparations for camera setup and all switch settings.

Camera Diagram

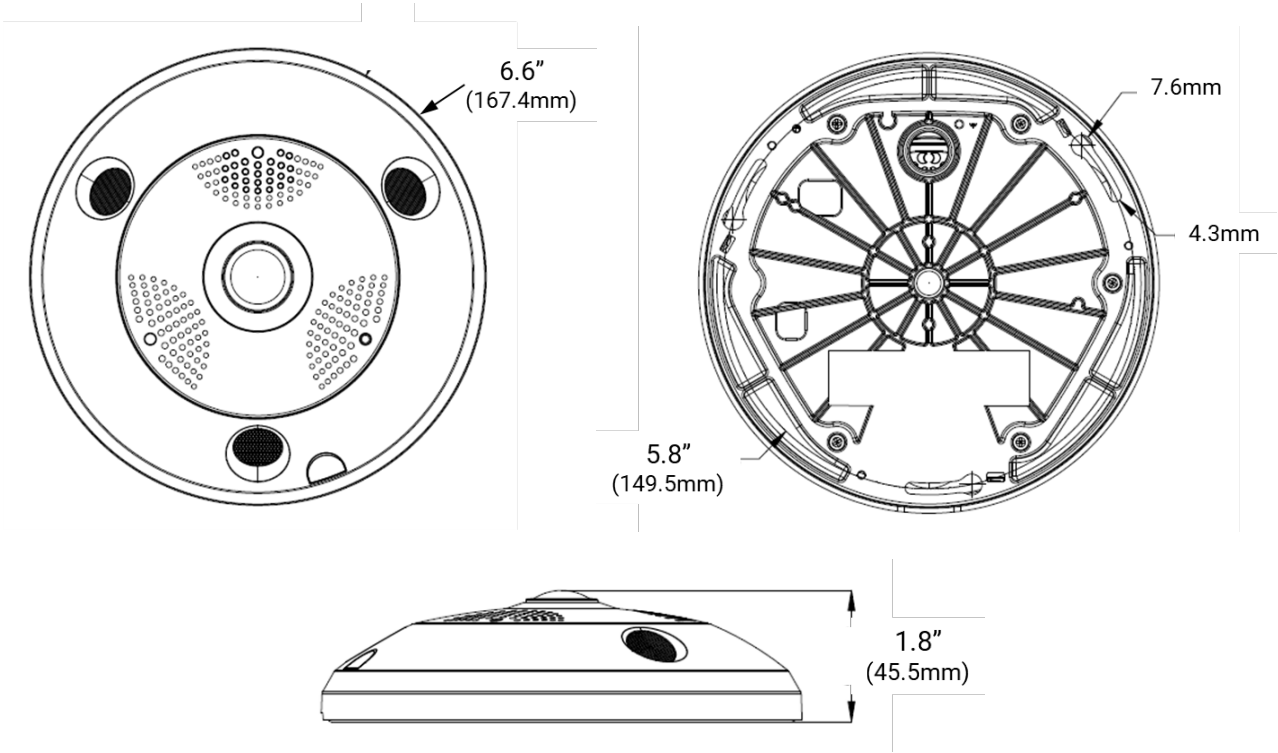


1	Reset Button	Use the reset button to restore the factory default settings. To reset your camera: <ol style="list-style-type: none">1. Disconnect the cat5e cable from the camera for 30 seconds.2. Hold the reset button down while reconnecting cat5e and continue holding the reset button for 30 seconds after reconnecting.3. Allow 2 minutes before attempting to rediscover camera.
2	MicroSD Card Slot	Supports up to 512GB microSD card for Edge storage. Do not add or remove the microSD card when the camera is powered on.



1	RJ-45	Power & Data Connection
2	Audio I/O	Audio Line In
		Audio Line Out

Dimensions



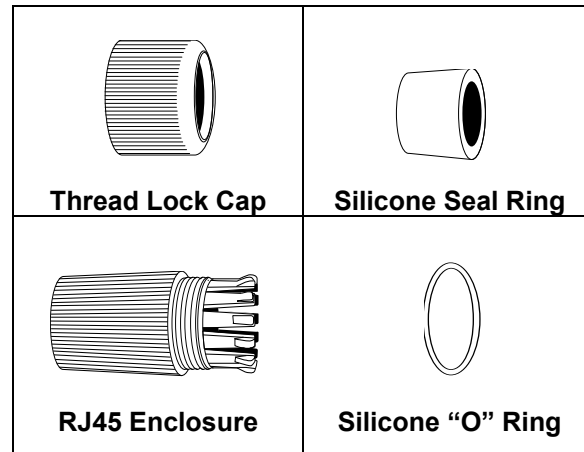
INSTALLING THE CAMERA

Weather Resistant Cable Connector

This camera features an IP66-rated weather resistant connector. For unprotected outdoor connections, screw the connector on the included Ethernet camera cable onto the camera dongle. If your installation location does not require a water-resistant connection, loosen and slide the connector back on the cable until it's out of the way.

This camera features an IP66-rated waterproof cable connector for unprotected outdoor connections. You do not need to re-terminate the cable to use the waterproof cable connector.

Included Pieces:

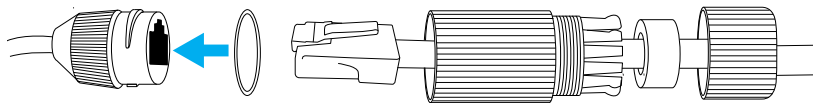


To Install the weather resistant cable connector:

- Slide all pieces of the waterproof cable connector over the cable plug in this order:
 - Thread Lock Cap
 - Flexible silicone seal ring. You will need to stretch the silicone seal over the RJ-45 plug.

PRO TIP: Insert the flexible silicone seal ring onto the tip of a pair of needle nose pliers and stretch the seal over the RJ45 plug.

- RJ45 Enclosure



- Stretch the small silicone "O" ring onto the camera dongle.
- Connect the camera cable to the plug on the dongle. Screw the RJ45 Enclosure into the dongle.
- Insert the flexible silicone seal into the "crown" section of the large plastic ring.
- Screw the small plastic ring into the large plastic ring.

PRO TIP: To remove the RJ45 enclosure from the camera cable, tape down the locking tab on the RJ45 plug with electrical or office tape.

NOTICE: Do not attempt to disconnect the camera connection without loosening the smaller thread lock cap. Forcing the assembly will break the camera dongle and void the camera warranty.

Display Modes

It is important to be aware of the display mode limitations prior to installing the camera. The display mode impacts the availability of Heatmapping & People Counting analytics.

Mount Type	Heatmapping	People Counting
Ceiling Mounted		
Fisheye Display Mode	Yes	Yes
180° Panorama Display Mode	No	No
360° Panorama Display Mode	No	No
Wall Mounted		
Fisheye Display Mode	No	No
180° Panorama Display Mode	No	No
360° Panorama Display Mode	No	No

Installation Recommendations

	Height	Identify [ft]	Recognize [ft]	Observe [ft]
Ceiling mount: Fisheye mode	8' - 12'	~15'	~35'	~75'
Wall Mount: 180° Panorama	8' - 12'	~15'	~40'	~65'

	Height	Coverage Radius	Detection Radius
Heatmapping*	8' - 12'	~75'	~32'

*Heatmapping function is only available in Fisheye mode

NOTICE: Pay careful attention to lens orientation when mounting. Improper lens orientation will result in a skewed image. Under the protective ring, the word “UP” is embossed on the camera to show proper orientation. “TOP” is also marked with an arrow on the mounting template. When mounting on a wall, orient the word “UP” on top. When ceiling mounting, “UP” corresponds to the top of the image.

PRO TIP: For a more natural looking image in a ceiling installation, position “UP” on the camera to be perpendicular to the closest wall.

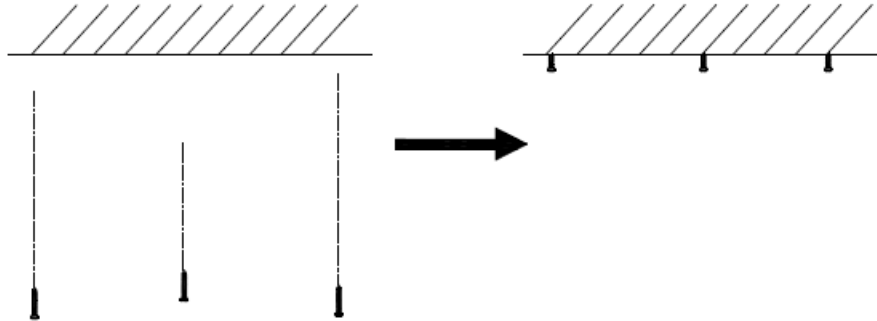
Considerations for Infrared (IR) Lights

Environmental factors can limit the performance of night vision using IR illuminator lights. Infrared light behaves the same as visible light and will reflect off bright or shiny objects and overexpose the image. The camera will adjust to properly expose the bright areas of the image, which may leave the dark areas obscured.

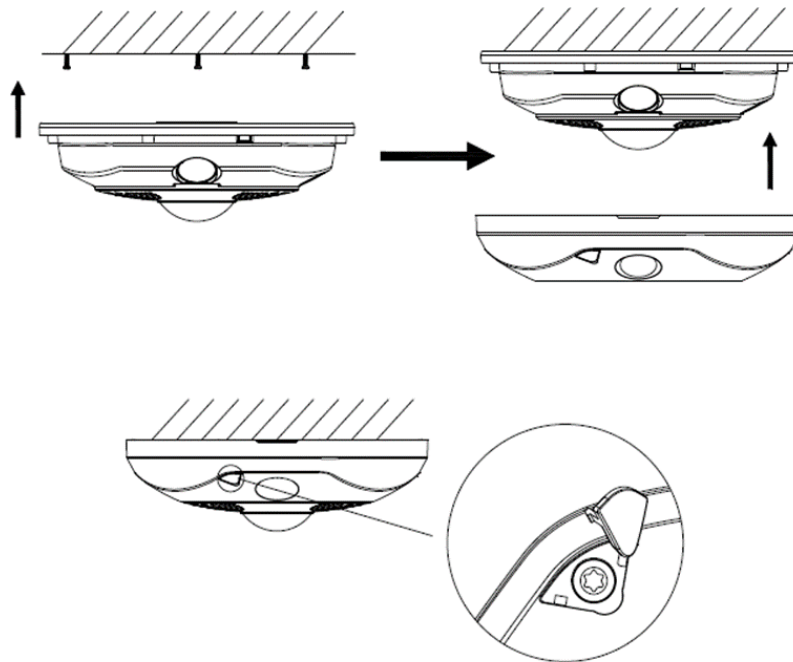
PRO TIP: For outdoor installations, AvertX recommends sealing any holes in the wall or ceiling with silicone caulk to protect against water intrusion.

Direct to Ceiling or Wall Installation

1. Apply drill template to the desired installation location.
2. Using a 5mm bit, drill three holes for the plastic anchors.
3. Using a 1" bit, drill the cable hole.
4. Insert plastic anchors & thread the screws halfway into the anchors.



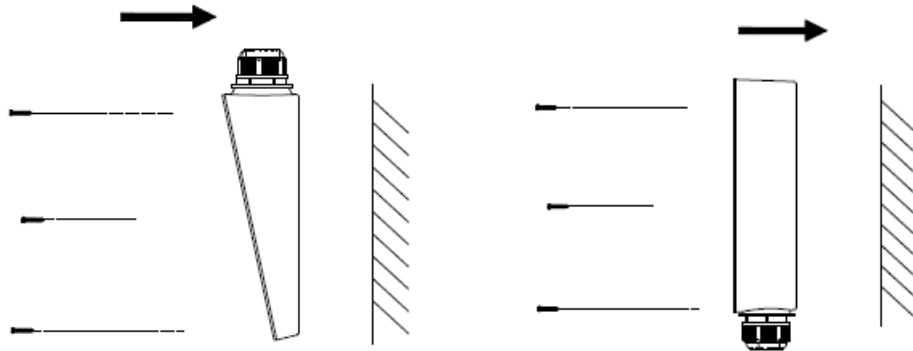
5. Connect the network cable using the Weather Resistant Cable Connector.
6. Align the screw holes to the inserted screws, hook the camera body to the screws, and rotate the camera body until it stops.
7. Tighten the 3 mounting screws
8. Install the camera cover and tighten the lock screw on the camera cover.



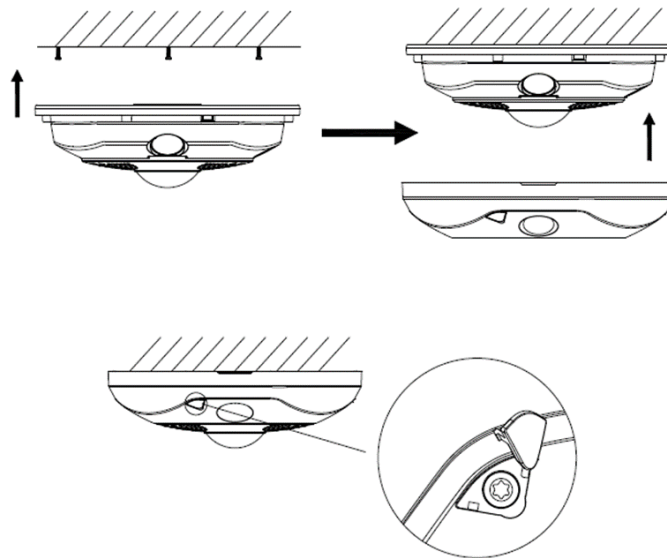
Inclined or Junction Box Mount - Ceiling or Wall Installation

PRO TIP: This mount is compatible with single and dual gang electrical boxes. If connecting this mount to a single or dual gang electrical box, skip to number 6.

1. Apply drill template to the desired installation location.
2. Using a 5mm bit, drill three holes for the plastic anchors.
3. Using a 1" bit, drill the cable hole.
4. Insert plastic anchors & thread the screws halfway into the anchors.
5. Connect the network cable using the Weather Resistant Cable Connector.



6. Thread the included screws halfway into the mounting base.
7. Align the camera screw holes with the inserted screws, hook the camera body to the screws, and rotate the camera body until it stops.
8. Tighten the 3 mounting screws.
9. Install the camera cover and tighten the lock screw on the camera cover.



PRO TIP: Use the AvertX Connect mobile app to view the camera while adjusting view.

NOTICE: AvertX recommends sealing the opening at the wall and at the base of the camera with silicone caulking.

For best IR Night Vision performance:

Be aware of surfaces that can cause IR light to reflect into the camera.

- Reflective or light-colored surfaces and objects close to the camera can reflect IR light back into the camera.
 - Remove the reflective or light-colored surfaces.
 - Cover the reflecting surfaces with a non-reflective material (non-reflective tape, dark paint)
 - Mount the camera on a nearby wall using a mounting bracket.

Resetting the Camera

Use the reset button to restore the factory default settings.

To reset your camera:

1. Disconnect the cat5e cable from the camera for 30 seconds.
2. Hold the reset button down while reconnecting cat5e and continue holding the reset button for 30 seconds after reconnecting.
3. Allow 2 minutes before attempting to rediscover camera.

Cleaning the Lens Cover

The Lens Cover of the AVX-HD119IR is extremely durable but can be damaged if cleaned improperly.

To clean the lens cover:

- To clean dust or loose dirt, use compressed air.
- To clean smudges or stuck on dirt, use warm water with a few drops of dish soap and a clean microfiber cloth.

CAUTION: Do not use solvents, paper towels, newspaper, or other rough materials to clean the lens cover. This can scratch the lens cover and cause IR distortion.

CONNECTING

BENCH TEST

AvertX recommends bench testing your camera(s) before installation. This will confirm that your camera is functioning correctly before it is installed and possibly out of reach.

To bench test your camera, attach the camera network connector to your recorder and test whether the camera is functioning correctly. Once the camera is connected to the recorder, test all functions to ensure proper operation.

If the camera will not connect or is not functioning correctly, do not install, and contact AvertX Support.

NETWORK CAMERA MANAGER

Network Camera Manager (**NCM**) is a software tool that allows you to quickly and easily connect and configure your AvertX IP cameras. This software allows you to assign IP addresses, configure video settings, and update firmware on multiple cameras at once.

NCM is pre-installed on all AvertX ProConnect recorders and is also available for download at www.avertx.com/support for installation on your personal computer or laptop.

Launch Network Camera Manager

Open the Settings menu, go to the **Cameras** page and click **Advanced** (located towards to top-middle on the page).

NOTICE: If you cannot connect to the camera you may need to change the camera's IP address to match your network settings.

Finding Network Devices

Click **Refresh** to reload the Device List.

To narrow your search by Camera Model or Network Location, use the Model Filter and Networks dropdowns.

Changing the IP Address

AvertX recorders will automatically apply a DHCP IP address. If you are not connecting the camera to an AvertX recorder or DHCP network, you must set a static IP address. NCM allows you to do this in the bottom left corner:

1. Select the applicable camera.
2. Enter the **IP address**, **Subnet Mask**, **Gateway**, and **DNS**.
3. Click **Apply**.
4. Wait 10 seconds and click **Refresh**.

CONNECTING TO THE CAMERA

Connecting in a Web Browser

1. Type the IP address of the camera in a web browser.
- OR -
Use the **Network Camera Manager** software and locate the camera on the list, then click **Load** in the row of the desired camera.
2. Log in to the camera with the appropriate User Name and Password.

Username and Password

IMPORTANT: This AvertX camera model ships without a default password; the admin password is required to gain access or establish a connection.

The admin user password can be set using the following methods:

1. AvertX ProConnect recorders will check the camera for a password once connected.
 - i. **If AvertX software does not detect a password, it will set the camera password to a secure text string of 8 to 16 characters** (Including upper-case letters, lower-case letters, digits and special characters (!"#\$%&'()*+,-./:;<=>?@[\\]^_`{|}~ space)).
2. Network Camera Manager
3. Camera Web Browser

Connecting a Stream

AvertX IP cameras are optimized for use with AvertX ProConnect recorders, but you can also connect to your AvertX IP cameras using third party software like VLC media player (<http://www.videolan.org>). All AvertX IP cameras are capable of delivering two RTSP streams over HTTP.

The RTSP stream URL format is as follows:

rtsp://[USER]:[PASSWORD]@[IP ADDRESS]:[RTSP PORT]/ Streaming/Channels/10[STREAM]

[USER] – This is the username to access your device

[PASSWORD] – admin user password

[IP ADDRESS] – IP address of your device

[RTSP PORT] – The default RTSP Port is 554

[STREAM] –

- Primary Stream: Streaming/Channels/101
- Sub-stream: Streaming/Channels/102

RTSP Stream URLs

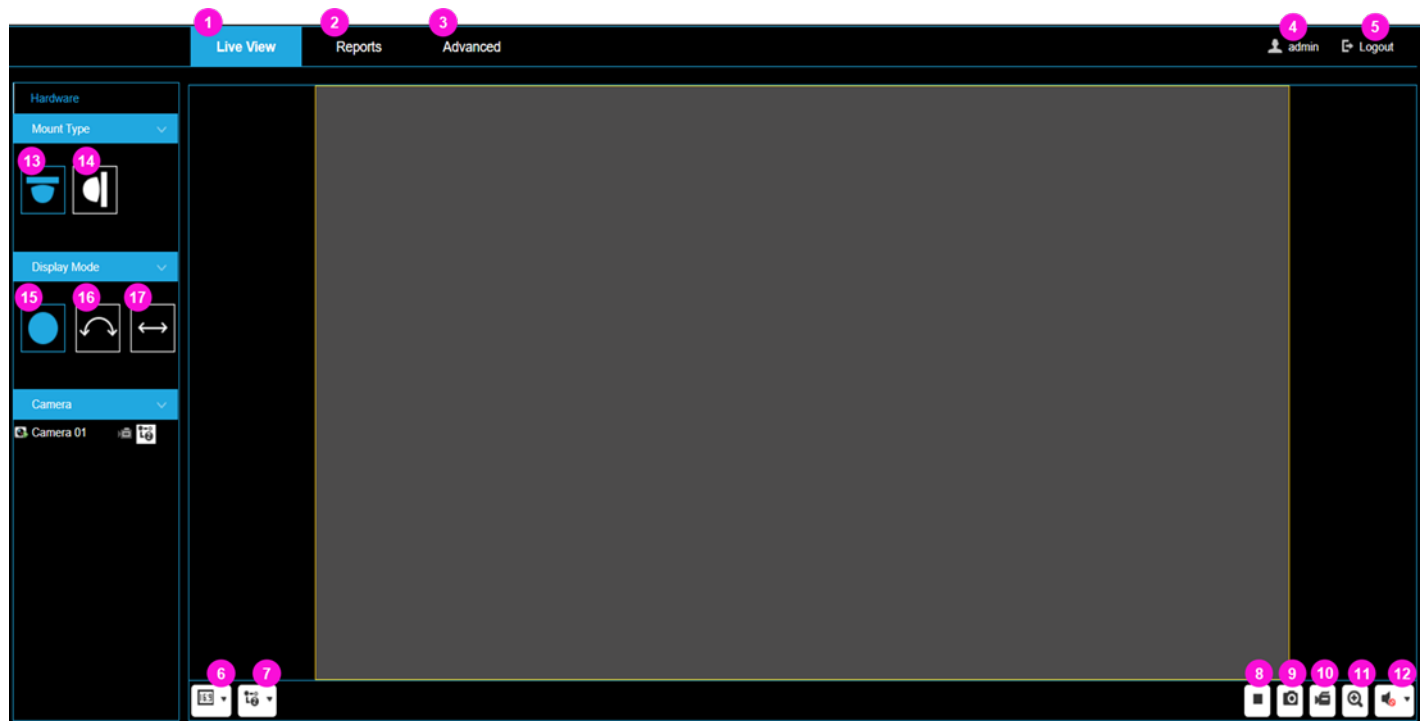
- rtsp://admin:[Password]@[IP ADDRESS]:554/Streaming/Channels/101
 - H.264 Stream 1
- rtsp://admin:[Password]@[IP ADDRESS]:554/Streaming/Channels/102
 - H.264 Stream 2






LOGGING INTO THE WEB INTERFACE

The default static IP address of the camera is 192.168.51.2, and the default subnet mask is 255.255.255.0. DHCP is turned on by default. If a DHCP server is used in the network, the IP address of your camera will be assigned dynamically.

- Browse to the login page by entering the IP address of your camera in the address bar.
- Enter the **username** and **password**, and then click **Login**.
 - Username: admin
 - You will be prompted to change the password the first time you login.

LIVE VIEW



No.	Description
1	Browse to Live View page to view live video
2	Browse to Playback page to view video recorded to onboard storage
3	Browse to the Advanced Page
4	Current user account
5	Exit the device interface
6	Change Aspect Ratio in Live View
7	Select which stream displays in Live View
8	Start/Stop Live View
9	Capture live view image and save to selected location
10	Start/Stop Recording Live view
11	Start/Stop Digital Zoom
12	Mute / Unmute
13	Mount Type:  Ceiling Mounted
14	Mount Type:  Wall Mounted
15	Display Mode:  Fisheye View *
16	Display Mode:  180 Panorama View *
17	Display Mode:  Panorama View *

*Changing the Display Mode requires rebooting the camera.

REPORTS

The Reports page is used to search, view, and export the Heatmapping and People Counting data stored in the local storage or network storage.

The screenshot shows the 'Reports' page with the 'Search Conditions' sidebar on the left. The sidebar includes a 'Report Type' dropdown set to 'Daily Report', a 'Statistics Type' dropdown set to 'People Entered', and a 'Start Time' field set to '2021-01-28'. An 'Apply' button is at the bottom of the sidebar. The main area is titled 'Statistics Results' and contains two empty panels: 'Statistics Time' and 'People Entered'. At the top right of the main area are tabs for 'List', 'Bar Chart', and 'Line Chart', and an 'Export' button. The bottom right corner shows 'Total 0 items' and some small icons.

People Counting Statistics

People Counting Statistics is a graphical representation of persons entering and/or leaving a defined area represented by a list, bar chart, or line chart.

Select the **Report Type** by clicking the drop-down menu. Daily Report, Weekly Report, Monthly Report, and Annual Report are selectable.

Notes:

- Daily report calculates the data on the date you selected*
- Weekly report calculates for the week to which your selected date belongs*
- Monthly report calculates for the month to which your selected date belongs.*
- Annual report calculates for the year to which your selected date belongs.*

Select the **Statistics Type** by clicking the drop-down menu. People Entered and People Exited are the selectable options.

Select the **Start Time** and click **Apply** to search and view People Counting data.

List

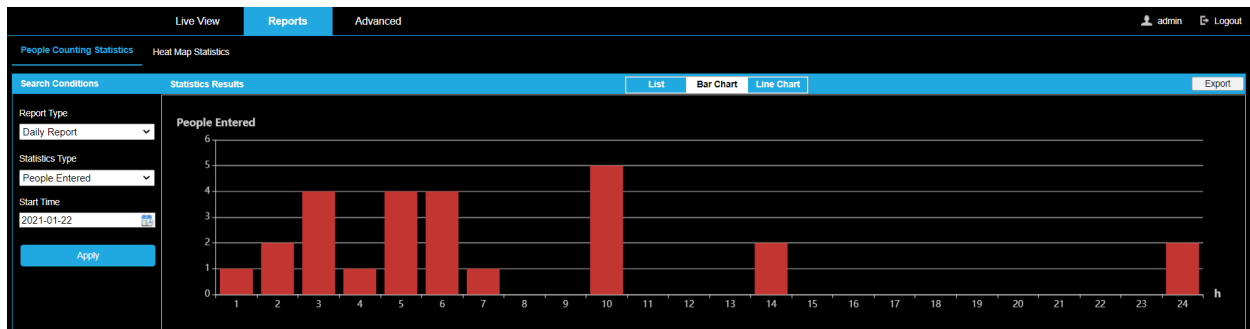
Based on which Report Type you choose, List view will display the data in a list by hour of the day, day of the week, day of the month, or month of the year.

The screenshot shows the 'Reports' page with the 'List' view selected. The 'Search Conditions' sidebar is on the left, with 'Report Type' set to 'Weekly Report', 'Statistics Type' set to 'People Entered', and 'Start Time' set to '2021-01-22'. The 'Apply' button is at the bottom of the sidebar. The main area displays a table with the following data:

Statistics Time	People Entered
Mon	0
Tue	18
Wed	40
Thu	35
Fri	26
Sat	21
Sun	1

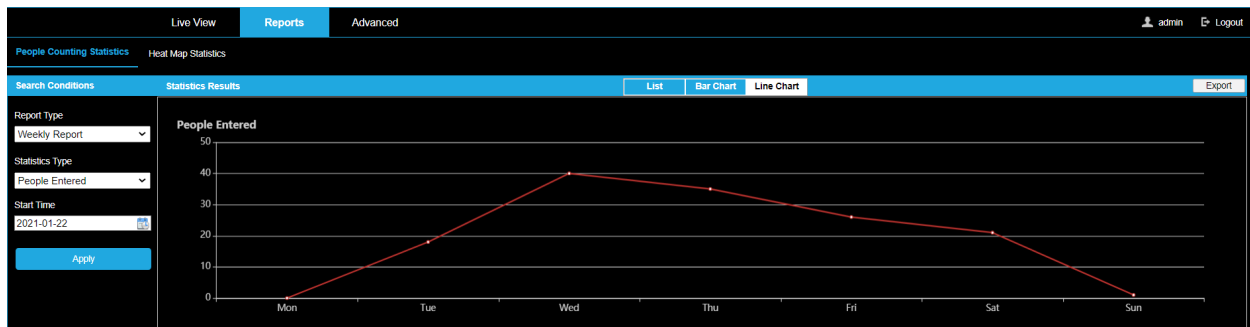
Bar Chart

Based on which Report Type you choose, Bar Chart view will display the data in a list by hour of the day, day of the week, day of the month, or month of the year.



Line Chart

Based on which Report Type you choose, Line Chart view will display the data in a list by hour of the day, day of the week, day of the month, or month of the year.



Line Chart

The **Export** button will export the report data to a .csv file.

Heat Map Statistics

Heat map is a graphical representation of data represented by colors which can be used to analyze the visit times and dwell time of customers in a defined area. To get more intuitional results, you can display the data in different charts.

Select the **Report Type** by clicking the drop-down menu. Daily report, weekly report, monthly report, and annual report are selectable.

Note: *Daily report calculates the data on the date you selected; weekly report calculates for the week your selected date belongs to; monthly report calculates for the month your selected date belongs to; and the annual report calculates for the year your selected date belongs to.*

Select the **Statistics Type** by clicking the drop-down menu

- **By Dwell Time** – Displays data based on the collective time which all people spent inside the detection area and highlights the busiest areas with colored boxes
- **By Heatmap of People** – Displays data based on time which people spent inside the detection area

Select the **Start Time** and click **Apply** to search and view People Counting data.

ADVANCED

SYSTEM

System Settings

Basic Information

Basic Information displays details about the camera. **Device Name** and **Device No.** are customizable.

Live View		Reports	Advanced		
<div>System</div> <div>System Settings</div> <div>Maintenance</div> <div>Security</div> <div>User Management</div> <div>Network</div> <div>Stream Settings</div> <div>Image</div> <div>Event</div> <div>Storage</div> <div>People Counting</div> <div>Heat Map Configuration</div>	Basic Information		Time Settings	DST	About
	Device Name	IP CAMERA			
	Device No.	88			
	Model	AVX-HD119IR			
	Serial No.	AVX-HD119IR20201030AAWRF03370266			
	Firmware Version	V5.5.75 build 201229			
	Encoding Version	V7.3 build 200407			
	Web Version	V4.0.52 build 201217			
	Plugin Version	3.0.7.29			
	Number of Channels	1			
	Number of HDDs	1			
	Number of Alarm Input	0			
Number of Alarm Output	0				
Firmware Version Property	C-R-H3-0				
<div>Save</div>					

Time Settings

Configure the time synchronization and DST settings.

The screenshot shows the 'Time Settings' page in a web application. The interface is dark-themed. On the left, a sidebar menu lists various system settings categories. The main content area has tabs for 'Live View', 'Reports', and 'Advanced'. The 'Advanced' tab is active, and within it, the 'Time Settings' sub-tab is selected. The 'Time Settings' section includes a 'Time Zone' dropdown menu, an 'NTP' section with a radio button to enable NTP, and fields for 'Server Address', 'NTP Port', and 'Interval'. Below the NTP section is a 'Manual Time Sync.' section with a radio button to enable manual synchronization, fields for 'Device Time' and 'Set Time' (with a calendar icon), and a checkbox for 'Sync. with computer time'. A 'Save' button is located at the bottom of the settings area.

Select the **Time Zone** of your location from the drop-down menu.

To configure the NTP settings:

1. Click to enable the NTP function.
2. Configure the following settings:
 - **Server Address:** IP address of NTP server.
 - **NTP Port:** Port of NTP server.
 - **Interval:** The time between synchronizing actions with NTP server.

Note: You can click the *Test* button to test the time synchronization function via NTP server.

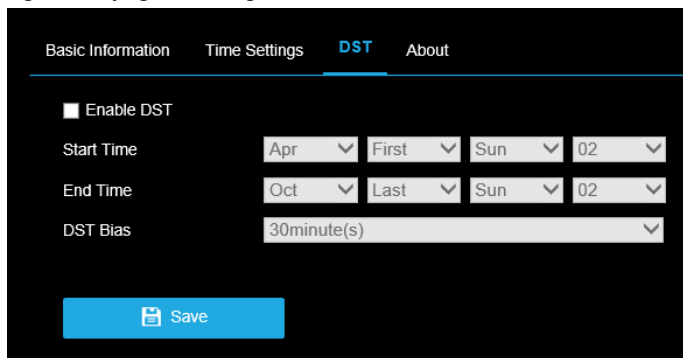
To configure Manual Time Sync:

1. Enable the manual time synchronization function. (enabled by default)
2. Click the icon to select the date, time from the pop-up calendar.

Note: Check **sync with computer time** to synchronize the time of the device with the local PC.

DST (Daylight Savings Time)

Configure daylight savings time, if needed.

The screenshot shows a configuration window with a dark background. At the top, there are four tabs: 'Basic Information', 'Time Settings', 'DST' (which is highlighted in blue), and 'About'. Below the tabs, there is a section for 'DST' configuration. It starts with a checkbox labeled 'Enable DST'. Below this, there are three rows of dropdown menus. The first row is for 'Start Time', with options for 'Apr', 'First', 'Sun', and '02'. The second row is for 'End Time', with options for 'Oct', 'Last', 'Sun', and '02'. The third row is for 'DST Bias', with a single dropdown menu showing '30minute(s)'. At the bottom of the configuration section, there is a blue button with a white floppy disk icon and the text 'Save'.

To configure DST:

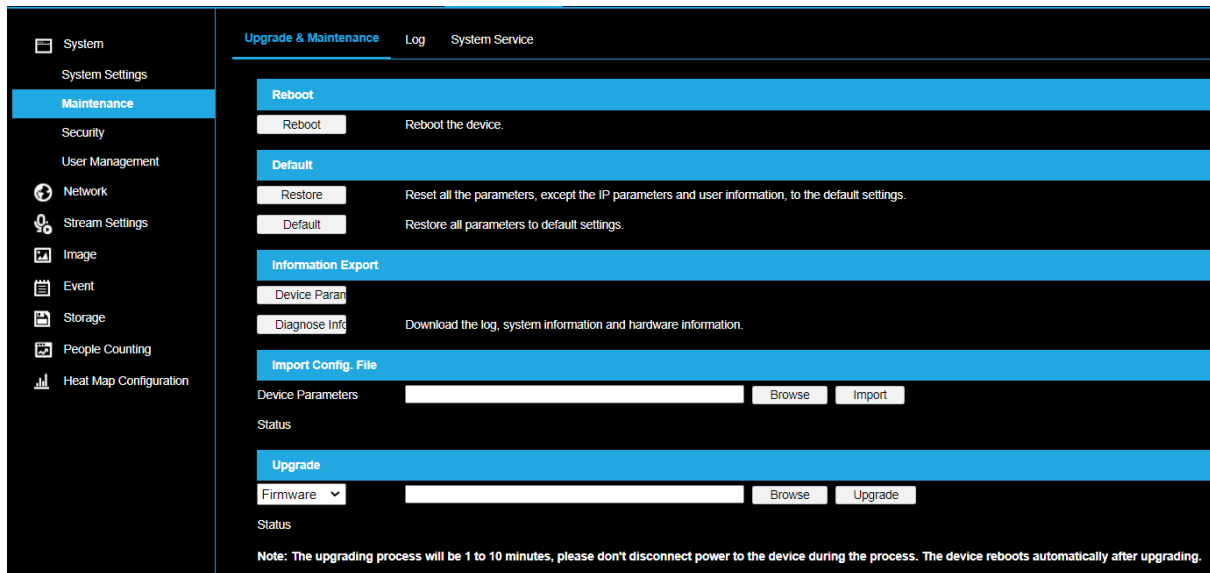
1. Select the **Start Time** and the **End Time**.
2. Select the DST Bias.
3. Click **Save** to activate the settings.

About

Click **View Licenses** to check information about the open source software that applies to the IP camera.

Maintenance

Upgrade & Maintenance



Process the operations, including reboot, partly restore, restore to default, export/import the configuration files, and upgrade the device.

- **Reboot:** Restart the device.
- **Restore:** Reset all the parameters, except the IP parameters and user information, to the default settings.
- **Default:** Restore all the parameters to the factory default.

Note: Restoring the default settings will require setting the admin password again; the IP address is also restored to the default IP address.

- **Device Parameters:** Export the current configuration file of the camera. This operation requires the admin password. The user will be required to create an encryption password for the exported file. The encryption password is required when you import the file to other cameras.
- **Diagnose Information:** Download log and system information.
- **Import Config. File:** Configuration file is used for the batch configuration of cameras.
- **To import a configuration file:**
 1. Click **Browse** to select the saved configuration file.
 2. Click **Import** and input encryption password to start importing configuration file.

Note: The camera will need to reboot after importing configuration file.

- **Upgrade:** Upgrade the device firmware.

To upgrade your device firmware:

1. Click Browse to select the local upgrade file and then click Upgrade to start remote upgrade.

Note: The upgrading process will take 1 to 10 minutes. Do not disconnect the camera during the upgrade process; the camera will reboot automatically after upgrade.

Log

Export the camera log files.

The screenshot shows the 'Log' interface within the 'Advanced' tab. The left sidebar contains a menu with 'Maintenance' selected. The main area has tabs for 'Upgrade & Maintenance', 'Log', and 'System Service'. Under the 'Log' tab, there are filters for 'Major Type' and 'Minor Type' (both set to 'All Types'), 'Start Time' (2021-02-02 00:00:00), and 'End Time' (2021-02-02 23:59:59). A 'Search' button is present. Below the filters is a 'Log List' table with columns: No., Time, Major Type, Minor Type, Channel No., Local/Remote User, and Remote Host IP. The table is currently empty. At the bottom right of the table area, it says 'Total 0 Item(s)' and '0/0'. There are also 'Export txt' and 'Export CSV' buttons.

To export log files:

1. Set the log search conditions to specify the search, including **Major Type**, **Minor Type**, **Start Time** and **End Time**.
2. Click **Search** to search log files. The matched log files will be displayed on the log list interface.
3. Click **Export** to save the log files.

System Service

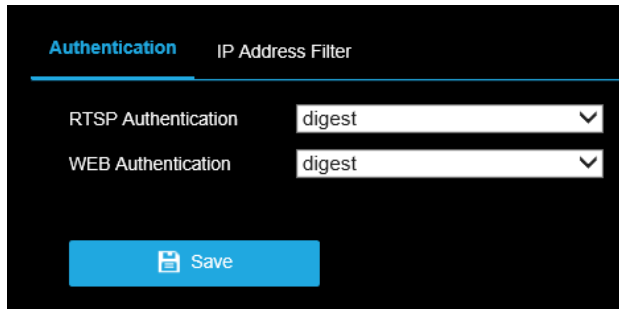
The screenshot shows the 'System Service' interface within the 'Advanced' tab. The left sidebar is the same as in the previous screenshot, with 'Maintenance' selected. The main area has tabs for 'Upgrade & Maintenance', 'Log', and 'System Service'. Under the 'System Service' tab, there is a 'Hardware' section with a checkbox labeled 'Enable IR Light' which is checked. Below this is a 'Save' button.

Enable IR Light checkbox is enabled by default. Uncheck the checkbox to disable IR Light. Click **Save** to save any changes.

Security

Configure the parameters, including **Authentication**, **IP Address Filter**.


Authentication



Authentication IP Address Filter

RTSP Authentication digest

WEB Authentication digest

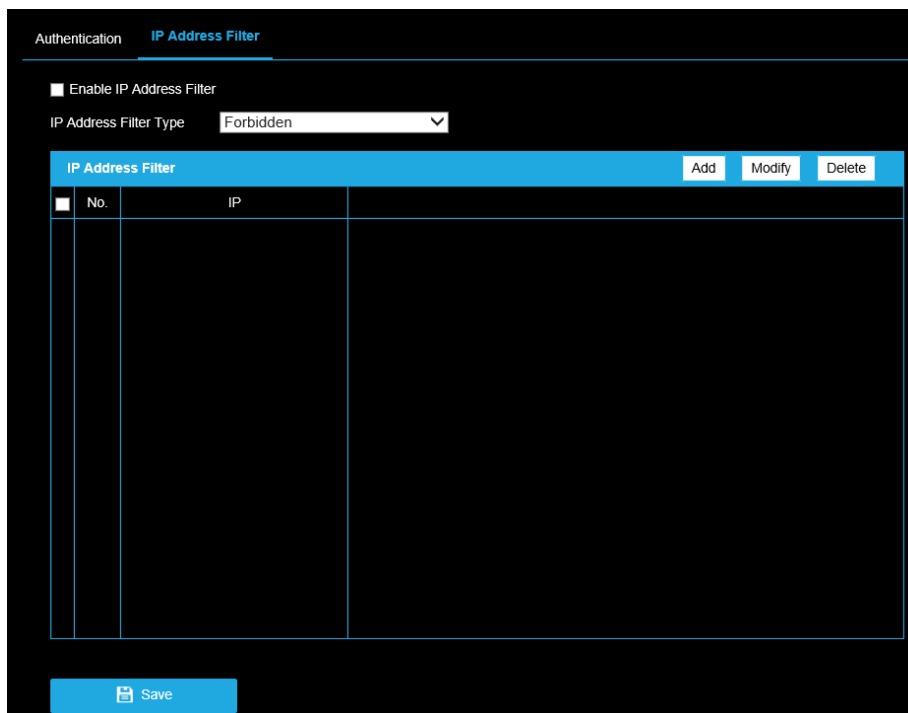
 Save

1. Set up authentication method for **RTSP Authentication** and **WEB Authentication**.

CAUTION: Digest is the recommended authentication method for better data security. Be aware of the risk if you adopt basic as the authentication method.

2. Click **Save** to save the settings.

IP Address Filter




Authentication IP Address Filter

☒ Enable IP Address Filter

IP Address Filter Type Forbidden

IP Address Filter Add Modify Delete

No.	IP
-----	----

 Save

To configure IP Address Filtering:

1. Check the checkbox of **Enable IP Address Filter**.
2. Select the type of **IP Address Filter** in the drop-down list, **Forbidden** and **Allowed** are selectable.
3. Setup the **IP Address Filter** list:
 - **Add:** Add an IP Address
 - **Modify:** Modify an IP Address
 - **Delete:** Delete an IP Address
4. Click **Save** to save the settings.

User Management

As Administrator:

The admin user can **Add**, **Modify** or **Delete** user accounts, and grant them different permissions. We highly recommend you manage the user accounts and permissions properly.

User Management			
Online Users			
User List			
			Add Modify Delete
No.	User Name	Level	
1	admin	Administrator	

Note: Admin password is required for adding and modifying a user account.

Adding a User

The admin user has all permissions by default and can create, modify or delete other accounts. The admin user cannot be deleted, and you can only change the admin password.

1. Click **Add** to add a user.
2. Input the Admin Password, User Name, select Level and input Password.
3. Check or uncheck permissions for the new user.
4. Click **OK** to finish the user addition.

Notes: Up to 31 user accounts can be created.
Users of different levels own different default permissions.

Modifying a User

1. Select the user from the list and click **Modify**.
2. Modify the User Name, Level and Password.
3. You can check or uncheck the permissions.
4. Click **OK** to finish the user modification.

Deleting a User

1. Click to select the user you want to delete and click **Delete**.
2. Click **OK** on the pop-up dialogue box to confirm the deletion.

As Operator or User

An operator or user can modify a password. An old password is required for this action.

Online Users

Lists current users who are visiting the device through the web interface.

Click **Refresh** to refresh the list.

User Management					
Online Users					
User List					
					Refresh
No.	User Name	Level	IP Address	User Operation Time	
1	admin	Administrator	10.0.30.166	1970-03-03 20:50:50	
2	admin	Administrator	10.0.21.186	1970-03-03 20:59:35	

Basic Settings

Basic Settings > TCP/IP

Configure the basic network settings, including the **NIC Type**, **IP Address**, **Subnet Mask**, **Gateway**, **MTU settings** and **Multicast Address**.

The screenshot shows a web interface for network configuration. On the left is a sidebar with a menu: System, Network, Basic Settings (highlighted), Advanced Settings, Stream Settings, Image, Event, Storage, People Counting, and Heat Map Configuration. The main area has tabs for Live View, Reports, and Advanced (selected). Under the Advanced tab, there are sub-tabs for TCP/IP (selected), DDNS, and Port. The TCP/IP section contains the following fields: NIC Type (Auto), DHCP (checked), IPv4 Address (192.168.51.10) with a Test button, IPv4 Subnet Mask (255.255.255.0), IPv4 Default Gateway (192.168.51.1), IPv6 Mode (Route Advertisement) with a View Route Advertisement button, IPv6 Address, IPv6 Subnet Mask, IPv6 Default Gateway, Mac Address (4c:91:7a:b2:00:05), MTU (1500), and Multicast Address. There is also a checkbox for Enable Multicast Discovery (checked). Below these is a DNS Server section with Preferred DNS Server (8.8.8.8) and Alternate DNS Server fields. A Save button is at the bottom.

(Optional):

1. Configure the DNS server. Input the preferred DNS server, and alternate DNS server.
2. Click **Save** to save the above settings.

Notes:

- The valid value range of MTU is 1280 ~ 1500.
- The Multicast sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Before utilizing this function, you have to enable the Multicast function of your router.
- A reboot is required for the settings to take effect.

Basic Settings > DDNS

The screenshot shows the 'Basic Settings' menu on the left with 'Basic Settings' selected. The main area is titled 'DDNS' and contains the following fields:

- ☐ Enable DDNS
- DDNS Type: DynDNS (dropdown)
- Server Address: members.dyndns.org
- Domain: (empty text field)
- User Name: (empty text field)
- Port: 0
- Password: (empty text field)
- Confirm: (empty text field)
- Save button

Before you start: Registration on the DDNS server is required before configuring the DDNS settings of the camera.

1. Check the **Enable DDNS** checkbox to enable this feature.
2. Select **DDNS Type**. Two DDNS types are selectable: DynDNS and NO-IP.

DynDNS:

1. Enter **Server Address** of DynDNS (e.g. members.dyndns.org).
2. In the **Domain** text field, enter the domain name obtained from the DynDNS website.
3. Enter the **User Name** and **Password** registered on the DynDNS website.
4. Click **Save** to save the settings.

NO-IP:

1. Choose the **DDNS Type** as NO-IP.
2. Enter the **Server Address** as www.noip.com
3. Enter the **Domain** name you registered.
4. Enter the **User Name** and **Password**.
5. Click **Save**.

Note: A reboot is required for the settings take effect.

Basic Settings > Port

The screenshot shows the 'Basic Settings' menu on the left with 'Basic Settings' selected. The main area is titled 'Port' and contains the following fields:

- HTTP Port: 80
- RTSP Port: 554
- HTTPS Port: 443
- Server Port: 8000
- Enhanced SDK Service P...: 8443
- Save button

- **HTTP Port:** The default port number is 80.
- **RTSP Port:** The default port number is 554.
- **HTTPS Port:** The default port number is 443.
- **Server Port:** The default server port number is 8000.

Advanced Settings

Advanced Settings > HTTPS

HTTPS provides authentication of the web site and its associated web server, which protects against Man-in-the-middle attacks.

HTTPS Integration Protocol

☒ Enable

Certificate Details

Installed Certificate	C=US, ST=WA, OU=dvrsupportcenter, H/IP=808a018975cf04a1cf931c2fcec048d7, EM=com	Delete
Property	Subject: C=US, ST=WA, OU=dvrsupportcenter, H/IP=808a018975cf04a1cf931c2fcec048d7, EM=com Issuer: C=US, ST=WA, OU=dvrsupportcenter, H/IP=808a018975cf04a1cf931c2fcec048d7, EM=com Validity: 2019-09-30 09:07:34 ~ 2022-09-29 09:07:34	

Export Certificate

Self-signed Certificate Export

Save

Notes:

- *HTTPS is enabled by default.*
- *If HTTPS is enabled, the camera creates an unsigned certificate automatically.*

1. Check **Enable** to access the camera via HTTP or HTTPS protocol.
2. Check **Enable HTTPS Browsing** to access the camera only via HTTPS protocol.

STREAM SETTINGS

Video

Configure parameters for the main and sub video & audio streams.

The screenshot shows a web interface for configuring stream settings. On the left is a sidebar menu with options: Sys, Network, Stream Settings (highlighted), Image, Event, Storage, People Counting, and Heat Map Configuration. The main area has two tabs: Video and Audio. Under the Video tab, the following settings are visible: Stream Type (Main Stream(Normal)), Video Type (Video&Audio), Resolution (3000*3000), Bitrate Type (Variable), Video Quality (Medium), Frame Rate (15 fps), Max. Bitrate (8192 Kbps), Max. Average Bitrate (4096 Kbps), Video Encoding (H.264), H.264+ (ON), Profile (Main Profile), and I Frame Interval (30). A Save button is at the bottom.

Select the **Stream Type**.

Supported stream types are listed in the drop-down:

- **Main stream** is used for recording motion events and live view with good bandwidth.
- **Sub-stream** is used for continuous recording and live view.

Customize the following parameters for the selected stream type:

- **Resolution:** Select the resolution of the video output.
- **Bitrate Type:** Select the bitrate type to constant or variable.
- **Video Quality:** When bitrate type is selected as Variable, 6 levels of video quality are selectable.

Note: *Increasing Video Quality increases bitrate.*

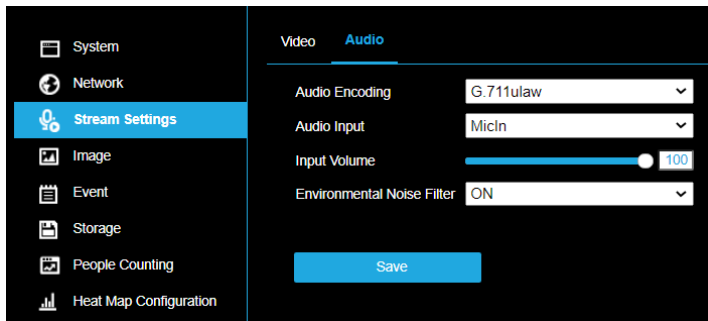
- **Frame Rate:** Set the frame rate.
- **Max. Bitrate:** Set the max. bitrate from 32 to 16384 Kbps. The higher value corresponds to the higher video quality and increased bandwidth use.
- **Max. Average Bitrate:** When you set a maximum bitrate, its corresponding recommended maximum average bitrate will be shown in the Max. Average Bitrate box.
- **Video Encoding:** The camera supports multiple video encodings types, such as H.264, H.264+, H.265, and H.265+.

IMPORTANT: AvertX ProConnect recorders do not currently support H.265/H.265+ video encoding.

Note: *The camera will require a reboot to turn H.264+/H.265+ on or off.*

Audio

Configure the following audio settings:



Audio Encoding

G.711ulaw is the only available option

Audio Input

MicIn and **LinIn** are selectable for the connected microphone and pickup respectively. **MicIn** is selected by default.

Input Volume

Set the Input Volume to the desired level from 0-100.

Environmental Noise Filter

Set it as ON or OFF. When enabled, environmental noise will be filtered to some extent to improve audio clarity.

Display Settings

Configure the image adjustment, exposure settings, day/night switch, backlight settings, white balance, image enhancement, video adjustment, and other parameters in display settings, OSD settings, and privacy mask.

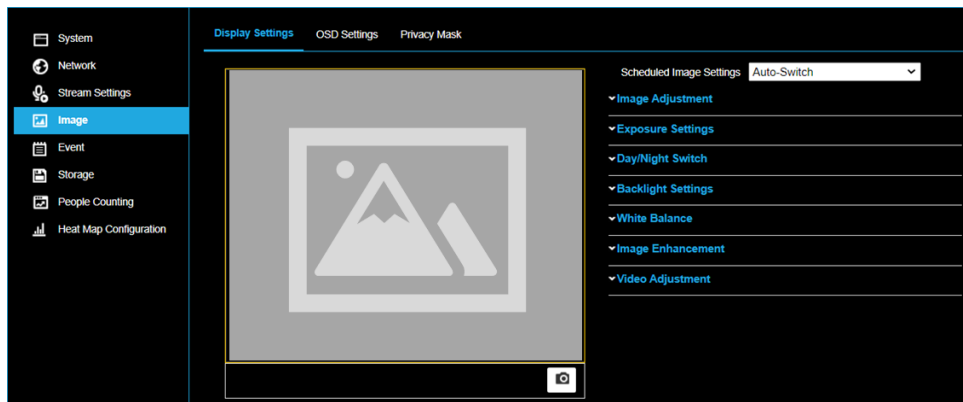
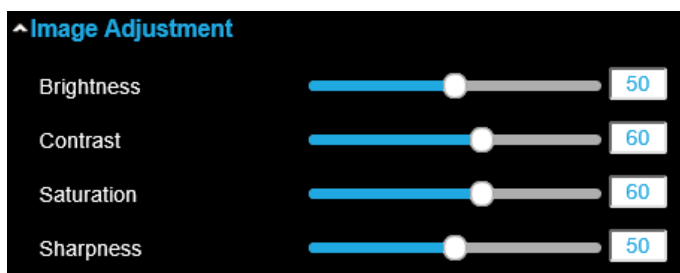










Image Adjustment



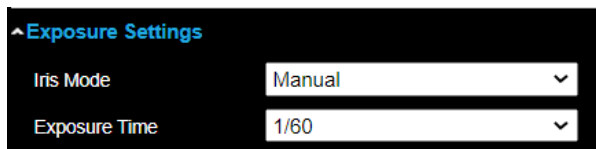
- **Brightness** describes brightness of the image, which ranges from 1 to 100.
- **Contrast** describes the contrast of the image, which ranges from 1 to 100.
- **Saturation** describes the intensity of the image color, which ranges from 1 to 100.
- **Sharpness** describes the edge contrast of the image, which ranges from 1 to 100.

Item	Description
Brightness	<p>Set the degree of brightness of images.</p> <div>   </div> <p>Low brightness High brightness</p>

Saturation	Set the intensity of color in the image. <div>   </div> <div> Low saturation High saturation </div>
Contrast	Set the degree of difference between the blackest pixel and the whitest pixel. <div>   </div> <div> Low contrast High contrast </div>
Sharpness	Contrast of boundaries of objects in an image. <div>   </div> <div> Low sharpness High sharpness </div>
Digital Noise Reduction	Reduce the noise of images. The function may cause image blurring.

Exposure Settings

Manual is the only available setting for Iris Mode.

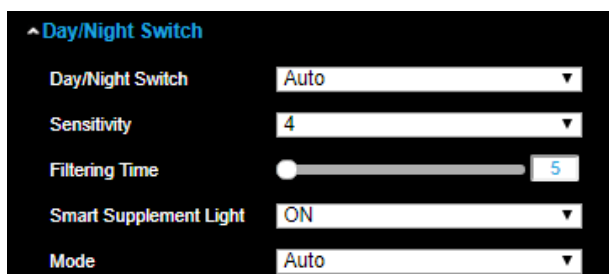


Exposure Time refers to the electronic shutter time, which ranges from 1 to 1/100,000s. Adjust it according to the actual luminance condition.

Day/Night Switch

Select the **Day/Night Switch** mode according to different surveillance demand.

- Day, Night, Auto, Scheduled-Switch are the available options.



- **Day:** The camera provides high-quality color images using the existing light.

- **Night:** The camera provides high-quality black and white images using the existing light.
- **Auto:** The camera outputs the optimum images according to the light condition. In this mode, the camera can switch between night mode and day mode automatically.
- **Sensitivity** ranges from 0 to 7, the higher the value is, the easier the mode switches.
- **Filtering Time** refers to the interval time between the day/night switch. You can set it from 5s to 120s.
- **Scheduled-Switch:** Set the start time and the end time to define the duration for day/night mode.
- **Smart Supplement Light/Mode:** Set the supplement light as **On + Auto**, **On + Manual**, or **OFF**.
- **Auto** - Supplement light changes according to the actual luminance.
 - For example, if the current scene is bright enough, then the supplement light adjusts itself to lower power; and if the scene is not bright enough, the light adjusts itself to higher power.
- **Manual** - Adjust the supplemental light by adjusting the distance.

- Lower value indicates the object is closer to the camera; the value increases as the object distance increases.

Backlight Settings

- **BLC Area:** An object against strong backlight will be too dark to be seen clearly. BLC adjusts light around the object to improve visibility. OFF, Up, Down, Left, Right, and Center are available options.

Note: WDR must be set to OFF to access BLC Area.

- **WDR:** Wide Dynamic Range can be used when there is a combination of bright areas and dark areas in the same scene.
- **HLC:** High Light Compression can be used when there are strong lights in the scene affecting the image quality.

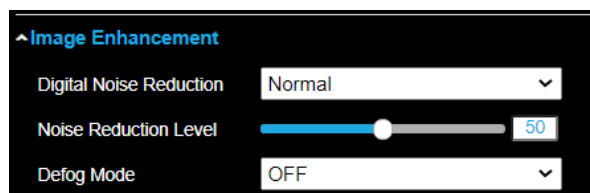
White Balance

White balance is the process of offsetting unnatural color cast in images under different color temperatures so as to output images that best suit human eyes.

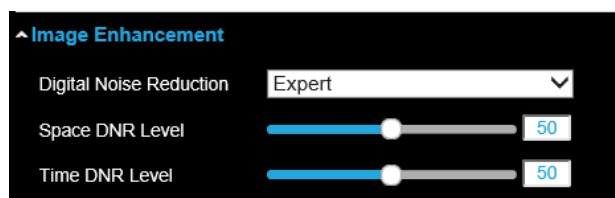


Image Enhancement

- **Digital Noise Reduction:** DNR reduces the noise in the video stream. OFF, Normal and Expert are the available options.
 - **Normal Mode:** 0 to 100



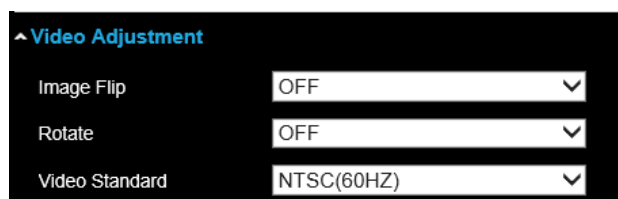
- **Expert Mode:**
 - Space DNR level: 0 – 100
 - Time DNR level: 0 – 100



- **Defog Mode:** Defog Mode reduces the foggy appearance of video with IR, usually caused by IR reflection. OFF, Auto, and ON are the available options.

Note: WDR must be set to OFF to access BLC Area.

Video Adjustment

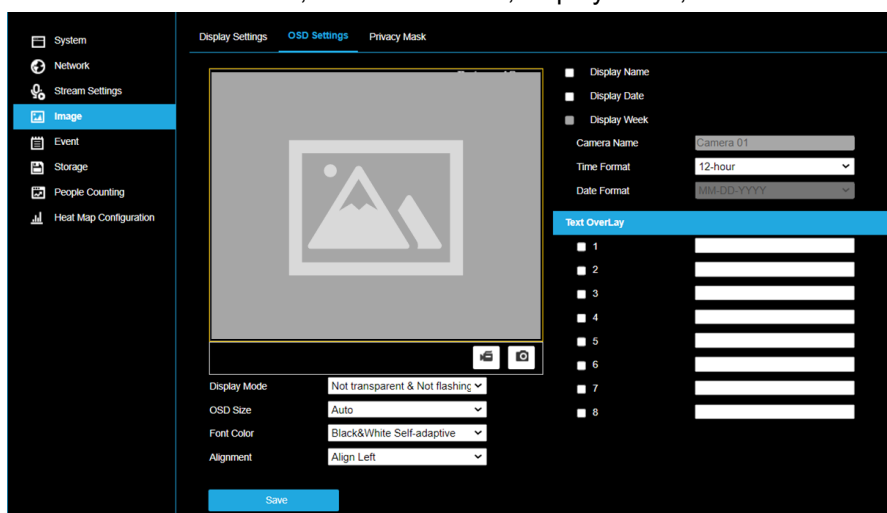


- **Video Standard:** PAL (50Hz) and NTSC(60Hz) are the available options. NTSC (60HZ) is the default mode.

Note: NTSC is the Video Standard in North and South America.

OSD Settings

Customize the camera name, time/date format, display mode, and OSD size displayed in live view.



To configure OSD settings:

1. Check the applicable checkbox to display the camera name, date or week.
2. Edit the camera name in the text field of **Camera Name**.
3. Select from the drop-down list to set the **Time Format** and **Date Format**.
4. Select from the drop-down list to set the **Display Mode**, **OSD Size**, **Font Color** and **Alignment**.

To configure the text overlay settings:

1. Check the checkbox in front of the textbox to enable the on-screen display.
2. Input the characters in the textbox.

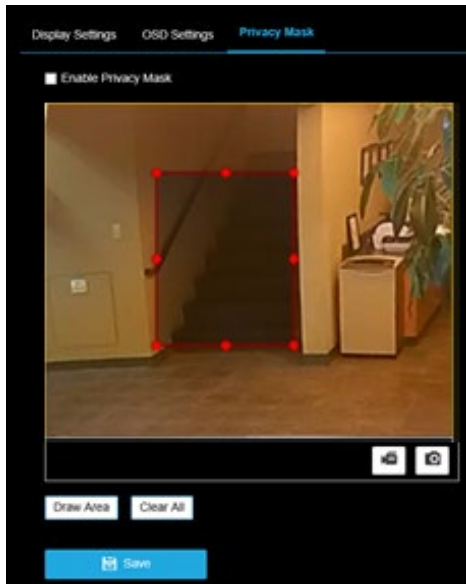
Note: Up to 8 text overlays are configurable.

- Adjust the position and alignment of text frames.
 - Custom, Alight Left, and Alight Right are selectable.
 - Select custom to use the mouse to click and drag text frames in the live view window to adjust their positions.

Note: The alignment adjustment is only applicable to Text Overlay items.

Privacy Mask

Privacy mask enables you to cover certain areas on the live video to prevent certain spots in the surveillance area from being viewed and recorded. Privacy mask areas are used to protect privacy. For example, a privacy mask can cover the keypad of an ATM machine or the entry to fitting rooms.



To configure privacy masks:

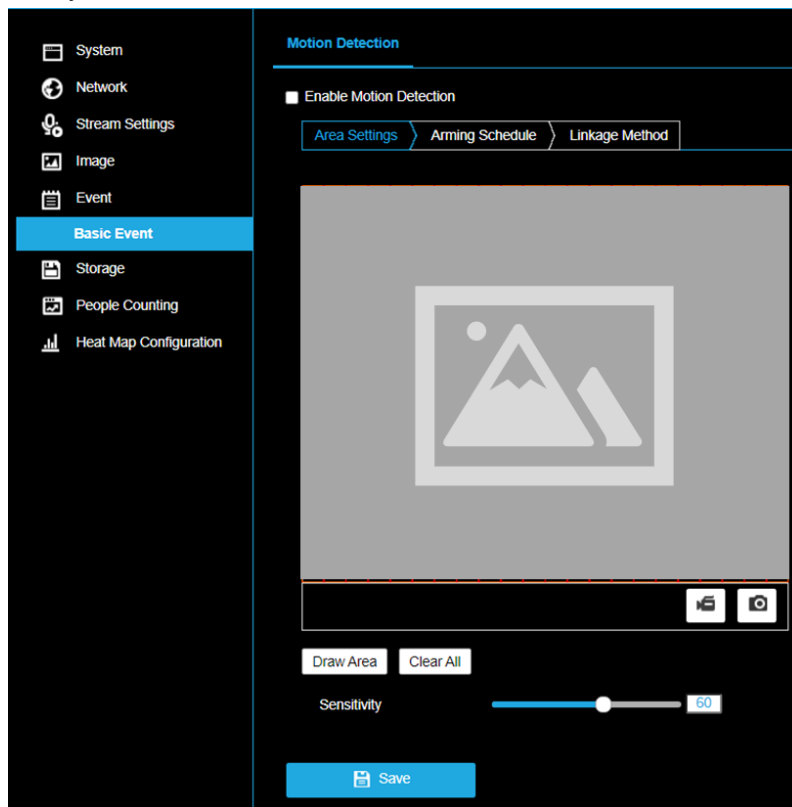
1. Check the checkbox of **Enable Privacy Mask**.
2. Click **Draw Area**.
3. Click and drag the mouse in the live video window to draw the mask area.

Note: Draw up to 4 areas on the same image.

4. Click **Stop Drawing** to finish drawing.
5. Click **Clear All** to clear all areas.

Motion Detection

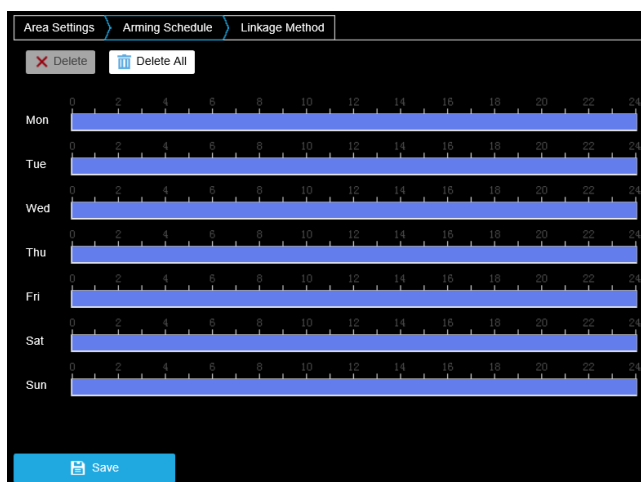
Motion detection detects moving objects in the defined areas. In order to detect the moving objects accurately and reduce the false alarm rate.



To configure Normal motion detection:

1. Check **Enable Motion Detection**.
2. Click **Draw Area**.
 - Click and drag the mouse on the live video to draw a motion detection area.
 - Click **Stop Drawing** to finish drawing one area.
- **Clear All**: clears all detection areas.
- **Sensitivity**: Move the slider or type a number in the text box to set the detection level.
 - 0 – no detection; 100 – Maximum sensitivity.

Set the Arming Schedule for Motion Detection



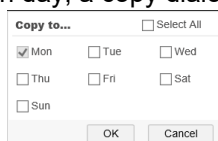
To configure the motion detection schedule:

1. Click on the time bar and drag the mouse to select the time period.

Note: Click on the selected time period, you can adjust the time period to the desired time by either moving the time bar or input the exact time period.



- (Optional) Click **Delete** to delete the current arming schedule.
2. Move the mouse to the end of each day, a copy dialogue box pops up, and you can copy the current settings to other days.
 3. Click **Save** to save the settings.



Note: The time of each period can't be overlapped. 8 periods can be configured for each day.

Set the Linkage Method for Motion Detection

Motion Detection

☐ Enable Motion Detection

Area Settings > Arming Schedule > Linkage Method

ACTIONS

- ☐ Record Video to Memory Card
- ☐ Upload Snapshots to Memory Card

Save

Use the checkboxes to enable the available actions.

ACTIONS (Arming Schedule must be configured to enable):

Record Video to Memory Card – Video will be recorded when motion is detected.

Upload Snapshots to Memory Card – Capture the image when motion is detected and save the picture to the onboard microSD card.

Note: *These actions require a microSD card installed in camera.*

Click **Save** after selecting actions.

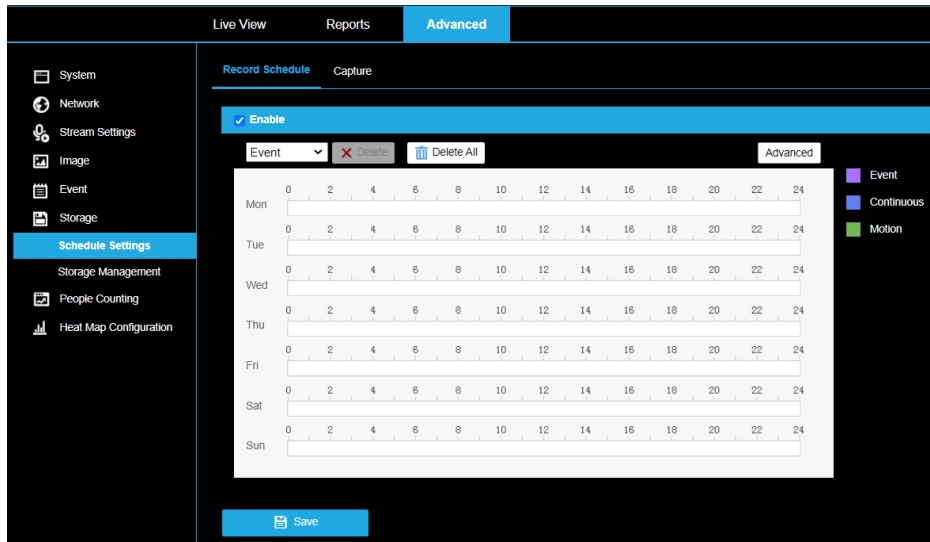
Note: *Refer to Storage > Schedule Settings & Storage > Storage Management sections of this manual to configure microSD card storage.*

STORAGE

Schedule Settings

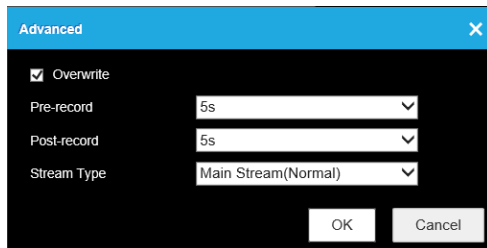
Schedule Settings > Record Schedule

This camera includes an integrated microSD™ card slot that can be used to record video. The card slot is compatible with a microSD™ card up to 512GB. This section is used to define when video should be recorded to the microSD card.



To configure record schedule:

1. Check **Enable** to enable scheduled recording.
2. Click **Advanced** to set the camera record parameters.



- **Pre-record:** length of time set to start recording before the scheduled time or the event. The Pre-record time can be configured as **No Pre-record, 5s, 10s, 15s, 20s, 25s, 30s or not limited**.
 - Example: if motion is detected and triggers recording at 10:00, and the pre-record time is set as 5 seconds, the camera starts to record at 9:59:55.
 - **Post-record:** length of time set to record after the end of event. The Post-record time can be configured as 5s, 10s, 30s, 1 min, 2 min, 5 min or 10 min.
 - Example: if a motion event ends at 11:00, and the post-record time is set as 5 seconds, the camera records until 11:00:05.
 - **Stream Type:** Select the stream type for recording (Main Stream or Sub-stream).
3. Select the **Record Type**:
 - Continuous:** video will be recorded automatically according to the time of the schedule.
 - Motion:** video will be recorded when the motion is detected.

Note: In addition to configuring the recording schedule, the schedule and actions must also be configured in the Motion Detection settings.

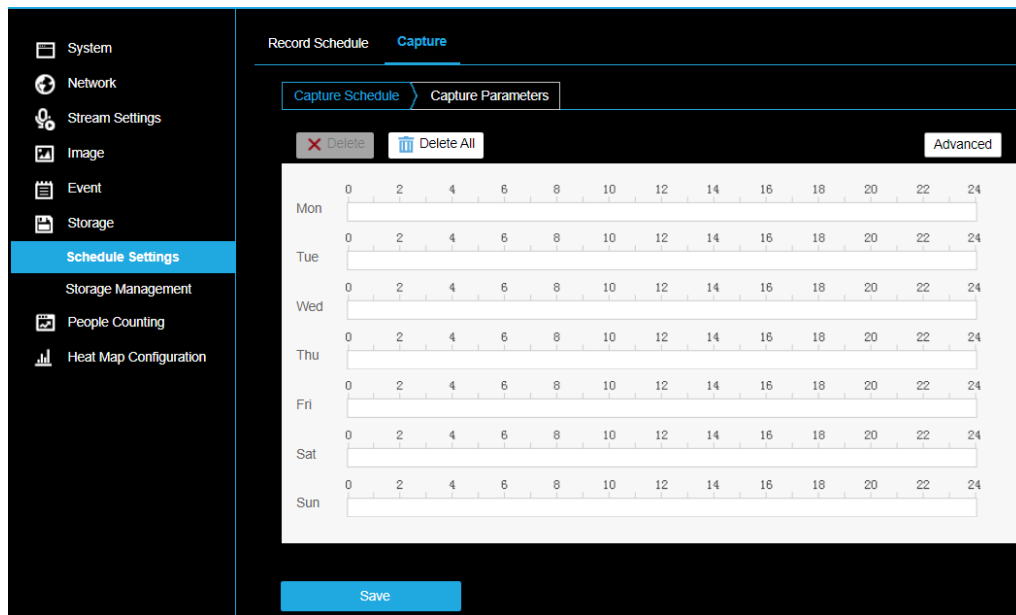
Event: video will be recorded when an event occurs.

Note: In addition to configuring the recording schedule, the schedule and actions must also be configured in the Analytics settings.

4. Click-and-drag the mouse on the time bar to set the record schedule.
5. Click **Save** to save the settings.

Schedule Settings > Capture Schedule

This camera includes an integrated microSD™ card slot that can be used to record images. The card slot is compatible with a microSD™ card up to 512GB. This section is used to define when images should be saved to the microSD card.



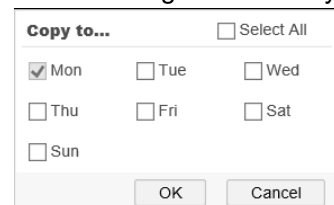
To configure the capture schedule:

1. Click on the time bar and drag the mouse to select the time period.

Note: Click on the selected time period to adjust the time period to the desired time by either moving the time bar or input the exact time period.



- Click **Delete All** to delete all schedules.
2. Move the mouse to the end of each day, a copy dialogue box pops up, and you can copy the current settings to other days.



3. Click **Save** to save the settings.

Schedule Settings > Capture Parameters

The screenshot displays the 'Capture Parameters' configuration window. On the left, a sidebar lists various system settings, with 'Schedule Settings' currently selected. The main panel is divided into two tabs: 'Record Schedule' and 'Capture'. The 'Capture' tab is active, showing two sub-sections: 'Timing' and 'Event-Triggered'. In the 'Timing' section, the 'Enable Timing Snapshot' checkbox is unchecked. Below it, the 'Format' is set to JPEG, 'Resolution' to 3000*3000, 'Quality' to High, and 'Interval' to 1000 milliseconds. The 'Event-Triggered' section has the 'Enable Event-Triggered Snapshot' checkbox checked. Its parameters include 'Format' (JPEG), 'Resolution' (3000*3000), 'Quality' (High), 'Interval' (1000 milliseconds), and 'Capture Number' (5). A 'Save' button is located at the bottom of the configuration area.

1. Check **Enable Timing Snapshot**.
2. Select the **Quality** and **Capture Interval**.
 - **Quality**: Low, Medium, High
 - **Interval**: length of time between images
 - Available options are Millisecond, s (second), minute(s), hour, day(s)
3. Check **Enable Event-Triggered Snapshot**.
4. Select the **Quality**, **Interval**, and **Capture Number**.
 - **Quality**: Low, Medium, High
 - **Interval**: length of time between images
 - **Capture Number**: Quantity of images to capture
5. Click **Save** to save the settings.

Storage Management

View the capacity, free space, status, type, formatting type, and property of the disk.

The screenshot displays the 'Storage Management' section of a web interface. On the left is a sidebar with navigation options: System, Network, Stream Settings, Image, Event, Storage (highlighted), Schedule Settings, People Counting, and Heat Map Configuration. The main area is titled 'HDD Management' and 'Net HDD'. It features a table with columns: HDD No., Capacity, Free space, Status, Type, Property, Progress, and a 'Format' button. The table contains one entry for HDD No. 1 with a capacity of 14.73GB, free space of 12.50GB, and status 'Normal'. Below the table is a 'Quota' section with sliders for Max. Picture Capacity (1.50GB), Free Size for Picture (1.50GB), Max. Record Capacity (5.25GB), Free Size for Record (5.25GB), Max. Data Capacity (6.25GB), Free Size of Data (5.75GB), and percentage settings for Picture (25%), Record (25%), and Data (50%). A 'Save' button is at the bottom.

HDD No.	Capacity	Free space	Status	Type	Property	Progress
1	14.73GB	12.50GB	Normal	Local	R/W	

Quota

- Max. Picture Capacity: 1.50GB
- Free Size for Picture: 1.50GB
- Max. Record Capacity: 5.25GB
- Free Size for Record: 5.25GB
- Max. Data Capacity: 6.25GB
- Free Size of Data: 5.75GB
- Percentage of Picture: 25%
- Percentage of Record: 25%
- Percentage of Data: 50%

Save

Note: The camera must be powered off when installing or removing the microSD card.

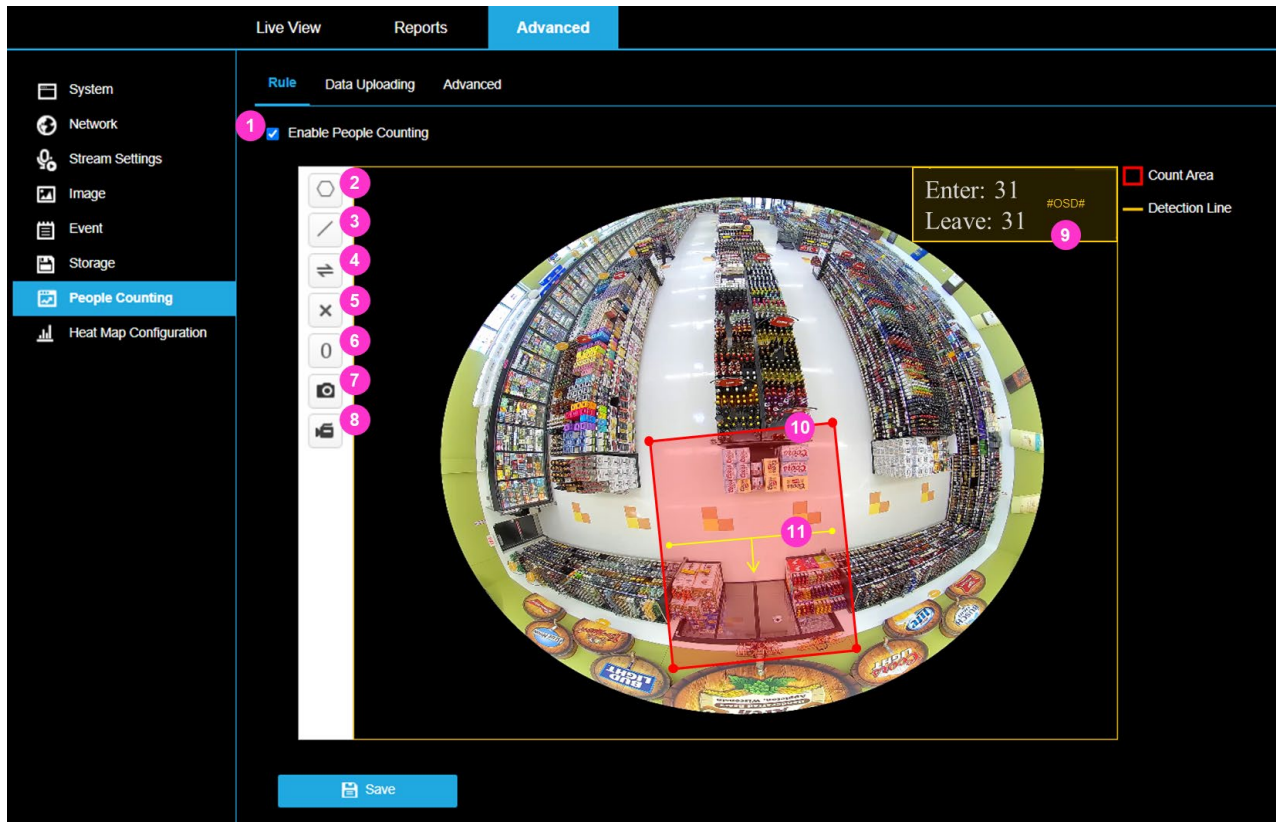
If the status of the disk is Uninitialized, check the corresponding checkbox to select the disk and click **Format** to start initializing the disk. When the initialization completes, the status of disk will become Normal.

1. Define the quota for record and pictures:
 - Input the quota percentage for picture and for record.
2. Click **Save** and **refresh** the browser page to activate the settings.

Note: This camera model does not support writing to network hard drives.

People Counting

People Counting provides the necessary data to assist in managing labor allocation at peak service times.



IMPORTANT: Set the date and time on the camera to ensure accuracy in your People Counting reports.

1. Enable People Counting

People Counting is enabled when the checkbox is checked and disabled when unchecked.

2. Draw Count (Detection) Area

Draw your Count Area by left clicking on your mouse at each point of your area. Right-click when finished drawing your detection area.

Note: The Count Area must be a convex polygon with a maximum of 10 sides.
Drawing the Count Area where people may linger can impact counting accuracy.

3. Add Detection Line

Click and drag the detection line to adjust its position. To adjust its length and/or angle, use the end points on the detection line.

Note: The yellow arrow indicates the direction recognized as entering.

4. Change Direction

Changes the direction of the yellow arrow which is recognized as entering.

5. Delete Detection Line

Deletes the detection line

6. Reset Counter

Manually reset the Enter and/or Leave counts to zero.

7. Capture Snapshot

Manually captures a snapshot from live video and downloads the image to your computers downloads folder.

8. Start/Stop Recording

Manually start and stop recording live video. The video will be saved to your local PC when recording is stopped.

9. On-Screen Display

Click inside the box and drag to reposition the OSD.

10. Detection Area

Defined area in which, people will be counted for crossing the associated detection line. The detection area can be resized by clicking on the endpoints and dragging to a new position. Click anywhere inside of the detection area and drag to move the entire area.

Note: *The Count Area must be a convex polygon with a maximum of 10 sides.*
 Drawing the Count Area where people may linger can impact counting accuracy.

11. Detection Line

Defined line, placed in a defined area, in which people will be counted as they enter and leave.

Note: *The detection line must remain within the detection area.*
 The yellow arrow indicates the direction recognized as entering.
 The detection line length must be at least 10% of the width of the image.

Data Uploading

The screenshot shows the 'Data Uploading' configuration page under the 'Advanced' tab. The left sidebar contains a menu with options: System, Network, Stream Settings, Image, Event, Storage, People Counting (highlighted), and Heat Map Configuration. The main content area has tabs for 'Rule', 'Data Uploading', and 'Advanced'. Under 'Data Uploading', there are two sections: 'Display Configurations' and 'Report Types'. 'Display Configurations' includes 'Real-Time Upload Data' with radio buttons for 'ON' (selected) and 'OFF', and 'Data Refresh Cycle' with a dropdown menu set to '1minute(s)'. 'Report Types' includes checkboxes for 'Daily Report', 'Weekly Report', 'Monthly Report', and 'Annual Report', all of which are checked. A 'Save' button is at the bottom.

Display Configurations

Real-Time Upload Data

- **ON:** Updates count data based on increment of time selected for Data Refresh Cycle.
- **OFF:** Turns off real time upload

Data Refresh Cycle

- Select how frequently data will be refreshed; 1, 5, 10, 15, 20, 30, and 60 minutes(s) are the available options.

Report Types

Select the report types you want generated and stored on the included microSD card. Daily Report, Weekly Report, Monthly Report, and Annual Report are selectable.

Advanced

The screenshot shows the 'Advanced' configuration page for 'People Counting'. The left sidebar is the same as the previous screenshot, with 'People Counting' highlighted. The main content area has tabs for 'Rule', 'Data Uploading', and 'Advanced'. Under 'Advanced', there are two settings: 'Count Overlay' with a dropdown menu set to 'Enter/Leave', and 'Daily Reset Time' with a time picker set to '00:00:00' and a 'Manual Reset' button. A 'Save' button is at the bottom.

Count Overlay displays the count for the selected category in the Live and Recorded video.

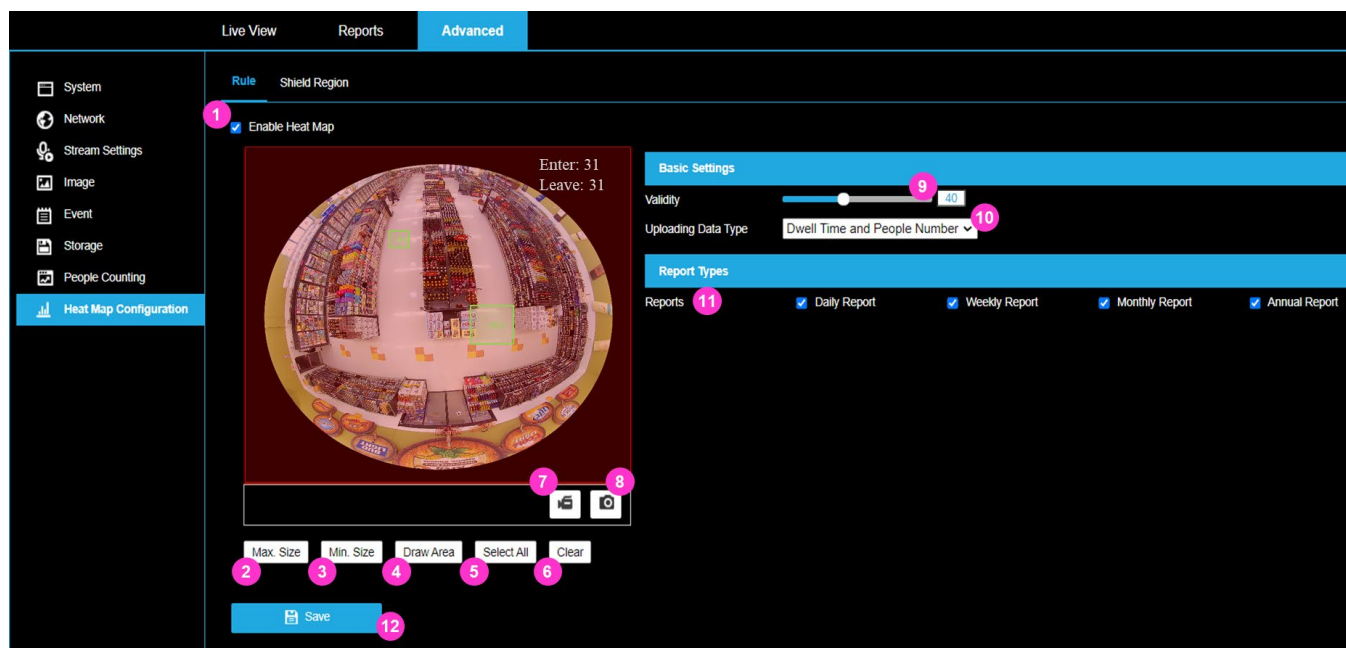
- Enter: Displays the count of people that have entered the area.
- Leave: Displays the count of people that have left the area.
- Enter/Leave: Displays the count of people that have entered and left the area.
- None: Disables Count Overlay.

Note: *Disabling Count Overlay only removes the count from showing in the video and does not disable People Counting function.*

Daily Reset Time allows you to set up a daily reset time.

Heat Map Configuration

Heatmapping provides the necessary data to assist in managing labor allocation at peak service times as well as maximizing upsell opportunities by identifying high traffic areas.



IMPORTANT: Set the date and time on the camera to ensure accuracy in your Heat Map reports.

1. Enable Heat Map

Heat Mapping is enabled when the checkbox is checked and disabled when unchecked.

2. Max. Size

The maximum size of a valid target. Targets larger than the max size box will not be detected.

To create a Min. Size detection box:

- Click on **Max. Size**.
- Adjust the size of the box to represent a person directly below the camera.

Note: Min/Max boxes must be square. "Parameter Error" indicates a problem with the Min/Max Size boxes.

3. Min. Size

The minimum size of a valid target. Targets smaller than the min size box will not be detected.

To create a Min. Size detection box:

- Click on **Min. Size**.
- Adjust the size of the box to represent a person at the edge of the image.

Note: The Min. Size box must be smaller than the Max. Size box.

4. Draw Area

Draw your Count Area by left clicking on your mouse at each point of your area. Right-click when finished drawing your detection area.

Note: The Count Area must be a convex polygon with a maximum of 10 sides.
Drawing the Count Area where people may linger can impact counting accuracy.

5. Select All

Select the entire image as the detection area.

6. Clear

Clear all detection areas and min/max boxes.

7. Start/Stop Recording

Manually start and stop recording live video. The video will be saved to your local PC when recording is stopped.

8. Capture Snapshot

Manually captures a snapshot from live video and downloads the image to your computers downloads folder.

9. Validity

Validity is the percentage of the Min. Size detection box a target must fill to be considered a valid target. A low Validity setting may cause false positives, while a high Validity setting may miss smaller targets. A Validity setting of 40%-50% is recommended.

10. Uploading Data Type

Dwell Time - uploads the dwell time data only.

Dwell Time and People Number – Uploads dwell time and number of people data.

11. Report Types

Select the report types you want generated and stored on the included microSD card. Daily Report, Weekly Report, Monthly Report, and Annual Report are selectable.

12. Save

Are any parts of this manual incomplete or unclear? Please let us know! Contact us at support@avertx.com with your comments.

www.avertx.com

1-855-**2AVERTX**

© 2021 AvertX

All rights reserved. No part of this publication may be reproduced by any means without written permission from AvertX. The information in this publication is believed to be accurate in all respects. However, AvertX cannot assume responsibility for any consequences resulting from the use thereof. The information contained herein is subject to change without notice. Revisions or new editions to this publication may be issued to incorporate such changes.