



## **ProConnect**

**High Definition Network Video Recorder**

## **User Manual**



AvertX ProConnect Software (2.13)

Software Manual

Manual Edition 35146AR – January 2022

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**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.

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**Note** Text set off in this manner indicates information that is necessary for proper operation of the product.

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## Standard Warranty

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All products, purchased through AvertX and its authorized resellers, are warranted to be free from defects in material or workmanship under normal use for two years from date of shipment. At AvertX's discretion, defective products under warranty will be repaired or replaced at no cost. If AvertX determines that the product should be replaced, it may do so with new or refurbished products of equal or greater value. Product warranty does not cover product failure caused by misuse, alteration of the product, incorrect installation, electric surges or physical damage.

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- Refurbished Performance Series NVRs sold by AvertX are warranted for one year from the date of shipment
- All other refurbished products sold by AvertX are warranted for six months from the date of shipment
- New products purchased prior to January 1, 2014 are warranted for one year from the date of shipment

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For the most up to date information visit [www.avertx.com](http://www.avertx.com).

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## IMPORTANT SAFEGUARDS

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1. **Read Owner's Manual** – After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.
2. **Power Sources** – This product should be operated only from the type of power source indicated on the label. If not sure of the type of power supply to your home or business, consult product dealer or local power company.
3. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
4. **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
5. **Water and Moisture** – Do not use this product near water.
6. **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
7. **Power Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
8. **Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.
9. **Lightning** – For added protection for this product during storm, or when it is left unattended and unused for long periods, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power line surges.
10. **Object and Liquid Entry Points** – Never insert foreign objects into the recorder, other than the media types approved by AvertX, as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
11. **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious personal injury and serious damage to the product.
12. **Burden** – Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product.

13. **Damage Requiring Service** – Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power-supply cord or plug is damaged.
  - If liquid has been spilled, or objects have fallen into the unit.
  - If the unit has been exposed to rain or water.
  - If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
  - If the unit has been dropped or the enclosure has been damaged.
  - When the unit exhibits a distinct change in performance – this indicates a need for service.
14. **Servicing** – Do not attempt to service this product as opening or removing covers may expose the user to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
15. **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

**Safety Check** – Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

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## BATTERY EXPLOSION CAUTION STATEMENT

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**CAUTION:** Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

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## HANDLING

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Please retain the original shipping carton and/or packing materials supplied with this product. To ensure the integrity of this product when shipping or moving, repackage the unit as it was originally received from the manufacturer.

Do not use volatile liquids, such as aerosol spray, near this product. Do not leave rubber or plastic objects in contact with this product for extended periods of time. Rubber or plastic objects left in contact with this product for extended periods of time will leave marks on the finish.

The top and rear panels of the unit may become warm after long periods of use. This is not a malfunction.

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## LOCATING

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Place this unit on a level surface. Do not use it on a shaky or unstable surface such as a wobbling table or inclined stand.

If this unit is placed next to a TV, radio, or VCR, the playback picture may become poor and the sound may be distorted. If this happens, place the recorder away from the TV, radio, or VCR.

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## CLEANING

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Use a soft dry cloth for cleaning.

For stubborn dirt, soak the cloth in a weak detergent solution, wring well and wipe. Use a dry cloth to wipe it dry. Do not use any type of solvent, such as thinner and benzene, as they may damage the surface of the recorder.

If using a chemical saturated cloth to clean the unit, follow that product's instructions.

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## MAINTENANCE

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This recorder is designed to last for long periods of time. To keep the recorder always operational we recommend regular inspection maintenance (cleaning parts or replacement). For details, contact the nearest dealer.

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## MOISTURE CONDENSATION

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Moisture condensation damages the recorder. Read the following information carefully.

Moisture condensation occurs during the following cases:

- When this product is brought directly from a cool location to a warm location.
- When this product is moved to a hot and humid location from a cool location.
- When this product is moved to a cool and humid location from a warm location.
- When this product is used in a room where the temperature fluctuates.
- When this product is used near an air-conditioning unit vent
- When this product is used in a humid location.

Do not use the recorder when moisture condensation may occur.

If the recorder is used in such a situation, it may damage discs and internal parts. Remove any CD discs, connect the power cord of the recorder to the wall outlet, turn on the recorder, and leave it for two to three hours. After two to three hours, the recorder will warm up and evaporate any moisture. Keep the recorder connected to the wall and moisture will seldom occur.

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## WARNING

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TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.

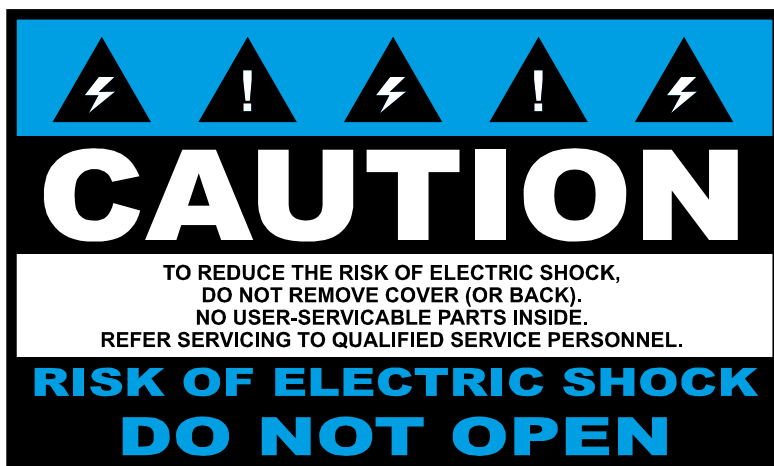
DO NOT OPEN THE CABINET.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

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## CAUTION

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**Elevated Operating Ambient** – If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.

**Reduced Air Flow** – Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

**Mechanical Loading** – Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

**Circuit Overloading** – Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

**Grounding** – Grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

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## FCC STATEMENT

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**INFORMATION TO THE USER:** THIS PRODUCT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THE PRODUCT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY, AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE WITH RADIO COMMUNICATIONS. OPERATION OF THIS PRODUCT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE, IN WHICH CASE YOU WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT YOUR OWN EXPENSE.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE IN A NON-RESIDENTIAL INSTALLATION. HOWEVER, THERE IS NO GUARANTEE THAT INTERFERENCE WILL NOT OCCUR IN A PARTICULAR INSTALLATION. IF THIS EQUIPMENT DOES CAUSE HARMFUL INTERFERENCE WITH THE RADIO OR TELEVISION RECEPTION, WHICH CAN BE DETERMINED BY TURNING THE EQUIPMENT OFF AND ON, YOU ARE 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 TO 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.

**CAUTION:** CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

**OPERATION OF THIS DEVICE IS SUBJECT TO THE FOLLOWING CONDITIONS:**

- THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.
- THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.
- CABLES USED WITH THIS DEVICE MUST BE PROPERLY SHIELDED TO COMPLY WITH THE REQUIREMENTS OF THE FCC.
- ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED IN THIS MANUAL COULD VOID YOUR AUTHORITY TO OPERATE THIS EQUIPMENT.

USERS OF THE PRODUCT ARE RESPONSIBLE FOR CHECKING AND COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND STATUTES CONCERNING THE MONITORING AND RECORDING OF VIDEO AND AUDIO SIGNALS. AVERTX SHALL NOT BE HELD RESPONSIBLE FOR THE USE OF THIS PRODUCT IN VIOLATION OF CURRENT LAWS AND STATUTES.

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# INTRODUCTION

## PRODUCT DESCRIPTION

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AvertX ProConnect cloud managed recorders are turn-key appliances designed for hassle free, plug-n-play installation. AvertX ProConnect model recorders come equipped with an integrated PoE switch for connecting IP cameras directly to the recorder and come preloaded with AvertX's powerful ProConnect Software recording software.

All AvertX ProConnect recorders are designed for deployment with AvertX Connect, allowing centralized administration of users, permissions, and system settings. These recorders also utilize AvertX's Web Connect technology for single sign-on, roaming profiles, and automated internet connectivity.

To learn more about the ProConnect recorder lineup visit [AvertX.com](http://AvertX.com).

## FEATURES

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AvertX ProConnect recorders include the following features:

- Fully integrated with AvertX Connect
  - Complete remote operation and administration with AvertX Connect
  - Record up to 24 channels of IP video per recorder (using external PoE Switch)
  - Up to 24TB on-board storage
  - Online User Management via AvertX Connect
  - Cloud video export and sharing
  - Remote software updates with no need to be on-site
  - Advanced cybersecurity including multi-factor authentication for remote access
- Mobile apps available for Android, iOS and Apple TV

## SETTING UP THE RECORDER FOR THE FIRST TIME

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For information on setting up your recorder and creating an AvertX Connect account, refer to the quick start guide or visit the system setup page at: <https://www.avertx.com/new-system-setup/>

## TURNING ON THE RECORDER

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1. Turn on the monitor connected to your recorder.
2. Use the power switch on the rear of the recorder to turn the recorder **ON**.
3. The recorder will run a series of self-tests. If asked to respond to any messages, follow the instructions carefully.

Startup is complete when the login screen is displayed.

## TURNING OFF THE RECORDER

---

1. Click **Setup**, and then click **Power Off / Restart**.
2. Click Power Off.

# WEB INTERFACE SYSTEM REQUIREMENTS

ProConnect can be accessed locally via the ProConnect Local or remotely via the ProConnect Web Interface. The Web Interface runs in a HTML5 environment, making it compatible with a wide range of browsers and without additional software installation.

## Minimum Browser Requirements

64-bit Windows® 8.1 or 10 with DirectX support

6th Generation Intel® Dual Core™ i3 processor (or equivalent)

8 GB system memory

1366x768 Resolution Monitor

Latest versions of Google Chrome, Mozilla Firefox, Apple Safari

Broadband internet connection (25 Mb/s download, 5 Mb/s upload)

## Recommended Browser Requirements

64-bit Windows® 10 with DirectX support

6th Generation Intel® Quad Core™ i7 (or equivalent)

8 GB system memory

1920x1080 Resolution Monitor

Latest versions of Google Chrome, Apple Safari

Broadband internet connection (25 Mb/s download, 8 Mb/s upload)

*For more information about configuring AvertX Connect, see the **AvertX Connect Account** section of this manual.*

# INSTALLATION AND SETUP

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**Note** ProConnect software setup can be performed through the ProConnect recorder local interface or through the web browser Web Interface.

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## Default Administrator Username / Password

**Username:** admin

**Password:** 1234

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**Note** Once registered to AvertX Connect, your AvertX Connect credentials can be used to log in, in addition to the default credentials listed above.

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## First Time Wizard


The First Time Wizard can be accessed from both the web interface and locally and will guide you through a basic setup of your ProConnect recorder. If you wish to make system changes after the initial setup process using the First Time Wizard, these options can be found in System Settings, User Management, and Network Configuration.

The Setup Wizard will run the first time the recorder is powered on.

## Default Camera Password

AvertX has improved our default camera password functionality with several new ease-of-use features in software version 2.4. The updates provide admin level users the ability to define a default camera password, as well as the ability to see previously applied camera passwords.

### *Change the Default Camera Password*

1. Click Setup  > System Settings > General Settings.
2. Scroll down to Default Camera Password.
3. Change the default password.

---

**Note** Passwords must be 9-14 characters and include at least two of the following: one number, one letter or one special character (!#\$%&\*).

---

4. Click **Save**.


---

**Note** This feature is only supported for AvertX cameras.

**Note** This will be used for cameras which require a password on first use. It will not change the password for any camera with the password already set.

---

### *View Camera Password History*

1. Click Setup  > System Settings > General Settings.
2. Scroll down to Default Camera Password.
3. Click Show old passwords.

---

**Note** A password will only appear in the list of previous passwords after it has been applied to at least one camera.

---

# SETUP MENU

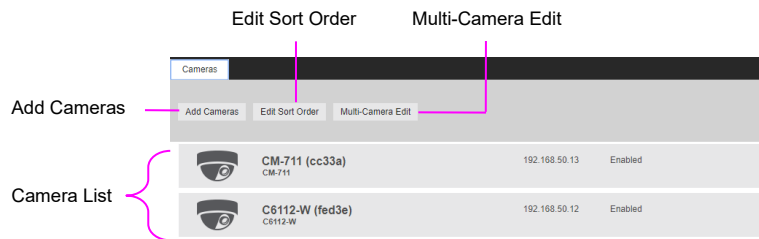
## SYSTEM SETTINGS

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### Cameras

#### Camera Management

Use Camera Management to perform basic and advanced camera functions.



**Camera List** – List of cameras currently connected to the selected recorder.

**IP Address** – The current IP address of the camera.

**State** – The current camera state.

- **Enabled:** The camera is enabled, active, and recording.
- **Disabled:** The camera is disabled, but previously recorded video is still available.

**Add Camera** – Add a camera(s) to the Camera List.

**Advanced** – Launches Network Camera Manager (Console Only)

**Edit Sort Order** – Change the order the cameras will be displayed in local and remote clients.


**Multi-Camera Edit** – Delete cameras, update images, change recording types, and other options to multiple cameras at once.

**Sort By** – Order cameras by State, Name, Model, or IP Address.

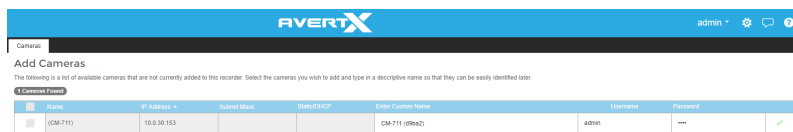
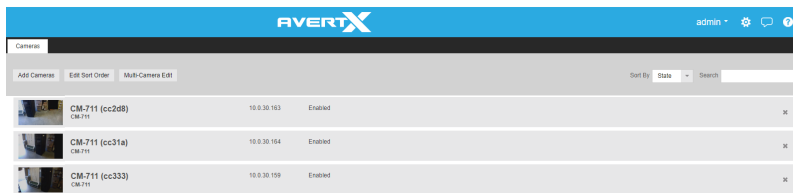
**Search** – Search for a camera in the Camera List.

**Delete or Disable [x]** – Deleting a camera will remove the camera and all associated video from the recorder. To remove the camera but keep the video, select Mark as Disabled instead.

## Add Cameras

1. Click **Setup** .
2. Under the **System Settings** tab, click **Cameras**.
3. Click **Add Cameras**. The add camera menu will appear, and automatically discover supported cameras available on the physically connected network.
4. Check the appropriate boxes to select the camera(s) you wish to add.
5. Enter the appropriate credentials (username and password) for the cameras you wish to add, and then click **Add Selected Cameras**.

**Note** Supported cameras will automatically populate the manufacturer's default username and password when possible.



**Manually Add a Camera** – Enter camera information manually to add it to the Camera List.

**Refresh** – Refresh the camera list to reflect changes.

**Add Selected Cameras** – Check the boxes to add the cameras selected from the Add Camera list to the Camera tab.

**Camera Name** – The make and model of the camera.

**IP Address** – The IP address of the camera.

**Subnet Mask** – The subnet mask of the camera.

**Enter Custom Name** – Enter a custom name for the camera to make it more easily identifiable.

**Username / Password** – The necessary credentials to access the camera.

## Camera Auto-Discovery

ProConnect recorders automatically configure cameras attached to the onboard PoE switch. Cameras not connected to the PoE switch will automatically be discovered, but need to be configured via the Add Camera menu.


---

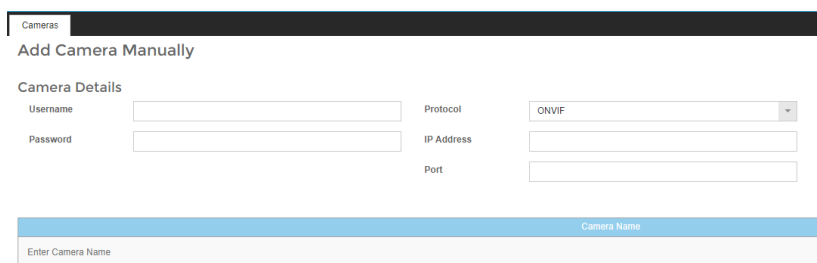
**Note** Automatic configuration Plug N Play (PnP) of cameras attached to the PoE switch can be disabled by navigating to Networking, clicking the Plug and Play tab, and unchecking the box labelled **Enable Plug and Play**.

---

## Add Cameras Manually

If you do not see the camera you wish to add in the Add Cameras list, it may be necessary to add it manually.

1. Click **Setup** .
2. Under the **Settings** tab, click **Cameras**.
3. Click Add Cameras, then Manually Add Camera.
4. Enter the appropriate connection information to add the camera, including Protocol, IP Address, Port, Manufacturer, Model, Username, Password, and Camera Name.
5. Click Add Camera.



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**Note** Cameras can be added using ONVIF or RTSP protocols. If RTSP is selected, the stream URLs need to be input manually. Consult your camera manufacturer's documentation for URL stream information.

**Note** The camera image will not be immediately available. The image will be visible after clicking **Apply** and the connection to the camera is made.

**Note** If AvertX cameras are connected using discovery through the Camera Network port, AvertX Connect will check for a password when **Add Selected Cameras** is pressed. If a password is not detected, AvertX will apply the specified default camera password.

---



## Edit Cameras

To edit an existing camera in the Camera List:

1. Click the desired camera in the **Camera List**.
2. In the camera window, make the desired changes, and then click **Update Image** to update the camera image.
3. Click **Apply**, and then click **Save**.

The screenshot shows the 'Edit Camera' window with the following fields and sections:

- General Tab:**
  - Title:** AvertX 448IR (with a note: 'This is a unique title assigned to each camera')
  - State:** Enabled (dropdown menu) and Associate Camera button
  - IP/Port:** 192.168.51.18 (IP) and 80 (Port)
  - Username:** admin
  - Password:** [masked] with an eye icon to toggle visibility
  - Area:** Select Area (dropdown menu)
  - Enable PTZ/Autofocus:** Camera does not have pan/tilt/zoom capabilities
  - Hidden Camera:** [unchecked]
- Camera Information Section:**
  - IP Address:** 192.168.51.18 with a Synchronize link
  - Model:** AvertX 448IR
  - MAC Address:** 58:50:ED:7E:03:9E with a Custom checkbox
  - Integration ID:** 1
- Camera Image Section:**
  - Thumbnail image of the camera feed.
  - Timestamp: 3/8/2020 6:42:51 AM
  - Update Image button

At the bottom, there is a status bar showing 'Displaying 1 of 3' and buttons for 'Save', 'Cancel', and 'Apply'.

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**Note** Automatic configuration Plug N Play (PnP) of cameras attached to the PoE switch can be disabled by navigating to Networking, clicking the Plug and Play tab, and unchecking the box labelled **Enable Plug and Play**.

---


**Title** – Customizable camera name, seen on the Camera List and in the Live Screen.

**State** – Set the camera to Enabled or Disabled.

- Enabled: Uses a recording channel license, can be viewed in live and recorded.
- Disabled: Does not use a recording channel license and cannot be viewed in live or recorded.

**Associate Camera** – Select another camera to transfer camera information to in case of hardware failure or change in camera status.

**IP/Port** – Camera IP address and Port Number. Clicking the IP address in a web browser allows direct access to the camera's web setup menu.

**Username and Password** – Credentials to access camera. Click  to view Password.

**Enable PTZ/Autofocus** – Enable Pan, Tilt, Zoom (PTZ) capabilities. If a camera does not have PTZ capabilities, this option will be unavailable.

**Hidden Camera** – Enable to allow only users with hidden camera permissions to view this camera.

**IP Address** – Clicking the IP address in a web browser allows direct access to the camera's web setup menu.

**Synchronize** – Manual check of IP device for latest information.

**Model** – Model number of the camera (transmitted from the camera itself).

**MAC Address** - Displays the MAC address of the IP device.

**Custom** – Check Custom to manually edit the camera MAC address.

**Integration ID** – Integration ID is the channel number used in 3<sup>rd</sup> party integrations over the API.

**Update Image** – Update the thumbnail image for this camera to the current live view.

## Live / Recording

The Live Recording tab displays Recording Options, which determines when and how the camera will record.

General

Live / Recording

Image Settings

Motion

Fisheye

Audio

Recording Options

[Connect Directly to Camera](#)

☐ Motion

☐ Continuous

☒ Continuous + Motion

☐ Live Only (No Recording)

Continuous Recording Stream

Low - 640 x 360, 10FPS, 512kbps

Motion/Event Recording Stream

High - 2688 x 1520, 15FPS, 2304kbps

Enable Minimum Retention

☐

Collect Motion Event Data

☒

Stream Configuration & Remote Viewing

Edit

Learn More

| Live Remote Viewing | Stream   | Frames Per Second | Resolution  | Bitrate (kbps) | GOP Length |
|---------------------|----------|-------------------|-------------|----------------|------------|
| High Bandwidth      | Stream 1 | 15                | 2688 x 1520 | 2304           | 30         |
| Low Bandwidth       | Stream 2 | 10                | 640 x 360   | 512            | 10         |

Displaying 2 of 3

Save

Cancel

Apply

**Motion** – Record only motion detected by motion thresholds.

**Continuous** – Records video stream continuously.

**Continuous + Motion** – Record one Continuous stream, and then records a Motion stream in addition when motion is detected.

**Live Only (No Recording)** – Camera displays live video but does not record unless a macro is setup to record on sensor events.

**Continuous Recording Stream** – Stream continuously recorded at a lower resolution and/or frame rate when motion is not detected and Continuous + Motion recording option is selected.

**Motion/Event Recording Stream** – Higher resolution and/or frame rate camera video stream used when a motion event is detected.

**Collect Motion Event Data** – This function collects motion event data when a continuous stream is recording and populates the events in Event Search.

**Stream Configuration & Remote Viewing** – This is where you designate what high, medium, and low-quality streams are. You can choose one of these as the recording stream, and the system automatically chooses the highest res stream under 720x576 (D1) to use for motion detection. These streams are also used as high, medium, and low-quality streams in the live view.

**Note** If at least one resolution at 720x576 or below is not available, the following warning below will appear.



Server side motion detection is enabled on this camera and for performance reasons a video stream with a resolution between 720x576 and 352x240 is highly recommended. An optimal stream is not currently detected, but motion detection will still continue to function.

**Note** Smart codec should not be enabled on the secondary stream that is used for video motion detection. For devices using single stream, smart codec should be disabled for video motion detection.

## Image Settings

The Image Settings tab displays Picture Adjustment Settings and Exposure Settings. These settings have a direct correlation to the camera performance and recorded video quality. The settings displayed here are options made available through the appropriate drivers. Making changes to these settings will then push the changes to the camera.

CM-711 (cc2d8)

General Live / Recording Image Settings Motion Audio

You can now edit the image settings. Press Save when done. [Connect Directly to Camera](#)

**Image Adjustment Settings**

Brightness Low High

Saturation Low High

Sharpness Low High

Contrast Low High

White Balance MANUAL

R Gain 0.0 100.0

B Gain 0.0 100.0

WDR ON

Level Low High

IR Function

**Exposure Settings**

Shutter MANUAL

Fixed Shutter Speed Slow Fast

**Rotate**

Degrees No Rotation

Save Cancel

Select **Edit** to adjust the camera settings.

**Brightness** – Depth of light and shadow in the image.\*

**Saturation** – Depth of color in the image.\*

**Sharpness** – Manage image texture, particularly visible in dark scenes.\*

**Contrast** – Difference between bright and dark areas of the image.\*

**White Balance** – Select Manual to adjust preset colors corresponding to natural or artificial lighting for the most accurate color representation.

**WDR (Wide Dynamic Range)** – Select On to enhance details both in the foreground and background.\*\*

**IR Function** – Activate the camera IR (infrared) lights if available, for use with night-time recording.

**Shutter** – Select Manual to designate shutter speed. Longer shutter speed will increase visibility at night, but also result in blurred movement in the frame.\*\*

**Rotate** – Allows the camera to be flipped and/or rotated. Available options vary by camera.

*\* This option can drastically affect the quality of recorded video. The default value is recommended.*

*\*\*Using this option results in improved video quality but increases recorded video file size.*

## Motion

AvertX cameras are set to register motion as events in the video timeline. By default, the entire camera will be configured as a motion area. You can customize areas of the field of view that will register motion events.

**Motion Sensitivity** – Reduce or increase the sensitivity of motion detection.

**Noise Sensitivity** – Reduce or increase noise sensitivity detected on a camera.

**Image Offset** – Offset when an image is captured from a motion event.

**Reset Defaults** – Resets motion sensitivity and noise sensitivity back to default values.

**Select** – Allows motion detection grids to be moved.


**Select All** – Draws a full motion detection grid over the image.

**Add Motion Area** – Draw individual motion detection grids.

**Remove Motion Area** – Allows removal of motion detection grid areas within a grid.

**Clear All** – Removes all motion detection area grids.

### To Configure Motion:

1. Click **Setup** , then **Cameras**.
2. Click the desired camera in the **Camera List**.
3. Click the **Motion** tab.
4. Click **Add Motion Area** or **Remove Motion Area**, and then click and drag the capture square to create the area.

---

**Note** By default, the entire camera will be configured as a motion area.

---

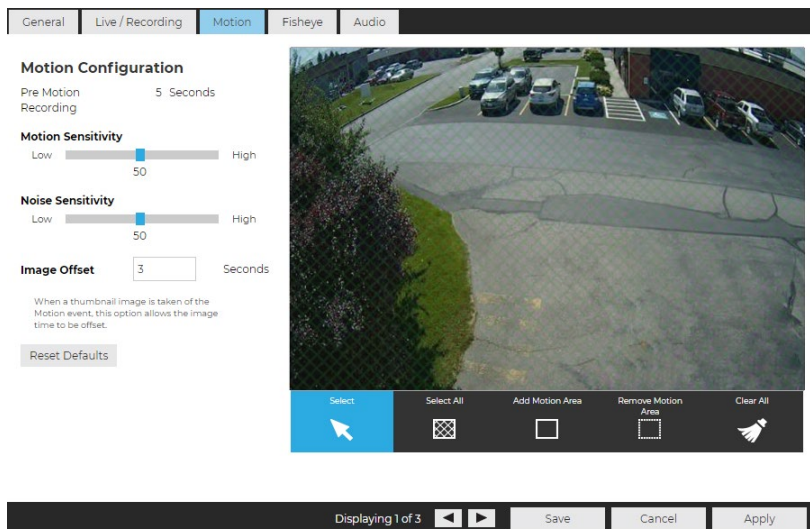
5. Continue modifying Motion Areas as desired using the tools below the camera frame.

---

**Note** Motion Areas can be subtracted to disable motion detection for specific areas of the video stream and motion grids can be drawn over each other.

---

6. Click **Save**.



## Fisheye

Fisheye allows users to de-warp 360° fisheye camera lenses so that a user can pan the camera view in multiple directions even if the camera does not have moving mechanical parts.

**Enable Fisheye Support** – Enabling this function will enable 360 de-warping for this camera if supported.

---

**Note** Video over 9MP will automatically be transcoded to a smaller resolution for performance reasons when Enable Fisheye Support is checked.

---

**Mount Type** – Change this setting to Wall or Ceiling based on installation of the camera.

**Enable Advanced Configuration** – This option allows custom tuning of the center and diameter of de-warping done by the software. Adjusting the X and Y Center values changes the position of the warped image in regards to the position of the image as a whole. The diameter value is used to determine the focal length of the lens when calculating de-warp parameters.

---

**Note** Supported cameras typically have optimal settings by default and do not need to be modified with advanced configuration.

---

The screenshot shows a web interface for configuring a camera's fisheye settings. At the top, there is a navigation bar with tabs: General, Live / Recording, Motion, Fisheye (selected), and Audio. Below the tabs, the title 'Fisheye Options' is displayed. The first setting is 'Enable Fisheye Support', which is checked with a green checkmark icon. Below this is the 'Mount Type' dropdown menu, currently set to 'Ceiling'. The next setting is 'Enable Advanced Configuration', also checked with a green checkmark icon. Below this, a descriptive text states: 'Supported cameras do not require advanced configuration, but not all fisheye cameras and lenses are designed the same. Some require minor changes to these settings in order to dewarp correctly. These parameters are defaulted to the best-known values for each manufacturer.' The 'Center' section contains two input fields: 'X' set to 50% and 'Y' set to 50%. A small text box explains: 'Center is the offset percentage of the center of the warped image compared to the center of the image as a whole. X (horizontal) = 50% and Y (Vertical) = 50% means the warped image is exactly in the center of the image.' The 'Diameter' section has an input field set to 110%. At the bottom left of the configuration area is a 'Reset Defaults' button. At the very bottom of the page, a status bar shows 'Displaying 2 of 2' with navigation arrows, and three buttons: 'Save', 'Cancel', and 'Apply'.

General | Live / Recording | Motion | **Fisheye** | Audio

**Fisheye Options**

Enable Fisheye Support ☒

Mount Type: Ceiling

Enable Advanced Configuration ☒

Supported cameras do not require advanced configuration, but not all fisheye cameras and lenses are designed the same. Some require minor changes to these settings in order to dewarp correctly. These parameters are defaulted to the best-known values for each manufacturer.

Center X: 50% Y: 50%  
Center is the offset percentage of the center of the warped image compared to the center of the image as a whole. X (horizontal) = 50% and Y (Vertical) = 50% means the warped image is exactly in the center of the image.

Diameter: 110%

Reset Defaults

Displaying 2 of 2 | Save | Cancel | Apply

## Audio

---

**Note** With Audio Recording enabled, recorded audio from a camera can only be heard when a video file is exported. You will not be able to hear live or recorded audio direct from the recorder audio out or from the web viewer.

---

Before enabling this option, ensure that audio is already enabled on the camera. If audio is enabled on the recorder prior to enabling it on the camera, audio may not record until the recorder is restarted.

### Audio Options:

1. Check **Record** or **Live Only** to enable audio on a specific IP camera.
2. Check **Enable 2-Way Audio** to both receive and transmit audio through the IP camera.
3. Then click **Save** or **Apply**.

The screenshot shows a web interface with a top navigation bar containing tabs: General, Live / Recording, Image Settings, Motion, Fisheye, and Audio. The Audio tab is selected. Below the tabs, the page is titled "Audio Options". Under "Enable Audio", there is a note: "Before enabling this option, ensure that audio is already enabled on the camera. If audio is enabled on the recorder prior to enabling it on the camera, audio may not record until the recorder is restarted." Below this note are three radio buttons: Disabled, Record (selected), and Live Only. Under "Enable 2-Way Audio", there is a checkbox that is checked. Below this is a section titled "Recording Audio" with a question mark icon. It contains two paragraphs of text: "We recommend consulting local and regional laws in your area regarding audio recording. Many areas have laws restricting or prohibiting audio recording in some or all locations." and "Setting audio to Live Only requires audio to be temporarily stored in memory in order to improve the speed at which it can be delivered to the client. Storing it in this manner could be interpreted by some as temporary recording and may be restricted." At the bottom of the page, there is a status bar that says "Displaying 2 of 3" and three buttons: Save, Cancel, and Apply.

---

**Note** Audio must be enabled on the IP camera itself with the G.711 or AAC codec for ProConnect to record audio from the camera. Check the manufacturers manual on how to enable audio on the IP camera.


**Note** AvertX recommends consulting local and regional laws in your area regarding audio recording. Many areas have laws restricting or prohibiting audio recording in some or all locations without the consent of all parties.

---

## Advanced Camera Management

Cameras that are set to static IP addresses, third party cameras, and cameras not supported by ONVIF may not be detected automatically.

### Discovering AvertX Cameras with a Static IP Address (Local)

1. Click **Setup** , and then **Cameras**.
2. Click **Advanced**.
3. Click **Refresh** in Network Camera Manager.
4. Note the discovered **IP address** for the desired camera.
5. Click **Exit** to return.
6. Follow the steps in the *Add Cameras Manually* section, typing the **Static IP Address**.

---

**Note** Network Camera Manager (NCM) is a tool to discover AvertX cameras. Network Camera Manager is available in Support Tools on AvertX ProConnect recorders.

---

### Configuring AvertX Cameras with DHCP (Local)

1. Click **Setup**, and then **Cameras**.
2. Click **Advanced**.
3. Network Camera Manager will load and automatically scan for cameras.
4. Select your desired cameras, and **DHCP**, and then click **Apply**.
5. Click **Exit** to return.
6. Follow the steps in the *Add Cameras* section to add the camera.

### Adding Third Party Cameras

Third party cameras may require installing a manufacturer camera discovery tool on a separate PC. Once the camera discovery tool is installed, follow the steps for adding a camera with a static IP address or using DHCP as outlined above.

### Adding Unsupported Cameras

Single and multi-sensor cameras that are not AvertX or ONVIF compatible must be added using the RTSP stream(s) of the camera. Consult the camera manual for more detailed information regarding RTSP streams. When you know the URL for the RTSP stream(s) of your camera, follow the steps in the *Add Cameras Manually* section, selecting RTSP protocol.

# Settings

## General Settings

### Default Language

Select a default language for the system from the dropdown menu.

### Time Settings

Use the Time Settings section to make changes to the time zone, NTP server, or the time and date format on the recorder. A Time Zone is required whether or not an NTP server is selected.

#### Language

Default Language

English

#### Time Settings

NVR Time Zone Region

North America

NVR Time Zone

(-07:00) Pacific

Use NTP

Requires Internet



Synchronize NVR clock with preconfigured NTP (Network Time Protocol) server

NTP Server

1.cctv.pool.ntp.org

Set NVR Time

7/31/2019 2:22:50 PM

Date Format


M/D/Y (1/31/2019)

Time Format

12 Hour (1:59:00 PM)

Network Time Protocol (NTP) is a protocol used to synchronize time across a range of computers or recorders to within milliseconds of each other. All recorders should be set to the same NTP server to achieve this synchronicity.

To enable use of a Network Time Protocol (NTP) Server:

1. Click **Setup** .
2. Click **Settings**.
3. In the **General Settings** tab, check the **Use NTP** checkbox.
4. Enter the URL of the **NTP Server**.
5. Click **Save**.

### Remote Assist Session

The Remote Assist Session enables an AvertX Technical Support agent to remotely control your recorder, allowing them to assist you with troubleshooting your system.

#### Remote Assist Session

This function enables technical support to temporarily take control of your recorder to assist with any issues. Once enabled, technical support will provide a connection code which will need to be entered below.

Remote Assist



Enable



Disable

Connection Code

Connect

Status

Please enter connection code



### To set up a Remote Assist Session:

1. Contact AvertX Technical Support by visiting <http://www.avertx.com/contact-support/> or call the AvertX ProTeam during available phone support hours.
2. Once you are connected with a Support agent, click **Enable**, and then enter the **Connection Code** given to you by the Support agent.

---

**Note** When a Remote Assist Session is enabled and the session code is entered, the Support agent will have full remote access to your recorder to provide assistance.

---

3. Click **Connect**.

### Console

Check the box to automatically log in to the live page. This allows the recorder to boot directly into live display and be used as a live display monitor.

#### Console

☒ **Automatically log in to the live page**  
When the recorder is restarted, the console will automatically log in to the Live window. Users will have the ability to view live video and edit other settings that are typically available to all users in live but will be required to log in with a valid account to access Search or Setup.

When the recorder is restarted, the console will automatically log in to the Live window. Users will have the ability to view live video and edit other settings that are typically available to all users in Live but will be required to log in with a valid account to access Search or Setup.

### Retention Limit

This option sets the maximum number of days that recorded video will be kept.

To enable Retention Limit:

1. Select **Enable** next to Retention Limit
2. Enter the number of days recorded video should be kept.
3. Click **Save**.

### Export/Import Configuration

#### Export

This function exports configuration settings from this recorder to a file. This file can be imported later to restore the saved settings.

#### Import


This function imports configuration settings from a file. This will modify the current configuration settings to match those in the file.

- ☒ **Complete Restore**  
Use this option when restoring to the same recorder or a replacement recorder.
- ☐ **Partial Restore**  
Use this option when using this configuration file as a template for other recorders. Unique Camera Identifiers will not be copied.

This function exports most configuration options on the recorder to a file or to AvertX Connect. An exported file can then be imported as needed to restore the configuration options to the saved state, but the AvertX Connect account information is not exported and will therefore need to be manually configured upon import.

Exporting to AvertX Connect restores configuration options to the saved state along with the AvertX Connect account information.

To export recorder configuration settings:


1. Click **Setup** , and then click **Settings**.
2. In the General Settings tab, click Export.
3. When prompted, **Save** the exported configuration file.

---

**Note** In the ProConnect Web Interface, the default location to save the .dat archive file is in the Downloads folder.

---

To import recorder configuration settings:

1. Click **Setup** , and then click **Settings**.
2. In the General Settings tab, Click Complete or Partial Import, and then click Select Import File.
  - Select Complete Restore when restoring to the same recorder or a replacement recorder.
  - Select Partial Restore when using a configuration file as a template for other recorders. Unique Camera Identifiers will not be copied.
3. Navigate to the desired file.
4. Click **Import**.

---

**Note** Imports / exports can be performed on both locally and Web Interface. Local exports will require an attached USB storage device.

---

## Export Signing Certificate

Videos and images exported from ProConnect have an embedded digital signature. This is used to validate that these items have not been tampered with.

To validate the files have not been tampered with, you will need the following:

- The image or video file you wish to validate
- The AvertX Digital Signature Verifier (DSV)
- The Certificate Thumbprint from the ProConnect recorder

---

**Note** The DSV is a small utility that allows you to validate that the file has not been tampered with. This utility can be downloaded from [avertx.com](http://avertx.com).

**Note** The thumbprint is a value derived from the certificate that uniquely identifies it; specifically, it is a SHA-1 hash of the certificate.

---

The DSV utility will attempt to verify the exported file, and then present one of two findings:

- Digital Signature Validated: the thumbnail for the ProConnect recorder will match the thumbnail displayed for the validated file.
- Digital Signature Invalid: this indicates that the file does not contain a valid certificate.

## Encrypt Relayed Video

This option encrypts video sent using relay.

## Legacy Flash Player

This option will enable the Adobe Flash Player instead of the HTML 5 Player for all Users connecting to the recorder.

## Storage


The Storage tab displays all partitions or drives available for recording.

| Drive 1 (ATA WDC WD40PURX-64N)      |           |                             | (Serial # ata-WDC_WD40PURX-64N96Y0_WD-WCC7K3P07FKC) |
|-------------------------------------|-----------|-----------------------------|---|
| Enable                              | Volume    | Free Space to Lock on Drive | Free Space  |
| <input checked="" type="checkbox"/> | drive1da8 | 4.0 TB                      | 10%<br>385.0 GB                                     |

| Drive 2 (ATA WDC WD40PURX-64N)      |           |                             | (Serial # ata-WDC_WD40PURX-64N96Y0_WD-WCC7K0NC24UN) |
|-------------------------------------|-----------|-----------------------------|---|
| Enable                              | Volume    | Free Space to Lock on Drive | Free Space  |
| <input checked="" type="checkbox"/> | drive1da1 | 4.0 TB                      | 10%<br>400.0 GB                                     |


### Enable / Disable Recording Drives

1. Click **Setup** .
2. Click **Settings** under **System Settings**, and then click the **Storage** tab.
3. Check or uncheck the **Enable checkbox** to disable the Drive.
4. Click **Save**.

**Note** Your ProConnect recorder will leave 10% free space on a drive by default; it is not recommended to lower this setting below 10% as this space is used for managing recorded data's FIFO (First In, First Out) process.

## Licensing

**Note** Your ProConnect software will be preregistered in the factory and can pull licenses from the cloud if connected to AvertX Connect.

1. Click **Setup** , and then **Settings** under **System Settings**.
2. Click the **Licensing** tab.
3. Click **Add New License**, and then follow the on-screen instructions to acquire the Unlock Code.
  - a. Navigate to <http://activate.avertx.com/>.
  - b. In the Licensing tab, enter the Product Serial, and then click **Next**.
  - c. The Unlock Code will be displayed. Write or copy the code.

**Note** You will need the **System Serial Number** and **System ID** displayed in the **Settings > Licensing** tab to register your software, or on the product label on the recorder.

4. Enter the License Serial Number and the **Unlock Code**, and then click **Next**.

| Licenses      |   |        | Cameras                |             |
|---------------|---|--------|------------------------|-------------|
| Serial Number | System ID                                       | Remove | Licenses Available     | 0/2         |
| 1027487056A   | 1027487056A-1027487056A-1027487056A-1027487056A | Remove | Licenses Used          | 0           |
| 1027487056A   | 1027487056A-1027487056A-1027487056A-1027487056A | Remove | Recorder Serial Number | 1027487056A |
| 1027487056A   | 1027487056A-1027487056A-1027487056A-1027487056A | Remove | System ID              | 1027487056A |

**Serial Number** – The software serial number tied to the software license.

**Unlock Code** – A code generated on registration that unlocks a specific software feature set.

**Remove** – Remove this license from the recorder.

**Add New License** – Adds a new license to the recorder.

**Refresh** – Refreshes the license set by checking with web services for any updates.

**Licenses Available** – The number of camera licenses unlocked.

**Licenses Used** – The number of camera licenses currently being used.


**Recorder Serial Number** – The Serial Number of the licensed recorder.

**System ID** – Unique ID generated for use with manual licensing based on the hardware the software is installed on.

## Software Upgrade

By default, ProConnect will allow you to download and install updates direct from AvertX Connect. Updates can also be performed manually via selected files or custom URLs. If an update is available, the user will see a message along with an option to install. The message will display the update version and whether the update is recommended or critical.

### Update via AvertX Connect


1. Click **Setup** , and then click **Settings**.
2. Click the Software Upgrade tab.
3. Click the **Check For Update** link.
4. Click **Install** if an update is available.

---

**Note** ProConnect checks for updates on startup, every 6 hours, or when the Check For Update link is clicked.

---

### Update via Manually Selected File


1. Click **Setup** , and then **Settings**.
2. Click the Software Upgrade tab.
3. Click Show More Options.
4. Click **Select File** then navigate to the location of the **.ssp upgrade file**.
5. Click **Install**.

---

**Note** Do not leave this page until the update is complete

---

### Update via Custom URL

1. Click **Setup** , and then **Settings**.
2. Click the Software Upgrade tab.
3. Click Show More Options.
4. Click Specify URL.
5. Type or copy the **URL** where the upgrade file is located.
6. Click **Install**.

---

**Note** Do not leave this page until the update is complete.


---

---


**Note** AvertX **strongly recommends** that users be managed through AvertX Connect rather than on the local recorder. If the device is AvertX Connect enabled, it will be necessary to log in to AvertX Connect User Management to manage users who have access to the recorder. Users added this way will have an AvertX Connect account.


---


This device is AvertX Connect enabled

 The local user roles shown here only affect the local user accounts and do not affect the user roles created using AvertX Connect. AvertX Connect user roles can only be edited by logging into your AvertX Connect account.

[Log in to AvertX Connect User Management](#)

**Administrator**  
Administrator Role. This role allows users access to all features and manage all users below them.

**Operator**  
Operator Role. This role allows users to view live and recorded video from all cameras.

**Live**  
Live View Role. This role allows users to view live video from all cameras.

## Local User Management

### Local User Roles

The default User Roles include Administrator, Operator, and Live. Custom roles can also be created.


---

**Note** Default roles cannot be modified


---

### Add Local Role


Custom roles are user roles that have custom selected assigned permissions.

1. Click **Setup** , and then click **Settings**.
2. Click Local User Roles.
3. Click Add Local Role.
4. Type the role **Name** and **Description**, and then use the **Assigned Permissions** list to check the appropriate permission boxes.
5. Click **Save**.

### Edit Existing Role

1. Click **Setup** , and then click **Settings**.
2. Click on the existing role you wish to edit.
3. Edit the **Name**, **Description**, and **Assigned Permissions** list as necessary.
4. Click **Apply**, and then click **Save**.

### Add Local System User

1. Click **Setup** , and then click **Settings**.
2. Click the **Local Users** tab.
3. Click Add Local System User.
4. Enter the appropriate user information, and then designate a **Username** and **Password**.
5. Check the appropriate box to designate a user **Role**.

---

**Note** More than one user role can be selected.

---

6. Click **Save**.

### Adding User Image

1. In **Add Local System User**, click **Select**, chose a file, and then click **Open**.
2. Once the file is listed under the user image, click **Upload**.
3. Click **Save** to save your changes.

# Networking

## Settings

The Settings tab allows for manual ping of an IP address, edit ports, proxy setup and video streaming configuration.

**Manually Ping Address**  
Manually ping an internal or external IP address.  
Check IP Address

**Edit Ports**  
The ports used to connect to this recorder locally can be modified (does not apply to ProConnect connections).  
Enable ☐ Disable ☒  
HTTP Port  (1024-65534) Default is 80  
HTTPS Port  (1024-65534) Default is 443

**Video Streaming**  
Transport Type ☒ TCP ☐ UDP

**Bandwidth Management**  
This option restricts the amount of bandwidth this recorder can use when sending video to remote clients. This option does not impact users on the local area network connecting locally or when LAN smart forwarding is in use.  
Enable Bandwidth Limitations ☒ Enable ☐ Disable  
Max Bandwidth (default)  Kbps  
☐ Add a time-based exception  
Excluded Subnets 

| Excluded Subnets    |
|---------------------|
| No Excluded Subnets |

## Manually Ping Address

Manually ping an internal or external IP address.

## Edit Ports

The ports used to connect to the recorder can be modified.

## Video Streaming

Designate the video streaming transport type for global IP network traffic: TPC or UDP.

## Bandwidth Management

Enabling Bandwidth Management restricts the amount of bandwidth this recorder can use when sending video to remote clients. This option does not impact users on the local area network.

To enable Bandwidth Management:

1. Click **Setup** .
2. Click **Network** in the menu, and then click the **Settings** tab.
3. Check **Enable** in the Bandwidth Management section.
4. Enter a Max Bandwidth limit the recorder can use when sending video to remote clients.
5. Check **Add a time-based exception** and enter a time range and bandwidth limit if different than the default or determined bandwidth limit.
6. Add **Excluded Subnets** if any subnets should be excluded from the bandwidth limit.
7. Click **Save**.

## Adapters

This tab displays the Internet Network Port and Ext Switch Network Port\*.

| Settings | Adapters   | Diagnostics       | Plug And Play |
|----------|------------|-------------------|---------------|
|          | Ext Switch | 8c:e7:48:9c:2a:d4 |               |
|          | Internet   | 8c:e7:48:9c:2a:d3 | 10.0.30.151   |

To make changes to a Network Port:

1. Click **Setup** , and then click **Networking**.
2. Click the **Adapters** tab.
3. Click the desired network and make any necessary changes.

**Note** The Ext Switch Network Port is not available on all ProConnect models.

## Diagnostics

The diagnostics tab shows the operational status of various connections, ports, and relays for your recorder. This is a helpful tool for troubleshooting.

### Status

|                       |                              |
|-----------------------|------------------------------|
| ✓ Network Connection  | Local Connection Verified    |
| ✓ Internet Connection | Internet Connection Verified |
| ✓ DNS Resolution      | DNS Resolution Verified      |

### Ports

|                |                                       |
|----------------|---------------------------------------|
| ✓ 80 Outbound  | Outbound traffic on port 80 verified  |
| ✓ 443 Outbound | Outbound traffic on port 443 verified |

**Network Connection** – Test pings the local gateway setup on the recorder. In some cases, this may fail if internal ICMP is disabled on the firewall/router. In these rare cases a red X may appear, but service may work without issue.

**Internet Connection** – Test pings an IP (8.8.8.8) to see if internet connectivity is working correctly.

**DNS Resolution** – Check to ensure you can resolve DNS names.


**80 Outbound** – Check to ensure that network traffic can flow through port 80.

**443 Outbound** – Check to ensure that network traffic can flow through port 443.

## Power Over Ethernet

Power Over Ethernet (PoE) allows you to disable automatic add and record for PoE cameras, as well as power cycle individual ports, which will reset the connected camera.

To disable Power Over Ethernet:

1. Click **Setup** , and then click the **Networking** menu.
2. Click the Power Over Ethernet tab.
3. Uncheck the **Enable Plug and Play** checkbox.

—OR—

Uncheck the **Enable PnP** checkbox for the desired camera.

To power cycle the PoE camera: Click the **Cycle Power** icon in the row for the desired PoE camera.

# Macros

Under the macro section you can create custom actions based on schedule's and holidays.

## Managing Macros

Create custom actions based on schedules and holidays in the macros section.

### Add a Macro

1. Click Add A Macro.
2. Enter the macro name in the **Macro Name** field
3. Check the **Enable Macro** box.
4. Select the drop down under the **Schedule** option to modify when a trigger is in effect.
5. Select **Analytics**, **Sensor** or **Motion** under the **Event Class** drop down.
6. After selecting an Event Class, select the appropriate **Event Type** in the Event Type dropdown that corresponds with the desired analytics, sensor or motion event class chosen in step 5.
7. Select the source IP device in the **Source** drop down list.

**Note** You can setup multiple triggers by clicking the **Add New Trigger** button.

### Setting Up an Action for a Previously Created Macro

1. Under **Take this action**, select the desired schedule under the **Schedule** dropdown.
2. Select the action type under the **Type** dropdown.
3. Select the command for the action under the **Command** dropdown.
4. Select target object from the **Target Object** drop down.
5. Select the duration of the action under the **Duration** dropdown.
6. If an additional action is added they will happen in **Order**, and can be dragged and dropped to reorder for priority.
7. Click **Save** to complete macro setup.

Example image below: when sensor 1 fires during weekdays the event stream will be recorded for a specific camera the duration of the event.



## Schedules

### Add a Schedule

1. Click the **Add a Schedule** button.
2. Type the name of the schedule in the **Schedule Name** field.
3. Select the **Start Time** and **End Time** on the desired days or click the copy button to copy a time range from a previous day.
4. When finished click **Save**.

| Always         | Schedules                        | Holidays                         |                                   |                                     |                                    |                                  |                                    |                                   |
|----------------|----------------------------------|----------------------------------|-----------------------------------|-------------------------------------|------------------------------------|----------------------------------|------------------------------------|-----------------------------------|
| Add a Schedule |                                  |                                  |                                   |                                     |                                    |                                  |                                    |                                   |
| Always         | Sunday<br>12:00 AM -<br>11:59 PM | Monday<br>12:00 AM -<br>11:59 PM | Tuesday<br>12:00 AM -<br>11:59 PM | Wednesday<br>12:00 AM -<br>11:59 PM | Thursday<br>12:00 AM -<br>11:59 PM | Friday<br>12:00 AM -<br>11:59 PM | Saturday<br>12:00 AM -<br>11:59 PM | Holiday<br>12:00 AM -<br>11:59 PM |
| Never          | Sunday<br>inactive               | Monday<br>inactive               | Tuesday<br>inactive               | Wednesday<br>inactive               | Thursday<br>inactive               | Friday<br>inactive               | Saturday<br>inactive               | Holiday<br>inactive               |
| Weekdays       | Sunday<br>inactive               | Monday<br>12:00 AM -<br>11:59 PM | Tuesday<br>12:00 AM -<br>11:59 PM | Wednesday<br>12:00 AM -<br>11:59 PM | Thursday<br>12:00 AM -<br>11:59 PM | Friday<br>12:00 AM -<br>11:59 PM | Saturday<br>inactive               | Holiday<br>inactive               |
| Weekends       | Sunday<br>12:00 AM -<br>11:59 PM | Monday<br>inactive               | Tuesday<br>inactive               | Wednesday<br>inactive               | Thursday<br>inactive               | Friday<br>inactive               | Saturday<br>12:00 AM -<br>11:59 PM | Holiday<br>inactive               |

**Note** Always, Never, Weekdays, and Weekends are default schedules and cannot be edited.

## Holidays

### Add a Holiday

1. Click the **Add a Holiday** button.
2. Type the name of the Holiday in the **Name** field.
3. Select the **Date** from the calendar.
4. Type the year of the holiday or leave the setting at 0 for recurring holiday.
5. Click **Save** to save the holiday.

| Macros                            | Schedules | Holidays |
|-----------------------------------|-----------|----------|
| Add a Holiday                     |           |          |
| Start By: Date Search             |           |          |
| New Year's Eve 1/1 00 Recurring X |           |          |

# Sensor / Relay

## Sensors

| Sensors  |        |                    |                     |               |               |               |                   |                   |                    |                          |
|--|--------|--------------------|---------------------|---------------|---------------|---------------|-------------------|-------------------|--------------------|--------------------------|
| Relays   |        |                    |                     |               |               |               |                   |                   |                    |                          |
| The following is a list of available sensors on this recorder. Enable the sensors you wish to use and type in a descriptive name so they can be easily identified later. Actions based on sensor events can be configured in Macros. |        |                    |                     |               |               |               |                   |                   |                    |                          |
| Enable   | Number | Sensor Name        | Origin              | Current State | Default State | Debounce (ms) | Associated Macros | Associated Camera | Image Offset (sec) | Invert State             |
| <input type="checkbox"/>   | 1      | Sensor (L1 0 - 14) | Onboard (L1 0 - 14) | Open          | Normally Open | 50            |                   | Select Camera     | 0                  | <input type="checkbox"/> |
| <input type="checkbox"/>   | 2      | Sensor (L1 0 - 24) | Onboard (L1 0 - 24) | Open          | Normally Open | 50            |                   | Select Camera     | 0                  | <input type="checkbox"/> |
| <input type="checkbox"/>   | 3      | Sensor (L1 0 - 34) | Onboard (L1 0 - 34) | Open          | Normally Open | 50            |                   | Select Camera     | 0                  | <input type="checkbox"/> |
| <input type="checkbox"/>   | 4      | Sensor (L1 0 - 44) | Onboard (L1 0 - 44) | Open          | Normally Open | 50            |                   | Select Camera     | 0                  | <input type="checkbox"/> |

**Enable** – Enable or disable a sensor.

**Sensor Number** – Sensor number associated with the ProConnect recorder.

**Sensor Name** – Name of the sensor associated with the ProConnect recorder.

**Sensor Origin** – Origin of the sensor being used by the ProConnect recorder (typically internal to the recorder).

**Current State** – Current state of the sensor (open or closed).

**Default State (NO/NC)** – Normally Open or Normally Closed sensor.

**Debounce** – Debounce time in milliseconds (1000 milliseconds = 1 second) is the duration to ignore repeated contacts.

**Associated Macros** – Shows any macros associated with a specific sensor.

**Associated Camera** – Allows the association of a specific camera to a sensor.

**Image Offset** – The delay between the start of a sensor event and the time an event is captured

**Invert State** – Inverts the state of the sensor.

### Setting Up A Sensor

1. Enable a specific sensor by checking the box in the **Enable** column.
2. Modify the ProConnect sensor number in the **Sensor Number** column if needed.
3. To modify the sensor name, type the new name into the **Sensor Name** box.
4. Set Normally Open or Normally Closed in the **Default State** (NO/NC) drop down.
5. Change **debounce** default in milliseconds if sensor contact is likely to break contact constantly.
6. Associate a camera to record with the sensor by selecting a camera from the **Associate Camera** drop down.
7. Modify the image offset value if a delay is required when recording a sensor event.
8. Check the box labeled **Invert State** if desired.
9. Click **Save**.

## Relays

| Sensors   Relays   |   |                               |               |                |                   |          |
|--|---|-------------------------------|---------------|----------------|-------------------|----------|
| The following is a list of available relays on this recorder. Relays can be configured to trigger in Macros. |   |                               |               |                |                   |          |
| Relay Number   | Relay Name                              | Relay Origin                  | Current State | Default State  | Associated Macros | Duration |
| 1  | Relay (J) 9 - 12                        | Onboard (J) 9 - 12            | Open          | Normally Open  | -                 | 1        |
| 2  | Relay (J) 9 - 22                        | Onboard (J) 9 - 22            | Open          | Normally Open  | -                 | 1        |
| 5  | Relay (O) OpenEye CM7901RF (4472) - 11  | OpenEye CM7901RF (4472) - 11  | Open          | Device Setting | -                 | 1        |
| 3  | Relay (O) OpenEye OE-CB103 (37885) - 12 | OpenEye OE-CB103 (37885) - 12 | Open          | Device Setting | -                 | 1        |
| 4  | Relay (O) OpenEye OE-CB103 (37885) - 22 | OpenEye OE-CB103 (37885) - 22 | Open          | Device Setting | -                 | 1        |

**Relay Number** – Relay number associated with the ProConnect recorder.

**Relay Name** – Name of the relay associated with the ProConnect recorder.

**Relay Origin** – Origin of the relay being used (typically internal to the recorder).

**Current State** – Current state of the relay (open or closed).

**Default State (NO/NC)** – Normally open or normally closed relay.

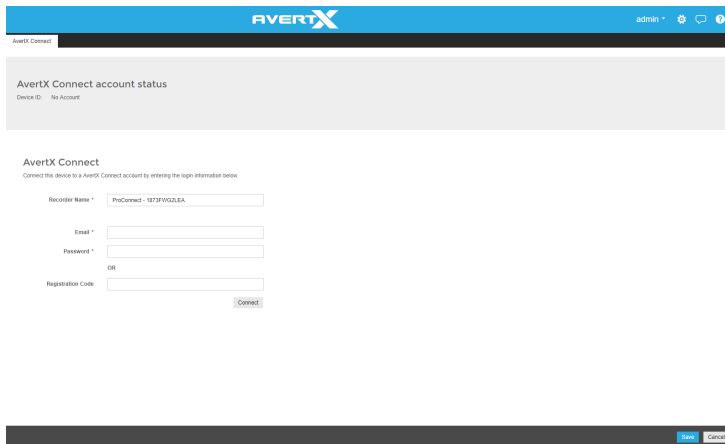
**Associated Macros** – Shows any macros associated with a specific relay.

**Duration** – The duration the relay will fire when activated.

### Setting Up A Relay

1. Modify the relay number if needed by click in the **Relay Number** field and hitting backspace until cleared and type in the new number.
2. Modify the relay name by selecting **Relay Name** field and hitting backspace until cleared and type in the new relay name.
3. Set Normally Open or Normally Closed in the **Type (NO/NC)** drop down.
4. Modify the **Duration** if the momentary activation time needs to be modified.
5. Click **Save**.

# AvertX Connect




AvertX Connect is a cloud-based service that enables you to turn your recorder into a cohesive platform, with online user and recorder management features.

To begin using AvertX Connect, you will need to create an AvertX Connect account.

1. Use a web browser to navigate to **<http://connect.avertx.com>** and complete account registration.

You will receive an email from AvertX Connect to verify your email address. Click the confirmation link.

To enable AvertX Connect on your recorder, follow the instructions below:

1. Click **Setup** .
2. Click **AvertX Connect** under the Connection Settings section.
3. Enter your AvertX Connect **Username** and **Password**.
4. Modify the **Recorder Name** if needed (this will be the label in AvertX Connect).
5. Click **Connect**.

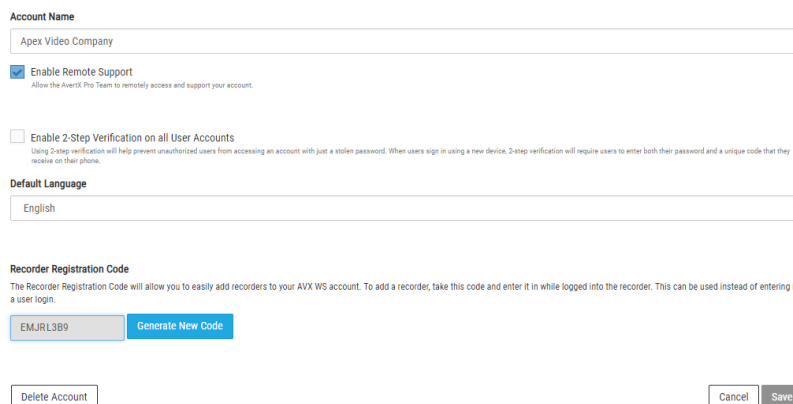
---

—OR—

---

Enter your AvertX Connect **Recorder Registration Code** found in **Account Settings**.

## Account Settings



## 2-Step Verification


Enabling 2-Step Verification in Account Settings in AvertX Connect sends a unique code to a user's associated mobile device. Completing log in requires both the user's password and a code that is sent to the mobile device.

## Log Files

| System Logs          |          |               |                     |               |
|----------------------|----------|---------------|---------------------|---------------|
|                      |          |               |                     |               |
| Download All         |          |               |                     |               |
| Timestamp            | Severity | Category      | Event Type          | Description   |
| 8/10/2019 2:34:25 PM | Info     | Camera        | Camera Connected    | C3103 (27085) |
| 8/10/2019 2:35:24 PM | Warning  | Camera        | Camera Disconnected | C3103 (27085) |
| 7/30/2019 9:30:22 AM | Info     | User          | User Login (Web)    | admin         |
| 7/29/2019 2:23:53 PM | Info     | User          | User Login (Web)    | admin         |
| 7/29/2019 1:35:11 PM | Info     | System Status | Time Date           | Pause         |

Log files are loaded or downloaded in this section.

## Loading and Exporting Logs (Browser Client Only)

1. Click **Setup** , then select **Log Files**.
2. Select the **Download All** button.
3. Use the arrow buttons next to Page 1 or scroll wheel to cycle through the system log pages.

## Power Options

| Power Options   |  |
|---|--|
| Power Options   |  |
| These options allow you to power off or restart your recorder. The power off option is only available on the local recorder. While powering off or restarting, the recorder will not be able to record video. |  |
| Restart   |  |

Recorders can be powered off or restarted from the local interface; however, the Web Interface is limited to remote restarts.

## SUPPORT TOOLS (LOCAL)

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Support tools are a set of utilities that allows you to complete setup or diagnostic tasks:

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**Note** Support Tools can only be accessed in the ProConnect NVR Software locally.

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### To Enter Support Tools:

1. Click on **Settings** in the Navigation Bar
2. Click on the **Setting** tab on the Right column
3. Type the combination **Control + Alt + S**, then click the “**Launch Support Tools**” button.

## ADVANCED NETWORK MANAGEMENT

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With port forwarding, traffic bypasses AvertX Connect, allowing for optimal connection speeds. Additional setup is required, however, because the routers need to be configured to forward traffic to the correct recorder.

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**Note** Visit [http://portforward.com/english/routers/port\\_forwarding/](http://portforward.com/english/routers/port_forwarding/) for instructions on how to open ports on your particular router.

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1. Complete the AvertX Connect cloud relay as instructed above in the *Register ProConnect to Your AvertX Connect Account*.
2. Access the router used for internet communication and forward **TCP port 80** to the internal address of the ProConnect Software recorder.

 General Settings

 Remote Network Settings

#### Direct Connect

Configure this option when using a static External IP Address to connect to the recorder. This will send video directly from the recorder to the client and bypass Web Services. Using this option may require port forwarding configuration.

IP Address or Domain

Port

3. From AvertX Connect, click **Recorders**, and then click the **Settings Icon** next to the name of the desired recorder.
4. Click **Remote Network Settings**, and then enter the **external IP** or **DNS** entry for the router in the **IP Address** or **Domain** field, and **80** in the **Port** field.

---

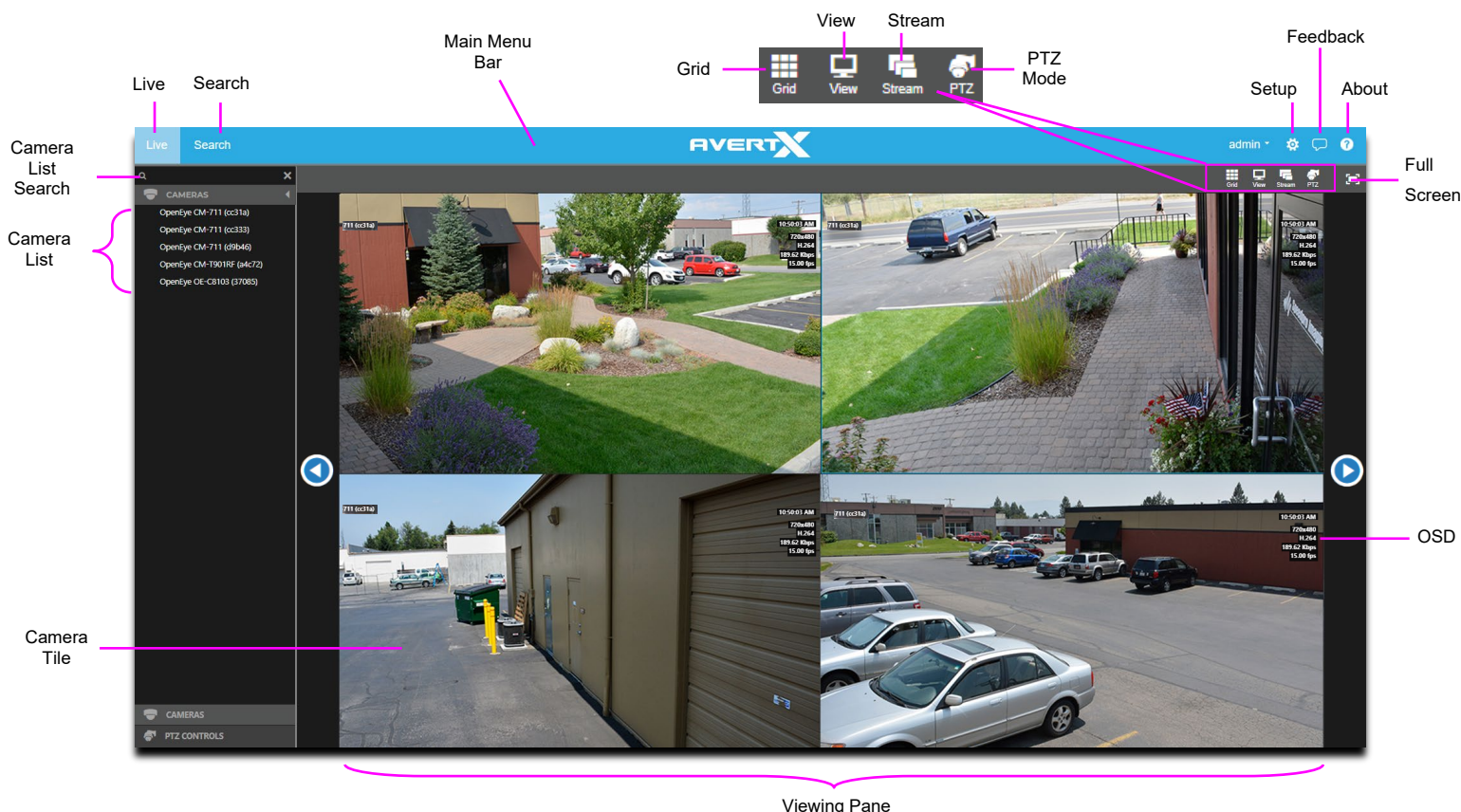
**Note** Port 80 is the default port.

---

5. Click **Save**.

# LIVE SCREEN VIEWING PANE

The Live screen displays the camera list and live video. Customize the Live screen to view specific cameras in different layouts.



**Camera List** – List of connected cameras, these cameras can be dragged into a camera tile to display live video.

**Note** The recorder local Live Screen does not display the Camera List.

**Camera List Search** – Manually type in the Camera List Search field to filter Camera List by camera name.

**On-Screen Display (OSD)** – Displays the resolution, video format, bit rate, and frame rate of the camera.

**Note** Recorder Date is available on the console OSD only.

**Camera Tile** – Individual tile for viewing live video from one camera.

**Viewing Pane** – Comprised of camera tiles and makes up the viewing space in the Live Screen

**Full Screen** – View live video in full screen mode.

**PTZ** – Enable / Disable control of Pan-Tilt-Zoom (PTZ) functions in live view.

**Stream** – Designate the stream quality for cameras in the Viewing Pane.

**View** – Drop down selection of Live video viewing options (4:3, 16:9, original (displays original aspect ratio of all cameras) and stretch (stretches camera images to fit Camera Tile).

**Grid** – Designate a screen division (6, 8, 9, 10a, 10b, 10c, 13, 17, 25) to view live video from cameras in the viewing pane.

## NAVIGATION BAR

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**Live** – Display Live video in the viewing panes

**Search** – Playback recorded video in the viewing panes

**Setup** – Access the General Configuration, Remote Services, and Tools/Logs menus.

**Feedback** – Submit feedback directly to AvertX.

**About** – View version and copyright information.

## RIGHT-CLICK MENU

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Right-clicking on a live camera tile while viewing live or recorded video will display the right-click options menu.

**OSD** – On-Screen Display (resolution, video format, bit rate, and frame rate).

**Remove Camera** – Remove camera from the current Live Screen viewing pane.

**Remove All Cameras** – Removes all cameras from the current Live Screen viewing pane.



## CUSTOMIZING THE LIVE SCREEN

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### How Do I Add / Remove Cameras from The Live Screen Display?

#### Add Camera

1. Click and drag a camera from the **Camera List** to the **Viewing Pane** to create a **Camera Tile**.

---

**Note** Change the Live screen **grid** if more camera channels are desired.

---

—OR—

---

2. Click the desired camera on the **Camera List** to automatically add it to the **Viewing Pane** in an available **camera tile**. Each subsequent camera clicked will be added to the next available **camera tile**.

---

—OR—

---

3. Drag one **camera tile** over in the **Viewing Pane** to swap their locations.

#### Add All Cameras

Click and drag the **Camera List** header to the **Viewing Pane** to load all cameras in live.

#### Remove Camera

1. Right-click in the desired camera tile to display the **right-click menu**, and then click **Remove** or **Remove All**.

---

—OR—

---

2. Move the mouse to the top of the camera tile to display the **tile toolbar**, and then click the **red 'X.'**

## How Do I Collapse the Camera List?

Click the arrow on the **Camera List** header to collapse and expand the Camera List.

## How Do I Manually Cycle Through Camera Views?

Use the Left and Right arrows at the sides of the Viewing Pane to manually cycle through camera views.

## How Do I Adjust the Grid of Camera Tiles in The Viewing Pane?

The Live screen display can be adjusted to show live video for 6, 8, 9, 10a, 10b, 10c, 13, 17, 25 camera tiles.

1. In the Live screen, click **Grid**.
2. Click on the desired **screen grid**. The screen grid will automatically apply.
3. Adjust the **camera tiles** to display the desired cameras.

## How Do I Adjust the Live Screen View?

The Live screen view affects the camera tiles and the aspect ratio / format of the live video being displayed.

1. In the Live screen, click **View**.
2. Click the desired **view**. The Live Screen view will automatically apply.

---

**Note** Choose from aspect ratios of 4:3 or 16:9, and choose a format of Stretch or Original.

---

## How do I Adjust the Live Video Stream Quality?

The Stream Quality option affects the resolution of live video as seen on the Live Screen. The stream resolution can be set to low, medium, high, or automatic.

1. In the Live screen, click **Stream**.
2. Click the desired **streaming resolution (Low, Medium, High, or Auto)**. The Live Screen will automatically adjust.

---

**Note** The available streaming resolutions are dependent on camera setup.

---

## How Do I Enable and Control PTZ?

1. In the Live screen, click **PTZ**.
2. Select the **PTZ camera**.
3. Hold the left mouse cursor down on the video pane and drag the arrow icon to move.

## How Do I Enable Fullscreen?

1. In the Live screen, click the **Fullscreen** icon.
2. Click the **Fullscreen** icon again to disable.

## How Do I Turn the OSD ON / OFF?

The On-Screen Display (OSD) shows the video resolution, video format, bitrate, and frames per second on top of the live video feed. The OSD can be turned on / off per-camera or for all cameras.

### Toggle OSD for All Viewing Panes

Right-click on any viewing pane to display the **right-click menu**, and then click **OSD**.

### Toggle OSD Per-Camera

Move the mouse to the top of the desired viewing pane to display the **pane toolbar**, and then click **OSD**.

## Digital Zoom

Digital zoom can be used in the Live screen or the Search screen.

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**Note** Digital Zoom is currently only supported in the ProConnect Web Interface.

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1. Click to select the desired **Camera Tile**.
2. Use the scroll wheel on your mouse to scroll up, zooming in.
3. Scroll down to zoom back out.

---

**Note** Layouts will save Digital Zoom settings.

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## HOW DO I DEWARP 360 CAMERAS?

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360 cameras can be dewarped using ProConnect. These cameras display in 360 mode by default, but three additional views are available.

To dewarp a 360 camera:

1. On an applicable 360 camera tile, right-click to display the **right-click menu**.
2. Click **360 View Mode**, and then select a mode.

The camera tile will automatically update to reflect the selected 360 View Mode.

### 360 Camera Dewarping Views

**Interactive** – dewarping method that allows for interactive video viewing; click-and-drag cursor available to adjust the camera view across the entire 360 view.

**360 Panorama** – dewarping method that cuts the 360 image at one point and lays the video flat; view the entire 360 view from left to right.

**2 x 180 Panorama** – dewarping method that shows the 360 image in two split 180 degree views.

---

**Note** All 360 dewarping modes enable **Zoom**. Use the scroll-wheel to zoom in and out of the camera view.

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# PERFORMING A SEARCH

Perform a Timebar Search or a Preview Search to review recorded video, including playback and export of images and video clips.

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**Note** Timebar and Preview Searches are currently only available in the ProConnect Web Interface.

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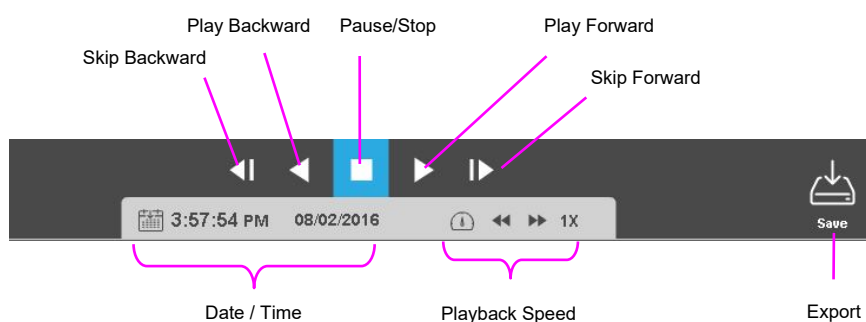
- Date/Time Search – standard search feature available only through the local recorder.

Four different searches are available in ProConnect software:

- Timebar Search – Advanced Date/Time search with visual tools. Only available through the ProConnect Web Interface.
- Thumbnail Search – Advanced thumbnail-based search. Only available through the ProConnect Web Interface.
- Event Search – Advanced event-based search. Only available through the ProConnect Web Interface.
- Object Search – Advanced object-based search. Only available through the ProConnect Web Interface.

## How Do I Perform a Date / Time Search Via a Recorder?

### Date / Time Search Bar Playback Controls



### Add Camera(s) to the Date / Time Search Viewing Pane

When the Search Screen is opened, the cameras that were in the Viewing Pane in the Live Screen will appear, however, cameras can be arranged separately in the Search Screen to facilitate the desired search.

To add cameras to the Search Screen:

1. In the Search Screen, click a camera in the **Camera List**.

---

—OR—

---

2. Click and drag a camera from the camera list to the **Viewing Pane**.

---

—OR—

---

3. Click and drag the **Camera List** header to the **Viewing Pane** to load all cameras in Search.

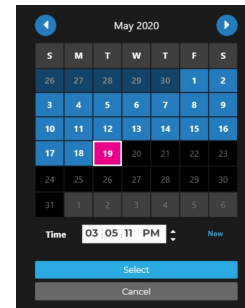
## Customize the Camera Tile Grid

Changing the Grid of the viewing pane allows for viewing multiple cameras. All cameras will begin playback of recorded video at the time designated on the horizontal Timebar Search Bar.

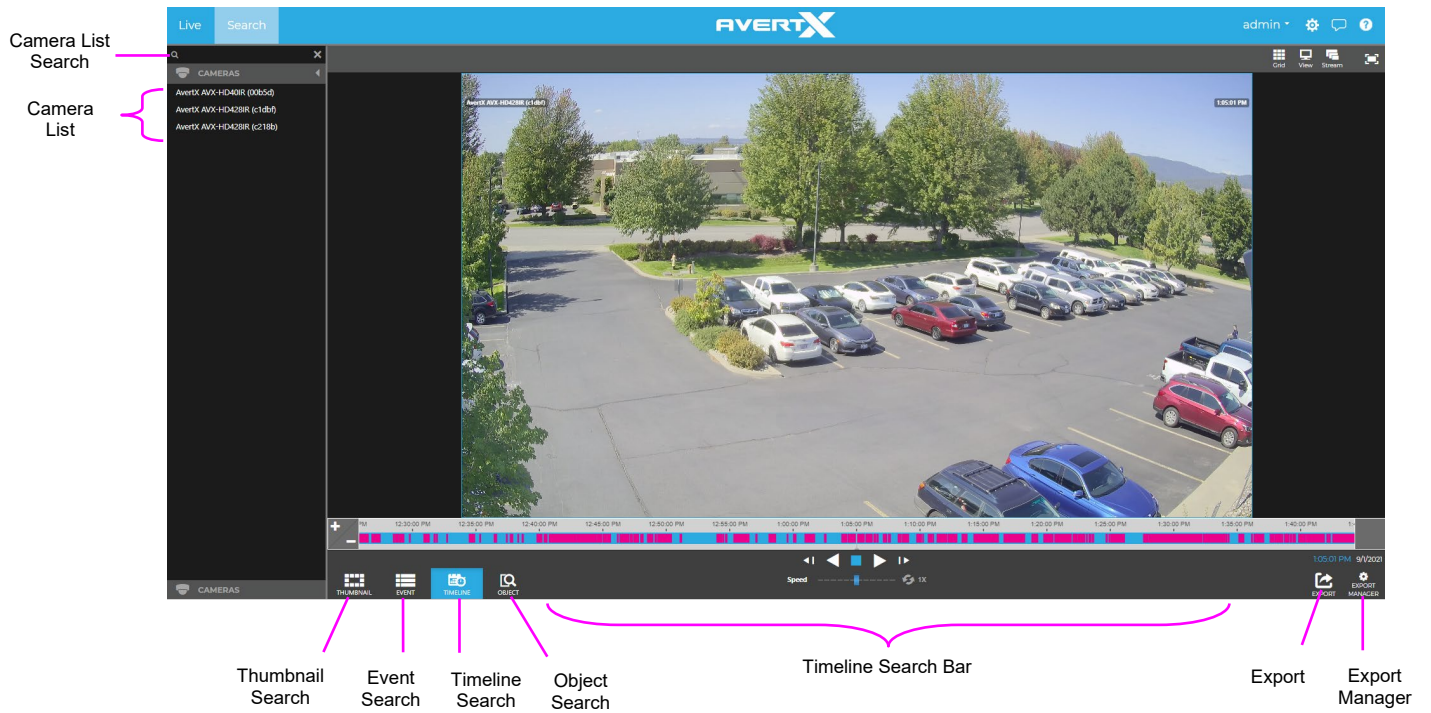
1. Click the **Grid** button.
2. Click on the desired grid.
3. Assign the available cameras to the desired camera tiles.

## Perform a Date / Time Search

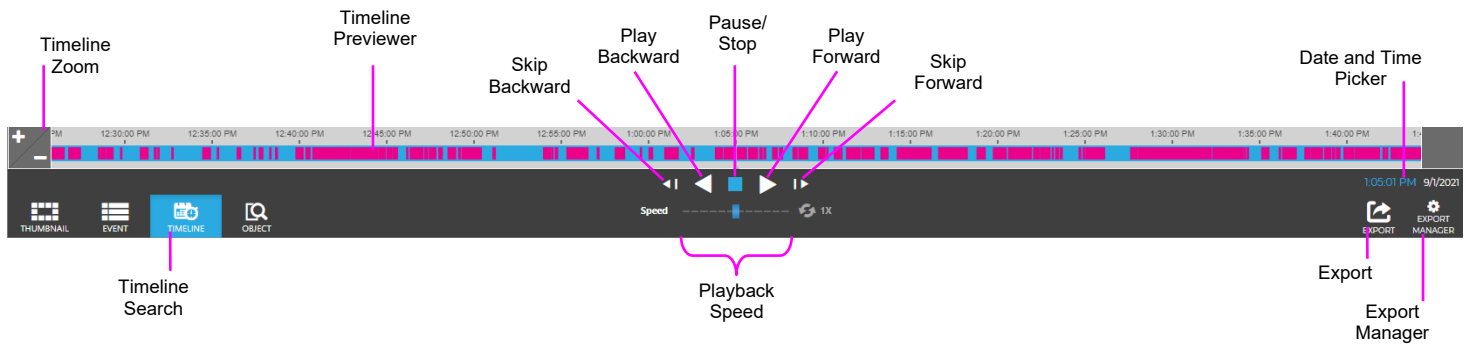
1. Customize the camera tile grid in the Search Screen Viewing Pane if desired.
2. In the Search Screen, click the **Date / Time Picker**.
3. Select a **date** from the calendar, and then designate a **time** if desired.
4. Click **Select**.
5. Click **Play**.



## How Do I Perform a Timeline Search (Web Interface Only)



## Timeline Search Bar Playback Controls



**Note** The example Timeline Search Bar shows recorded video that is based on Continuous + Motion recording, meaning the higher resolution motion video is only recorded when a motion event is triggered. This results in video automatically switching between the lower resolution and higher resolution video. Motion video is shown in magenta, and non-motion video is shown in light blue.

**Timeline** – Continuous recording is represented by light blue lines on the Timeline Search bar, with magenta lines on the Timeline Search bar representing Motion events.

**Timeline Zoom** – Increases or decreases the amount of time shown in the timeline. Allows for greater accuracy in timeline movement.

**Skip Backward** – Move to the previous frame of recorded video.

**Play Backward** – Play recorded video backward.

**Pause / Stop** – Pause / Stop video playback.

**Play Forward** – Play recorded video forward.

**Skip Forward** – Move to the next frame of recorded video.

**Playback Speed** – Control the speed of video playback.

**Timeline Previewer** – Hovering over the timeline will show a preview of the recorded video.

**Export** – Export recorded video as seen in the current search playback.

**Date and Time Picker** – Use to designate a date and time to search recorded video.

## Timeline Keyboard Playback Controls

In addition to the Search Bar Playback Controls, the keyboard can be used to control some playback functions.

**Space Bar** – Play/Pause recorded video.

**Left Arrow** – Reduce playback speed.

**Right Arrow** – Increase playback speed.

**Left Arrow (When Paused)** – Move to the previous frame of recorded video.

**Right Arrow (When Paused)** – Move to the next frame of recorded video.



## Add Camera(s) to the Timeline Search Viewing Pane

When the Search Screen is opened, the cameras that were in the Viewing Pane in the Live Screen will appear, however, cameras can be arranged separately in the Search Screen to facilitate the desired search.

To add cameras to the Search Screen:

1. In the Search Screen, click a camera in the **Camera List**.

---

—OR—

---

2. Click and drag a camera from the camera list to the **Viewing Pane**.

## Customize the Camera Tile Layout

Changing the layout of the viewing pane allows for viewing multiple cameras. All cameras will begin playback of recorded video at the time designated on the horizontal Timeline Search Bar.

1. Click the **Grid** button.
2. Click on the desired grid.
3. Assign the available cameras to the desired camera tiles.

## Perform a Timeline Search

Customize the camera tile grid in the Search Screen Viewing Pane if desired. Select a Date (and Time) from the **Timeline Search Date Picker**.

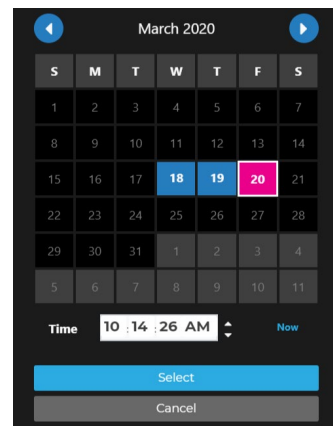
On the Preview Search Bar, click the **Timeline Search Date Picker**.

Select the desired **Date (and specific time)**, and then the timeline will update automatically.

Use the **Play/Pause**, **Stop**, **Play Forward/Backward**, and **Skip Forward/Backward** playback controls to control video playback during your search.

## Perform a Timeline Date/Time Search

1. Customize the camera tile grid in the Search Screen Viewing Pane if desired.
2. In the Search Screen, click the **Date / Time Picker**.
3. Select a **date** from the calendar, and then designate a **time** if desired.
4. Click **Select**.
5. Click **Play**.



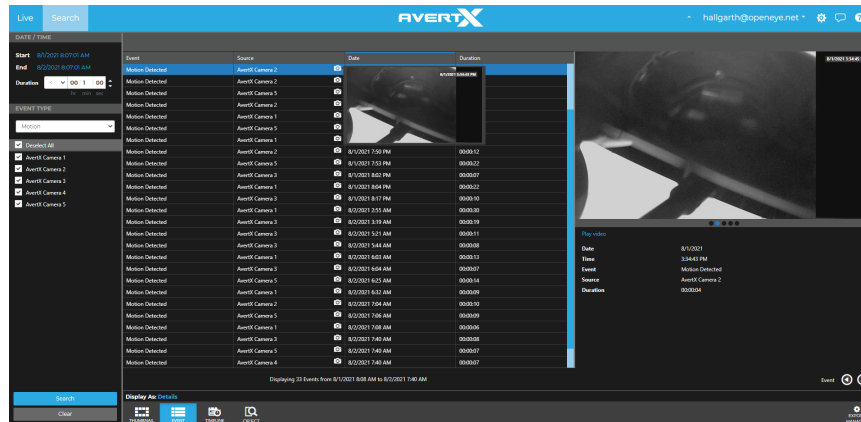
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**Note** To automatically update the time, click **Now**. To automatically exit the Date/Time Search, click **Cancel**.

---

## How do I Perform an Event Search (Web Interface Only)?

Event Search is ideal for reviewing sensor or relay events such as motion in a filtered, easily consumable format.



### Perform an Event Search

1. Under **DATE / TIME** select the Start, End and Duration.
2. Select an **Event Type** from the list.
3. Click **Search**.
4. Select an **event** in the event table to review.
5. Click the **preview image** and the **play icon** to review this video in Timeline Search.

**Note** Hitting the back button on the browser in timeline search will load the previous event search results when switching between the two.

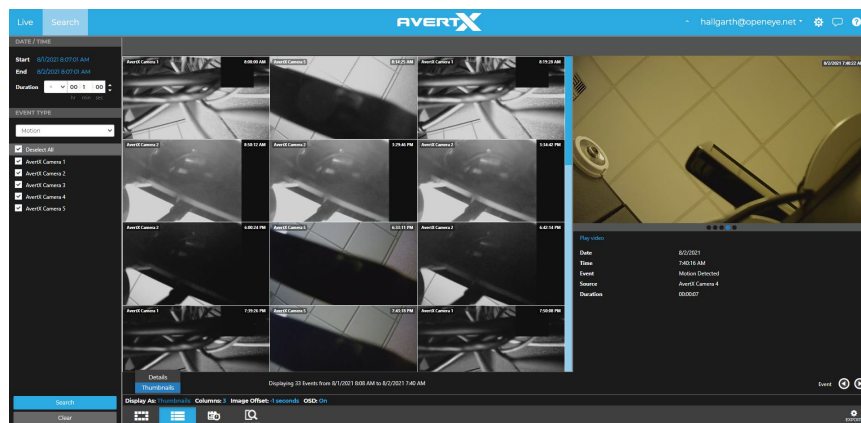
### Change to Thumbnail View

1. Click **Details** on **Display As:** below the event table.
2. Select **Thumbnails** from the menu.
3. The event table will display as thumbnails.

Customize the number of thumbnail **Columns** displayed.

Change time of display results between event and image from **-4 seconds** to **4 seconds** in **Image Offset**

Turn On Screen Display (**OSD**) information **On** or **Off**.



# How Do I Perform a Thumbnail Search (Web Interface Only)



Preview search is ideal for viewing before and after comparisons at user-determined intervals. This search can help a user narrow down a time period during which something changed in the scene, such as vandalism or theft.

## Thumbnail Search Bar Playback Controls

The Preview Search bar displays the number of thumbnails displayed in the Viewing Pane, the Time Range interval between the first and last thumbnail, and the overall Video Interval.

**Number of Thumbnails** – Number of thumbnails distributed across the Time Range.

**Time Range** – Time interval between the first and last thumbnail.

**On-Screen Display Toggle** – Toggle the on-screen display on or off during search.

**Video Interval** – Display of the exact start and end time for the designated interval.

**Thumbnail Search Date and Time Picker** – Calendar display tool for choosing Thumbnail Search Dates.

## Perform a Thumbnail Search

1. Select a camera from the **Camera List**.

---

**Note** Thumbnail Searches allow for only one camera displayed at a time.

---

2. Select a Date from the Thumbnail Search Date Picker.
  - a. On the Thumbnail Search Bar, click the **Thumbnail Search Date Picker**.
  - b. Select the desired **Date**, and then the thumbnails will update automatically.
3. Select the **Number of Thumbnails**, the **Time Range**, and turn the **OSD On / Off** as desired.

**Note** Your combination of thumbnail quantity and time range will determine the time interval between each snapshot displayed. For example, 25 thumbnails in a 24-hour time range will result in 1-hour time intervals between displayed pictures.

4. Left-click on the desired thumbnail to narrow the time interval, opening new thumbnails.

**Note** When the thumbnail is narrowed to the smallest time interval, left-clicking again will begin recorded video playback in the Timeline Search Screen.

5. Right-click the desired thumbnail to expand the time interval, opening new thumbnails.

## How Do I Perform an Object Search (Web Interface Only)

**Display As:** – Display search results as thumbnails or as a list.

**Columns** – Display thumbnail results in 1, 2, 3, 4 or 5 columns.

**Image Offset** – Change time of display results between **-4 seconds** and **4 seconds**.

**OSD** – Turn On Screen Display information **On** or **Off**.

**Object Search Region**

### Perform an Object Search

1. Under Cameras, select a camera that displays the object to search.
2. Draw an Object Search Region in the Preview Window:
  - Left click and drag to create a rectangular Object Search Region
  - Left click, release, and move to draw a custom polygonal shape one line at a time. Draw and click the last line to the starting point to complete the Object Search Region.
  - Right click to clear a shape.



3. Under Date / Time, select the **Start**, **End** and **Sensitivity** for the search.

Click **Search** to apply the filters.

Click an Event result to preview.

Click the image or **Play video** to review this video in Timeline Search.

---

**Note** Hitting the back button on the browser in timeline search will load the previous event search results when switching between the two.

---

## How Do I Export from Search?

---

**Note** Exports during Search are only available from the Timeline Search Screen. Thumbnail Searches must be narrowed to the Timeline Search Screen before an export is possible.

---

- During a Timeline Search, you have the option to export an image or a video clip.
- Resulting image files can be saved locally.
- Resulting video files can be saved locally OR remotely to your AvertX Connect account where they can be viewed and managed remotely.

### Export Snapshot (Still Image) Locally

1. In the Search Screen, perform the desired **Timeline Search**.
2. Click **Save**.
3. In the Snapshot tab, enter a **Filename**.
4. Click **Export**.

---

**Note** Locally exported images are saved in the **Downloads** folder as **JPEG files**.

---

### Export Video Clip Locally

1. In the Search Screen, perform the desired **Timeline Search**.
2. Click **Export**.
3. Choose Single Export or Multi Export.
4. Select Cameras to include in the **Multi Export**.
5. Select **Duration** by hours, minutes and seconds or by **Start** and **End** time.
6. Set **Video Quality** along the **Low** and **High** slider.
7. Choose between Mobile Compatible and Original for Video Resolution.
  - Mobile Compatible exports video in 1080p unless the primary recording stream is already at a lower resolution.
8. Check **Audio** if available.

---

**Note** Larger **Duration** and higher **Video Quality** will result in larger video files.

---

9. Click **Next**.
10. Enter Filename and Export.

---

**Note** Locally exported video clips are saved in the **Downloads** folder by default as **MP4 files**.

---

**Single Camera Video Export**

**Date / Time**  
 Start: 7/31/2019 5:49:08 AM  
 End: 7/31/2019 5:54:08 AM

**Duration**  
 00 : 05 : 00  
 hr min sec

**Video Quality**  
 Setting a higher quality will increase the file size and the length of time needed to complete the export.  
 Low ————— High

**Video Resolution**  
 Mobile Compatible exports video in 1080p, unless the primary recording stream is already at a lower resolution.  
☒ Mobile Compatible ☐ Original

**Audio**  
☒ Include Audio if available

Back Next

---

**Note** Locally exported video clips are saved in the **Downloads** folder by default as **MP4 files**.

---

### Export Video Clip to Cloud

Exporting a video clip remotely saves the clip in your AvertX Connect account. For more information regarding viewing exported video clips, see the *How Do I View Exported Video Clips in AvertX Connect?* section.

1. In the Search Screen, perform the desired **Timeline Search**.
2. Click **Export**.
3. Designate the Duration, Video Quality, Video Resolution and Audio, and click Next.

---

**Note** Larger **Duration** and higher **Video Quality** will result in larger video files.

---

4. Type the desired **Title** and **Description**.
5. Click **Export**.



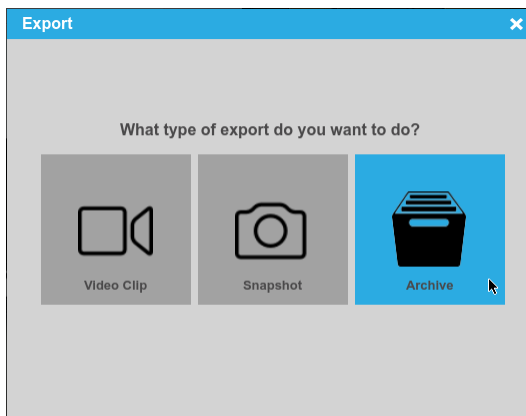
## Export Archives Locally

---

**Note** Local exports will require an attached USB storage device. ProConnect will only recognize USB storage devices in NTFS, ExFAT or FAT32 formats. Apple users are recommended to use ExFAT format for best compatibility.

---

1. Make sure the USB device is plugged into a USB port of the recorder. Blue USB 3.0 ports on the recorder are recommended for faster archives.
2. In the Search Screen, select the cameras to archive.



3. Click the **Export** option and select **Archive**.
4. Channels added in search will be automatically selected, uncheck any channels not needed and click **Next**.
5. Set the start and end time of the archive and click **Next**.
6. Click **Select Destination** and select the USB device.
7. Enter the name of the archive in the **Filename** field and click **Export**.

---

**Note** Local Console archives provide a standalone Archive Viewer on export to a USB device

---

## How Do I Export Video from the Console with No OSD?

Video can be exported without the On-Screen Display information.

1. In the Search screen, perform the desired **Timeline** search, and then click the **Save** button.
2. Select the **Video Clip** export icon.
3. Specify the Duration and Video Quality.
4. Uncheck **Display Date/Time** on video.
5. Select Destination.
6. Click **Export**.

## How Do I Create an Archive?

The Archives function exports up to 24 hours of data in the native format.

1. Add cameras to the search **Grid**.
2. Click the **Export** button and select the **Archive** option.
3. Check the cameras listed and click **Next**.
4. Set the **Start & End Date/Time** and click **Next**.
5. Chose the local or network location by clicking the folder icon and click **Export**.

## How Do I View an Archive?

The Archive function displays video in the native format one recorder at a time.

1. In timeline search or the standalone viewer click the **LOAD** option.
2. Navigate to the archive var file, select the file and click **Open**.

---

**Note** The stand-alone archive viewer will automatically load the latest var file if located in the same directory.

---

## How Do I Export from an Archive?

### Video Clip

The Archive Viewer supports exporting single camera MP4s locally.

1. In the Search screen, perform the desired **Timeline** search, and then click the **Export** button.
2. Select the **Single Camera** export icon.
3. Specify the **Start / End time** and **Video Quality**, and then click **Next**.
4. Select the **Export Locally** option and browse to the desired location, and then click **Export**.

### Snapshot

The Archive Viewer supports exporting snapshots locally.

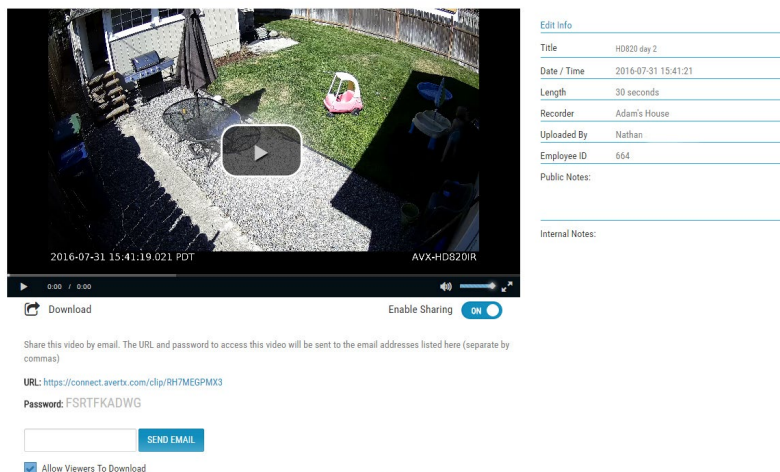
1. In the Search screen, perform the desired **Timeline search** or narrow a **Thumbnail search**.
2. Click **Export**.
3. Click **Snapshot** in the Export window.
4. Click the **folder** button and then specify a local file save location.
5. Click **Export**.



## How Do I View Exported Video Clips in AvertX Connect?

AvertX Connect allows you to view video clips exported during a search. These clips are stored in the Video Archive and can be watched, shared, and downloaded.

Video Archive → HD820 day 2



The screenshot displays the AvertX Connect Video Archive interface. On the left is a video player showing a backyard scene with a playhouse and a trampoline. The video title is 'HD820 day 2'. Below the player are controls for 'Download' and 'Enable Sharing' (set to ON). To the right of the player is a table with video metadata:

| Edit Info       |                     |
|-----------------|---------------------|
| Title           | HD820 day 2         |
| Date / Time     | 2016-07-31 15:41:21 |
| Length          | 30 seconds          |
| Recorder        | Adam's House        |
| Uploaded By     | Nathan              |
| Employee ID     | 664                 |
| Public Notes:   |                     |
| Internal Notes: |                     |

Below the table, there is a section for sharing the video via email. It includes a URL: <https://connect.avertx.com/clip/RH7MEGPMX3> and a password: **FSRTFKADWG**. There is a 'SEND EMAIL' button and a checkbox labeled 'Allow Viewers To Download' which is checked.

1. Navigate to **connect.avertx.com** and login.
2. Click Video Archive.
3. Select the desired video clip, and then click the **Play** icon.

---

**Note** If desired, **Share** the video clip. A URL will be provided with an access password which can then be distributed to others.

**Note** If desired, download the video clip to your default download location.

---

## How Do I Enable Email Alerts and push notifications for Motion, Sensor or Health Events?

Email Alerts and Push Notifications for motion, sensor and health alerts are set through the ProConnect NVR and sent to the AvertX Connect cloud gateway for delivery. You will need [a valid AvertX Connect account](#) and access to a web browser with an internet connection. For Push Notifications, you will also need the AvertX Connect Mobile app.

Enabling events allows health alerts to be sent depending on the event and period of time:

- Video Loss (after 6 hrs)
- Recorder Not Reporting (after 12 hrs)
- Recorder Not Recording (after 12 hrs)
- Missing Hard Drive

### Enable Sending Events to AvertX Connect:

1. Go to the **Setup** menu, and then the **AvertX Connect** tab.
2. Enter your AvertX Connect account's **Email** and **Password** to link your NVR to AvertX Connect.
  - Select **Send Health Events to AvertX Connect** to enable motion alert.
  - Select **Send Event Images to AvertX Connect** to receive an image with the alert. Deselecting this option reduces the amount of data sent if your network has bandwidth limitations.

---

**Note** These options are selected by default when you register your NVR with AvertX Connect.

---

#### Add a Macro:

1. Click the **Macros** tab on the right-hand menu.
2. Click Add a Macro.
3. Enter a macro name in the **Macro Name** field.
4. Check the **Enable Macro** box.

#### Create a Trigger:

1. Select the drop down under the **Schedule** option to modify when a trigger is in effect. For more information on schedules, see the [Schedule section](#).
2. Select either Sensor or Motion under the **Event Class** drop down.
3. Select the appropriate Event Type in the **Event Type** dropdown that corresponds with the desired sensor or motion event class.
4. Select the source IP camera or sensor in the **Source** drop down list. If no source is selected, all cameras or sensors will trigger event notification.

---

**Note** You can set up multiple triggers by clicking the **Add New Trigger** button.

---

#### Create an Action:

1. Select the desired schedule under the **Schedule** dropdown.
2. Select the action type **Send to AvertX Connect** under the **Type** dropdown.
3. Set the duration of the event to trigger the action in the **When Event Duration Exceeds** field.
4. If an additional action is added they will happen in order and can be dragged and dropped to reorder for priority.
5. Click **Save** to complete macro setup.

---

**Note** You can set up multiple Actions by clicking the **Add New Action** button.

---

## Enable Alerts in AvertX Connect:

Users > Bob Jones > User Profile

User Profile User Permissions Recorder Access

First Name  
Bob

Last Name  
Jones

Language  
English

**Alert Notification Options**  
Email and Push Notifications are sent once every 5 minutes at a maximum of 12 per hour. These thresholds apply to each alert type.

**Health Alerts**  
☒ Receive by Email ☐ Receive by Push Notification

**Motion Alerts (configured on the recorder)**  
☒ Receive by Email ☐ Receive by Push Notification

**Sensor Alerts (configured on the recorder)**  
☒ Receive by Email ☐ Receive by Push Notification

**Vehicle and Person Detection Alerts (configured on the recorder)**  
☒ Receive by Email ☐ Receive by Push Notification

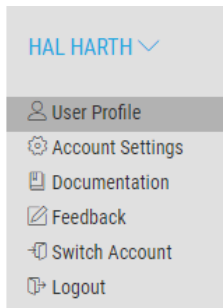
Delete User Cancel Save

1. To enable email or push notification alerts to specific users, go to **connect.avertx.com** and **Login**.
2. Click on **Manage Users** in the Main Menu.
3. Click on the user you wish to receive alerts.
4. In the User Profile, select Receive by Email or Receive by Push Notification (or both) for Health, Motion, Sensor, and Vehicle and Person Detection Alerts.
5. Click **Save** to complete. The email address associated with this account will now receive alerts.

## How Do I View the User Permissions for Account Types?

When a user is assigned an account type (**Admin**, **Power User**, or **User**), different permissions will be granted to the account. You can view the permissions from your **User Profile**:

1. Click **User Profile** from the Account Name dropdown menu.



2. Click **User Permissions**

Users > Hal Harth > User Permissions

|                            | User Profile | User Permissions | Recorder Access | Change Password | Change Email |
|----------------------------|--------------|------------------|-----------------|-----------------|--------------|
| AvertX Connect Permissions | Admin        | Power User       | User            | Disable User    |              |
| View Live Video            | ✓            | ✓                | ✓               | ×               |              |
| Search Recorder Video      | ✓            | ✓                | ✓               | ×               |              |
| Export/Share Video         | ✓            | ✓                |                 | ×               |              |
| 2-Way Audio                | ✓            | ✓                |                 | ×               |              |
| Activate Relay             | ✓            | ✓                |                 | ×               |              |
| User Management            | ✓            |                  |                 | ×               |              |
| View Hidden Cameras        | ✓            |                  |                 | ×               |              |
| Setup                      | ✓            |                  |                 | ×               |              |

**View Live Video** – The Live video tab is enabled when the user connects to a recorder.

**Search Recorder Video** – The Search video tab is enabled when the user connects to a recorder.

**Export/Share Video** – User can export and share video after performing a search.

**2-Way Audio** – User can enable 2-Way Audio on compatible cameras.

**Activate Relay** – User can enable relays on associated cameras.

**User Management** – Admins can access and change the account type of other users.

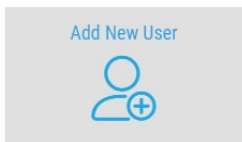
**View Hidden Cameras** – Admins can view cameras with the Hidden Camera option enabled.

**Setup** – Admins can access recorder, camera, and user settings via Setup.

## How Do I Add Users to an Account?

If you have Admin permissions, you can add new users to an account and assign them user permissions.

1. Under **Manage Users**, click **Add New User**.



2. Enter the new user's **First Name**, **Last Name**, **Email Address**, and **Assign User Permission (Admin, Power User, or User)**.

Add New User

Please enter the name and email address of the user you wish to add. An invite will be sent to that email address allowing the user to choose a password and login once they have accepted the invitation.

First Name

First Name

Last Name

Last Name

Email Address

Email Address

Assign User Permission

Cancel

Add New User

3. Click **Add New User**.

### Users

Sort by

Search User Accounts

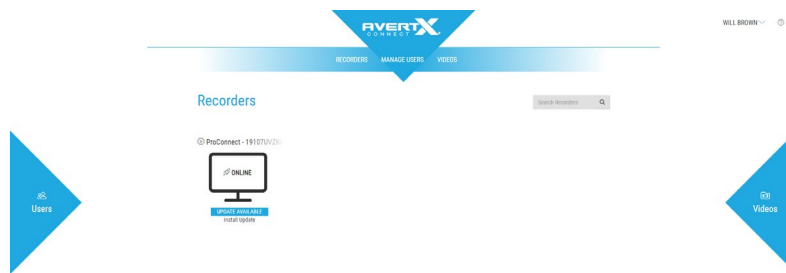
Add New User

Bob Jones

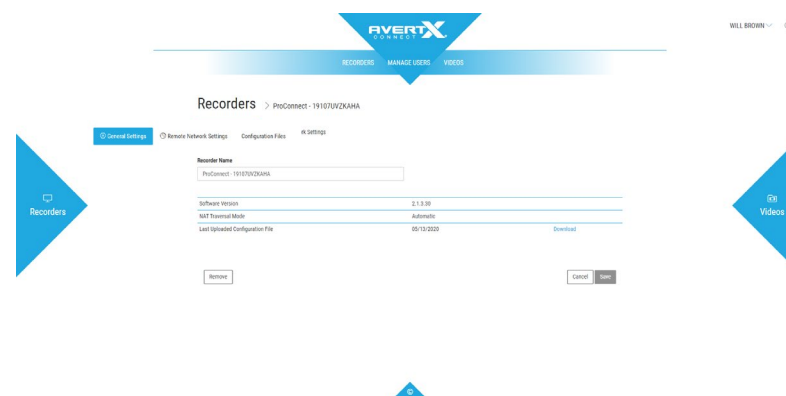
bbrow2@roperow.net

Added users will be listed on the **Manage Users** page. You can then click on a User listing to view details, enable options, and grant access to recorders.

## How Do I Update Recorder Software from AvertX Connect?



Software Updates appear under the recorder name when there is a new update available. Clicking the **Install Update** button will direct the user to the [Software Update](#) page on the recorder where they can perform the update.



## How Do I Download a Configuration File?

The Recorders page also has **Configuration Files**. Configuration files are automatically uploaded from the recorder every seven days and after software updates. You can manually download the Configuration File and import it to the recorder. Manual backups can also be performed from the recorder System Settings. **Download** a file and import it into the recorder to restore to that configuration.

Recorders > ProConnect - 19107UVZKAHA

General Settings Remote Network Settings **Configuration Files**

Configuration Files

The configuration files shown here are automatically collected from the recorder every 7 days and after performing a software update. A manual backup of the configuration can be performed from the recorder System Settings. You can download these files and import them into the recorder to restore a previous configuration.

| Date       | Version  | Size  | Backup Type |                          |                        |
|------------|----------|-------|-------------|--------------------------|------------------------|
| 07/29/2021 | 2.4.4.24 | 20 KB | AUTO        | <a href="#">Download</a> | <a href="#">Remove</a> |
| 07/22/2021 | 2.4.4.24 | 20 KB | AUTO        | <a href="#">Download</a> | <a href="#">Remove</a> |

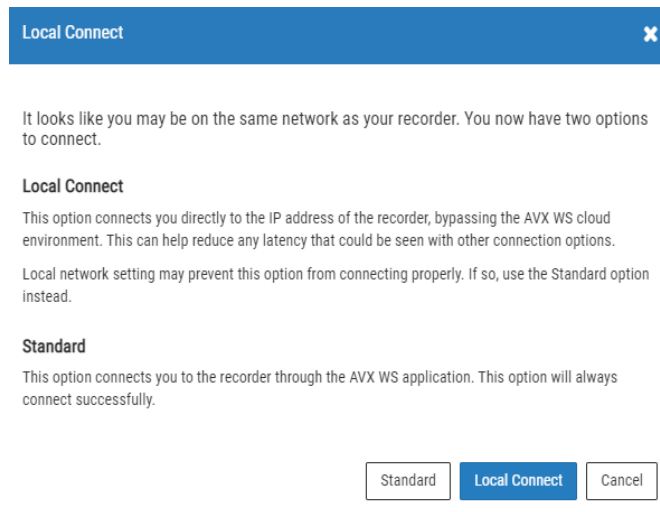
## How Do I Connect to a Recorder via a Local IP Address?

If you are on the same network as the recorder, you have the choice to connect via the Local IP address of the recorder or through a standard connection via AvertX Web Services.

1. On the **Recorders** page, click the **Connect** icon.



2. From the pop-up window, choose **Local Connect** to connect directly to the IP address of the recorder.



---

**Note** If the pop-up window does not appear, your connection will automatically default to the **Standard** connection.

**Note** If the two connection options are available, but the local connection attempt fails, you will have to manually select **Standard** from the pop-up window to attempt a standard connection.

---

## How Do I View Saved Videos?

The Videos page provides a list of saved videos. The total **Storage Used** and **Available** is displayed above the list. Hover over **Preview** for a thumbnail image of the video, click **View** to playback the video, or click **Remove** to delete the video.

### Videos

Storage Used: 20 MB / Available: 2 GB

Search Videos



| Name                | Date       | Date Added ▾ | Recorder                  | Size   |                       |
|---------------------|------------|--------------|---------------------------|--------|-----------------------|
| Green car           | 07/20/2021 | 07/20/2021   | ProConnect - 19107UVZKAHA | 441 KB | Preview  View  Remove |
| Delivery person     | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Dog walker          | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Front gate open     | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Side door open      | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Garbage truck       | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Car stopped in road | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Dog digging hole    | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Phonebook delivery  | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Package delivery    | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |
| Broken window       | 10/09/2019 | 10/09/2019   | ProConnect - 19107UVZKAHA | 663 KB | Preview  View  Remove |



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