



PRO Series

High Definition Network Video Recorder

User Manual



AvertX PRO Series High Definition Network Video Recorder

Operations Manual

(FW 11945)

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

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

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

AVERTX

IMPORTANT SAFEGUARDS

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.
16. **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.

BATTERY EXPLOSION CAUTION STATEMENT

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

HANDLING

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.

LOCATING

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.

CLEANING

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.

MAINTENANCE

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.

MOISTURE CONDENSATION

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.

WARNING

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.

CAUTION



RACK MOUNT INSTRUCTIONS

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_{ma}) 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).

FCC STATEMENT

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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PREFACE

ABOUT THIS GUIDE

This manual is to be used as a reference for setting up the AvertX PRO Series network video recorder, and for troubleshooting any problems you might encounter. If you are unable to solve any problems with this guide, please contact AvertX support, or an authorized technician to repair the unit.

AvertX reserves the right to make changes to the products represented by this manual without notice.

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

Note Notes indicate topics of interest intended to better your understanding of this AvertX product.

TECHNICIAN NOTES

Warning Only authorized technicians trained by AvertX should attempt to repair this recorder. All troubleshooting and repair procedures indicated in this manual are to be used only for reference and minor repairs. Due to the complexity of the device, no end-user should attempt to make component repairs or modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indications of component replacement or printed wiring board modifications may void any warranty.

Warning To reduce the risk of electrical shock or damage to the equipment:

- Do not disable the power grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded electrical outlet that is easily accessible at all times.
- Disconnect the power from the recorder by unplugging the power cord either from the electrical outlet or the recorder.

Caution To properly ventilate your AvertX system, you must provide at least 3 inches (7.6 cm) of clearance at the front and back of the recorder.

Note AvertX cameras must be connected to PoE output equipment that is UL listed I.T.E. only.

ONE: INTRODUCTION

Product Description

Features

Basic Setup

Password Protection

PRODUCT DESCRIPTION

The AvertX PRO Series is a high-definition video surveillance system designed for easy installation and operation. This recorder can be put to use immediately, and offers easy-to-use search, setup, and export features. The operating system of the PRO Series offers stability and protection from viruses—protecting itself while it protects you.

The AvertX PRO Series comes ready for fast and seamless integration and unparalleled stability, security, and ease of use. Your security investment has never been easier to maintain. Multiple users (up to four at one time) may connect through the internet for live viewing, digital search, and even camera control. With the latest advancements included in the PRO Series software, searching your video archive is easier than ever.

FEATURES

The AvertX PRO Series network video recorder includes the following features:

- 16 network channels available on the NV160 models
- 8 network channels available on the NV80 models
- Supports cameras up to 4K resolution
- Multiple search methods (Calendar, Event)
- H.264 video compression only
- Multiple levels of security access
- Up to 12TB of internal storage
- Up to 12TB of external storage (optional, sold separately)
- AvertX Connect for easy set up of remote devices or free DDNS set up.
- Remote system operation & configuration
- Day, night, or weekend scheduling
- Continuous, motion-activated, and sensor-activated recording

BASIC SETUP

With these basic quick start instructions the recorder is configured to record, can be accessed remotely over the local network, and secured against unauthorized logins. For further instructions, setup details, remote access, and configuration see the other chapters in this manual.

Note To access the recorder using your mobile phone or computer at another location, you must configure the recorder for remote connection. See the **Remote Connection** chapter of this manual for more information.

1. Establish necessary cable connections and turn on the recorder.
2. Move the mouse to the top of the Live screen and then click **Setup** in the hover menu.
3. Click **System Setup**.
4. Click **Date/Time**.
5. Verify or modify the date and time.
6. Click **Network Setup**.
7. Click **General Settings**.
8. **DHCP** is enabled (**On**) by default, if no changes are needed simply make a note of the IP address.
9. If the IP address needs to be static, set **DHCP** to **Off**, and then enter the **IP Address**, **Netmask**, **Gateway**, and **DNS** for the network.

Note If you plan to access the NVR remotely using a computer, smart phone or tablet. Set **DHCP** to **Off** after you complete your port forwarding.

10. Click **Close** to return to the Live screen.

PASSWORD PROTECTION

The PRO Series network video recorder does not require user authentication by default. However, AvertX strongly recommends securing your PRO Series recorder by setting up user authentication.

1. Move the mouse to the top of the Live screen and then click **Setup** in the hover menu.
2. Click **Management**.
3. Click **Maintenance**.
4. Set **Password Protection** to **On**, and then click **Account Setup** to change admin and user passwords, if needed.
 - Default Username: **admin**
 - Default Password: **1234**

TWO: CONNECTIONS

Front Panel

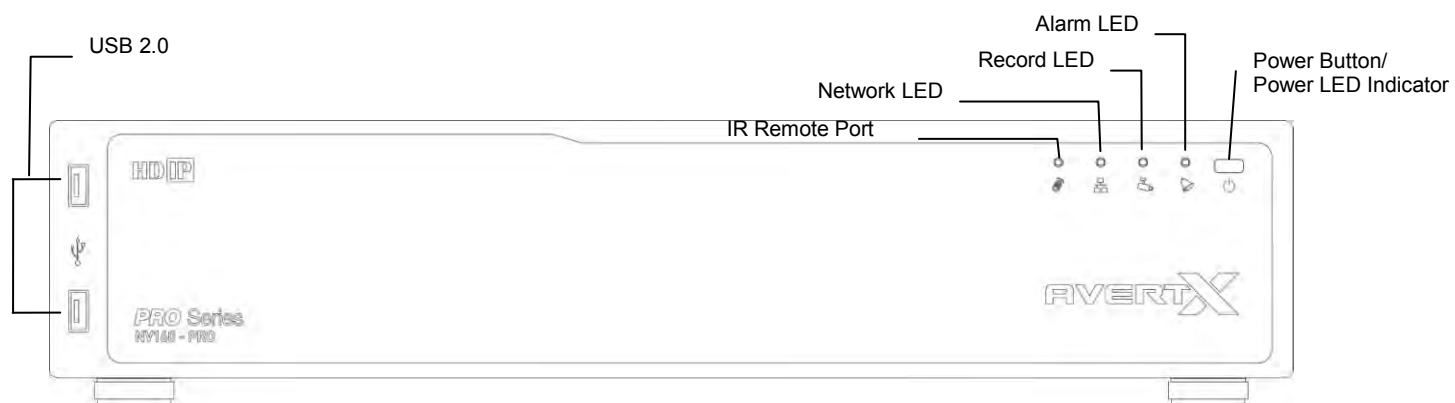
Rear Panel

Remote Control

FRONT PANEL

Front Panel

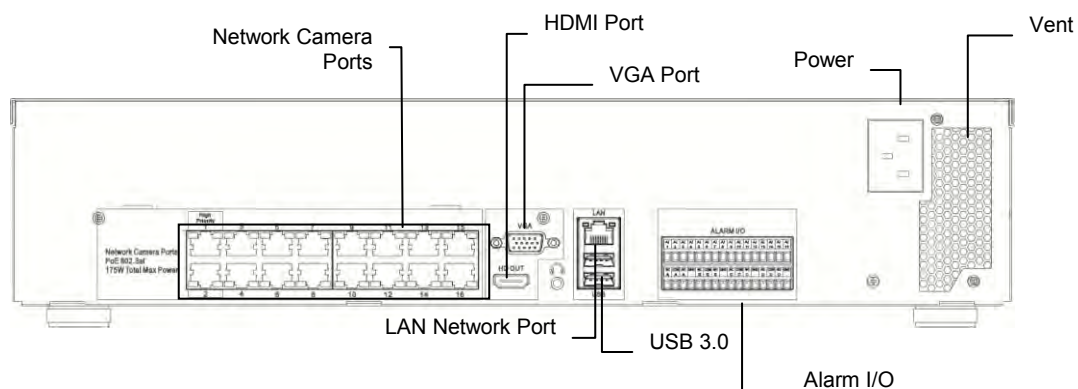
16 CH



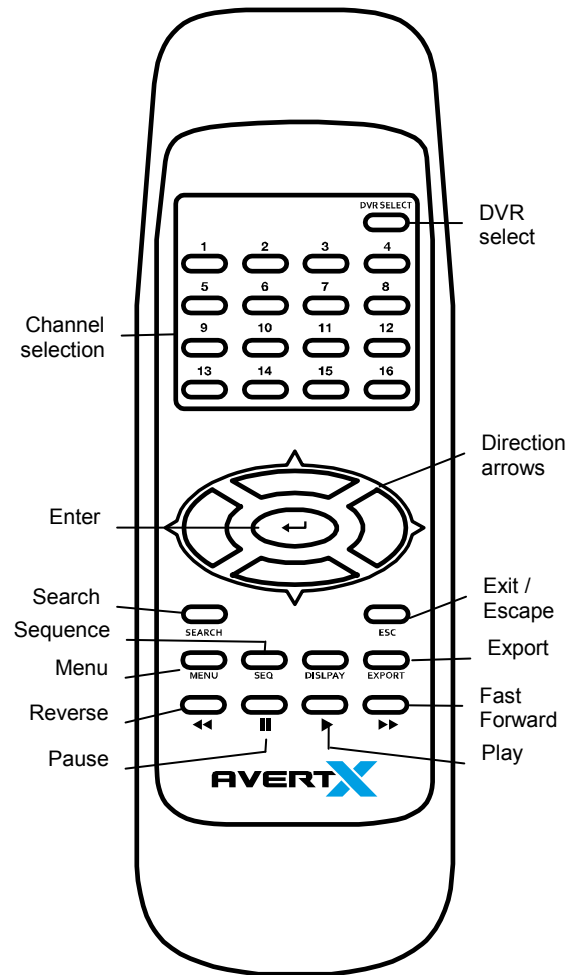
REAR PANEL

AvertX has multiple versions of PRO Series recorders, which can be differentiated by their part numbers. To find the part number of your recorder, locate the product sticker, either on the side of your recorder, or on the bottom.

Rear Panel (16-channel model shown)



Remote Control



USB Mouse

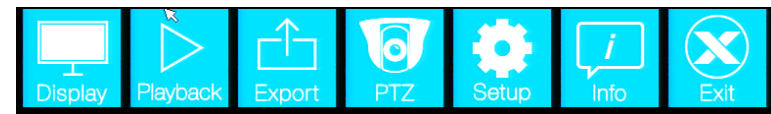
Your AvertX PRO Series recorder comes with a USB mouse that can be connected to the USB port on the front or the rear panel of the recorder. The mouse allows you to use the mouse pointer to select and click menu items (instead of using the remote control). Using a USB mouse also allows access to the onscreen menu bar.



Onscreen Menu Bar

The Onscreen Menu Bar will display when the mouse pointer hovers over the top of the screen.

The Menu Bar will display the following options:



THREE: INSTALLATION

Connection Guide

Turning On the Recorder

Turning Off the Recorder

CONNECTION GUIDE

Power Setup



WARNING:

To reduce the risk of electrical shock or damage to the equipment:

Do not disable the power grounding plug. The grounding plug is an important safety feature.

If the electrical plug you are using does not have a ground plug receptacle contact a licensed electrician to have it replaced with a grounded electrical outlet.

Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Disconnect the power from the recorder by unplugging the power cord either from the electrical outlet or the recorder.

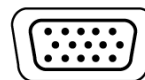
Monitor Setup

The recorder has the following connections available to attach a monitor. An attached monitor is required for the initial configuration of the NVR.



HDMI Output

To TV / Digital Display



VGA

Connect to an analog
VGA Monitor

Connect the monitor to the rear of the recorder using the cable supplied by the monitor manufacturer. Refer to the monitor manual for detailed information on how to set up and use it.

Note The monitor must have a minimum screen resolution of 1024 x 768 and display colors of at least 32 Bit

Connecting an IP Camera

The AvertX PRO Series network video recorder uses IP network cameras. To connect an IP camera, plug the network cable into the desired channel on the back of the recorder. The PRO Series has a built-in PoE switch, which means that power is supplied to your camera over the network cable, so there is no need to plug a separate power supply into your PoE-equipped camera.

Note AvertX cameras use Power Over Ethernet (PoE), and will work when plugged into your recorder without any other equipment. If you are using IP cameras from another manufacturer, you may need a separate power supply if it is not a PoE camera.

Note The AvertX PRO Series supports ONVIF Profile S compliant IP cameras. However, cameras will require manual set up (refer to page 95). 3rd party ONVIF compliant PTZ cameras will have limited functionality when viewed through the NVR. Please consult with the 3rd party camera manufacturer to confirm the level of compatibility with the NVR.

Connecting to a Network

Use the RJ45 jack on the rear of the recorder to connect to your router, modem, or network switch. Do not use this port to connect to an IP camera.



Connecting an Alarm/Sensor Input

Connect wired alarm/sensor inputs to the Alarm In ports on the I/O connector.

Connecting a Relay Output

Connect wired relay outputs to the Alarm Out port on the I/O connector.

TURNING ON THE RECORDER

First Time Power On

1. Connect monitor cable.
2. Connect network cable if remote access will be needed.
3. Connect alarm inputs and relay outputs if needed.
4. Connect the power cable to the recorder.
5. Press the button on the front panel to turn on the recorder.

Note Connect cameras after you power on the NVR for the first time.

Normal Power On

- Press the power button on the front panel.

TURNING OFF THE RECORDER

1. Mouse over the top of the screen.
2. Click **Exit** on the dropdown menu.
3. Click **Shutdown**.
4. Click **Confirm**.



Note You can also shutdown the system by holding down the power button on the front of the NVR for 8 seconds.

FOUR: SETUP

Main Menu

System Setup

Camera Setup

Schedule Setup

Alarms Setup

Hard Drive Setup

Configuration

Management

Info

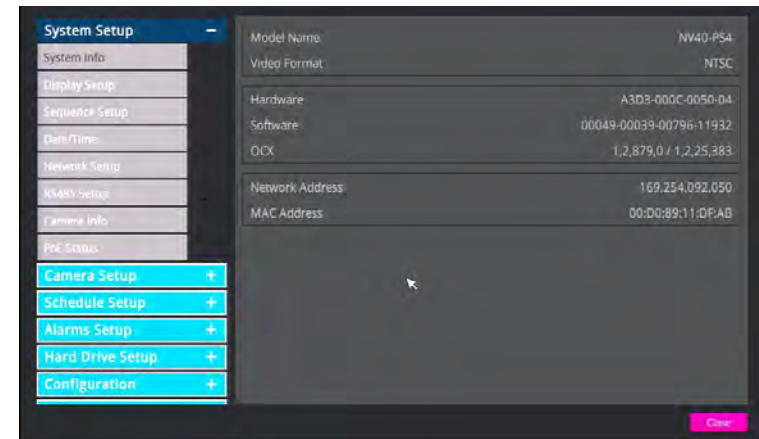
SETUP MODE

Setup Mode allows you to make a limited number of changes to the configuration.

The following are some items that can be configured in Setup Mode:

- Hard Drive Setup
- Date/Time
- Load Factory Default Settings
- Import Configuration
- Shutdown
- Account Setup
- LAN Setup
- AvertX Connect Setup
- DDNS Setup
- Camera Setup
- Schedule Setup
- Event Duration
- VGA Resolution
- Date/Time Display
- Software Upgrade
- System Log

SYSTEM SETUP



Use this menu to configure all of the recorder settings, schedule recording, configure the alarms, set up user access, networking, display and system options.

To access the menu, mouse over the top portion of your display and select "Setup" from the dropdown menu.

System Info

Use the System Info menu to view the model name, video format, hardware and software versions, network address and MAC address.

Display setup

Use the System Setup menu to configure the date and time, network settings, display resolution settings, or review camera status.

Language

Multiple languages are available for AvertX NVR setup and configuration including English, French, and Spanish.

To choose the language for your recorder, click **Language** and select your desired language. The default language is **English**.

Show Camera Name

Show Camera Name allows you to enable or disable the camera name display in live view. Click **Show Camera Name** and select **Yes** or **No** as desired.

Display

Use the Display menu to change the video output display settings.

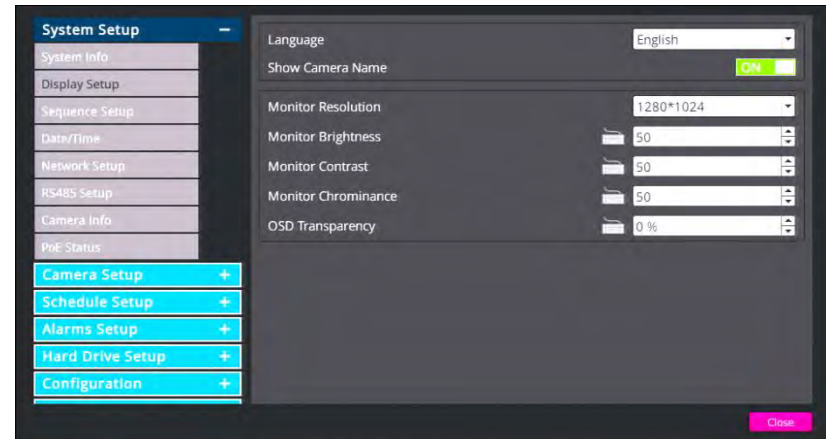
Monitor Resolution

Monitor Resolution allows you to change the screen resolution for your VGA or HDMI monitor. Available options are **1024x768**, **1280x1024**, **720p** and **1080p**. Click **Monitor Resolution** and select the appropriate resolution for your monitor.

Caution Do not choose a resolution that is higher than that of your monitor. Doing so will result in an “out of range” or “no signal” message. For details on the available resolution options for your monitor, refer to the user manual of your monitor.

HDMI Auto Resolution Detection

If using the HDMI video port, the NVR can detect the preferred resolution of the monitor. This feature can be turned on or off.



Monitor Image Controls

You can adjust the image on your monitor using the monitor image controls. To adjust a setting, click the keyboard icon next to the item you want to adjust, and then set the number in the field to your desired setting.

Monitor Brightness – Adjust the brightness of the monitor.

Monitor Contrast – Adjust the contrast on the monitor.

Monitor Chrominance – Adjust the color on the monitor.

OSD Transparency – Adjust the transparency of the On Screen Display.

Sequence Setup

Sequence Setup allows you to configure a custom sequence order to be displayed when the main display has been set to sequence single channels.

The number of sequencing positions available is equal to the total number of channels on the recorder. A channel can appear in more than

one sequencing position. If not all sequencing positions are needed, choose **Circular** to cause the sequence to return to the beginning.

To set a monitor sequence schedule, follow these instructions.

1. Click **Sequence Schedule**.
2. Select the camera channels you want to be shown in the sequence in the order you want them to appear.
3. Click **Confirm** to save your sequence.

Monitor Dwell

Monitor Dwell allows you to select the amount of time a camera or screen division will appear on the live screen when the display has been set to sequence (1 second – 120 seconds).

1. Click **Monitor Dwell**.
2. Click **Keyboard Icon** and use the on-screen keyboard to enter the amount of time – **OR** – hover the mouse arrow and move up and down the scroll wheel – **OR** – use the up and down arrow buttons to change the number of seconds for the dwell.

Date/Time

This option allows you to adjust the date, time, time zone, the format of the date and time displays, as well as to set up for daylight savings time or to use a Network Time Protocol.

To set the **Date**, **Time**, **Time Zone**, **Date/Time Display**, **Date Display Mode**, and **Time Display Mode**, click **Date/Time** and use your mouse to adjust the values.

Note Changing the date or time after initial configuration, requires formatting the hard drive(s) to avoid data mismatch.

Note In the United States, the Pacific Time Zone is **-8:00**, the Mountain Time Zone is **-7:00**, the Central Time Zone is **-6:00**, and the Eastern Time Zone is **-5:00**.

The screenshot shows the 'System Setup' menu on the left with options: System Info, Display Setup, Sequence Setup, Date/Time, Network Setup, RS485 Setup, Camera Info, and Live Streams. The 'Date/Time' option is selected. The main panel displays the following settings:

- Date: 2015/06/23
- Time: PM 12:09:36
- Time Zone: -08:00
- Date Display Mode: Y/M/D
- Time Display Mode: 12 HR
- Daylight Saving Time: OFF
- DST Start: Mar 2nd Sun AM 02:00
- DST End: Nov 1st Sun AM 02:00
- DST Bias: 60 Min
- NTP Server: pool.ntp.org
- Automatically Time Sync: OFF
- Manual Time Sync: OFF

A 'Close' button is located at the bottom right of the settings panel.

Network Time Protocol Setup

Caution: Be sure to select the correct time zone during initial setup. Changing the time zone later will require formatting the entire hard drive and losing all recordings so the video time stamps match.

Using a network time protocol allows you to ensure that your recorder is keeping accurate time in coordination with other time-sensitive devices. This is ideal if you are using multiple recorders in multiple locations and plan on accessing them remotely. This function is only available when the Time Zone function is set to On and if the recorder is connected to the Internet.

1. Type the IP address of your desired **NTP Server**. The default server is time-nw.nist.gov.
2. Set **Automatically Time Sync** to **On**.
3. When desired, you can manually sync with the NTP server by clicking **Manual Time Sync**.

Daylight Saving Time Setup

This option allows you to turn Daylight Saving Time **On** or **Off**. You can also manually select the date and time when Daylight Saving Time will start and end; as well as specify the amount of time shift that should be applied.

1. In the Date/Time menu, click **Daylight Saving Time Setup**.
2. Click **Daylight Saving Time** and select **On**.
3. Adjust the **DST Start** settings to the appropriate date and time to start Daylight Savings Time.
4. Adjust the **DST End** settings to the appropriate date and time to end Daylight Savings Time
5. Adjust **DST Bias** to the appropriate time adjustment for Daylight Savings Time.
6. Close **Daylight Saving Time Setup**.

Network Setup

Use the Network menu to configure your network communication options.

For more information about using your PRO Series recorder with a network please refer to the **Remote Connection** chapter of this manual.

Note AvertX recommends using AvertX Connect to simplify configuring remote connections.

General Settings

General Settings allows you to configure the basic network settings for Ethernet communication. Consult a network administrator if you are not familiar with basic network configuration, or not familiar with the network you will be connecting to the recorder.

To access this menu, click **General Settings**.

DHCP

DHCP allows you to enable or disable DHCP (Dynamic Host Configuration Protocol). By default DHCP is set to **On** and will attempt to obtain a dynamic IP address automatically.

To access your recorder from outside your local network, the recorder needs an assigned IP address from within your network and internet access. Internet providers do not supply the local IP address, it is internal to your network. It is provided by your internal router. An IP address beginning with 169.254.x.x not valid. It can be used internally, but not for remote access. Typical local IP addresses start with 192.168.x.x or 10.0.x.x.

To obtain a valid IP from your local network, perform **Network Restart**

DHCP must be set to **Off** to allow editing of the IP, Netmask, Gateway, and DNS fields.

- **IP** – Specify a unique IP address for your recorder.
- **Netmask** – Specify a subnet mask of the network you are connecting to the recorder.
- **Gateway** – Specify the default gateway of the network you are connecting to the recorder.

- **DNS** – Specify the DNS of the network you are connecting to the recorder.

Web Port

To access your recorder from outside your local network, your router will use the web port of your recorder. The default port is 80. If you change the web port on the recorder, you must also configure your router to forward information to the same port number. See instructions for Port Forwarding in the Remote Configuration chapter.

1. Click **Web Port**.
2. Click **Num** and use the on-screen keyboard or a USB keyboard, or use the up and down arrow buttons to type or select the number you want to assign to your port.

Network Restart

To disconnect and immediately establish a new network connection, click **Network Restart** and select **Yes**.

DDNS Setup

Note DDNS setup is not required if you have set up remote access using an AvertX Connect account.

A Dynamic Domain Naming System (DDNS) provides an alias for your recorder to be accessed through your router from outside your local network.

Note Port forwarding *must* be configured on the router to allow remote access to the recorder from a location outside of your local network. Most Internet Service Providers (ISP) can assist with port forwarding through your router.

Detailed instruction for DDNS setup, including the information for your Host Name, DDNS Account, and DDNS password can be found on the **Dynamic Domain Naming System (DDNS) Installation and Activation** insert included in your PRO Series packaging.

1. Click **DDNS Setup**.

2. Click **Enable DDNS** and select **On**.
3. Type the **Host Name**, **DDNS Account**, and **DDNS Password** in the appropriate fields.

Note: The DDNS password is case sensitive

4. Click **Send/Update** and select **Yes**.
5. Once the update is complete, the host name field will automatically complete the full host name.

AvertX Connect

AvertX Connect gives you free, easy access to your video whether you're on the go or at home using Internet Explorer on your Windows based computer, AvertX Remote for Mac, or the AvertX Go! apps on mobile devices (iOS and Android).

For more information, refer to the [AvertX Connect chapter](#)

Camera Info

This option allows you to view the format, resolution, frame rate and bandwidth of each camera on your system.



Ch	Format	Resolution	FPS	Bandwidth
CH01-Main	H264(MP)	2560x1440	15.00	4097.73 kbps
CH02-Main	----	----	----	----
CH03-Main	----	----	----	----
CH04-Main	----	----	----	----
CH01-Dual	H264(MP)	640x480	14.86	981.24 kbps
CH02-Dual	----	----	----	----
CH03-Dual	----	----	----	----
CH04-Dual	----	----	----	----

PoE Status

Click **PoE Status** to view the Port, Link, power consumption, and MAC address of each camera on your system.

CAMERA SETUP

Use the Camera Setup menu to manually connect cameras and configure camera channel settings; including camera name, camera settings, and stream settings.

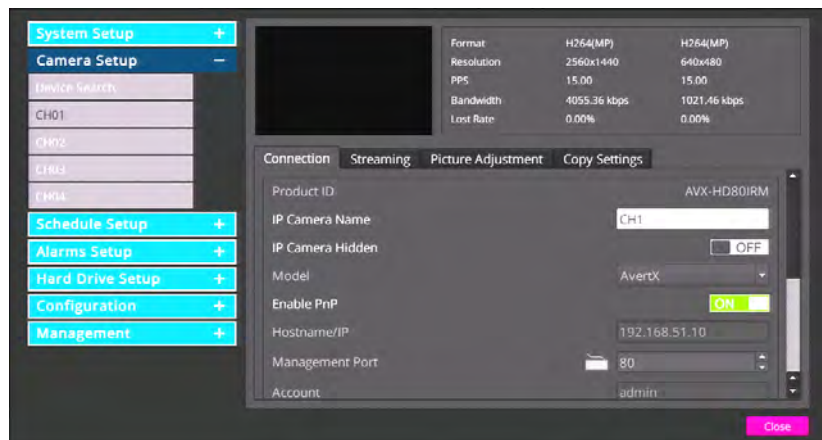
Device Search

If you set **Enable PnP** to **Off**, you will need to manually enter the IP addresses of the cameras on your system. Click **Device Search** to view the brand, model, and IP address of each camera on your network. Write this information down for later use. Click on a camera to select it for the current camera channel.

Connection Tab

IP Camera Name

You can assign each camera a name by clicking **IP Camera Name** and using the on-screen keyboard to type in the name. AvertX recommends choosing a name that is descriptive of the location of the camera, such as "Front Lobby," or "Loading Dock."



IP Camera Hidden

Enabling this function will hide the camera from view in the Live screen. The camera footage will continue to be saved to the recorder and can be accessed by users with the proper privilege level.

Enable PnP

Use this function to enable Plug 'n' Play (**PnP**). Setting this to **On** allows the recorder to recognize the camera and begin recording video immediately without manually entering an IP address for each camera. If **PnP** is **On**, the cameras are reset to their default settings. If you have custom camera settings, set **Enable PnP** to **Off**.

Note Enable PnP will only function with AvertX cameras.

Connection Setup

You can use the Connection setup to control what functions of your camera your PRO Series unit has access to, as well as set up the kind of compression format the camera streams to the recorder, enable dual streams, and configure PTZ settings if the camera is a PTZ camera. To change these settings, you must set **Enable PnP** to **Off**

1. To control which account on the camera you are accessing, click **Account** and type the account name using the on-screen keyboard or a USB keyboard.
2. Click **Password** and type the correct password for the account.
3. Choose the **Management Port** for your camera. The default port is **80**.
4. Set the **Streaming Support**, **Streaming Recording**, **Streaming Index**, and **Streaming Protocol** as desired for the Main Stream and Dual Stream.

Activated

This option allows you to turn your camera on or off. Click **Activated** and select **Yes** or **No** to activate or deactivate your camera.

Note In order to control this option, **Enable PnP** must be set to **Off**.

Stream Status

Streaming format, resolution, frame rate, bandwidth and percentage of video loss for the selected camera is shown at the top of the camera channel menu.

Streaming Menu

Your AvertX cameras are capable of dual streaming, which means they send two different streams of video at different resolutions. The PRO Series recorder records both streams. The higher resolution will display when you view a single camera full screen, and the lower resolution displays when viewing multiple cameras at once. This allows the recorder to provide the best live image quality and record the high resolution image.

- **Video Resolution:** Adjust the quality and size of the streamed and recorded video on Stream 1 (stream viewed when in full view)
- **Video2 Resolution:** Adjust the quality and size of the streamed and recorded video on Stream 2 (stream viewed by mobile devices and in multi-camera display modes).
- **Video Rotation –** Rotate or flip the image if the camera is placed on a table, wall, or ceiling.
- **Bit Rate –** Set the data transmission speed for your camera. A lower bit rate will result in lower image quality but a smaller file size and more bandwidth availability.
- **Frame Rate –** Adjust the frame rate for your camera. A higher frame rate results in more bandwidth and less available storage space.
- **GOP Length (Advanced Users)–** The Group of Pictures (GOP) is a group of successive pictures within the coded video stream. Changing GOP can reduce storage consumption at the expense of motion capture performance.

Rotate a Camera Video Image

If your camera is installed on a wall or table top the image may appear to be upside down. Rotate the camera video image using the recorder interface to get a right-side-up image.

Note You cannot rotate the video image 90° to get a vertical image. Rotating the image 90° will stretch and distort the video image.

To rotate the camera video image:

1. In the **Camera setup** menu, click the desired channel, and then **Streaming**.
2. For **Video Rotation**, select the desired rotation type.
 - **Normal** transmits the image as the camera sees it.
 - **Flip** transmits the image backwards and upside down.
 - **Mirror** transmits a mirror image.
 - **180 Degree** transmits the image upside down.

Picture Adjustment Tab

Picture Adjustment Settings

Adjust the **Brightness**, **Sharpness**, **Contrast**, **Saturation**, and **Hue** of your image, as desired.

Exposure Settings

Exposure Settings controls how much light enters your camera. It is necessary to change the Exposure Settings if you are working in a low light area or a very bright area. By default, the Exposure Settings are set to Auto Shutter.

Select the appropriate **Mode** for your camera (**Auto Shutter** or **Fixed Shutter**), and then set the appropriate **Auto Shutter Speed** or **Fixed Shutter Speed**.

White Balance

Different light sources produce different colors of light, which can affect your image and make it seem too orange, too green, or too blue. Use the White Balance Settings to adjust the color temperature of your camera.

1. Click **White Balance** and select **Auto**, Auto-Tracking White Balance (**ATW**), or **Manual**.
2. If you select **Manual**, adjust your Red (**Rgain**) and Blue (**Bgain**) levels.

IR Function

IR Function is enabled when using a camera equipped with IR Illuminators. IR Illuminators enable the camera to see in very low light situations, and are set to **Smart** by default.

WDR

When a camera is aimed at a door, window, or shaded area where there is a lot of light in the background, details of the objects and people in the shade can be lost. Wide Dynamic Range (**WDR**) corrects for this and makes it possible to see all the detail in the shaded area while keeping the definition of the objects in the bright area. Set **WDR** to **Low**, **Mid**, or **High** depending on the amount of difference between the light and dark areas of the image.

Noise Reduction

Different exposure settings and lighting conditions can result in digital interference in your image, referred to as Noise, which looks like static on old televisions. To reduce noise, select the appropriate **Noise Reduction** level.

Note To view this information, **Activated** must be set to **On** in the **Connection Tab**.

Copy Settings Tab

You can copy the settings to be used on another channel. To do so, **Enable PnP** must be set to **Off**, and **Activated** must be set to **No**.

1. Click **Copy Settings**.
2. Select the channels you want to export the camera settings to.
3. Click **Confirm**.
4. Set **Activated** to **Yes**.
5. Set **PnP** to **On** if desired.

SCHEDULE

Use the Schedule menu to configure quality and frame rate for normal and motion/event recording, and set up a recording schedule

Global Recording Configuration

Global Recording Configuration allows you to quickly configure universal record settings based on your needs.

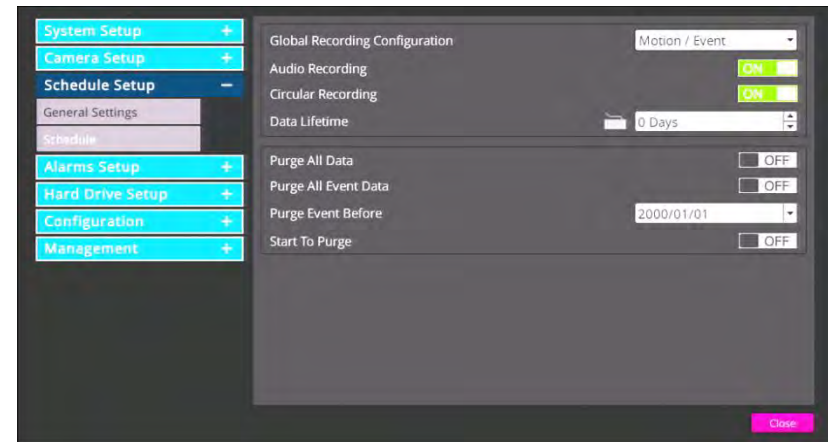
1. Click **Global Configuration**.
2. Select the level of recording you want to occur for all cameras on your system.
 - **Manual** – All camera channels on your system will record continuously at all times.
 - **Motion/Event** – All camera channels will record only when motion is detected or an alarm event occurs.
 - **Schedule** – Camera channels will record based on individual settings in the **Schedule** setup menu.

Data Lifetime Setup

Data Lifetime Setup allows you to limit how long your video is saved; by day, by channel, or the overall (general) life of the data. This is only necessary if you are restricted by law to retain video data for a maximum number of days.

Restricting the Number of Days that Video is Stored

1. Select the number of days you would like to keep using the onscreen keyboard, mouse scroll wheel or arrows.



Date Purge

Data Purge is used to manage stored data. Recorded data can be purged as ALL or ALL EVENT and a date can be designated as a restriction to the data purge to preserve desired recorded data.

Purge ALL data: this will designate all recorded data as rewritable.

Purge ALL EVENT data: this will designate all recorded event data as rewritable.

To purge recorded data:

1. On the Hover menu, click **Setup**.
2. In the **Schedule Setup** menu, click **General Settings**.
3. Toggle the **Purge All Data** or **Purge All Event Data** button to the ON position,
4. —OR—
5. Designate a **Purge Event Before** date.
6. Toggle the **Start Purge** button to the ON position.
7. After reading the warning that all data will be erased, click **Yes** and the data purge will begin.

Schedule Setup

Use the Schedule Setup menu to define the start and end times for day, night, and weekend recording schedules.

1. On the Main Menu, click **Setup**.
2. Click **Schedule Setup**.
3. Change Global Recording Configuration to **Schedule**.
4. Click **Schedule** on right hand column.
5. The grid represents the hours of the day (00=12:00AM) and days of the week. By default, all time is set to **Best** (grid will appear white).
6. If you want to change recording settings for a specific time, select **Recording Type**. Click and Drag cursor over desired time in time grid. Recording Type controls video frames per second (FPS) and compression amount and will change video quality and storage capacity.
 - **Best** – Highest quality, capable of recording the least number of days (4096 kbps bit rate)
 - **Standard** – Standard quality, capable of recording an average number of days (2560 kbps bit rate)
 - **Extended** – Lowest quality, capable of recording the longest amount of days (1024 kbps bit rate)
7. For advanced applications, set custom Recording Type Profiles by clicking on the desired **Profile** tab and changing the recording settings to best suit your installation.

Custom Profiles

You can set three custom profiles in addition to the presets. Custom Profiles allow you to set the specific frame rate and image quality for each camera for normal recording and during an alarm event. Frame rate, given in Frames Per Second (FPS) dictates how smooth video will look on your screen.

A high frame rate (30 FPS) captures motion very smoothly but uses more system resources. A low frame rate produces choppy video, but uses less recording space.

Most applications do not require a continuous high frame rate of 30 FPS. A lower frame rate of 10-15 FPS is sufficient for most event recording.

1. Select the camera channel you want to configure.
2. Select the frame rates in Frames Per Second for normal recording (**Normal FPS**) during Day, Night, and Weekend schedules.
3. Select the image quality in Kilobytes Per Second (kbps) for normal recording (**Normal Qlty**).
4. Select the maximum frame rate to be recorded during an alarm event (**Event Max FPS**).
5. Select the image quality to be transmitted during an event (**Event Qlty**).

Holiday List

The holiday lists allows you to build a list of dates that will be categorized as Holidays, which can then be given a custom recording schedule.

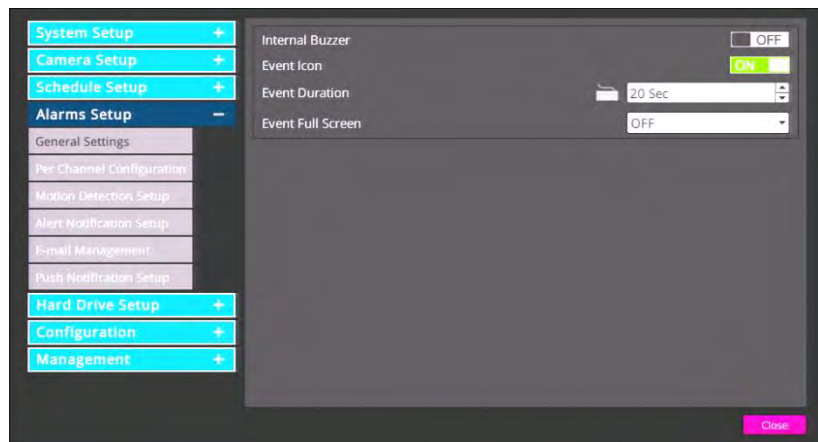
To add dates to the Holiday list, open the Holiday List tab and double-click the **desired dates**. Those dates will then appear in the **Date** column on the right side of the screen. Double-click a date on the Date list to remove it from the list.

ALARMS

Use the Alarms menu to configure how the recorder will respond to alarm events.

General Settings

- **Audible Alarm** – This enables an audible beep from the recorder when an alarm event occurs.
- **Event Icon** – Set this to **On** to display a small icon on the live screen when an alarm event occurs.
- **Event Duration** – Set the time, in seconds, for the duration of recorded video, alarm beep, and the alarm relay output functions after motion or alarm is triggered (5 seconds to 999 seconds).
- **Event Full Screen** – Set this to **On** to enlarge the video feed from the camera sensing the alarm event to full screen on the live view.



Per Channel Configuration

Per Channel Configuration allows you to configure alarm events for video loss and alarm inputs and outputs.

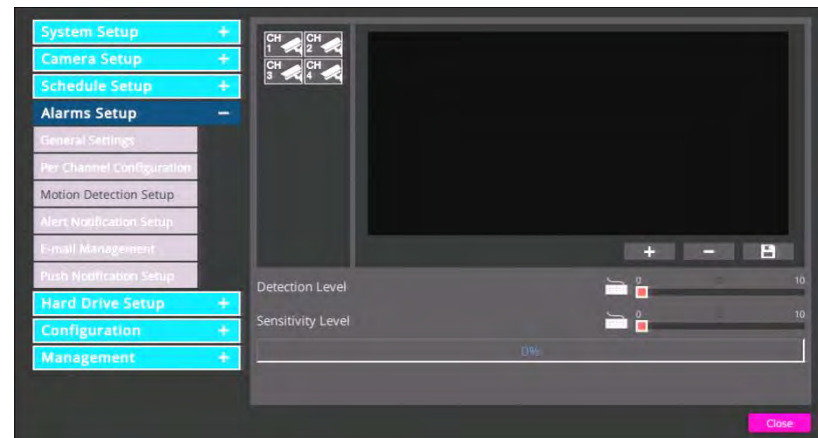
Channel Select

For each item in this section, select a specific camera channel to configure.

Video Loss Detection

Set this option to **On** to trigger an alarm when the video feed from a camera is lost. This can occur if the camera loses power, breaks, or if it is vandalized or tampered with.

Motion Detection



When Motion Detection is enabled, the recorder will request motion detection information from the camera. All AvertX cameras have motion detection enabled by default, and the motion detection function on the camera can be configured using your PRO Series recorder.

Note Because the recorder itself does not perform any motion detection, you will need to separately configure motion detection on any manually-connected cameras. These include any non-AvertX cameras as well as cameras that are connected to your system using an external PoE switch. Consult your camera user manual for configuration instructions.

Alarm In

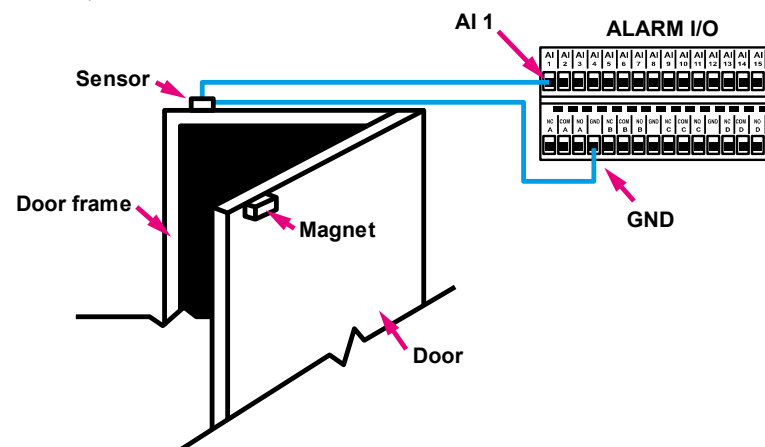
Use the wired alarm input to enable your recorder to detect alarm inputs. Select Normally Closed (**N/C**) if the circuit should be completed in normal circumstances. The alarm will be trigger when the circuit is open in this situation. If the circuit should be open in normal situations, select Normally Open (**N/O**).

Example: Using a Sensor to Trigger Video Recording

These steps outline the process of installing a sensor for a door that should normally be closed. In this scenario, your recorder will log Sensor events. To enable your PRO Series recorder to record when the door is opened, you must also configure the recording **Schedule** to **Motion/Event**. Refer to the **Schedule** section of this manual for more information.

Note For more details about setting up your door contacts, please refer to documentation from your alarm manufacturer. Door sensor hardware can be purchased at many home improvement stores.

1. Follow the manufacturer instructions to attach your sensor hardware to the door. There should be two parts for each door sensor contact, one attached to the door itself, and the other attached to the door frame.
2. Connect the wire from one side of the door sensor contact to **AI 1** on the Alarm I/O connection block on the rear of your recorder (see illustration). Connect the wire from the other side of the door sensor contact to **GROUND** on the Alarm I/O connection block on the rear of your recorder (see illustration).



3. Log in to your PRO Series recorder as an administrator, and navigate to the **Alarms** menu, and then click **Per Channel Configuration**.
4. Set **Alarm In** to Normally Closed (**N/C**).
5. Close **Per Channel Configuration**, and then return to the Live screen.
6. Your PRO Series recorder will log this Sensor event each time the door is opened.
7. To enable your PRO Series recorder to record when the door is opened, you must also configure the recording **Schedule** to **Motion/Event**. Refer to the **Schedule** section of this manual for more information.

Alarm Out

Use this to enable one or both of the alarm outputs on the recorder. Select the Alarm Out option that works best for the situation.

Note For more information about wiring an external alarm, please refer to the documentation for your alarm from your alarm manufacturer.

Event Trigger Preset

Use this item to set a PTZ camera to move to a predefined point when an alarm event occurs. This function will only work with PTZ cameras.

1. On the Hover menu, click **Setup**.
2. In the **Alarm Setup** menu, click **Per Channel Config**.
3. Select the pre-configured preset for the camera to move to when an alarm event is triggered.
4. Close **Per Channel Configuration**.

Copy Event Settings

You can copy event settings from one camera and apply the settings to other camera channels.

1. On the Hover menu, click **Setup**.
2. In the **Alarm Setup** menu, click **Per Channel Config**.
3. To use these settings on other camera channels, click **Copy Event Settings**.
4. Select the camera channels to copy these settings to, and then click **Confirm**.
5. Close **Per Channel Configuration**.

Motion Detection Setup

Set up the motion detection area, detection level, and sensitivity level for each camera.

Enable Motion Detection

1. On the Hover menu, click **Setup**.
2. Click **Schedule Setup**, and then click **General Settings**.
3. Set **Global Configuration** to **Motion / Event**.
4. Click **Alarms Setup**, and then click **Per Channel Config**.
5. Ensure that **Motion Detect** is set to **On**.

Creating a Detection Area

1. On the Hover menu, click **Setup**.
2. Click **Alarms Setup**, and then click **Motion Detection**.
3. Click a **Camera Channel**.
4. Click and drag your mouse pointer to create a new detection square.

Note	The size of the detection square can be modified by dragging the lower right corner of the square to the desired size.
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5. Modify the **Detection Level** as desired.
 - **Detection Level** – controls the amount of motion required for an alarm to be triggered. The default setting is 10. This sets the detection level for each sampling pixel; the smaller the value, the more sensitive it is. Use the slider bar to adjust the detection setting.
6. Modify the **Sensitivity Level** as desired.
 - **Sensitivity Level** – defines how much of an area must change before a motion event is triggered. The default setting is 80. Setting the Sensitivity Level to a higher value will make it easier for motion detection to trigger a motion event. Use the slider bar to adjust the sensitivity setting.

Detection Level

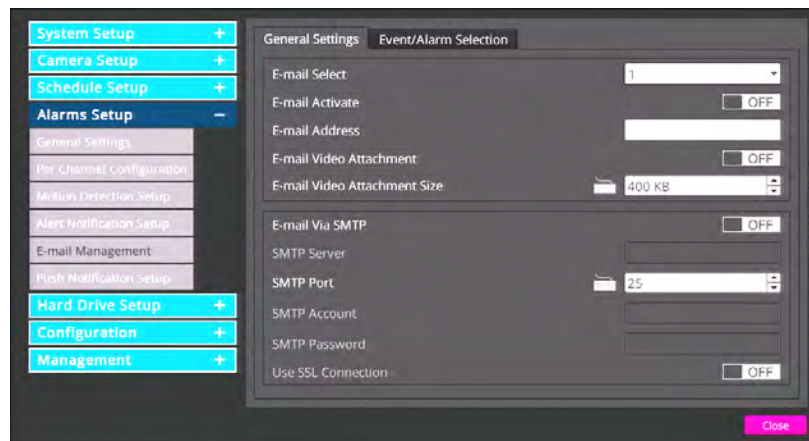
Detection Level controls the amount of motion required for an alarm to be triggered. Use the on-screen keyboard, a USB keyboard, or the up and down arrow buttons to adjust the sensitivity. Default detection level is 10. This item sets the detection level for each sampling pixel; the smaller the value, the more sensitive it is.

Sensitivity Level

Sensitivity Level defines how much of an area must change before a motion event is triggered. The default setting is 80. Setting Sensitivity Level to a higher value will make it easier for motion detection to trigger a motion event. When you have finished setting these configurations, close **Motion Detection Setup**.

E-Mail Management

Your PRO Series recorder can send you messages via e-mail, alerting you of alarm events. Messages can be sent to up to three different addresses. Due to the volume of e-mails, AvertX recommends setting up a specific e-mail address to receive only these alarm messages.



1. Select which email account you are configuring in **E-Mail Select** (1, 2, or 3).
2. Click **E-Mail Activate** and select **Off**.

Note When you are finished making your changes, set **E-mail Activate** to **On**.

3. Using the on-screen keyboard or a USB keyboard, type the **E-mail Address** you want to receive alert messages.
4. To include a video file with the alert message, click **E-Mail Video Attachment** and select **On**.
5. Click **Event/Alarm Selection**.
6. Choose what kinds of alarm events to be notified about by clicking on them and selecting **Yes** or **No**.
 - Motion Detection
 - Video Loss
 - Alarm Trigger
 - System Fan
 - Disk Error
7. Once you have selected the types of alarms to be notified about, return to **General Settings**.

Note An SMTP server makes it possible for your recorder to send e-mail messages. You **MUST** have an SMTP server in order for the e-mail function of the PRO Series system to work. If you are unsure of the information for your SMTP server, contact your internet provider.

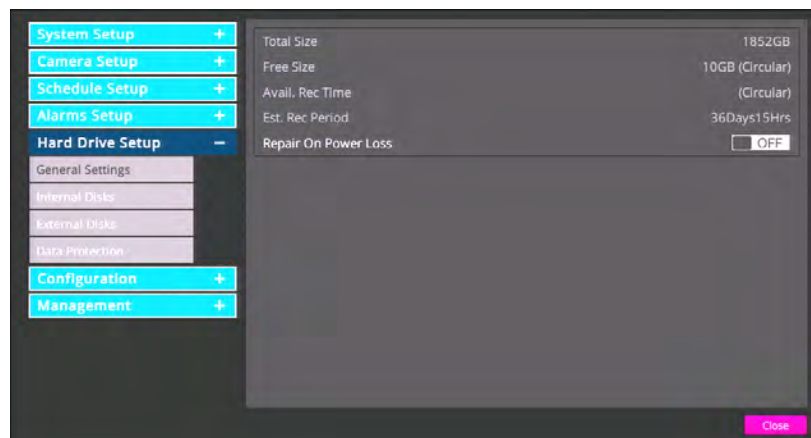
8. Set **Email Via SMTP** to **On**.
9. Type your desired **SMTP Server**, **SMTP Port** (the default is 25), **SMTP Account**, and **SMTP Password** into the appropriate fields.
10. Set **Use SSL Connection** to **On** or **Off** as desired.

Note Secure Sockets Layer (SSL) is an added layer of encryption. Use this option for added security for your alarm alert e-mails.

11. Set **E-mail Activate** to **On**.
12. Repeat for up to two more e-mail recipients.
13. Close **E-Mail Management**.

HARD DRIVE SETUP

To view the size, available space and recording time on your hard drive, as well as to how your video and data are saved to the disk, click **Hard Drive Setup**.



Total Size – This is the total size of all hard drives.

Free Size – This is the available storage space on the hard drive.

Avail. Rec Time – Your AvertX PRO Series is set up for circular data storage, which means that new video will record over old video after a certain period of time.

Est. Rec Period – This indicates an estimated amount of time you can record.

Repair on Power Loss – When set to **On**, this function performs a deep scan of the hard drives any time the recorder restarts after power loss.

Internal And External Disks

Internal Disks and External Disks menus allow you to view and format the hard drives in the recorder.

Note You must use the rear USB ports if you wish to use a USB.3.0 external hard drive for storage,

Formatting a Hard Drive

1. Click **Internal Disks** or **External Disks**.
2. To view the information for your hard drives, click the **Detail** column for the drive you want to view.
3. To format or repair your drive, click **Action** and select your desired action.

Add/Remove: This action will activate and deactivate the drive. The status of the drive is displayed under the Active title.

Format: Formatting the drive will remove all video and logs. This information will be written over with future data.

Note Formatting the drive will NOT erase configuration files such as Users and System settings.

Repair: This action will attempt to repair the drive.

4. Click **Confirm**.

Data Protection

This option allows you to lock the data of specified alarm events. Event video protected here will not be deleted or overwritten.

1. Click **Data Protection**.
2. Select your desired alarm events, listed by date and time, and click the **Lock** check box.
3. Close **Data Protection**.

CONFIGURATION

General Settings

Load Factory Default

To reset your recorder to the factory default settings, click **Yes**. Click **Yes** again to continue. The recorder will restart with the factory default settings.

Note ALL customized usernames and configurations will be lost, and cannot be recovered.

Note This reset only affects options customized within the Users menu.

Caution There is no confirmation message; selecting **Yes** will instantly reset Users menu settings.

Operation Log

Operation Log records all operations performed on the NVR. Log is viewable in the **System Log** menu.

Import Configuration

You can import configurations from another PRO Series recorder, or from a saved backup from your recorder, using a USB drive.

1. Plug a USB drive with a saved configuration file into a USB port and click **Import Configuration**.
2. Click the **Configuration** and select **Yes**.
3. Click **Yes** to continue.
4. Press **ENTER** or click the mouse to continue.
5. Your recorder will restart with your imported settings.

Export Configuration

You can export configurations from your PRO Series recorder to backup settings, or for use in another PRO Series recorder using a USB drive.

1. Plug a USB drive into the USB port and then click **Export Configuration**.
2. Click **Configuration Name**.
3. Use the on-screen keyboard to type a name for the file and then click **OK**.
4. Click the **Agree** check box.
5. Click **OK**.
6. Press any key or click **Close** to continue.
7. Close the **Export Configuration** window.

System Log

System Log allows you to review and export the system log. To review the System Log, click **System Log**. Use the arrow buttons to navigate the pages of entries.

Exporting the System Log

Follow these instructions to export the system log.

1. Connect a USB storage device to the recorder.
2. Click **System Log**.
3. Click **Export**.

Note The system log will automatically be exported to the connected USB device as a text file.

Note The system log text file will be located in subfolders designating the time and date of the export. In the root of the USB device will be a folder labeled in the format YYYYMMDD; within this folder will be a subfolder labeled in the format HHMMSS; and with this will be the log file export in the format LOG_HHMMSS.TXT.

MANAGEMENT

The Management menu allows you to manage usernames, passwords, and privileges. The PRO Series NVR provides eight built-in user accounts. Seven of these accounts can have the username, password, and privilege customized. The preconfigured admin account has a permanently set username and privilege, but you can customize the password. Access the Management menu in the SETUP menu.

Account Setup

Account Setup allows you to set up or modify user accounts, including customizing the username, password, and privilege level, or even disable an account.

Configuring and Modifying a User Account

1. In the **Account** field, select the user account you want to configure. To change the name of the user, click **Mod** and use the on-screen keyboard to type the new user name.

Note The username is case sensitive and requires a minimum of four characters.

2. Click **OK**.
3. Click in the **Password** field and use the on-screen keyboard to type the new password.

Note The default password for a user account is **4321**.

Note Passwords require a minimum of four characters; maximum of eight characters.

4. Click **Privilege** and select the privilege level for this user (Level 1 ~ Level 8). **Level 1** has the lowest authority, and **Level 8** has full administrative authority.
5. Click **Save**.

6. Repeat as necessary, selecting **user2** through **user7** on step 2.

Permissions Setup

Permissions Setup allows you to modify the privilege level required to access menu options and features of the recorder.

To enable privilege requirements for any option, set it to a selected level: **1 through 8**. Users will be able to access functions that are equal to or less than their set privilege level. No username will be required to access any function set to **Disable**.



These functions can be configured for privilege requirements:

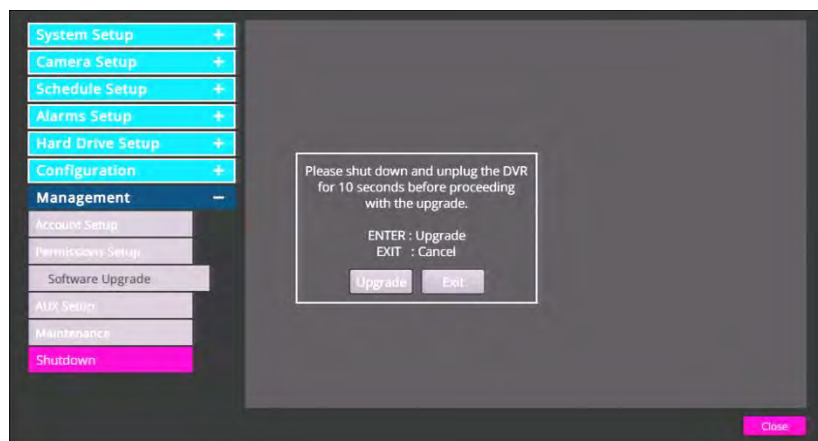
- Playback/Search
- Hidden Camera
- PTZ Control
- Live Operation
- Export Data
- Menu Access
- System Setup
- Camera Setup
- Schedule Setup
- Alarms Setup
- Hard Drive Setup

- Configuration
- Management

Note The **Menu Access** option cannot be set to Disable.

Software Upgrade

Before upgrading PRO Series firmware, contact AvertX Technical support to confirm this course of action as appropriate for your recorder.



Updating the Firmware on Your PRO Series Recorder

You can upgrade your firmware using a USB storage drive.

1. On a computer, open your browser and go to <https://www.avertx.com/product-downloads>.
2. Locate your recorder model on the page and click **Firmware** to download the file.
3. Locate the folder on your computer and unzip or extract the files. The folder will contain two folders: **upd_900s**, and **upd_900g2s**.

Note The firmware file contains firmware for several PRO Series recorder models. Your recorder will select the appropriate version.

4. Connect a USB drive to your computer, copy both firmware folders to your USB drive, and then remove the drive from your computer.
5. Insert your USB drive into any of the USB ports on your recorder.
6. On the Hover menu, click **Setup**.
7. Click **Management** and then click **Software Upgrade**.
8. A message will appear, instructing you to shut down and unplug the PRO Series recorder. Shut down and unplug the recorder, then plug it back in and restart it.

Note Ignore this message when it appears after you have restarted the recorder.

9. Repeat steps 6-8 and then click **Upgrade**.

Note Your PRO Series recorder will restart itself during the upgrade process. Once it has restarted, the firmware update is complete.

Remotely Updating the Firmware on Your PRO Series Recorder

You can update the firmware on your recorder, even if you are in a different location. This option is also helpful if the recorder is installed in an inaccessible location.

1. On your computer, open Internet Explorer, and then go to <https://www.avertx.com/product-downloads>.
2. Locate your recorder model on the page and click **Firmware** to download the file.
3. Locate the folder on your computer and unzip or extract the files. The folder will contain several folders:

Firmware version	Recorder model
upd_900s	NV160-P2A
	NV80-P2B
	NV80-P2A
upd_900g2s	NV160-P2B
upd_snseries	NV160-PS16
	NV80-PS8

Note The firmware file contains firmware for several PRO Series recorder models. You must select the appropriate version to install based on the model of your recorder. The model number of your recorder is indicated in **Menu > System/Version Information**.

4. Type the **IP address** or **DDNS address** of the recorder in the address bar to open the AvertX Remote Viewer.
5. Click **Menu**.
6. Click **System/Version Information**.
7. Click **Software Upgrade Via Internet**.
8. Click **Execute** and locate the firmware update files folder.
9. Select the firmware file and click **Open** to start the upgrade process.

Note Your PRO Series recorder will restart itself during the upgrade process. Once it has restarted, the firmware update is complete.

Maintenance

Auto Logout

Auto Logout will log off a user after the selected amount of time. To set an auto logout time, click **Auto Logout** and select the number of seconds of inactivity to elapse before the recorder logs out the user. You may also **Disable** this function.

Password Protection

Password Protection allows you to require username and password authentication to access menu functions. The option is set to **Off** by default, meaning username and password are not required to access any menu functions. Change this setting to **On** to require authentication to access the recorder.

Default Administrator Username: admin

Default Administrator Password: 1234

Account/Permission Reset

Account/Permission Reset allows you to reset all Account Setup and Permissions Setup menu settings back to factory defaults.

1. On the Hover menu, click **Setup**.
2. In the Management menu, click **Maintenance**.
3. Toggle the **Account/Permission Reset** button to ON.
4. A popup will appear notifying you of the loaded factory default. To continue, press **any key**.

Note ALL customized usernames and configurations will be lost, and cannot be recovered unless you have a saved configuration with those settings.

Note This reset only affects options customized within the Account Setup and Permissions Setup menus.

CAUTION: There is no confirmation message; selecting **Yes** will instantly reset Account Setup and Permissions Setup menu settings.

Audio Output

Audio Output will enable or disable the sound from cameras equipped with microphones.

Note To use the Audio Output you will need cameras that have audio capability and external speakers connected to the audio output on the back of the unit for playback. Audio capability is not included on AvertX Cameras.

Audio Output Gain

Audio Output Gain will increase or decrease the volume of the sound from the Audio Output

Key Beep

By default, Key Beep is set to **Off**. It may also be set to **On**, providing audio feedback when you click menu items.

Auto Restart

Set your recorder to restart either every day or weekly by selecting the day you want the recorder to restart. Once **Auto Restart** is enabled, you can choose the time of day you want the recorder to restart.

Note If you have customized your camera settings and want to use Auto Restart, ensure that PnP is set to Off. This will prevent your recorder from overwriting your cameras settings when it restarts.

PoE Power Limitation

This option allows you to limit the amount of power sent to your cameras over the Ethernet connection. The default setting is 175W.

CAUTION: Do not change this setting unless instructed to do so by AvertX technical support.

1. On the Hover menu, click **Setup**.
2. In the **Management** menu, click **Maintenance**.
3. On the **PoE Power Limitation** field, click the **keyboard** icon to open the on-screen keyboard and enter a value.
4. Click **Close** to continue.

INFO

Use the INFO menu to view system information such as camera, PoE switch, hard drive, and remote status, hardware and software version, and network address information.

Model Name – Displays the model identifier of the recorder.

MAC Address – Displays the MAC (Media Access Control) of the recorder.

Network Address – Displays the IP Address of the recorder (can be customized via the Network menu).

Hardware – Displays the hardware version of the recorder.

Firmware – Displays the software version of the recorder (can be upgraded via the System menu).

FIVE: OPERATION

Login

Live Display

Call Monitor Display

PTZ

Search

Export

Backup Viewer

Save and Load Settings

LOGIN

If **Password Protection** is turned **On**, you will need to log in to your recorder to search and export video or change settings. To log in to your recorder, you will need to have a user name and password assigned by the administrator.

Logging In To the Recorder

1. On the Hover menu, click **Setup**.
2. Click **admin** or **user**, depending on your account.
3. Use the on-screen keyboard to type your password. The default password for the **admin** account is **1234**. The default password for the **user** account is **4321**.
4. Click **OK**.

Changing the Admin Password

To prevent unauthorized changes to the recorder settings, AvertX recommends changing the default admin password.

1. On the Hover menu, click **Setup**.
2. Log in as an administrator.
3. Click **Management**.
4. Click **Account Setup**.
5. Click the **Password** field and then use the on-screen keyboard to type a new password.

Note Passwords require a minimum of four characters; maximum of eight characters.

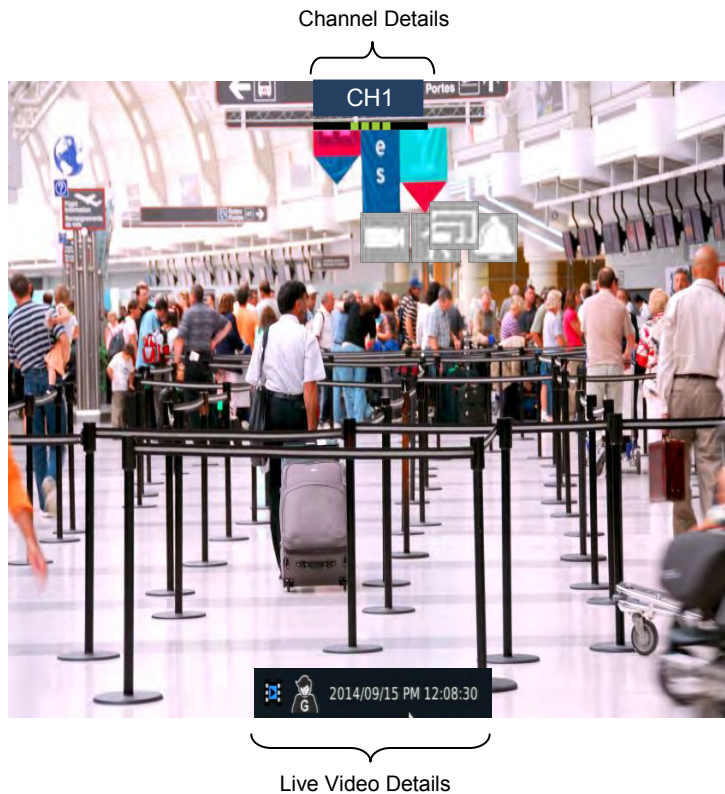
6. Click **Confirm**.

Adjust Permission Level Requirement for Menu Access

By default, the PRO Series system is set to allow only the Administrator to access the menu. To change this permission level, follow these instructions.

1. On the Hover menu, click **Setup**.
2. Log in as an Administrator.
3. Click **Management**, then **Permissions Setup**.
4. Select your desired permission level to access the menu. The lowest level is **Level 1**, which will allow all authorized users to access the menu.
5. Close **Permissions Setup**.
6. To log off as the Administrator, on the hover menu, click **Exit and Logout**.

DISPLAY



CHANNEL DETAILS

Channel details will be displayed constantly in Live view. This group of icons includes the camera channel name, the connection status, and any notifications if applicable.

Note Mouse over or double-click the Connection or Notification bar to get more detailed connection information.

Connection Icons



Connection Failed: The camera failed to connect and does not display live video.



Connection Successful: The camera connected successfully and will display live video.



Connecting: The camera is attempting to connect.

Notification Icons

Note When a notification is active, the icon will be red.



Video Loss: The camera has been disconnected from the recorder or the video stream has been disrupted.



Motion: The camera detects motion.

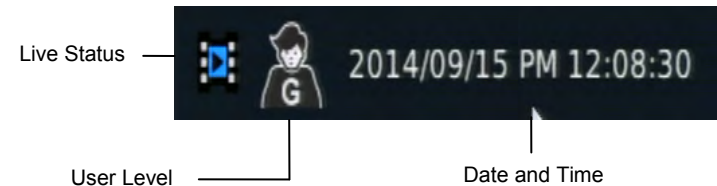


Alarm In: The alarm in has been triggered.



Video Oversize: The resolution set for the camera is over the recorders accepted range.

LIVE VIDEO DETAILS



Date and Time - The current date and time of recording video

Live Status - This will display the current status of the Live Display. For example: Record, Event Record, Sequence, or Freeze.

User Level - This will display the current user indicated by a user level.

LIVE DISPLAY

Live Display is the default mode of the recorder. After startup the recorder will load to the Live Display. After being left idle on any menu, the recorder will return to the Live Display.

Channel Selection

For a full-screen display of an individual camera channel, double-click on the channel in the multiplex view, or hold the pointer over the menu bar, click **Channel** and then click the number of the channel you want to view.

Mode List

The mode list allows you to set the screen division for the camera channel displays. The display mode options depend on the recorder model (4, 8, or 16 channel); the available options are single channel, four cameras (2x2), nine cameras (3x3), and sixteen cameras (4x4).

Note Double-clicking the camera feed of a specific channel when in screen division will open the channel in full-screen. Double-clicking in full-screen will revert back to the previously selected screen division.

Freeze

The Freeze feature instantly pauses the current camera frame. This is used to temporarily maintain a frame of interest on the screen for review.

To freeze the camera feed:

1. On the Hover menu, click **Display**.
2. Select **Freeze**. The camera feed image is now frozen.
3. To unfreeze, click **Display** on the hover menu, and then select **Freeze** again. The screen will refresh and return to Live view.

Note While the Live view is frozen, the recorder is still recording video. Functions are locked while freeze is enabled.

Sequence

Once any display mode has been selected, click **Sequence** on the Display dropdown menu. The recorder will then begin sequencing through the camera channels based upon the display mode at the time the sequence is started.

Note While the Live view is sequencing, the recorder is still recording video. Functions are locked while sequence is enabled.

- **Single Channel** – The recorder will sequence through each camera channel individually. This sequencing mode can be customized using the Main Monitor Schedule option in the Display menu (see the Display section in the Setup chapter of this manual).
- **4 Channel (2x2)** – The recorder will sequence through channels 1-4 in the first view, then channels 5-8, then 9-12, then 13-16. This sequence mode is only available on the 8 and

16 channels models; and the 8 channel will only sequence through channels 1-4 and 5-8.

- **9 Channel (3x3)**: - The recorder will sequence through channels 1-9 in the first view, then channels 8-16. This sequence mode is only available on 16 channel models.

Presets

Use this option to set or call preset camera positions on your PTZ camera. You can also start tours using this option. When the PTZ control menu is open, click **Preset**.

Note Preset position and tours are stored in the camera, **not** in the recorder.

Note Most PTZ cameras have a designated preset that can be called to open the onscreen menu of the camera. Please refer to the camera manual or manufacturer website for details.

Creating a Camera Position Preset

1. Click the channel of the camera you want to create a preset for.
2. Click **PTZ** in the hover menu bar.
3. Use the direction arrows and zoom to position the camera in a location you want to save.
4. Click **Preset**.
5. Use the on-screen keyboard to type the number you want to assign to this preset..
6. Click **Set Preset**.
7. Repeat for all desired presets for this camera.
8. Click **Exit** to return to the Live screen.

Calling a Camera Position Preset

You can command a PTZ camera to go to any preset you have already configured.

1. Click the channel of the camera you want to work with.
2. Click **PTZ** in the hover menu bar.
3. Click **Preset**.
4. Use the on-screen keyboard to type the number of the preset you want the camera to go to.
5. Click **Go Preset**.

Calling a Camera Tour

A tour is a series of preset positions that the PTZ camera runs through. Tours are configured in the camera, not the recorder. For information on setting tours, refer to the user manual of your PTZ camera.

1. Click the channel of the camera you want to work with.
2. Click **PTZ** in the hover menu bar.
3. Click **Preset**.
4. Enter the number of the tour you want to call.
5. Click **Run Tour**.

Note Some camera models do not support tours and some only support a single tour. Most cameras that do support tours require the tour configuration be done through the cameras onscreen menus, please reference the camera manual or manufacturer website for details.

PLAYBACK

Playback Controls

Day Back – Move playback video backward 24 hours.

Fast Rewind – Move backward by a specified interval.

Pause/Play – Pause video playback / Play video playback.

Fast Forward – Move forward by a specified interval.

Day Forward – Move playback video forward 24 hours.

Live – Return to the Live screen display.

Time Line – Hour selection buttons to narrow the viewable recorded video from 24hrs to 1hr.

Zoom During Playback

The zoom feature allows you to zoom in on live or playback video. You can navigate the camera frame to focus on a specific area. To zoom in live or during playback:

1. While viewing recorded video in a search or instant playback, click **Zoom** in the hover menu.
2. Move the focus square around the screen to isolate the zoomed area.
3. Use the scroll on the mouse to zoom in or out.
4. Click **Zoom** in the hover menu again to return to normal Search controls.

Instant playback

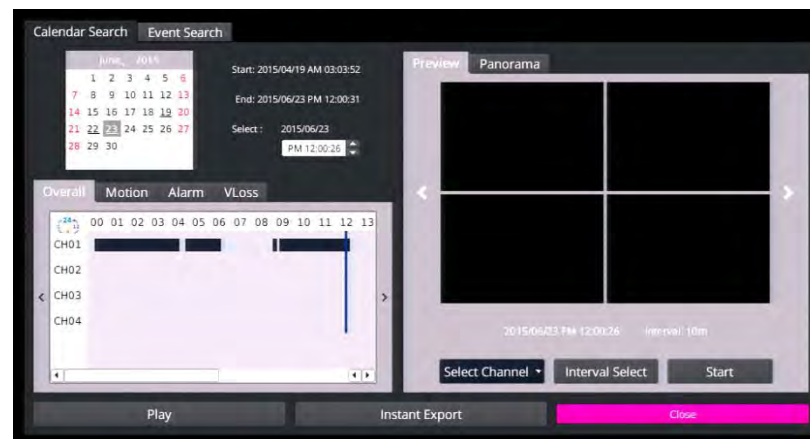
Instant playback provides options for playback from 30 minutes, 1 hour, 3 hours, or 1 day ago. This will begin a playback immediately, starting at the selected interval and playing forward.

To view an Instant Playback:

1. On the Hover menu, click **Playback**.
2. Select **Instant PB**.
3. Choose a time interval to begin playing recorded video.

4. Use the on-screen controls to manipulate the playback video.
5. Click the **Exit** button on the drop down menu to return to Live view.

Search



The Search function allows you to find video to export or playback. To open the Search Menu, click **Search** on the onscreen menu bar.

Calendar Search

1. On the Hover menu, click **Playback** and then select **Search**.
2. In the Search menu, click the **Calendar Search** tab.
3. Use the **Calendar** to select the appropriate date.

Note Dates with recorded video will be underlined. Dates that are not underlined (signifying that they have no recorded video) cannot be selected for a search.

4. Use the **Select** field, or click on the time line to designate a video start time.

Note When using a calendar search, you can search time lines for specific events during the selected date. These events, each with their own separate tab, include Overall, Motion, Alarm, and Vloss (video loss).

5. Click **Play**.
6. Use the playback controls to control the video while it is played back.
7. Click **Search** in the Search hover menu to return to the Search screen, or click **Live** to return to the Live screen.

Preview Search

Preview Search will show video from the selected time for all channels and skip forward or backwards at the selected interval.

1. Select a starting **date** and **time**.
2. Select the interval Preview Search will use to skip forward or backwards (10 minutes, 30 minutes, 1 hour, or 12 hours).
3. Click **Start** to begin playback.
4. Use the arrows on the Left or Right of the Preview Search screen to skip forward or backwards.

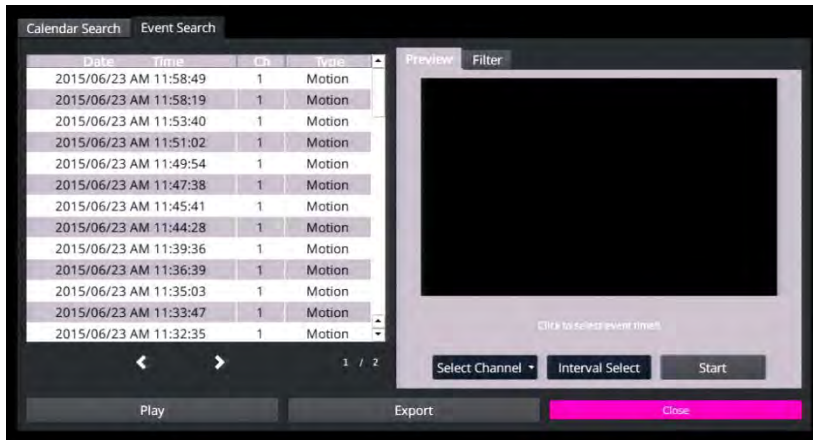
Panorama Search

Panorama Search will show still images from the selected channel at the selected interval. This allows you to skip forward or backward from the selected time.

1. Select a starting **date** and **time**.
2. Select the **Channel** to view.
3. Select the interval Panorama Search will use to display the still images (1 second, 10 seconds, 1 minute, 10 minutes, 30 minutes, or 1 hour).
4. Click **Start** to show the first set of images.
5. Click the arrows on the Left or Right of the Panorama Search screen to skip forward or backwards.

Review Calendar to Select Date and Time to Play

1. In the Search menu, click **Calendar Search**.
2. The calendar will display highlighted dates if there is recorded data.
3. Click a **Date** to view video from.
4. Below the calendar a horizontal bar represents 24 hours. Light gray areas of this timeline indicate recorded video, and red areas indicate an alarm event.
 - a. To set the start time of the video, click **Start** and select the desired time.
 - b. To set the end time of the recorded video, click **End** and select the desired time.
5. Click **Start** to begin playback.
6. Click **Search** at any time to return to the Search screen.
—OR—
Click **Live** at any time to return to the Live screen.



Event Search

1. In the Search menu, click on an event from the **Event List**.
2. Click **Start** to preview the recorded video for the event.
3. —OR—
4. Click **Play** to view recorded video beginning at the event.
5. During the playback, use the search control bar to pause, rewind, or fast forward the recorded video.
6. Click **Search** in the hover menu to return to the Search screen, or click **Live** to return to the Live screen.

Preview

1. Select an event from the **Event List**.
2. Click **Start** to preview.

Filter

1. Select a **Start** and **End** time.
2. Select the event **type**.
3. Select the channel(s).
4. Click **Apply** to filter.

BACKUP/EXPORT VIDEO

You can export recorded video to a USB thumb drive or external USB hard drive. This allows you to share your exported video with another person, or save the video to review later.

Terms

Calendar: Calendar to select export date. Dates with recorded video will be underlined.

Select Device: USB device plugged in to the recorder that will be the location of exported data.

Select Channel: Which channels are displayed with recorded video.

Data Type: Designates which type of recorded video is displayed, continuous recording, motion/event recording or both.

Export Format: Designates the format of the exported video, AVI, DRV or Original.

Export Start Time: Left-click to place the red line representing the beginning of the recorded video to be exported

Export End Time: Right-click to place the blue line representing the end of the recorded video to be exported.

Digital Signature: Allows your video to be verified as authentic and unedited.

Erase Device: Designate whether or not to erase the USB device before exporting data to it.

Begin Export: Begin to export data to the selected USB device.

USB Export Drives

The external USB hard drive must be formatted as FAT32 and can be a maximum of 2TB. On a drive with multiple FAT32 partitions, only the first partition is recognized.

Export size is limited to 8GB per export, regardless of the space available on the drive. To save more than 8GB, AvertX recommends saving your video in multiple exports.

If the space required for your video export is greater than the available space, a message will recommend an export timeframe. If you are

unable to back up multiple cameras using your required timeframe, reduce the number of cameras or select a single camera.

Export Formats

The PRO Series NVR can export video in several formats.

- a. **AVI** provides a compressed video file viewable in most media player applications.
- b. **DRV** provides a compressed video file viewable only with the included proprietary player software.
- c. **Original** provides a raw (uncompressed) video file viewable only with the included proprietary player software.

Backup a Selection of Video during Playback

1. Connect a USB thumb drive or external hard drive to the front or rear panel of the recorder.
2. Search your video using **Calendar Search** or **Event Search**.
3. During playback, at the point you want the backup segment to begin, click EXPORT on the hover menu and select **Start**.
4. As playback continues, at the point you want the backup segment to end, click EXPORT on the hover menu and select **End**.
5. The Quick Backup Confirmation screen will appear; this screen will display the required space to complete the backup as well as the date and time range of the backup. Click **Yes**.
6. When completion message appears, click **Close** and remove the USB drive.

Backup Video from Calendar Search

1. Connect a USB thumb drive or external hard drive to the front or rear panel of the recorder.
2. Start a Calendar Search (reference the previous section *Calendar Search*).

3. Once you have selected a time and date, select **Instant Export**. This will automatically choose a backup time 1 minute from the selected time.
4. The Video Export Confirmation screen will appear; this screen will display the required space to complete the backup as well as the date and time range of the backup. Click **Yes**.
5. When completion message appears, click **Close** and remove the USB drive.

Backup Video from Event Search

1. Connect a USB thumb drive or external hard drive to the front or rear panel of the recorder.
2. Start an Event Search (reference the previous section *Event Search*).
3. Once you have selected an event, select **Export**.
4. The Video Export Confirmation screen will appear; this screen will display the required space to complete the backup as well as the date and time range of the backup. Click **Yes**.
5. When completion message appears, click **Close** and remove the USB drive.

EXPORT MENU

Instant Export

Note Before performing an Instant Export, you **MUST** have an external USB device plugged into the front or rear panel of the recorder.

1. Connect a USB device to the front or rear panel of the recorder.
2. Select **Instant Export**, and then choose a time interval to begin exporting recorded video.

Export

Export displays the Video Export tab with detailed options for exporting video. This window displays the recorded video for all camera channels by date.

1. Connect a USB thumb drive or external hard drive to the front or rear panel of the recorder.
2. On the Hover menu, click **Export**.
3. In the Video Export tab, select a **date** from the calendar.

Note Dates with recorded video will be underlined on the calendar.

4. Select a **USB device** from the drop-down menu.
5. Using the Time & Channel table, left-click to place the orange line indicating the start time for video export, and right-click to place the red line, indicating the end time for video export.
6. Click a **Select Channel check box**.
7. Click an **Export Format check box**.
 - a. **AVI** provides a compressed video file viewable in most media player applications.
 - b. **DRV** provides a compressed video file viewable in the AvertX backup viewer.
 - c. **ORIGINAL** provides a raw (uncompressed) video file viewable only with the included proprietary player software.
8. Check the box to **Erase Device** to format the selected USB device before Export begins.

Note Checking the Yes box will erase the USB device before adding the exported file to the device.

9. Click Begin Export.
10. When completion message appears, click Close.

Snapshot

Note A USB device must be plugged in to the recorder in order to use the Snapshot feature.

Snapshot instantaneously saves the camera frame as a JPEG to the connected USB device. If displaying more than 1 channel in Live or a Search display, Snapshot will save a JPEG for each channel.

BACKUP VIEWER

Use the Backup Viewer to view exported video on your Windows PC. If necessary, you can download the Backup Viewer application from the AvertX Remote Software in Internet Explorer or from avertx.com

Note Backup Viewer is only compatible with Windows PCs.

1. Connect the USB thumb drive or external hard drive containing backup video to your PC.
2. Browse to the USB drive and open the **Player** folder.
3. Double-click **Backup_Viewer**.
4. If prompted, click **Yes**.
5. Click Search to locate your video file.
6. Select the file you want to view, and then click **Playback**.
7. Select the camera you want to view, or click All.
8. Click **Play**. Your video will begin playing automatically.
9. Use the Playback controls to pause, fast forward, or rewind your video.
10. You can change which cameras you are viewing, and the screen mode using the **Camera** and **Mode** buttons.

Snapshot

Snapshot allows you to take a screen capture of the remote interface (everything inside the browser window, but not the browser itself). This screen capture is automatically save in JPEG format to the local Desktop.

4:3

Your AvertX camera channels are displayed with an aspect ratio of 16:9 by default. To manually change the aspect ratio of your screen, click **4:3**. Click 4:3 a second time will return to the 16:9 ratio.

Note Use the 4:3 option when viewing your cameras on 4:3 monitors.

PTZ CONTROLS

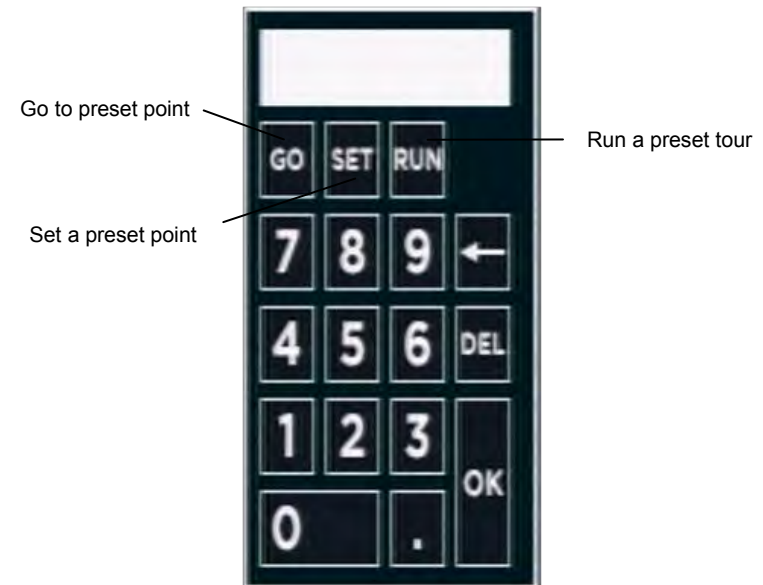
You can control cameras with Pan Tilt Zoom features from the PTZ window. This window allows you to access features including zoom, focus, iris control, and the speed and direction of the PTZ controls. All camera channels are available in this window for fast and easy control.

To use the PTZ camera controls:

1. On the Hover menu, click **PTZ**.
2. Select a camera channel.
3. Use the **Direction Keys** to control the movement of the camera.
4. **Zoom In or Zoom Out.**
 - a. Use the + or – magnifying glass buttons to increase or decrease the zoom.
5. **Focus** the camera.
 - a. **Autofocus (AF):** The camera will find the correct focus length.
 - b. **Manual Focus:** Use the MF+ and MF- buttons to manually adjust the focus length.
6. Adjust the Iris Control.
7. Adjust the PTZ speed using the speed percentage bar.
8. When you are satisfied with the PTZ controls, click **Exit** to return to the Live view.

PTZ Presets

If your PTZ camera can support preset positions, you can use the Preset button in the PTZ controls to manage those positions.



Set Preset Positions

1. On the Hover menu, click **PTZ**.
2. Use the **PTZ Directional Controls** to position the camera to the desired location.
3. Click the **Preset** button.
4. Use the Preset popup menu number pad to give the position a numerical ID, and then click **Set**.
5. Repeat steps as desired for additional camera positions.

Go to a Preset Position

1. Click the **Preset** button.
2. Use the Preset popup menu number pad to select a preset position, and then click **Go**.

Run a Preset Tour

Note To establish a tour, you must configure the tour using the IP camera configuration. Read your IP camera manual for instructions. Once you have setup a tour, you can then run the tour from the PTZ menu using the EasyNVR.

1. Click the **Preset** button.
2. Use the Preset popup menu number pad to select a tour ID, and then click **Run**.

SAVE OR LOAD SETTINGS

The configuration settings for your recorder can be exported to and imported from a USB storage device.

Export Configuration

You can export configurations from your PRO Series recorder for use in another PRO Series recorder using a USB drive.

1. Plug the drive into the USB port.
2. Right click in the Live screen and click **Menu**.

3. Click **System**.
4. Click **Export Configuration**.
5. Click **Destination**.
6. Choose the USB drive you want to export your configuration to and select **Yes**.
7. Click **File Name**.
8. Use the on-screen keyboard to type a name for the file and then click **OK**.
9. Click **Export**.
10. Click **Confirm**.
11. Press any key or click **Close** to continue.
12. Close the Export Configuration window.

Import Configuration

You can import configurations from another PRO Series recorder using a USB drive.

1. Plug the drive into a USB port.
2. Right click in the Live screen and click **Menu**.
3. Click **System**.
4. Click **Import Configuration**.
5. Click the **Configuration** and select **Yes**.
6. Click **Yes** to continue.
7. Press ENTER or click the mouse to continue.
8. Your recorder will restart with your imported settings.

SIX: REMOTE CONNECTION

Introduction to Remote Connection

Remote Connection Setup

Using the Remote Software

AvertX Remote for Mac

INTRODUCTION TO REMOTE CONNECTION

Your recorder has built-in web-based remote software that can be accessed if the recorder has a network connection. With the remote software, you can monitor your recorder remotely via the web using personal computers, or laptops. AvertX also offers apps that allow you to access your video with a tablet or smartphone. Before setting up and using remote software, be sure you have installed and configured your PRO Series system.

Note The web browser remote software requires Microsoft® Internet Explorer®. For remote access on a Mac, see the [AvertX Remote for Mac chapter](#).

AvertX Connect

For most users, AvertX recommends AvertX Connect to simplify configuring Remote Access.

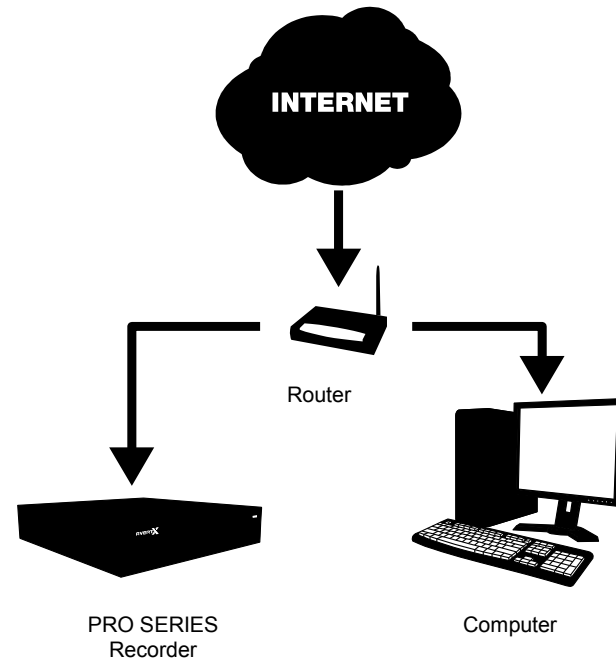
For more information, refer to the [AvertX Connect chapter](#)

Network Basics

Your router directs information from the Internet based on the port and internal IP address of your equipment, such as your recorder, personal computer, or printer. To access your recorder from the internet, you will need to be sure your recorder and your router are configured properly.

- When connecting from within your local network, use the internal IP address of the recorder.
- When connecting from outside your local network, AvertX recommends our DDNS service or AvertX Connect.
- You must complete Port Forwarding to access your recorder remotely.

Networking at a Glance



REMOTE CONNECTION SETUP

For remote access, you need to know the basic network information of your recorder.

LAN Setup

Follow these steps to determine the IP address, Subnet Mask, and Default Gateway (which is the router address) of your recorder.

1. Be sure that your recorder is connected to the internet through the Ethernet connection.
2. On the hover menu, click **Setup**.
3. Click **Network Setup** under **System Setup**.
4. Click **General Settings**.
5. By default the **DHCP** function on your recorder is set to **On**.

Note	AvertX recommends the IP address of the NVR be reserved in the network routers Dynamic Host Communication Protocol (DHCP) address space.
------	--

6. The following information will appear. Write it down on a piece of paper.
 - IP Address
 - Netmask
 - Gateway
 - DNS
7. Click **Close**

Static IP Address

If you are using a DDNS account to access your recorder remotely, or have an IP address, Netmask, Gateway, and DNS you want to use other than that assigned by DHCP, follow these instructions. If you are unsure, contact your system administrator.

1. Be sure that your recorder is connected to the internet through the LAN network port on [the back of the unit](#).
2. On the hover menu, click **Setup**.
3. Click **Network Setup** under **System Setup**.
4. Click **General Settings**.
5. Click **DHCP** and select **Off**.
6. Use the on-screen keyboard to type your desired **IP** address, **Netmask**, **Gateway**, and **DNS** into the appropriate fields.
7. Click **Close**

DDNS Setup

As an alternative to the AvertX Connect service, DDNS provides access your recorder from outside your local network. To access your recorder from outside your local network needs a static IP address. Most internet providers do not supply a static IP, but AvertX provides you with a free service to solve this problem. Detailed instructions and account information for setting up your free DDNS service can be found on the Dynamic Domain Naming System (DDNS) Information and Activation Insert included in your PRO Series packaging.

1. Be sure that your recorder is connected to the internet through the LAN Network Port.
2. On the hover menu, click **Setup**.
3. Click **Network Setup** under **System Setup**.
4. Click **General Settings** and make sure your NVR has been assigned an IP address by your network. If the IP address is 169.254.x.x, check your network connection.
5. Click **DDNS Setup**.
6. Click **Enable DDNS** and select **On**.
7. Type the **Host Name**, **DDNS Account**, and **DDNS Password** from the DDNS insert provided in your NVR documentation in the appropriate fields. If you have lost your DDNS information sheet, please contact AvertX Support.
8. Select **Send Update** and click **ON**.
9. Once the update is complete, the host name field will automatically complete the full host name.

Note Turn DHCP Off under **LAN Setup** when using a DDNS Address to remotely connect to your recorder.

Note Port forwarding must be configured on both your recorder and your router to allow remote access to the recorder from an offsite location.

Port Forwarding

The IP address of your recorder is identifiable within your network. In order to be able to access your recorder from a remote location through the internet, you will need to configure your router to forward the information from the internet to your recorder. The default port for your recorder is 80. In order to forward information to this port, follow these instructions.

Configure Your Router

Note These directions are generic. If you are not familiar with this process, you should consult the user manual of your router. Other references that might be useful are the manufacturer website, support line, or a website such as PortForward.com.

1. Connect to the router through the router interface. Typically, this is through a web interface by typing the IP address of the router in a web browser.
2. Log in to the router with an administrative ID.
3. Access the Port Forwarding section in the router. Some router manufacturers may list this in the Advanced area of the router management website, and is found in areas covering Pinholes, port triggering, Firewall Forwarding, gaming, or similar terms.

Note Some Internet Service Providers (ISP) do not allow users access to Port Forwarding on the router. In this case you must call your ISP and have them complete the port forwarding.

4. The default port (80) of the PRO Series recorder will need to be forwarded to the internal IP address of the recorder itself.

Changing the Default Web Port

If Port 80 is not available or already used by another device on your network, you can change the Web Port to a different port number.

5. On the hover menu, click **Setup**.
6. Click **Network Setup** under **System Setup**.
7. Click **Web Port** in the General Setting tab..
8. Click the **keyboard icon** and use the on-screen keyboard to type your desired port number. This must be the same as the port configured on your router for remote access to function.
9. Click **Close**.

Note The web port must be the same as the port configured on your router for port forwarding and remote access to function.

If the web port is changed to something other than the default value of 80, use the new web port number after the address in the web browser.

Example: Local: <http://192.168.1.44:450>
DDNS: <http://av112233.avertxddns.com:450>

Establishing a Connection with a Windows Computer

You can connect to your PRO Series recorder on your own local network (LAN), or from a remote location over the Internet. As a rule of thumb, if you are connecting to a recorder within your building, you must use the local IP address of the recorder, found on the recorder under LAN setup. If you are connecting to your recorder from another building, you will connect over the Internet using the wide angle network (WAN) IP address or DDNS address.

To connect from a remote location, you must use your DDNS address or the public IP address of your recorder. To find the public IP address, you can use a website such as ipchicken.com or whatsmyip.org from a computer on the same local area network as your recorder.

Connecting to the Recorder on a Local Area Network

1. Open Microsoft Internet Explorer web browser as an Administrator. Refer to the manual appendix for instruction.
2. Type the local IP address of your recorder into the Address bar.
3. If you are using the Web Viewer for the first time, you will be asked to accept the installation of ActiveX. Click **Yes**.

Note When launching the Web Viewer for the first time, you may be asked to install the Visual C++ 2008 Redistributable Package. This is necessary for the remote connection to work. Click OK to accept the application.

4. Type the **User ID** and **Password** of an authorized user for your recorder.
5. Click **Connect** to display your cameras.

Connecting to the Recorder from a Remote Location

1. Open Microsoft Internet Explorer web browser as an Administrator. Refer to the manual appendix for instruction.
2. Type the DDNS address or public IP address of your recorder into the Address bar.
 - a. To find the public IP address, visit a website such as **ipchicken.com** or **whatsmyip.org** from a computer on the same local area network as the recorder.
3. If you are using the Web Viewer for the first time, you will be asked to accept the installation of ActiveX. Click **Yes**.

Note When launching the Web Viewer for the first time, you may be asked to install the Visual C++ 2008 Redistributable Package. This is necessary for the remote connection to work. Click OK to accept the application.

4. Type the **User ID** and **Password** of an authorized user for your recorder.
5. Click **Connect** to display your cameras.

Accessing your AvertX IP Camera

The Device Setup controls on your PRO Series recorder make it possible to configure your camera directly from your recorder. If there is an instance in which you need to configure your camera directly, you can do so from a computer over the web.

Your camera uses an address based on the IP address of the PRO Series recorder, starting with port 81. If you want to access the camera that is on channel 3 of your recorder, you would use the IP address of the recorder, then add :83. (**http://XXX.XXX.XXX.XXX:83**)

Note Use this method to connect to cameras connected directly to your PRO Series recorder. To access AvertX cameras connected to your recorder via a PoE switch, refer to the user manual of your camera.

Connecting to the Camera via a Recorder on a Local Area Network

1. Open Microsoft Internet Explorer web browser as an Administrator. Refer to the manual appendix for instruction.
2. In the address bar, type the local IP address of your recorder, followed by a colon and then the port of the camera you need to access.
3. If prompted to allow ActiveX settings, click Yes.
4. Log in to your camera with the appropriate User Name and Password.

Note For AvertX cameras, the default **User Name** is **admin**, and the default **Password** is **1234**.

Note For further instructions regarding your AvertX IP Camera, refer to the camera manual.

Connecting to the Recorder from a Remote Location

1. Open Microsoft Internet Explorer.
2. In the address bar, type the DDNS address or public IP address of your recorder, followed by a colon and then the port of the camera you need to access.
 - a. To find the public IP address, visit a website such as **ipchicken.com** or **whatsmyip.org** from a computer on the same local area network as the recorder.
3. If prompted to allow ActiveX settings, click Yes.
4. Log in to your camera with the appropriate User Name and Password.

Note For AvertX cameras, the default **User Name** is **admin**, and the default **Password** is **1234**.

Note For further instructions regarding your AvertX IP Camera, refer to the camera manual.

USING MOBILE APPS

You can also access your recorder using your smart phone or tablet with AvertX GO! for iPhones and Android devices, or AvertX GO! HD for an iPad or Android tablet.

When connecting to your recorder using mobile devices remember the following:

- When connecting from within your local network, use the local IP address of the recorder.
- When connecting from outside your local network, use DDNS.

Downloading the AvertX GO! Mobile App

To install AvertX GO! on your device, you will need to have a valid account with either the Google Play Store (for Android devices), or iTunes (for Apple devices).

1. On your device, tap either the **iTunes** or **Play Store** icon.
2. Tap **Search** and type **AvertX GO!**
3. Follow the instructions to download and install the application.
4. When the app is successfully installed, the **AvertX** icon will appear on your device.
5. Click the **AvertX** icon to open the App.
6. Tap **+** or **Add** to add your recorder to the devices list.

Note It may be helpful to create two connections to your recorder, one to use on your local network and one to use when away.

7. Type the appropriate information into the required fields: **Name**, **IP**, **Port**, **User**, and **Password**. The default port is **80**. The default password is **1234**.

Name – Assign a name to your recorder

IP – User your Local IP Address, or use your DDNS Host Name.

Note Do not type **http://** before the IP address or DDNS name.

Port – The default port is 80.

User – The default user is admin and is case sensitive.

Password – The default password is 1234.

Mobile Devices

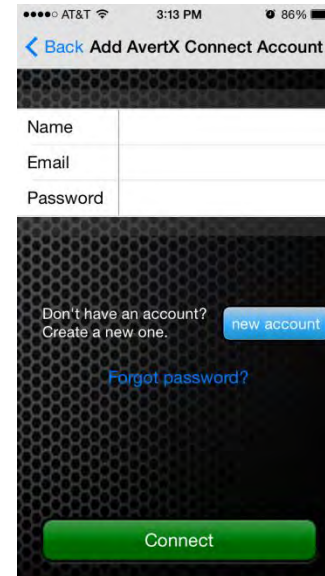
iPhone

Using an AvertX Connect account is a quick way to view your NVRs streamed images with the AvertX GO! App. When configured correctly, the App can also connect to the NVR using the local IP address or DDNS hostname.

1. Open the **AvertX GO!** App.



2. Tap **+** and then tap **Add AvertX Connect Account**.



3. If your account already exists, enter the appropriate **login information**, and then tap **Connect**.

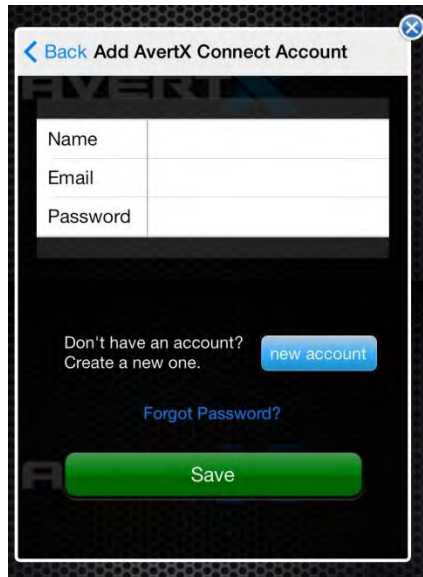
--OR--

4. Tap **New Account** to create an AvertX Connect account.
5. Enter **First and Last name, email address, password and confirmation**, and the **captcha verification**.
6. Agree to the **Terms of Use**, and then tap **Create Account**.
7. You will receive an email from AvertX Connect, tap the link in the email to **Activate** your account.
8. Follow steps 1-3 to add your new account and connect to your recorder.

iPad

Using an AvertX Connect account is a quick way to view your NVRs streamed images with the AvertX GO! App. When configured correctly, the App can also connect to the NVR using the local IP address or DDNS hostname.

1. Open the **AvertX GO! HD** App.



2. Tap **+** and then tap **Add AvertX Connect Account**.

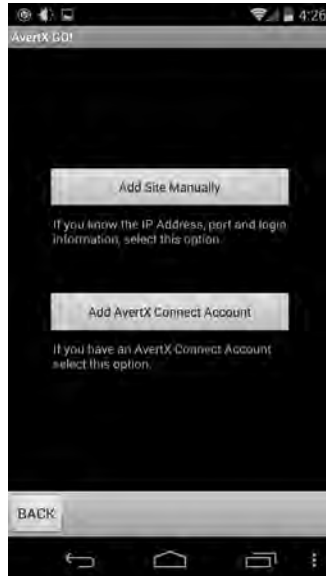


3. If your account already exists, enter the appropriate **login information**, and then tap **Connect**.
--OR--
4. Click **New Account** to create an AvertX Connect account.
5. Enter **First and Last name, email address, password and confirmation**, and the **captcha verification**.
6. Agree to the **Terms of Use**, and then tap **Create Account**.
7. You will receive an email from AvertX Connect, tap the link in the email to **Activate** your account.
8. Follow steps 1-3 to add your new account and connect to your recorder.

Android Phone

Using an AvertX Connect account is a quick way to view your NVRs streamed images with the AvertX GO! App. When configured correctly, the App can also connect to the NVR using the local IP address or DDNS hostname.

1. Open the **AvertX GO! HD** App.



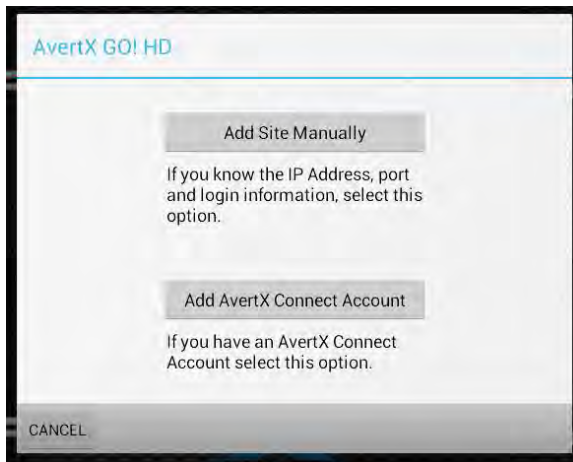
2. Tap **+** and then tap **Add AvertX Connect Account**.
3. If your account already exists, enter the appropriate **login information**, and then tap **Save**.
4. Tap the name from the site list and then tap **Connect**.
--OR--
5. Click **New Account** to create an AvertX Connect account.
6. Enter **First** and **Last name**, **email address**, **password** and **confirmation**, and the **captcha verification**.
7. Agree to the **Terms of Use**, and then tap **Create Account**.
8. You will receive an email from AvertX Connect, tap the link in the email to **Activate** your account.

9. Follow steps 1-3 to add your new account and connect to your recorder.

Android Tablet

Using an AvertX Connect account is the best way to view and manage your NVRs with the AvertX GO! HD app.

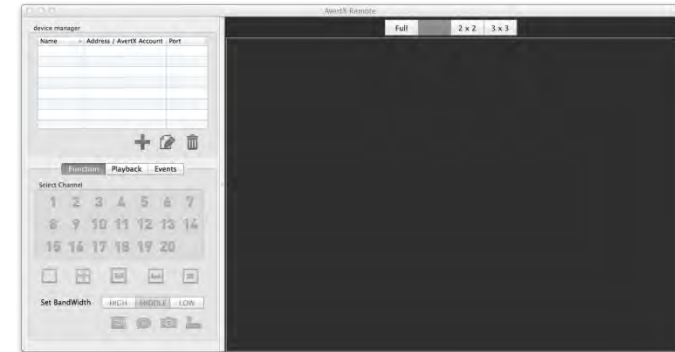
1. Open the **AvertX GO! HD** App.
2. Tap **+** and then tap **Add AvertX Connect Account**.



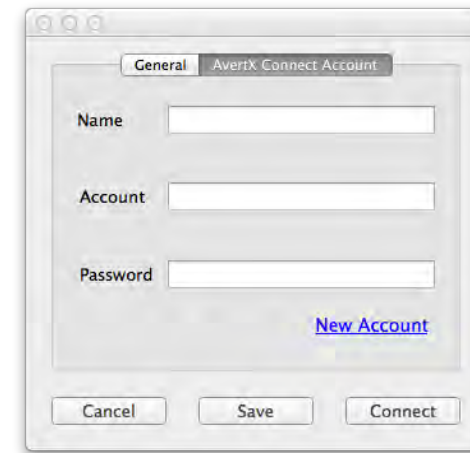
3. If your account already exists, enter the appropriate **login information**, and then tap **Save**.
4. Tap the name from the site list to connect.
--OR--
5. Click **New Account** to create an AvertX Connect account.
6. Enter **First and Last name, email address, password and confirmation**, and the **captcha verification**.
7. Agree to the **Terms of Use**, and then tap **Create Account**.
8. You will receive an email from AvertX Connect, tap the link in the email to **Activate** your account.
9. Follow steps 1-3 to add your new account and connect to your recorder.

Mac

Using an AvertX Connect account is the best way to view and manage your NVRs with the AvertX Remote app.



1. Open the **AvertX Remote** App.
2. Click **+** and then click **AvertX Connect Account**.



3. If your account already exists, enter the appropriate **login information**, and then click **Connect**.
--OR--
4. Click **New Account** to create an AvertX Connect account.

5. Enter **First** and **Last name**, **email address**, **password** and **confirmation**, and the **captcha verification**.
6. Agree to the **Terms of Use**, and then tap **Create Account**.
7. You will receive an email from AvertX Connect, click the link in the email to **Activate** your account.
8. Follow steps 1-3 to add your new account and connect to your recorder.

Manually Add a Site

Sites can be added manually for use with the AvertX GO! apps if you don't have the recommended AvertX Connect account.

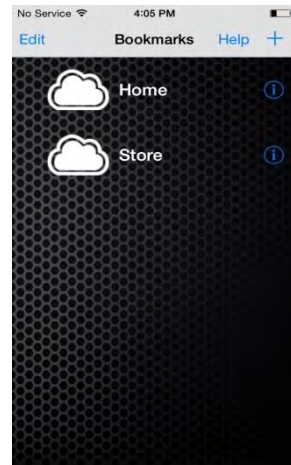
1. Tap **+**.
2. Tap **Add Site Manually**.
3. Enter the **NVR Name**, **IP address**, **Port number**, **Username**, and **Password**.
4. Click **Connect**.

The screenshot shows the 'Add Site' interface of the AvertX GO! app. At the top, there's a status bar with 'AT&T', signal strength, time '3:13 PM', and battery '80%'. Below the status bar is a navigation bar with a blue '< Back' button and the title 'Add Site'. The main area contains five input fields: 'Name:', 'IP:', 'Port:' (with '80' entered), 'User:', and 'Password:'. At the bottom, there's a large green button labeled 'Connect'.

View a NVR

The AvertX GO! Mobile application give you convenient NVR viewing options, including search, alarm list, snapshots, PTZ control (if available) and quick access to NVR information.

1. Tap a **User**.
2. Tap the **recorder** you wish to view.



USING THE REMOTE VIEWER SOFTWARE

When you have connected to your recorder from a Windows based laptop or PC, you can operate the functions using the Remote Software. To access your recorder using the browser based remote software, you must use Internet Explorer.

Channel Select

The channel select buttons allow you to view an individual camera channel in the viewing area.

Record

The **Record** function allows you to save an exported video file to the local computer in DRV format. DRV files are compressed video files viewable with the Backup Viewer software (to download the Backup Viewer software, click the **Backup Viewer** link in the live view). Use the **Record** button to save video you are currently viewing live, or to save playback video while searching.

To save a segment of video while watching live video or playback video:

1. Click **Record** to start the video segment.
2. In the **Save As** window, select a location and file name, and then click **Save**.
3. When you are ready to end the video segment click **Record** again.

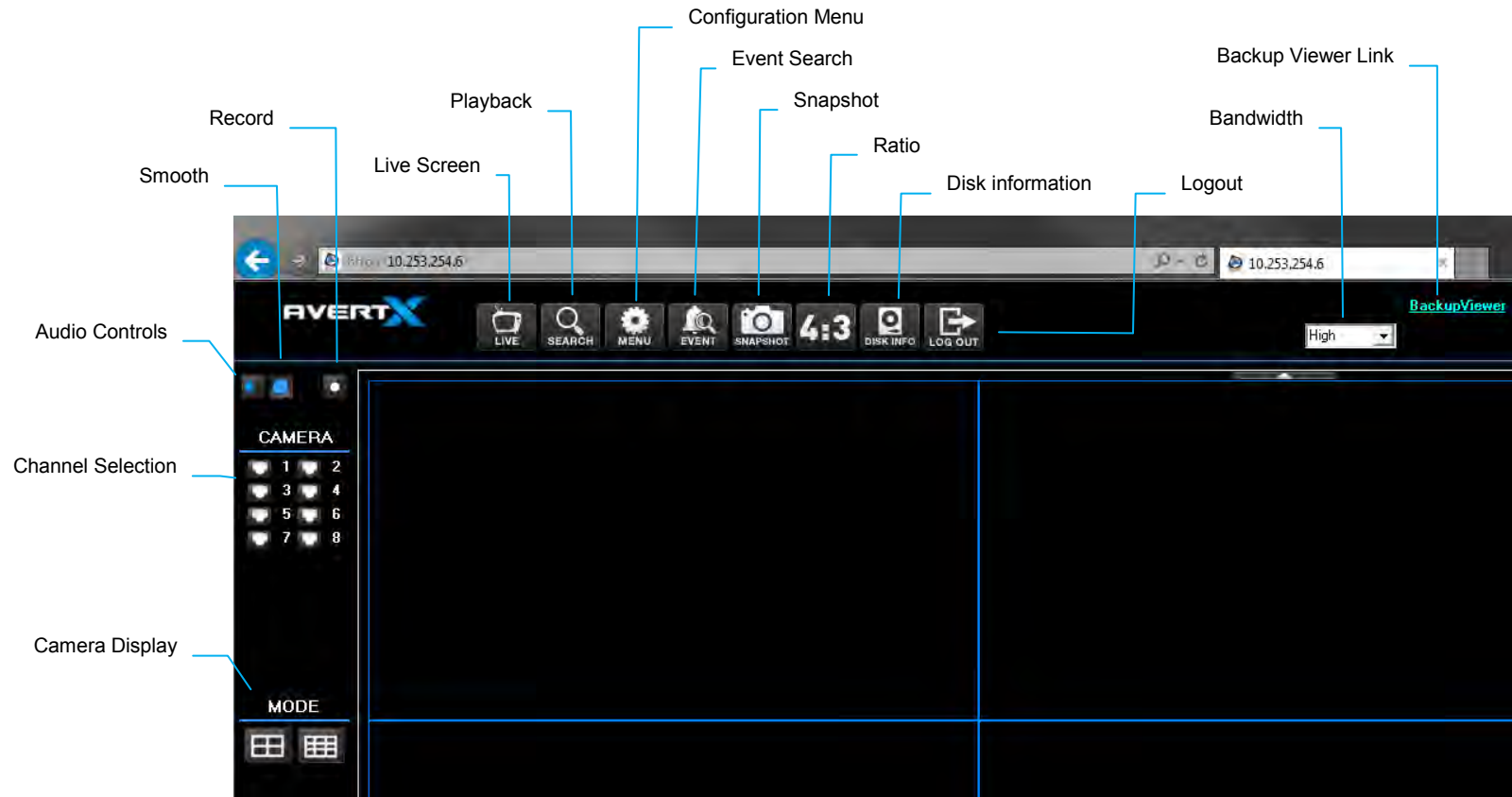
Camera Display Divisions

The camera display division buttons allow you to choose the desired display view. Options include 2x2 and 3x3.

Bandwidth Select

Your bandwidth selection options are **High** (highest quality, highest bandwidth usage), or **Low** (low quality, low bandwidth usage).

Remote Software Live Screen



Download Backup Viewer

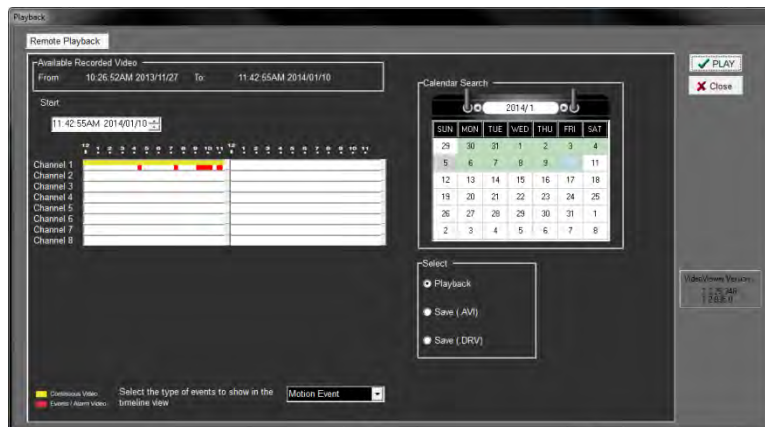
The **Backup Viewer** link allows you to download the proprietary player software. When you click this button you will be prompted to save or open a ZIP file; extract the contents of the ZIP file to a location on your computer's hard drive. To launch the player, double-click **Backup Viewer**.

Live

Live allows you to return to the live mode from Playback mode.

Search

Search allows you access to basic search functions to playback recorded video, download a segment of recorded video to your local workstation, or use the proprietary player to playback DRV video files already located on your computer.



Playback Recorded Video

1. Click **Search**.
2. Change the date and time of the **Start** field to the desired time (or move the left-hand 'Start' slider in the yellow bar).
3. Click **OK**.
 - a. Playback of all channels at the selected time will begin.
 - b. Use the playback navigation buttons in the lower right to rewind, pause or fast forward.
4. Click **Live** when you are done with Playback and want to return to Live.



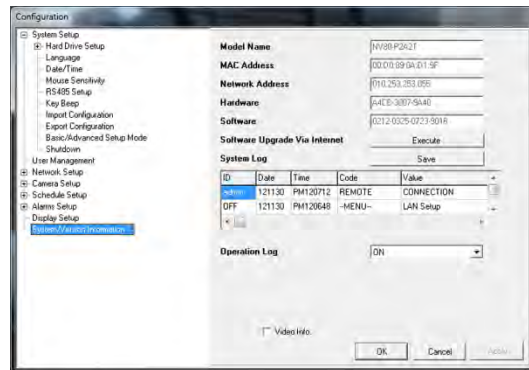
Download a Segment of Recorded Video

1. Click **Search**.
2. Select **Save**. Select **AVI** to download an AVI file that can be played with any media player, select **DRV** to save the file in the proprietary DRV format.
3. In the **Save As** window, select a location and file name, and then click **Save**.
4. Change the date and time of the **Start** field to the desired time (or move the left-hand Start slider in the yellow bar).
5. Change the date and time of the **End** field to the desired time (or move the right-hand End slider in the yellow bar).
6. Select the desired **Camera** channels.
7. Click **OK**.

Note Functions in the remote software will not be accessible until the download completes.

Configuration (Setup Menu)

Configuration allows you to access the recorder setup menu. Please refer to the Setup chapter in this manual for a complete description of menu options.



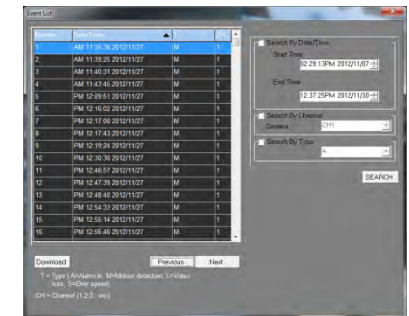
Note Some menu options can only be configured when accessing the recorder physically. When connected remotely these option may appear as read only in the configuration menu, or may be hidden completely.

Event List

Event List allows you to search based on event recorded video. Each event can be downloaded or reviewed in playback.

View an Event in Playback

1. Click **Search**.
2. Double-click the desired event.
 - a. Playback of all channels at the selected time will begin.
 - b. Use the playback navigation buttons in the lower right to rewind, pause or fast forward.
3. Click **Live** when you are done with Playback and want to return to Live.



Download an Event to your Computer

1. Click **Event**.
2. Select the desired event and click **Download**.
3. In the **Save As** window, select a location and file name, and then click **Save**.

Note In order to view exported video on your PC, you will need to have Backup Viewer installed.

Snapshot

Snapshot allows you to take a screen capture of the remote interface (everything inside the browser window, but not the browser itself). This screen capture is automatically save in JPEG format to the local Desktop.

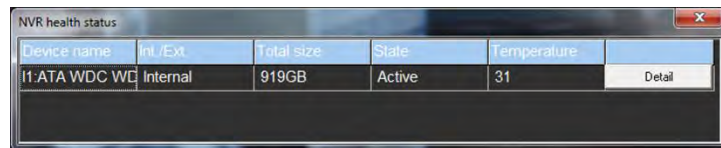
4:3

Your AvertX camera channels are displayed with an aspect ratio of 16:9 by default. To manually change the aspect ratio of your screen, click **4:3**. Click 4:3 a second time will return to the 16:9 ratio.

Note Use the 4:3 option when viewing your cameras on 4:3 monitors.

Health

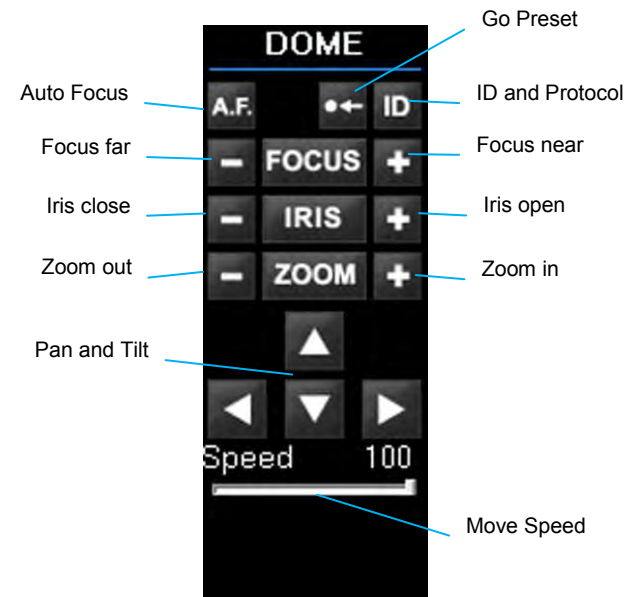
Health allows you to quickly check the status of any hard drive storage devices connected to the recorder (internal or external).



Device name	Int./Ext.	Total size	State	Temperature	Detail
H1 ATA WDC WD	Internal	919GB	Active	31	Detail

PTZ

Use the channel select buttons to view a single PTZ camera to enable the onscreen pan-tilt-zoom controller.



Please reference the PTZ section in the Operation chapter earlier in this manual for details on each of these functions.

Note The PRO Series recorder is only compatible with IP PTZ cameras. Because of this, the ID button on this controller is not used.

AVERTX REMOTE FOR MAC

Product Description

AvertX Remote allows you to access, search, and playback video recorded on your PRO Series recorder using a Mac computer.

Features

- Connect to up to 9 PRO Series recorders simultaneously
- View live video from multiple channels simultaneously
- Control PTZ cameras
- Playback recorded videos stored on your PRO Series recorder

System Requirement

To run AvertX Mac Remote, your Mac should meet these requirements:

Minimum	OS: OS X 10.7 (Lion) CPU: Intel Core 2 Duo 2.4 GHz RAM: 2GB
Recommended	OS: OS X 10.7 (Lion) or higher CPU: Intel Core i52.3GHz or above RAM: 2GB or more

Downloading AvertX Remote

To download the software, open the Internet browser on your Mac and go to the Mac App Store. Search for AvertX Remote, and then download the software, following the instructions provided. Once it is downloaded, locate the program in Launchpad, and click to start the program.

Using AvertX Remote

Connect to Your Recorder Using AvertX Connect

1. In the Device Manager section, click **+** and then tap **Add AvertX Connect Account**.
2. If your account already exists, enter the appropriate **login information**, and then click **Connect**.
--OR--
3. Click **New Account** to create an AvertX Connect account.
4. Enter **First** and **Last** name, **email address**, **password** and **confirmation**, and the **captcha verification**.
5. Agree to the **Terms of Use**, and then tap **Create Account**.

Connect to Your Recorder Using DDNS

1. In the Device Manager section, click **+**.
2. Type the **Name**, **IP address**, and **Port** number for your PRO Series recorder.

Note The port number must match the port number set in Port Forwarding on your PRO Series recorder. The default port is **80**.

3. Type the **Username** and **Password** of an Administrative account on your PRO Series recorder.
4. Click **Save** to add the recorder to the site list.
5. Click **Connect** to immediately connect to your recorder.

6.

Note You can connect to up to 9 PRO Series recorders simultaneously.

Editing a Recorder

1. To edit the information for a recorder, select the recorder in the list, and then click **Edit**.
2. Type the correct information into the fields, and then click **Save**.

Deleting a Recorder

To delete a recorder, select the recorder in the list, and then click the **Trash** icon.

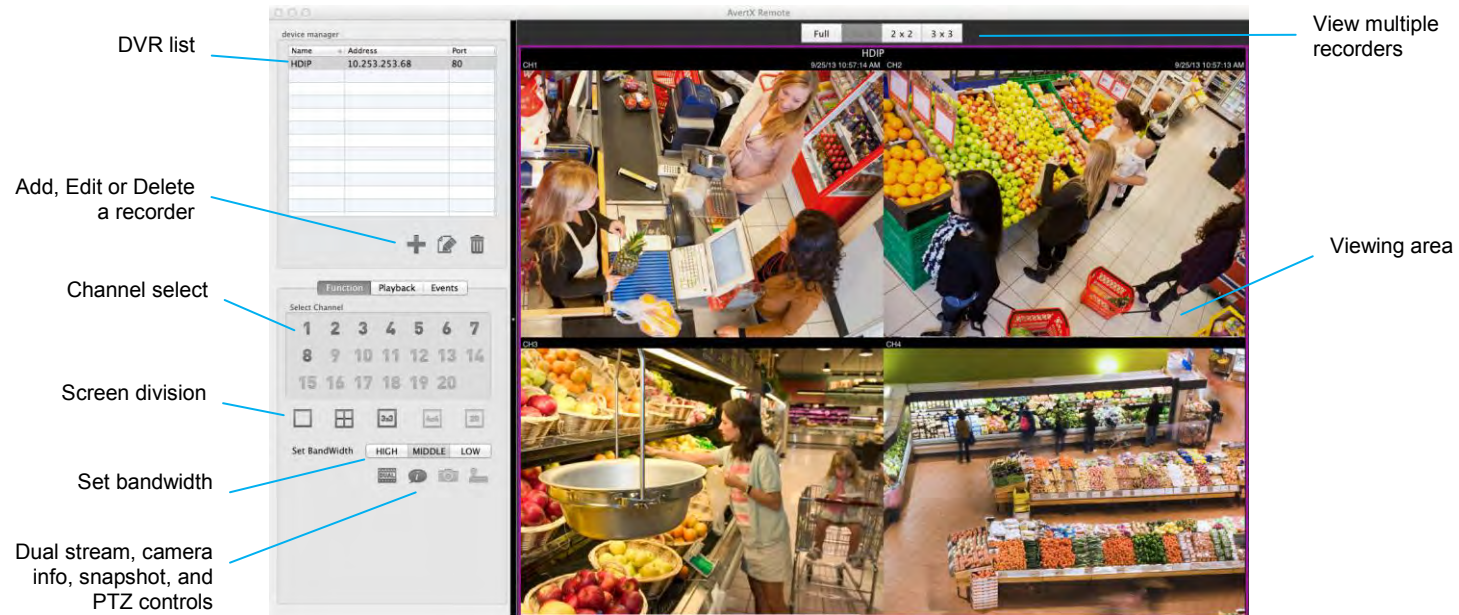
Viewing Multiple Recorders

You can connect to up to 9 PRO Series recorders simultaneously using AvertX Remote for Mac.

1. Double-click the recorders in your list to connect.
2. To view the recorders simultaneously, click **1x1**, **2x2**, or **3x3**.
3. When changing viewing configurations or searching a specific recorder, select the recorder in the live screen before using the buttons in the **Device Manager** section of the AvertX Remote window.

Viewing Live Video

Once you have connected to your PRO Series recorder, you can control the channels you view, your bandwidth usage, and view camera information.



Select Channel – Click your desired camera channel to view that channel full screen

Screen Division – Click your desired screen division (1 camera, 2x2, 3x3, and 4x4, depending on your PRO Series model).

Set Bandwidth – Choose the bandwidth usage you want for this application. Selecting High bandwidth will result in smoother video, but will use more resources on your Mac.

Dual Stream – Click Dual Stream to retrieve video from your recorder via dual stream.

Info – Click the Information icon to view camera information for each camera channel.

Snapshot – Save a snapshot of the currently displaying camera. This function is only available when viewing a single camera.

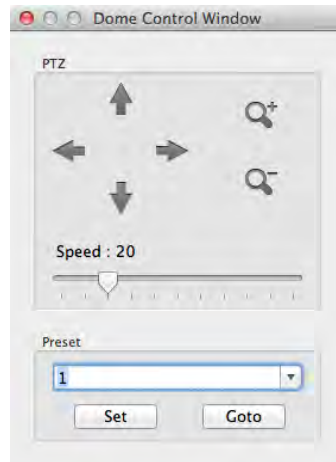
PTZ

To control PTZ functions, you must view your PTZ camera full screen, and the camera must be an IP PTZ camera.

1. Click the arrow buttons to aim your camera.
2. Click the **Zoom** buttons to zoom in or out.
3. Click and drag the **Speed** slider to control the speed of movement.

Presets

1. To set a preset position for your camera, aim and zoom your PTZ camera to your desired position.
2. Select a number to assign to this position.
3. Click **Set**.
4. To go to a previously pre-set position, select the number from the list, and then click **Goto**.



Playback

1. To playback recorded video, click **Playback**.
2. Set the **Start Time** and **End Time** of the video you want to view (be sure you set your desired date as well as the time).
3. Click **OK** to begin playback.
4. While playing back recorded video, use the **Playback Control** buttons to play fast forward, backward, or pause video.
5. To return to the Live view, click **Live**.

Event Search

1. To view recorded video of motion or sensor events, click **Events**.
2. Scroll through the Events list, and double-click the event you want to view.
3. Use the playback controls to control the video.
4. To return to the Live view, click **Live**.

NO	Date/Time	Type	CH
120	2013-09-25 10:53:23	M	1
119	2013-09-25 10:44:00	M	1
118	2013-09-25 10:42:03	M	1
117	2013-09-25 10:40:46	M	1
116	2013-09-25 10:39:55	M	1
115	2013-09-25 10:38:13	M	1
114	2013-09-25 10:33:34	M	1
113	2013-09-25 10:32:49	M	1
112	2013-09-25 10:28:58	M	1
111	2013-09-25 10:28:08	M	1
110	2013-09-25 10:20:46	M	1
109	2013-09-25 10:19:43	M	1
108	2013-09-25 10:15:55	M	1
107	2013-09-25 10:13:21	M	1
106	2013-09-25 10:11:53	M	1
105	2013-09-25 10:08:55	M	1
104	2013-09-25 10:04:23	M	1
103	2013-09-25 10:02:51	M	1
102	2013-09-25 10:01:30	M	1
101	2013-09-25 10:00:52	M	1
100	2013-09-25 10:00:13	M	1

SEVEN: AVERTX CONNECT

Introduction

Create an AvertX Connect account

User Management

Add a NVR to AvertX Connect

View the NVR Remotely

User Management

INTRODUCTION

AvertX Connect gives you free, easy access to your video whether you are on the go or at home using Internet Explorer on your computer or the AvertX Go! app.

- Set up and access your video remotely in under 10 minutes
- Create an account using your email address at avertx.com
- No IP address to remember
- Access your video wherever you are; inside your local network or out
- Easily access multiple recorders on one account
- Manage multiple users with different levels of access
- Connect a new phone in seconds using your personal log in account information
- Easy log in access to view your video at avertx.com
- AvertX Connect technology doesn't require port forwarding*, a static IP address, or time consuming calls to your ISP

Note Port forwarding may be necessary for some advanced network configurations.

CREATE AN AVERTX CONNECT ACCOUNT

Creating an AvertX Connect account is free.

To create an AvertX Connect account:

1. Go to connect.AvertX.com.
2. Fill in the information boxes appropriately, including a valid email address and password with confirmation.
3. Identify and enter the text in the Captcha Verification box.

Note If you are having difficulties with the Captcha Verification, click the reset button to view another Captcha option that may be easier to identify.

4. Agree to the **Terms of Use** by clicking the check box.
5. Click **Create Account**.
6. Log into the email address used to create your AvertX Connect account and open the message from AvertX Connect, then click the link in the message to verify your account.

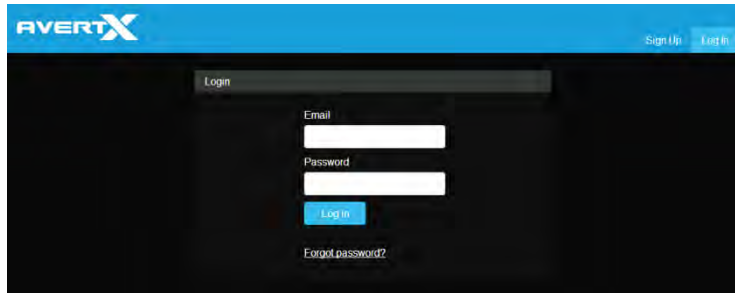
Upon verifying your account, you will be returned to the AvertX Connect site. From here, you must log in with your verified email address and password.

Login

Once you have created an account, you will simply be able to login to your AvertX Connect account from connect.AvertX.com.

To login to your AvertX Connect account:

1. Go to connect.AvertX.com.
1. Click **Log In**.



2. Enter the Email and Password associated with your AvertX Connect account.
3. Click the **Log in** button.

You are now logged in to your AvertX Connect account and can access account functions.

ADD A NVR TO YOUR AVERTX CONNECT ACCOUNT

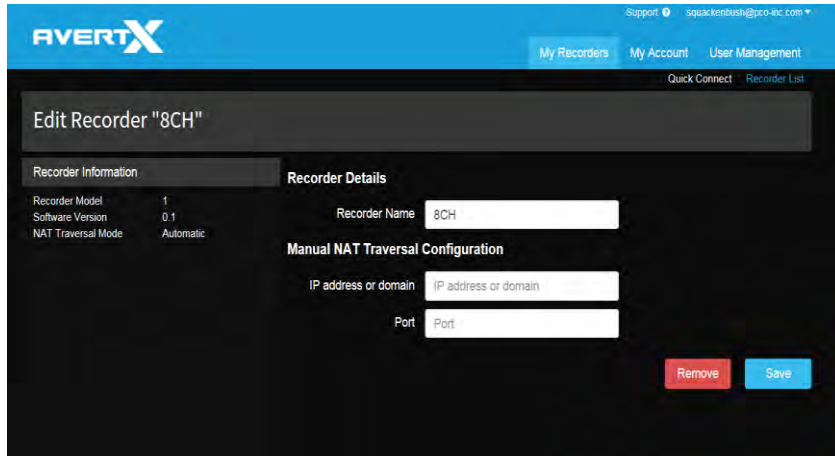
After you create an AvertX Connect account, you will need to add your NVRs to that account. To do this, you will need to access the NVR configuration menu.

To add a NVR to your AvertX Connect account:

1. On the hover menu, click **Setup**.
2. Under **System Setup**, click **Network Setup**.
3. Click **AvertX Connect**.
4. Change the System Name if desired. The default System Name is NVR.
5. Enter the **Connect Email** and **Connect Password** that you used to create your AvertX Connect account.
6. Click **Connect**.
7. After a connection is established, close the **AvertX Connect** window.

ADD THE NVR IP ADDRESS / DDNS LOCATION AND WEB PORT TO YOUR CONNECT ACCOUNT

For the best NVR connection, it is recommended that you add the NVR IP address / DDNS address to your AvertX Connect account. To do this, the IP address or DDNS location of the recorder is required, along with the web port number.

The screenshot shows the AvertX web interface. At the top, there's a blue header with the AvertX logo and navigation links: 'My Recorders', 'My Account', and 'User Management'. Below the header, the page title is 'Edit Recorder "8CH"'. The main content area is divided into two sections: 'Recorder Information' and 'Recorder Details'. Under 'Recorder Information', there are fields for 'Recorder Model' (1), 'Software Version' (0.1), and 'NAT Traversal Mode' (Automatic). Under 'Recorder Details', there is a 'Recorder Name' field with '8CH' entered. Below that is the 'Manual NAT Traversal Configuration' section, which includes fields for 'IP address or domain' and 'Port'. At the bottom right of the form, there are 'Remove' and 'Save' buttons.

Note To identify the NVR IP address / DDNS location, see the “Basic Setup” section of this manual.

Note To identify the NVR Web Port, see the “Web Port” section of this manual. The default Web Port is 80.

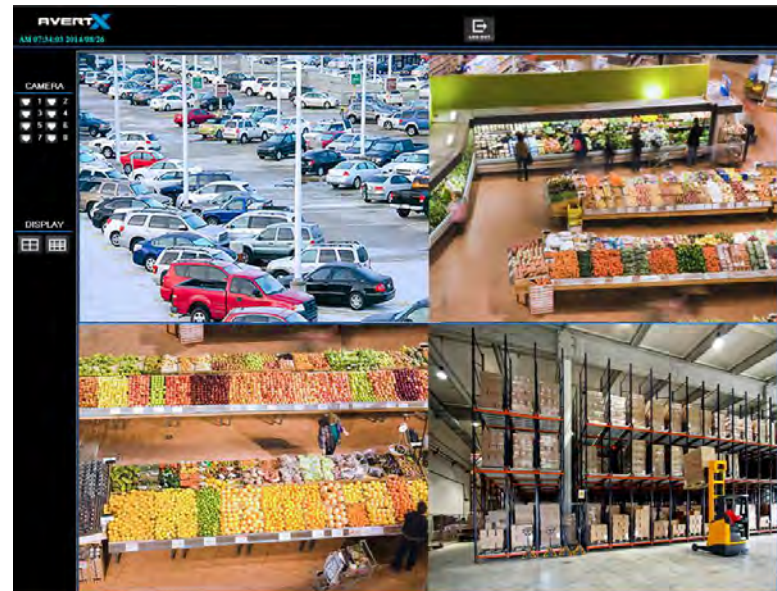
1. Identify your **NVR IP address / DDNS location** and **web port**.
2. Click **Recorder List**.

3. Click **Edit** next to the desired recorder.
4. Enter the **IP address** or **DDNS address**.
5. Enter the **Web Port**.
6. Click **Save**.

VIEW THE NVR REMOTELY

After you add the NVR to your AvertX Connect account, you can access the NVR from a remote location using the Internet Explorer web browser or with the AvertX Go! mobile application.

Remote Access in a Web Browser



1. Using Internet Explorer, go to connect.AvertX.com and login.

Note You will automatically be taken to the **Quick Connect** page if you have already added a recorder to your AvertX Connect account.

2. Identify the recorder you wish to access, and click **Connect**.

Remote Access through Mobile Application

Log In to the Mobile Application

Using an AvertX Connect account is the best way to view and manage your NVRs with the AvertX GO! app.

1. Open the **AvertX GO!** App.
2. Tap **+** (+ **Add** on Android) and then tap **Add AvertX Connect Account**.
3. If your account already exists, enter the appropriate **login information**, and then click **Connect**.
--OR--
4. Click **New Account** to create an AvertX Connect account.
5. Enter **First and Last name, email address, password and confirmation**, and the **captcha verification**.
6. Agree to the **Terms of Use**, and then tap **Create Account**.

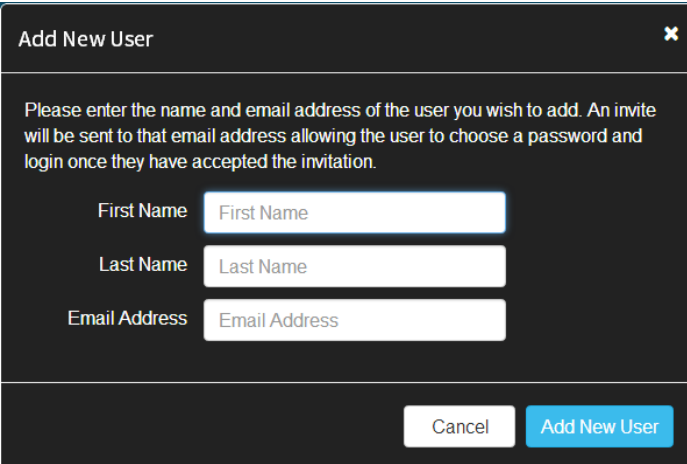
USER MANAGEMENT

AvertX Connect allows you to manage users with your account. This way, you can manage your NVRs and multiple users under one account. as the original user account will be established as the Account Owner. The Account Owner has control over the subsequent users on the account.

Adding Users to your AvertX Connect Account

To add a user to your AvertX Connect account:

1. Click the **User Management** tab.
2. Click **Add New User**.



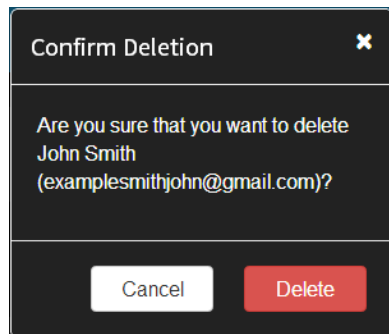
3. Enter **First Name, Last Name, and Email Address** for the new user.
4. Click the **Add New User** button.

The new user will be prompted to verify their email address. When they have done so, they will be a verified user on the account.

Removing Users from your AvertX Connect Account

To remove a user from your AvertX Connect account:

1. Click the **User Management** tab.
2. In the user table, click the **Red X** on the far right next to the user to wish to remove.
3. In the **Confirm Deletion** pop-up window, confirm that you wish to remove the user, and then click **Delete**.

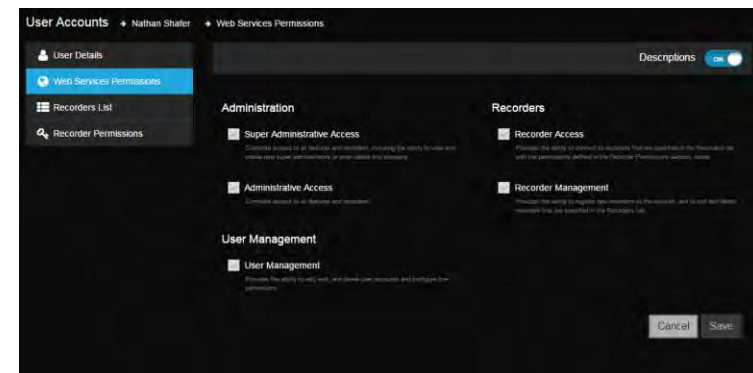


The user is now removed and no longer has access to the AvertX Connect account.

Edit User Permissions

To establish the functions and features within the AvertX Connect account that specific users have access to:

1. Click the **User Management** tab.
2. In the user table, click **Edit** next to the user whose permissions you wish to edit.
3. On the left navigation column, click **Web Services Permissions**
4. Check the boxes next to the AvertX Connect **Account Permissions** that this user can have access to.



5. Click **Save**.

Edit User Recorder Permissions

To establish the recorders that specific users have access to:

1. Click the **User Management** tab.
2. In the user table, click **Edit** next to the user whose permissions you wish to edit.
3. Click the **Recorder Permission** tab.
4. Click **Add Recorder**.
5. Check the box next to the recorders that this user can have access to.
6. Click **Save**.

To restrict a user from accessing a recorder, remove the recorder from their permissions list.

To remove a recorder from a user's permission list:

1. Click the **User Management** tab.
2. In the user table, click **Edit** next to the user whose permissions you wish to edit.
3. Click the **Recorders** tab.

4. Click **Remove** next to the recorder you wish to deny a user access to.

The user is no longer able to access this recorder.

APPENDIX A: ADDITIONAL CAMERA CONFIGURATION

Using Cameras from Other Manufacturers
Using an External PoE Switch

PLUG N' PLAY AND POWER OVER ETHERNET

The AvertX PRO Series recorder is equipped with an on-board Power over Ethernet (PoE) switch. This enables you to automatically connect to any AvertX camera by connecting the camera to the IP network port and enabling the PnP feature in the Camera menu (See the Earlier Chapter).

A situation may arise in which the on-board PoE switch is not sufficient, or you will need to disable the PnP feature and configure your cameras manually. This appendix provides instructions for these scenarios.

Using an External PoE Switch

If your camera is installed more than 300 feet away from the PRO Series recorder, you will need to connect it to an external PoE Switch in order to relay power to your camera. Additionally, you can install a camera virtually anywhere and connect it to your local network, using a PoE switch to provide power to the device.

The camera connects to the PoE switch using a Cat5 Ethernet cable. The PoE switch will need a power source as well as a network connection to your router.

Tip If you are using an AvertX camera, you can connect the camera directly to the recorder temporarily to configure the IP address and settings, then re-connect the camera to your external switch.

Connect Your Camera and PoE Switch to Your Local Network

1. Ensure that your PoE switch is correctly installed, following the manufacturer instructions.
2. Connect your camera to the external PoE switch.
3. Follow the instructions in your camera user manual to view and change the camera IP address using a PC on the same network. Write down the IP address of your camera for future use.

Connect Your Camera to Your Recorder Over the Network

1. Ensure that your PRO Series recorder is connected to your network. If the connection is working, the green lights on your LAN port will turn on.
2. On the hover menu, click **Setup**.
3. Under **Camera Setup**, click **Device Search**.
4. Click **Model** and select the manufacturer of your camera (**AvertX** or **ONVIF**).
5. Click **Search** to find all available cameras on your network.
6. A list of cameras connected to your network will appear. Click on the device you want to use.
7. In the **Select Channel** menu, click the red **PnP** icon next to the desired channel to set the camera to turn PnP off.
8. Select the camera channel that you want to use for this camera.

Note You can also manually enter the IP address of the camera you want to assign to this channel. In the Connection menu for each camera channel, click **Hostname/IP** and type the IP address of your camera.

9. Click **Connection Setup**.

Note For more information on other camera configuration settings in this menu, refer to Connection Setup in the Cameras chapter of the PRO Series User Manual.

10. Repeat these steps for each camera connected to your external PoE switch.

Note When you are finished configuring your cameras and return to the Live screen, it may take a few moments for video to appear.

Using ONVIF Cameras from Other Manufacturers

The PnP feature is designed to work exclusively with AvertX cameras. You can use ONVIF compliant cameras from other manufacturers, but you must disable PnP and configure your cameras manually.

1. Plug the camera into an available channel on the back of the recorder.
2. On the camera, using the manual that came with the camera, assign the camera a new IP address and set the gateway and subnet to match the information in the table below.

Settings	PS AvertX NVR
IP Address	192.168.53.xxx
Gateway	192.168.53.1
Subnet	255.255.255.0

Note Be sure that the last two digits of the IP address for each camera is unique, so there are no duplicates in your camera network.

3. On the hover menu, click **Setup**.
4. Click **Cameras Setup**.
5. Select the appropriate camera channel.
6. Select **Enable PnP** and click **Off**.
7. Ensure that **Activated** is set to **Off**.
8. Click **Device Search**.
9. Once the PRO Series unit has located your devices, the brand, model, and IP address of each camera on your system will appear.

10. Click the camera you want to assign to this channel.

Note You can also manually enter the IP address of the camera. To do so, click **Hostname/IP** and type the IP Address of your camera.

11. Click **Model** and select **ONVIF**.
12. Click **Connection Setup**.
13. Click **Account** and type in the username for the camera (the default user name can be found in the user manual for the camera).
14. Click **Password** and type the password for the camera (this information is also found the camera's user manual).
15. Click **Main Stream Setup** and make sure the **Management Port** and **Streaming Port** (RTSP port) match port settings on your camera (this information is also found the camera's user manual).
16. When you have finished configuring your camera, click **Activated** and select **Yes**.

Note For more information on other camera configuration settings in this menu, refer to Connection Setup in the Cameras chapter of the PRO Series User Manual.

When you are finished configuring your cameras and return to the Live screen, it may take a few moments for video to appear.

www.avertx.com

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