



# Ax47DC

## User Manual



Please read this guide carefully before you install your Ax47DC.  
Keep this guide for future reference.

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Rev. 170322

## Ax47DC User Manual

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### FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Default IP: **192.0.0.16**  
Default Subnet Mask : **255.255.255.0.**  
Default User Name: **i3admin**  
Default Password: **i3admin**

Scan this QR code or visit [www.i3international.com](http://www.i3international.com) > Media Library to view and download available user documentation for this product. Please contact our Technical Support team if you have any technical questions or require services or support.

Technical Support can be reached by email at:  
**support@i3International.com** or  
by phone Toll Free **1.877.877.7241**.



QR Code for User  
Documentation / ACT

# Table of Contents

<b>Introduction</b>	<b>5</b>
<b>Warnings and operation notes</b>	<b>6</b>
Precautions	6
Power	7
Cleaning	7
Servicing	7
Routine Maintenance	7
<b>Unpacking</b>	<b>8</b>
Accessories	8
<b>Dimensions &amp; Parts Identification</b>	<b>9</b>
<b>Installation</b>	<b>10</b>
Optional Mounting Accessories	10
Door Count Installation Requirements	11
Disassembling the Camera	11
Mounting	12
Camera Wiring Options	12
Axis lens position adjustment	13
Surface Mounting	14
Mounting w/ Ax61BB Back Box (optional)	15
<b>Connect Camera to SRX-Pro Server</b>	<b>16</b>
Hardware/Software Requirements	17
Configuring IE for Video Display	17
RTSP Stream Information	18
Changing Camera's Default IP	18
Viewing Camera in IE browser	19
Adding Annexus Camera to SRX-Pro Server	20
Configuring Door Count in SRX-Pro	22
<b>Advanced Camera Setup via IE</b>	<b>23</b>
Basic Setup	24
Camera Settings (Primary Streaming only)	24
Network settings	25
Video Setup	25
Camera Settings	25
Triple Video Streaming	26
Stream 1 (Primary Streaming)	26
Stream 2 (Secondary Streaming) / Stream 3 (Third Streaming)	27

Advance Settings	27
Video Adjustment	28
Motion Detection (edge)	28
Motion Setting	28
Motion Zone Area Setting	29
Store to SD Card	29
On Screen Display	30
Sending E-mail by MOTION	30
Privacy Zone (edge)	31
Privacy Zone Setting	31
Privacy Zone List	31
Exposure	32
Exposure Mode > Auto Exposure	32
Exposure Mode > Manual Exposure	33
Day Night Setting	33
SD Card (edge recording)	34
SD Card Setting	34
SD Card Status	35
SD Card LifeSpan Notification Setting	36
Recording/Schedule (edge)	37
SMTP Server	37
Email Address List	38
Arming Schedule Setting > SCHEDULE	38
Arming Schedule Setting > DEFOCUS	39
Arming Schedule Setting > TAMPER	40
Communication Setup	41
Network Settings	41
RTSP Settings	41
UPnP Settings	41
OSD Settings	41
User Management	42
Adding a User	43
Deleting a User	43
Changing Username, Password or Permission	43
System Setup	44
Date & Time	44
Restart/Reset	45
Export Configuration	45
Logs	46
Searching by Event Type	46

# 1. Introduction

Thank you for purchasing an i3 Ax47DC Door Count Dome Camera.

i3's Annexus Ax47DC megapixel IP camera features 1.3MP video resolution. This dome camera comes with a fixed 2.1mm lens, providing the widest camera view to maximize the accuracy of traffic count. For best results, the camera must be mounted 8 to 12 feet (3.65 meters) above the floor and 4 feet (1.22m) back from the center of the door. For traffic count, SRX-Pro Server VC (VisionCount) license must be purchased (sold separately).

This camera delivers triple streaming performance and supports H.264 and Motion JPEG video compression. H.264 codec allows for faster and more efficient video transmission over the network.

This moisture-, dust- and vandal-resistant dome camera is IP67-certified and IK10-compliant and comes in an aluminum casing. Annexus 47DC model requires PoE power.

The Ax47DC camera is designed specifically for indoor Door Counting applications in combination with i3's SRX-Pro and CMS.

The Ax47DC camera is backed by i3's superior 3-year parts and 1-year labor warranty policy as well as 2-for-1 policy. Please read i3's Limited Warranty for more information: [http://i3international.com/tools/media/medialibrary/PDF/Polices/limited\\_product\\_warranty.pdf](http://i3international.com/tools/media/medialibrary/PDF/Polices/limited_product_warranty.pdf)

## 2. Warnings and operation notes

**Please read this guide carefully before you install the camera.**

**Keep this guide for future reference.**

If the camera needs to be modified or repaired, contact a certified i3 International Dealer/Installer. When serviced by unauthorized technician, the camera warranty will be voided. Should you have any problems or questions regarding our products, contact your local i3 International Dealer/Installer.

Camera's default IP address is **192.0.0.16**  
Camera's default Subnet mask address is **255.255.255.0**.  
Default camera User Name: **i3admin** and default Password: **i3admin**

### 2.1 Precautions

**Installation and servicing should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.**



**WARNING! To reduce the risk of fire or electric shock, do not expose the product to rain or moisture.**

When installing your Ax47DC camera, be sure to avoid:

- excessive heat, such as direct sunlight or heating appliances
- contaminants such as dust and smoke
- strong magnetic fields
- sources of powerful electromagnetic radiation such as radios or TV transmitters
- moisture and humidity
- areas with mechanical vibrations
- fluorescent lamps or objects that reflect light
- unstable light sources as this may cause flickering
- temperatures below -20°C (-4°F) and above 50°C (122°F)

## 2.2 Power

This camera supports PoE power only. IEEE 802.3af Class 3, max load of 8.5W. Incorrect voltage may cause irreparable damage to the video camera and will effectively void the camera warranty. For PoE power, insert the RJ45 cable into the RJ45 jack on the camera's cable. Connect the other end of the RJ45 cable to a compatible PoE switch/hub/router.

## 2.3 Cleaning

- For maximum optical clarity, the camera or lens must remain clean. Use a soft, dry cloth to remove finger prints and dust from the dome cover.
- Use a blower to remove dust from the lens.
- Clean the body with a soft, dry cloth. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent, then wipe dry.
- Do not use volatile solvents such as alcohol, benzene, or thinners, as they may damage the surface finish.

## 2.4 Servicing

To avoid electrical shock and to preserve the product warranty, DO NOT disassemble the camera. Refer servicing to qualified personnel only.

## 2.5 Routine Maintenance

- The dome bubble is an optical part. Use a soft and dry cloth to remove any fingerprints and dust.
- Clean the camera housing with a soft and dry cloth. For more stubborn marks, use a cloth dampened with a small quantity of neutral detergent, then wipe dry.
- **CAUTION: Do not use volatile solvents such as alcohol, benzene or thinners, as they may damage the surface finish.**

# 3. Unpacking

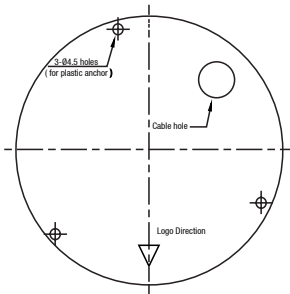
Ensure that the items received match those listed on the order form and the packing slip. In addition to this manual and a fully assembled camera, the dome camera packing box includes:

- 1. Drill Template sticker x1
- 2. Torx key x1
- 3. Plastic Anchor x3
- 4. Round Head Screw (Tapping type) x3
- 5. Desiccant (attach to the inside of the Inner Liner) x1
- 6. 3-ft network cable x1

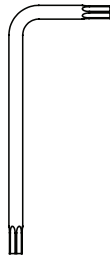
If any parts are missing or damaged, contact the dealer you purchased the camera from.

**\*Note:** Based on installation location and surface type, supplied screws and anchors may not be adequate. Mounting hardware is site-specific and may need to be supplied by the installer.

## 3.1 Accessories (not to scale)



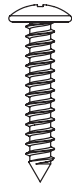
1



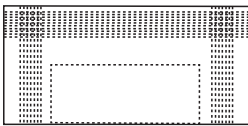
2



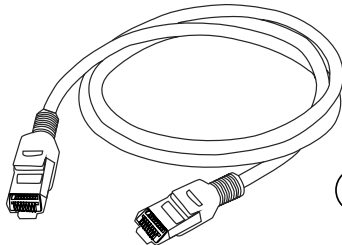
3



4



5

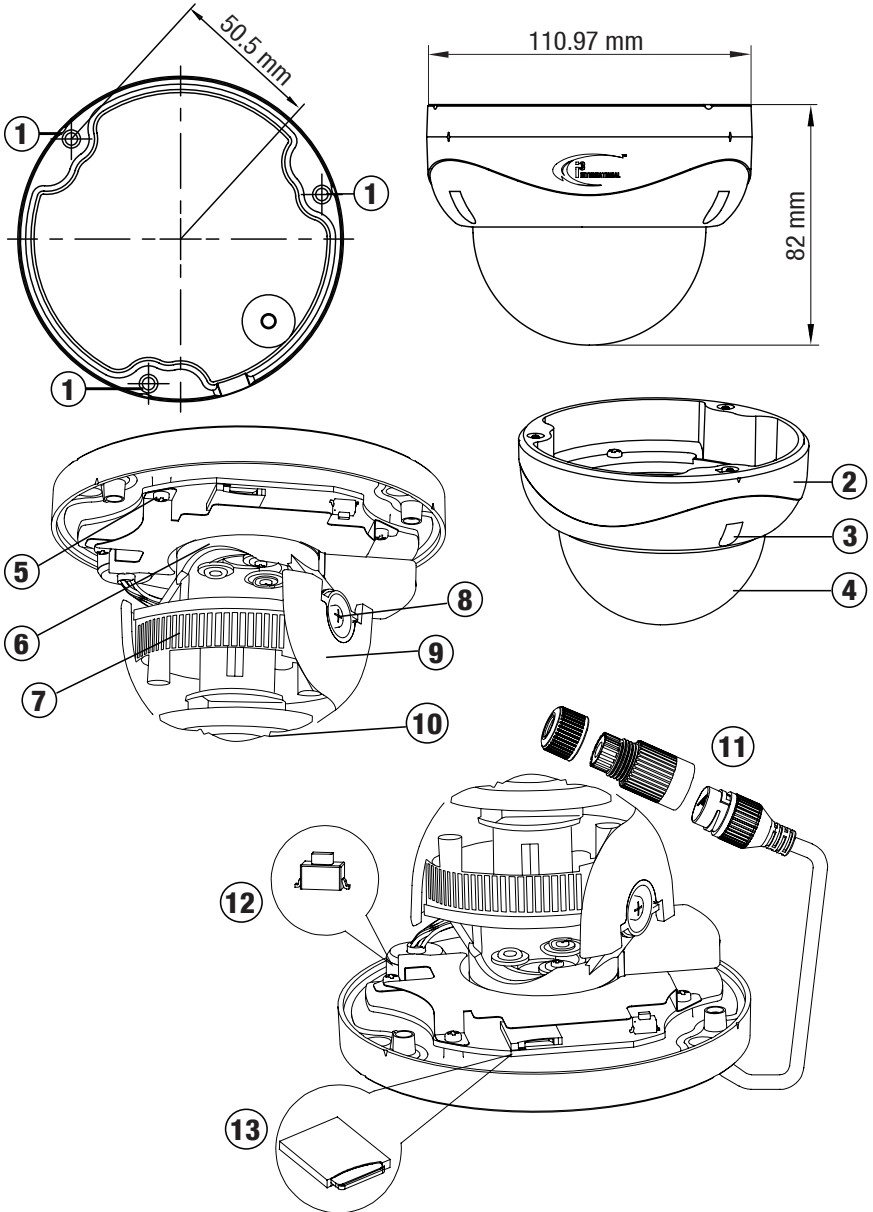


6



# 4. Dimensions & Parts Identification

Ax47DC dome camera is designed for indoor installation in commercial environment specifically for Door Counting installations. The camera installation must comply with installation requirements (see Installation section for more information).



1. Mounting holes (x3)
2. Dome bubble housing / Dome cover
3. Screws securing the dome bubble housing to camera module (x3, silver)
4. Lexan bubble
5. Screws attaching camera module to the camera base (x4, black)
6. Lens base. Rotate to adjust lens.
7. Camera Lens Assembly. Pan to adjust lens.
8. Tilt Bracket with two locking screws. Loosen the screws and tilt to adjust lens angle.
9. Inner Liner / Shroud. Attach the desiccant to the inside of the inner Liner, without obstructing the lens movement.
10. Camera lens.
11. RJ45 Ethernet PoE Port with waterproof RJ45 connector assembly.  
Insert an Ethernet cable into the port for network connection as well as PoE (Power over Ethernet) capability. To maintain water-resistant rating in outdoor installations, make sure to use the included waterproof RJ45 Connector assembly.
12. Reset/Default button. Press for 1 second to reboot the camera. Press for 6 seconds to restore camera settings to factory defaults.
13. Micro SD Card slot for on-camera video storage. (Micro SD card sold separately).

## 5. Installation



### **Important. Please Read:**

- It is the installer's responsibility to ensure that the mounting surface is suitable for the chosen installation method.
- Based on installation location and surface type, supplied screws and anchors may not be adequate.
- Mounting hardware is site-specific and may need to be supplied by the installer.

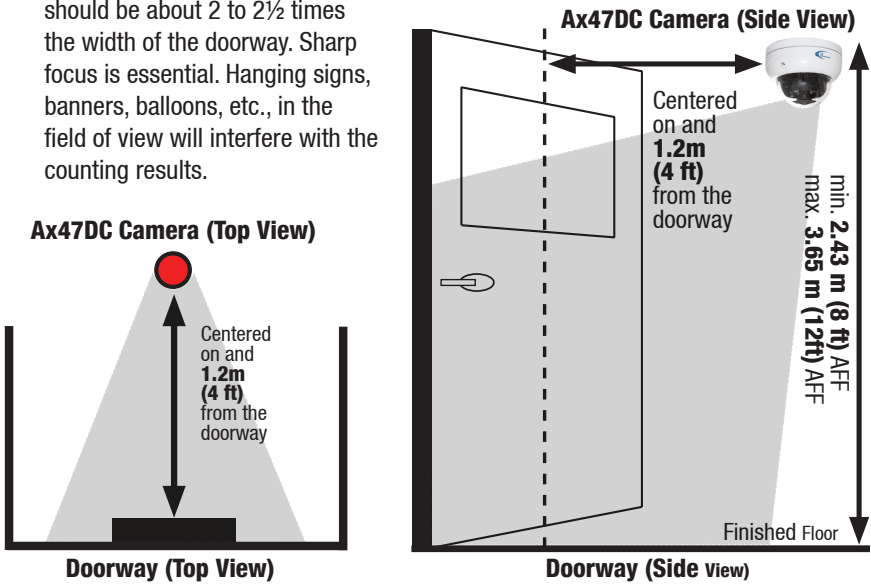
### **Optional Mounting Accessories**

- Ax61BB (Back Box 3/4" & 1/2" NPT). Use for pendant mount, or pole mount.
- DB60 (Goose Neck Bracket 3/4" NPT). Together with the optional DB60CPM bracket, DB60 goose neck bracket has the capability of being pole-mounted.
- DB60CPM (Pole Mount bracket for DB60)

# 5.1 Door Count Installation Requirements

For accurate count, Ax47DC installation must comply with all requirements below:

- 1. Mounting height** between 2.43m (8') and 3.65m (12') Above Finished Floor (AFF). Reliability decreases outside of this range.
- 2. Centered** on doorway and 1.22m (4') in from the doorway.
- 3. Field of View** must be adjusted so that the camera views through the doorway with the top of the image aligned between the top of the doorway and half-way down to the bottom of the doorway. Do not cut off more than the top half of the doorway. The width of the image should be about 2 to 2½ times the width of the doorway. Sharp focus is essential. Hanging signs, banners, balloons, etc., in the field of view will interfere with the counting results.



# 5.2 Disassembling the Camera

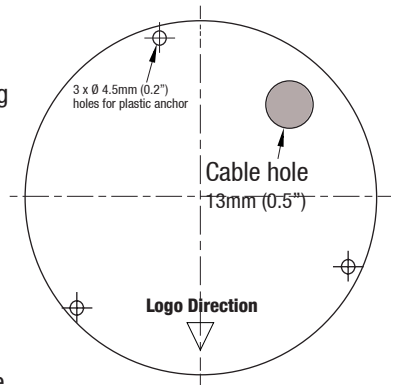
Before mounting and adjusting the camera, follow these steps to disassemble the camera.

- 1.** Use the provided security Torx key to loosen three screws securing the dome bubble housing to camera module. Do not completely remove the screws from the dome bubble.
- 2.** Gently pull the dome bubble downwards and set aside.

## 5.3 Mounting

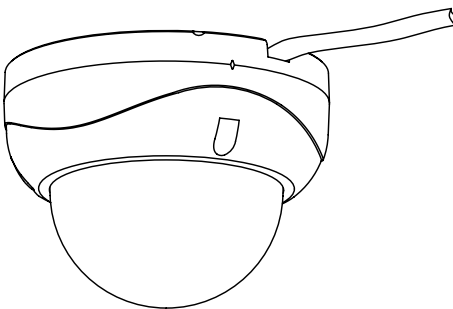
Ax47DC camera can be surface or T-bar ceiling mounted without additional mounting accessories/brackets.

1. Prepare the surface for mounting. Use supplied guide pattern sticker to drill screw holes on the mounting surface. Insert plastic anchors. If routing cables from the back of the camera, cut a cable hole in the surface. Alternatively, cables can be routed through the opening on the side of the camera's mounting base (See Camera Wiring Options below).
2. Disassemble camera prior to mounting.
3. Attach the camera's mounting base to the surface with supplied screws.
4. For best door counting accuracy set the camera's tilt position straight down. Adjust the camera's pan position to achieve required Field of View (see page 10).
5. Replace the Bubble Dome Cover and use the Torx key to re-tighten the screws.

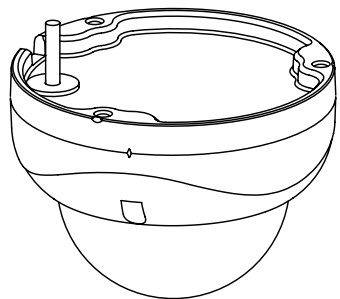


### Camera Wiring Options

Based on installation requirements, you may route the cable through the cut-out opening on the side of the camera's mounting base (Option A) or through the pre-drilled opening in the surface (Option B). For Option B, drill a 13mm (0.5") circular opening in the mounting surface, corresponding to the "Cable hole" of the drill template.



Option A



Option B

## 5.4 Axis lens position adjustment

Ax47DC dome camera is specifically designed for Door Counting installations in commercial indoor environment. The camera installation must comply with installation requirements.

For best door counting accuracy the camera's tilt position is fixed at  $90^\circ$ . This ensures that the camera is always looking straight down for a most accurate door count.

Camera lens' pan and horizontal rotation position must be adjusted so as to achieve the required Field of View for Door Count installations (see Installation section for more information).

### Pan Adjustment

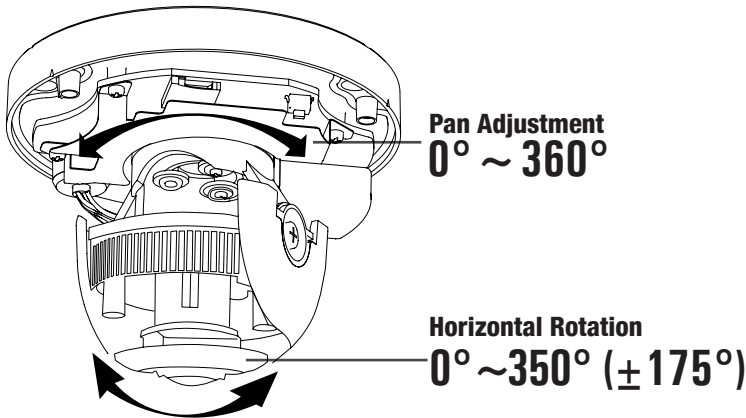
Rotate the lens base (max  $360^\circ$ ) until required Field of View is achieved.

**Note:** Over-rotation past  $360^\circ$  will cause internal cables to become damaged, disconnected, or twisted.

### Horizontal Rotation

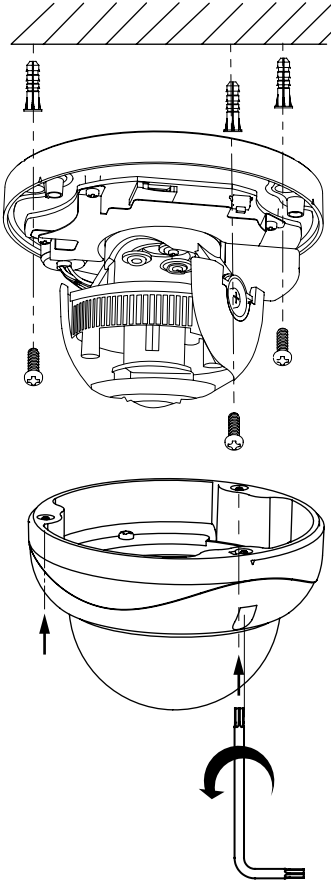
Firmly grasp the camera lens assembly and rotate counter-clockwise / clockwise (max  $350^\circ$ ) until required Field of View is achieved..

**Note:** Over-rotation past  $350^\circ$  will cause internal cables to become damaged, disconnected, or twisted.



## 5.5 Surface Mounting

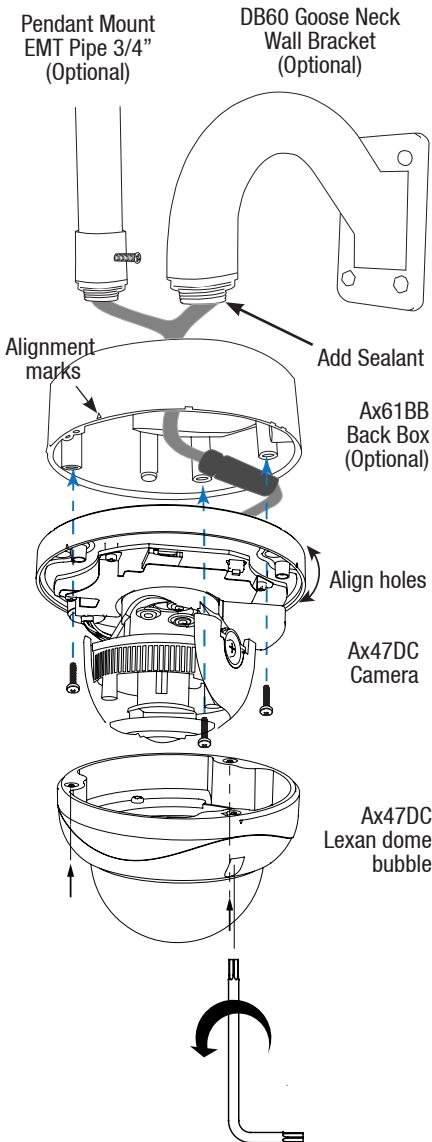
The camera installation must comply with installation requirements. *See section 5.1.*



1. Attach the supplied Drill Template to the mounting surface.
2. Drill 3 (three) 4.5 mm (0.2") holes at the marked template positions on the mounting surface.
3. Insert the supplied screw anchors into the holes on mounting surface.
4. Based on installation requirements, you may route the cable through the cut-out opening on the side of the camera's mounting base. In that case, no additional openings are required on the mounting surface. Alternatively, drill a 13mm (0.5") circular opening in the mounting surface, corresponding to the "Cable hole" of the drill template. *See section 5.3 for info.*
5. Disassemble the camera by removing the dome bubble. Use the provided security Torx key to loosen three silver screws securing the dome bubble to the camera's mounting base. Do not completely remove the screws from the bubble. Lift the dome bubble off and set aside.
6. Route the camera cabling according to installation requirements, then use a Phillips screwdriver to secure the camera module to the mounting surface with the provided mounting screws, if suitable.
7. Connect the wiring.
8. Adjust the lens angle by rotating and panning the camera lens base. Do not over-rotate the camera lens beyond the stop point to avoid damage to the camera. *See section 5.4 for info.*
9. Use the supplied Torx bit to re-tighten 3 silver screws securing the dome bubble housing to the camera module.

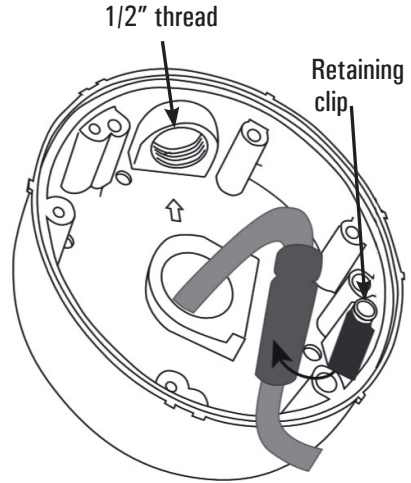
## 5.6 Mounting w/ Ax61BB Back Box (optional)

The Ax61BB is an optional extension back box for cable management and surface mounting. Ax61BB back box is also needed for pendant or horizontal wall mount installations (additional mounting accessories required). Ax61BB back box is compatible with i3's optional DB60 (Goose Neck Wall Bracket). EMT 3/4" Pipe can be used in combination with Ax61BB for pendant mounting.



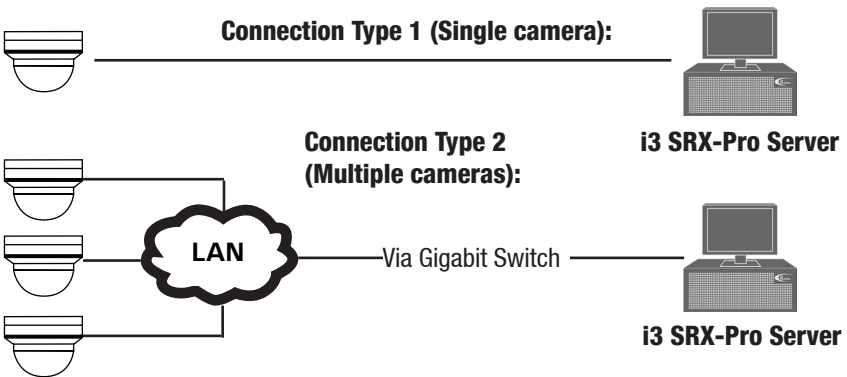
1. Install the Ax61BB for surface mount, pendant mount, or Horizontal wall mount as required.
2. When installing, position the 1/2" thread to the rear or, when surface mounting indoor - to the top.
3. If surface mounting, note that the Ax61BB back box has 6 (six) 90% pre-drilled hole locations. Complete drilling of at least two of these holes for a secure installation.
4. Place the connector in line with the center wall and rotate the retaining clip to prevent the connector from dropping out. This will aid when rotating the camera base housing to guide the cable and find the mounting holes. Mounting holes for the Ax47DC cameras are identified with a triangle on the lip of the Ax61BB back box.
5. Use the provided security Torx key to loosen three screws securing the Lexan (Dome) Bubble housing to the camera's mounting base. Do not completely remove the screws from the dome bubble. Lift the dome bubble off and set aside.
6. Secure the camera module to the Ax61BB back box with three screws (not provided with the camera).
7. Pull the camera cable through the opening in the Ax61BB housing. Feed the CAT5/6 cable through the supplied waterproof RJ45 connector assembly before crimping and plugging in.

8. Connect the wiring.
9. Adjust the lens angle by rotating and panning the camera lens base. Do not over-rotate the camera lens beyond the stop point to avoid damage to the camera. *See section 5.4 for info.*
10. Use the supplied Torx bit to re-tighten 3 silver screws securing the dome bubble housing to the camera module. Use the supplied Torx bit to re-tighten 3 silver screws securing the dome bubble housing to the camera module.



## 6. Connect Camera to SRX-Pro Server

Camera's default IP address is **192.0.0.16**.  
 Camera's default Subnet mask address is : **255.255.255.0**.  
 FW. ver. 5.0.0 | Login / PW: **admin / 1234**  
 FW. ver. 5.2.0, or higher | Login / PW: **i3admin / i3admin**





## 6.1 Hardware/Software Requirements

The following requirements must be met to achieve a successful network connection with the Ax47DC IP camera.

### SRX-Pro Server

- i3 SRX-Pro Version 3.3.3 or higher
- Latest GiPi adapter is installed. Latest i3 GiPi can be downloaded from: <http://i3international.com/software-downloads>.  
*Note:* SRX-Pro must be closed while GiPi updater is installed. After GiPi updater installation, re-start i3 SRX-Pro Server software again.
- Windows 7 Pro or 7e
- **Internet Explorer Version 8.0 or later, or latest-available Firefox**  
*IE8 and IE9 Limitations: No Logs setup page, no firmware update functionality (use Annexus Configuration Tool, IE v.10 or later or Firefox to update camera firmware).*
- CPU: Intel Pentium Core 2 or higher
- Memory: 1GB or more
- VGA card - supporting Direct X 9.0 or above

### Power Supply

Your camera requires PoE power supply. Use a RJ45 network connector to connect the camera to your computer or hub switch.

*Note: Camera damages resulted from improper power application are NOT covered by the camera warranty.*

### Switch

A Gigabit Switch is required to monitor two or more cameras from the same SRX-Pro Server.

## 6.2 Configuring IE for Video Display

Your Internet Explorer (IE) v.10.0 or higher must first be configured in order to properly display video stream from your Annexus camera.

Follow these instructions to configure your Internet Explorer browser.

### 1. Enable Cookies

- a) In Internet Explorer window, click **Tools > Internet Options**
- b) Open Privacy tab, move the slider to "**Low**" or "**Accept All Cookies**"
- c) Click **Apply**. Do not close the Internet Options window.

### 2. Adjust Internet Security Settings

- a) Open **Security** tab in the Internet Options window
- b) If the camera operates inside of the Intranet, click the **Local intranet** icon;  
If the camera operates outside of the Intranet, click the **Internet** icon.

- c) Click **Custom Level**. Security Settings - Internet Zone window will be displayed.
- d) Scroll down to the **ActiveX controls and plug-ins** radio buttons and configure as follows:
  - » Automatic prompting for ActiveX controls > **Enable**
  - » Download signed ActiveX controls > **Prompt** (recommended)
  - » Download unsigned ActiveX controls > **Prompt**
  - » Initialize and script ActiveX not marked as safe for scripting > **Prompt**
  - » Run ActiveX controls and plug-ins > **Enable**
  - » Script ActiveX controls marked safe for scripting > **Enable**
- e) Click **OK** to save the Internet Security Settings
- f) Close all Microsoft Internet Explorer Windows and open a new IE window. This will allow the new settings to take effect.

## 6.3 RTSP Stream Information


Camera's RTSP stream URL information is as follows:

Stream 1>> rtsp://192.0.0.16:554/stream1

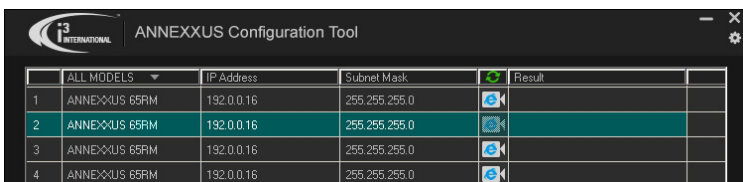
Stream 2>> rtsp://192.0.0.16:554/stream2

Stream 3>> rtsp://192.0.0.16:554/stream3

## 6.4 Changing Camera's Default IP

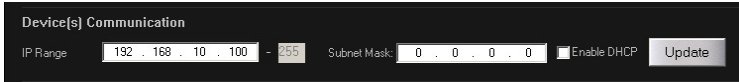
1. Close SRX-Pro Server software by pressing **Alt+Shift+Ctrl+F4**.
2. Record the original IP address settings of your Server's NIC (LAN) or NIC1 (if your SRX-Pro Server has two onboard NIC cards). Then, change the IP address of the onboard NIC (LAN) or NIC1 to 192.0.0.XXX to match the default IP range of your Annexus IP camera.
3. Connect your camera to i3 Server (*See connection diagrams above for more info*).
4. Connect your Annexus camera to i3 SRX-Pro Server (see diagram above).
5. Restart SRX-Pro Server software. Log in and go to the **Setup -> IP Camera** tab.
6. Click **ACT Config Tool** icon. 

If your NVR does not have Annexus Configuration Tool, download and install it from <http://i3international.com/software-downloads> website.
7. In ANNEXUS Configuration Tool window, a list of active network cameras will be displayed. Select your desired camera in the list.



	ALL MODELS ▾	IP Address	Subnet Mask	Result
1	ANNEXUS 65RM	192.0.0.16	255.255.255.0	
2	ANNEXUS 65RM	192.0.0.16	255.255.255.0	
3	ANNEXUS 65RM	192.0.0.16	255.255.255.0	
4	ANNEXUS 65RM	192.0.0.16	255.255.255.0	

- Enter the new IP address and Subnet Mask of the camera in the Device(s) Communication Update area and click **Update**. The new camera IP address must match the *original* range of your SRX-Pro LAN or NIC1 card. E.g. If your original SRX-Pro Server's IP address was 192.168.10.122, change your Annexus camera's IP address to 192.168.10.XXX.




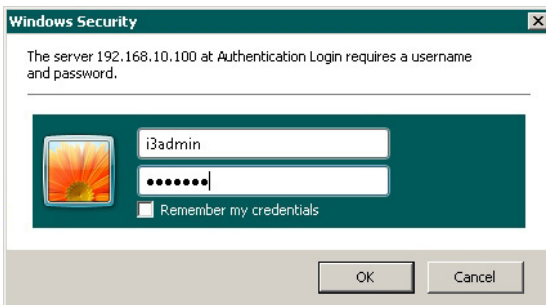
*Remember:* Annexus Cameras cannot share an IP address, each camera requires its own unique IP address.

- Click **Yes** in the confirmation window. Wait a few moments for a **“Success”** message in the Result field.
- Repeat Steps 7-9 for all detected Annexus cameras in the ACT OR Select multiple cameras (Ctrl + left-click) and enter IP range to assign IP addresses sequentially to the selected cameras.
- Change the IP address of the NIC/NIC1 back to its original setting (reverse Step 2).

## 6.5 Viewing Camera in IE browser

Once the IP address of the Annexus camera(s) has been changed, make sure you can connect to the camera(s) through Internet Explorer.

- Open an Internet browser window and enter the new IP Address you have just assigned to your Annexus camera in Step 7. Or click the IE icon in the ACT window next to your camera. 
- Enter the default camera User Name: **i3admin** and Password: **i3admin**.



- Annexus camera interface will be displayed in the Internet Explorer window.
- If you have not connected to an Annexus camera via IE before, you will see the following ActiveX download message.

Please download **ActiveX plug-in here**.  
 Please download VC++ 2008 Redistributable installation package [here](#).  
**When the plug-in has actually fully finished downloading,**  
**Please close all web browser windows and install the plug-in.**

**Note:** If you do not have VC++ 2008 Redistributable installed on your unit, you must do that first. Once VC++ 2008 has been downloaded and installed, click on the ActiveX plug-in link in the Download message.

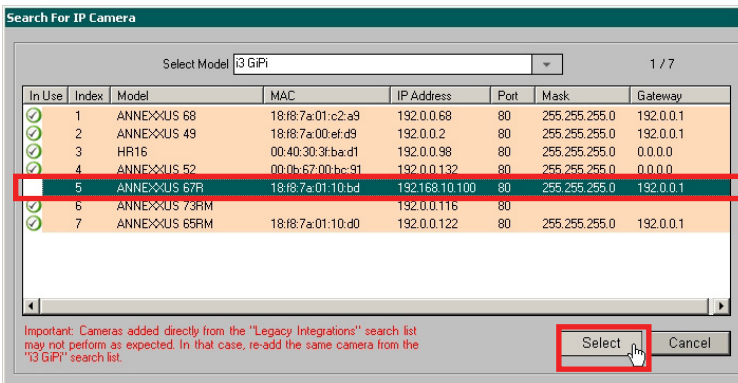
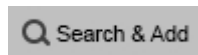
- Click **Run** or **Save** in the download confirmation message at the bottom of the screen.



- Launch the downloaded WebComponents.msi file, close your IE browser window and follow the installation instructions. Click **Finish** to close the final installation screen. This step must only be done once.
- Repeat Step 1 to launch Internet Explorer for your Annexus camera again. The camera's live video stream will now be seen in the Live View screen.  
If you do not see the camera image on the screen, call i3 International tech support for troubleshooting tips: 1.877.877.7241.

## 6.6 Adding Annexus Camera to SRX-Pro Server.

- Ensure that the latest version of GiPi updater is installed on your SRX-Pro Server. Latest GiPi available from <http://i3international.com/software-downloads>.  
*Note:* SRX-Pro must be closed while GiPi updater is installed. After GiPi updater installation, start i3 SRX-Pro Server software again.
- Log In and go to the **Setup -> IP Camera** tab.
- Click the **Search & Add** button to display connected Annexus cameras.
- Select the detected camera in the list and click **Select**.



- In the *Select IP Camera* window, enter the default camera User Name and Password, then click **Add**. Selected camera will be added to the IP Camera list.

- Assign the IP camera to the SRX-Pro video channel in the **Ch In.** column.

Camera	IP Address	Input	Resolution	FPS	PTZ	Ch In.	Name	Audio
HR16								
ANNEXXUS 73R...	192.0.0.116 (80)	1	2592x1944	12	NONE	10. Channel		<input checked="" type="checkbox"/>
ANNEXXUS 68								
ANNEXXUS 67R	192.168.10.100 (80)	1	2048x1536	3	NONE	1. Channel 1		<input type="checkbox"/>
ANNEXXUS 65RM	192.0.0.122 (80)	1	1920x1080	3	i3 GFi	1. Channel 1		<input type="checkbox"/>
ANNEXXUS 52	192.0.0.132 (80)	1	1920x1080	8	NONE	1. Channel 1		<input type="checkbox"/>
ANNEXXUS 49	192.0.0.2 (80)	1	720x480	8	NONE	1. Channel 1		<input type="checkbox"/>

- Click the **Save** button in the bottom right-hand corner to save settings. 

Your Annexus camera is now connected to SRX-Pro Server and is ready to record. You may change resolution and frame rate for the Annexus camera in the IP Camera tab menu or you may choose to configure the camera's settings via Web Setup. (See *Section 7.0 for more info*).



Remember to configure the video Channel's recording schedule under SRX-Pro Schedule tab.

## 6.7 Configuring Door Count in SRX-Pro

Before configuring Door Count feature, connect Ax47DC to SRX-Pro by following instructions in the side panel on the right.



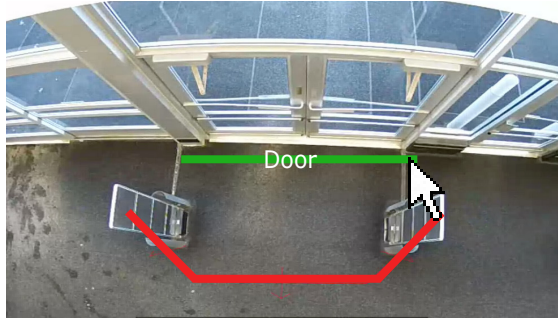
1. In SRX-Pro Server, click the Setup button and go to the VisionCount tab.
2. Select the Ax47DC camera in the Channel Selection menu.
3. Select **DoorCount** in the Analytic Type menu.

4. Check the **Enable** check box.
5. Click the DoorCount drawing tool and position your cursor over the one end of the entrance door in the preview window.



Channel Selection	1. Channel 1	▼
Analytic Type	DoorCount	▼
	<input checked="" type="checkbox"/> Enable	

6. Left-click and drag the mouse cursor to draw the green line in front of the door entrance. Release the mouse cursor. A three-segment red door count line will be drawn on the preview window



**Note:** If the count line is up-side-down, click the Flip tool.



The DoorCount line consists of 3 line segments that act as a “funnel” for foot traffic entering the premises. Door Count camera installation must meet all requirements listed in the installation section. Use the sample pictures as a guide for the correct installation and the correct Door Count line drawing.

7. Enter **Door Name** (optional) for your DoorCount line. If you have more than one Door Counting camera it may be useful to assign each with unique name for ease of identification.
8. Select **In, Out or In & Out** in Display Live menu to display counting data for foot traffic entering, exiting or both.
9. Configure **Active Time** (optional). You may use Active Time setting to count the customers entering during a specific shift only, for example. Otherwise use the default Active Time value to count all foot traffic.

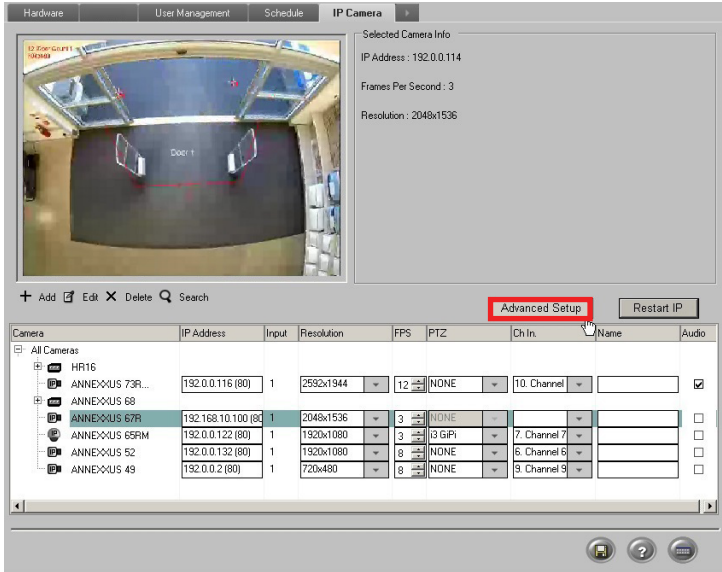
Door Name	NW Entrance
Display Live	In & Out
Active Time	00:00 ~~~ 00:00



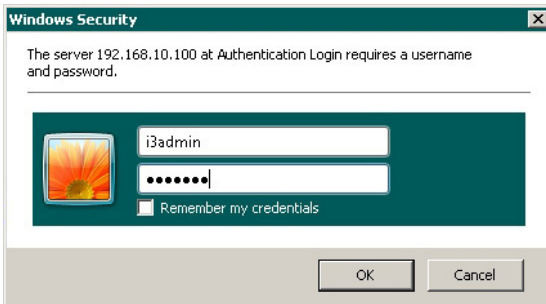
10. Click the **Save** button in the bottom right corner of the screen.

# 7. Advanced Camera Setup via IE

To access Annexus camera's advanced setup, go to Setup -> IP Camera tab, select the camera in the list of added IP cameras and click the **Advanced Setup** button or **Web Setup** (SRX-Pro v. 3.3.3.70 and above).



Enter the camera User Name and Password. (Default: **i3admin** / **i3admin**).

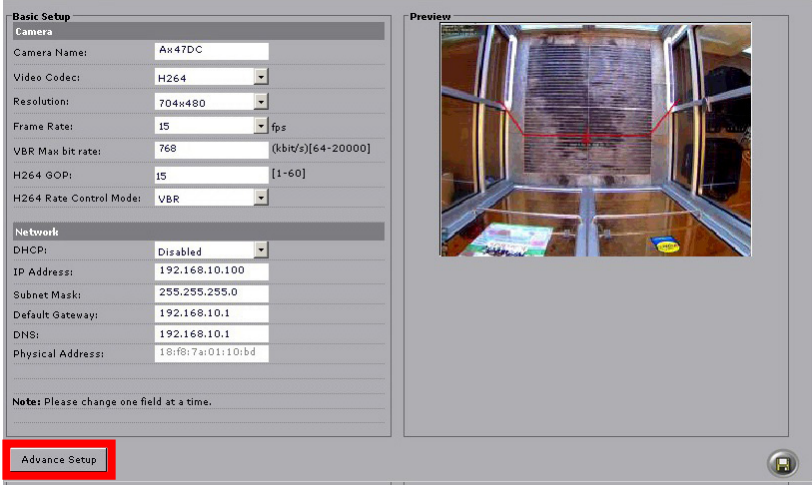


If you have not connected to an Annexus camera via IE before, *see Section 6.5 for more info.*

# 7.1 Basic Setup



Click the Setup button to access Annexus camera Setup features. You may switch to the Advanced Setup mode at any time by clicking the **Advance Setup** button in the bottom left-hand corner. To switch back to the Basic Setup, click the Basic Setup button. Basic Setup is divided into Camera and Network settings.



After making any setting adjustments, remember to click the **Save** button.



## Camera Settings (Primary Streaming only)

- **Camera Name:** Enter a descriptive name for your camera.
- **Video Codec:** Set MJPEG or H264. H264 is recommended for Door count purposes.
- **Resolution:** Set the primary stream resolution of the recorded video to: Quad VGA (1280×960), HD (1280×720), SVGA (800×600)
- **Frame Rate:** Set the frame rate to 15 for optimum Door Count purposes.
- **H264 GOP** (I-Frame Interval): Provide a value from 1-60. The default value will follow the Frame Rate. A value of 15 is recommended for accurate Door Count.
- **H264 Rate Control Mode:** (for H264 codec): VBR (Variable Bit Rate) or CBR (Constant Bit Rate).
  - » **VBR** (Variable Bit Rate) (recommended): This setting will produce a variable bit rate video stream, however the video quality will remain constant resulting in high quality video images. Network infrastructure must be able to provide the set bandwidth to account for bit rate variations.
  - » **CBR** (Constant Bit Rate): This setting will produce a constant bit rate video stream at the cost of video quality. The quality may deteriorate considerably. This setting is beneficial for installations with limited bandwidth.
- **VBR Max bit rate** (for H264 codec) / CBR bit rate: Set the video bit rate between to 768. The default value is dependent on the Resolution and Frame Rate.



## Network settings

- **DHCP:** Enable or Disable to have the network automatically assign an IP address to the camera.
- **IP Address:** Manually enter the camera's IP address here.  
This option will not be available when DHCP is enabled.
- **Subnet Mask:** Manually enter the camera's Subnet Mask here.  
This option will not be available when DHCP is enabled.
- **Default Gateway:** Provide the IP address of the network's router if necessary.  
Contact your network administrator for this information.  
This option will not be available when DHCP is enabled.
- **DNS:** Specify a DNS if necessary.  
Contact your network administrator for this information.
- **Physical Address:** This is the camera's unique MAC Address. It may not be changed.

## 7.2 Video Setup

Switch to the Advanced Setup by clicking the **Advance Setup** button on the bottom left-hand corner of the screen as shown on the previous page. The Setup screen will change to reveal multiple setup tabs. Video setup tab is displayed by default.

### Camera Settings

- **Camera Name:** Enter a descriptive name for your camera.
- **Mirror:** Flips the video image. The options for Mirror setting are:
  - » **Flip:** flip images upside-down.
  - » **Mirror:** flip images left to right.
  - » **Both:** flip the image upside-down AND from left to right.
  - » **Off:** Disables the Mirror feature
- **Corridor:** Set to **On** (enable) or **Off** (disable). When enabled, Corridor video format rotates video image for a vertically-oriented, "portrait" video stream. This format is meant for surveillance situations where the monitored area is more vertical than horizontal in shape. E.g. hallways, staircases, tunnels, etc. In these applications the sides of the typical landscape video format image often include unnecessary area, such as walls. This unneeded video data also leads to wasted bandwidth and storage space. Corridor video mode eliminates the unnecessary portions of the field of view in those installations.



## Triple Video Streaming

Annexus 47DC cameras support triple H264/MJPEG streaming, each stream can be configured separately:

- **Primary Streaming (Stream 1)** is used by SRX-Pro Server for video recording and live streaming in full-screen mode. Only Primary streaming supports maximum resolution of up to 1.3MP/3MP.
- **Secondary Streaming (Stream 2)** is used for Live Viewing, Remote Streaming (VPC, SRX-Pro Remote, SRX-Pro Web) and in split-screen display mode. Lower resolution settings are supported.
- **Third Streaming (Stream 3)** is disabled by default. And is not needed for Door count purposes.
- **Note:** After enabling/disabling a video stream, the camera must be manually restarted to apply changes. Otherwise, the stream changes will not be recognized by the SRX-Pro Server software.

## Stream 1 (Primary Streaming)

**Note:** Primary streaming is used by SRX-Pro Server software for video recording and live streaming in full-screen mode.

- **Video Codec:** Set the compression mode to MJPEG or H264.
- **Resolution:** Quad VGA (1280×960), HD (1280×720), SVGA (800×600)
- **Frame Rate:** Available frame rate settings: 1, 3, 7.5, 10, 15, 30 fps or choose Custom and enter preferred frame rate manually.

- **VBR Max bit rate / CBR bit rate** (for H264 codec): Set the video bit rate between 64-20000 kbit/s. The default value is dependent on the Resolution and Frame Rate.
- **H264 GOP** (I-Frame Interval): (for H264 codec): Provide a value from 1-60. The default value will automatically the Frame Rate.
- **H264 Rate Control Mode:** (for H264 codec): VBR (Variable Bit Rate) or CBR (Constant Bit Rate).
  - » **VBR** (Variable Bit Rate) (recommended): This setting will produce a variable bit rate video stream, however the video quality will remain constant resulting in high quality video images. Network infrastructure must be able to provide the set bandwidth to account for bit rate variations.
  - » **CBR** (Constant Bit Rate): This setting will produce a constant bit rate video stream at the cost of video quality. The quality may deteriorate considerably when motion is detected. This setting is beneficial for installations with limited bandwidth.
- **Quality** (for MJPEG codec): Set to video Low, Mid or High for MJPEG compression.

## Stream 2 (Secondary Streaming) / Stream 3 (Third Streaming)

**Note:** Secondary streaming is used for Live Viewing, Remote Streaming (VPC, SRX-Pro Remote, SRX-Pro Web) and in split-screen display mode. Third streaming is not recommended for Door Count purposes.

- **Video Codec:** Set the compression mode to MJPEG or H264.
- **Resolution: Resolution:** Set the resolution of the recorded video to: 800x600, 720x480, 360x240 (Stream 2) / 800x600, 704x480, 352x240 (Stream 3). To disable the stream, select **none**.  
Note: i3 Recommends keeping the default factory streaming settings. You may choose to enable Third stream (MJPEG) for camera edge recording.
- **Frame Rate:** Set the frame rate for the recording. (Same as Stream 1).
- **VBR Max bit rate** (for H264 codec) / CBR bit rate: (Same as Stream 1).
- **H264 GOP** (I-Frame Interval): (Same as Stream 1).
- **H264 Rate Control Mode:** (Same as Stream 1).
- **Quality** (for MJPEG codec): (Same as Stream 1).

## Advance Settings

- **White Balance:** Set White Balance mode to ATW (Auto Tracing White Balance), Auto or Manual.
  - » **Auto:** Automatically controls color temperature ranging from 2500°K to 10000°K
  - » **ATW** (Auto Tracing White Balance): continuously adjusts the camera color balance in accordance with any change in color temperature.
  - » **Manual:** Set R (Red) Gain and B (Blue) Gain values manually between 0 and 511, according to your preference.

## Video Adjustment

- **Brightness:** adjust the image brightness level, Values range from 0% to 100%.
- **Contrast:** adjust the image contrast level. Values range from 0% to 100%.
- **Saturation:** adjust the image saturation level. Values range from 0% to 100%.
- **Sharpness:** adjust the image sharpness level. Values range from 0 to 100.
- **Hue:** adjust the image hue. Values range from 0% to 100%.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



## 7.3 Motion Detection (edge)

Set the area for alarms and edge Motion recording. This setting is best suited for cameras installed indoors, in stable lighting conditions.

Day	Start Time	End Time
Monday	00 00	23 59
Tuesday	00 00	23 59
Wednesday	00 00	23 59
Thursday	00 00	23 59
Friday	00 00	23 59
Saturday	00 00	23 59
Sunday	00 00	23 59

**Note:**  
- Please enable at least 1 MJPEG codec stream for snapshot with SD Card and SMTP.  
- Please enable at least 1 H264 codec stream for recording video with SD Card.

**Note:** This Motion recording feature is not related to SRX-Pro Server and functions independently.

## Motion Setting

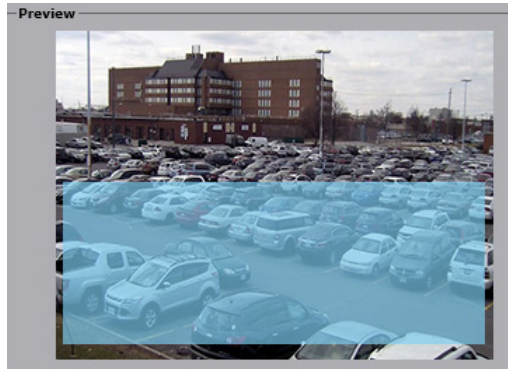
- **Object Size:** Set Object Size value between 0 and 100. The higher the number, the larger the object must appear in the camera's field of view to be detected as Motion. Note that lower value settings may cause false alarms. Test various Object Size settings to find the one that works best for your installation.

## Motion Zone Area Setting

- Set Enable Motion Detection to **On**.



- Draw the Motion Detection area in the Preview window. To draw, position your mouse cursor inside the Preview window, left-click and hold, then drag the cursor to draw a rectangular area over the preview screen. Release the mouse button when done. The new Motion Detection area will be shaded blue. Repeat to re-draw. Click **Apply** to save new area.



- The Motion Detection area can be re-positioned on the screen: hover the mouse cursor over the shaded area, left-click and hold, then drag the area to the new location on the preview window. To remove the detection area, click on the video image in the Preview window outside of the shaded zone.

- Configure arming schedule underneath the Preview window. Enable days of the week when motion detection will be active

	Day	Start Time		End Time	
<input checked="" type="checkbox"/>	Monday	00	00	23	59
<input checked="" type="checkbox"/>	Tuesday	00	00	23	59
<input checked="" type="checkbox"/>	Wednesday	00	00	23	59
<input checked="" type="checkbox"/>	Thursday	00	00	23	59
<input checked="" type="checkbox"/>	Friday	00	00	23	59
<input checked="" type="checkbox"/>	Saturday	00	00	23	59
<input checked="" type="checkbox"/>	Sunday	00	00	23	59

(enabled). Set the active time period for each enabled day by using the drop-down menus for **Start** and **End Times** to select the hours and minutes, respectively. By default, motion detection is set to stay active 24/7.

## Store to SD Card

Camera's Motion Detection can trigger edge snapshot and/or video clip recording to the micro SD card.



**Note:** This feature is subject to arming schedule.

To use this function, insert a formatted micro SD card into the camera's micro SD slot.

**Tip:** To check the status of the micro SD card, click on the SD Card tab.

- Snapshot:** Enable **Snapshot** check box to save a \*.jpg snapshot to the micro SD card each time motion is detected inside the motion detection area.

**Note:** Secondary or Third (recommended) stream in the Video tab must be set to

MJPEG codec to support this feature.

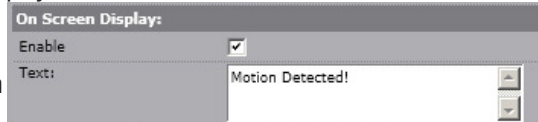
- **Record:** Enable **Record** check box to save an \*.mp4 video clip to the micro SD card each time motion is detected inside the motion detection area.  
**Note:** At least one video stream (Secondary or Third streaming is recommended for this purpose) in the Video tab must be set to H264 codec to support this feature.

## On Screen Display

**Note:** This feature is subject to arming schedule.

On Screen Display feature will display entered text on the video screen whenever motion is detected inside the drawn Motion detection area.

- **Enable:** Check to enable On Screen Display text when motion is detected by the camera.
- **Text:** Enter the text that will be displayed at the time of edge motion detection. The OSD text settings are configured under Communication setup tab (*See Section 6.8 for more information*).



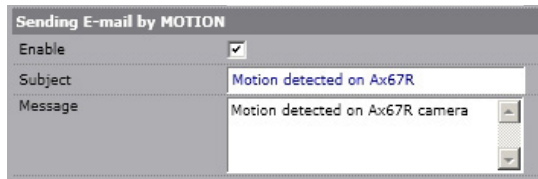
The screenshot shows a configuration window titled "On Screen Display:". It has two main sections. The first section is "Enable", which contains a checked checkbox. The second section is "Text:", which contains a text input field with the text "Motion Detected!". To the right of the text input field are two small square buttons, one above the other, likely for clearing or applying the text.

## Sending E-mail by MOTION

**Note:** This feature is subject to arming schedule.

The camera is capable of sending out notification emails with \*.jpg still image attachments to up to 3 recipients whenever motion is detected. SMTP and email information must be correctly configured in the Recording/Schedule tab and Secondary or Third (recommended) stream in the Video tab must be set to MJPEG codec to support this feature.

- **Enable:** Check to enable motion-triggered E-mail.
- **Subject:** Enter the E-mail subject.
- **Message:** Enter E-mail body message.



The screenshot shows a configuration window titled "Sending E-mail by MOTION". It has three main sections. The first section is "Enable", which contains a checked checkbox. The second section is "Subject", which contains a text input field with the text "Motion detected on Ax67R". The third section is "Message", which contains a text input field with the text "Motion detected on Ax67R camera". To the right of the "Message" text input field are two small square buttons, one above the other, likely for clearing or applying the message.

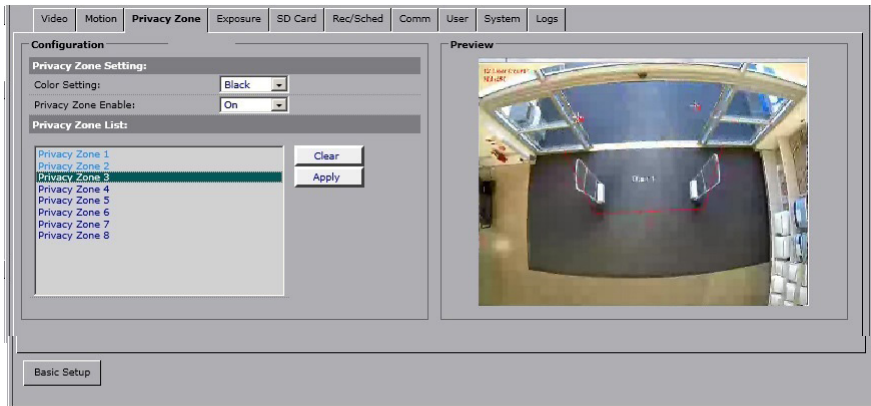
After making any setting adjustments, remember to click the **Save** button to save any changes made.



## 7.4 Privacy Zone (edge)

In the Privacy Zone setup tab, select an area that needs to be blocked off with a rectangle on Live View and from video recording because of privacy or other concerns. Up to 8 separate Privacy Zones can be configured.

**Note:** Camera's privacy zone feature is not related to SRX-Pro Server VideoPrivacy feature and functions independently.



### Privacy Zone Setting

- **Color Setting:** Select the Privacy Zone area color from Black, Grey and White options. The same solid color will be applied to all Privacy Zones drawn on the screen.
- **Privacy Zone Enable:** Set to **On** to enable, or **Off** to disable.

### Privacy Zone List

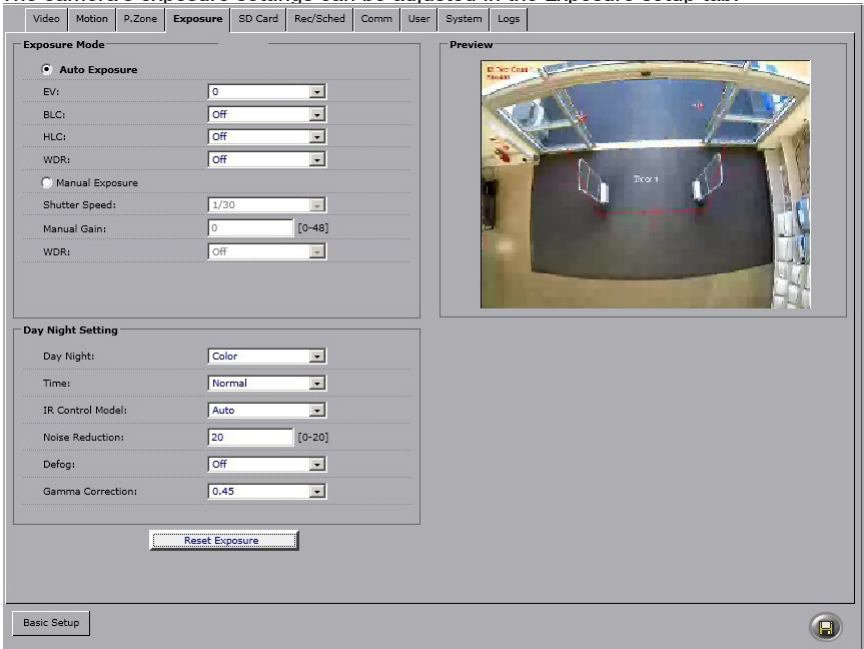
Privacy Zone List contains 8 place-holder entries for up to 8 custom Privacy Zones. To create a new privacy zone,

1. Click on the placeholder Privacy Zone name in the Privacy Zone List.  
E.g. **Privacy Zone 1**.
2. Position your mouse cursor over the Preview window, press and hold left mouse button.
3. Drag the cursor to draw a rectangular area to conceal a portion of the image.
4. Release the mouse button. The privacy area rectangle will be shaded blue.
5. To re-position the privacy zone, hover the mouse cursor over the shaded area, left-click and hold, then drag the area to the new location on the preview window. To re-draw the privacy zone area, click on the video image in the Preview window outside of the shaded zone and repeat Steps 2-4.
6. Click **Apply** to save the new privacy zone. Saved privacy zone area will be filled with the solid color selected in the Color Setting.
7. To remove a saved privacy zone area, click on the Privacy Zone name in the list and click **Clear**.



# 7.5 Exposure

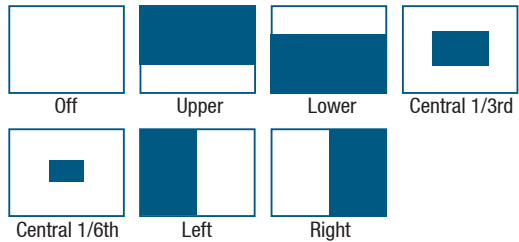
The camera's exposure settings can be adjusted in the Exposure setup tab.



## Exposure Mode > Auto Exposure

**Note:** All Auto Exposure settings are disabled when Manual Exposure is enabled.

- **EV:** Set the Exposure Compensation value from -2 to 2, where -2 results in the darkest image and 2 - in the lightest image.
- **BLC:** Set an area for Backlight Compensation from the 6 available options: Upper, Lower, Central 1/3rd, Central 1/6th, Left, or Right. Set to **Off** to disable BLC feature. BLC feature optimizes exposure in the foreground and background of the video image through digital signal processing. BLC splits the video scene into different regions, and uses a different exposure for each of these regions. BLC corrects regions with extremely high or low levels of light to maintain a normal and usable level of light for the object in focus. The diagram is an approximate representation of the selected areas.
- **HLC:** Set the Highlight Compensation feature to **On** or **Off**.



HLC feature senses strong sources of light in video (headlights, spotlights) and



compensates for exposure in these spots to enhance overall video quality. This feature is especially helpful in preventing blinding of security cameras at night time from headlights and is widely used for nighttime license plate readability (car speed <5mph).

- **WDR:** Set the Digital Wide Dynamic Range to **High, Medium, Low** or **Off**. Digital Wide Dynamic Range uses digital image manipulation to prevent direct bright light from washing out the video image. This feature is especially useful in indoor installations, where the camera's field of view includes an entryway or a window, which lets in a lot of natural light. Digital WDR feature is able to normalize the exposure for the underexposed object in focus inside and overexposed background outside.

## Exposure Mode > Manual Exposure

**Note:** All Manual Exposure settings are disabled when Auto Exposure is enabled.

- **Shutter Speed:** Set camera shutter speed between 1/30s to 1/10000s. This setting is useful for scenes with fast-moving objects or with a lot of movement in the scene. Higher shutter speeds make individual frames appear sharper and minimize motion blur, at the same time, however, movement can appear more jerky.
- **Manual Gain:** Set Manual Gain value between 0 and 48. Gain is an electronic amplification of the video signal, where signal is boosted electronically, adding more voltage to the pixels on the camera's CMOS chip. Higher manual gain values will result in brighter image.
- **WDR:** Set the Digital Wide Dynamic Range to High, Medium, Low or Off. See Auto Exposure > WDR description for more information.

## Day Night Setting

- **Day Night:** Set the Day Night setting to Auto, Color or BW. Color setting forces the camera to permanently stay in the Color mode, regardless of the amount of light in the scene. BW setting forces the camera into BW mode permanently. Auto mode lets the camera switch between Color and BW modes automatically, based on the amount of light.
- **Time:** Set the Time value to Slow, Normal or Fast. Time value is the time delay for Auto Day/Night mode switching. This setting is used in conjunction with the Day Night setting and is unavailable when Manual Exposure is enabled.
- **IR Control Mode:** Set to **On, Off** or **Auto**. Auto mode turns the IR LED On or Off based on the amount of available present. On/Off settings allow turning the IR LEDs permanently ON or OFF.
- **Noise Reduction:** Set Noise Reduction value between 0 and 20. The higher the value, the more digital noise is removed from the image.
- **Defog:** Digital Defog function uses built-in video processing algorithm to improve video appearance in foggy conditions.
- **Gamma Correction:** Set Gamma Correction to 0.45 or 1.
- **Reset Exposure:** Reset Exposure settings to factory defaults.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



## 7.6 SD Card (edge recording)

Your Ax47DC camera supports edge video recording to a micro SD card for the purposes of data redundancy. One micro SD card (64GB max) is supported (not supplied with the camera).

**Note:** Camera's edge video recording is not related to SRX-Pro Server video recording and functions independently.

Plug your micro SD card into the slot on your Ax47DC camera. To access micro SD slot, camera's Lexan dome bubble must be removed first.

Once the micro SD card is recognized by the camera, the micro SD image will be displayed on the camera's main panel.



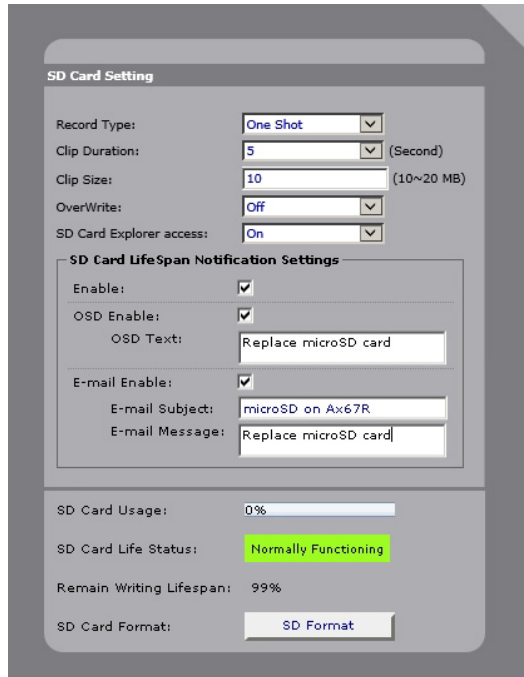
At least one video stream must be set to MJPEG codec in the Video tab to record \*.jpg snapshots to micro SD card.

At least one video stream must be set to H264 codec in the Video tab to record \*.mp4 video clips to micro SD card.

Inside the camera's SD Card setup tab, user can configure a type of edge video recording, clip size and overwrite mode status. This tab also includes the micro SD card performance information.

### SD Card Setting

- **Record Type:** Set to **One Shot**, **Continuous** or **Backup**.
  - » **One Shot:** This recording type will record 5- or 10-second \*.mp4 video clips after the event starts (e.g. Motion detected, Tamper event detected). Note that the recording may end before the event is finished. At least one stream must be set to H264 codec in the Video tab.



- » **Continuous:** This recording type will start recording after the event starts (e.g. Motion detected, Tamper event detected) and will continue recording until the event has finished. This recording type can also be combined with Scheduled recording (Recording/Schedule tab). Primary or Secondary stream must be set to H264 codec in the Video tab.

- » **Backup:** Same as Continuous recording type, however Third stream is used for recording. Third stream must be enabled and set to H264 codec in the Video tab.

Record Type:	One Shot	(Dropdown)
Clip Duration:	5	(Second)
Clip Size:	10	(10~20 MB)
OverWrite:	Off	(Dropdown)
SD Card Explorer access:	On	(Dropdown)

- **Clip Duration:** (applies to One Shot recording type *only*) Set to 5 or 10 seconds.
- **Clip Size:** Set between 10 and 20 Mb. Clip Size value ensures that any single \*.mp4 video clip size does not exceed the set limit.
- **OverWrite:** Set the OverWrite mode to **On** or **Off**. When enabled, the information on the micro SD card will be overwritten based on FIFO principle.
- **SD Card Explorer access:** When set to **On**, the video clips and snapshots on the micro SD can be accessed through the Explorer using the following link: **ftp://CAMERA\_IP\_ADDRESS/ipcam**. (E.g. ftp://192.168.10.100/ipcam). Login credentials are required.

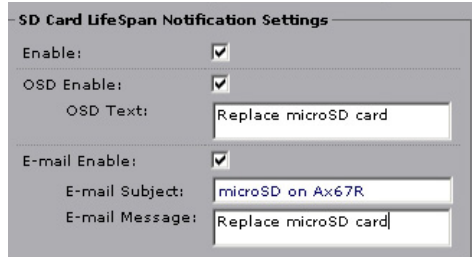
## SD Card Status

- **SD Card Usage:** This percentage value is calculated as micro SD Free Space / micro SD Total capacity \* 100%.
- **SD Card Life Status:** micro SD LifeSpan is the maximum number of overwrite cycles, as defined by the micro SD card manufacturer. Note that not all micro SD manufacturers support LifeSpan notification functionality. If your micro SD card does not support this feature, SD Card Life Status will say “Lifetime Notification Unsupported”. micro SD cards that do support Life Status notification, may say “Normally Functioning”, “Replacement Recommended” or “Has Reached its Lifetime” to indicate the health of the micro SD media.
- **Remain Writing Lifespan:** Remaining writing lifespan is calculated based on the card’s maximum supported number of overwrite cycles, as defined by the manufacturer. It is represented as a percentage value. Lower values indicate shorter remaining lifespan and can also be used as an indicator for micro SD replacement.
- **SD Card Format:** Click to format the micro SD card. Click **OK** in a confirmation window to proceed.

SD Card Usage:	0%
SD Card Life Status:	Normally Functioning
Remain Writing Lifespan:	99%
SD Card Format:	SD Format

## SD Card LifeSpan Notification Setting

- **Enable:** Check to enable micro SD card health notifications. Note that not all card manufacturers support this functionality.
- **OSD Enable:** Check to enable On Screen Display text for micro SD card health notification.
- **OSD Text:** Enter the On Screen Display custom text for micro SD card health notification.
- **E-mail Enable:** Check to enable an E-mail to be sent out for micro SD card health notification. SMTP and email information must be correctly configured in the Recording/Schedule tab.
- **E-mail Subject:** Enter the E-mail subject.
- **E-mail Message:** Enter E-mail body message.



The screenshot shows a dialog box titled "SD Card LifeSpan Notification Settings". It contains the following fields and controls:

- Enable:** A checkbox that is checked.
- OSD Enable:** A checkbox that is checked.
- OSD Text:** A text input field containing the text "Replace microSD card".
- E-mail Enable:** A checkbox that is checked.
- E-mail Subject:** A text input field containing the text "microSD on Ax67R".
- E-mail Message:** A text input field containing the text "Replace microSD card".

After making any setting adjustments, remember to click the **Save** button to save any changes made.



## 7.7 Recording/Schedule (edge)

In Recording/Schedule tab, the user can configure a number of actions in response to detected camera events. The following events are supported and can be configured in this setup tab: Defocus and Tamper. Scheduled events can also be configured. Active (arming) schedule can be enabled for all events.

The following actions are supported for select events: snapshot or video clip recording to the micro SD card, On-screen Display and Email.

**Note:** All camera events configured in this setup tab and all linked actions are not related to SRX-Pro Server event detection or video recording and function independently.

Day	Start Time	End Time
<input checked="" type="checkbox"/> Monday	00   00	23   59
<input checked="" type="checkbox"/> Tuesday	00   00	23   59
<input checked="" type="checkbox"/> Wednesday	00   00	23   59
<input checked="" type="checkbox"/> Thursday	00   00	23   59
<input checked="" type="checkbox"/> Friday	00   00	23   59
<input checked="" type="checkbox"/> Saturday	00   00	23   59
<input checked="" type="checkbox"/> Sunday	00   00	23   59

**To enable supported event detection and resulting camera actions, the following conditions must be met:**

- Micro SD card (not supplied) must be inserted into the micro SD slot on the camera.
- Email SMTP settings are required for all Email actions and must be configured in this tab.
- At least one H264 stream must be enabled in the Video tab for video recording.
- At least one MJPEG stream must be enabled for snapshot email or micro SD recording.

### SMTP Server

- **SMTP Server:** Enter your SMTP Server address.
- **Login ID:** Enter your SMTP email login
- **Password:** Enter your SMTP email password
- **Sender Email Address:** Enter the email address where the camera emails will be addressed from.
- **Port:** Enter your SMTP Port number
- **Authentication:** Select your SMTP Server authentication method from NO AUTH, SMTP PLAIN, LOGIN and TLS-TTLS.

- **Attach Image:** This setting controls whether \*.jpg snapshots are allowed to be attached to the outbound emails. Set to **On** or **Off**.

## Email Address List

Configure up to three unique email recipients. Enable the email entry by checking the Enable checkboxes for the corresponding email address lines, then enter the recipient's email address in the Address column.

## Arming Schedule Setting > SCHEDULE

Schedule event tab can be configured to trigger a video clip or snapshot recording to micro SD card based on the preset Trigger Interval. Audio output can also be enabled based on the same Schedule. On-screen display and email notifications are available.

**Note:** All linked actions configured in this setup tab are subject to arming schedule.

- **Enable:** Check to Enable custom recording schedule.
- **Trigger Interval:** Set to 1 to 3600 seconds (1 hour). This setting determines the frequency for Snapshot or Video clip recording, in conjunction with the custom arming schedule.

### Store to SD Card:

- **Snapshot:** Check to save a \*.jpg snapshot to the micro SD after each Trigger Interval.
- **Record:** Check to save a \*.mp4 video clip to the micro SD after each Trigger Interval.

### Condition Settings for Sending E-mail by SCHEDULE:

**Note:** SMTP settings must be configured for this feature.

- **Enable:** Check to Enable scheduled E-mail after each Trigger Interval.

Snapshot image will be added to the email. Note that at least one MJPEG stream must be enabled for this function in Video setup tab.

- **Subject:** Enter the E-mail subject.
- **Message:** Enter E-mail body message.

### Schedule:

- Configure arming schedule. Enable days of the week when scheduled recording will be active (enabled). Set the active time period for each enabled day by using the drop-down menus for **Start** and **End Times** to select the hours and minutes, respectively. By default, Schedule arming schedule is set to stay active 24/7.

	Day	Start Time	End Time
<input checked="" type="checkbox"/>	Monday	00   00	23   59
<input checked="" type="checkbox"/>	Tuesday	00   00	23   59
<input checked="" type="checkbox"/>	Wednesday	00   00	23   59
<input checked="" type="checkbox"/>	Thursday	00   00	23   59
<input checked="" type="checkbox"/>	Friday	00   00	23   59
<input checked="" type="checkbox"/>	Saturday	00   00	23   59
<input checked="" type="checkbox"/>	Sunday	00   00	23   59

## Arming Schedule Setting > DEFOCUS

Defocus compares the sharpness of consecutive video frames.

Defocus events can trigger a video clip or snapshot recording to the micro SD card. On-screen display and email notifications are also available.

**Note:** All linked actions configured in this setup tab are subject to arming schedule.

- **Enable:** Check to Enable Defocus.

### Store to SD Card:

- **Snapshot:** Check to save a \*.jpg snapshot to the micro SD after each Defocus event.
- **Record:** Check to save a \*.mp4 video clip to the micro SD after each Defocus event.

### On Screen Display:

On Screen Display feature will display entered text on the video screen whenever Defocus event is detected.

- **Enable:** Check to enable On Screen Display text when Defocus event is detected by the camera.
- **Text:** Enter the text that will be displayed at the time of Defocus event detection. The OSD text settings are configured under Communication setup tab (*See Section 6.10 for more information*).

### Condition Settings for Sending E-mail by DEFOCUS:

**Note:** SMTP settings must be configured for this feature.

- **Enable:** Check to Enable scheduled E-mail after each Defocus Event. Snapshot image will be added to the email. Note that at least one MJPEG stream must be enabled for this function in Video setup tab.
- **Subject:** Enter the E-mail subject.
- **Message:** Enter E-mail body message.

### Schedule:

- Configure arming schedule for Defocus events. Enable days of the week when Defocus event detection will be active (enabled). Set the active time period for each enabled day by using the drop-down menus for **Start** and **End Times** to select the hours and minutes, respectively. By default, Defocus event detection is set to stay active 24/7.

	Day	Start Time	End Time
<input checked="" type="checkbox"/>	Monday	00 00	23 59
<input checked="" type="checkbox"/>	Tuesday	00 00	23 59
<input checked="" type="checkbox"/>	Wednesday	00 00	23 59
<input checked="" type="checkbox"/>	Thursday	00 00	23 59
<input checked="" type="checkbox"/>	Friday	00 00	23 59
<input checked="" type="checkbox"/>	Saturday	00 00	23 59
<input checked="" type="checkbox"/>	Sunday	00 00	23 59

## Arming Schedule Setting > TAMPER

Tamper event arming lets the user configure a custom schedule for video clip or snapshot recording to the micro SD card based on Tamper events. On-screen display and email notifications are also available.

Tamper compares total amount of change between two consecutive video frames. Where the amount of change is very large, the camera assumes that the normal camera view has been purposefully obstructed, tampered with.

**Note:** All linked actions configured in this setup tab are subject to arming schedule.

- **Enable:** Check to Enable Tamper event.

### Store to SD Card:

- **Snapshot:** Check to save a \*.jpg snapshot to the micro SD after each Tamper event.
- **Record:** Check to save a \*.mp4 video clip to the micro SD after each Tamper event

### On Screen Display:

On Screen Display feature will display entered text on the video screen whenever Tamper event is detected.

- **Enable:** Check to enable On Screen Display text when Tamper event is detected by the camera.
- **Text:** Enter the text that will be displayed at the time of Tamper event detection. The OSD text settings are configured under Communication setup tab (*See Section 6.10 for more information*).

### Condition Settings for Sending E-mail by TAMPER:

**Note:** SMTP settings must be configured for this feature.

- **Enable:** Check to Enable scheduled E-mail after each Tamper Event. Snapshot image will be added to the email. Note that at least one MJPEG stream must be enabled for this function in Video setup tab.
- **Subject:** Enter the E-mail subject.
- **Message:** Enter E-mail body message.

### Schedule:

- Configure arming schedule for Tamper events. Enable days of the week when tamper event detection will be active (enabled). Set the active time period for each enabled day by using the drop-down menus for **Start** and **End Times** to select the hours and minutes, respectively. By default, Tamper event detection is set to stay active 24/7.

	Day	Start Time		End Time	
<input checked="" type="checkbox"/>	Monday	00	00	23	59
<input checked="" type="checkbox"/>	Tuesday	00	00	23	59
<input checked="" type="checkbox"/>	Wednesday	00	00	23	59
<input checked="" type="checkbox"/>	Thursday	00	00	23	59
<input checked="" type="checkbox"/>	Friday	00	00	23	59
<input checked="" type="checkbox"/>	Saturday	00	00	23	59
<input checked="" type="checkbox"/>	Sunday	00	00	23	59

After making any setting adjustments, remember to click the **Save** button to save any changes made.





## 7.8 Communication Setup

The Communication tab is used to configure network and communication settings on the camera as well as camera OSD settings.

*Note: Do not configure SNMP settings in this tab as these are reserved for development and advanced troubleshooting by the manufacturer only and are not required for normal functioning of this camera*

### Network Settings

- **DHCP:** Set to **Enabled** or **Disabled** to have the network automatically assign an IP address to the camera.
- **IP Address:** Enter the camera's IP address here. This option is disabled when DHCP is enabled.
- **Subnet Mask:** Enter the camera's Subnet Mask here. This option is disabled when DHCP is enabled.
- **Default Gateway:** Enter the IP address of the network's router if necessary. Contact your network administrator for this information. This option is disabled when DHCP is enabled.
- **DNS:** Enter a DNS IP Address if necessary.
- **HTTP Port:** Enter a HTTP Port number if necessary.
- **Physical Address:** This field displays camera's MAC Address.

Network Settings	
DHCP:	Disabled <input type="button" value="v"/>
IP Address:	192.168.11.135
Subnet Mask:	255.255.254.0
Default Gateway:	192.168.10.1
DNS:	192.168.10.1
HTTP Port:	80 {80,[1025-65535]}
Physical Address:	18:f8:7a:01:10:bd

RTSP Settings	
Authentication:	Disabled <input type="button" value="v"/>

UPnP Settings	
UPnP:	On <input type="button" value="v"/>

OSD Settings	
<b>Basic Setting</b>	
OSD Camera Name:	Off <input type="button" value="v"/>
OSD Date Time:	Off <input type="button" value="v"/>
<b>Event Setting</b>	
Background Color	Black <input type="button" value="v"/>
Text Color	White <input type="button" value="v"/>
Location X	1 (1~10)
Location Y	10 (1~10)

### RTSP Settings

- **Authentication:** Enable to allow users to get the video stream using third party players, such as VLC with the help or RTSP protocol.

### UPnP Settings

- **UPnP:** Set to **On** to enable or **Off** to disable.

### OSD Settings

- **Basic Settings:** Enable or disable camera's OSD settings.
  - » **OSD Camera Name:** Turn Camera Name OSD **On** or **Off**. Camera Name is configured in the Video setup tab.
  - » **OSD Date Time:** Turn Camera Date/Time OSD **On** or **Off**. Camera date/time settings are configured in the System setup tab.

- **Event Settings:** Configure camera's event OSD settings. These settings apply to motion, Defocus, and tamper events as well as and micro SD card notification OSD.
  - » **Background Color:** Set the on-screen text background color to **Transparent** or **Black**.
  - » **Text Color:** Set the on-screen text color to **Black** or **White**. It is not recommended to set both Background and Text colors to Black.
  - » **Location X:** Set the horizontal position of the OSD on the screen between 1 and 10, where 1 represents the left-hand corner of the screen, 5 - the middle, and 10 - the right-hand corner of the screen.
  - » **Location Y:** Set the vertical position of the OSD on the screen between 1 and 10, where 1 represents the top of the screen, 5 - the middle, and 10 - the bottom of the screen.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



## 7.9 User Management

User Management tab displays the list of users that have access to the camera. Username and password from this setup tab are used when connecting to the camera through the supported Internet browser or SRX-Pro Server.

Three types of user permissions exist: **Administrator**, **Operator** and **Viewer**.

Administrator users have access to the camera's setup settings and user administration, Operator users have access to the camera's settings, but no user administration options, while Viewer may only view camera's live streams. Each camera has one master Administrator user (i3admin); four additional users can be created and assigned either Operator or Viewer privileges.

**Note:** The master Administrator account may not be deleted, however administrative user name and password can be changed.

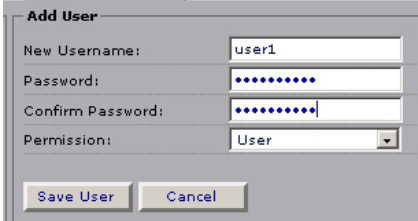
**Reminder:** Whenever a change is made to the Annexus camera user in the camera's Advanced Setup > User Management tab, remember to update this information in the IP Setup tab of the SRX-Pro Server.

Video	Motion	P.Zone	Exposure	SD Card	Rec/Sched	Comm	<b>User Management</b>	System	Logs
<b>User List</b>							<b>Modify User</b>		
<div style="border: 1px solid black; padding: 5px;">           i3admin         </div>							<input type="button" value="Add User"/>		
							<input type="button" value="Delete User"/>		
<b>Note:</b> - Maximum of 5 users. - The default user can not be deleted.							Current Username: <input type="text" value="i3admin"/> New Username: <input type="text" value="i3admin"/> Password: <input type="password" value="*****"/> Confirm Password: <input type="password" value="*****"/> Permission: <input type="text" value="Administrator"/> <input type="button" value="Update"/>		

## Adding a User

To add a new user,

1. Click **Add User** button.
2. Enter **New Username**
3. Enter new user **Password**
4. Re-enter password in the **Confirm Password** field.
5. Set user **Permission** to User or Operator.
6. Click **Save User** button. The new user will be added to the user list on the left.



## Deleting a User

To delete an existing User or Operator,

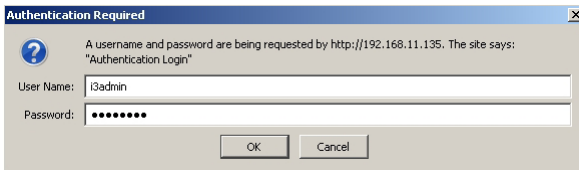
1. Click on the user name in the list.
2. Click **Delete User** button.
3. Click **OK** in the confirmation message. The user will be removed from the list.

## Changing Username, Password or Permission

**Note:** After changing user credentials, do not forget to update SRX-Pro camera connection information in the IP Camera setup tab.

To update an existing username, password, or user permission,

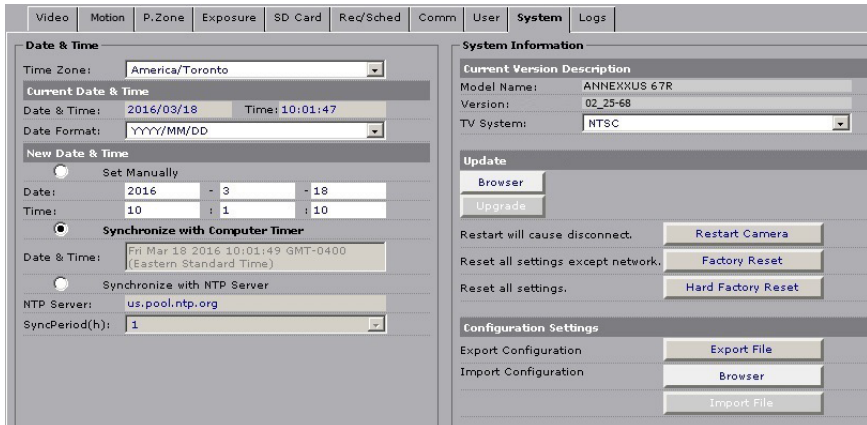
1. Click on the user name in the list.
2. In the Modify User setup area, enter **New Username** and/or **Password** and **Confirm Password**, or adjust **Permission** (not available for the Administrator account).
3. Click **Update** button. If changing administrative password, you will be asked to log in with the new administrative credentials. Enter updated administrative login/password and click **OK**.



4. Click **OK** in the confirmation message. The new user settings are now saved.

# 7.10 System Setup

System Setup tab this section allows adjusting changing camera's TV System to NTSC or PAL, adjusting camera's date/time settings, updating the camera's firmware, restarting the camera, and exporting/importing/resetting camera settings.



## Date & Time

- **Time Zone:** Set your Time Zone to automatically adjust your camera to Daylight Savings Time.
- **Current Date & Time:** This section shows camera's current date and time. Set your camera's Date format. Default date format is set to YYYY/MM/DD
- **New Date & Time:** Select a method of updating your camera's date and time. Click the **Save** button to apply the new Date and Time.
  - » **Set Manually.** Manually enter the new Date and Time. Date format is YYYY/MM/DD, time format is HH:MM:SS.
  - » **Synchronize with Computer Time.** This option synchronizes camera date and time to the PC you are currently connecting to the camera from.
  - » **Synchronize with NTP Server.** Enter the NTP Server address and set the Sync Period in hours. Sync frequency can be set to every 1, 6, 12 or 24 hours.

## Current Version Description:

This section contains information on the Camera's Model Name and Firmware version. Camera's TV System can be set to NTSC or PAL from the drop-down menu.

## Restart/Reset

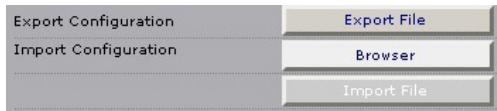
**Reminder:** Default IP address is **192.0.0.16**, default Subnet: **255.255.255.0**.  
Default Username/Password are **i3admin / i3admin**

- Click **Restart Camera** to restart your Annexus-series camera and click **OK** in the pop-up confirmation window. This will cause a temporary disconnect, no video will be recorded while the camera is restarting but all custom settings will be saved. Camera restart is required after the firmware update.
- Click **Factory Reset** to return all settings, except for the IP Address to factory defaults. Click **OK** in the pop-up confirmation window to proceed.
- Click **Hard Factory Reset** to return all camera settings, including IP Address, to factory defaults. Click **OK** in the pop-up confirmation window to proceed.



## Export Configuration

- Click **Export File** to export your camera's custom settings. If you have multiple cameras of the same model and you would like to apply a set of custom settings to each one, exporting the configuration file may save time.
- Click **Browser** to locate a (\*.tar.gz) configuration file to apply new settings to your camera and click **Import File**.



After making any setting adjustments, remember to click the **Save** button to save any changes made.



# 7.11 Logs

**Note:** Logs setup page is not available in IE v8 and IE v9. Use IE v10 or higher, or Firefox.

Camera Logs tab allows searching for event occurrence by date, time and event type. Logs facilitate faster video search by helping the user determine the time of the event with greater precision.

Log events are created for Motion, Defocus and Tamper events as well as for each Scheduled recording occurrence.

## Searching by Event Type

To filter the Log Event List, check off one or more **Event Type:** Motion, Defocus, Tamper or Schedule.

## Searching by Date/Time

To filter by Time, select **All the time** or **Manual** radio button.

When searching within a specific time frame, click inside the **Start Time** field.

Configure the Start Date and Time in the pop-up window and click **Set**. Repeat for **End Time** and click **Search**. Only matching log entries will be displayed.

When searching for more than one event type, pie chart report will show a visual representation of the number of each event type within the set time frame.

The screenshot displays the 'Basic Setting' interface for camera logs. At the top, there are navigation tabs: Video, Motion, P.Zone, Exposure, SD Card, Rec/Sched, Comm, User, System, and Logs. The 'Event List' table contains the following data:

No.	Event Type	Start Time	End Time
2	Motion	2016/03/17 13:08:47	2016/03/17 13:08:49
3	Motion	2016/03/17 13:09:06	2016/03/17 13:09:08
4	Motion	2016/03/17 13:09:12	2016/03/17 13:09:14
5	Motion	2016/03/17 13:09:16	2016/03/17 13:09:18
6	Motion	2016/03/17 13:09:35	2016/03/17 13:09:37
7	Motion	2016/03/17 13:09:37	2016/03/17 13:09:39
8	Motion	2016/03/17 13:09:41	2016/03/17 13:09:43
9	Motion	2016/03/17 13:09:48	2016/03/17 13:09:50
10	Motion	2016/03/17 13:09:50	2016/03/17 13:09:52
11	Motion	2016/03/17 13:09:59	2016/03/17 13:10:01
12	Motion	2016/03/17 13:10:01	2016/03/17 13:10:03
13	Tamper	2016/03/17 13:08:49	2016/03/17 13:08:50
14	Tamper	2016/03/17 13:09:06	2016/03/17 13:09:08
15	Tamper	2016/03/17 13:09:13	2016/03/17 13:09:19
16	Tamper	2016/03/17 13:09:31	2016/03/17 13:09:32
17	Tamper	2016/03/17 13:09:35	2016/03/17 13:09:40
18	Tamper	2016/03/17 13:09:48	2016/03/17 13:09:53
19	Tamper	2016/03/17 13:09:59	2016/03/17 13:10:03
20	Defocus	2016/03/17 13:09:03	2016/03/17 13:09:10
21	Defocus	2016/03/17 13:09:13	2016/03/17 13:09:19
22	Defocus	2016/03/17 13:09:35	2016/03/17 13:09:42
23	Schedule	2016/03/17 13:10:50	2016/03/17 13:11:05
24	Schedule	2016/03/17 13:11:05	2016/03/17 13:11:20
25	Schedule	2016/03/17 13:11:20	2016/03/17 13:11:35
26	Schedule	2016/03/17 13:11:35	2016/03/17 13:11:50

The search filter panel on the right includes:

- Event Type:** Motion (checked), Defocus (checked), Tamper (checked), Schedule (checked).
- Time:** Radio buttons for 'All the time' and 'Manual' (selected).
- Start Time:** 2016-03-17 13:08
- End Time:** 2016-03-17 13:12
- Search** button.
- Analysis:** A pie chart showing the distribution of event types: Motion:11, Tamper:7, Defocus:3, and Schedule:5.

Buttons for 'Refresh' and 'Clean Up' are located at the bottom of the interface.

# 7. Specifications

Features/Model	Ax47DC
<b>Image System</b>	
Image Sensor	Progressive Scan CMOS 1/3" sensor
Signal System	NTSC/PAL
<b>Optical System</b>	
Iris Control	Auto Iris
Focal Length	2.1mm
F-stop Range (F-number)	F1.8
Horizontal FOV (Field of View)	116° (H) ~ 87° (V)
Day/Night	Mechanical ICR
<b>Electric</b>	
Digital Noise Reduction	3D
Wide Dynamic Range (WDR)	Digital WDR
Minimum Illumination	0.3 lux (Color mode), AGC=36dB, 50 IRE
Electric Shutter	NTSC: 1/30~1/10000 sec; PAL: 1/25~1/10000 sec
Back Light Compensation (BLC)	Off / On (6 Area Selectable)
On-board (Edge) Storage	1 x micro SD/SDHC/SDXC slot up to 64GB. Card sold separately
Alarm In/Out	NA
<b>Network Specifications</b>	
Video Streaming and Compression Method	Triple Streaming H264 / Motion JPEG
Maximum Framerate vs Resolution	1.3MP (1280x960) @ 30fps/25fps
Network Protocols	IPv4, TCP/IP, UDP/IP, FTP, ICMP, ARP, DHCP, HTTP, SMTP, IGMP, RTSP, RTP, RTCP, SNMP
Security Access	Multiple privilege control with password protection
Users	1 Administrator, 5 Viewers/Operators
<b>Other Features</b>	
Other	Privacy Mask, Mirror Flip, Corridor View, Edge Defocus, Edge Network Loss Detection, Edge Tamper, Smart IR
<b>Mechanism</b>	
Angle Adjustment	Pan: 360°, Tilt: fixed at 90°, Rotation: ±175°
Dimensions (Ø x H)	Ø112mm x 82mm (Ø 4.4" x 3¼")
Weight	approx. 460 g (1.01lb)
Connectors	Network: RJ45
IR Distance	25m
<b>Power Supply</b>	
Power Requirement	IEEE 802.3af, Class 3
Power Consumption (max.)	PoE 6.5W (max)
<b>Environment</b>	
Operating Temperature	-20°C - 50°C (-4°F - 122°F)
Operation Humidity	90%, non-condensing
Power-On Temperature	-20°C
<b>Regulations, Ratings</b>	
Regulations, Ratings	FCC Class B, CE, RoHS, UL, IP67, IK10, ONVIF
<b>Warranty</b>	
Standard Warranty	i3 Superior 3-year warranty



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