

SwannSecure





INSTRUCTION MANUAL

Important Information

FCC Verification

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- These devices may not cause harmful interference, and
- These devices must accept any interference received, including interference that may cause undesired operation

Important Note:

All jurisdictions have specific laws and regulations relating to the use of cameras. Before using any camera for any purpose, it is the buyer's responsibility to be aware of all applicable laws and regulations that prohibit or limit the use of cameras and to comply with the applicable laws and regulations.

FCC Regulation (for USA): Prohibition against eavesdropping

Except for the operations of law enforcement officers conducted under lawful authority, no person shall use, either directly or indirectly, a device operated pursuant to the provisions of this Part for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

Warning

Modifications not approved by the party responsible for compliance could void user's authority to operate the equipment.

Important Safety Instructions

- Make sure product is fixed correctly and stable if fastened in place
- Do not operate if wires and terminals are exposed
- Do not cover vents on the back of the device and allow adequate space for ventilation

Default Password Information

To ensure your privacy, this device supports password protection.

The default, all-access username is **admin**, the default password is **12345**.

To ensure your ongoing privacy, we strongly recommend setting a password as soon as possible. Choose something that you'll remember, but that others would be unlikely to guess.

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Recording: Encode

	Me	enu	\mathbf{x}
🎒 Wizard	Encode 🌠 Schedule		
Recording	Camera No.	IP Camera 1	_
🧠 Recording	Camera Name		
🔍 Search	Encoding Parameters	Main Stream	
🗟 Network	Record Audio		
Alarm	Frame Rate(fps)		•
see Custom	Max. BitRate(Kbps)		•
System	Resolution		_
	Default	Сору То	Apply

Camera No: The channel feed you want to alter the settings for.

Camera Name: You can edit the name of the camera.

Encoding Parameters: Whether you're editing the parameters for the mainstream or the substream.

Main-Stream: The main-stream is the video feed that the device will record and display. This is the higher-quality stream.

Sub-Stream: The sub-stream is the video stream that the device will send to remote devices via a network or the Internet. It is the low-er-quality stream as a reduction in video size makes it easier to send over a network.

Record Audio: This is enabled by default.

Resolution: The resolution cannot be changed.

Frame Rate: The number of frames per second (fps) that the device will record. The default (and maximum) is referred to as "real-time" and is 15fps. Reducing the number of frames per second will not save on storage space but potentially will improve the data-rate per frame (depending how you set the bit-rate - see the next point).

The **Recording: Encode** menu allows you to alter and customize how the device records footage and encodes the files.

Encoding is a term which refers to the compression algorithm (a fancy computer term for "make the file smaller while retaining visual quality") used by the device.

You can choose and alter:

- The frame rate (how many images per second the device records)
- The bit rate of each video stream. The higher the data rate, the "better" your images will look, but the more space they'll require on your memory card

Remember that your FPS count is the same as saying "take X photograph per second" (where X is your FPS setting). 6fps doesn't sound like much, but it's still six individual photographs per second. If maintaining image clarity while reducing storage consumption is your priority, it makes sense to lower the frame rate.

Max. BitRate(Kbps): The actual amount of data that the device will use to record video. The higher the bitrate, the more space each recording will take. Generally speaking, recordings encoded at higher bitrates will be of better quality, especially when recording movement.

The main-stream uses a variable bitrate to record video - the more movement occurs in the video, the higher the bitrate will have to be. When there's little movement in view, the device will automatically reduce the bitrate to conserve space.

The sub-stream uses a constant bit-rate. This makes the video easier to stream over a network or the Internet.

Recording: Schedule



The schedule presented on-screen applies to one channel only over one whole week. Use the Copy To function to quickly assign identical schedule layouts to multiple channels at once.

Be careful when programming your schedule. It's one of the most important aspects of setting up your device, and if it's wrong in any way, it could lead to disastrous complications later.

Copy To: Located at the base of the screen, with Default on one side and Apply on the other. This will allow you to copy the schedule from the channel you're editing to another channel or channels.

Note: The Action Options for Motion Detection will affect the way the schedule works. By default, all channels are armed to use Motion Detection as their recording mode.

Any adjustments in the Alarm menu will change the device's behaviour, even if it is set to Motion Recording mode.

There are three types of recording to choose from -

Normal: The device will constantly record for any period where Normal is selected. You won't miss anything, but constant recording will fill your memory card very quickly. Typically, we suggest Motion as a better recording mode for most users.

Motion: The default and recommended recording setting. The device will only record when it detects something moving in front of a camera, and will then only record footage from the camera(s) that do detect motion unless you alter your Action settings.

None: As the name suggests, the device will not record anything. Tap APPLY to save settings.

Search: Playback

		Menu	$\overline{\mathbf{x}}$
🎒 Wizard			
Recording	Channel Status	1 2 3 4	
🔍 Search 🛛 🕨			
letwork 🔊	Video Type	All	
\land Alarm	Start Time	13-12-2013	(DD/MM/YYYY) 📩
🗱 System			
		Play	Search

1. Select one or more channels you'd like to playback.

2. From the Video Type menu, select the type(s) of video you'd like to playback. The options are Manual, Schedule, Motion and All.

3. Set your Start Date/Time and your End Date/Time.

4. Select Search.

5. To initiate playback, select Play.



The playback interface is quite similar to a computer's media player, or to the on-screen display of a DVD/Blu-ray player. Most of the controls are quite straight forward, and operate in the same way as a standard media player.

Current Position: A basic progress meter. You can click to move the current position icon to quickly scan through video events.

Rewind: Reverses the footage.

Play / Pause: Plays footage at normal speed. Tap to pause.

Fast-Forward: Speeds up playback.

Network: General



Network Access: Here you can choose between the three different types of networks that the device can be connected to. The two available are - **DHCP (Dynamic Host Configuration Protocol):** Is a system where one device on your network (usually a router) will automatically assign IP addresses to devices connected to the network.

Static: Static networks require all devices to have their IP addresses manually defined, as there is no device dedicated to automatically assigning addresses.

IP Address: Just as houses and businesses need to have an address which identifies their location on the road network, so too do computers and other devices need addresses to identify their position on the electronic network. The device uses IPv4 addressing, which consists of four groups of numbers between 0 and 255, separated by periods. For example, a typical IP address might be "192.168.1.24" or something similar. The most important thing when setting the IP address is that nothing else on your network shares that IP address.

Subnet Mask: If the IP address is like a street address, then a sub network is like your neighbourhood. This will be formatted in a similar way to the IP address (e.g. four numbers up to 255 separated by periods) but contain very different numbers. In the above example, the Subnet Mask might be something like "255.255.255.0".

Default Gateway: This is the address of the "way to the Internet" - to continue the road analogy, this is like your local access point to the highway. This is an IP address in the same format as the others, and is typically very similar to the IP address of the device. To continue the above examples, it might be something such as "192.168.1.254".

Preferred DNS Server: Everything on the Internet is located via an IP address - however, for ease of use, we associate domain names with those IP addresses.

Alternate DNS Server: A backup DNS server. This is here as a redundancy; your device will probably work without one.

Network: Advanced



Email Settings: This section has been covered in the quick start guide. **Server Port:** This is the port that the device will use to send information through. You'll need to enable UPnP on your router so your router can selectively open these ports, allowing the device to communicate via the Internet.

HTTP Port: This is the port through which you will be able to log in to the device.

UPnP Enable: This is enabled by default.

Tap APPLY to save settings.

WiFi Settings: This section has been covered in the quick start guide.

Alarm: Motion Detection & Sensitivity





The way that the device looks for motion is quite straight forward - it's a process where it compares one frame with the next. A certain amount of "difference" between these two "frames" is interpreted as motion. As a result, the device is able to detect when there is a change in the picture. However, this does not necessarily need to be something moving in the frame. For example, a light being turned on or off, a lightning flash or even the sun coming out momentarily on a cloudy day might be enough to trigger the motion detection. However, as these events last only a moment (and are relatively rare) they will only create a few very short redundant clips, which will not take up too much space or pose a problem with scanning through footage.

Channel: Select the camera that you would like to alter.

Motion Detection: Tap the Set button to setup the motion detection area for that channel. You will see a grid of red boxes. The outlined boxes mark the area that is sensitive to motion. The area without the red outlines is not sensitive to motion. Tap and drag to select the area you want to select or de-select. **Sensitivity:** The Sensitivity setting is controlled by a slider, allowing you to set a value between 0 and 50. The lower the number, the more sensitive the motion detection will be. There are four time periods which you can define different motion sensitivity values for. You can change what time(s) each period starts and ends to best match the changing lighting conditions in your location. At night, you may get numerous false triggers unless you raise the sensitivity setting, perhaps as high as 25 - 30. This is because when cameras use active infrared night vision, they dramatically increase the gain controls to the image sensor. To find the best sensitivity values for different times of day/night, it's best to test the system during different time periods. Get an able-bodied volunteer to move about in front of the cameras you'd like to tune the sensitivity for. The ideal sensitivity level is when your volunteer moving about always triggers the motion detection, but there are no false triggers (or very few) when your volunteer isn't moving about.

Alarm: Schedule



Schedule: Allows you to select which day and what time that you would like Motion Detection to be enabled for. By default Motion Detection is enabled 7 days a week for 24 hours. If you want to alter this, tap on the day and time that you want to change.

Send Email: Tap this to enable if you would like to be alerted by email whenever there is an alarm event.

System: Maintenance & System Information

		/lenu	×
🎒 Wizard	🛃 Maintenance 🛃 Syst	tem Information	
Recording	Enable auto reboot		
intecording	Auto reboot at:	Every Sunday	•
Search 🤍		02:00:00	
🗟 Network	Firmware Upgrade	Upgrade	
Alarm	Default Settings	Restore	
🔅 System 🕨	Blacklight delay	300	
		Apply Defau	lt

Enable auto reboot: To maintain the operational integrity of the device, it is suggested that it be rebooted periodically. In much the same way that a computer can become unstable if left on for an extremely long time, the device can become unstable. It is strongly suggested that the device be rebooted at least once per week.

Auto reboot at: Choose when you'd like the device to reboot. Typically, this will be a time when it's unlikely there'll be any activity for the device to record.

Firmware Upgrade: Instructs the device to update its firmware. You'll only need to use this option if instructed to do so by Swann Technical Support (remember to export your configuration first so you don't have to re-set everything!).

Default Settings: Loads the factory default settings.

Blacklight delay: This controls how long the screen will stay active. Alter the default setting if you would like to change how long the screen will stay active.

		Menu	\mathbf{x}
🎒 Wizard	Maintenance	System Information	
Recording	Device Name	NVR	
Recording	Model	NVW-470	
🔍 Search	Build No.	build 1213 GA 1.9	
🔊 Network	Hw No.	TNMB01	
Alarm	Cfg version	v1.0.0.1	
System	Fw Version		
	Detail	NVW470K801001000400	0000

If you're looking at the System Information screen, you've probably been directed to do so by Swann Technical Support.

If we haven't told you to come here, you might be wondering what all the information means. On a day-to-day level, the answer is very little. However, if you're still curious -

Device Name: The name that the device considers to be its own and what it will use to register an IP address with.

The remaining information is for use by Swann's Technical Support, in the event that you require assistance. The various model and build numbers help us track down any known issues, or catalogue new issues as they come to light. It also helps us figure out if you're running the most recent firmware on the device, and whether you'd benefit from an upgrade.

SwannView Link: Local Settings

Record Path C:\RecordFile Browse
Download Path C:\DownloadFile Browse
Snapshot Path C:\Capture Browse
Convert to AVI
Save

The local configuration screen is where you can customise how Swann-View Link will store and process footage on the local PC when you download it from the device.

Record Path: Where SwannView Link will save recordings if you select Record from the Preview screen.

Download Path: Where SwannView Link will save footage that you've downloaded from the device.

Snapshot Path: Where SwannView Link will save still images captured using the snapshot function.

Convert to AVI: When selected, SwannView Link will use your computer to transcode footage from the device's native format (H.264) into a format that your computer (indeed, almost any computer) will be able to playback without special software.

About transcoding to AVI: Don't be put off by the complex word - transcoding is just a shortening of "translating code".

Transcoding, while a straight-forward process, is very processor intensive. You may notice significant slow-down on your computer while the transcoding takes place. For best results, try not to over-burden your computer; just let it transcode the footage in peace.

SwannView Link: Device Settings

Output	Channel Channel Name Position Settings Record Date Position Settings Mask	Channel01 Comerca-Eristranol Botom Nigol UPMadum UPMadum Bishup
e Search Alarm Device Storage System	Position Settings	Bottom Right •
 Alarm Device Storage System 	Record Date Position Settings	UPMedium •
⊕-Device ⊛-Storage ⊛-System	Position Settings	
System		
	Mask	Setup
		Copy Th OK

Display: Channel Settings

Channel Name (Check Box): Whether the channel's name will be displayed on screen or not.

Channel Name: The title you'd like to give that camera.

Record Data: Whether the overlays (Channel Name, Date and so on) will be recorded onto the video with your images.

Position Settings: Select the position of the channel name and record date labels that are overlaid on the screen.

Mask (Check Box): Turns the masking function on or off.

Mask (Setup): Creates a black privacy overlay which masks part of your images. Will affect recordings.

Remote Config			— ×-
Display Channel Setting Output Channel Setting Output Search Network Alam Device Stratem Shut Down	Output Resolution Transparency Mouse Sensitivity Dwell Time Audio	(5201080 •) 	
			ок

Display: Output

Resolution: Set the screen resolution to output to your monitor.

Transparency: How transparent you want the menus to be.

Mouse Sensitivity: Adjust the sensitivity of mouse movements.

Dwell Time: Select how long channels will be displayed when using auto-sequence mode. **Audio:** Enable or disable the audio.

Remote Config	and the second se	
kannet Config ⊕ Depay ⊕ Record ⊢ General ⊢ General ⊕ Deteit ⊕ Strate ⊕ St	General Otiunel Encoding Parameter Record Audo Resolution Frame Real(top) Max. Bitrate(htop)	Charnel01 Lian Stream 25 25 Cogy To OK
Recording Advanced Settings Advanced Settings Record Schedule Search Network Avam Device Storage System	Channel Encoding Parameter Record Audio Resolution Frame Rate(tps)	Main Stream • 7200 • 25 • 3072 •

Recording: General

Encoding Parameter: Choose from the main-stream or sub-stream to configure.

Main Stream: The way the device will internally process and record video.

Sub Stream: The way the device will encode and send video to a remote device.

Record Audio (Check Box): This function is not supported by the camera(s) supplied with the NVR. **Resolution:** How many pixels (little dots) make up your image.

Frame Rate: How many images per second the device will capture.

Max. Bitrate: The maximum size that your video files will be. The higher this is set, the better recordings will look - however, they'll also fill the memory card faster.



Recording: Advanced Config

Overwrite: Whether the device will erase old recordings to make room for new ones, or not.

Pre-record: Whether the device will cache and save footage that occurs immediately before an alarm/motion event.

Delay: How long after an alarm event or motion the device will continue to record for.

Pack Duration: The amount of video that will be stored as a single "pack". Unless you have very specific requirements, leave this at the default value.

Remote Config				×
Press Confroj Destraty Confront Confro	Record Schedule Channel Enable Schedule Hour of Suborday Wednesday Friday Saturday	Chanel01	12 Normal	 23 None

Recording: Schedule

Use the Copy To functions to quickly assign identical schedule layouts to multiple channels at once.

Be careful when programming your schedule. It's one of the most important aspects of setting up your device, and if it's wrong in any way, it could lead to complications later.

Note: Do NOT select Normal and Motion/Alarm-based recording at the same time on the same channel - this can cause conflicts in the way that the device interprets footage and event information.

Hearth Network Access Del/CP Network Status
Internet Status P Address 192 198 20 8 Advanced Settings Andre Status Subant Mask 255 255 255 0 Advanced Settings Andre Status Gateway 193 198 20 254 Avanced Settings Andre Status Gateway 198 198 20 254 Avanced Settings Andre Division Patered Division Status CINS 198 20 254 Ademate Division Patered Division 192 198 20 254 Ademate Division 0 0 0 0 0 0 MacAdage 000H-302 00/20:58 190 190 190 190 190
Advanced Settings Subtent Mask 255 256 0 Marcin Gateway 192 194 26 254 Norspin @ AucDNS O Static DNS 0 20 254 Stat Drvin Preferred DNS 192 194 20 254 Marchae 000-N-30 0 0 0 0 0
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Vorge
Inst Down Preferred DNS 192 198 20 254 Alemate DNS 0 0 0 0 0 0 0 MacAdar 00.04.50.02.02.56 0
MacAddr 00.0A3C8D2C58
ox

Network Access: How your network is addressed - either DHCP or STATIC IP addressing.

Subnet Mask: A required additional piece of IP addressing information.

Gateway: The way "out" of your network, to the Internet.

Auto DNS / Static DNS: Whether the device will automatically select a DNS server, or use one you assign. Preferred / Alternate DNS: The device has two DNS servers, essentially a primary and a backup.

MAC Address: The Media Access Control address. For some advanced networking, it can help to know this value.

Remote Config			×
Renot Config	Advanced Settings DON'S Setup NTP Setup E-mail Setting IP Filter Medals Port HTTP Port RTSP port UPNP enable UID	Setup Setup Setup 0000 85 0 (P)	

Remote Config	L×.
- Display - Channel Setting - Recording - General	Molion Channel Channelo2 • Enale
Advanced Config Record Schedule	Sensitivity Setup
- Network Status - General - Advanced Config	Schedule Setup Action Setup
Alarm Motion Video loss	Full Screen Clear Area
Exception Device PTZ System	Action Action Action
General Maintenance	Audio Warning Image: Send Email Email Setting
	Channel All 1 2 3 4 5 6 7 8 Triggered Recording V V V V V V
	OK Cancel
	Copy To OK

Network: Advanced Settings

DDNS Setup: Opens the DDNS setup window.

NTP Setup: Opens the Network Time Protocol setup window.

Email Setting: Opens the Email Setup window.

Server Port: One of the two ports the device needs to communicate over your network. Ensure nothing else uses this port. The default value is 9000. This is the port number you'll use when logging in over the Internet from the SwannView Link software or remote access from a mobile device.

HTTP Port: The second of two ports the device needs to communicate over your network. Ensure nothing else uses this port. The default value is 85.

Alarm: Motion Detection

Channel: The channel you're configuring the motion detection settings for.

Enable: Whether the motion detection is enabled for the channel currently selected.

Sensitivity: A sliding scale between 1 and 50. The number refers to the number of pixels (as a percentage) that have to change between frames.

Action: What you'd like the device to do when it detects motion. Typically (assuming the schedule is configured to do so) this will be to record video. It can also be a cue to trigger an email alert.

Remote Config			
Oisplay Recording Search Network Alarm Modion Video loss Discellent Device	Exception Exception Type Audio Warning Send Email Show Exception	HDD Full •	
PTZ HDD ⊕ Storage ⊕ System Shut Down			OK

Alarm: Exception

Exception Type: What event type you'd like the device to react to. By configuring the Action for these events, you can create any combination of audio alerts or auto-emails to be sent for different event types.

Audio Warning: Not supported by this device.

Send Email: Commands the device to send an email alert.

Show Exception: Shows any alerts that occur at the bottom right corner of the main screen. Double-click on the alert notification to see details.

Warranty Information

USA

Swann Communications USA Inc. 12636 Clark Street Santa Fe Springs CA 90670 USA

Australia

Swann Communications Unit 13, 331 Ingles Street Port Melbourne Vic 3207 Australia

United Kingdom

Swann Communications LTD. Stag Gates House 63/64 The Avenue

> S0171XS United Kingdom

Warranty Terms & Conditions

Swann Communications warrants this product against defects in workmanship and material for a period of one (1) year from its original purchase date. You must present your receipt as proof of date of purchase for warranty validation. Any unit which proves defective during the stated period will be repaired without charge for parts or labour or replaced at the sole discretion of Swann. The end user is responsible for all freight charges incurred to send the product to Swann's repair centres. The end user is responsible for all shipping costs incurred when shipping from and to any country other than the country of origin.

The warranty does not cover any incidental, accidental or consequential damages arising from the use of or the inability to use this product. Any costs associated with the fitting or removal of this product by a tradesman or other person or any other costs associated with its use are the responsibility of the end user. This warranty applies to the original purchaser of the product only and is not transferable to any third party. Unauthorized end user or third party modifications to any component or evidence of misuse or abuse of the device will render all warranties void.

By law some countries do not allow limitations on certain exclusions in this warranty. Where applicable by local laws, regulations and legal rights will take precedence.

For Australia: Our goods come with guarantees which cannot be excluded under Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to major failure.

Helpdesk / Technical Support

Swann Technical Support

All Countries E-mail: <u>tech@swann.com</u>

 Telephone Helpdesk

 USA Toll Free
 1-800-627-2799

 USA Exchange & Repairs
 1-800-627-2799 (Option 1)
(M-F, 9am-5pm US PT)

 AUSTRALIA
 1300 138 324

 NEW ZEALAND Toll Free
 0800 479 266

 UK
 0203 027 0979



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