



WIRELESS HD

Wi-Fi Series Smart Security System

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:

- The antennas used with this transmitter must be installed to provide a minimum separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures
- 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
- These devices must accept any interference received, including interference that may cause undesired operation

Important Notice: 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.

Important Safety Instructions

- Do not operate if wires and terminals are exposed
- Do not cover vents on the side of your device and allow adequate space for ventilation
- Only use the power adapter supplied with your NVR

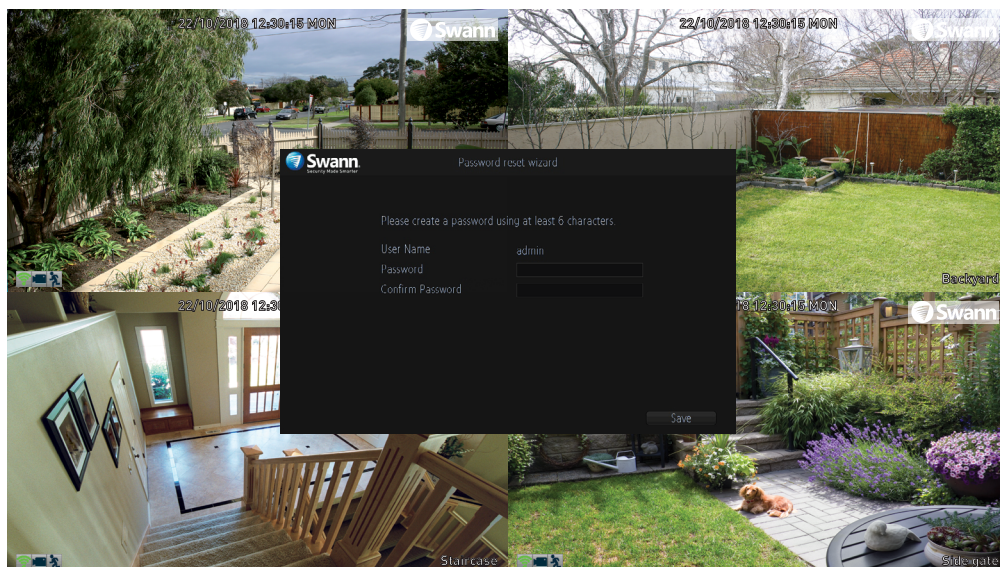
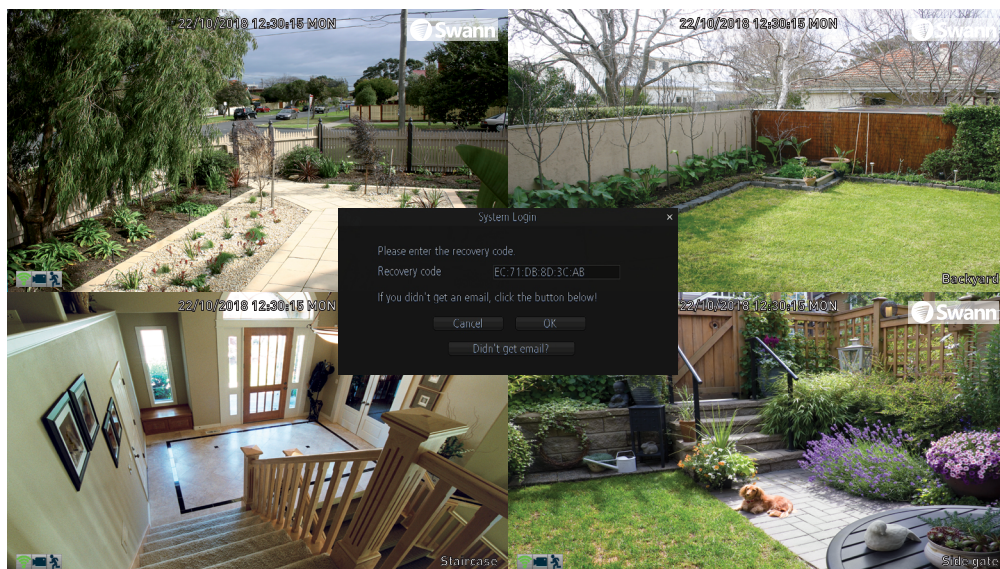
About this Instruction Manual

This instruction manual is written for the Wi-Fi NVR 490 series and was accurate at the time it was completed. However, because of our on-going efforts to constantly improve our products, additional features and functions may have been added since that time.

Important Password Information

This NVR does not have a default password. A password is created during the Wizard. If password protection has been enabled and you have forgotten your password, your NVR's MAC address can be used to create a new password (see page 3 - [Password Recovery](#)).

Password Recovery



Forgotten your password? Please do the following:

1. Right-click the mouse on the Live View screen to display the Menu Bar then click "Menu".
2. At the password login screen click "Forgot Password".
3. A message will appear on-screen. Follow the instructions to receive the password recovery code via email. This will contain your NVR's MAC address (if it's not in your inbox, check your junk or spam folder).
4. Input the MAC address including the semicolons (see left example) then click "OK".
5. A message will appear on-screen stating that your password has been reset. Click "OK" to create a new password.
6. Enter a new password (see bottom left example). The password has to be a minimum of six characters and can contain a mixture of numbers and letters. Use a password that you are familiar with, but is not easily known to others.
7. Write down your password in the space provided below for safe keeping.
8. When finished click "Save". A message will appear on-screen. Click "OK" to finish.

Don't forget to write down your password: _____

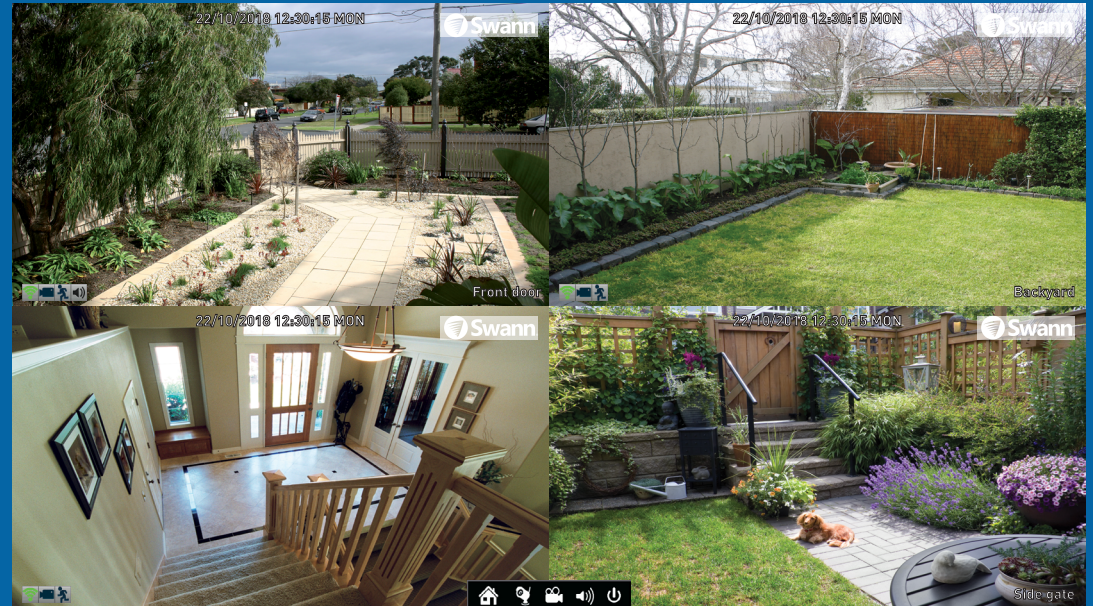
I haven't created an email for my NVR, what can I do? Don't worry, you can use SwannView Link to retrieve your recovery code (see page 40 - [Resetting your Password using SwannView Link](#)).

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Live View

Live View is the default display mode for your NVR. Each camera connected will be displayed on-screen. You can check the status or operation of your NVR and cameras using the icons and Menu Bar on the Live View screen. Right-click the mouse to access the Menu Bar.



Live View Mode

Live View mode is the default display for your NVR. Each camera connected will be displayed. You can check the operation of your NVR by using the status icons on the Live View screen. You can also access the Menu to adjust settings for Recording, Motion and to search and play previously recorded videos.



Double-click a live video channel to view full screen.

Status Icons



Click & drag a live video channel to reposition it.



Date & Time

Camera Name

Menu: Open the Menu to access the various settings and options available (right-click the mouse on the Live View screen to display the Menu Bar).

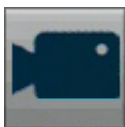
Channel: Opens the Device List that displays the cameras that are currently connected or to scan for new cameras.

Search: Click to search and play back previously recorded videos.

Audio: Click to enable or disable live audio playback. Only one camera channel can be enabled at a time for live audio.

Shutdown: Click to Lock (password must be enabled for this option to work), Shutdown or Reboot your NVR.

Live View Icons & Controls



The record icon indicates that your NVR is currently recording the camera's video stream.



This Wi-Fi icon indicates that your NVR is running in Station mode and is wirelessly connected to your network. It also indicates the Wi-Fi signal strength.



The motion icon indicates that your NVR is detecting motion from the camera.



This Wi-Fi icon indicates that your NVR has been disconnected from your wireless network or may be out of range.



The audio icon indicates that the camera is selected for live audio (click the "Audio" button on the Menu Bar to enable).



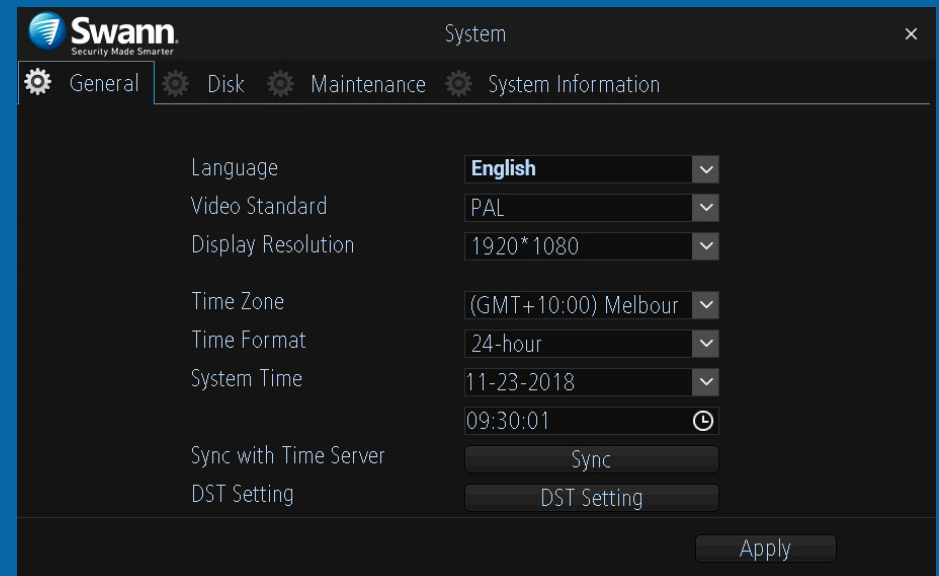
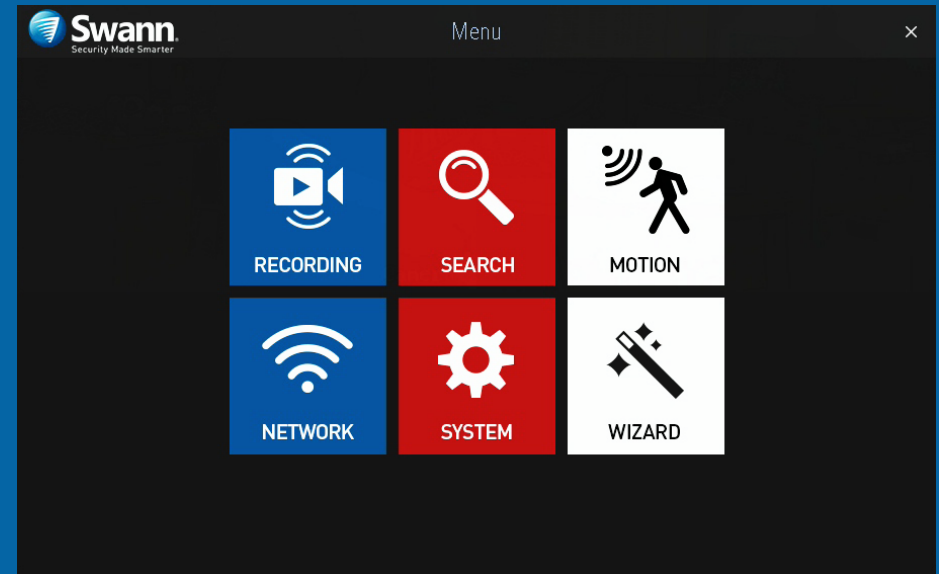
This indicates that the channel displaying this message, has lost the feed from its camera.



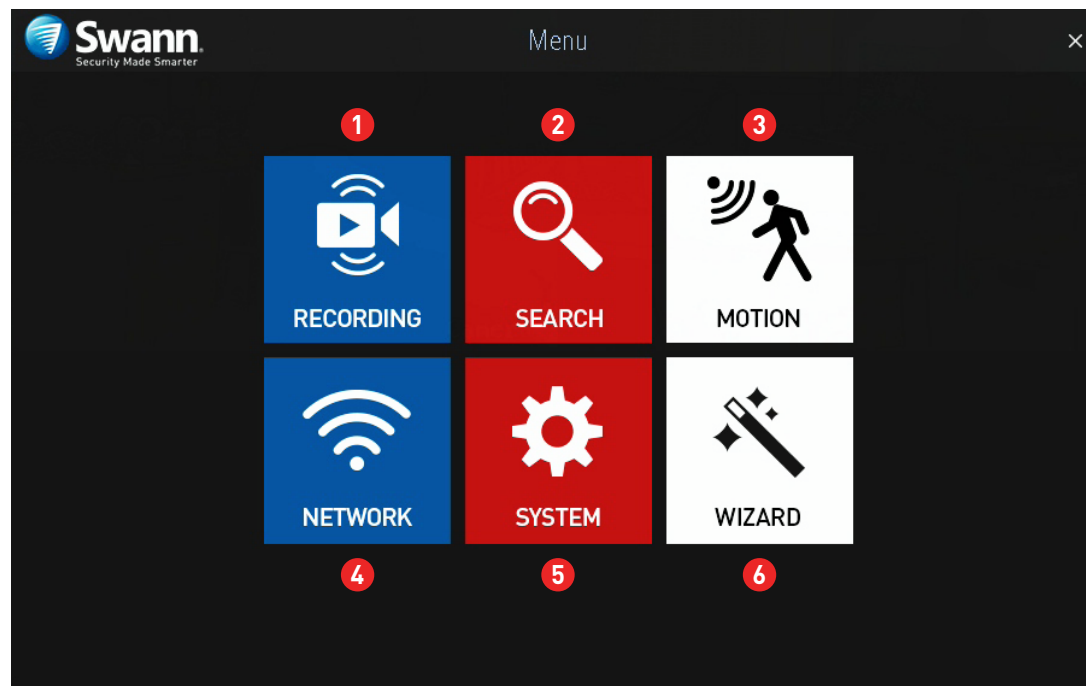
This Wi-Fi icon indicates that the camera is communicating with your NVR. It also indicates the Wi-Fi signal strength.

Menu

The “Menu” is where you control the various actions and options that are available on your NVR, such as adjusting settings for motion detection and changing network modes. You can also access previously recorded video for playback and to copy to a storage device such as a USB flash drive. To maintain system integrity, a firmware upgrade can be performed when available.



Menu Layout



1. Recording: This function allows you to adjust settings for the camera such as camera name, encoding settings for Main Stream and Sub Stream as well as changing the bitrate and frame rate. You can also change the schedule for both normal and motion recording.

2. Search: This function allows you to search and play back previously recorded videos. You're presented with an overview of video recorded on a particular day for a particular month for each channel on your NVR. You can also backup events to a USB flash drive.

3. Motion: Motion is the default recording mode for your NVR. The entire view of the camera is enabled to detect motion however you can select certain areas if you wish. The sensitivity and schedule can also be changed according

to your needs. When motion is detected, you can enable your NVR to send you an email notification and/or sending push notifications via the AlwaysSafe app.

4. Network: This function gives you access to the various network options available including your email settings. The option to change to Station mode can also be done here.

5. System: This function gives you access to the various system settings such as language selection, display resolution, Daylight Saving, formatting the hard drive (or MicroSD card if one has been included) and upgrading the firmware.

6. Wizard: Click this to access the Wizard.

Camera Configuration

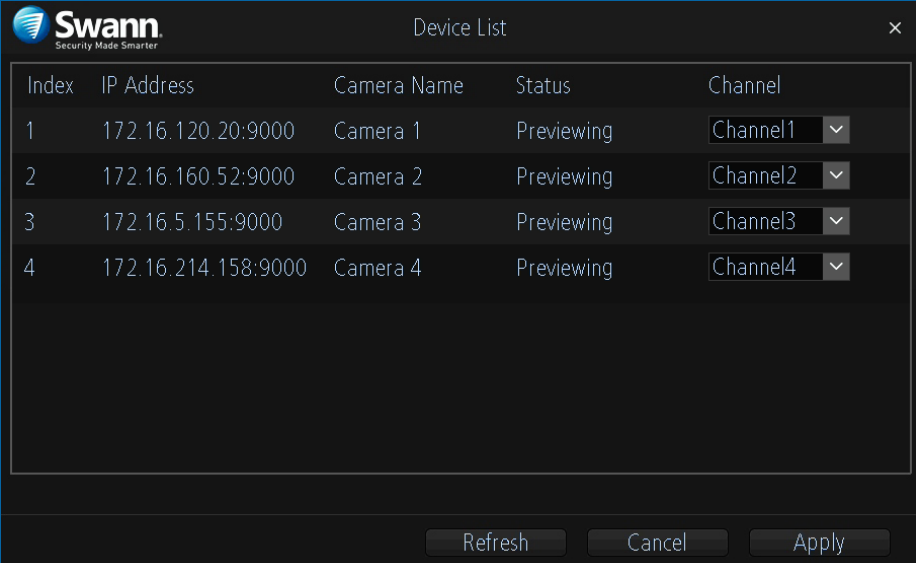
The camera configuration options are available in the “Recording” and “Motion” menus and by clicking the “Channel” button on the Menu Bar. You can change the camera name, alter the encoding settings for Main Stream and Sub Stream, change the bitrate and frame rate and assign a different channel number for each camera detected. The default motion detection area and schedule can also be changed.



The image shows the 'Recording' configuration window in the Swann software. It has a dark theme and a title bar with the Swann logo and the text 'Security Made Smarter'. The window has two tabs: 'Encode' (selected) and 'Schedule'. The 'Encode' tab contains the following settings:

- Camera No.: Channel1 (dropdown)
- Camera Name: Camera1 (text field)
- OSD Display Position: Set (button)
- Record Audio: ☒ (checkbox)
- Encoding Parameters: Main Stream (dropdown)
- Resolution: 1080P (dropdown)
- Max. Frame Rate(fps): 15 (dropdown)
- Max. BitRate(Kbps): 2048 (dropdown)

At the bottom of the window are three buttons: 'Default', 'Copy To', and 'Apply'.




The image shows the 'Device List' window in the Swann software. It has a dark theme and a title bar with the Swann logo and the text 'Security Made Smarter'. The window displays a table of detected cameras with the following columns: Index, IP Address, Camera Name, Status, and Channel. There are four cameras listed, each with a dropdown menu for the Channel column.

Index	IP Address	Camera Name	Status	Channel
1	172.16.120.20:9000	Camera 1	Previewing	Channel1
2	172.16.160.52:9000	Camera 2	Previewing	Channel2
3	172.16.5.155:9000	Camera 3	Previewing	Channel3
4	172.16.214.158:9000	Camera 4	Previewing	Channel4

At the bottom of the window are three buttons: 'Refresh', 'Cancel', and 'Apply'.

Recording: Encode - Main Stream

The functions available allow you to change the resolution, frame rate and bitrate for each camera connected. By default the recording resolution, frame rate and bitrate are automatically selected to fit in with the capabilities of the provided cameras, however you can change them if required.

The screenshot shows the 'Recording' window with the 'Encode' tab selected. The 'Swann Security Made Smarter' logo is in the top left. The window contains several settings: 'Camera No.' is set to 'Channel1' (dropdown), 'Camera Name' is 'Camera1' (text field), 'OSD Display Position' has a 'Set' button, 'Record Audio' is checked (checkbox), 'Encoding Parameters' is 'Main Stream' (dropdown), 'Resolution' is '1080P' (dropdown), 'Max. Frame Rate(fps)' is '15' (dropdown), and 'Max. BitRate(Kbps)' is '2048' (dropdown). At the bottom are 'Default', 'Copy To', and 'Apply' buttons.

Higher Main Stream bitrates need the best Wi-Fi signal and will also consume the storage space faster, but can give you higher quality video if there is a lot of movement in the scene. You can also reduce the bitrate to improve the Wi-Fi signal. If you locate your cameras a longer distance from your Wi-Fi network, you may have to use lower bitrates to get a reliable connection.

Camera No.: Select a camera that you would like to configure.

Camera Name: Enter a name for the camera you've selected. It can be up to 16 characters in length.

OSD Display Position: Allows you to change the position of the on-screen display. Click the "Set" button to change. Use the mouse to reposition the camera name. Right-click the mouse then click "Save" to exit.

Record Audio: This is enabled by default and allows sound from your cameras to be recorded with the video stream. Click the checkbox if audio recording is not required.

Encoding Parameters: Select which parameter that you would like to configure - Main Stream or Sub Stream.

Resolution: The default resolution is 1080P. A lower resolution is available which can allow you to record at a higher frame rate (up to 25fps).

Max. Frame Rate (fps): The number of frames per second (fps) that your NVR will record. The default is 15fps, however you can change this if needed.

Max. BitRate (Kbps): The maximum bitrate is 3072Kbps and the default bitrate is 2048Kbps. Lowering the bitrate may improve signal reliability if your Wi-Fi signal is poor but this also reduces video quality. Increasing the bitrate improves video quality if there is a lot of movement but needs a strong Wi-Fi signal.

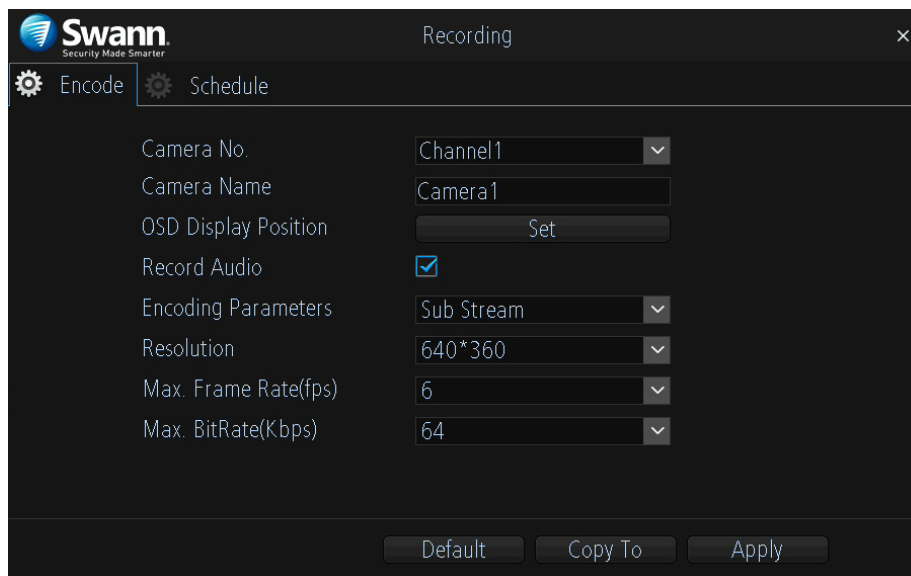
→ Click the "Default" button to revert back to default settings.

→ Use the "Copy to" button to apply all settings to the other cameras.

→ Don't forget to click "Apply" to save settings.

Recording: Encode - Sub Stream

The functions available allow you to control how video is streamed to your mobile device using the AlwaysSafe app. You can change the resolution, frame rate and bitrate if you're having issues streaming live video from your NVR.



The screenshot shows the 'Recording' window with the 'Encode' tab selected. The 'Schedule' tab is also visible. The configuration fields are as follows:

Field	Value
Camera No.	Channel1
Camera Name	Camera1
OSD Display Position	Set
Record Audio	<input checked="" type="checkbox"/>
Encoding Parameters	Sub Stream
Resolution	640*360
Max. Frame Rate(fps)	6
Max. BitRate(Kbps)	64

At the bottom of the window, there are three buttons: 'Default', 'Copy To', and 'Apply'.

Change the Sub Stream bitrate if you're having issues such as video buffering or slow frame rates when streaming to your mobile device. By lowering the bitrate, you reduce the amount of data that is transmitted over the internet which can improve the video you see on your mobile device when you are away from home. Some high speed internet connections allow higher bitrates to be used.

Camera No.: Select a camera that you would like to configure.

Camera Name: Enter a name for the camera you've selected. It can be up to 16 characters in length.

OSD Display Position: Allows you to change the position of the on-screen display. Click the "Set" button to change. Use the mouse to reposition the camera name. Right-click the mouse then click "Save" to exit.

Record Audio: This is enabled by default and allows sound from your cameras to be recorded with the video stream. Click the checkbox if audio recording is not required.

Encoding Parameters: Select which parameter that you would like to configure - Main Stream or Sub Stream. By default, the AlwaysSafe app utilises the Sub Stream parameter to stream video from your NVR to your mobile device.

Resolution: The default resolution is 640 x 360 and cannot be changed.

Max. Frame Rate (fps): The default frame rate is 6fps. Increasing the Sub Stream frame rate may improve playback smoothness when streaming but can also reduce the overall video quality when viewed on your mobile device. Some experimentation is required to get the optimal viewing experience.


Max. BitRate (Kbps): The maximum bitrate is 512Kbps and the default bitrate is 64Kbps. Increasing the bitrate will improve the video quality when viewed on your mobile device, but needs a fast internet upstream speed for the best remote viewing experience. Some experimentation is required to get the optimal viewing experience.

→ Click the "Default" button to revert back to default settings.

→ Use the "Copy to" button to apply all settings to the other cameras.

→ Don't forget to click "Apply" to save settings.


Channel: Managing Cameras



Device List

Index	IP Address	Camera Name	Status	Channel
1	172.16.120.20:9000	Camera 1	Previewing	Channel1 ▾
2	172.16.160.52:9000	Camera 2	Previewing	Channel2 ▾
3	172.16.5.155:9000	Camera 3	Previewing	Channel3 ▾
4	172.16.214.158:9000	Camera 4	Previewing	Channel4 ▾

Refresh Cancel Apply



Device List

Index	IP Address	Camera Name	Status	Channel
1	172.16.120.20:9000	Camera 1	Previewing	Channel1 ▾
2	172.16.160.52:9000	Camera 2	Previewing	1 2 3 4 Disconnect
3	172.16.5.155:9000	Camera 3	Previewing	Channel3 ▾
4	172.16.214.158:9000	Camera 4	Previewing	Channel4 ▾

Refresh Cancel Apply

Accessing the Device List displays the cameras that are currently configured, the IP address and status for each camera as well as the ability to assign a different channel number or to disconnect a camera.

You can also permanently change the position the camera is viewed in Live View mode, for example, a camera installed at the front entrance is currently assigned to Channel4 (bottom right in Live View mode), and you would prefer if this was positioned top left which is assigned to Channel1 (you can change the camera position in Live View mode, however rebooting the NVR will revert back to the original position).

Channel1: Top left, **Channel2:** Top right, **Channel3:** Bottom left, **Channel4:** Bottom right

To access the Device List, right-click the mouse in Live View mode to access the Menu Bar then click the “Channel” button.

When assigning a different channel number, each camera must have a unique number, they cannot share a channel number.

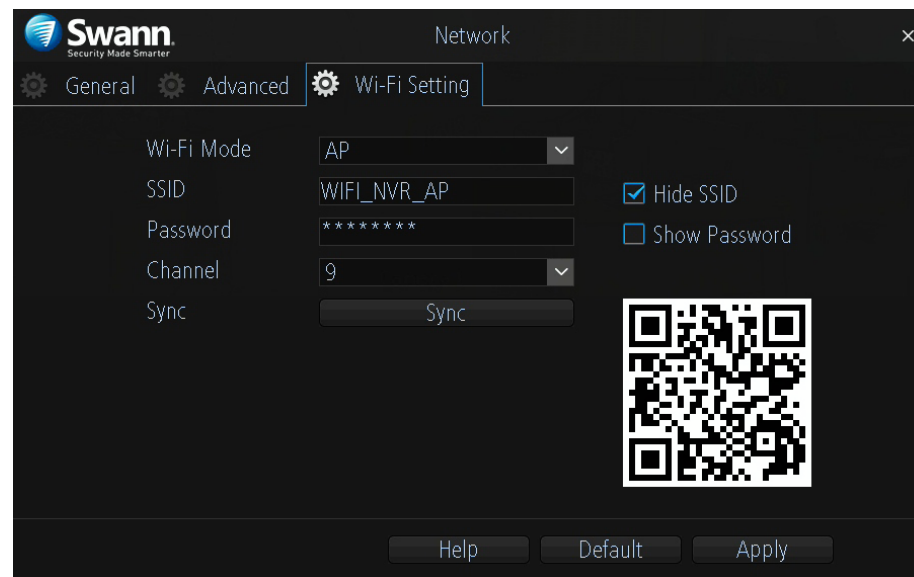
If you have removed a camera and are re-adding a new one, in the line of the old camera, click the down facing arrow and click the empty square (Disconnect) next to 4 as shown above.

→ Click the “Refresh” button to refresh the Device List.

→ Click the “Cancel” button to exit.

→ Don’t forget to click “Apply” to save settings.

Channel: Adding a Camera in AP Mode



By default, the cameras ship ready to connect to your NVR's default Wi-Fi settings. Simply connect each camera to power and wait about a minute. You will see the camera in Live View mode.

If your NVR's Wi-Fi settings have changed, please do the following:

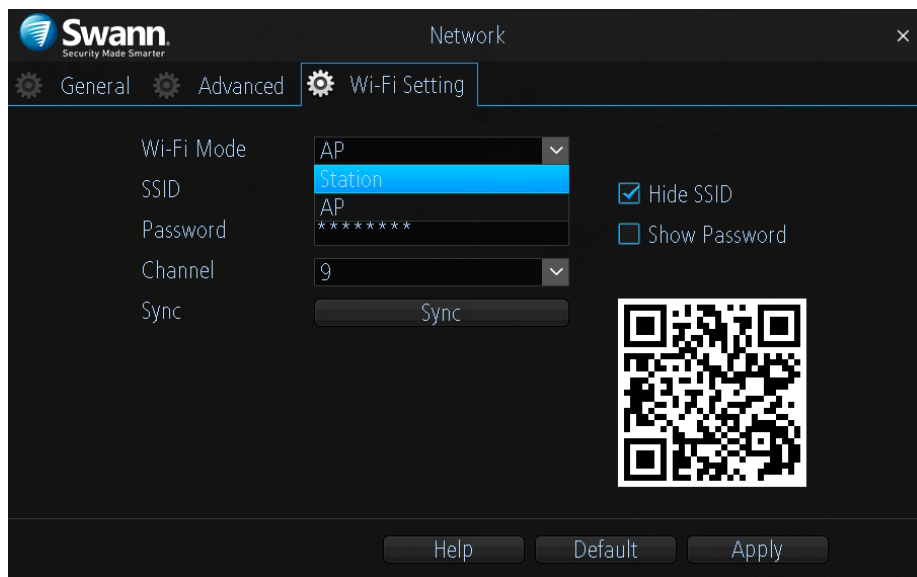
1. In Live View mode, right-click the mouse to access the Menu Bar then click the "Menu" button.
2. Click "Network" then click "Wi-Fi Setting". You will see a QR code displayed (as shown above).
3. Click and hold the camera's reset/pair button until you hear a message from the camera's speaker.
4. Take your camera and face it towards the QR code to scan (you may need to get close to the screen to scan). When successful, you will hear a beep and the voice will announce that the scan is successful. After a short moment,

you will see the camera in Live View mode.

Repeat these steps for any additional cameras that you have.

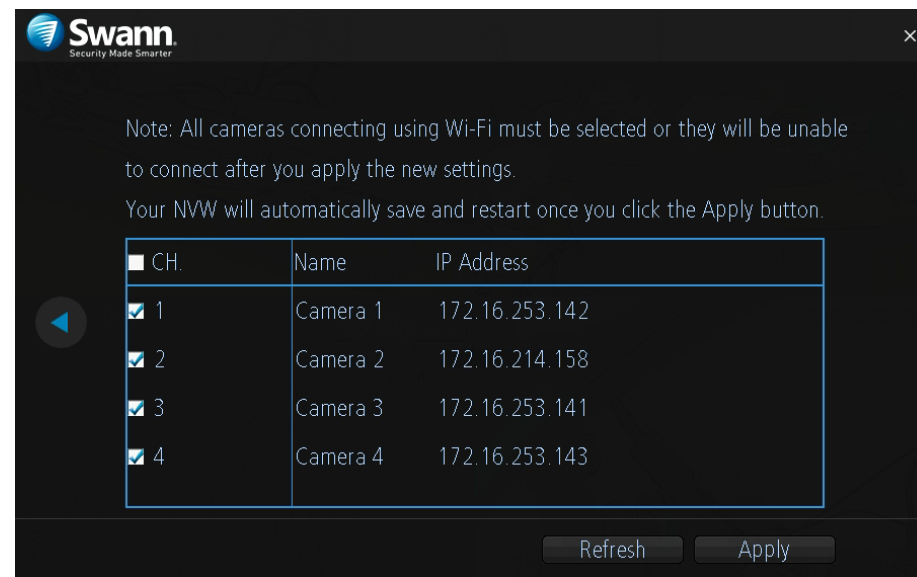
- Click the "Help" button for instructions on how to sync Wi-Fi settings to your cameras.
- Click the "Default" button to revert back to default settings.
- Don't forget to click "Apply" to save settings.

Channel: Adding a Camera in Station Mode



It's recommended that you add cameras to your NVR when it's in AP mode (see page 14 - [Channel: Adding a Camera in AP Mode](#)) before changing to Station mode.

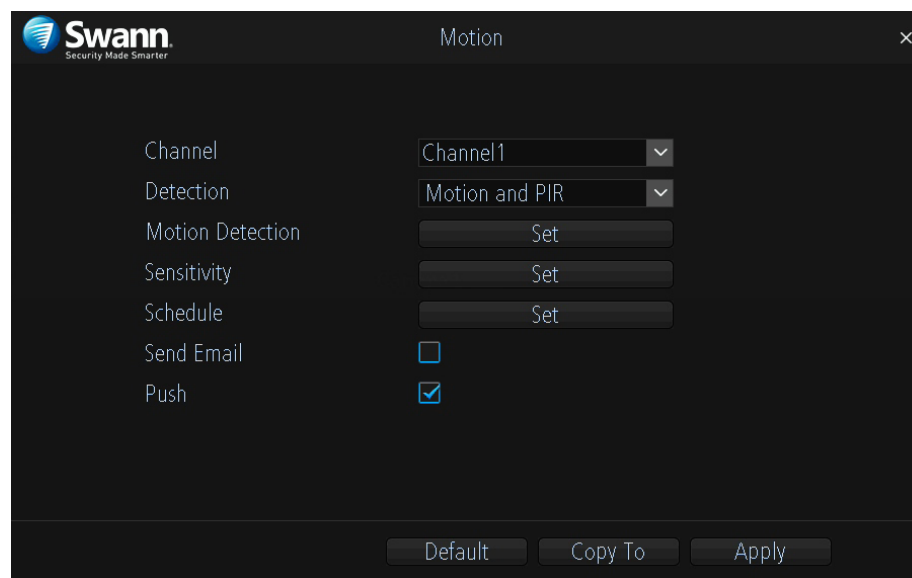
1. When all cameras have been added to your NVR, for Wi-Fi Mode click the drop down menu and select "Station" (as shown above).
2. After a short moment, a list of Wi-Fi access points that your NVR detects, will be shown. Select your Wi-Fi access point then click the next button (circle & triangle).
3. Input the password for your Wi-Fi access point then click the next button (circle & triangle). Make sure the password is correct before proceeding.
4. A message will appear on-screen stating that all cameras must be connected before proceeding. Click the next button (circle & triangle).
5. The cameras connected to your NVR will be displayed. A tick icon will ap-



pear in each checkbox. If one or more cameras haven't appeared, click the "Refresh" button otherwise click the "Apply" button.

6. After a brief moment your NVR will reboot then you will see your cameras in Live View mode. You can now disconnect the Ethernet cable connected to your NVR's Ethernet port.

Motion



Channel	Channel1
Detection	Motion and PIR
Motion Detection	Set
Sensitivity	Set
Schedule	Set
Send Email	<input type="checkbox"/>
Push	<input checked="" type="checkbox"/>

Default Copy To Apply

Channel: Select a camera that you would like to configure.

Detection: By default, your NVR will record motion only if one or more objects have been detected by the camera and the camera's built-in PIR sensor. This provides more accurate motion detection by eliminating false triggers due to wind, leaves falling and rain (see page 20 - [Thermal-Sensing Camera Tips](#)). If you're monitoring an area that doesn't require objects to be detected by the camera's built-in PIR sensor, such as a busy walkway or a building entrance, change this to "Motion".

Motion Detection: Click the "Set" button to change the default motion detection area. The entire view of the camera is enabled for motion detection, however this can be changed if you wish (see page 17 - [Motion Detection Setup](#)).

Sensitivity: Click the "Set" button to change the sensitivity level for each time period available. It's recommended to conduct a test to see if the sensitivity

level is correct for the camera's location (see page 19 - [Motion Detection Tips](#)).

Schedule: Click the "Set" button to change the default motion schedule (see page 18 - [Motion: Schedule](#)).

Send Email: Click the checkbox to send an email when motion has been detected.

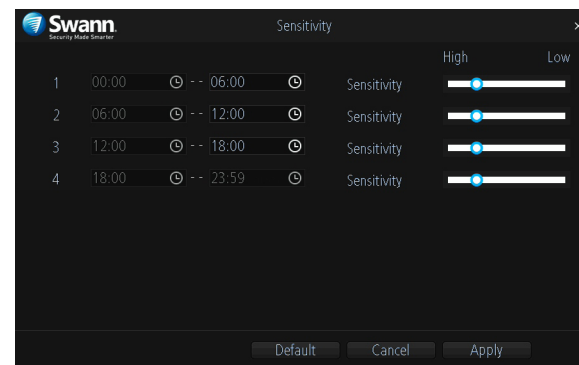
Push: By default, you will receive notifications via the AlwaysSafe app when motion has been detected. Click the checkbox if you don't want to receive notifications.

→ Click the "Default" button to revert back to default settings.

→ Use the "Copy to" button to apply all settings to the other cameras.

→ Don't forget to click "Apply" to save settings.

Motion Detection Setup



Use the Sensitivity function to change the motion sensitivity for each time period. Move the slider left or right to change.

The entire view of the camera is enabled for motion detection, however this can be changed if you wish.

In the example provided, a motion detection area has been created for the front yard but excludes objects such as trees as well as cars and pedestrians adjacent to the front yard of the house. Anyone who walks along the path via the front entrance and approaches the front door will be detected.

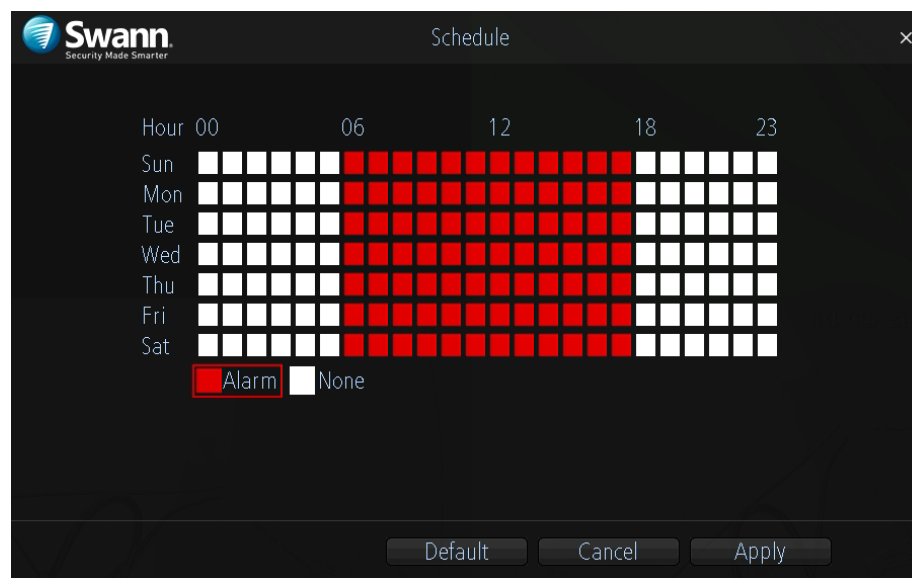
To create a new motion detection area, please do the following:

1. Right-click the mouse to access the sub-menu then click "Delete All".
2. To create a new motion detection area, press and hold the left mouse button, click and drag to select the area that you want to create then release the mouse. Multiple areas can be created. The same action also applies if you want to delete an area that has been created.
3. Right-click the mouse to access the sub-menu then click "Sensitivity" to

adjust the sensitivity level (see above right) if required. When finished click "Apply" then right-click to exit.

4. Right-click the mouse to access the sub-menu then click "Save" to save any changes made. To revert back to default settings click "Add to All" or click "Cancel" to exit.

Motion: Schedule



By default, a motion detection alarm schedule has been enabled for each camera connected, however you can change the schedule to suit your needs. The schedule is presented as a 24-hour 7 days a week grid.

Each square represents 60 minutes. Using the mouse, click on a particular square to change or click and drag the mouse over the squares corresponding to your desired time period. The same action can also be applied if recording is not required on one or more sections that have recording enabled.

In the above example, a schedule has been created for 06:00 a.m. to 06:00 p.m. Sunday to Saturday.

- Click the "Default" button to revert back to default settings.
- Click the "Cancel" button to exit.
- Don't forget to click "Apply" to save settings.

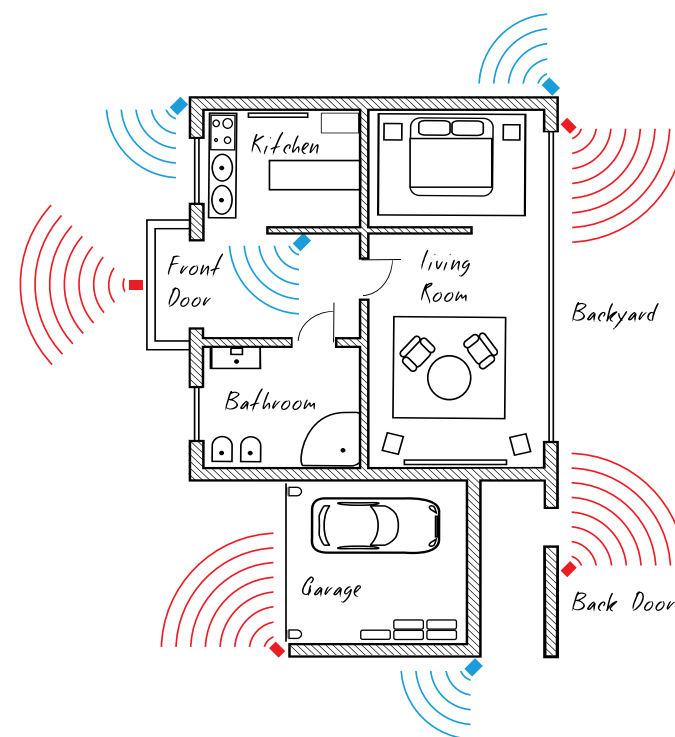
Motion Detection Tips

Placement of the cameras

1. Place cameras so they are facing areas where people have to walk through to approach your home regardless of where they are headed. A good idea is to place a camera overlooking your front door to capture an image of anyone approaching it for later reference. This is great if you have parcels delivered to your door or if the potential burglar knocks or rings the doorbell to see if anyone is home.
2. Walk around your house and assess where intruders are most likely to approach to enter, and what path they would take. Most burglars enter the home through a front or back door, so it's advisable to place the cameras near those areas so that you get the best amount of detail of anyone who approaches.
3. When installing cameras outside, it's important to keep your front and backyard as well-lit as possible for ideal night vision and the ability to detect motion. It's common for intruders to enter a home through an unlocked garage or by using a garage door opener in an unlocked car located in the driveway. Positioning your cameras to overlook cars in the driveway and similar locations can be very useful.

Avoiding False Triggers

1. A tree, shrub or foliage that is blown by the wind - angle the camera so wind-blown objects are out of the camera's view or use the camera motion detection area settings to exclude these areas from detection.
2. People moving along sidewalks or streets that are close to your home, aim your cameras and use the motion detection area settings to ensure only legitimate threats are triggering events.
3. Vehicles moving in the background - angle the camera so as to avoid movement in the background or use the motion detection area settings to stop detection of cars in the street.
4. Movement or light reflected off smooth surfaces such as glass - adjust the sensitivity level and/or avoid pointing the camera directly at glass surfaces.



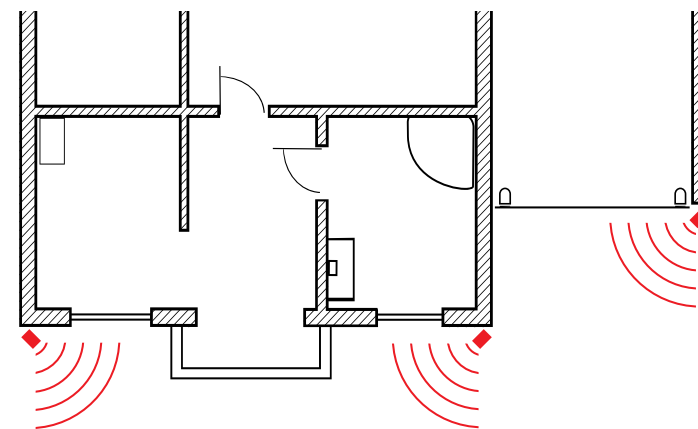
The **red cameras** illustrated (see above) are your primary locations. Place your cameras close to the front door, back door, garage entrance and overlooking the backyard.

The **blue cameras** illustrated are your secondary locations. If your NVR includes additional cameras, place these at the front entrance inside the home, the front of the house (this could overlook the front garden or driveway), a side gate or if you have multiple entrances to the backyard.

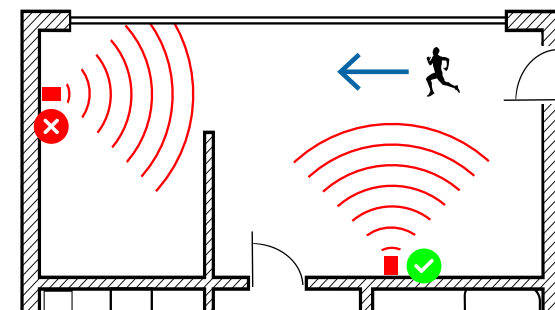
Thermal-Sensing Camera Tips

Your cameras have a built-in PIR (passive infrared motion detector) sensor. This means they can sense movement of warm objects including people, cars and animals. The advantage over cameras that don't have a PIR sensor, is they are very resistant to false triggers from changes in the image.

- PIR sensors work best when an intruder walks parallel or is passing across their “field of view” as opposed to walking directly at them. For example, in a hallway or path around the house you tend to walk parallel to the walls, not directly toward them. Position your cameras so that anyone approaching your home will cross the camera's view and trigger an event.
- For a recording to occur, the PIR must sense a warm object moving in front of it and the camera's image sensor must detect movement in the image. If either of these triggers has not occurred, no video will be recorded.
- When the PIR is triggered, the PIR icon (red box) will flash on-screen. If PIR and motion are triggered, the “running man” icon will be shown on-screen indicating that an event has occurred and that a recording is happening.
- The PIR can detect objects outside of the camera's field of view, so not everything that triggers the sensor will be visible on your camera.
- The PIR can reliably detect movement up to 30ft/9m, movement beyond this range may or may not be detected.
- Be aware that sudden changes in temperature of paths, roads, for example, can cause some minor false alerts to occur when there is also movement in the image such as trees and shadows.
- If some false triggering is occurring, use the motion area setup to remove moving objects from being detected, and to further refine your alerts (see page 17 - [Motion Detection Setup](#)).
- When used indoors, keep the cameras away from heating vents, heaters and other heat sources as they can trigger the PIR. However if there is no movement in the image, a false alert is unlikely.



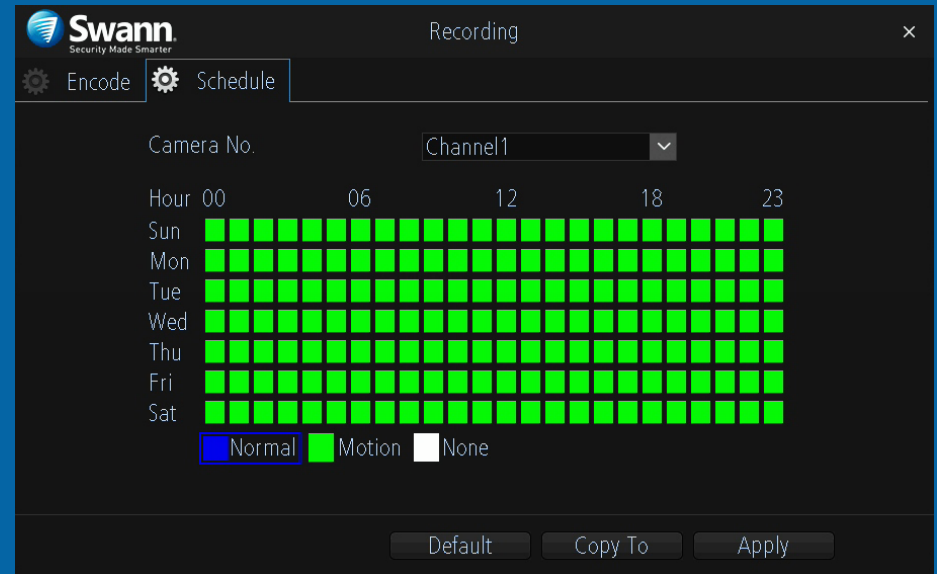
When installing cameras outside, mount them where intruders are most likely to enter (front & back doors, garage entrance). Angle the cameras so the intruder walks parallel to the sensor.



PIR sensors work best when an intruder walks parallel or is passing across their “field of view” as opposed to walking directly at them.

Recording Configuration

The recording schedule is accessible from the “Recording” menu. From here you can change the schedule for each camera connected. By default, a motion detection alarm schedule has been enabled for each camera. However, you can change the schedule according to what fits in with your needs.



Recording: Schedule



By default, a motion detection recording schedule has been enabled for each camera connected, however you can change the schedule to suit your needs. The schedule is presented as a 24-hour 7 days a week grid and is color coded to represent the event type.

Camera No.: Select a camera that you would like to configure.

Normal: Your NVR will constantly record for a set period of time.

Motion: Your NVR will only record when motion has been detected from one or more cameras.

None: As the name describes, your NVR will not record anything.

In the above example, a Motion recording schedule has been created for 12:00 a.m. to 06:00 p.m. and a Normal recording schedule for 06:00 p.m. to 12:00 a.m. Sunday to Saturday. Using the mouse, select the desired recording mode (Normal, Motion or None) then click and drag the mouse over the

squares corresponding to your desired time period.

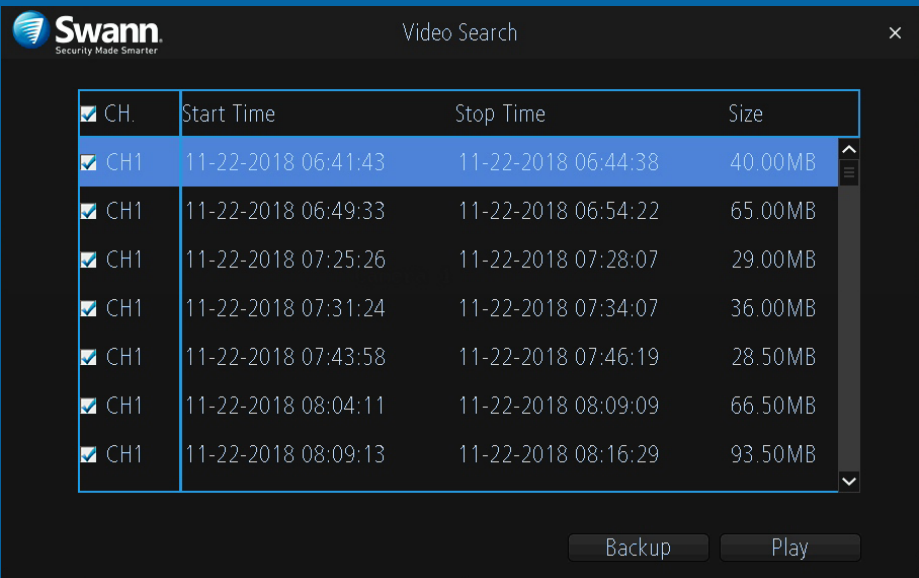
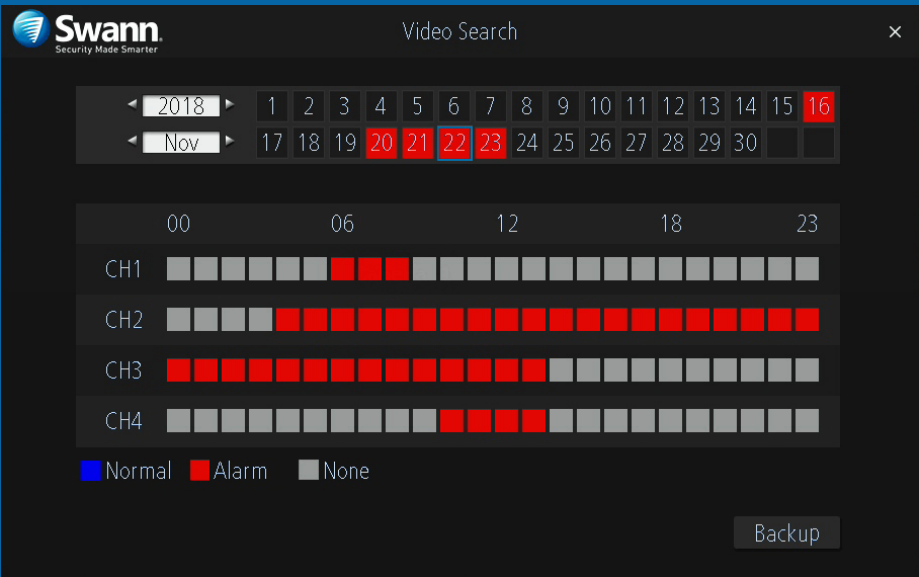
→ Click the “Default” button to revert back to default settings.

→ Use the “Copy to” button to apply all settings to the other cameras.

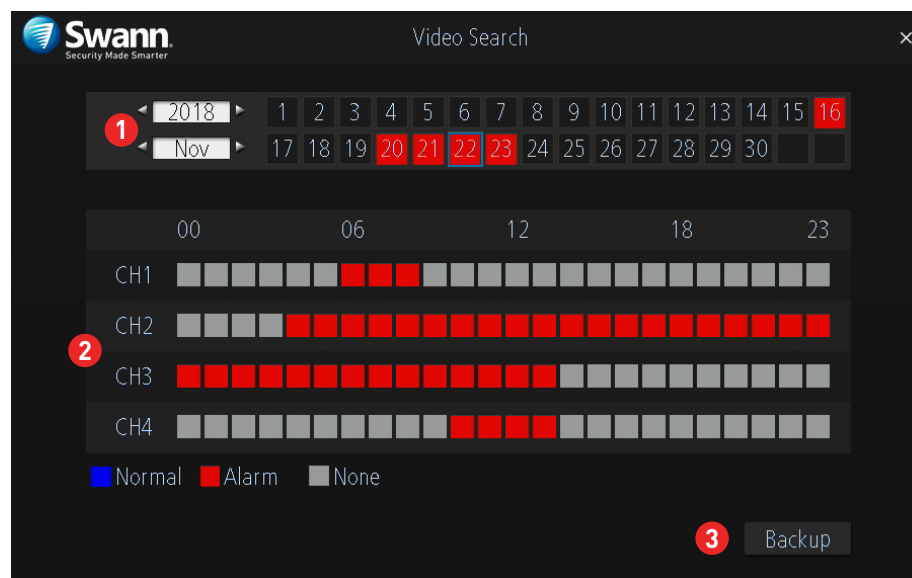
→ Don’t forget to click “Apply” to save settings.

Playback & Backup

The Search function gives you the ability to search and play previously recorded videos that are stored on your NVR's storage device. Each camera is presented as a 24 hour grid and is colour coded to represent the event type. A monthly calendar is also visible alerting you on which days have recordings available. The Backup function gives you the ability to save important events to a USB flash drive.



Search: Video Search



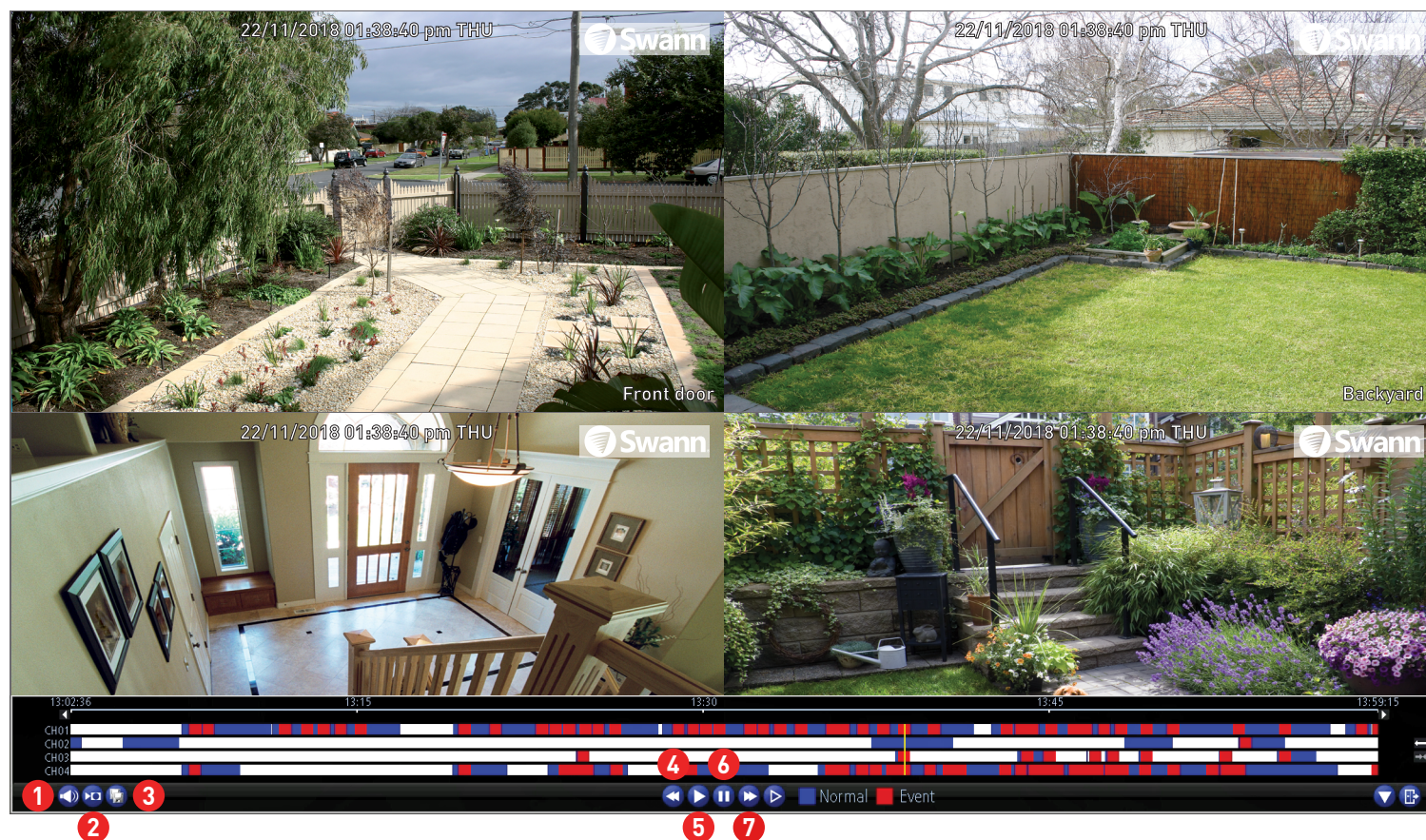
Each camera is presented as a 24 hour grid and is colour coded to represent the event type (Normal or Alarm). A calendar is also visible alerting you on which days have recordings available (dates in red have recordings available).

1. Select the year and month that you would like to search for then select a date to display the recordings available.
2. Click on a particular event to play back video (see page 25 - [Playback Interface](#)).
3. Click the “Backup” button to save important events to a USB flash drive. After clicking the button, you will see a list of videos that match the date that has been selected (see page 27 - [Search: Backup](#)).



Please note: When playing back events, your NVR will continue to monitor and record as normal, therefore playback performance may be sacrificed.

Playback Interface



1. Click this button to mute or unmute the audio.
2. Click this button to make one or more cuts in your video which you can then export to a USB flash drive. When a video is playing, press this button, press and hold the mouse button while dragging along the timeline to set the mark in point then release the mouse button to set the mark out point. You will see a scissor icon above the timeline indicating the two points that have been created. Multiple mark in and out points can be created.
3. Click this to save your mark in and mark out points to a USB flash drive.

4. Click this to rewind playback. Subsequent presses will increase the speed.
5. Click this to play video.
6. Click this to pause playback. Subsequent presses will move a single frame forward in the video.
7. Click this to speed up playback. Subsequent presses will increase the speed.

(continued on next page)

Playback Interface



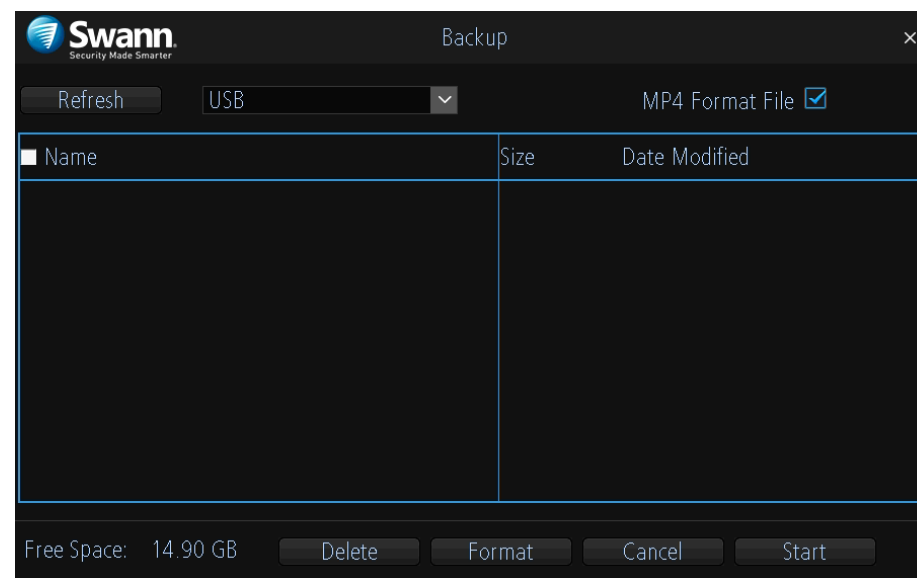
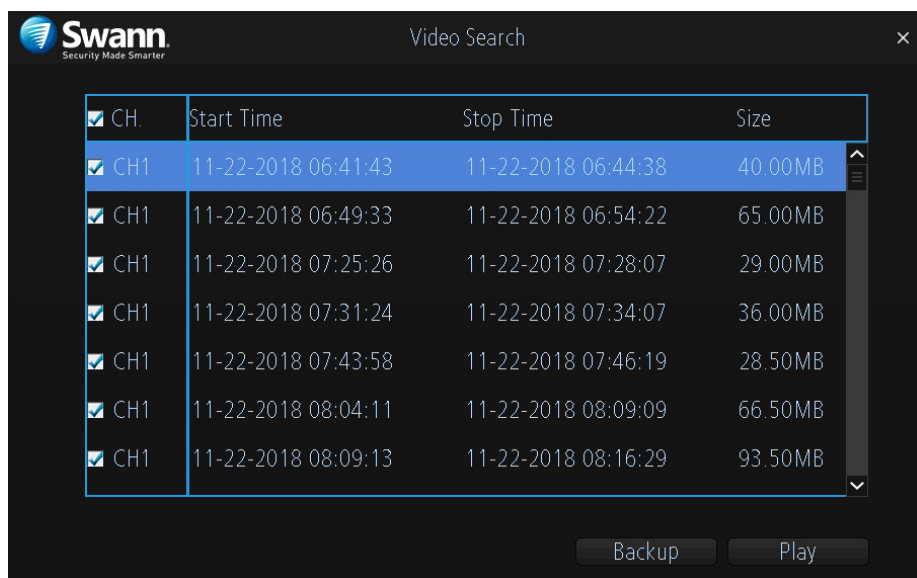
8. Click this to reduce playback speed. Subsequent presses will further reduce the speed. Click the “Play” button to resume normal playback.

9. Click this to hide the playback interface to maximise the viewing area (you can also do this by right-clicking the mouse then clicking “Console”).

10. Click this to exit.

11. Click these to zoom in and out of the timeline for precise control.

Search: Backup



1. By default, each video listed has been selected for backup. If this isn't required, click the checkbox next to "CH." to deselect all videos then click the checkbox next to the video that you want to backup.

2. To check that the video you've selected is the one that you want to backup, click the "Play" button.

3. Before proceeding, connect a USB flash drive to the USB port located at the rear of your NVR.

4. Wait a short moment then click "Backup".

5. Select the location that you want to save to then click "Start". A progress bar will be displayed on-screen. You also have the option of deleting files and to format the storage device. When finished, right-click the mouse to exit.

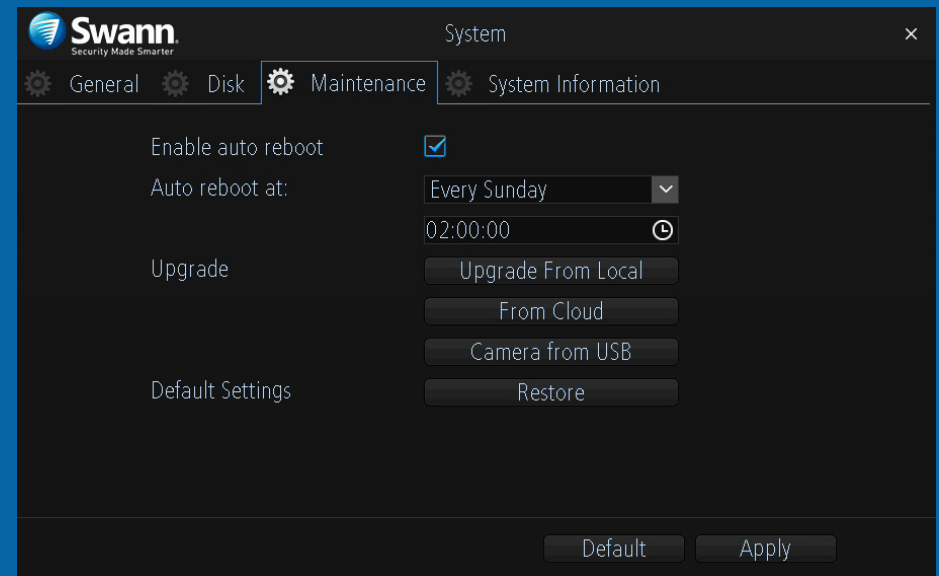
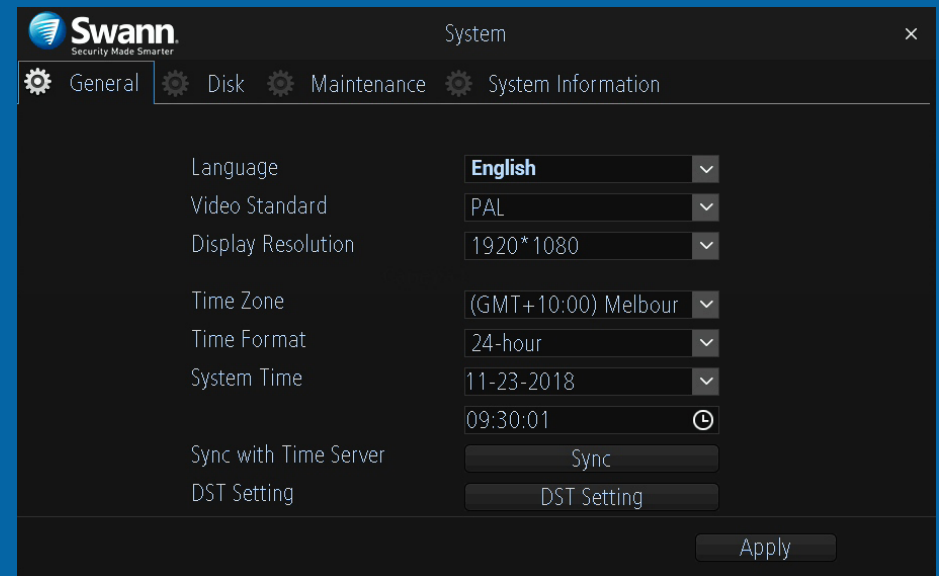


Please note: Depending on the number of files that have been selected, the backup process can be time consuming, therefore we don't recom-

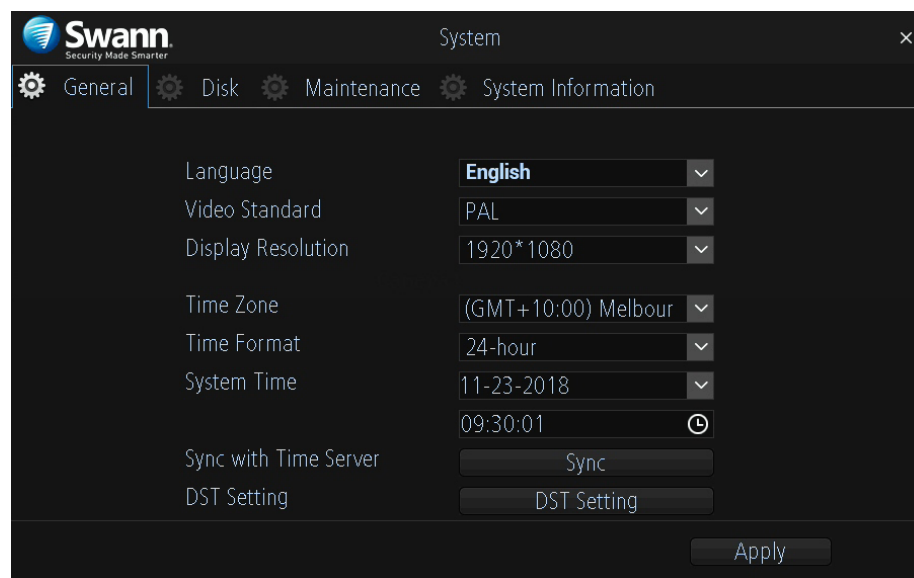
mend that you backup the entire storage device. Only backup recordings that are required.

System Configuration

The options available here give you complete control on how your NVR is configured and how it operates. Some of the options such as screen resolution, time zone, email configuration, password creation and Daylight Saving Time are configured during the Wizard. You can also perform a firmware upgrade when available.



System: General



Language: Select a language you would like the system menus to be displayed in. Multiple languages are available.

Video Standard: Select the correct video standard for your country. USA and Canada are NTSC. UK, Australia and New Zealand are PAL.

Display Resolution: Select a display resolution that is suitable for your TV. 1920 x 1080 will suit most TVs.

Time Zone: Select a time zone relevant to your region or city.

Time Format: Click the drop down menu to select the preferred time format.

System Time: Select the correct date and time. The date is displayed as month, day and year.

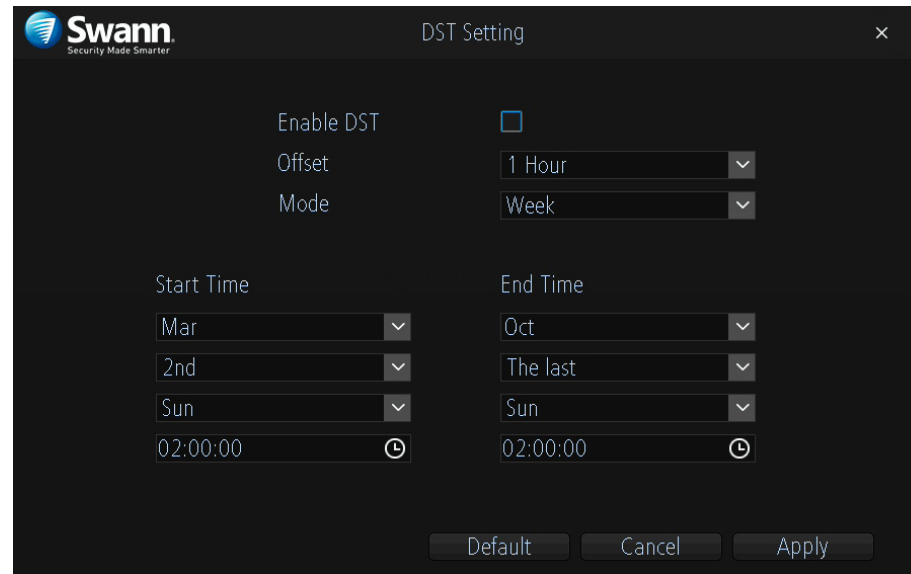
Sync with Time Server: Click to automatically synchronize your NVR's internal clock with a time server. A message will appear on-screen stating sync

time has been successful. Click "OK" to continue.

DST Setting: Click this to configure your NVR to automatically adjust its time for Daylight Saving in your time zone (see page 31 - [Daylight Saving](#)).

→ Don't forget to click "Apply" to save settings.

Daylight Saving



The image shows a 'DST Setting' dialog box from Swann. It has a dark background with white text. At the top left is the Swann logo with the tagline 'Security Made Smarter'. The title 'DST Setting' is at the top right. The dialog contains several settings: 'Enable DST' with an unchecked checkbox, 'Offset' set to '1 Hour', and 'Mode' set to 'Week'. Below these are 'Start Time' and 'End Time' sections. 'Start Time' is set to 'Mar', '2nd', 'Sun', '02:00:00'. 'End Time' is set to 'Oct', 'The last', 'Sun', '02:00:00'. At the bottom are three buttons: 'Default', 'Cancel', and 'Apply'.

Enable DST	<input type="checkbox"/>
Offset	1 Hour
Mode	Week
Start Time	End Time
Mar	Oct
2nd	The last
Sun	Sun
02:00:00	02:00:00
Default Cancel Apply	

Enable DST: Click the checkbox to enable.

Offset: Select the time that Daylight Saving has increased by in your time zone. Adjust accordingly.

Mode: Select to enable Daylight Saving by week or by date.

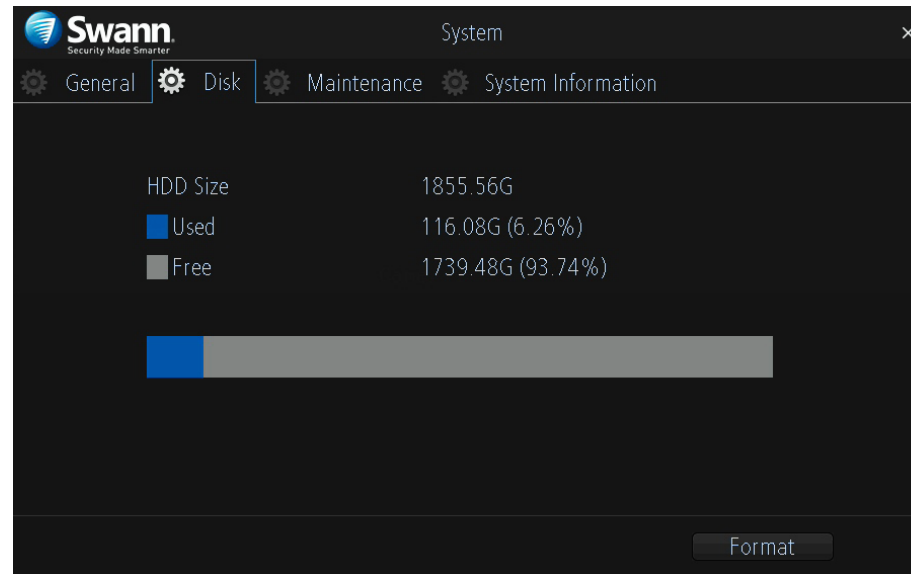
Start Time/End Time: Set when Daylight Saving starts and ends, for example 2 a.m. on the first Sunday of a particular month or on a particular date. Adjust accordingly.

→ Click the “Default” button to revert back to default settings.

→ Click the “Cancel” button to exit.

→ Don’t forget to click “Apply” to save settings.

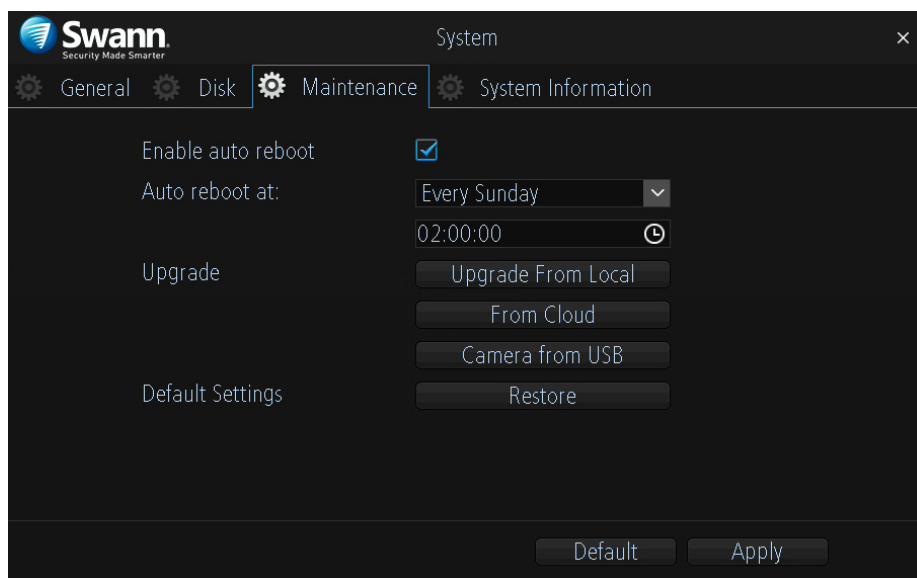
System: Disk



This function gives you the option of formatting your NVR's storage device (internal hard drive, USB hard drive or MicroSD card). If a new storage device has been connected and installed, it must be formatted before use.

Format: Click this to format the storage device. A message will appear on-screen stating that all your recordings will be deleted (If you have any recordings that are required, back them up to a USB flash drive). Click "OK" to continue. The storage device will now format which will only take a few short moments.

System: Maintenance



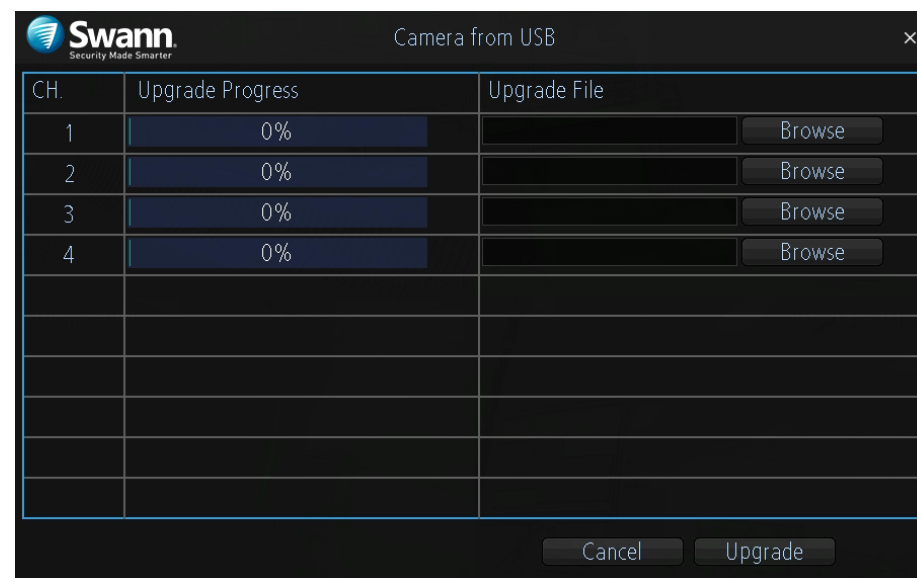
Enable auto reboot: It's recommended to leave this enabled as it maintains the operational integrity of your NVR.

Auto reboot at: Choose an appropriate day and time to reboot your NVR.

Upgrade From Local: Click this to upgrade the firmware via a USB flash drive. Select the firmware file, click "Upgrade" then "OK" to confirm. When the firmware upgrade has completed, your NVR will reboot automatically.

Upgrade From Cloud: Click this to check if an updated firmware is available using your internet connection. A message will appear on-screen informing you if an update is available. Click the "Upgrade" button to proceed then follow the on-screen instructions.

Upgrade Camera from USB: Click this to upgrade the camera's firmware via a USB flash drive (see above right screenshot). To upgrade the firmware, click "Browse", select the firmware file then click "OK". Repeat these steps



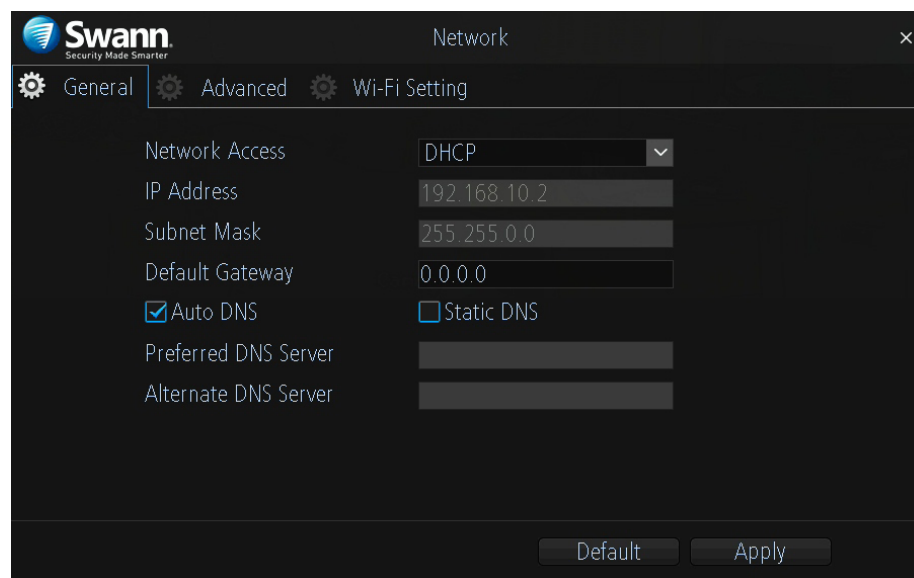
for each camera displayed. When finished click "Upgrade". Each camera will restart when the upgrade has completed.

Default Settings: Click this to restore factory default settings. All recordings on the storage device will remain.

→ Click the "Default" button to revert back to default settings.

→ Don't forget to click "Apply" to save settings.

Network: General



As SwannLink Peer-to-Peer technology is utilised to communicate with your network and mobile device, configuration of the network settings is not required. If you have networking expertise and require specific settings for your network, you do have the ability to change them.

Network Access: You can select between two different network types that your NVR can be connected to. The two types are:

DHCP (Dynamic Host Configuration Protocol): Your router will automatically assign an IP address to each device connected to your network. This is enabled by default.

Static: All devices on your network have their IP address manually defined.

IP Address: Each device on your network must have a unique IP address. A typical address might be "192.168.1.24" or something similar.

Subnet Mask: This allows the flow of network traffic between hosts to be

segregated based on a network configuration. A typical address might be "255.255.255.0" or something similar.

Default Gateway: This allows your NVR to connect to the internet. This is typically the same IP address as your modem or router.

Auto DNS/Static DNS: Select how would like to define your DNS servers. It's recommended to leave this on auto.

→ Click the "Default" button to revert back to default settings.

→ Don't forget to click "Apply" to save settings.

Network: Advanced



Email Settings: Click the “Set” button if any changes are required to your email account (see page 35 - [Email Settings](#)).

Server Port: This port number is used by your NVR to send information through. The default number will work in most situations.

HTTP Port: This port number is used to log into your NVR from a remote location. The default number will work in most situations.

NTP (Network Time Protocol): This function allows your NVR to automatically sync its clock with a time server. This gives it the ability to constantly have an accurate time setting (your NVR will periodically sync automatically).

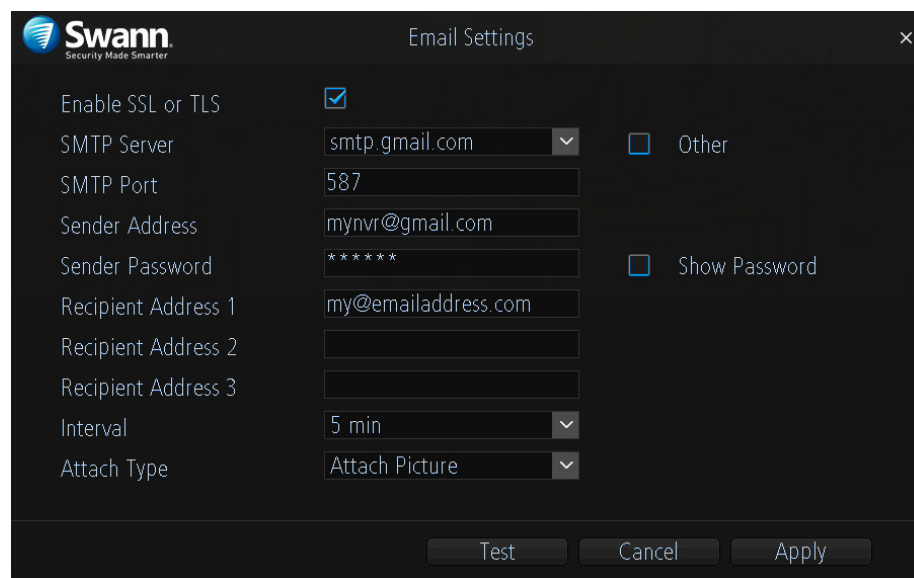
UID enable: This is part of SwannLink and is enabled by default.

UID: This is your NVR’s unique identification code. Click “Send UID” to send this to your email address.

→ Click the “Default” button to revert back to default settings.

→ Don’t forget to click “Apply” to save settings.

Email Settings



The image shows a 'Swann Email Settings' dialog box. It has a dark background with white text. The Swann logo is in the top left. The title 'Email Settings' is in the top right. The settings are as follows:

Setting	Value	Option
Enable SSL or TLS	<input checked="" type="checkbox"/>	
SMTP Server	smtp.gmail.com	<input type="checkbox"/> Other
SMTP Port	587	
Sender Address	mynvr@gmail.com	
Sender Password	*****	<input type="checkbox"/> Show Password
Recipient Address 1	my@emailaddress.com	
Recipient Address 2		
Recipient Address 3		
Interval	5 min	
Attach Type	Attach Picture	

At the bottom are three buttons: 'Test', 'Cancel', and 'Apply'.

Enable SSL or TLS: This is enabled by default and is required by most email providers.

SMTP Server: Gmail select smtp.gmail.com. Outlook select smtp.live.com. Click the “Other” checkbox if you would like to use your own email server.

SMTP Port: Change this to 587 for both Gmail and Outlook.com.

Sender Address: Input the email address for the account you created.

Sender Password: Input the email password for the account you created. Click the “Show Password” checkbox to show your password.

Recipient Address: Input an email address that you want to send email alerts to. You can input up to three different email addresses.

Interval: This is the length of time that must elapse after your NVR sends an email alert before it will send another. Adjust accordingly.

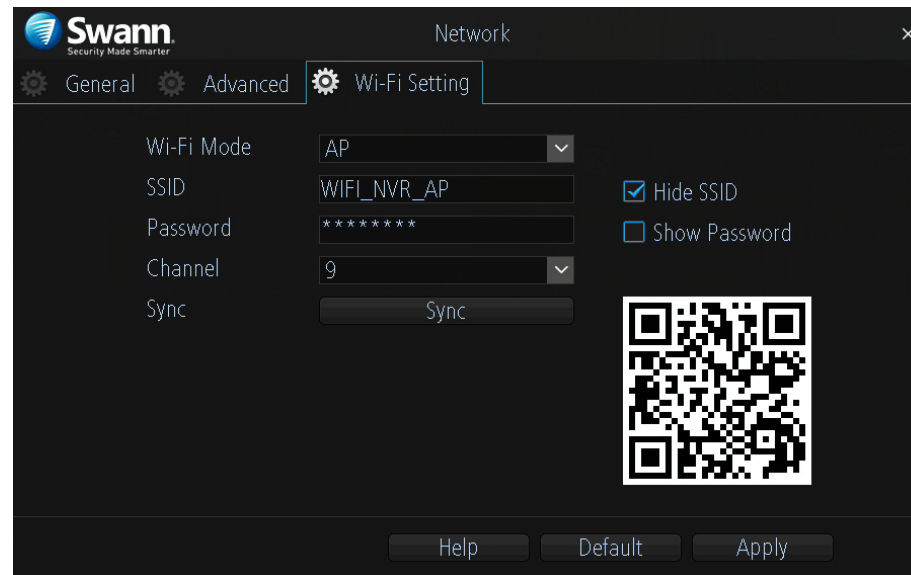
Attach Type: Select the attachment type (picture or video) that you want to receive with your email alerts.

Test: Click to verify the information you entered is correct then click “OK”.

Email not working? Please try the following:

1. Check that your email user name and password are correct.
2. Located at the back of your NVR, you should see one or two flashing LEDs (above the Ethernet port). If you don't see this, disconnect then reconnect the Ethernet cable or try a different port on your router.
3. Search “less secure apps” at support.swann.com.
 - Click the “Cancel” button to exit.
 - Don't forget to click “Apply” to save settings.

Network: Wi-Fi Setting (AP Mode)



Wi-Fi Mode: The default mode of operation for your NVR is AP mode. The cameras will connect (wirelessly) to your NVR and the NVR must be physically connected to your router to gain internet access. For more information about Station mode (see [page 37](#)).

SSID: Just like your Wi-Fi access point, this is the network name of your NVR. You can leave the default name or you can change it if required.

Hide SSID: We recommend that you leave this enabled. This ensures that no other Wi-Fi enabled devices will see your device as a Wi-Fi access point.

Password: You can leave the default Wi-Fi password or you can change it if required.

Show Password: Click the checkbox to display the Wi-Fi password.

Channel: All Wi-Fi devices communicate over specific wireless channels. If you are experiencing an intermittent dropout with your cameras or slow per-

formance overall, click the drop down menu and change the channel number. If you have an Android mobile device, you can use a Wi-Fi analyzing app to display the channels used for neighbouring Wi-Fi networks. Search for “Wifi Analyzer” in your app store (unfortunately there isn’t an equivalent app for iOS mobile devices).

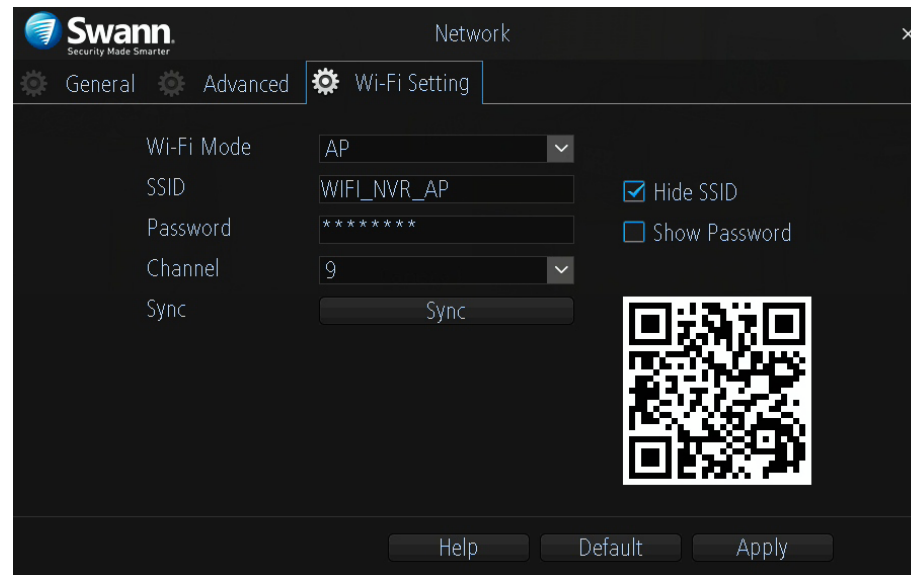
Sync: If any settings have been changed, click this button to sync changes to your cameras. Do not exit until this is done.

→ Click the “Help” button for instructions on how to sync Wi-Fi settings to your cameras.

→ Click the “Default” button to revert back to default settings.

→ Don’t forget to click “Apply” to save settings.

Network: Wi-Fi Setting (Station Mode)



Station mode allows wireless communication from your NVR to the router to gain internet access. This gives you the flexibility of placing your NVR in a different location, without having to be physically connected to your router.

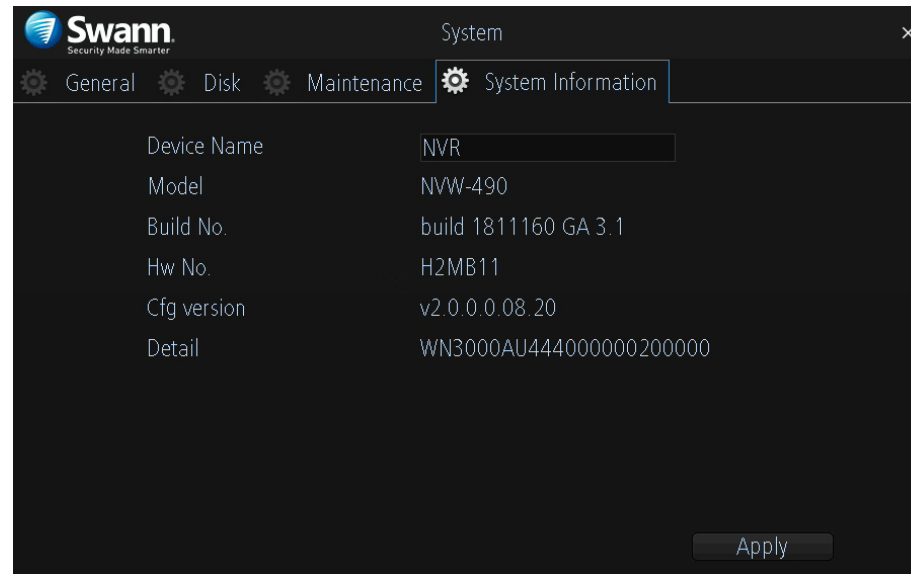
In Station mode your cameras also connect to your router directly via Wi-Fi rather than connect to your NVR, so please take the distance between your cameras and your router into consideration when using this mode.

As mentioned in the on-screen message, make sure each camera has successfully connected with your NVR before changing modes. This is very important as your NVR will instruct the cameras as to which mode has been selected and will send the connection information to them over Wi-Fi. If you see all four cameras in Live View mode, you're good to go.

Wi-Fi Mode: Click the drop down menu, select "Station" then do the following:

1. After a short moment, a list of Wi-Fi access points that your NVR detects, will be shown. Select your Wi-Fi access point then click the next button (circle & triangle).
3. Input the password for your Wi-Fi access point then click the next button (circle & triangle). Make sure the password is correct before proceeding.
4. A message will appear on-screen stating that all cameras must be connected before proceeding. Click the next button (circle & triangle).
5. The cameras connected to your NVR will be displayed. A tick icon will appear in each checkbox.
6. After a brief moment your NVR will reboot then you will see your cameras in Live View mode. You can now disconnect the Ethernet cable connected to your NVR's Ethernet port.

System: System Information



This tab displays technical information about your NVR. If you call our help-desk for assistance, our staff may ask you to access this tab to assist them in solving any technical issues that you may be having.

Device Name: Click the dialogue box to rename your NVR (if required).

→ Don't forget to click "Apply" to save settings.

Frequently Asked Questions

Can I play video(s) on my NVR that I have copied to a USB flash drive?

No, your NVR doesn't have the option to play video(s) from a USB flash drive. You will have to play them on your computer or mobile device.

What is the largest hard drive that I can install inside my NVR?

The largest hard drive you can install is 4TB (terabyte). We recommend that you purchase a drive that is surveillance rated such as the Western Digital Purple™ and Seagate Skyhawk™ range of drives.

Can I connect and record to a portable USB hard drive?

If your NVR doesn't have a hard drive installed (internally), you can connect and record to a portable USB hard drive.

Can I connect and copy videos to a portable USB hard drive or MicroSD card?

No, you can only copy videos to a USB flash drive.

How do I save video recordings that are on my NVR?

To copy video recordings to a USB flash drive, use the Search: Backup function (see [page 27](#)).

What is the largest MicroSD card that I can use?

The largest MicroSD that can be used is 128GB.

Can I use my own email address and server instead of creating a new one?

You can providing you have the settings required for the SMTP port and server. If you don't have this, you will have to contact your internet service provider to get this information.

Can I select which storage device that my NVR can record to?

No, your NVR has been configured to record to one storage device at a time. If a hard drive has been installed internally, it will not detect a MicroSD card

inserted or a USB hard drive connected.

My NVR is recording to a USB hard drive, how can I copy videos to a USB flash drive?

As your NVR has two USB ports, you need to connect a USB hub to extend the number of ports available. Connect the mouse and USB flash drive to the USB hub then connect this to your NVR. You can then copy videos to the USB flash drive. If you don't have a USB hub, they can be purchased from most computer retailers or electronic stores.

What is the wireless range of the cameras, how far can I install them?

There are many factors that can affect wireless range such as the size and structure of your home, other wireless products within your vicinity and possible interference from appliances. When your NVR is running in AP mode the wireless range can be up to 100ft/30m, depending on conditions, with the typical range being 50ft/15m. In Station mode, as the cameras communicate with your Wi-Fi access point, you have more flexibility on camera placement but the same wireless range applies.

My cameras are intermittently disconnecting and reconnecting.

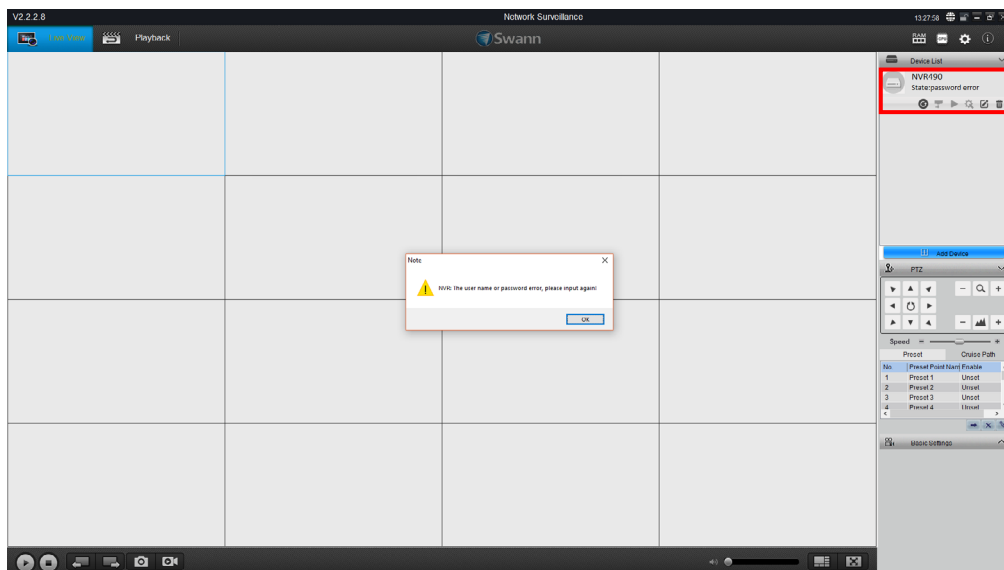
Try placing the cameras closer to your NVR if running in AP mode, or closer to your Wi-Fi access point if running in Station mode. You can also change the channel that your NVR and or Wi-Fi access point operates on. All Wi-Fi devices communicate over specific wireless channels. Neighbouring Wi-Fi home networks that run over the same channel will generate radio interference that will cause network performance slowdowns (see [page 36](#)). Consult the instruction manual for your Wi-Fi access point on how to change the channel for that device.

Resetting your Password using SwannView Link

I haven't created an email for my NVR, what can I do? Don't worry, you can use SwannView Link to retrieve your recovery code. You can use this to reset your NVR's password. Download the relevant version for your computer and follow the on-screen instructions to complete installation.

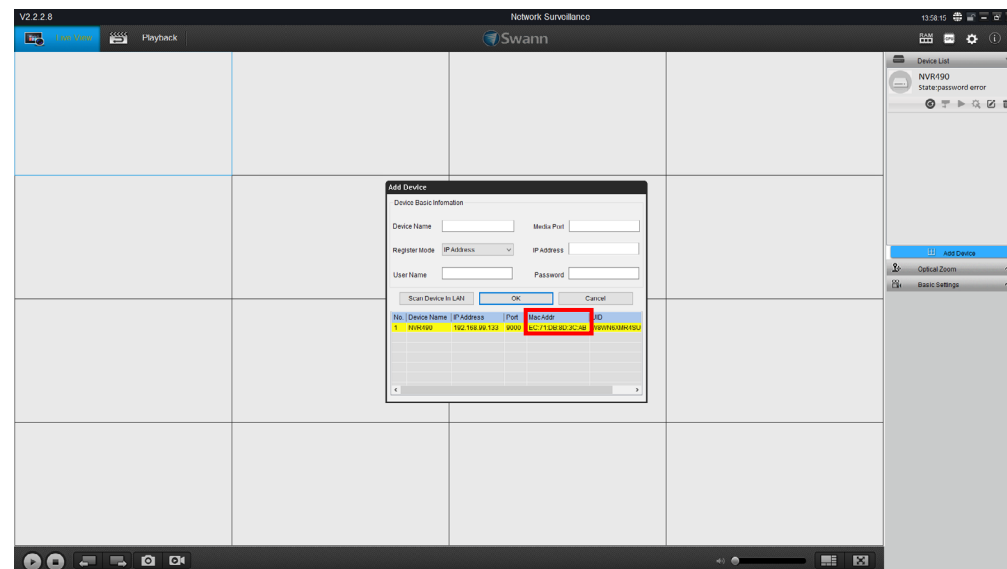
SwannView Link Windows click [here](#). **SwannView Link Mac** click [here](#).

1. When you first run SwannView Link, you will see the following screen:



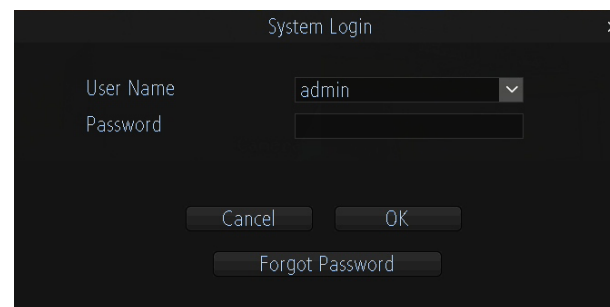
2. Your NVR will automatically be detected (top right corner as shown above) and an error message will appear on-screen. Don't worry this is normal. Click "OK" to continue (if your NVR does not appear, check that your device is connected to your router using the supplied Ethernet cable).

3. To retrieve your recovery code, click "Add Device" (blue button). You will see the following screen:



4. Your NVR's MAC Address will be displayed. This is your recovery code that is used to reset the password. Write this down including the colons (:).

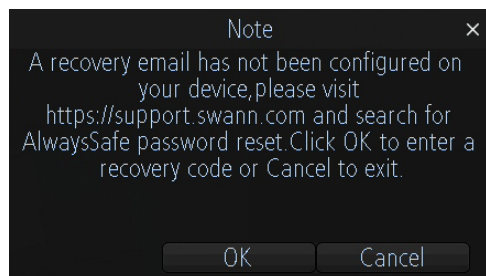
5. Now it's time to enter the recovery code on your NVR. Right-click the mouse on the Live View screen to display the Menu Bar then click "Menu". The login prompt will appear on-screen:



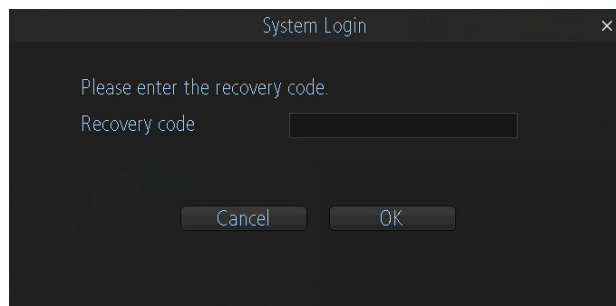
(continued on next page)

Resetting your Password using SwannView Link

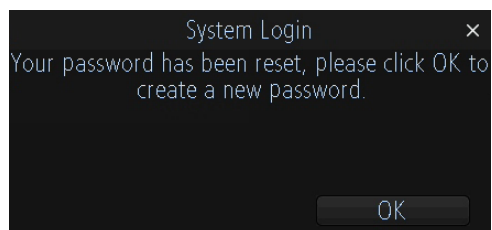
6. Click “Forgot Password”. A message will appear on-screen:



Click “OK” to continue. The recovery code prompt will appear on-screen:

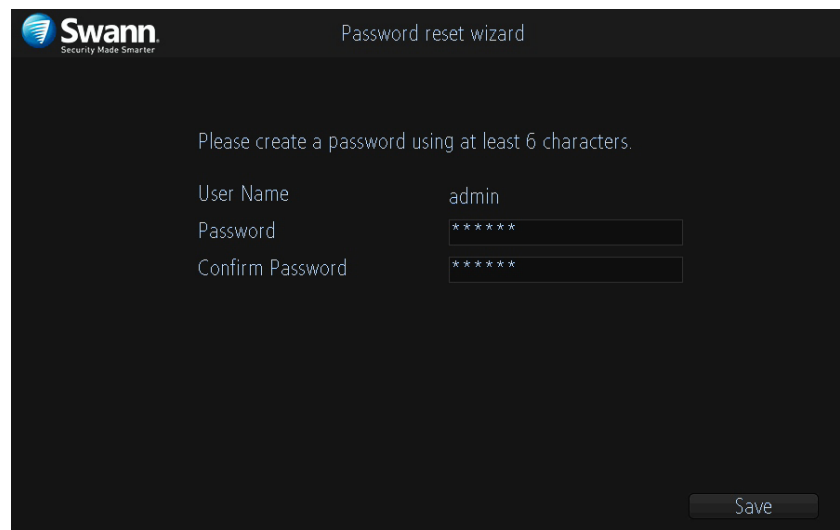


Click the dialogue box then enter the recovery code (MAC Address), for example EC:71:DB:8D:3C:AB then click “Enter”. Click “OK” to confirm. A message will appear on-screen stating that the password has been reset.

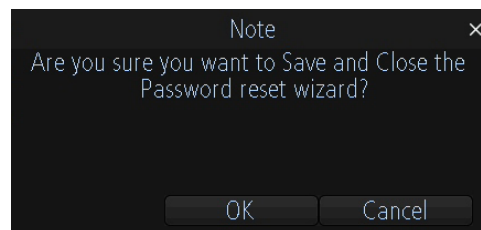


Click “OK” to continue.

7. You will now be prompted to enter a password:



The password has to be a minimum of six characters and can contain a mixture of numbers and letters. Use a password that you are familiar with, but is not easily known to others. Write down your password for safe keeping. When finished click “Save”. You will now see the following screen:



Click “OK” to finish.

Don't forget to write down your password: _____

Glossary

3D-Noise Filter: Is an enhanced form of digital noise reduction. The advancement in technology enables noise to be filtered even more effectively from the image, even in low light conditions.

50Hz: Is the mains frequency used in the UK, Australia and most European countries.

60Hz: Is the mains frequency used in the United States, Canada and some Latin American countries.

AGC (Automatic Gain Control): In low light conditions, the camera will automatically boost the gain control so that people and objects can be seen more clearly. The advantage of this technique is that your camera will produce images in much lower light conditions. The downside is that the amplification will increase the video noise visible.

AHD: Is an analogue high definition closed-circuit television video surveillance standard that uses coax cable to transmit HD video from security cameras to DVRs. AHD supports 720p and 1080p HD video resolutions.

Anti-flicker: As fluorescent lighting operates at the same frequency as your mains power, this will cause luminance flicker when viewed through the camera. Enabling the anti-flicker options available can reduce or eliminate the flicker that is visible.

Anti-smearing: A smear effect means that a bright vertical line originating from a bright light source appears in the image. This happens especially with back lighting. Enabling this allows people and objects to be seen correctly against a very bright background.

Auto DNS (Domain Name System): A service that stores domain names and translates them into internet protocol addresses. For example, www.google.com will have a DNS server address that is equivalent to 74.125.224.72. The

DNS server is automatically provided by your internet service provider.

Auto-focus: Will adjust the lens of your camera to focus on an object being viewed.

Bandwidth: In computer networks, bandwidth is used as a synonym for data transfer rate, the amount of data that can be carried from one point to another in a given time period (usually a second). Network bandwidth is usually expressed in bits per second (bps).

Bitrate: The amount of data that your DVR or NVR will use to record video. The higher the bitrate, the more space each recording will consume on the hard drive. Increasing this will also consume more bandwidth when streaming. Unit of measurement is either Mbps (megabits per second) or kbps (kilobits per second).

BLC (Back Light Compensation): Improves exposure of an object that is in front of a light source. It does this by splitting the whole image into different regions, and then applying separate exposure levels to those regions.

Brightness: This changes how light the image appears to be. Its value is different in darkness to that in daylight. For example, the lights from car headlights appears to be brighter at night.

CDS: This allows the image to be set by the camera's light sensor. A CDS sensor is basically a resistor that changes its resistive value (in ohms) depending on how much light is shining onto the sensor.

Cloud: Cloud computing is a model for delivering information technology services in which resources are retrieved from the internet through web-based tools and applications rather than a direct connection to a server. Services such as Dropbox, Google Drive and Microsoft OneDrive are just some of the examples of cloud computing.

Glossary

Compound Stream: Indicates that your DVR or NVR is recording video and audio at the same time.

Contrast: This increases the difference between the blackest black and the whitest white in the image. Without contrast you wouldn't have an image because there wouldn't be any differentiation between light and dark.

Covert: The camera will detect motion and trigger your DVR or NVR to record, but you will not see an image of the camera in Live View mode.

DDNS (Dynamic DNS): Is a service that converts IP addresses into host names (a host name is a lot easier than trying to remember an IP address). It also supports dynamic IP addresses, such as those assigned by a DHCP server. This makes DDNS a good fit for home networks, which normally receives an IP address from the ISP that will change occasionally.

DHCP (Dynamic Host Configuration Protocol): Uses an appropriate server or router to enable dynamic assignment of an IP address to a device connected to the network.

Display Resolution: Is the number of pixels supported by your TV or VGA monitor or the output signal of a viewing device, e.g. your DVR or NVR.

DNS Server: Is a standard technology for managing public names of web sites and other internet domains. DNS technology allows you to type names into your web browser which your computer will automatically find the address on the internet.

DST (Daylight Saving Time): Is the period of the year when clocks are moved one hour ahead.

DualStream: A process where your DVR or NVR will record both Mainstream and Substream video at the same time.

Format: Is a command that prepares a storage device such as a USB flash

drive or hard drive to hold data.

Firmware: The software that operates a discrete device (e.g. your smart-phone). It is referred to in this way rather than software as it is integral to the operation of the device.

Frame Rate: The measurement of the rate that pictures are displayed to create a video feed. The unit of measurement is frames per second (fps).

Gateway: Is a node or router that routes traffic from a device on your home network to the outside network that is providing access to the internet.

H.264+: Mass video data requires increased storage capacity. To resolve this issue, video compression technologies are used to reduce the data while maintaining image quality. H.264+ is an innovative encoding technology aimed at surveillance video.

H.265: Is a video compression standard and one of several potential successors to the widely used H.264. It offers double the data compression ratio at the same level of video quality.

Hardware: A physical device such as your DVR or NVR.

HDD (Hard Disk Drive): Is a storage device located inside your DVR or NVR. It is where all data is kept, saved and stored.

HTTP Port (Hypertext Transfer Protocol): This port is used to log into the web browser interface of your DVR or NVR (if available) using a web client, such as Internet Explorer.

Hue: Is somewhat synonymous to what is usually referred to as colors. By altering the hue, you can change the color mix of the image.

IP Address: The address of a device attached to the network. Each device on the network must use a unique address.

Glossary

Live View: Is the default display mode for your DVR or NVR. Each camera connected will be displayed on-screen.

MAC Address: Is a unique identifier for network hardware. Can also be used as a super password if you have forgotten your current password.

Mainstream: Is the video stream that your DVR or NVR will display and record.

Mask: Is used to obscure part of your image for privacy. It can also be used to minimise false triggers when your DVR or NVR detects motion. Any area obscured won't be shown live or recorded.

Menu: Is where you control the various actions and options that are available on your DVR or NVR.

Motion Detection: Is the main method used by your DVR or NVR to detect motion and is an essential part of your security system. It does this by comparing one frame of video with the next. A certain amount of difference between these two frames is interpreted as motion.

NAS (Network Attached Storage): A network device with one or more HDDs that other network devices can use as if the storage was connected directly.

NIC (Network Interface Controller): The hardware component that allows a device to connect to a network. Both wired and wireless NICs exist for these respective purposes.

NTP (Network Time Protocol): Is used to synchronize your DVR or NVR's clock automatically with a network time server. Most time servers are on the internet.

NTSC: Is the video system used in North America, Canada and some Latin American countries. In NTSC, 30 frames are transmitted each second.

Optical Zoom: Is a true zoom feature. It allows you to zoom in (or out) on an object to get a closer view by using the camera's lens.

OSD (On-screen Display): Display information from the camera such as time, date and camera name on-screen.

Overscan: Is mainly used on older television sets to display the entire viewable area correctly on-screen. It does this by cutting off the edges of the picture. This is not required for modern Plasma and LCD TVs as the image is digitally processed to display the correct aspect ratio.

Pack Duration: Instructs your DVR or NVR to split recordings into discrete units. Each unit can be a maximum of 60 minutes in length. Your DVR or NVR will play these as one continual video.

PAL: Is the video system used in the United Kingdom, Australia and most European countries. In PAL, 25 frames are transmitted each second.

Post-record: Instructs your DVR or NVR to record for a set period of time after an event has occurred.

PPPoE (Point-to-Point Protocol over Ethernet): Is the most common method that your router uses to login to your ISP to enable your internet connection. This setting also exists on the DVR or NVR, but is only for advanced users as the configuration required is difficult to complete and requires a modem-only device (or a modem/router set to modem-only).

Pre-record: Allows your DVR or NVR to record for a number of seconds before an event occurs.

Privacy Zone: See Mask for information.

Resolution: The measure of detail that can be seen in an image. The higher the number, the greater the detail available.

Glossary

RTSP (Real Time Streaming Protocol): A network protocol designed to transmit video and audio information over networks and the internet in real time.

Saturation: This alters how much color is displayed in the image. The higher the saturation, the more bright and vivid colors will appear.

Server Port: Is a logical connection place and specifically, using the internet protocol TCP/IP, the way a client program specifies a particular server program on a computer in a network.

SEQ: Puts the DVR or NVR in sequence mode. This will repeatedly cycle through each video channel for a predetermined time in Live View mode.

S.M.A.R.T. (Self-Monitoring, Analysis & Reporting Technology): This is an automatic system on modern HDDs and SSDs to detect potential drive errors before they occur.

SMTP (Simple Mail Transfer Protocol): This is used to send an outbound email (e.g. from you DVR or NVR to an email address).

SMTP Port: Is the port number used by a SMTP server to listen for email send requests. This is specified by your email provider.

SMTP Server: This is the address of the server used for SMTP. Usually in the form of a web address (e.g. smtp.gmail.com).

Software: A set of instructions that runs on a computing device.

SSID: Is the technical term for a wireless network name. When you setup a wireless network, you give it a name to distinguish it from other networks in your neighbourhood.

SSL (Secure Socket Layer): A secure method for connecting to servers. In the context of the DVR or NVR, primarily used for email server connections.

Static: When referring to IP addresses, this is where a device's IP address

has been manually entered. Sometimes used on older devices without UIDs to prepare for internet access.

Static DNS: In some circumstances, your internet service provider may require you to use a static DNS instead of an auto DNS on your router.

Substream: Is the video stream that your DVR or NVR will send to remote devices via the network or internet. Video quality is reduced to make it easier to send.

Subnet Mask: Used to define which part of the IP address refers to the network location.

Time Server: Is a server that reads the actual time from a reference clock and distributes the information to its clients on the network.

Time Zone: Is a region that observes a uniform standard time for legal, commercial, and social purposes. It is convenient for areas in close communication to keep the same time.

Timestamp: Is a sequence of characters or encoded information identifying when a certain event occurred, usually giving date and time of day, sometimes accurate to a small fraction of a second.

TVI: Is a digital signal processing and transport technology for video used in HD security cameras. TVI cameras currently support 1080p video resolution using the same coaxial cabling techniques used by traditional analogue CCTV cameras.

UID (Unique Identifier): Is an alphanumeric string that is associated with a single entity within a given system. By entering your UID into the mobile app or computer software, this allows you to communicate with your DVR or NVR without having to remember IP addresses or port numbers.

Glossary

UPnP (Universal Plug and Play): A network protocol designed to allow network connected devices to automatically configure the router for the purposes of remote access. Not required to be enabled when using UID.

VCA (Video Content Analysis): Is a new method for triggering recording and events. This uses the image processing system of the DVR or NVR & camera to set specific triggers for recording (such as line crossing or intrusion). This system does use more processing power, therefore it may not be available on all devices.

Video Loss: Is regarded as a potential alarm event and is considered to occur any time your DVR or NVR doesn't receive an active video signal from any one of its video inputs.

Video Quality Diagnostics: Enables your DVR or NVR to alert you if the camera has a blurred image, abnormal brightness or unwanted tint in the image due to the lighting and white balance of the camera (known as Color Cast).

Video Stream: Indicates that your DVR or NVR is recording a video stream only.

WDR (Wide Dynamic Range): Is technology to balance out images that have a large dynamic range. An example of this situation would be if an indoor camera were pointing towards a window or building entrance. The image produced by the camera during the day would be extremely washed out due to the high brightness of the incoming light.

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.

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