Swann

Digital Video Recorder

EN

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
- 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: Changes or modifications made to this device not approved expressly by the party responsible for compliance could void the 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.

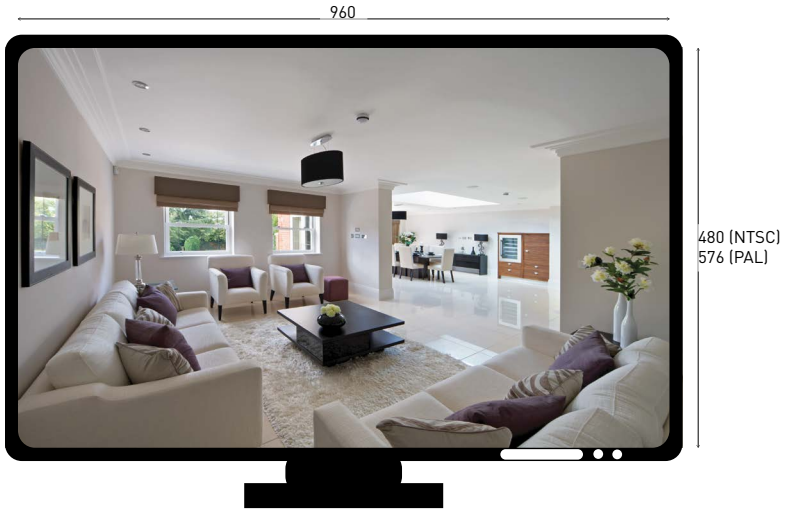
The default, all-access username is **admin**, the default password is **12345**.

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.

Contents

What is 960H?

4:3 Aspect Ratio



16:9 Aspect Ratio

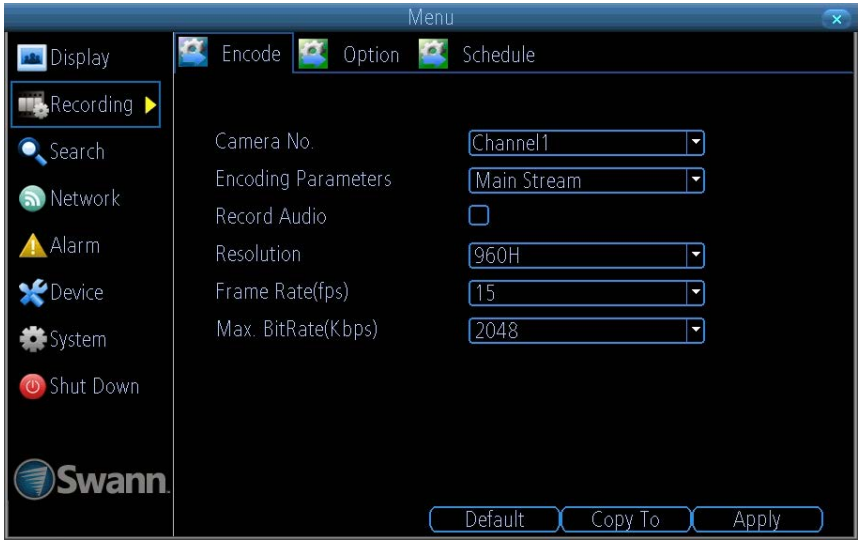
"960H" is the term used for a composite video signal which utilises additional horizontal lines of resolution. The additional horizontal space creates a significantly larger and sharper image, and also allows for higher dynamic range.

If you connect traditional CCTV cameras to the DVR, it will automatically upscale the image to make use of the entire screen. This will allow higher quality videos than would otherwise be available, particularly for 700TVL+ cameras, but will warp the image to appear a little wider than it should be.

If you do end up with a recording at the incorrect aspect ratio, this isn't a disaster. You'll still be able to clearly see the details and identify individuals, up to the limits imposed by the camera itself.

The correct aspect ratio can easily be applied using a media player such as VLC (www.videolan.org). Just backup your footage that is located on the DVR and play it back on a computer. Select the appropriate aspect ratio (16:9 for 960H cameras and 4:3 for standard CCTV cameras).

Recording: Encode



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

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

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 lower-quality stream as a reduction in video size makes it easier to send over a network.

Record Audio: Select this if you would like this particular channel to record audio. If you don't have any audio devices connected, leave this disabled.

Resolution: 960H is the default recording resolution (960 x 576 PAL, 960 x 480 NTSC). As noted on page 4 - "What is 960H?" a standard CCTV camera's horizontal image will be slightly stretched when recorded.

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. 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.

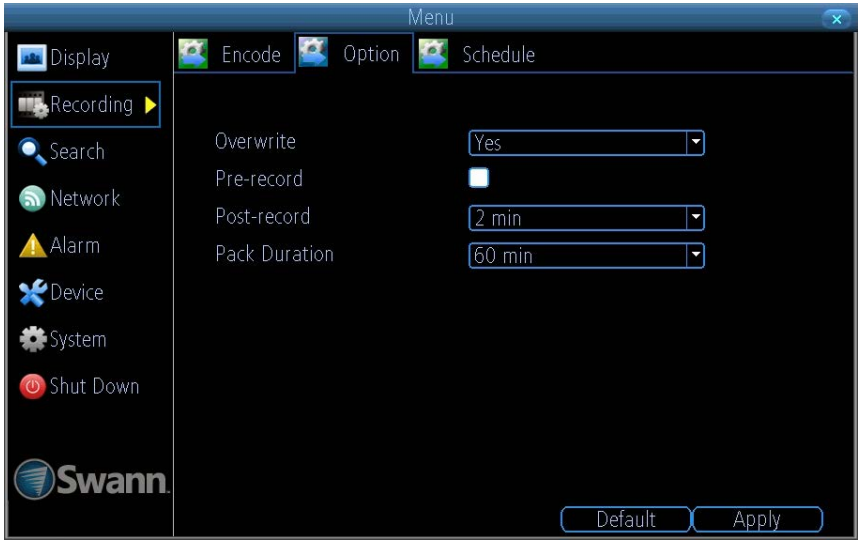
Max. BitRate(Kbps): The actual amount of data that the device will use to record video. The higher the bitrate, the more space each recording will take. Generally speaking, recordings encoded at higher bitrates will be of better quality, especially when recording movement.

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.

Click "Apply" to save settings.

Recording: Option



The **Recording: Option** menu allows you to change aspects of how the DVR will record footage such as:

- Whether the DVR will record a short video before events take place
- How long the DVR will continue to record after events have taken place
- How the DVR will store and divide long recordings into "packs"
- Whether the DVR will record over old footage to make room for future events

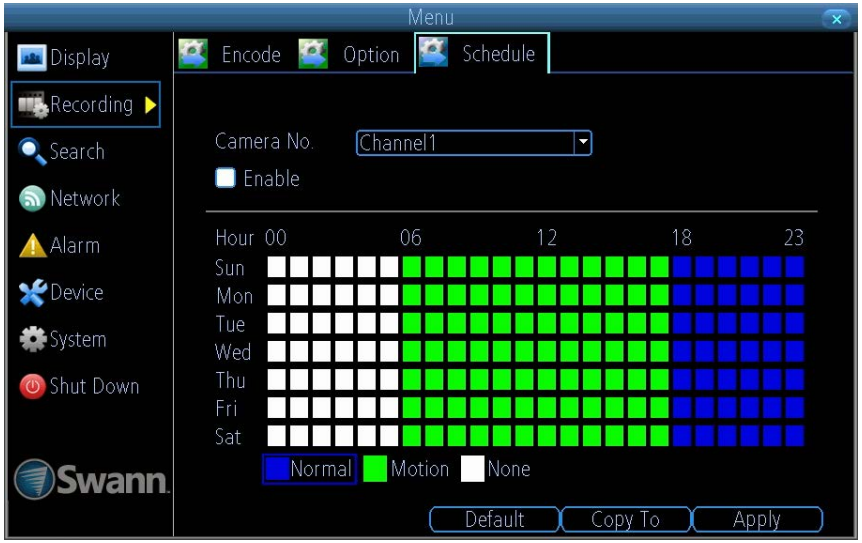
Overwrite: When enabled, the DVR will record over the files already stored on the hard drive. The DVR will always record over the oldest files on your hard drive first. Using the overwrite option is advisable, as the DVR will always be able to record events as they happen. However, it does mean that you'll need to get important events off the hard drive before they're overwritten.

Pre-Record: When enabled the DVR will record for a few seconds before an event occurs. It is recommended to enable this when using motion detection as your primary recording method.

Post-Record: How long the DVR will continue to record after events have taken place. It can be very useful - for example, if an intruder or potential target triggers the motion detection but pauses in view. Having this enabled will get a much better look at them.

Pack Duration: This is a measurement of how long the DVR will record for before splitting the output file into discrete units. "Packs" are something like the chapter numbers on a DVD - though the video is broken up into separate units, it will still play through as one continuous movie (unless interrupted by the schedule or motion detection turning the recording on or off). If you don't want to worry about setting pack durations, you can leave the default value as it will make little difference to the day-to-day running of the DVR.

Recording: Schedule



The image on the left shows a recording schedule defined for channel 1. If the DVR was started with this schedule, channel 1 would:

- Not record anything from midnight (00:00) to 6am (06:00)
- Record based on Motion from 6am (06:00) until 6pm (18:00)
- Record constantly from 6pm (18:00) until midnight (00:00)

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.

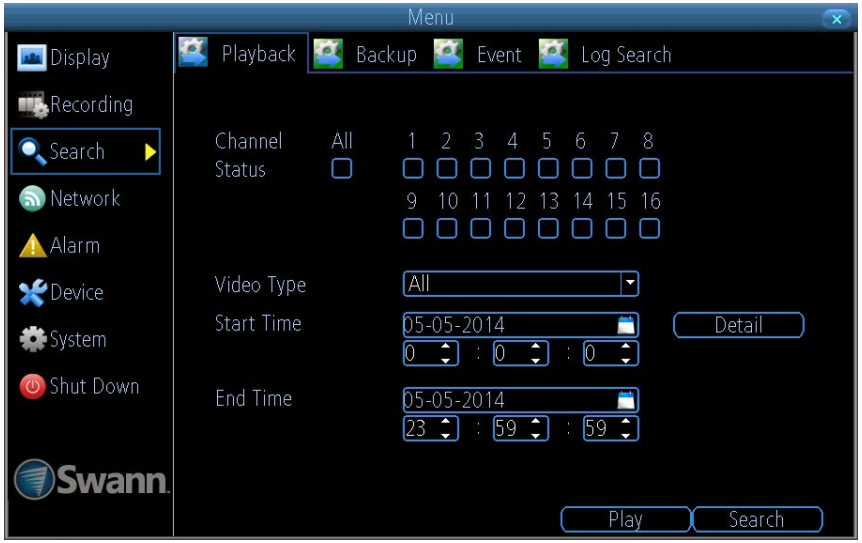
Motion: The default and recommended recording setting. The device will only record when it detects something moving in front of a camera, and will then only record footage from the camera(s) that do detect motion unless you alter your Action settings.

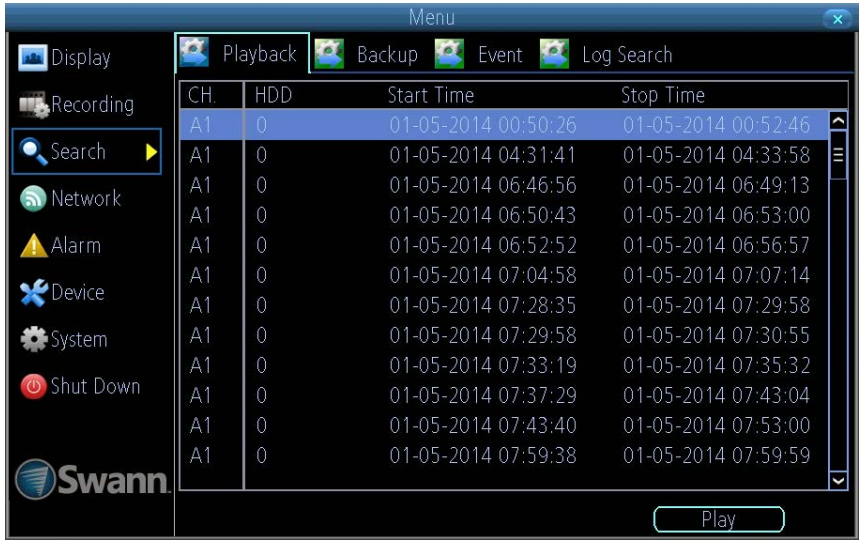
None: As the name suggests, the device will not record anything.

Click "Apply" to save settings.

By default, all channels are armed to use motion detection as their recording mode. To disable the recording schedule for a particular channel, simply uncheck the "Enable" box.

Search: Playback





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 All, Manual, Schedule and Motion.

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

4. Click Search.

Click "Play" if you would like to play each video file in sequence. Please note, when a video has finished playing and it has played the next file, you cannot go back to play the previous file again. "Search" gives you more flexibility in how you play your files.

This DVR has the ability to playback a maximum of 4 channels at the same time. Displaying multiple feeds may cause a reduction in the playback frame rate.

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.

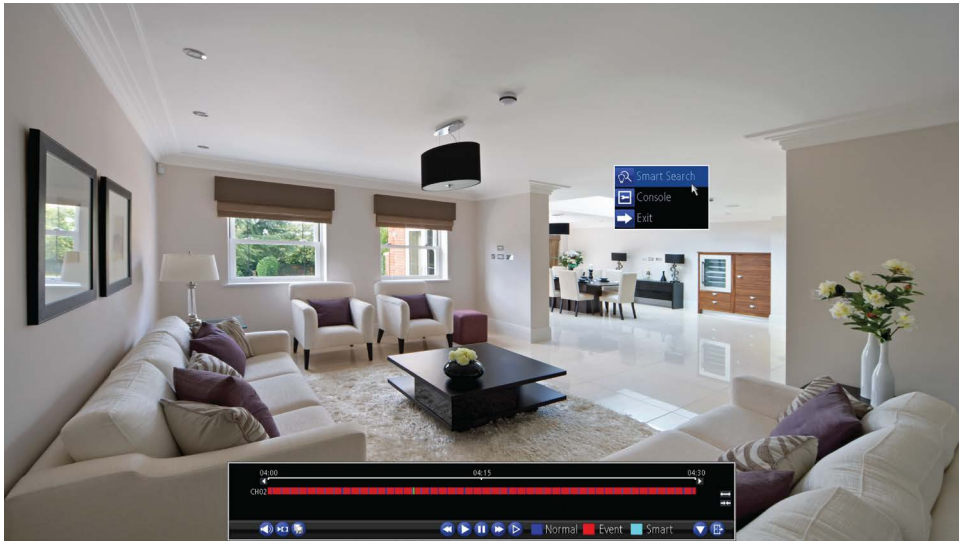
Slow: Plays back footage at reduced speed. Press it multiple times to further reduce the speed.

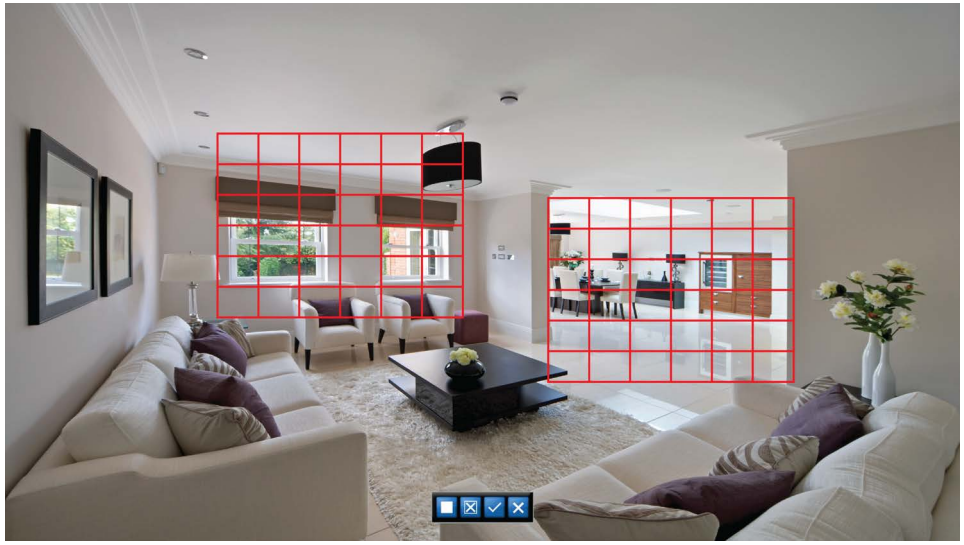
Recording Type: Indicates the type of video being played back.

Hide Console: Maximizes the on-screen area by hiding the on-screen controls.

Exit Playback: Click this to exit playback.

Search: Playback: Smart Search





The Smart Search function allows you to select an area of the video that may have detected motion. The DVR will then display these areas of motion with a light blue highlight on the timeline. This makes it very easy to navigate to the sections of video that has motion recording related to that area.

1. Use the mouse to move the cursor around the screen. Right-click in the play area to access the "Smart Search" function.

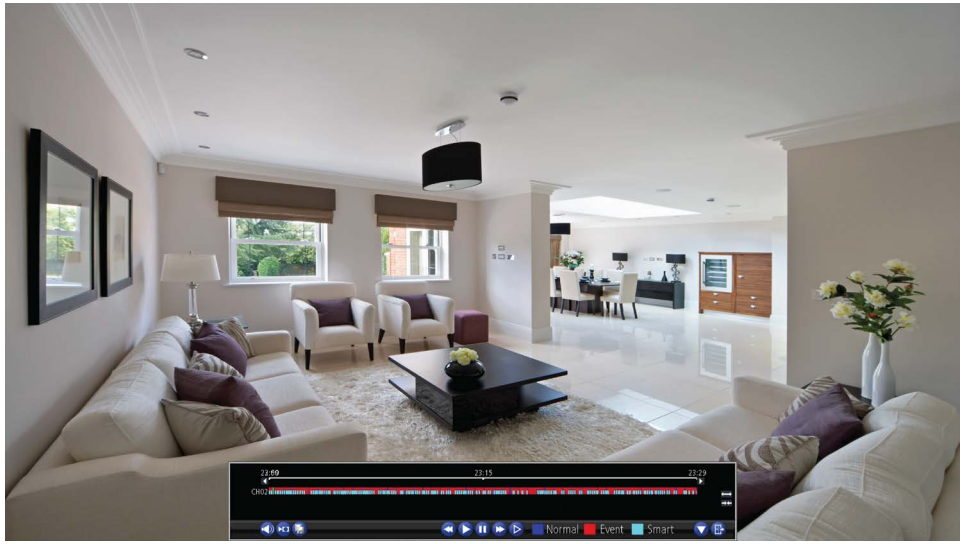
2. Click and drag to select the area you want to search for.

3. You will see a grid of red boxes. The outlined boxes mark the area that you want to select to search for motion.

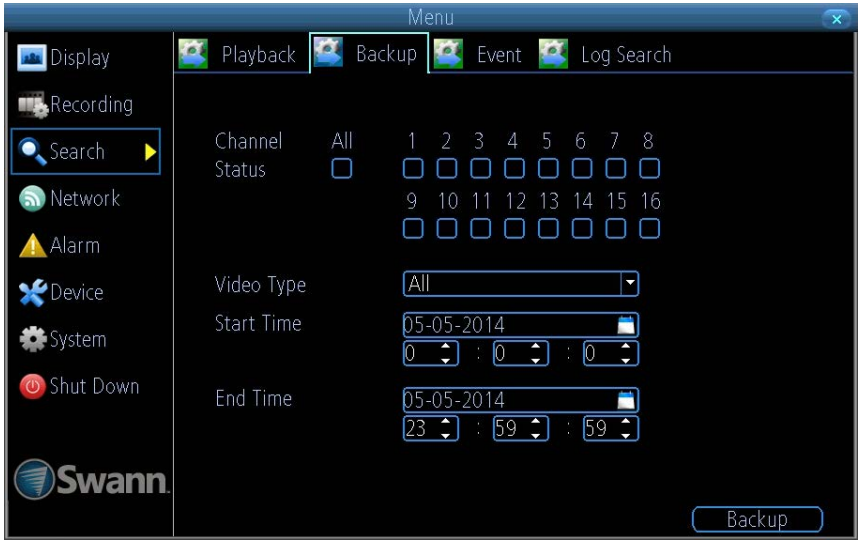
4. By left clicking an area in the grid, you can toggle motion detection "on" or "off" in that location.

5. Multiple areas of the video can be selected.

6. Click the "OK" button to playback. You will see along the timeline the sections of video that match your criteria. Click those sections to navigate to that part of the video.



Search: Backup



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

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

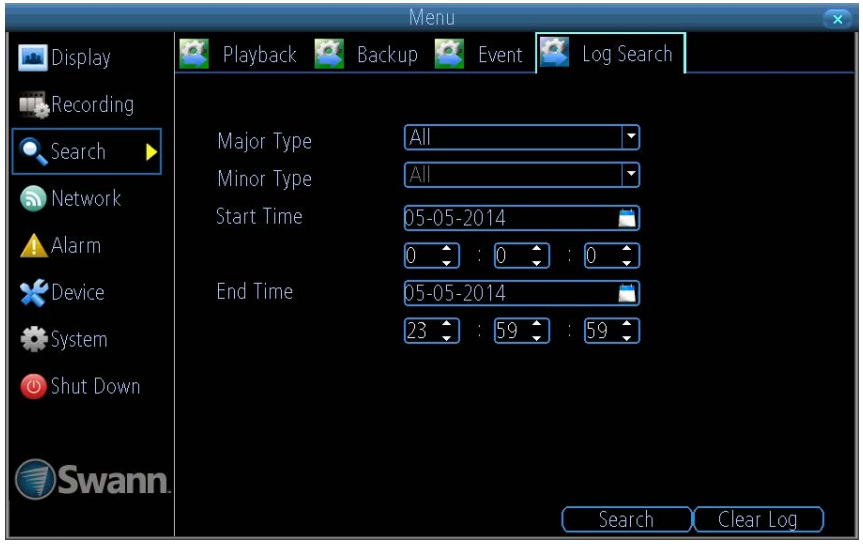
3. Set your Start Date/Time and your End Date/Time.

4. Click Backup.

While the backup process is executed, the DVR will display a pair of progress meters. The top one indicates the progress of the current video event and the lower one shows the overall progress. Please be patient as the backup process can be time consuming - doubly so when creating AVI files.

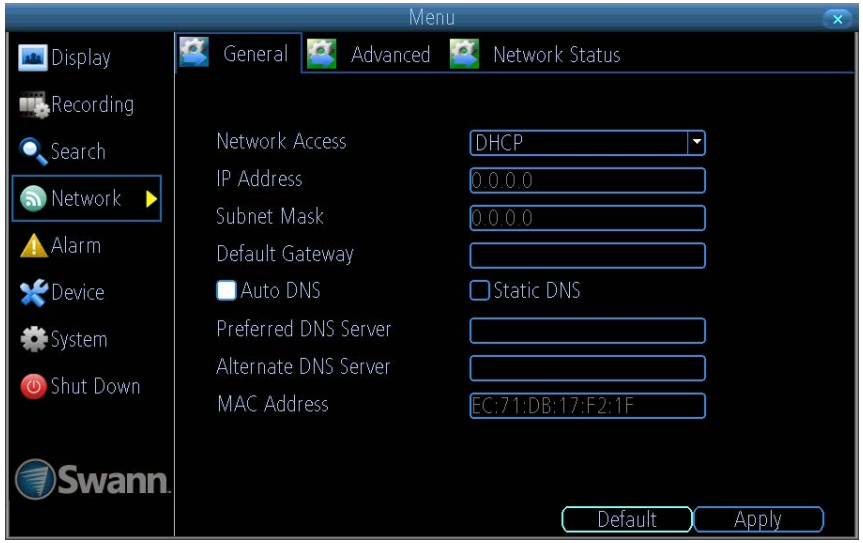
Search: Event / Log Search

The "Search: Event" feature has a similar function to "Playback" but is specific to searching for motion events. You can search for one or more cameras and a particular time and date. Typically, the majority of recordings based upon events are likely to be recordings triggered by the DVR's motion detection feature.



The "Search: Log Search" displays a list of events, presented in chronological order. The most recent events will be at the end of the list. All events that have been monitored, whether or not any footage was recorded as a result, will be listed.

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".

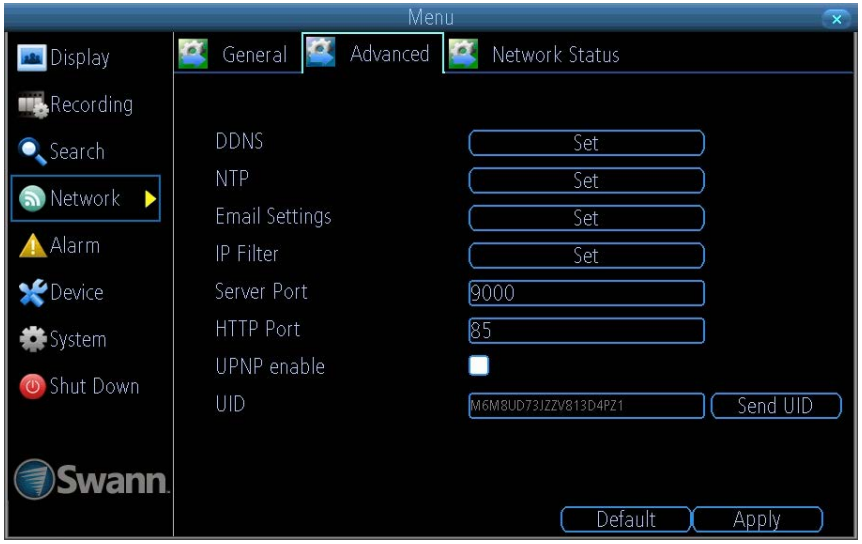
Default Gateway: This is the address of the "way to the Internet" - to continue the road analogy, this is like your local access point to the highway. This is an IP address in the same format as the others, and is typically very similar to the IP address of the device. To continue the above examples,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

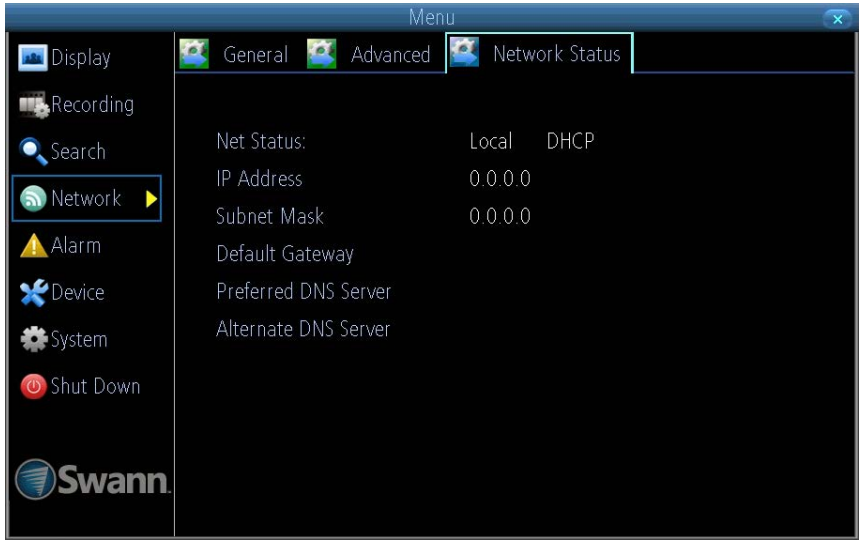
Preferred DNS Server: Everything on the Internet is located via an IP address - however, for ease of use, we associate domain names with those IP addresses.

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

Click "Apply" to save settings.

Network: Advanced / Network Status





DDNS: The place to configure the DVR to automatically update a dynamic DNS service. DDNS is not required for SwannLink P2P remote access.

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

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

IP Filter: An advanced feature that allows you to exercise precise control over which devices can communicate with the DVR.

Server Port: This is the port that the device will use to send information through. Enabling UPnP on your router allows the DVR 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.

Click "Apply" to save settings.

The "Network: Network Status" screen displays a quick summary of your current network settings. You can't alter anything here.

Most of these networking settings are not required when using SwannLink P2P for remote access.

Motion Detection Tips

Consider how important it is to be notified of motion events as they happen. Using email or app alerts are a great way to be kept up-to-speed on what's happening, but may quickly become annoying if something occurs which will generate a number of false triggers. As a rule, we suggest employing email or app alerts only on interior cameras during times that no one should be moving about in front of them. It can be important to have a complete record of a subject's movements and actions for legal reasons.

If your cameras capture an illegal event (typically an intruder) it is important to have as much information as possible. For example, images of someone in your home may not actually prove that they broke in - but footage of them breaking a window does. If you use a camera inside the home to trigger all exterior cameras with pre-record enabled, then you will have a record of how they entered in addition to what they did.

Always consider what's really important. Which is the bigger problem - a dozen false triggers per day, or missing one critical event? There's no magic setting which will make motion detection work perfectly. There will always be some events that are not sensitive enough to catch, or minor happenings that will trigger an overly sensitive camera to record. Typically, the best motion detection settings are one's that give few false triggers but don't miss anything.

Even motion detection which false triggers a few times per hour will still save a significant amount of hard drive space compared with a constant recording schedule for the same duration -

- Position your cameras well
- Many issues seen with motion detection and security cameras can be traced back to poor positioning of the camera itself
- Make sure the area in front of your cameras is as clear as possible so it has an unobstructed view of potential activity

Consider the centre of the camera image is the "sweet spot" which gives you the highest detail and the best image clarity so the centre of the image should be right where you need to see the real activity.

Position you camera so that any potential intruder's face will have to pass the centre of the image as closely as possible without allowing the camera to be tampered with.

Also note that while having the cameras show some sky in the image might make the picture look nice it is also a higher level of contrast the camera has to deal with, keep the sky and any other bright objects to a minimum so that the camera has the best chance of getting the image you need to identify the intruder or licence plate -

- Keep the view distance to the shortest possible
- Place the cameras as close to the subject as possible to ensure you get the best possible level of detail

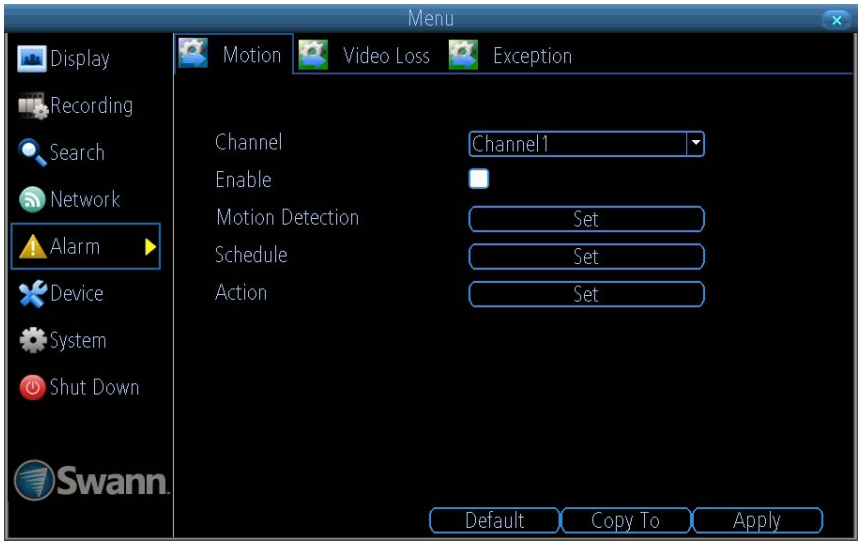
Digital zoom can make the image bigger but if the camera is too far away then no amount of digital zoom will make the subject any clearer.

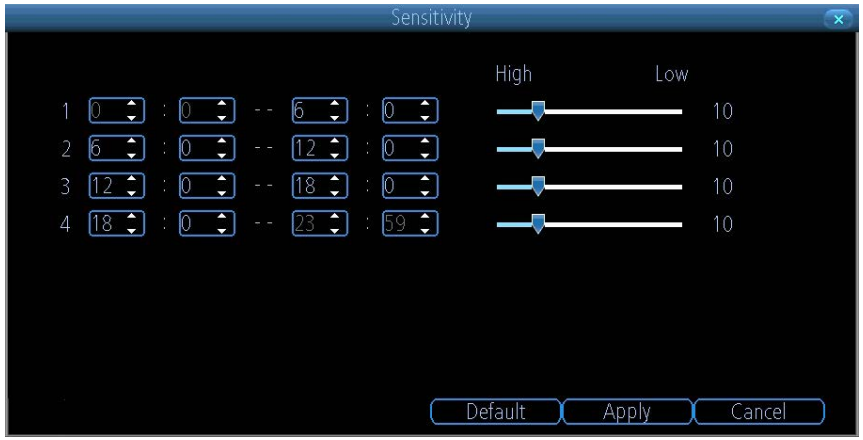
Where possible have some overlap for your cameras. Overlapping camera views make it difficult for someone to access and tamper with one camera without another camera capturing some video of the event.

Keep your cameras clean. Dirty lenses can affect the image quality; give the lens a clean from time to time.

Note that spider webs are almost invisible during the day but are extremely reflective at night which can dramatically affect the night vision from your cameras, so keep the spider webs away from your cameras too.

Alarm: Motion: 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.

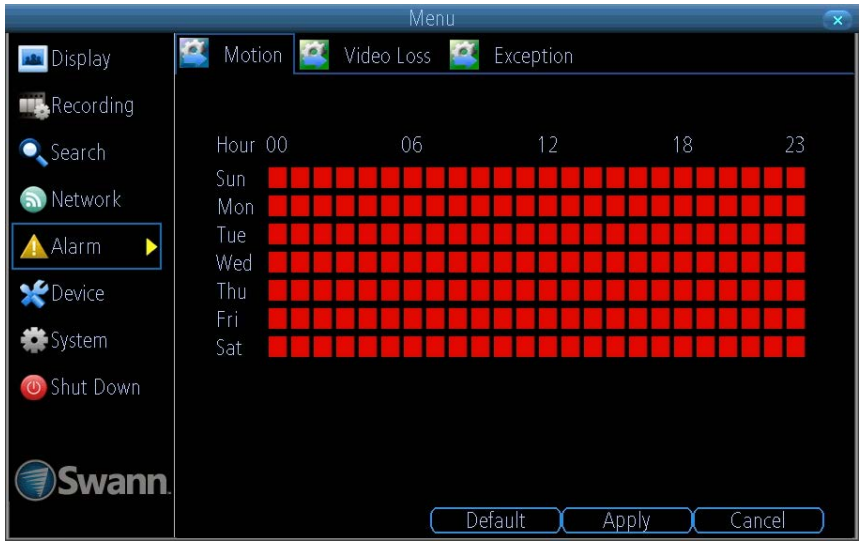
Channel: Select the camera that you would like to alter.

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: You can access this by right-clicking the mouse when you are setting up or changing the motion detection area. 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.

Click "Apply" to save settings.

Alarm: Motion: 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.

Click “Apply” to save settings.

Alarm: Motion: Action

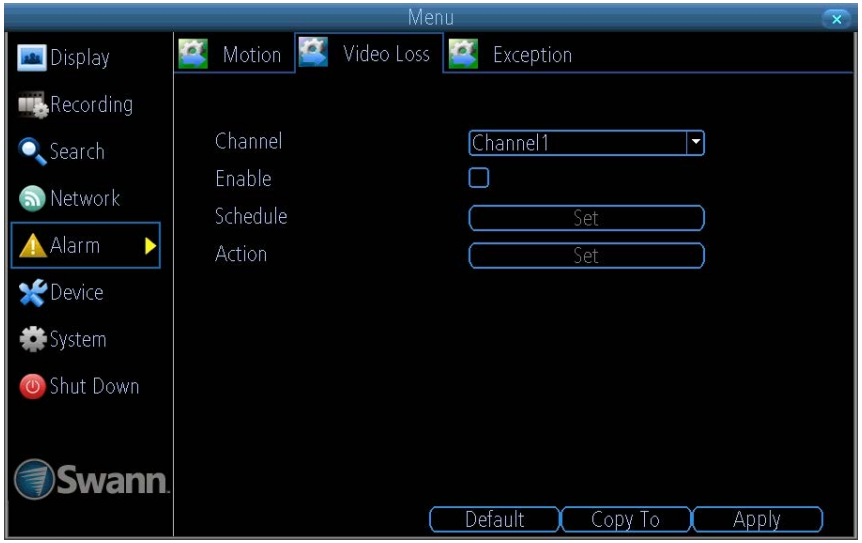
Audio Warning: The DVR will use its internal buzzer to emit an alarm tone.

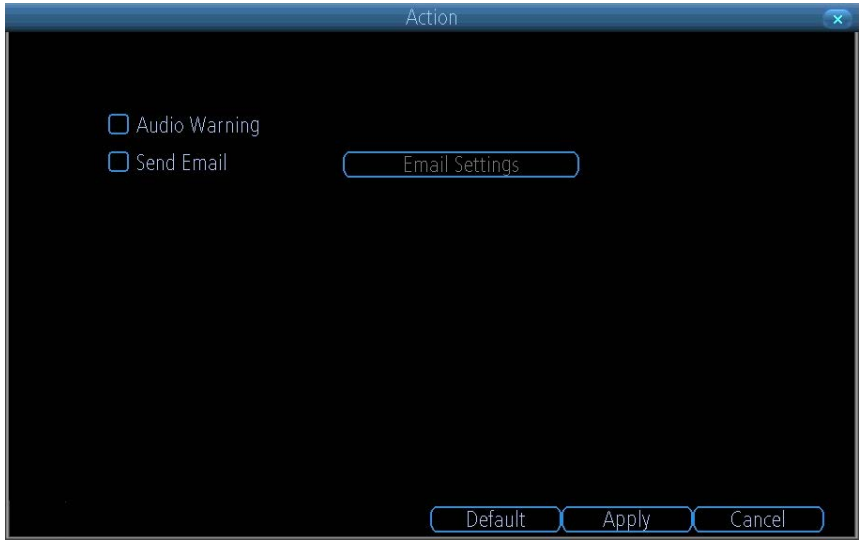
Send Email: The DVR will send an auto-email alert when the event type you've selected occurs.

Trigger Camera: You can define a camera's motion detection to trigger recording on one or more other cameras. This can be useful in a number of situations -

- If you have two cameras overlooking a yard, one with a wide view from well overhead and one with a much narrower view of a corner or path. You may find that using the camera with the narrow view for motion detection gives fewer false triggers, so triggering the wide view to record as well ensures you know where the subject went after they left the narrow view
- One camera might face a public area, while another camera looks down a private corridor which exits into the public area. Having the camera in the private area trigger the one in the public area to record can give you a record of where a subject went

Alarm: Video Loss





"Video Loss" is regarded as a potential alarm event, and is considered to occur any time that the DVR doesn't receive an active video signal on any of its inputs. The default behaviour of the DVR, when a channel has no incoming video signal, is simply to display "Video Loss" in white text on a black background over the associated channel. If you're not using all the inputs on your DVR, then some channels will be in "permanent" video loss state. Just be sure that you don't enable a video loss action for these channels.

Channel: Which channel/camera you'd like to set the video loss behaviour for.

Enable: Whether the selected channel has video loss monitoring active or not.

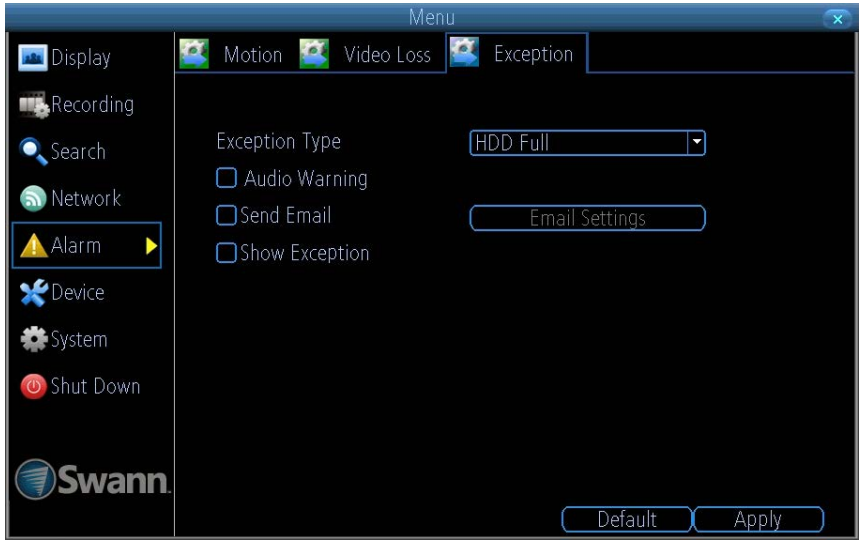
Schedule: Schedule when the current video loss action will be active.

Action: The action you'd like the DVR to take when this event occurs. It's set in the same way as the action for any other event.

Audio Warning: The DVR will use its internal buzzer to emit an alarm tone.

Send Email: The DVR will send an auto-email alert when the event type you've selected occurs.

Alarm: Exception



An Exception is any deviation from the DVR's normal behaviour - phrased another way, it's like saying the DVR has been working fine except for these events.

Exception Type: What event type you'd like the DVR 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.

HDD Full: As the name suggests, this event occurs when the DVR runs out of space on the hard drive to save new footage. This event is redundant if you've got overwrite enabled, as the DVR will automatically delete old footage to ensure it can continue to record.

HDD Error: Occurs when the DVR has trouble accessing its hard drive, or when it cannot detect one at all. This error could be generated by either an internal hard drive, or an external one connected to the eSATA port.

Net Disconnected: Will occur if the DVR has problems connecting to the Internet. This may indicate a problem with the DVR's configuration, a fault with your network or a problem with your Internet Service Provider (ISP).

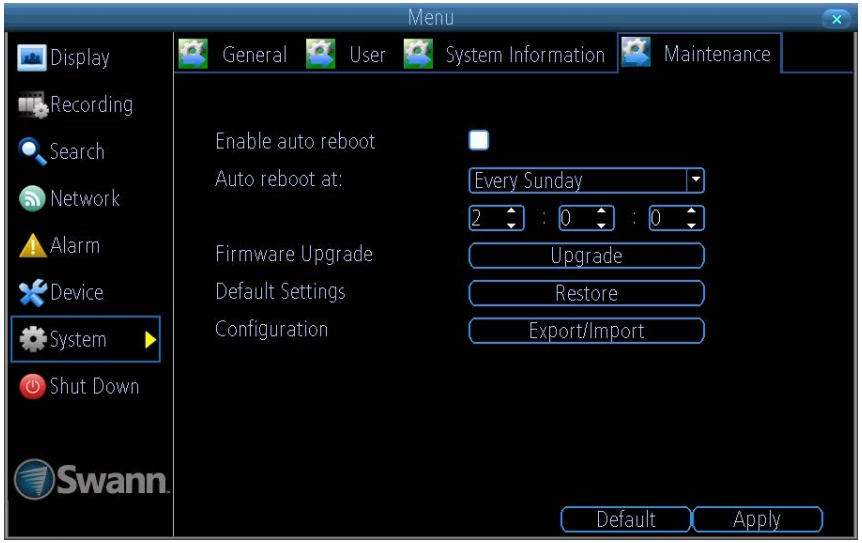
IP Conflict: This event will occur if the DVR detects another device on the network using the same IP address. This shouldn't occur if you're using DHCP.

Audio Warning: The DVR will use its internal buzzer to emit an alarm tone.

Send Email: The DVR will send an auto-email alert when the event type you've selected occurs.

Show Exception: The DVR will display an "error' icon at the bottom right corner of the main screen when the event type that you've selected occurs. Click on the icon to know more about the exception that occurred.

System: Maintenance / System Information



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.

Click "Apply" to save settings.

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

The local configuration screen is where you can customise how SwannView 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.

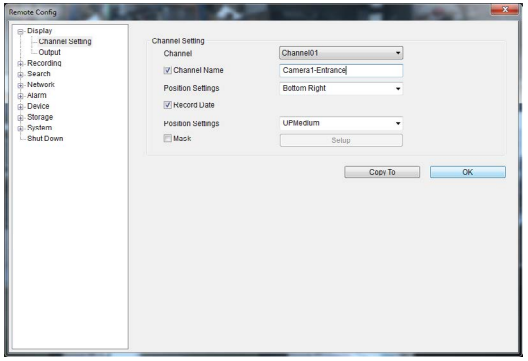
Snapshot Path: Where SwannView Link will save still images captured using the snapshot function.

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



Display: Channel Settings

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

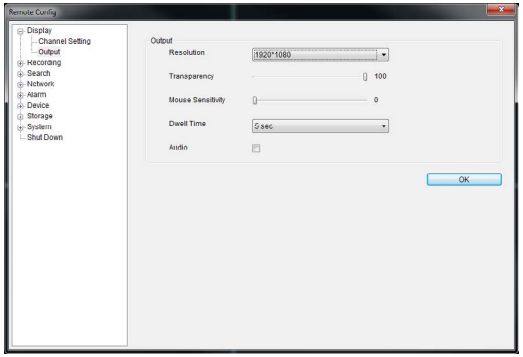
Channel Name: The title you'd like to give that camera.

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.



Display: Output

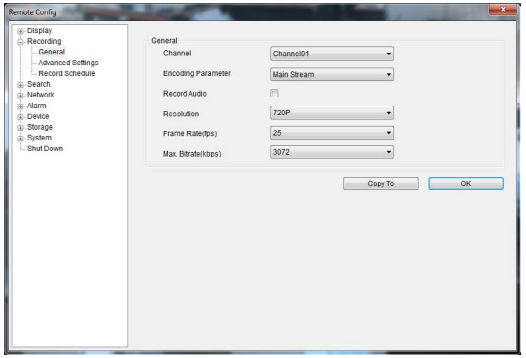
Resolution: Set the screen resolution to output to your monitor.

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.



Recording: General

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

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

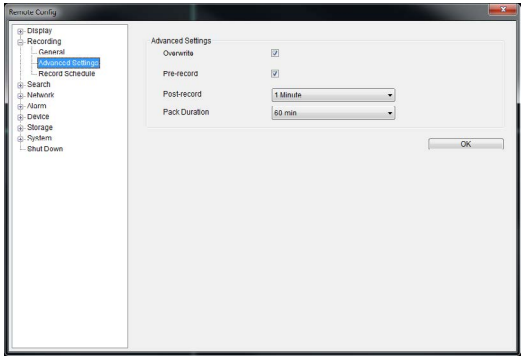
Sub Stream: The way the device will encode and send video to a remote device.

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.



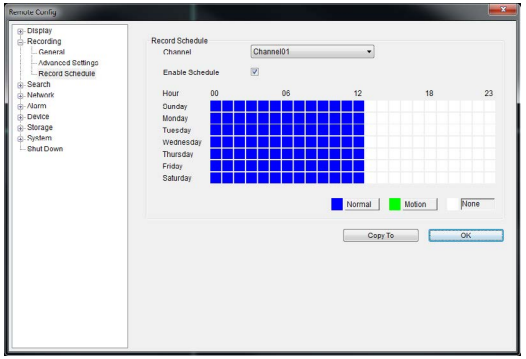
Recording: Advanced Config

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.

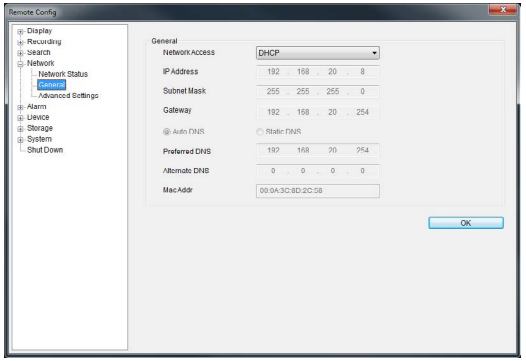


Recording: Schedule

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.



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

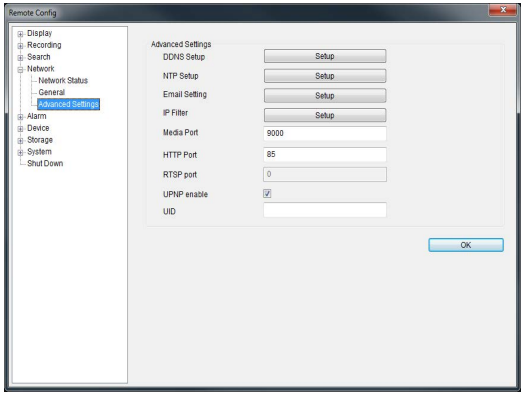
Subnet Mask: A required additional piece of IP addressing information.

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.



Network: Advanced Settings

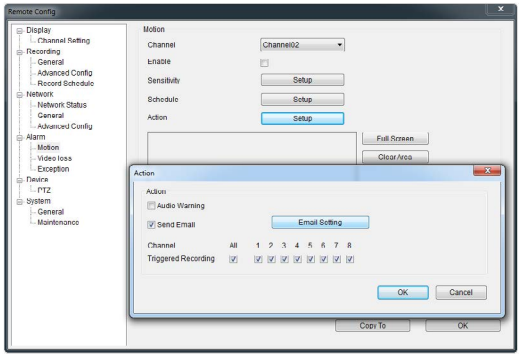
DDNS Setup: Opens the DDNS setup window.

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.



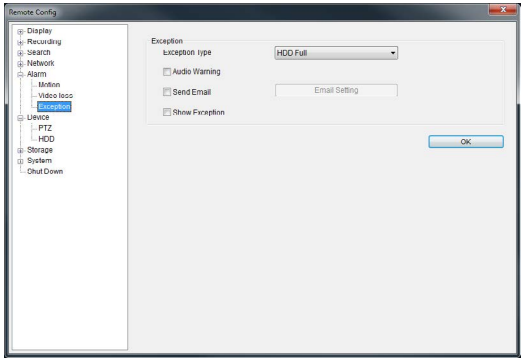
Alarm: Motion Detection

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.



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.
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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

SO171XS
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: tech@swann.com

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
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