



# 2K Series - 1080p 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:

- 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 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.

**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

- 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 DVR

## About this Instruction Manual

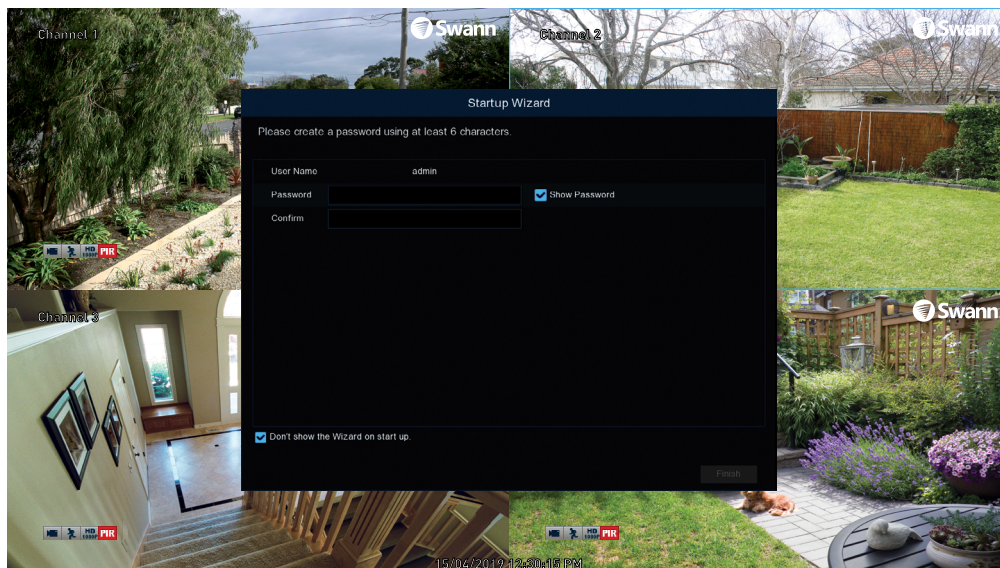
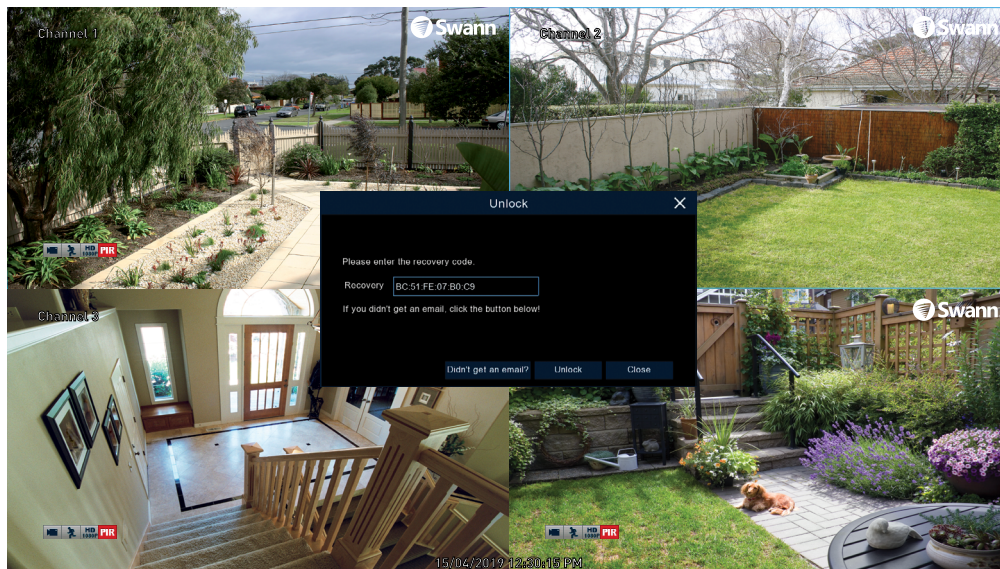
This instruction manual is written for the DVR-4580 series and was accurate at the time it was completed. However, because of our on-going efforts to constantly improve our products, additional features and functions may have been added since that time.

## Important Password Information

This DVR does not have a default password. A password is created during the Startup Wizard. If password protection has been enabled and you have forgotten your password, your DVR'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, click the “Start” button (bottom left on the Menu Bar) then click “Setup”.
2. At the password login screen click “Forgot Password” then click “Yes”.
3. After a short moment, you will receive a password reset request email containing your DVR’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 “Unlock”.
5. A message will appear on-screen stating that your password has been reset. Click “OK” to continue.
6. Enter a new 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.
7. Write down your password in the space provided below for safe keeping.
8. When finished click “Finish”. A message will appear on-screen. Click “OK” to finish.

**Don't forget to write down your password:** \_\_\_\_\_

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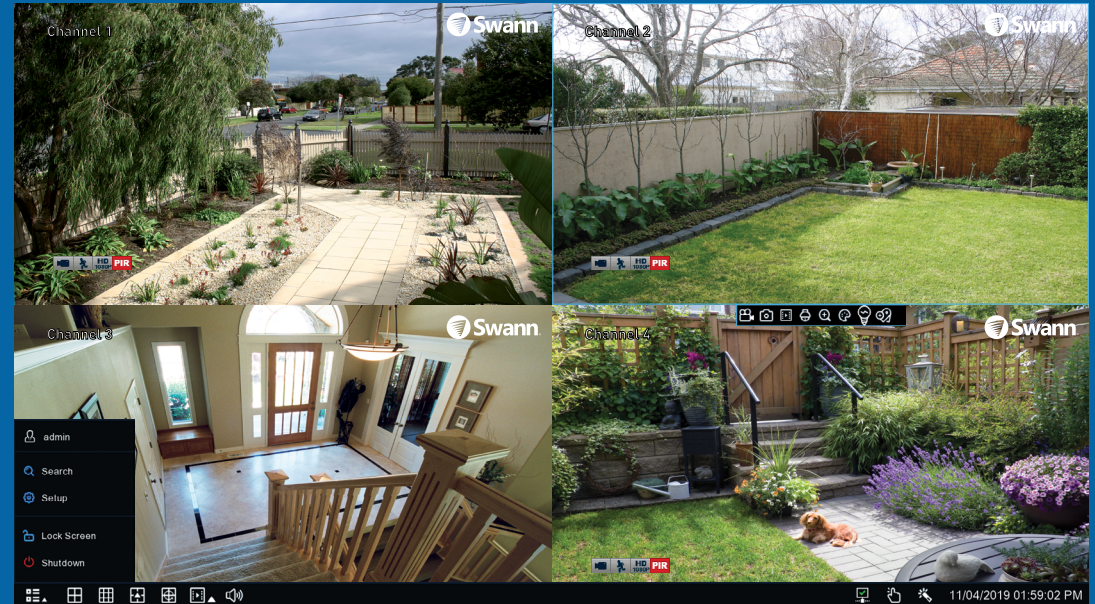
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## Live View

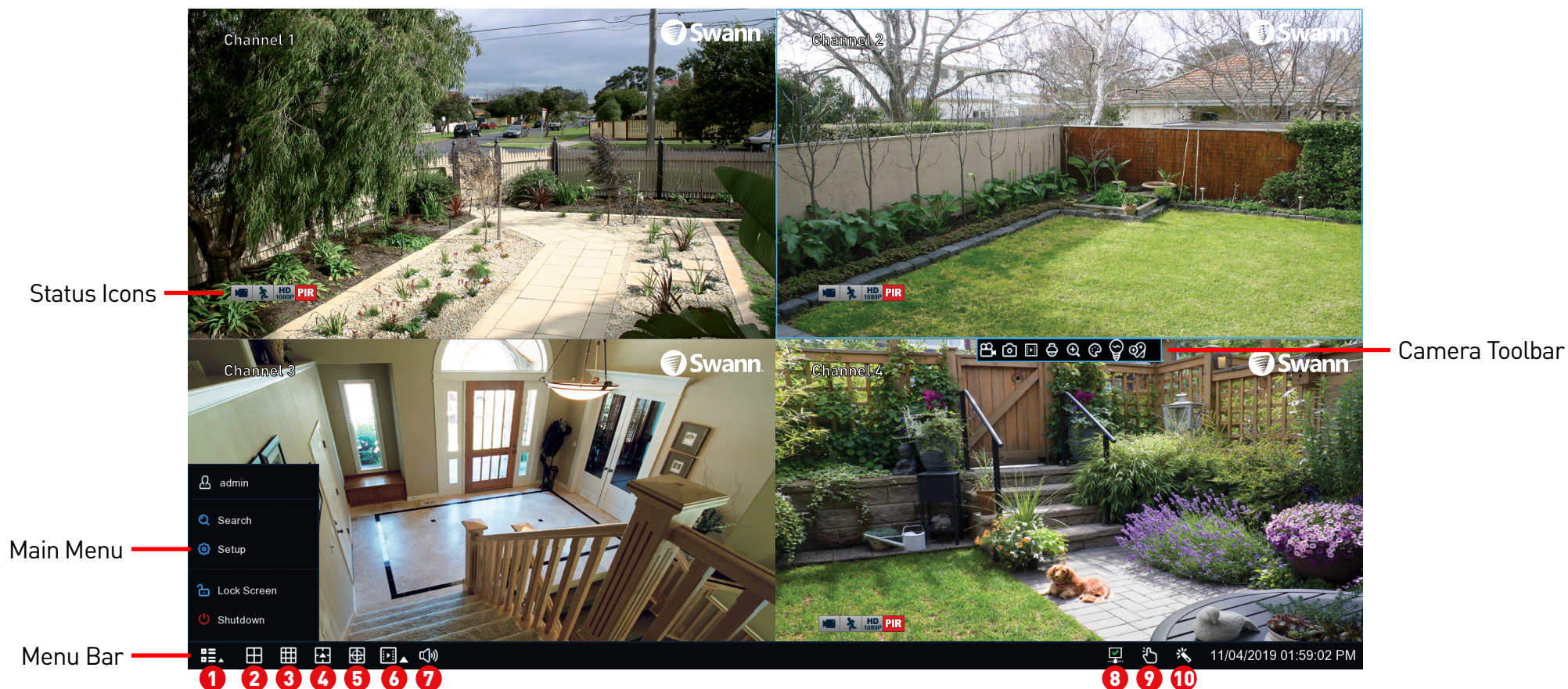
Live View is the default display mode for your DVR. Each camera connected will be displayed on-screen. You can check the status or operation of your DVR and cameras using the icons and Menu Bar on the Live View screen. Right-click the mouse to access the Menu Bar.





# Live View Mode

Live View mode is the default display for your DVR. Each camera connected will be displayed (multiple view modes available). You can check the operation of your DVR by using the status icons on the Live View screen. The date and time as well as the name for each camera is also displayed.



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



Click & drag a live video channel to reposition it.

Right-click the mouse in Live View mode to display the Menu Bar (see [page 8](#) more information).

Left-click a camera to access the Camera Toolbar. This provides access to functions such as instant playback and to change image settings.



# Live View Icons & Controls

## Menu Bar

1. This is the Start button. Click to reveal additional functions available (see below).
2. Four camera view.
3. Nine camera view (this will display eight cameras on the 8 channel model).
4. Click this to select from one of the multi-screen viewing modes available.
5. Click this to repeatedly cycle through each video channel full screen. Each video channel will be displayed for five seconds.
6. Click the larger button to access the Search menu. From here you can play previously recorded videos. Click the smaller button to play

recent events (up to the last five minutes).

7. Click this to change the volume or mute the audio (click the speaker icon to mute).
8. This icon indicates that your DVR is connected to your modem or Wi-Fi.
9. Click this to enter Record Mode. When enabled this will bypass the current recording schedule.
10. Click this to enter the Startup Wizard.



TIP

The 16 channel model has additional camera views available (twelve and sixteen camera views).

**Search:** Click this to access the Search menu. From here you can play previously recorded videos.

**Setup:** Click this to access the Main Menu.

**Lock Screen:** Click this to lock your DVR, to prevent access to the Main Menu and other functions when the Menu Timeouts function is turned off. Click again to unlock.

**Shutdown:** Click to shutdown, reboot or logout of your DVR. To ensure the integrity of your recordings, enter your password and click "Shutdown" when powering off your DVR.

## Status Icons



This icon indicates that the camera is being recorded (manually or by motion).



This icon indicates that your DVR is detecting motion from the camera.



This icon indicates that the Mainstream recording resolution is set to 1080p.



This icon indicates that the PIR camera has detected one or more warm objects.



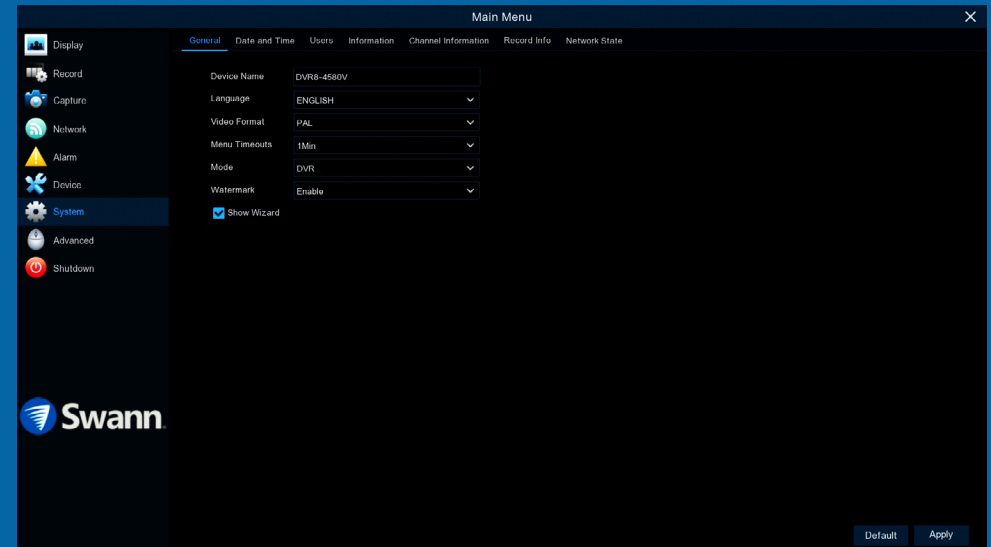
This icon indicates that your DVR does not have a storage device connected.

### VIDEO LOSS

This icon indicates that the channel doesn't have a camera connected or has lost the feed from its camera.

# Main Menu

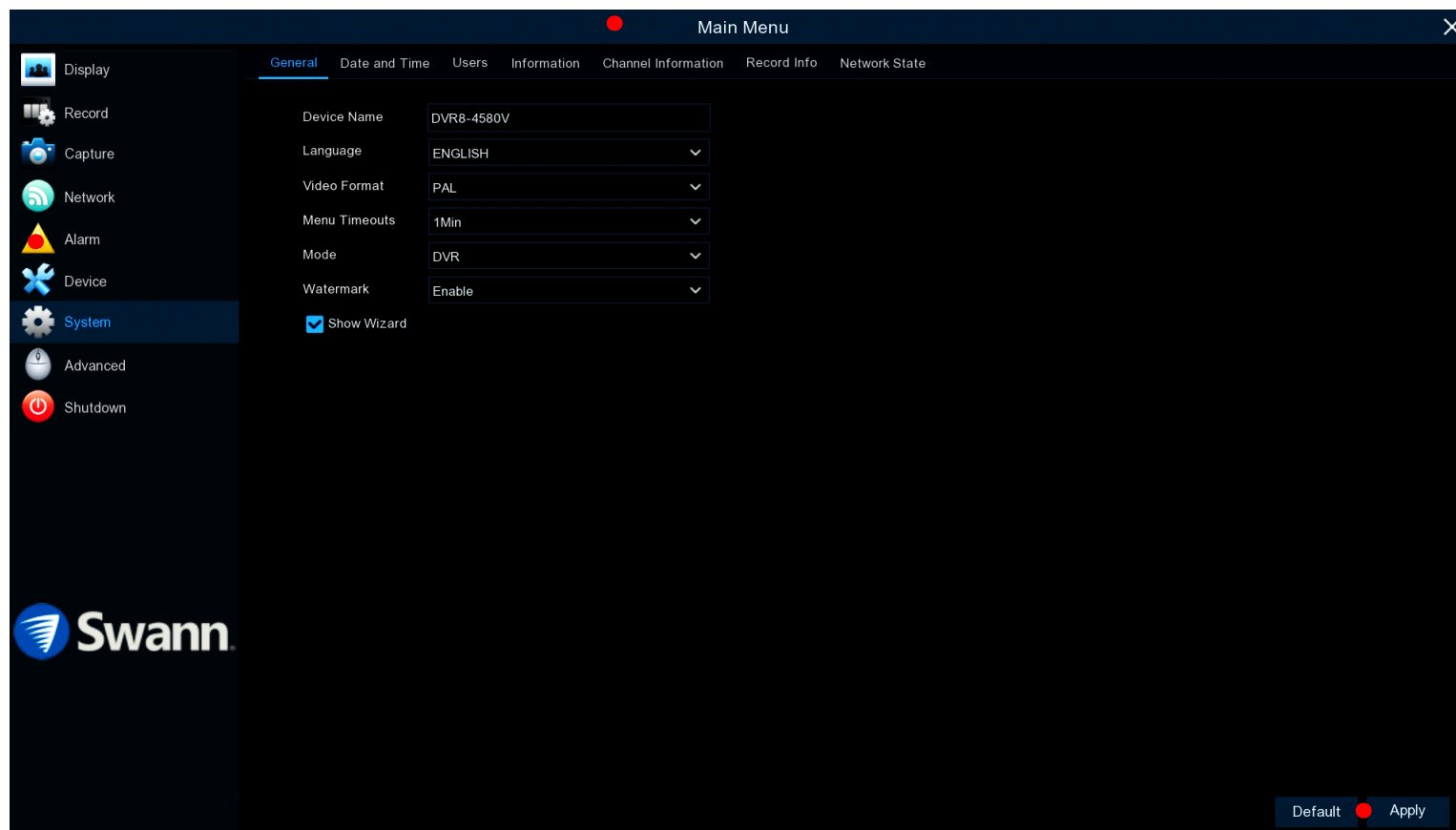
The Main Menu is where you control the various actions and options that are available on your DVR. Functions such as Privacy Mask can be enabled to obscure all or part of your image, and the option to change the default motion detection area. You can also enable Cloud Storage to copy snapshots and video to the cloud when events occur. To maintain system integrity, a firmware upgrade can be performed when available.



# Menu Layout

The various functions and options available, are categorised on the left-hand side of the Menu.

Clicking each category will reveal a number of tabs or sub-categories that can be changed from their default setting.



To exit or access the previous menu, right-click the mouse.



Save changes that have been made or restore default settings.

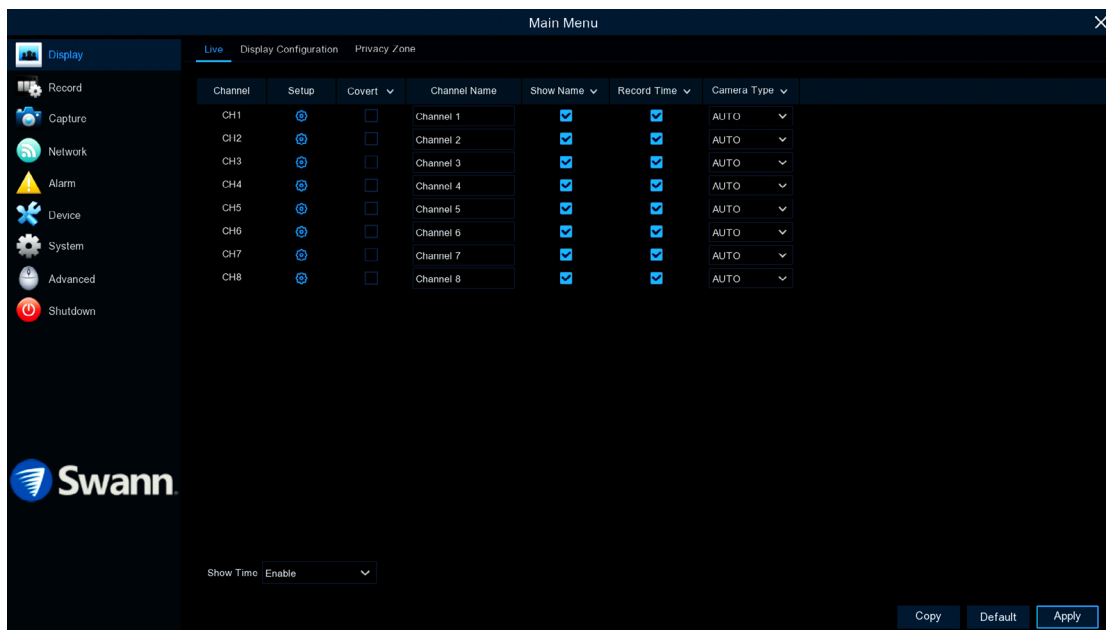


## Camera Configuration

The camera configuration options are available in the “Display”, “Record”, “Alarm” and “Device” menus that are accessible from the Main Menu. You can change the resolution, bitrate, OSD (on-screen display) position as well as image settings for hue, brightness, contrast and saturation. Your DVR has controls for detecting motion, allowing you to define specific areas to alert you to a potential threat in and around your home. You also have the ability to create one or more zones for privacy and setting a schedule for the camera’s sensor warning light.



# Display: Live



The configuration options available allow you to name each camera relevant to where it has been installed as well as the ability to adjust image settings such as brightness and contrast. You can also enable covert mode to hide the camera's image in Live View mode.

- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Setup:** Click the button to access the camera display settings:

**Channel:** Select a camera that you would like to edit.

**Channel Name:** Enter a name for the camera selected. It can be up to 16 characters in length.

**Date Format:** Click the drop down menu to select the preferred date format.

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

**Camera Type:** This setting is used to instruct your DVR on the camera type connected. For the cameras included with your DVR, leave the default setting. However, if you are connecting cameras that you have purchased previously or upgrading from an older security system and the image is black &

white, change this to TVI or AHD, depending on your camera type. Click the drop down menu then select the camera type for your camera.

**Covert:** When enabled, the camera will detect motion and trigger your DVR to record, but you will not see an image of the camera in Live View mode. This may be suitable if your DVR and TV are displayed in a public area (shop, warehouse, etc.), but you don't want others to see an image from the camera.

**Show Name:** Leave this enabled to display the camera name in Live View mode, otherwise click the checkbox to disable.

**Record Time:** Leave this enabled, as a timestamp will be embedded on all video recordings. This allows you to easily identify when events have occurred. Click the checkbox if you wish to disable.

*(continued on next page)*



# Display: Live



**Hue:** This changes the color mix of the image.

**Bright:** This changes how light the image appears to be.

**Contrast:** This increases the difference between the blackest black and the whitest white in the image.

**Saturation:** This alters how much color is displayed in the image.

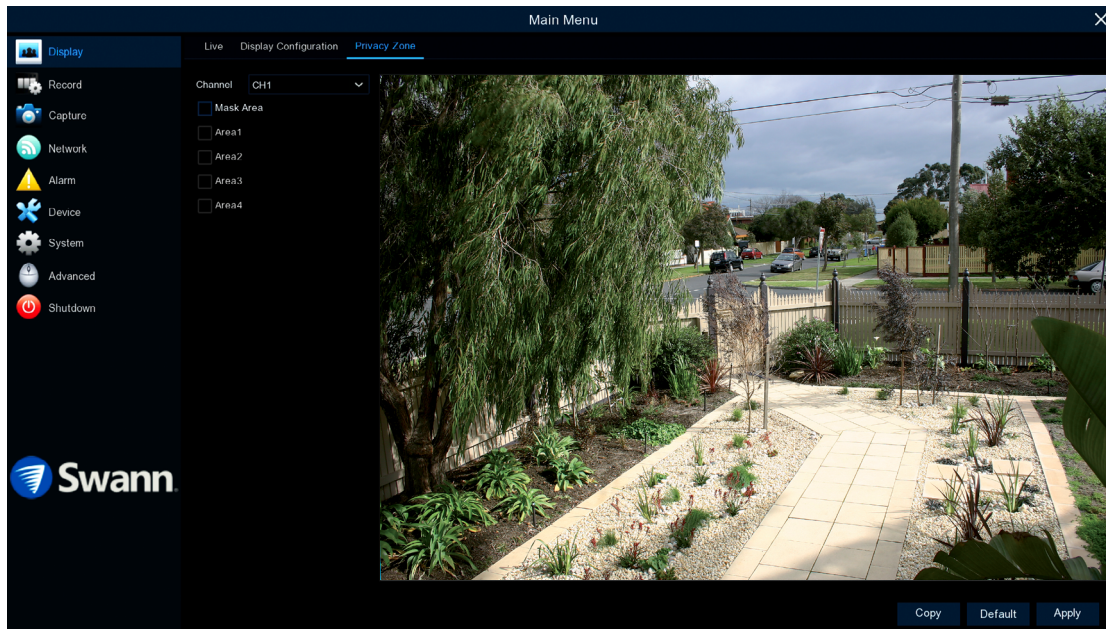
Use the slider to adjust each setting. When finished, click the “Apply” button then click “OK”. Right-click the mouse to exit.



TIP

Any changes made to the display settings available will affect your recordings.

# Display: Privacy Zone



This function can be used to obscure all or part of your image for privacy (up to four privacy masks can be created per camera). You can also use this to minimize false triggers when motion is detected. Areas obscured by a mask won't be shown live or recorded.

- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**Channel:** Select a camera that you would like to edit.

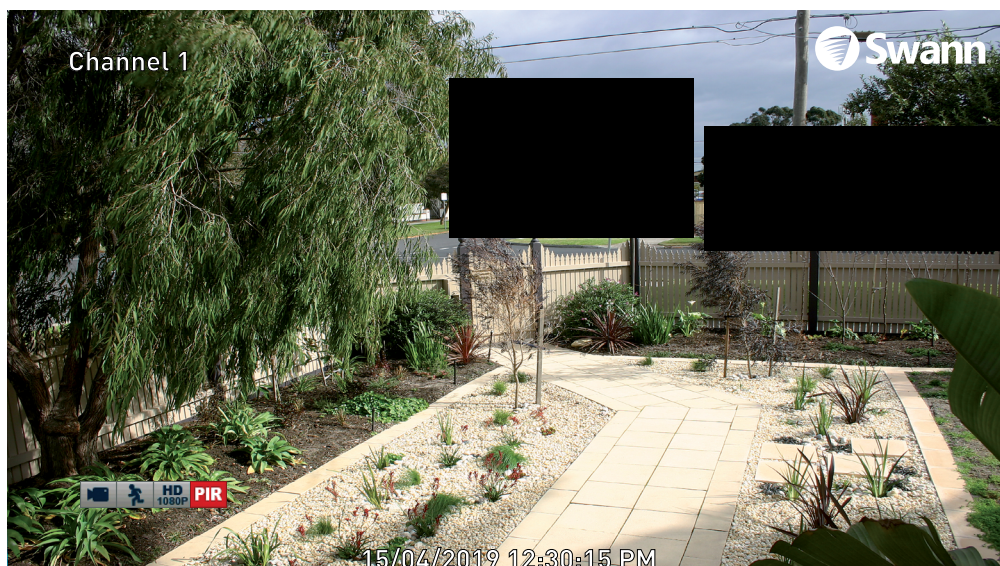
**Mask Area:** To create a mask, click the checkbox to enable.

**Area 1 to 4:** Click the checkbox on the number of privacy masks that you want to enable. Up to four privacy masks can be enabled per camera.

Depending on the number of privacy masks enabled, one or more masks will appear in the Live View windows (see page 15 - [Enabling a Privacy Mask](#)).



# Enabling a Privacy Mask



**1.** Depending on the number of masks that you want to enable, each mask will be numbered. To reposition the mask, click and hold the mask number then move the mask to the desired location.

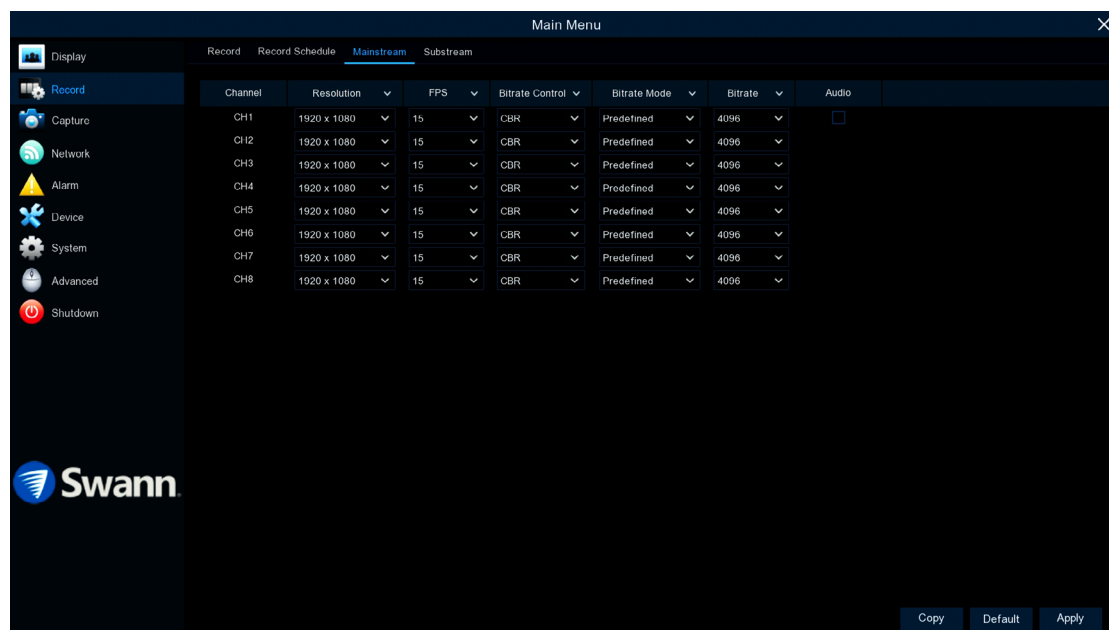
**2.** To resize the mask, click and hold the bottom right corner of the mask then resize to the desired size. You can reposition and resize each mask to overlap each other.

In the example provided on the left, two masks have been enabled to block out cars and pedestrians adjacent to the front yard of the house. This will minimise false triggers and block movement that is not relevant to entry via the front entrance.

**3.** When finished, click “Apply” to save. Areas obscured by a mask won’t be shown live or recorded (see below left).

To remove a mask, uncheck the checkbox next to the relevant area then click “Apply” to save.

# Record: Mainstream



The functions available here allow you to change the resolution, frame rate, bitrate control and bitrate mode for each camera connected. By default the recording resolution is automatically selected to fit in with the capabilities of the provided cameras.

- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Resolution:** By default the recording resolution is automatically selected to match the capabilities of the provided cameras. If you have an older analogue camera connected, lower the resolution to “960 x 480” for NTSC and “960 x 576” for PAL, to match the camera’s recording capability.

**FPS:** The number of frames per second [fps] that your DVR will record. The default is 15fps, however you can change this if needed. In the Swann Security app, you can select “MAIN” in Live mode to view your cameras. Lower the frame rate if you’re having issues streaming to your mobile device (lowering the frame rate to 6fps for example, will reduce the bandwidth required without sacrificing image quality).

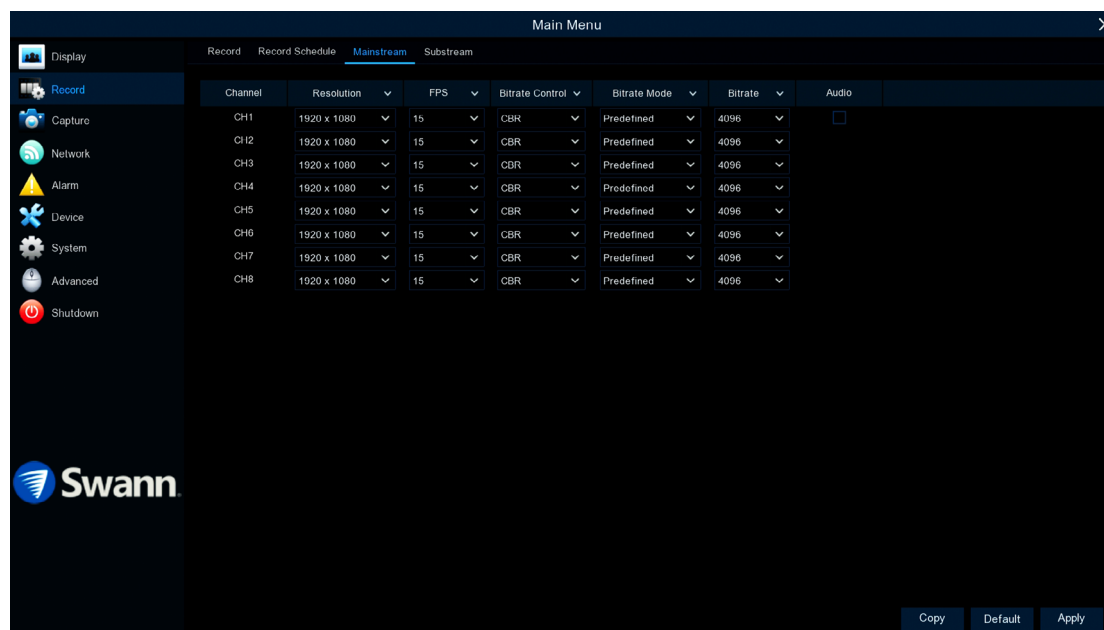
**Bitrate Control:** CBR (Constant Bitrate) utilises a fixed bitrate and band-

width to record video. This means your DVR will use the same number of bits throughout the entire recording, regardless of what is happening on-screen. VBR (Variable Bitrate) utilises a bitrate and bandwidth that changes when your DVR is recording. The bitrate will increase or decrease depending on how complex the scene is.

**Which method should I choose?** Scene complexity can vary significantly over several hours of recorded video, and the bitrate you select for recording will have an effect on image quality, bandwidth consumption, and hard drive storage. A complex scene with moving action, such as traffic on a city street, or a scene with a lot of contrasting colors, will affect image quality and bandwidth consumption more than a less complex scene with little action or movement.

*(continued on next page)*

# Record: Mainstream



**CBR:** This is the default method of control that your DVR will use to record video. If you have cameras placed in high traffic areas, CBR is the recommended control method. As the bitrate is fixed, the image quality will be consistent throughout the entire recording. This will assist when identifying people or objects.

**VBR:** If you have cameras placed in low traffic areas, VBR is the recommended control method. As the bitrate is variable, your DVR can use a lower bitrate if there is little to no movement detected. This will result in a lower recording size as well as a lower bandwidth requirement.

When choosing VBR, you can select the recording quality that will define the variable bitrate used. You can select from lowest to highest.

**Bitrate Mode:** You have the choice of selecting a predefined or user-defined

bitrate. For most instances, the default selection will be suitable.

**Bitrate:** The amount of data that your DVR will use to record video. The higher the bitrate, the more space each recording will consume on the hard drive. The default bitrate is 4096Kbps. Change the bitrate if you're having issues streaming to your mobile device via the Swann Security app (when selecting "MAIN" in Live mode to view your cameras). Decreasing this will consume less bandwidth when streaming.

**Audio:** Click the checkbox if you have an audio source connected to the DVR's audio input(s) (for 8 channel models, this option is on camera input 1 only).

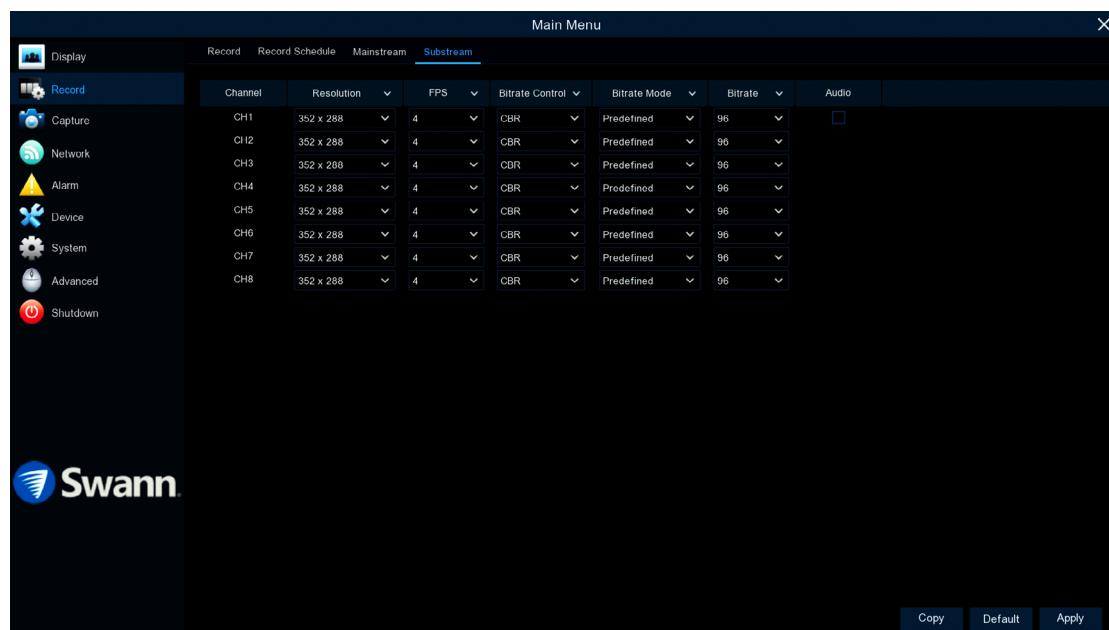


TIP

Selecting the appropriate recording settings is dependent on camera location, lighting conditions and the level of quality required. Some experimentation is recommended to select the best settings.



# Record: Substream



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

- Use the "Copy" function to apply all settings to the other cameras connected.
- Click "Default" to revert to default settings.
- Click "Apply" to save settings.

Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Resolution:** The default resolution is 352 x 288 and cannot be changed.

**FPS:** The number of frames per second (fps) that your DVR will process when streaming to your mobile device via the Swann Security app. For most instances, the default frame rate will be suitable. Change this to 10fps or 15fps for cameras that monitor medium to high traffic areas. This results in smoother motion, but just be aware this will increase the bandwidth required.

**Bitrate Control:** Change this to VBR. This will result in a lower recording size as well as a lower bandwidth requirement. You can select the recording quality that will define the variable bitrate used, from lowest to highest.

**Bitrate Mode:** You have the choice of selecting a predefined or user-defined bitrate. For most instances, the default selection will be suitable.

**Bitrate:** The amount of data that your DVR will use to stream video to your mobile device. For cameras that monitor medium to high traffic areas, increase the bitrate to add more detail to the camera's image, but just be aware this will increase the bandwidth required. Increase the bitrate in small doses until you are satisfied with the image quality.

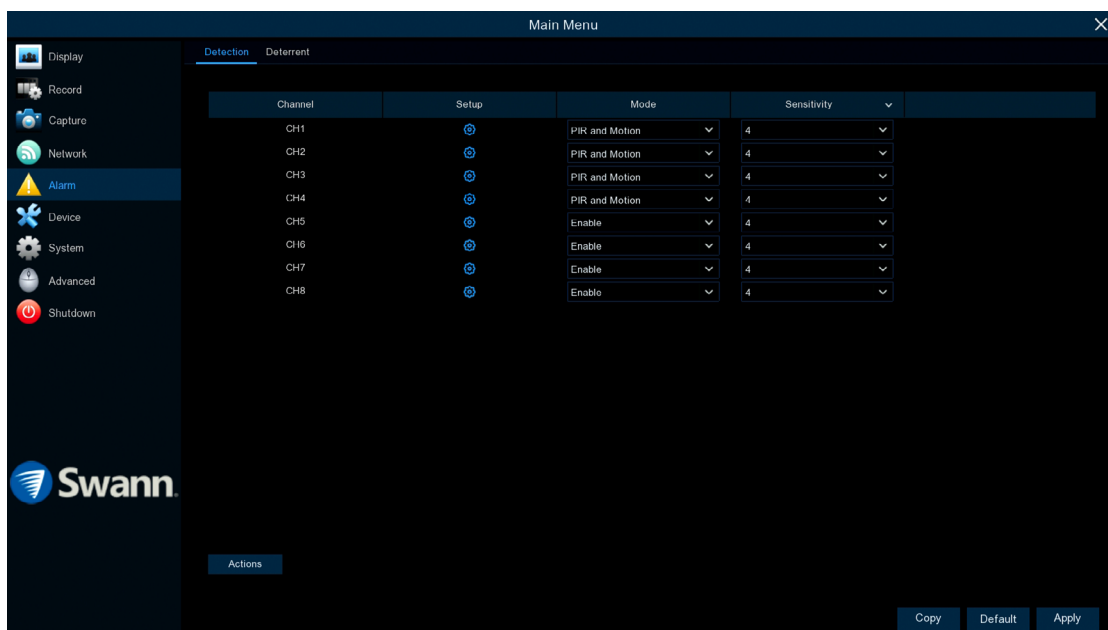
**Audio:** Click the checkbox if you have an audio source connected to the DVR's audio input(s) (for 8 channel models, this option is on camera input 1 only).



TIP

When streaming live video, the quality is dependent on your internet connection and the Substream settings utilised. This is important to remember when streaming multiple cameras at the same time.

# Alarm: Detection



When motion has been detected by one or more cameras, your DVR will alert you to a potential threat at your home. It does this by sending you an email alert with an attached image from the camera to use as a reference (if this option is enabled) and/or sending push notifications via the Swann Security app.

- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Setup:** Click the button to change the default motion detection area. The entire view of the camera is enabled for motion detection, however you can select certain areas if you wish (see page 21 - [Motion Detection Setup](#)).

**Mode:** By default, your DVR 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 23 - [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”.

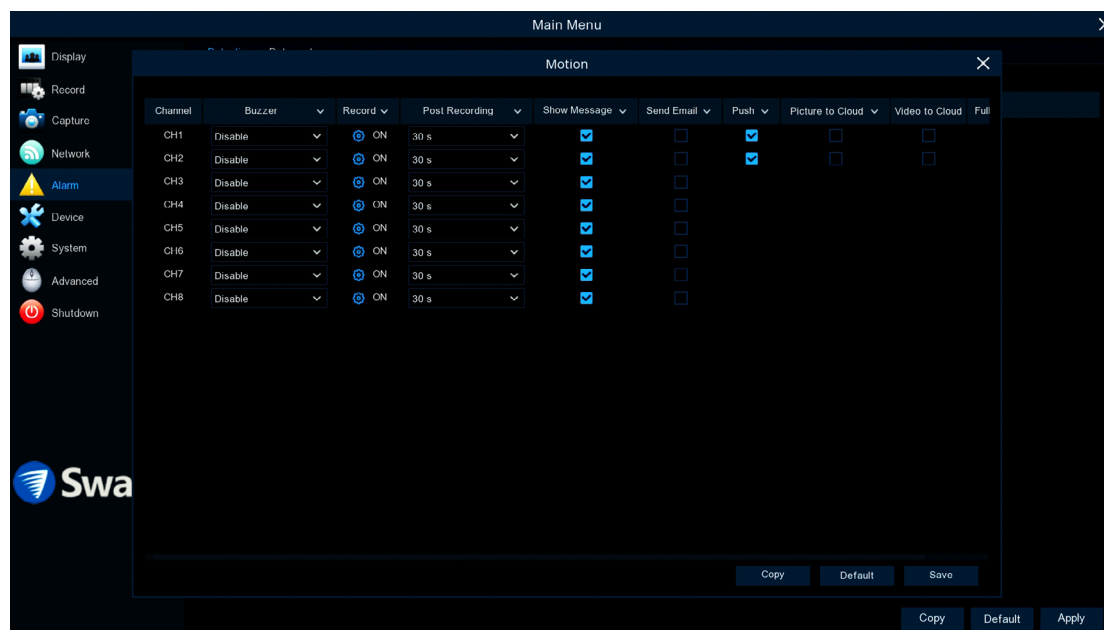
**Sensitivity:** This option allows you to change the sensitivity level. The higher

the number, the more sensitive your DVR will be when detecting motion. For most instances, the default selection will be suitable, however it’s recommended to conduct a test to see if the sensitivity level is correct for the camera’s location (see page 22 - [Motion Detection Tips](#)).

**Actions:** Click the button to change options for alarm notifications, alerts and more (see page 20 - [Alarm: Detection - Actions](#)).

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# Alarm: Detection - Actions



**Buzzer:** When motion has been detected, you can enable the DVR's buzzer to alert you for a predetermined amount of time. Click the drop down menu to select a time.

**Record (Record Channel & Analog Channels):** This option instructs your DVR to trigger additional cameras to start recording when motion has been detected. Click the "Analog Channels" checkbox to select all cameras or click on the individual camera number that you want to trigger for recording.

**Post Recording:** This option instructs your DVR to record for a set period of time after an event has occurred. For most instances, the default selection will be suitable, however you can change this if you wish.

**Show Message:** When motion has been detected, the motion icon will appear on-screen. Click the checkbox if you want to disable this.

**Send Email:** Click the checkbox to enable your DVR to send an email alert when motion has been detected.

**Push:** Push notifications are automatically sent via the Swann Security app. Click the checkbox if you would like to disable.

**Picture to Cloud:** Click the checkbox to copy snapshots to the cloud via Dropbox (see page 44 - [Device: Cloud Storage](#)).

**Video to Cloud:** Click the checkbox to copy videos to the cloud via Dropbox (see page 44 - [Device: Cloud Storage](#)).

**Full Screen (slide to the right to view):** Click the checkbox to view the camera full screen in Live View mode when motion has been detected.

Click the "Save" button then click "OK". Right-click the mouse to exit.

# Motion Detection Setup

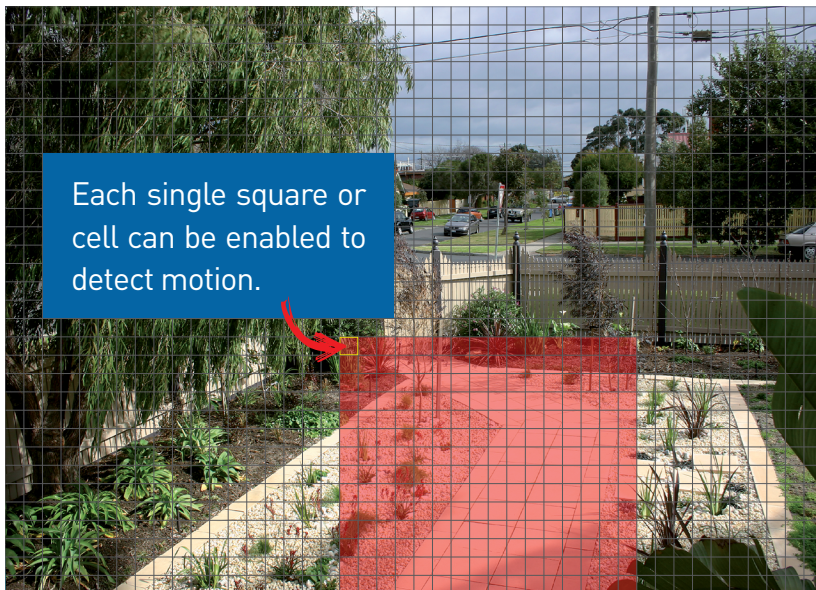


1. Click “Clear All” to delete the default motion detection area.
2. To create a new motion detection area, press and hold the left mouse button to select the cell or square that you want to start at, then click and drag to select the area that you want to create. Release the mouse to finish.
3. Multiple areas can be created. Each individual cell or square can be enabled to detect motion. The same action also applies to delete an area that has been created.

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.

Movement outside of the motion detection areas will not be detected so will not trigger recordings or event notifications.

4. Adjust the sensitivity if required then right-click the mouse to exit.
5. Click “Apply” to save changes made.





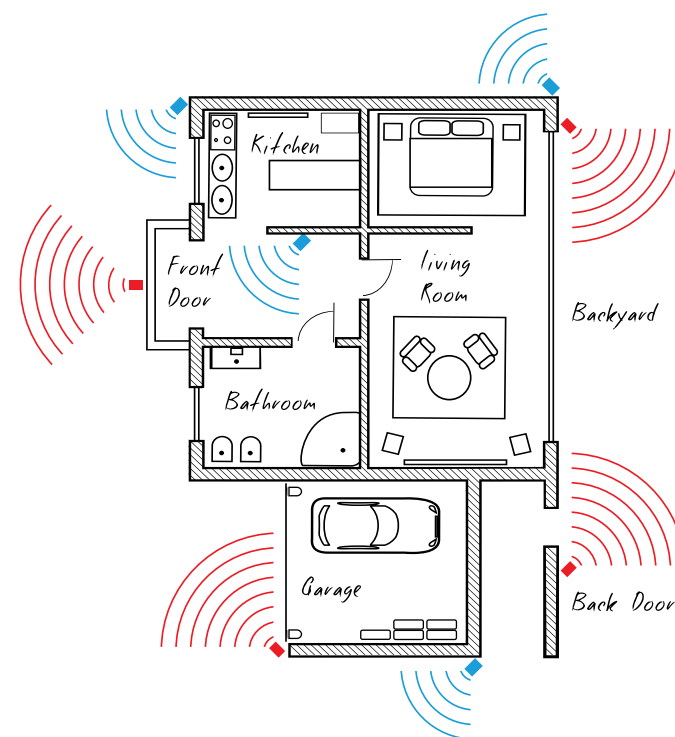
# Motion Detection Tips

## 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 DVR 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.

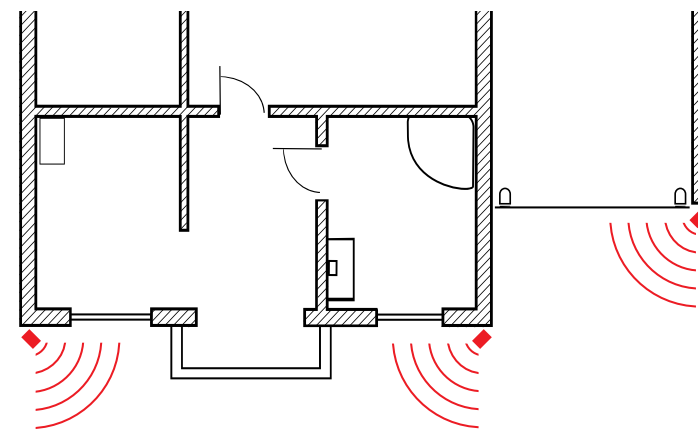


# Thermal-Sensing Camera Tips

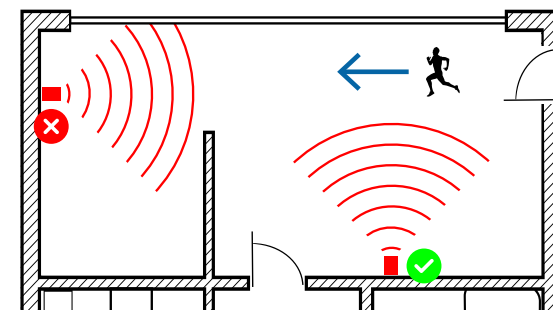
If thermal-sensing cameras have been included with your DVR or you have purchased them separately, the following tips will help you in getting the best results from your security system.

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 21 - [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.

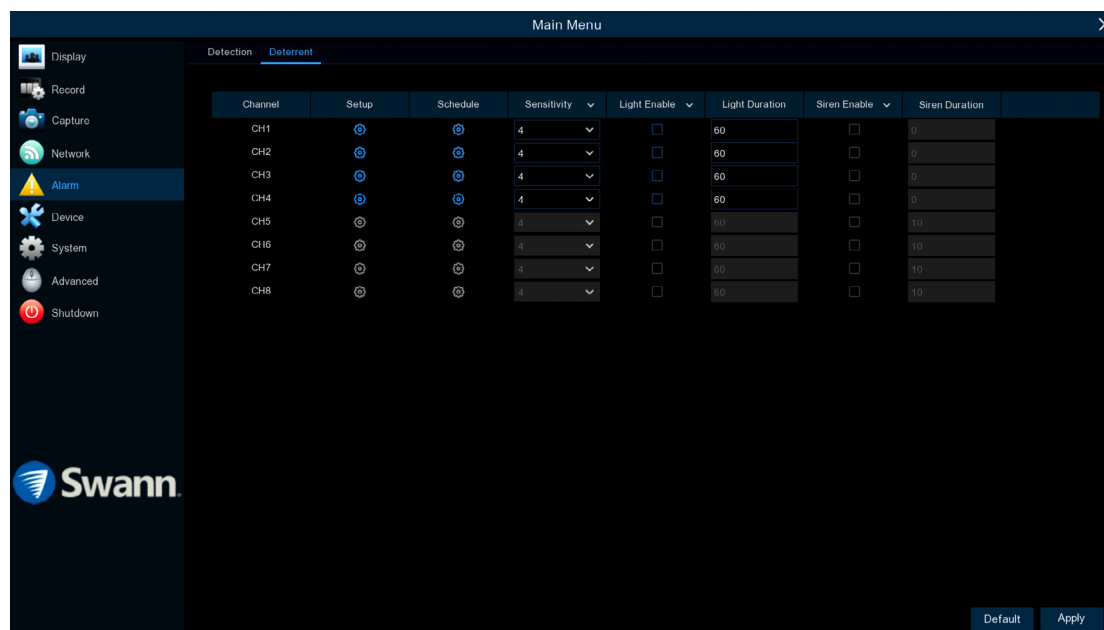


When installing cameras outside, mount them where intruders are most likely to enter (front & back doors, garage entrance). Angle the cameras so the intruder walks parallel to the sensor.



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

# Alarm: Deterrent



Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Setup:** Click the button to change the default spotlight detection area. The entire view of the camera is enabled, however you can select certain areas if you wish (see page 25 - [Spotlight Detection Setup](#)).

**Schedule:** Click the button to change the default spotlight schedule (see page 26 - [Spotlight Trigger Schedule](#)).

**Sensitivity:** This option allows you to change how sensitive the spotlight will be when your DVR has detected motion. This is independent of the camera's sensitivity for detecting motion. As an example, you may want to record movement that is happening in the background but you don't want the spotlight and or the siren to be triggered until one or more objects gets closer to the camera. For this scenario, you would adjust the sensitivity to 1 or 2. Some

experimentation is recommended to select the best settings.

**Light Enable:** Click the checkbox to enable the camera's spotlight.

**Light Duration:** Lets you change the length of time the spotlight will remain lit when motion has been detected. Adjust accordingly.

As the cameras included with your DVR don't have a built-in siren, the Siren Enable and Siren Duration functions are disabled.

# Spotlight Detection Setup



1. Click "Clear All" to delete the default spotlight detection area.
2. To create a new spotlight detection area, press and hold the left mouse button to select the cell or square that you want to start at, then click and drag to select the area that you want to create. Release the mouse to finish.
3. Multiple areas can be created. Each individual square can be enabled to trigger the spotlight. The same action also applies to delete an area that has been created.

In the example provided, a spotlight detection area has been created for the backyard and will trigger the spotlight when one or more objects gets closer to the rear of the house.

Movement outside of the spotlight detection area will not trigger the spotlight.

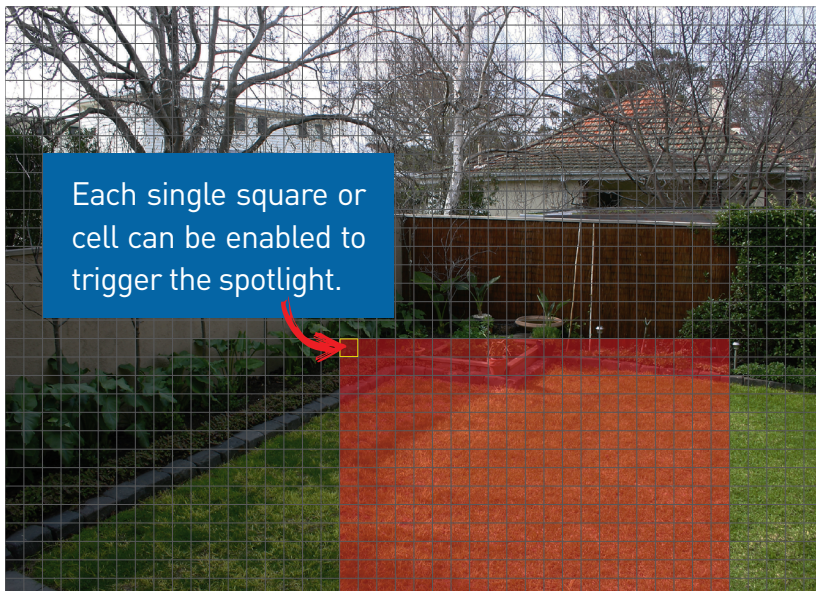
**Light Enable:** Click the checkbox to enable the camera's spotlight.

**Light Duration:** Adjust the length of time the spotlight will remain lit when motion has been detected.

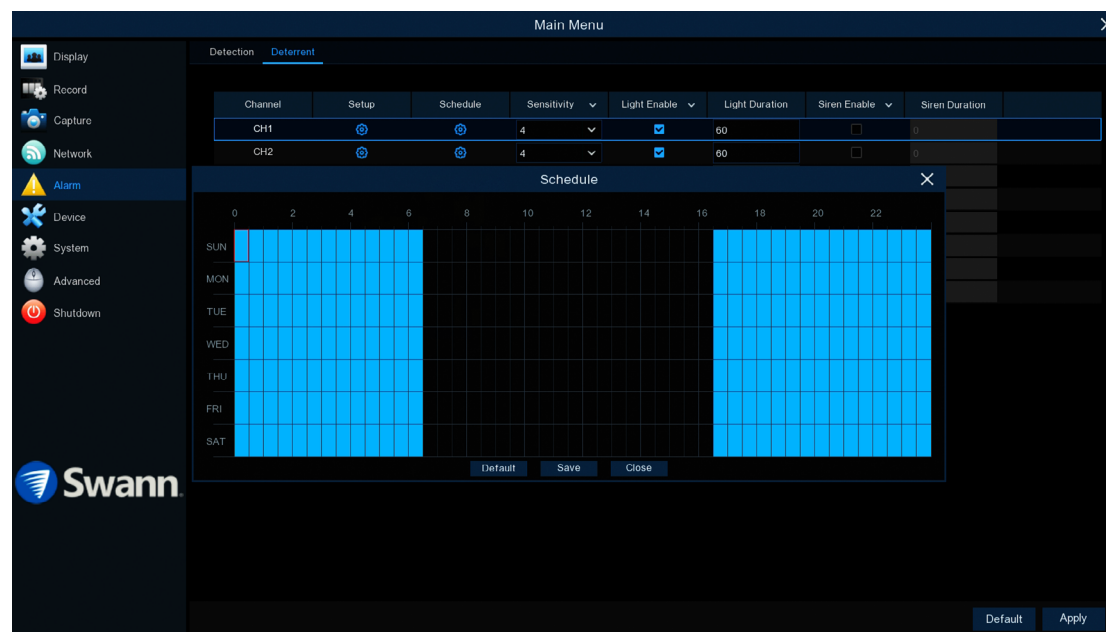
**Sensitivity:** Adjust the sensitivity if needed.

4. Right-click the mouse to exit.

5. Click "Apply" to save changes made.



# Spotlight Trigger Schedule



By default, the spotlight and siren will not trigger between 06:30 a.m. and 04:30 p.m., however you can change this according to your needs.

Each square represents 30 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.

Click "Save" to save changes made. Right-click the mouse to exit.

# Device: PTZ



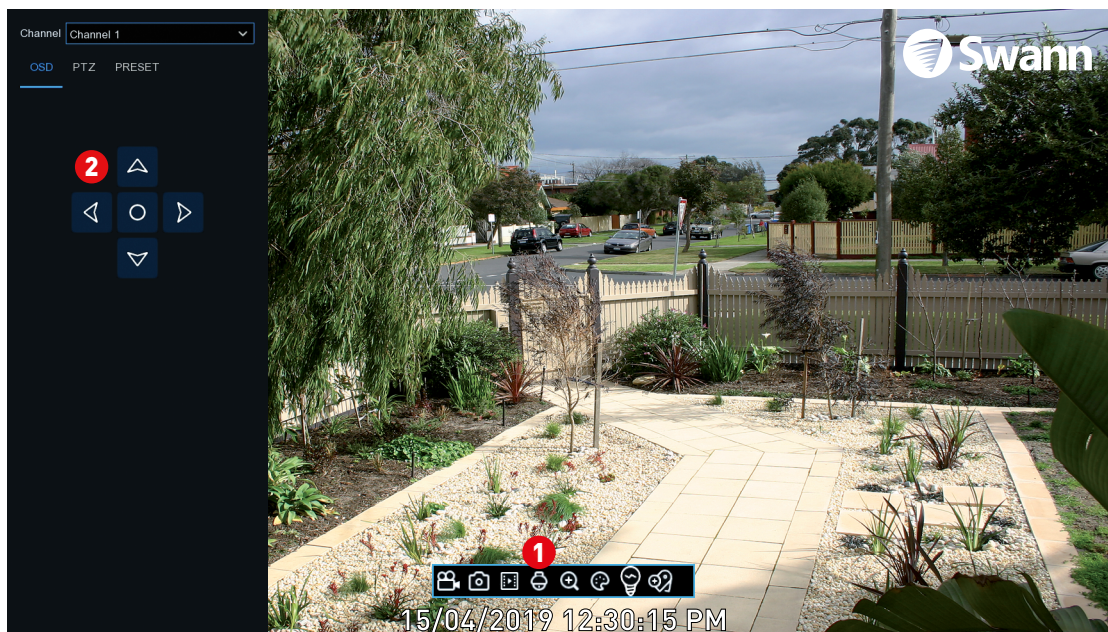
- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

If you have a compatible PTZ camera connected to your DVR, you can use the PTZ controls to move the camera as well as the ability to zoom into an object and to control the level of focus (if available). You can create multiple preset positions, which can be recalled to focus the camera’s view to a different position. Cruise mode can also be used to move the camera to different preset positions that have been created.

To configure your PTZ camera, consult the instruction manual included with your device then match those settings here.



# Camera's On-Screen Display



When accessing the on-screen display, the Main Menu will appear first. From here you can access the settings available. Use the controls to navigate.

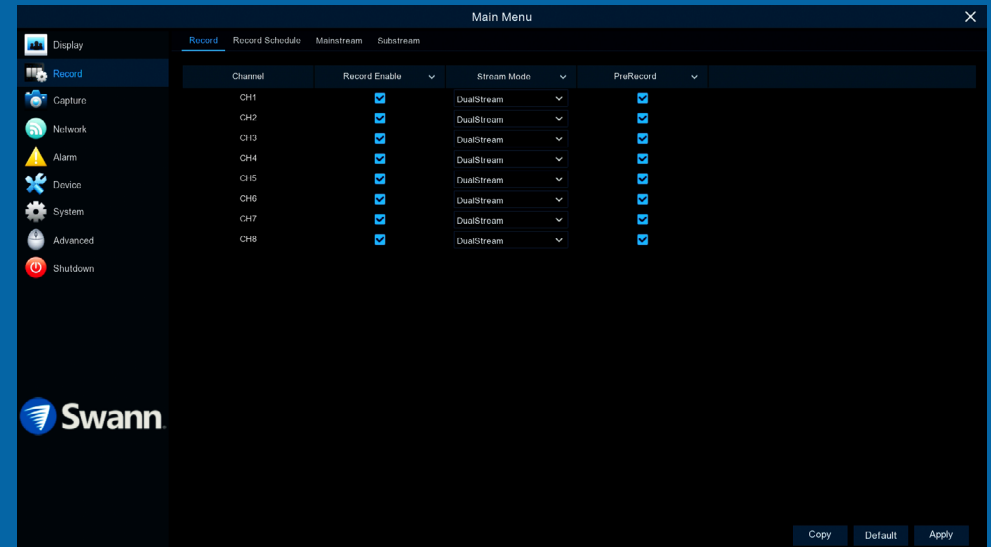
**1.** To access the on-screen display, in Live View mode, click the camera then click the PTZ button on the Camera Toolbar.

**2.** The camera will display full screen and the navigation controls will appear on the left. Click the middle button (circle) to display the Main Menu. Click the up and down arrow buttons to navigate. Click the left and right arrow buttons to change settings. Click the middle button to enter sub-menus and to confirm changes.

Right-click the mouse to exit.

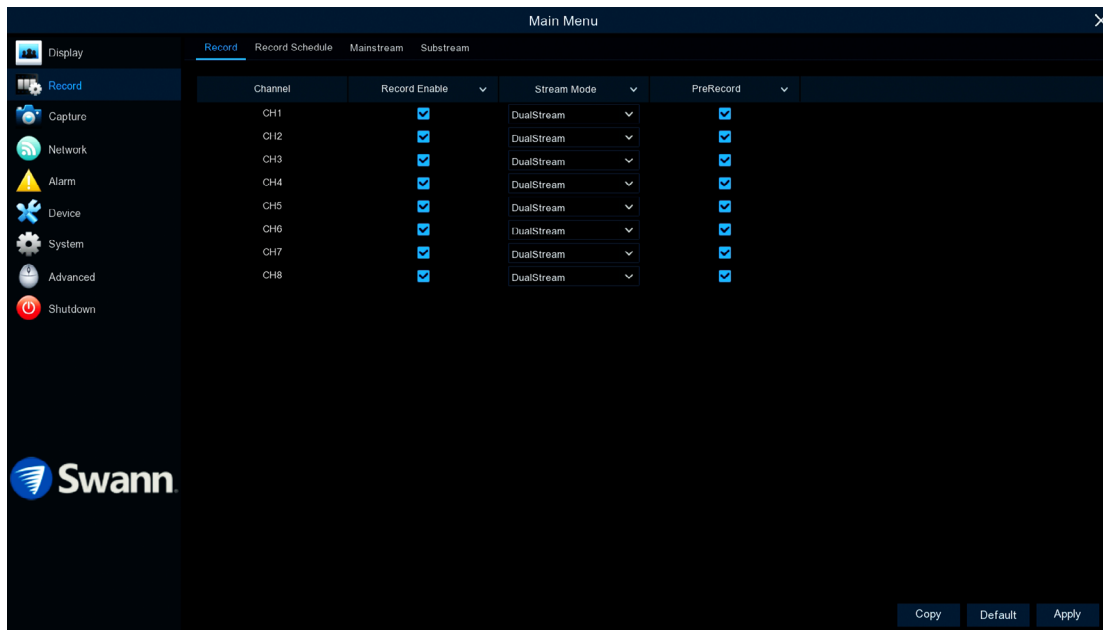
## Recording Configuration

The recording configuration options are available in the “Record” and “Capture” menus that are accessible from the Main Menu. From here you can access and change the default recording schedule (presented as a 24 hour 7 days a week grid and is color coded) for each camera connected. You can also enable and set a schedule for your DVR to take a snapshot each time an event occurs.





# Record: Record



- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Record Enable:** When disabled, your DVR will detect motion but it will not record (manual record is also disabled).

**Stream Mode:** By default, your DVR will record both Mainstream and Substream video (known as DualStream). Mainstream video is used for playback when using your DVR directly, and Substream is used for remote playback on your mobile device. If remote playback is not required, you can select Mainstream recording only.

**PreRecord:** Allows your DVR to record for a number of seconds before an event occurs. It's recommended to leave this enabled.

# Alarm: Detection



By default, a 24-hour 7 days a week Detection schedule has been enabled for each camera connected. The schedule can be changed to suit your needs and each camera can have a different schedule if needed. The schedule is color coded to represent the event type.

- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

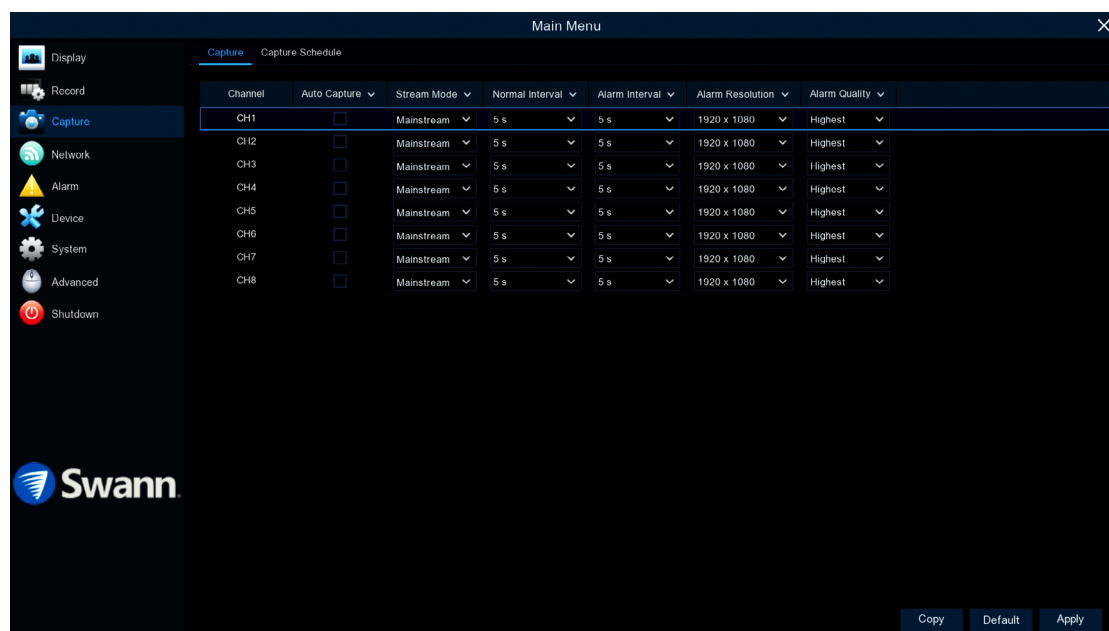
**Channel:** Select a camera that you would like to edit.

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

**Detection:** Your DVR will only record when motion has been detected from one or more cameras.

Each square represents 30 minutes. Using the mouse, select the desired recording mode then 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 Normal or Detection recording is not required (on one or more sections that have recording enabled).

# Capture: Capture



As an added feature, you can enable and set a schedule for your DVR to take a snapshot each time an event occurs. This is particularly useful for finding motion events quickly and can also be used for different purposes such as time lapse photography.

- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Each camera input on your DVR will be displayed as CH1, CH2, etc.

**Auto Capture:** When enabled, your DVR will take a snapshot each time an event occurs.

**Stream Mode:** Leave the default selection. This allows you to select the camera’s native resolution (Alarm Resolution).

**Normal Interval:** The length of time that must elapse before a snapshot is taken. For example, when setting a Normal capture schedule, a snapshot will be taken every 5 seconds using the default selection. Adjust accordingly.

**Alarm Interval:** When setting a Detection capture schedule, a snapshot will be taken each time motion has been detected according to the interval selected. Adjust accordingly.

**Alarm Resolution:** Leave the default selection. This will save each snapshot at the camera’s native resolution. A lower resolution can be selected.

**Alarm Quality:** Leave the default selection. This will save each snapshot at the camera’s highest bitrate.

As this is an added feature, a capture schedule is not enabled by default. To enable this (see page 33 – [Capture: Schedule](#)).

# Capture: Schedule

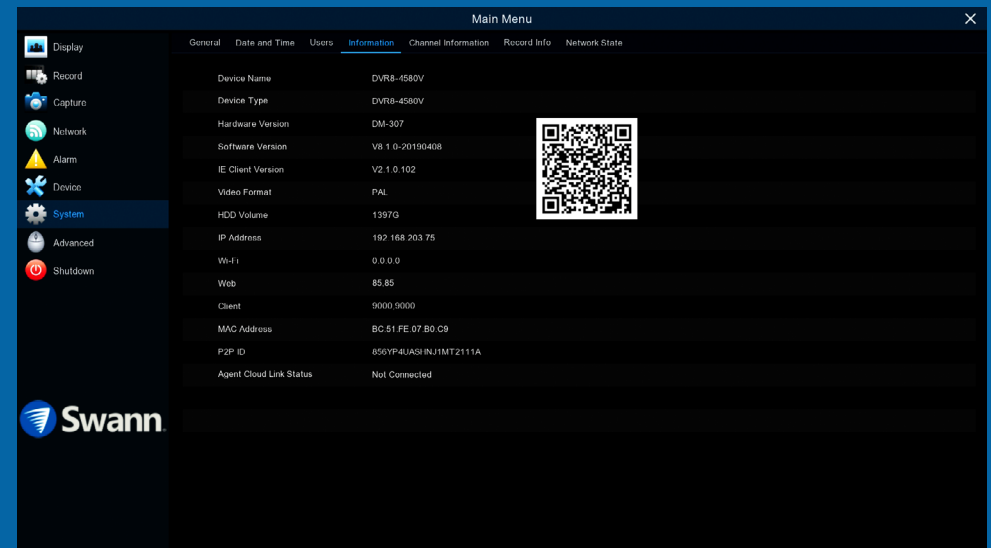
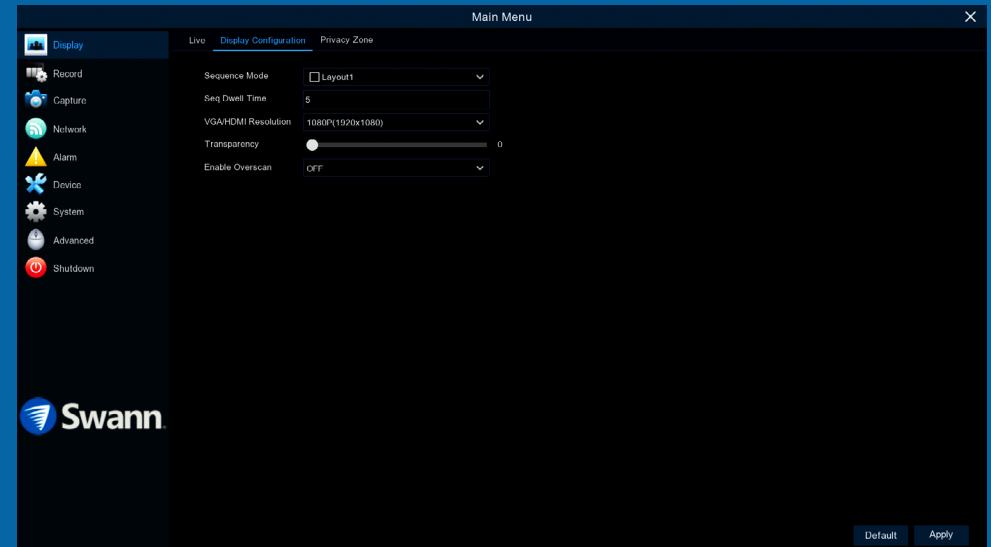


**Channel:** Select a camera that you would like to edit.

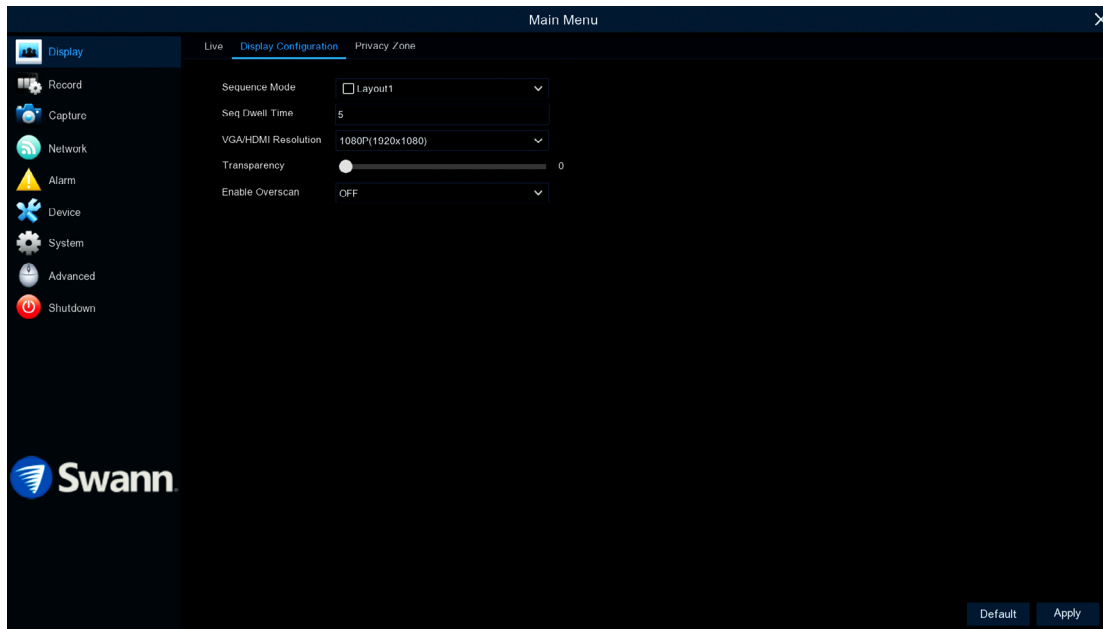
Each square represents 30 minutes. Using the mouse, select the desired capture mode then click on a particular square to change or click and drag the mouse over the squares corresponding to your desired time period. The same action can also be applied if Normal or Detection capture mode is not required (on one or more sections that have been enabled).

# System Configuration

The options available give you complete control on how your DVR is configured and how it operates. Some of the options such as display resolution, time zone, email configuration, Daylight Saving and password creation are configured during the Startup Wizard. For experienced network users, your DVR provides options that can be configured to suit your particular requirements. You can also perform a firmware upgrade when available.



# Display: Display Configuration



- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**Sequence Mode:** Select how many video channels you would like to display when your DVR is in sequence mode. You can select from one, four or six cameras to display at a time.

**Sequence Dwell Time:** Enter in seconds the maximum length of time you would like to display a video channel in sequence mode before displaying the next video channel (300 seconds is the maximum).

**VGA/HDMI Resolution:** Select a display resolution that is suitable for your TV.

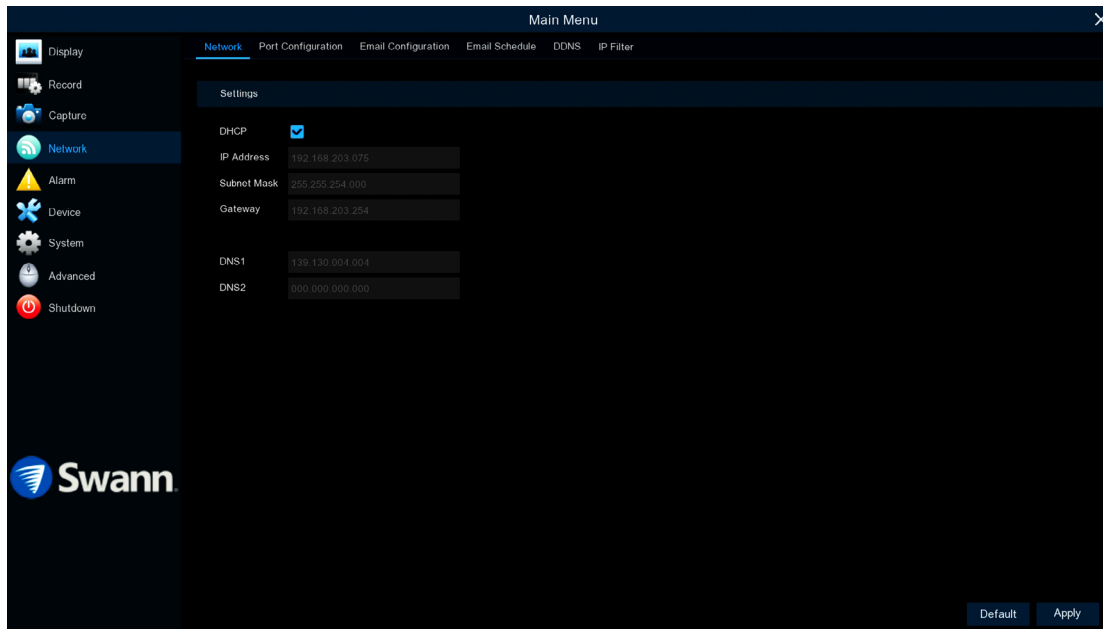
**Transparency:** Click and hold the slider left or right to change how transparent the Menu Bar and Main Menu will appear on-screen. Adjust accordingly.

**Enable 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.



# Network: Network



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, you do have the ability to change them.

- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**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.

If you are disabling DHCP, the following five options can be changed:

**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.

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

**DNS (Domain Name System)1/2:** Input the DNS settings for your internet service provider.

# Network: Email Configuration

The screenshot shows the 'Email Configuration' screen in a Swann DVR's web interface. The left sidebar contains icons for Display, Record, Capture, Network (selected), Alarm, Device, System, Advanced, and Shutdown. The main area has tabs for Network, Port Configuration, Email Configuration (active), Email Schedule, DDNS, and IP Filter. The Email Configuration section includes a list of settings: Email (checked), Encryption (Auto), SMTP Port (00587), SMTP Server (smtp.gmail.com), User Name (myusername), Password (mypassword), Sender (DVR8-4580V), Receiver 1 (receiver@emailaddress.com), Receiver 2, Receiver 3, and Interval (3 Min). A 'Show Password' checkbox is checked. At the bottom right are 'Default' and 'Apply' buttons.

## Why do I need to create an email for my DVR?

So your DVR can send you email alerts and to send you a password reset request if you have forgotten your password. The following email providers are supported - Gmail [gmail.com](mailto:gmail.com) and Outlook [outlook.com](mailto:outlook.com). On your computer or mobile device, create an email account then input those details here.

- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**Email:** Click the checkbox to input your email details.

**Encryption:** Leave this on “Auto”. This ensures your DVR will always use the correct encryption for your email provider.

**SMTP Port:** Gmail input 00587. Outlook input 00587.

**SMTP Server:** Gmail input “smtp.gmail.com”. Outlook input “smtp.live.com”.

**User Name:** Input the email user name for the account you created.

**Password:** Input the email password for the account you created. Click the “Show Password” checkbox if you would like to hide your password.

**Sender:** Input a name for your email account, for example DVR8-4580V.

**Receiver1:** Input the email address that you want to send email alerts to.

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

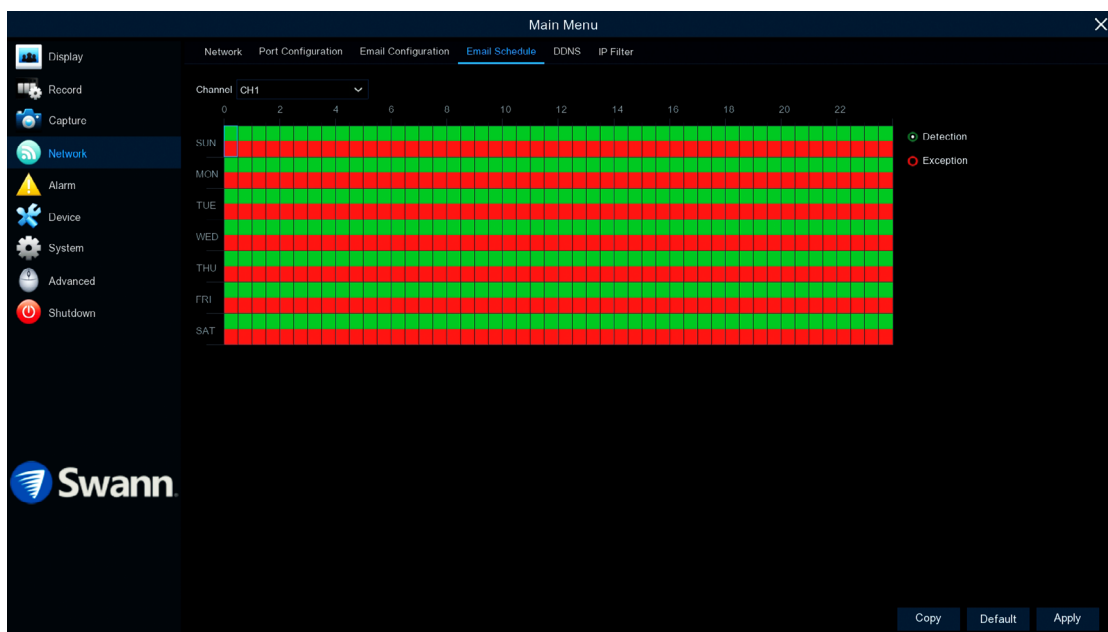
**Test Email:** Click to verify the information is correct then click “OK”. A message will appear if the test has been successful. Click “OK” to continue.

If the test email is not in your inbox, check your junk or spam folder.

## 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 DVR, 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 modem or router.
3. Search “less secure apps” at [support.swann.com](http://support.swann.com).

# Network: Email Schedule



- Use the “Copy” function to apply all settings to the other cameras connected.
- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**Channel:** Select a camera that you would like to edit.

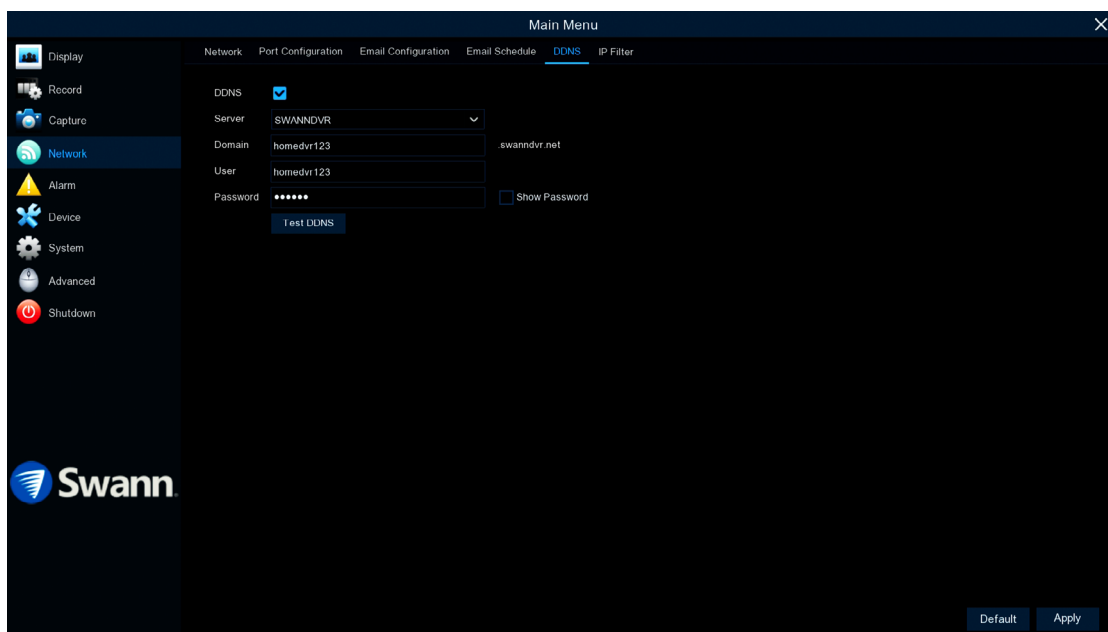
**Detection:** If email alerts have been enabled for motion detection, you can change the schedule on when your DVR can send those alerts. For example, you may only want to receive alerts during the day but not in the evening. A different schedule can be created for each camera.

**Exception:** There are three event types that your DVR will detect as an exception - no space left on the hard drive, a hard drive error and if one or more channels has lost the feed from its camera (see page 48 - [Advanced: Events](#)). It's recommended to leave the default schedule in place in case there is an exception that you need to be alerted to.

Each square represents 30 minutes. Using the mouse, click on a particular square to change or click and drag the mouse over the squares correspond-

ing to your desired time period.

# Network: DDNS



Prior to developing our SwannLink Peer-to-Peer technology, our SwannDNS service was used to connect to your DVR remotely. This service is still active and we recommend creating an account as a means of backup.

- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Go to [www.swanndvr.com](http://www.swanndvr.com) and click the “Registration” button. Follow the prompts to create your account.

**DDNS:** Click the checkbox to enable.

**Server:** SWANNDVR is automatically selected.

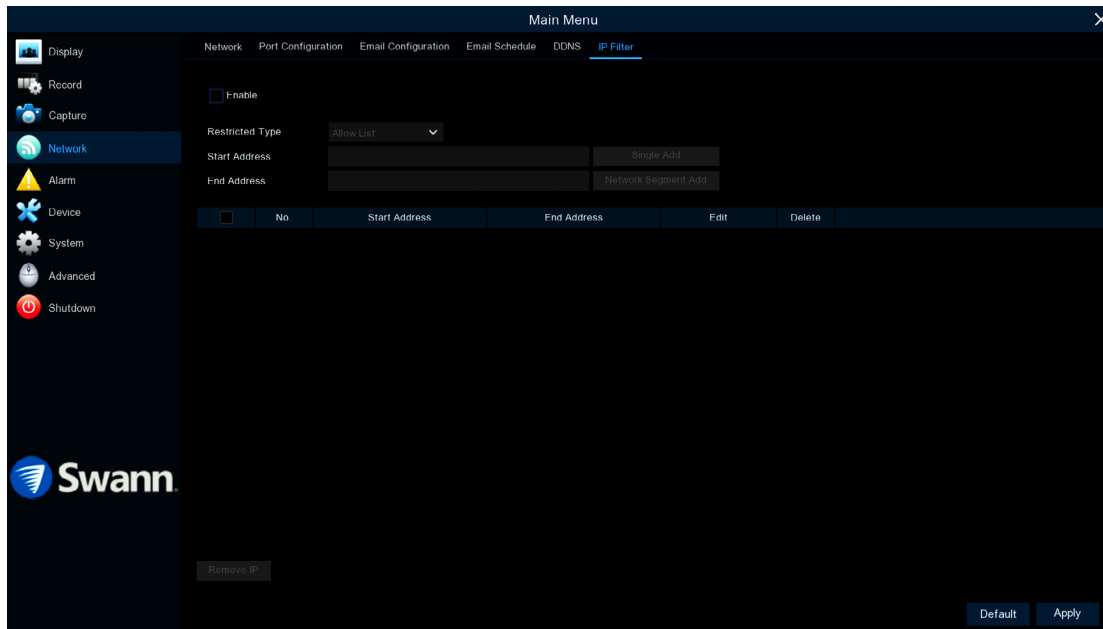
**Domain:** Enter the domain name that is hosted on your account. For example - (username.swanndvr.net).

**User:** Enter the username (host name) for your account.

**Password:** Enter the password for your account.

**Test DDNS:** Click this button then click “OK” to confirm your account details. After a short moment you will see “DDNS test is successful!”. Click “OK” to close.

# Network: IP Filter

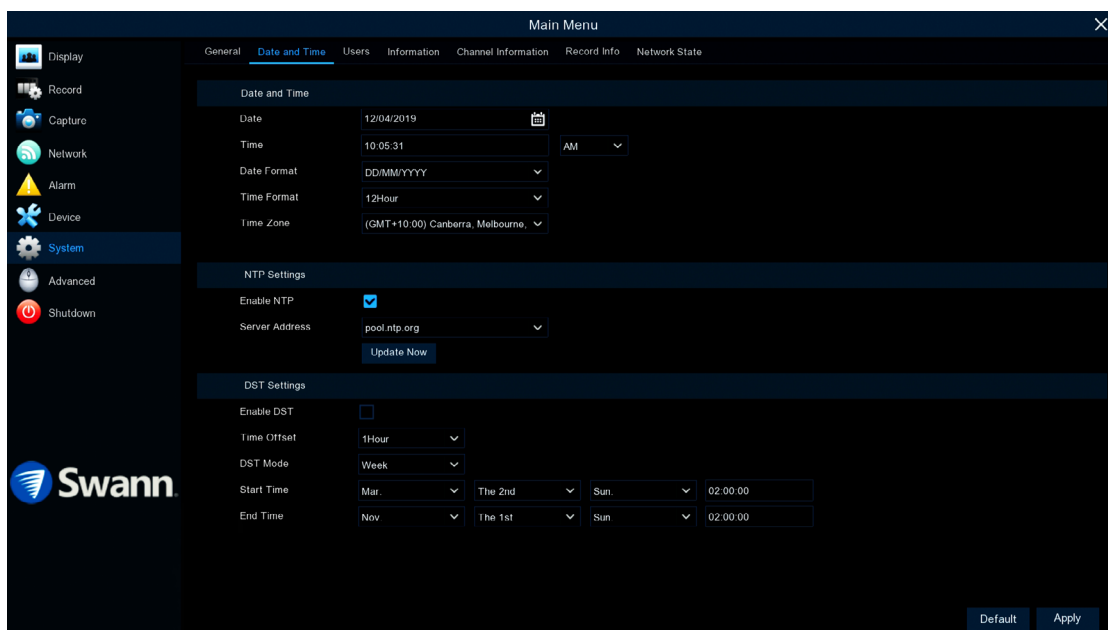


- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

IP Filtering is a great way to limit access to your network devices for specific groups of IP addresses. For example, if you had a malicious user attacking your network, you could add a filter to prevent access to your devices from a single IP address or from a block of IP addresses. For the day-to-day function of your DVR, this function is not required.



# Network: Date and Time



- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

## Date and Time

If the date, time and time zone are incorrect, click the relevant dialogue boxes and drop down menus to change.

## NTP Settings

The NTP (Network Time Protocol) function gives your DVR the ability to automatically sync its clock with a time server. This ensures that the date and time are always accurate (your DVR will periodically sync time automatically).

1. Click the “Update Now” button to automatically synchronize your DVR’s internal clock with the time server instantly.
2. A message will appear on-screen stating that the time has been successfully updated. Click “OK” to continue.

## DST Settings

**Enable DST:** If Daylight Saving applies to your time zone or region, click the drop down menu to enable.

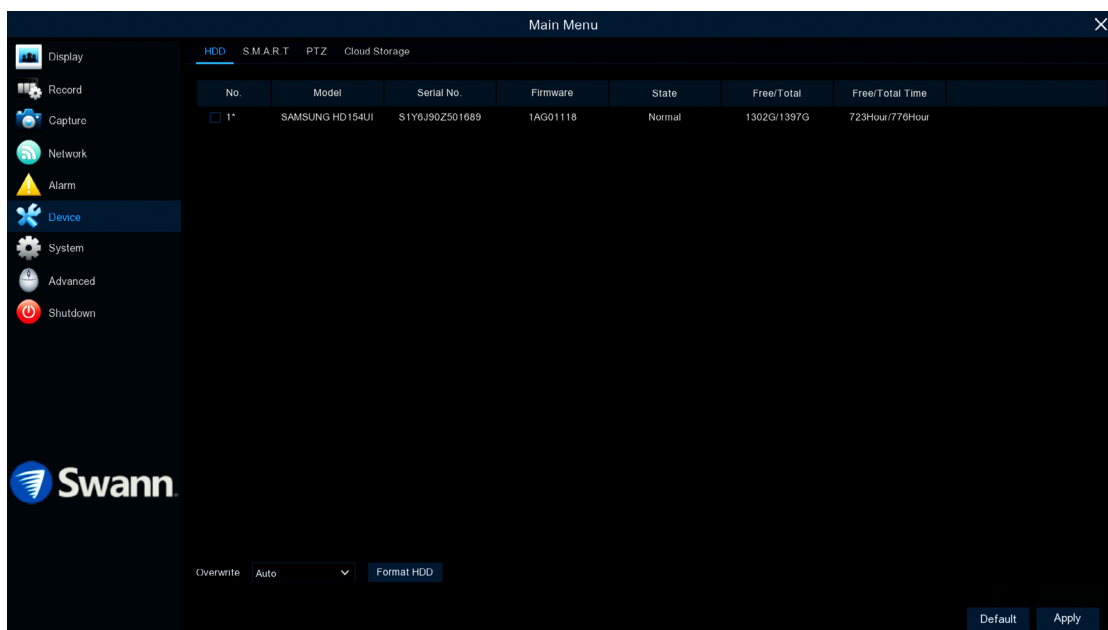
**Time Offset:** Select the amount of time that Daylight Saving has increased by in your time zone. This refers to the difference in minutes, between Coordinated Universal Time (UTC) and the local time.

**DST Mode:** You can select how Daylight Saving starts and ends:

**Week:** Select the month, a particular day and time when Daylight Saving starts and ends. For example, 2 a.m. on the first Sunday of a particular month.

**Date:** Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

# Device: HDD



This function gives you the option of formatting your DVR's hard drive, and it will be listed here for selection (if a new hard drive has been installed inside your DVR, you need to format the drive before it can be used).

- Click "Default" to revert to default settings.
- Click "Apply" to save settings.

**Overwrite:** This instructs your DVR to overwrite the oldest video files as the hard drive becomes full. You also have the option of disabling this or selecting the amount of days events are kept before they are overwritten. It's recommended to leave the default selection as this prevents your DVR from running out of storage space.

**Format HDD:** Click the checkbox to select the hard drive then click this button to format. A message will appear noting that all data will be erased. Click "OK" to continue.



TIP

From time to time, we recommend that you format the hard drive. This ensures that your DVR maintains system integrity. Connect a USB flash drive to copy events that you want to save. Remember, formatting the hard drive erases all your recordings.

# Device: S.M.A.R.T

ID	Attribute Name	Status	Flags	Value	Worst	Threshold	Raw Value
0x1	Raw Read Error Rate	OK	f	100	100	51	0
0x3	Spin Up Time	OK	7	72	72	11	9280
0x4	Start Stop Count	OK	32	100	100	0	108
0x5	Reallocated Sector Ct	OK	33	100	100	10	0
0x7	Seek Error Rate	OK	f	100	100	51	0
0x8	Seek Time Performance	OK	25	100	100	15	10962
0x9	Power On Hours	OK	32	98	98	0	9140
0xa	Spin Retry Count	OK	33	100	100	51	0
0xb	Calibration Retry Count	OK	12	100	100	0	0
0xc	Power Cycle Count	OK	32	100	100	0	94
0xd	Read Soft Error Rate	OK	e	100	100	0	0
0xb7	Runtime Bad Block	OK	32	100	100	0	0
0xb8	End-to-End Error	OK	33	100	100	0	0
0xbb	Reported Uncorrect	OK	32	100	100	0	0
0xbc	Command Timeout	OK	32	100	100	0	0
0xbe	Airflow Temperature Cel	OK	22	60	57	0	40 (Min/Max 14/41)
0xc2	Temperature Celsius	OK	22	59	58	0	41 (Min/Max 14/45)

This function can be used to display technical information on the hard drive installed inside your DVR. You can also perform a test (there are three types available) to evaluate and detect potential drive errors.

**Self-check Type:** There are three types available:

**Short:** This test verifies major components of the hard drive such as read/write heads, electronics and internal memory.

**Long:** This is a longer test that verifies the above as well as performing a surface scan to reveal problematic areas (if any) and forces bad sector relocation.

**Conveyance:** This is a very quick test that verifies the mechanical parts of the hard drive are working.

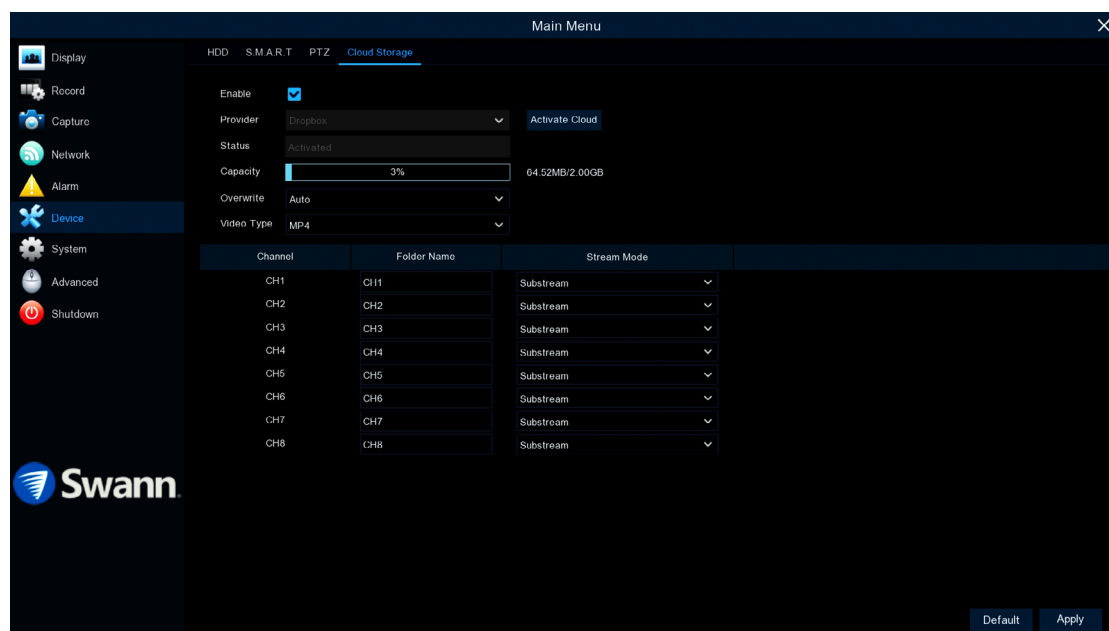
When performing a test, your DVR will continue to work as normal.

In most circumstances, the information here will not be needed for general use of your DVR, however one of our Swann Helpdesk & Technical Support

staff may ask you to access this if you call for assistance.

Right-click the mouse to exit.

# Device: Cloud Storage



Your DVR has the ability to copy snapshots and video recordings to the cloud via Dropbox™. Dropbox™ is a service that allows you to store and share snapshots and video recordings and always have them on hand when needed.

- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

Before activating the cloud function, we recommend that you create a Dropbox account using the same email address and password used for your DVR. On your computer go to [www.dropbox.com](http://www.dropbox.com), input your name, email address and password, agree to the terms & conditions then click the sign up button (don't log out of your account after sign up).

**Enable:** Click the checkbox to enable.

**Overwrite:** The default setting will overwrite the oldest files first. Click the drop down menu if you would like to select a particular time period instead.

**Video Type:** Leave the default selection for wider playback compatibility.

**Activate Cloud:** Click this to activate then click “OK” to confirm.

**Stream Mode:** Click the drop down menu if you would like to select Sub-

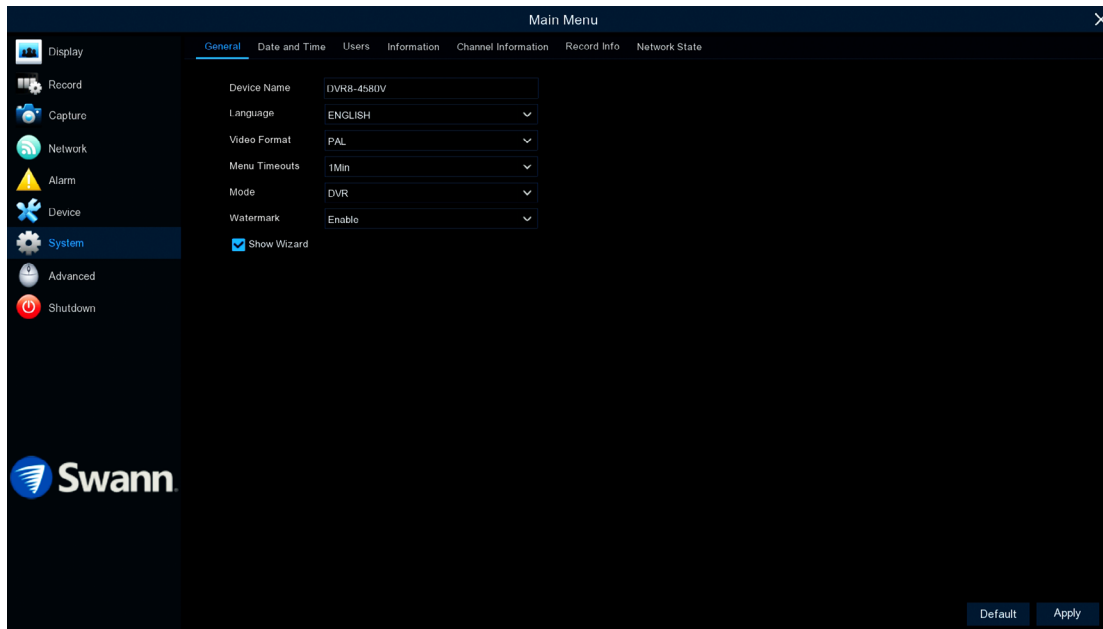
stream or Mainstream quality video to be copied to the cloud.

1. After a short moment, you will see a message on-screen. An activation link has been sent to your email (the email address used to receive email alerts).
2. On your computer, check your email then click the link within to activate.
3. Open the Swann Security app on your mobile device, tap the “Menu” button (top left) then tap “Cloud”. Tap your device shown then scan the QR code displayed on your computer. A code will be displayed within the app, tap “Authorize”. A message will appear stating authorization successful. Tap “OK” to finish.

With the cloud function enabled, you need to instruct your DVR to send alerts to the cloud (see page 20 - [Alarm: Detection - Actions](#)).



# System: General



- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

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

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

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

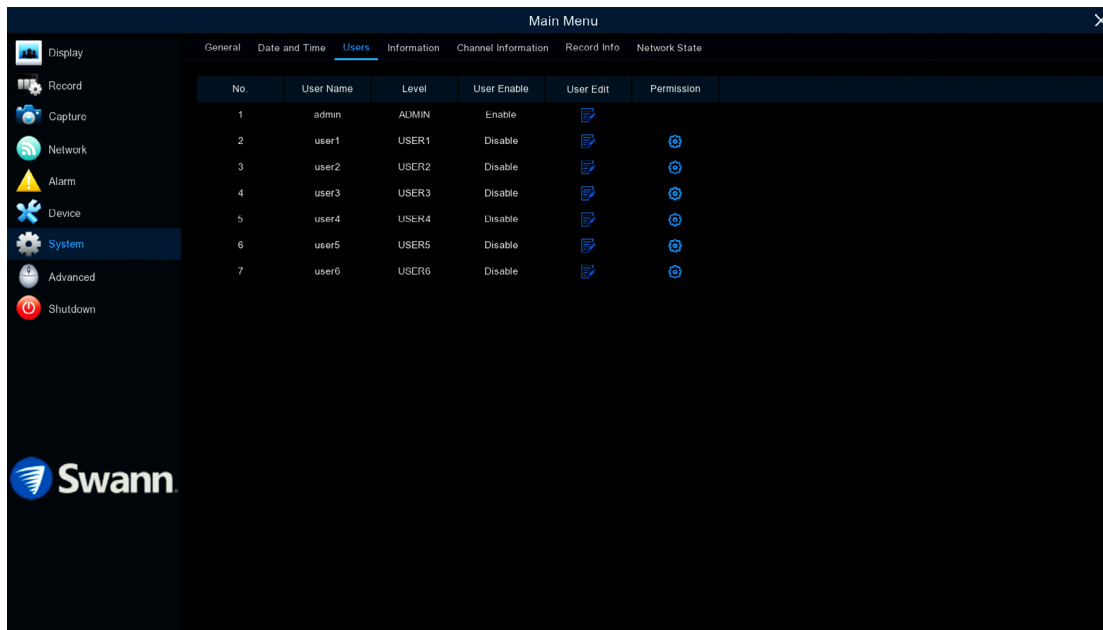
**Menu Timeouts:** Click the drop down menu to select the time your DVR will exit the Main Menu when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

**Mode:** Your DVR supports an additional mode called XVR. This allows you to configure IP cameras, that are connected to your home network, to work with your DVR. This mode will be covered in a future manual update.

**Watermark:** By default, the Swann logo is overlaid as a watermark for each camera connected. If this isn’t required, click the drop down menu to disable.

**Show Wizard:** Click the checkbox if you would like to display the Startup Wizard each time you turn on or reboot your DVR.

# System: Users



- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

To change your DVR’s password, click the “Edit” button. The password has to be a minimum of six characters and can contain a mixture of numbers and letters. Enter your new password again to confirm.

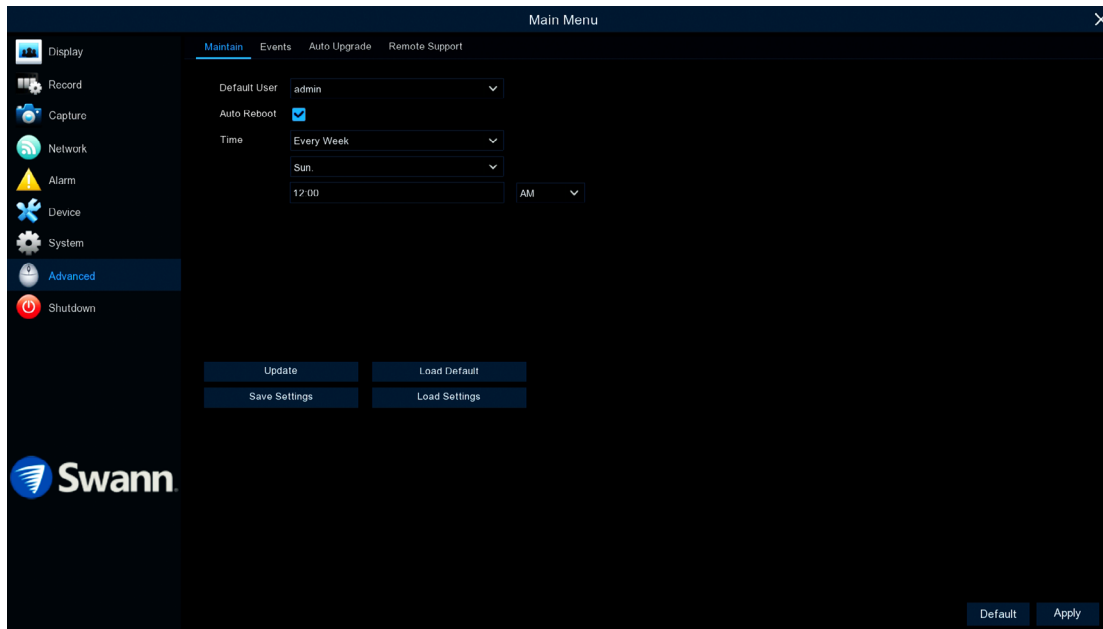
the “Save” button then click “OK” to confirm.

Additional user accounts can also be enabled:

1. Select “user1” then click the “Edit” button.
2. Click the drop down menu to enable.
3. Enter a user name and password.
4. Click the “Save” button, enter the admin password then click “OK” to confirm.

To change permissions, click the “Permission” button then select which options you would like to enable. Click the “All” button to select all options. Click

# Advanced: Maintain



- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**Default User:** Admin is the default user account. If multiple user accounts have been created, click the drop down menu to disable.

**Auto Reboot:** It is recommended to leave this enabled, as it maintains the operational integrity of your DVR.

**Time:** Choose an appropriate day and time to reboot your DVR.

**Update:** Click this button to update the firmware from a USB flash drive. Select the firmware file then “OK” to confirm. When the firmware update has completed, your DVR will reboot automatically.

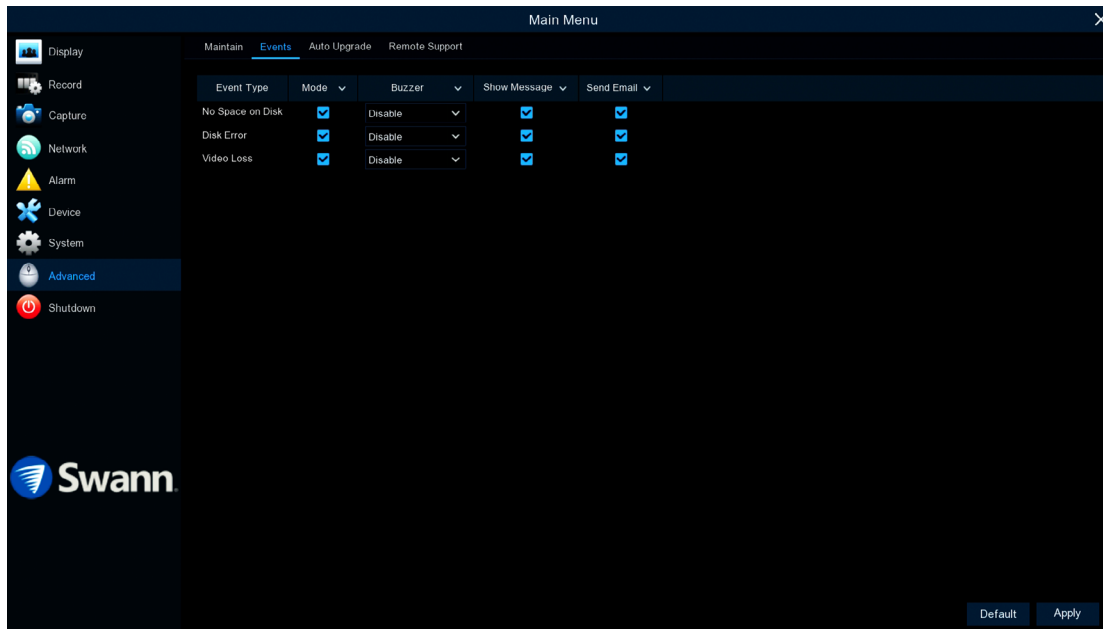
**Save Settings:** Click this button to export a configuration file containing all the settings that you have customised.

**Load Default:** Click this button to restore factory default settings. Click “All”

then click “Save”. Your DVR will reboot and the Startup Wizard will appear on-screen.

**Load Settings:** Click this button to import a configuration file containing all the settings that you have customised.

# Advanced: Events



Whenever there is an event or if your DVR displays unusual behaviour, you can be alerted to in multiple ways such as receiving an email, displaying a message on-screen, receiving an alert in the Swann Security app and activating its internal buzzer. There are three event types that your DVR will detect as an exception.

- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

**Enable:** Click the checkbox if you would like to disable alerts for the event available.

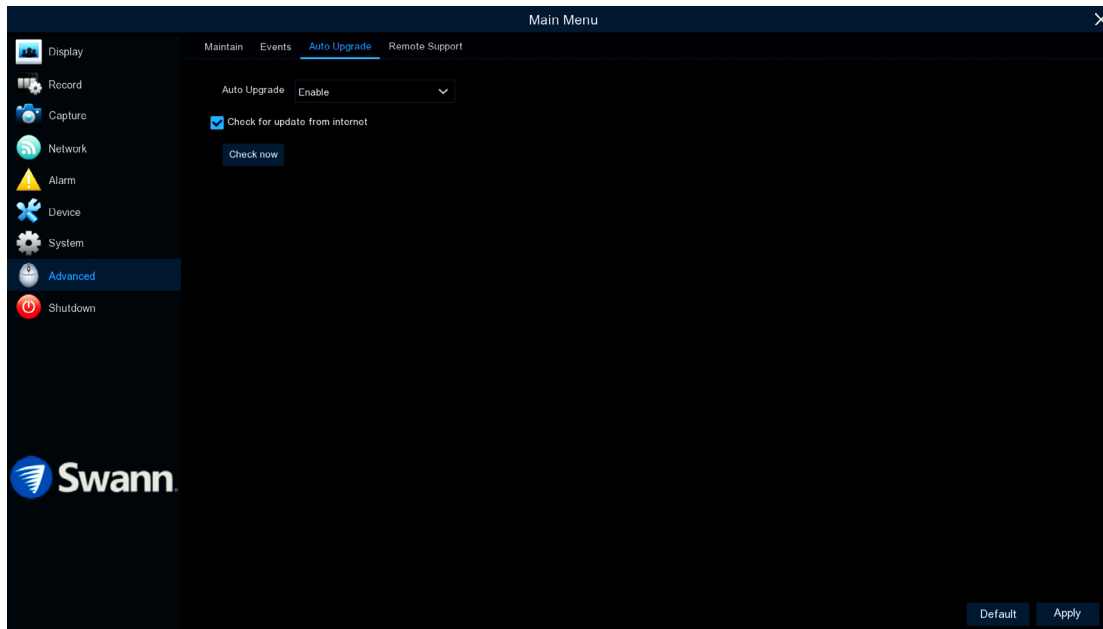
**Buzzer:** Click the drop down menu and select the time period for the internal buzzer to activate for the event available.

**Show Message:** Click the checkbox if you like to disable the on-screen message for the event available.

**Send Email:** Click the checkbox if you would like to disable email alerts for the event available.



# Advanced: Auto Upgrade



- Click “Default” to revert to default settings.
- Click “Apply” to save settings.

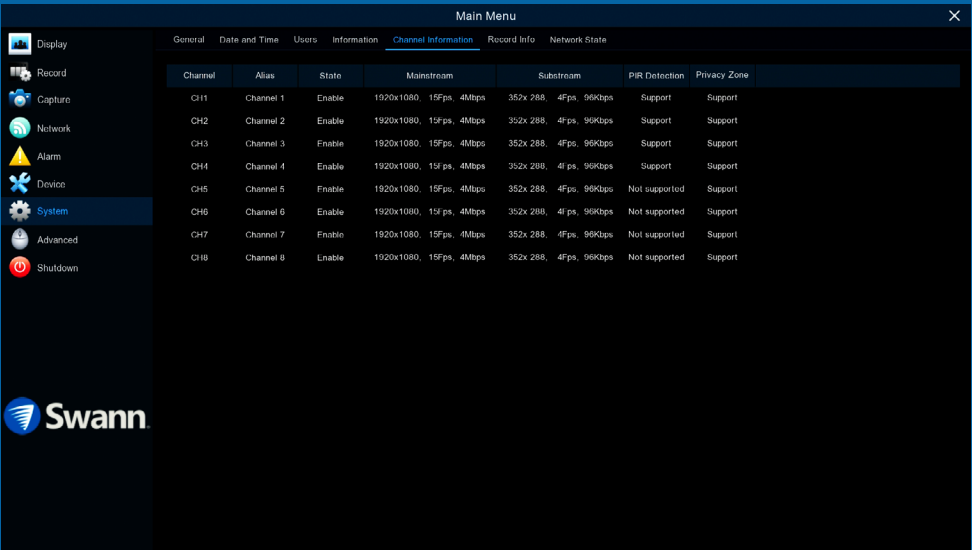
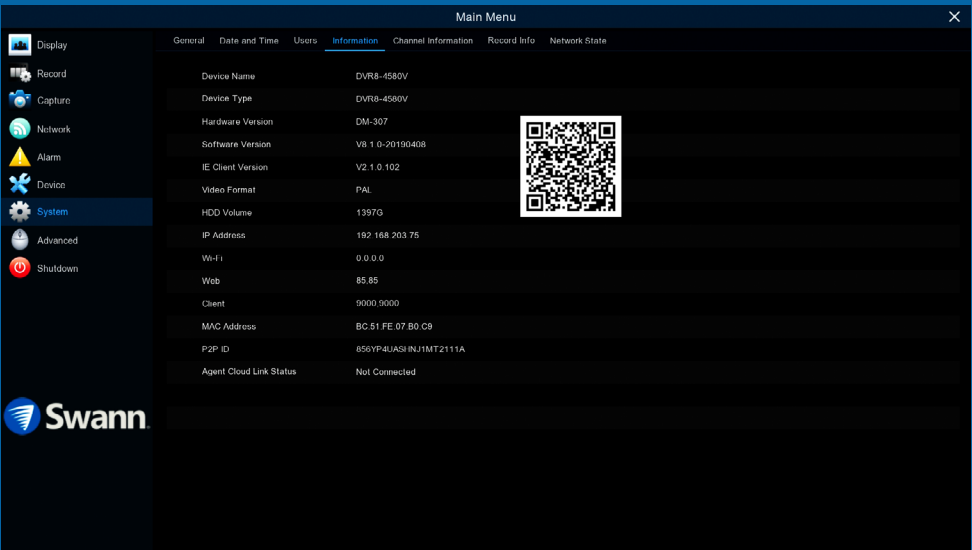
**Auto Upgrade:** By default, your DVR will automatically download and install new firmware when available. Click the drop down menu if you would like to disable this feature.

**Check for update from internet:** By default, your DVR will automatically check and alert you if new firmware is available for download. Click the checkbox if you would like to disable this feature.

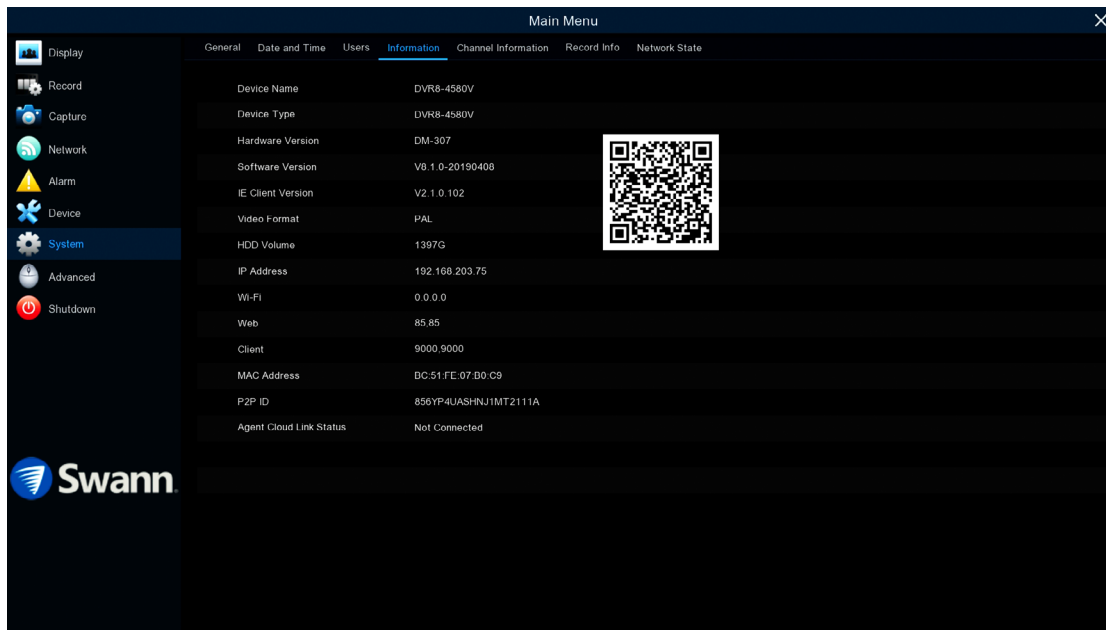
**Check now:** Click this button to check if new firmware is available. If new firmware is available, follow the on-screen instructions.

# System Status

The various status tabs give you an overview of the various settings and options that have been selected for your DVR to function. Each action that your DVR performs as well as events detected are logged, which you can search and view. If you call our helpdesk for assistance, our staff may ask you to access these tabs to assist them in solving any technical issues that you may be having.



# System: Info

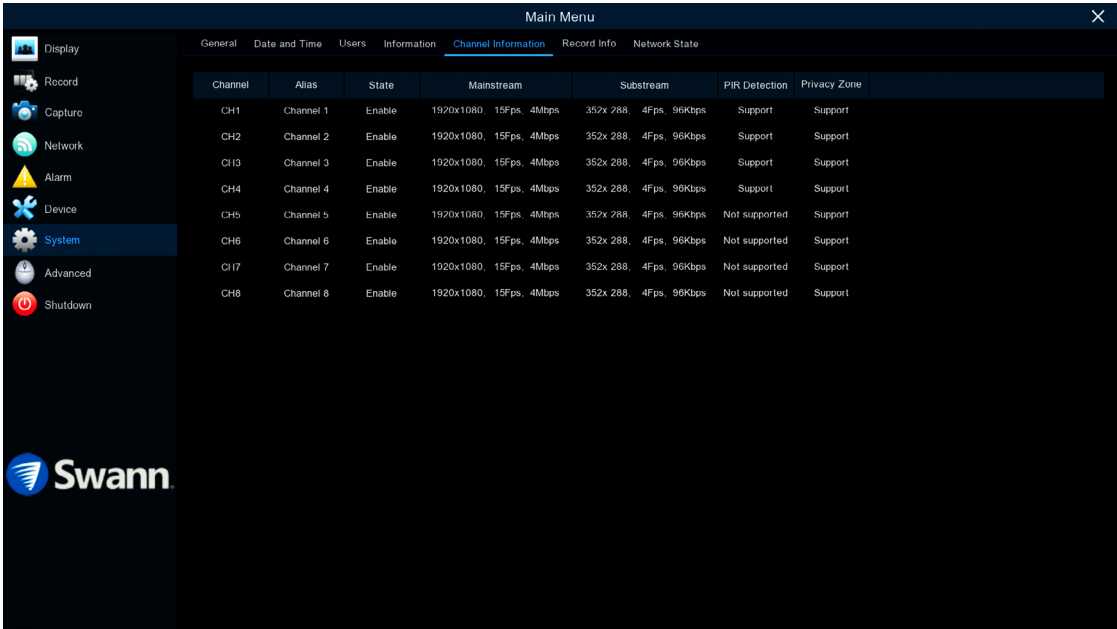


This tab displays technical information about your DVR as well as your device ID and QR code. If you call our helpdesk for assistance, our staff may ask you to access this tab to assist them in solving any technical issues that you may be having.

**MAC Address:** You can use this as a recovery password if you have forgotten your current password.

If you call our helpdesk for assistance, our staff may ask you to access this tab to assist them in solving any technical issues that you may be having.

# System: Channel Information



Main Menu

General Date and Time Users Information **Channel Information** Record Info Network State

Channel	Alias	State	Mainstream	Substream	PIR Detection	Privacy Zone
CH1	Channel 1	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Support	Support
CH2	Channel 2	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Support	Support
CH3	Channel 3	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Support	Support
CH4	Channel 4	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Support	Support
CH5	Channel 5	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Not supported	Support
CH6	Channel 6	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Not supported	Support
CH7	Channel 7	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Not supported	Support
CH8	Channel 8	Enable	1920x1080, 15Fps, 4Mbps	352x 288, 4Fps, 96Kbps	Not supported	Support

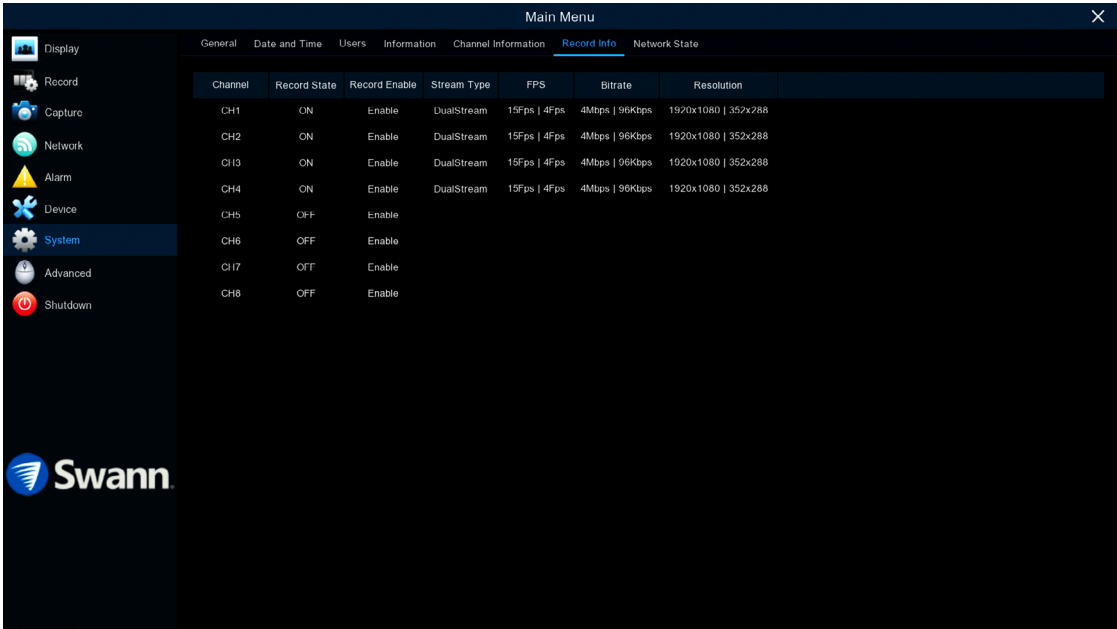
Swann

Displays the Mainstream and Substream settings used for each camera connected.

If you call our helpdesk for assistance, our staff may ask you to access this tab to assist them in solving any technical issues that you may be having.

Right-click the mouse to exit.

# System: Record Info



Main Menu

General Date and Time Users Information Channel Information **Record Info** Network State

Channel	Record State	Record Enable	Stream Type	FPS	Bitrate	Resolution
CH1	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH2	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH3	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH4	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH5	OFF	Enable				
CH6	OFF	Enable				
CH7	OFF	Enable				
CH8	OFF	Enable				

Swann

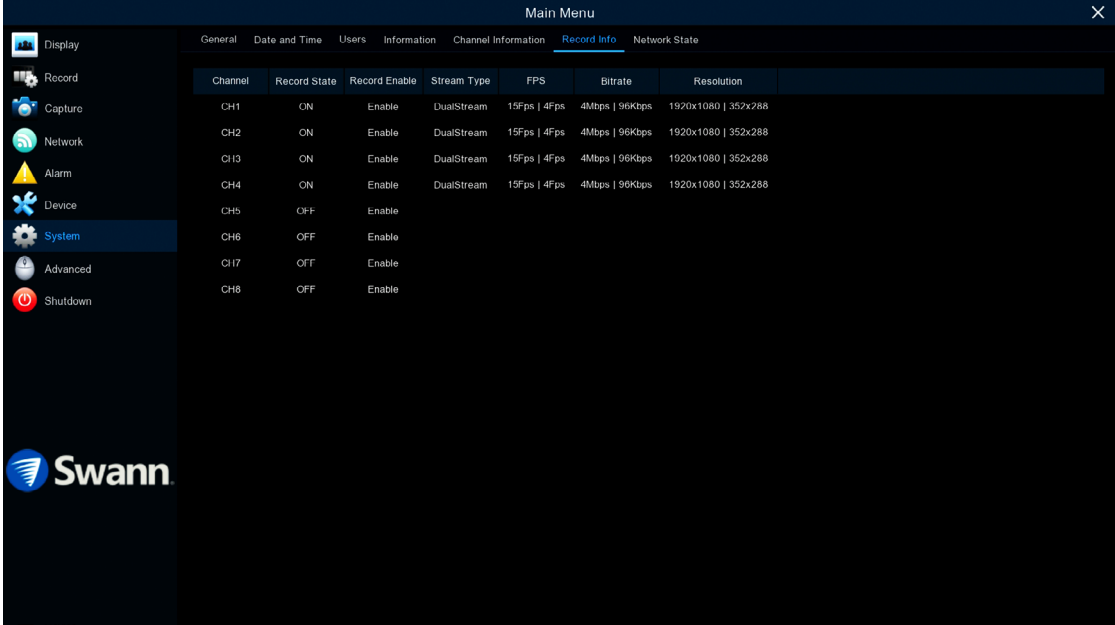
Displays the recording settings for each camera connected.

If you call our helpdesk for assistance, our staff may ask you to access this tab to assist them in solving any technical issues that you may be having.

Right-click the mouse to exit.



# System: Network State



Main Menu

General Date and Time Users Information Channel Information Record Info Network State

Channel	Record State	Record Enable	Stream Type	FPS	Bitrate	Resolution
CH1	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH2	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH3	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH4	ON	Enable	DualStream	15Fps   4Fps	4Mbps   96Kbps	1920x1080   352x288
CH5	OFF	Enable				
CH6	OFF	Enable				
CH7	OFF	Enable				
CH8	OFF	Enable				

Swann

Displays the network settings used by your DVR.

If you call our helpdesk for assistance, our staff may ask you to access this tab to assist them in solving any technical issues that you may be having.

Right-click the mouse to exit.

# 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.

**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. IP addresses range from 0.0.0.0 to 255.255.255.255.

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

# Glossary

**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.

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

# Glossary

**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.

**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.



# Glossary

**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.  
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USA

## Australia

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## United Kingdom

Swann Communications LTD.  
Stag Gates House 63/64 The Avenue  
S0171XS  
United Kingdom

## Warranty Terms & Conditions

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

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

# Help & Resources

Visit Swann Support Center at [support.swann.com](https://support.swann.com). You can register your product for dedicated customer support, download guides, find answers to commonly asked questions, and more.



Product Registration



Customer Support



Product Manuals



Frequently Asked Questions



Support Community



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