Swann

2K Series
3K Series
4K Series
4K Ready
Smart Security System

INSTRUCTION MANUAL

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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

FCC Regulation (for the USA): Prohibition against eavesdropping

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

Important Safety Instructions

· Do not operate if wires and terminals are exposed

· Do not cover vents and adequate space for ventilation

· Only use the power adapter supplied with your DVR

This product contains a coin/button cell battery. If the cell battery is swallowed, it can cause severe internal burns and can lead to death. Keep away from babies and small children at all times.

Important Notice: Some features explained in this instruction manual are specific to particular camera models and may not be present on other models. Some control menus may still be visible in the DVR user interface.

About this Instruction Manual

Every effort has been made to ensure that the information in this manual is accurate. Because of our on-going efforts to constantly improve our products, additional features and functions may have been added since that time. Swann is not responsible for printing or clerical errors.

Important Password Information

This DVR does not have a default password. A password is created during the Startup Wizard. If password protection is enabled and you have forgotten your password, your DVR's MAC address is used to create a new password (see page 6 - Password Reset).

Warranty Information

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.

Password Reset
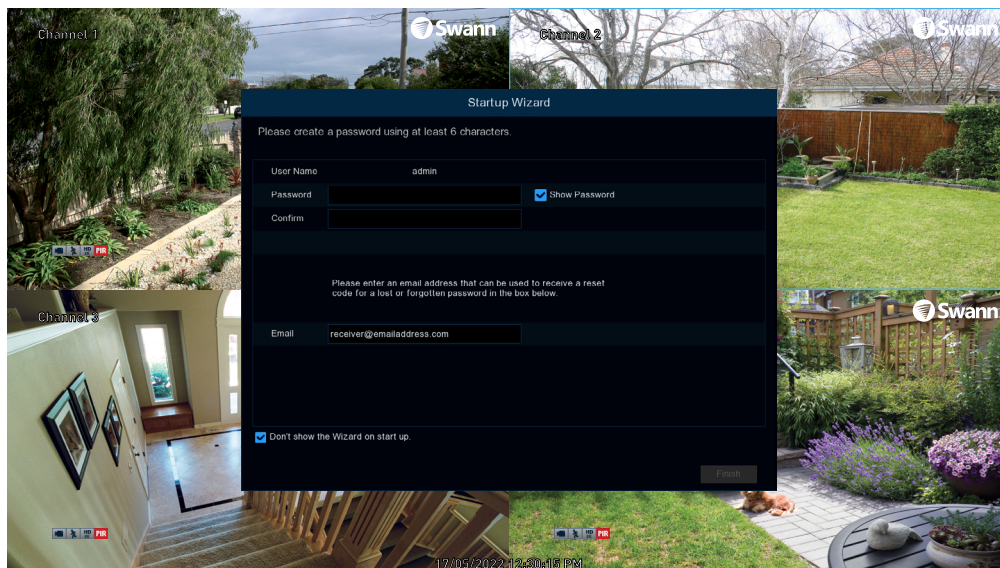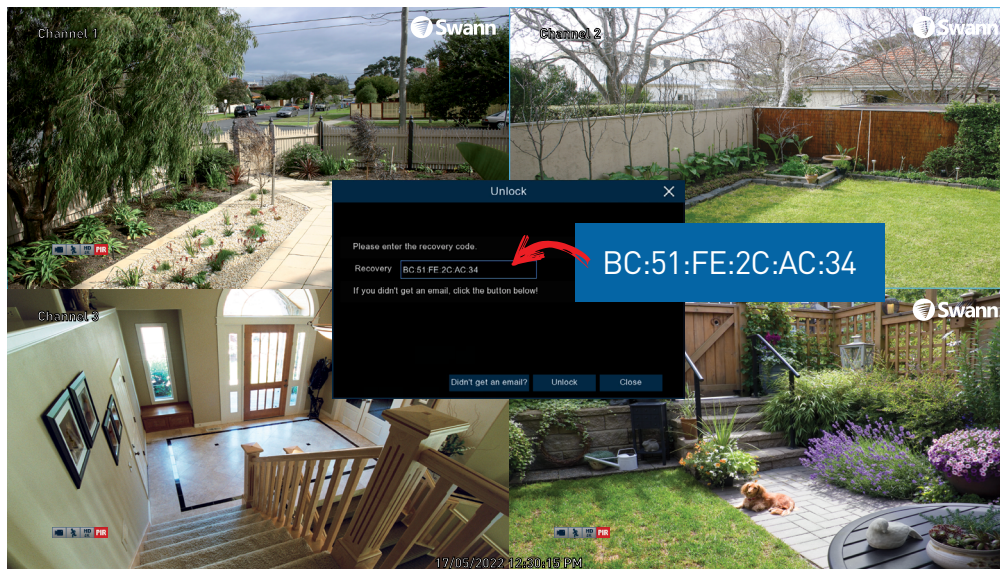
Forgotten your password? Please do the following:

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 (known as the password recovery code) including the colons (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. Click "Finish" to continue. A message will appear on-screen. Click "OK" to close.

Don't forget to write down your password: _____

Live View & Main Menu

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.

The Main Menu is where you control the actions and options that are available on your DVR. Enable functions such as Privacy Mask to obscure all or part of the image and change the default motion detection area. For system integrity, upgrade the firmware when available.
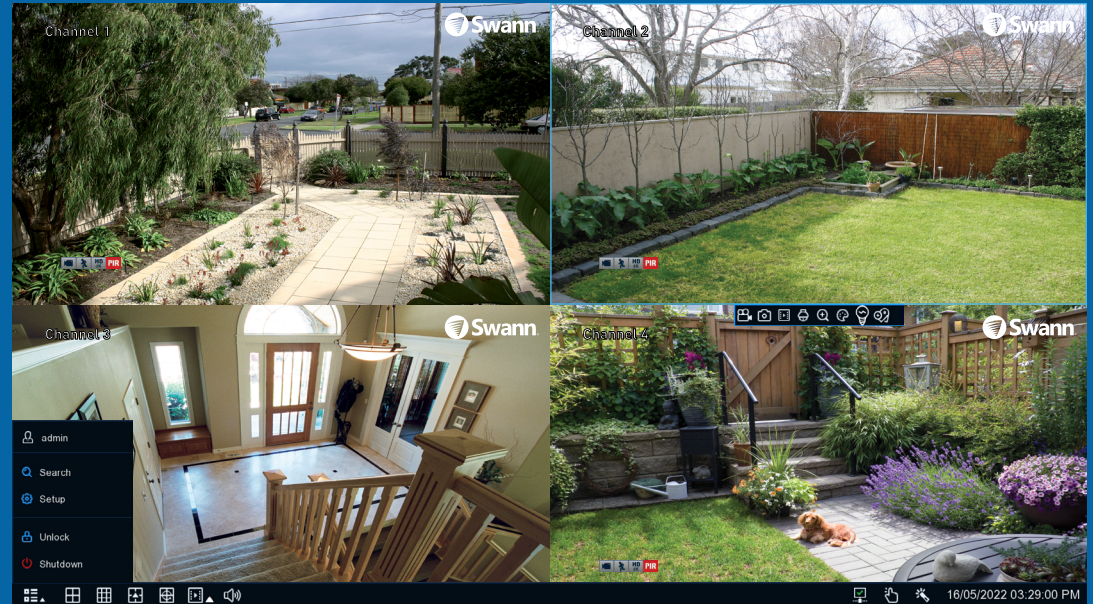
Live View Mode

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.

Camera Name

Status Icons

Camera Toolbar

Main Menu

admin

Search

Setup

Unlock

Shutdown

Menu Bar

① ② ③ ④ ⑤ ⑥ ⑦

⑧ ⑨ ⑩

16/05/2022 03:29:00 PM
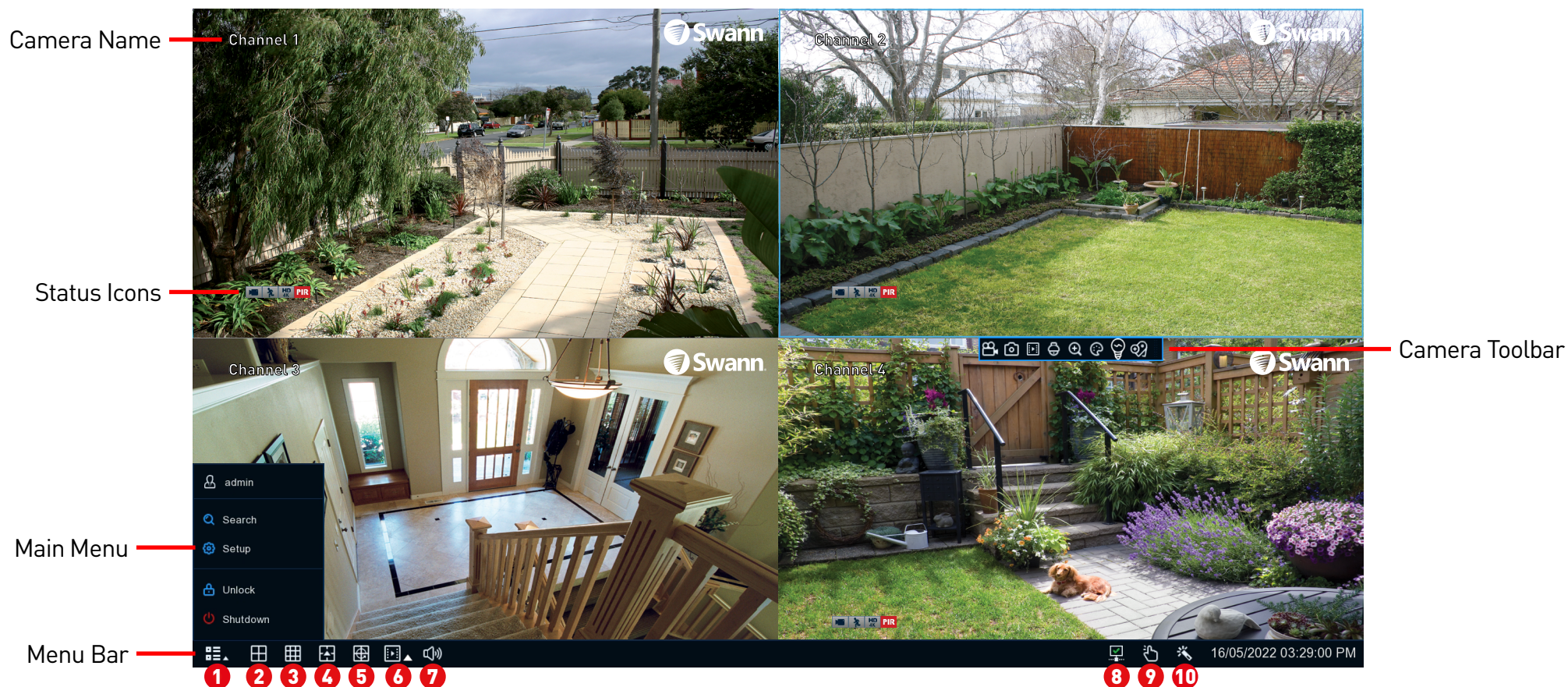
Double-click a live video channel to view full-screen.

Click & drag a live video channel to reposition it.

Right-click the mouse in Live View mode to display the Menu Bar (see <u>page 9</u> for more information).

The Camera Toolbar provides access to additional camera functions and settings (see <u>page 9</u> for more information).

Live View Controls

Menu Bar

1. This is the Start button. Click to reveal additional functions available (see dialogue box 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 using the supplied Ethernet cable.

9. Click this to enter Manual Record mode. When enabled this will bypass the current recording schedule.

10. Click this to enter the Startup Wizard.

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

Main Menu

Search: Click to search and play recorded videos (hard drive & USB), view snapshots, and access system log files.

Setup: Click to access the Main Menu.

Unlock: Click to unlock your DVR. If the Menu Timeouts function is disabled, click to lock your DVR to prevent access.

Shutdown: Click to shutdown, reboot or logout of your DVR. Always shutdown your DVR when disconnecting the power.
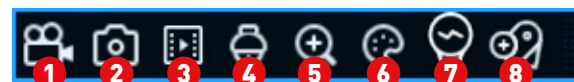
Camera Toolbar

To access the camera toolbar, left-click a camera to display.

1. While viewing the camera, click to start a manual recording (the icon will turn red indicating that it is recording). Click again to stop.

2. Click to take a snapshot.

3. Click to play back the last recording saved (recording must be saved in the last five minutes).

4. Click to access controls for the camera's on-screen display and to control a PTZ camera.

5. Click to enter Zoom mode.

6. Click to adjust image settings.

7. Click to enable the camera's siren and spotlight (if supported).

8. Click to add a Tag when recording. Tagging allows you to record information within the video.

Live View Icons

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

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

This icon indicates that the camera's native recording resolution is set to 1080p.

This icon indicates that the camera's native recording resolution is set to 5 megapixel.

This icon indicates that the camera's native recording resolution is set to 4K.

This indicates that the camera has detected one or more infrared objects.

This icon indicates that an event has occurred via one of the analytic functions (the DVR isn't recording).

This icon indicates that an event has occurred via one of the analytic functions (the DVR is recording).

This indicates that your DVR fails to detect a storage device.

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

Live View Digital Zoom Mode

1. To enter Zoom mode, left-click a camera in Live View mode then click the "Zoom" button on the Camera Toolbar (as shown on the left).

2. To zoom, move the mouse to the area or object that you want to zoom to then use the scroll wheel on the mouse to zoom in or out. When zoomed in, click and hold the rectangle (as shown bottom right of the screen) to scroll around the image. Right-click to exit.

Double-click the mouse to view multiple cameras.

Use the scroll wheel to zoom in or out.

Zoom in then click and hold here to scroll around the image.

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.

Main Menu

Display	
Record	
Capture	
Network	
Alarm	
Analytics	
Device	
System	
Advanced	
Shutdown	

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

Device Name	DVR8-5580RN
Language	ENGLISH
Video Format	PAL
Menu Timeouts	1Min
Mode	DVR
Watermark	Enable
Audio Input Type	Coaxial audio
☐ Show Wizard	

Default   Apply

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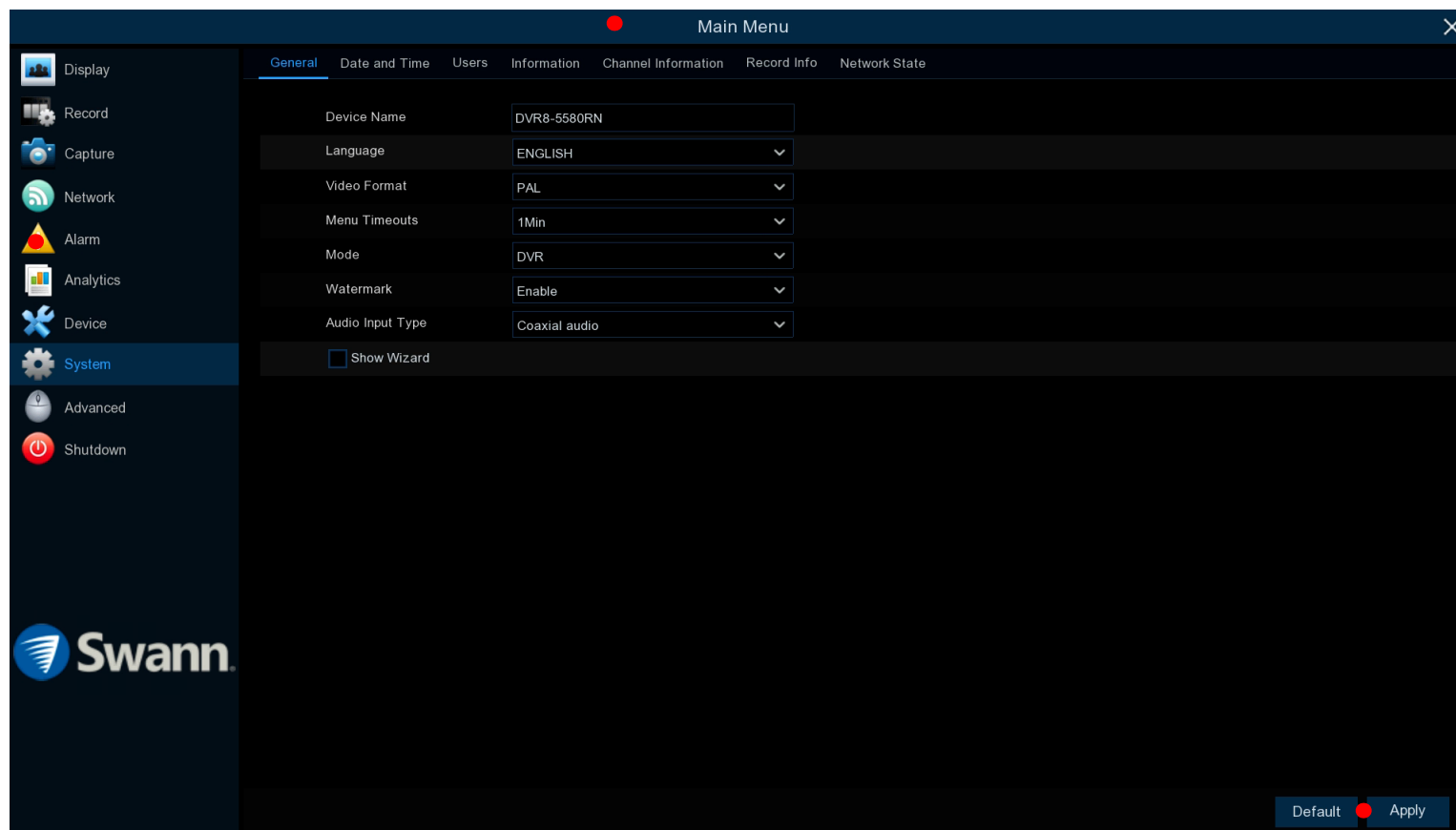
To exit or access the previous menu, right-click the mouse.

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 accessible from the Main Menu. You can change the resolution, bitrate, OSD (on-screen display) position and 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 can also create one or more zones for privacy and set a schedule for the camera's sensor warning light and siren (if supported).
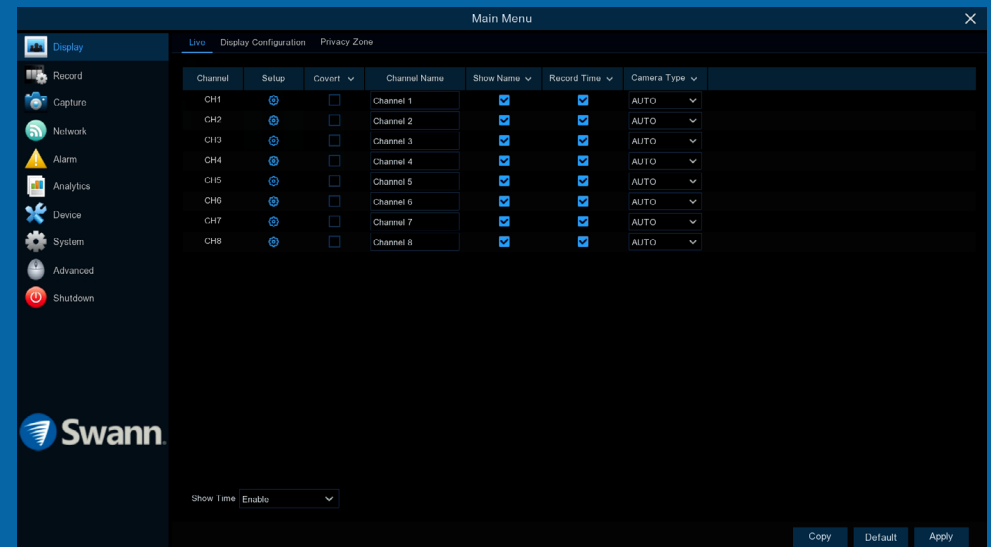
Display: Live
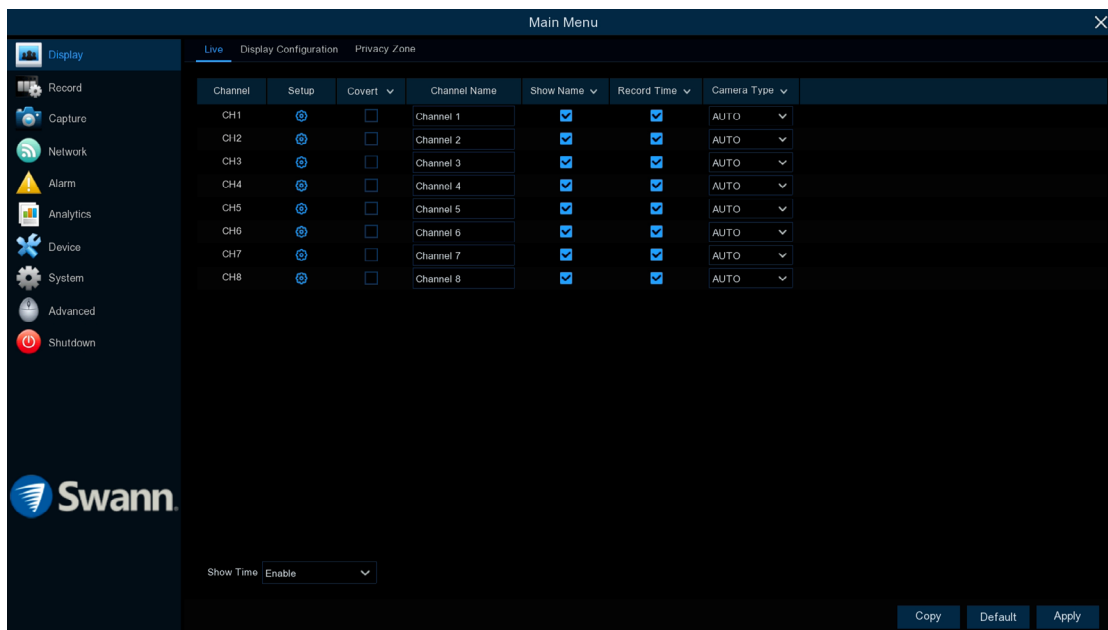
The configuration options available allow you to name each camera relevant to where it's mounted, as well as the ability to adjust image settings such as brightness and contrast. You can also enable covert mode to hide the cameras' image in Live View mode.

→ 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.

Setup: Click the button to access the camera display settings. You will see the following:

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.

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 it.

Record Time: Leave this enabled, as a timestamp will be embedded on all video recordings. Click the checkbox if you wish to disable it.

(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.

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

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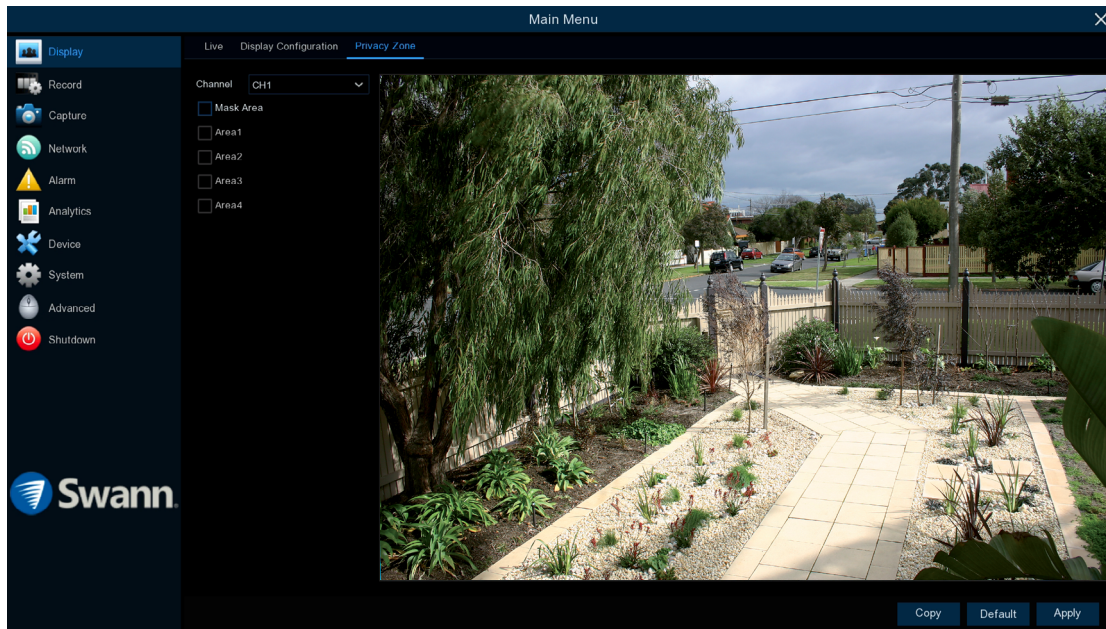
This function can obscure all or part of your image for privacy (you can create up to four privacy masks per camera). You can also use this to minimize false triggers when motion is detected. Areas obscured by a mask won't be shown live or recorded.

→ 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 17 - <u>Enabling a Privacy Mask</u>).

Enabling a Privacy Mask

Click and hold here to reposition the mask to the desired location.

Click and hold here to resize the mask to the desired size.

Channel 1

Swann

08/06/2022 12:30:15 PM
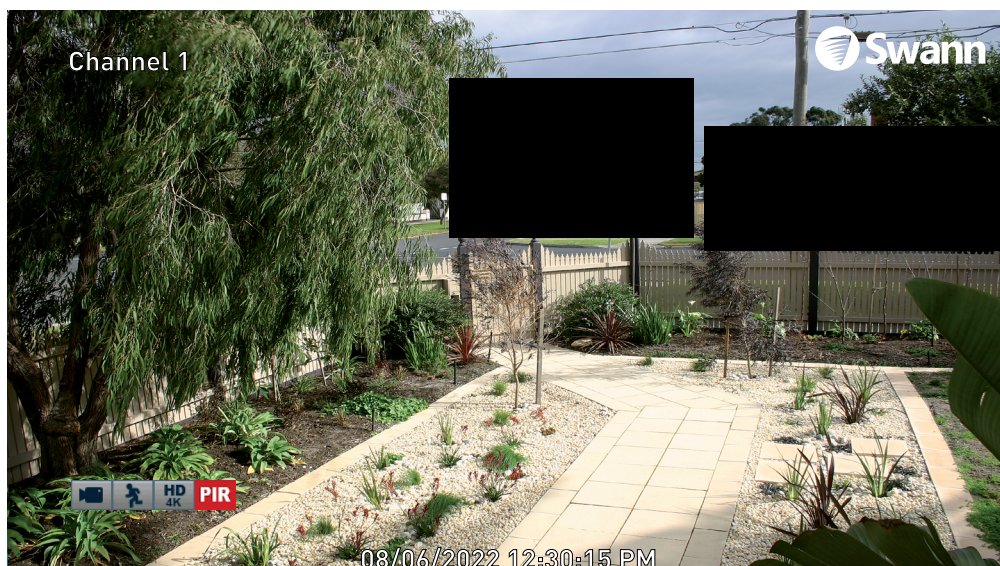
1. Depending on the number of masks that you want to enable, each mask will be numbered. To reposition the mask, click and hold the mask number then move the mask to the desired location.

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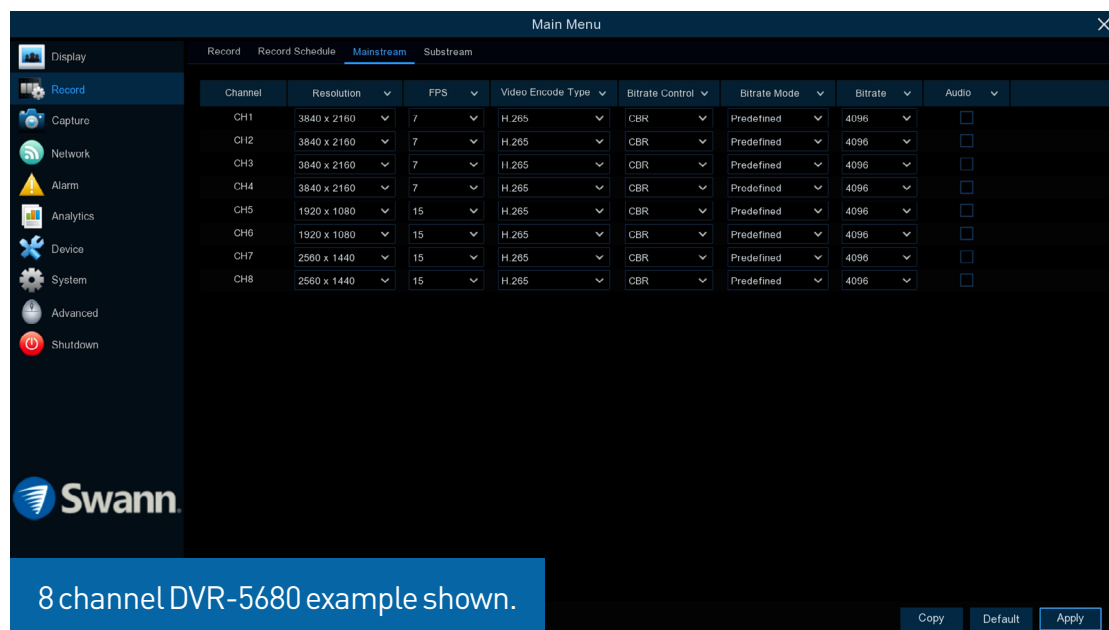
The functions available here allow you to change the bitrate and bitrate mode for each camera connected. By default, the recording resolution and frame rate are auto-selected to fit in with the capabilities of the provided cameras connected.

→ 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.

Resolution: The optimal recording resolution of the camera is auto-selected by your DVR. Changing the resolution has no bearing on the event recorded to the DVR's storage device.

FPS: The optimal frame rate of the camera is auto-selected by your DVR.

Video Encode Type: Your DVR utilizes two codecs to record video. The H.265 codec will compress the information more efficiently and provide the best video quality for a given bandwidth between each camera and your DVR. This setting allows your DVR to automatically adjust the video so that the connection and quality are consistent and reliable. The other codec is H.264. We don't recommend it as it will impact the reliability of the connection between each camera and your DVR due to the higher bandwidth required. If your camera defaults to H.264, change this to H.265.

Bitrate Control: CBR (Constant Bitrate) utilises a fixed bitrate and bandwidth 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. A high-quality recording is created, but one that will use storage more efficiently. We recommend using the VBR setting.

When choosing VBR, you can select the recording quality that will define the variable bitrate used. 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.

(continued on next page)

Record: Mainstream

8 channel DVR-5680 example shown.

Bitrate: The amount of data that your DVR will use to record video. A high bitrate will increase the video quality but will increase the need for more data traffic and each recording will consume more storage.

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

Record: Substream

8 channel DVR-5680 example shown.
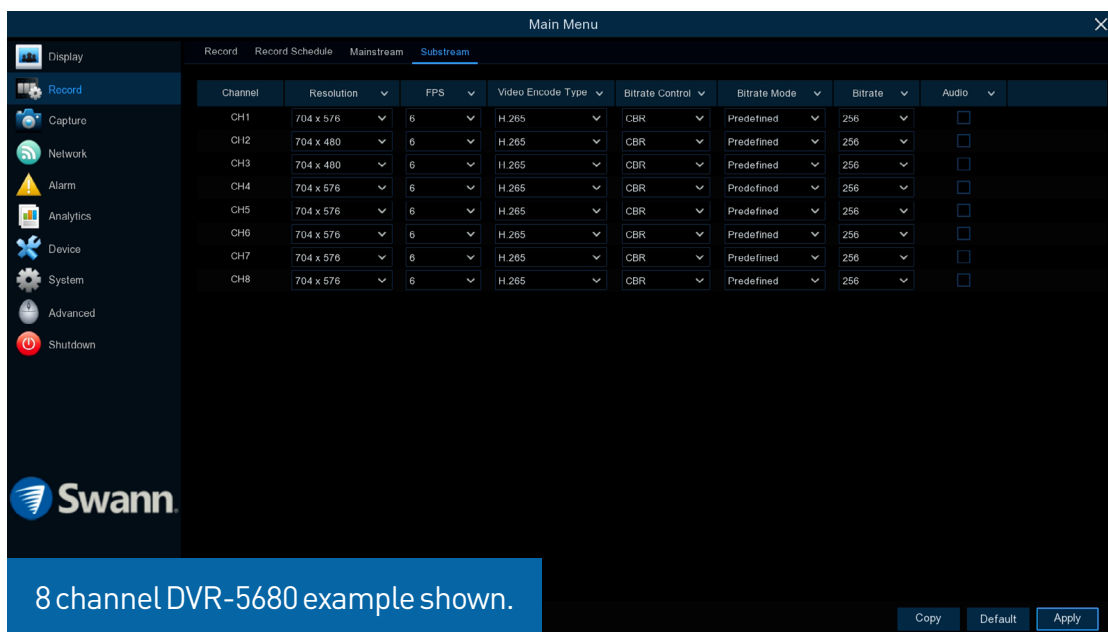
The functions available here allow you to control how video is streamed to your mobile device when using the Swann Security app. You can change the frame rate, bitrate mode, and bitrate control if you're having issues streaming live video from your DVR.

→ 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.

Resolution: The optimal recording resolution of the camera is auto-selected by your DVR. You can select a lower resolution if you're having issues streaming to your mobile device.

FPS: The number of frames per second (fps) that your DVR will process when streaming to your mobile device. For most instances, the default frame rate will be suitable. This is especially the case for cameras that monitor medium to high traffic areas and will result in smoother motion. Just be aware this will increase the bandwidth required. You can lower this if monitoring low traffic areas.

Video Encode Type: Your DVR utilizes two codecs to record video. The H.265 codec will compress the information more efficiently and provide the best video quality for a given bandwidth between each camera and your DVR. This

setting allows your DVR to automatically adjust the video so that the connection and quality are consistent and reliable. The other codec is H.264. We don't recommend it as it will impact the reliability of the connection between each camera and your DVR due to the higher bandwidth required. If your camera defaults to H.264, change this to H.265.

Bitrate Control: Change this to VBR. This will result in a smaller 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.

(continued on next page)

📄 Click for contents

Record: Substream

8 channel DVR-5680 example shown.

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. 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 some DVR models, this option is on camera input 1 only.

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

Alarm: Detection
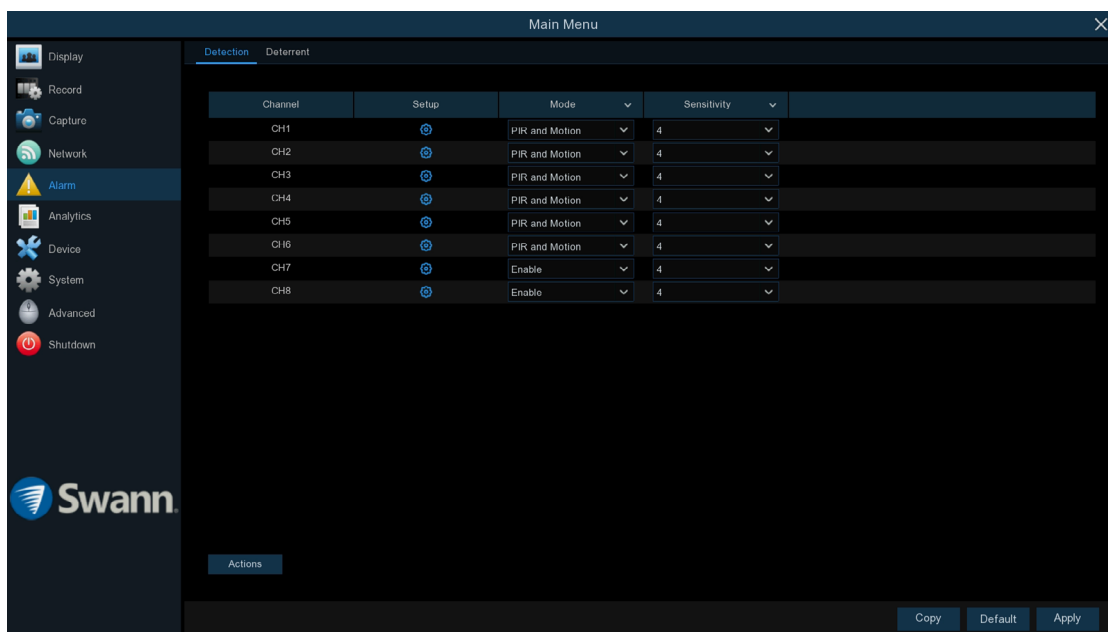
When motion is detected by one or more cameras, your DVR will alert you to a potential threat at your home. It does this by sending you an email alert and or sending push notifications via the Swann Security app. You also have the option of sending a snapshot and or a video clip to the cloud.

→ 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.

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 23 - 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 26 - 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 25 - Motion Detection Tips).

Actions: Click the button to change options for alarm notifications, alerts and more (see page 24 - Alarm: Detection - Actions).

Depending on the camera model included with your DVR, some functions may not be available.

Motion Detection Setup

Each single square or cell can be enabled to detect motion.
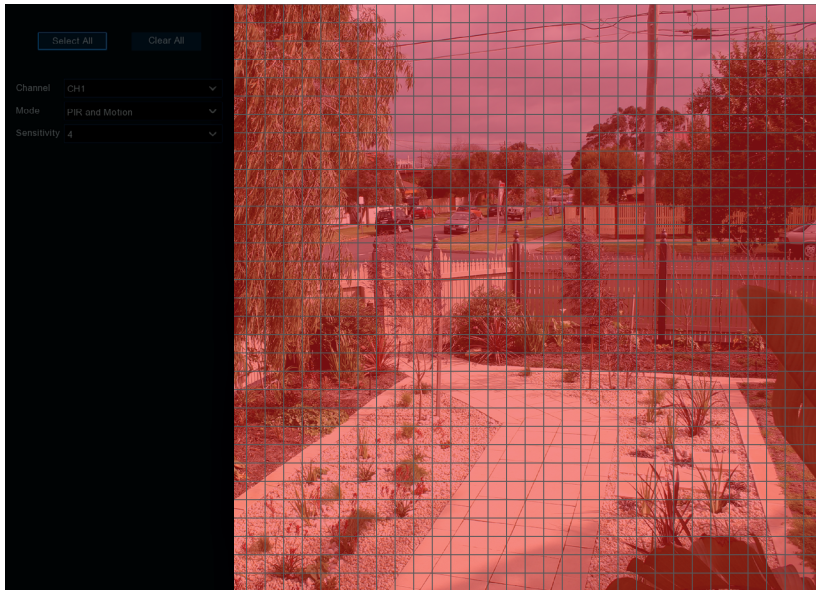
1. Click "Clear All" to delete the default motion detection area.

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.
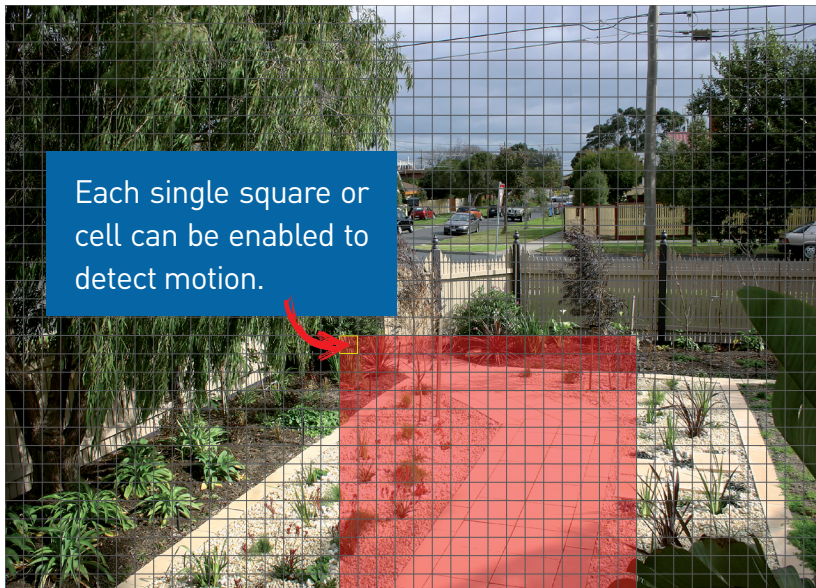
5. Click "Apply" to save changes made.

Alarm: Detection - Actions
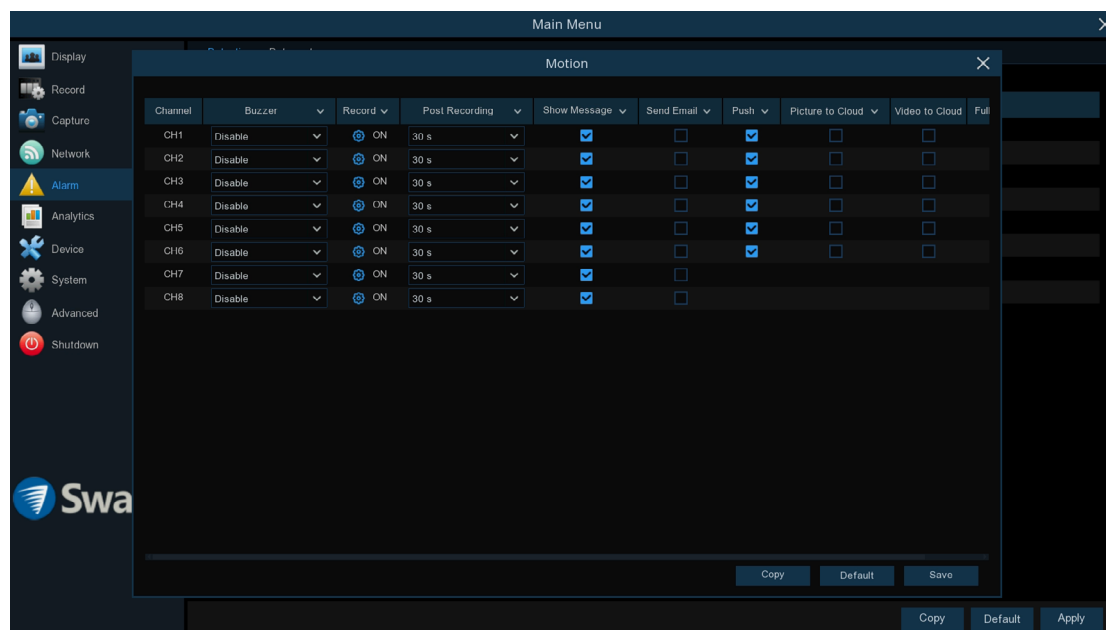
Buzzer: When motion is detected, you can enable the DVR's buzzer to alert you for a predetermined time. Click the drop-down menu to select a time.

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 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 is 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 is detected.

Push: Push notifications are sent via the Swann Security app. Click the checkbox if you want to disable this.

Picture to Cloud: Click the checkbox to copy snapshots to the cloud via Dropbox.

Video to Cloud: Click the checkbox to copy videos to the cloud via Dropbox.

To enable cloud storage (see page 75 - 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 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. Place a camera overlooking your front door to capture an image of anyone approaching for later reference. This is useful 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 enter it 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 is vital to keep your front and backyard as well-lit as possible for ideal night vision and the ability to detect motion. It is 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 overlooking vehicles in the driveway and similar locations can be very useful.

Avoiding False Triggers

1. A tree, shrub, or foliage is blown down by the wind - angle the camera so objects are out of the camera's view or use the motion detection area settings to exclude these areas from detection.

2. People moving along sidewalks or streets 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 to avoid movement in the background or use the motion detection area settings to stop detecting cars in the street.

4. Movement or light reflected off smooth surfaces such as glass - adjust the sensitivity level and avoid pointing the camera directly at glass surfaces.

5. Windows will also reflect infrared if the cameras are looking through them.
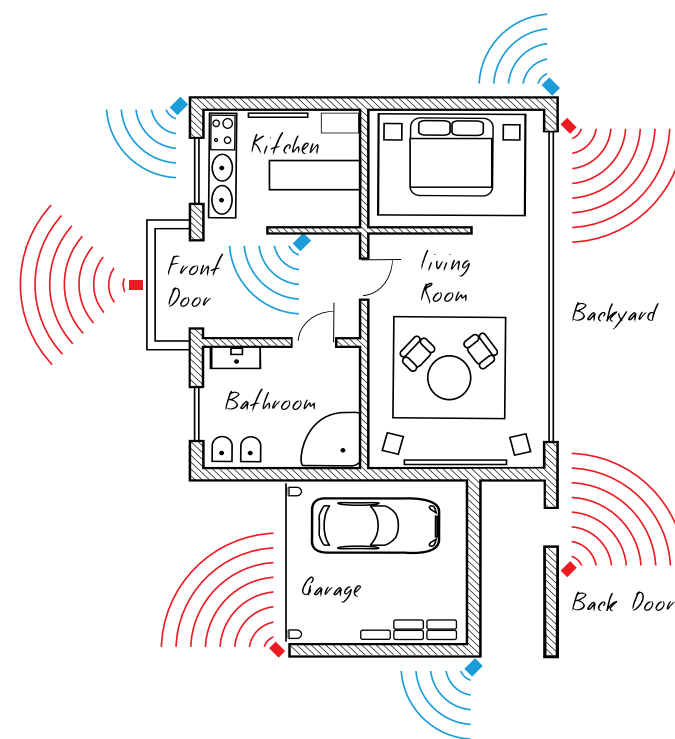
The **red cameras** illustrated (see above) are your primary locations. Place your cameras close to the front door, back door, garage entrance and overlooking the backyard.

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 23 - 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.
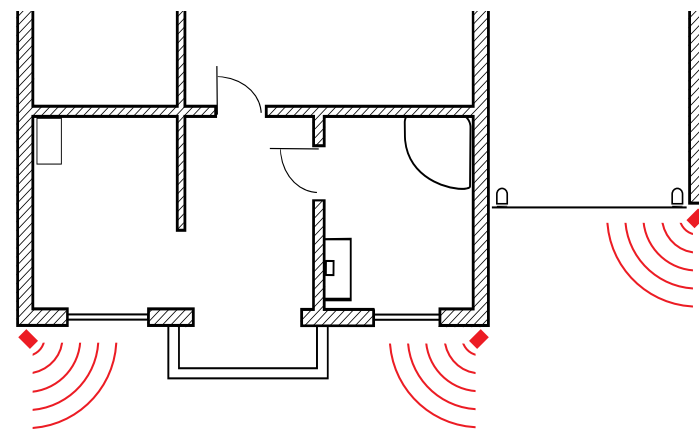
When installing cameras outside, mount them where intruders are most likely to enter (front & back doors, garage entrance). Angle the cameras so the intruder walks parallel to the sensor.
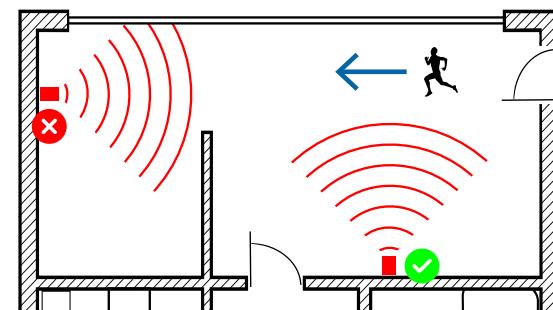
PIR sensors work best when an intruder walks parallel or is passing across their "field of view" as opposed to walking directly at them.

Alarm: Deterrent
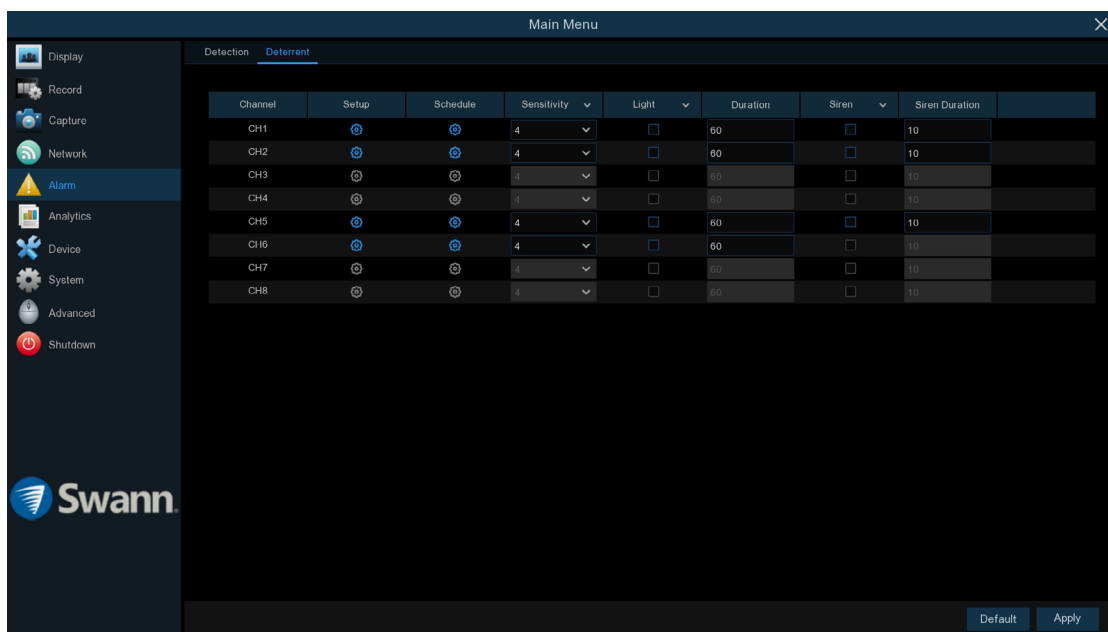
The functions available here are for cameras with a built-in spotlight and or siren. Cameras that don't have these will be greyed out.

→ Click "Apply" to save settings.

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 28 - Deterrent Setup).

Schedule: Click the button to change the default spotlight schedule (see page 29 - Deterrent 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.

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.

Siren Enable: The camera's siren is disabled by default. If the siren is required, click the drop-down menu to enable (this function is only available if your camera has a built-in siren). A warning message will appear on-screen. Click "OK" to continue.

Siren Duration: Lets you change the length of time the siren will remain turned on when motion has been detected. Adjust accordingly.

Regarding the cameras' light and siren, they are triggered when your DVR detects motion by the camera and the built-in PIR sensor. They can also be triggered via the Swann Security app.

Deterrent 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.

Light: Click the drop-down menu to enable the camera's spotlight.

Siren: Click the drop-down menu to enable the camera's siren. A warning message will appear on-screen. Click "OK" to continue.

Sensitivity: Click the drop-down menu to adjust the sensitivity if needed.

4. Right-click the mouse to exit.

5. Click "Apply" to save changes made.

Each single square or cell can be enabled to trigger the spotlight.
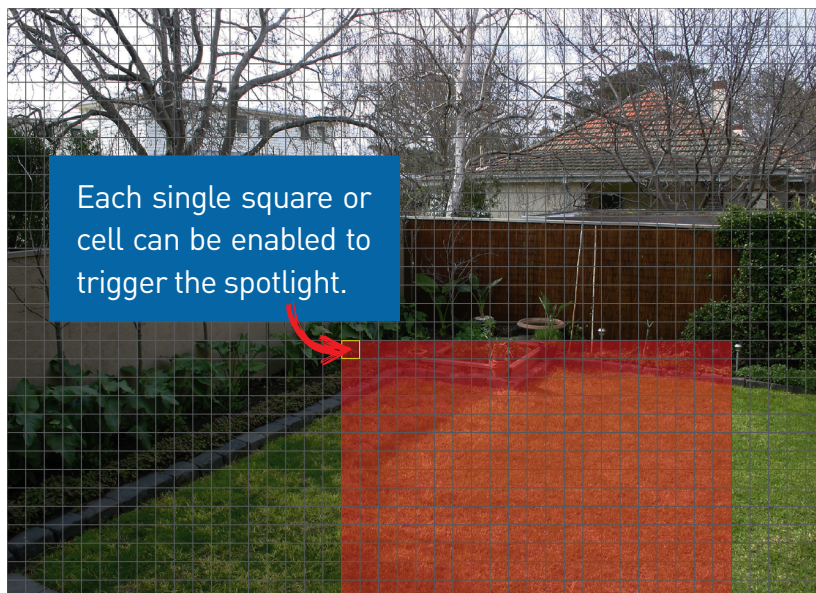
Deterrent Schedule
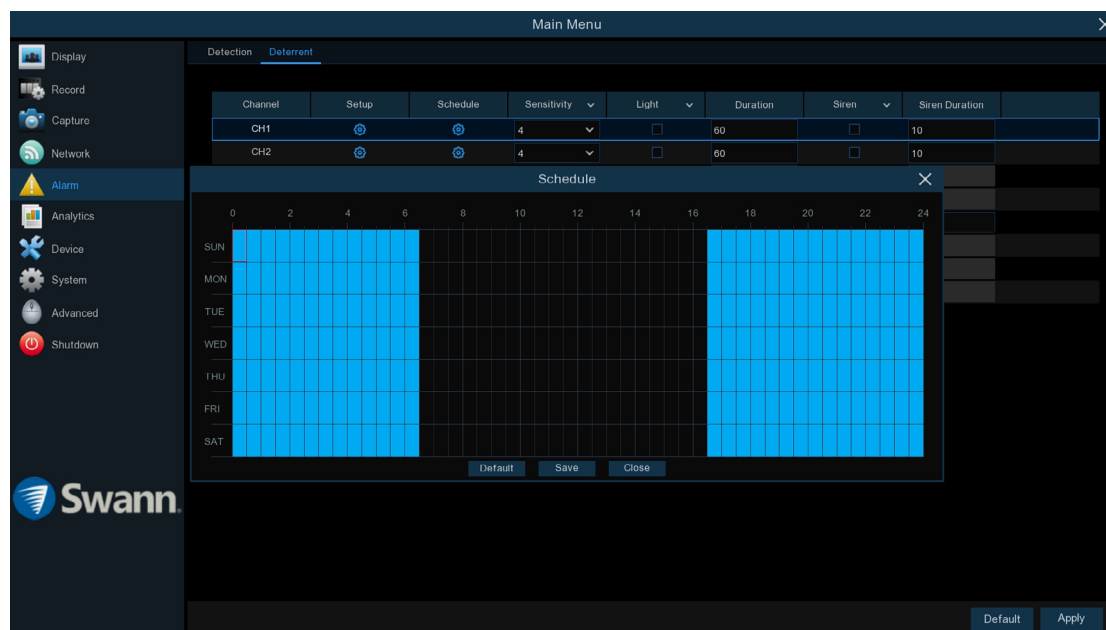
By default, the spotlight and siren will not trigger between 06:30 a.m. and 04:30 p.m., however you can change this according to your needs.

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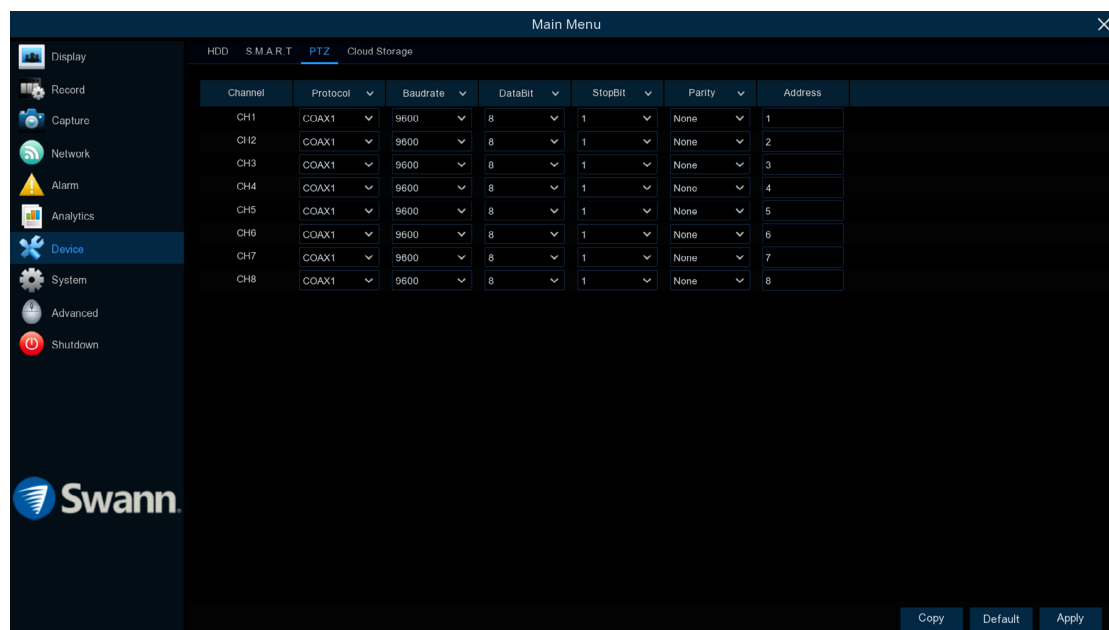
→ Use the "Copy" function to apply all settings to the other cameras connected.

→ 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.

For instructions on how to control your PTZ camera and creating preset positions (see page 31 - Controlling your PTZ Camera).

Controlling your PTZ Camera

To control your PTZ camera, in Live View mode click on the channel the camera is connected to then click the "PTZ" button located on the camera toolbar. The channel will go semi full-screen. Click the "PTZ" tab to access the controls (as shown on the left).

1. If you have multiple PTZ cameras connected, click this to select a different camera.

2. Click this to access the camera's on-screen display (see page 33 - Camera's On-screen Display).

3. Click this to create a preset. A preset is a particular position within the image that you would like the camera to focus on (see page 32 - Creating a Preset).

4. Click the directional buttons to move the camera in the direction selected. Click the middle button to continually pan the camera left and right (click the left or right directional button to stop).

5. Adjust the speed control to alter how fast or slow the camera will pan or tilt. Move the slider to decrease or increase the speed.

6. This allows you to zoom into an object and out again. Click the "+" button to zoom in and click the "-" button to zoom out.

7. This allows you to control the camera's level of focus. Depending on the object that your camera is focused on, if the object or overall picture appears blurry, click the "+" and "-" buttons to adjust the camera's focus until the object or picture appears in focus.

Depending on the camera you have, the Iris control may not be available.

Creating a Preset

Presets saved will be displayed here.

1. If you have multiple PTZ cameras connected, click this to select a different camera.

2. Click the directional buttons to move the camera in the direction selected.

3. Each preset position will have a different number assigned to it. To recall a particular position, click the dialogue box, input a number then click the "GO TO" button. The camera will then move to that particular position. When creating a preset position, you may want to make note which position is assigned to each number.

4. Click the dialogue box to change the length of time (in seconds) the camera will stay at a particular position, before moving to the next position.

5. Click this to create a preset.

6. Click this to delete a preset (when selected). Subsequent clicks will delete all presets created.

7. Click this to go to a particular preset position.

8. Click this to start cruise mode (preset positions must be created first). This mode instructs your DVR to automatically move the camera according to the preset positions that have been created. Click again to stop cruise mode.

9. Click this to save any changes made.

Creating a Preset

→ To create a preset, use the PTZ controls to move the camera to the desired focal position. Click "PTZ" to access the zoom and focus controls. Use the speed control to alter how fast or slow the camera will move.

→ Change the length of time the camera will stay at this position.

→ Click the "+" button to create the preset. You will notice that the preset position will increase each time a preset is created. The total number of presets created will also be displayed. Up to 255 different preset positions can be created.

→ Repeat these steps to create multiple preset positions. When finished, click the "Save" button to save. Right-click to exit.

→ Click the "Start Cruise" button to continually cycle through each preset created. Click again to stop.

Before using cruise mode, you need to reboot your DVR and the camera after creating one or more presets.

Camera's On-Screen Display (OSD)


```
                    MAIN MENU

  ▶ 1 .  EXPOSURE              ↵
    2 .  BACKLIGHT             OFF
    3 .  WHITE BAL             ATW
    4 .  DAY & NIGHT           EXT↵
    5 .  NR                    ↵
    6 .  SPECIAL               ↵
    7 .  ADJUST                ↵
    8 .  EXIT                  SAVE & END ↵
```
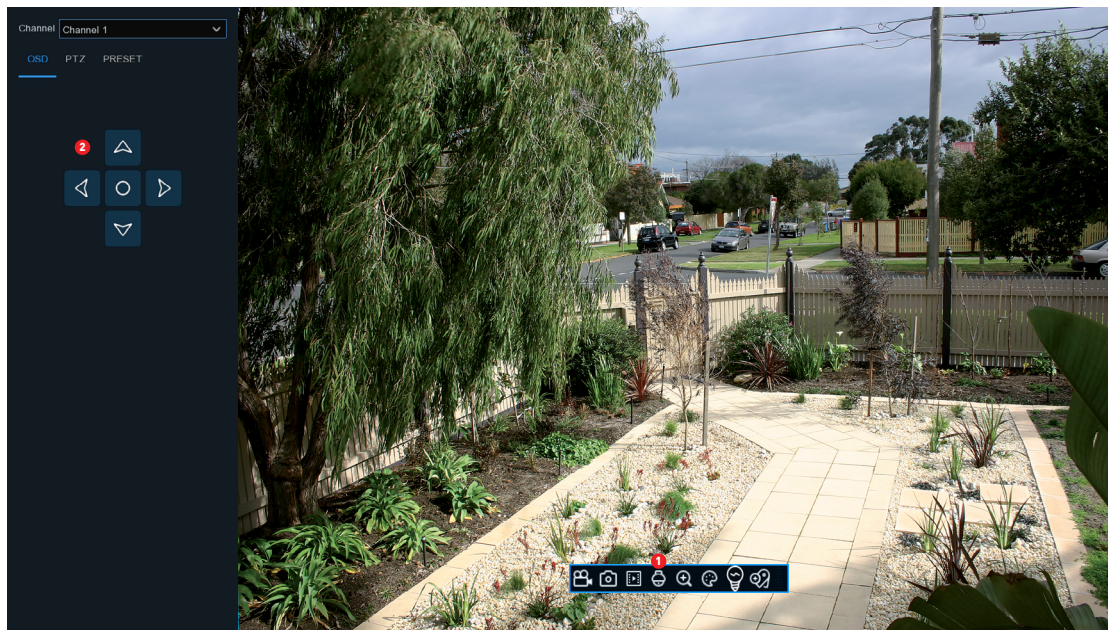
When accessing the camera's OSD, the Main Menu will appear first. From here you can access the settings available. Use the controls to navigate.

1. To access the camera's OSD, in Live View mode, click the camera, then click the "PTZ" button on the Camera Toolbar.

2. The channel will go semi 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 the sub-menus and to confirm changes.

Right-click the mouse to exit.

For a full explanation of the various functions available in your camera's OSD, click here to access the "On-screen Display Instruction Manual".

Analytics

Analytics provides you with much greater control over how your DVR detects motion. By drawing a detection line, you can apply a rule on which direction your DVR detects motion. You can define specific areas that you want to monitor for motion and select which direction an object can enter or exit the region defined. You can also monitor static objects in and around your home by drawing an area around an object.

On certain DVR models, the analytic functions can only be enabled for a single channel at a time.
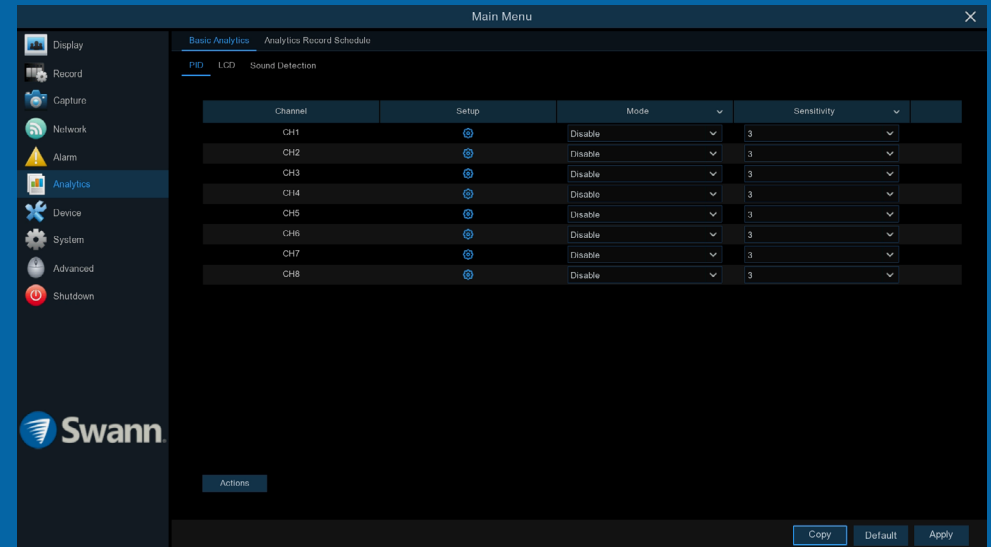
Analytics: PID (Perimeter Intrusion Detection)
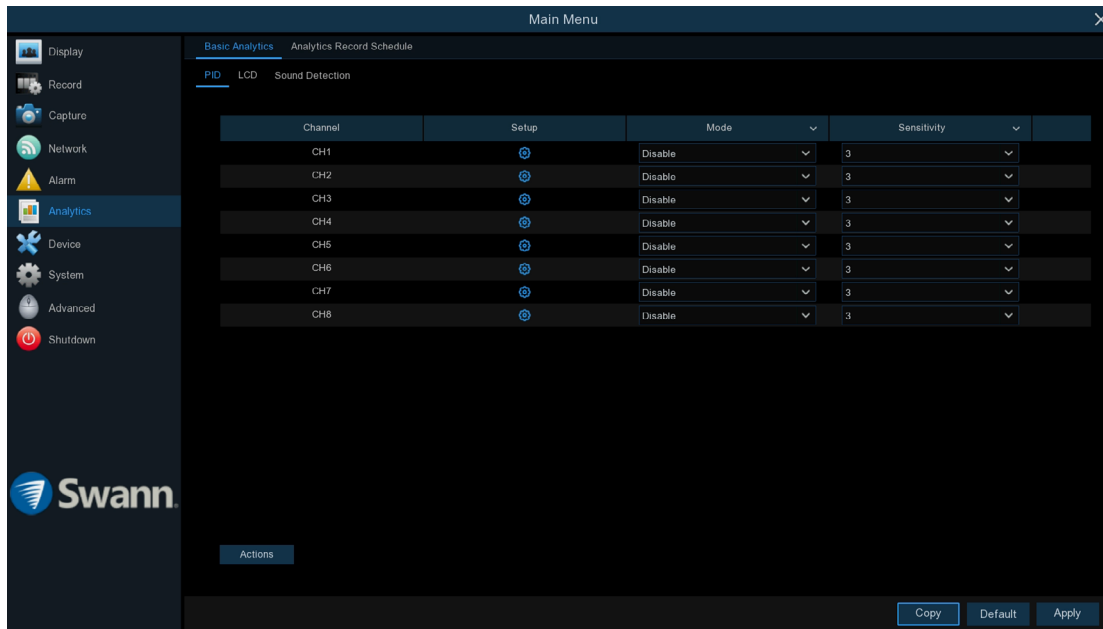
A perimeter intrusion region can be used to define specific areas that you want to monitor for motion. For example, a rule can be defined so that your DVR will alert you if one or more objects have stayed within the intrusion region for a particular time. You can also select which direction an object can enter and or exit.

→ 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.

Setup: Click the button to draw one or more perimeter intrusion regions (see page 36 - Drawing a Perimeter Intrusion Region).

Mode: Two choices are available. Select "PID" to receive alerts when motion has been detected. Select "PID+PIR" to receive alerts when motion has been detected by the camera and the camera's built-in PIR sensor.

Sensitivity: Adjust the sensitivity level of the perimeter intrusion region. The higher the number, the more sensitive the intrusion region will be.

Actions: Click the button to change options for alarm notifications, alerts and more (see page 37 - Analytics: PID (Perimeter Intrusion Detection) - Actions).

When motion has been detected by one of the analytic functions, a green or red "S" will appear in Live View Mode. Green indicates that the DVR isn't recording and red indicates that the DVR is recording.

Drawing a Perimeter Intrusion Region

To remove a perimeter intrusion region: Click the rule number checkbox to select, then press the "Remove" button. Click "Remove All" if multiple regions are drawn.

Rule Number: Click the drop-down menu to select the rule number that you want to create. Up to four perimeter intrusion regions can be drawn.

Rule Switch: Leave this enabled.

Rule Type: There are three rule types that can be selected. Select the appropriate rule for the region created (each region can have a different rule).

A->B: Motion is detected when an object has crossed the line from direction A only.

B->A: Motion is detected when an object has crossed the line from direction B only.

A<->B: Motion is detected when an object has crossed the line from both directions.

Using the mouse, you need to create four points to draw a perimeter intrusion region (it can be drawn at any size). Your DVR does not allow lines to be crossed when drawing an intrusion region.

As illustrated above left, click once at the start point then move right and click once to create the second point. Move the mouse down and click once to create the third point then move left and click once to create the fourth point.
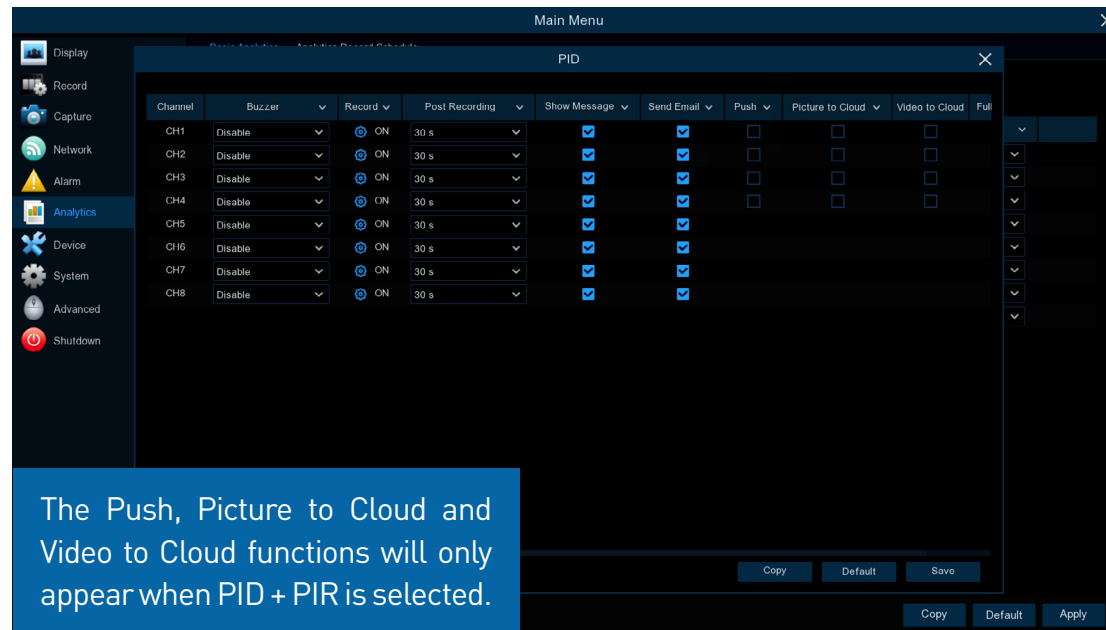
Remove: See above right example.

Remove All: Click this to remove all perimeter intrusion regions.

Save: Click this to save any changes made then click "OK" to continue.

Right-click to exit.

Analytics: PID (Perimeter Intrusion Detection) - Actions

The Push, Picture to Cloud and Video to Cloud functions will only appear when PID + PIR is selected.

Buzzer: When motion is detected, you can enable the DVR's buzzer to alert you for a predetermined 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 after an event has occurred. For most instances, the default selection will be suitable, however you can change this if you wish.

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

Send Email: An email alert will be sent when motion is detected. Click the

checkbox if you want to disable this.

Push: Click the checkbox to receive push notifications via the Swann Security app.

Picture to Cloud: Click the checkbox to copy snapshots to the cloud via Dropbox.

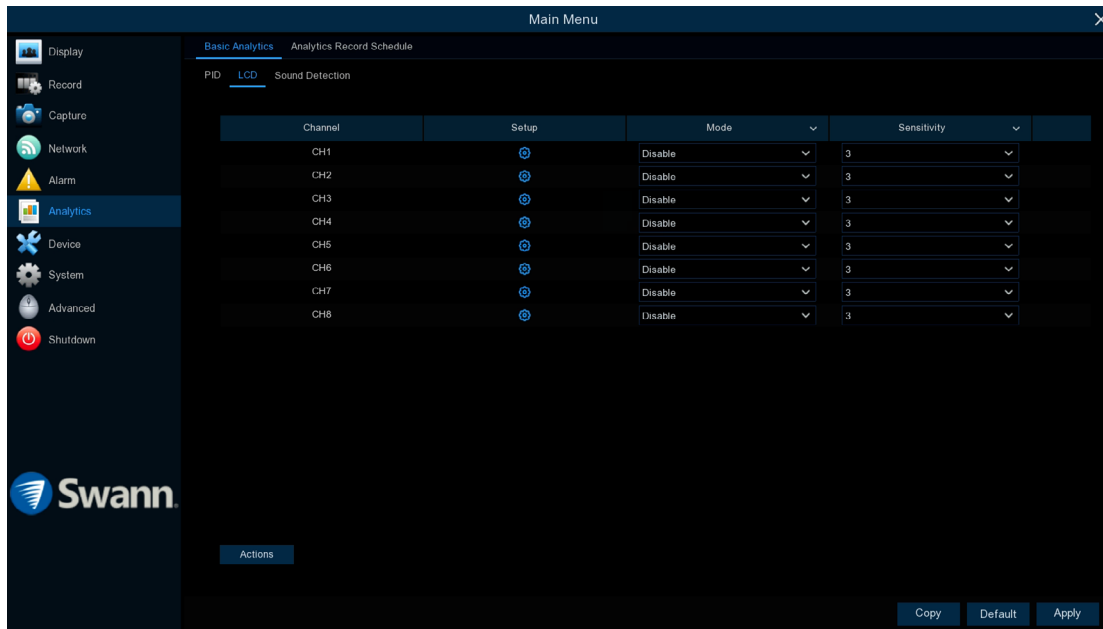**Video to Cloud:** Click the checkbox to copy video events to the cloud via Dropbox.

To enable cloud storage (see page 75 - Device: Cloud Storage).

Full Screen: 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.

Analytics: LCD (Line Crossing Detection)

By drawing a detection line (can be drawn at any orientation, length or angle), you can apply a rule on which direction your DVR detects motion. As an example, this can detect people jumping a fence or entering and or exiting a doorway.

→ 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.

Setup: Click the "Setup" button to draw one or more detection lines (see page 39 - Drawing a Detection Line).

Mode: Two choices are available. Select "LCD" to receive alerts when motion is detected. Select "LCD+PIR" to receive alerts when motion is detected by the camera and the camera's built-in PIR sensor.

Sensitivity: Adjust the sensitivity level of the detection line. The higher the number, the more sensitive the detection will be.

Actions: Click the button to change options for alarm notifications, alerts and more (see page 40 - Analytics: LCD (Line Crossing Detection) - Actions).

When motion has been detected by one of the analytic functions, a green or red "S" will appear in Live View Mode. Green indicates that the DVR isn't recording and red indicates that the DVR is recording.

Drawing a Detection Line
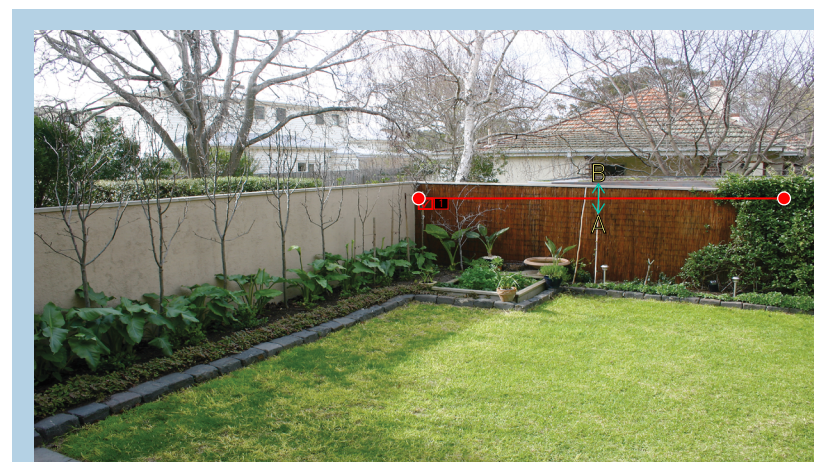
To remove a detection line: Click the rule number checkbox to select then, press the "Remove" button. Click "Remove All" if multiple lines are drawn.

Rule Number: Click the drop-down menu to select the rule number that you want to create. Up to four detection lines can be drawn.

Rule Switch: Leave this enabled.

Rule Type: There are three rule types that can be selected. Select the appropriate rule for the line drawn (each line can have a different rule).

A->B: Motion is detected when an object has crossed the line from direction A only.

B->A: Motion is detected when an object has crossed the line from direction B only.

A<->B: Motion is detected when an object has crossed the line from both directions.

Using the mouse, click once at the start point then click again at the end point. A detection line will be drawn between the two points. Direction A and direction B will be shown, denoting the rule that you can apply to the detection line. A detection line can be drawn at any orientation, length or angle.

As illustrated above left, a detection line has been drawn across the fence line. When selecting rule B->A, motion is detected when an object has crossed the line from direction B only.
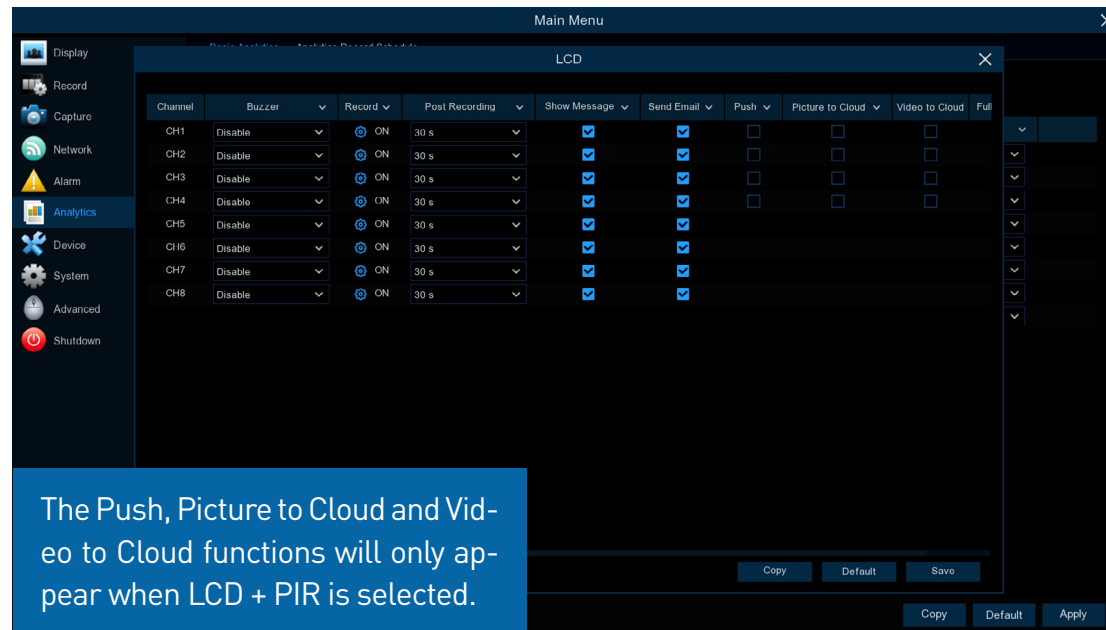
Remove: See above right example.

Remove All: Click this to remove all detection lines.

Save: Click this to save any changes made then click "OK" to continue.

Right-click to exit.

Analytics: LCD (Line Crossing Detection) - Actions

The Push, Picture to Cloud and Video to Cloud functions will only appear when LCD + PIR is selected.

Buzzer: When motion is detected, you can enable the DVR's buzzer to alert you for a predetermined 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: An email alert will be sent when motion is detected. Click the

checkbox if you want to disable this.

Push: Click the checkbox to receive push notifications via the Swann Security app.

Picture to Cloud: Click the checkbox to copy snapshots to the cloud via Dropbox.
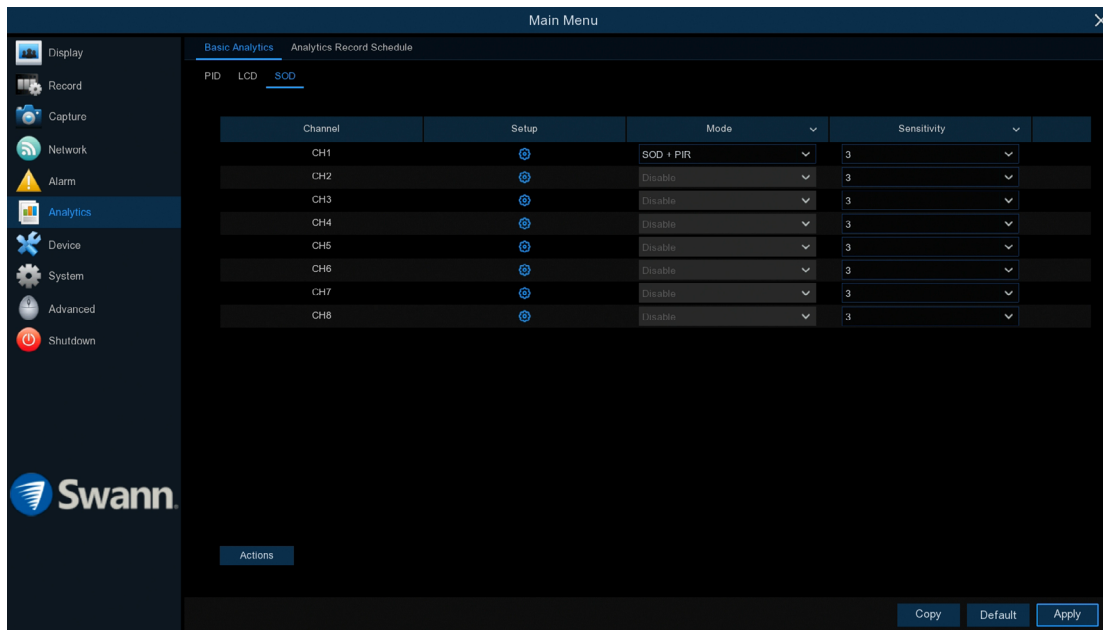
Video to Cloud: Click the checkbox to copy video events to the cloud via Dropbox.

To enable cloud storage (see page 75 - Device: Cloud Storage).

Full Screen: 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.

Analytics: SOD (Stationary Object Detection)

Use this function to monitor static objects in and around your home. By drawing an area around an object, if that object is removed, your DVR will trigger recording and alert you to an event.

→ 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.

Setup: Click the "Setup" button to draw one or more detection lines (see page 42 - Drawing an Object Detection Region).

Mode: Two choices are available. Select "SOD" to receive alerts when motion has been detected. Select "SOD+PIR" to receive alerts when motion has been detected by the camera <u>and</u> the camera's built-in PIR sensor.

Sensitivity: Adjust the sensitivity level of the object detection region. The higher the number, the more sensitive the detection will be.

Actions: Click the button to change options for alarm notifications, alerts and more (see page 43 - Analytics: SOD (Stationary Object Detection) - Actions).

When motion has been detected by one of the analytic functions, a green or red "S" will appear in Live View Mode. Green indicates that the DVR isn't recording and red indicates that the DVR is recording.

Drawing an Object Detection Region
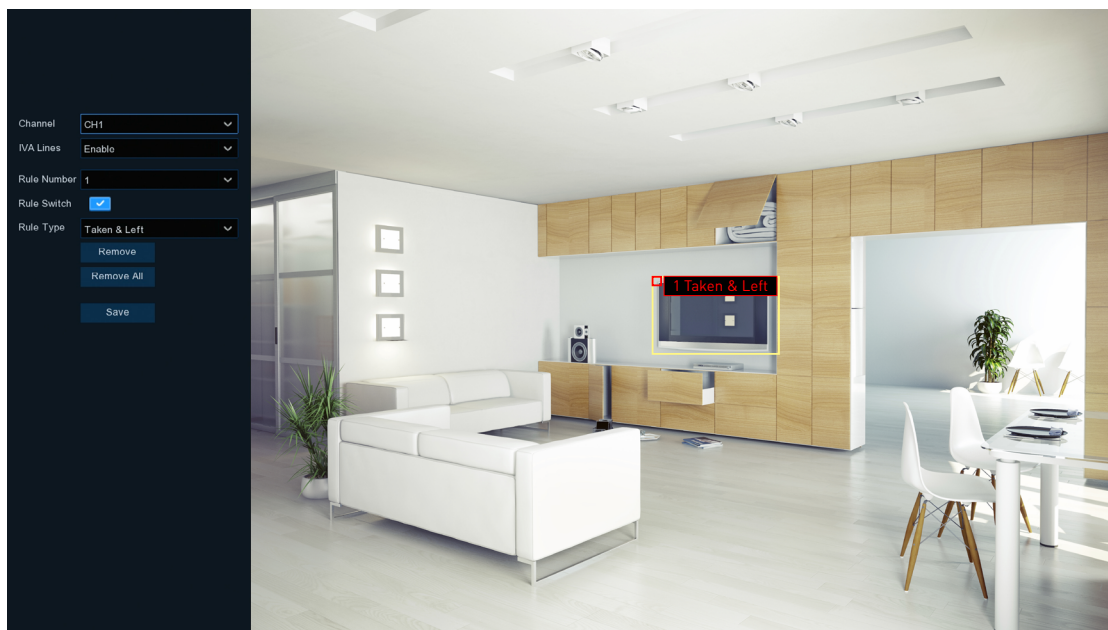
To remove an object detection region: Click the rule number checkbox to select, then press the "Remove" button. Click "Remove All" to delete all regions drawn.

IVA (Intelligent Video Analytics) Lines: When enabled, your DVR will determine which direction a person has entered or exited an object detection region.

Rule Number: Click the drop-down menu to select the rule number that you want to create. Up to four object detection regions can be drawn.

Rule Switch: Leave this enabled.

Rule Type: Only one rule type is available.

Taken & Left: An event will occur when an object is taken or removed <u>and or</u> when an object is left within the object detection region.

Using the mouse, create four points to draw an object detection region (it can be drawn at any size). Your DVR does not allow lines to be crossed when

drawing a detection region. Make sure the detection region is greater than or equal to the size of the detected object.

As illustrated above left, click once at the start point, then move right and click once to create the second point. Move the mouse down and click once to create the third point, then move left and click once to create the fourth point.
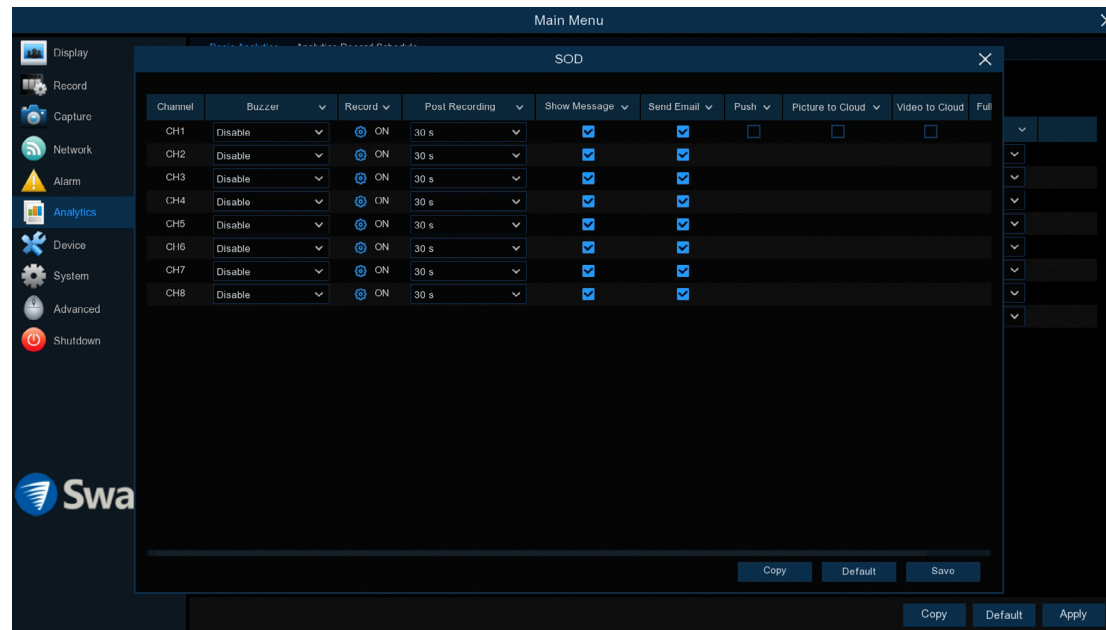
Remove: See the above right example.

Remove All: Click this to remove all object detection regions.

Save: Click this to save any changes made, then click "OK" to continue.

Right-click to exit.

Analytics: SOD (Stationary Object Detection) - Actions

Buzzer: When motion is detected, you can enable the DVR's buzzer to alert you for a predetermined 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: The motion icon will appear on-screen when motion has been detected. Click the checkbox if you want to disable this.

Send Email: An email alert will be sent when motion has been detected.

Click the checkbox if you want to disable this.

Full Screen: Click the checkbox to view the camera full-screen in Live View mode when motion has been detected.

Push: Click the checkbox to receive push notifications via the Swann Security app.
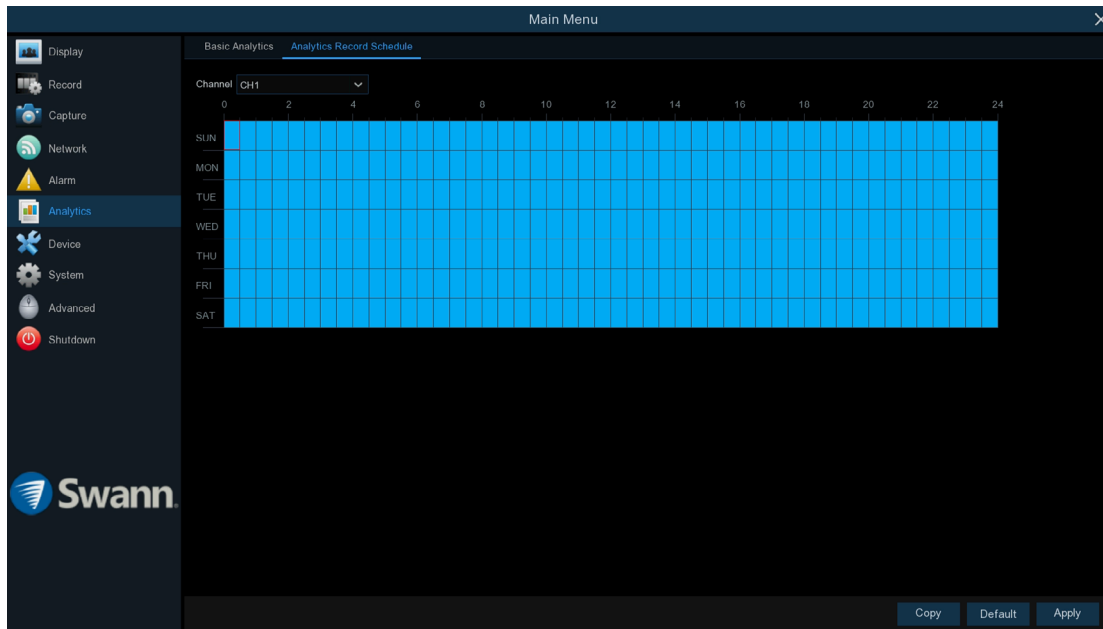
Picture to Cloud: Click the checkbox to copy snapshots to the cloud via Dropbox.

Video to Cloud: Click the checkbox to copy video events to the cloud via Dropbox.

To enable cloud storage (see page 75 - <u>Device: Cloud Storage</u>).

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

Analytics: Schedule

To record events that are detected using analytics, a recording schedule <u>must</u> be created for cameras that have the PID, LCD and SOD functions enabled. Each camera can have a different recording schedule if needed.
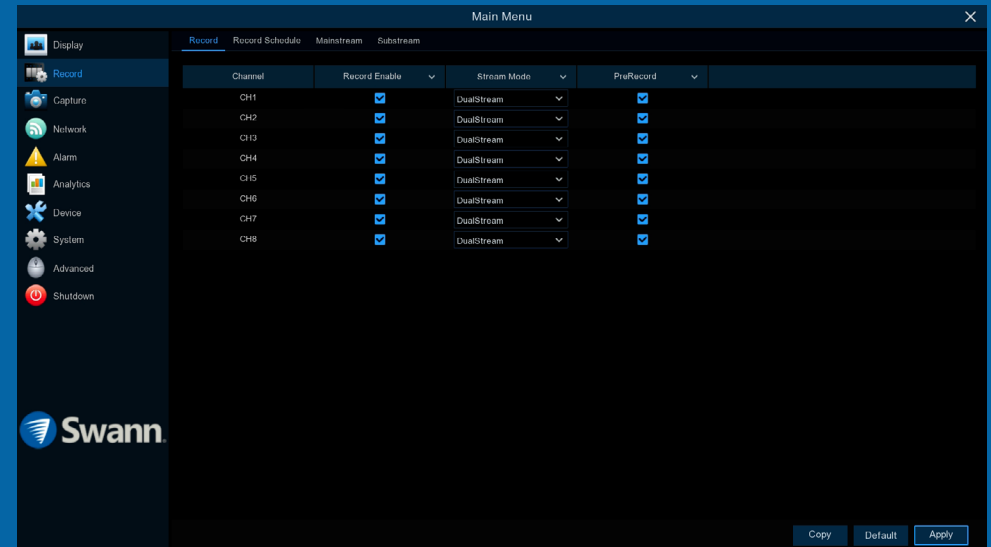
→ Use the "Copy" function to apply all settings to the other cameras connected.

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

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

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. The same action can also be applied if a recording schedule is not required (on one or more sections that have been enabled).

Recording Configuration

The recording configuration options are available in the Record and Capture menus 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
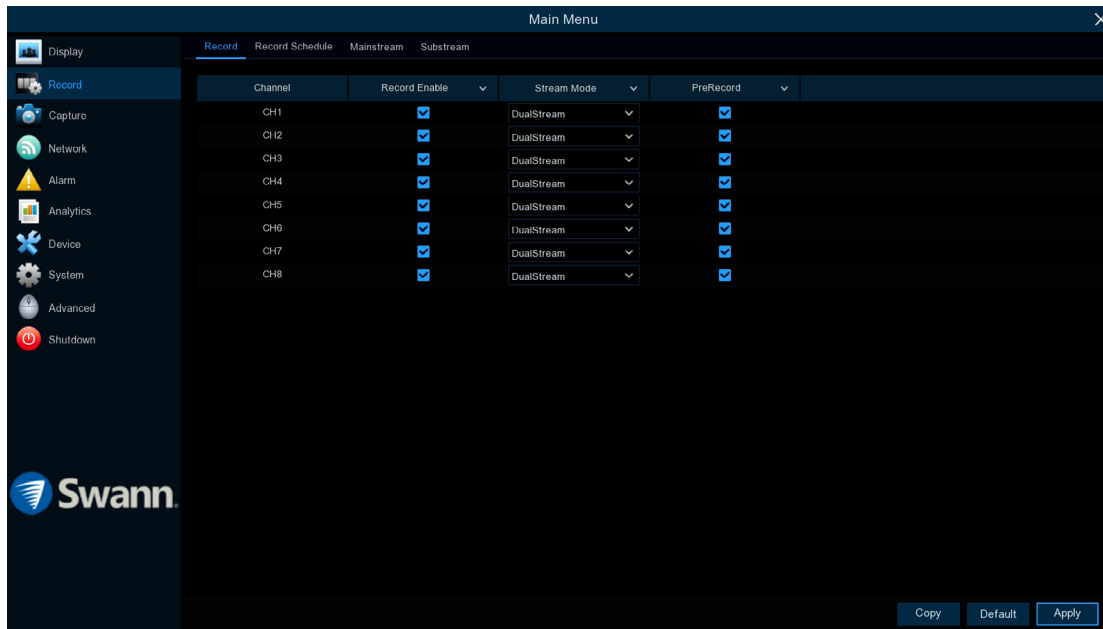
→ Use the "Copy" function to apply all settings to the other cameras connected.

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

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 (high quality) video is used for playback when using your DVR directly, and Substream (reduced quality) 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.

Record: Schedule

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
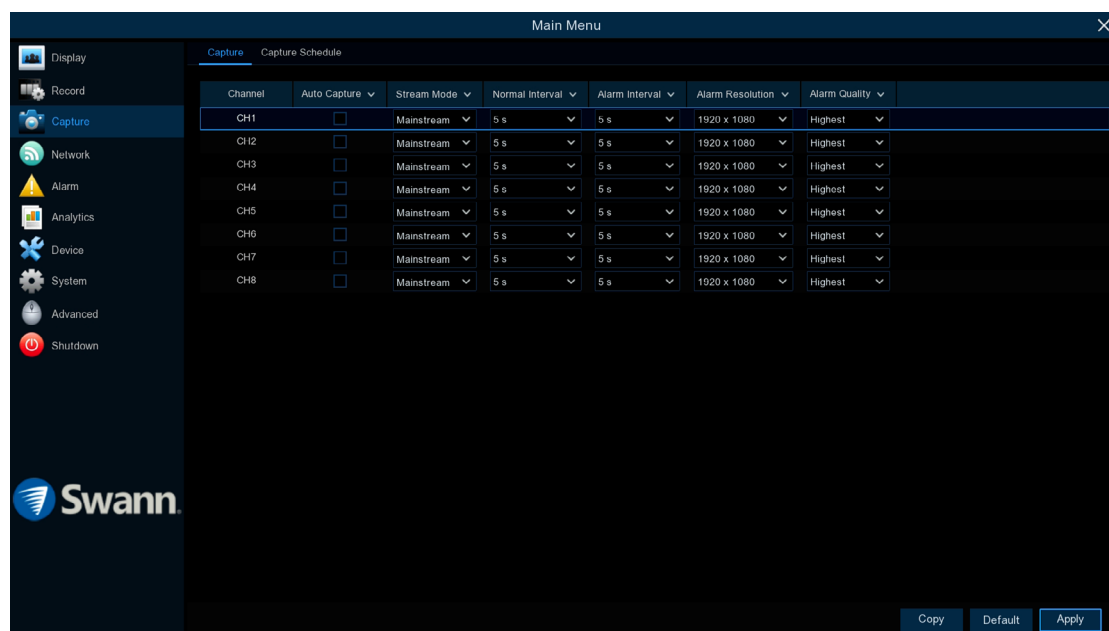
As an added feature, you can enable and set a schedule for your DVR to take a snapshot each time an event occurs. It helps to find motion events quickly and can also be used for time-lapse photography.

→ 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.

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

Stream Mode: Leave the default selection (Mainstream).

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 (1920 x 1080). This will save each snapshot at the highest resolution available. A lower resolution can be selected.

Alarm Quality: Leave the default selection. This will save each snapshot at the camera's highest bitrate (the amount of data that your DVR will use to take a snapshot).

As this is an added feature, a capture schedule is not enabled by default. To enable this (see page 49 – Capture: Schedule).

Capture: Schedule

Like the analytic recording schedule, you must create a capture schedule so your DVR can take snapshots when an event has occurred or if you want to take snapshots using a time interval (every 5 seconds, for example).

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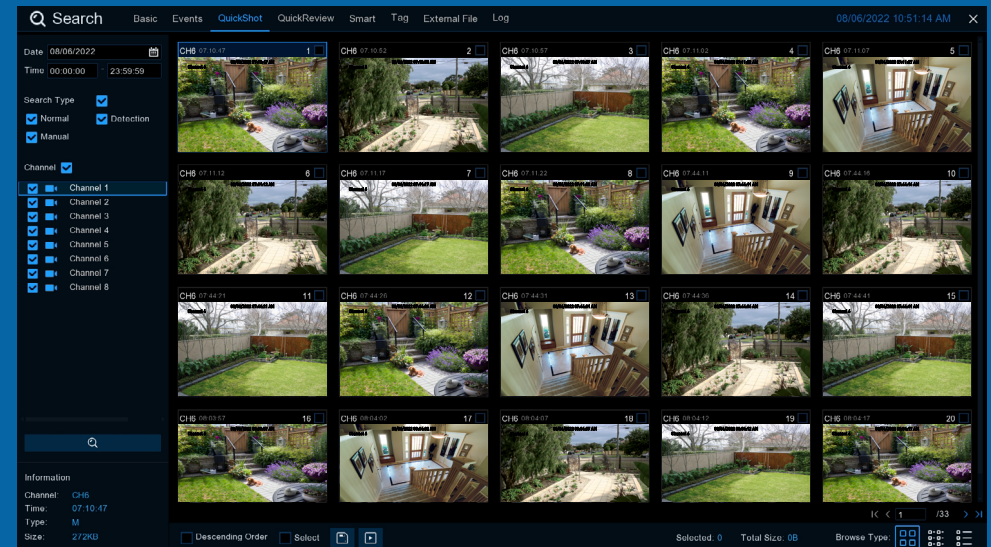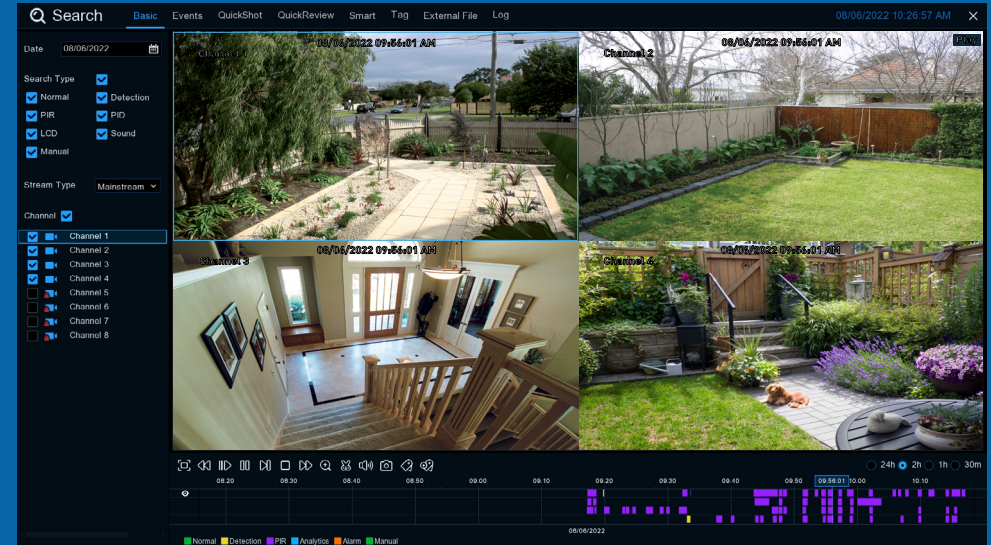
Channel: Select a camera that you would like to edit.

Normal: A snapshot is taken according to the normal interval setting selected (every 5 seconds for example).

Detection: A snapshot is taken each time motion is detected according to the alarm interval selected.

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).

Event Playback & Backup

Search allows you to play recorded videos and snapshots saved to your NVR's hard drive. You can play video that matches your recording schedule, analytic events, and more. The Backup function allows you to save wanted events to a USB flash drive.

Search: Basic

The image shows a search interface with the following labels:

- **Search** | Basic | Events | QuickShot | QuickReview | Smart | Tag | External File | Log — 08/06/2022 10:26:57 AM
- ❶ Date: 08/06/2022
- ❷ Search Type: Normal, Detection, PIR, PID, LCD, Sound, Manual
- ❸ Stream Type: Mainstream
- ❹ Channel: Channel 1–8

Callout boxes in image:
- Click on a camera to select it (a surrounding blue square is shown).
- The orange lock icon represents cameras that can't be selected for playback.
- Click and hold the time above the timeline then drag left or right to the desired time period.

Timeline legend: Normal, Detection, PIR, Analytics, Alarm, Manual

❶ Click the calendar icon to select a date to search on. A red underline on a date indicates recordings on those particular dates.

❷ This is the event type that you can search for. You can leave all event types enabled if you want to search for all, or you can select specific event types. Adjust accordingly.

❸ Select either Mainstream or Substream for playback (Mainstream will play video at the camera's native recording resolution).

❹ Select from one or more cameras to display for playback (a maximum of four cameras can be selected for playback only). A blue camera indicates which cameras match your search criteria.

❺ Click this to hide the playback interface so you can maximise your viewing area (watch full-screen). Right-click to restore.

❻ Recordings that match your search criteria will be displayed here.

(continued on next page)

Search: Basic

Double-click a camera to view it full-screen. Double-click again to return.
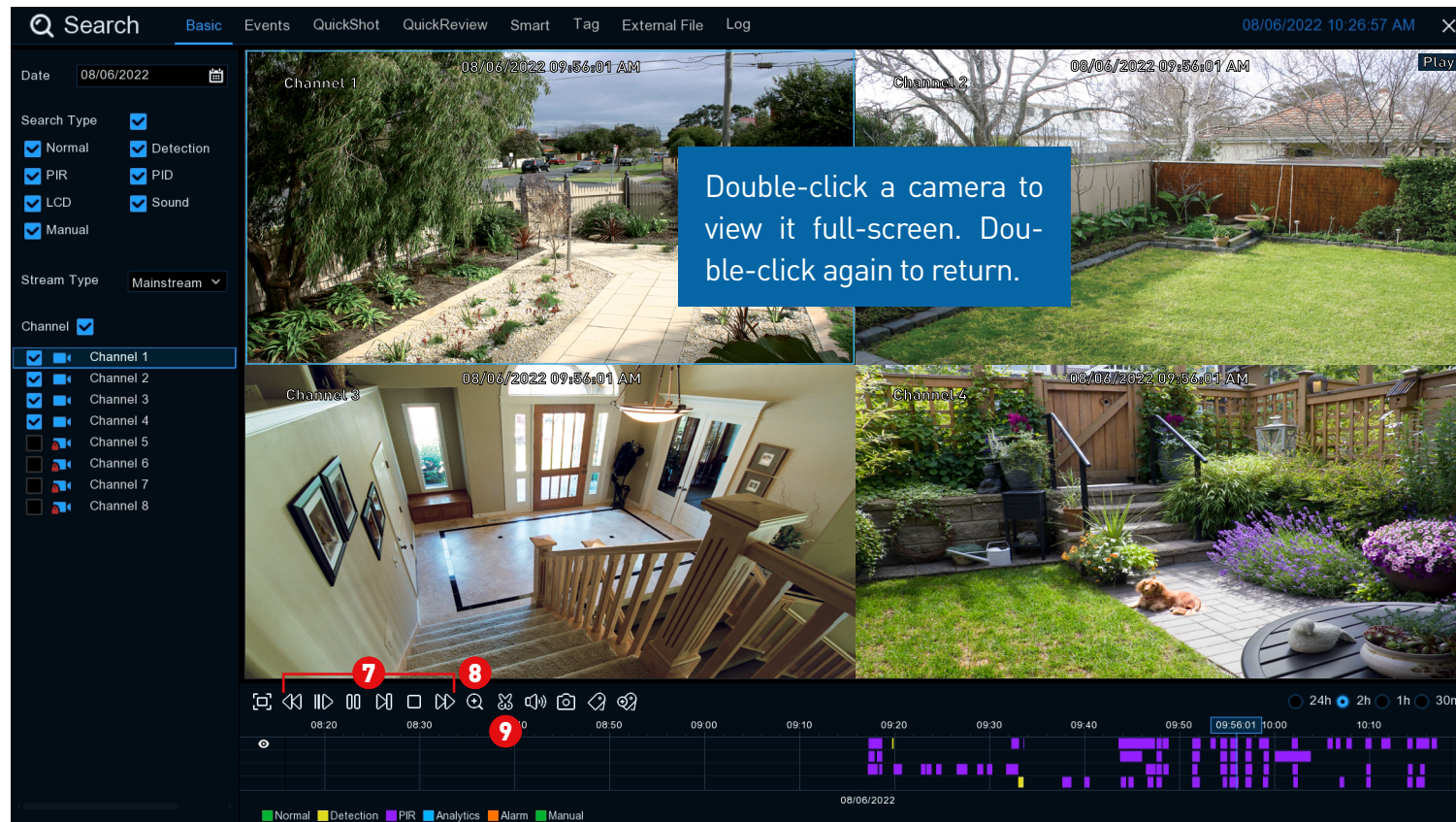
7 From left to right, these are your reverse, slow motion, play/pause, frame advance, stop and fast forward controls. Subsequent presses of the reverse, slow motion and fast forward buttons will increase the speed of each action.

8 Select a camera, click this button then use the scroll button on the mouse to zoom. Use the picture-in-picture screen to select a different area to view. Right-click to exit.

9 This button allows you to edit the video by setting mark in and mark out points which you can then copy to a USB flash drive. Click on a camera to select it, then press this button. You will see two white triangles on the timeline. Move them left or right on the section of the video that you want to edit. Click the disk icon (Back-up) to save. For the backup type, leave the default selection (mp4) for wider playback compatibility on your computer. Insert a USB flash drive to your DVR, then click "Save". Click "OK" to save, then click "Close" when finished.

(continued on next page)

Search: Basic
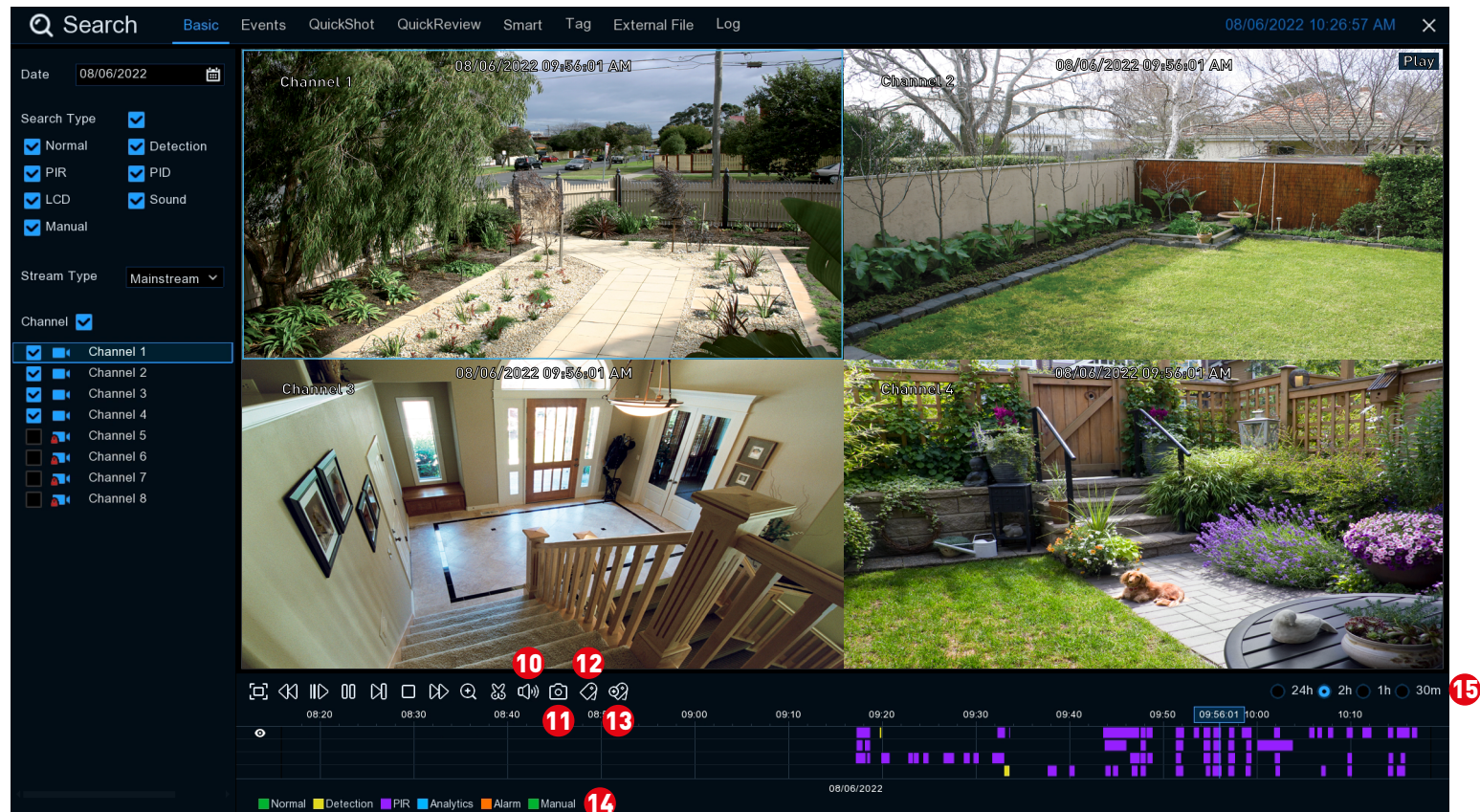
⑩ Click this button to mute or unmute the audio.

⑪ This button allows you to save a snapshot to a USB flash drive. Click on a camera to select it then press this button.

⑫ Tagging allows you to record information such as a person or object within the video. Click on a camera to select, pause the video when you see a person or object to be tagged then press this button (multiple tags can be created).

⑬ As above but you can choose your own tag name.

⑭ Indicates the video type on the timeline.

⑮ This represents the time period that is visible. Click on a different time period to zoom in for precise control or to zoom out.

To search for tags (see page 61 - Search: Tag).

📋 Click for contents

Search: Events (copy events to a USB flash drive)

Use this to search, play and copy events to a USB flash drive.

1 Click the calendar icon to select a date to search on. A red underline on a date indicates recordings on those particular dates. For time, you can search over 24 hours or you can use the keypad to enter a specific start and end time.

2 This is the event type that you can search for. Adjust accordingly.

3 Select either Mainstream or Substream to search for (Mainstream will play video at the camera's native recording resolution).

**4** Select from one or all cameras that you would like to search on. A blue camera indicates which cameras match your search criteria.

5 Click this button to commence a search. You will see a thumbnail of each event that matches your search criteria. Click the checkbox above each thumbnail to select it.

(continued on next page)

Search: Events (copy events to a USB flash drive)
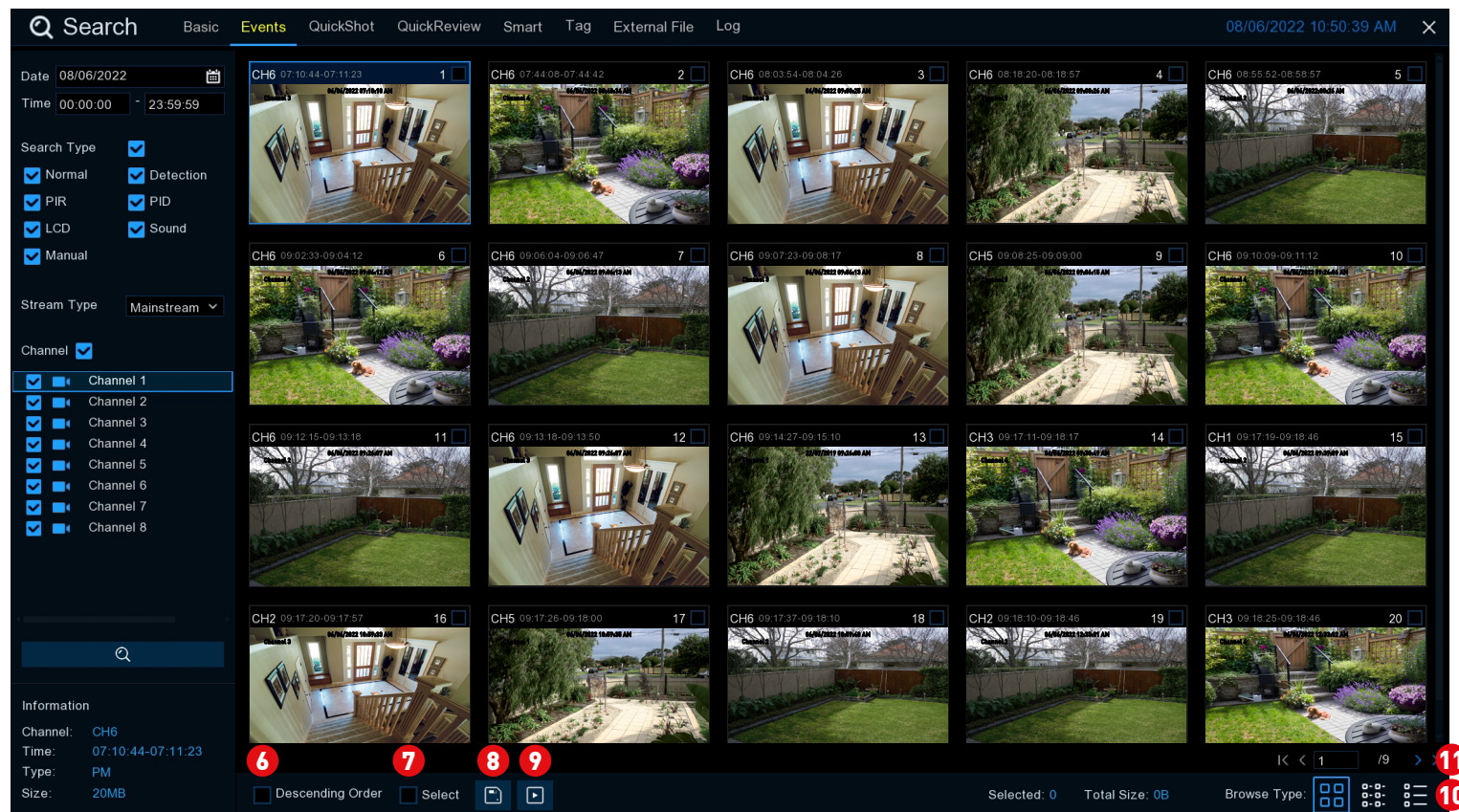
6 Click the checkbox to view the events in descending order.

7 Click the checkbox to select all events.

8 When one or more events are selected, click this button to copy to a USB flash drive. For the backup type, leave the default selection (mp4). Insert a USB flash drive to your DVR, then click "Save". Click "OK" to save, then click "Close" when finished.

9 Click this button to play a selected event. Right-click to exit.

10 Click these to change how the events are displayed. Default view is Thumbnail but you can change to List or Detail.

11 Click these to navigate to a different page available. Use the keypad to navigate to a specific page.

# Search: QuickShot (copy snapshots to a USB flash drive)

Use this to search, play and copy snapshots to a USB flash drive.

Click these to change how the events are displayed. Default view is Thumbnail but you can change to List or Detail.

1 Click the calendar icon to select a date to search on. A red underline on a date indicates recordings on those particular dates. For time, you can search over 24 hours or you can use the keypad to enter a specific start and end time.

2 This is the event type that you can search for. Adjust accordingly.

3 Select from one or all cameras that you would like to search on.

4 Click this to commence a search. You will see a snapshot of each event that matches your search criteria.

5 Click the checkbox to view snapshots in descending order.

6 Click the checkbox to select all snapshots.

7 Select a snapshot then click this button to copy to a USB flash drive.

8 Click this to play a slideshow (see page 57 - Playing a Slideshow).

Playing a Slideshow

Click the checkbox on a snapshot that you want to save to a USB flash drive.
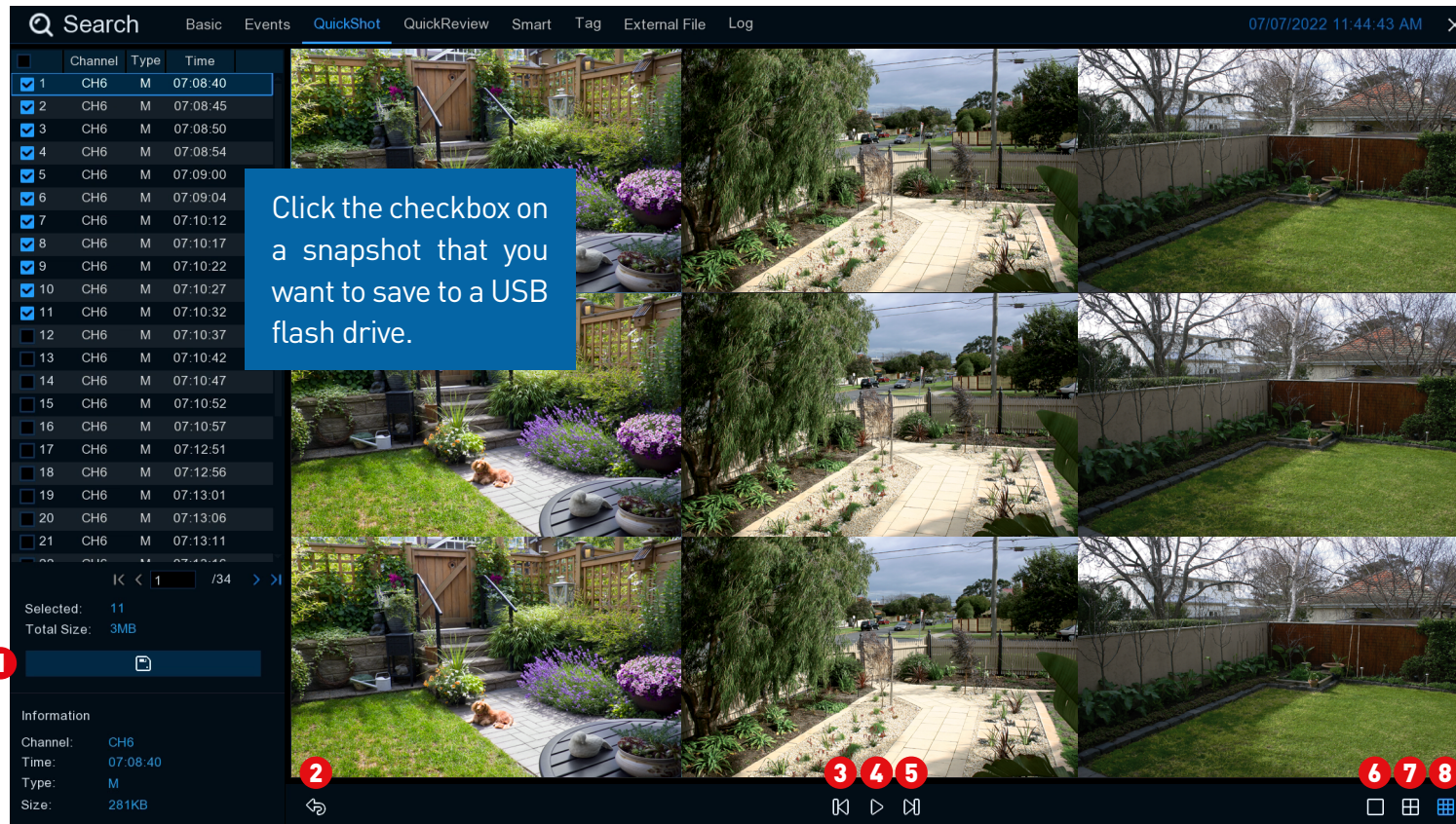
① Select a snapshot then click this button to copy to a USB flash drive.

② Click this to go back to the previous screen.

③ Click this to display the previous group of snapshots.

④ Click this to pause or play a slideshow.

⑤ Click this to display the next group of snapshots.

⑥ Click this to view a single snapshot at a time.

⑦ Click this to view four snapshots at a time.

⑧ Click this to view nine snapshots at a time.

Search: QuickReview

Click on a split-screen to select it (a surrounding blue square is shown).

Within the split-screen selected, you can select a different time period on the timeline.

QuickReview allows you to play multiple normal recordings and motion events simultaneously from a single channel. With normal and event recordings, the video is divided evenly depending on the split-screen mode selected. For example, if the video is an hour long and you have selected Split-screens x 2, each split-screen will play for 30 minutes.

1 Click the calendar icon to select a date that you want to search on. A red underline on a date indicates there are recordings on those particular dates. For time, you can search over a 24 hour period or you can use the keypad to

enter a specific start and end time.

2 Click the drop-down menu to select the preferred split-screen mode.

3 This is the event type that you can search for. Adjust accordingly.

4 Select either Mainstream or Substream to search for.

5 Select the camera that you would like to search on.

See for an explanation of the controls on the timeline.

Search: Smart

Smart mode allows you to define one or more specific areas of the video, to make it easier to find what you are searching for. For example, you may have movement on the left-hand side of the yard, but you want to see what is happening on the right-hand side.

1 Click the calendar icon to select a date that you want to search on. A red underline on a date indicates there are recordings on those particular dates. For time, you can search over a 24 hour period or you can use the keypad to enter a specific start and end time.

2 This is the event type that you can search for. Adjust accordingly.

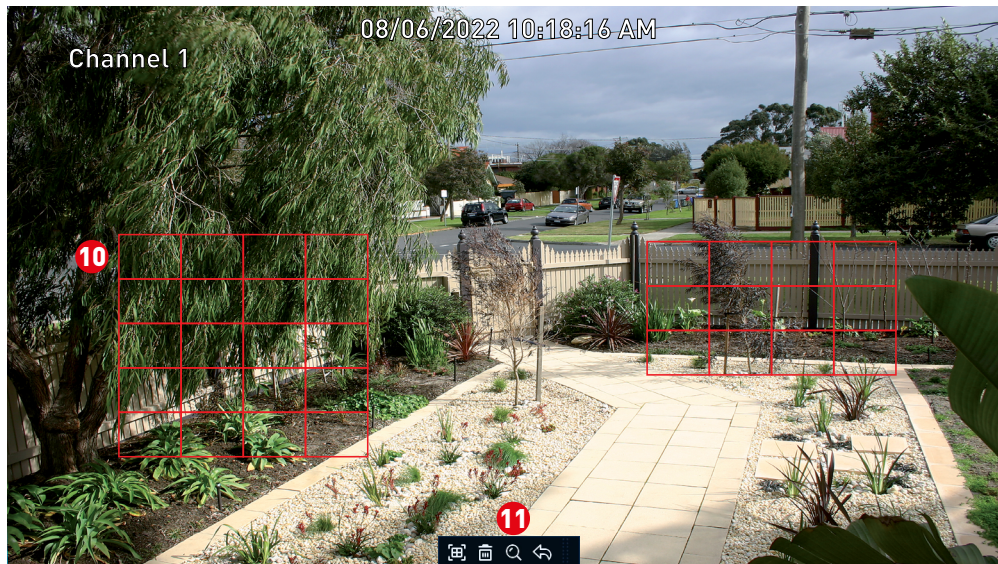**3** Select the camera that you would like to search on.

4 Click the "Play" button to play each event.

5 Click this button to enter Smart mode. The camera will be shown full screen and the Smart mode controls will be visible.

(continued on next page)

To move the controls, click and hold here then reposition it.

6 Click this to define a full screen detection area.

7 Click this to delete all areas created.

8 Click this to search and play video based on the areas defined.

9 Click this to return to the playback interface.

To define one or more specific areas, please do the following:

10 Click and drag to select the area that you want to define. Multiple areas can be defined. You can also use the same action to remove sections of the defined area or to delete it entirely.

11 When finished, click the search button (magnifying glass) to play video based on the areas defined.

You'll be returned back to the playback interface. Segments matching your search criteria will be shown on the timeline in dark blue.

Can I use Smart mode on multiple cameras at the same time? Due to the complexities and processing power required, you can only use Smart mode on one camera at a time.

Search: Tag

① Click the calendar icon to select a date that you want to search on. For time, you can search over a 24 hour period or you can use the keypad to enter a specific start and end time.

② If you have created one or more customized tags, click this to input the tag name (tag names are case sensitive).

③ Select the camera that you would like to search on.

④ Click this button to commence a search. Tags matching your search cri-

teria will be displayed.

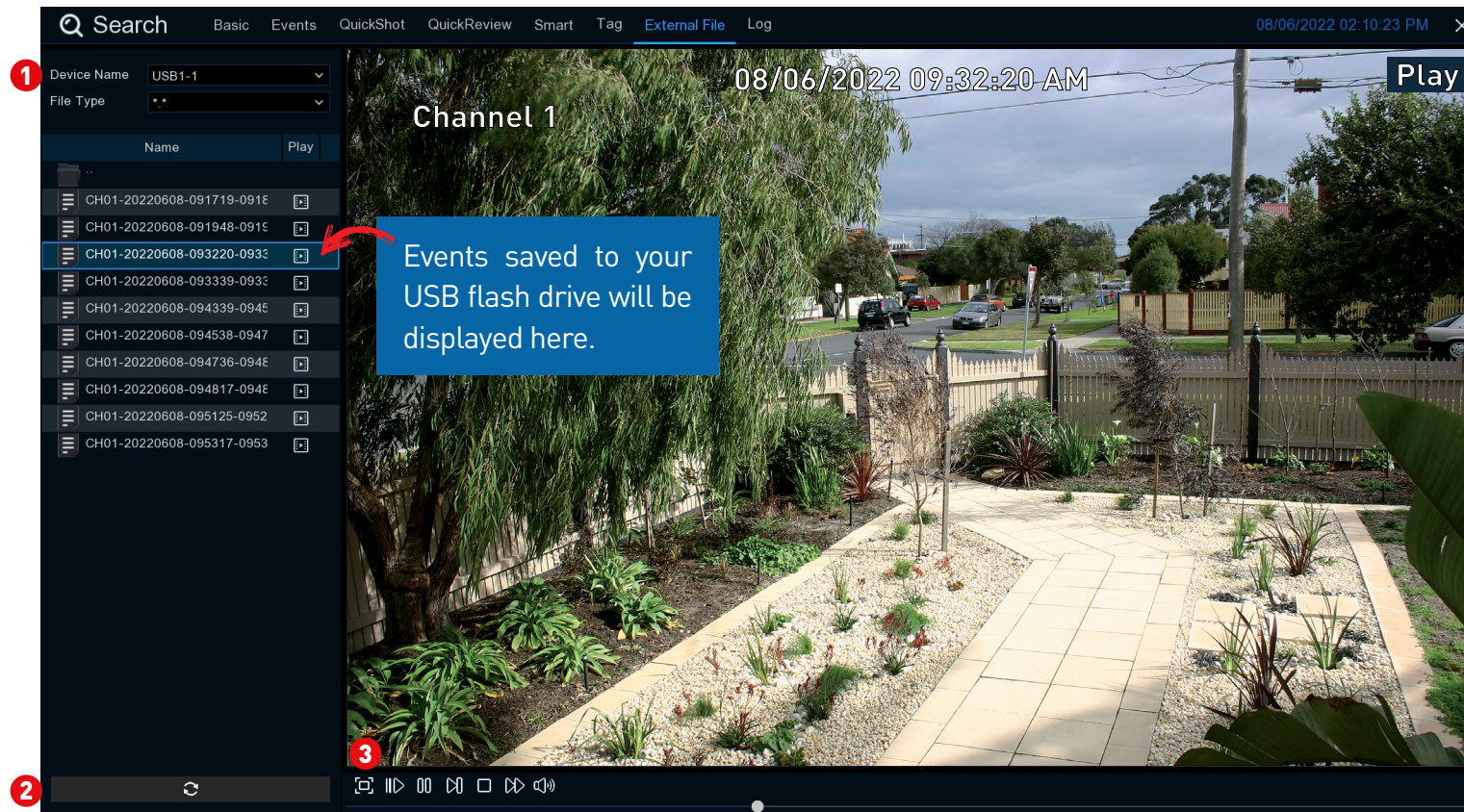⑤ Select an event then click this to play or double-click an event to play.

Edit: Click this to edit the tag name.

Delete: Click this to delete the tag.

See page 51 for an explanation of the controls on the timeline.

Search: External File

Use this function to play events that you have copied to a USB flash drive.

① If multiple USB flash drives are connected, click the drop-down menu to select the drive to read from.

**②** Click this button to refresh the USB flash drive.

Double-click an event to play.

③ Click this to hide the playback interface so you can maximise your viewing area. Right-click to restore.

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.
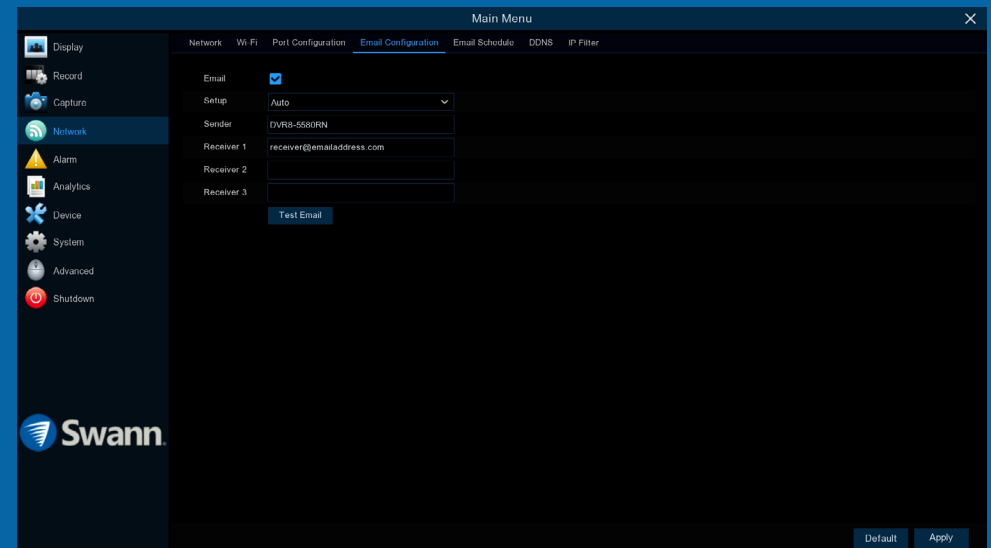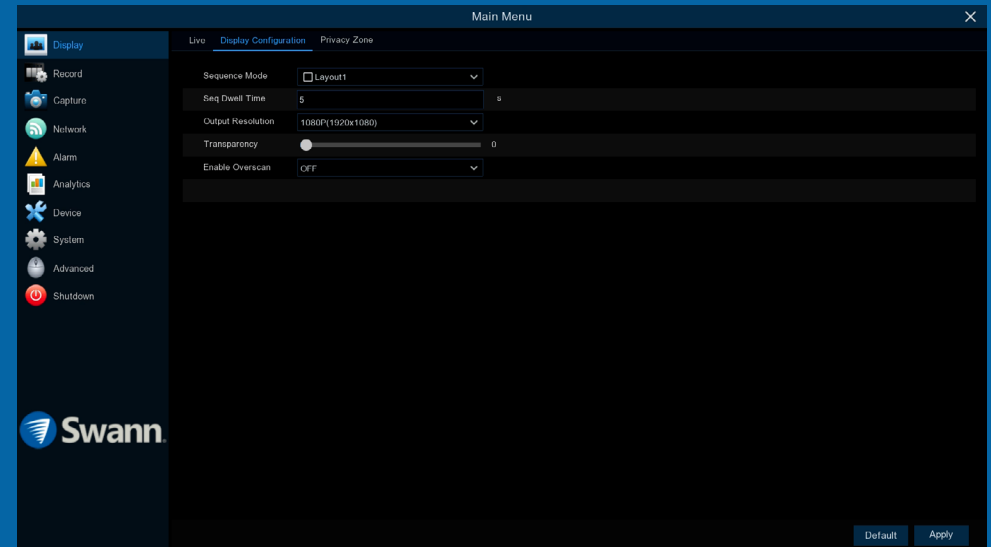
Display: Display Configuration
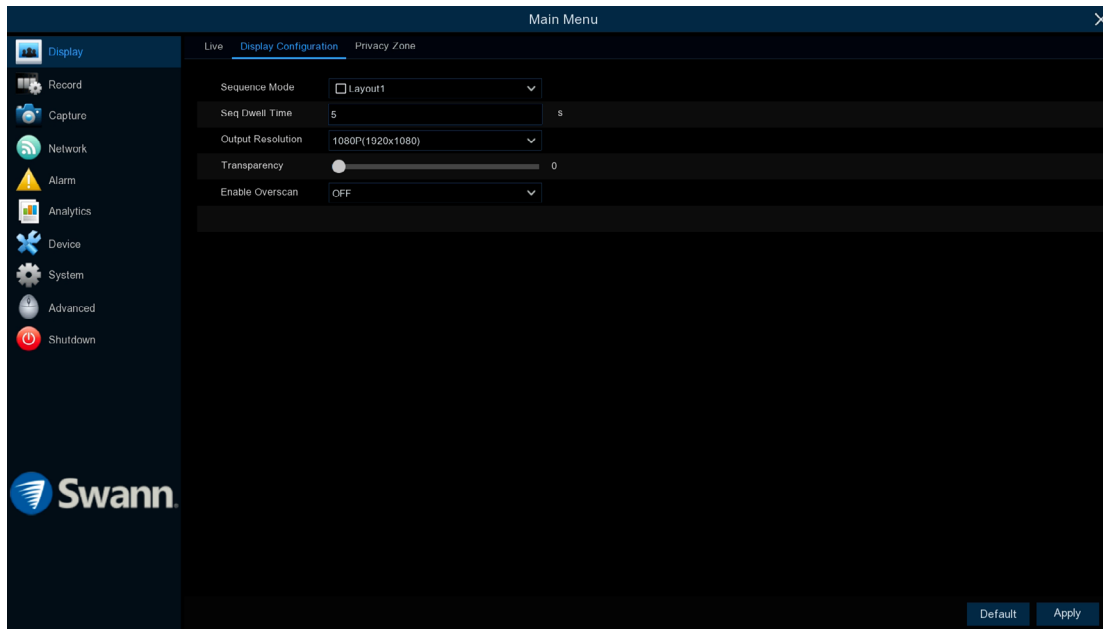
→ Click "Default" to revert to default settings.

→ 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).

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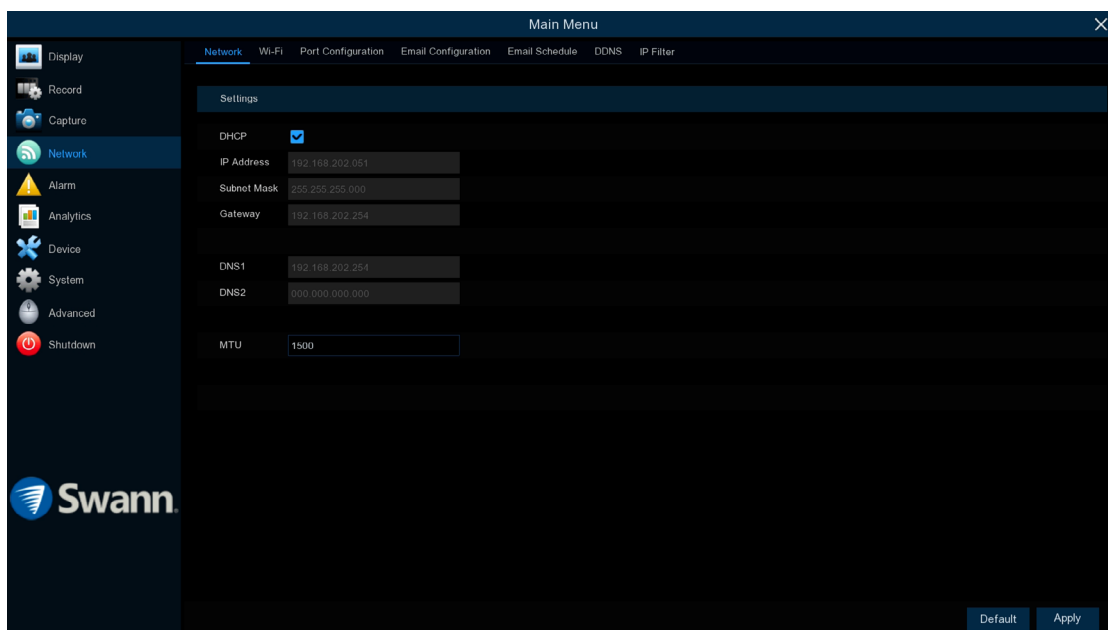
As SwannLink Peer-to-Peer technology is used to communicate with your network and mobile device, the configuration of the network settings is not required. If you have networking expertise and require specific changes, you do have the ability to change them.

→ 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 and is the recommended method of connection.

When disabling DHCP, the following five options can be changed (this is for advanced users only):

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 NVR to connect to the internet and 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.

MTU (Maximum Transmission Unit): This dictates the maximum size for any packet of data sent from a device over a network. If you find that your internet connection speed when viewing your cameras on your mobile device isn't as fast as you would expect, changing the MTU size may improve this situation. We recommend clicking this link, which explains how to find the best MTU size for your home network and connected devices.

Network: Wi-Fi
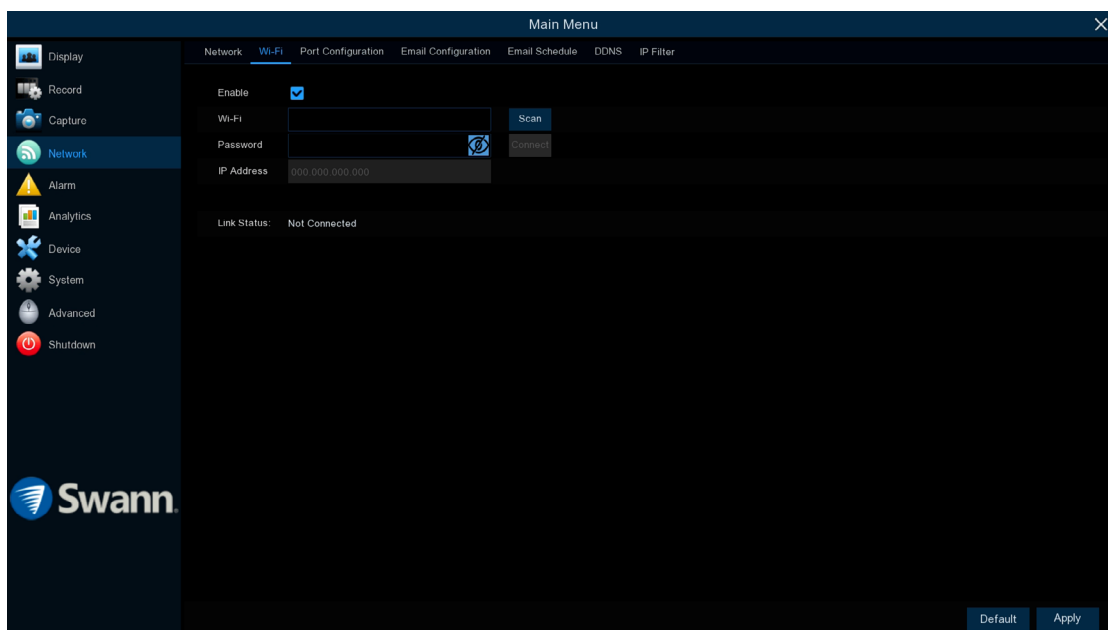
If you have a compatible Wi-Fi dongle connected to an available USB port on your DVR, the Wi-Fi tab will appear. This gives you the flexibility of placing your DVR in a different location, without having to be physically connected to your router or modem.

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

Before proceeding, disconnect the Ethernet cable from your DVR's Ethernet port (if connected).

1. Click the "Scan" button. After a short moment, a list of Wi-Fi access points that your DVR detects, will be shown. Select your Wi-Fi access point then click the "Save" button.

2. Input the password for your Wi-Fi access point then click the "Connect" button. Make sure the password is correct before proceeding (click the eye icon to display the Wi-Fi password).

3. After a short moment, your DVR will connect to your Wi-Fi access point. Click "OK" to continue (if the connection has failed, check that the password is correct).

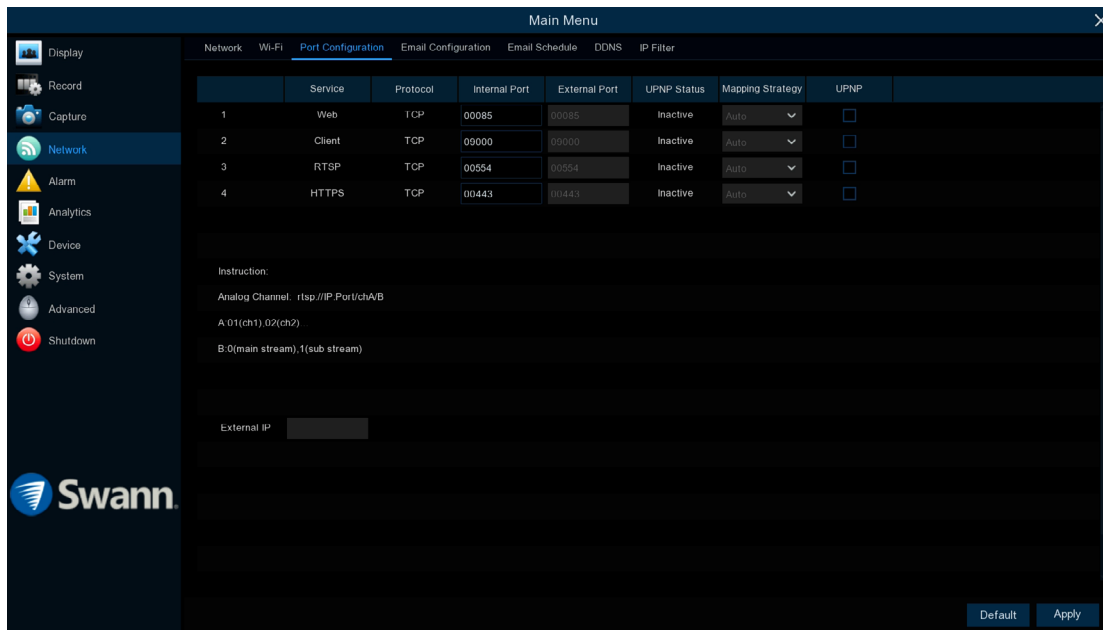The Link Status will change to Connected indicating a successful connection.

Click "Apply" to save settings.

When removing the Wi-Fi dongle, click the "USB Wi-Fi" button on the Menu Bar, then click "Safely remove USB Devices". Remove the Wi-Fi dongle, then click "OK".

Network: Port Configuration & RTSP

The cog symbol (top right) indicates functions suitable for experienced users, and or some networking knowledge is required.

In most circumstances there is no need to change the settings here. The following is for advanced users only.

Web: This port is used to log into your DVR via your network or remotely. The default port number (85) is seldom used by other devices, however if you have another device using this port, you may need to change it. An alternative port number to use is 90.

Client: This is the internal port that your DVR will use to send information through. This particular port number (9000) is not used by many devices, however if you have another DVR-like device, you may need to change it

RTSP: This port can be used to stream a camera's live view image to your computer, using video streaming software such as VLC media player (see page 68 - Using RTSP for more information).

HTTPS: The same as HTTP Port but with an additional layer of security. The default port number (443) is seldom used by other devices.

UPNP: A network protocol designed to allow network-connected devices to automatically configure the router for remote access. Click the checkbox to enable (not required to be enabled when using UID).
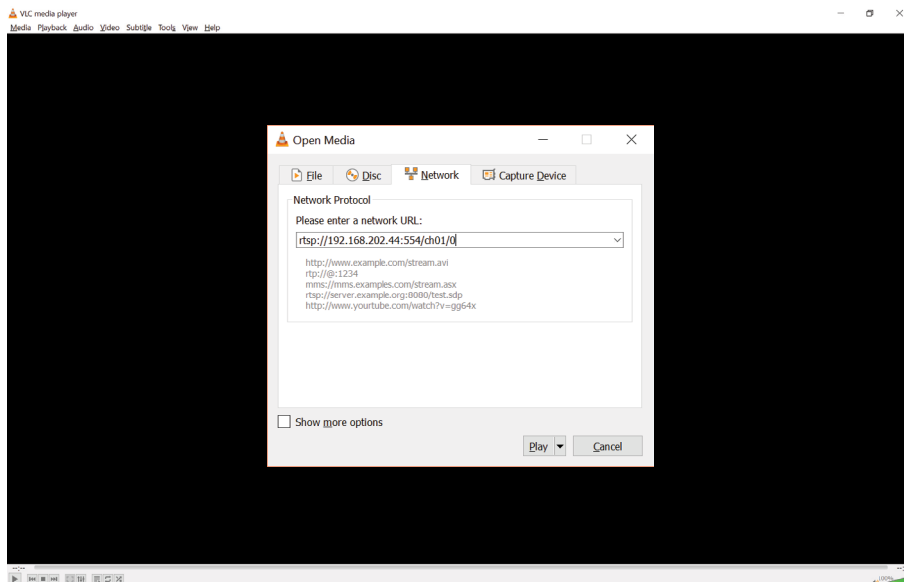
The following instructions are for the VLC media player software (you can download a free copy from www.videolan.org). After download, double click the file then follow the on-screen instructions for installation.

1. On your computer, load the VLC media player software. Click "Media" then click "Open Network Stream" (as shown on the left).

2. Enter the IP address of your DVR (on your DVR click "Network" in the Main Menu to display the IP address) into VLC. The following is an example of what you need to enter - rtsp://192.168.202.44:554/ch01/0.

rtsp://192.168.202.44: This is the IP address of your DVR.
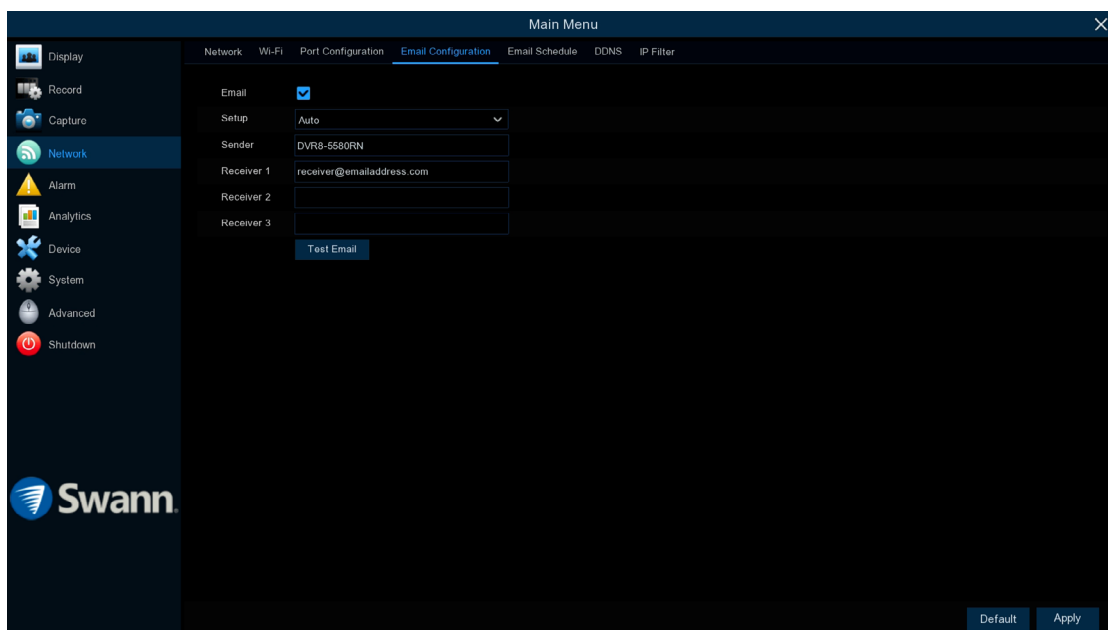
554: This is the RTSP port of your DVR.

ch01: This represents channel 1. To display channel 2 enter ch02, etc.

0: This represents Mainstream. For Substream enter 1 instead.

3. Click "Play" then enter the user name and password. You will now see a live view image from the camera.

Network: Email Configuration

Why is an email address required? Inputting an email address is a requirement in the Startup Wizard. This is so your NVR can send you a password reset request if you have forgotten your password. Both Gmail (see below) and Outlook are supported. You can also use the email from your service provider, providing you know the settings to be used. Alerts can also be sent to your email.

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

Email: Click the checkbox to enable you to receive email alerts (you will still receive a password reset request if this is disabled).

Setup: Leave this on the default setting when using a Gmail or Outlook email address or click the drop-down menu and select "Manual" if you would like to use the email from your service provider.

Sender: Input a name for your email account, for example, MY DVR.

Receiver 1/2/3: Input the email address(es) to send email alerts to.

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.

When selecting "Manual", you will see the following options:

Encryption: Leave this on "Auto" to ensure your DVR will always use the cor-rect encryption for your email provider.

SMTP Port: Enter the port number, for example, 00587.

SMTP Server: Enter the email server, for example, mail.iinet.net.au.

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

Password: Input the email password for your account. Click the "Show Password" checkbox to show or hide your password.

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

Various steps have to be performed to use Gmail as a sender for email alerts. Click here for instructions.

Network: Email Schedule
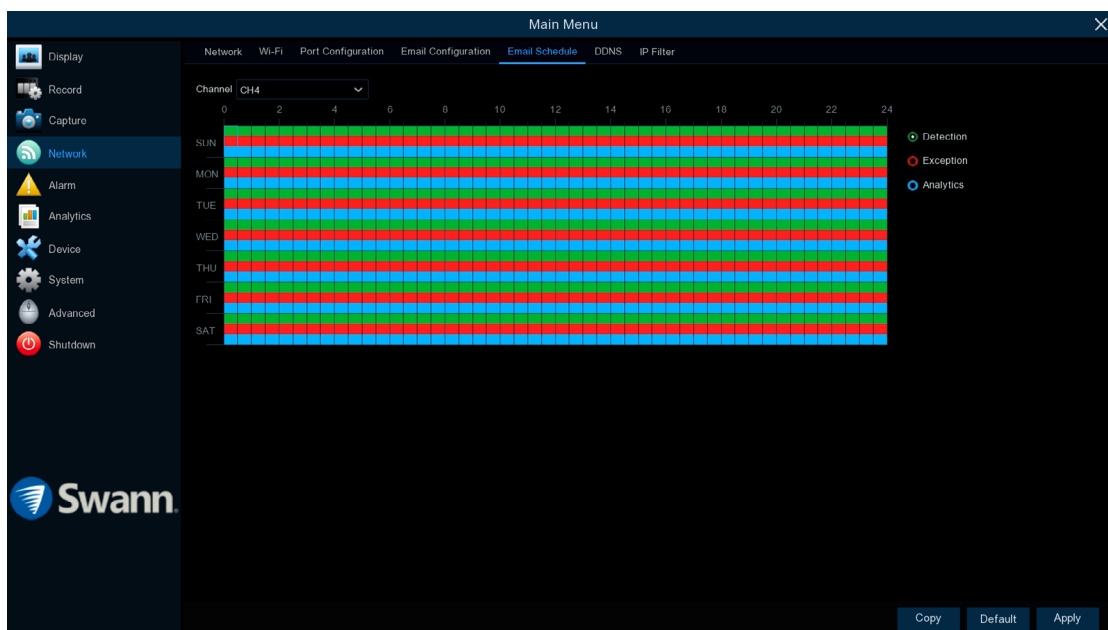
> → Use the "Copy" function to apply all settings to the other cameras connected.
>
> → Click "Default" to revert to default settings.
>
> → Click "Apply" to save settings.

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 80 - Advanced: Events). We recommended leaving the default schedule in place just in case there is an exception that you need to be alerted to.

Analytics: If one or more analytic functions are enabled, an email alert will automatically send when motion is detected. An alternative schedule can be created for each camera.

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.

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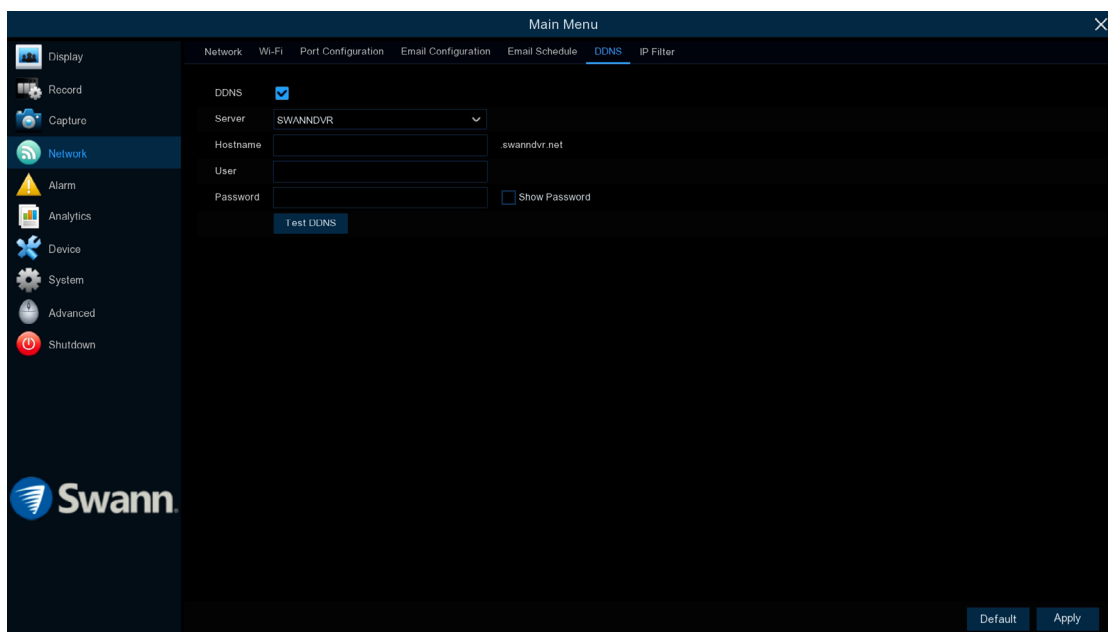
Prior to developing our SwannLink Peer-to-Peer technology, our SwannDNS service was used to connect to your NVR remotely. This service is still active, and we recommend creating an account as a backup.

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

Go to 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.
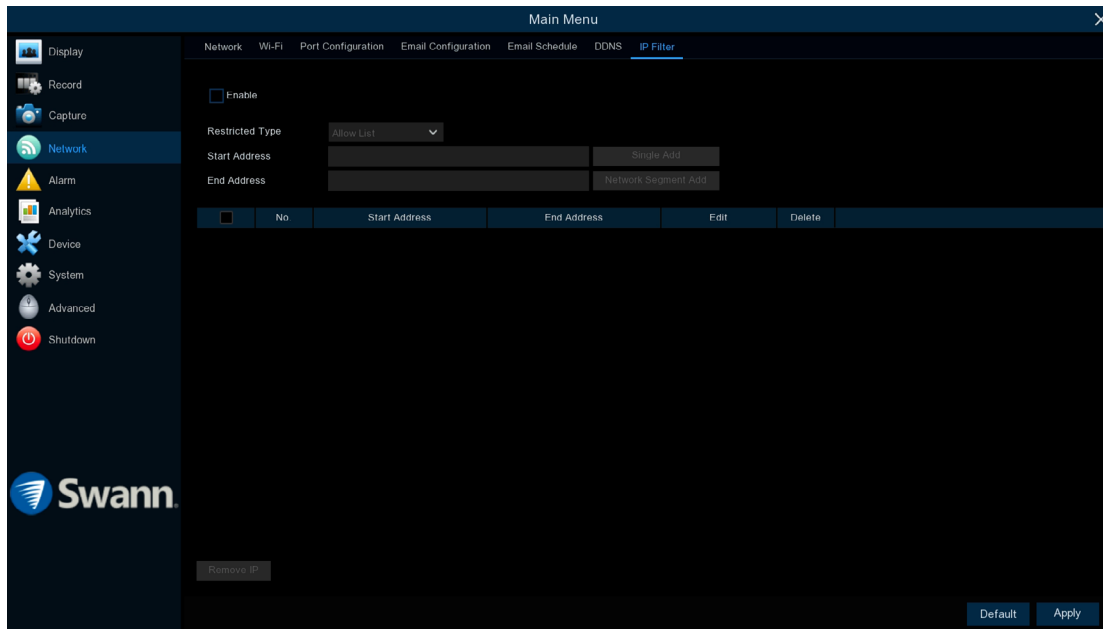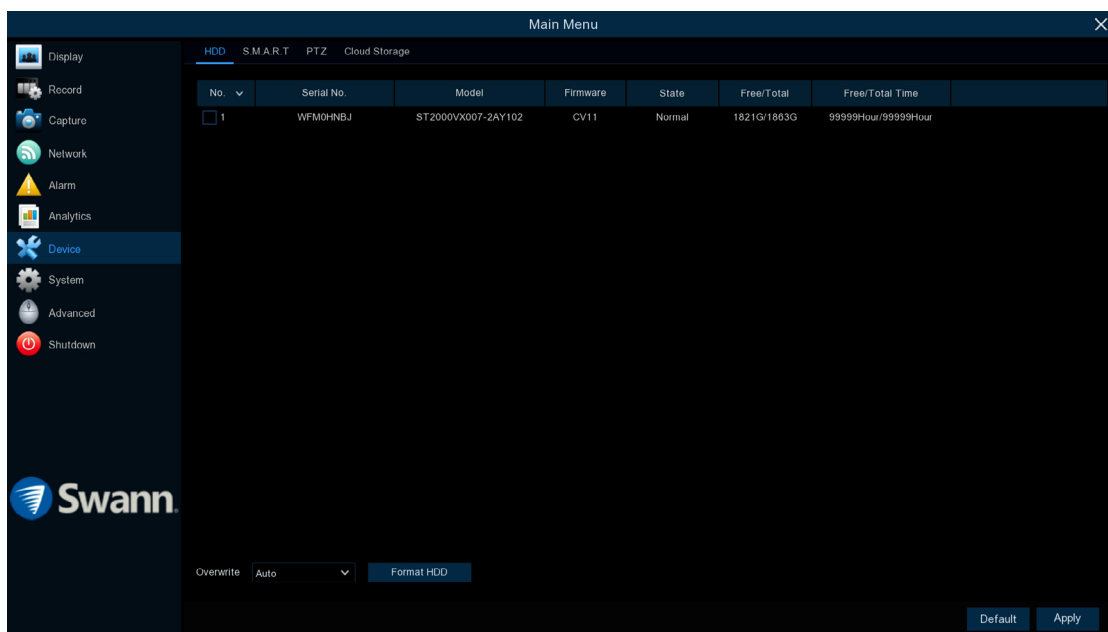
→ Click "Default" to revert to default settings.

→ 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 a block of IP addresses. For the day-to-day function of your DVR, this function isn't required.

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.

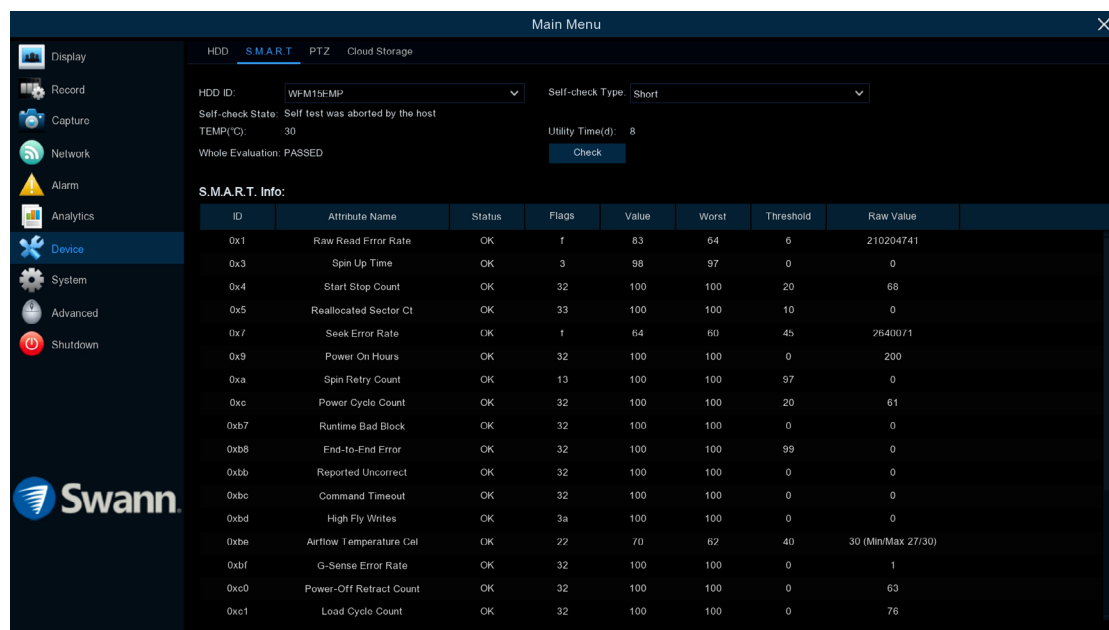→ Click "Apply" to save settings.

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.

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

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

A maximum of two cameras can be selected to copy video to the cloud.
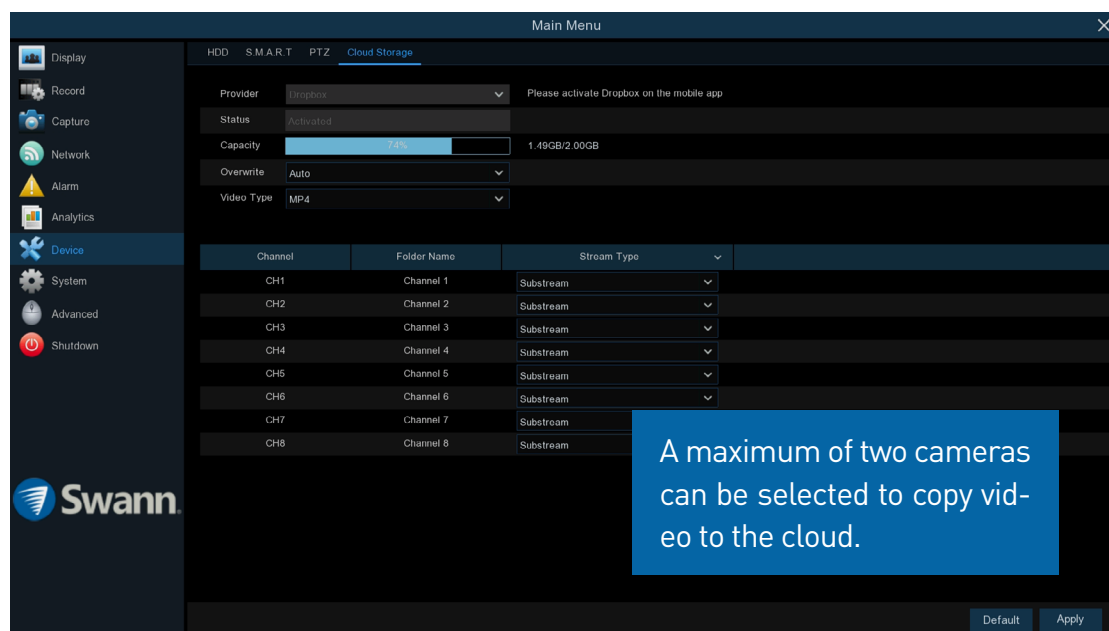
Your DVR can copy snapshots and video recordings to the cloud via Dropbox™. Dropbox™ is a service that allows you to store and share snapshots and video recordings and always have them on hand when needed.

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

Before activation, we recommend that you create a Dropbox account first. Go to www.dropbox.com, input your name, email address and password, agree to the terms & conditions then click or tap the sign up button. If you already have a Dropbox account you can skip this step.

Provider: Dropbox is the sole file hosting service and cannot be changed. To activate the cloud function, please use the Swann Security mobile app.

Status: This will change to Activated when active.

Capacity: When activated, this will display how much free space you have on your Dropbox account.

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.

Stream Type: Click the drop-down menu to select Substream (reduced quality) or Mainstream (high quality) video to be copied to the cloud.

To activate the cloud function:

1. In the Swann Security app, tap the "Menu" button (top left).

2. Tap "Dropbox". A message will appear. Tap "Authorize".

3. Tap "Sign in", input your Dropbox email address and password, and then tap "Sign in" (skip this step if you've signed in to your Dropbox account).

4. Tap "Allow". Your DVR is now authorized to use your Dropbox account.

5. With the cloud function enabled, you need to instruct your DVR to send alerts to the cloud (see page 24 - Alarm: Detection - Actions).

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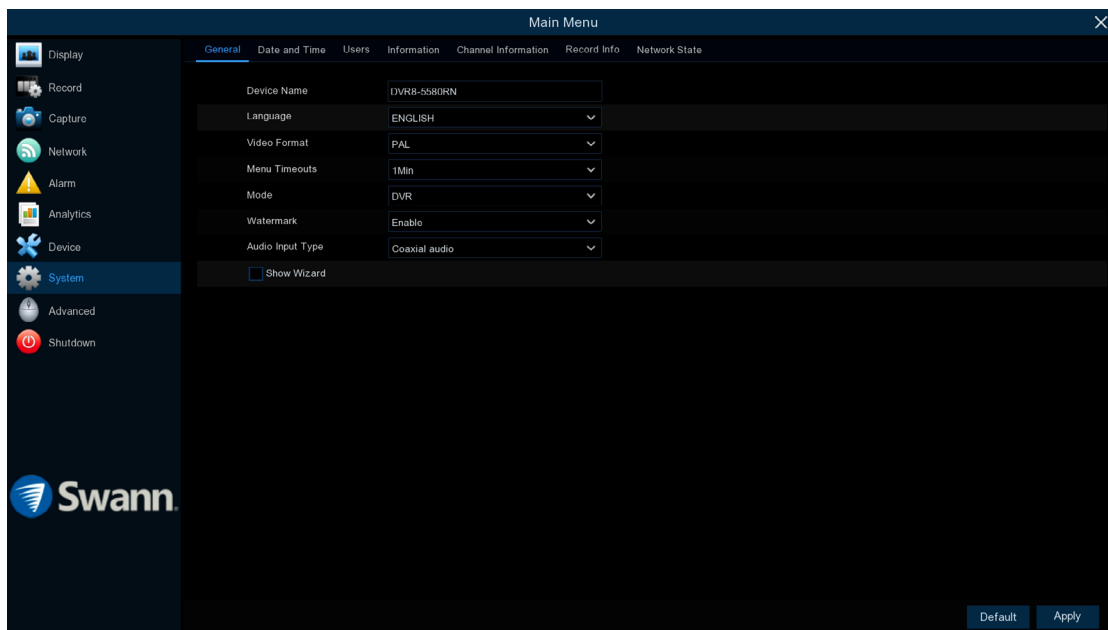
Device Name: Click the dialogue box to rename your DVR (if required).

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. If this isn't required, click the drop-down menu to disable it.

Audio Input Type: For cameras with a built-in microphone, leave the default setting (Coaxial audio). If you have an audio source connected to the audio input(s) on your DVR, change this to "RCA Audio".

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

System: Date and Time
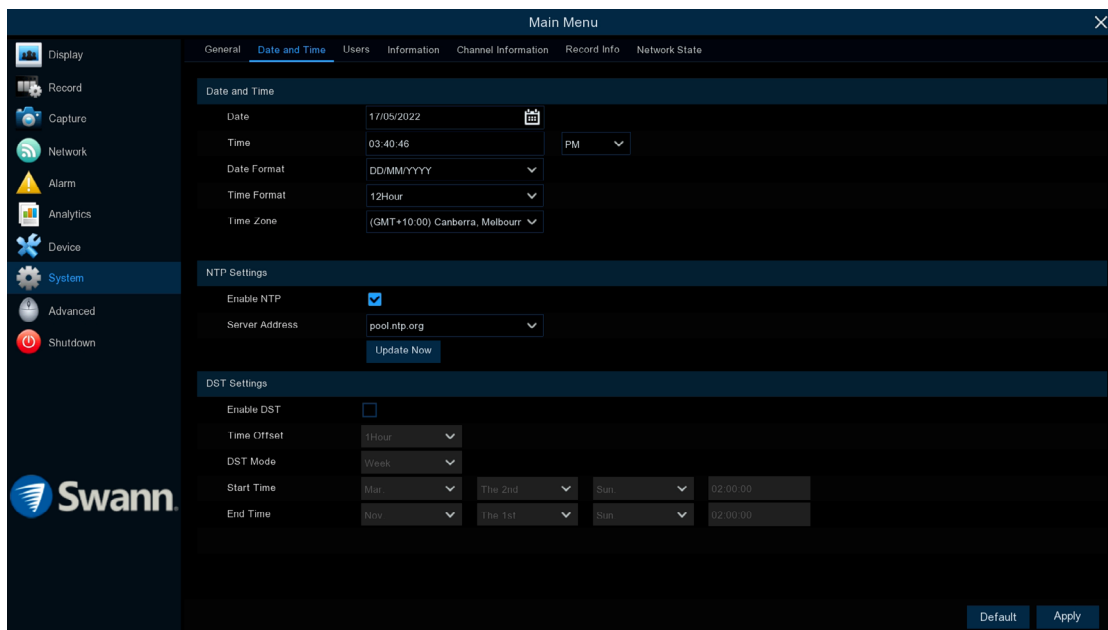
→ Click "Default" to revert to default settings.

→ 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 accurate and ensures correct time stamping when events occur.

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.
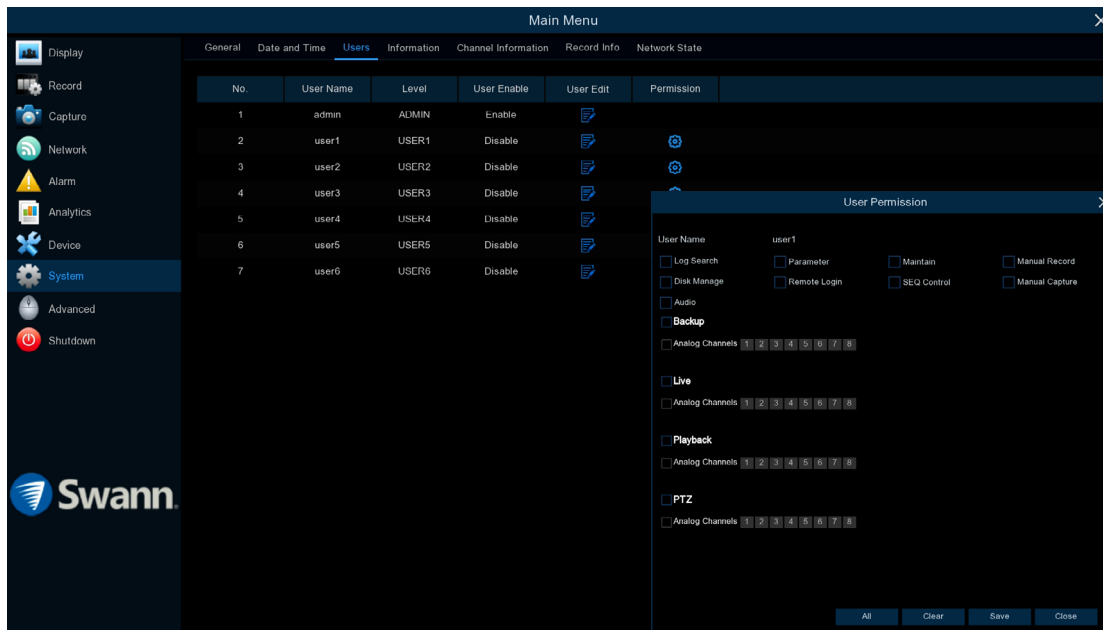
System: Users

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.

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.

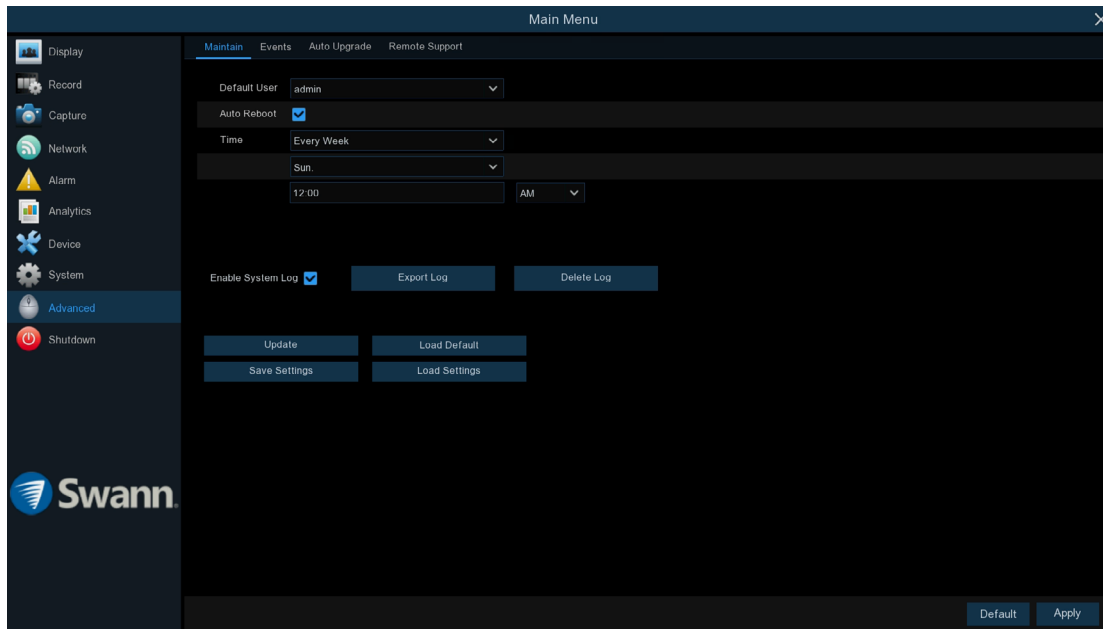To change permissions, click the "Permission" button then select which options you would like to enable. Click the "All" button to select all options. Click the "Save" button then click "OK" to confirm.

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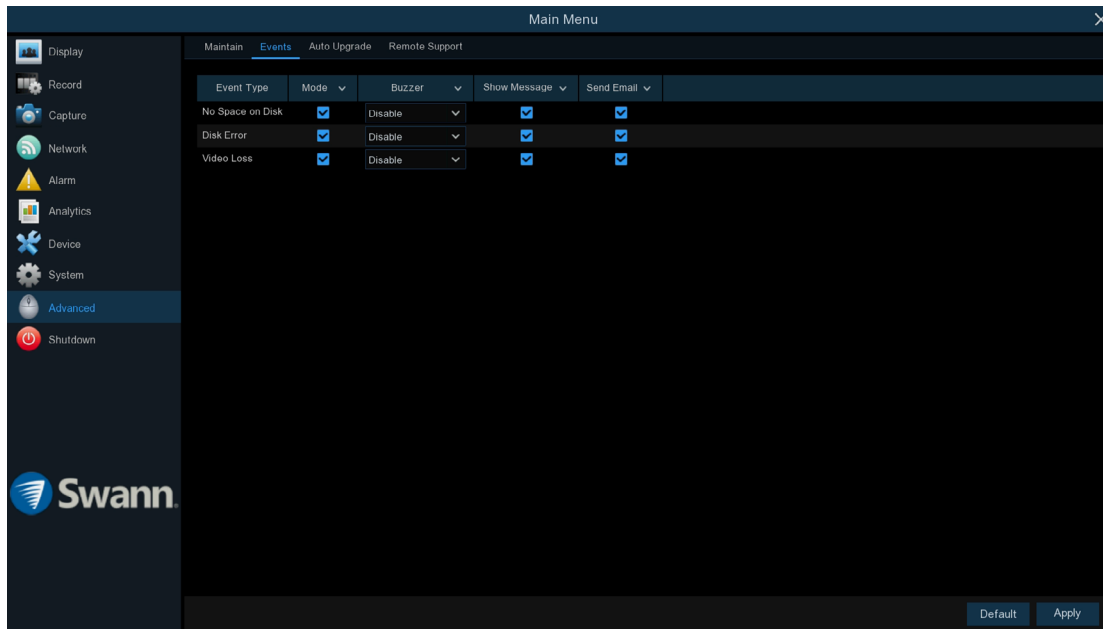
Whenever there is an event or if your DVR displays unusual behaviour, you can be alerted to in multiple ways such as receiving an email, displaying a message on-screen, receiving an alert in the Swann Security app and activating its internal buzzer. There are three event types that your DVR will detect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

→ Click "Default" to revert to default settings.

→ Click "Apply" to save settings.

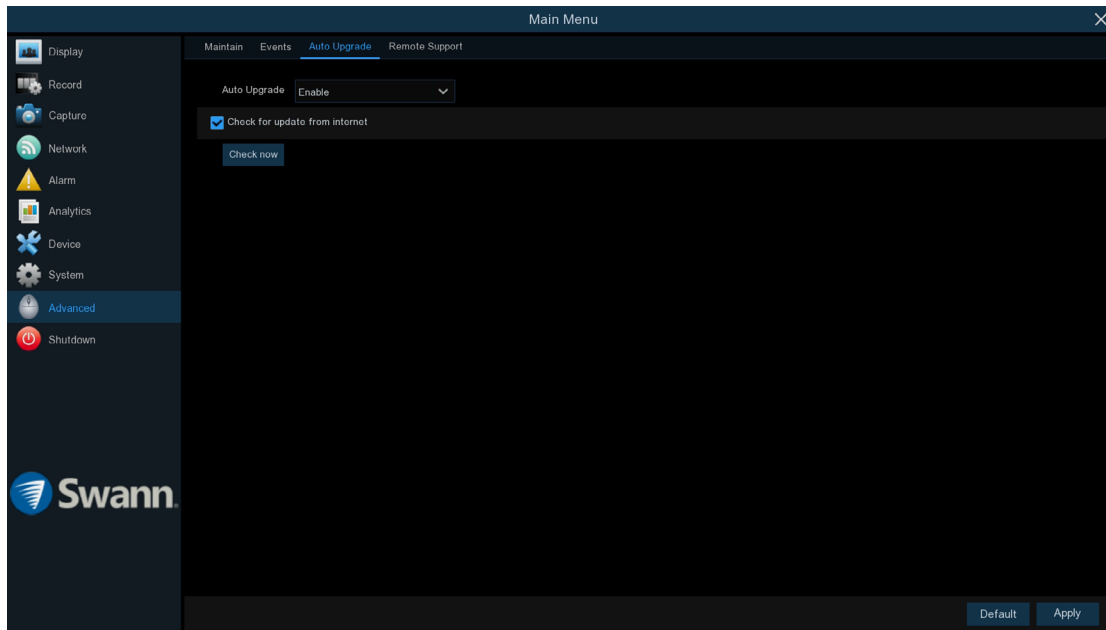**Enable:** Click the checkbox if you would like to disable alerts for the event available.

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.

Advanced: Remote Support
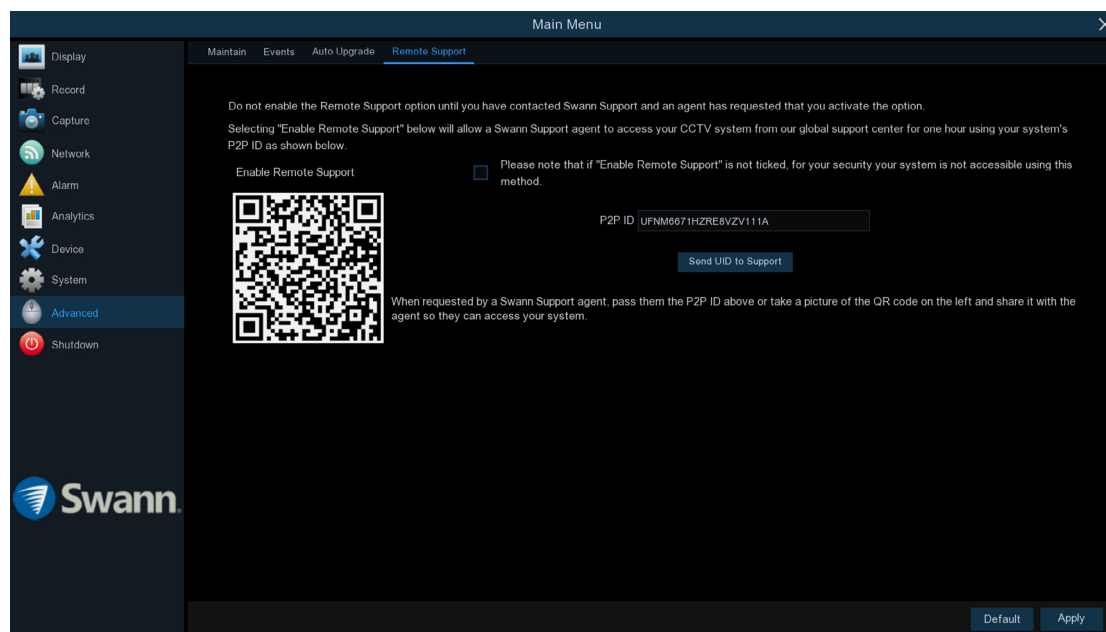
When calling for assistance, the Remote Support function can be used by our Swann Helpdesk & Technical Support staff, to remotely connect to your DVR. This will assist them in diagnosing any issues that you may be having. This function is not used in the day-to-day operation of your DVR.

System Status

The various status tabs give you an overview of the settings and options that have been selected for your DVR to function. Actions performed by your DVR and events detected are logged, which you can search and view. When calling 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: Information

You can scan the QR code to pair your DVR in the Swann Security app.

This tab displays technical information about your DVR as well as your device ID (P2P 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.

When calling 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.

Write down your MAC Address: _____

System: Channel Information & Record Info

Displays the Mainstream, Substream and the recording settings used for each camera connected (for Record Info, the settings will only be shown when one or more cameras are recording).

When calling 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

Displays the network settings used by your DVR.

When calling 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.

Search: Log
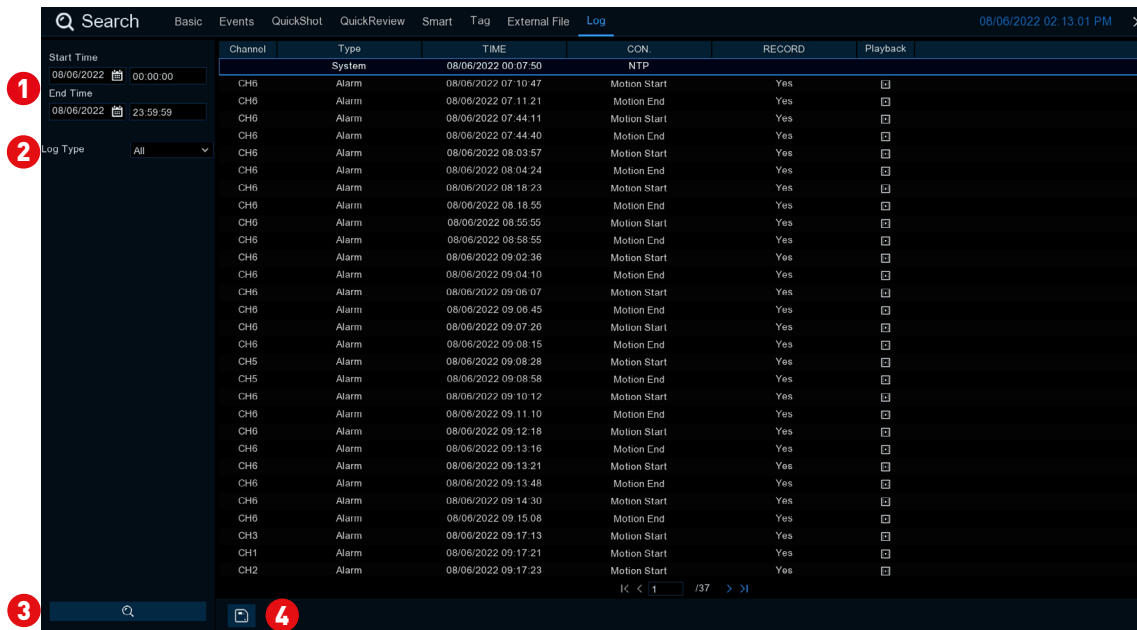
All actions and events that your DVR performs and detects are logged. These log files can be searched, viewed and copied to a USB flash drive for safekeeping.

1 Start/End Time: Click the calendar icon to select the month, year and date that you would like to search on. Click the dialogue box to enter a specific start and end time.

2 Log Type: Leave the default selection or click the drop-down menu to select a specific action that you would like to search for.

3 Search: Click this to display a list of log files that match your search criteria. Double-click a file to display information about that log.

4 Backup: Insert a USB flash drive to your DVR then click this to copy the log files that match your search criteria. You have the choice of formatting the flash drive or creating a new folder if required. Click "OK" to save then click "OK" again to close.

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.

Analytics: Are a series of functions that provide you with much greater control on your DVR or NVR detects motion. Some examples are drawing a detection line and applying a rule on which direction motion is detected or defining specific areas that you want to monitor for motion.

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.

Glossary

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.

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.

Dropbox: Is a file hosting service that allows you to store and share snapshots and video recordings from your DVR or NVR.

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 smartphone). It is referred to in this way rather than software as it is integral to the operation of the device.

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

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

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

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

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

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

Glossary

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.

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 Filtering: Is a great way to limit access to your network devices for specific groups of IP addresses.

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

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

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

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

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

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

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

NIC (Network Interface Controller): The hardware component that allows a device to connect to a network.

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.

PIR (Passive Infrared): Cameras that have a built-in PIR sensor can sense movement of warm objects including people, cars and animals.

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

Glossary

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.

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.

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.

Tag: Allows you to record information such as a person or object within a video. You can then commence a search so tags matching your criteria will be displayed. This is a faster method of identification when searching.

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

Glossary

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 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.

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.

Watermark: Is an identifying image (usually a logo) that is intentionally superimposed onto another image. Its purpose is to make it more difficult for the original image to be copied or used without permission.

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.

Wi-Fi: Is a wireless networking protocol that allows devices to communicate without direct cable connections.

Swann Security Video Management Software
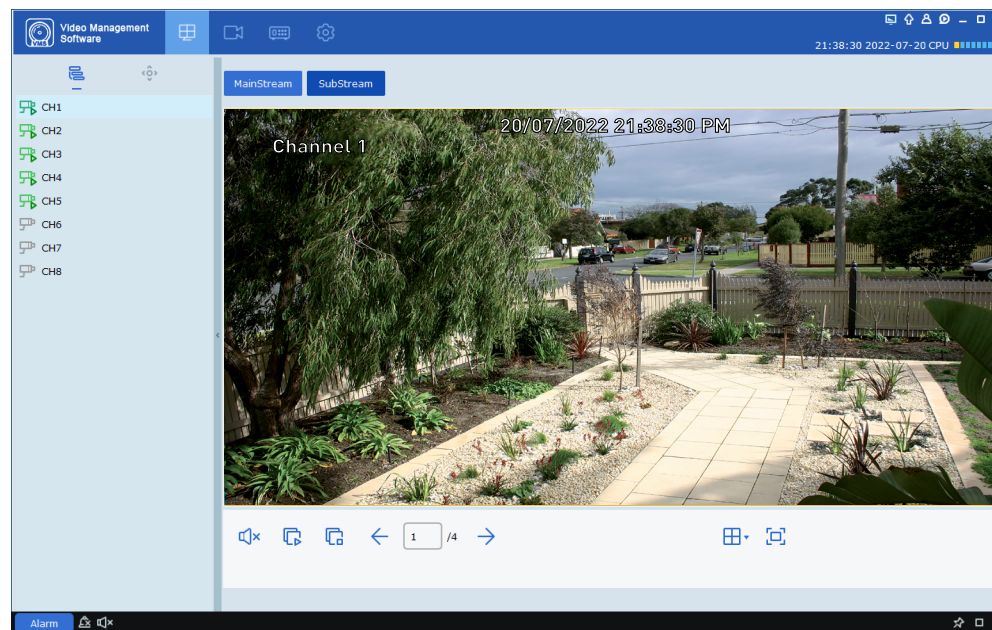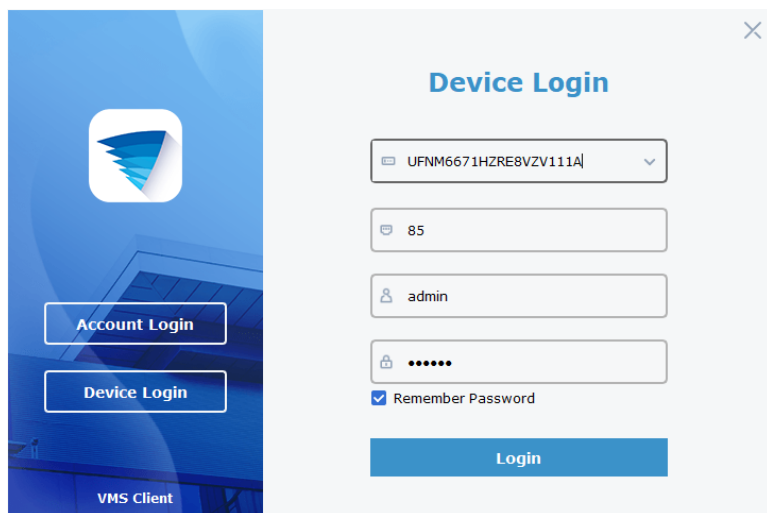
To view your cameras on your PC or Mac you can download and install the Swann Security Video Management Software (VMS).

When using your DVR's P2P ID, you can login either locally or remotely to view your cameras. The VMS interface has a look & feel very similar to how your DVR is displayed on your TV. The various functions and settings available on your DVR, can also be changed.

Click this link to access the download page and follow the on-screen instructions for installation.

Installing an Internal Hard Drive

1

2

3

4
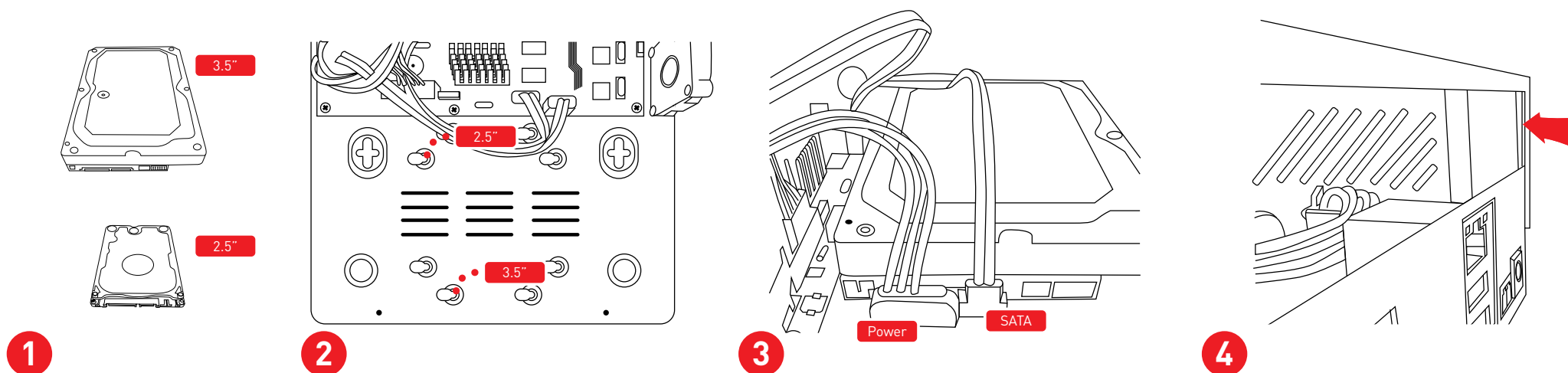
Your DVR supports recording to either a 3.5" SATA or a 2.5" SATA hard drive. The largest hard drive you can connect is 6TB (terabyte). We recommend that you purchase a drive that is surveillance rated, such as the Western Digital Purple™ and Seagate Skyhawk™ range of drives.

1 Place the DVR onto a flat surface and use a Phillips head screwdriver to remove the two screws located underneath and the screws on the left and right-hand sides. When finished, flip the DVR over and gently open the lid starting from the rear. Don't remove the lid fully, as there are data cables attached to the front USB ports and LEDs.

2 There are eight mounts available to secure the hard drive to the DVR. Four mounts are for a 3.5" drive, and the other four are for a 2.5" drive. To easily mount the hard drive, gently flip the drive over and screw in each supplied screw. Don't screw them all the way, just enough for each screw to hold its position. You're now ready to mount the drive.

3 Slide the hard drive into the relevant mounts, then connect the power and data (SATA) cable to the relevant connections on the drive. Hold the drive and carefully lift the DVR upwards to a 90-degree position. Use a Phillips head screwdriver to fasten each screw.

4 Place the lid back onto the DVR. There is a plastic groove at the rear of the lid. Make sure the groove that is on each side slides into the metal chassis when closing the lid. Fasten the remaining screws to finish.

5 To start using the hard drive, you need to format it first (see page 73 - Device: HDD).

Can I connect and record to a portable USB hard drive? Only the DVR-4480 model supports this feature. Connect a USB hard drive to the rear USB port marked "Storage" (the ports located at the front are for backup purposes only). Both self-powered and USB hard drives with their power adapter are compatible. Just be aware that not all USB hard drive models are supported.

Frequently Asked Questions

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

Yes, you can use the Search: External File function (see page 62).

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

The largest hard drive you can install is 6TB (terabyte). We recommend that you purchase a drive that is surveillance rated such as the Western Digital Purple™ and Seagate Skyhawk™ range of drives.

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

No, your DVR will only record to the internal hard drive that is installed.

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

Due to the nature of how portable USB hard drives operate, there is no guarantee that your drive, when connected to the DVR's USB port, will work. You'll have to give it a try. For backup purposes, we recommend using a USB flash drive.

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

To copy video recordings to a USB flash drive, use the Search: Events function (see page 54).

How do I save snapshots that are on my DVR?

To copy snapshots to a USB flash drive, use the Search: QuickShot function (see page 56).

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

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

My DVR has an audio input, what can I use this for?

As your DVR has a standard RCA audio input, any type of audio source that has a RCA audio output, can be connected. A microphone can also be connected providing it has its own power source (do a Google search on CCTV audio microphone).

How do I connect the audio output on my DVR?

Connection of the audio output isn't required when connecting your DVR to a TV using a HDMI cable. If you are using a monitor and VGA cable for display, you can connect the DVR's audio output to an amplifier that has a RCA audio input. This will allow you to hear audio that you may have connected to the DVR's audio input.

I have saved recordings to a USB flash drive to play on my Windows computer but it won't play in Windows Media Player, how can I play these?

Windows Media Player doesn't have the required codecs to play recordings from your DVR. We recommend using VLC media player as it has the required codecs to play a variety of different video formats. It's free to download from www.videolan.org.

When I search for events in Search: General I see an orange lock symbol on one of the cameras and I can only select four cameras, why can't I select the other cameras?

For playback of events, a maximum of four cameras can selected at any one time. By default, channels 1 to 4 are selected. To select other channels, click the "Channel" checkbox and select the other cameras to display for playback. When four cameras have been selected, the orange lock symbol will appear on one of the cameras.

Help & Resources

Visit Swann Support Center at 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

Tell us what you think!

We are constantly working to improve the quality of our documentation, and we would appreciate your feedback. Click here to complete a short survey.

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