

# **NVR/AHD/HVR/DVR User Manual**

**Version 1.2.2**

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# 1 PRODUCTION

Thank you for your purchase of our DVR/HDVR/NVR. To get the most out of your device(s), please read this *User Manual* thoroughly. This user manual covers all the models of our NVR, AHD Hybrid DVR and DVR.

## 1.1. Product Key Features

### Compression

- Analog channels support PAL/NTSC video input, and the recording resolution supports up to 960H
- Digital channels support 1M, 1.3M, 2M pixels IP camera, some models support up to 3M pixel IP camera.
- Video encoding parameters of each channel can be set separately, including frame rate and bit rate.
- Supports both composite stream and video only stream. Audio and video streams are strictly simultaneous.

### Monitoring

- Support VGA and HDMI video output. The display resolution supports up to 1080P.
- Supports 1/4/8/9/16 screen live view.
- Supports digital zoom on live view.
- Supports privacy mask.
- Supports PTZ preset and patrol.

### HDD Management

- Supports 1~8 internal SATA HDD(s) up to 4TB capacity.
- Supports 1~2 external eSATA HDD(s) up to 4TB capacity.
- Supports S.M.A.R.T. technology.
- Use pre-allocating hard disk management technology, and no disk fragments.

### Recording and Playback

- Supports cycle and non-cycle recording mode.
- Supports manual, continuous, and motion recording.
- Supports 8 recording time periods with separate recording types.
- Supports Pre-record and Post-record.
- Supports video data search and playback by channel number, recording type, time and event,
- Supports pause, rewind, play fast, play slow, skip forward, and skip backward when layback, locating in progress bar.

## **Backup**

- Supports USB device and network remote backup.

## **Alarm and Exception**

- Supports various alarm input such as hard disk full, network break, IP conflicted and hard disk error.
- Supports various alarm response such as camera recording, on screen warning, audible warning, send email, etc.

## **Network**

- Supports 10/100 adaptive network interface.
- Supports TCP/IP protocols, PPPoE, DHCP, DNS, DDNS, NTP, UPnP, ONVIF, RTSP etc.
- Supports remote search, playback and download video files.
- Supports remote configuration.
- Supports remote image capturing.
- Supports remote PTZ control.

## **Others**

- Supports front panel, mouse, IR control operation.
- Supports multi-level user management, each user can have individual DVR access rights.
- Powerful DVR log, including operation, alarm, information and exception log.

# **1.2. Front Panel Controls**

## **Panel 1:**






The controls on the front panel include:


1. **USB Ports:** Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
2. **IR Receiver:** Receiver for IR remote.
3. **POWER:** POWER indicator lights on when DVR is power on.
4. **HDD:** HDD indicator lights up when the hard drive is active. Flashes rapidly when recording or searching.

## Panel 2:



The controls on the front panel include:

1. **USB Ports:** Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
2. **POWER:** POWER indicator lights on when DVR is power on.
3. **HDD:** HDD indicator lights up when the hard drive is active. Flashes rapidly when recording.
4. **IR Receiver:** Receiver for IR remote.
5. **Function button:**
  - a)  Play / pause button is used for playback control
  - b)  ALL button is used to live-view all the channels
  - c)  Menu button is used to pop-up the main menu

- d)  Select button is used to confirm selection in any of the menu modes
6. **Direction button:** DIRECTION buttons are used to navigate between different fields and items in menus. In Preview mode, these buttons can be used to cycle through channels.

### Panel 3:



The controls on the front panel include:

1. **USB Ports:** Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
2. **Function button:**
  - a) Play / pause button is used for playback control
  - b) Display: Display button is used to change live-view layout
  - c) Menu: Menu button is used to pop-up the main menu
  - d) Select: Select button is used to confirm selection in any of the menu modes
3. **IR Receiver:** Receiver for IR remote.
4. **POWER:** POWER indicator lights on when DVR is power on.
5. **HDD:** HDD indicator lights up when the hard drive is active. Flashes rapidly when recording.
6. **Direction button:** DIRECTION buttons are used to navigate between different fields and items in menus. In Preview mode, these buttons can be used to cycle through channels.

## 1.3. USB Mouse

A regular 3-button (Left/Right/Scroll-wheel) USB mouse can also be used with this DVR. The buttons on the mouse corresponds to:

1. **Left Button:**
  - Single-Click: Select a component of a menu, such as a button or an input field.
  - Double-Click: Switch between single screen and multi-screen mode in Preview/ Playback mode.

- Click and Drag: Clicking and dragging the Left mouse button can be used to control the digital zoom area. It can also be used to change the live view channel sequence or setup the alarm areas.
2. **Right Button:**
    - Single-Click: Shows pop-up menu or exit current UI page.
  3. **Scroll-wheel:**
    - it's used to change the selected item for list control.

## 1.4. Soft Keyboard

When a mouse is used to perform task on the DVR, clicking on a text input field will bring up the Soft Keyboard.



The buttons on the soft keyboard represents:



**Lowercase:** Designates lowercase input is being used.



**Uppercase:** Designates uppercase input is being used.



**Backspace:** Delete the character in front of the cursor.



**Space:** Input spaces between letters.



**Enter:** Confirm selection.

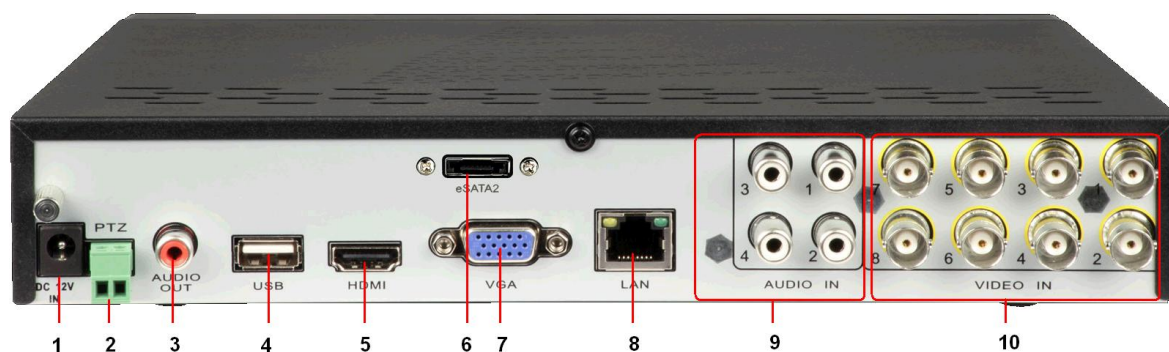


**ESC:** Exit out of Soft Keyboard.

## 1.5. Rear Panel Diagram

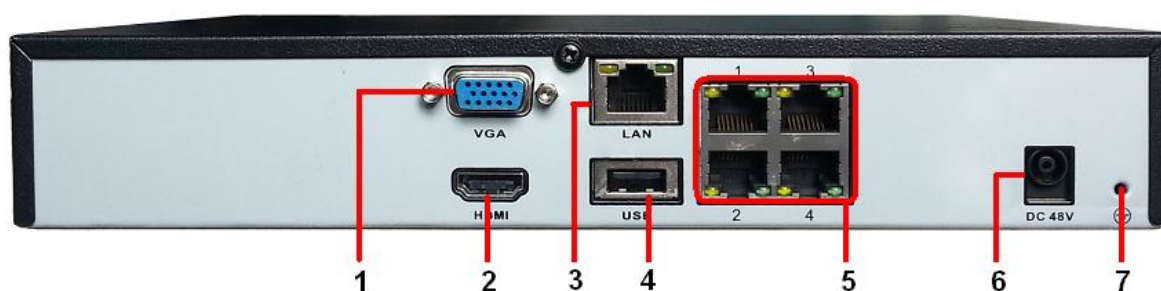
### 260mm casing DVR/HDVR:





No	Item	Description
1	DC POWER IN	12V DC power input
2	RS485	PTZ control port (Some models don't support this feature)
3	AUDIO OUT	RCA connectors for analog audio output.
4	USB interface	Connector for USB device.
5	HDMI OUTPUT	HDMI output, Display local video/Audio output and menu.
6	eSATA	eSATA port, connect eSATA HDD for recording or backup
7	VGA OUTPUT	DB9 connector for VGA output. Display local video output and menu.
8	LAN interface	Connector for LAN (Local Area Network).
9	AUDIO IN	RCA connectors for analog audio input.
10	VIDEO IN	BNC connector for analog video input.

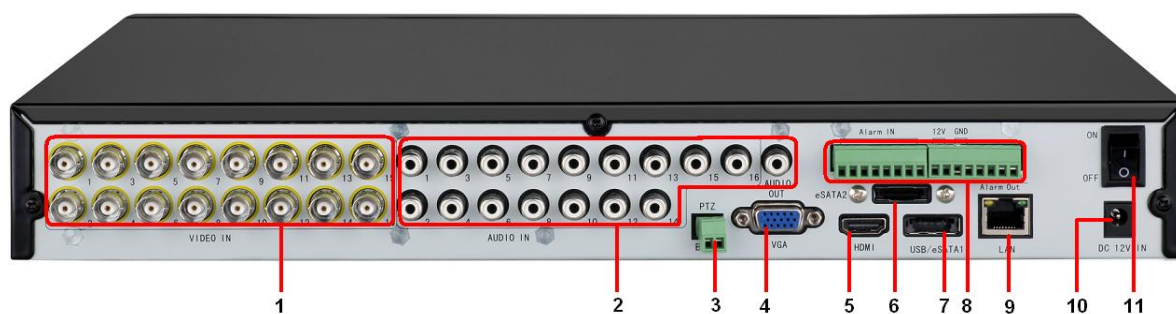
## 260mm casing NVR:



No	Item	Description
1	VGA OUTPUT	DB9 connector for VGA output. Display local video output and menu.
2	HDMI OUTPUT	HDMI output, Display local video/Audio output and menu.
3	LAN interface	Connector for LAN (Local Area Network).
4	USB interface	Connector for USB device.
5	LAN interface	4 ports LAN interface for IPCam connections

6	DC POWER IN	12V DC power input for non-PoE or 48V for PoE
7	Ground	Ground

## 405mm casing DVR/HDVR



No	Item	Description
1	VIDEO IN	BNC connector for analog video input.
2	AUDIO IN and OUT	RCA connectors for 16CH analog audio input and 1CH output
3	RS485	PTZ control port (Some models don't support this feature)
4	VGA OUTPUT	DB9 connector for VGA output. Display local video output and menu.
5	HDMI OUTPUT	HDMI output, Display local video/Audio output and menu.
6	eSATA2	eSATA port, connect eSATA HDD for recording
7	USB/eSATA1	USB/eSATA port, connect eSATA HDD for backup
8	Alarm	IO alarm, 8CH input and 4CH output
9	LAN interface	Connector for LAN (Local Area Network).
10	DC POWER IN	12V DC power input
11	Power switch	Power switch

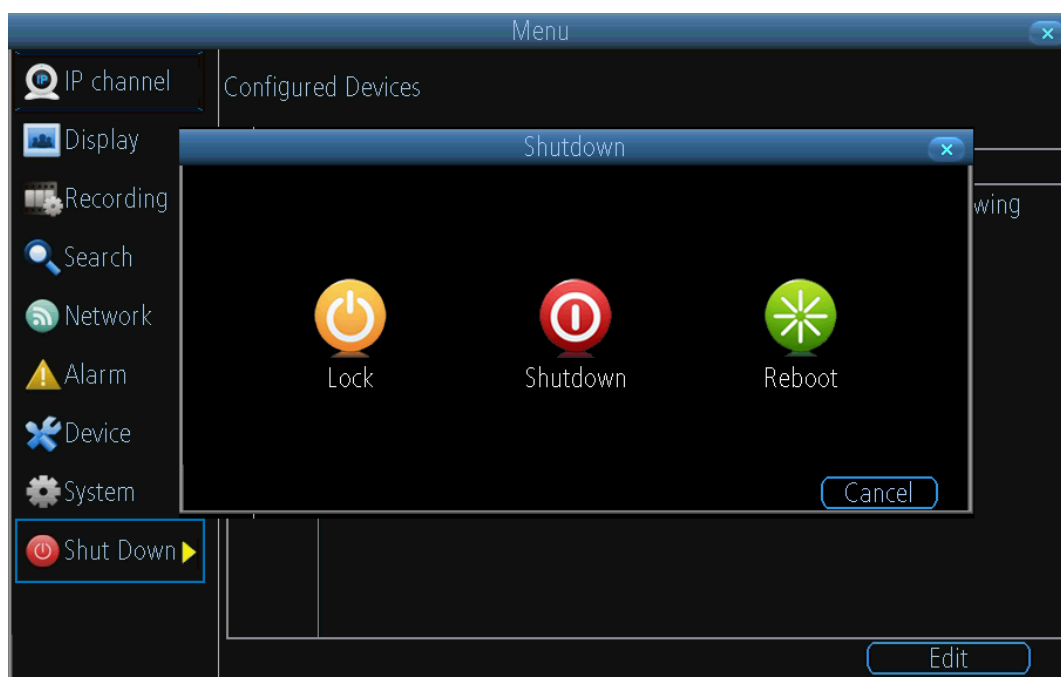
## 2 GETTING STARTED

### 2.1 Starting and Shutting Down Your DVR

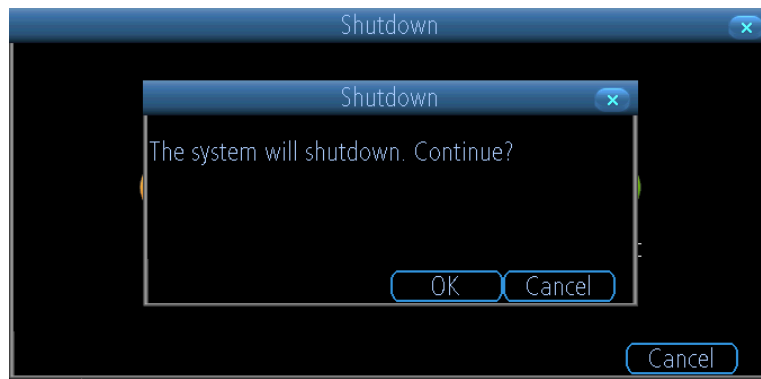
Proper startup and shutdown procedures are crucial to expanding the life of your DVR. To startup your DVR, please plug the power supply into an electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the unit. The Power indicator LED on the front panel should turn on, indicating the unit is receiving power.

To shutdown the DVR:

1. Enter the Shutdown menu, click on Menu > Shutdown.



2. Select the Shutdown button.
3. Click the OK button.



4. Unplug the power supply on the rear panel to safely shutting down the system.

## 2.2 Rebooting and Locking Your DVR

In the Shutdown menu, you may also reboot or lock your DVR. Locking your DVR will return you to the Live Preview mode, which will require user name and password to exit out of it. The Reboot button will reboot your DVR. To reboot or lock your DVR:

1. Enter the Shutdown menu by clicking Menu > Shutdown.
2. Select the Lock button to lock the DVR or the Reboot button to reboot the DVR.

## 3 LIVE VIEW

The Live Preview mode is automatically started after the DVR boots up. It is also at the very top of the menu hierarchy, thus hitting the ESC multiple times (depending on which menu you're on) will bring you to the Live Preview mode.

### 3.1. Understanding Live Preview Icons

There are multiple icons on each display in Live Preview mode to indicate different camera status. These icons include:



**Motion Detection Icon:** Indicates motion detection.



**IP Channel Icon:** Indicates this is IP channel, it could be 720P, 960P, 1080P.



**Record Icon:** Indicates the current channel is recording.



**Audio Icon:** Indicates the current channel is in audio output.



**Alarm Icon:** Indicate there is an alarm or exception.



**Video Disable Icon:** Indicate the preview of this channel is disabled.

### 3.2. Understanding Live Preview Toolbar

Click any channel in live view mode, a toolbar will be pop up:



1. Playback: click this icon, enter the menu of playback;
2. Audio: mute/unmute this channel;
3. PTZ: control the PTZ of this channel
4. Digital Zoom
5. Image parameter control: change the parameter of this camera

6. Channel configuration
7. Exit toolbar






### 3.3. Understanding Home Menu

Click the right-button of the mouse, the home menu will be pop up:

1. Home Icon: enter the main menu;
2. Single channel live view;
3. Four channels live view;
4. Eight channels live view;
5. Nine channels live view;
6. Next group live view;
7. Picture in picture mode;
8. Manual record;
9. Setup wizard

### 3.4. Using Digital Zoom

To use digital Zoom in Live Preview mode:

1. Click one channel on live view, the toolbar will be pop up;
2. Select Digital Zoom, enter digital zoom mode:
  - : To enlarge the picture 2 times for each click. 6 times at most;
  - : To shrink the enlarged picture till normal one;
  - : To enlarge the selected area to full screen;
  - : To turn the picture into normal size;
  - : Exit.

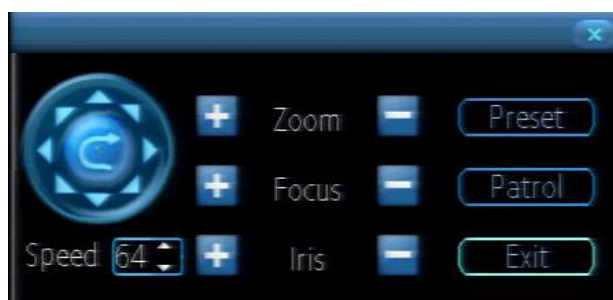
### 3.5. PTZ Control

Clicking the PTZ icon on the live-view toolbar will bring up the PTZ control panel.



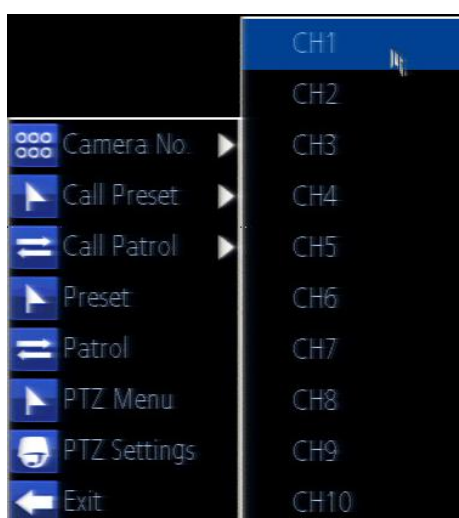
### 3.5.1 PTZ Presets, Patrols & Patterns

The controls on the PTZ panel include:



1. **Directional Pad/Auto-scan Buttons:** Controls the movements and directions of the PTZ. Center button is also used to start auto-scan of PTZ.
2. **Speed:** Adjusts the movement speed of the PTZ.
3. **Zoom:** Used to zoom in and out with the PTZ.
4. **Focus:** Used to adjust the focus of the PTZ.
5. **Iris:** Used to open up or close the iris of the PTZ.
6. **Preset:** A Preset is a position that the camera is in which is saved to memory to be retrieved later. Choose this button to enter preset configuration menu.
7. **Patrol:** Initiates patrol mode. You'll need to define a series of Preset points for the camera to patrol between. Choose this button to enter patrol configuration menu.
8. **Exit:** Closes the PTZ controls.

### 3.5.2 PTZ Context Menu



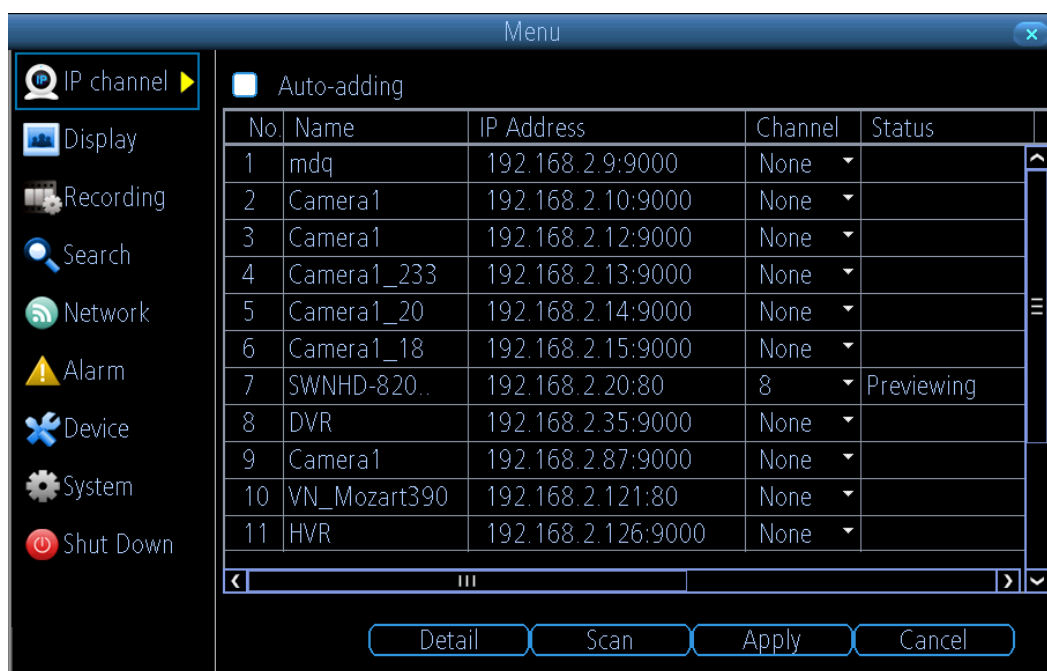
1. **Camera No:** Switch quickly between cameras.
2. **Call Preset:** Returns the camera to a Preset point.

3. **Call Patrol:** Initiates a patrol of your choice.
4. **Preset:** Defines a Preset point.
5. **Patrol:** Initiates or stops a patrol.
6. **PTZ Menu:** Toggles the appearance of the PTZ Control Menu onscreen. While the PTZ Control Menu is hidden, the DVR will still be in PTZ mode, and the context menu can still be opened via right-clicking the interface.
7. **PTZ Settings:** Opens the PTZ Settings menu, where you can adjust the control method for the camera.



## 4 IP Channel

The IP Channel menu enables you to view specific information about cameras that are currently connected to your DVR such as channel number, IP address and status.

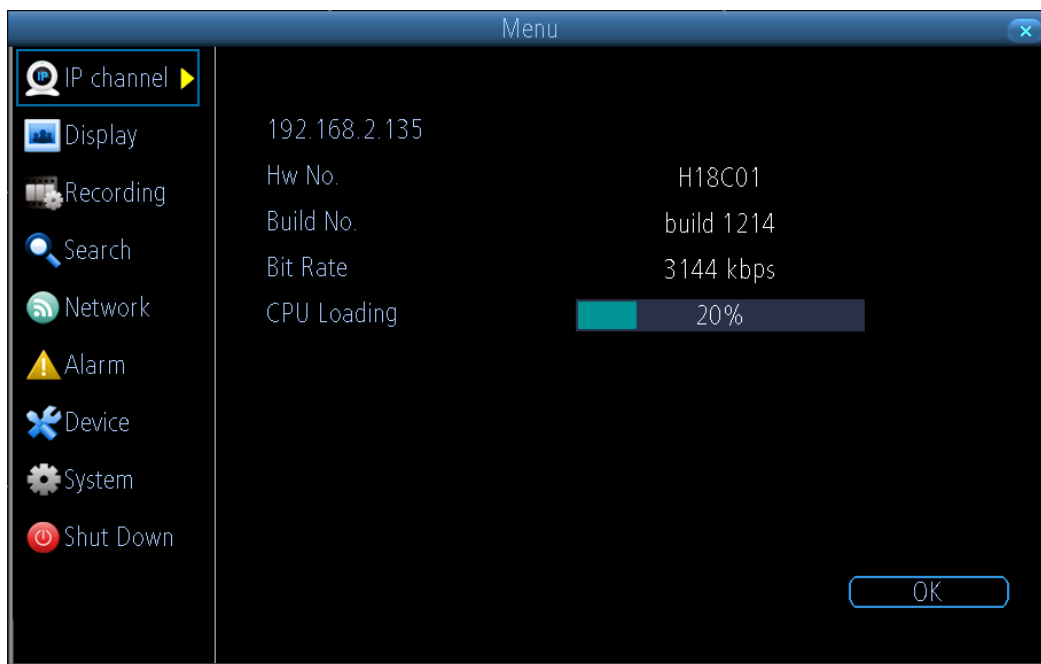


**Auto-adding:** If you check it, your DVR will automatically display video from cameras it has detected in your local area network. This option is disabled by default, so you have to manually add the IP cameras to your DVR.

**IP Camera list:** In this list, all the IP cameras in your local area network will be listed here automatically after you click the button of **Scan**.

- To add an IP camera to you DVR, please select an available channel to which you want to assign a camera from the channel drop-down list, and then input the user name and password. Also you can manually add an IP camera by inputting the IP address/port or RTSP URL, user name and password into the list. When you're finished, click the Apply button to save the new configuration.
- To delete an IP camera from your DVR, please select that IP camera and select **None** from the channel drop-down list. When you're finished, click the Apply button to save the new configuration.

**Detail:** if one IP camera is connected with your DVR, you can click this button to show this IP camera's status:



**Scan:** Click this button, all the IP cameras in your local area network will be listed.

## 5 DISPLAY SETTINGS

### 5.1. Camera Settings

**Camera** menu is where you can make adjustments to how the DVR displays the feed coming from your cameras. You can adjust aspects of each channel/camera, includes:



- **Camera No.:** Choose the camera / channel you want to edit here. The Camera No is the same thing as the number written on the rear panel next to the BNC socket used to connect the camera.
- **Camera Name:** Select a name for the camera you've selected. By default, all channels are named as the Camera No. field, but this can be set to anything you'd like up to 16 characters.
- **Display Camera Name:** When checked, the name you've selected for the camera/channel will be displayed on-screen as an overlay.
- **Record Date:** When checked, the date (as displayed) will be recorded directly on to your videos. This can be useful, as it creates an inseparable record of exactly when the footage was captured.
- **OSD Display Position:** Gives you access to a screen where you can easily set the exact positions of any overlayed text, such as the camera name and the date and time. You can simply select any item you want to move (such as the Channel Name and/or the Date and

Time) and click and drag it to the position you'd like it to be. To exit the OSD Display Position screen, press the right click button. A context menu will appear with two options: Save and Exit. To exit without saving, simply choose Exit. If you want to save your changes, choose **Save** first.

- **Disable Preview:** When checked, the live view of the channel you've selected will be disabled.
- **Image Settings:** Gives you access to change camera image, including brightness, contrast, saturation and hue
- **Mask:** When checked, allows you to create, place and shape a "privacy mask" which obscures part of the image on the associated channel.

## 5.2. Displays Output Settings

Live Preview displays can be customized to your own needs..



The settings available in this menu include:

- **Display resolution**
- **Transparency:** To adjust the menu transparency.
- **Mouse Sensitivity**
- **Border Adjustment:** To adjust the border of video output.
- **Audio:** Enables/disable audio output for the selected video output.

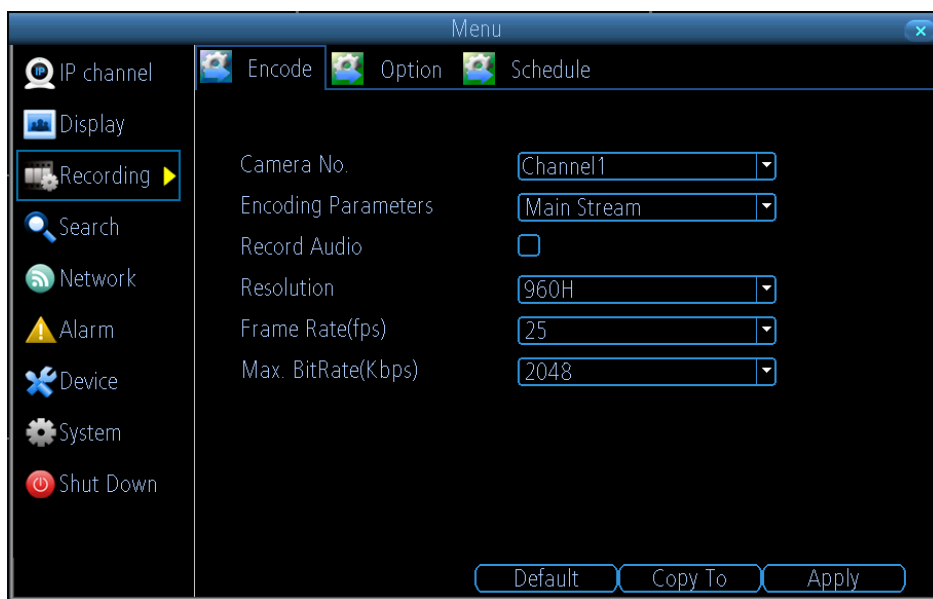
## 6 RECORD SETTINGS

There are multiple ways to setup your DVR for recording. They include setting up a recording schedule, triggering a recording by motion detection, and manually starting the recording.

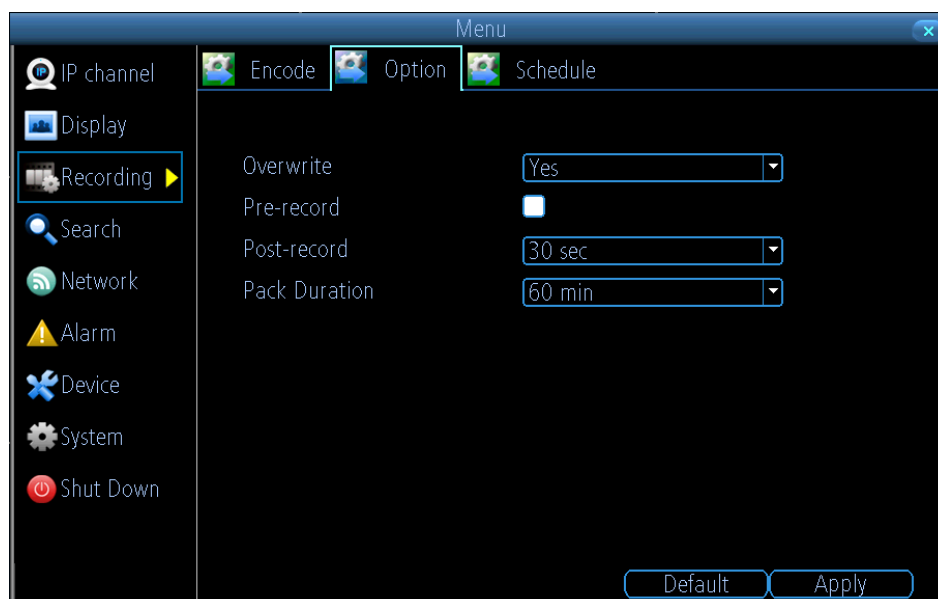
### 6.1. Initializing Record Settings

Before setting your DVR up for recording, certain settings should be configured first. The steps to configuring these settings are:

1. You should initialize the HDD through HDD management before proceeding.
2. Navigate to Main Menu > Recording. You will be taken to the Record Settings menu.



3. Select the camera you would to configure the settings for.
4. Configure settings for:
  - **Encoding Parameters:** Select main stream or sub stream.
  - **Record Audio:** Select to record audio of the camera.
  - **Resolution.**
  - **Frame Rate:** Select recordings frame rate.
  - **BitRate Type:** Select either Variable or Invariable bit rate.



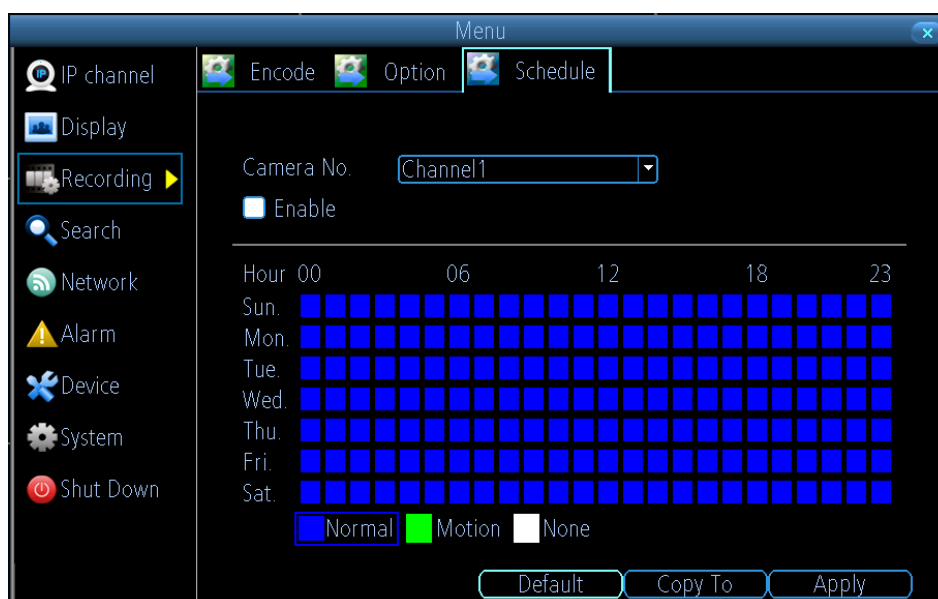
Set additional record settings:

- **Overwrite:** Sets to overwrite the HDD to continue recording when it is full.
- **Pre-record:** Sets the time in seconds to pre-record before the actual recording begins.
- **Post-record:** Sets the time in seconds to post-record after the actual recording ended.
- **Pack Duration:** set the time in seconds for how long the DVR will be recording before splitting the output file.

## 6.2. Scheduling a Recording

Scheduling a recording allows you to setup the DVR to only record when you want it to.

To setup a recording schedule:

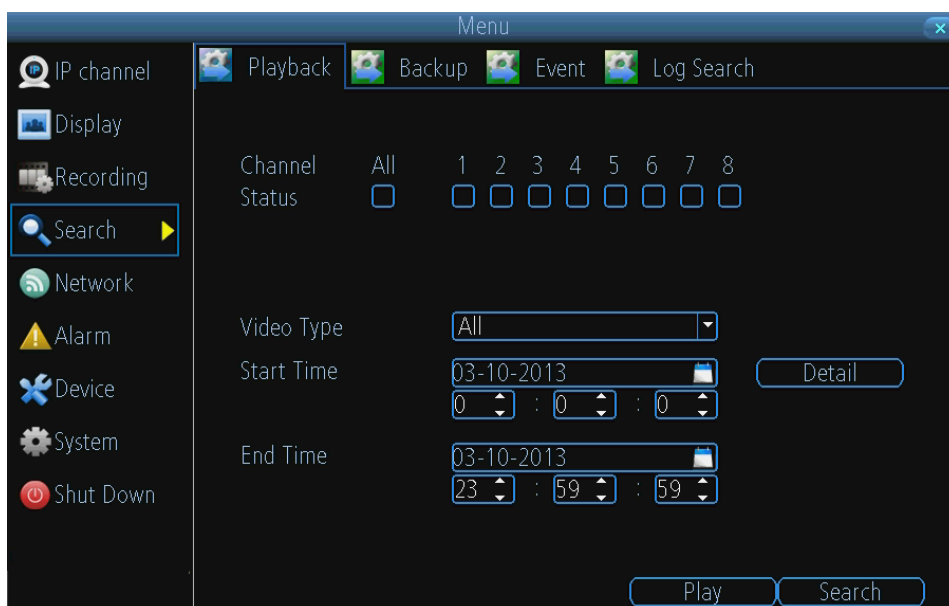


1. Enter the Record Settings menu (Main Menu > Recording > Schedule).
2. Select Camera to edit schedule for.
3. Click and check Enable Schedule.
4. Select recording Type. Recording type can be based on time and triggered by schedule, motion detection, motion or alarm and alarm. Motion detected and alarm triggered recordings are further explained in Configuring Alarms.
5. Repeat the steps for other cameras or copy settings from one channel to others by Copy To;
6. Click OK to finish and save the schedule settings.

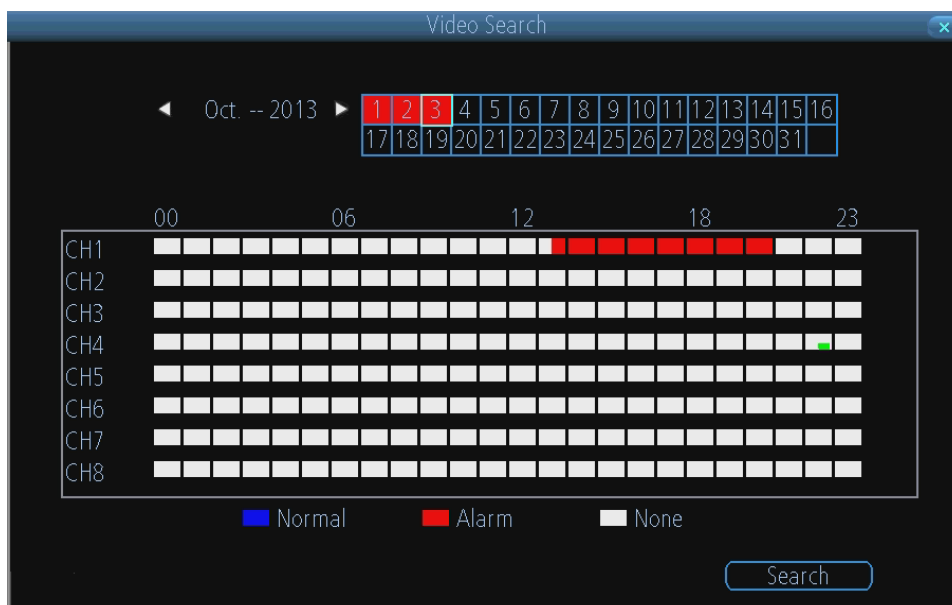
## 7 PLAYBACK AND BACKUP

### 7.1. Playback files from a video search

To initiate playback:



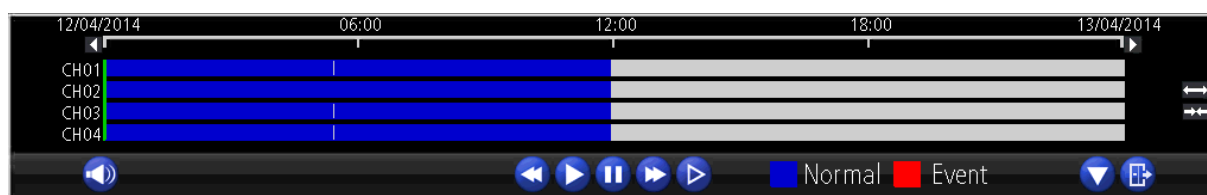
1. Select the channel you'd like to playback..
2. From the Video Type menu, select the type of video you'd like to playback. The options are Manual, Schedule, Motion and All.





3. Set your Start Date/Time and your End Date/Time. If you want to see a graphical representation of when recordings were made and what recording mode triggered them, choose Details.
4. Select Search.
5. Choose which file you want to play back for the file list;
6. Choose which camera you'd like to view the video from.
7. To initiate playback, select Play.

## 7.2. Understanding the Playback Interface



**Audio on/off:** Select to open or close the audio;



**Fast backwards:** Select to rewind recording files at the speed of x2, x4, x8, x16;



**Play;** Select to return to normal speed to playback files;



**Pause / Single Frame:** Select to pause or play in single frame;



**Fast Forwards:** Select to play the recording files forward at the speed of x2, x4, x8, x16;



**Slow Forwards:** Select to play the recording files forward at the speed of x1/2, 1/4, 1/8, 1/16;



**Hide;** Select to hide the play control panel;



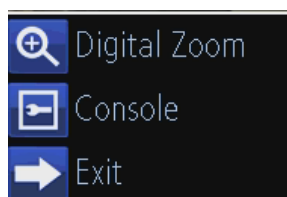
**Exit;** Select to exit playback;



**Zoom out the time**



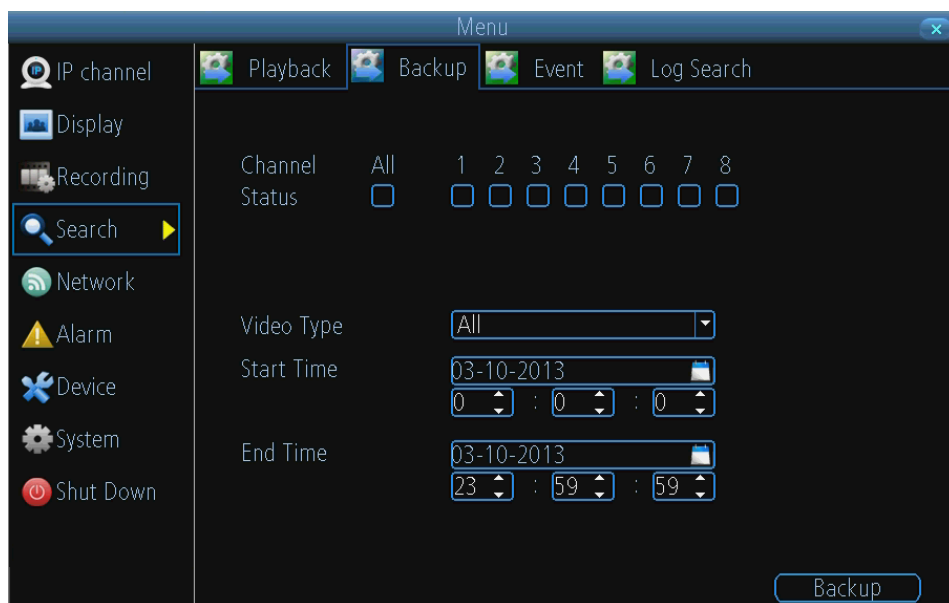
**Zoom in the time**



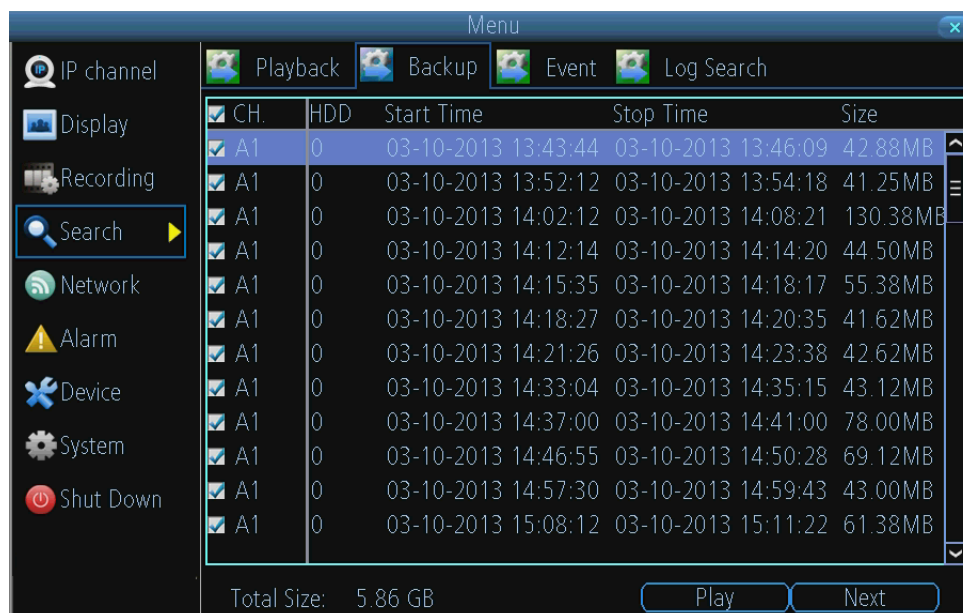
**Pop Up menu:** supports digital zoom, show/hide the console and exit playback.

## 7.3. Backup the recorded file

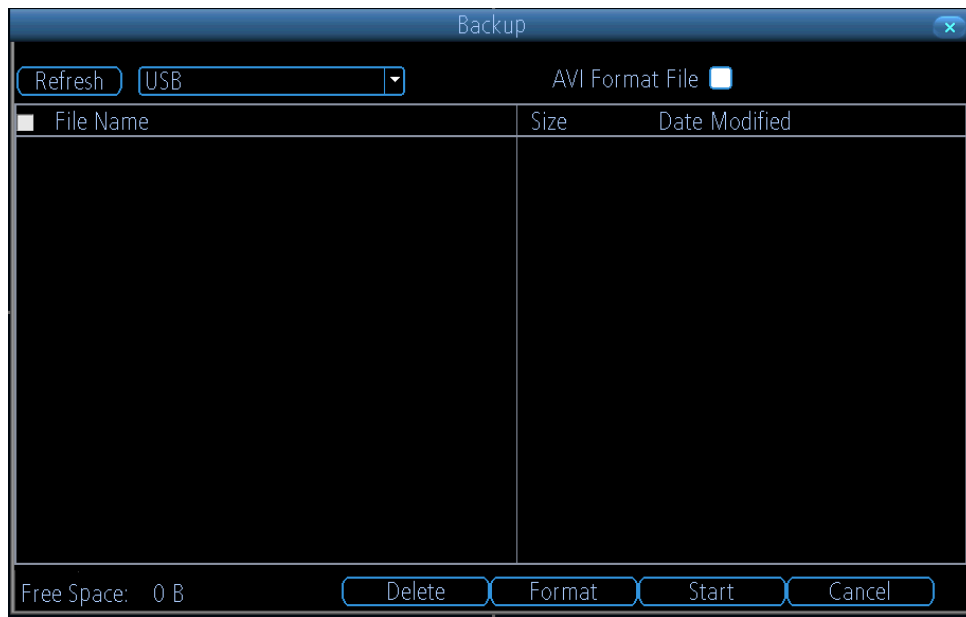
To backup the recorded files:



1. Select the channel you'd like to backup.
2. From the Video Type menu, select the type of video you'd like to playback. The options are Manual, Schedule, Motion and All.
3. Set your Start Date/Time and your End Date/Time
4. Select Backup, the backup file list will be shown.



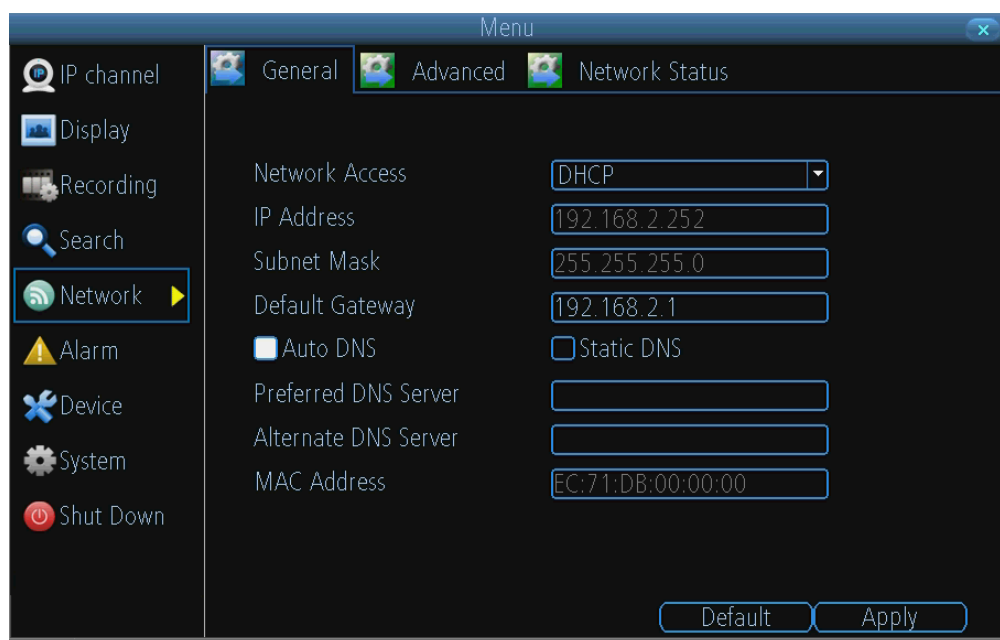
5. Select the file(s) to be backup, and click Next;



6. Click Refresh to look for USB devices to which recorded files can be backed up;
7. Click start to begin the backup.

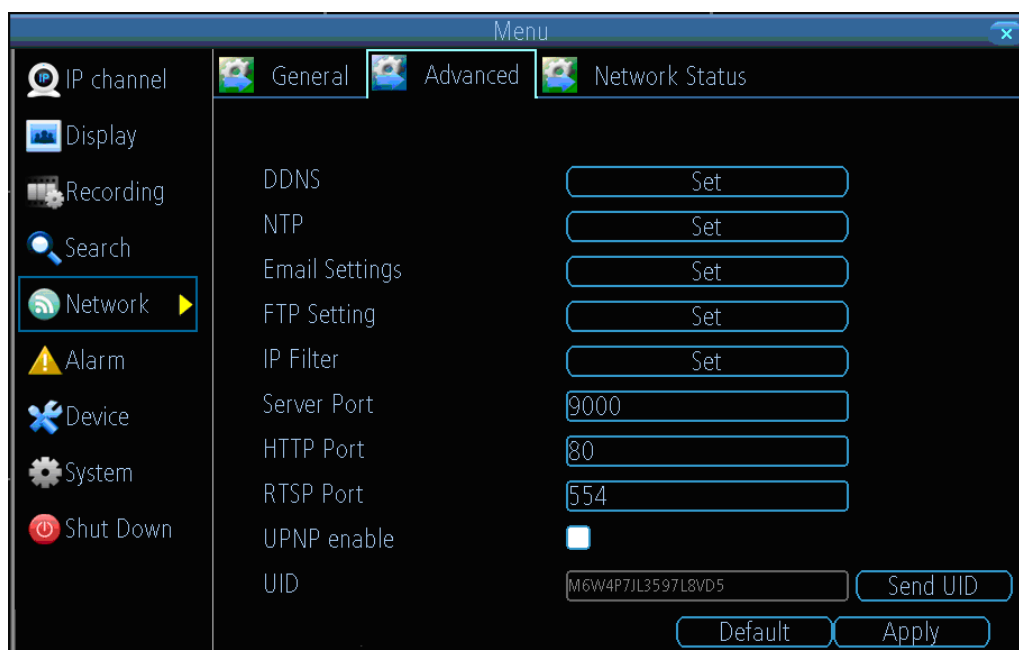
## 8 NETWORK SETTINGS

### 8.1 Configuring General Settings



1. **Network Access:** Here you can choose between the three different types of networks that the DVR can be connected to. The three types of networks are:
  - 1) **DHCP:** DHCP (Dynamic Host Configuration Protocol) is a system where one device on your network (usually a router) will automatically assign IP addresses to devices connected to the network.
  - 2) **STATIC:** Static networks require all devices to have their IP addresses manually defined, as there is no device dedicated to automatically assigning addresses.
  - 3) **PPPoE:** An advanced protocol that allows the NVR to be more directly connected via a DSL modem. This is an option for advanced users only.
2. If you select Static in Network Access, you will need to input IP Address, Subnet Mask, Default Gateway and DNS information.

## 8.2 Configuring Advanced Settings

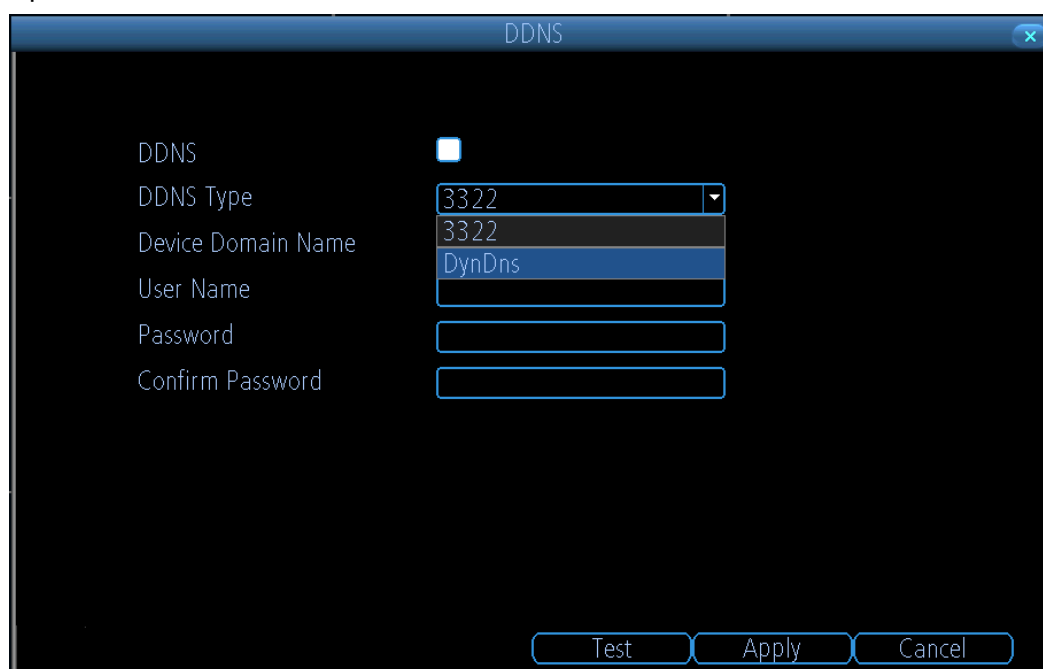


1. **DDNS:** The place to configure the DVR to automatically update a dynamic DNS service. If you want to remotely access the DVR via the Internet, you'll probably need to configure a DDNS account.
2. **NTP:** Network Time Protocol. If you've got the DVR connected to the Internet, you can have it automatically sync time with an online server.
3. **Email Settings:** Where you can configure the DVR to work with an email account of your choice. This must be correctly configured for the DVR's auto-email feature to work.
4. **FTP Settings:** DVR supports to upload live-view streaming or recording file to FTP server. Here you can configure the FTP server information and the schedule for uploading.
5. **IP Filter:** An advanced feature which allows you to exercise precise control over what devices/IP address(es) are allowed to communicate with the DVR and which are not. Recommended for advanced users only.
6. **Server Port:** This is the port that the DVR will use to send information through. When you access your DVR from web browser or client software, you need to input the server port.
7. **HTTP Port:** This is the port through which you will be able to log in to the DVR via web browser.
8. **RTSP Port:** This is the port through which you will be able to live-view the DVR via RTSP client software.
9. **UPnP:** UPnP makes configuring your network easier and faster. To use the UPnP setting on the DVR, you'll need a router which supports this feature, with UPnP enabled.

10. **UID:** The DVR's Unique Identifier code for P2P. For convenience, you can have this code sent to your email account by clicking the Send UID button(provided that you've already set up your email account)

## 8.2.1 DDNS

To setup DDNS:



The screenshot shows a web-based configuration window titled "DDNS" with a close button (X) in the top right corner. The window contains the following fields and controls:

- DDNS:** A checkbox that is currently unchecked.
- DDNS Type:** A dropdown menu with "3322" selected.
- Device Domain Name:** A text input field containing "3322".
- User Name:** A text input field containing "DynDns".
- Password:** An empty text input field.
- Confirm Password:** An empty text input field.

At the bottom of the window, there are three buttons: "Test", "Apply", and "Cancel".

1. Check the **DDNS** checkbox to enable feature.
2. Select DDNS Type.
3. Input the user name and password

## 8.2.2 NTP

A Network Time Protocol (NTP) Server may also be setup on your DVR to keep the date and time current and accurate.

NTP

Auto Sync ☐

Synchronize Every  Minutes

NTP Server

NTP Port

Sync Apply Cancel

1. **Auto Sync:** Enable auto-sync, your DVR will automatically sync up the time with the NTP server.
2. **Synchronize Every:** When you enable Auto Sync, here you can define the time in minutes of how often the synchronization should be.
3. **NTP Server and NTP Port:** NTP server IP address and port.

### 8.2.3 E-mail Settings

To configure E-mail settings:

Email Settings

Enable SSL or TLS ☐

SMTP Server  Other ☐

SMTP Port

Sender Address

Sender Password

Recipient Address 1

Recipient Address 2

Recipient Address 3

Attach Picture ☐

Interval

Test Apply Cancel

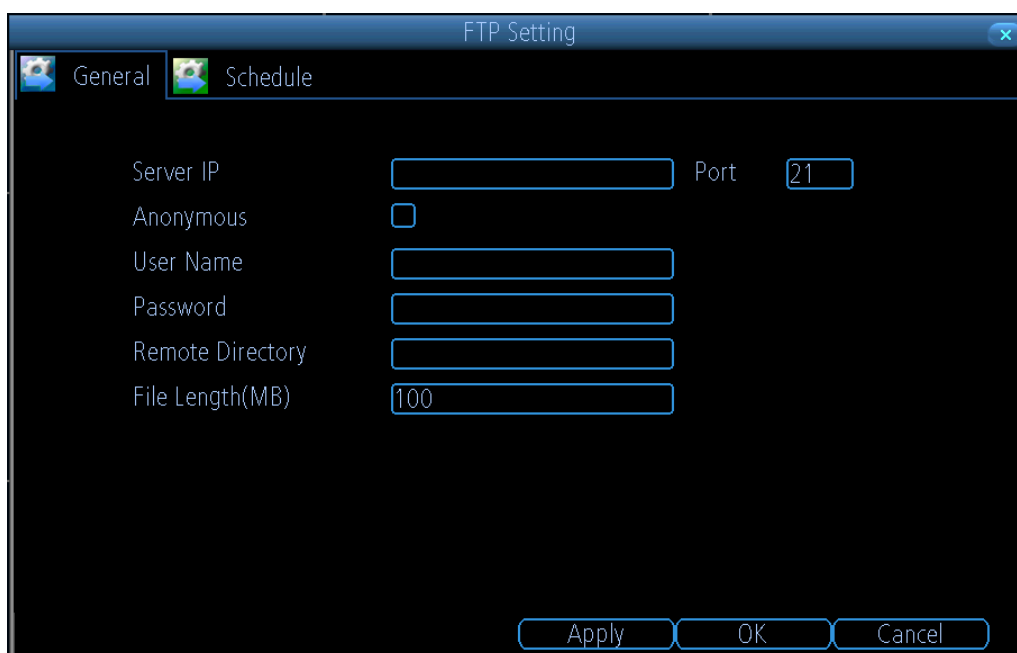
1. Enter e-mail settings.

2. Click the **Test** button to test e-mail settings.
3. Select **Attached Picture** if you want to send email with alarm images, the interval of two adjacent pictures is configurable.

## 8.2.4 FTP Settings

FTP is used to upload streaming to your FTP server. You can set up an uploading schedule, which triggered by time, motion detection, or/and alarm.

To configure FTP settings:

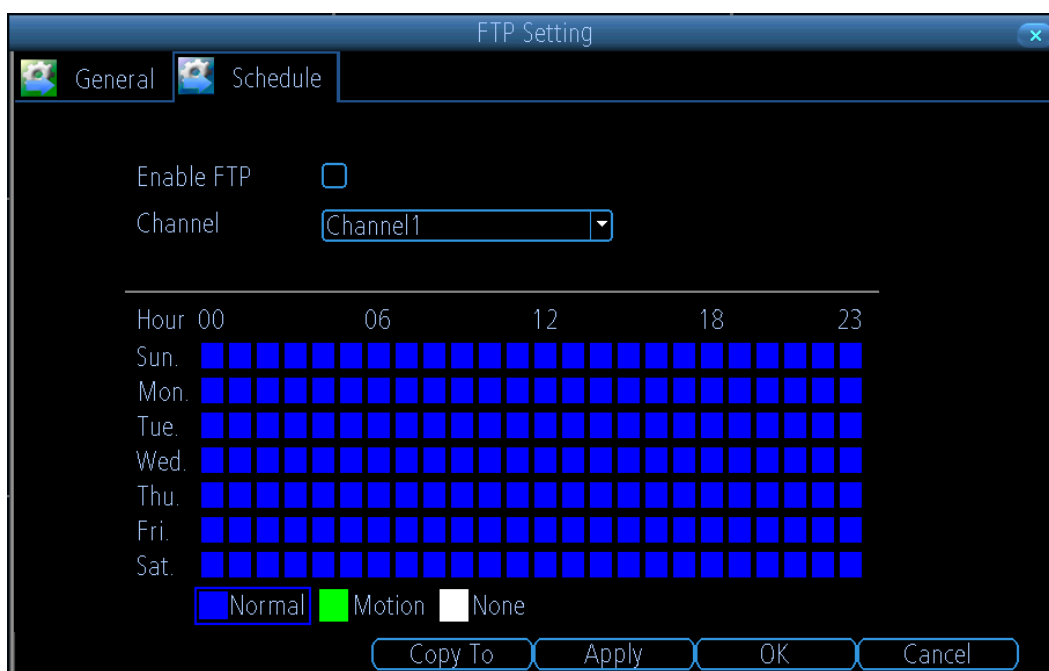


The screenshot shows the 'FTP Setting' dialog box with the 'General' tab selected. The 'Schedule' tab is also visible. The 'General' tab contains the following fields:

- Server IP: [Empty text box]
- Port: [21]
- Anonymous: ☐
- User Name: [Empty text box]
- Password: [Empty text box]
- Remote Directory: [Empty text box]
- File Length(MB): [100]

At the bottom of the dialog box are three buttons: 'Apply', 'OK', and 'Cancel'.

1. Configure FTP server settings.



The screenshot shows the 'FTP Setting' dialog box with the 'Schedule' tab selected. The 'General' tab is also visible. The 'Schedule' tab contains the following fields and controls:

- Enable FTP: ☐
- Channel: [Channel1]
- Hour: 00, 06, 12, 18, 23
- Sun. [Blue square]
- Mon. [Blue square]
- Tue. [Blue square]
- Wed. [Blue square]
- Thu. [Blue square]
- Fri. [Blue square]
- Sat. [Blue square]
- Legend: [Blue square] Normal [Green square] Motion [White square] None

At the bottom of the dialog box are four buttons: 'Copy To', 'Apply', 'OK', and 'Cancel'.



## 2. Configure the uploading schedule.

There are multiple icons in Live Preview mode to indicate FTP uploading status when FTP uploading is triggered. These icons include:



This icon indicates the DVR is uploading the streaming of this channel, and it work very well.



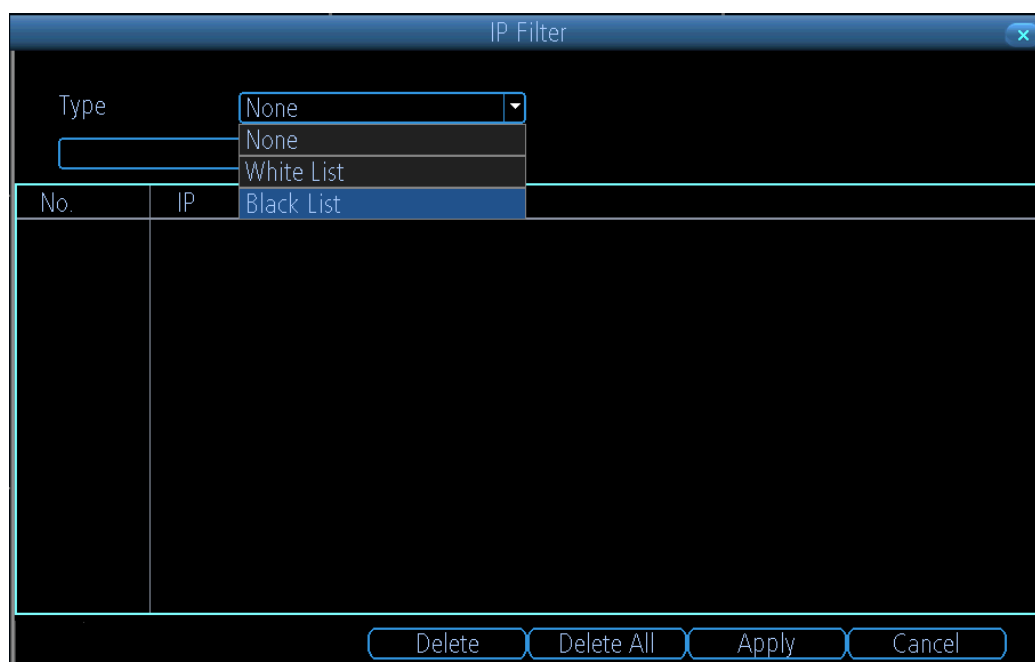
This icon indicates the DVR is uploading the streaming of this channel, but some streaming packets are lost. You should check the network status and FTP server status.



This icon indicates the DVR is trying to upload the streaming of this channel, but it failed. You should check FTP server configuration, network, and server.

## 8.2.4 IP Filter

IP filter is used to manage the remote access to your DVR. The management is based on the IP address of remote visitor.

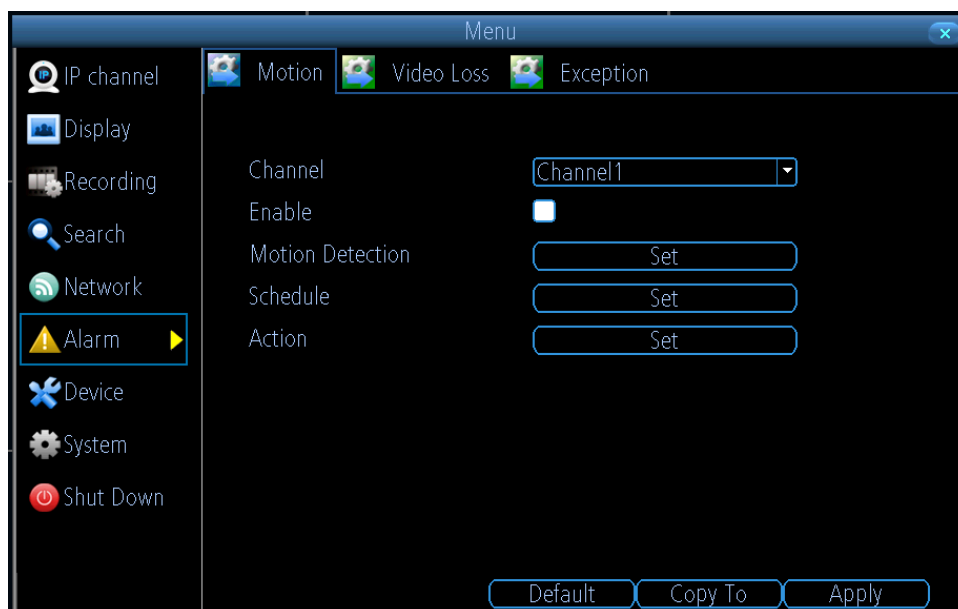


1. **White List:** If you select the white list, only the listed IP address can connect your DVR. While
2. **Black List:** If you select black list, the listed IP address can not connect your DVR.
3. **None:** If you want to disable this function, please select NONE for restricted type. Then any IP can have access to the DVR.

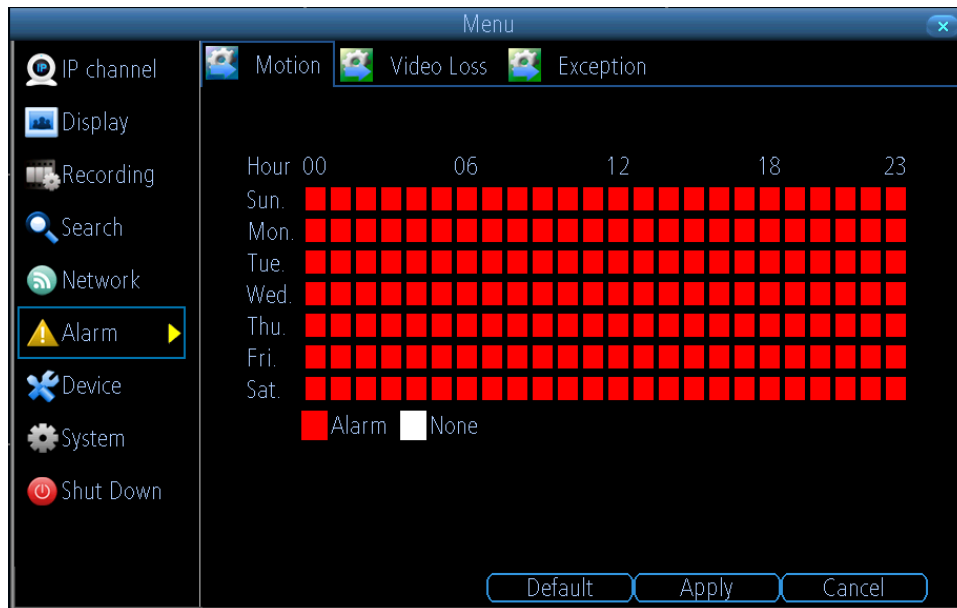
## 9 ALARM SETTINGS

### 9.1 Motion Detection

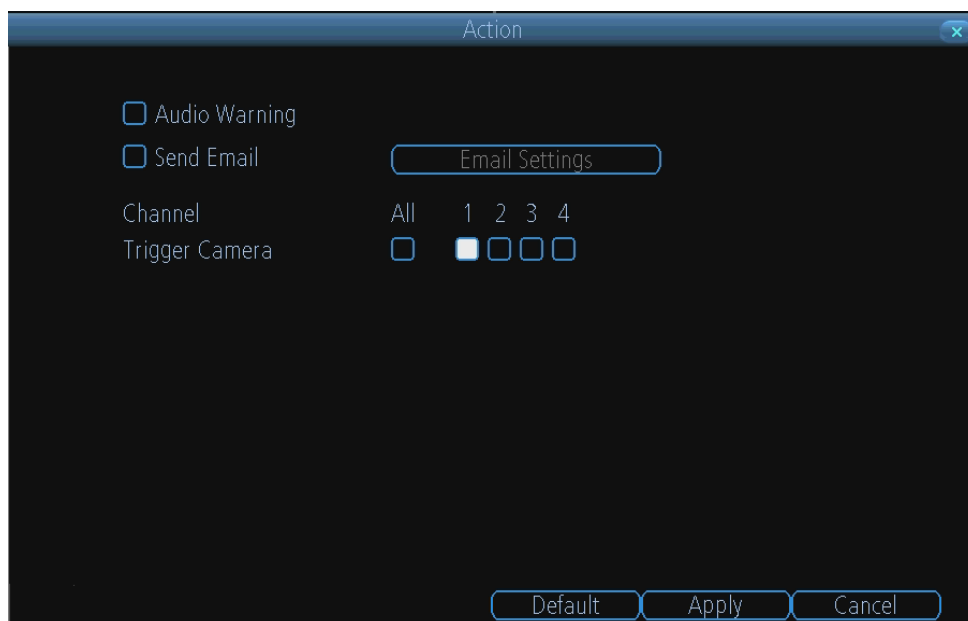
Set up properly, using motion detected recording will increase the number of days your DVR is able to record. It will only record relevant events rather than recording everything, making searching for an event easier. To set up motion detection:



1. Select the channel you'd like to configure.
2. Check the checkbox of **Enable** to enable Motion Detection.
3. Click the applicable **Set** button of **Motion Detection** to setup the motion detection area and sensitivity for that channel.
4. Configure the schedule for motion detection. User can define when it's armed or disarmed during 7x24.

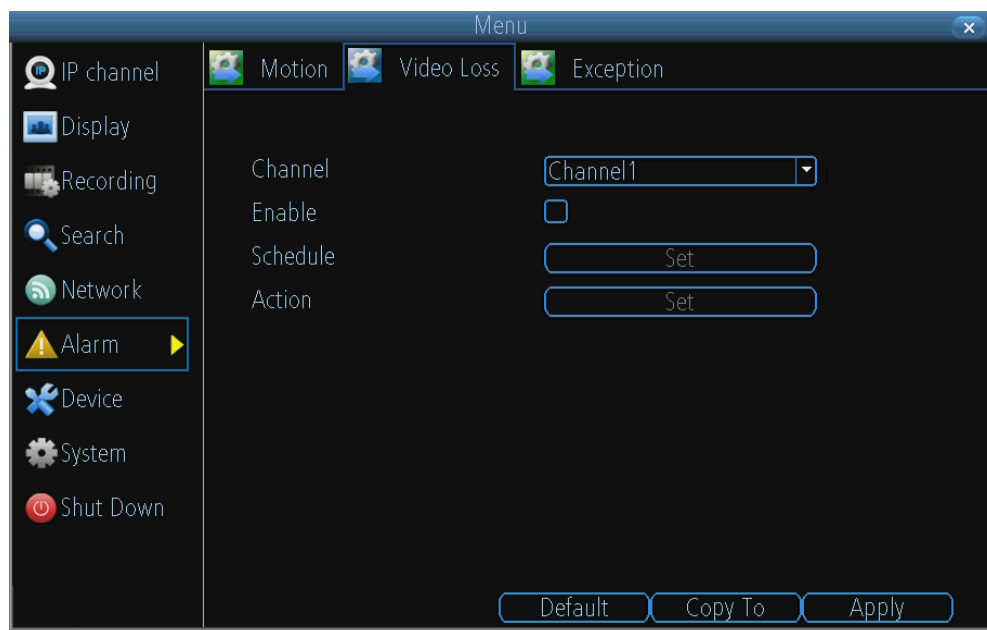


5. Configure the Action User can define what will happen when the camera detects motion. The actions include turn on the buzzer, send email and trigger recording.



## 9.2 Detecting Video Loss

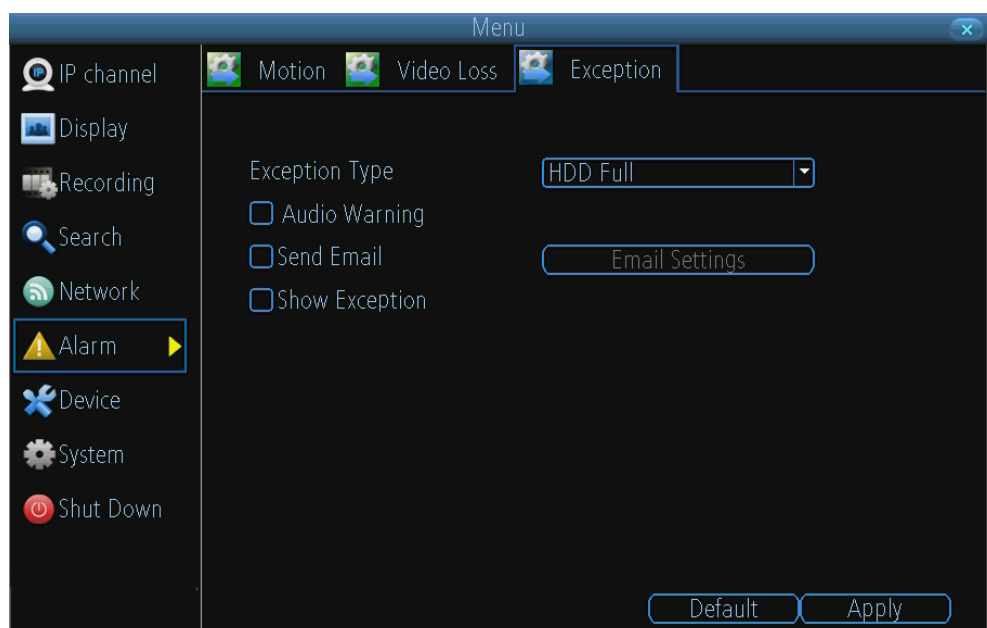
Video Loss is regarded as a potential alarm event, and is considered to occur any time that the DVR doesn't receive an active video signal on any of its inputs. The default behavior of the DVR, when a channel has no incoming video signal, is simply to display "Video Loss" on a black background over the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



1. **Channel:** Which channel/camera you'd like to set the Video Loss behavior for.
2. **Enable:** Whether the selected channel has video loss monitoring active or not.
3. **Schedule:** Alters when the current Video Loss Action will be active.
4. **Action:** The action you'd like the NVR to take when this event occurs. It's set in the same way as the Action for any other event.

## 9.3 Detecting Exception

Setting exceptions allow the DVR to alert you when irregular events occur. These events include:



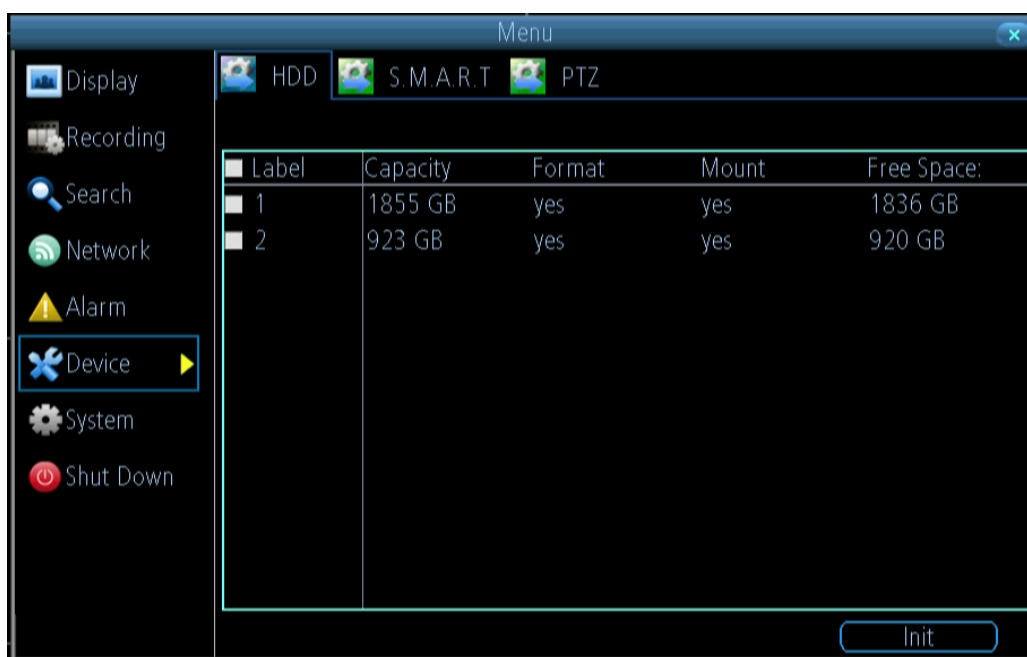
1. **HDD Full:** All installed HDD are full.

2. **HDD Error:** Errors occurred during writing of the HDD, no HDD installed or HDD had failed to initialize.
3. **Net Disconnected:** Disconnected network cable.
4. **IP Conflict:** Conflict in IP address setting.

## 10 DEVICE MANAGEMENT

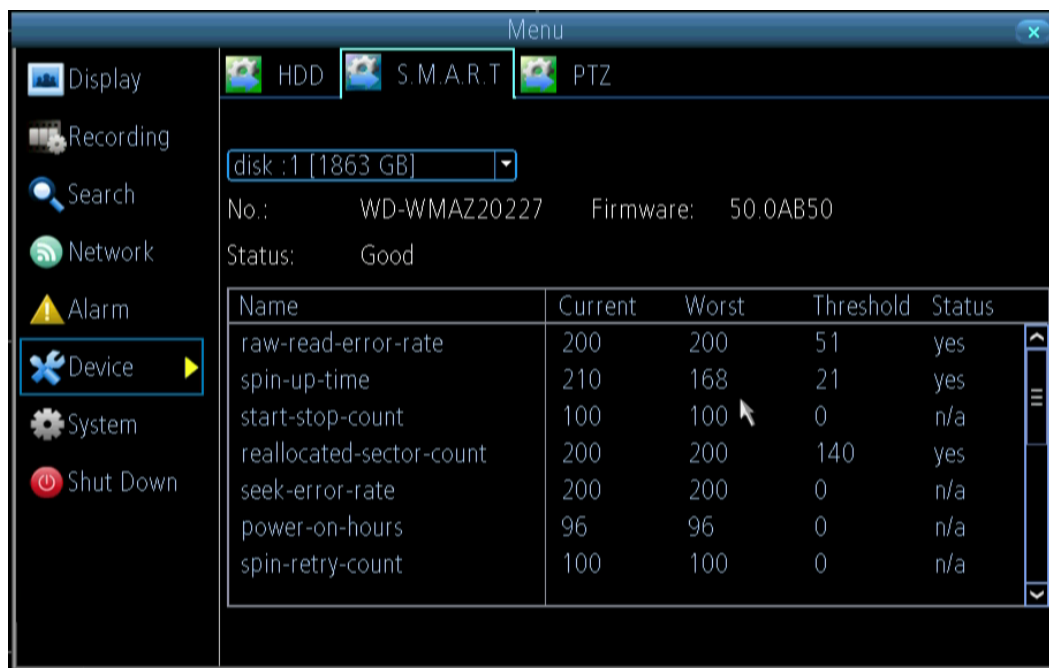
### 10.1 Managing HDDs

A newly installed hard disk drive (HDD) must be first initialize before it can be used with your DVR. Initializing the HDD will erase all data on it.



To initialize a HDD:

1. Select HDD to initialize.
2. Click the Init button.
3. Select OK button to begin initialization. After the HDD has been initialized, the status of the HDD will change from No to Yes.



To view SMART information of a HDD:

1. Select one HDD.
2. You can see the detail S.M.A.R.T information of the HDD.

## 10.2 Configuring PTZ Settings

Settings for a PTZ camera must be configured before it can be used. Before proceeding, verify that the PTZ and RS-485 of the DVR are connected properly.

To configure PTZ settings:



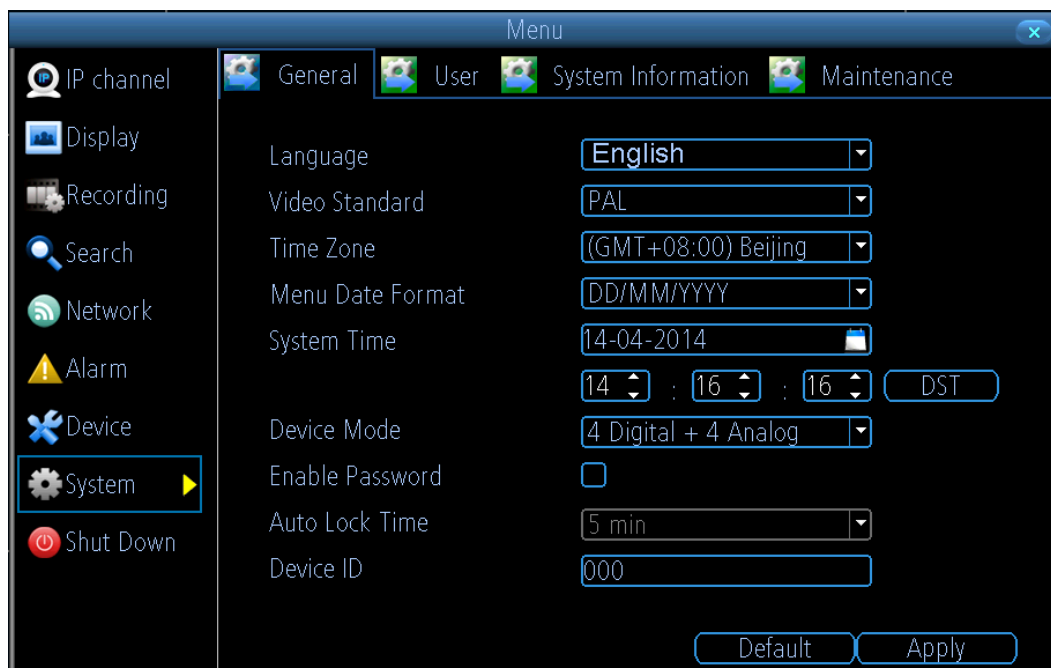
1. Select channel where PTZ camera is installed next to **Camera** label.
2. Enter PTZ settings according to the camera.
3. Click OK button to save and exit menu.



# 11 SYSTEM SETTINGS

## 11.1 General

**General** menu contains many of the settings you'll need to configure to get the most out of your DVR system:

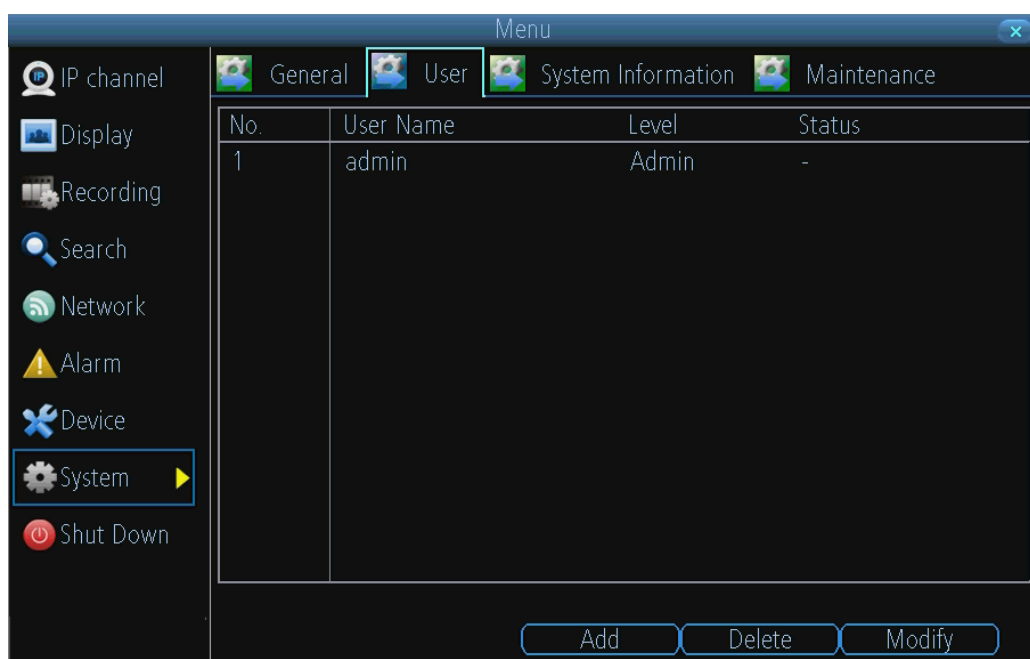


1. **Language:** You can select the language you want for the menus/GUI.
2. **Video Standard:** Here you can choose between PAL and NTSC.
3. **Time Zone:** Particularly important if you've enabled NTP - set this to the time zone where you happen to be.
4. **Menu Date Format:** The format of the date (eg. DD/MM/YYYY or MM/DD/YYYY and so on).
5. **System Time:** This can be edited manually, or set to update automatically by using NTP
6. **DST Setting:** As the standards for daylight savings differ from country to country, and often state to state, you might need to manually tell the DVR exactly when it commences and ends in your locality. First, turn DST on. We suggest setting the Daylight Saving Time Mode to Date, and manually entering the dates and times that daylight savings time applies to and from, in your locality.
7. **Device Mode:** 5200 series Hybrid DVR supports several modes, including 8CH analog mode, 4Ch analog + 4Ch IP mode, and 8CH IP mode. Change the mode, system will reboot.
8. **Enable Password:** When enabled, the DVR will require a password to access, even for local users. It's advisable to enable password protection

9. **Auto Lock Time:** When the password protection is enabled, the DVR will automatically time-out, whereafter it will ask for a password before returning to normal functioning. The **Auto Lock Time** determines how long a period of inactivity will cause the DVR to lock itself again.
10. **Device ID:** Differentiates your DVR from other devices. If you don't have any other DVR's or similar devices, then you can leave this as-is. If you've got multiple DVRs running on the same network, then it's a great idea to give each a unique ID.

## 11.2 User

By default, your DVR comes with one user account, the Administrator account. The Administrator user name is **admin** and the password is **12345**. The default password for Administrator should be changed right away for security reasons. The Administrator has the authority to add, delete or configure parameters for many of the system functions.



- To add additional users, choose **Add**.
- To remove a user, choose **Delete**.
- To customize a user's level of access, choose **Modify**. You cannot modify the access level of the default admin account - they can do everything. This is to prevent an unfortunate incident where, for example, no user has the permissions required to change another user's permissions - which could lead to the DVR being, in at least some senses, inoperable.

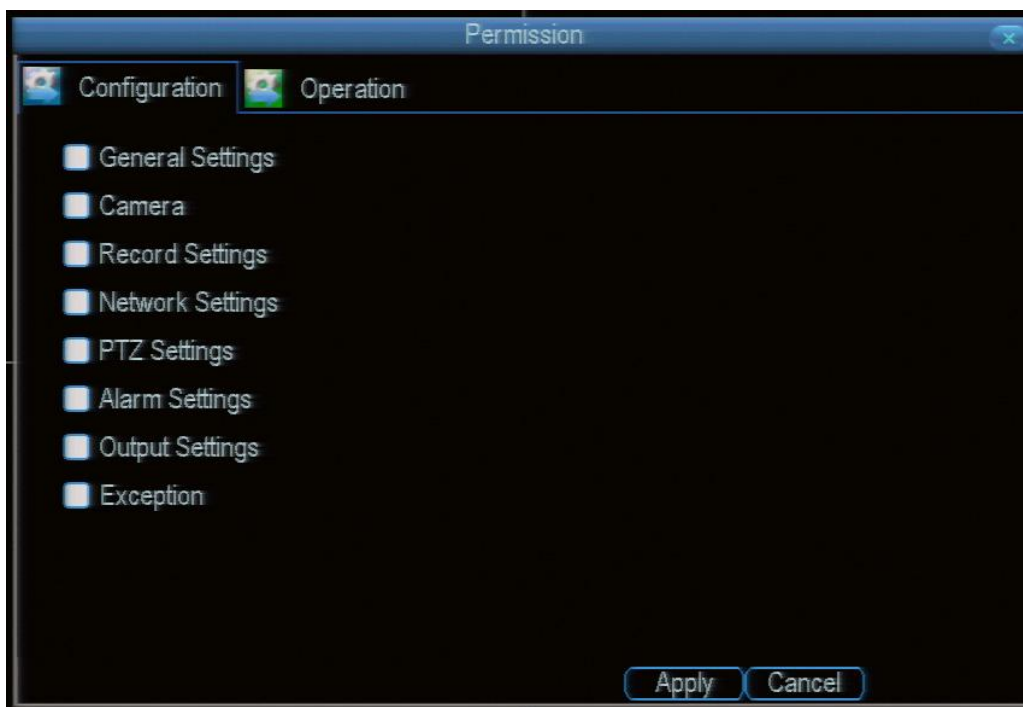
## 11.2.1 Adding a New User

You may add up to 10 new users to your DVR.

To add new users, select **Add**:

A screenshot of a software window titled "Add" with a close button (X) in the top right corner. The window has a dark background. It contains four input fields: "User Name" (a text box), "Password" (a text box), "Confirm Password" (a text box), and "Level" (a dropdown menu currently showing "Guest"). At the bottom of the window, there are three buttons: "Permission", "Apply", and "Cancel".

1. Enter information for new user, including User Name, Password and Level.
2. The Level is the user level and is separated into two tiers.
  - **Operator:** The Operator user level has the authority to configure two-way audio in network settings and all parameters in channel settings.
  - **Guest:** The Guest user can not configure network settings, but can configure the local playback as well as the remote playing in channel settings.
3. Select the Permission button to enter the Permission Settings menu.
4. Configure privileges for local settings under **Configuration** tab. The configuration page specifies which menu(s) the user can access. There is no hierarchy and any combination of menus can be selected (although some combinations would make little sense in practice).

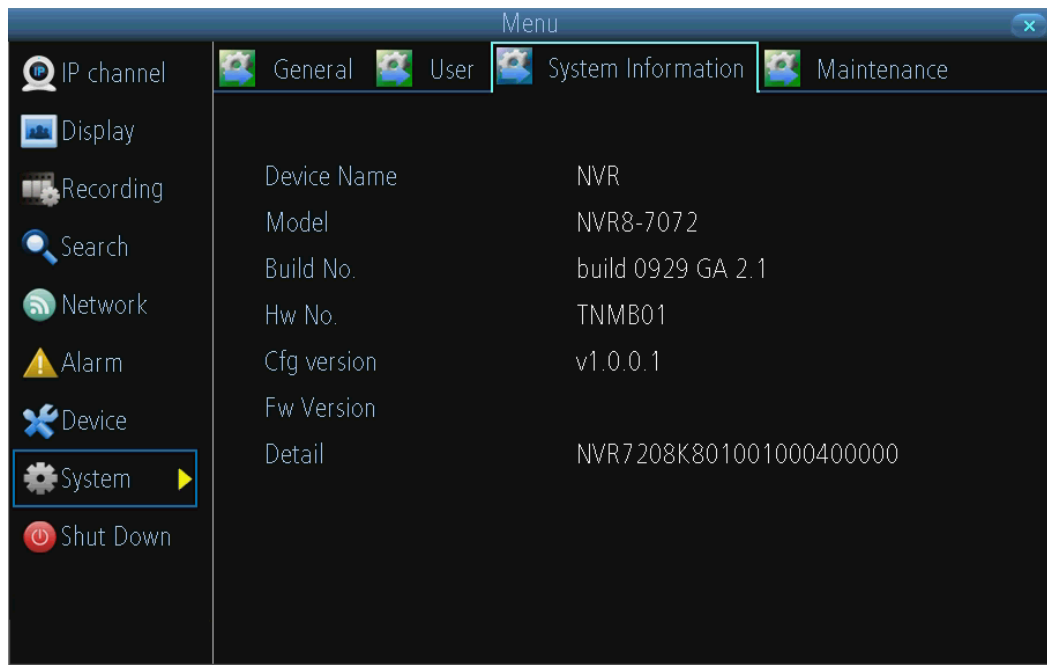


5. Configure privileges for operation under **Operation** tab. You can select which channels the user has access to, and what they can do with them. For example, you could set a user to have permission to view all channels in live viewing mode, but only playback channels 2 and 4.

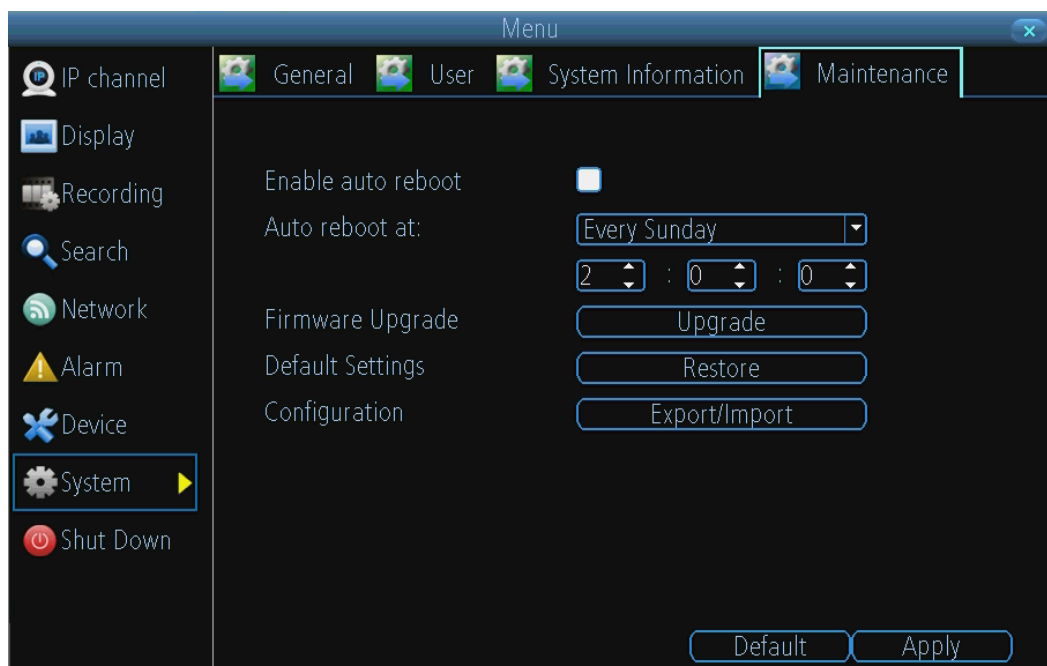


## 11.3 System Information

System information is for use by technical support. When you call for technical support, you need to provide the information here.



## 11.4 Maintenance



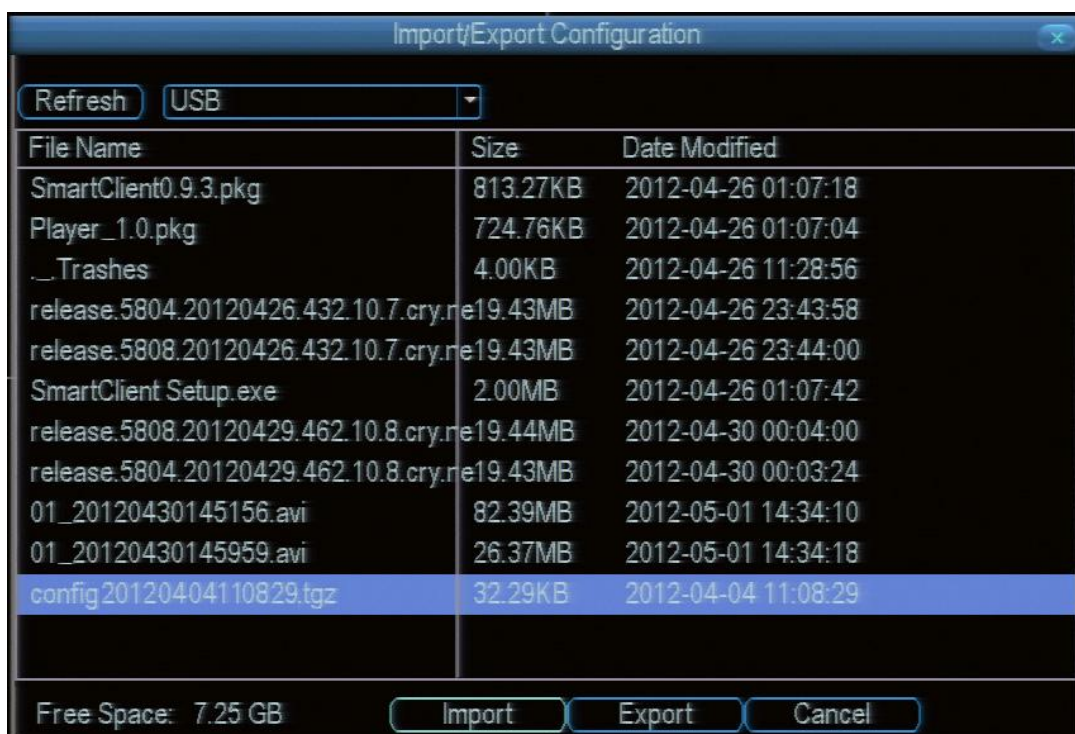
**Enable auto reboot:** Will automatically shut the DVR down and restart it at a certain time of the day or week. To ensure your DVR work stably, it's recommended to enable this checkbox.

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

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

**Default Settings (Restore):** Loads the factory default settings. This must be done after a firmware upgrade to ensure proper operation of the DVR. You can retain your settings, recording schedule and so on by using the Import/Export Configuration function before upgrading the firmware.

**Configuration (Export):** Creates a file containing all the settings you've customized, including your recording preferences, schedule, user-list and so on.



To export your settings:

1. Insert a USB flash drive into the USB port on the front of the DVR. Ensure it has enough free space (a few MB is sufficient - the file is less than 50KB) and that it is not write-protected.
2. Choose **Configuration: Import/Export**. You'll see a file browser, showing the contents of the storage device.
3. Click **Export** to save your settings. Exporting your settings will overwrite any previous settings you've saved to that flash drive. If you want to do sequential configuration exports, you'll need multiple USB drives - or, rename the file using a PC (advanced users only).

**Configuration (Import):** Operates in the same way as the Export function, but is used to load a previously saved configuration file.

Locate the file you want on your flash drive - it will be called config(time & date).tgz. For example, config20120404110829.tgz would be the config file from April 4, 2012 at 11:08AM.

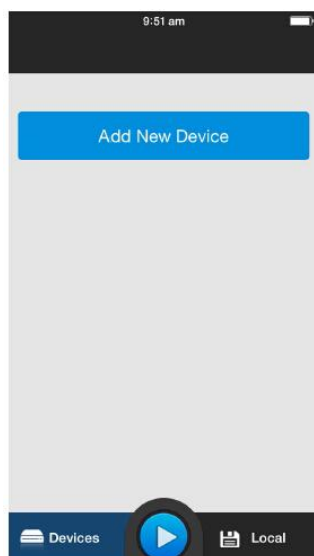
Loading the file will cause the DVR to automatically reboot.

# 12 APP FOR PHONE AND TABLET

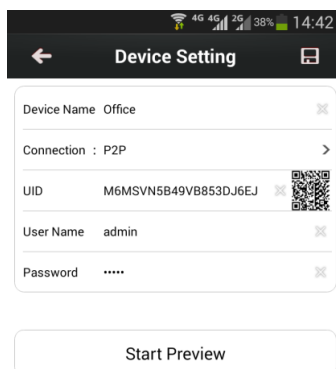
Streamview is a free APP for your Andriod and iOS mobile device, with this software you can view your DVR/NVR/IP camera anywhere and anytime. Our Peer to peer technology, easy network configuration can assist you to master this app very fast.

Now let us start navigation for Streamview:

## 12.1 Add new device



The first time login Streamview, you will see the screen shown above, tap "Add New Device" and you will go to below screen:



Tap the QR code icon to open the scanning page, and scan the QR code from your DVR/NVR/IP camera GUI interface, you will see a serial No. and letters on the "UID" line after QR code is scanned



successfully.

“Device name” give it any one you like or by the location, like “office”.

“User name” and “password”, when you get the UID by scanning QR code, software will automatically get from your DVR/NVR/IP camera device, don’t need to input manually.


If you type the UID by hand, put the user name and password from your DVR/NVR/IP camera device.

Tap the “save” button at the top-right to save your configuration. The app would verify and test your connection, if successfully added, click “Start Preview ”button.

## 12.2 Preview



Now you see live view from all the cameras you connected, let’s get familiar with various options on this screen.

1. Menu - tap this to get the access for adding, editing, deleting a device, as well as view the local information that include playback files and help. Tap the button “  ” to exit menu.
2. Preview - Tap this to access live view mode, a red boarder will surround the currently selected channel. Double tap the selected channel, you will get full screen, double tap again to return.
3. Playback - Tap this to remotely playback the video from DVR/NVR/IP camera.
4. Channel list - Tap this to get the channel list, to enable or disable the camera on your mobile device.
5. Group indicator-when you viewing a single channel or 4 channels or 8 channels, the yellow dot shows which channel or group of channels you are viewing, swipe left or right to change to different channel or group of channels.
6. Capture - Tap this to get a snapshot to the selected channel and save it directly to your mobile device.
7. PTZ - Tap this you will get a full screen of selected channel, with the “IRIS” “FOCUS” “ZOOM” and “AUTO” buttons to adjust your PTZ camera.
8. Close All/Play All – Tap this to close the preview of all channels on screen, tap again to restart.

9. Close/Play – Tap this to close the preview of selected channel, tap again to restart.
10. Screens – You can select to view 1/4/9/16 channels at the same time, depending on the capability of your DVR/NVR/IP camera, the internet connection and the capability of your mobile device, if you have a slower internet connection and less capable device, make it maximum 4 channels view.
11. Stream – Tap this to change the image quality of live view, Fluent (more smoother movement) /Clear (higher quality image), clear mode will consume more band width, and if you select clear mode, please note, only one channel can be viewed.
12. Record – Tap this to record video from selected channel directly to your mobile device, tap again to stop recording.
13. Sound – Tap this to open/close audio.

## 12.3 Remote Playback & Local Playback.

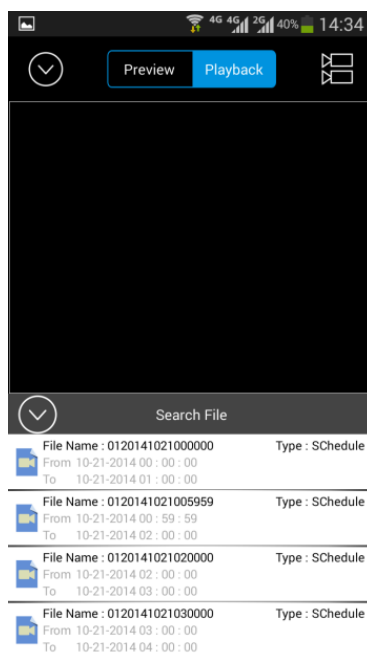
### 1) Remote playback



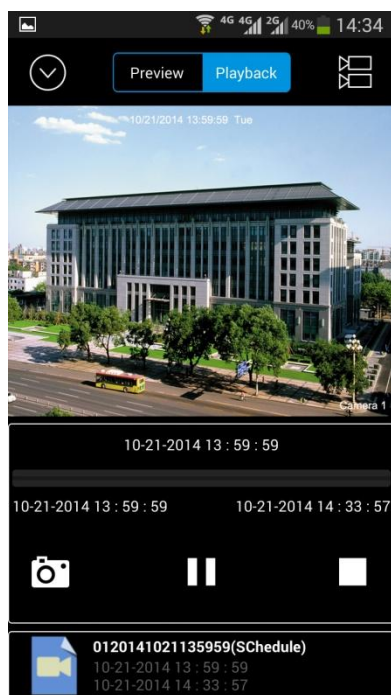
Tap the playback button, you will get the above screen, then tap the channel list button, and select start & end time & date for the channel you want to see playback, the screen is like below.



Tap Start search button, and you will get a recording list as following screen:



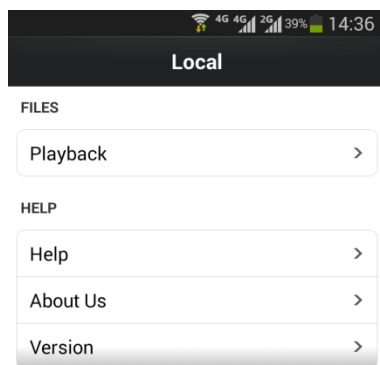
Video type is displayed next to each video file: “SC” is for schedule recording, “MD” for motion detection recording. Tap the file you want to playback, the screen as following:



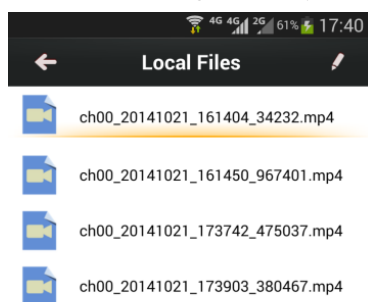
You can pause the recording or take a snapshot during playback, just tap the button on the screen. Tap the file list, you can get all the recording from the channel you selected.

## 2) Local playback

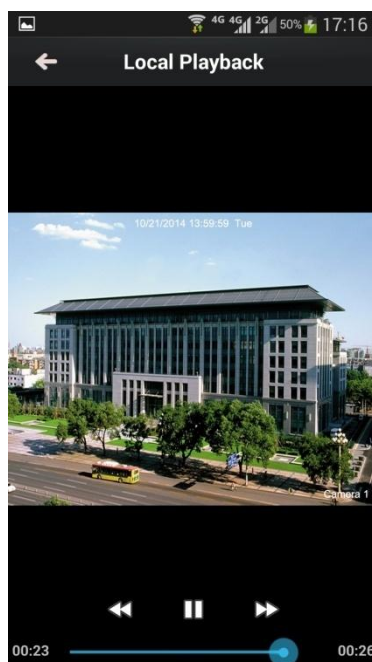
On the menu screen, tap Local, you will get information as below:



And then tap Playback button, you can see a recording list that you saved on your mobile device:



Tap the file you want to playback the screen as below:

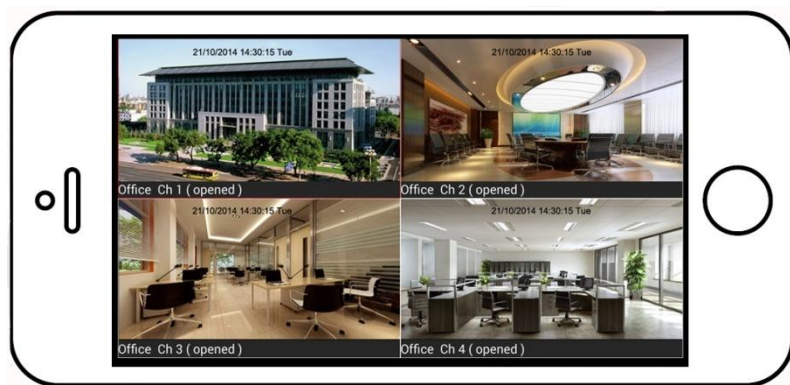


On this screen you can pause/play the playback, to go back or forward few seconds, and drag the slider on timeline to skip part of video.

## Kindly Advice:

Turn your mobile device horizontally to get a larger display window:

For preview and playback, if you want to get a larger display window, just turn your mobile device horizontally, you can get a full screen:



## 13 SmartClient for PC

SmartClient is designed to access and control single DVR. Compared with CMS, it has less function and much easier for user.

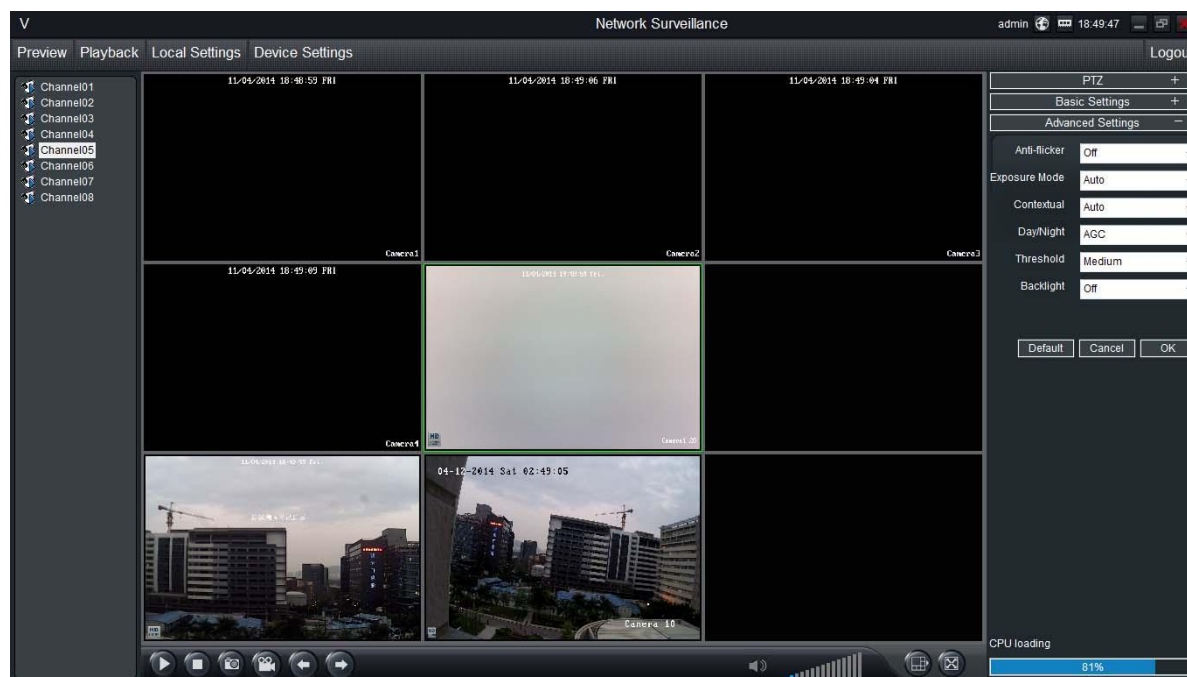
### 13.1 Login Your Device

Number	Device Name	IP Address	Media Port
1	NVR	192.168.1.163	9011
2	ipc3	192.168.1.172	9000
3	ipc1	192.168.1.138	9000
4	HVR	192.168.1.170	9000
5	ipc2	192.168.1.140	9000

To access your device, you need to login first.

1. Scan all the devices in your local area network by click **Search**, then double click one device from the list. Or you can manually input the device IP address/Domain name/UID.
2. Input the user name and password.
3. Select main stream or sub-stream for live view. If your device is in internet, it's recommended to select Sub-stream. Sub-stream has much lower bitrate than main stream, but main stream has much better image quality.
4. Click **Login**, then you will connect the device to live-view.

## 13.2 Live View



**Preview:** The screen layout emulates the multi-channel live view screen of the DVR, showing you images coming directly from your cameras in near real-time (some delay is caused by the network/Internet connection you're using to access the device). You can select a single camera, or multi-channel viewing by using the Viewing Mode buttons in the lower right corner.

**Playback:** Opens the Playback interface, which operates in much the same way as the playback interface on the NVR itself.

**Local Settings:** Defines how SmartClient will manage and save footage and still images to your local PC.

**Device Settings:** Allows access to the device's settings. The configurable options are very similar to those you'll find in the device local menus.

**Main Viewing Area:** Where images from your camera will be shown. Select Preview to return to this view from the Playback interface or the configuration menus.

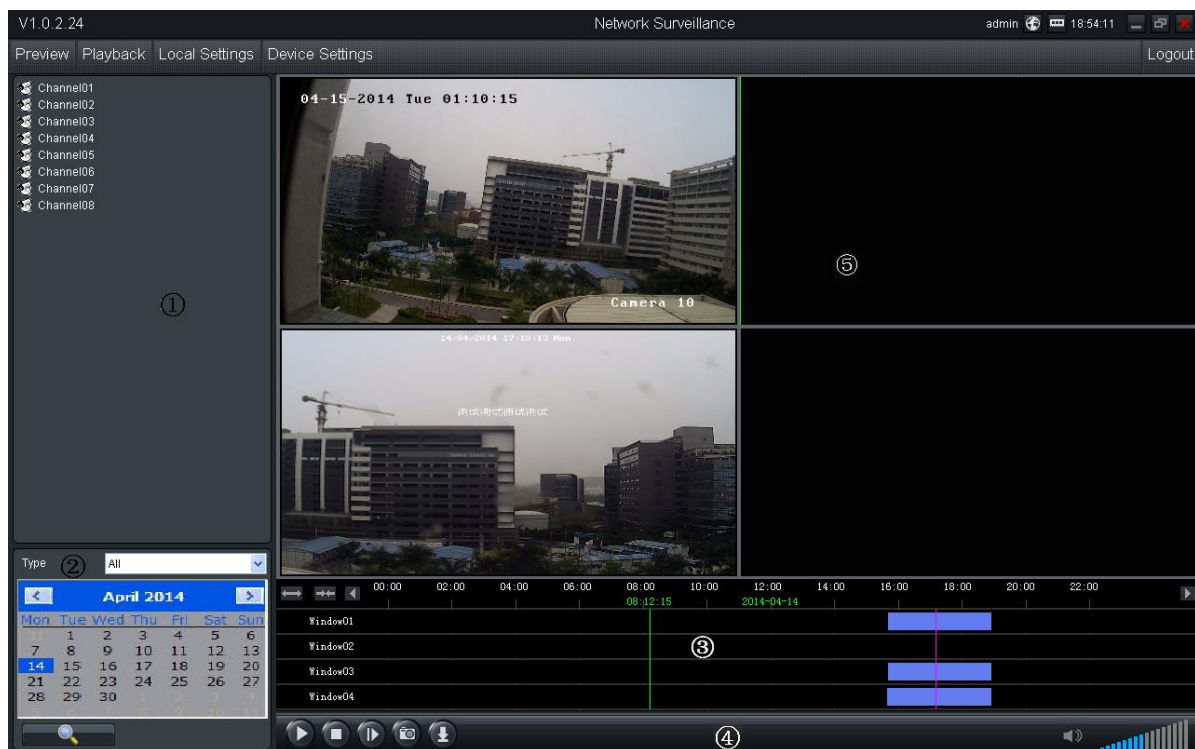
**Image Controls:** You can alter the brightness, contrast, saturation and hue of your images here. They operate in the same way as those in the device's local menu.

**Viewing Modes:** Choose between single camera viewing, four channels at once (2 x 2) or all eight channels at once (3 x 3).

**Volume Control:** Alters how loud the audio output from the device will be.




**CPU Loading:** How hard your computer is working to decode and display images as they arrive from the device.

## 13.3 Playback

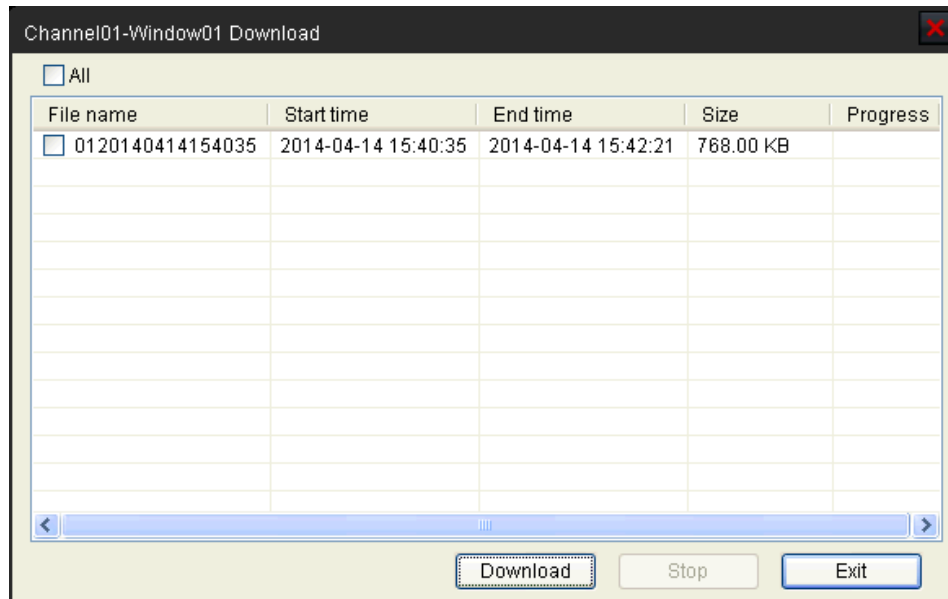


Area	Description	Area	Description
1	Device list	2	Search condition
3	Search result	4	Playback control panel
5	Play window		

### 13.3.1 Remote playback and download

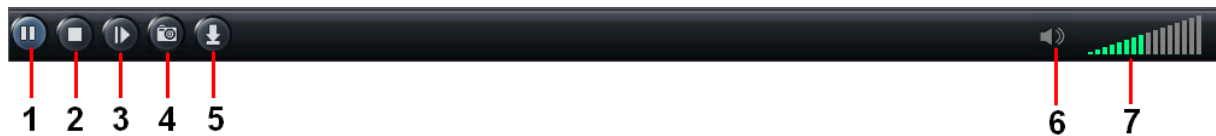
1. Select the playback channel and window.
2. Select recorded files type and query time.
3. Click key  to search the matched recorded files, if there are, the files will shows in the area 3.
4. Select the time you want to start playback from area 3, and click icon .
5. To download recording file, please click .
6. In the file list dialog, select what you want to download.





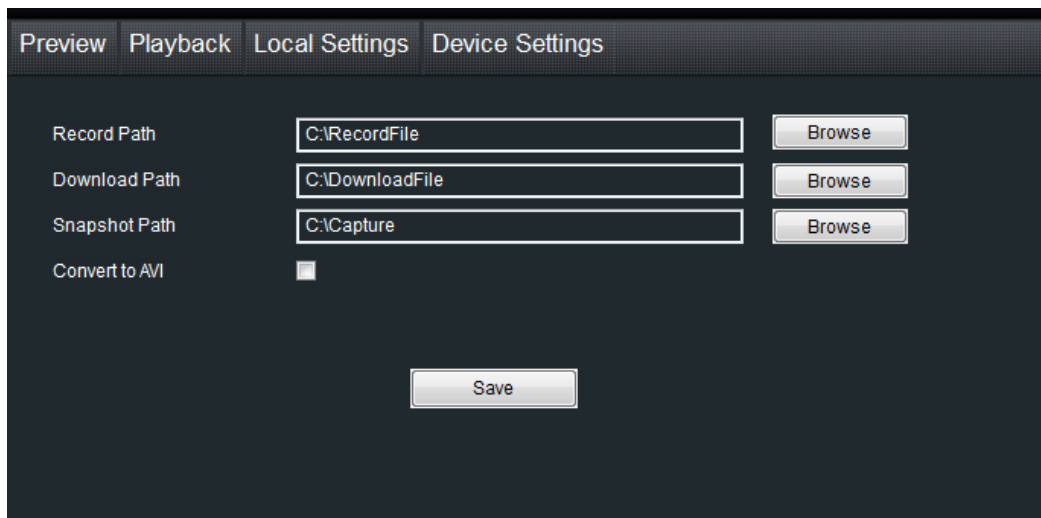
### 13.3.2 Playback Control

When playback has succeeded, you can control the playback:



- 1) Play / Pause.
- 2) Stop.
- 3) Single frame forward.
- 4) Snap shot.
- 5) Download the recording file. The default directory for the downloaded file is C:\DownloadFile. You can modify the directory in Setup -> Local Settings page.
- 6) enable/disable the audio
- 7) Volume control.

## 13.3 Local Settings



The screenshot shows the 'Local Settings' tab in a software interface. At the top, there are four tabs: 'Preview', 'Playback', 'Local Settings' (which is selected), and 'Device Settings'. Below the tabs, there are four configuration items:

- Record Path:** A text box containing 'C:\RecordFile' and a 'Browse' button to its right.
- Download Path:** A text box containing 'C:\DownloadFile' and a 'Browse' button to its right.
- Snapshot Path:** A text box containing 'C:\Capture' and a 'Browse' button to its right.
- Convert to AVI:** A checkbox that is currently unchecked.

At the bottom center of the form is a 'Save' button.

The local configuration screen is where you can customize how SmartClient will store and process footage on the local PC when you download it from the device.

**Record Path:** Where SmartClient will save recordings if you select Record from the Preview screen.

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

**Snapshot Path:** Where SmartClient will save still images captured using the snapshot function.

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

## 13.4 Device Settings

You can remote configure the parameters of the device here. The configuration menu is almost the same with device local menu.

