

funlux

DVR Manual

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1 Before using this product...

1.1 Understanding the manual

How this manual is organized

This manual is specifically organized to provide comprehensive instructions for full setup and basic operation of your DVR when read front-to-back. The contents of the manual are conveniently organized for quick reference after you have read through the entire manual. For further instructions, please visit our knowledge base at <http://kb.zmodo.com/> or our website at <http://www.zmodo.com/support-software>.

- **Chapter 1 Before using this product...**

This chapter contains important information prior to reading the manual and installing the system. It overviews the manual purpose and conventions to aid in installation, and covers minimum system requirements to ensure successful setup and use. It is essential that you read this chapter before reading the manual and installing the system.

- **Chapter 2 Product Introduction**

This chapter describes the package contents and overviews some of the features and capabilities of the DVR system.

- **Chapter 3 First-time Setup**

This chapter covers the initial setup procedures of the DVR. This includes hardware setup procedures such as DVR wiring, HDD installation, alarm installation and camera installation. It also covers basic setup procedures to configure your DVR when setting it up for the first time.

- **Chapter 4 Using the DVR**

The DVR's full features can be utilized through the new and revolutionary user-friendly menu system. This chapter covers detailed instructions on the function and navigation of each menu element, use of the camera control interface, live remote-viewing setup, and firmware update procedures for the DVR. Refer to this chapter for specific instructions for advanced functions of the DVR.

- **Chapter 5 Support**

This chapter covers common troubleshooting issues that can be easily resolved, warranty information, and information for Funlux support and other resources. Please refer to this chapter before calling technical support.

Manual Conventions

This manual uses several symbols, typographies and abbreviations that carry specific definitions. In order to properly follow instructions, please familiarize yourself with the following conventions.

| | |
|-------------------|---|
| [Text] | Text enclosed in square [brackets] indicates a menu or an item to select. |
| IMPORTANT: | Denotes information or instructions that you MUST follow to complete instructions. |
| NOTE: | Denotes additional information or tips to aid you in completing instructions. |
| DVR | Acronym for digital video recorder. This is the main control component of your system. |
| HDD | Acronym for hard disk drive. This is the storage component of your DVR system. |
| PTZ | Acronym for Pan-Tilt-Zoom. This usually refers to a camera with pan-tilt-zoom functionality. Also common are PT cameras (pan-tilt). |

1.2 Safety Precautions

Please read and follow these instructions for your safety while operating and setting up the equipment.

- Use only the provided power adapter to power the DVR.
- Make sure that the rear power switch is off before unplugging or plugging the DVR.
- Do not insert any objects into the DVR case or openings.
- Do not place heavy objects on top of the DVR.
- Keep the DVR surfaces clean and dry.
- Do not operate in wet or dusty environments.
- Keep the DVR away from all fluids.
- Operate and keep the DVR in temperatures between -10°C~50°C.
- Do not install the DVR near any heat sources and avoid direct sunlight.
- Make sure there is good air circulation where the DVR is installed.
- Install the DVR in a stable environment.
- Handle the DVR carefully and avoid collisions and strong falls.

1.3 Minimum Requirements

Minimum requirements must be met for full and proper functionality of the DVR.

- Compatible display with corresponding cables. Please see **2.3 Compatibility** for more information.
- A wireless router with one empty port (for remote viewing).
- A physical internet connection such as Cable / DSL / Fiber—no satellite, 3G/4G hotspots, or city-wide wireless (for remote viewing).
- A minimum upload speed of >256kbps at the location of the DVR (for remote viewing).
- Android (v.2.2 and up) or iOS (v.6 and up) mobile device (for remote viewing).

2 Product Introduction

2.1 Product Overview

This Funlux DVR system is specially designed to safeguard your home or business by providing cutting-edge video surveillance and monitoring. Instant email notifications and multiple live streaming and recording options make your DVR available and accessible anywhere at anytime.

Using next generation plug-and-play technology and a revolutionized user interface, this system delivers a revolutionarily user-friendly experience that is accessible to anybody. Achieving security and peace of mind has never been easier. We provide top products at low prices with setup procedures that anybody can follow. Our goal is to bring security and safety to all people; making *your security our priority*.



2.2 Technical Specifications

DVR (ZMD-DX-SAN8)

Video

| | |
|----------------------|--|
| Input (Analog) | 8 channel BNC HDMI x1 (1920x1080@60Hz) |
| Video Output | VGA x1 (1920x1080@60Hz, 1280x1024@60Hz, 1024x768@60Hz) BNC x1 (PAL: 704x576, NTSC: 704x480) |
| Compression | H.264 |
| Multiple Stream | Yes |
| Recording Resolution | 960H: 12 frames/sec (NTSC) / 12 frames/sec (PAL) |
| | D1: 20 frames/sec (NTSC) / 20 frames/sec (PAL) |
| | HD1: 20 frames/sec (NTSC) / 20 frames/sec (PAL) |
| | CIF: 30 frames/sec (NTSC) / 25 frames/sec (PAL) |

Audio

| | |
|-------------|---------------|
| Input | 8 channel RCA |
| Output | 1 channel BNC |
| Compression | G.711 |

Storage & Reviewing

| | |
|--------------|--|
| Playback | Up to 4 channels simultaneously |
| Functions | Fast forward / Rewind / Slow play / Digital Zoom |
| Record Modes | Continuous (Basic or Intelligent) / Scheduled |
| HDD Support | 1 SATA (3.5") up to 2TB |
| Backup | External USB Device |

Network

| | |
|-------------------|---|
| Network Interface | 1 RJ45 10 / 100M |
| ONVIF | Not Supported |
| Protocol Support | TCP/IP, UDP, DNS/DDNS, SMPT, UPNP, DHCP, HTTP |

General

| | |
|-----------------------|--|
| Application Support | Remote configuration, video browsing, local recording, local and remote playback |
| Motion Detection | Yes |
| Alarm Notification | Yes |
| Operating System | Linux-based |
| Power Supply | DC 12V, 3A |
| Power consumption | <12W (without HDD) |
| Serial Interface | RS-485 (PTZ Control) |
| Operating Temperature | 32 °F to 122 °F |
| Dimensions | 11.4" (W) x 9.1" (D) x 1.7" (H) (290mm x 230 mm x 42 mm) |
| Weight | 2.18lbs (without HDD) |
| Language Support | 11 languages |

2.3 Compatibility

This DVR is compatible with all Funlux BNC surveillance cameras. Cameras can be purchased at: <http://www.cctvhotdeals.com/>. When purchasing cameras, we recommend that you check under the specifications to make sure that the video output type is "BNC". **IP Network cameras will not be compatible with this system.**

This DVR also supports and is compatible with three different display options: HDMI, VGA and BNC. It is compatible with all displays, however some will perform better than others. For HDMI displays, we recommend that you use the following major brands: Samsung, Phillips or LG.

2.4 Package Contents

Before proceeding with any setup procedures, please make sure that your package includes the following contents:



- 8-Channel Security DVR (ZMD-DX-SAN8)
- USB Mouse
- 12V 3A Power Adapter
- Quick Installation Guide
- Case Screws (not pictured)
- Pre-Installed HDD*

*Included only in systems purchased specifically with an included HDD.

2.5 Getting Familiar with your DVR

Main Functions & Features



Live Remote Viewing

Access your DVR remotely from anywhere in the world on your Android or iOS mobile device.



Intelligent Recording Mode

Intelligent recording identifies surveillance footage triggered by critical events such as motion detection and alarm triggering and optimizes storage by increasing recording quality when a critical event occurs.



Multitasking

Users can view, record, playback, backup, live-view and remotely access the DVR simultaneously from multiple devices.



Instant Notification & Alarm System

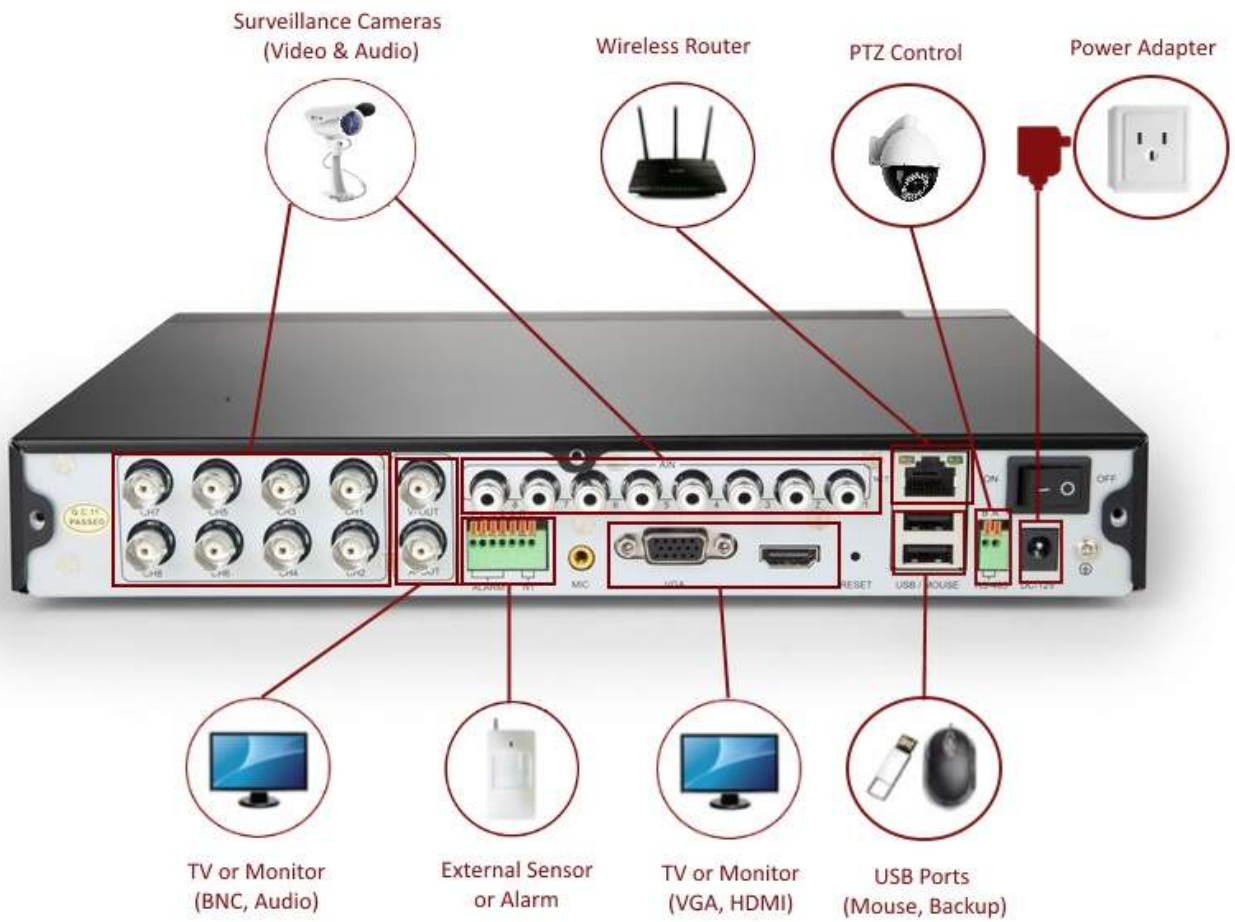
Receive instant email alerts and push notifications with snapshots to your mobile device when motion is detected, an alarm is triggered, or video loss occurs.



Multi-level, Multi-user management

Different user privileges allow you to share video surveillance without worrying about unpermitted setting changes.

Rear Panel



Mouse

- Confirm selection in menus
- Select or de-select boxes in menus
- Scroll through pull-down menus



Return to previous operation or exit operations

3 First-time Setup

3.1 DVR Installation

HDD Installation

IMPORTANT: Your system will not be preinstalled with a hard disk drive (HDD) unless the system was specifically purchased with an included HDD. You may install a **SATA HDD** between **250GB** and **2TB** of storage after receiving your system. We recommend **Western Digital Caviar Green AV-GP** hard drives or **Seagate Pipeline** hard drives that are specifically engineered for use in security camera environments. We also suggest that you make your purchase from an official reseller (such as Newegg.com, Tiger-Direct, and Best Buy) to ensure the quality of the HDD.

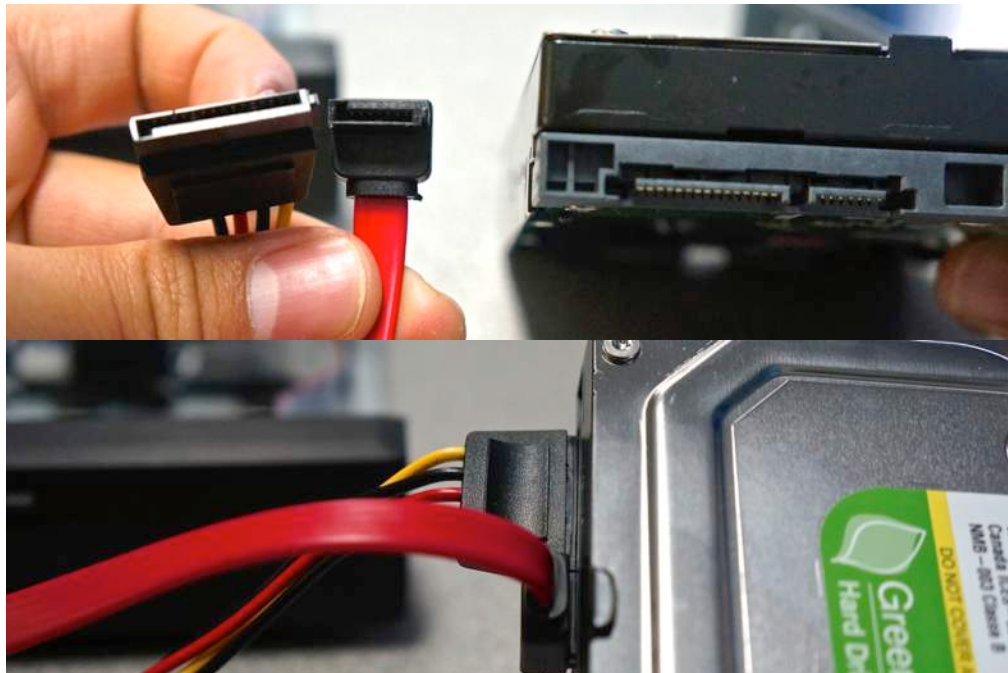
For the following HDD installation instructions, you will need:

- 1) Your DVR system
- 2) A SATA Hard Drive (not provided)
- 3) 4 silver Phillips screws (provided)
- 4) 7 black Phillips screws (provided)
- 5) A Phillips screwdriver (not provided)

1. Make sure your DVR is unplugged from its power source and slide the top panel off of the DVR.



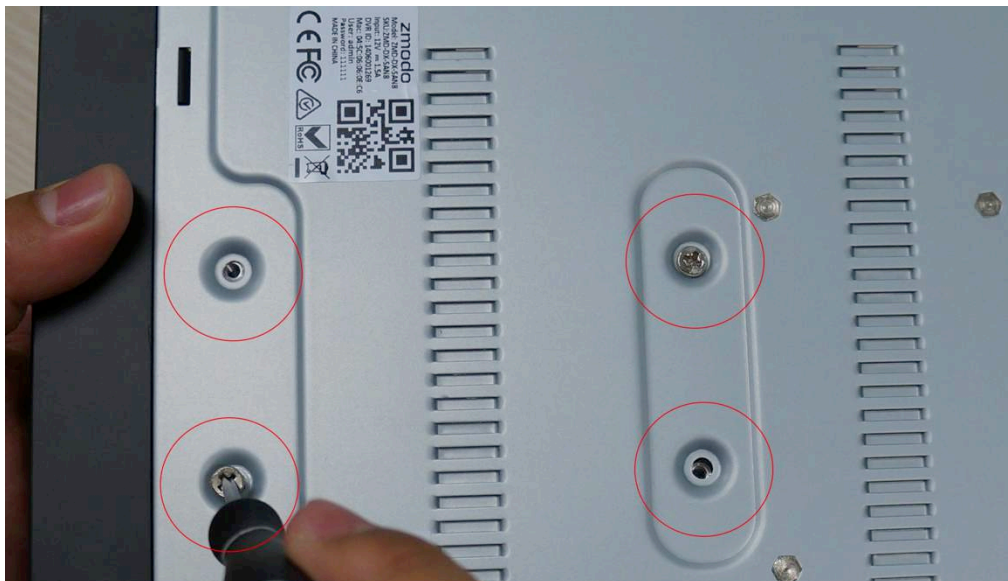
2. Connect the SATA power and data cables from the DVR to the corresponding ports on your HDD (as shown):



3. Once connected, place the HDD into the DVR with the cables placed as shown. **IMPORTANT:** Make sure that the cables do not come into contact with the cooling fan!



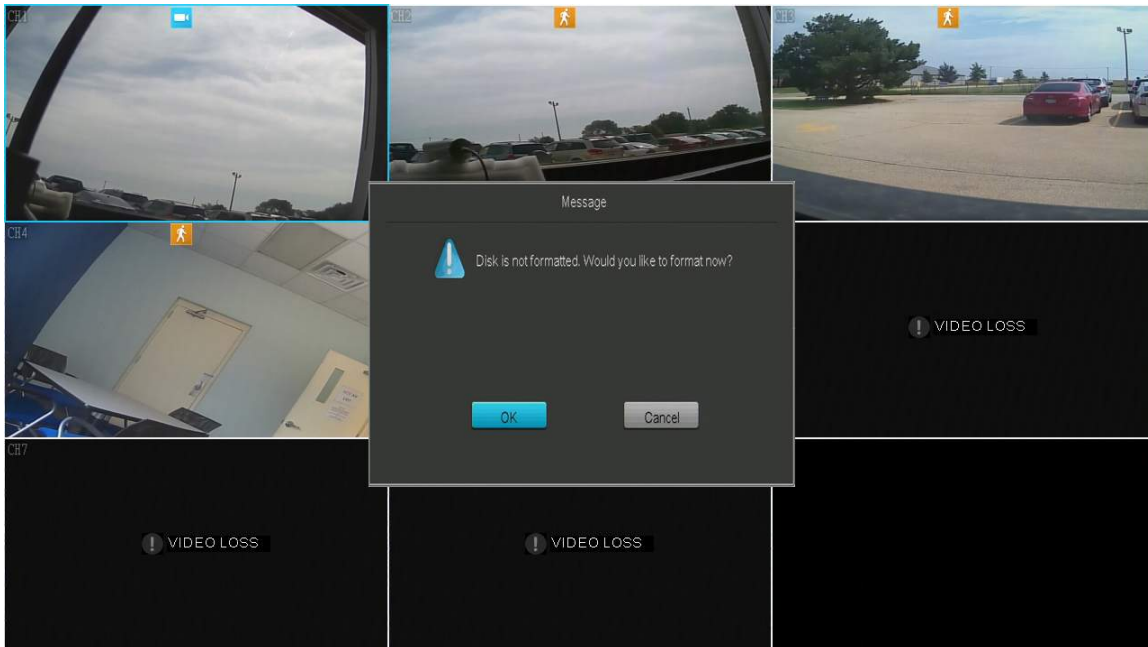
4. Holding the hard drive and the DVR, gently turn it over and line up the holes on the hard drive with the holes on the DVR. Using a Phillips screwdriver, screw the provided screws into the holes.



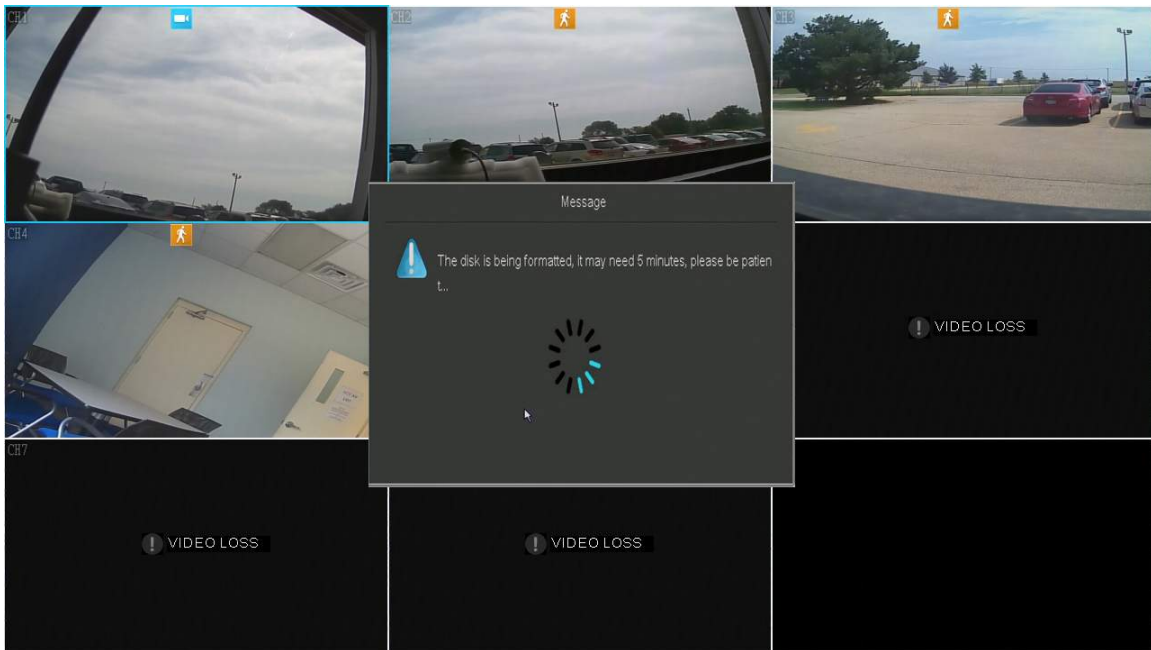
5. Slide the DVR panel back on and locate the 7 black Phillips screws (found in kit). Apply the screws in the three holes on the back panel, and the two holes on the sides.



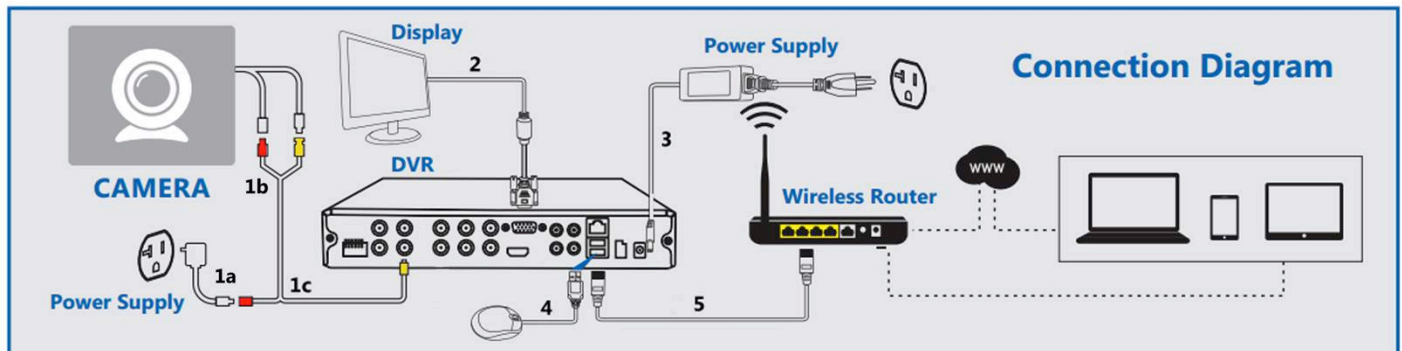
6. When you power on your system, you will see a popup asking you to format your HDD. Press [OK] and wait 5-10 minutes. NOTE: If you do not see this popup, please manually format your HDD by going to the *Disk Drive Info* page (for more instructions, please refer to **4.1 Main Menu Detailed**).



7. The system will begin formatting the HDD, and will automatically reboot once the formatting is complete.



Connecting your DVR



1. Connect your analog cameras directly to the system with the correct cables as shown. For detailed instruction, please refer to **3.2 Camera Installation**.
2. Connect your display to the appropriate display input. For detailed instruction, please refer to **3.1 DVR Installation – Connecting the Display**.
3. Connect your system to a nearby power outlet with the provided power adapter as shown.
4. Connect your USB mouse to the corresponding input as shown.
5. Connect your DVR system to your wireless router with the provided Ethernet cable as shown.

Connecting the Display

This DVR can support up to three different display options: HDMI, VGA and BNC. The following steps provide instructions that will ensure that you have a working HDMI or VGA connection:

1. Make sure that you have the proper equipment. You will need a display and a corresponding video cable. Monitors will typically support VGA cables, high definition televisions will typically support both VGA and HDMI. You may need to purchase a cable if you do not have one already.

2. Identify your connection type. If you already have the proper equipment, please identify the type of connection that you will be using. For HDMI connections, we recommend that you use one of the following brands: Phillips, LG or Samsung.

3. Connect to the corresponding port. Connect one end of the cable to the corresponding port on the display, and the other end to the corresponding port in the rear panel of the DVR.

Connecting Video & Audio using BNC cables

BNC connections are uncommon with the exception of some very specific applications for it. If you are going to connect to your display via BNC, you will need a BNC male to RCA male cable (as shown on the right). If you want to connect both a video and audio, you will need two such cables. Please follow the instructions to successfully connect your display and audio via BNC connection:



1. On the output BNC connectors on the rear panel of your DVR, you will see two protrusions (one on each side of the connector). On the male BNC end of your cable, you will see two slots. Line up the slots with the protrusions, as shown in the picture below:



2. Push the connector in, and twist until the connection is secure, as shown:

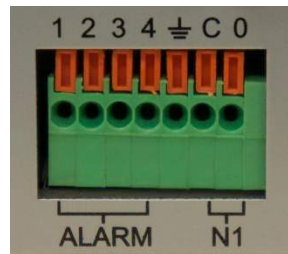


3. If you are making a video connection, plug in the RCA male end of the cable to the yellow composite port on your display. If you are making an audio connection, plug in the RCA male end of the cable to either the white or red ports on your monitor.

Connecting an External Alarm

NOTE: A large portion of the installation of an alarm will vary based on the type of alarm. Because of this, the following instructions are not comprehensive, and will have to be supplemented by specific instructions for your desired external alarms/systems. Please refer to our knowledge base (<http://kb.zmodo.com/>) for more information.

Prior to installation, please locate the alarm input and output ports on the back panel of your DVR. The following instructions will show you how to plug in the wires from the external system to the DVR.

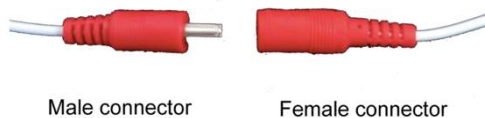


1. Push the orange tab on the alarm port (with your finger nail or pen) in order to open the spring-loaded connection.
2. With the orange tab pushed in, insert the bare wire from your alarm about 1/8-1/4 inches into the port.
3. Let go of the orange tab and the port should clamp onto the cable. Give the wire a light tug to ensure that it is securely clamped.

3.2 Camera Installation

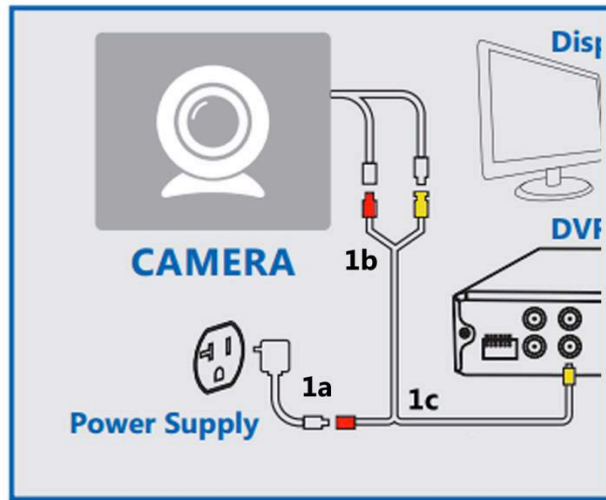
This DVR system is **compatible** with all Funlux analog video cameras, video and audio cameras, and PTZ cameras and can support up to 8 cameras. Your connection may vary depending on the specific camera purchased.

Quick guide to identifying male and female connectors:



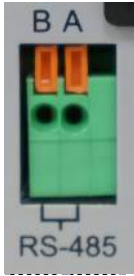
The male connector will generally feature a protrusion that is housed in the corresponding indentation found on the female connector. The protrusion in some cases can also be a pin that is housed inside of the female component.

Connecting the cameras to the DVR



- 1. Connect the power adapter to the outlets.** Connect the camera power adapter to a power outlet near the DVR. In most cases, you will have a 4-port power splitter cable. If so, connect the female end of the 4-port splitter into the male end of the power adapter. Refer to 1a on the diagram for reference.
- 2. Connect the cameras to the Siamese power and video cables.** In most cases, your cameras will come with a cable with two separate connectors on each end. One of the connectors is for the power, and the other is for video. Connect the male power and video BNC end of the cables to the female power and video BNC connectors on the camera. Refer to 1b on the diagram for reference.
- 3. Connect the cameras to the DVR.** Connect the male BNC connector at the end of the cable that is not connected to the camera to the desired channel input on the backside of the DVR.
- 4. Connect the cameras to the power.** Connect the male power connector at the end of the cable not connected to the camera to a female power connector from step 1.
- 5. Repeat.** Repeat steps 1-4 until you have connected all desired cameras.

Connecting a PTZ Camera



1. Locate the RS-485 connectors on the back panel of your DVR.
2. Locate the positive wire on your PTZ camera. Please refer to the manual provided with your camera to determine the wires.
3. Push the orange tab labeled 'A' on the PTZ port (with your finger nail or pen) in order to open the spring-loaded connection.
4. With the orange tab pushed in, insert the bare positive wire from your camera about 1/8-1/4 inches into the port.
5. Let go of the orange tab and the port should clamp onto the cable. Give the wire a light tug to ensure that it is securely clamped.
6. Repeat steps 2-5 for the negative wire, and the orange tab labeled 'B'.

Mounting the Camera

IMPORTANT: Please complete the instructions for "Connecting the cameras to the DVR" prior to mounting your cameras.

The following steps provide instructions to mount the camera on a drywall. Your installation may vary depending on the specific camera purchased.

You will need:

- 1) Surveillance Camera (not provided)
- 2) Mounting Bracket (not provided)
- 3) Screws with matching anchor screws (not provided)
- 4) Power drill (not provided)

1. Choose a location. Find a suitable location to mount your IP camera.

2. Mark screw locations. Using a pencil and the holes in the mounting bracket as a guide, mark three holes against the wall where you wish to mount the camera.

3. Drill holes. With a drill bit slightly smaller than the green plastic anchor screw, drill a 1" deep hole in each of the three marked locations.

4. Insert anchor screws. Place the anchor with the closed end evenly into the hole. Gently tap the open end until the anchor is almost flush with the wall.

5. Attach the camera to the mounting bracket (if applicable). Fasten your camera to the mounting bracket using either the hole found on the top or

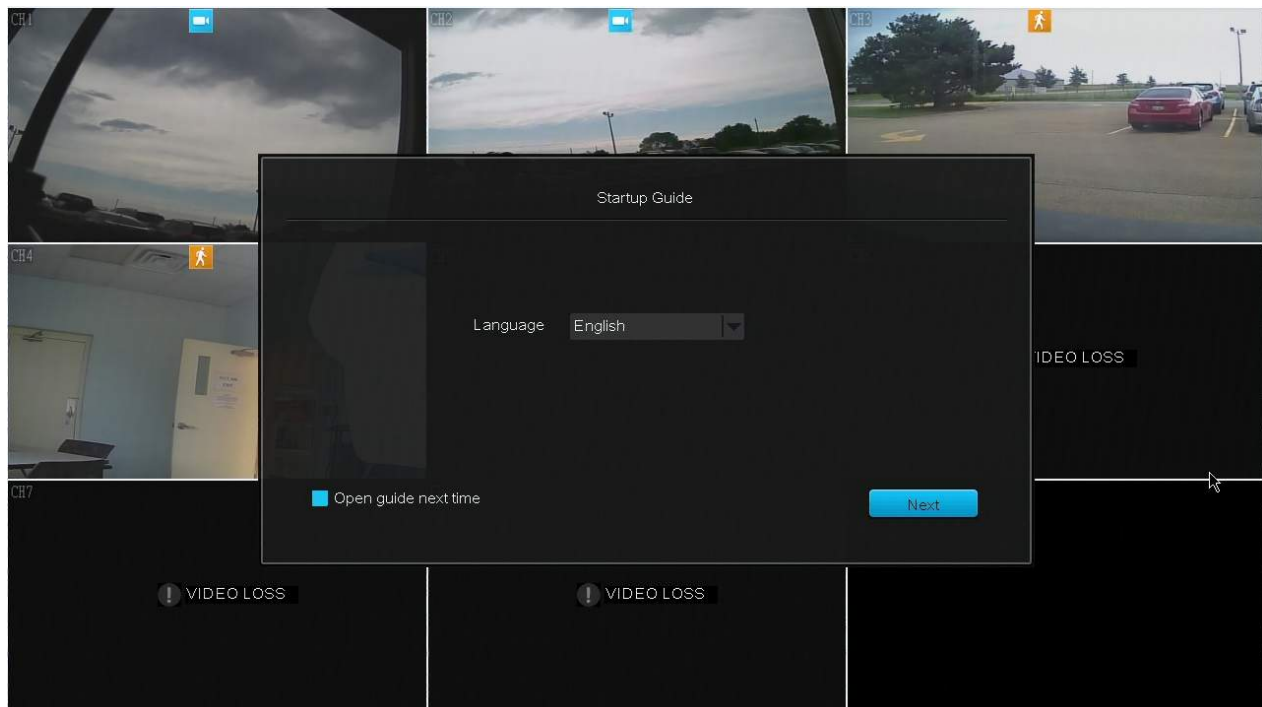
bottom of the camera. Rotate until the camera is securely attached to the mounting bracket.

6. Mount the camera to the wall. Align your mounting bracket with the anchors and slowly screw the bracket onto the wall with the 3 screws provided.

7. Adjust the camera position. To adjust the camera position, loosen the nob on the bracket by turning it counterclockwise and adjust the camera accordingly. When the desired camera position is achieved, tighten the nob by turning it clockwise.

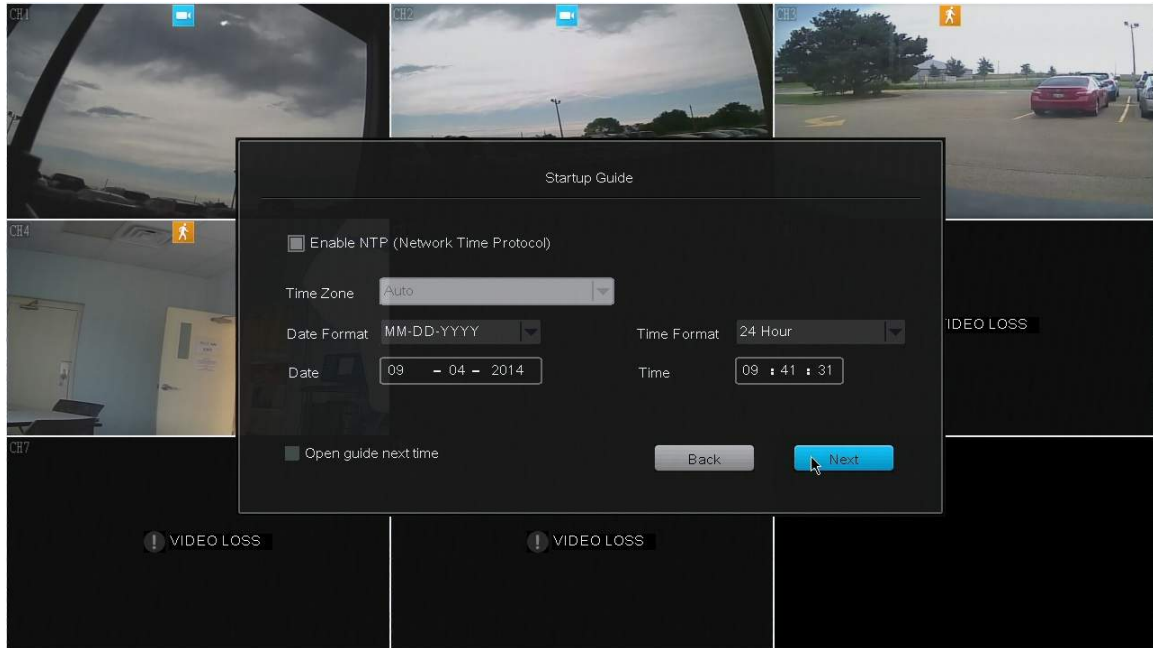
3.3 DVR First-Time Startup

Power on your DVR and double-click anywhere on the screen. On the login screen, a Startup Wizard will appear to help you quickly setup your DVR. Please follow the on-screen instructions to quickly and easily configure basic settings on your DVR.

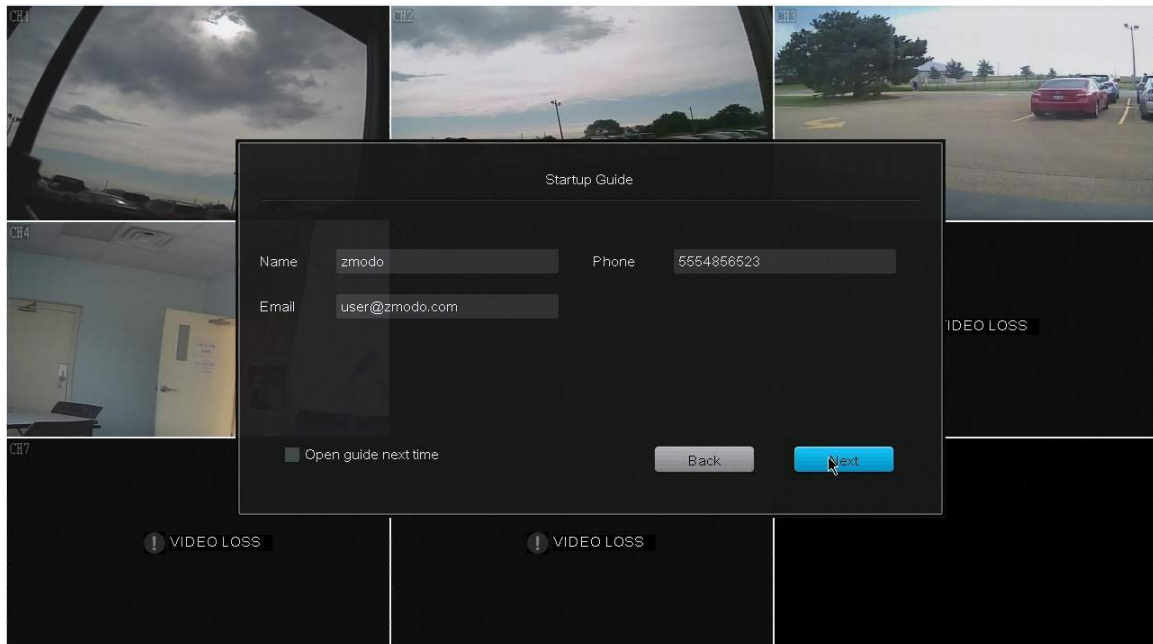


Startup Guide Explained

Network Time Protocol: When enabled, the DVR system will automatically set the date and time settings through the internet connection. If you do not enable this, you will need to manually input the date and time in the corresponding forms.

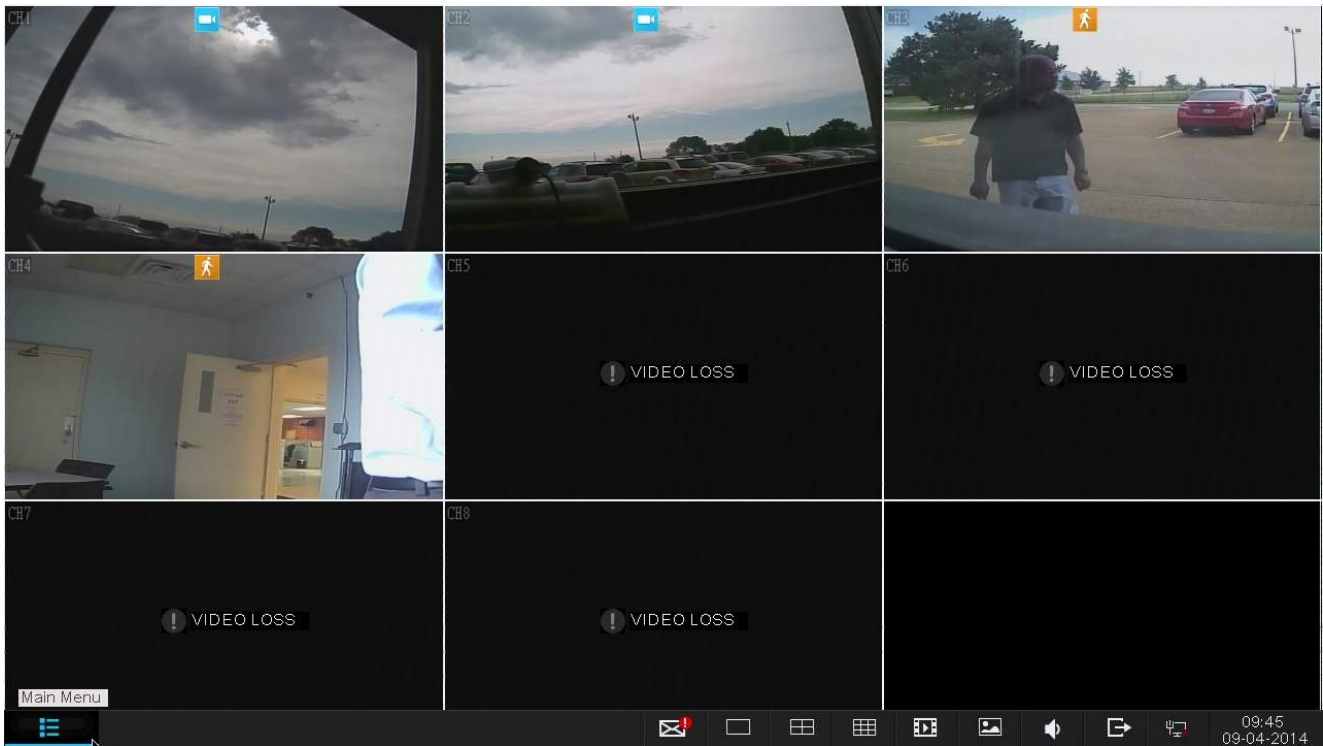


Name, phone, email: This information is added to the default administrator account of your DVR system.



3.4 Home Screen Introduction

The home screen is the main screen of your DVR, displaying the live-video stream from the connected cameras. There are several viewing options available locally on your DVR. By default it will be set to the 9-channel view with the live-video streams from all eight camera feeds. To access the new **quick-menu**, move your cursor to the bottom of the screen using your mouse or press the menu button on your remote.



The quick-menu includes the following options:



Main Menu

Use the main menu to access all of the full features of the DVR. Refer to **4.1 Main Menu Detailed** for more information and specific instructions.



Event Notification

When your cameras have detected an event (see **4.1 Main Menu Detailed – Event Management**) a notification will appear in your quick-menu. Clicking on the icon will bring you to clips recorded at the time of the events.



Single View

This option enables you to quickly view one camera feed in full-screen. Click on the icon to select the camera feed to view. For further live-video viewing options, refer to **4.1 Main Menu Detailed – Video Settings**.



Quad View

Select four channels (1-4, or 5-8) to view simultaneously.



8 Channel View

Quickly toggle the viewing mode to eight simultaneous channel feeds.



Playback

Review and backup surveillance footage from this menu. Refer to **4.2 Camera Controls** for more details.



Screenshot Gallery

View and backup saved screenshots.



Volume Control

Quickly access the system volume controls.



Logout / Shutdown

Logout of your current user profile or shutdown the system. Administrator permission will be required to shutdown.

4 Using the DVR

4.1 Main Menu Detailed

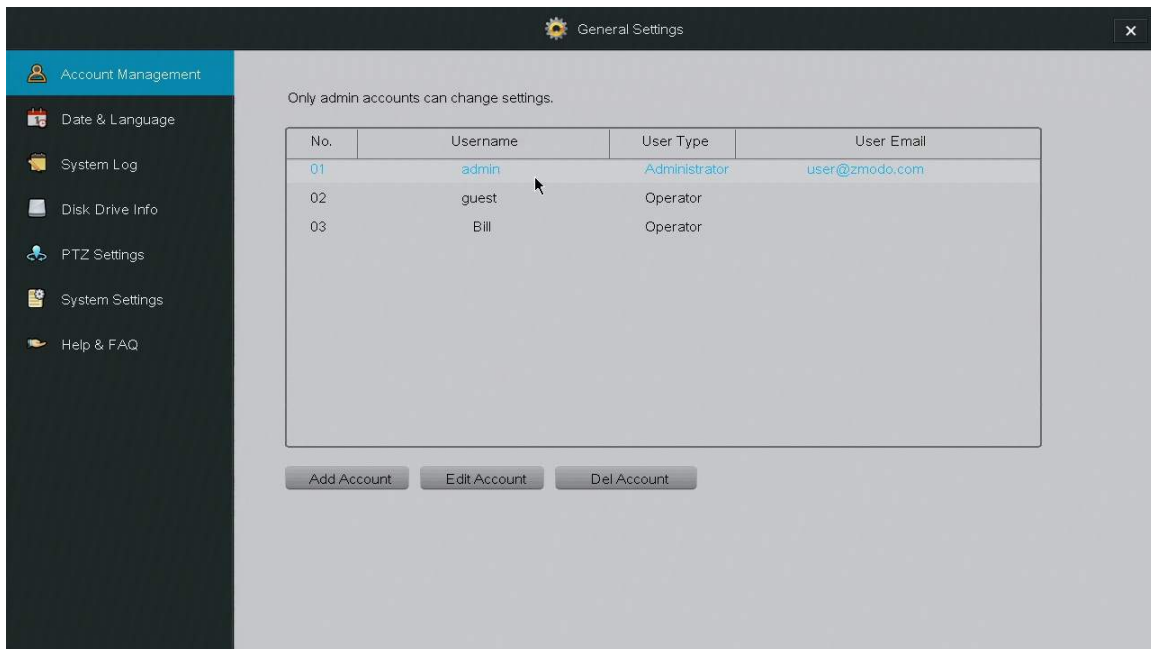
Use the main menu to access all of the full features of the DVR. The following chapter will explain how to navigate and perform the features through the menu.

General Settings

Use the General Settings menu to manage accounts, change the date & time, view the system events log, view hard disk information, change PTZ settings, view and upgrade your firmware and restore your device to factory settings.

Account Management

This DVR supports multiple user profiles with different permissions, which allow you to share video surveillance without worrying about unpermitted tampering with the system settings, playback files, etc.



The system can support up to 16 accounts, with two different account types:

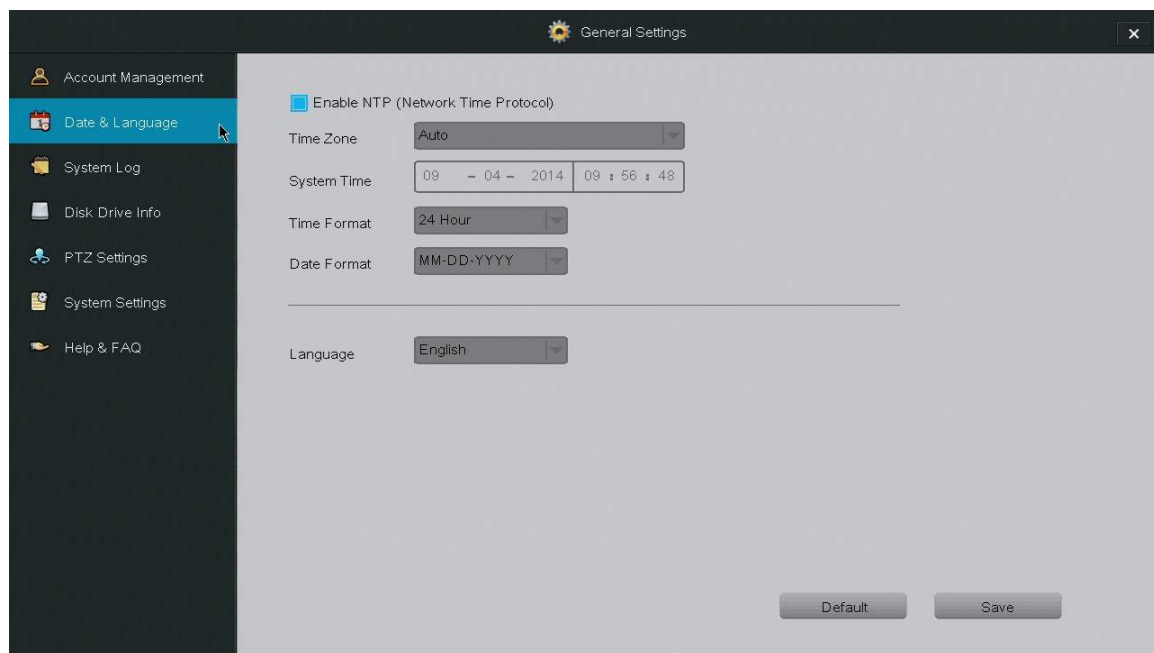
Administrator: Has full access to all features of the DVR and full permission to change all settings.

Operator: Can only view the live-video stream.

Managing your user accounts by simply highlighting a user account from the menu and selecting a function to perform.

Date & Language

Use this menu to change the date & time settings and the language settings of your DVR.



NTP Enabling the Network Time Protocol (NTP) allows the system to automatically set the date and time of your system. This requires an internet connection.

Language Choose a different language for your DVR system to display.

System Log

The DVR will provide notifications when certain events occur. Such events could be, but are not limited to: a missing hard drive or hard drive failure, activated motion sensors, activated alarms, etc. Use this menu to review the system log of all event notifications.



| Series | Type | Start Time | Event |
|--------|-------|------------|--------------|
| 21 | Alarm | 16:04:59 | Mot 01 Alarm |
| 22 | Alarm | 16:05:01 | Mot 07 Alarm |
| 23 | Alarm | 16:05:02 | VL 05 Alarm |
| 24 | Alarm | 16:05:03 | Mot 07 Alarm |
| 25 | Alarm | 16:05:05 | VL 07 Alarm |
| 26 | Alarm | 16:05:07 | Mot 01 Alarm |
| 27 | Alarm | 16:05:07 | Mot 04 Alarm |
| 28 | Alarm | 16:05:08 | Mot 03 Alarm |
| 29 | Alarm | 16:05:14 | Mot 02 Alarm |
| 30 | Alarm | 16:05:16 | Mot 01 Alarm |

Series Numbers the events in sequence

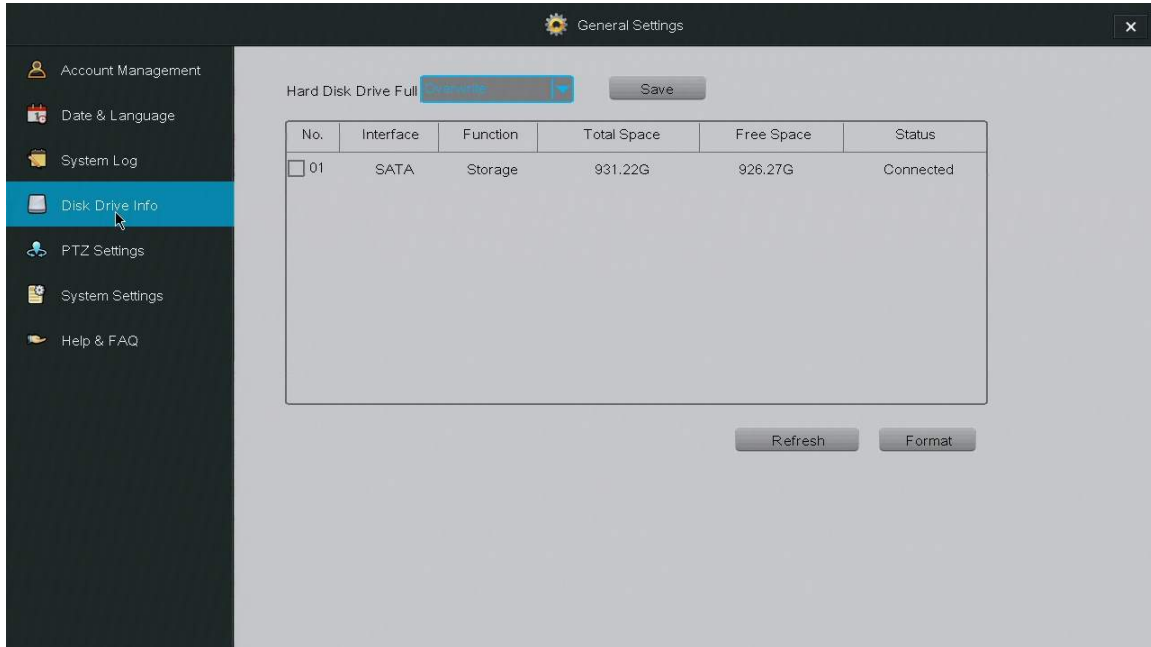
Type Describes the type of notification (Alarm / System)

Start Time The time when the event occurred.

Event Gives detailed description of the notification, e.g. Mo = Motion; 02 = motion captured on channel 2; alarm = type of notification.

Disk Drive Info

This menu allows you to review important HDD information, format HDD's and change it's settings.



Hard Disk Drive Full Defines how the DVR will behave when the HDD is full. When the HDD has reached its storage capacity, the DVR will either stop recording or overwrite the older playback files. The overwrite feature is generally recommended.

Refresh Update the HDD information shown on the page.

Total Space The total available storage space on the HDD in the DVR.

Free Space The amount of storage space left on the HDD in the DVR.

Format In order to format a drive, select it from the menu and press [Format]. The system will automatically format the HDD.

PTZ Settings

The screenshot shows a 'General Settings' window with a sidebar on the left. The sidebar contains the following menu items: Account Management, Date & Language, System Log, Disk Drive Info, PTZ Settings (highlighted in blue), System Settings, and Help & FAQ. The main content area is titled 'General Settings' and contains the following configuration options:

| | | | |
|-----------|---------|----------|-----|
| Channel | 001 | Address | 001 |
| Protocol | Pelco-d | Data Bit | 8 |
| Baud Rate | 2400 | Parity | No |
| Stop Bit | 1 | | |

At the bottom right of the main area, there are two buttons: 'Default' and 'Save'.

Channel Select the channel that your PTZ camera is connected to.

Protocol Refers to the language of communication between your DVR and camera.

Address This allows the DVR to identify the different PTZ cameras connected to the device. Refer to your camera's manual for specific instructions on changing the address.

Baud Rate Refers to the frequency of communications (this must match the camera's baud rate).

Data Bit This is typically set at 8.

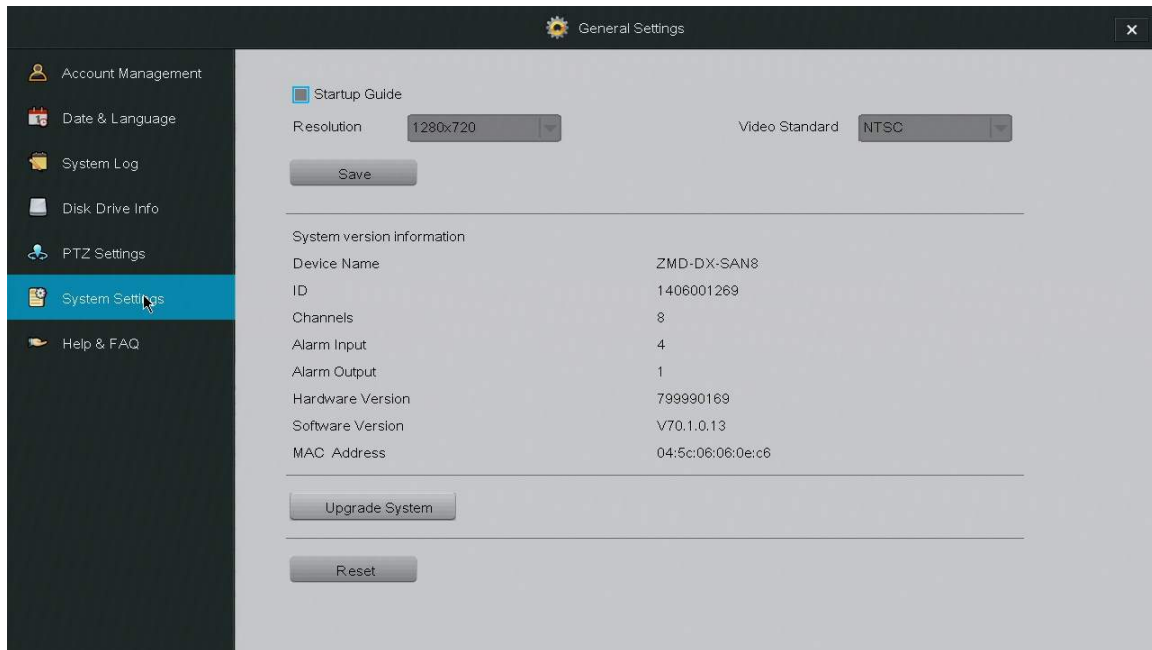
Stop Bit This is typically set at 1.

Parity This is typically set at "No".

In order to configure your PTZ camera, you will need to refer to the manual provided with your PTZ camera for the correct baud rate and protocol information.

System Settings

Use this menu to view and change basic settings and information of the DVR. From this menu, you may enable the startup guide, change the display resolution and video standard, view system information, upgrade the DVR firmware and reset the system to factory default settings.



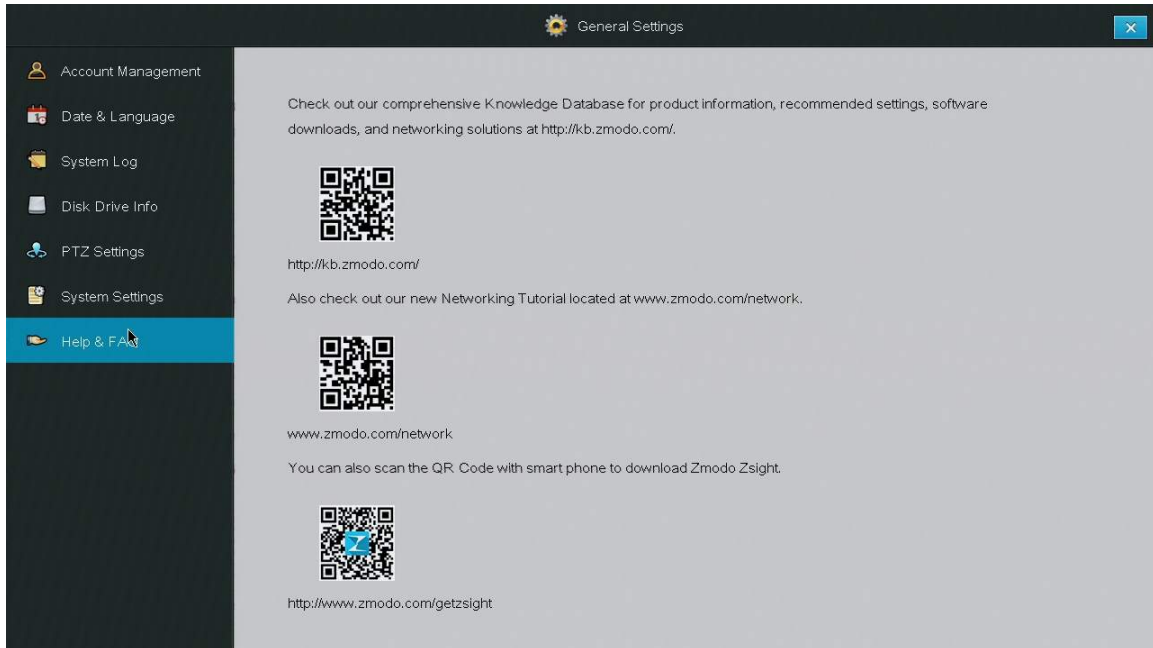
Startup Guide Check this box to enable the startup guide to appear (refer to **3.3 DVR First-time Startup**). The startup guide will appear the next time the system is powered on.

Please refer to the following instructions to upgrade the firmware from the system (required: a USB drive).

1. Download the updated firmware from the website on your computer.
2. Place the file onto the root directory of a USB drive.
3. Connect the USB drive to the USB port on your DVR.
4. Go to the [General Settings] menu in the Main Menu and access the [System Settings] page.
5. Select [Upgrade] and wait 5-10 minutes.

Help&FAQ


Funlux offers comprehensive support for our users. This page provides links to some of our resources that will help guide you to a maximal experience of our products. Use a QR-code scanner on your mobile device and scan the QR-codes to access the websites, or manually input the URL's provided.



General Settings


- Account Management
- Date & Language
- System Log
- Disk Drive Info
- PTZ Settings
- System Settings
- Help & FAQ**

Check out our comprehensive Knowledge Database for product information, recommended settings, software downloads, and networking solutions at <http://kb.zmodo.com/>.




<http://kb.zmodo.com/>

Also check out our new Networking Tutorial located at www.zmodo.com/network.



www.zmodo.com/network

You can also scan the QR Code with smart phone to download Zmodo Zsight.

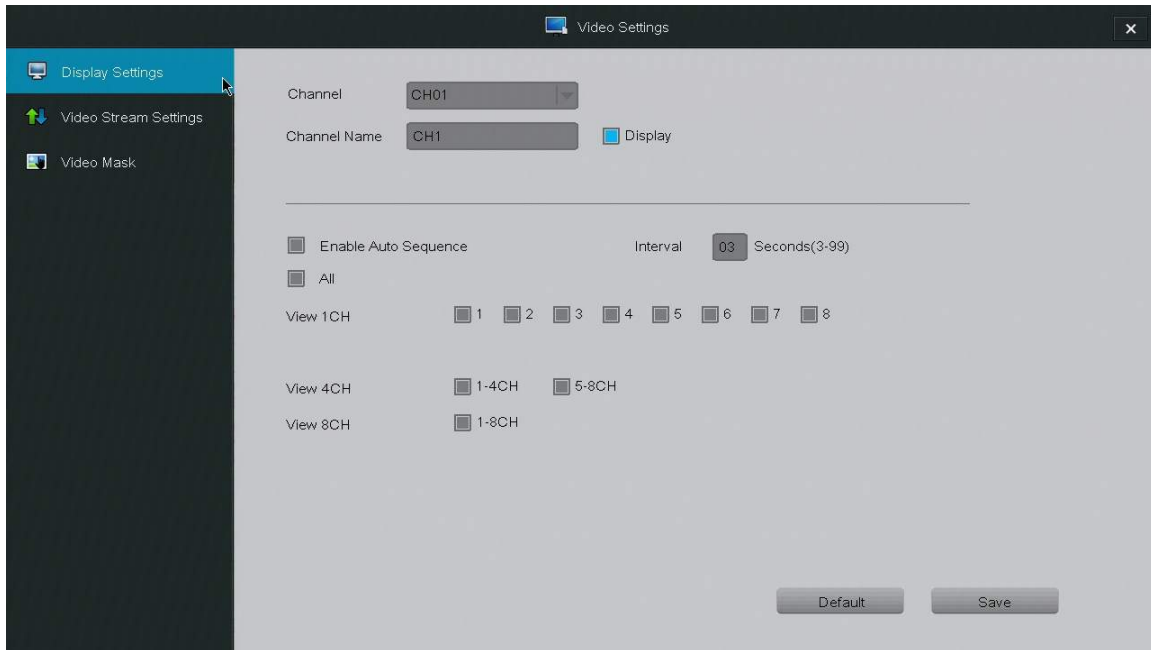


<http://www.zmodo.com/getzsight>

Video Settings

Display Settings

The DVR offers several options to best customize the content displayed on the home-screen of your DVR.



Channel Select a channel display to customize. Each channel can display a specific channel name and the current time.

IMPORTANT: When changing the settings on a channel, press [Save] before editing another channel or exiting the page otherwise all changes will be lost.

Channel Name You may set a name to describe the camera feed on your DVR. For example, if you have set up a camera in the front yard on channel 1, you could name it "Front Yard".

Display When selected, the DVR will display the channel name on the corresponding channel.

Enable Auto Sequence Selecting this option will activate sequential viewing. In sequential viewing, the DVR will automatically cycle between certain channel feeds. You may change the duration of each sequence and select which feeds to cycle through under this menu.

Video Stream Settings

Adjusts the video quality, frame rate, resolution and streaming bit rate



Channel Choose the channel that you would like to change the settings for.

IMPORTANT: When changing the settings on a channel, press [Save] before editing another channel or exiting the page otherwise all changes will be lost.

Local Video Stream Changes the video streaming settings for devices that are connected to the DVR locally (devices that are connected to the same internet connection as the DVR).

Network Transmission Stream Changes the video streaming settings for devices that are connected to the DVR remotely (devices that are connected through 3G/4G or a different internet connection than the DVR).

Video Quality Change the overall quality of the video. Increasing the quality also increases the bandwidth used.

Frame Rate (FPS) This changes the number of pictures (frames) per second that make up the video stream. The higher this value, the smoother and better the video quality is, however increasing this value also increases the bandwidth.

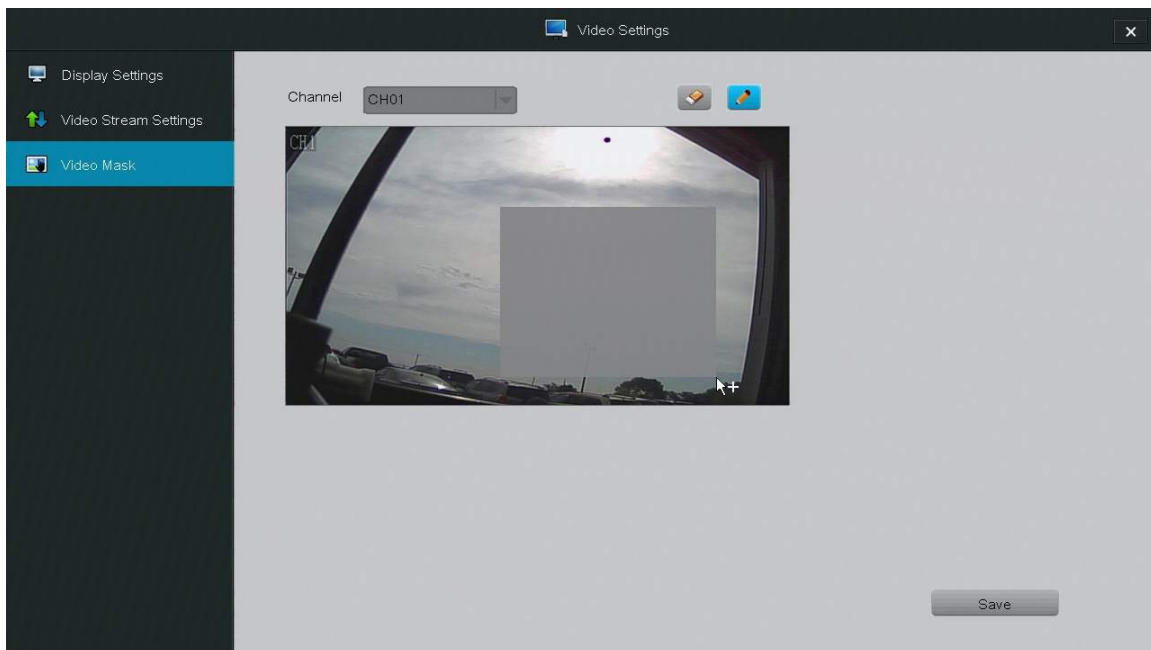
Resolution Change the resolution of the video stream. QVGA=320x240.

Streaming Bit Rate This is the type of bit rate that the DVR uses to view video from the camera. VBR stands for the variable bit rate, and CBR stands for the constant bit rate—CBR is higher quality than variable, however it uses more bandwidth.

Video Mask

The DVR allows you to mask / hide certain areas of your camera feed from recording and monitoring.

To create an area to mask you must first select the channel to edit and select the draw tool. Select an area by clicking and dragging down and to the right with your cursor. A gray box will appear. Remove selected areas by selecting the eraser tool and clicking on the selected area. After you are done, press [Save] and proceed to other channels or return to the home-screen.

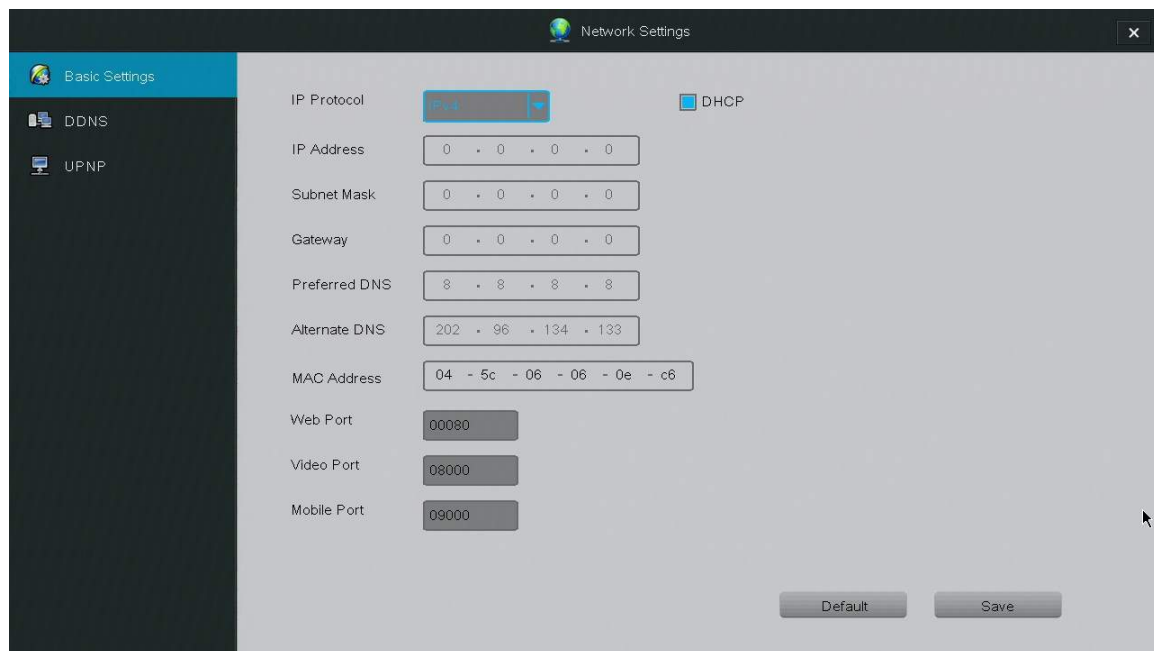


Network Settings

Basic Settings

Selecting *DHCP* will allow the DVR to manually configure the IP address and network parameters.

The settings on this page enable access to the DVR over the internet. Unless you are an advanced user, we do not recommend that you change these settings. These definitions are not sufficient for manual networking and configuration.



The screenshot displays the 'Network Settings' window with a sidebar on the left containing 'Basic Settings', 'DDNS', and 'UPNP'. The main area is titled 'Basic Settings' and includes a 'DHCP' checkbox which is checked. Below this are several input fields: 'IP Protocol' (set to 'Static'), 'IP Address' (0 . 0 . 0 . 0), 'Subnet Mask' (0 . 0 . 0 . 0), 'Gateway' (0 . 0 . 0 . 0), 'Preferred DNS' (8 . 8 . 8 . 8), 'Alternate DNS' (202 . 96 . 134 . 133), 'MAC Address' (04 - 5c - 06 - 06 - 0e - c6), 'Web Port' (00080), 'Video Port' (08000), and 'Mobile Port' (09000). At the bottom right, there are 'Default' and 'Save' buttons.

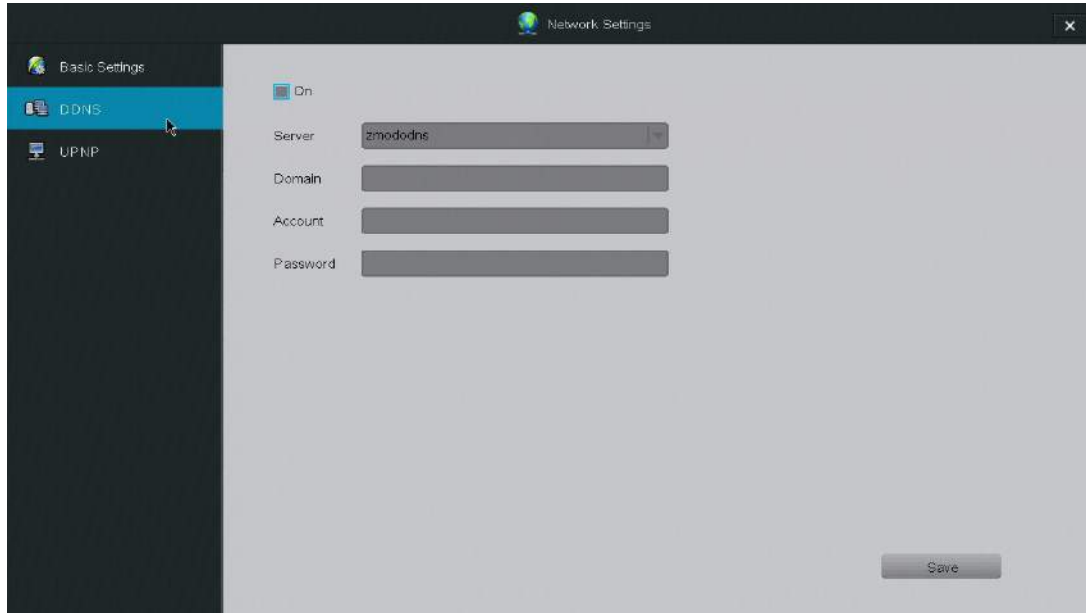
Web Port This designates the port used when accessing the DVR through a web browser.

Video Port This designates the port that the video feed is transmitted over.

Mobile Port This designates the port used when accessing the DVR through a smart phone or mobile device.

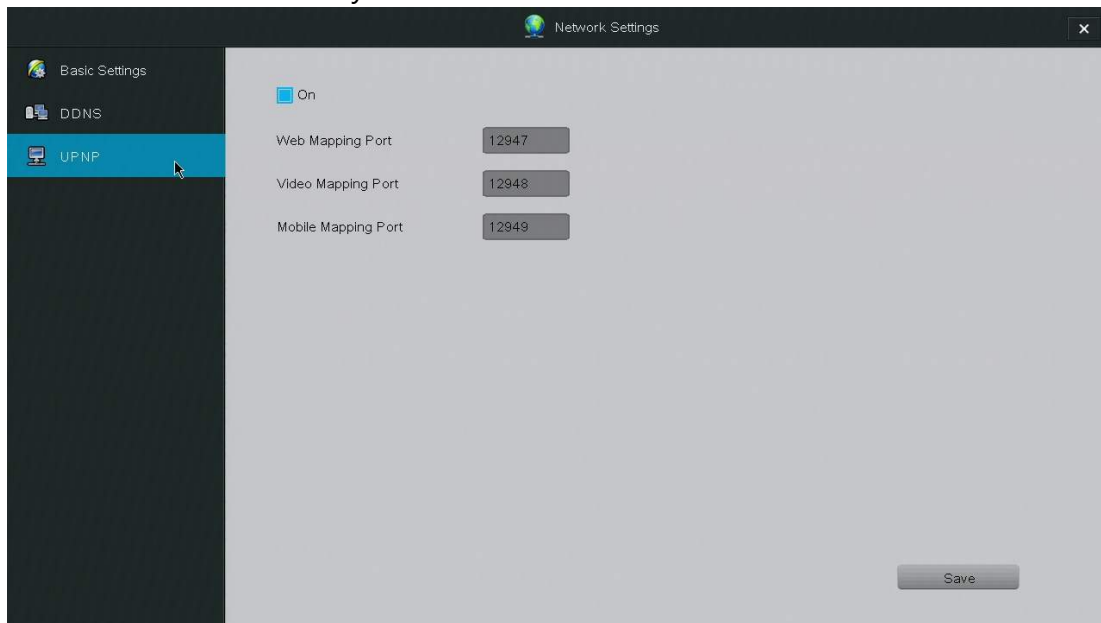
DDNS

NOTE: For advanced users only. Router port-forwarding is required. Use this page to set up a DDNS (Dynamic DNS Server) for remote surveillance, please refer to the knowledge base for full instructions.



UPNP

UPNP (Universal Plug and Play) is a protocol used to establish network connectivity and interaction between devices. Enabling this feature will allow easier network connectivity.



NOTE: The UPNP settings for the device are not the same as the UPNP settings on your router and do not pose the same security risks.

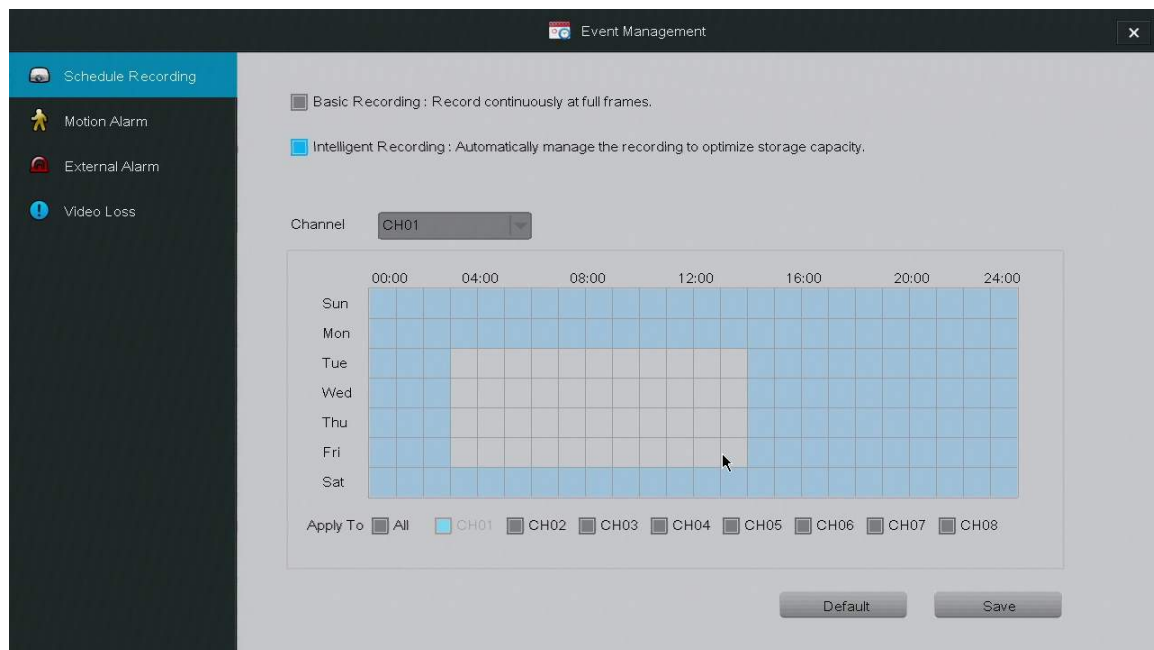
NOTE*: For advanced users only. We do not recommend that you change any settings under this page without prior networking knowledge.

Event Management

This DVR system is specialized for continuous recording, and will automatically mark recordings that are triggered by "critical events" (motion detection and alarms) in the playback menu. Use this menu to define "critical events" and best optimize recording and storage on the system.

Schedule Recording

The system has two recording modes and a fully customizable recording schedule for each camera channel.



Recording modes:

The **basic recording** profile will record continuously at full frames. This means that all recorded video files will be high quality, and the HDD will be able to store less footage at one time.

The **intelligent recording** profile will automatically manage the recording to optimize storage capacity. During scenes of interest when "critical events" are triggered, the DVR will automatically record in full frames to ensure higher quality. During stationary scenes, the DVR will record at a lower framerate to optimize storage capacity.

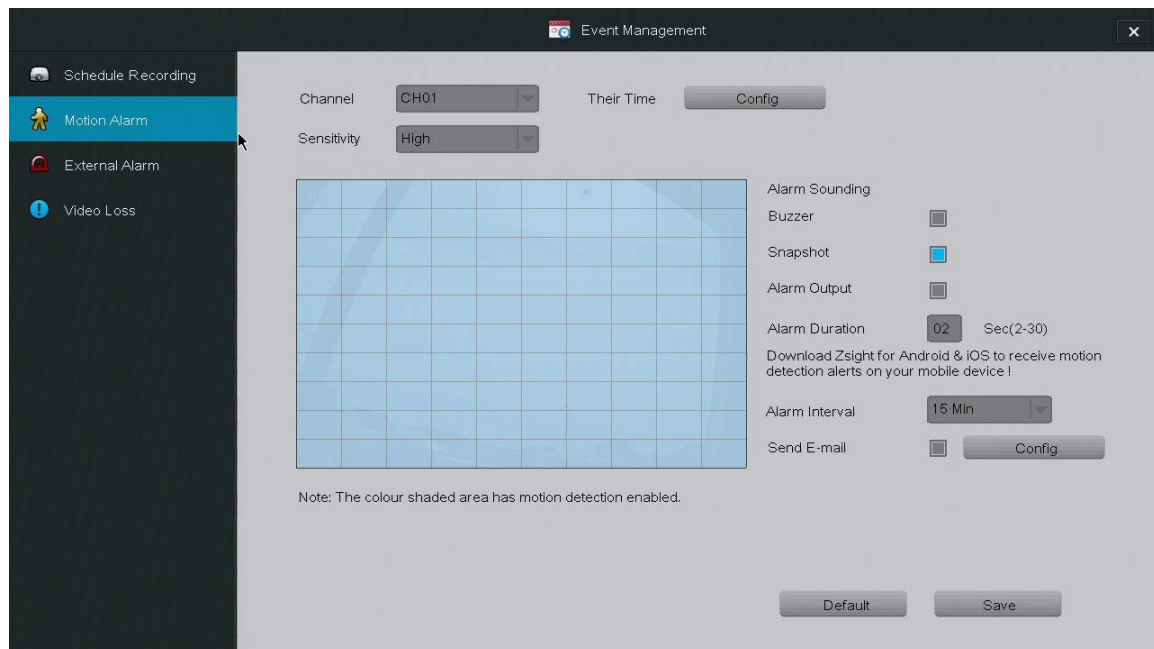
Scheduled Recording

After selecting a recording mode, you can create a recording schedule. Your DVR will only record during the highlighted time periods. Edit a channel's recording schedule by selecting the appropriate camera under [Channel]. Then Deselect (and reselect) squares by left-clicking and dragging the cursor across the schedule.

NOTE: Selecting one of the channels in the bottom panel will apply schedule changes to the highlighted channel *immediately*. In order to see the current recording schedule for a specific channel, select that channel under the [Channel] menu.

Motion Alarm

This DVR supports advanced motion detection features for bolstered security. Please follow the following instructions in order to properly configure and setup the motion detection functions.



IMPORTANT: When changing the settings on a channel, press [Save] before editing another channel or exiting the page otherwise all changes will be lost.

1. Choose a channel to edit. Select a channel under the dropdown menu next to [Channel].

2. Customize schedules for motion detection. Next to the [Their Time] option, press the [Config] button and open the active schedule. The motion detection will be turned on during the times that are highlighted blue. In order to select/deselect regions, you must left-click and release or drag to edit more regions.

NOTE: You must press [Ok] after editing, otherwise all changes will be lost.

3. Select the motion detection area. Using the motion detection grid, define a motion detection area by left-clicking on a square. Click-and-drag to toggle large areas. You may adjust the sensitivity of the motion detection with the [Sensitivity] drop-down menu.

4. Define how the system responds when motion is detected. There are four different responses that the system can take when motion is detected. **NOTE:** The system will automatically record video when motion is detected.

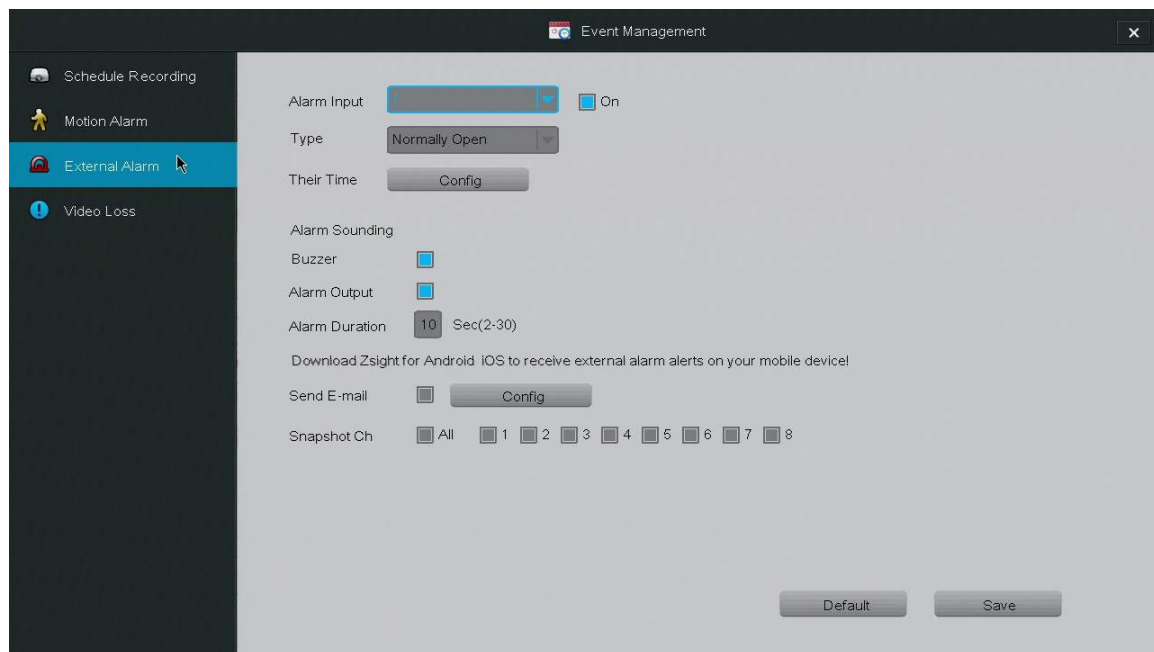
- a. "Alarm Sounding Buzzer" The DVR's built-in buzzer will sound.
- b. "Snapshot" The DVR will take a snapshot and send it to your mobile device and email address (when configured).
- c. "Alarm Output" The DVR will activate any external alarms that have been connected to the back panel (see: **3.1 DVR Installation – Connecting an External Alarm**).
- d. "Alarm Duration" will adjust how long both the buzzer and the alarm output will sound after motion is detected. **NOTE:** The alarm will sound continuously while motion is being detected.
- e. "Alarm Interval" This setting defines the interval between motion detection notifications. For example, when set to 1 minute, the DVR will send an email notification every minute when motion is detected.

f. "Send E-mail" The DVR will send an email notification. The DVR comes with predefined server settings for common service providers, however you may need to specify your own settings if your provider is not included. Choose an email address using the specified service provider to send the email and input the corresponding password to the existing email address.

5. Save and then select another channel to configure. If you do not save prior to selecting another channel, all changes will be lost. You may also restore setting defaults by pressing [Default].

External Alarm

The DVR supports up to four external alarm inputs and one external alarm output. External alarm inputs may include, but are not limited to motion detectors, trip wires, door sensors, etc. External alarm outputs may include, but are not limited to sirens, visual alarms, silent alarms, etc.



Please follow the following instructions to properly configure the external alarm features.

IMPORTANT: When changing the settings on a channel, press [Save] before editing another channel or exiting the page otherwise all changes will be lost.

1. Choose an alarm to edit. In the dropdown menu, choose an alarm and select [On] to enable the alarm input. Choose the type (normally open or normally closed) that describes your specific alarm. You may need to refer to the instruction manual provided with your device.

2. Customize the active period for your alarm. Next to the [Their Time] option, press the [Config] button and open the active schedule. The alarm will be active during the times that are highlighted blue. In order to select/deselect regions, you must left-click and release or drag to edit more regions.

3. Define how the system responds when an alarm is triggered. There are four possible responses when an alarm is triggered. Choose an option by selecting the box next to it. **NOTE:** The system will automatically record video when an alarm is triggered.

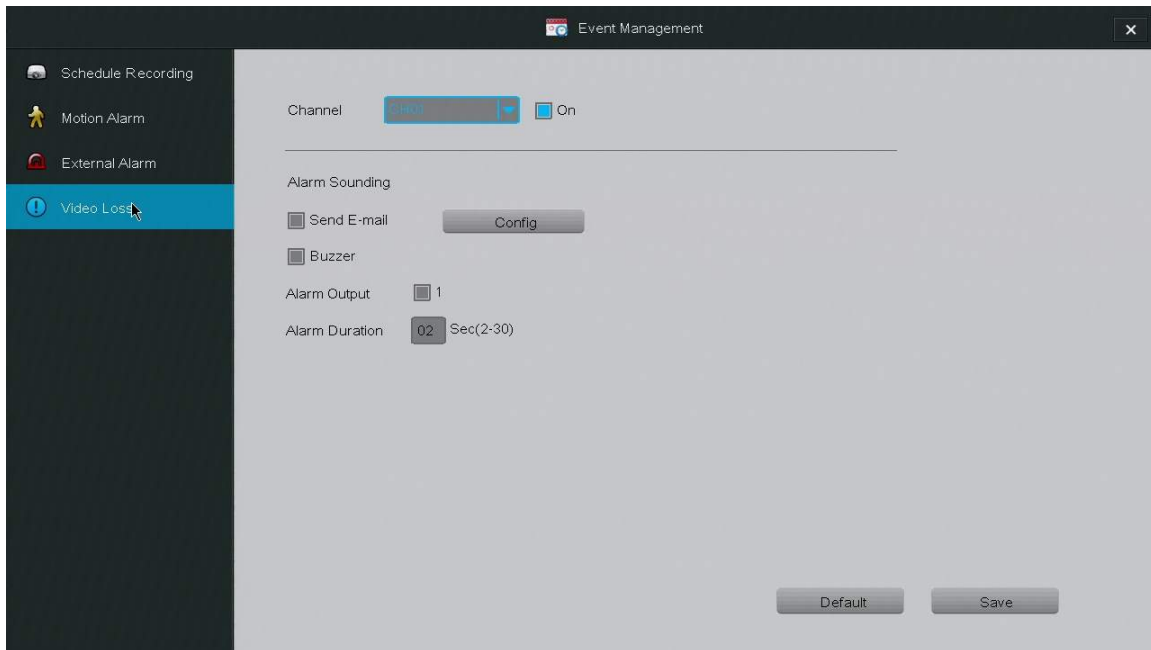
- a. "Buzzer" The DVR's built-in buzzer will sound.
- b. "Alarm Output" The DVR will activate any external alarms that have been connected to the back panel (see: **3.1 DVR Installation – Connecting an External Alarm**).
- c. "Alarm Duration" will adjust how long both the buzzer and the alarm output will sound after motion is detected.
- d. "Send E-mail" The DVR will send an email notification. The DVR comes with predefined server settings for common service providers, however you may need to specify your own settings if your provider is not included. Choose an email address using the specified service provider to send the email and input the corresponding password to the existing email address.
- e. "Snapshot Ch" When selected, the DVR will capture a screenshot from the selected channel when the alarm is triggered.

Alarm Input Select the channel of the input alarm that you would like to edit. Select "On" to enable this alarm.

Type Select the type of alarm that you are using. Please refer to your alarm's manual if you are unsure of this.

Video Loss

The camera's video could be lost due to various reasons, and the potential consequences could be serious. Use this menu to customize system response when video is lost.



Please follow the following instructions to configure your DVR's response to a lost video signal:

1. Select a channel to edit. Select the channel you want to edit, and select [On] in order to activate a video loss response for that channel.

2. Define how the system responds when video is lost. There are four possible responses when video is lost. Choose an option by selecting the box next to it.

- a. "Send E-mail" The DVR will send an email notification. The DVR comes with predefined server settings for common service providers, however you may need to specify your own settings if your provider is not included. Choose an email address using the specified service provider to send the email and input the corresponding password to the existing email address.
- b. "Buzzer" The DVR's built-in buzzer will sound.

c. "Alarm Output" The DVR will activate any external alarms that have been connected to the back panel (see: **3.1 DVR Installation – Connecting an External Alarm**).

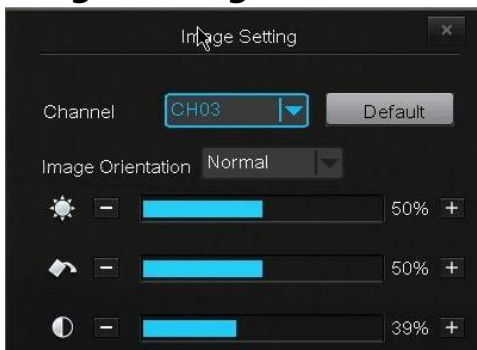
d. "Alarm Duration" will adjust how long both the buzzer and the alarm output will sound after motion is detected.

4.2 Camera Controls

When on the home screen, you can access the DVR's camera controls by double-clicking on the desired channel feed and a blue menu will appear as shown. The icons represent the six control features: mute, image setting, zoom, snapshot, playback and PTZ.

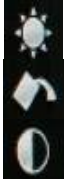


Image Setting



This will adjust the image settings of the camera from the DVR. **NOTE:** This will affect everyone connected to the DVR.

Image Orientation



Change the image orientation. "Flip" will flip the image vertically, "Mirror" will flip the image horizontally, and "Flip and Mirror" will apply both functions.

Adjust the brightness settings of the camera.

Adjust the color saturation of the camera.

Adjust the contrast settings of the camera.

Zoom

Selecting this will bring you into the zoom-in mode. Use the scroll wheel to zoom in and out, and click on areas of the screen in the bottom right corner to select viewing areas.

Right click to exit out of the view.



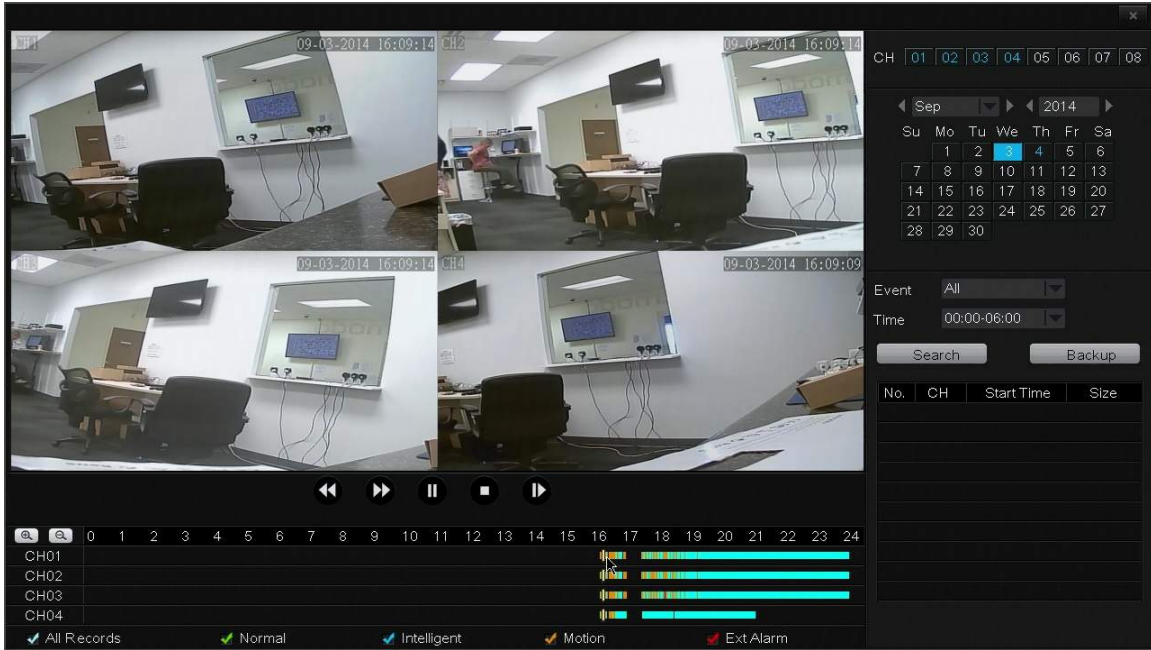
Snapshot

You can quickly capture a snapshot at any time; in order to do so, click once on the [Snapshot] button in the camera functions bar. A thumbnail will appear on the bottom left of your screen. Access the snapshots gallery in the quick menu (see **3.4 Home Screen Introduction**).



Playback

Access and review your surveillance footage from this menu.



Video Playback

1. Select the channel of your recording on the right panel under "Channel". When you select a channel, it will be highlighted in blue.
2. Select the month and year on the calendar in the right panel. The days that are highlighted in blue will have recordings available. Select one of the days.
3. Use the Playback Controls to playback video.



PTZ Control

These control settings can only be used for cameras that have pan, tilt and/or zoom features (PTZ).



Directional Arrows Move the camera in the direction of the arrow



Start the PTZ patrolling function (the camera will automatically patrol a certain movement path).



Adjust the camera focus



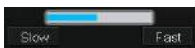
Adjust the lens aperture to optimize the image in specific lighting conditions.



Zoom in or out



Begins automatic horizontal or vertical panning.



Adjust the movement speed of the camera.

Select Patrol Line Choose the preset patrol path for the camera to follow.

Select Preset Select a preset location, and press OK to move the camera to that location.

Dwell Time Select the duration that the camera will remain in one preset location before it patrols to the next.

Set Up Presets Select a preset number. Move the camera with the directional keys to a desired location, and press [OK] to store the location in that preset value.

Delete Presets Remove a stored preset location.

Backup

The system allows you to backup specific files from your machine onto an external USB drive. The following instructions will show you how to find specific files on your system to backup.

1. Select the channel of your recording on the right panel under "Channel". When you select a channel, it will be highlighted in blue.
2. Once a channel is selected, select a month and year on the calendar. The days that are highlighted in blue will have available recordings. Select one of the days.
3. Under "Event" choose which type of recording that you want to search for. You can choose normal, alarm triggered or motion triggered recordings only, or you can choose all recordings.
4. Choose the time frame that your recording will fall under. For example, if you are looking for a video file that was recorded at 3:00 a.m. you will specify the time frame 0:00-6:00.
5. Press [Search]. If your DVR has saved any recordings during this time frame, they will appear in the menu.
6. Select all of the videos that you would like to back up, and press [Back up]. Wait for the progress bar to complete for each video file.
7. Repeat steps 1-7 for video files under different channels, days, events, time frames, etc.

4.3 Remote-viewing Setup



Remote / Local View via
Zsight Mobile APP



Remote viewing allows you to access your DVR from any location in the world for unprecedented surveillance versatility using any Android or iOS mobile device with our 'Zsight' application installed. With our revolutionary user-friendly setup, we have eliminated the need for complex port-forwarding procedures and other networking hassles. Our product servers will automatically authenticate and configure your hardware for remote-viewing. The following instructions will guide you through the remote-viewing setup:

Minimum Requirements:

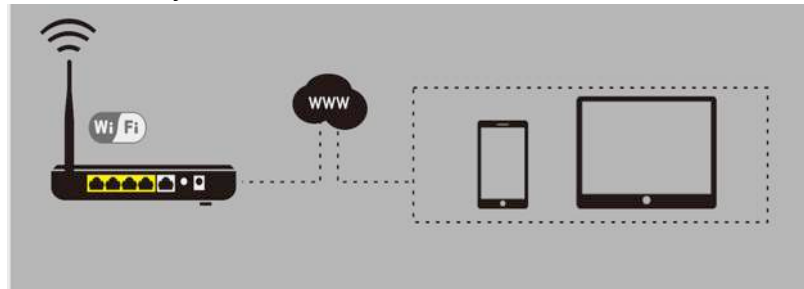
- Android or iOS mobile device with wireless/3G/4G internet connection
- 'Zsight' Application downloaded on your mobile device.

1. Locate the DVR information on the outer casing of your system.



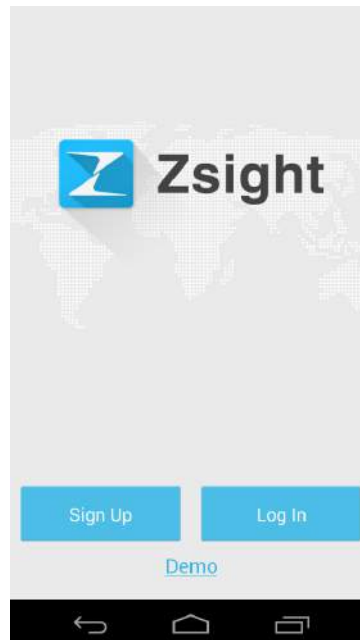
2. Connect your mobile device to the same local network as your DVR.

Please make sure your mobile device is connected to the internet through the same wireless router as your DVR.

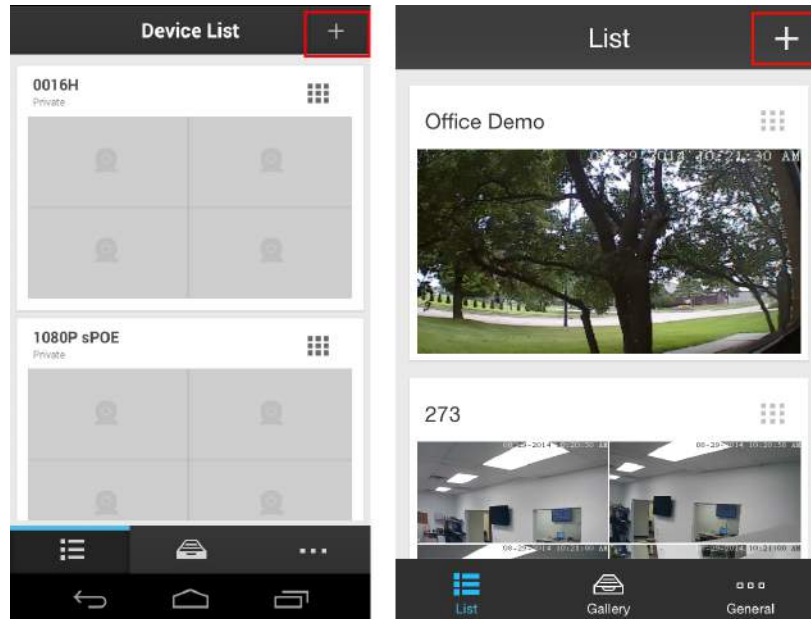


3. Open the Zsight app on your mobile device and create a Zsight account.

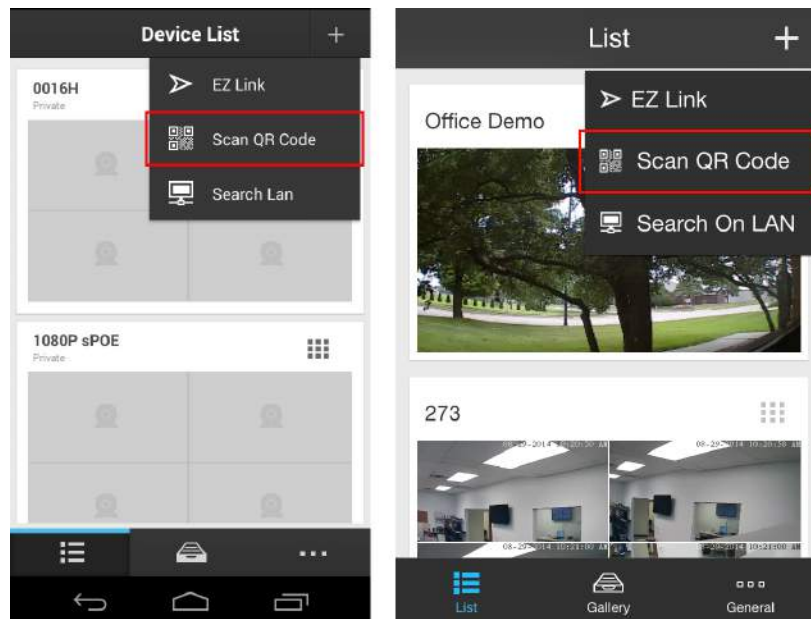
If this is your first time using Zsight, you will need to create a new account. Do so by selecting the [Sign Up] option. If you already have an account, press [Log In] and enter your login information.



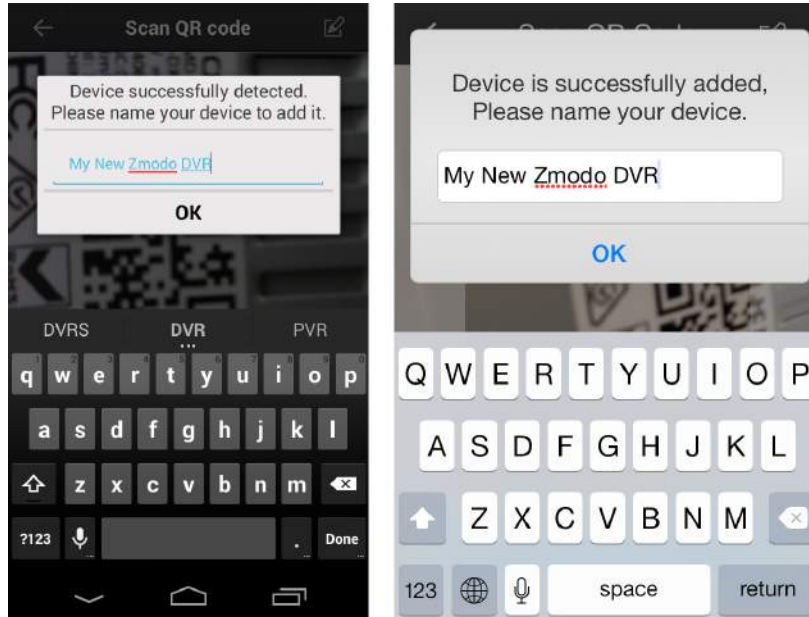
4. Add a new device to your account. Once you have logged in, you will enter a 'Device List' page. Tap the [+] on the upper right hand corner to open the 'Add Device' menu.



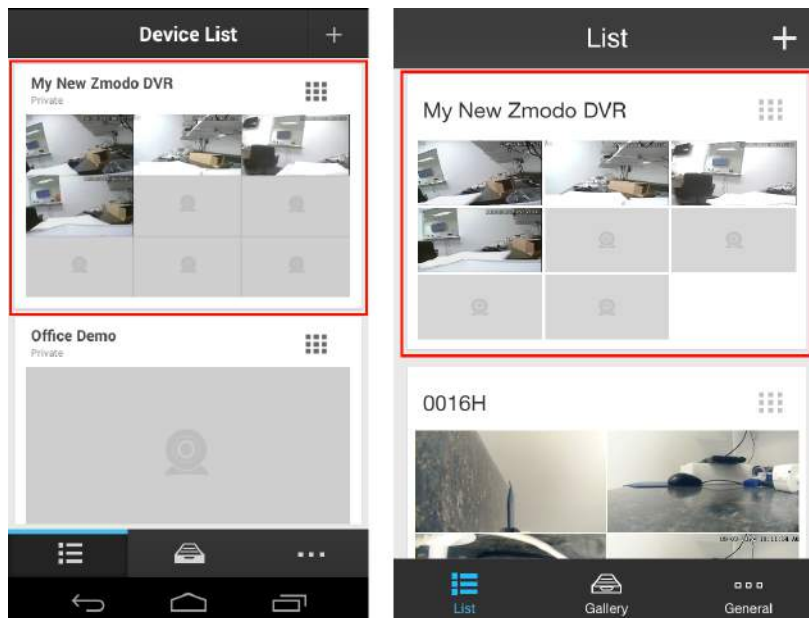
5. Add your DVR by scanning the QR code found in step 1. Select the [Scan QR Code] option as shown in the image, and a QR code scanner will open. Locate the QR code sticker found in step 1, point your camera at the QR code and hold it steadily until it successfully scans.



6. Name your device. When the device has been successfully added, you will be automatically prompted to name your device. Choose any unique name for your device to distinguish it in your device list.

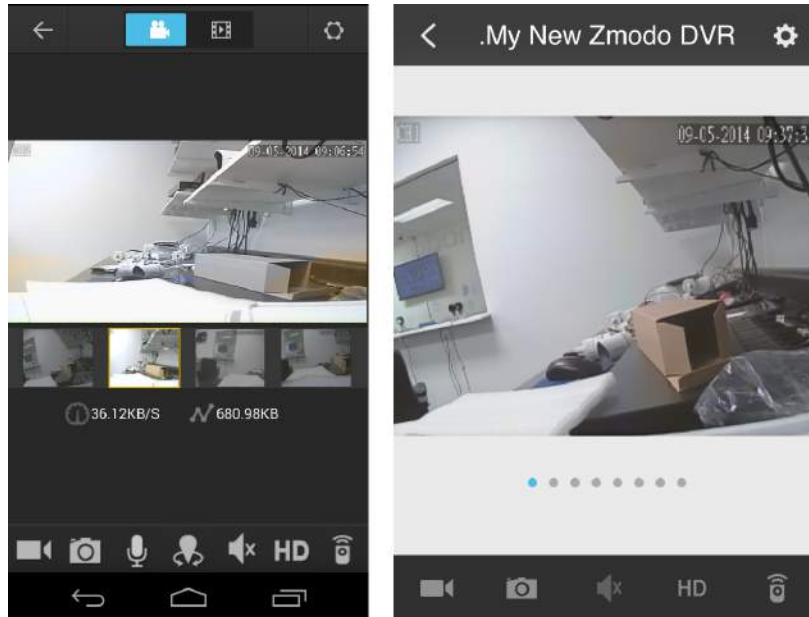


7. Select your system from the device list to view the live video stream. Go back to the 'Device List' section and select your device from the list. Make sure that a live video stream from your DVR appears.



8. Disconnect from your wireless network and access the DVR using 3G/4G.

Connect your mobile device to a different internet connection from your DVR (3G/4G or any other wireless connection) and repeat step 6. Our product servers will automatically authenticate your DVR for remote-viewing capabilities.



9. Your device is now activated for remote surveillance! You will now be able to view your DVR on any Android or iOS device with internet connection! In order to do so, simply download the Zsight app on the desired device and log in to your account from step 1. You can also share your device with anyone with a Zsight user account by accessing the settings menu for your device in the Zsight app. **Congratulations, and thank you for choosing Funlux!**



Apple iphone



Apple ipad

4.4 Updating your DVR

From your Mobile Device (via Zsight)

Please refer to the following instructions to upgrade the firmware of your DVR from your mobile device.

1. Make sure that both your mobile device and your DVR have a secure, consistent network connection.
2. Open your 'Zsight' app and login with your account information.
3. Select your device from the device list.
4. Select the settings menu on the upper right hand corner.
5. Check the "Device Update" section towards the bottom of the menu. If it says that an update is available, press on it and the device will automatically update! Please wait 5-10 minutes for the process to complete.

From your DVR (via USB)

Please refer to the following instructions to upgrade the firmware from the system (required: a USB drive).

1. Download the updated firmware from the website on your computer.
2. Place the file onto the root directory of a USB drive.
3. Connect the USB drive to the USB port on your DVR.
4. Go to the [General Settings] menu in the Main Menu and access the [System Settings] page.
5. Select [Upgrade] and wait 5-10 minutes.

5 Support

5.1 Troubleshooting

Most problems encountered are common problems and are easily correctible. For your convenience, please refer to the following table before calling our Funlux Technical Support.

| Common Problem | Possible Causes | Solution |
|--|--|--|
| The system won't turn on. | The cables are not connected properly | <ol style="list-style-type: none"> 1. Make sure that the power brick is properly connected to the wall plug by unplugging and replugging it until it fits snugly into the brick. 2. Make sure that your power adapter is properly plugged into the power outlet and your DVR system. |
| | The cables are connected but the system still does not receive power | <ol style="list-style-type: none"> 1. Check your DVR front panel and check if the POWER LED indicator is on. If so, your monitor may be off or it may not be properly plugged into your DVR. 2. If the unit is connected to the power outlet through a surge protector, make sure that the surge protector is on. 3. Make sure that there is power coming from the outlet by plugging in another device to the outlet. If there is no power, please try another outlet or power source. |
| Hard drive is not detected by the system | Hard drive cables may not be properly connected | Remove the cover and check that the SATA power and data cables are properly connected to the logic board and the hard drive. |
| | Your hard drive may not be compatible with the system | Check your HDD compatibility with the recommendations under the HDD Installation section of this user manual. |
| HDD is full and the unit is can't record | The DVR is set to stop recording when the HDD is full | <ol style="list-style-type: none"> 1. Access the [General Settings] and open the [Disk Drive Info] page. 2. Open the drop-down menu at the top next to the "Hard Disk Drive Full", select "Overwrite" and press save. |
| The mouse is not working | The mouse is not properly connected | Check the back panel of your DVR to make sure that the mouse is connected to the corresponding USB port. |
| | The mouse is connected but it is still not recognized | Please disconnect and reconnect the mouse to the system and reboot the system using the power switch on the back panel. |

| | | |
|--|---|---|
| The system beeps at startup | For some versions of the DVR firmware, this beeping will be normal. | There is no issue with your system. |
| The system is constantly beeping | The DVR is beeping when motion is detected | Under the [Event Management] menu, access the [Motion Detection] page and configure the motion detection settings. Please visit Section 4.1 of this user manual for further instructions. |
| I cannot add the device to my Zsight account | The device is already tethered to a preexisting Zsight account. | For security purposes, our Zsight servers restrict each device to one linked Zsight account. It is possible that your device is currently linked to another account. Please email support@zmodo.com providing your Device ID and we will promptly resolve the issue. |
| My camera can't zoom in | The camera does not support the zoom functionality | In many cases, cameras do not support a zoom feature, but only pan-tilt. These cameras are called 'PT' cameras. Please check to see your camera's supported functionality. |

5.2 Warranty & RMA

Please visit <http://www.zmodo.com/rma> for complete information.

General Guidelines

To qualify for a Return Merchandise Authorization (RMA) for either a refund or repair of Funlux products, all items require an RMA number prior to being returned. Products must be 100% complete, in the same condition as when sold, and in the original packaging as provided by the manufacturer. All packing materials, manuals, CDs, and other accessories and documentation must be included. Kits and other items assembled after purchase must be unassembled and returned in the manufacturer's original packaging. All returns will be inspected and products found to be non-conforming will be rejected or subject to a 15% restocking fee at Funlux's sole discretion.

Non-qualified and non-conforming returns are not included in Funlux RMA policy and, if returned, will be rejected or subject to a restocking fee of up to 15% at Funlux's sole discretion. If the non-qualified or non-conforming package is rejected, the party who returned the item(s) will be billed for return shipping cost of the item(s).

Receiving Procedure

All returned products will be thoroughly inspected and a determination will be made if eligibility and conforming requirements are met. To avoid any delay or denial of processing your return please verify the product you are returning meets the guidelines below and qualifies for return. If a non-conforming product is accepted for return Funlux reserves the right to charge a restocking fee up to 15% at Funlux's sole discretion. Return processing may take up to 5 business days from the time your product is received.

Inspection Criteria

Products must be in the original manufacturers packaging, and shipped securely.

Products must be complete with any standard certification labels originally placed and not tampered with. This includes , but is not limited to UL listing, capacity, brand name, UPC code.

Products must be free of any permanent alterations including, but not limited to paint, altered connection inputs, severed wires or cables, or indication of removed screws/fasteners or seals.

Products must be free from damage of any type, including, but not limited to dents, scratches, cracks, abuse, defacement or damage resulting from power surges.

Products labeled with a security seal, must have the seal intact and not tampered with.

Cross shipment

In the event that a replacement product is needed immediately, a cross-shipment option is available if the original purchase date is within 6 months of the cross-shipment request.

Customers located in Canada are responsible for the shipping charges to send the replacement items to them.

Requesting this option implies that the customer has the defective part and will ship it back to Funlux within 25 calendar days of the ship date of the replacement product. The customer will be asked to secure the return by providing a credit card number. There will be a 25-day cross-authorization placed on the card equal to the list price of the item being shipped. When the cross-authorization is placed on the credit card, the customer will see an approximate 48-hour hold for the amount equal to the list price if the item(s) being exchanged. After the initial 48-hour hold expires, the customer should see no charge placed on the credit card unless the RMA items are not returned to Funlux within 25 calendar days. Should 25 days pass and the original product is not yet received by Funlux, we will charge the full amount that was authorized on the credit card. Subject to availability, Funlux will ship product on the same day the RMA is generated.

Missing Parts Procedure

In the event that your order arrived incomplete, and the tracking indicates that your order was shipped from the Funlux warehouse in central Illinois; Funlux may require image confirmation at our discretion before replacements for any missing parts are shipped out.

If your order included a DVR with a Hard Disk Drive included, and a Hard Disk Drive was not installed in the DVR that you received, Funlux may ask for image confirmation before exchanging the DVR you've received with a DVR that has a Hard Disk Drive installed.

If your order was not delivered or if your order arrived damaged, please contact Funlux customer support so that we can file a claim with the carrier service we used to ship your order. In the event that your order arrived damaged or incomplete due to external damage, please keep all interior and exterior packaging as this is needed when we file the shipping claim.

Missing Parts Procedure for International Customers

In the event that an order is shipped to an international location and that order is either incomplete or including any incorrect items in lieu of correct items, the customer will be responsible for arranging that the correct item(s) be shipped to the international location. It is the customer's responsibility to ship the incorrect item(s) to the Funlux location that is detailed in the RMA information. Funlux will reimburse the customer for all international return shipping costs pending the acquisition of their shipping receipt indicating the exact cost to ship the defective item(s) internationally.

Return Shipping

For your protection, we recommend that you insure your return and use a traceable carrier that can provide you with delivery confirmation. Funlux shall not be responsible for items returned that are lost or damaged in transit. Postage and handling charges, both to and from our warehouse will be paid by the customer, and are non-refundable. At our discretion, Funlux may reimburse shipping charges related to the return or exchange of defective products inside the U.S. only.

Return Shipping for International RMAs for Repair

In the event that item(s) become defective within the one year manufacturer's warranty and the item(s) are located outside of the United States, it is the customer's responsibility to ship the defective item(s) to the Funlux location that is detailed in the RMA information. Funlux will only ship RMA returns to the USA and Canada. At our discretion, we may reimburse the customer for international shipping costs in the form of store credit.

If the returned item(s) are tested and found to be non-defective by the certified Funlux RMA technicians, the customer will not be reimbursed but international return shipping costs. The customer will be responsible for arranging shipment of the returned non-defective items from the US to their international location.

If the returned item(s) are tested and found to be defective by the certified Funlux RMA technicians, the customer will be reimbursed for all costs of return international shipping in the form of store credit. The customer will be responsible for arranging shipment of the returned defective item(s) from the US to the customer's international location.

In the event that we decide to issue store credit to a customer to reimburse for the cost of return international shipping, the customer must provide a copy of their shipping receipt indicating the exact cost to ship the defective item(s) internationally.

Under no circumstances is Funlux able to reimburse any Customs and/or Duty tax fees that are enacted by the shipping carrier.

Refund Policy for Funlux Purchases

Unless otherwise specified in the item listing on our website, on the receipt or packing slip, or in the terms agreement, Funlux will accept qualified and conforming products for refund within 30 days of the original purchase date.

Refund Policy for Retail Purchases

In order to return any number of Funlux items for refund, please contact the sales venue where these item(s) were originally purchased from and request to send your product(s) back for a refund. Most vendors who offer Funlux products will offer a 30 day refund option, however this is subject to the specific policy of the sales vendor that the product(s) were purchased from. Please refer to the return policy of the original store or vendor that you purchased your Funlux products from for specific return policy information.

Upgrade or Exchange Procedure

If the item(s) that you have purchased do not function to your satisfaction or do not apply to your installation application, please contact the sales venue in which the item was originally purchased from and request a refund for any item(s) that you wish to return. Funlux is unable to exchange any item for an item of a different type unless the following circumstance applies:

1. An item is returned to Funlux for repair under the manufacturer's one year warranty period and that same item was found to be defective and un-repairable by certified Funlux RMA technicians.
2. That same item is out of stock at the time that it was returned to Funlux and tested by certified RMA technicians.

Should the described circumstance directly apply, Funlux will offer at its sole discretion, either a variety of options for an item substitution, an item upgrade, a refund for the list price of the irreplaceable item, or store credit for the list price of the irreplaceable item.

Limitations of Warranty

This warranty does not include non-Funlux installed components. This limited warranty does not cover any damage to the product that results from abnormal mechanical or environmental conditions, abuse, accident, improper installation, misuse, insufficient or excessive electrical supply, natural disaster, or any unauthorized

disassembly, repair, or modification. This limited warranty also does not apply to any product on which the original product label and or UPC information has been altered, obliterated or removed, has not been handled or packaged correctly, has been sold as second-hand, or has been resold contrary to US export regulations.

This limited warranty covers only replacements for defective Funlux products, as described above. Funlux does not cover under warranty and is not liable for any loss of data or any costs associated with diagnosing the source of system problems or installing, removing or servicing Funlux products. This warranty excludes 3rd party software, connected equipment or stored data. In the event of a claim, Funlux's sole obligation shall be to replace our product with its equivalent or the best possible substitute.

Under no circumstances shall Funlux be liable in any way to the user for damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use the Funlux products. Funlux reserves the right to revise or update its products, software, or documentation in keeping with technological advances without obligation to notify any individual or entity.

Technical Support and firmware upgrades for Funlux products are restricted to the country/region of purchase. Please refer to www.zmodo.com/Contact/ in order to contact us to clarify any concerns with the warranty.

5.3 Funlux Support

Online Resources

For full instructional manuals, software downloads, and more, please visit:

<http://www.zmodo.com/support-software>

For detailed and specific instruction, please our frequently updated knowledge-base: <http://kb.zmodo.com>

Technical Support

If you ever have any problems setting up or using this product, call our TOLL-FREE number for additional assistance: **866-551-6881**

Telephone Service Hours: Mon-Fri 8:00am-8:00pm CST

Email: support@zmodo.com

Customer Service & RMA

Customer Service: support@zmodo.com

RMA: RMA@zmodo.com

General Inquiries & Sales

Sales/Inquiries from North America: sales-us@zmodo.com

Sales/Inquiries from other locations: sales@zmodo.com