SPY-DVR4HYB2 & SPY-DVR4HYB2ND
SPY-DVR8HYB2 & SPY-DVR8HYB2ND

Instructions

Congratulations on purchasing the SpyClops H.264 DVR Security System

System Specifications:

- **Multi-camera digital video recorder which includes motion detection, key buzzer alarm, e-mail and area masking**
- **The DVR uses state of the art H.264 video compression technology to maximize your recording time and optimize your video quality. H.264 compression saves hard drive space and supports faster data transfer.**
- **Data stored in the DVR can easily and quickly be backed up via a USB drive**
- **Up to 4 or 8 camera capacity so upgrading your system in the future will be easy and trouble free**
- **Apple and Android supported app so you can view your video feed from anywhere remotely**
- **An embedded Linux operating system provides you with stability and excellent network capabilities**
- **Upgraded DVR Hard Drive specifically designed for CCTV use**
- **2 USB ports in back**
- **Ideal for residential and commercial installations**

Your System Includes:

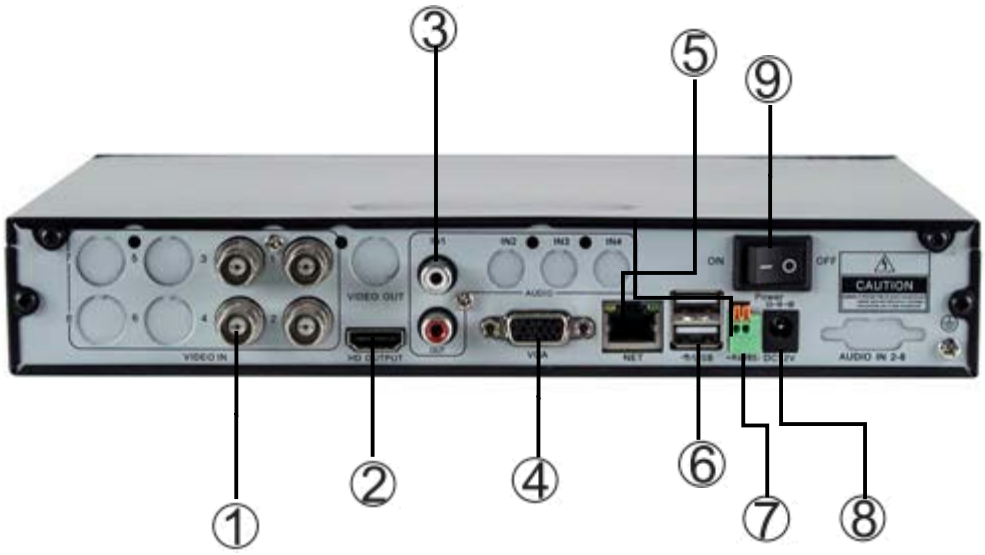
- **4 or 8 channel H.264 networkable DVR**
- **Pre-installed DVR Hard Drive (SPY-DVR4HYB2ND & SPY-DVR8HYB2ND Hard Drive NOT included)**
- **Power adapter**
- **USB mouse**
- **DVR remote**

SPY-DVR4HYB2
SPY-DVR4HYB2ND

SPY-DVR8HYB2
SPY-DVR8HYB2ND

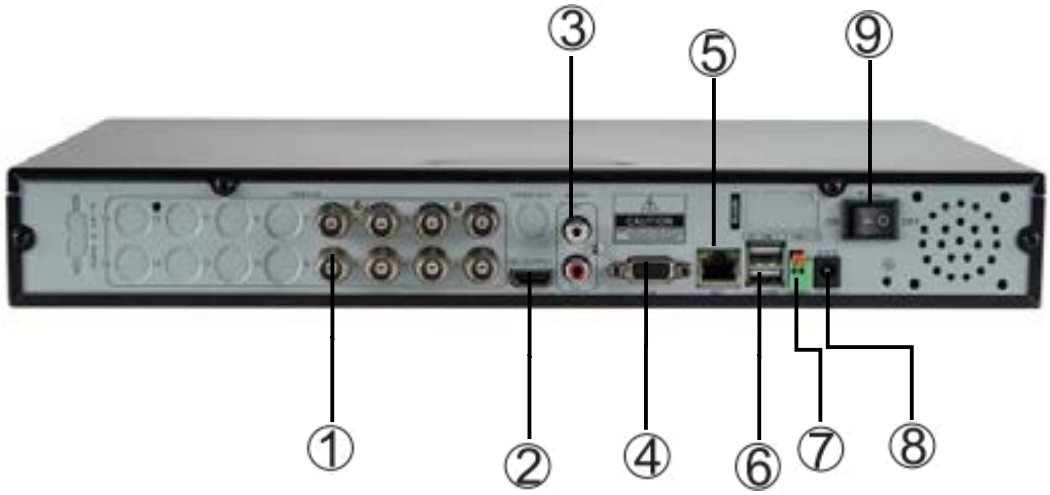
Note: **Remove the equipment from its packaging and place it on a clean, flat surface. Inspect each item. If any visible damage is present, contact your supplier please verify your order is complete**

MAKING THE CONNECTIONS:
SPY-DVR4HYB2



1. BNC video in from cameras
2. HDMI output
3. RCA audio IN and OUT
4. VGA output to monitor
5. RJ45 Ethernet port
6. Mouse/USB backup
7. RS485 port for PTZ camera control
8. DC 12V adapter port
9. ON/OFF power switch

MAKING THE CONNECTIONS:
SPY-DVR8HYB2



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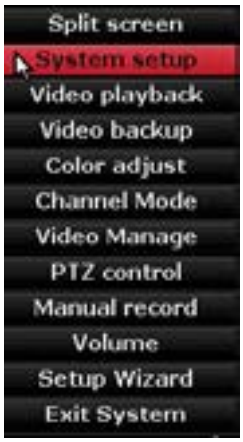
1.0 INTRODUCTION

1.1 Main Menu Introduction

Right click the mouse and you will find the main menu (it can also be accessed by pressing the "**MENU**" key). The main menu consists of the following components:



- **Split Screen**
- **System Setup**
- **Video Playback**
- **Video Backup**
- **Color adjust**
- **Channel Mode**
- **Video Manage**
- **PTZ control**
- **Manual record**
- **Volume**
- **Setup Wizard**
- **Exit System**

2.0 Split Screen

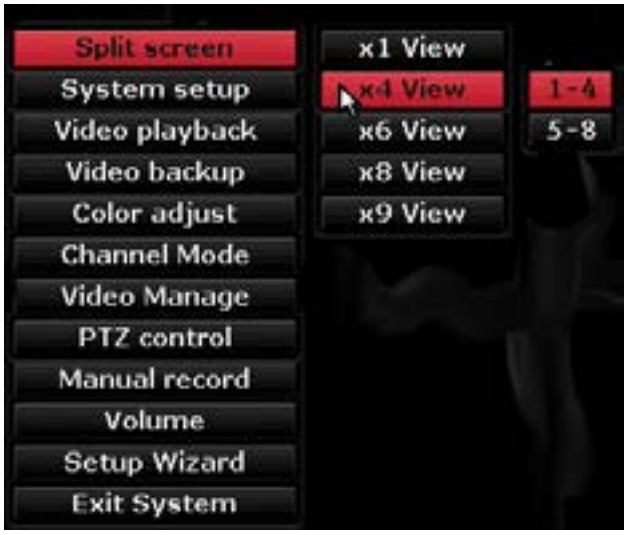
x1 View

- When choosing '*x1 View',* user may choose one camera to view in full screen mode

x4 View or x8 View (SPY-DVR8HYB2)

- When choosing '*x4 View or x8 View',* user can view all 4 or 8 camera's simultaneously

- In x4 or x8 View, user can double click any camera to view in full screen mode. Double click to return to all camera view



3.0 SYSTEM SETUP

3.1 General Set-up

- **Auto Logout:** When enabled, the DVR will automatically logoff the present user if there is 10 minutes without operation. They will need to login again to operate the device

- **Key buzzer**: **"Enable"** will activate a beep when the DVR buttons are pushed. **"Disable"** will prevent beeps from sounding when the buttons are pushed

- **Language:** You can select one of many different languages

- **Standard: "NTSC"** is the standard for North America and will need to be selected for a clear picture.

- **Key Pad Type:** This option is used to set up the key pad to Standard, 16, 18 or 23 keys

- **Remote ID:** Fixed

- **Boot Wizard:** Check Box for ON or OFF

- **Show ESEE ID When Preview:** Check Box for ON or OFF

- **Show Time When Preview:** Check Box for ON or OFF

3.2 Time Setup

- **Date Format:** Change date display layout
- **System Date:** Change date
- **System Time:** Change DVR's time
- **Time Format:** Change between 12 hour time or 24 hour time

3.3 HDD Setup (Format the Hard Drive)

- DVR comes formatted
- To delete the hard drive data, right click with your mouse and select **"Setup"** then left click to select **"System Tools"** then select **"HDD management".** Check **"√"** the Overwrite box and the format box of the HDD you want to format then click the **"Format"** checkbox **"√"** click **"Format",** click **"Yes"** to start.
- **Auto delete old files** Choose **custom** to set up auto delete at the number of days that you require. ***Note:*** **This is helpful in saving Hard Disk space.**

3.4 Screen Setup

- **OSD Alpha:** User can make GUI more or less transparent
- **VGA Resolution:** Change resolution to 1024 x 768, 1280 x 1024, 1366 x 768, 1440 x 900, 1080p @ 50Hz or 1080p @ 60Hz
- **Auto Switch:** This function allows user to have camera view switch every few seconds to your desire

3.0 CHANNEL SETUP

3.5 Encode Setup

- **Channel:** This will select camera for setup

  Main Stream

- **Bitrate mode:** This will be dependent on your bandwidth and specific needs

Constant Bitrate	This is the default encoding mode, and also the most basic. In this mode, the bitrate will be the same for the whole file. It means that each part of your video file will be using the same number of bits. The complex parts will be of a lower quality than the easiest ones. The main advantage is that the final files size won't change and can be accurately predicted. **This mode is not recommended**
Average Bitrate	In this mode, you choose a target bitrate and the encoder will try to constantly maintain an average bitrate while using higher bitrates for the parts of your video that need more bits. The result will be of higher quality than CBR encoding while the average file size will remain predictable, so **this mode is highly recommended over CBR.**
Variable Bitrate	In this mode, you choose the desired quality on a scale going from 9 (lowest quality/highest distortion) to 0 (highest quality/lowest distortion). Then you choose the optimal number of bits to spend for each part. The advantage is that you are able to specify the quality level that you want to reach; **the inconvenient is that the final file size is totally unpredictable.**

- **Encode format:** For the main stream we recommend **NTSC** with **960H** format

	QCIF	CIF	HD1	WCIF	D1	960H	720P	1080P-H	1080P
NTSC	176 x 120	360 x 240	352 x 480	480 x 240	720 x 480	960 x 480	1280 x 720	960 x 1080	1920 x 1080
PAL	176 x 144	360 x 288	352 x 576	480 x 288	720 x 576	960 x 576	1280 x 720	960 x 1080	1920 x 1080

- **Rate:** In general, we recommend a bitrate of around 2 - 2.5 Mbps, which takes into account the average worldwide broadband connections for video output

- **Quality:** You can adjust your image quality fluctuation. **Highest**, **High**, **Medium**, **Low**, **Lowest**. **Highest** is recommended, although it **will** affect your bandwidth

- **Frame rate:** The frame rate is how many unique consecutive images are displayed per second in the video to give the illusion of movement. Keep in mind, that the minimum limit that our brain needs to perceive moving frames as a video is 24 Frames per Second, so there is no big difference between 24 and 30 fps except the higher frame rate **will** affect your bandwidth and data storage

- **960H** is a step up from D1 resolution. D1 produces a lower quality image and stretches the image, while **960H** is a higher quality image with no image distortion.

- **Encode Format:** QCIF, CIF, HD1, D1, WCIF, 960H, 720P,1080P-H, 1080P
- **Limited Rate:** 2Mbps, 64kbps, 128kbps, 256kbps, 384kbps, 512kbps, 768kbps, 1Mbps, 1.5Mbps, 2Mbps, 3Mbps and 4Mbps

RESOLUTION	SCREEN SIZE
1024 x 768	1000 x 600
1280 x 1024	1180 x 850
1366 x 768	
1440 x 900	
1920 x 1080p 50Hz/60Hz	Most standard televisions

- **Quality:** Highest, High, Medium, Low and Lowest
- **Framerate:** 1 fps – 25 fps, Full Frame
- **Encode Mode:** Video Only or AV Stream

Sub Stream

- **Bitrate Mode:** Variable, Constant or Average
- **Encode Format:** QCIF or CIF
- **Quality:** Highest, High, Medium, Low and Lowest
- **Framerate:** 1 fps – 12 fps
- **Copy To:** This button allows user to copy settings to 1-4 or 8 cameras or all cameras

3.6 PTZ Setup

Note: To control the PTZ, You must connect the wires to the RS-485 port on the back of the DVR

- **Channel:** Choose which camera view you want to work with.

- **Protocol:** Choose the **"protocol"** required for your device. Both protocols require an additional **RS-485** data cable.

- **Device ID:** Assign an ID number to each channel (camera view).

- **Baud rate:** We suggest using a **"baud rate"** no higher than 9600 to avoid errors. Please refer to your cameras specifications for the **baud rate** that is best for your device.

- **Tour position list:** This is where you set up each camera **"tour"**. First, highlight the line in which you want to add your preset, then click the box with the question mark. Use this box to position the camera to the desired view, then click store. You then need to assign how you want each position to hold by selecting **"keep time"**. If you change a preset, simply click **"update"** after you are done reconfiguring. To delete a preset, highlight the tour you want to delete and click "**remove".**

- **Copy To:** User can copy settings to one or all cameras

3.7 Channel OSD

- **Channel:** Allows user to select what camera to color adjust
- **Camera Title:** Allows user to custom name cameras
- **Color Adjust:** Allows user to change Hue, Brightness, Saturation and Contrast

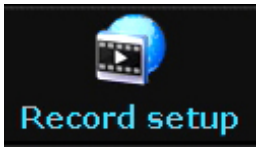
3.8 Video Detection

- **Channel:** User can choose channel
- **Sensitivity:** User can choose Highest, High, Medium, Lo or Lowest
- **Detection:** User can choose Motion, Video Loss or Video Cover
- **Alarm Duration:** User can choose 1-5, 8, 10 seconds or Continues
- **Area Edit:** With this button, user can customize where in the cameras view detection will take place
- **Copy To:** User can copy all video detection edits to one or all cameras

*** In this section, user can choose how to be notified if any of the above takes place by checking Alarm, Buzzer, Email Notice or FTP Upload.**

3.9 Bitrate

- Allows user to view bitrate in progress



RECORD SETUP

3.10 Record Plane

- **Channel:** User can choose camera channel
- **Schedule 1-4 or 1- 8:** User can schedule how many hours and minutes in a day the user would like the DVR to record based on what box is checked
  - Time: Sets DVR to record for set time
  - Motion: Sets DVR to record when motion is detected by camera
  - Sensor: Does not apply
- **Week Day:** User can choose one day a week or all week
- **Copy To:** User can copy all record setup edits to one or all cameras

*** Video recording will be displayed by color.**

- Time = Red
- Motion = Green
- Sensor = Does not apply

Sensor Setup (Does not apply)

NETWORK SETUP

3.11 Network Setup

- **DHCP:** Check box when user needs an IP address
- **ESEE(P2P):** Keep box checked when user wants to view the DVR system through a mobile device
- **IP address:** This is the unique address assigned to your DVR and will be used locally (within your network) in a web browser to view your DVR recording. This is also the address you will use if you need to port forward (for assistance with port forwarding, you can go to portforward.com for instruction according to your router model).

**Note: you will need to allow Active X to install on your browser to view remotely*

- **Gateway:** This will be your router address.
- **MAC address:** The physical address of the DVR.
- **Preferred DNS:** This is the address for routing web access. **Not to be confused with DDNS**.
- **Web port:** This will need to be updated to the new port number if port forwarding is done through another port besides 80.
- **Show QR Code:** This button will populate a QR code to scan with mobile device to have access to the Spyclops® app

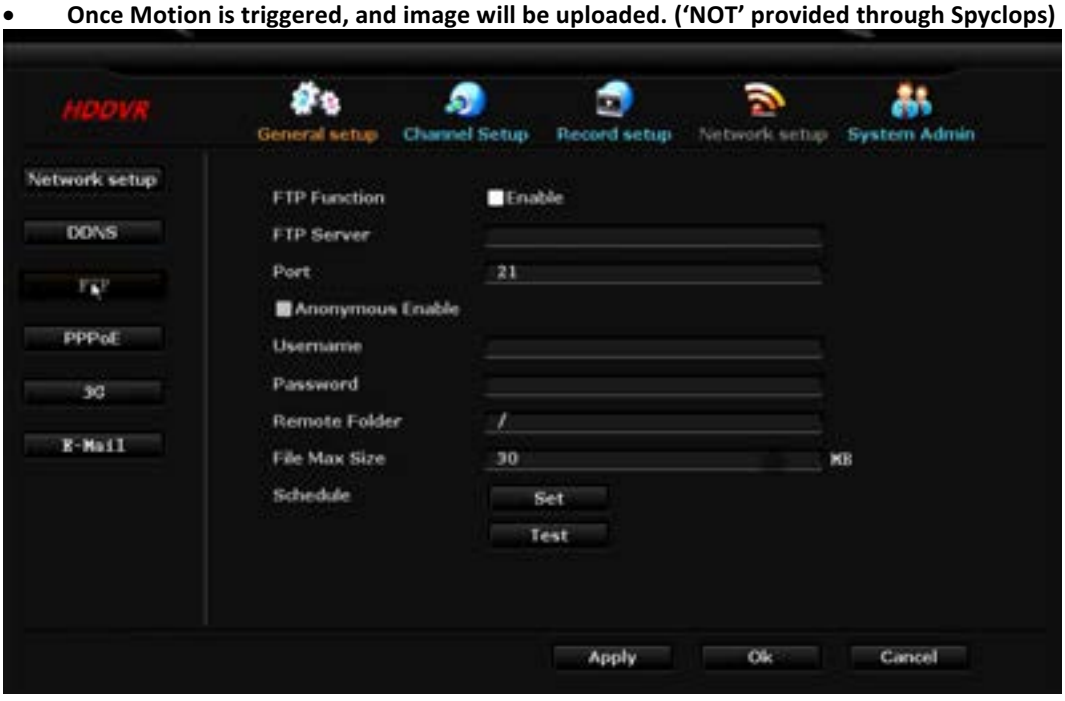
3.12 DDNS

Note: **This option is for remote DVR access using a customized URL that you choose. The two main sites that are supported are noip.com and dyndns.com. Each one has their own pros/cons so it is suggested to research both to find the one that you prefer.**

- **This option will work with Dyndns, Changeip and No-ip**

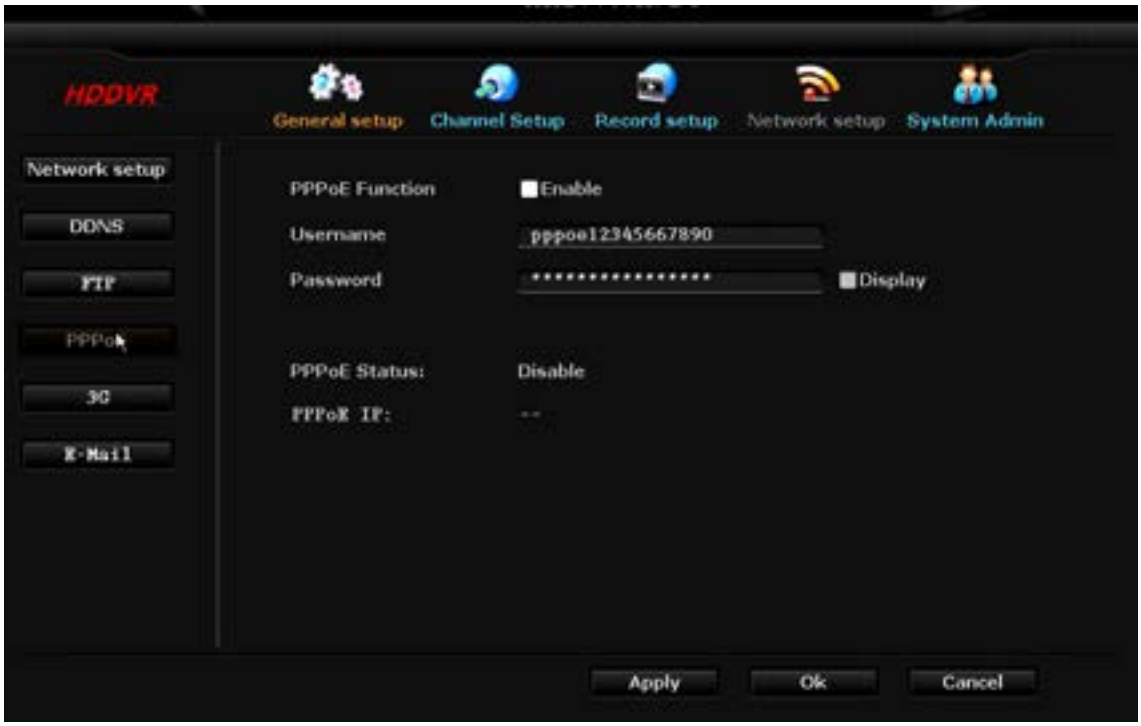
3.13 FTP

- **This service is for uploading an image to a FTP account.**
- **Once Motion is triggered, and image will be uploaded. ('NOT' provided through Spyclops)**



3.14 PPPoE

- **This info must be obtained by Internet Service Provider.**



3.15 3G

- **This service is NOT applicable for both DVR's.**

3.16 E-Mail

- **E-Mail Function:** Select to enable email options.
- **SMTP Server:** Do a search for your email provider's SMTP server (ex: plus.smtp.mail.yahoo.com) and enter the full address here.
- **Port:** Enter the port number that is returned from your SMTP server search (ex. Yahoo = 465).
- **Username: Your** email username (full email address).
- **Password:** Your email password.
- **Encryption Type:** This information can also be found in your email providers SMTP search.
- **Sender, sendee 1, sendee 2: "Sender"** will be your email address and "**Sendee"** will be the email you want the email to go to.
- **Subject:** What you want your emails subject line to be.
- **Interval:** Select this option if you want an automatic email sent periodically with screenshots in seconds ***Note:* there are 3600 seconds in an hour.**
- Click "**Test"** to test your email settings.

SYSTEM ADMIN

3.17 System Version

- This page shows user the DVR's system information

3.18 HDD Info

- This page shows user the HDD information (Hard Drive)

3.19 System Log

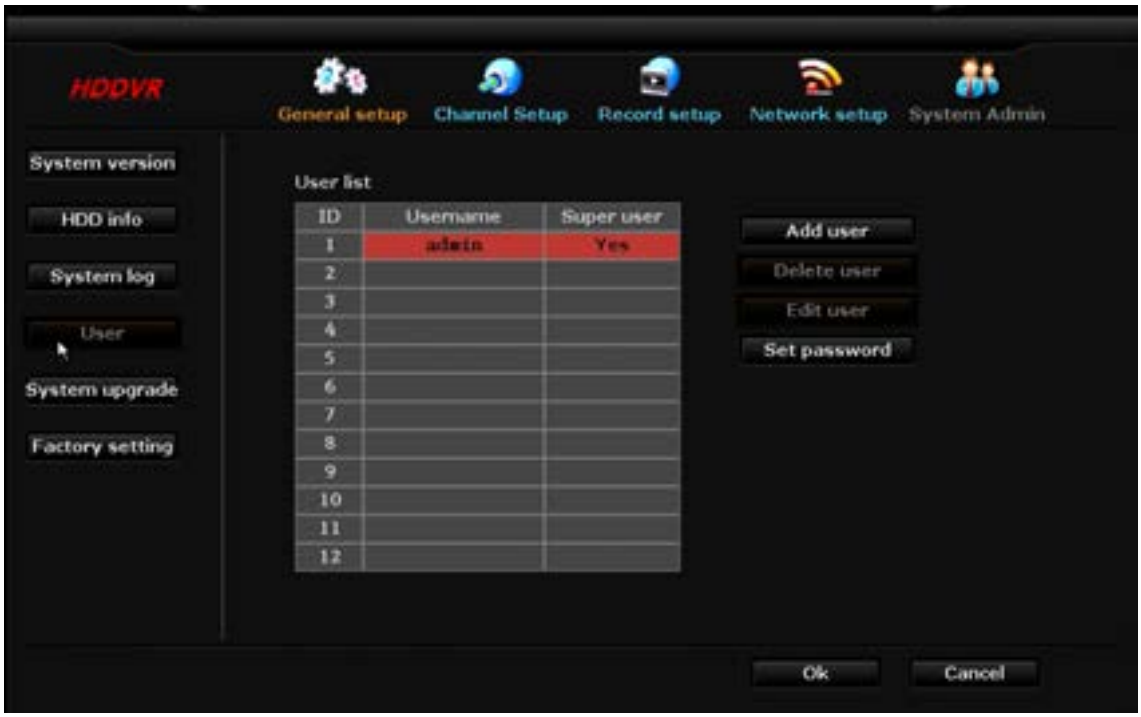
- This page allows user to view when certain events took place. By selecting the time and date, user can view:

  - System bootup
  - System shutdown
  - Configuration is changed
  - Record log
  - Alarm log
  - Device Warning
  - All

3.20 User

- **In this window, user will be-able to set a password for the DVR and also add users to this DVR**
- **Add User: Create username and password and select 'Super User' for access to every option or select individual boxes for limited use**
- **Set Password: User will set DVR's username and password on this page.**

Note: On this DVR, old password is 'Blank" (No letters).



3.21 System Upgrade

- This page will be used to upload *'New Firmware'* when available by uploading via flash drive in the USB port

3.22 Factory Settings

- Within this page, user can choose what he or she wants to restore factory settings

4.0 VIDEO PLAYBACK

- Within this page, user can choose to playback video from 5 minutes, 10 min, and 30 min. to a manual search where user decides time and date for video playback.

5.0 VIDEO BACKUP

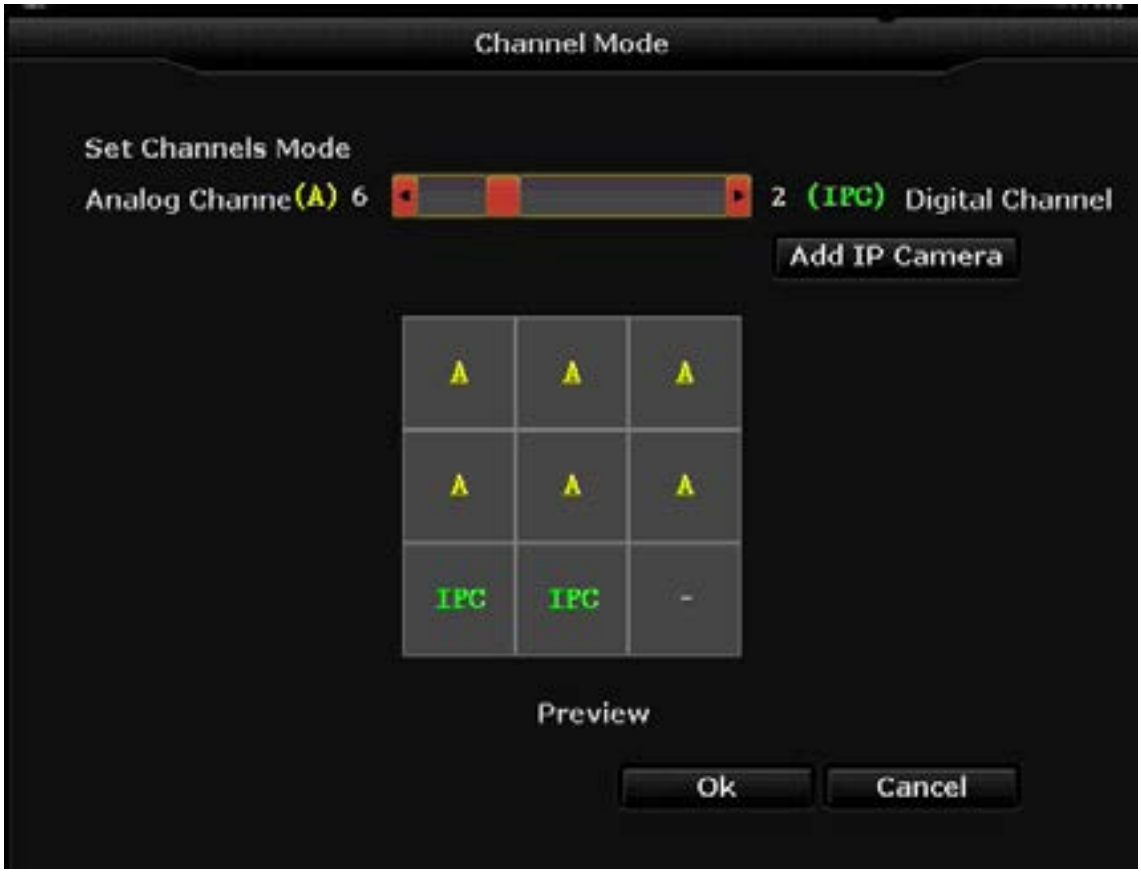
- Within this page, user can choose which if not all video's to back up on a USB flash drive

6.0 COLOR ADJUST

- User can choose Hue, Brightness, Saturation and Contrast to adjust the cameras color.
- Copy To: User can copy color adjustment to one or all of the cameras

7.0 CHANNEL MODE

- Within this page, user can choose how many analog and IP cameras he/she is wanting to use on the DVR. Once set, the DVR will need to be rebooted for DVR to look for specified cameras.



8.0 VIDEO MANAGE

- Within this page, user can manage all cameras that are being used. User can add cameras, delete cameras as well as manual edit all the IP cameras.

8.0 Exit System:

- **Logout:** Apply for logged in users. If you want to use the device again you need to log back in.
- **System reboot:** it will reboot after "**OK".**
- **Shutdown:** To shut the system down.

6.0 Application Download & Install

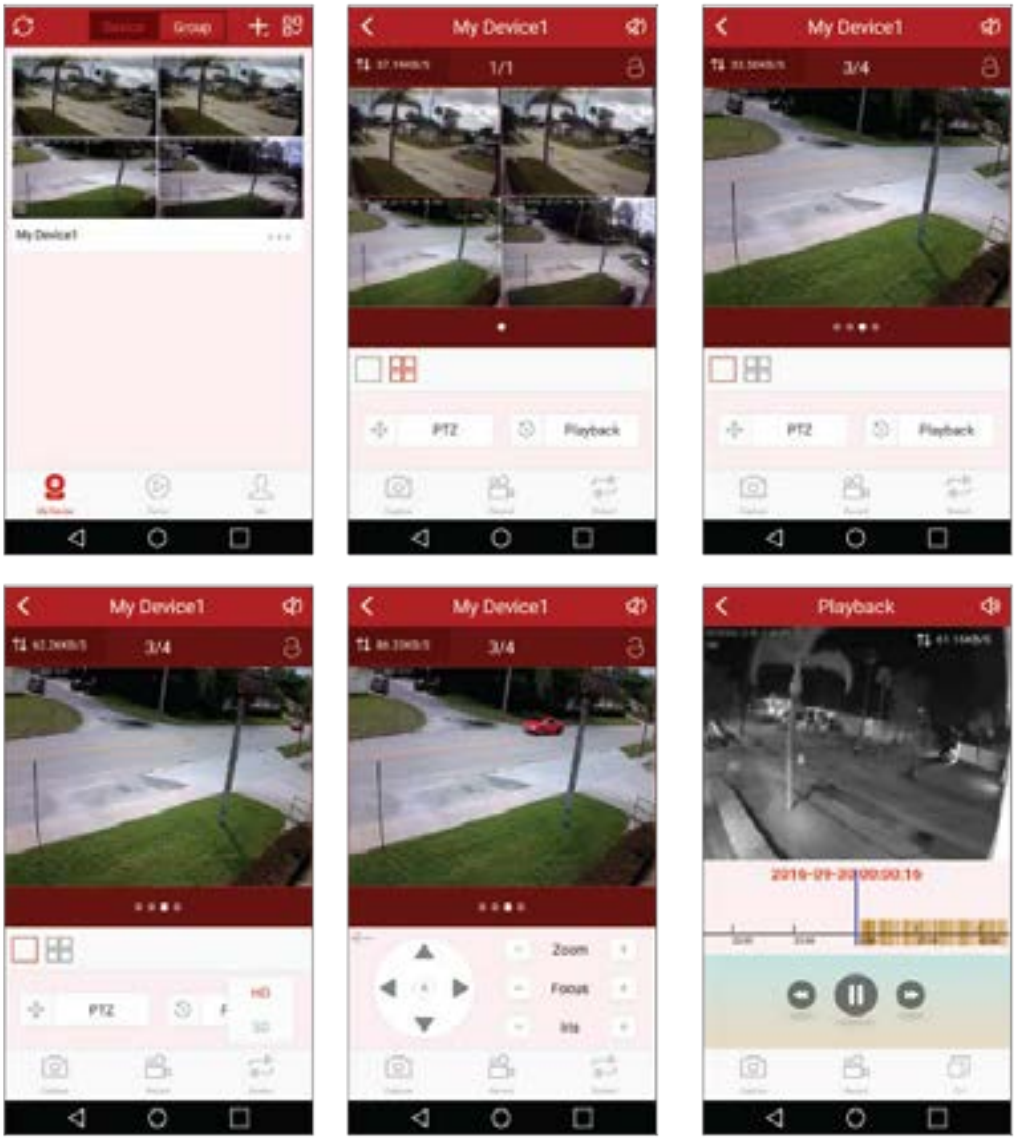
- Open Android Play Store or iPhone App Store
- Search for “Spyclops” app
- Download & Install

7.0 Spyclops Application Setup

- Register User Name and Password with APP (optional) or use Trial for single phone use
- Click on icon in upper right and select “Add Device By ID”
- Enter 9 digit ID in Cloud ID, Title for Device in Descriptions, User Name & password of DVR and select “Submit”. NOTE: If using Trial method, DVR channel total must be selected prior to selecting “Submit”

8.0 Spyclops Application Functions

- Tap preview grid of desired device
- View Device and select camera view options
- Double tap any single camera for full screen
- Select Stream icon to adjust for SD or HD stream quality
- PTZ control for Pan Tilt Zoom cameras
- Playback – Select desired channel and slide to time to search for playback



9.0 TECHNICAL INFORMATION

Technical Parameters

Model	SPY-DVR4HYB2	SPY-DVR8HYB2	DVRs with no HD
Hard Drive	Western Digital 1TB HD	Western Digital 1TB HD	SPY-DVR4HYB2ND SPY-DVR8HYB2ND
Operation system	Embedded Linux operation system		
Operation interface	Graphical user interface (GUI), mouse, front panel		
Video standard	NTSC and PAL		
Image compression	H.264		
Audio compression	ADPCM		
Recoding mode	Manual, timed or motion detection		
Video Search	Time search, event search, channel search, log search and sensor search		
Backup	USB backup		
Video input	4 BNC	8 BNC	
Video output	VGA and HDMI OUT		
Audio input	N/A	N/A	
Audio output	N/A	N/A	
Recording quality	D1 720x480 NTSC 720x576 PAL CIF 352x240 NTSC 352x288 PAL **960H** 960x480 NTSC 960x576 PAL **720p:** 1280x720, **1080p-H:** 960x1080, **1080p:** 1920x1080		
Monitoring quality	1024x768, 1280x1024, 1366x768, 1440x900, 1920x1080		
Playback quality	In recorded quality		
Motion Detection	Yes		
Image display	1,4	1,4,8	
Video Speed	**NTSC**: 30 frames / sec (adjustable) **PAL**: 25 frames / sec (adjustable)		
Alarm Sensor Input/Output			
PTZ	RS485		
Network interface	Self-adaptive 10M/100M Ethernet interface		
USB Interface	Two USB 2.0 high-speed interfaces		
Power	12v (adapter included)		

For Technical Support Assistance

M-F / 9-6 please call 866.839.9187

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