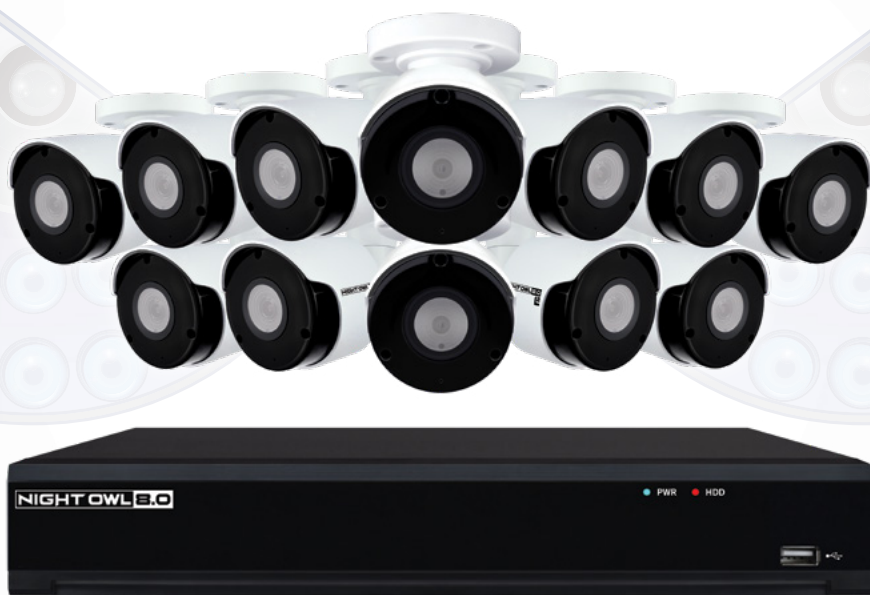




USER'S MANUAL

IH8 SERIES



www.NightOwlSP.com



Thank you for choosing Night Owl Security Products!

By purchasing a Night Owl product, you receive a one (1) year warranty covering manufacturing defects in material and workmanship. Make the most of your warranty by completing the registration form online. In addition to warranty and technical support benefits, you will have access to our multitude of free instructional “How to Videos”. You can also view our instructional videos by clicking the “How to Videos” tab within your product’s page on our website.



Register at www.NightOwlSP.com

Night Owl’s IH8 Series Camera Compatibility:

Night Owl’s IH8 NVRs are compatible with the following model numbers:

CM-IH8-BA; CM-IH8-DA; CM-H54MPW-BU

If the camera’s video quality either day or night is degraded, you may need to change the cable run from the camera to the NVR. This system is designed to work with Ethernet cabling.

Please see the warranty section of this manual for exclusions and additional details. Not all features and capabilities are shared across all models so you may see features which are not applicable. In addition you may see screen images that do not exactly match those on your display.

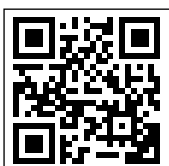
THIS MANUAL WAS ACCURATE AT THE TIME IT WAS COMPLETED. DUE TO OUR ONGOING EFFORT TO CONSTANTLY IMPROVE OUR PRODUCTS, FUNCTIONS MAY HAVE BEEN ADDED OR CHANGED.

Before setting up your system, you **MUST** update your NVR’s firmware. Please follow these steps:

- 1 Connect one end of the included Ethernet cable into the LAN port on the back of your NVR. Connect the other end into your Modem/Router to establish an Internet connection.
- 2 Next, connect the NVR to your TV/Monitor using the provided HDMI cable. If your TV/Monitor does not have an HDMI port, you may use a VGA cable (*not provided*).
- 3 Using the provided NVR power adapter, power on the NVR.
- 4 Once the NVR is powered on, the Startup Wizard will begin. Follow the steps within the Startup Wizard to upgrade your system’s firmware.

NOTE: Your NVR must be connected to the Internet in order to upgrade the firmware.

Quick Setup Guide



Use a QR Code scanner on your Smart Device to scan the QR Code. Scan the QR code to the left to access the Quick Setup Guide for assistance in configuring Night Owl Security system.

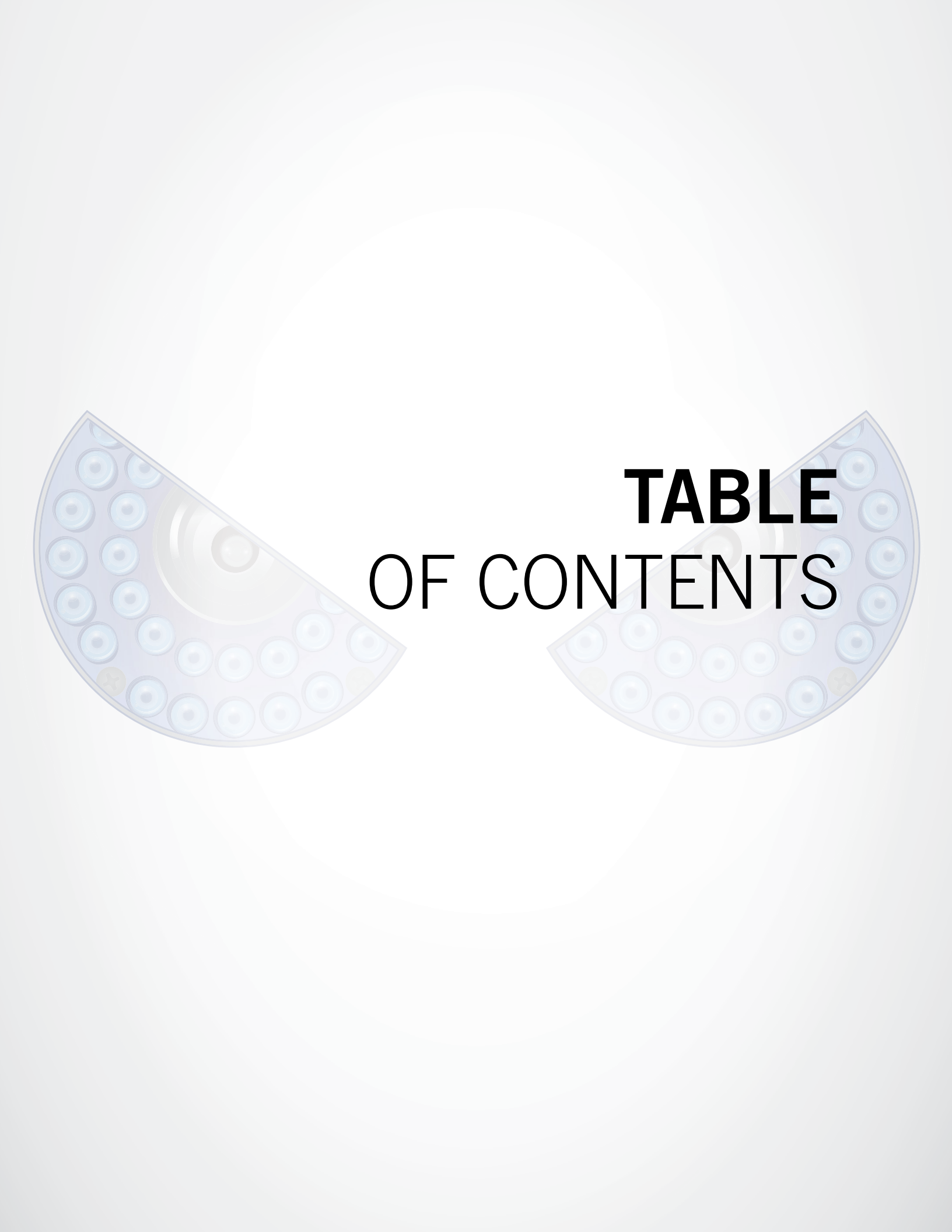


TABLE OF CONTENTS

Table of Contents

Chapter 1:	FCC Warnings	8
Chapter 2:	Safety Instructions	10
Chapter 3:	Specifications	12
3.1	System Requirements	12
3.2	Package Contents	12
3.2.1	NVR Diagram	13
3.2.2	Camera Diagram	14
3.2.3	Mouse Diagram	14
Chapter 4:	Camera Installation	16
4.1	Video/Audio	16
4.2	Mounting the Cameras	17
Chapter 5:	NVR Installation	20
5.1	Connecting to a TV (via HDMI)	20
5.2	Power	21
Chapter 6:	Getting Started	23
6.1	Startup Wizard	23
6.1.1	Camera Test	24
6.1.2	Network Check	24
6.1.3	Firmware Check	26
6.1.4	Password Creation	27
6.1.5	Date and Time Setup	29
6.1.6	Night Owl HD	29
6.1.7	Password Verification	30
6.1.8	Camera/Channel Settings	31
6.1.9	Camera Positioning	31
6.1.10	Channel Configuration	32
6.1.11	Default View	33
6.1.12	Helpful Links	34
6.1.13	Wizard Complete	34
6.2	Night Owl HD Mobile App	35
6.3	Displays and Icons	36
6.3.1	Login Screen	36
6.3.2	Reset Password	37
6.3.3	Live View (All Channels)	38
6.3.4	Right Click Menu	39
6.3.5	Live View (Single Channel)	40
6.3.6	Menu Screen	41
Chapter 7:	Menus and Settings	43
7.1	General Menu	44

7.1.1	Display	44
7.1.1 (a)	Output	44
7.1.1 (b)	Privacy Zone	45
7.1.2	Snapshot	46
7.1.2 (a)	Snapshot	46
7.1.2 (b)	Snapshot Schedule	46
7.1.3	Network ADVANCED	47
7.1.3 (a)	Switch	47
7.1.3 (b)	Main	48
7.1.3 (c)	Substream	49
7.1.3 (d)	Email	50
7.1.3 (e)	Email Schedule	51
7.1.3 (f)	DDNS	51
7.1.4	Alarm	52
7.1.4 (a)	Motion	52
7.1.4 (b)	Motion Area Setup	53
7.2	Cameras Menu	54
7.2.1	Configure	54
7.2.2	Settings	55
7.2.3	Image Control	56
7.3	Record Menu	57
7.3.1	Search	57
7.3.1 (a)	Video Playback	58
7.3.2	Backup	59
7.3.3	Snapshot	60
7.3.4	Settings	61
7.3.4 (a)	Record Schedule	61
7.3.4 (b)	Mainstream	62
7.3.4 (c)	Mobile	63
7.4	Device Menu	64
7.4.1	HDD	64
7.4.2	S.M.A.R.T.	65
7.4.3	PTZ	66
7.5	System Menu	67
7.5.1	General	67
7.5.1 (a)	Settings	67
7.5.1 (b)	DST	68
7.5.1 (c)	NTP	69
7.5.2	Users	70
7.5.3	Info	71
7.5.3 (a)	Info	71

7.5.3 (b) Channel Info 72

7.5.3 (c) Record Info 72

7.5.4 Log. 73

7.6 Advanced Menu. 74

7.6.1 Maintain 74

7.6.2 Events 75

7.6.3 Auto Upgrade 76

Chapter 8: Glossary 78

Chapter 9: Warranty 80

Chapter 10: Troubleshooting 83

Chapter 11: User Information 86

Customer Support Back Cover

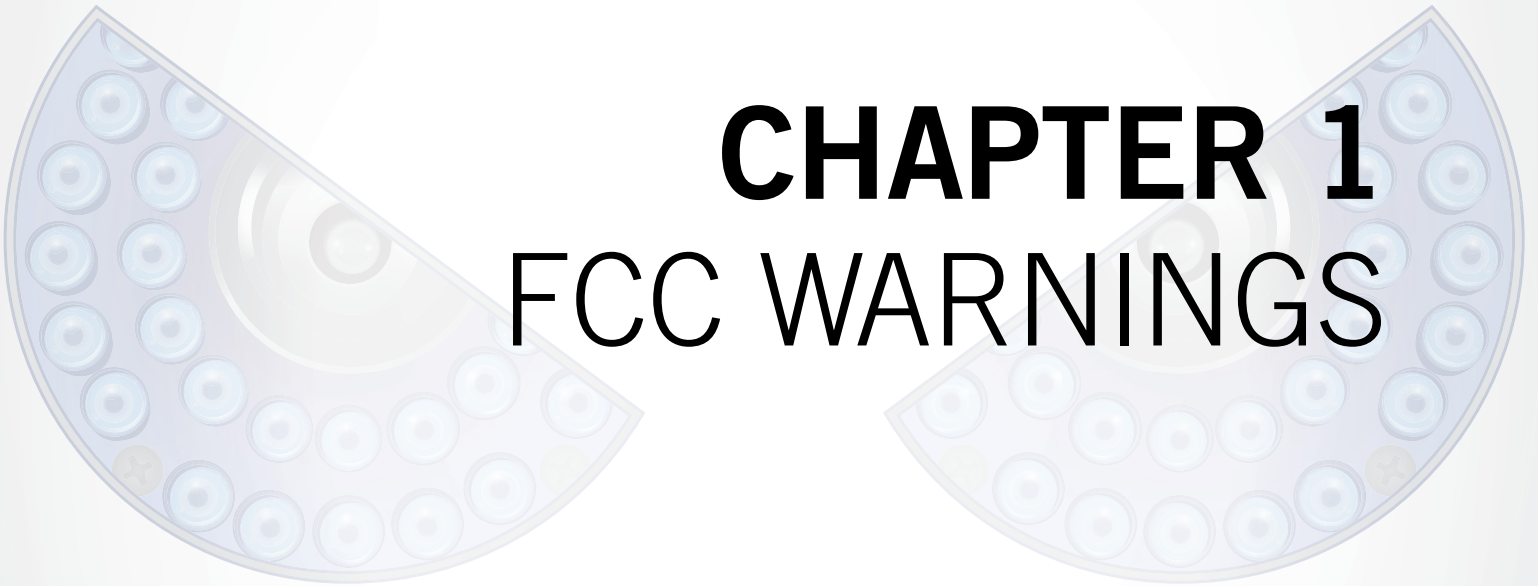


Night Owl’s NVRs are manufactured for quality and ease of use. As such, our NVRs contain menus designed for advanced users that should not be adjusted without having enhanced knowledge regarding the menu. In most cases the default settings allow for optimal functionality. The menus that should maintain the default settings are indicated with this icon.

DISCLAIMER: The exact components of your system, images and quantities may vary depending on your model number. While these may vary, this manual will address the setup and initial configuration of your NVR and cameras.

CHAPTER 1

FCC WARNINGS



Chapter 1: FCC Warnings

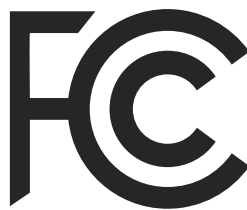
FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Compliance Statement

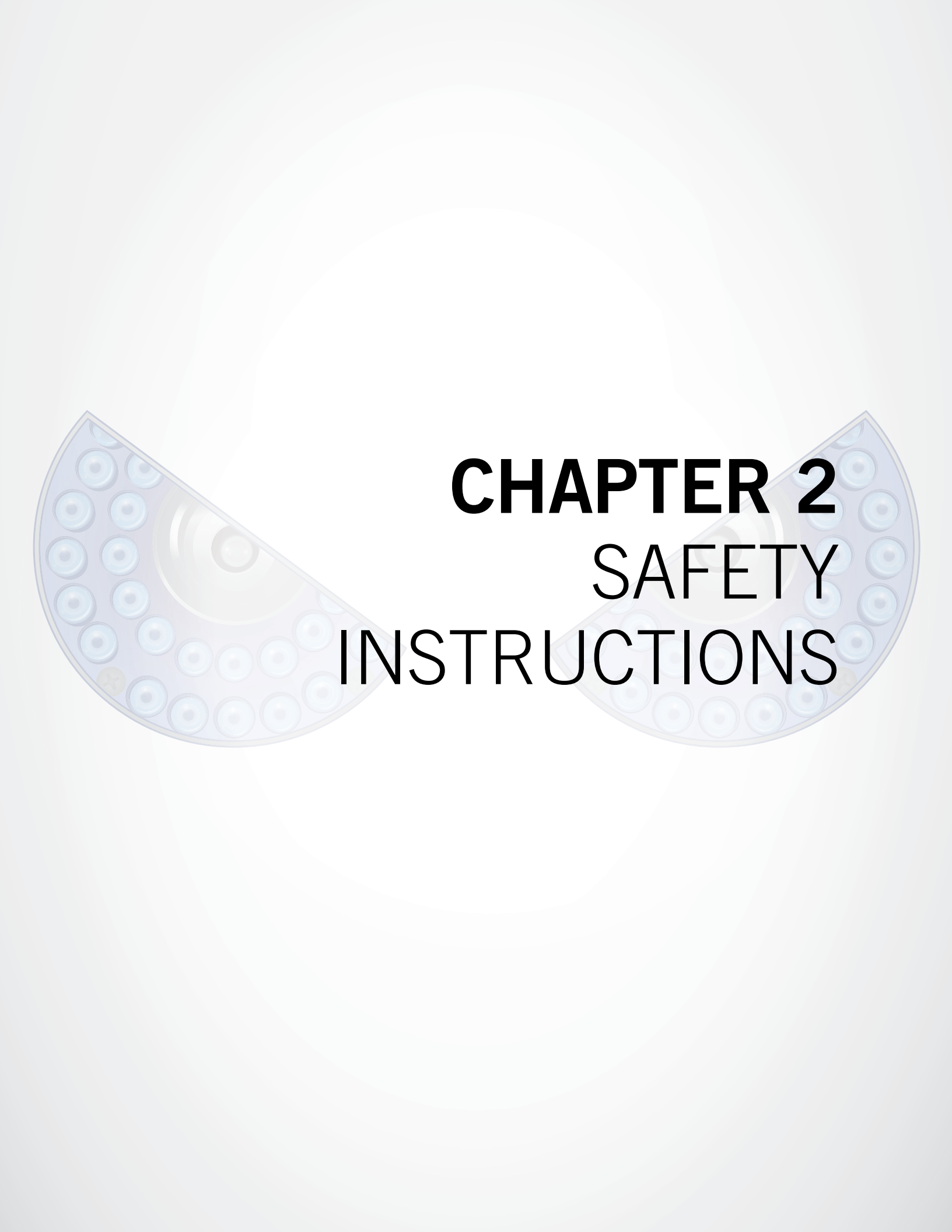
These limits are designed to provide reasonable protection against frequency interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed or used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in television reception, which can be determined by turning the equipment off and on. The user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



CAUTION

The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.



CHAPTER 2

SAFETY INSTRUCTIONS

Chapter 2: Safety Instructions

- **USE THE PROVIDED POWER ADAPTER.**

Do not use this product with a power source that applies more than the specified voltage.

- **NEVER INSERT METAL INTO THE NVR CASE OR ITS OPENINGS.**

Inserting metal into the NVR case may cause electric shock.

- **DO NOT OPERATE IN WET OR DUSTY AREAS.**

Avoid placing the NVR in areas such as a damp basement or dusty attic.

- **DO NOT EXPOSE THE NVR TO RAIN OR USE NEAR WATER.**

If the NVR accidentally gets wet, unplug it and contact technical support immediately.

- **KEEP PRODUCT SURFACES CLEAN AND DRY.**

To clean the outside case of the NVR, use a lightly dampened cloth. Do not use cleaning solutions or solvents.

- **DO NOT INSTALL NEAR ANY HEAT SOURCES.**

Do not install the NVR near any heat sources such as stoves, heat registers, radiators or electronics (including amplifiers) that produce heat.

- **UNPLUG THE NVR WHEN MOVING IT.**

Make sure that the NVR is unplugged before you move it. When moving this device, be sure to handle it with care.

- **MAKE SURE THERE IS GOOD AIR CIRCULATION AROUND THE NVR.**

This NVR uses an internal hard drive, which generates heat during operation for video storage. Do not block vents on the NVR, as these vents reduce the generated heat while the system is running. Place this product in well-ventilated area.

- **DO NOT ATTEMPT TO REMOVE THE TOP COVER.**

If you observe any abnormal operation, unplug the NVR immediately and contact technical support. Do not attempt to open the NVR to diagnose the cause of the problem.

- **HANDLE THE NVR CAREFULLY.**

If you drop the NVR on any hard surface, it may damage the device. If the NVR doesn't work properly due to physical damage, contact an authorized dealer for repair.

- **IT IS RECOMMENDED TO USE YOUR NVR WITH AN UNINTERRUPTIBLE POWER SUPPLY (UPS).**

Connecting your NVR and cameras to a UPS allows continuous operation even during power outages. The run-time duration will depend on the rating of the UPS used.

CAUTION



You may be subjected to severe electrical shock if you remove the cover of the NVR.

CHAPTER 3

SPECIFICATIONS



Chapter 3: Specifications

3.1 System Requirements

Please be sure that your PC/MAC® complies with the following specifications:

- PC Operating System; Windows® 7, Windows® 8 and Windows® 10
- PC Browser: IE®9, IE®10, IE®11
(System requirements for PC Browser are for on-line viewing only)
- MAC Operating System: MAC OS X® 10.9 and above

Please be sure that your mobile device complies with the following specifications:

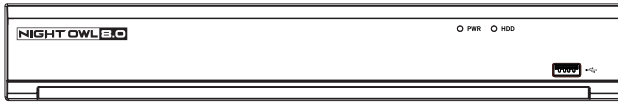
- Android™: 4.4 and above
- iOS®: 10.0.3 and above

THIS MANUAL WAS ACCURATE AT THE TIME IT WAS COMPLETED. DUE TO OUR ONGOING EFFORT TO CONSTANTLY IMPROVE OUR PRODUCTS, SPECIFICATIONS MAY HAVE BEEN ADDED OR CHANGED.

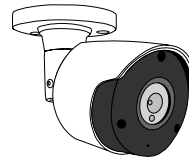
3.2 Package Contents

DISCLAIMER: The exact components of your system, images and quantities may vary depending on your model number. While these may vary, this QSG will address the setup and initial configuration of your NVR and cameras.

NOTE: Cameras can be powered by Ethernet cables or a camera power adapter. Camera power adapter not included.



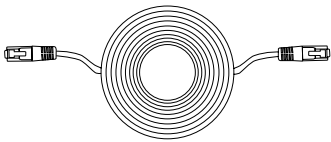
NVR



Camera(s)



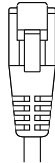
Dome Camera(s)
(If applicable)



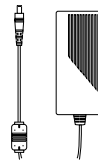
100 ft. Ethernet Cable(s)



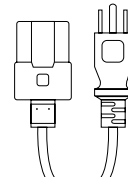
6 ft. HDMI
(x1)



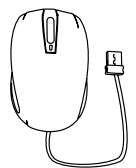
6 ft. Ethernet
(x1)



NVR Power
Adapter (x1)



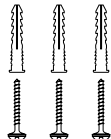
NVR Power
Cord



USB Mouse (x1)



Safety
Stickers



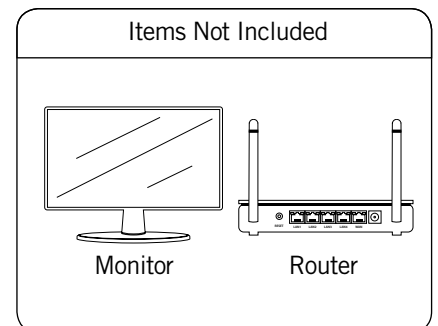
Mounting
Hardware



Remote



Waterproof
Cable Cover(s)

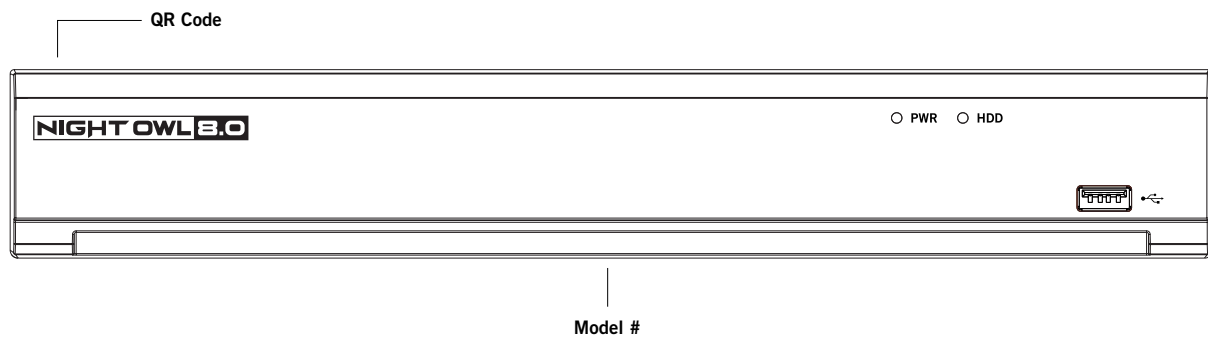


NOTE: For best results, use the included Night Owl accessories. Third party accessories may not work properly.

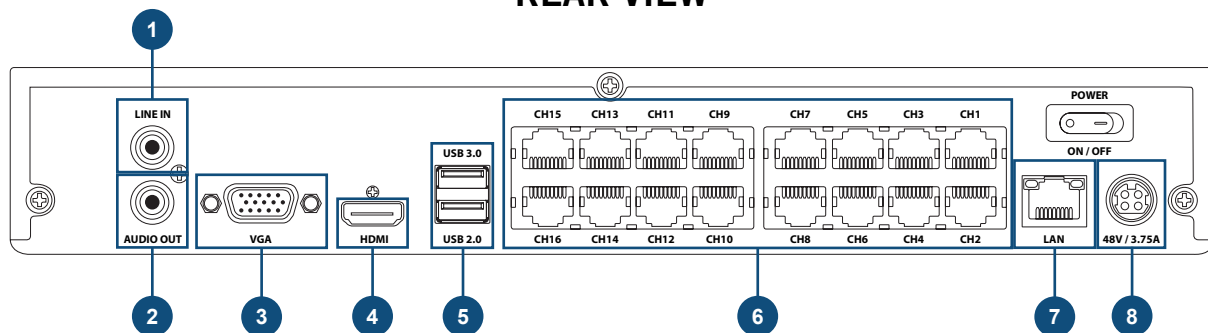
3.2.1 NVR Diagram

Once you have downloaded Night Ow HD and connected your NVR to your router, you can network your NVR by scanning the QR code which is located on the top of the NVR.

FRONT VIEW



REAR VIEW

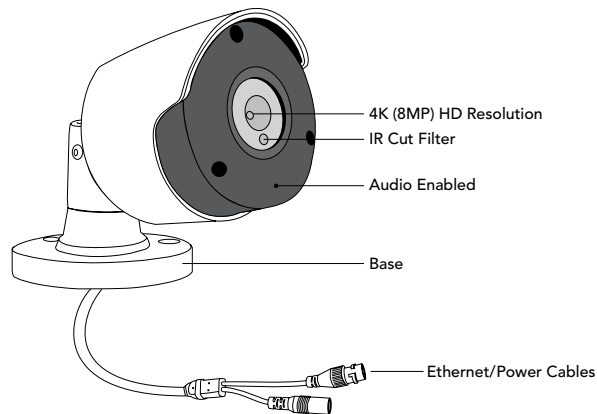


*Images used are for reference only. Your product may vary slightly.
A 16 channel model is displayed above.*

- 1 **Line In** – Allows for the connection of an external microphone.
- 2 **Audio Output** – Allows for the connection of an amplified speaker using an RCA connector.
- 3 **VGA Output** – Allows for the video connection. If the TV/Monitor has a VGA input, connect the VGA cable from the VGA output port on the NVR to the VGA input port on your TV/Monitor (*VGA Cable not included*).
- 4 **HDMI Output** – Allows for the video connection. If the TV/Monitor has an HDMI input, connect the HDMI cable from the HDMI output port on the NVR to the HDMI input port on your TV/Monitor.
- 5 **USB Ports** – Allow for the connections of a USB mouse and/or a USB flash drive. You will connect the included USB mouse to assist you in navigating the NVR's menu interface. You will connect a USB flash drive to download video files from the NVR and save them to your USB flash drive.
- 6 **Video Inputs** – Allow for the connection of IP cameras.
- 7 **RJ-45 (Ethernet) Port** – Will be used to connect the NVR to your router/modem via the included Ethernet cable.
- 8 **Power Input** – To connect the included 48V DC power supply.

3.2.2 Camera Diagram

CAMERA



The exact cameras included with your system may vary by model.



Connect all cameras locally before final placement to ensure that all components function properly.

3.2.3 Mouse Diagram

MOUSE

Live Viewing:

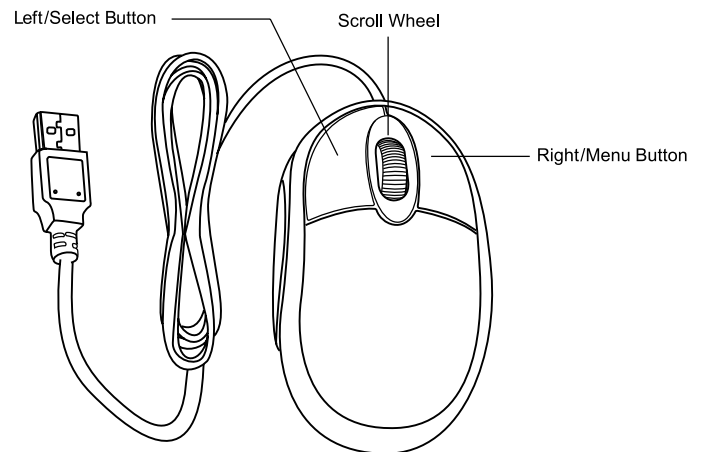
Double-click the left button on any camera view in split-screen mode to bring it to full screen display. Double-click again to return to split-screen mode. Right-click to show the Right-Click Menu at the bottom of the screen. Left-clicking hides the Right-Click Menu.

In Setup:

Left-click to make a selection. Right-click to cancel setup or return to previous screen.

To Enter Values:

Move the cursor to a blank field and click the mouse. A virtual keyboard will appear which supports numbers, letters and symbols. The Shift function will access symbols in addition to upper case letters.





CHAPTER 4

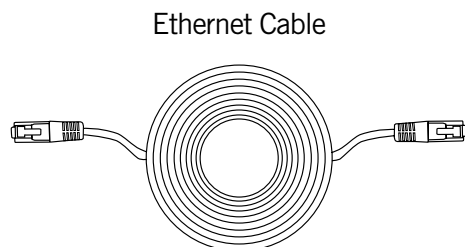
CAMERA INSTALLATION

Chapter 4: Camera Installation

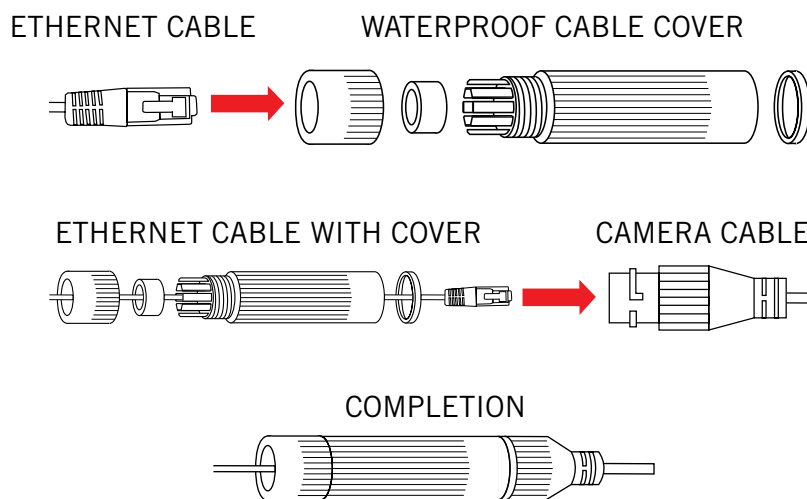
4.1 Video/Audio

STOP Connect all cameras locally before final placement to ensure that all components function properly.

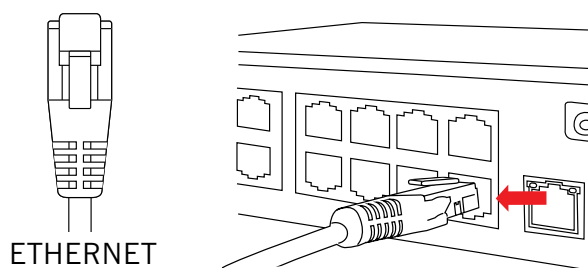
- 1 Locate an included 100 foot Ethernet cable.



- 2 Insert one end of the Ethernet cable into the cable covers as shown in the image below. Connect the covered end of the Ethernet cable to the camera's power cable.



- 3 Input the other end of the Ethernet cable into an open Ethernet port on the back of the NVR.



- 4 Repeat for each camera, noting the channel number each camera is plugged into.



Cameras, additional cables, power adapters and splitters only included in certain security kits. Check the product packaging for detailed kit contents. Make sure all cameras are working prior to mounting by connecting them as described in the section above. Once all cameras are confirmed to be fully operational, you can run the cables and mount the cameras at their final locations.

4.2 Mounting the Cameras



Connect all cameras locally before final placement to ensure that all components function properly.

- **Camera distance from NVR.**

The further the camera is from the NVR or monitor, the higher the chances of signal degradation. The camera's power supply should be located as near to the camera as possible when the distance exceeds 200 ft. as the power level will drop over extended distances resulting in video degradation.

- **Do NOT place near high voltage wires or other sources of electrical interference.**

Electrical interference will degrade the quality of the signal.

- **Place camera out of reach to avoid vandalism.**

- **Avoid direct exposure to weather.**

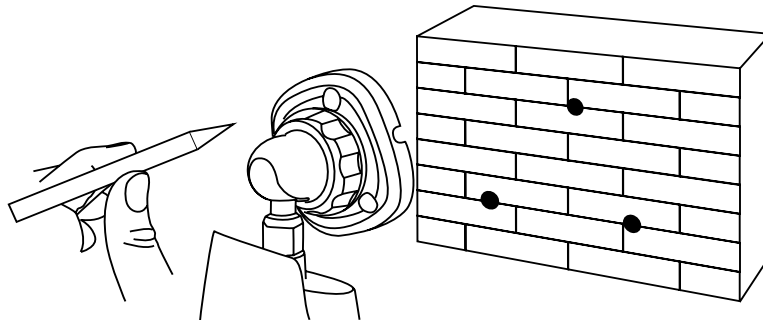
Do not place the camera where rain or snow will hit the lens directly nor should the camera be placed so that the sun or bright light shines directly into the lens. Your camera is weatherproof, but it will not work when submerged in water. Ensure that all power and video connections are not directly exposed to water and are protected from the elements.

- **Mounting surface.**

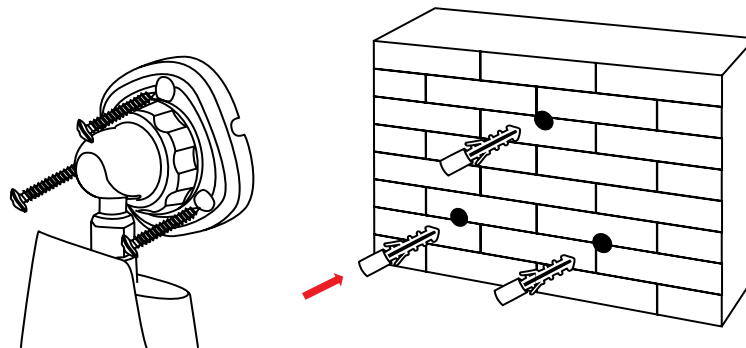
The mounting surface must hold at least four times the camera's total weight.

Follow these instructions to correctly install your cameras.

- 1 Locate a camera and choose a location where you would like to mount the camera.
- 2 Indicate screw positions by marking three holes on the surface where you plan to mount the camera, using the holes in the camera base as a guide.



- 3 Using a drill bit slightly smaller than the included screw anchors, drill into the mounting surface using the guide marks you placed in the previous step.
- 4 Insert the screw anchors.
- 5 Line up the camera base holes with the screw anchors. Holding the base in place, insert screws and tighten until secure.



- 6 Once the base is screwed in place, make sure that the camera is securely mounted by placing gentle pressure on the mount.
- 7 Adjust the camera housing to point in the direction of the area you would like to monitor.



Don't feel like installing the system yourself?

Let InstallerNet™ do the work for you!

Contact us at 1-800-806-5513 or visit us at:

www.NightOwlSP.com



CHAPTER 5

NVR INSTALLATION

Chapter 5: NVR Installation

5.1 Connecting to a TV (via HDMI)

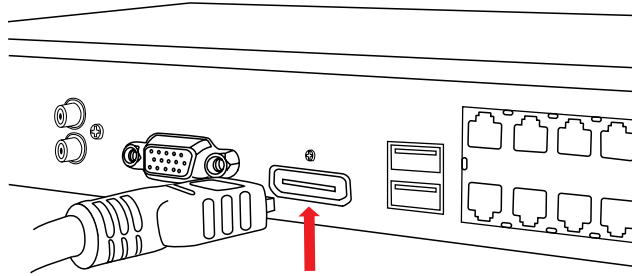
- 1 Locate the included HDMI cable.

HDMI



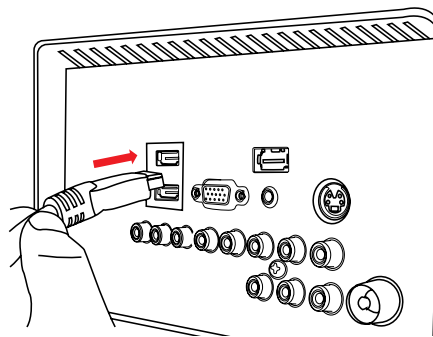
- 2 Plug one end of the cable into the HDMI port on the back of the NVR.

NVR



- 3 Connect the other end of the cable to an available HDMI input on your TV or monitor.

MONITOR



- 4 Select the appropriate video input channel on your TV or monitor to view the NVR.

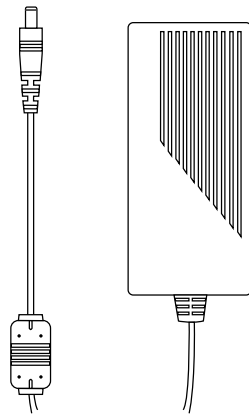


If your TV does not have an HDMI port, you will need to purchase a VGA video cable. For VGA connection, attach one end of the VGA cable to the NVR VGA port and the other end to your TV VGA port.

5.2 Power

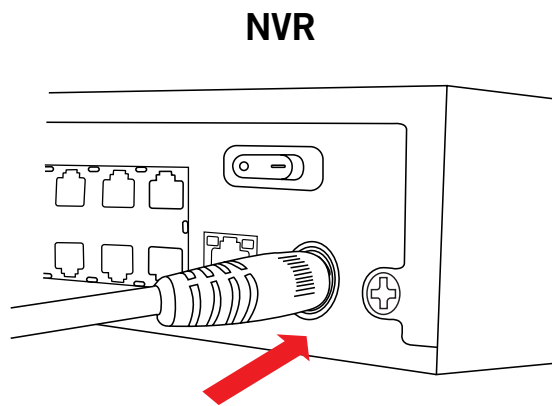
- 1 Locate the labeled NVR power adapter.

NOTE: The camera power adapter and NVR power adapter should never be interchanged.

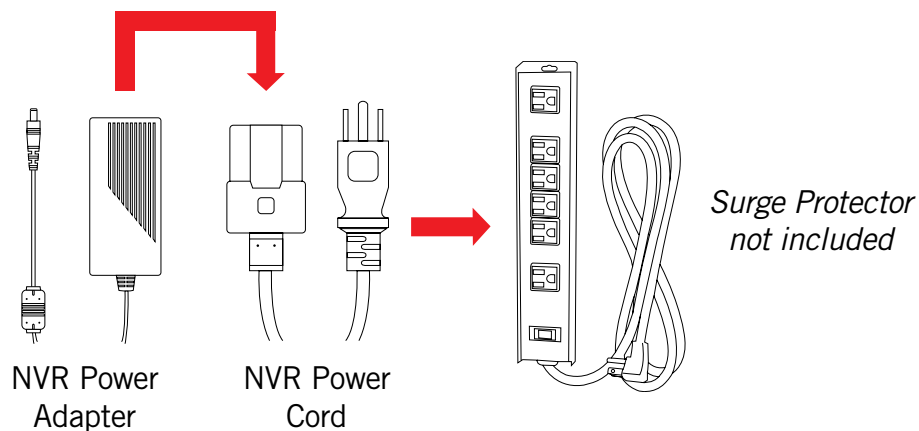


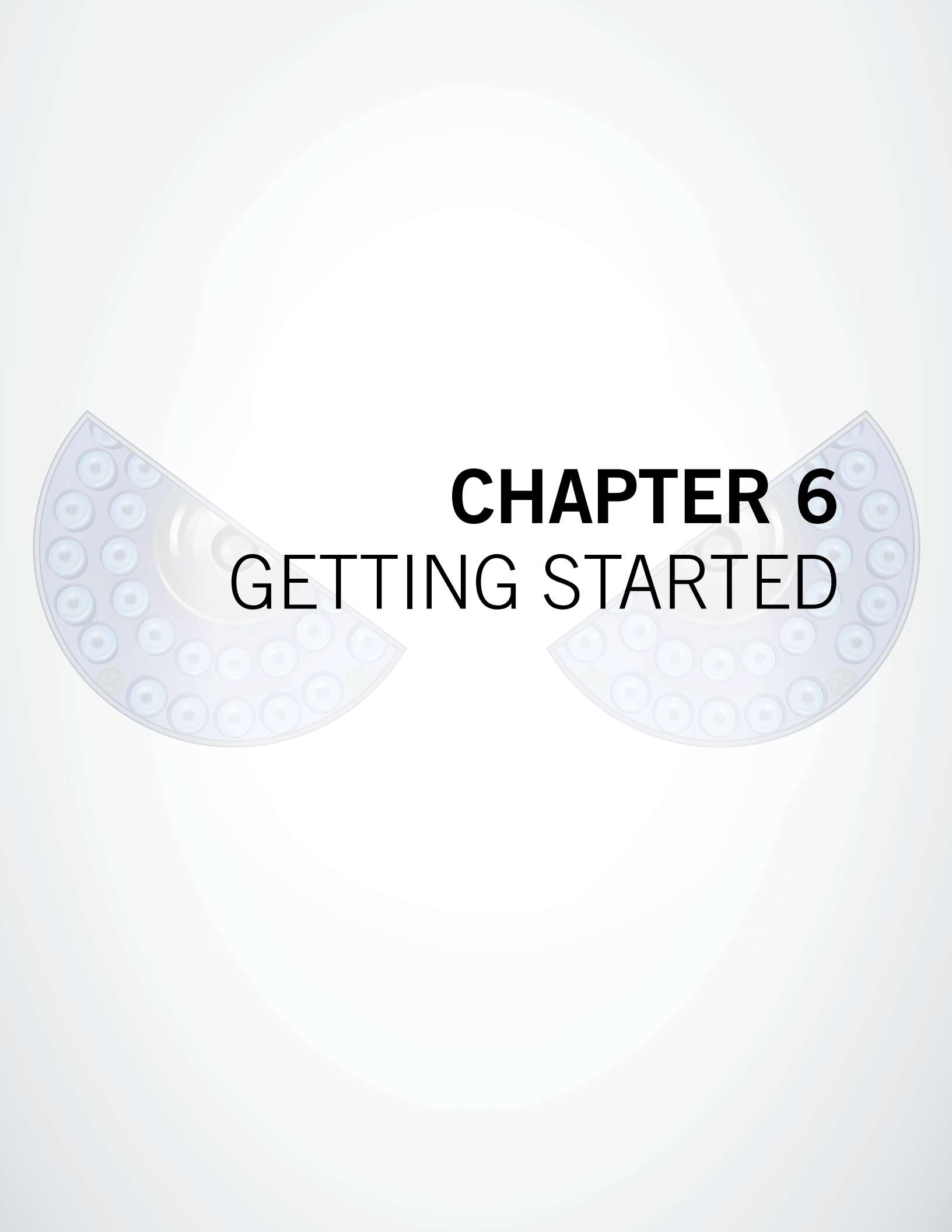
*NVR power adapter
may vary slightly.*

- 2 Plug the included power adapter cable into the back of the NVR.



- 3 Plug the other end of the power adapter cable into an available wall outlet. If you are using an uninterruptible power supply (UPS), plug the adapter cable into one of its output sockets. Keep in mind, Night Owl always recommends utilizing a surge protector to minimize the risk of damage caused to your NVR in the event of a power surge.





CHAPTER 6

GETTING STARTED

Chapter 6: Getting Started

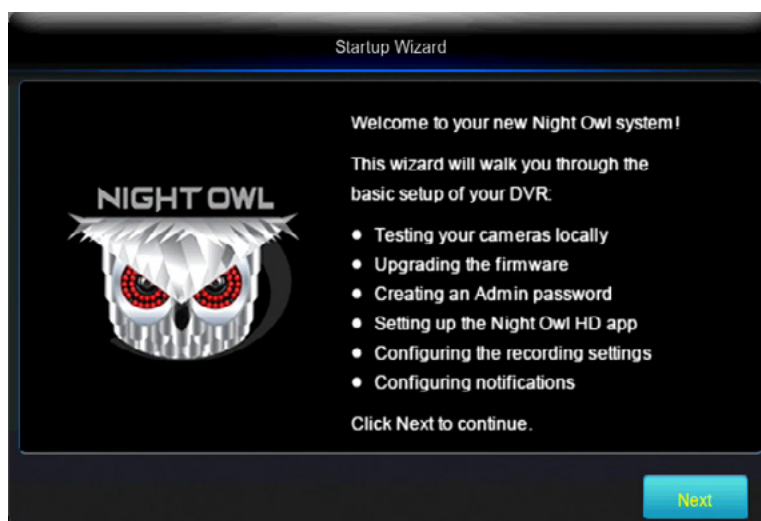
6.1 Startup Wizard

When your NVR is powered on it will display the Night Owl logo while initializing.



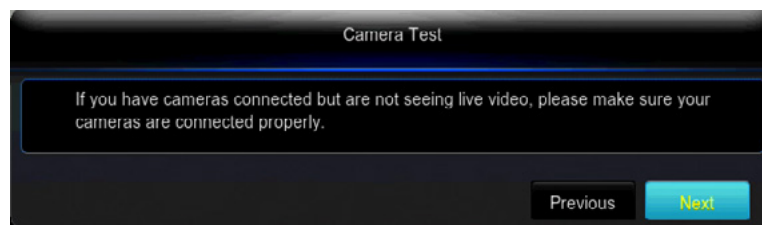
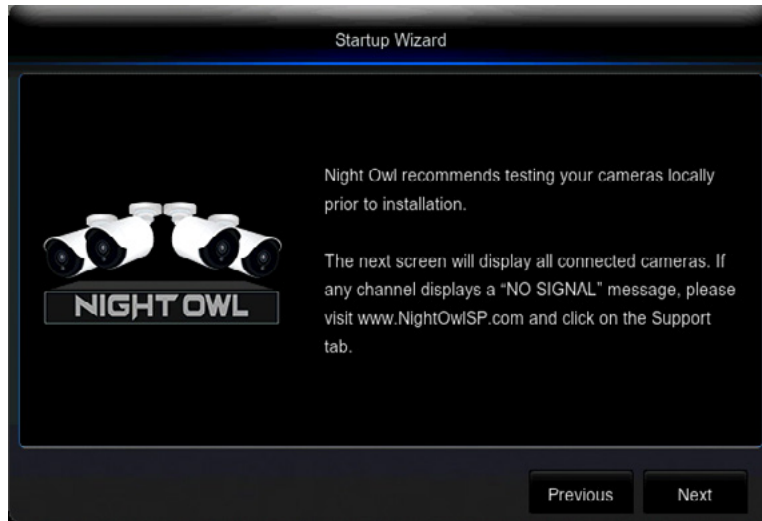
After initialization, you will be prompted to use the Startup Wizard. Follow the on-screen instructions to:

- Complete the basic setup of your NVR.
- Upgrade the firmware.
- Set up the Night Owl HD app.
- Configure notifications.
- Test your cameras locally.
- Create an Admin password.
- Configure the recording settings.



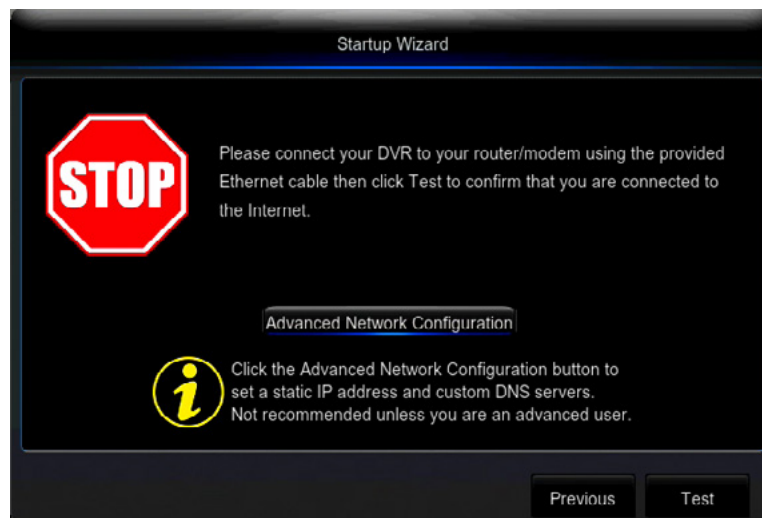
6.1.1 Camera Test

The Camera Test screen of the Startup Wizard serves as a reminder to test the camera connections to the NVR. If a connected camera displays a “No Signal” message, please visit www.NightOwlISP.com and click on the Support tab.

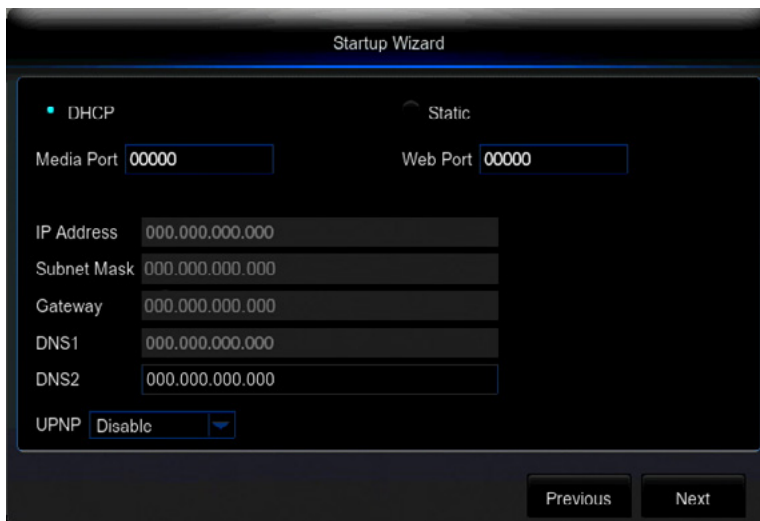


6.1.2 Network Check

The Network Check screen of the Startup Wizard displays instructions for how to connect your NVR to the Internet. You will need the included Ethernet cable to establish connection, your NVR will not be able to wirelessly connect to your router/modem. Once you have made the required connection using the Ethernet cable, you may click Test within the Startup Wizard to confirm Internet connection.



The Advanced Network Configuration tab is recommended only for advanced users.



The image shows the 'Startup Wizard' window with the 'DHCP' tab selected. It contains fields for 'Media Port' and 'Web Port', both set to '00000'. Below these are fields for 'IP Address', 'Subnet Mask', 'Gateway', 'DNS1', and 'DNS2', all set to '000.000.000.000'. There is a 'UPNP' dropdown menu set to 'Disable'. At the bottom right are 'Previous' and 'Next' buttons.

Once the internet connection has been established, the Startup Wizard will display a successful connection screen.

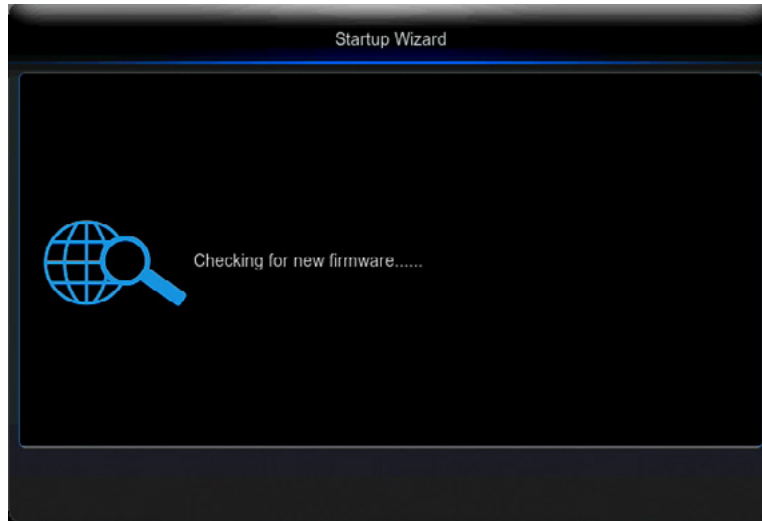


If your NVR is not able to establish Internet connectivity, a Connection Failed screen will appear. Follow the instructions on this screen to re-test the network. If you wish to proceed with the NVR setup without a network connection, you may do so by clicking the box marked, "I do not want to connect to a network."



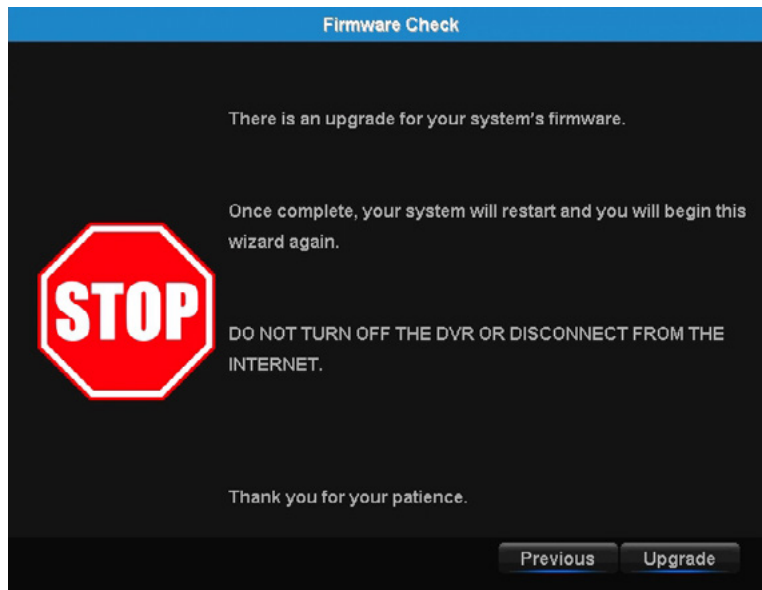
6.1.3 Firmware Check

The Firmware Check screen of the Startup Wizard will automatically check for updated firmware for your NVR.



NOTE: If your NVR does not have a network connection, the firmware will not update.

If a firmware upgrade is detected, the startup wizard will display the screen below. Please select “Upgrade” to download and install the new upgrade to your system.



Once prompted, the NVR will begin updating and when complete the NVR will restart automatically. This process could take up to 10 minutes, please be patient.

NOTE: Do NOT turn off your NVR or disconnect it from the Internet while the system is upgrading.

When the firmware for your NVR is updated to the most current version, the Startup Wizard will display the below screen.



6.1.4 Password Creation

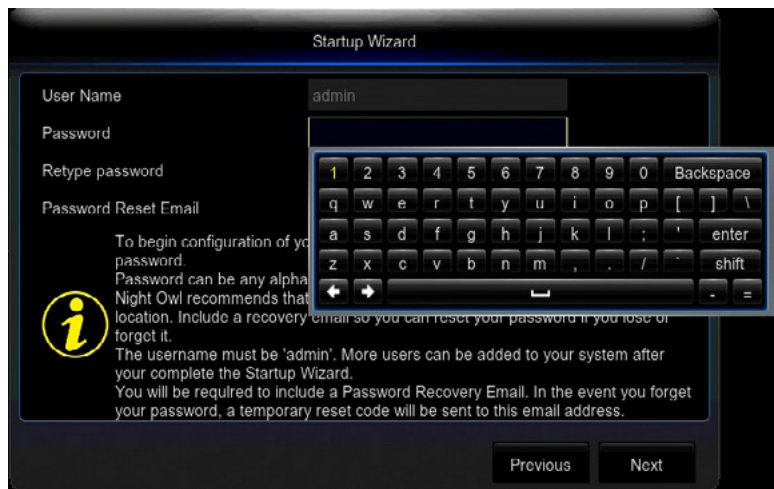
The Password Creation screen of the Startup Wizard requires you to create an admin password for your NVR system. Night Owl strongly suggests that you write down your admin password within the Quick Setup Guide of your NVR, as you will be required to log in any time you want to configure or adjust your system settings.

This screen will also require that you set a recovery email address in the event that your admin password is forgotten. To change your recovery email address, you **MUST** rerun the Startup Wizard.

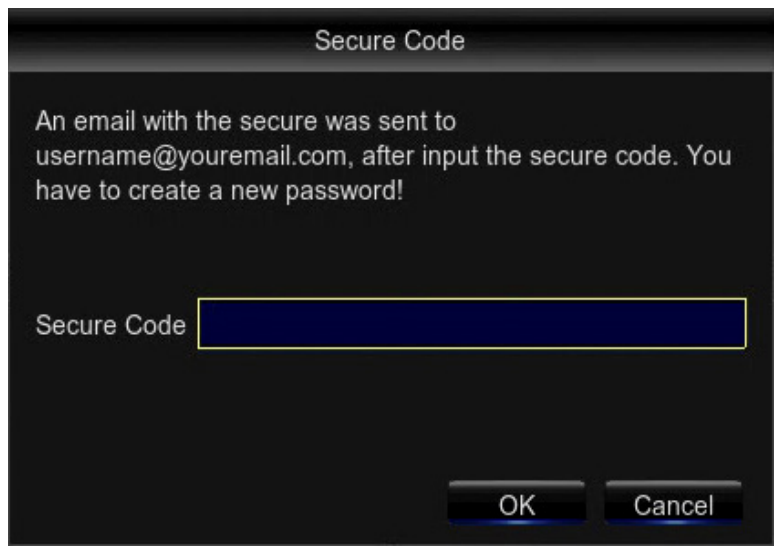
NOTE: You will not be able to complete the Startup Wizard unless a recovery email address is established.

The image shows the 'Startup Wizard' window for password creation. The title bar says 'Startup Wizard'. The form has four input fields: 'User Name' with 'admin' entered, 'Password' (empty), 'Retype password' (empty), and 'Password Reset Email' with 'username@youreemail.com' entered. Below the fields is a yellow information icon (a lowercase 'i' inside a circle). To the right of the icon, the following text is displayed: 'To begin configuration of your Night Owl system, please create an admin password. Password can be any alphanumeric characters between 6 and 20 characters. Night Owl recommends that you write down your password and store it in a secure location. Include a recovery email so you can reset your password if you lose or forget it. The username must be 'admin'. More users can be added to your system after you complete the Startup Wizard. You will be required to include a Password Recovery Email. In the event you forget your password, a temporary reset code will be sent to this email address.' At the bottom right, there are 'Previous' and 'Next' buttons.

Simply click on the text box to open the on-screen keyboard. Use this keyboard to create your admin password and to input your recovery email address.



If you have forgotten your Admin password, simply click on the Forgot Password tab in the Startup Wizard and a Secure Code will be sent to your recovery email address. Use the Secure Code to restart your NVR and create a new password.



6.1.5 Date and Time Setup

The Date and Time Setup screen of the Startup Wizard will allow you to set the current date and time. You may choose to use Network Time Protocol (NTP) to auto-configure the current date and time.

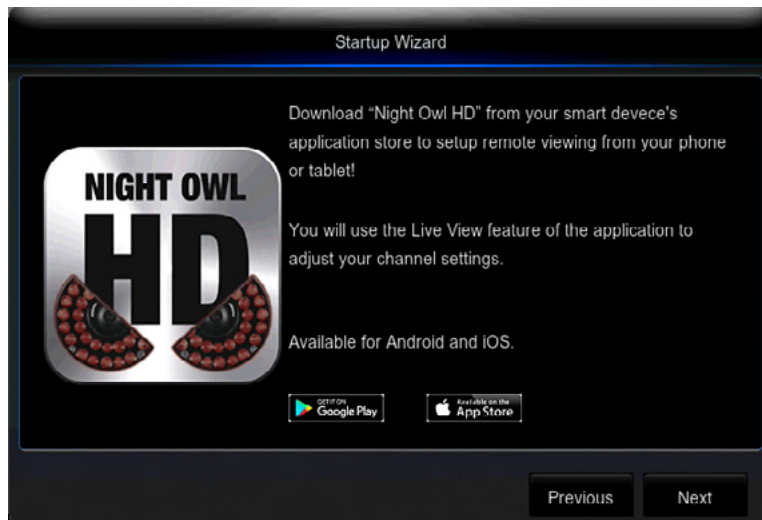


The screenshot shows the 'Startup Wizard' window with the 'Time' tab selected. The 'DST' tab is also visible. The 'Date' field is set to '05/10/2017' with a calendar icon. The 'Time' field is set to '03:29:30' with a 'PM' dropdown. The 'Date Format' is 'MM/DD/YY', 'Time Format' is '12 Hour', and 'Time Zone' is 'GMT-05:00'. The 'NTP' checkbox is checked, and the 'Server Address' is 'time.nist.gov'. 'Previous' and 'Next' buttons are at the bottom right.

NOTE: In order to use Network Time Protocol (NTP), your NVR must be connected to the Internet.

6.1.6 Night Owl HD

The Night Owl HD screen of the Startup Wizard gives you information on where to find the Night Owl HD App and how it can be used to remotely view your NVR recordings and live stream.



The screenshot shows the 'Startup Wizard' window with the 'Night Owl HD' screen. It features the 'NIGHT OWL HD' logo on the left. The text on the right says: 'Download "Night Owl HD" from your smart device's application store to setup remote viewing from your phone or tablet!', 'You will use the Live View feature of the application to adjust your channel settings.', and 'Available for Android and iOS.' Below the text are icons for 'GET IT ON Google Play' and 'Available on the App Store'. 'Previous' and 'Next' buttons are at the bottom right.



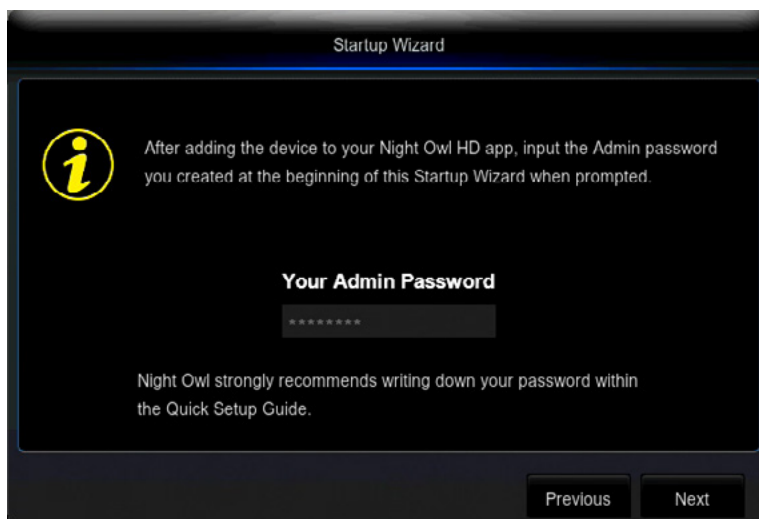
DISCLAIMER: QR Code within this image is not active. Please scan the QR Code on your TV/Monitor within the Startup Wizard.

Once you have installed the Night Owl HD app on your smart device and create an account, you can scan the QR code on the Startup Wizard to configure your NVR with the Night Owl HD app!

NOTE: In order to view your system remotely, your NVR must be connected to the Internet.

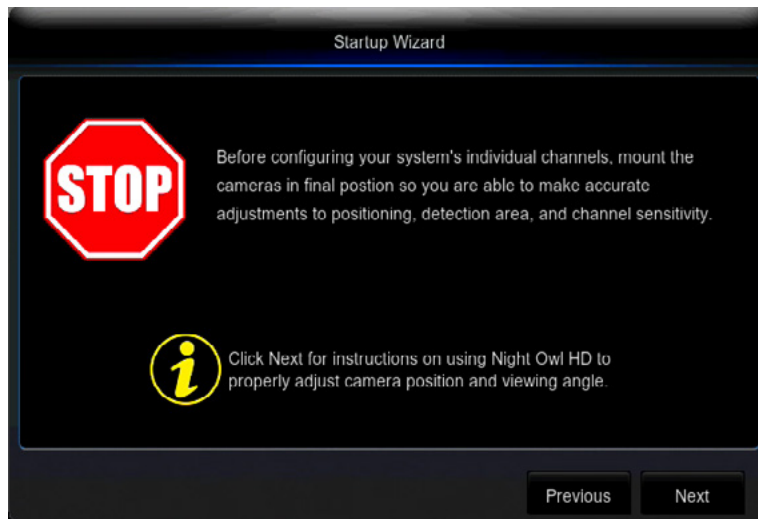
6.1.7 Password Verification

The Password Verification screen of the Startup Wizard will display your admin password. Night Owl strongly recommends writing down your password within your NVR's Quick Setup Guide.



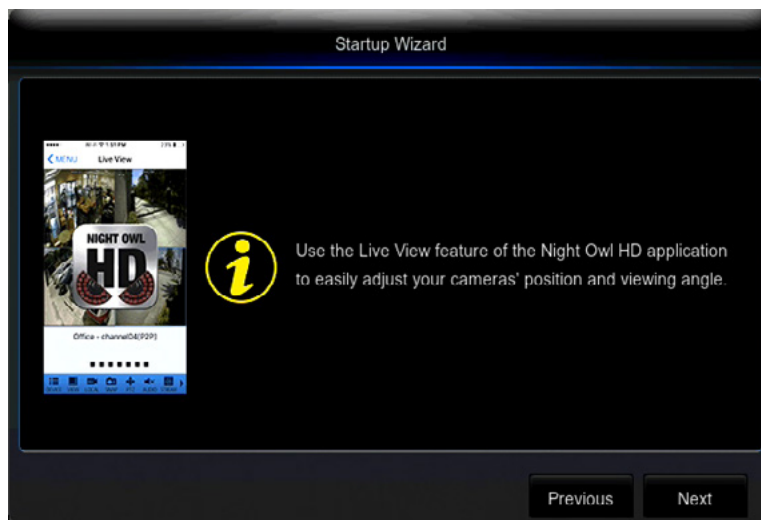
6.1.8 Camera/Channel Settings

The Camera/Channel Settings screen of the Startup Wizard serves as a reminder to mount your system's cameras in their final position so you can make accurate adjustments to positioning, detection area and channel sensitivity.



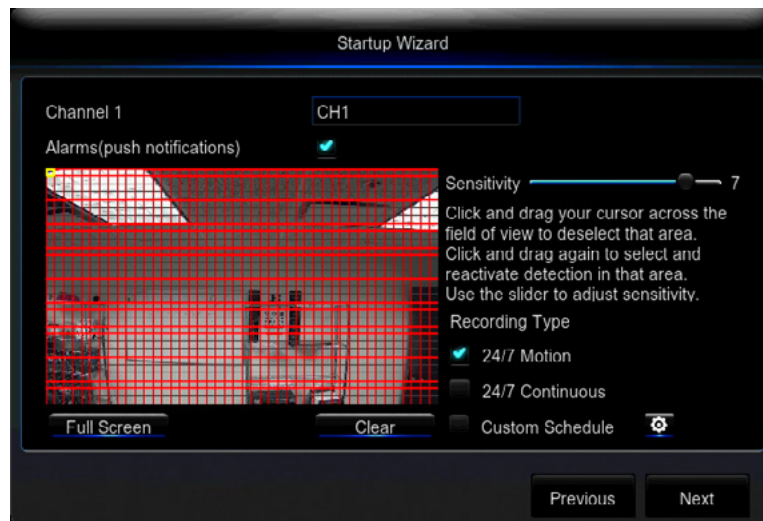
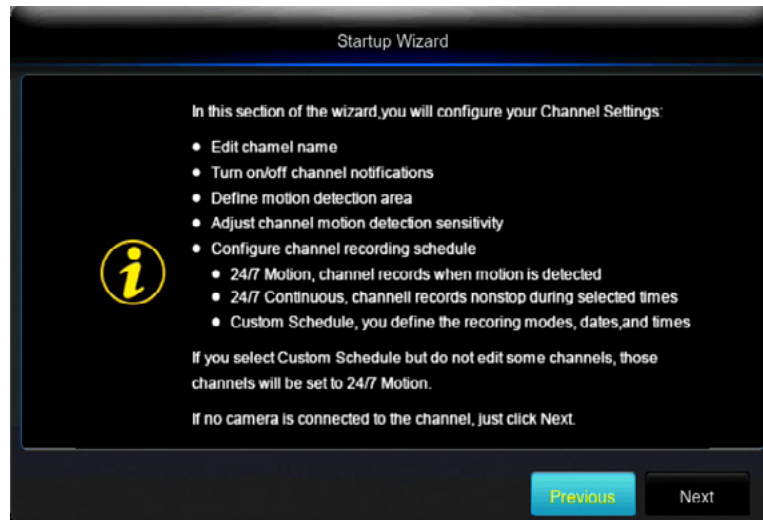
6.1.9 Camera Positioning

The Camera Positioning screen of the Startup Wizard shows how you can use the Live View feature of the Night Owl HD app to easily adjust your cameras' position and viewing angle.



6.1.10 Channel Configuration

The Channel Configuration screen of the Startup Wizard explains in detail how you will configure your Channel Settings. Please read this screen thoroughly as the following screen will allow you to configure Channel Settings.



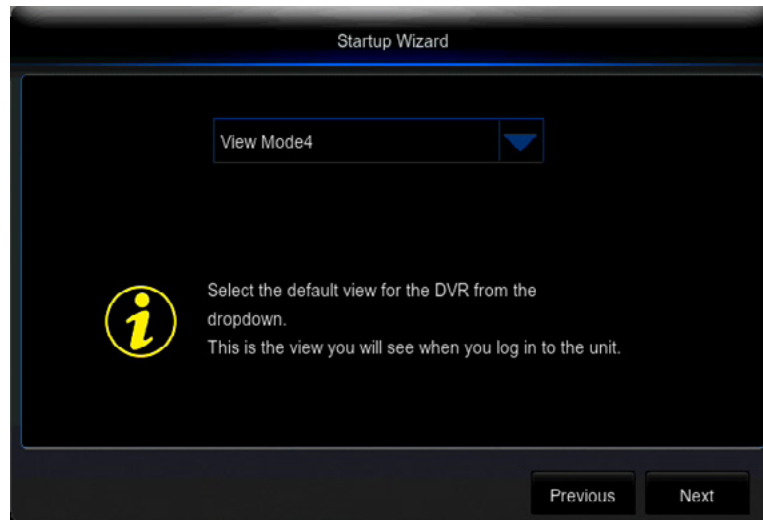
The second Channel Configuration Screen of the Startup Wizard allows you to configure the following Channel Settings:

- Edit channel name.
- Turn on/off channel notifications.
- Define motion detection area.
- Adjust motion sensitivity.
- Configure channel recording schedule.
 - 24/7 Motion: Channel records when motion is detected.
 - 24/7 Continuous: Channel records nonstop during selected times.
 - Custom Schedule: You define the recording modes, dates and times.

NOTE: If you select Custom Schedule, but do not edit all active channels, the unedited channels will default to 24/7 recording.

6.1.11 Default View

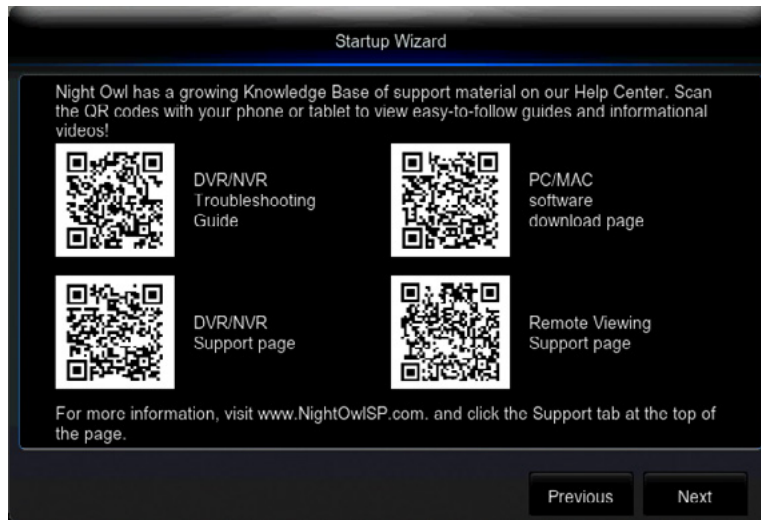
The Default View screen of the Startup Wizard allows you to select the default view of the monitor connected to your NVR.



Select the default view from the options within the dropdown menu.



6.1.12 Helpful Links



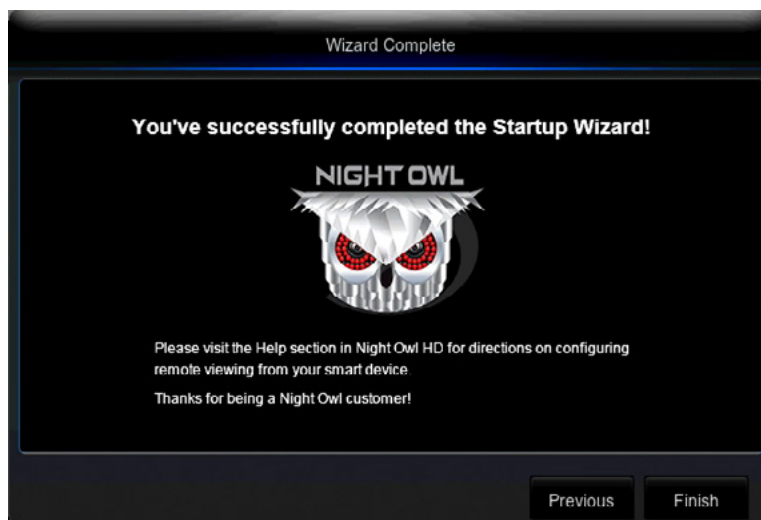
The Helpful Links and Support screen of the Startup Wizard contains QR codes linked to:

- NVR Troubleshooting Guide
- PC/MAC® software download page
- NVR Support page
- Remote Viewing Support page

For more information, visit www.NightOwlSP.com and click the Support tab at the top of the page.

6.1.13 Wizard Complete

Once you have successfully completed the Startup Wizard, click Finish to begin using your Night Owl NVR.



6.2 Night Owl HD Mobile App

The Night Owl HD mobile app lets you access your NVR remotely with live viewing from your tablet or smartphone. Download our free Night Owl HD application from the iTunes App or Google Play store.



Once you have downloaded Night Owl HD and connected your NVR to your router, you can network your NVR by scanning the QR code which is located on the top of the NVR.



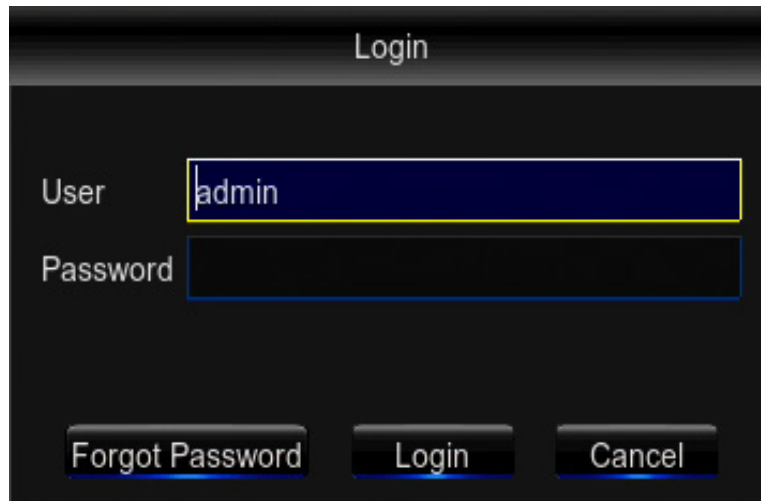
Disclaimer: The QR Code within the image is not active.

6.3 Displays and Icons

The following sections will describe the main screens you will access for login, playback, recording and configuration.

6.3.1 Login Screen

Any time you want to configure or adjust your system settings you will be required to login by entering your user name and password. It's important you save your login info or you won't be able to access your NVR. Be sure to store your user name and password in a safe location. You will need this information to access the main menu.

The image shows a login screen with a dark background. At the top, the word "Login" is centered in a light gray font. Below it, there are two input fields. The first is labeled "User" and contains the text "admin". The second is labeled "Password" and is empty. At the bottom of the screen, there are three buttons: "Forgot Password", "Login", and "Cancel".

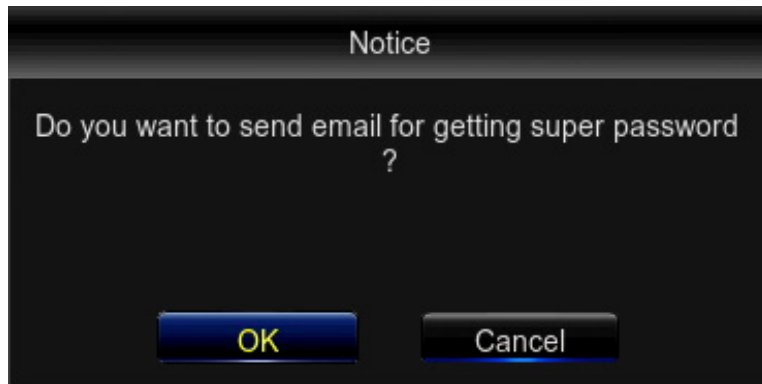
User: Enter the User name you created in the Startup Wizard or User Menu.

Password: Enter the Password you created in the Startup Wizard or User Menu. If the password is incorrect you will be prompted to try again. Keep in mind the password is case sensitive and must be 6 to 20 characters long.

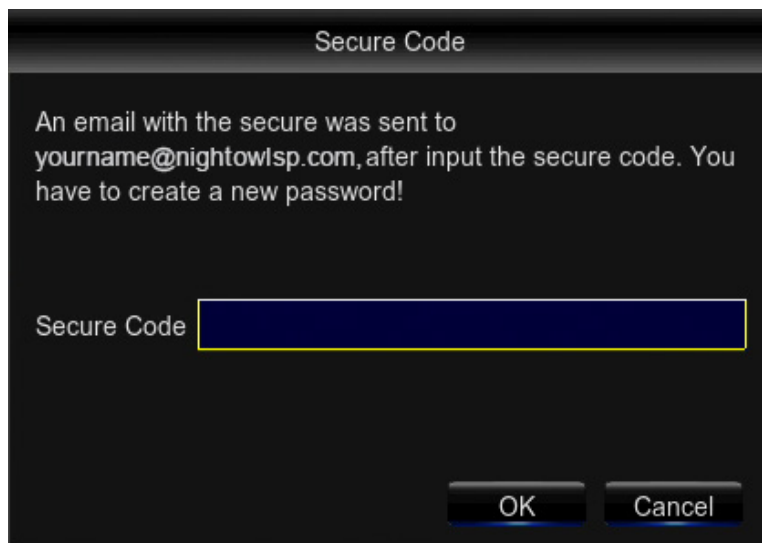
Forgot Password: Sends a secure code to the recovery email set within the Startup Wizard.

6.3.2 Reset Password

After you select Forgot Password, a message will ask you to confirm that you want a secure (reset) code to be emailed to the email address used during setup. Please select OK.



A message will appear indicating the code was successfully sent. You will then be emailed a 6-digit secure (reset) code.



Simply input the secure (reset) code. You will then be prompted to create a new password. You can alter the recovery email address, if necessary.

6.3.3 Live View (All Channels)

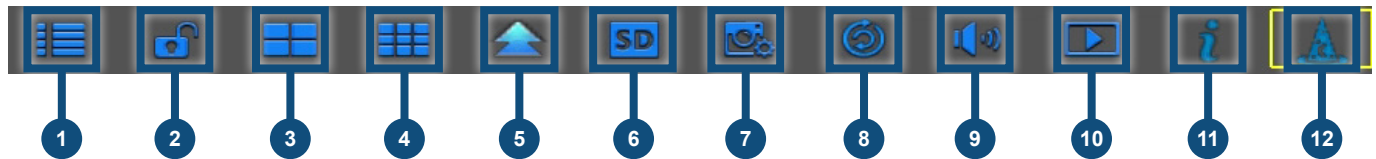
After you have completed the Startup Wizard, you will be directed to the Live View screen. Each time the NVR is accessed or powered on, the Live View screen will appear, as it is the default display mode of the NVR. From this screen, you can watch live feed from your cameras and make various adjustments. You will be able to rearrange the channel order by left clicking and dragging individual channels to other locations in the on-screen layout. You can also move the Date and Time display by left clicking and dragging the display to other areas of your screen. This chapter will cover the Live View status icons and menus used to control and manage your NVR.



- 1 **Camera Name:** Channel name.
- 2 **Date and Time:** Displays the system's date and time.
- 3 **Motion Detection Recording Icon:** Indicates that the NVR has sensed motion and is recording this particular channel. **TIP:** The green motion icon will appear only if motion detection is disabled and continuous recording is enabled on that specific channel.
- 4 **Motion Detection:** Indicates that motion detection has occurred on this channel. Keep in mind that unless the motion record settings are enabled on the particular channel the NVR will not record the event. If the NVR Status Recording Icon is displayed, the NVR is recording the event.

6.3.4 Right Click Menu

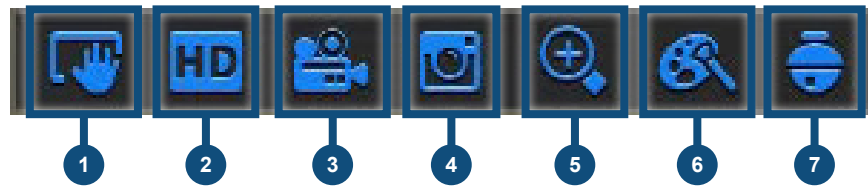
To display this menu, simply right-click on your mouse while in Live View.



- 1 **Main Menu:** Access the main menu to configure or adjust settings.
- 2 **Manually Lock Screen:** Manually locks or unlocks your screen. Once the screen is locked, you will need to enter your user name and password to regain access.
- 3 **Quad:** 4 channel viewing layout.
- 4 **Nine:** 9 channel viewing layout.
- 5 **More Layout:** Various layout options for viewing multiple channels at once.
- 6 **Stream Switch:** Allows you to select Mainstream or Substream options. Mainstream will display your video in high definition. Substream will display your video in standard definition.
- 7 **Video Fluidity:** Allows you to select a Real-Time, Balanced or Smooth video stream.
- 8 **Slide Show:** Start/Stop the slideshow sequence of each channel.
- 9 **Mute:** Mute or adjust the system volume.
- 10 **Playback:** Access your system's recording/playback menu and functions.
- 11 **Info:** Access your NVR's Information.
- 12 **Startup Wizard:** Begins the Startup Wizard.

6.3.5 Live View (Single Channel)

When in Live View, select a single channel to bring up additional controls and playback options. By double-clicking on the channel you can also view that channel in full screen mode.



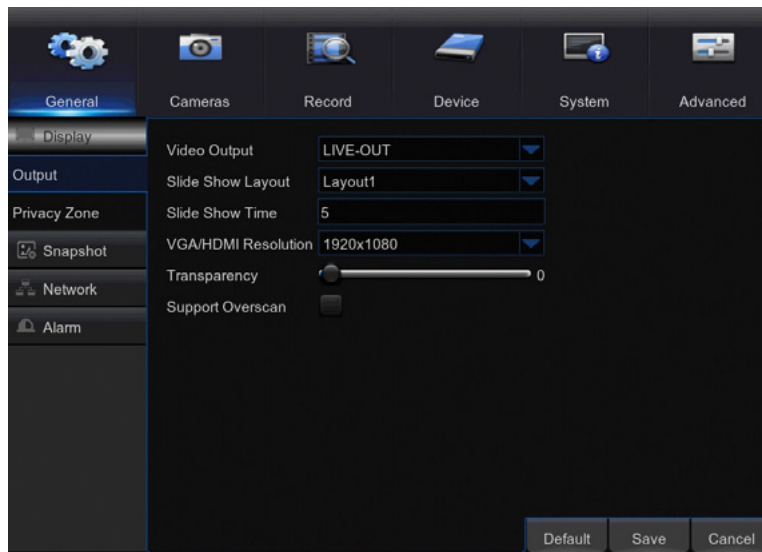
- 1 **Stream Switch:** Allows you to select Mainstream or Substream options. Mainstream will display your video in high definition. Substream will display your video in standard definition.
- 2 **Start Manual Record:** Click to begin live recording of the selected channel.
- 3 **Instant Playback:** Replay video footage stored on the HDD.
- 4 **Zoom:** Click and drag an area to zoom in and enhance. Right-click to return to the normal view.
- 5 **Manual Snapshot:** Click to take a manual snapshot of the live view.
- 6 **Color Setting:** Allows you to modify the color settings of the Live View.
- 7 **PTZ:** Allows you to use the PTZ Camera.

6.3.6 Menu Screen

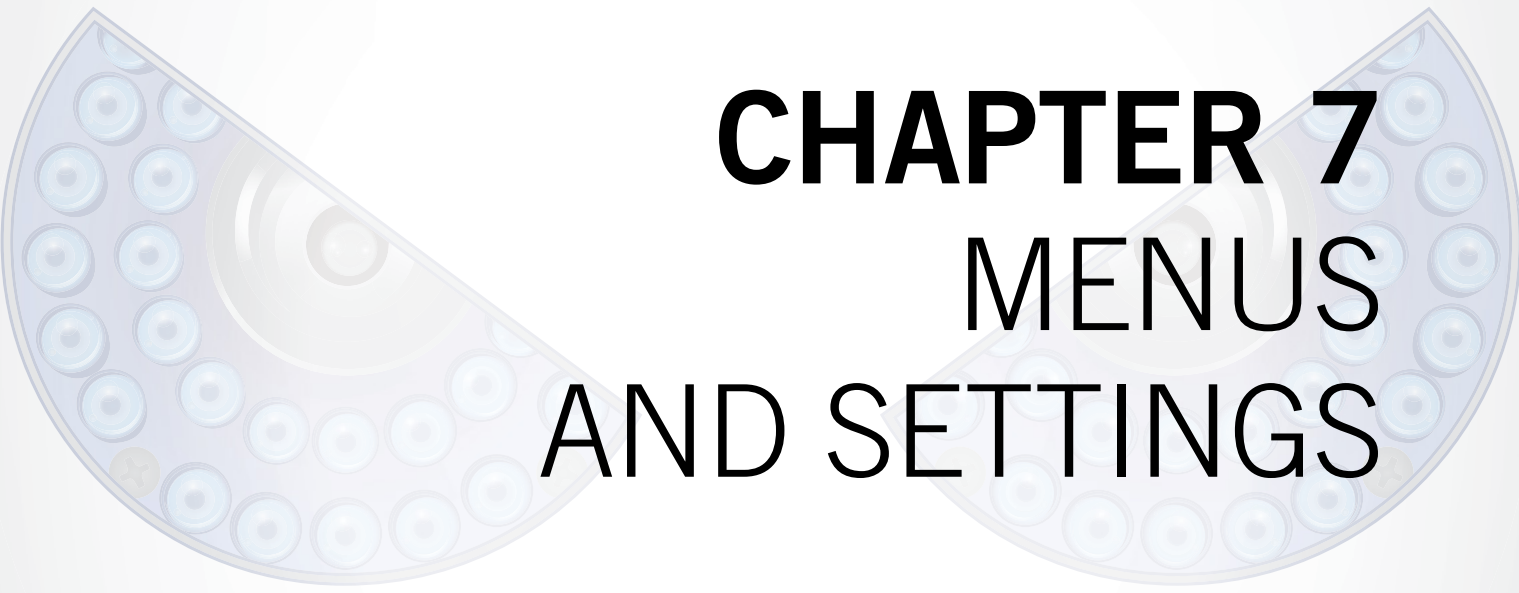
Access the main menu by selecting the Menu Icon on the Live View bar.



Within the menus, you will be able to access settings and parameters for all aspects of your NVR system.



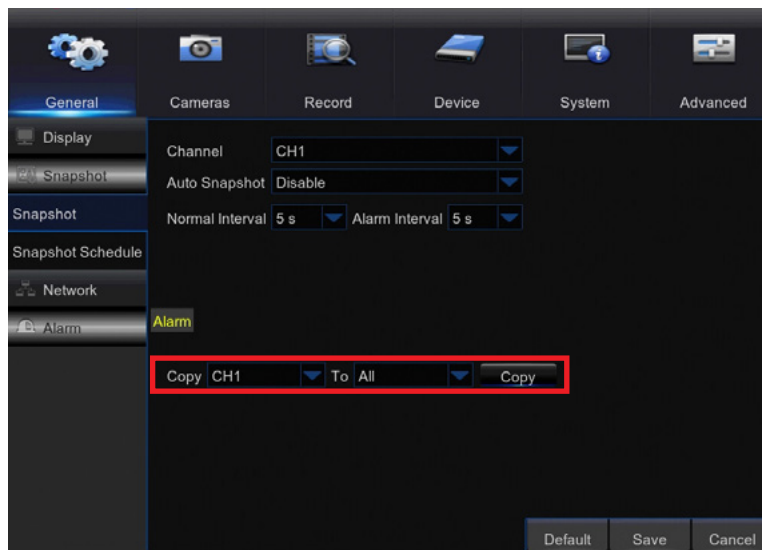
- 1 **General Menu:** Configure display, Privacy Zone, Snapshot, Network and Alarm.
- 2 **Cameras Menu:** Access channel display, color settings, encode settings and motion record settings.
- 3 **Record Menu:** Setup or modify general recording, triggered events and recording settings. Access recordings playback.
- 4 **Device Menu:** Monitor available HDD space and access PTZ settings.
- 5 **System Menu:** Access general settings such as timestamp displays, user access, system info and access logs.
- 6 **Advanced Menu:** View and change maintenance settings, upgrades and HDD alerts.



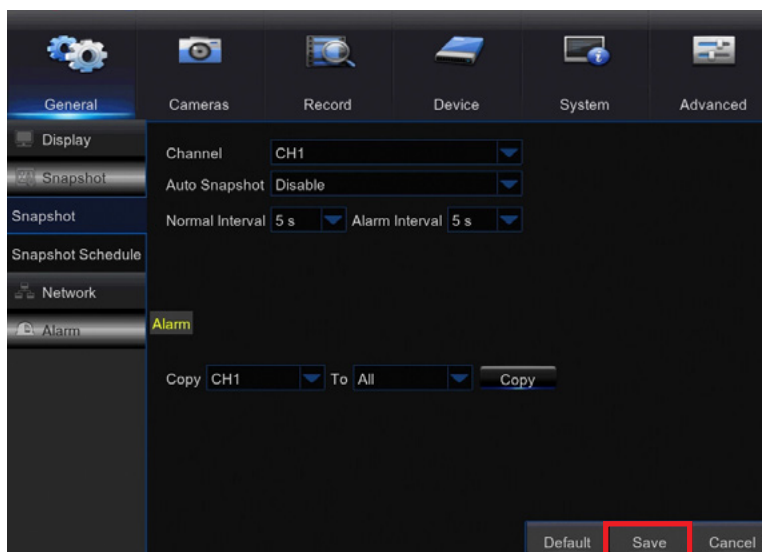
CHAPTER 7

MENUS AND SETTINGS

Chapter 7: Menus and Settings



Some menu screens will allow you to copy similar settings to multiple channels. Choose the channel you would like to copy information from in the first drop-down box (Copy), then select the channel you would like to copy the information to from the second drop-down box (To). Click Copy when the proper channels have been chosen.



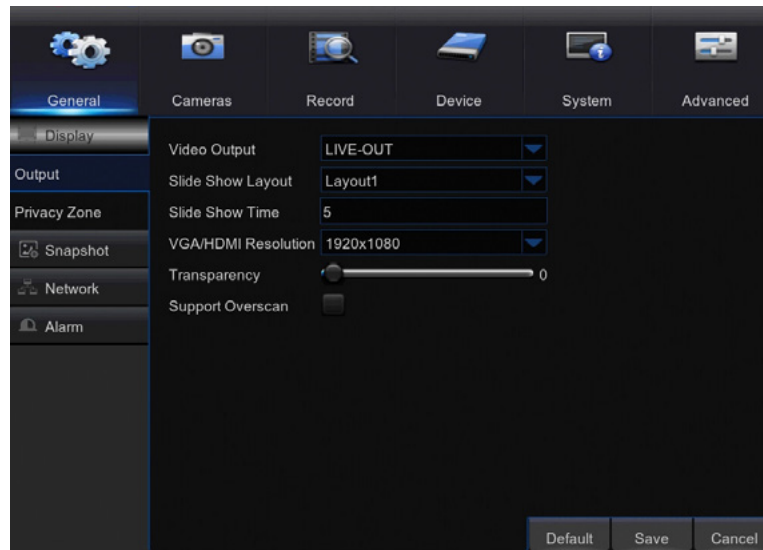
Be sure to click Save to save all changes you make in the menus. If you do not save the changes, they will not be applied. You can also select the Default button on any page to restore default settings for those parameters.

7.1 General Menu

The general menu will allow you to access display and network settings for your NVR system.

7.1.1 Display

7.1.1 (a) Output



Video Output: Defaulted to LIVE-OUT.

Slide Show Layout: Set to view channels in sequential mode.

Slide Show Time: Adjust the length of time, between 1 and 300 seconds, that each channel is displayed during the sequential view. To begin the auto sequence feature, click on the Auto Sequence icon which is located on the quick access bar.

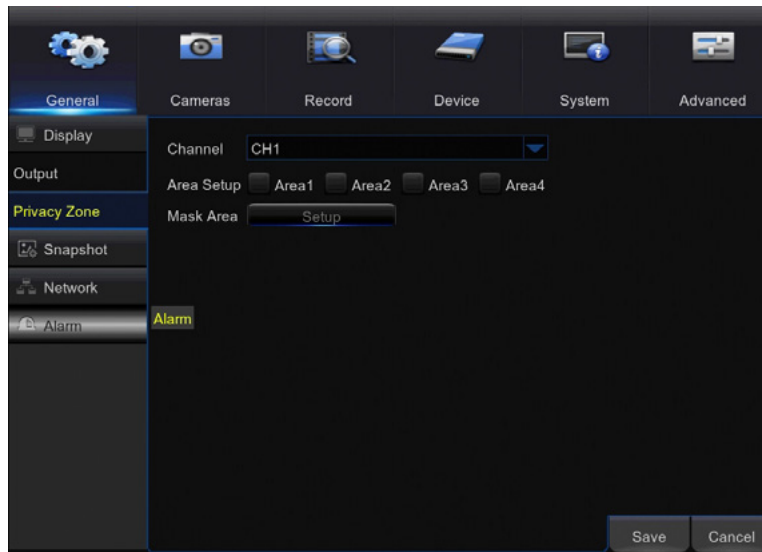
VGA/HDMI Resolution: Optimize the display resolution to best fit your TV/Monitor. By default the NVR will select a resolution of 1920 x 1080. **TIP: Do not select a resolution size larger than your TV/Monitor can accommodate.**

Transparency: Modify the menu transparency when displayed on the screen.

Support Overscan: Select this option if using a TV/Monitor that overscans (crops) the NVR footage.

7.1.1 (b) Privacy Zone

Create or modify up to 4 privacy zones per channel. These zones will not be visible to the cameras in Live View or during any recording.



Channel: Choose which channel to apply a privacy zone to.

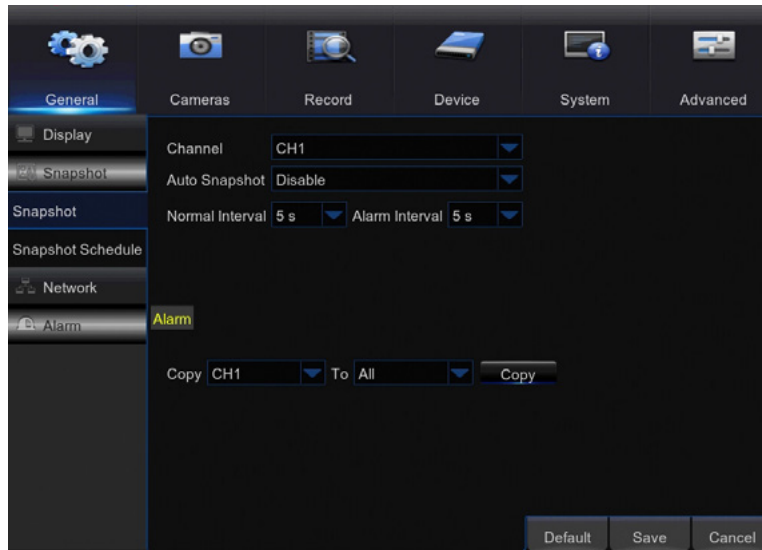
Area Setup: Select the number of masks you would like to create or modify.

Mask Area: A single Live View of the selected channel will be displayed with the number of Areas selected in the previous line. Select, drag and resize each area by left clicking the mouse to mask areas on camera that you do not want visible while recording or monitoring. Once the area(s) are selected, right-click to return to the menu.

7.1.2 Snapshot

7.1.2 (a) Snapshot

Turn channel Snapshot capabilities on or off.



Channel: Select channel to edit.

Auto Snapshot: Enable/Disable Snapshot feature on selected channel.

Normal Interval: Time in between Snapshots in seconds for normal recording.

Alarm (Motion) Interval: Time in between captures in seconds for motion recording.

7.1.2 (b) Snapshot Schedule

Set parameters for Snapshot situations. For example, from this menu you can configure your camera on channel one to Snapshot from 1pm-9pm (Scheduled) and the remaining cameras to begin capturing only when motion is detected (Motion).

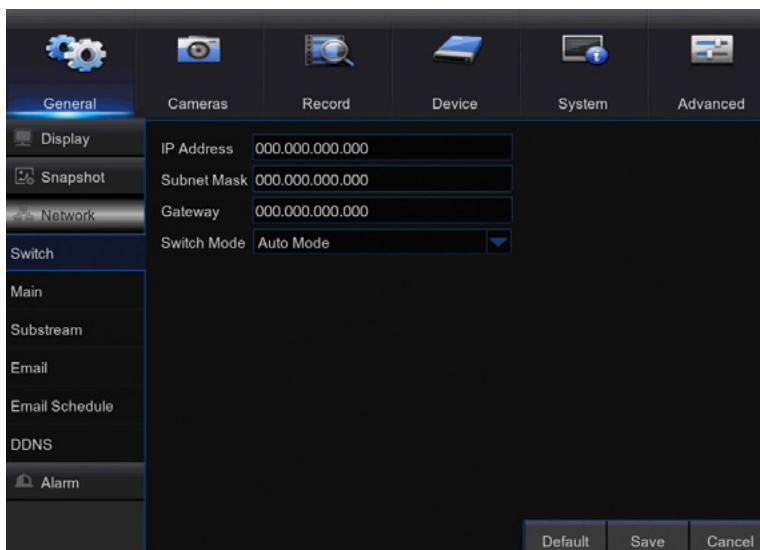




Find network values and optimize connectivity based on your Internet connection. In most cases the values should populate automatically once your NVR is connected to the Internet. The values in this section should only be adjusted if you are an advanced user and have extensive experience in device networking.

7.1.3 (a) Switch

View network information such as IP Address, Subnet Mask, Gateway options and Switch mode.



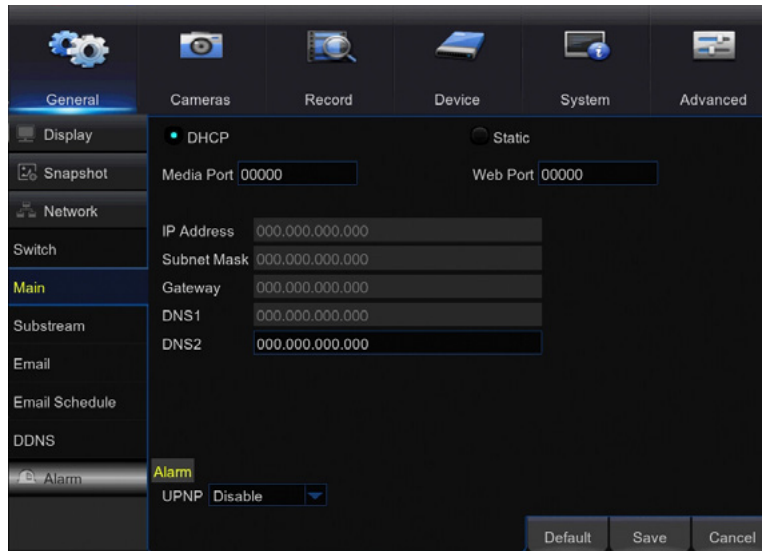
IP Address: Network address of the connected NVR.

Subnet Mask: The range of IP addresses that can be found in the network.

Gateway: The connection between two networks.

Switch Mode: Allows you to select auto mode or manual mode. Auto mode will complete the manual automatically. Manual mode will require manual configuration to complete the manual.

7.1.3 (b) Main



DHCP: The most common network connection type. These values will be gathered automatically from your ISP when connected.

Static: Modify these values if you are using a static IP address. Information can be obtained from your router and ISP.

Media Port: Allows access to your NVR from a mobile device. The default value of 9000 should generally be used for most cases.

Web Port: Allows access to your NVR with your computer through your LAN or the Internet. In most cases the default value of 2049 will provide the most optimal connectivity.

IP Address: Network address of the connected NVR.

Subnet Mask: The range of IP addresses that can be found in the network. This should always be set to the default address 255.255.255.000.

Gateway: The connection between two networks. This should always be the IP address of the connected router.

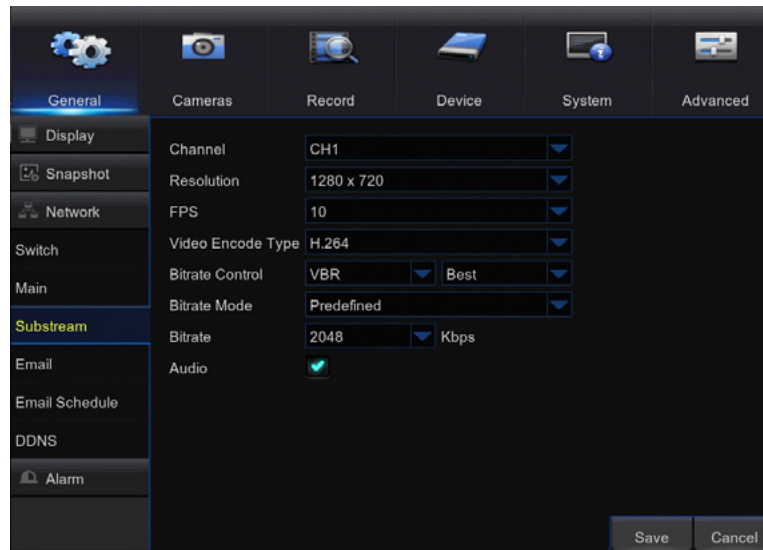
DNS1: Primary Domain Name System server address.

DNS2: Secondary Domain Name System server address.

UPNP: *Enable* or *Disable* Universal Plug and Play abilities depending on your network device capabilities.

7.1.3 (c) Substream

Configure or optimize the video quality of your Live View.



Channel: Select the channel you would like to configure.

Resolution: Choose your desired resolution for the selected channel, by default this is set to 352 x 240.

FPS: Increase or decrease the frames per second of the streaming video depending on your connection speed. A higher FPS will result in more data transfer but smoother video. A lower FPS will eliminate most lag but at the expense of video quality.

Video Encode Type: Allows you to switch between H.264 and a more advanced encoding H.265 that allows a better use of the NVR resources in data transmission.

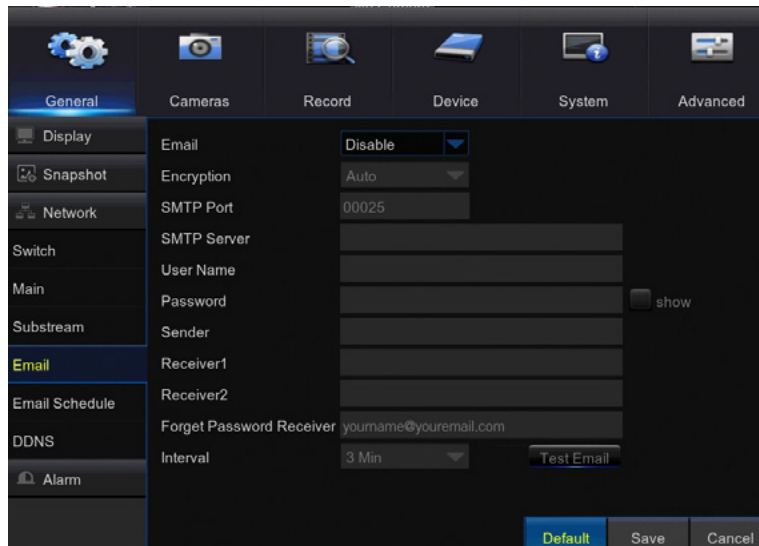
Bitrate Control: Allows you to switch between CBR (Constant Bit Rate) and VBR (Variable Bit Rate). VBR saves more bandwidth than CBR because it adapts the Bandwidth used to meet the NVR needs up to a limit.

Bitrate Mode: Allows you to select predefined or user defined modes. The predefined mode will provide a dropdown list of standard bitrate options. The user defined mode will allow you to input your desired bitrate option.

Bitrate: Adjust the amount of data transferred while streaming. The default setting is sufficient for most networks.

Audio: Click the tick box if your camera is audio enabled. Not all cameras are audio enabled.

7.1.3 (d) Email



Email: Enable or Disable email alerts based on your alarm settings.

Encryption: Automatically enabled, this setting embeds the video footage to be sent as an email.

SMTP Port: The access point for your email determined by your email service provider.

SMTP Server: This is the mail server address of your email provider. This information is determined by your email provider.

User Name: The user name associated with the email account you want to configure.

Password: The password associated with the email account you want to configure.

Sender: The email address that will send email alerts.

Receiver1: The email address that will receive the email alerts.

Receiver2: The email address that will receive the email alerts.

Interval: Set the duration between sending emails for multiple alerts.

Common Email Provider Settings:

- **Gmail Server Address:** smtp.gmail.com
Port: 465 or 587
Required SSL: Yes
- **Hotmail/Live.com Server Address:** smtp.live.com
Port: 465
Requires SSL: Yes
- **AOL Server Address:** mail.aol.com
Port: 465
Requires SSL: Yes
- **Yahoo Server Address:** smtp.mail.yahoo.com
Port: 465 or 587
Requires SSL: Yes
- **iCloud Server Address:** smtp.mail.me.com
Port: 587
Requires SSL: Yes
- **Outlook.com Server Address:** smtp.live.com
Port: 587
Requires SSL: Yes

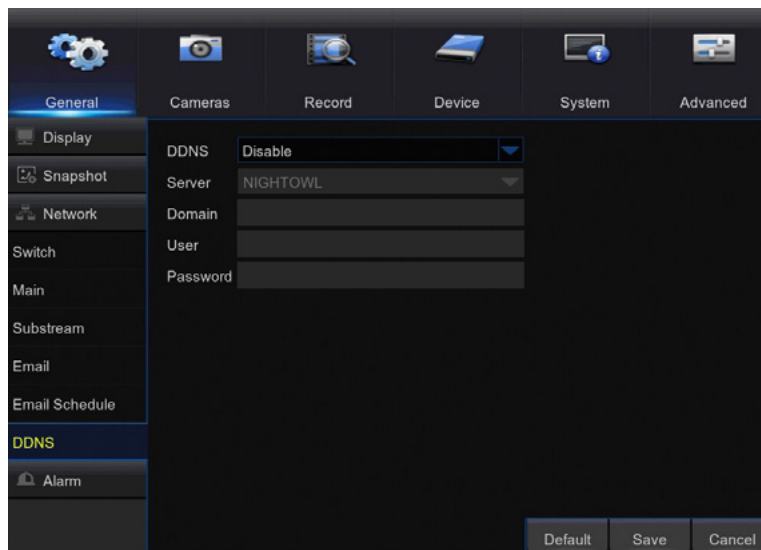
7.1.3 (e) Email Schedule

Choose when alert emails can be sent. Select *Motion* or *System Event* above the calendar and click the corresponding green or red boxes; you can highlight multiple boxes by left clicking and dragging. Highlighted boxes represent days and times in which emails will be sent. Motion refers to alerts sent when cameras are triggered by motion and System Event refers to events such as video loss or memory conflicts.

NOTE: Email Alerts will take more time to receive based in your Email Client server connection.



7.1.3 (f) DDNS



DDNS: Enable or Disable DDNS service to view your NVR from a computer.

Server: Set to the NIGHTOWL server when using the Night Owl free domain name server. To create your Free Domain Server got to www.NightOwlDVR.com

Domain: Set to the domain name you created when registering your DDNS.

User: The User ID created during the DDNS registration process.

Password: The password created during the DDNS registration process.

7.1.4 Alarm

7.1.4 (a) Motion

Configure the motion alarm settings for your NVR system.



Channel: Select the channel you wish to configure motion alarm settings for.

Buzzer: Enable an audible alarm when the PIR sensor detects heat.

Sensitivity: Adjust the sensitivity of the motion sensor. A lower setting will require more movement in the camera's field of view for a recording to be triggered.

Motion Area: Selecting Setup will allow you to configure which areas in the cameras field of view will and will not detect motion. Red boxes denote areas that will detect motion and uncolored boxes denote areas that will not. When finished, right click to return to the menu.

Post Recording: Determine how long you would like the camera to continue recording after the event which triggered the recording has ended. You can choose between 30 and 300 seconds.

Show Message: Checking this tick box will result in a green "running man" icon appearing on-screen when motion is detected while in Live View.

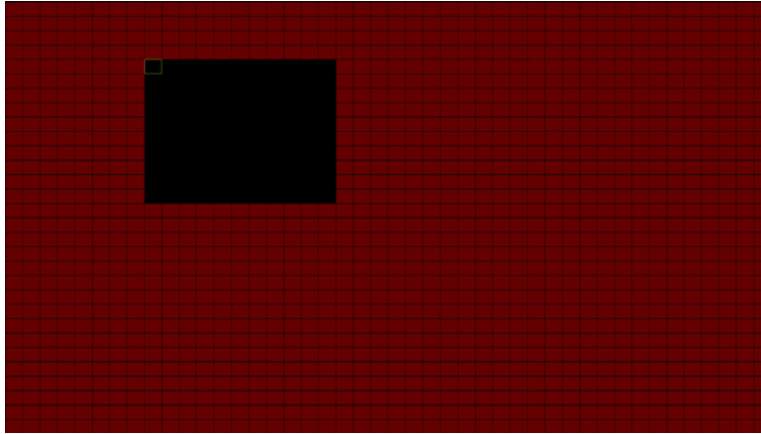
Send Email: Checking this tick box will result in an email alert being sent when motion is detected. See section 7.1.2 for email setup and configuration.

Full Screen: Checking this tick box will result in the selected channel going to full screen when motion is detected.

Push Notification: Checking this tick box will result in push notifications being sent to your mobile device when motion is detected on the selected channel. By default, this setting is enabled.

Record Channel: This option allows you to set other cameras to begin recording when motion has been detected on another camera. For instance, if you are on Channel 1 (Channel field) you can set Channel 2 and 3 to begin recording when motion is detected on Channel 1.

7.1.4 (b) Motion Area Setup



This system uses motion pixel sensors to detect movement. Current motion detection technology allows your system to begin recording when a pixel change is detected by your unit. If configured, the NVR will then send a push notification out to your Smart Device which will contain an embedded video clip of the object triggering the motion sensors.

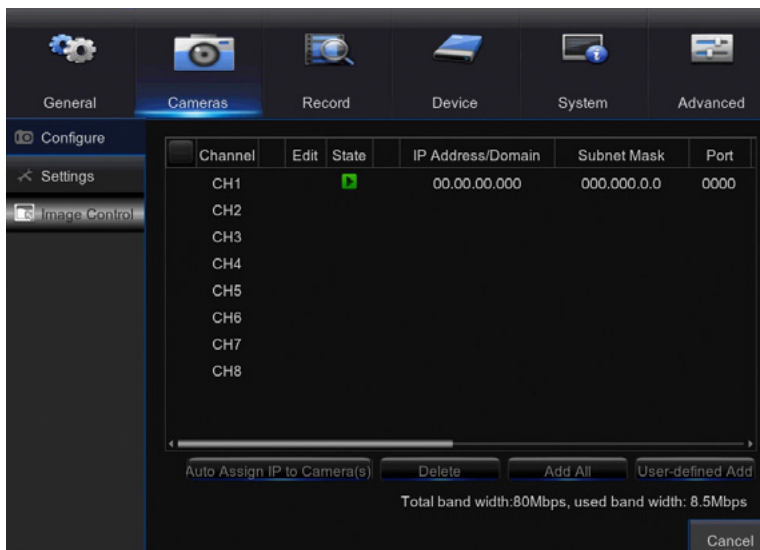
If there is an area within the camera's field of view that you do not want detection to be active, follow the steps below:

- 1 Click on a square in one corner of the area you don't want to be detected.
- 2 Drag the mouse over the area you want to block.
- 3 Release the mouse and verify you have selected your desired area.
- 4 Right click the mouse and select Save.

7.2 Cameras Menu

Adjust or modify individual camera settings connected to your NVR.

7.2.1 Configure



Channel: Displays the channel number.

Edit: Allows you to edit the IP camera's information such as Alias (Channel Name), Alias (Channel Name's) Position and IP address when you left click on the pencil icon.

State: Will display if the channel is recording and fully operational.

IP Address/Domain: Displays the IP address of the selected channel.

Subnet Mask: Displays the subnet mask number of the selected channel.

Port: Displays the port being utilized by that camera.

Manufacturer: Displays the manufacturer.

Device Type: Displays the type of camera connected to this channel.

Protocol: Will display if your protocol is private or public.

MAC Address: Displays the MAC address of the selected channel.

Firmware Version: Displays the firmware version of the selected channel.

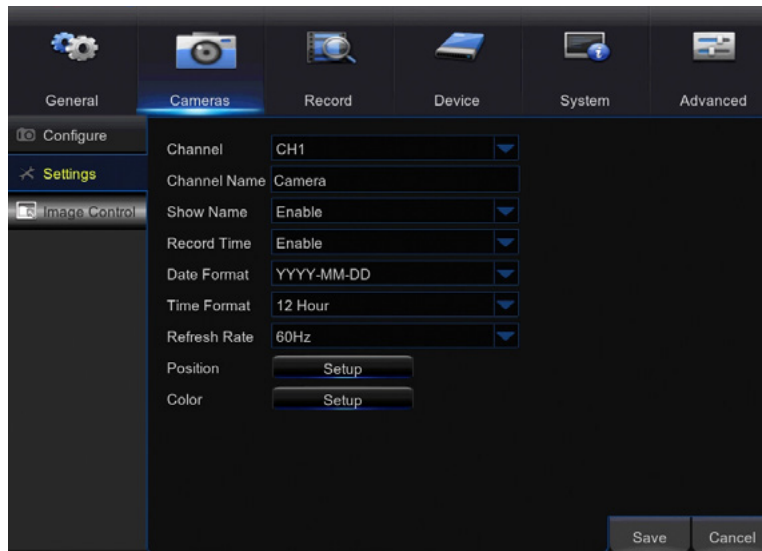
Auto Assign IP to Cameras: Allows the NVR to automatically assign an IP address to the selected camera. Not all IP cameras will function with this feature and you will not need to configure this setting when you utilize a Night Owl NVR10 camera.

Delete: Deletes the selected channels camera configuration.

Add All: Allows you to add the same info to all cameras that are connected to the NVR.

User-Defined Add: Allows you to add the same info to the cameras that you select.

7.2.2 Settings



Channel: Select the channel you want to configure.

Channel Name: Create a name for the selected channel. This name will be displayed on-screen during Live View and Playback.

Show Name: *Enable* or *Disable* the on screen display of the Channel Name.

Record Time: *Enable* or *Disable* the recording time display on-screen during playback mode.

Date Format: Allows you to select the format your date will be displayed. You can select Month/Day/Year, Year/Month/Day or Day/Month/Year.

Time Format: *Enable* or *Disable* the recording time display on-screen during playback mode.

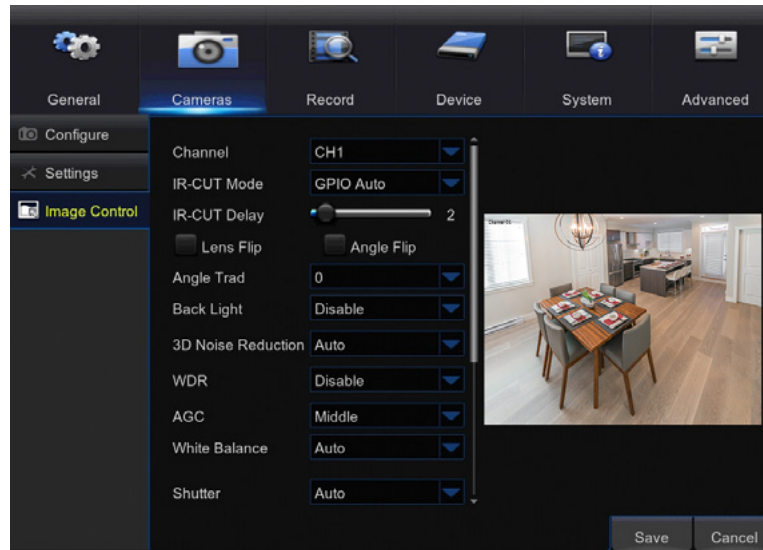
Refresh Rate: *Enable* or *Disable* the on-screen timestamp during live view mode.

Position: Change the position of the Channel name while in Live View. This only works for the channel name, not for the date and time.

Color: Click Setup to access a sub-menu to adjust the colors of the selected channel. In this sub-menu you can adjust the Hue, Brightness, Contrast and Saturation of the image.

7.2.3 Image Control

Display advanced settings which will allow you to flip your camera's image, adjust BLC and IR-CUT modes.



Channel: Allows you to select the channel to configure.

IR-Cut Mode: GPIO Auto; Color Mode; Black White Mode; Video Auto.

IR-Cut Delay: Allows you to adjust the delay when the IR-CUT initiates. Selecting “1” will be less delayed than selecting “36”.

Lens Flip: Allows you to flip the image (top to bottom) of the selected channel by left clicking this box.

Angle Flip: Allows you to flip the image (left to right) of the selected channel by left clicking this box.

Backlight: Allows you to enable or disable the backlight function of the selected channel.

3D Noise Reduction: Allows you to disable or set this option to Auto or Manual.

WDR: Wide Dynamic Range option allows the configuration of exposure in areas of the frame to maintain optimum detail in both the shadows and highlights of the image.

AGC: Auto Gain Control option allows the configuration of the brightness of camera images, but also increase the image noise, users can adjust it from Low/ Middle/High or shut it down depending on the situation.

White Balance: By default this option is set to Auto. If you select the Manual option you will have to configure the color settings for Red, Green and Blue.

Shutter: Select Auto or Manual. By default this should remain as Auto.

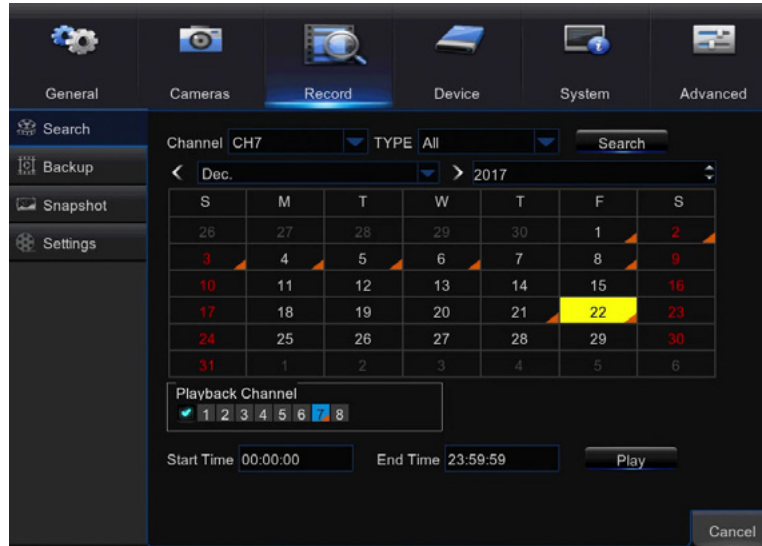
Time Exposure: Allows you to set the camera's shutter speed which is the video output per second.

BLC Level: Allows you to select Low, Middle or High options. By default this option is set to the Middle option.

7.3 Record Menu

7.3.1 Search

Search and playback all recorded video from this menu. Choose your desired date and times from the options below, then double-click Play to view recorded video. Right-click to exit back to the menu screen.



Channel: Select the channel to search for recordings.

Type: Search for recordings based on Motion triggers or Continuous recording.

Date: Select the month and year to search for event footage.

Playback Channel: Choose the desired channel to view footage from.

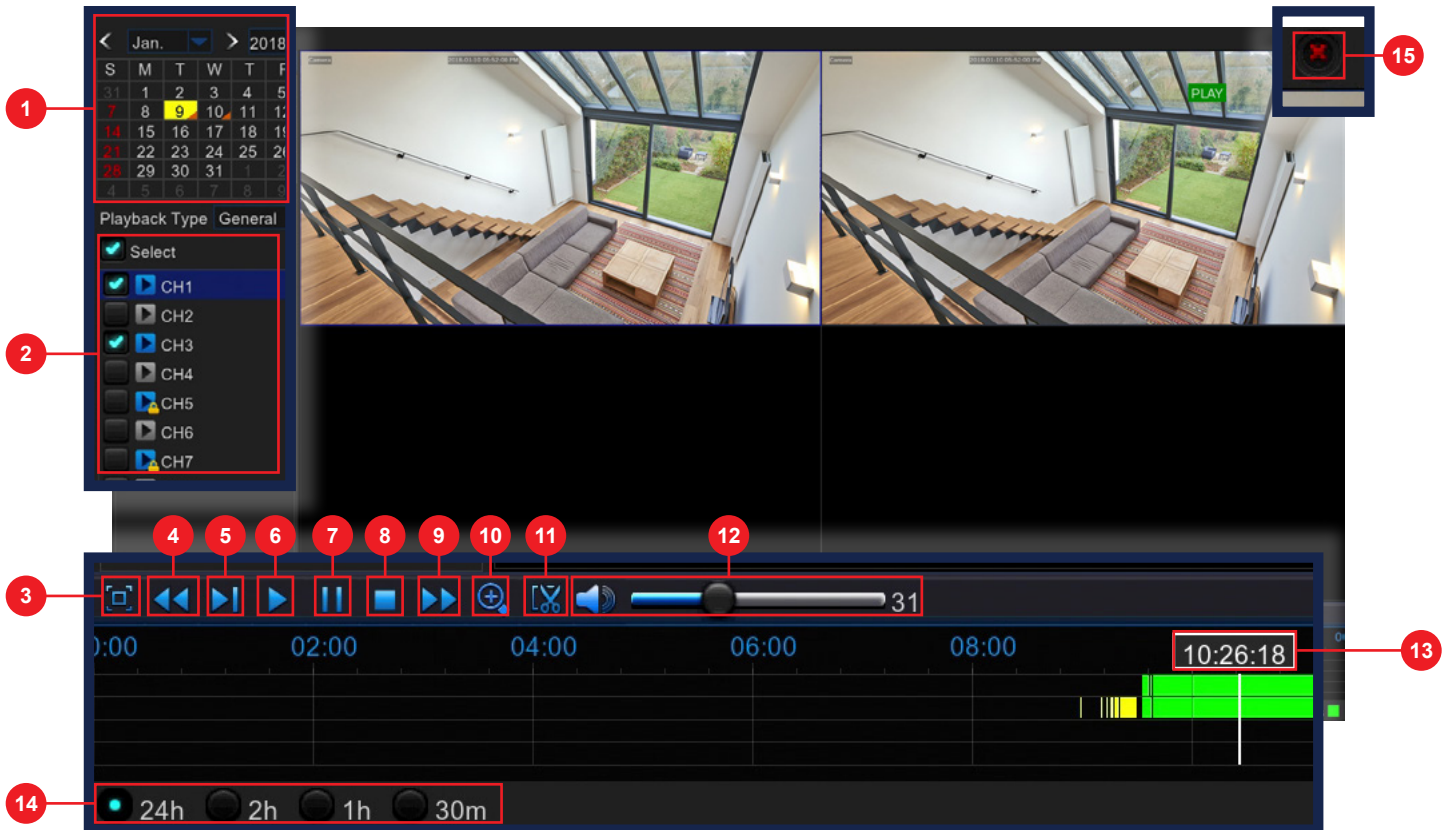
Start Time: Set the initial time parameter for your video search.

End Time: Set the end time parameter for your video search.

Play: Select to open the video playback screen.

7.3.1 (a) Video Playback

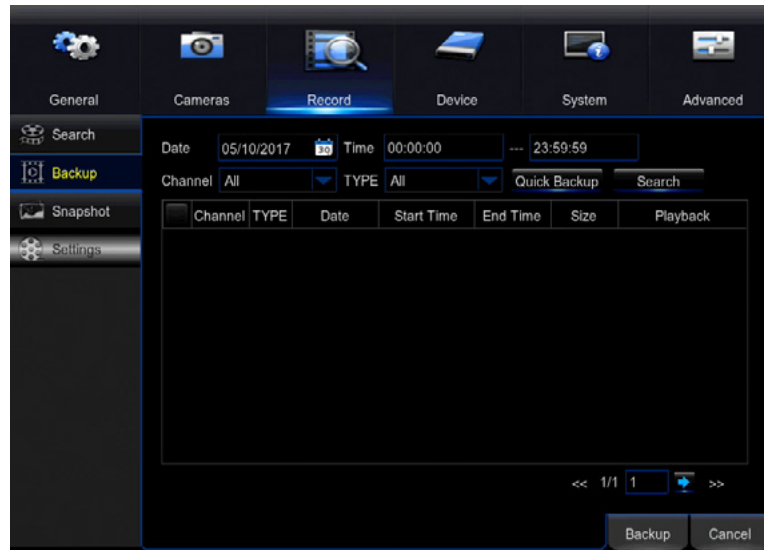
Search and playback all recorded video from this menu. Choose your desired date and times from the options below, then click Play to view recorded video. Right-click to exit back to the menu screen.



- 1 **Calendar:** Indicate the date to playback video.
- 2 **Channel Selection:** Choose the channels to display on-screen.
- 3 **Full Screen:** Hides the Calendar and Channel Selection panels.
- 4 **Rewind:** Rewinds the recorded video.
- 5 **Slow Forward:** Forwards the video at a slower speed.
- 6 **Play:** Plays video starting at the indicator on the timeline.
- 7 **Pause:** Pause the recorded video.
- 8 **Stop:** Stop the recorded video.
- 9 **Fast Forward:** Fast forward frame-by-frame of the recorded event.
- 10 **Zoom:** Click the icon and select the area on-screen to zoom in.
- 11 **Clip/Save:** Click once to set the start point of the video you would like to save. Press the icon again to select the end of the video you would like to save then choose whether you would like to save as an H.264 or AVI format.
- 12 **Volume Scale:** Adjust the volume of the video in the selected channel(s).
- 13 **Start Time:** Indicate the date to playback video.
- 14 **Timeline Length (24h, 2h, 1h, 30m):** select the duration of the on-screen display of the timeline.
- 15 **Exit:** Double right click the mouse or click on the X to exit the playback screen.

7.3.2 Backup

Search for video from triggered events and quickly backup the video files to a USB flash drive for future reference.



Date: Select the date to search for event footage.

Time: Choose a start and end time that the event happened.

Channel: Pick the channel(s) with the desired video.

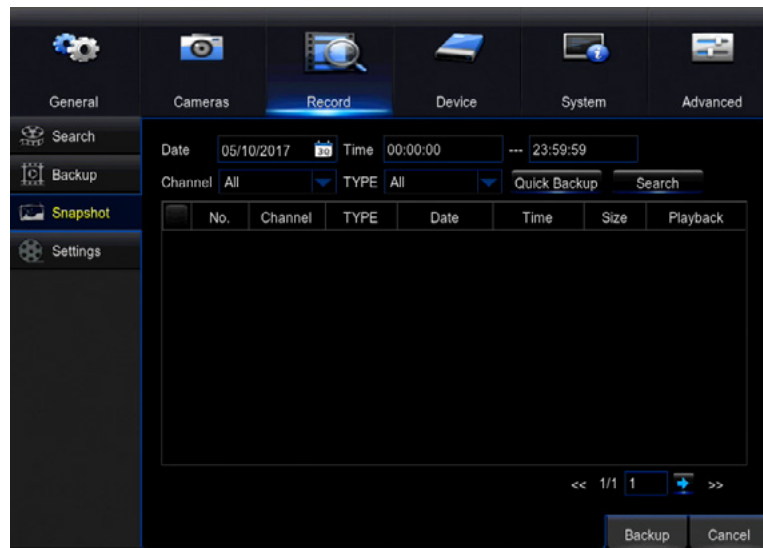
Type: Select from *All*, *Normal*, *Motion* or *Manual* video.

Quick Backup: Check the tick boxes to the left of the found video clip(s) and click this button to save that video to a USB Flash Drive.

Search: Once the parameters are set, click this button to retrieve video from the specified time period. You can save video files in H.264, AVI or mp4 format.

7.3.3 Snapshot

Search for Snapshot(s) from triggered events and quickly backup the video files for future reference.



Date: Select the date to search for event footage.

Channel: Pick the channel(s) with the desired Snapshot.

Type: Select from *All*, *Continuous*, *Motion* or *Manual* Snapshots.

Quick Backup: Check the tick boxes to the left of the found Snapshot(s) and click this button to save that video to a USB Flash Drive.

Search: Once the parameters are set, click this button to retrieve Snapshot from the specified time period.

7.3.4 Settings

View or modify general recording settings for your NVR system.

7.3.4 (a) Record Schedule

Set parameters for recording situations. For example, from this menu you can configure your camera on channel one to record from 1pm–9pm (Scheduled) and the remaining cameras to begin recording only when motion is detected (Motion).



Channel: Select the channel to configure the recording schedule.

Continuous Record: Select this option to set the schedule for continuous recording. Once selected, highlight the boxes corresponding to the day and times that the channel should be recording. Click and drag to highlight multiple boxes green.

Motion Record: Select this option to set the schedule for motion-activated recording. Once selected, highlight the boxes corresponding to the day and times that the NVR should record when motion is detected. By default, motion recording is always on.

7.3.4 (b) Mainstream

Configure or optimize the video quality of your Live View.



Channel: Select the channel you would like to configure.

Resolution: Choose your desired resolution for the selected channel, by default this is set to 352 x 240.

FPS: Increase or decrease the frames per second of the streaming video depending on your connection speed. A higher FPS will result in more data transfer but smoother video. A lower FPS will eliminate most lag but at the expense of video quality.

Video Encode Type: Allows to switch between H.264 and a more advanced encoding H.265 that allows a better use of the NVR resources in data transmission.

Bitrate Control: Allows to switch between CBR (Constant Bit Rate) and VBR (Variable Bit Rate). VBR saves more bandwidth than CBR because it adapts the Bandwidth used to meet the NVR needs up to a limit.

Bitrate Mode: Allows you to select predefined or user defined modes. The predefined mode will provide a dropdown list of standard bitrate options. The user defined mode will allow you to input your desired bitrate option.

Bitrate: Adjust the amount of data transferred while streaming. The default setting is sufficient for most networks.

Audio: Click the tick box to record sound if your camera is audio enabled. Not all cameras are audio enabled.

7.3.4 (c) Mobile

Configure or optimize the video quality of your Live View.



Channel: Select the channel you would like to configure.

Enable: Select “Enable” to allow for mobile streaming.

Resolution: Choose your desired resolution for the selected channel, by default this is set to 352 x 240.

FPS: Increase or decrease the frames per second of the streaming video depending on your connection speed. A higher FPS will result in more data transfer but smoother video. A lower FPS will eliminate most lag but at the expense of video quality.

Video Encode Type: Allows to switch between H.264 and a more advanced encoding H.265 that allows a better use of the NVR resources in data transmission.

Bitrate Control: Allows to switch between CBR (Constant Bit Rate) and VBR (Variable Bit Rate). VBR saves more bandwidth than CBR because it adapts the Bandwidth used to meet the NVR needs up to a limit.

Bitrate Mode: Allows you to select predefined or user defined modes. The predefined mode will provide a dropdown list of standard bitrate options. The user defined mode will allow you to input your desired bitrate option.

Bitrate: Adjust the amount of data transferred while streaming. The default setting is sufficient for most networks.

Audio: Click the tick box to record sound if your camera is audio enabled. Not all cameras are audio enabled.

7.4 Device Menu

7.4.1 HDD

Check available memory on your NVR HDD and set recording parameters to optimize storage.



Select: If multiple drives are installed, choose the HDD you would like to customize.

Overwrite: By default, the Auto setting will overwrite the earliest footage once the HDD is full. Choose one of the other options to overwrite footage at the end of the desired time duration, starting with the earliest data. Off will record until the HDD has reached capacity.

Format HDD: Click this button to format the selected drive. **Keep in mind, formatting the HDD will erase all video files from the HDD.**

7.4.2 S.M.A.R.T.

This section allows the user to see Self Checks on how different parameters of the Hard Drive behave.

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology: Often written as SMART) is a monitoring system included in computer hard disk drives (HDDs) and solid-state drives (SSDs) that detects and reports on various indicators of drive reliability, with the intent of enabling the anticipation of hardware failures.



HDD ID: Allows to select the Hard Drive that is going to be checked or just select the Hard Drive to see it's statistics.

Self-check State: Status of the Self-check Test progress, if it was stopped or not detected.

Temp: Temperature of the Hard Disk Drive.

Whole Evaluation: Final Status of the evaluation.

Self-check Type: Allows the user to select the check type to perform:

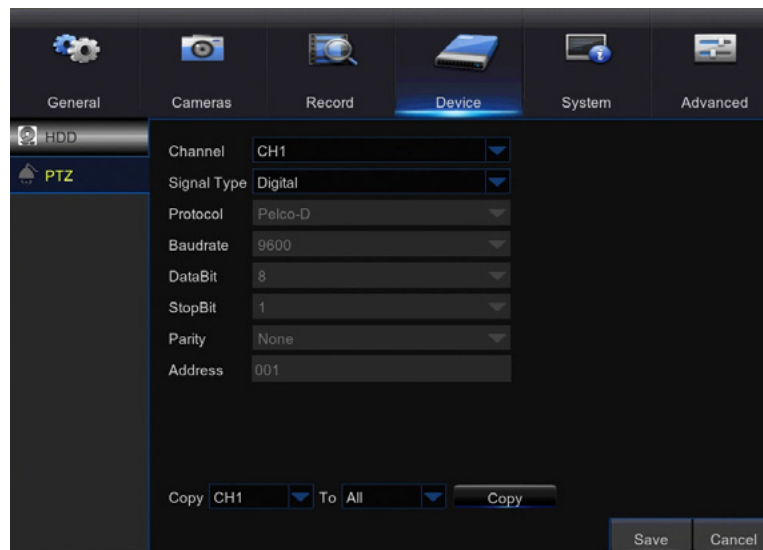
- **Short:** Checks the electrical and mechanical performance as well as the read performance of the disk. Electrical tests might include a test of buffer RAM, a read/write circuitry test, or a test of the read/write head elements. Mechanical test includes seeking and servo on data tracks. Scans small parts of the drive's surface (area is vendor-specific and there is a time limit on the test). Checks the list of pending sectors that may have read errors, and it usually takes under two minutes.
- **Long:** A longer and more thorough version of the short self-test, scanning the entire disk surface with no time limit. This test usually takes a long time, depending on the read/write speed of the drive and its size.
- **Conveyance:** Intended as a quick test to identify damage incurred during transporting of the device from the drive manufacturer to the computer manufacturer.

Utility Time(d): Amount of time that the Hard Disk Drive has been powered on in days.

Check: Prompt a Self-Check of the hard drive by clicking on Check.

7.4.3 PTZ

Configure settings on your NVR to control a PTZ enabled camera.



Channel: Choose the channel with a PTZ enabled camera. Not all cameras are PTZ enabled.

Signal Type: Choose between Digital and Analog signals.

Protocol: Is the type of PTZ data protocol that the NVR will use to control the PTZ cameras. It is necessary to change this only for third party PTZ Camera compatibility. The Default Value for Night Owl's PTZ camera is **PelcoD**.

Baudrate: Indicate the frequency of communication to the PTZ camera. We recommend leaving the default setting which is 9600.

DataBit: Select the amount of data to send during each transmission. 8 bits is standard for all modern data transmissions.

StopBit: Select the amount of extra data to send each time a direction is sent to the camera. The stopbit serves as a buffer between commands and should be 1 (by default) when utilizing Night Owl's AHD PTZ camera.

Parity: Detects corrupt commands sent to and from the PTZ camera. This should generally be left disabled.

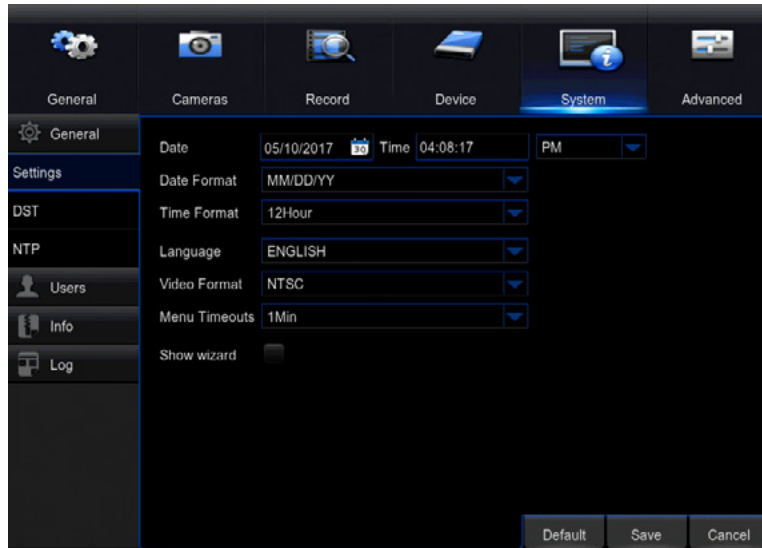
Address: Enter an ID number for the PTZ camera, greater than 0. If using multiple PTZ cameras, ID numbers cannot be the same.

7.5 System Menu

7.5.1 General

Set or adjust basic NVR settings such as the time, date and language.

7.5.1 (a) Settings



Date/Time: Manually set the date and time of your NVR.

Date Format: Choose the display format for the date. You can select Month/Day/ Year, Year/Month/Day or Day/Month/Year.

Time Format: Select between a 12Hour or 24Hour display.

Language: Pick between ENGLISH, SPANISH or FRENCH language preferences.

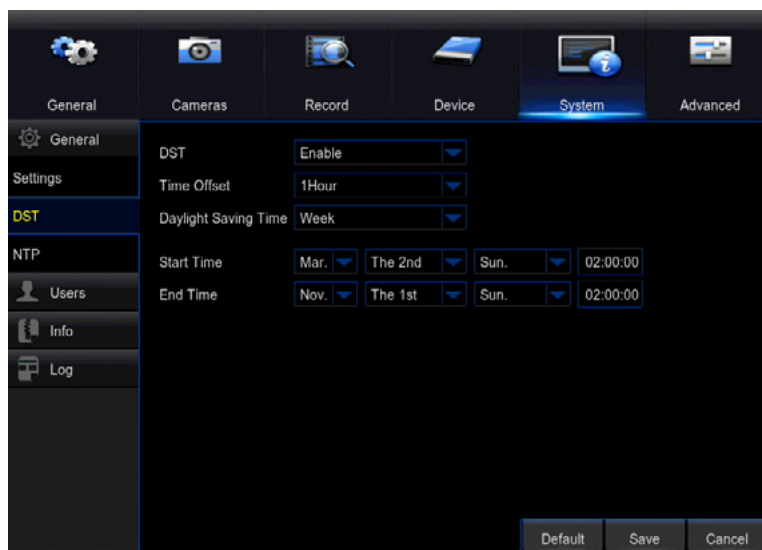
Video Format: NTSC or PAL formats are available to choose from. NTSC is the standard for video in North America. Prior to changing the video format, make sure that your TV/Monitor is PALL compatible.

Menu Timeouts: Select the duration of time for an inactive menu to be displayed on-screen.

Show Wizard: Check this box if you would like the Startup Wizard to start whenever the NVR reboots.

7.5.1 (b) DST

Configure Daylight Savings Time settings.



DST: Enable or Disable the Daylight Savings Time feature.

Time Offset: Choose the amount of time (1Hour or 2Hours) to offset if DST is enabled.

Daylight Saving Time: Indicate whether you would like this feature to be applied the week of or an exact date.

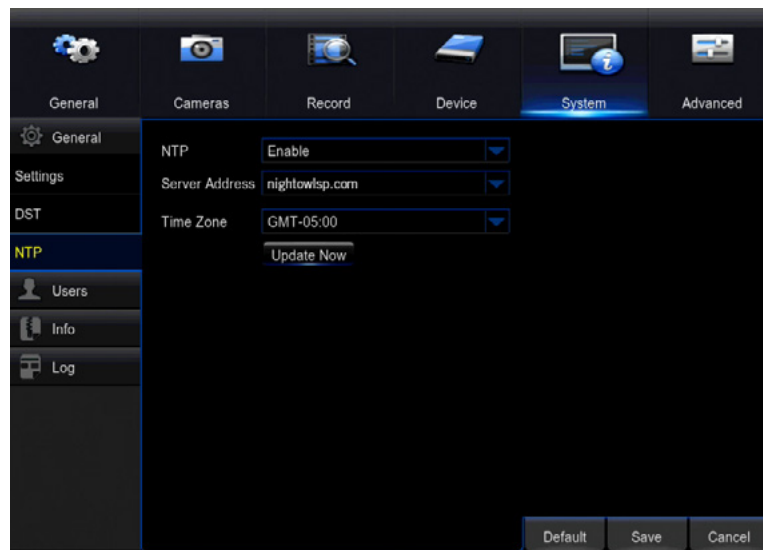
Start Time: Select the date and time to apply the DST offset.

End Time: Select the date and time to remove the DST offset.

7.5.1 (c) NTP

Sync your NVR to the Network Time Protocol standard time and date.

NOTE: In order to use Network Time Protocol (NTP), your NVR must be connected to the Internet.



NTP: *Enable* or *Disable* the NTP sync feature.

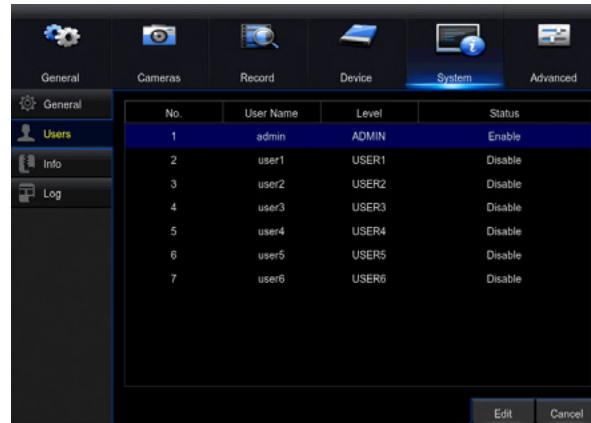
Server Address: Choose the NTP server in which to sync the date and time with.

Time Zone: Indicate your current or desired time zone.

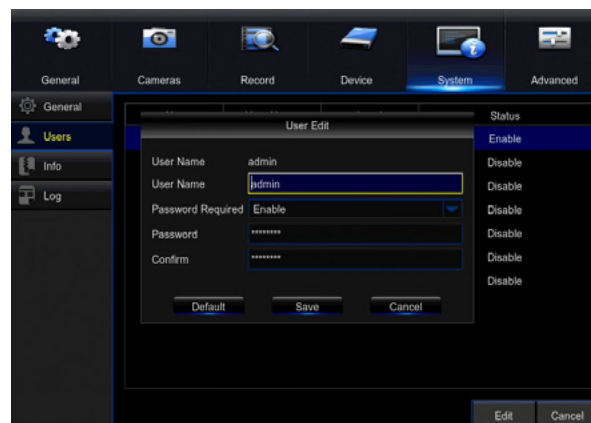
Update Now: After selecting the above options, click this button to apply the settings.

7.5.2 Users

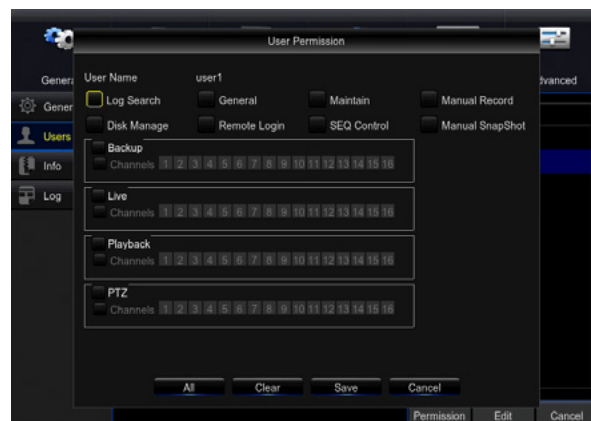
Create and modify user permissions.



Edit: Select an existing user from the list to change the *User Name*, *Enable* or *Disable* password access, or create a new *Password*.



Permission: Select a new user profile (e.g. user1) and press the Permission button to select which menus, settings, and playback/recording functions are available to that specific user and on which channels. All will give that user basic admin settings.



7.5.3 Info

View your NVR system's information and specifications at a glance. This menu will provide crucial device and network information to allow manual reconfiguration of your mobile application if needed. Keep in mind you can also scan the QR code on this screen using your Night Owl HD mobile application to quickly reconfigure your mobile device via our Owl Scan feature.

7.5.3 (a) Info



The screenshot shows the 'System' menu of an NVR interface. The left sidebar contains icons for General, Users, Info, Channel Info, Record Info, and Log. The main area displays the following fields:

Field	Value
Device Name	NVR8-IH8
Device Type	NVR8-IH8
Hardware Version	DM-357
Software Version	NVR8-IH8_12345678
IE Client Version	V1.0.1.74
IP Address	000.000.0.000
MAC Address	00-00-00-00-00-00
HDD Capacity	931G
Video Format	NTSC
Media Port	9000

A QR code is displayed on the right side of the form. At the bottom right, there are 'Save' and 'Cancel' buttons.

Device Name: Create a unique device name for easy reference.

Device Type: Product's model number.

Hardware Version: Your current hardware version.

Software Version: Your current software version.

IE Client Version: The current IE client version.

IP Address: The current NVR network address.

MAC Address: The NVR media access control address on the network.

HDD Capacity: The max capacity of installed hard drives.

Video Format: Your current video recording format.

Media Port: By default, should be left at 9000.

Web Port: By default, should be left at 2049 or 2051.

P2P ID: The ID of your Peer to Peer (P2P) connection.

Time of the NVR: The current time of your NVR.

7.5.3 (b) Channel Info

Displays an overview of the current video settings for all channels. View alias, state, mainstream/substream playback information, mobile support, motion detection, and privacy zone information. The settings on this page cannot be edited.



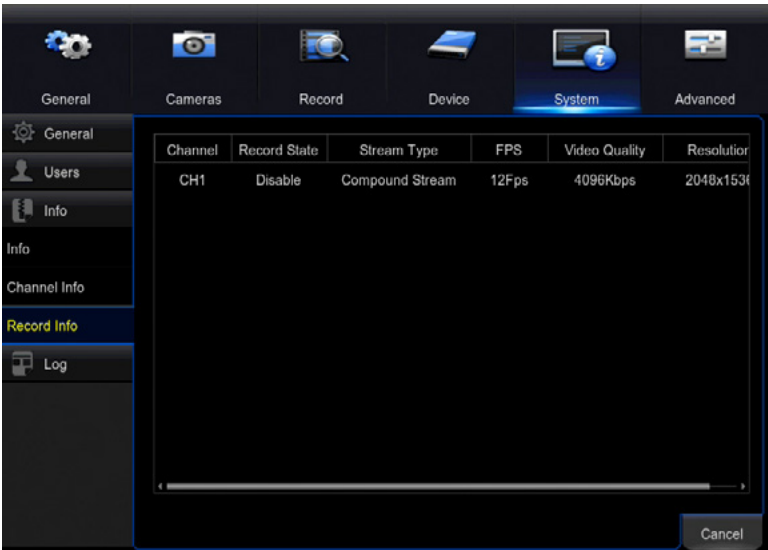
The screenshot shows the 'Channel Info' window with a sidebar on the left containing 'General', 'Users', 'Info', 'Channel Info' (selected), 'Record Info', and 'Log'. The top navigation bar includes 'General', 'Cameras', 'Record', 'Device', 'System' (selected), and 'Advanced'. The main content area displays a table with the following data:

Channel	Alias	State	Mainstream	Substream
CH1	CH1	Enable	2048x1536, 12Fps, 4096Kbps	352x 240, 10Fps, 320K
CH2	CH2	Enable	1920x1080, 12Fps, 4096Kbps	352x 240, 10Fps, 320K
CH3	CH3	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K
CH4	CH4	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K
CH5	CH5	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K
CH6	CH6	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K
CH7	CH7	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K
CH8	CH8	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K
CH9	CH9	Enable	1920x1080, 15Fps, 4096Kbps	352x 240, 10Fps, 320K

A 'Cancel' button is located at the bottom right of the window.

7.5.3 (c) Record Info

Displays an overview of the current record settings for each available channel. View record state, stream type, frames per second (FPS), bitrate, and resolution information. The settings on the page cannot be edited.



The screenshot shows the 'Record Info' window with a sidebar on the left containing 'General', 'Users', 'Info', 'Channel Info', 'Record Info' (selected), and 'Log'. The top navigation bar includes 'General', 'Cameras', 'Record', 'Device', 'System' (selected), and 'Advanced'. The main content area displays a table with the following data:

Channel	Record State	Stream Type	FPS	Video Quality	Resolution
CH1	Disable	Compound Stream	12Fps	4096Kbps	2048x1536

A 'Cancel' button is located at the bottom right of the window.

7.5.4 Log

Search for logs of all events and notifications on the NVR to playback or backup files.

Channel	TYPE	TIME	CON.	RECORD	Playback
---------	------	------	------	--------	----------

Start Date: Choose the initial date of your log search period.

Start Time: Choose the initial time of your log search period.

End Date: Choose the end date of your log search period.

End Time: Choose the end time of your log search period.

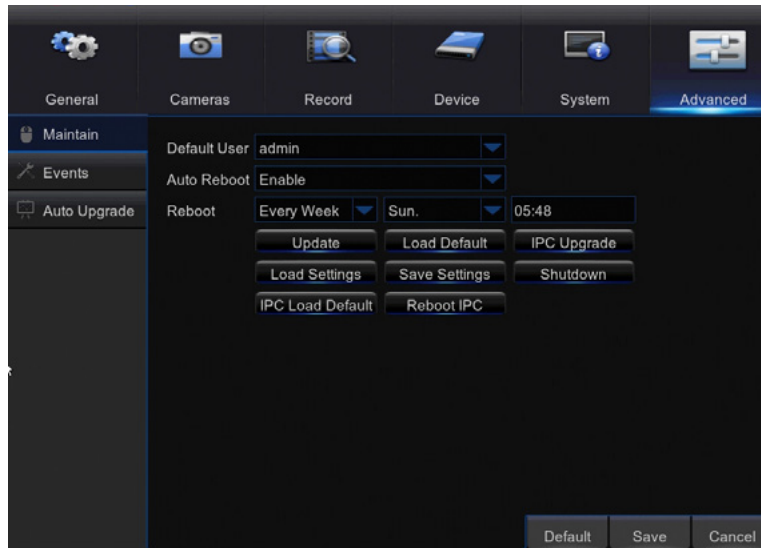
Log Type: Select the type of event log that you would like to Search for. Each choice corresponds to an action or event that was triggered and noted within the system.

7.6 Advanced Menu

Configure additional settings related to maintenance, hard drive space and upgrades.

7.6.1 Maintain

Adjust settings related to default user access and reboot schedules.



Default User: Choose a user to default at the login screen at startup.

Auto Reboot: Enable or Disable a scheduled reboot.

Reboot: Set the frequency of reboots if this feature is enabled.

Update: If any of the above settings were changed, click this button to save the new parameters.

Load Default: Revert to the standard reboot schedule.

IPC Upgrade: Allows you to upgrade the IP Camera's Firmware via USB.

Load Settings: Load previously saved settings from a USB flash drive.

Save Settings: Save reboot settings to a USB flash drive.

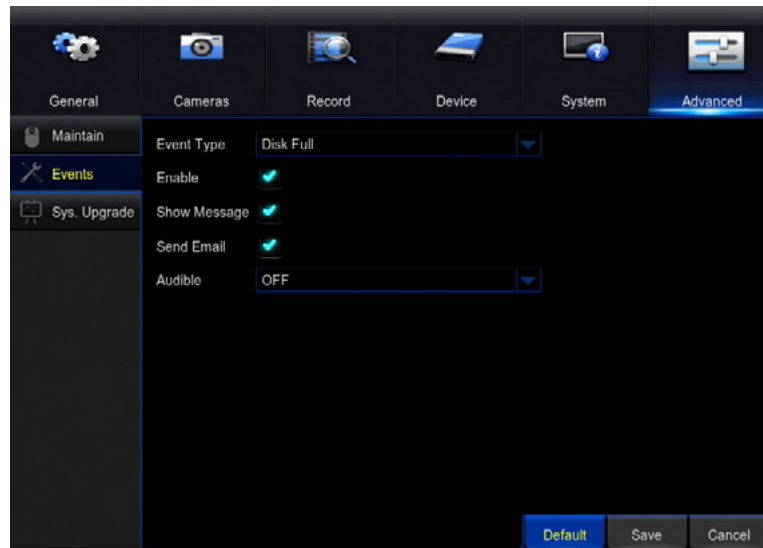
Shutdown: Rebooting the NVR will require the admin or authorized user to input their username and password.

IPC Load Default: Allows you to load default settings on the IP cameras.

Reboot IPC: Allows you to reboot the IP camera.

7.6.2 Events

Configure notification settings for other triggered events not related to motion detection such as disk error, disk full or and/or video loss.



Event Type: Choose the type of event you would like to create a notification for. *Disk Full* means you will receive a notification if the HDD is full. *Disk Error* refers to the status of the HDD and will notify you if it crashes or has become corrupt. *Video Loss* is the absence of video due to loss of power, possibly due to cable disconnection.

Enable: Turn notifications on or off for the selected Event Type.

Show Message: Enable an icon to be displayed in Live View when the selected Event Type is triggered.

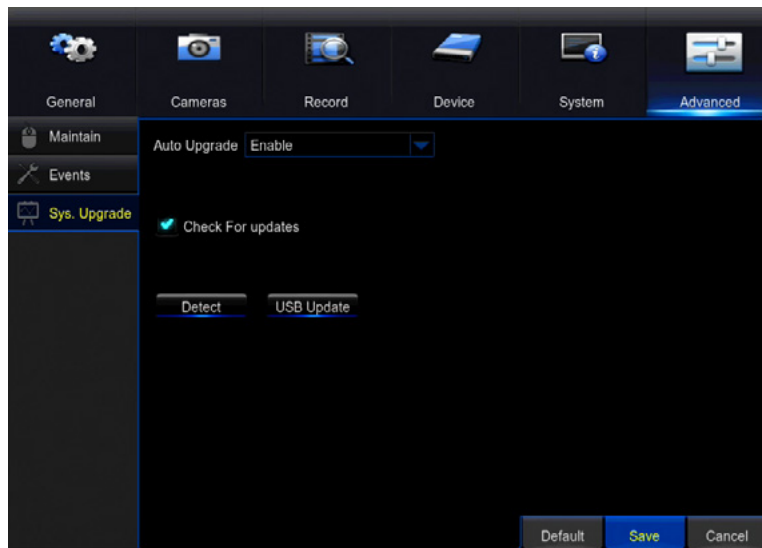
Send Email: Send an email notification when this Event Type is detected.

Audible: Turn an audible buzzer on for a duration of time to alert you when this *Event Type* happens. Choose *OFF* to disable this feature. You can select in between 10 and 60 seconds.

7.6.3 Auto Upgrade

Control settings for auto upgrades of the NVR software.

NOTE: In order for your NVR to check for system upgrades, your device must be connected to the Internet.



Auto Upgrade: Enable or Disable the auto upgrade feature. Firmware updates will be detected automatically when this feature is enabled. Night Owl strongly suggests that the Auto Upgrade feature remains enabled.

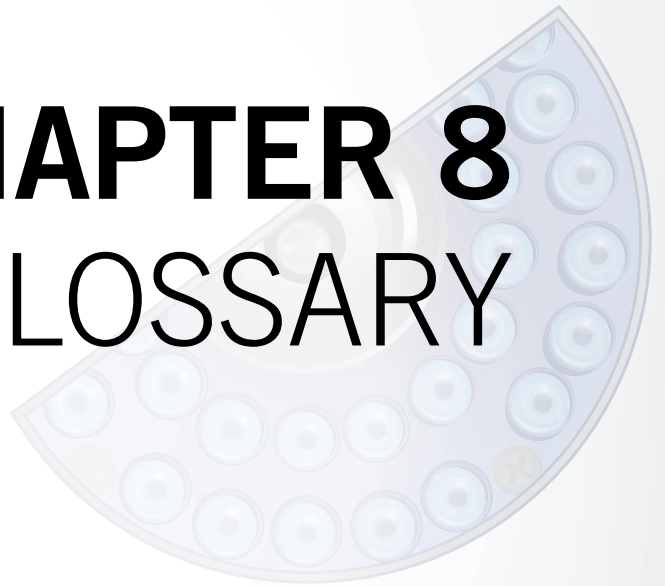
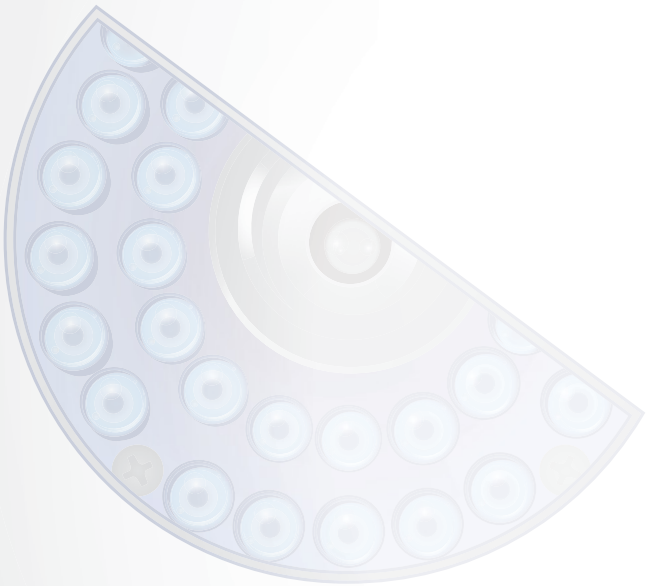
Check For Updates: Check this tick box to periodically check for updated software versions.

Detect: Prompt your NVR to check for System Upgrades.

USB Update: Update the NVR firmware from a USB Flash Drive connected to the NVR containing a firmware upgrade file.

CHAPTER 8

GLOSSARY



Chapter 8: Glossary

DDNS: Dynamic Domain Naming System. Method for automatically updating hostnames, address or other information like a URL on a given name server.

DHCP: Dynamic Host Configuration Protocol. A network protocol that allows a server to automatically assign a device and IP address.

IP: Internet Protocol. Protocol for standard communications across the Internet.

ISP: Internet Service Provider. An organization that provides services for accessing or using the Internet.

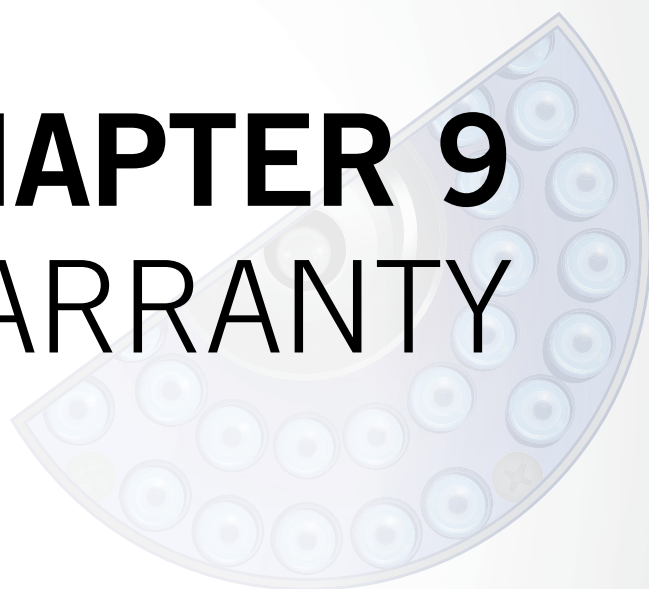
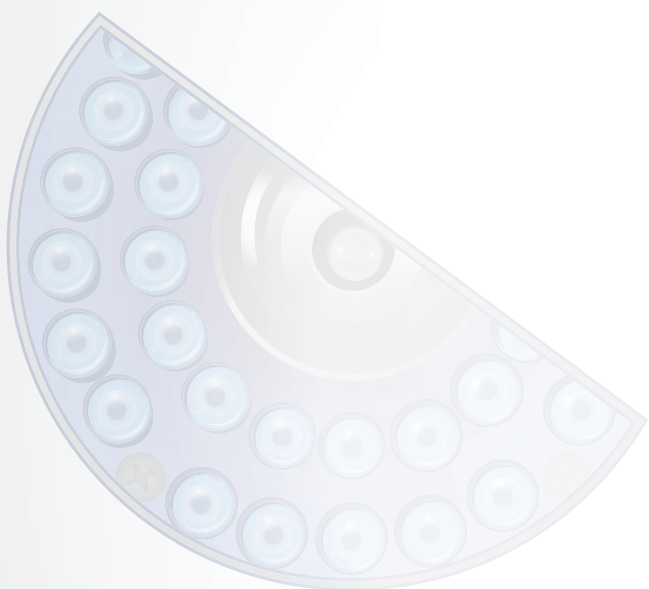
SMTP: Simple Mail Transfer Protocol. Standards used for email transmission.

UPS: Uninterrupted Power Supply. Device used to keep the NVR and cameras powered when the main power supply is lost or disconnected.

UTC (Up the Coax): This new technology allows for PTZ functions to be sent backand forth between the NVR and camera using a standard BNC (Video/Power) cable without the need for a separate port.

CHAPTER 9

WARRANTY



Chapter 9: Warranty

NIGHT OWL, LLC ('Night Owl') provides the following warranty to the original retail purchaser only (the "Purchaser") with respect to this product (the "Product"):

For a period of one (1) year after the date of sale, the Product shall be free from manufacturing defects in material and workmanship. In the event that the Product is defective, the Purchaser must return the Product at Purchaser's cost with the original proof of purchase receipt. In its sole discretion, Night Owl will either repair or replace the Product at no additional cost to the Purchaser. Any replacement Product (or parts) will be covered by the same warranty as the original Product through the expiration date of the original warranty period.

Exclusions

This warranty does not apply to the following parts or upon the following events:

1. Bulbs, LEDS and batteries;
2. The Product was not used or installed in the manner described in the installation instructions;
3. Negligent use of the Product or misuse or abuse of the Product;
4. Electrical short circuits or power surges;
5. Use of replacement parts not supplied by Night Owl;
6. Product is either tampered with, modified or repaired by another service provider;
7. Product has not been maintained in accordance;
8. Accident, fire, flood or other acts of God;
9. Failure to use Night Owl approved accessories;
10. Defects or damages arising by use of the Product in other than normal conditions (including normal atmospheric, moisture and humidity conditions).

Except as otherwise prohibited by law, this warranty is in lieu of other warranties, express or implied and Night Owl neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale or service of the Product.

In no event shall Night Owl be liable for any special or consequential damages arising from the use of the Product or arising from the malfunctioning or nonfunctioning of the Product or for any delay in the performance of this warranty due to any cause beyond its control. This warranty shall not apply to installation or the removal and re-installation of products after repair.

Night Owl does not make any claims or warranties of any kind whatsoever regarding the Product's potential, ability or effectiveness to prevent, minimize or in any way affect personal or property damage or injury. Night Owl is not responsible for any personal damage, loss or theft related to the Product or to its use for any harm, whether physical or mental related thereto. Any and all claims or statements, whether written or verbal, by salespeople, retailers, dealers or distributors to the contrary are not authorized by Night Owl and do not affect this provision of this warranty.

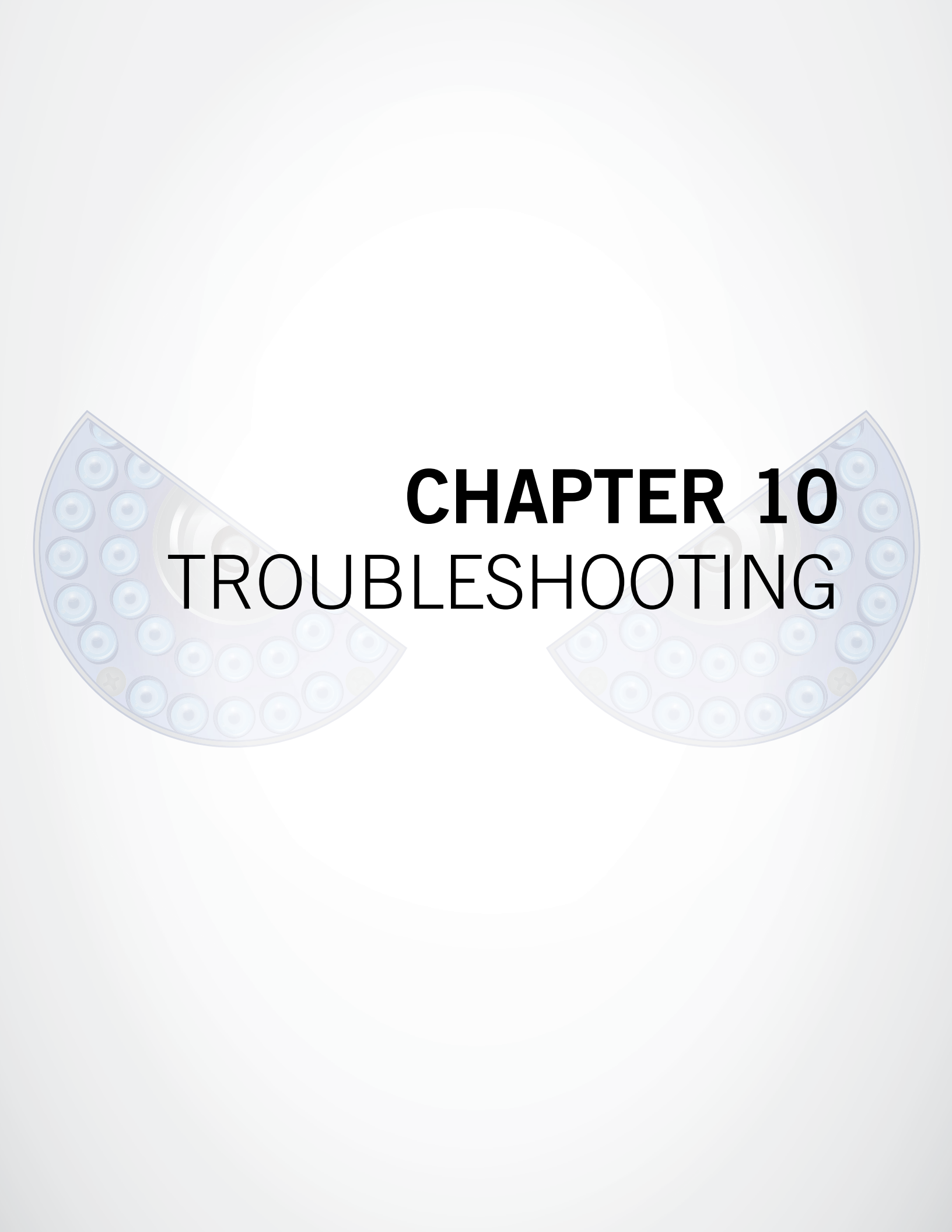
Returns Under this Warranty

In order to obtain service, please make sure that you have registered your product on-line no later than thirty (30) days after purchase at www.NightOwlSP.com in the warranty registration section or in any other manner described in the instructions.

Disclaimer

Certain uses, publication and/or distribution of video/audio recordings from security cameras and/or audio devices are prohibited or restricted by federal, state and local laws. When enabling and/or using audio recording features with your hidden security camera, be sure to comply with the laws in your country, state and locality.

Mac and Mac OS X are registered trademarks of Apple Inc. Windows, Windows XP, Windows Vista, Windows 7, Windows 8 and Windows 10 are registered trademarks of Microsoft Corporation in the United States and/or other countries.



CHAPTER 10

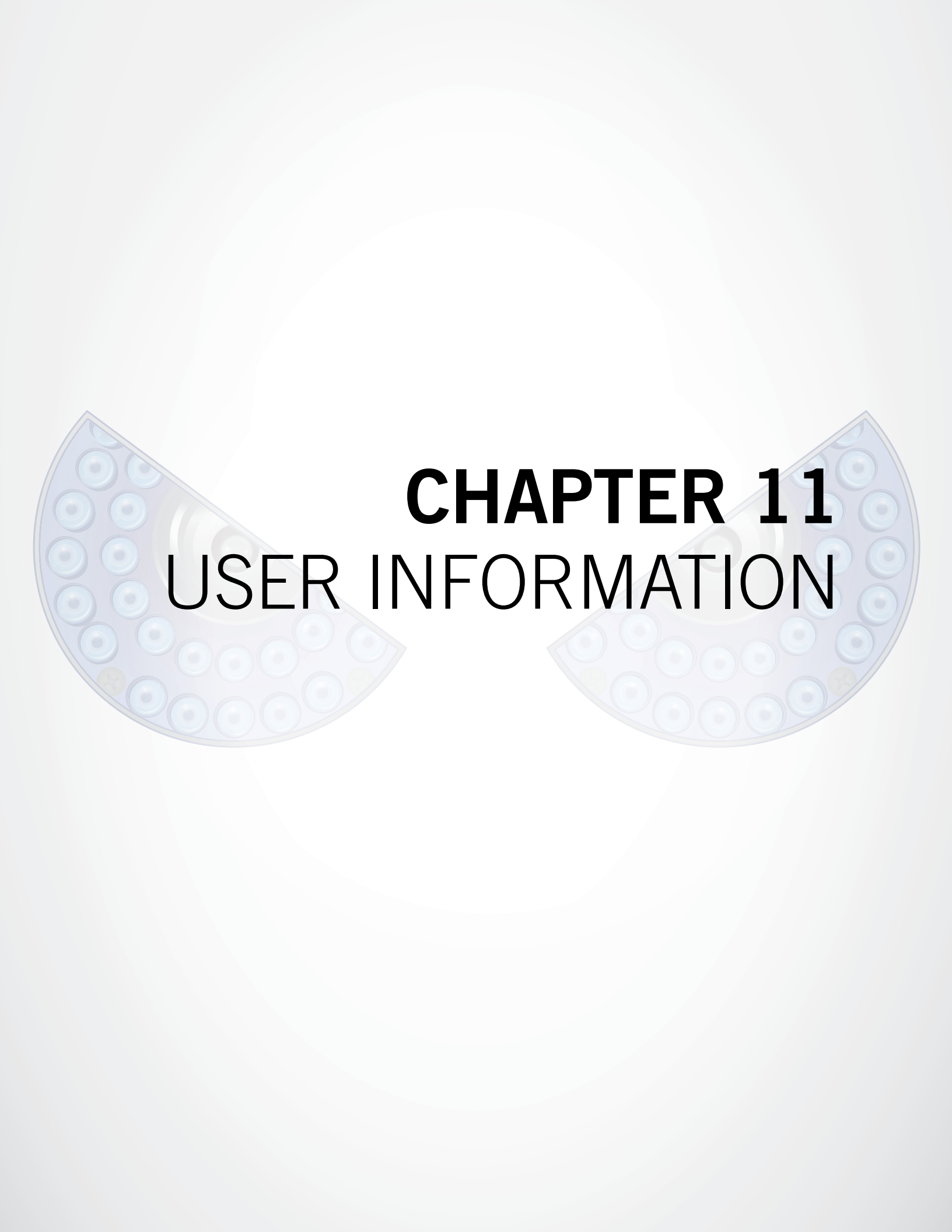
TROUBLESHOOTING

Chapter 10: Troubleshooting

If a problem occurs, you may be able to easily correct it yourself. The following table describes some common issues and their most likely solutions. Please refer to the table before calling technical support.

Error	Possible Causes	Solutions
System is not receiving power or is not powering up.	Cable from power adapter is loose or is unplugged.	1. Confirm that all cables are connected correctly. 2. Confirm that the power adapter is securely connected to the back of the unit.
	Cables are connected, but system is not receiving sufficient power.	1. Confirm that the system is powered ON (LED indicators on the front should be ON). 2. If the unit is connected through a power bar or surge protector, try bypassing the bar and connecting the power directly to the wall outlet. 3. Confirm that there is power at the outlet. 4. Connecting the power cable to another outlet. 5. Test the outlet with another plugged device (such as a phone charger).
Mouse not detected by system.	Mouse cable is not firmly connected to the system.	Firmly connect the mouse cable to the USB Mouse port on the front panel.
	Mouse is not connected to the system.	
	System needs to be reset.	Power off the system (disconnect power cable). Firmly connect a USB mouse to the USB Mouse port on the front panel of the system. Reconnect the power cable to the DC 19V port on the rear panel.

Error	Possible Causes	Solutions
There is no picture on selected channels/camera picture is not being displayed.	Camera cables are loose or have become disconnected.	1. Check the camera video cable and connections. 2. Disconnect and reconnect the cable at the system and at the camera. 3. Try moving the camera to another channel or use another cable.
The image on the NVR appears, but does not have sound.	Audio cables are loose or have been disconnected.	Check the AUDIO connection to the NVR.
	Audio channels are disabled.	Left click in Live View to bring up the Volume control and ensure that the channel(s) are not low or muted.
	Volume on external speakers (<i>not included</i>) is low or off.	Increase volume on external speakers (<i>not included</i>).
A “whirring” noise is coming from the system.	Fan is active.	The noise means the exhaust fan is working normally.
The system beeps at startup.		The beep at startup is normal.



CHAPTER 11

USER INFORMATION

Chapter 11: User Information

Be sure to write down all the important information below and place it in a secure location.

General NVR Information

Admin Password: _____

User Password: _____

Mac Address: _____

Component Model Number: _____

Internet Login Information

NOTE: This information can be found within the General tab under your Network in your NVR's Main Menu.

Media Port: _____

Web Port: _____

Mobile Port: _____

IP Address: _____

Subnet Mask: _____

Gateway: _____

DNS1: _____

DNS2: _____



For troubleshooting guides, FAQs, video tutorials and more:

Please visit www.NightOwlSP.com.

Click the Support tab.

Type **IH8** in the top right search bar.

Access the support material needed.

Contact Us

PHONE (English, Spanish & French)

Sales/Technical Support

1.866.390.1303

Live Chat 24/7, 365 days a year

EMAIL

Sales Support

Sales@NightOwlSP.com

Technical Support

Support@NightOwlSP.com

WEBSITE

24/7 Product Support

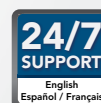
- How-To Videos
- Manuals



www.NightOwlSP.com



YouTube



iPhone, iPad, Mac and Mac OS X are registered trademarks of Apple Inc.
Windows, Windows XP, Windows Vista, Windows 7, Windows 8 and Windows
10 are registered trademarks of Microsoft Corporation in the
United States and/or other countries.

Rev 180112