



USER'S MANUAL

WNVRC20 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. 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 WNVRC20 Series Camera Compatibility:

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

- **WCM-PWNVRC20W-BU-JUN**
- **WCM-SD2PIN-JUN**
- **WCM-SD2PIN-V2-JUN**
- **WCM-SD2POU-BU-JUN**
- **WCM-SD2POU-JUN v2**
- **WDB-20V2**

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.

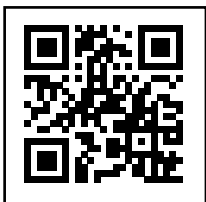
THIS MANUAL WAS ACCURATE AT THE TIME IT WAS COMPLETED. DUE TO OUR ONGOING EFFORT TO CONSTANTLY IMPROVE OUR PRODUCTS, FUNCTIONS MAY HAVE BEEN ADDED OR CHANGED.

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

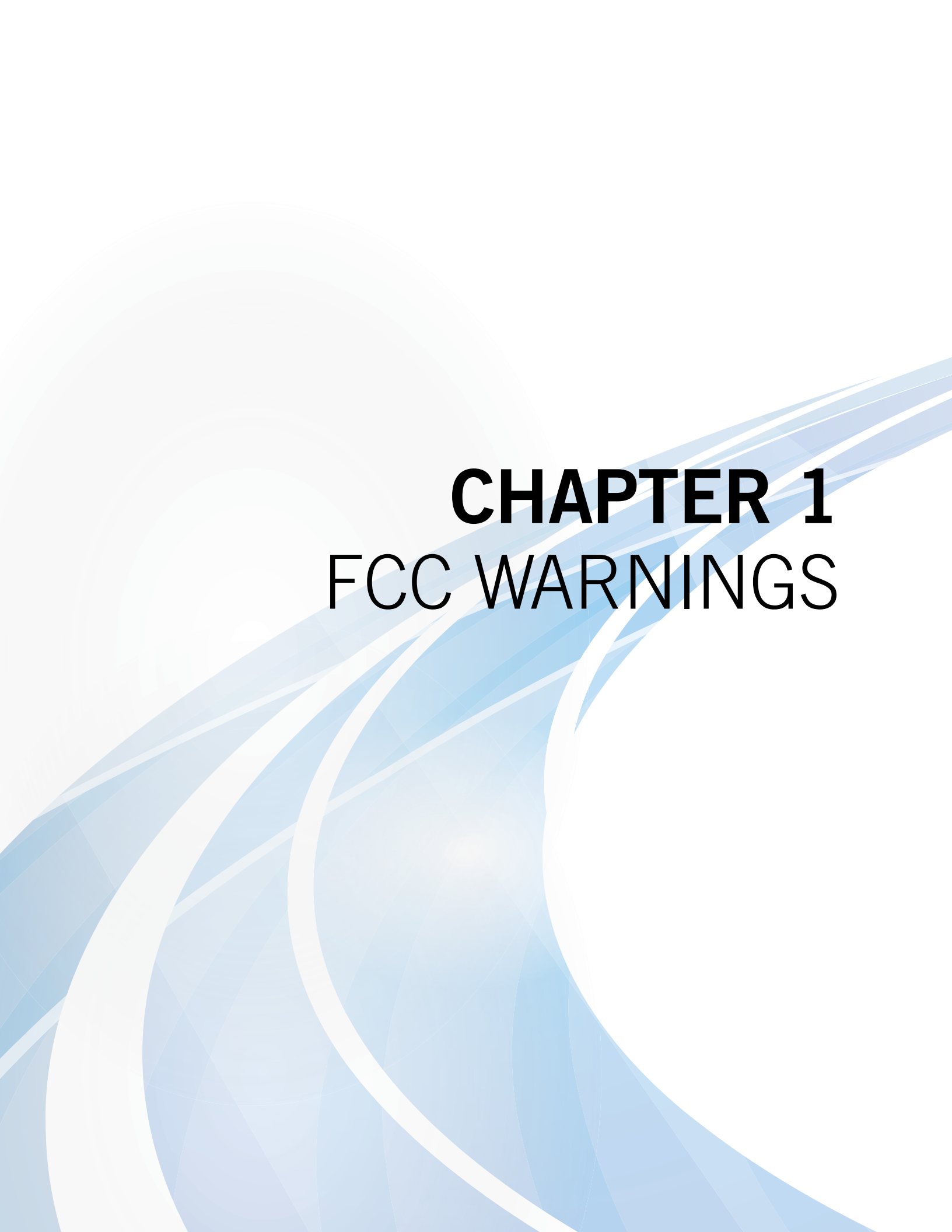
Table of Contents

Chapter 1:	FCC Warnings.....	7
Chapter 2:	Safety Instructions.....	9
Chapter 3:	Specifications	11
3.1	System Requirements	11
3.2	Package Contents	11
3.2.1	NVR Diagram	12
3.2.2	Camera Diagram	13
3.2.3	Mouse Diagram	13
Chapter 4:	Camera Installation.....	15
4.1	Power	15
4.2	Pairing a Replacement Wireless Camera.....	16
4.2	Mounting the Cameras	18
Chapter 5:	NVR Installation	21
5.1	Connecting Your Wireless NVR	21
Chapter 6:	Getting Started.....	24
6.1	Startup Wizard	24
6.1.1	Camera Test	25
6.1.2	Network Check	25
6.1.3	Password Creation	27
6.1.4	Firmware Check.....	28
6.1.5	Date and Time Setup	30
6.1.6	Night Owl Connect App	31
6.1.6 (a)	Using Night Owl Connect.....	33
6.1.6 (b)	App Overview	36
6.1.7	Password Verification	37
6.1.8	Camera/Channel Settings.....	37
6.1.9	Camera Positioning.....	38
6.1.10	Channel Configuration.....	38
6.1.11	Default View.....	41
6.1.12	Helpful Links	42
6.1.13	Wizard Complete	42
6.2	Live View (Login and Icons)	43
6.2.1	Live View (All Channels)	43
6.2.2	Right Click Menu.....	44
6.2.3	Login/Forgot Password.....	45
6.3	Video Playback	46
Chapter 7:	Menus and Settings	48
7.1	General Menu.....	50
7.1.1	Network.....	50

7.1.2	DDNS	51
7.1.3	Video Alarm	52
7.1.3 (a)	Notification Schedule.....	53
7.1.3 (b)	Area Setup.....	53
7.1.4	Time Setup	54
7.2	Cameras Menu	55
7.2.1	Status	55
7.2.2	Add Camera	56
7.2.2 (a)	Edit.....	57
7.2.2 (b)	Wireless Add	58
7.2.2 (c)	Advance.....	58
7.2.2 (d)	Manual Edit	59
7.2.2 (e)	Repeater	60
7.2.3	Channel OSD	60
7.2.3 (a)	Image Settings	61
7.2.4	Video Quality.....	62
7.2.5	IPC Upgrade	63
7.3	Record	64
7.3.1	Status	64
7.3.2	Export Recordings.....	65
7.4	Hard Drive	66
7.5	System	67
7.5.1	System Settings	67
7.5.2	WiFi Setup.....	68
7.5.3	User Management.....	68
7.5.4	Device Info	69
7.5.5	Log	70
7.5.6	Camera Speed	70
7.6	Maintenance	71
7.6.1	Sys Maintenance	71
7.6.2	Firmware Update	72
7.6.3	Factory Default.....	72
Chapter 8:	Glossary.....	74
Chapter 9:	Warranty.....	76
Chapter 10:	Troubleshooting.....	79
Chapter 11:	User Information	82
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.



CHAPTER 1

FCC WARNINGS

Chapter 1: FCC Warnings

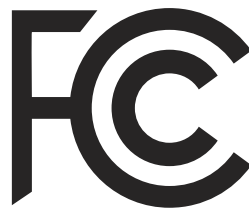
FCC

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

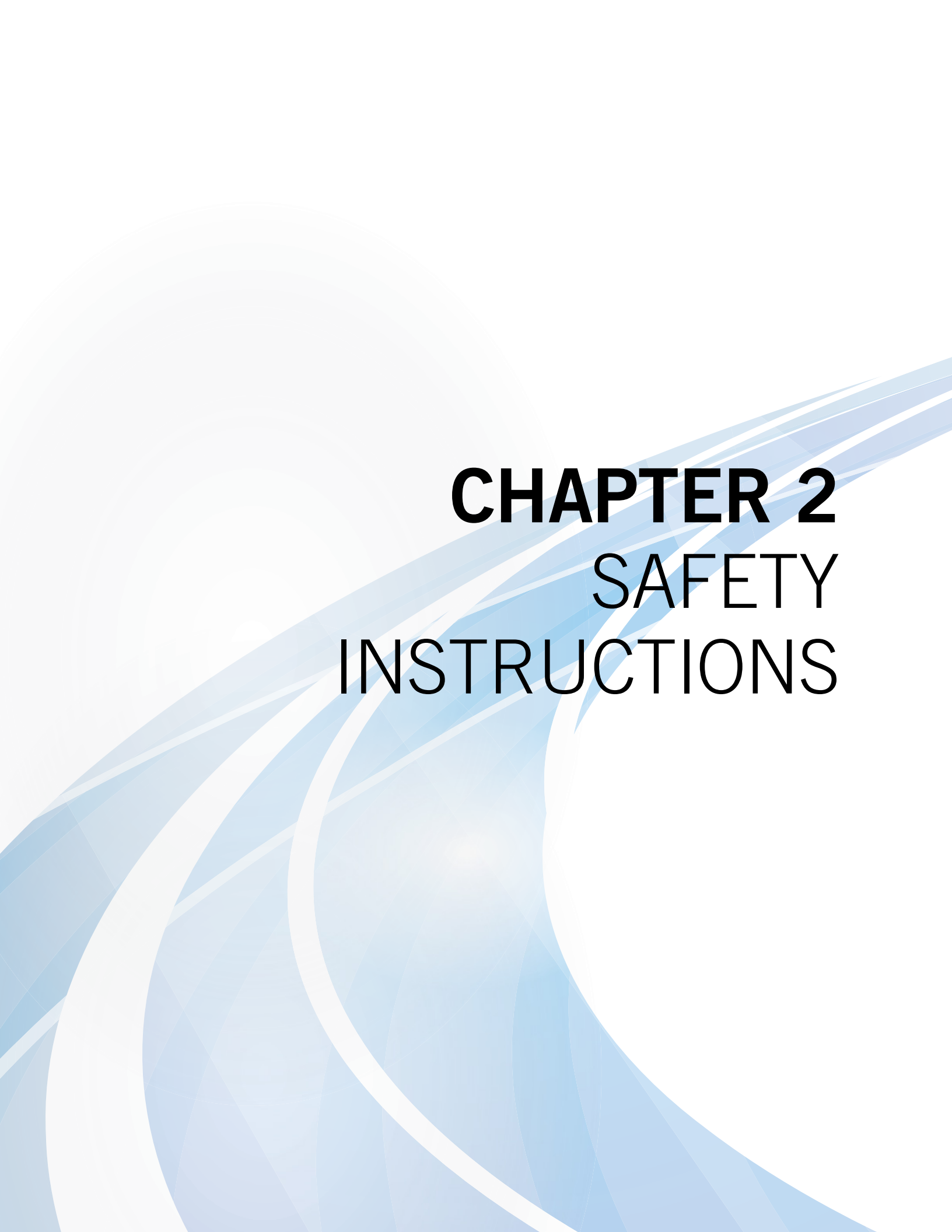
These limits are designed to provide reasonable protection against frequency interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed or used in accordance with the instructions, may cause harmful interference to radio communication. 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.

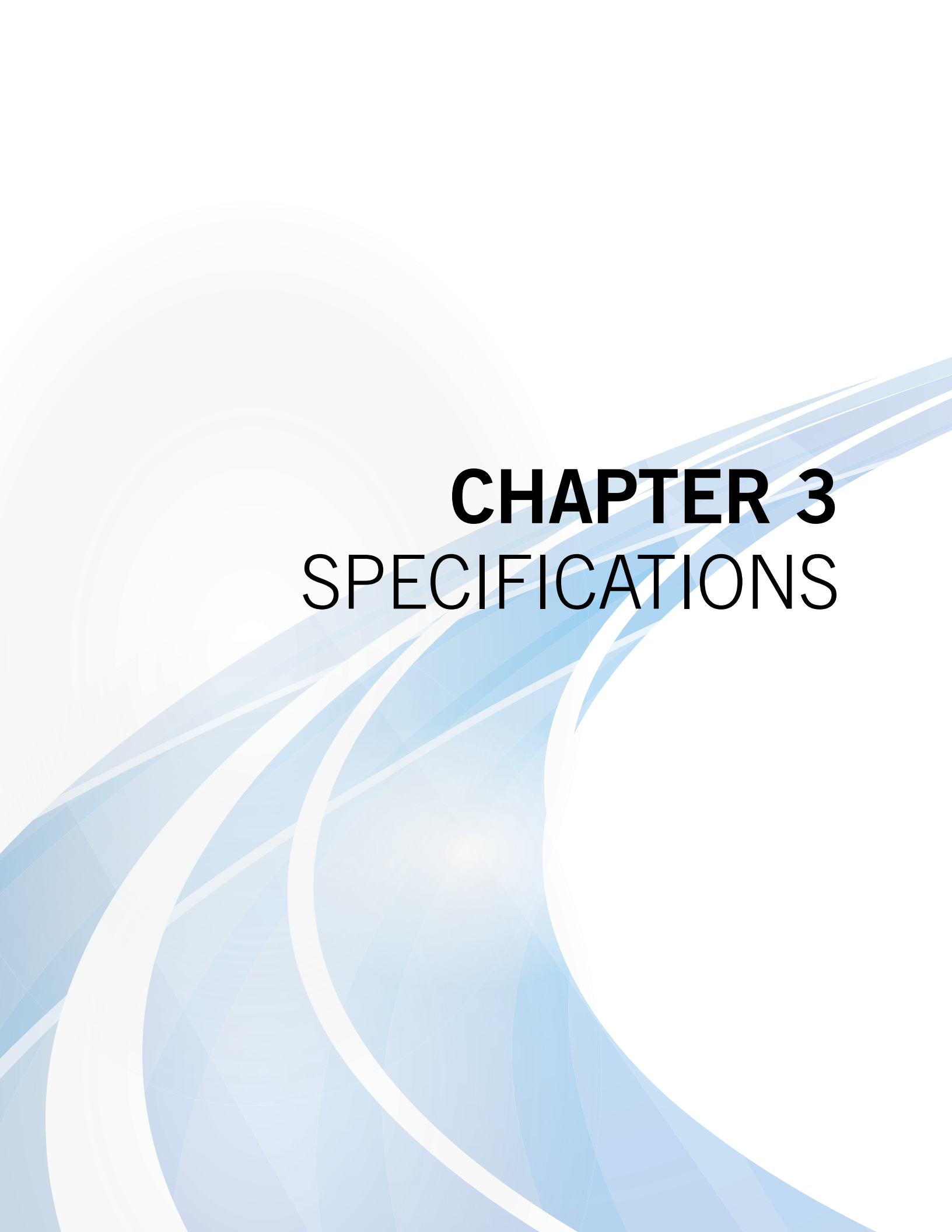
- **IT IS RECOMMENDED TO USE YOUR NVR WITH AN UNINTERRUPTIBLE POWER SUPPLY (UPS).**

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 DVR.



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® 10 and above
- MAC Operating System: MAC OS X® 10.9 and above

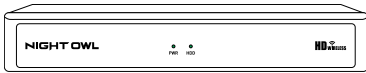
Please be sure that your mobile device complies with the following specifications:

- Android™: 6 and above
- iOS®: 10 and above

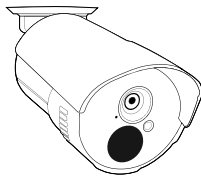
THIS MANUAL WAS ACCURATE AT THE TIME IT WAS COMPLETED. DUE TO OUR ONGOING EFFORT TO CONSTANTLY IMPROVE OUR PRODUCTS, SPECIFICATIONS MAY HAVE BEEN ADDED OR CHANGED.

3.2 Package Contents

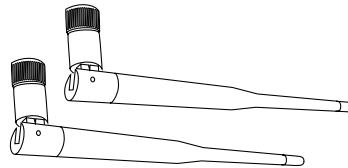
DISCLAIMER: The exact components of your system, images and quantities may vary depending on your model number. While these may vary, this Manual will address the setup and initial configuration of your NVR and cameras.



Wireless NVR



Camera(s)



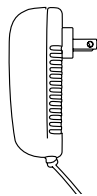
NVR Antenna (x2)



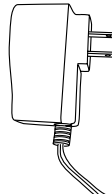
Camera Antenna
(1 per camera)



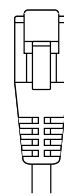
9 ft. Wi-Fi Extender Antenna
and Mounting Hardware
(1 for every 4 cameras)



Wireless NVR Power
Adapter (x1)



9 ft. Camera
Power Adapter(s)



6 ft. RJ-45 Cable
(Ethernet) (x1)



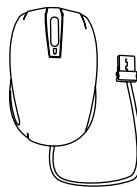
6 ft. HDMI
(x1)



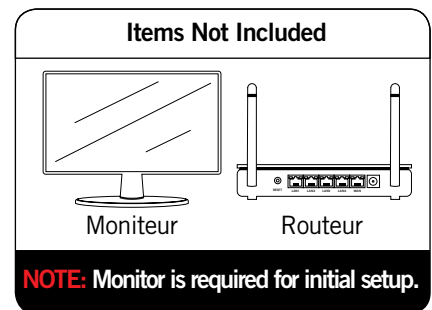
Safety Stickers



Mounting Hardware



USB Mouse (x1)

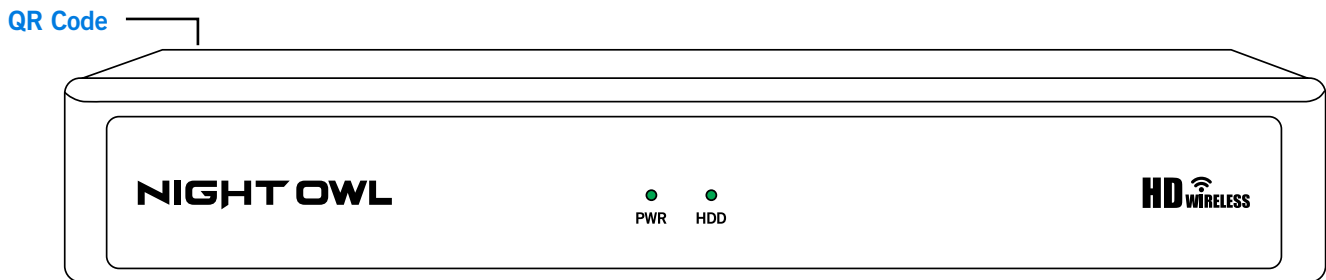


NOTE: For best results, use the included Night Owl accessories. Third party accessories may not work properly.

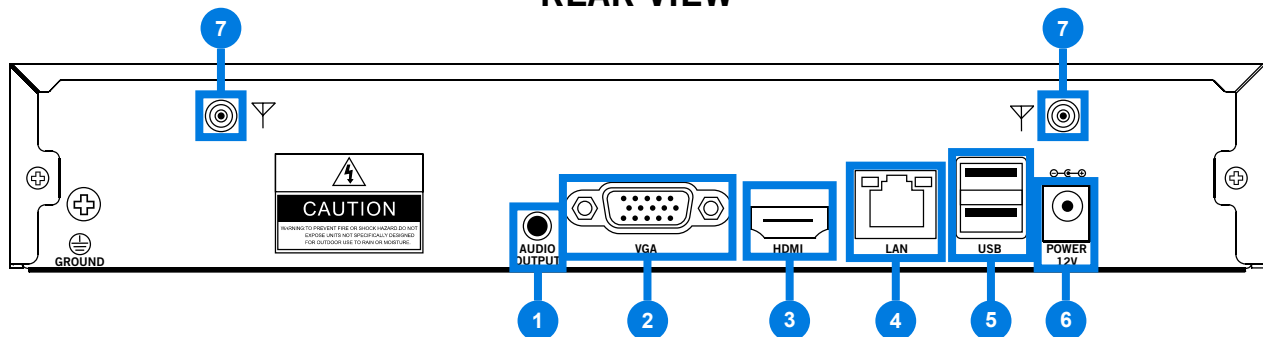
3.2.1 NVR Diagram

Once you have downloaded Night Owl Connect 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

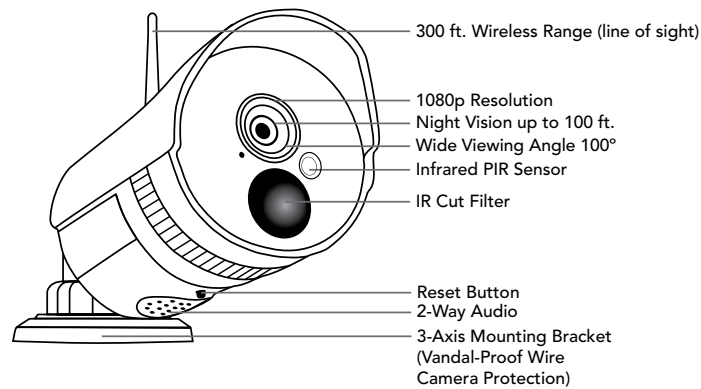


NOTE: The maximum number of cameras you can connect to your Wireless NVR will be determined by the number of channels.

- 1 Audio Output** – Allows for the connection of an amplified speaker using a TRS 3.5mm / 1/8 inch commonly known as a phone/headphone jack.
- 2 VGA Output** – Allows for a video connection. If the TV/Monitor does not have an HDMI input but does have 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*)
- 3 HDMI Output** – Allows for a 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.
- 4 RJ-45 (Ethernet) Port** – Used to connect the Wireless NVR to your modem/router for remote viewing. Please note that your Wireless NVR comes with built-in Wi-Fi for the cameras to transmit to the NVR. However, you will need to manually connect the NVR to your modem/router to remotely view on a smart device or PC/Mac®.
- 5 USB Ports** – Allow for the connection 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 for long term storage or sharing.
- 6 Power Input** – Used to connect the included 12V DC power supply.
- 7 NVR Antenna Mount** – For installation of two included NVR antennas.

3.2.2 Camera Diagram

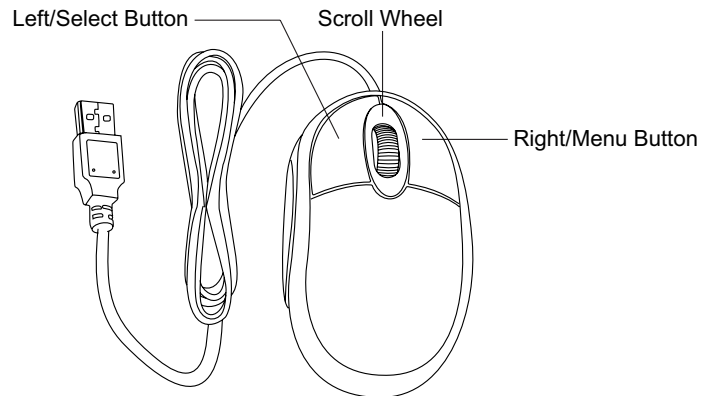
CAMERA



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 control bar at the bottom of the screen. Right-clicking again will hide the control bar.

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

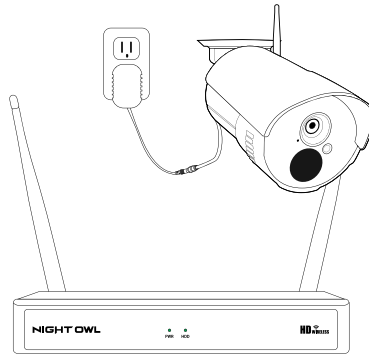
Chapter 4: Camera Installation

4.1 Power



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

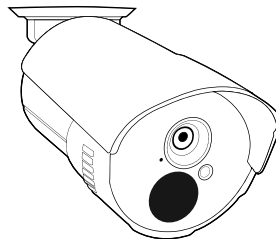
DISCLAIMER: The exact components of your system, images and quantities may vary depending on your model number. While these may vary, this Manual will address the setup and initial configuration of your NVR and cameras.



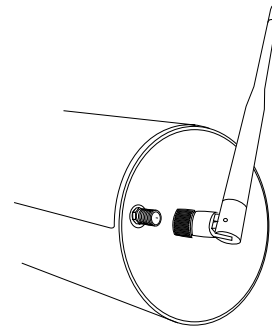
- 1 Locate the antenna included with each camera.
- 2 Fasten the antenna to the camera.



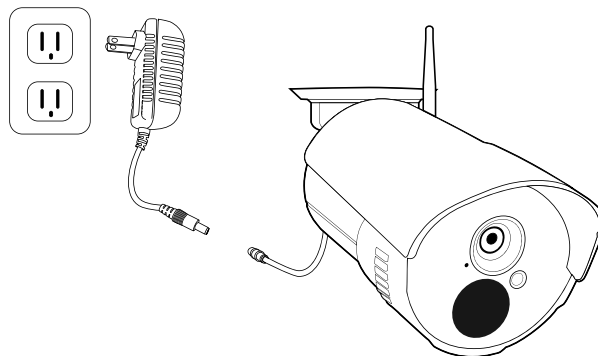
Camera Antenna
(1 per camera)



Camera(s)



- 3 Locate the camera power adapter and connect it to a surge protector, UPS or wall outlet.
- 4 Connect the camera power adapter to camera.
- 5 Repeat for each camera.



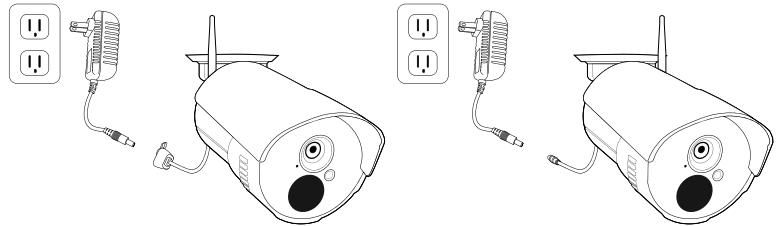
4.2 Pairing a Replacement Wireless Camera

By default, each camera within your Wireless NVR kit comes pre-paired to the Wireless NVR. Additionally, your wireless NVR has its own built-in Wi-Fi for secure, uninterrupted video transmission and recording. Pairing allows for the wireless transmission coming from the camera to be detected by the Wireless NVR. However, if you have a camera that needs to be replaced while under warranty, the replacement camera will similarly need to be paired to the NVR.

NOTE: When pairing a Night Owl add-on camera, refer to “Add-on cameras Quick Setup Guide”.

To pair a replacement camera to your NVR, please use the below steps:

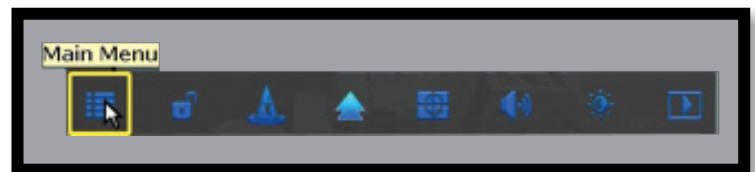
- 1 Power on the replacement camera using the camera power adapter.



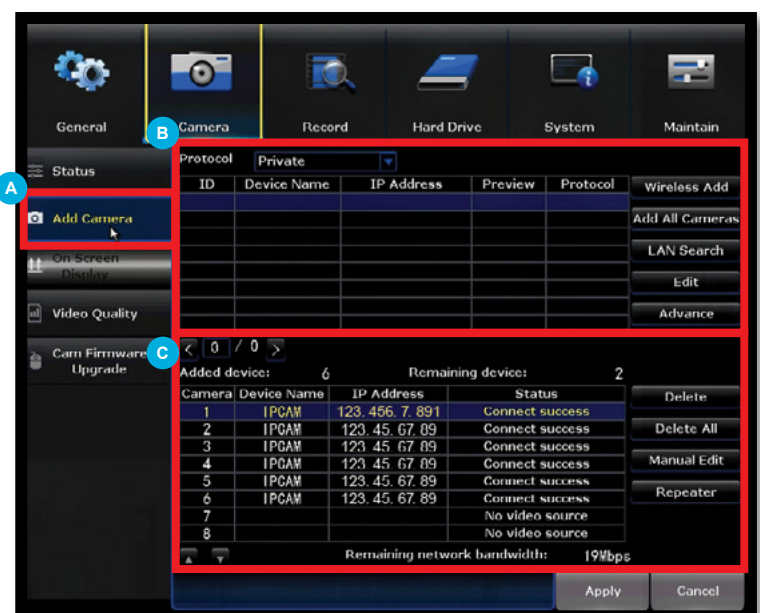
NOTE: This should be done locally at the NVR to avoid interference.

NOTE: The location of the camera reset button may vary.

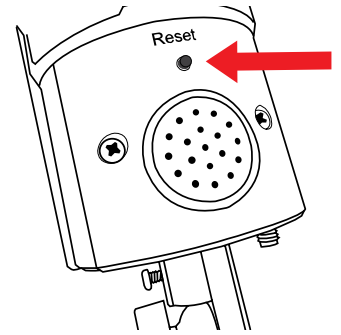
- 2 With the NVR connected to a TV/Monitor, right click on your mouse and navigate to the Main Menu using the options bar.



- 3
 - A Go to the Camera Menu and Select the **Add Camera** tab on the left side of the menu.
 - B The top portion of the screen will list cameras that have been found but not yet paired.
 - C The bottom portion of the screen will show all cameras that are currently paired to the NVR.



- 4 Next, you will need to reset the replacement camera. To do so, press and hold the reset button until you hear a beep, indicating the camera has begun the reset process.

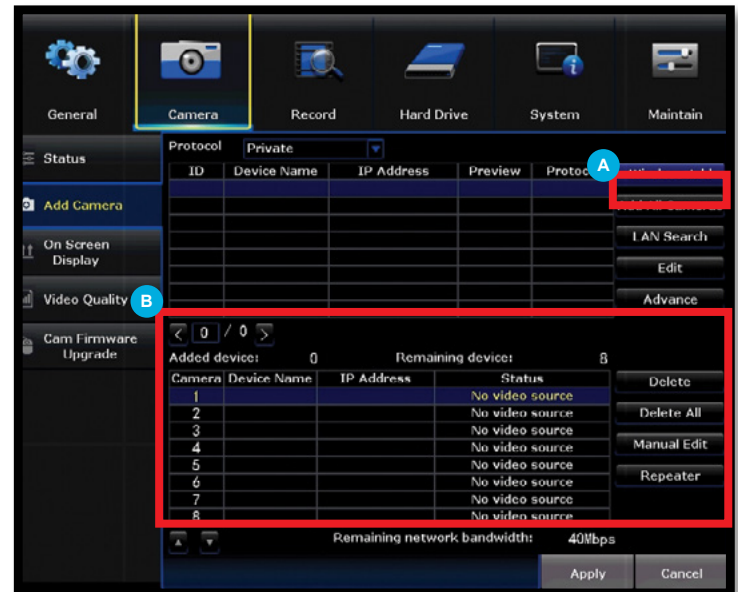


NOTE: The reset process may take up to 3 minutes.

NOTE: The location of the camera reset button may vary.

- 5
- A After 3 minutes have passed or after hearing the camera beep, click on Wireless Add located on the Add Camera screen. Your NVR will now search for new cameras.

- B
- NOTE:** The replacement camera will not appear in the bottom screen with all other paired cameras until the NVR finishes the process of finding and pairing the new camera.



- 6 Within the **Wireless Add** screen, the “Number of Cameras Connected” signifies those cameras that are already paired to the Wireless NVR and will not immediately reflect this new camera.



NOTE: You cannot exceed the number of Wireless NVR channels you have. If you have a 4 channel system, the maximum number of cameras you can have paired is 4.

4.3 Mounting the Cameras



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

- **Camera distance from NVR.**

Your wireless IP cameras will reach up to 300 ft. wirelessly. Therefore, proper placement of the wireless NVR in your home will help ensure you achieve maximum coverage.

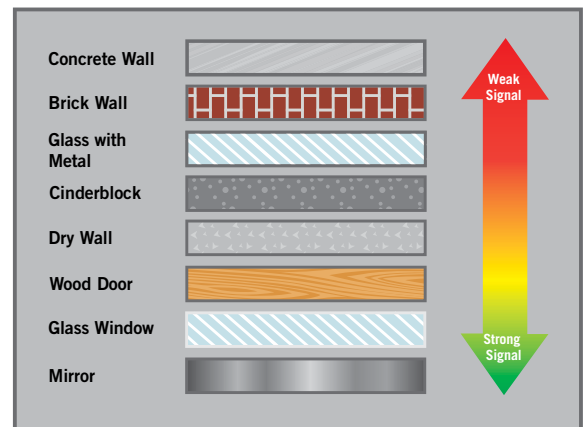
- **Do NOT place near high voltage wires or other sources of electrical interference.**

Electrical interference will degrade the quality of the signal.

HOW OBSTACLES AFFECT YOUR SIGNAL STRENGTH

When your wireless signal is transmitted through various materials, such as walls and windows, the signal strength is affected. Though the NVR and wireless camera may be very close in proximity, you could still notice high signal interference if the signal passes through certain obstacles. For instance, if the signal passes through a concrete wall it will be severely weakened. Please reference the chart below to see which obstacles highly affect your signal and which do not.

NOTE: If your setup requires the signal to be transmitted through an obstacle that severely weakens it, you can use the 9 ft. Wi-Fi Extender Antenna included with your system. The Extender Antenna can be used to bypass the obstacle weakening the signal. Simply replace the white Camera Antenna with the Extender Antenna and then mount the Extender Antenna on the opposing side of the obstacle.



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

- **Avoid direct exposure to weather.**

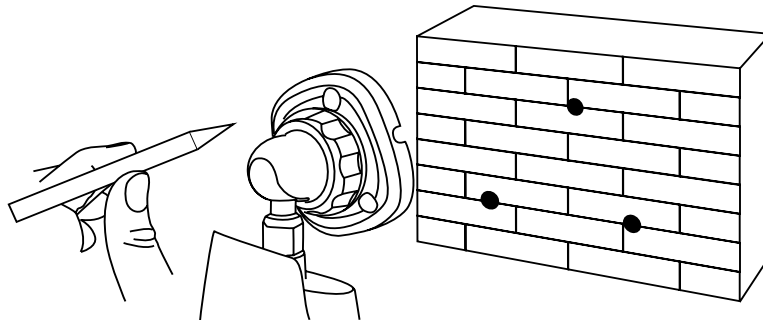
Do not place the camera where rain or snow will hit the lens directly nor should the camera be placed so that the sun or bright light shines directly into the lens. Your camera is weatherproof, but it will not work when submerged in water. Ensure that all power and video connections are not directly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

- **Mounting surface.**

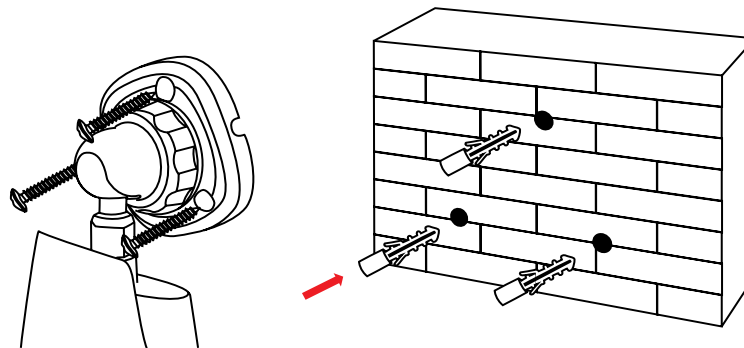
The mounting surface must hold at least four times the camera's total weight.

Follow these instructions to correctly install your cameras.

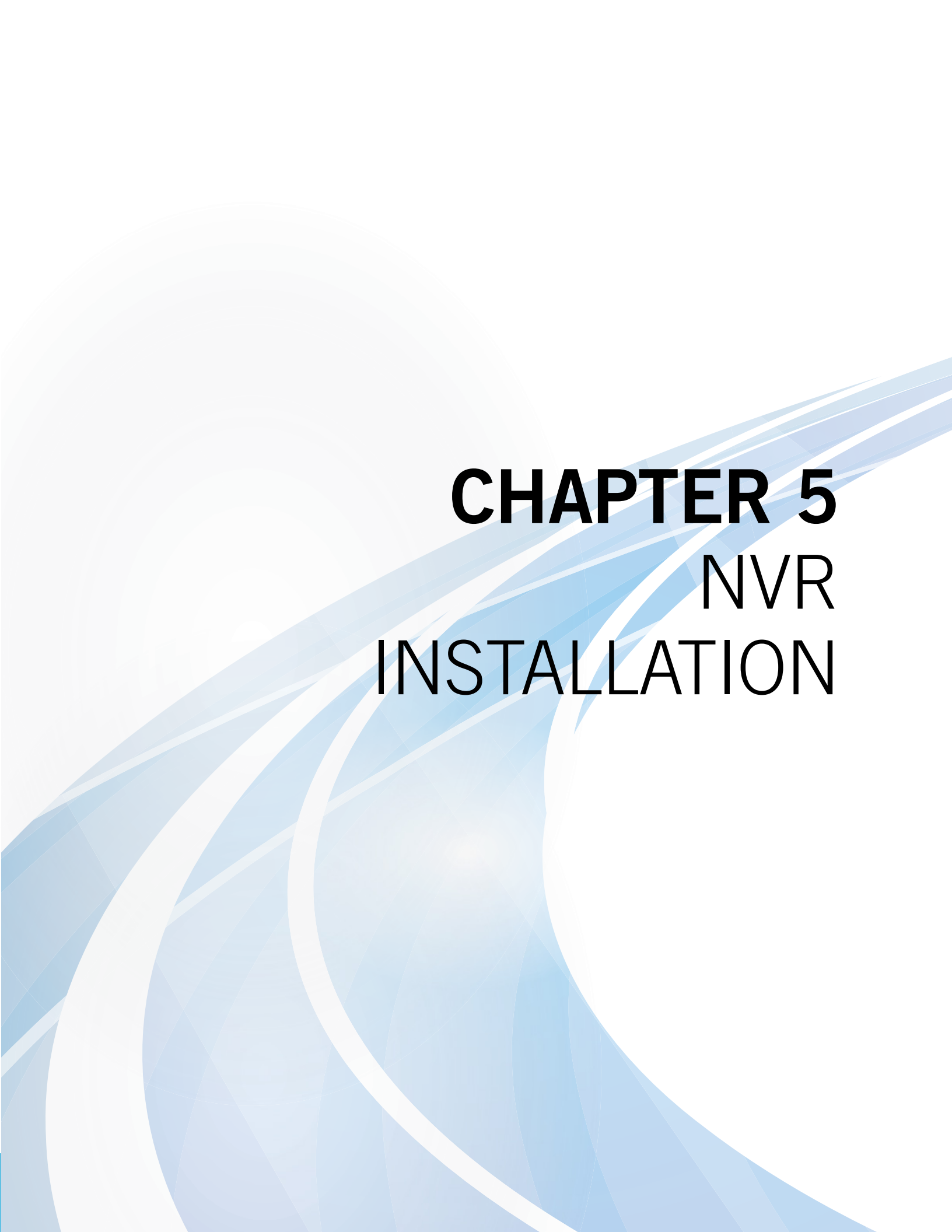
- 1 Locate a camera and choose a location where you would like to mount the camera.
- 2 Indicate screw positions by marking three holes on the surface where you plan to mount the camera, using the holes in the camera base as a guide.



- 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.



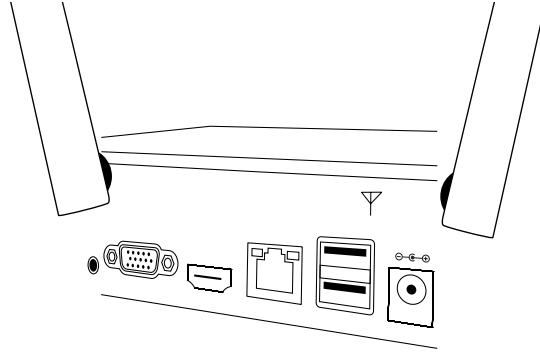
CHAPTER 5

NVR INSTALLATION

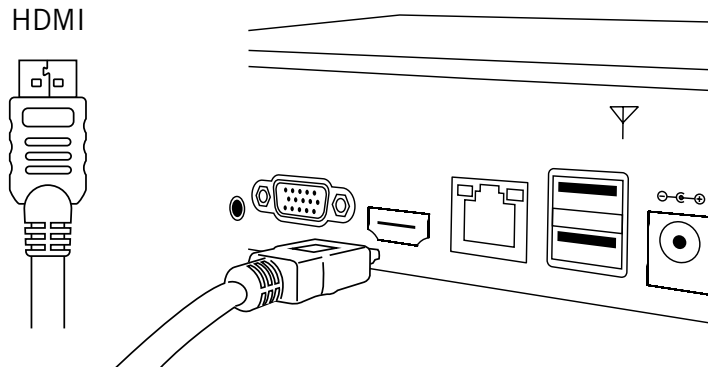
Chapter 5: NVR Installation

5.1 Connecting Your Wireless NVR

- 1 Connect the two included antennas to your wireless NVR. This will ensure you achieve the maximum wireless range for transmission from your wireless cameras.



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



- 3 Plug the other end of the HDMI cable into the back of your TV or monitor.

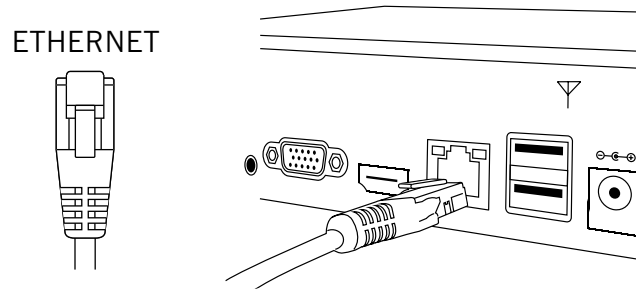


*You may also connect using VGA
(not included)*

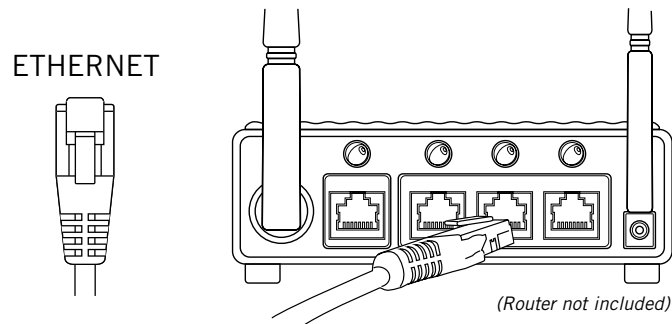


If your TV does not have an HDMI port, you will need to purchase a VGA video cable. For VGA connection, attach one end of the VGA cable to the NVR VGA port and the other end to your TV VGA port.

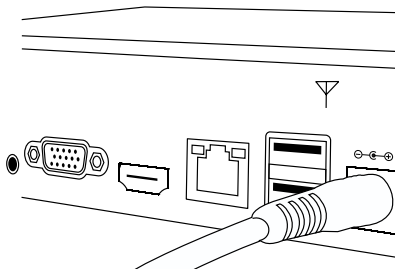
- 4 Select the appropriate video input channel on your TV or monitor to view the NVR.
- 5 Plug one end of the included Ethernet cable into the LAN port on the back of the Wireless NVR.



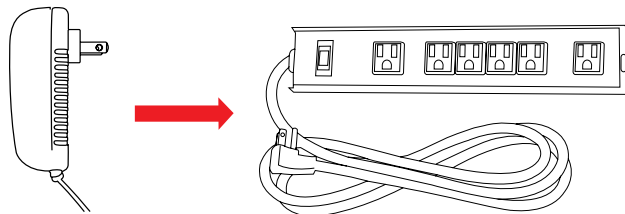
- 6 Plug the other end of the Ethernet cable into a port on the back of your router.



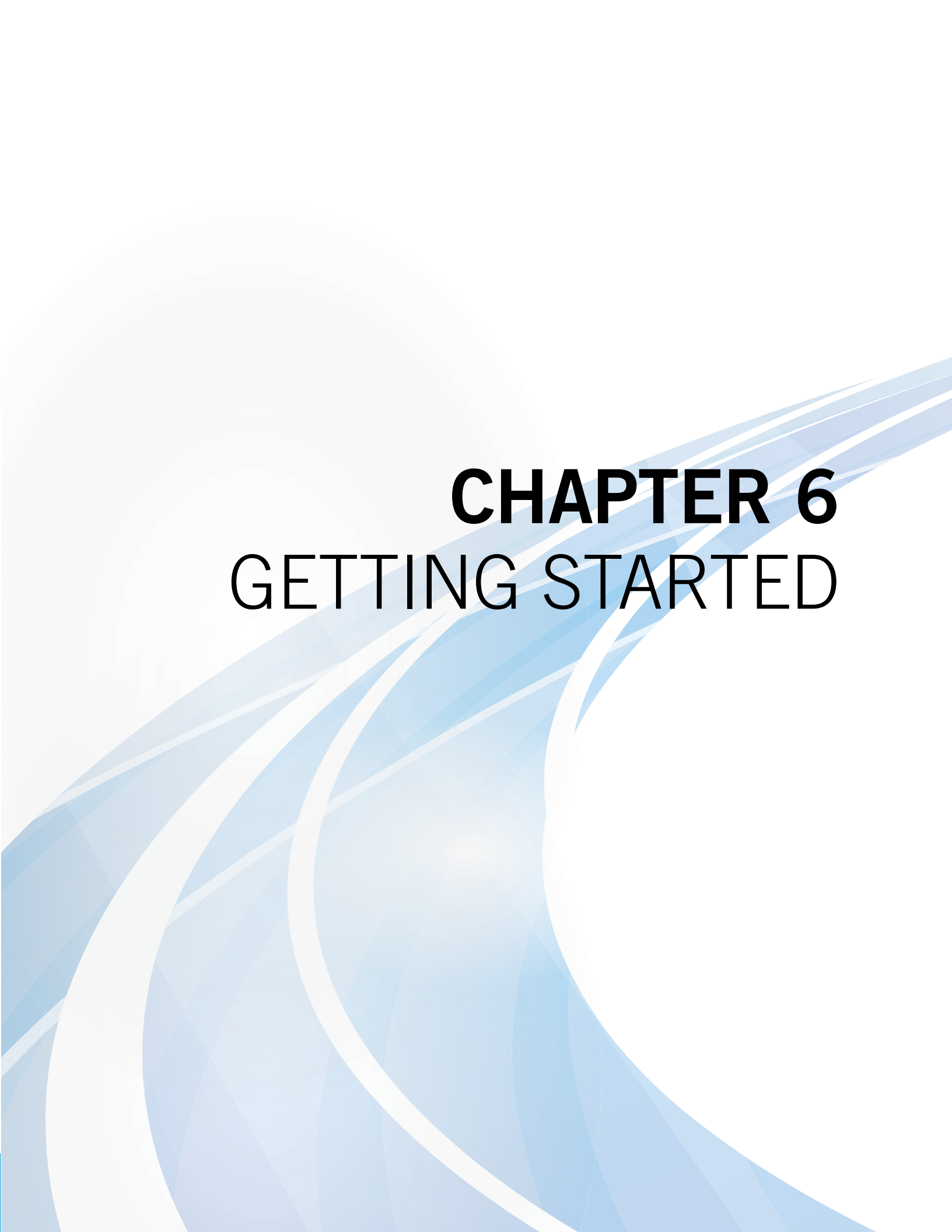
- 7 The Camera and NVR power adapters will be appropriately labeled. Ensure you are using the correct power adapter when setting up your system.
- 8 Connect the Wireless NVR power adapter to the Power Input on the rear of the Wireless NVR.



- 9 Plug the Wireless NVR power adapter into a surge protector or Uninterruptible Power Supply (UPS).
(Surge protector and UPS not included)



You should see each camera appear on your TV/Monitor. You may now proceed to install your Wireless NVR cameras in the desired location.



CHAPTER 6

GETTING STARTED

Chapter 6: Getting Started

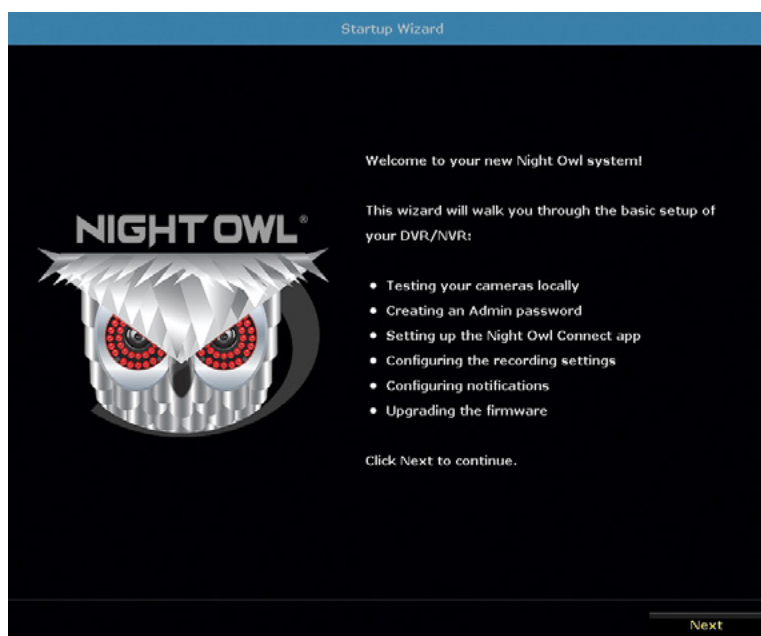
6.1 Startup Wizard

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:

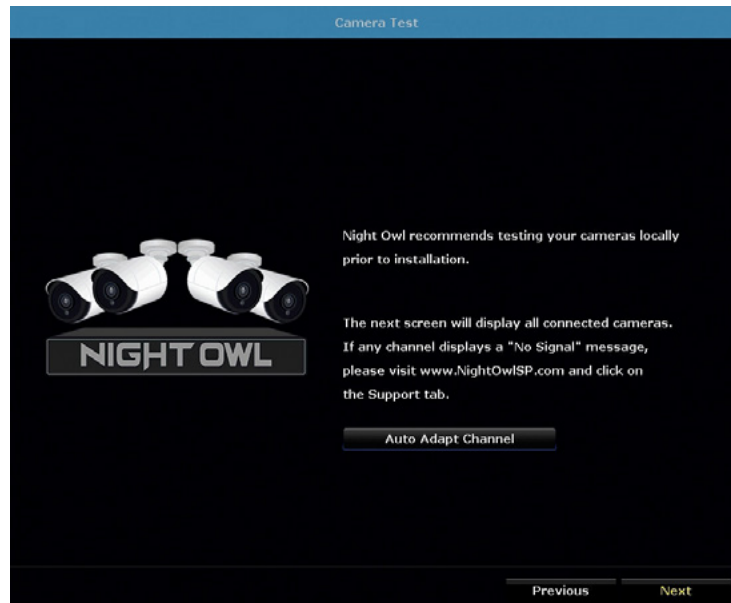
- Complete the basic setup of your NVR.
- Upgrade the firmware.
- Set up the Night Owl Connect App.
- Configure notifications.
- Test your cameras locally.
- Create an Admin password.
- Configure the recording settings.



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.NightOwlSP.com and click on the Support tab.

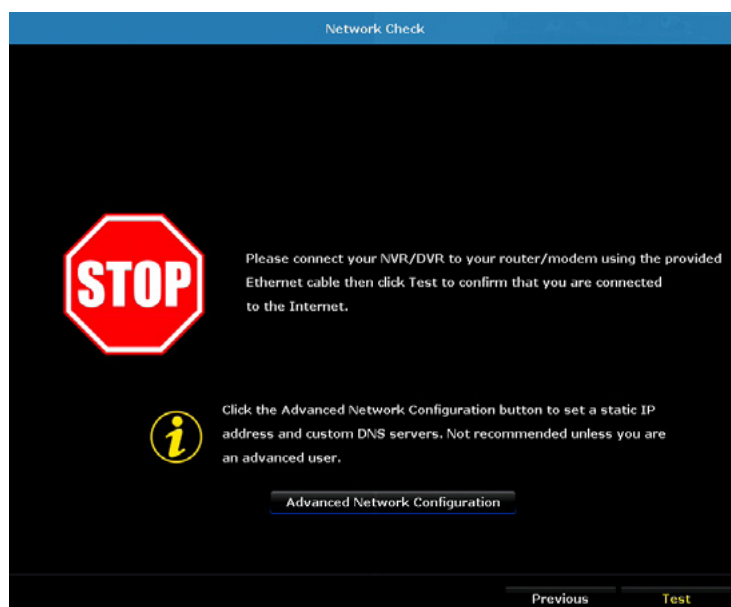
NOTE: It may take up to 3 minutes for your wireless cameras to appear on screen.

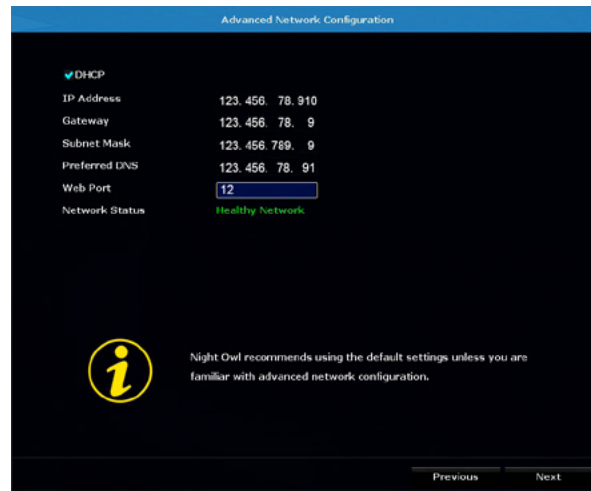


6.1.2 Network Check

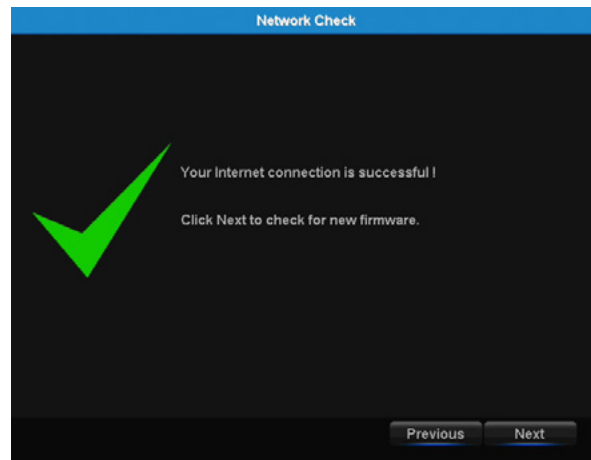
The Network Check screen of the Startup Wizard displays instructions on how to connect your NVR to the Internet. You will need the included Ethernet cable to establish a connection. Though the cameras wirelessly connect to the NVR, the NVR will not be able to wirelessly connect to your router/modem.

Once you have made the required connection using the Ethernet cable, you may click Test within the Startup Wizard to confirm Internet connection.

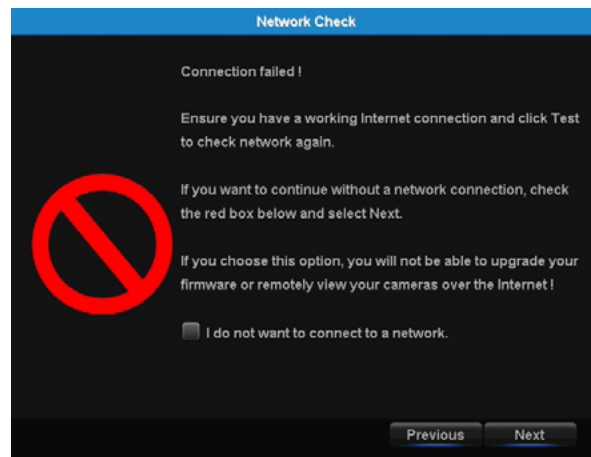




The Advanced Network Configuration tab is recommended only for advanced users.



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



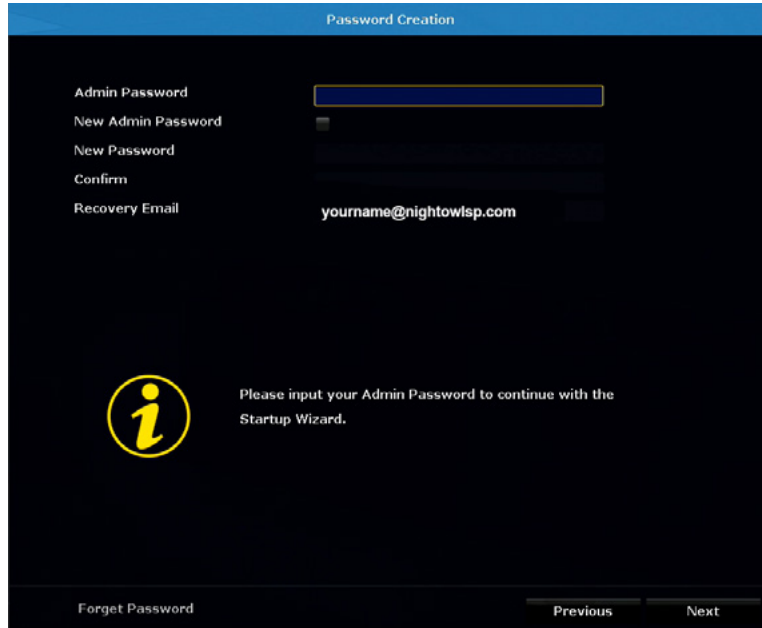
If your NVR is not able to establish Internet connectivity, a connection failed screen will appear. Follow the instructions on this screen to re-test the network. If you wish to proceed with the NVR setup without a network connection, you may do so by clicking the box marked, “I do not want to connect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

NOTE: Without an Internet connection, you will not have easy access to firmware updates or be able to remotely view your system on a PC/Mac® or smart device.

6.1.3 Password Creation

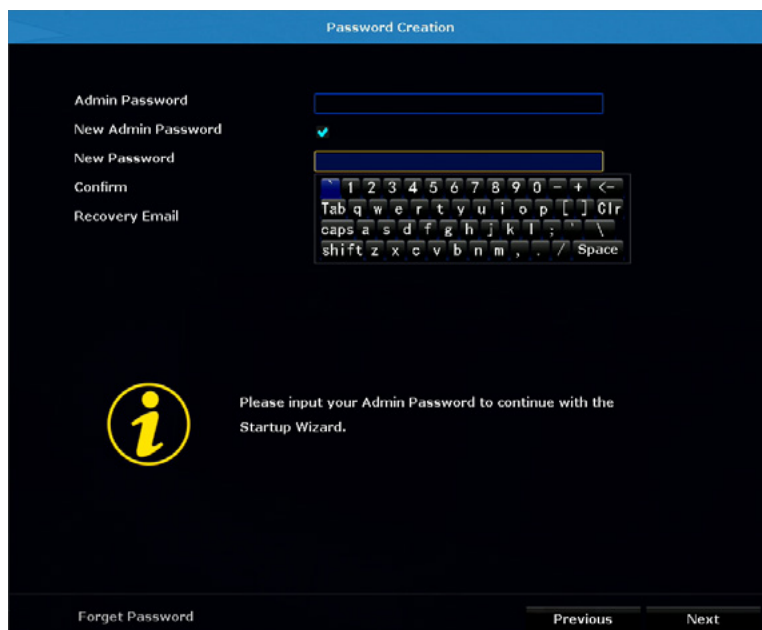
The Password Creation screen of the Startup Wizard requires you to create an admin password for your NVR system. Night Owl strongly suggests that you write down your admin password on page 7 of the Quick Setup Guide of your NVR, as you will be required to log in any time you want to configure or adjust your system settings.

This screen will also require that you set a recovery email address in the event that your admin password is forgotten.



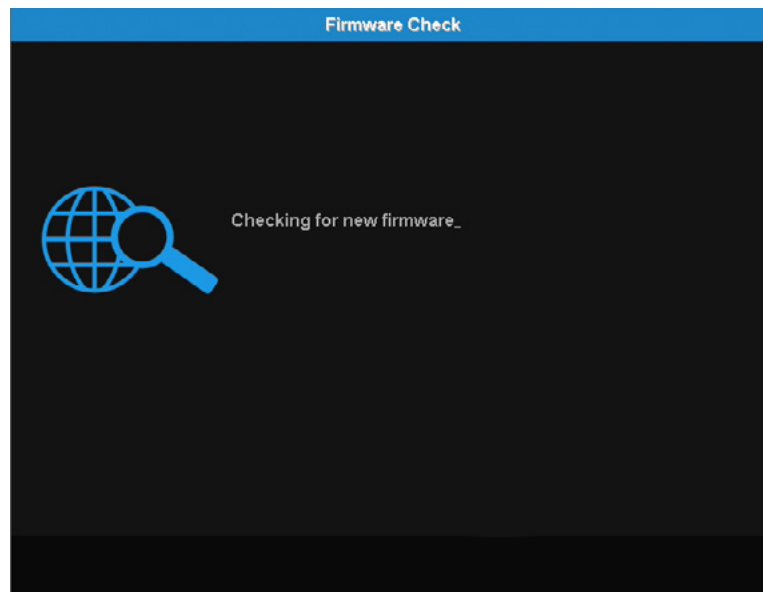
NOTE: You will not be able to complete the Startup Wizard unless a recovery email address is established. To change your recovery email address, you **MUST** rerun the Startup Wizard.

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.

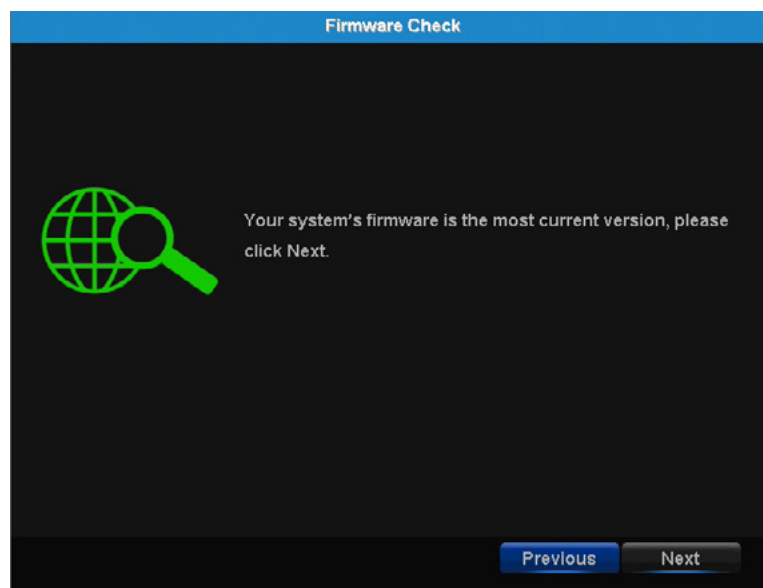


6.1.4 Firmware Check

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

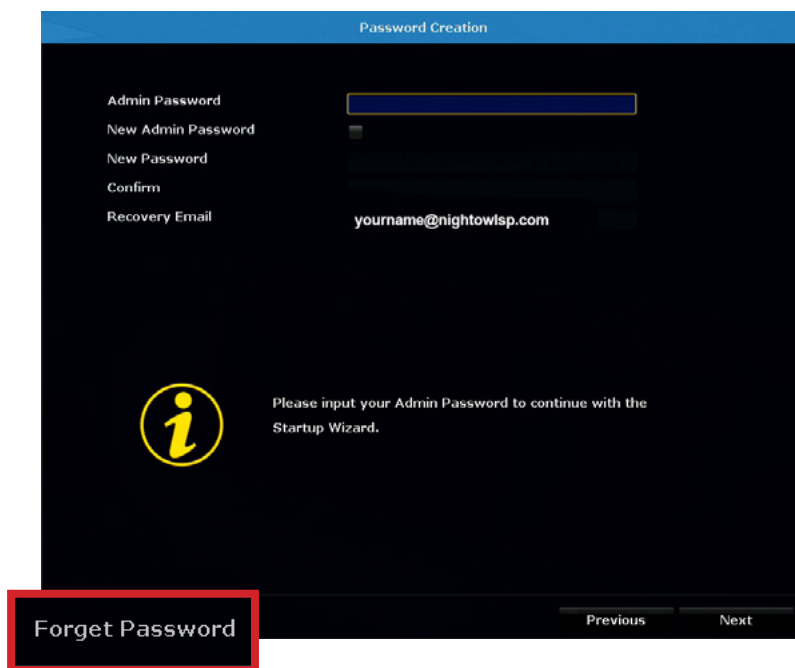


NOTE: If your NVR does not have a network connection, the firmware will not update.



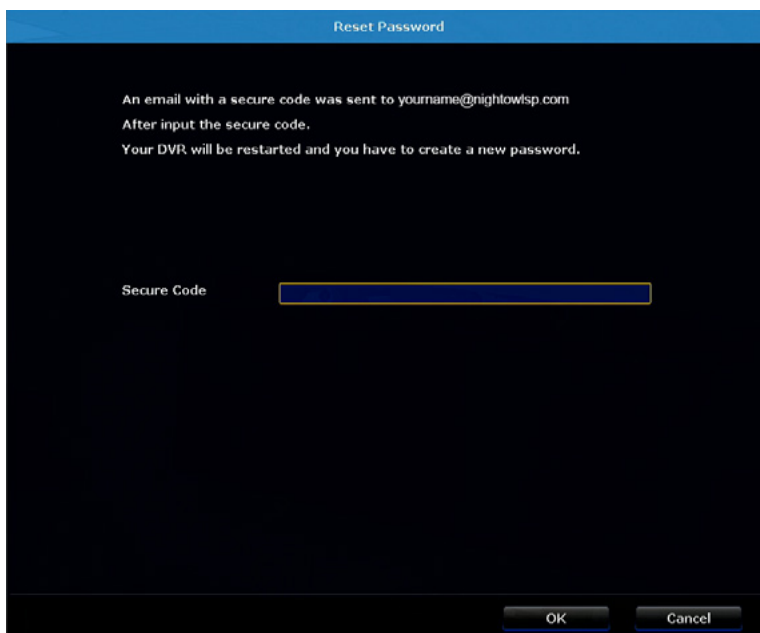
When the firmware for your NVR is updated to the most current version, the Startup Wizard will display the above screen.

If you have forgotten your Admin password, simply click on the “*Forget Password*” tab in the Startup Wizard.



The image shows a 'Password Creation' window with a dark background and a blue header. The header contains the text 'Password Creation'. Below the header, there are five input fields: 'Admin Password', 'New Admin Password', 'New Password', 'Confirm', and 'Recovery Email'. The 'Recovery Email' field is pre-filled with 'yourname@nightowlsp.com'. Below the input fields, there is a yellow information icon (a lowercase 'i' inside a circle) and a message: 'Please input your Admin Password to continue with the Startup Wizard.' At the bottom of the window, there are two buttons: 'Previous' and 'Next'. A red rectangular box highlights the 'Forget Password' button, which is located at the bottom left of the window.

A Secure Code will be sent to your recovery email address. Use the Secure Code to restart your NVR and create a new password.



The image shows a 'Reset Password' window with a dark background and a blue header. The header contains the text 'Reset Password'. Below the header, there is a message: 'An email with a secure code was sent to yourname@nightowlsp.com. After input the secure code. Your DVR will be restarted and you have to create a new password.' Below the message, there is a 'Secure Code' label and an input field. At the bottom of the window, there are two buttons: 'OK' and 'Cancel'.

6.1.5 Date and Time Setup

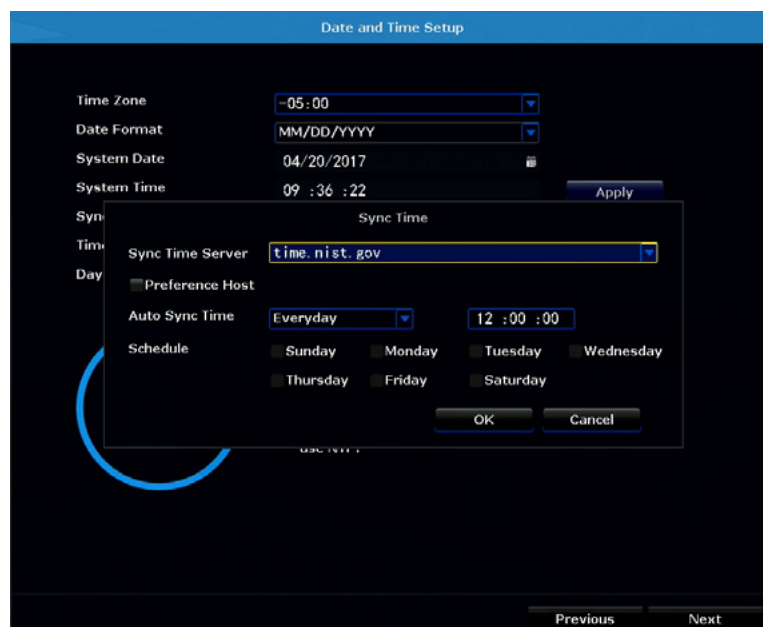
The Date and Time Setup screen of the Startup Wizard will allow you to set the current date and time. You may choose to use Network Time Protocol (NTP) to auto-configure the current date and time. To use NTP, check the Enable box next to Sync Time, then click Sync Now.



The screenshot shows the 'Date and Time Setup' window. It includes fields for Time Zone (-05:00), Date Format (MM/DD/YYYY), System Date (04/20/2017), and System Time (09:34:15). There are buttons for 'Apply', 'Advance', 'Sync Now', and 'Setup'. The 'Sync Time' option is checked with a green checkmark. Below these fields is a large clock icon and instructional text: 'Set the current date and time or use Network Time Protocol (NTP) to auto-configure. You must be connected to the Internet to use NTP.' At the bottom are 'Previous' and 'Next' navigation buttons.

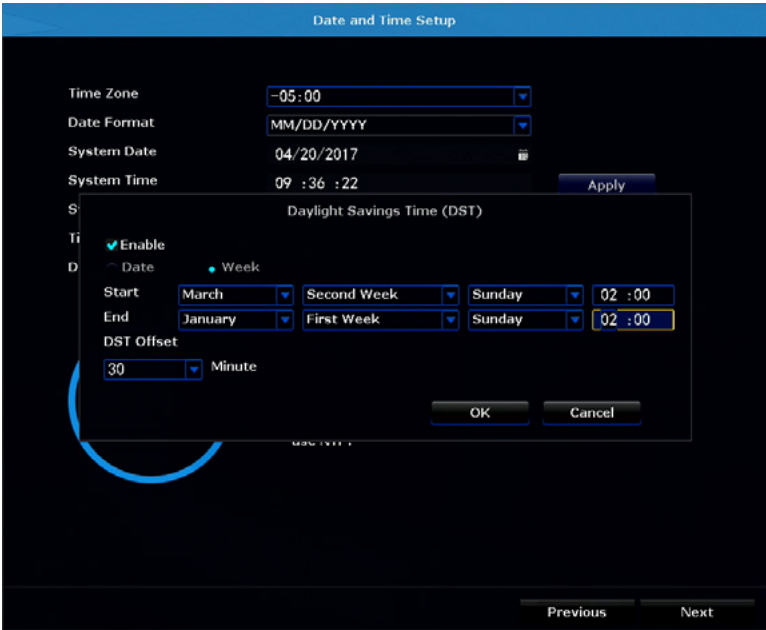
NOTE: In order to use Network Time Protocol (NTP), your NVR must be connected to the Internet. Selecting Sync Now. Selecting Sync Now will temporarily stop recording while syncing NTP.

By clicking the Advance tab on the Sync Time line, you can edit the Sync Time Server as well as schedule Auto Sync Time to prompt your NVR to automatically sync NTP.



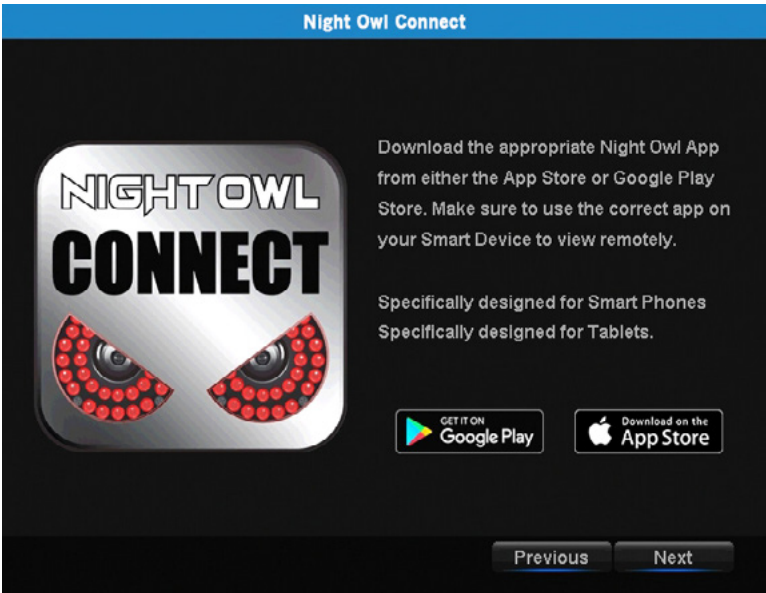
This screenshot shows the same 'Date and Time Setup' window, but with a 'Sync Time' dialog box open. The dialog box contains a 'Sync Time Server' dropdown menu set to 'time.nist.gov', a 'Preference Host' checkbox, an 'Auto Sync Time' dropdown set to 'Everyday' with a time field set to '12:00:00', and a 'Schedule' section with radio buttons for Sunday through Saturday. 'OK' and 'Cancel' buttons are at the bottom of the dialog. A blue circle highlights the 'Advance' tab in the background window.

By selecting Setup, next to Daylight Savings Time (DST), you can adjust how your NVR responds to DST.



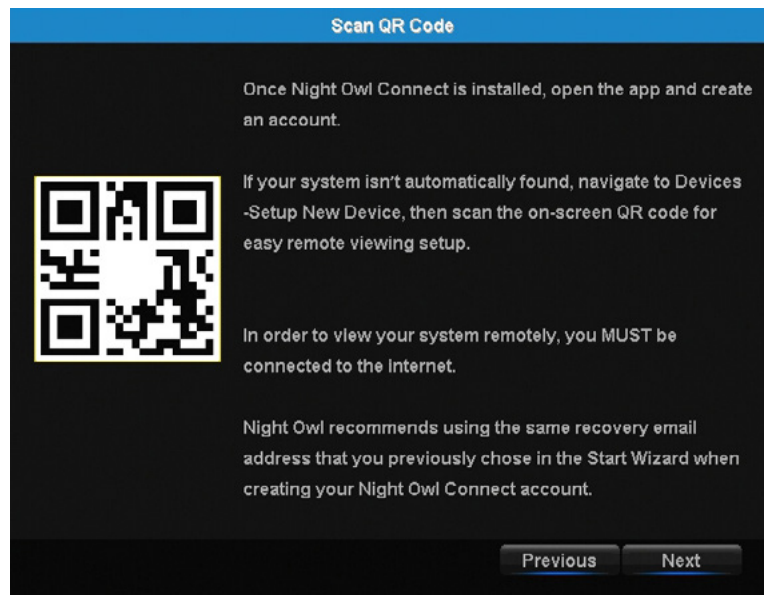
6.1.6 Night Owl Connect App

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



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

Night Owl recommends using the same recovery email address that you previously used in the Startup Wizard when creating your Night Owl Connect account.



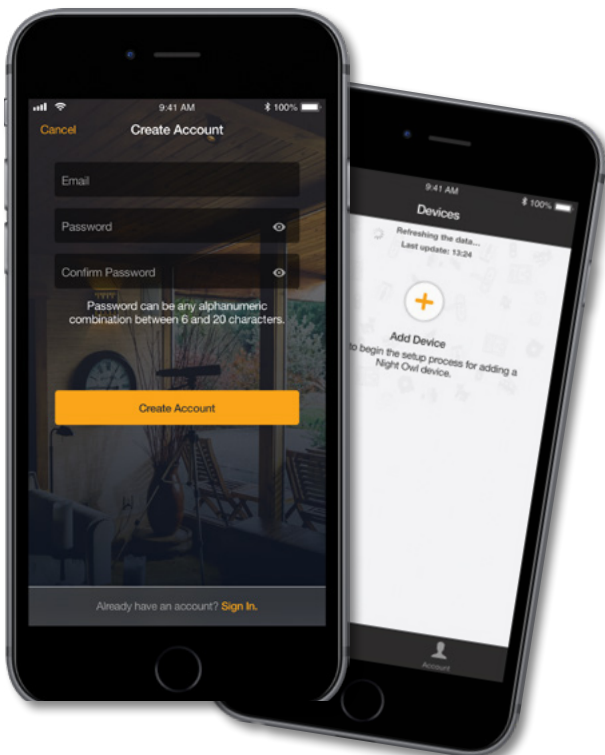
NOTE: In order to view your system remotely, your NVR must be connected to the Internet.

Please follow the next steps for creating and using your Night Owl Connect account.

6.1.6 (a) Using Night Owl Connect

Download and Install Application

- 1 Download the appropriate app from the *App Store* or *Google Play Store* and install the application on your device.



NOTE: Setup is the same for Smartphone and Tablet.

- 2 Create an account using an email address for the username and a password between 6–20 characters.
- 3 After completing the account setup and verification process, sign into the app and tap the “+” symbol to add a device.

The Night Owl Application will lead you through the rest of the setup process.

Connecting and Adding your Device

NOTE: When adding a new device, it may take 5–10 minutes before you begin receiving notifications.

A device can be added to the Night Owl Connect App by using the application's **Smart Auto Detection** or through a **QR Code Setup**. With Smart Auto Detection, your NVR will automatically be detected by the Night Owl Connect software, making connecting easy! To use this preferred method, ensure your Smart Device and NVR are both on the same network.

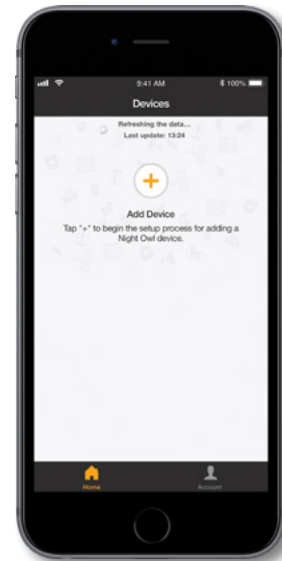


4 Adding a Device

To begin adding a new device, first select the yellow plus sign within the Device menu. Then select your device type from the Device list and follow the on screen instructions.

4A Smart Auto Detection

If your DVR and Smart Device are running Night Owl Connect on the same network, the Smart Auto Detection will find your DVR. If this method is not available, please use the QR Code Setup from step 4B below.



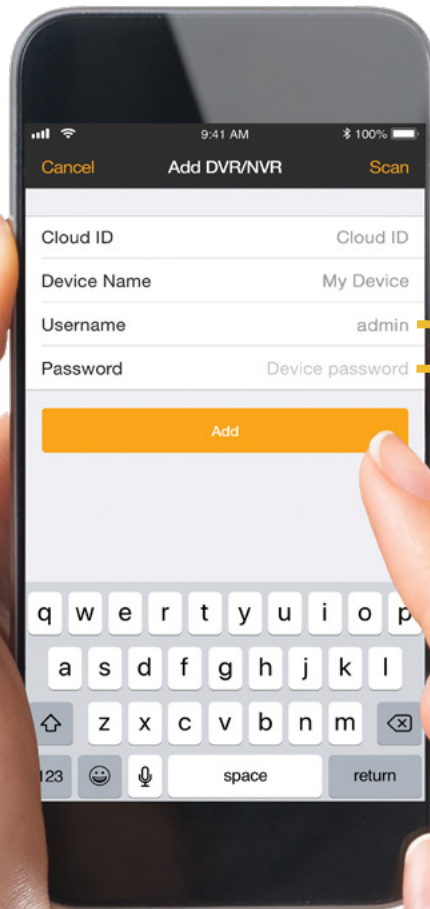
4B QR Code Setup

To use the QR Code Setup, select Setup device by QR Code and hover your Smart Device camera lens over the QR Code located on the top of your DVR.



Login to your App

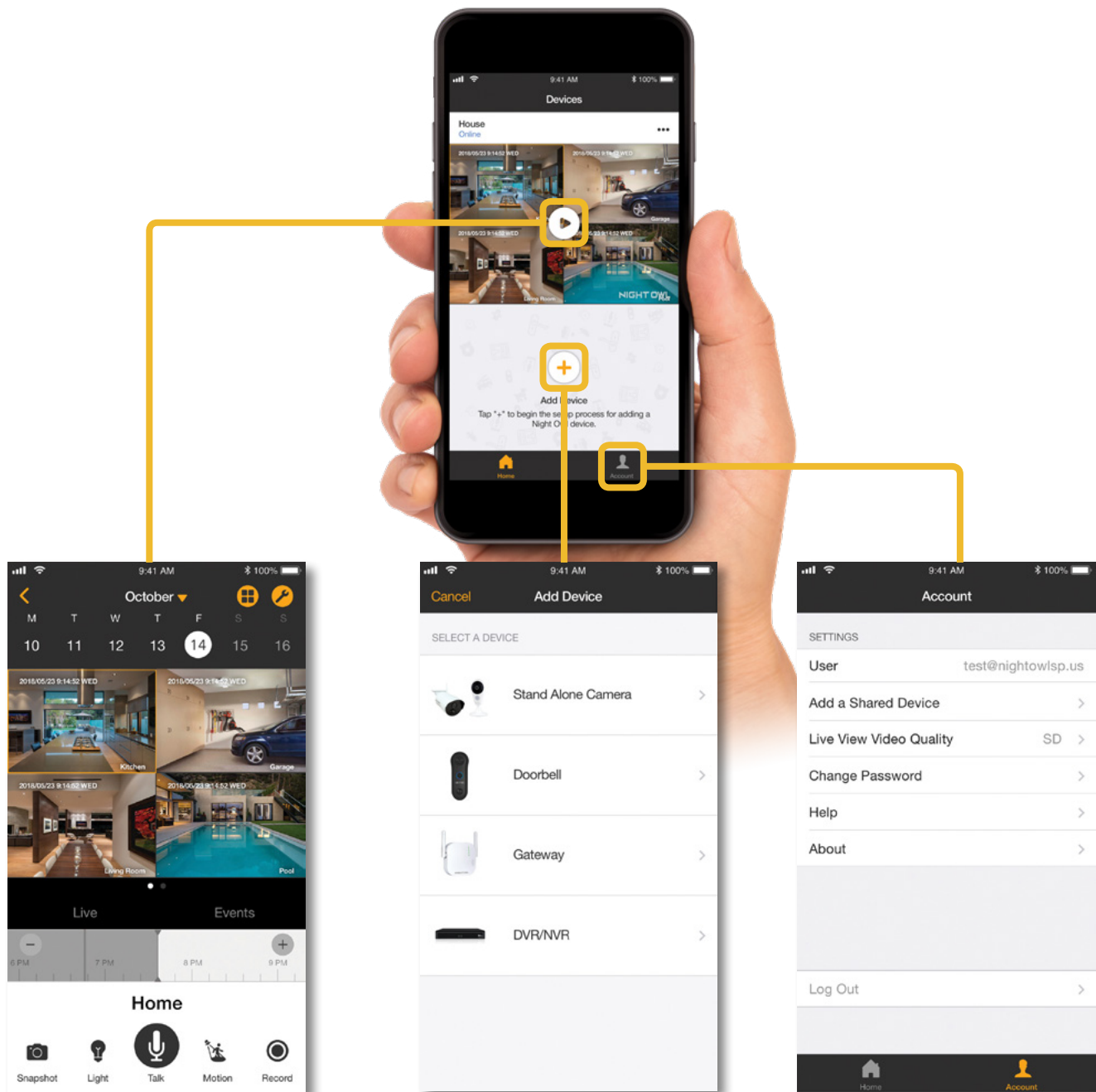
- 5 On the Device Login screen, enter the login information for the NVR (Remember, the NVR login and Night Owl Connect App login are different). The NVR username is **admin** by default. If you are not the **admin**, login with your username credentials.



admin is case sensitive
(all lowercase).

The password will be the same password you created during the Startup Wizard and should be stored in your Quick Setup Guide. **NOTE: This is the password of your Wireless NVR, NOT the password used to login to the Night Owl Connect App.** You must key the Wireless NVR password verbatim to add it to the app.

6.1.6 (b) App Overview



Live View
Displays real-time
footage of your
system.



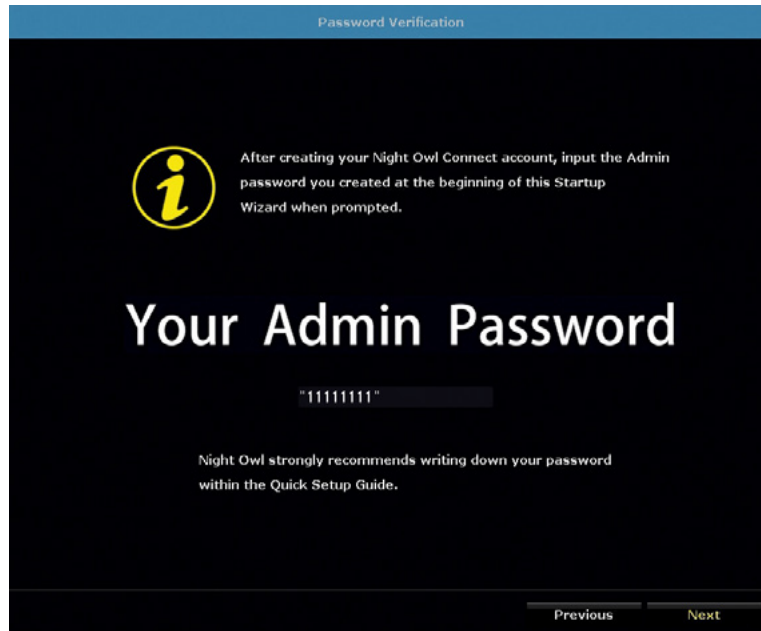
Add Device
Add connected devices
to your DVR.



Account
Manage account settings,
add a shared device, and
change password.

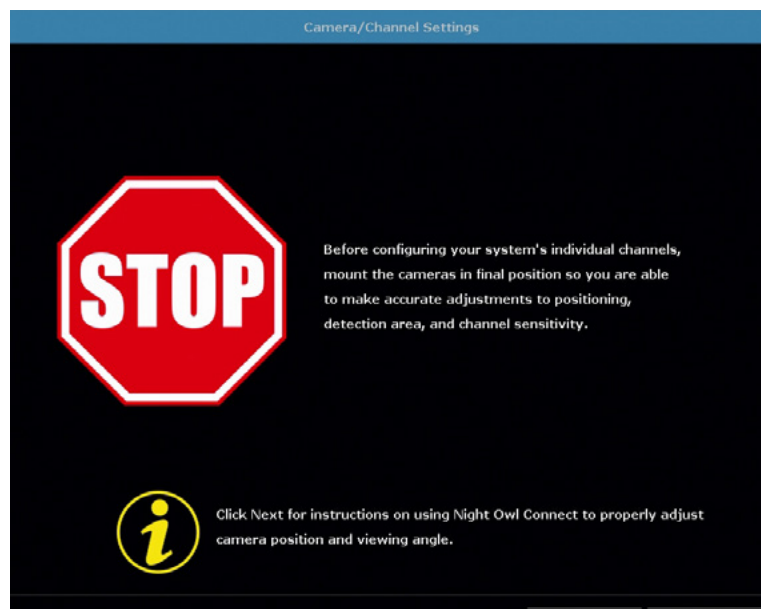
6.1.7 Password Verification

The Password Verification screen of the Startup Wizard will display your Admin password. Night Owl strongly recommends storing your password on page 7 of your NVR's Quick Setup Guide.



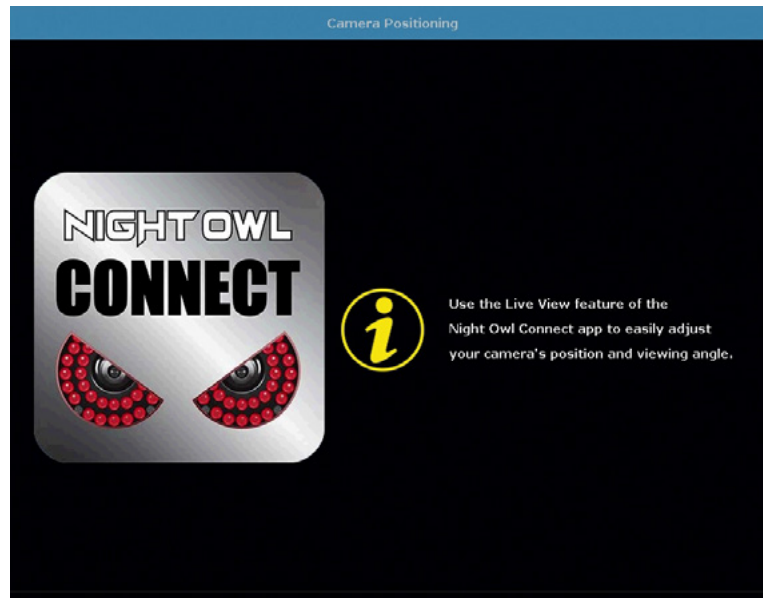
6.1.8 Camera/Channel Settings

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

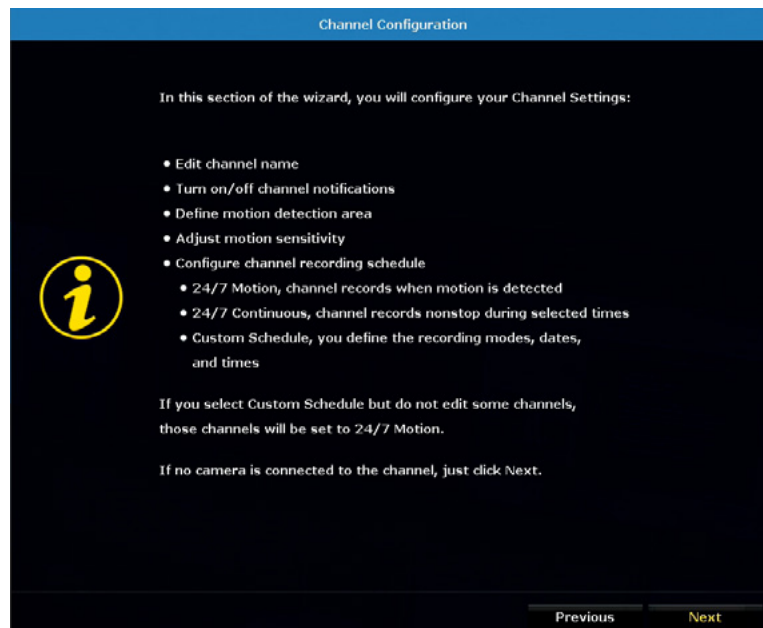
The Camera Positioning screen of the Startup Wizard shows how you can use the Live View feature of the Night Owl Connect App to easily adjust your camera's position and viewing angle.

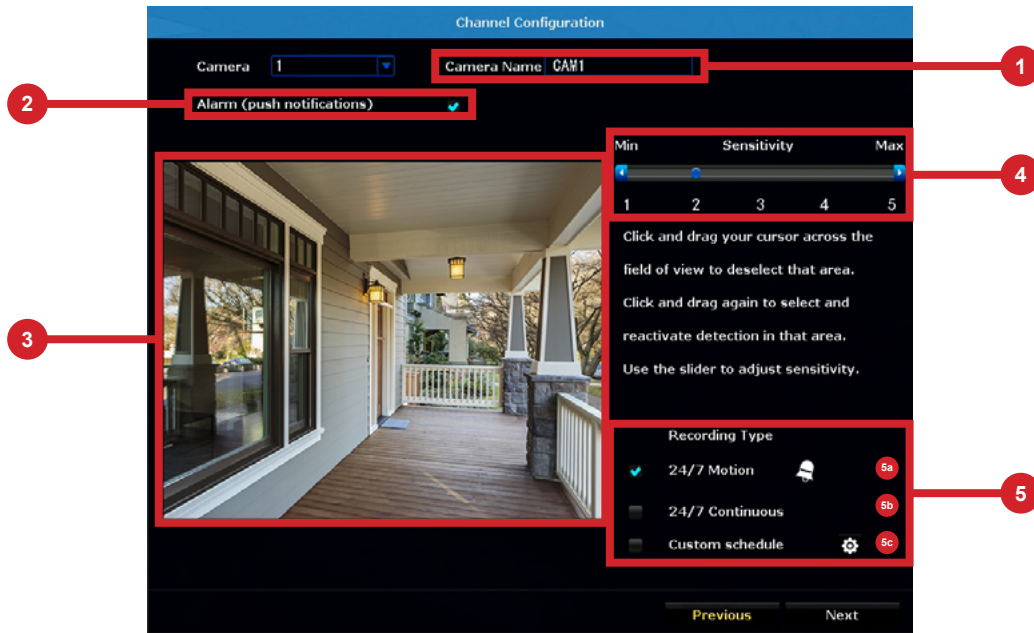


NOTE: The “Live View” feature in the Night Owl Connect App allows you to gauge the position and viewing angle of your cameras before mounting. You still have to physically adjust the cameras.

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 each Channel Settings.





The second Channel Configuration screen of the Startup Wizard allows you to configure the following channel settings:

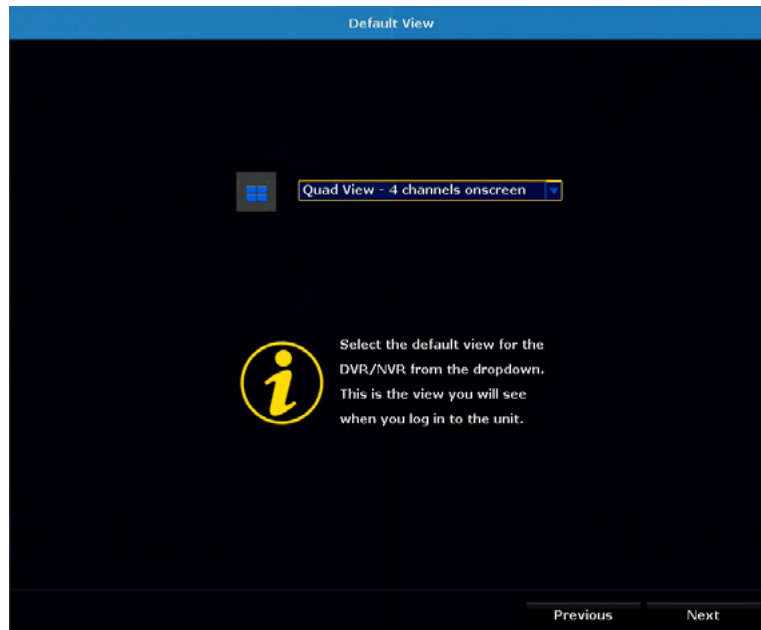
- 1 Edit channel name.
- 2 Turn on/off alarm (push notifications).
- 3 Define motion detection area.
- 4 Adjust motion sensitivity.
- 5 Configure channel recording schedule:
 - 5a **24/7 Motion** – Channel records when motion is detected.
 - 5b **24/7 Continuous** – Channel records non-stop during selected times.
 - 5c **Custom Schedule** – You define the recording modes, dates and times.

NOTE: If you select Custom Schedule, but do not edit some channels, those channels will be set to 24/7 Motion.

If no camera is connected to the channel, just click Next.

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.



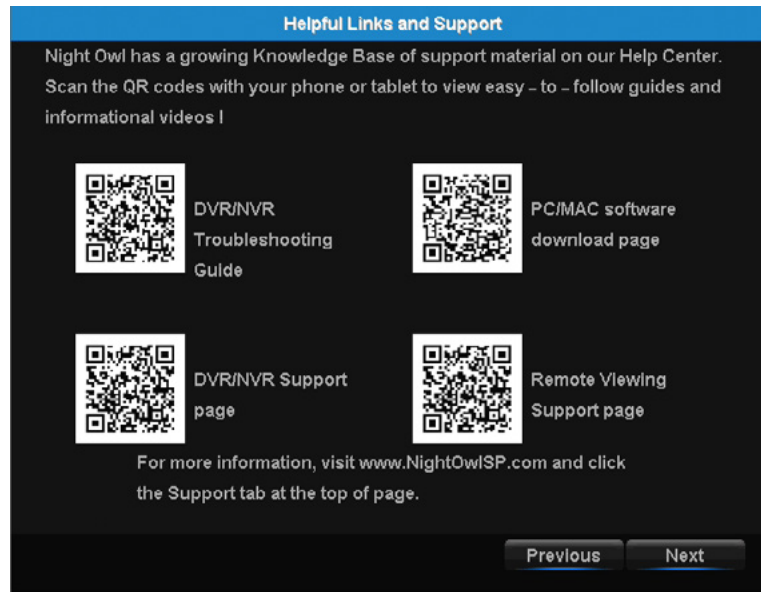
Depending on your NVR's channel limit, you may select several viewing options from the drop-down menu:



- **Quad View:** 1 channel on-screen
- **Quad View:** 4 channels on-screen
- **Quad View:** 6 channels on-screen
- **Quad View:** 8 channels on-screen
- **Quad View:** 9 channels on-screen

6.1.12 Helpful Links

NOTE: Please scan these QR Codes directly from your TV/Monitor, NOT directly from this page.



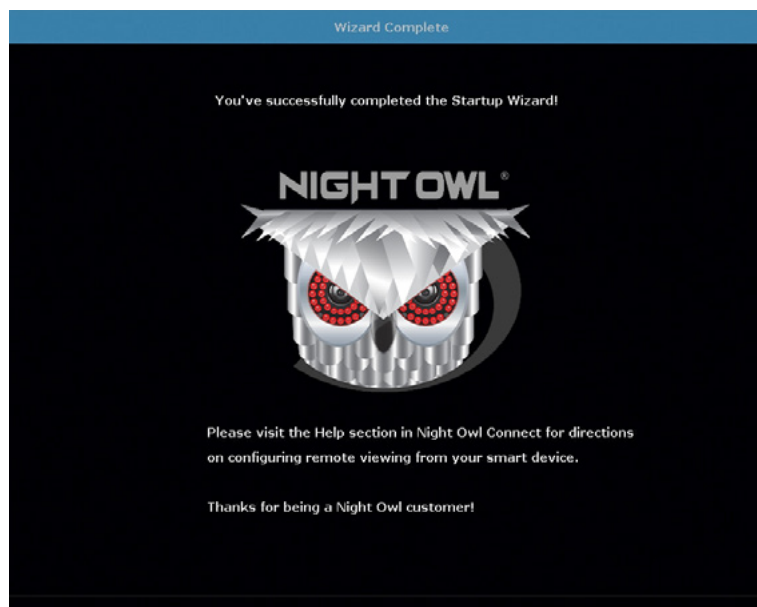
The Helpful Links and Support screen of the Startup Wizard contains QR codes linked to:

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

For more information, visit www.NightOwlISP.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.

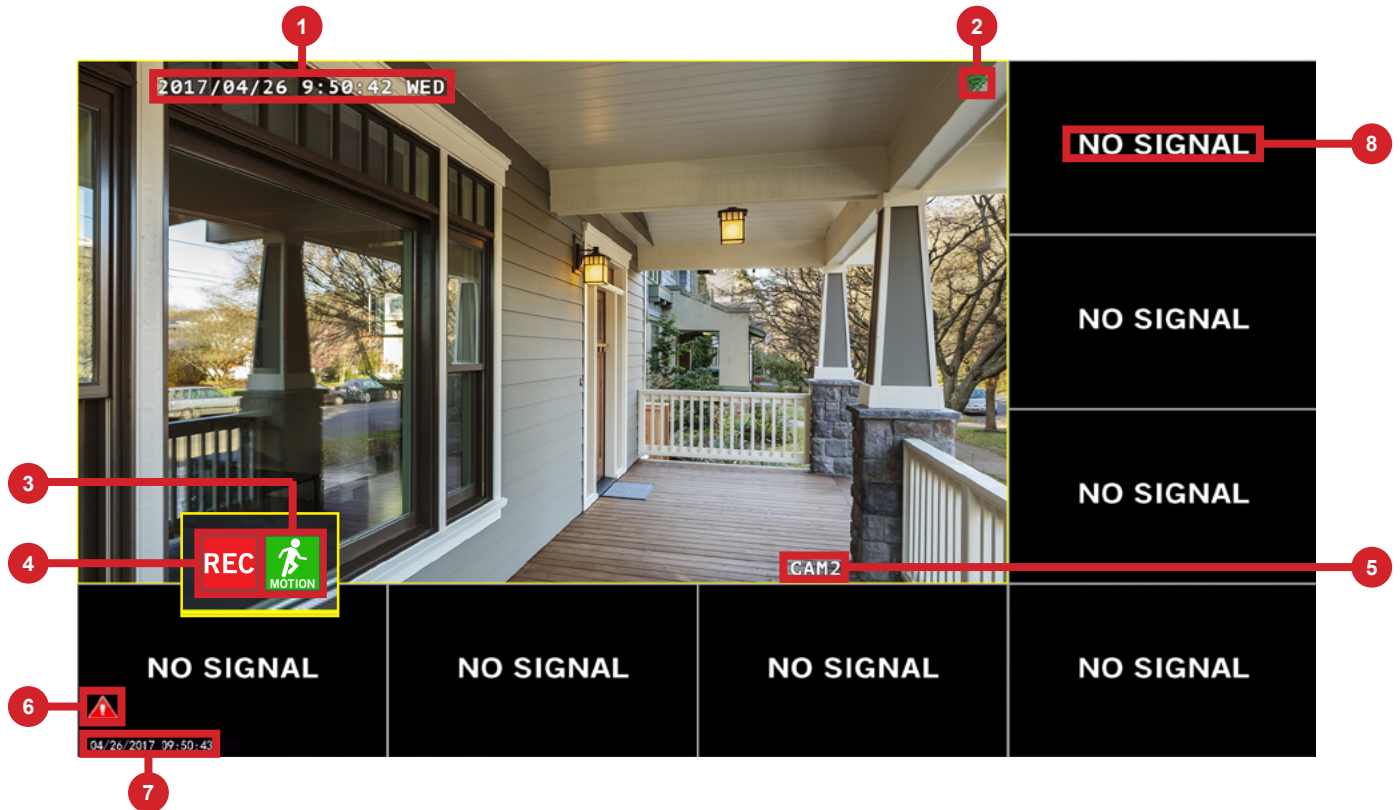


6.2 Live View (Login and Icons)

This section will discuss the Live View status icons and how to control and manage your NVR using the channel toolbar and mouse menu.

6.2.1 Live View (All Channels)

After you have completed the Startup Wizard for your NVR, you will see the Live View screen. Live View is the default display mode of the NVR. It is the screen you will use to watch live video feed from your NVR cameras and make select adjustments.



- 1 **Date and Time OSD:** Displays the date and time of your camera.
- 2 **Signal Strength:** Shows the signal strength of the camera.
- 3 **Motion Detection Icon:** Indicates that an alarm event such as motion detection, video loss or tampering has occurred.
- 4 **NVR status Recording Icon:** Indicates that the NVR is currently recording video from that camera. This icon will be the same whether the recording is scheduled, initiated manually or triggered by motion.
- 5 **Camera Name OSD:** Shows the camera name.
- 6 **System Exception Icon:** Indicates that an alarm event or exception has occurred. Click the icon to access the Alarm/Exception Information log where you can find specific details about the event.
- 7 **Date and Time:** Shows the date and time of your NVR.
- 8 **No Signal:** Shows empty channels without a camera connected.

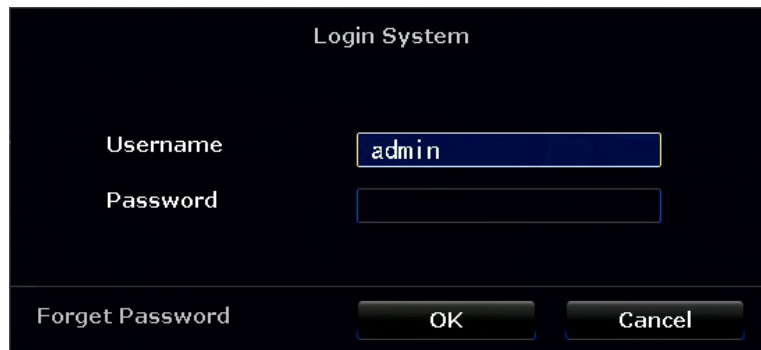
6.2.2 Right-Click Menu



- 1 **Menu:** Opens the Main Menu.
- 2 **Lock:** Locks the system (log out), making it necessary to enter the password to access any NVR menus.
- 3 **Startup Wizard:** Launches the Startup Wizard.
- 4 **Multi-Camera View:** Select a multi-screen viewing option, where you'll be able to see multiple video feeds at once.
- 5 **Slide Show:** Turns on sequence mode to automatically rotate channel views at specific intervals (also known as Dwell Time).
- 6 **Audio:** Controls live audio volume.
- 7 **Image Settings:** Allows you to adjust certain image settings.
- 8 **Video Playback:** Opens the Video Playback menu.

6.2.3 Login/Forgot Password

Anytime you want to configure or adjust your system settings you will be required to log in by entering your username and password. It's important you save your login information or you won't be able to access your NVR. We strongly recommend that you store your password on page 7 of your QSG.



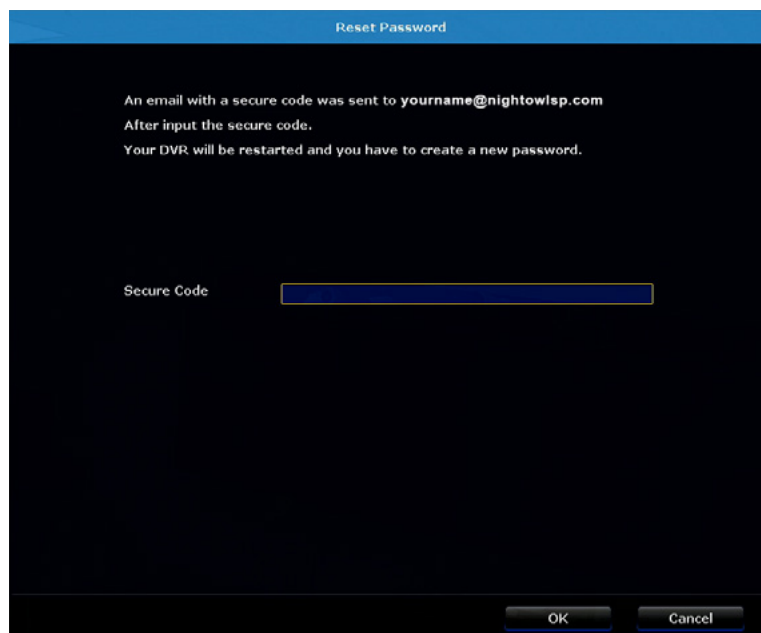
The image shows a 'Login System' dialog box with a dark background. It contains two input fields: 'Username' with the text 'admin' and 'Password' which is empty. Below these fields are three buttons: 'Forgot Password', 'OK', and 'Cancel'.

Username: Admin (all lowercase) is the default username.

Password: Enter the password you created during the Startup Wizard.

Forgot Password: Sends a secure code to your recovery email address. Once you input the secure code, your NVR will restart and you will be required to create a new password.

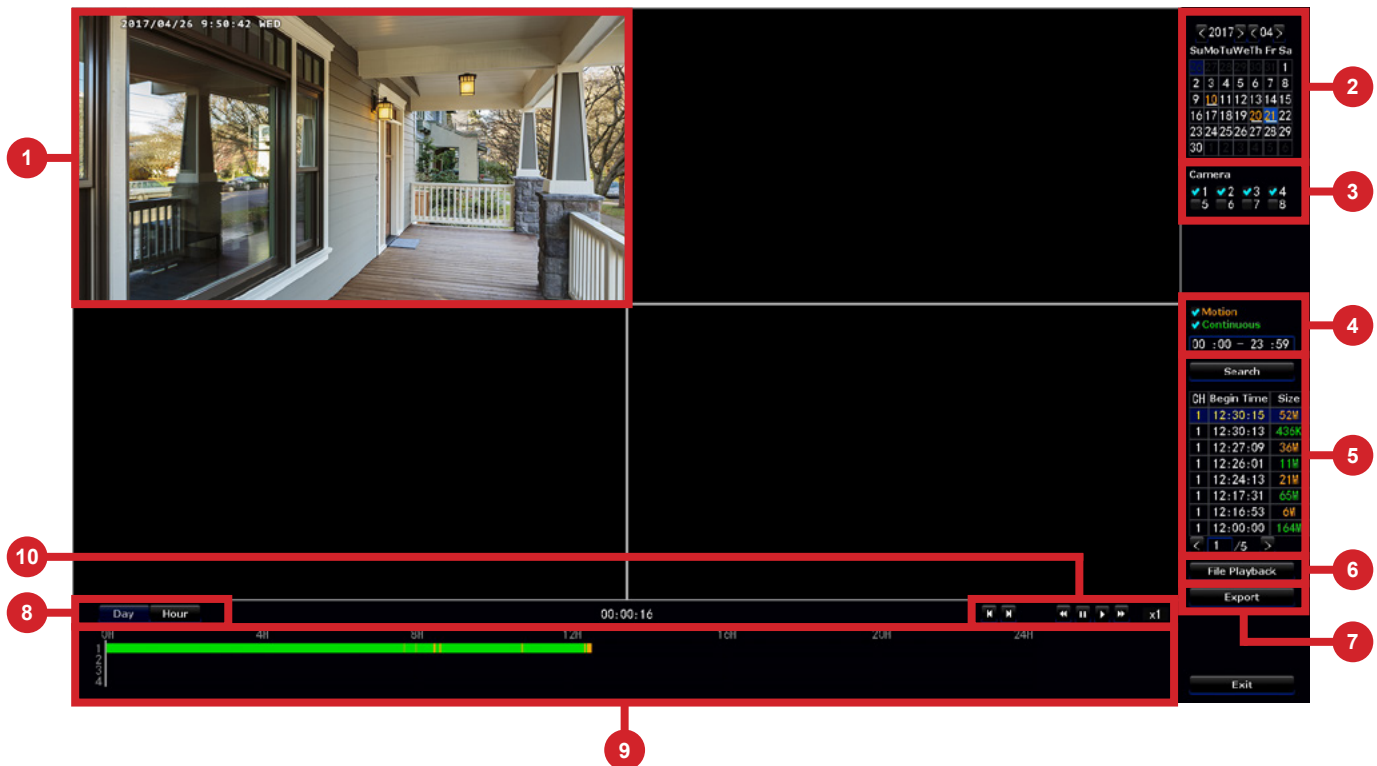
If you select *Forgot Password*, you will be directed to this screen. Simply enter the secure code that was emailed to your recovery email address and then select OK. Your NVR will then be restarted and you will be required to create a new password.



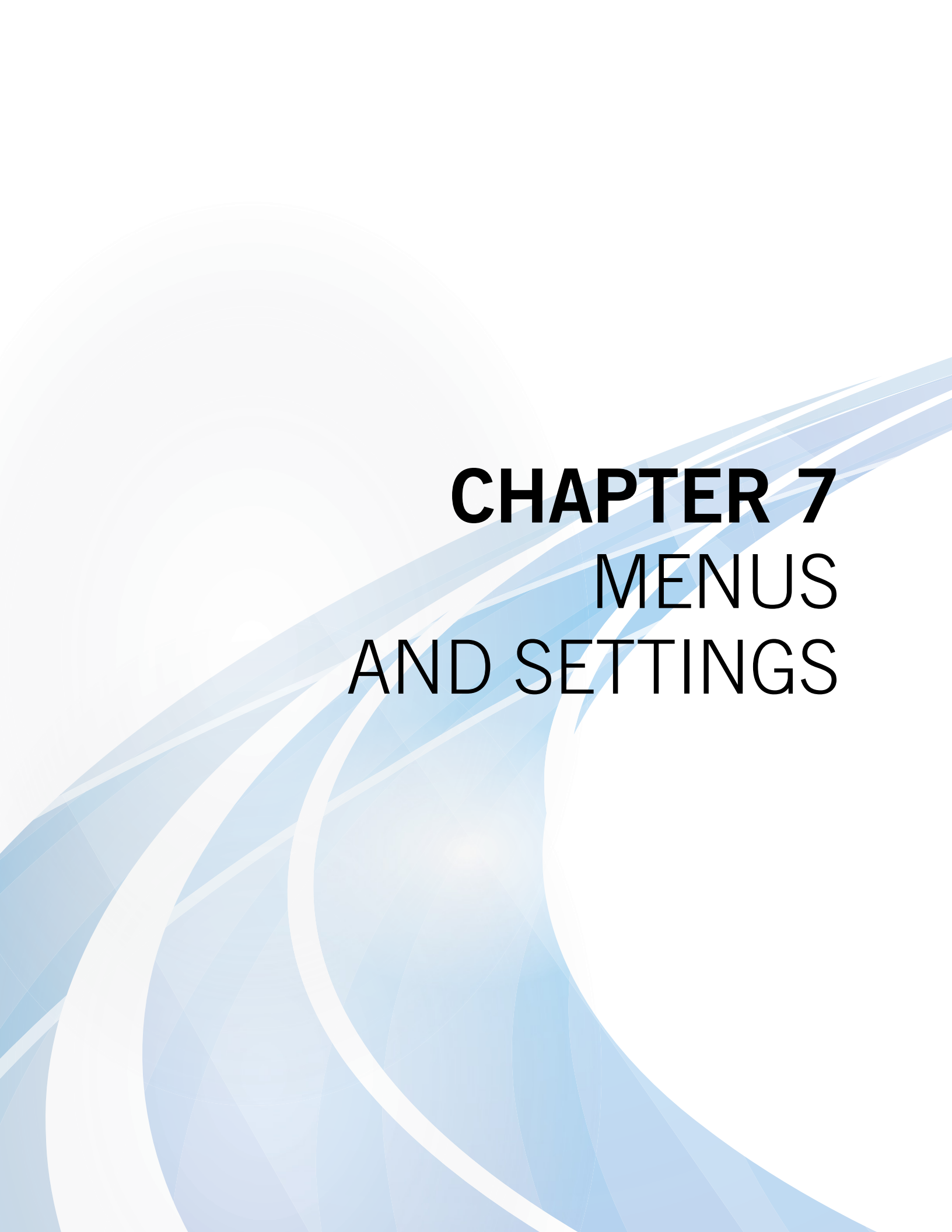
The image shows a 'Reset Password' dialog box with a dark background. It contains a message: 'An email with a secure code was sent to yourname@nightowlsp.com. After input the secure code. Your DVR will be restarted and you have to create a new password.' Below the message is a 'Secure Code' input field. At the bottom are 'OK' and 'Cancel' buttons.

NOTE: To send the secure code to your recovery email address, your NVR must be connected to the Internet.

6.3 Video Playback



- 1 **Video Image:** Shows an image of the cameras that have video for the search parameters entered.
- 2 **Date:** Allows you to search by date.
- 3 **Camera:** Allows you to search certain cameras.
- 4 **Motion/Continuous:** Allows you to search for Motion or Continuous recordings.
- 5 **Search:** Activates the search based on the criteria established above and shows the recordings found on the table below.
- 6 **File Playback:** Allows you to focus in on the video recording selected in the table above and control the recording.
- 7 **Export:** Allows you to export a recording onto a USB flash drive. (Must be formatted to FAT32 to export videos).
- 8 **Day/Hour:** Allows you to switch the timeline between a day or hour scale.
- 9 **Timeline:** Shows the presence of a video recording and shows the progress of the video.
- 10 **Controls:** Allows you to control (rewind, fast-forward, pause, play, etc.) a video.

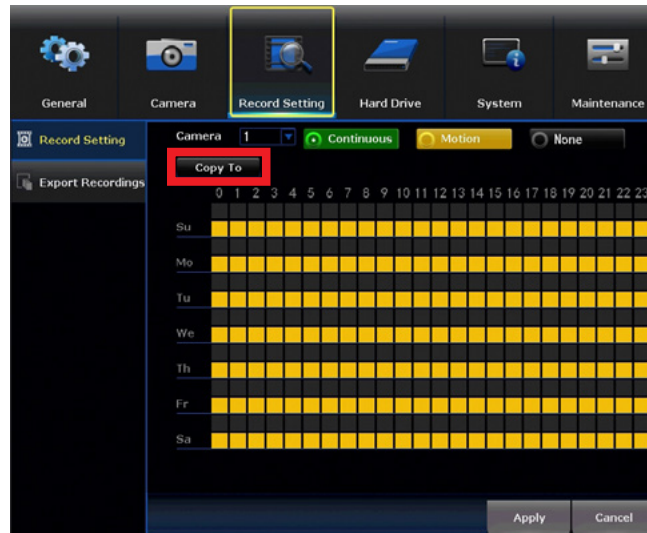


CHAPTER 7

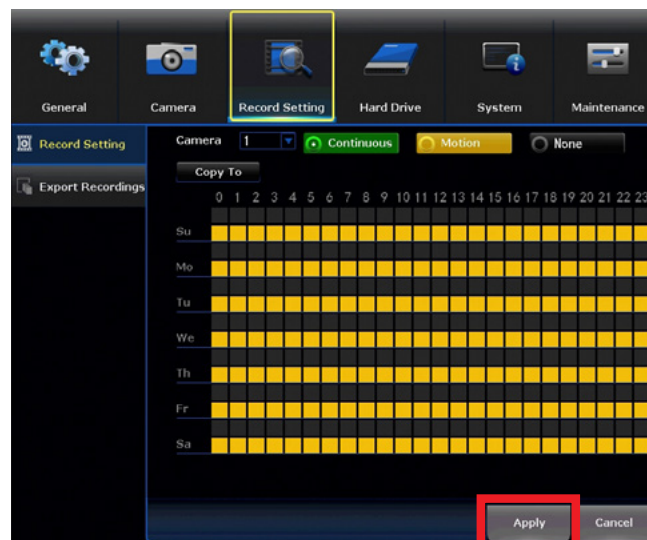
MENUS AND SETTINGS

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).



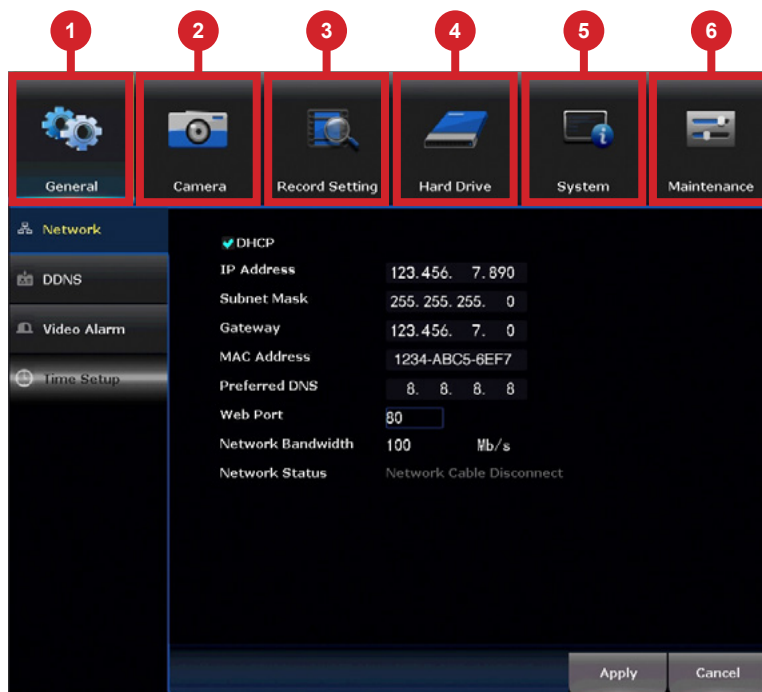
Click *Copy* when the proper channels have been chosen.



Be sure to click **Apply** 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.

Menu

The main menu lets you access many of your NVR's great features. You can customize camera names, keep track of recent events, create recording schedules, configure advanced motion detection settings, check up on the hard drive's condition and change other NVR settings.



- 1 **General:** Will allow you to access Display, Network, DDNS and Video Alarm submenus and manage the settings for those categories for your NVR.
- 2 **Camera:** Will provide access to Status, Add Camera, On-Screen Display, Video Quality and Camera Firmware Update submenus.
- 3 **Record Setting:** Will provide access to Record Settings and Export Recordings submenus.
- 4 **Hard Drive:** Will provide access to the HDD menu, allow you to reformat your HDD and make other changes.
- 5 **System:** Will allow access to System Settings, NVR WiFi Settings, User Management, Device Info and Log and Camera Speed submenus.
- 6 **Maintenance:** Will allow access to System Maintenance, Firmware Update and Factory Default submenus.

7.1 General Menu

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

7.1.1 Network



ADVANCED

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.



DHCP: Network configuration mode that gathers the network values automatically from DHCP server. If unchecked this value can be set manually.

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.

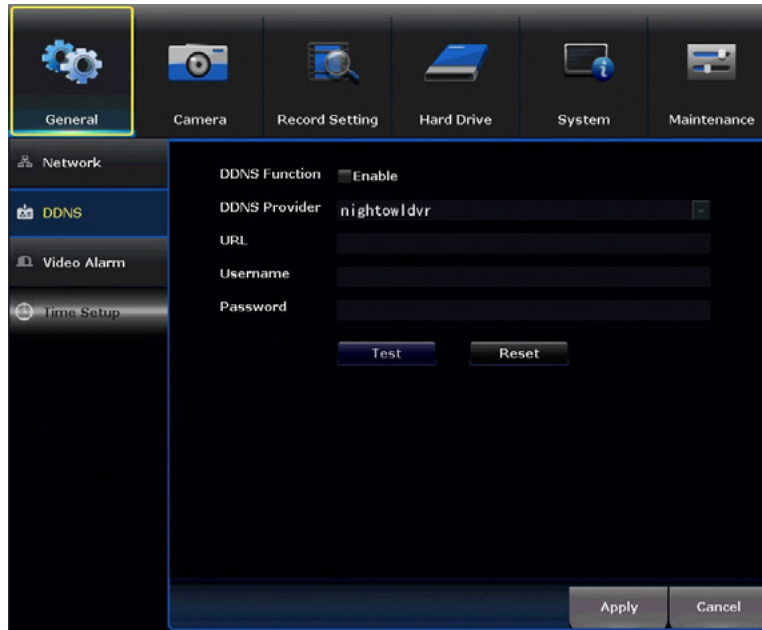
MAC Address: The unique identifier assigned to network interfaces for communications at the data link layer.

Preferred DNS: Domain Name System server address.

Web Port: Allows access to your NVR with your computer through your LAN or the Internet. The default value is 80.

Network Bandwidth: Defines channel capacity, or the maximum throughput of the network interface.

Network Status: Shows status of the network connectivity.



DDNS Function: Enable or disable the usage of the DDNS service on the NVR.

DDNS Provider: Set to the NightowlDVR server when using the Night Owl free domain name server. (Default and only option).

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

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

Password: The password created during the DDNS registration process.

Test: Tests to ensure the configuration set is correct.

Reset: Restores the configuration to default values.

7.1.3 Video Alarm



Camera: Select the camera for which you want to adjust motion alarm settings.

Detection: Enable motion alarms.

Motion Sensitivity: Adjusts the sensitivity of the motion sensor for the camera selected. A lower setting will require more movement in the camera range to begin recording. By default, your NVR's motion sensitivity is set to High.

Pre-Recording: Number of seconds that are pre-recorded before motion is detected. This option is fixed to 5 seconds.

Copy To: Allows you to copy this menu's settings from one camera to another.

PIR Enable: This option activates Night Owl Smart Detection Technology based on PIR detection. It's enabled by default, disable if you would like to use standard motion detection. To have your NVR record motion beyond the parameters of the PIR technology, you must disable the PIR sensor.

Audible Warning: Enable or Disable the internal NVR buzzer that sounds when motion is detected.

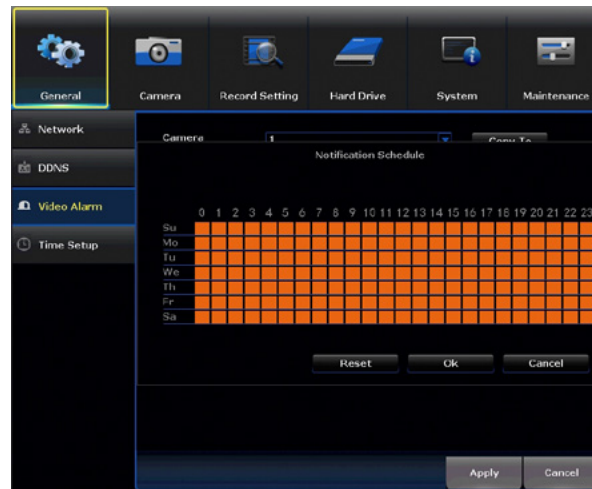
Push Notification: Enable or Disable the push notifications being sent to your smart device.

Notification Schedule: Allows you to set a notification schedule.

Notifications: Displays options to Enable or Disable Audible Warning and Push Notification.

Area Setup: Area Setup will allow you to configure the motion detection area. Blue boxes denote areas that will detect motion whereas uncolored boxes denote areas that will not detect motion. When finished, right click and select Return.

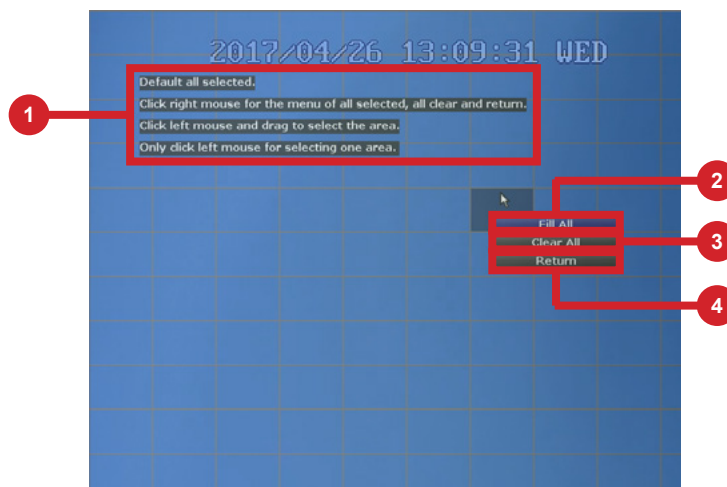
7.1.3 (a) Notification Schedule



Schedule #: Allows you to set up to 4 ranges throughout the day where motion alerts will be sent to your smart device.

Weekday: Allows you to select which day the schedule applies to.

7.1.3 (b) Area Setup



- 1 Instructions:** A series of instructions on how to set the motion detection area. Blue boxes denote areas that will detect motion whereas uncolored boxes denote areas that will not detect motion. When finished, right click to return to the menu and click Apply to save changes.
- 2 Fill All:** Selects the entire screen for motion detection.
- 3 Clear All:** Deselects the entire screen and prevents motion alerts/recordings from being triggered.
- 4 Return:** Returns to the Video Alarm submenu.

7.1.4 Time Setup



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

Time Zone: Select the correct time zone for your location.

Sync Time: Enables or Disables NTP (Network Time Protocol) services.

Time Format: Select either a *12Hour* or *24Hour* format.

Daylight Saving Time: Configure daylight savings time by selecting *Setup*.

7.2 Cameras Menu

Adjust or modify individual camera settings connected to your NVR.

7.2.1 Status



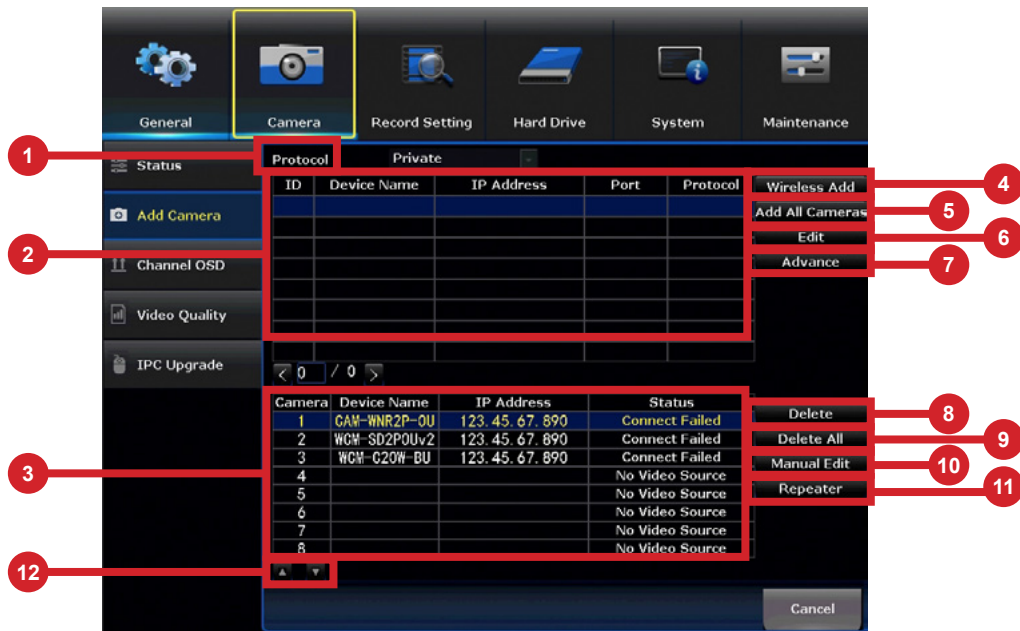
Table: Table shows the cameras connected to the NVR, the resolution of the main or sub stream video, the maximum speed at which that stream will be transmitted and the firmware version of the camera.

Refresh: Refreshes the information in the table.

Main Stream: Shows main stream resolution in the table.

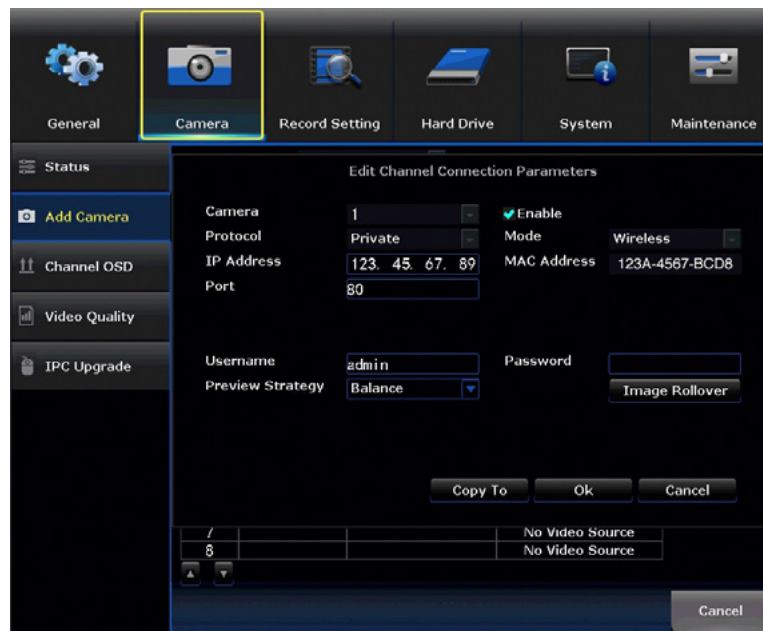
Sub Stream: Shows sub stream resolution in the table.

7.2.2 Add Camera



- 1 **Protocol:** Establishes the protocol used by the NVR when it is looking for cameras to pair with.
- 2 **Table 1:** Shows the cameras available to pair with the NVR.
- 3 **Table 2:** Shows the cameras already paired to the NVR.
- 4 **Wireless Add:** Initiates the discovering and pairing process for available wireless cameras.
- 5 **Add All Cameras:** Pairs all cameras in Table 1 with the NVR and places those cameras in Table 2, so long as the number of cameras in Table 1 does not exceed the number of available channels on the NVR. This option also will allow pair cameras that are not in the same network segment as the NVR.
- 6 **Edit:** Allows the network parameters of the cameras in Table 1 to be modified.
- 7 **Advance:** Allows advanced options to be Enabled or Disabled.
- 8 **Delete:** Will delete the selected camera from Table 2 and move it to Table 1.
- 9 **Delete All:** Will delete all cameras from Table 2 and move them to table 1.
- 10 **Manual Edit:** Allows the channel connection parameters of the cameras in Table 2 to be modified.
- 11 **Repeater:** Opens a window which allows for an extended network to be built, using the cameras as repeaters of the Wi-Fi signal.
- 12 **Arrows:** Allows you to move the selected camera to a different channel.

7.2.2 (a) Edit



IPCam Model: Shows the protocol of the camera.

IP Address: Network address of the connected camera.

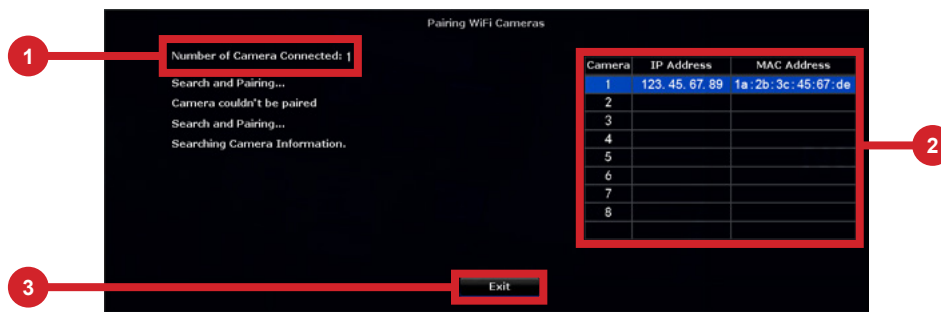
MAC Address: The unique identifier assigned to the network interface of the camera for communications at the data link layer.

Port: Allows access to your camera with your computer through your LAN or the Internet. The default value is 80.

Username: Shows the username of the credentials needed to establish a connection with the camera. By default, **admin**.

Password: Shows the password of the credentials needed to establish a connection with the camera. By default, password field should be empty.

7.2.2 (b) Wireless Add



- 1 Number of Cameras Connected:** Shows the number of cameras paired to the NVR.
- 2 Camera Table:** Shows the IP Address and MAC Address of all the cameras already paired to the NVR.
- 3 Exit:** Return you to the Add Camera submenu.

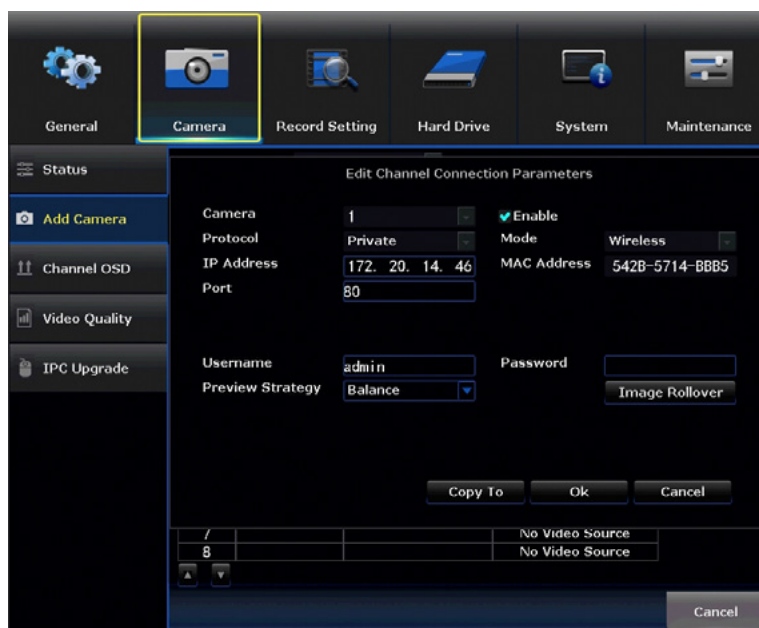
7.2.2 (c) Advance



Allow Repeated Add: Allows you to keep the cameras in Table 2 in Table 1 as well.

Automatic Bitrate: Bitrate speed is automatically configured based on the compression algorithm.

7.2.2 (d) Manual Edit



Camera: Select the camera you want to edit.

Protocol: Shows the protocol of the selected camera. Private (Night Owl), ONVIF (Standard).

IP Address: Network address of the connected camera.

Port: Allows access to your camera with your computer through your LAN or the Internet. The default value is 80.

Enable: Will Enable (turn on) and Disable (turn off) the camera video stream.

MAC Address: The unique identifier assigned to the network interface of the camera for communications at the data link layer.

Username: Shows the username of the credentials needed to establish a connection with the camera. By default, **admin**.

Preview Strategy: Used for live view. If the signal of the connected camera to the NVR is not strong enough to sustain a decent quality image, this function can adjust the mainstream transmission to improve video quality.

Password: Shows the password of the credentials needed to establish a connection with the camera. By default, password field should be empty.

7.2.2 (e) Repeater

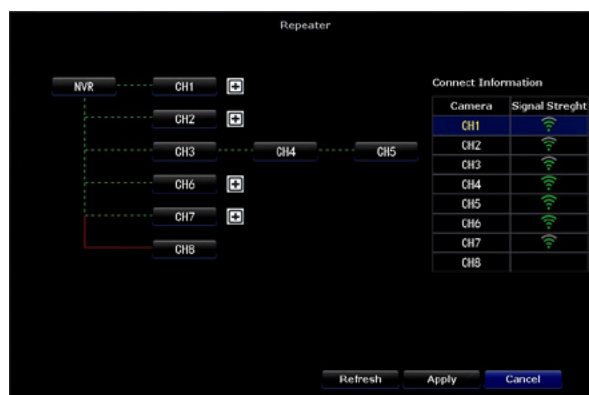


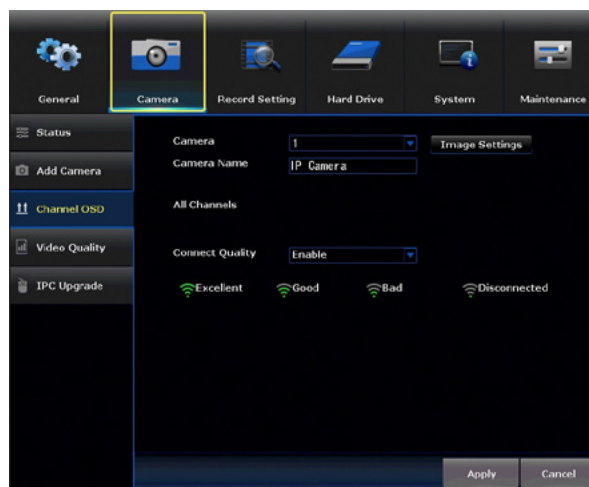
Diagram: Shows the dependency of the Wi-Fi signal for each camera connected. What is shown in the above diagram is CH1, CH2, CH3, CH6 and CH7 connected directly to the NVR, CH4 connected in Daisy Chain to CH3 where CH3 works also as a repeater and CH5 connected in Daisy Chain to CH4 where CH4 works also as a repeater. The CH8 is disconnected.

Table: Shows the signal strength off each connected camera.

Refresh: Will update the diagram with any changes made.

Apply: Will apply any changes made.

7.2.3 Channel OSD



Camera: Allows you to select which camera to modify.

Camera Name: Shows the current name and allows you to edit the name of the selected camera.

Image Settings: Allows to modify video image settings for the selected camera.

Connect Quality: Select to *Enable* or *Disable* the signal quality identifier.

7.2.3 (a) Image Settings



Hue: Changes the color mix of the image.

Brightness: Changes how light the image appears. This feature does not extend or enhance night vision mode.

Saturation: Alters how much color is displayed in the image. The higher the saturation, the more bright and vivid colors will appear.

Contrast: Increases the difference between the blackest black and the whitest white in the image. Useful if sections of the image are “grayed out”. However, setting the contrast too high will degrade the image quality.

Default: Resets the image to its default values.

Bright: Sets a predefined value to show a brighter image.

Soft: Sets a predefined value to show a softer image.

7.2.4 Video Quality



Camera: Select which camera to edit.

Encode Mode: Encoding occurs for the selected format, such as *Video Only*.

Main Stream/Sub Stream: Sub stream values are set for an image with less bandwidth consumption (less resolution and limited rate).

Bitrate Mode: Select *CBR* (constant bit rate or a fixed encoding speed) or *VB* (variable bit rate or an average encoding speed); if using *VBR*, you must select the desired quality of video.

Encode Format: Set the video compression format to H.265+.

Camera Speed: Displays the amount of bandwidth used by each camera in real-time using Kb/s and MB/H.

Framerate: Increases or decreases the frames per second of the streaming video, depending on your connection speed. Higher FPS equals better video quality. If experiencing lag or stutter, lower the FPS.

7.2.5 IPC Upgrade



Table: Shows the IP and firmware version of all connected cameras.

Firmware From: Allows you to choose the source of the firmware upgrade (Network or USB). Network is preferred.

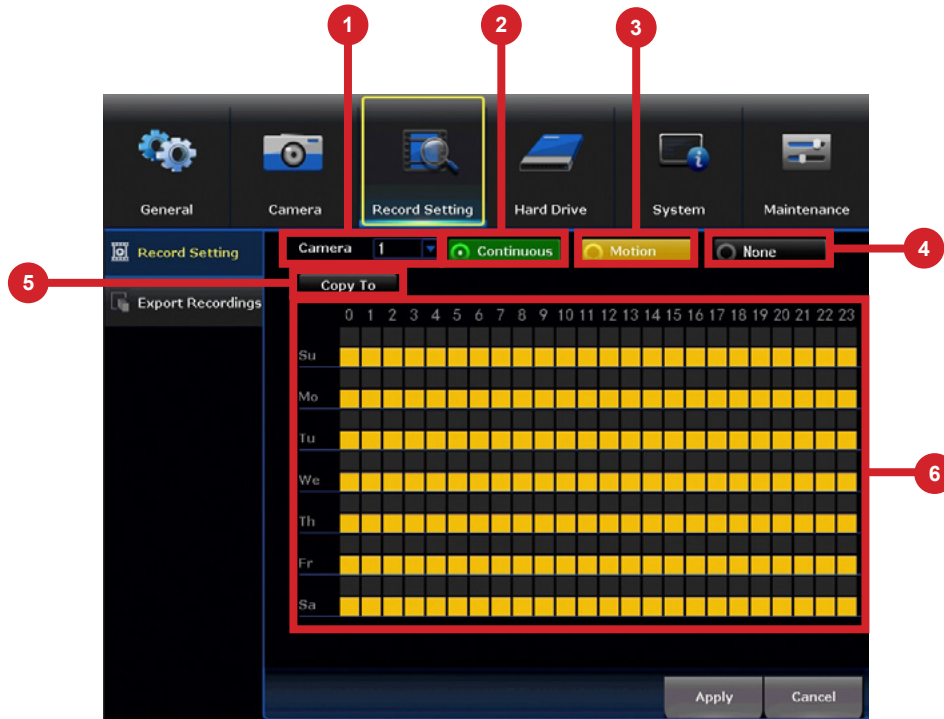
Start: Begins the process of updating the firmware of the selected camera.

Allow The Device To Downgrade: Click to enable or disable firmware downgrade option. This allows downgrades when using a USB or Network to perform an update.

7.3 Record

The Record menu will allow access to the Record Settings and Export Recordings submenus. From these submenus, it will be possible to manage the settings for those categories.

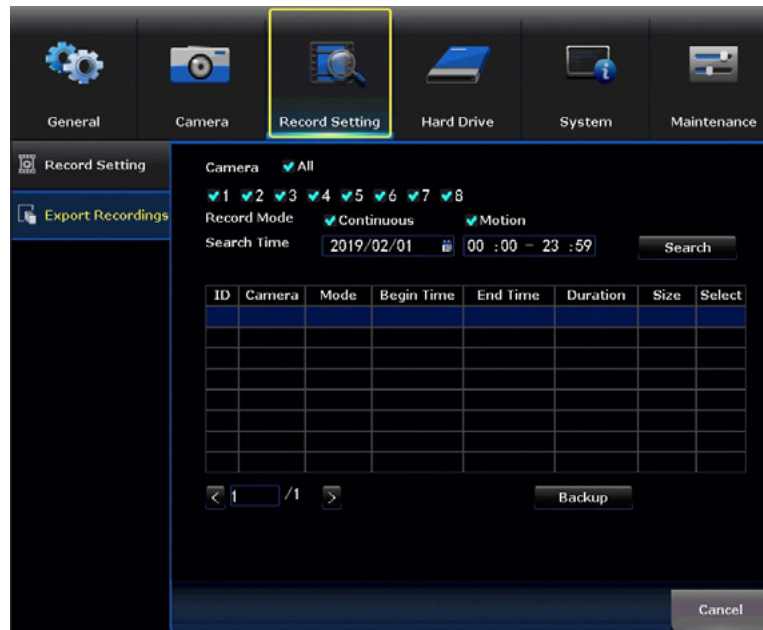
7.3.1 Status



- 1 **Camera:** Choose which camera to edit.
- 2 **Continuous:** Enable the selection of the continuous recording in the time diagram.
- 3 **Motion:** Enable the selection of the motion recording in the time diagram.
- 4 **None:** Disable the selection of both continuous and motion recordings.
- 5 **Copy To:** Allows you to copy the configuration for one camera to another.
- 6 **Time Diagram:** Shows a diagram (hours of the day x day of the week). Use this diagram to apply motion recordings and/or continuous recordings during specified periods.

7.3.2 Export Recordings

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.



Camera: Select which camera(s) to search for recordings.

Recording Mode: Select which recording type to search for. Choose *Continuous*, *Motion* or both.

Search Time: Set a date and time range to search for recordings.

Table: Shows all the recordings found with current search parameters.

USB Storage: Allows you to backup recordings. By default, *USB Storage* (flash drive or external HDD).

Export: Lets you export a recording located in the table to the selected storage.

Backup: Create additional files of your recordings on an external storage device.

7.4 Hard Drive



Hard Disk List: List of all the hard drives, including their characteristics, installed on the NVR.

Overwrite: Old footage is automatically recorded over when the HDD becomes full. Overwrite is selected by default.

Format: Reformats the HDD, erasing all stored recordings. If the HDD is malfunctioning, a reformat is recommended before replacement.

Disable: Allows you to choose Disable or Enable the automatic deletion of old files. This feature, if Enabled, will automatically delete all files not within the specified day range.

7.5 System

The System menu will allow access to the System Settings, including, NVR WiFi Settings, User Management, Device Info, Log and Camera Speed submenus. From these submenus, it will be possible manage the settings for those categories of the NVR.

7.5.1 System Settings



Language: Choose between English, Spanish and French.

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

Auto Logout: Enable or Disable auto logout. If Disabled, the NVR will remain logged in.

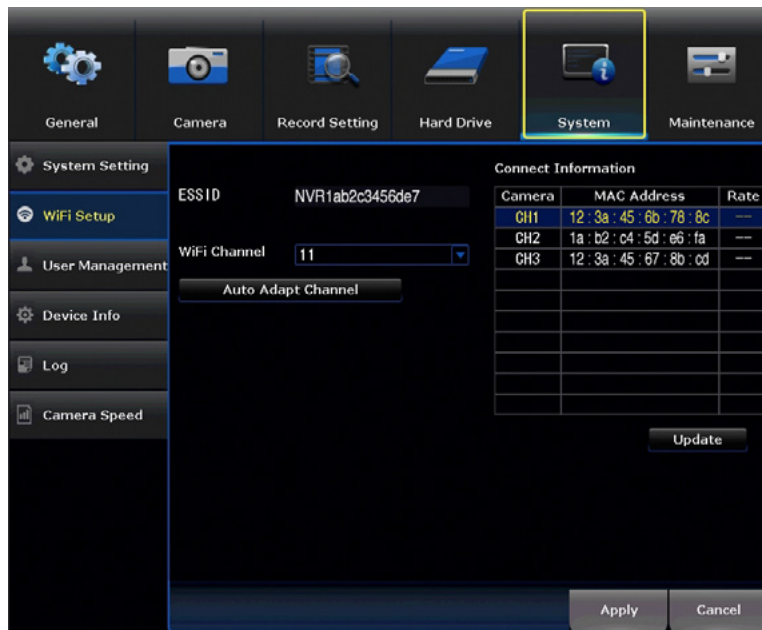
Slide Show Interval: Adjust the length of time that each channel is displayed during the sequential view. You can select between 1 and 300 seconds per channel.

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

Startup Wizard: If Enabled, the Startup Wizard will launch every time the system reboots.

Apply: Applies all changes made.

7.5.2 WiFi Setup



SSID: The Wi-Fi name of the NVR.

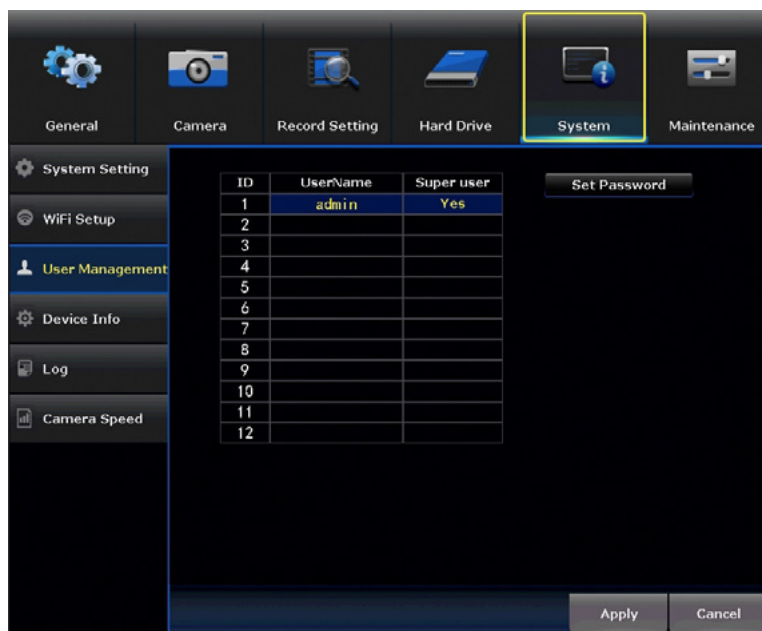
Connect Information: Lists all of the MAC addresses for connected cameras and their signal strength.

WiFi Channel: Selector for Wi-Fi channel, in a 2.4 GHz bands, Wi-Fi can transmit between 1-11 channels.

Auto Adapt Channel: Manually change the Wi-Fi channel.

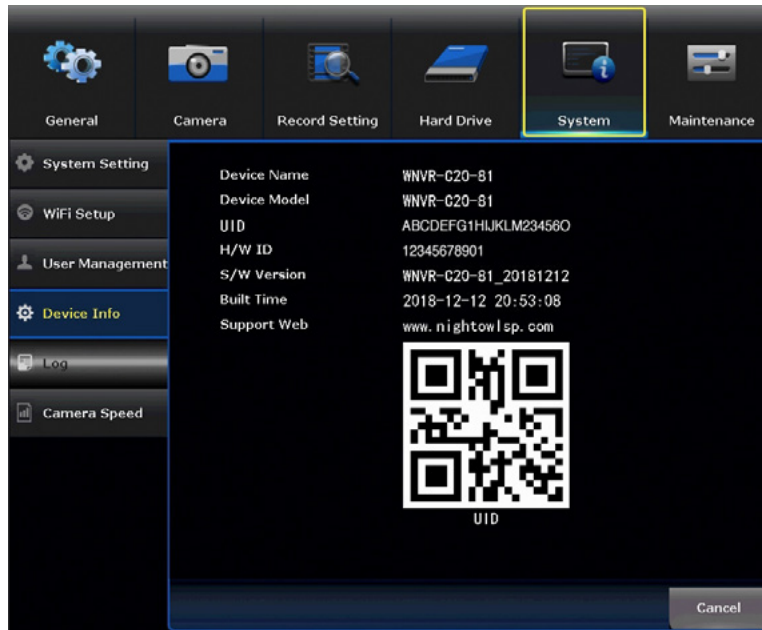
Update: Refreshes the Cameras listed in the Connection Information.

7.5.3 User Management



Set Password: Change the password for the selected user.

7.5.4 Device Info



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

Device Model: Displays your NVR model number.

UID: Unique Device ID number that identifies your NVR.

Hardware ID: The current hardware version of your NVR.

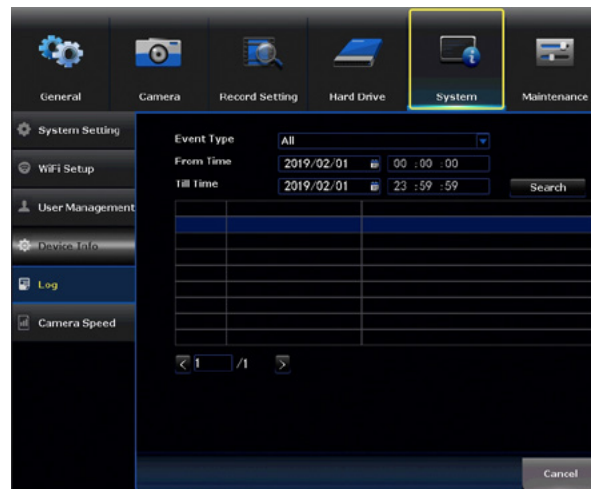
Software Version: The current firmware version of your NVR.

Built Time: The date and release time for the current firmware.

Support Web: Night Owl support site web address.

QR Code: QR code that represents the UID number of the NVR. You can scan this when performing a QR code setup to add this NVR to the Night Owl Connect App.

7.5.5 Log



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

From Time: The date and time to start the search.

Till Time: The date and time to finish the search.

Search: Performs a search of the logs. All items found will appear in the table.

Table: Lists all the events found under your search parameter.

7.5.6 Camera Speed

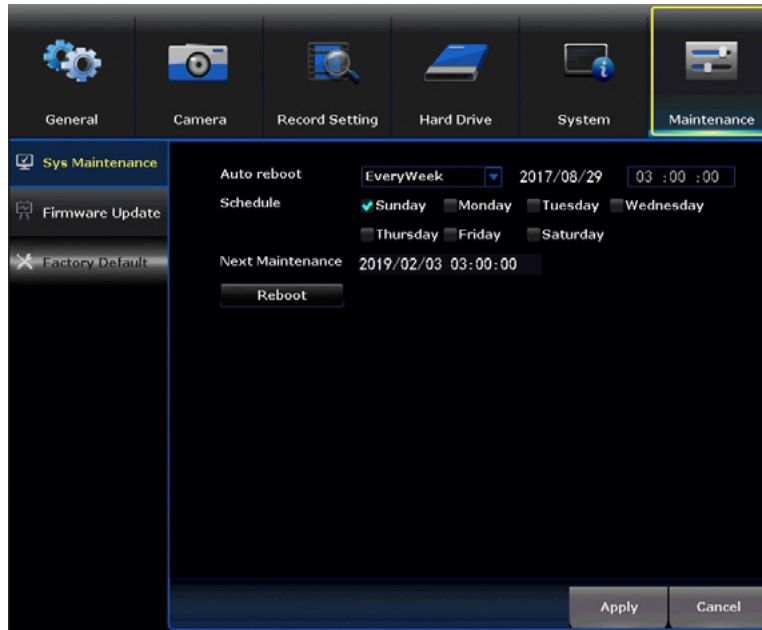


Camera: Displays the amount of bandwidth used by each camera in real-time in Kb/s and MB/H.

7.6 Maintenance

The Maintain menu will allow access to the Sys Maintenance, Firmware Update and Factory Default submenus. From these submenus, it will be possible manage the settings for these categories.

7.6.1 Sys Maintenance



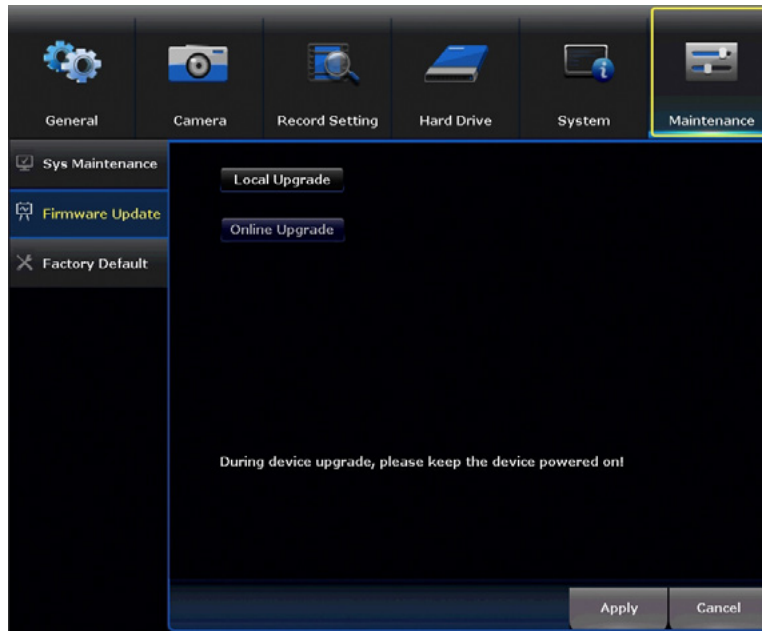
Auto Reboot: Determine how often an auto reboot will occur.

Schedule: Schedule the reboot frequency.

Next Maintenance: Shows the date and time of the next reboot.

Reboot: Manually reboot the NVR.

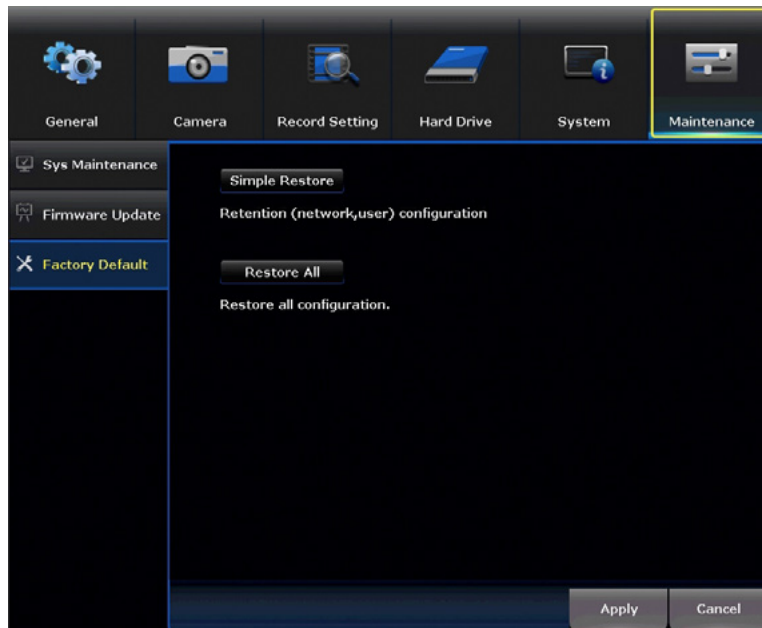
7.6.2 Firmware Update



Local Upgrade: Select to upgrade device from a USB device.

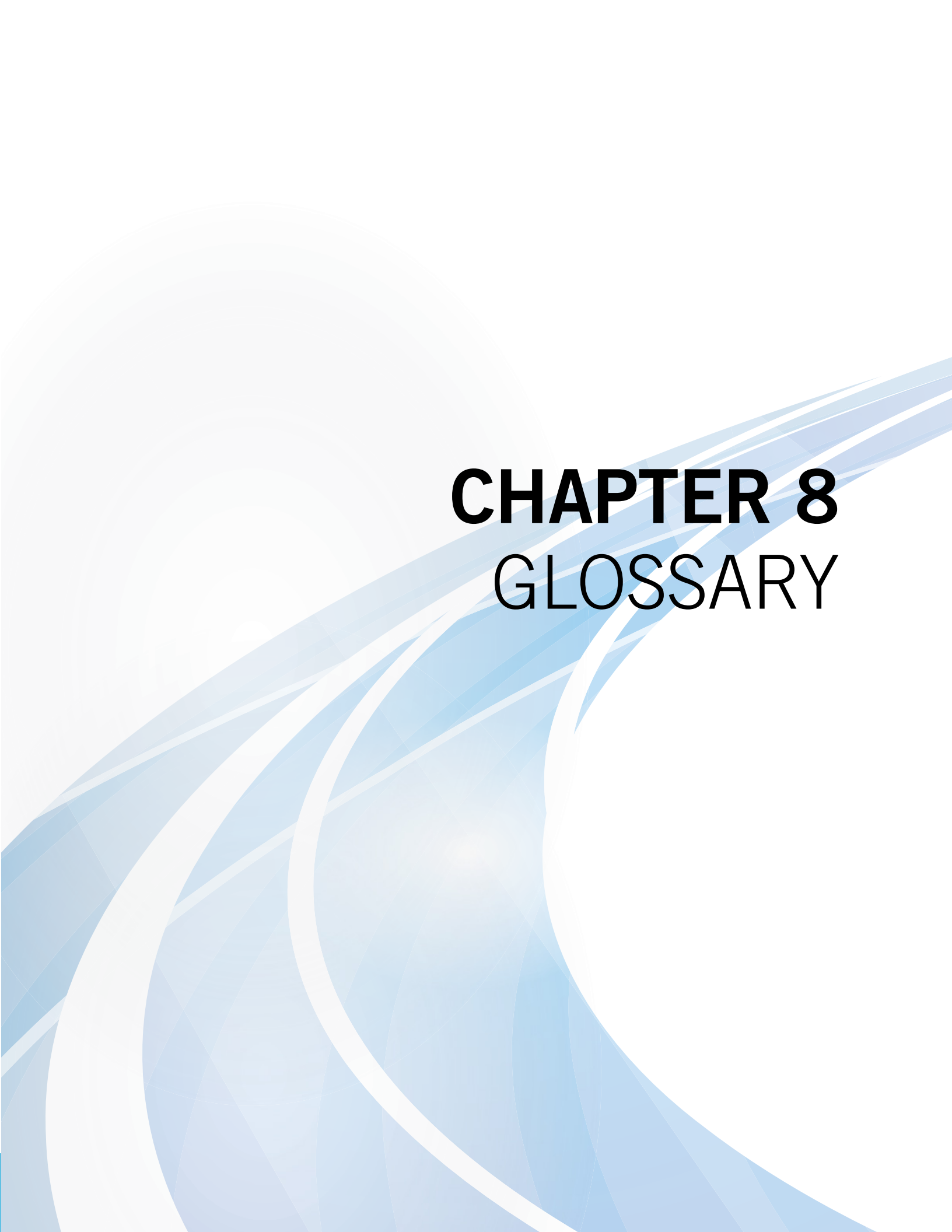
Online Upgrade: Select to upgrade device from the network.

7.6.3 Factory Default



Simple Restore: Factory restore the settings for both the network and user.

Restore All: Restore all configuration, such as user, network, and cameras.



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.

OSD: On Screen Display.

PIR: Passive Infrared. Heat-based sensors eliminate most false alarms and only delivers alerts when people, animals or vehicles are detected.

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.



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 (no CODs) to the address below, 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.

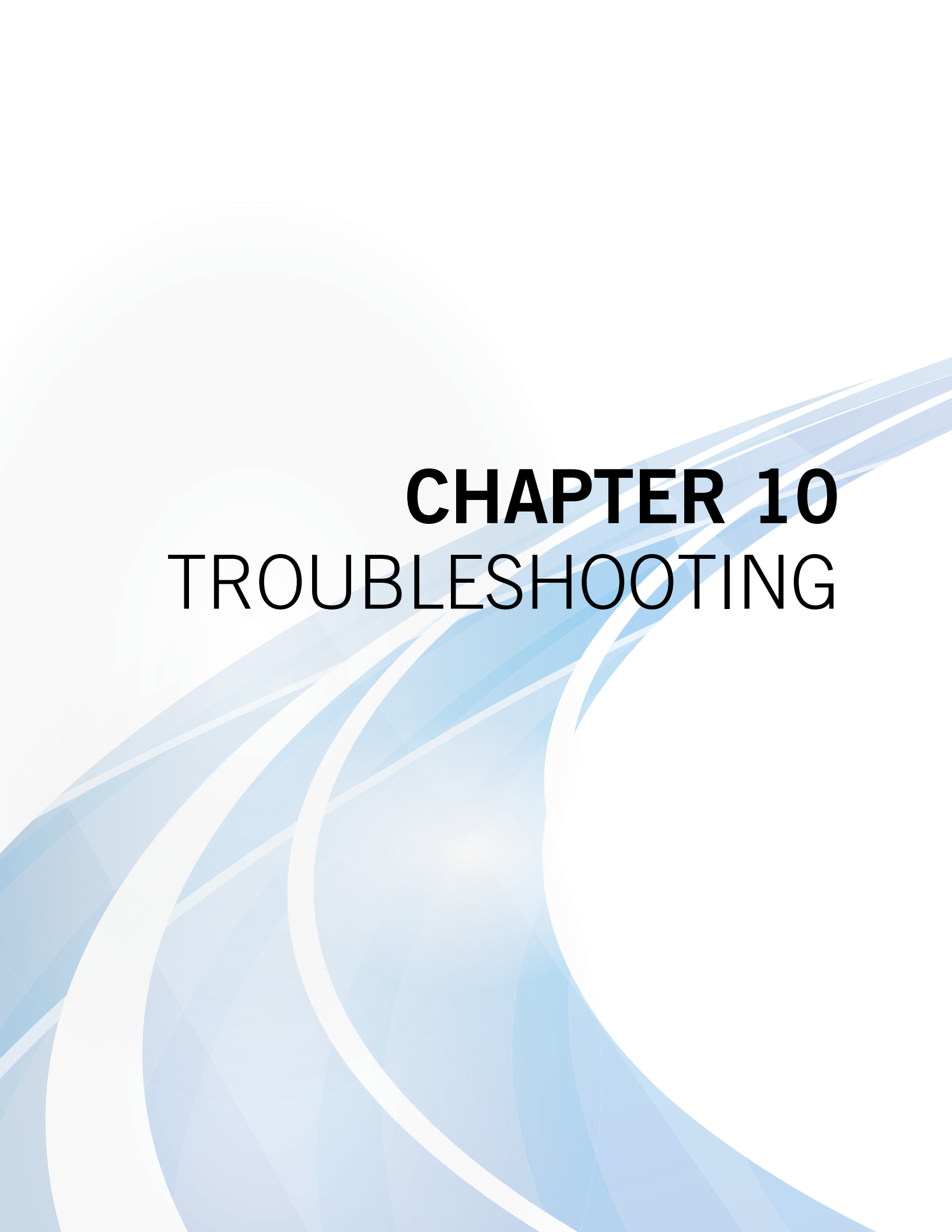
Returns Under This Warranty

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.NightOwlISP.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

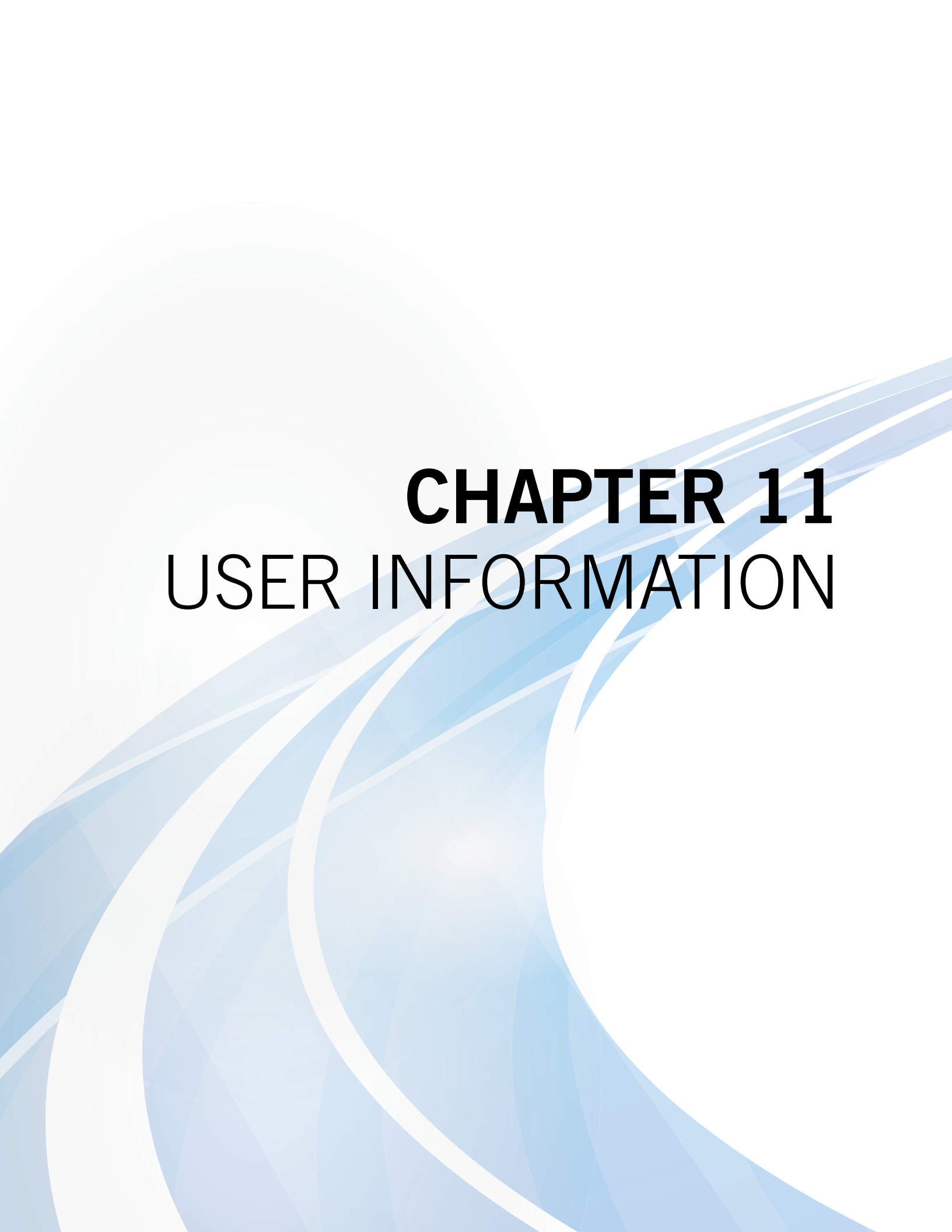
TROUBLESHOOTING

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
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 disable.	Right click in Live View and ensure Volume is enabled.
	Volume on external speakers (not included) is low or off.	Increase volume on external speakers (not included).
A “whirring” noise is coming from the system.	Fan is active.	The noise means the exhaust fan is working normal.
The system beeps at startup.		The beep at startup is normal.
The system beeps during motion detection.	Motion detection is enabled and the alarm is activated.	Go to the General Menu > Video Alarm, select the channel and turn Audible Warning to off.



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

NOTE: Your Component Model Number can be found by accessing the System menu and Device Info submenu.

Admin Password: _____

User Password: _____

Component Model Number: _____

Internet Login Information

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

Mac Address: _____

Web Port: _____

IP Address: _____

Subnet Mask: _____

Gateway: _____

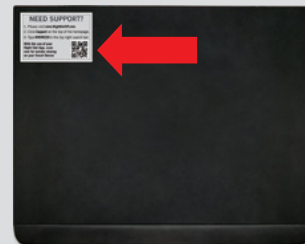
Preferred DNS: _____



Need Help?

For system manuals, troubleshooting guides, FAQs, video tutorials and more:

Please refer to the sticker located on top of the device for steps on how to access your product's support material.



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@NightOwlISP.com

Technical Support

Support@NightOwlISP.com

WEBSITE

24/7 Product Support

- How-To Videos
- Manuals

www.NightOwlISP.com



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 190211