# NIGHT OWL®

# WNIP2 SERIES

## FW VERSION WNIP2-20200918



**www.NightOwlSP.com**

**24/7 SUPPORT**
English
Español / Français

**NIGHT OWL PROTECT**

# 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 have access to our vast library of free instructional "How to Videos."

For a step-by-step video showing the basic hardware setup of the WNIP2 system, please go to **support.nightowlsp.com** and enter WNIP2 into the search bar.

For all of our Support Videos, click **www.youtube.com/nightowlsp** to access Night Owl's YouTube page.



## Night Owl's WNIP2 Series Camera Compatibility:

Night Owl's WNIP2 Series Wi-Fi NVRs are compatible with the following camera model numbers:

- **WNIP-2LTA-BS**
- **WNIP-2LTA-BS-U**
- **DB-WNIP2-SU**
- **BWNIP-2TA-BS**

WNIP2 series cameras and Wi-Fi NVR are specific to the WNIP2 series and are not backward compatible with other Night Owl® Wi-Fi products. 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.

# Table of Contents

Night Owl's Wi-Fi NVRs are manufactured for quality and ease of use. As such, our Wi-Fi 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.

# 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.
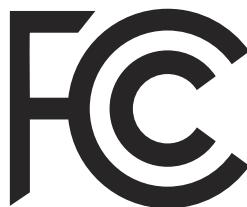


## CAUTION!

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.

# 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 Wi-Fi NVR CASE OR ITS OPENINGS.**
Inserting metal into the Wi-Fi NVR case may cause electric shock.

**DO NOT OPERATE IN WET OR DUSTY AREAS.**
Avoid placing the Wi-Fi NVR in areas such as a damp basement or dusty attic.

**DO NOT EXPOSE THE Wi-Fi NVR TO RAIN OR USE NEAR WATER.**
If the Wi-Fi NVR accidentally gets wet, unplug it and contact technical support immediately.

**KEEP PRODUCT SURFACES CLEAN AND DRY.**
To clean the outside case of the Wi-Fi NVR, use a lightly dampened cloth. Do not use cleaning solutions or solvents.

**DO NOT INSTALL NEAR ANY HEAT SOURCES.**
Do not install the Wi-Fi NVR near any heat sources such as stoves, heat registers, radiators or electronics (including amplifiers) that produce heat.

**UNPLUG THE Wi-Fi NVR WHEN MOVING IT.**
Make sure that the Wi-Fi 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 Wi-Fi NVR.**
This Wi-Fi NVR uses an internal hard drive, which generates heat during operation for video storage. Do not block vents on the Wi-Fi 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 Wi-Fi NVR immediately and contact technical support. Do not attempt to open the Wi-Fi NVR to diagnose the cause of the problem.

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

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

## CAUTION!

⚠ **You may be subjected to severe electrical shock if you remove the cover of the Wi-Fi NVR.**

# Specifications

## 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™: 8.0 and above
- iOS®: 12.4 and above

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.

## Package Contents

*DISCLAIMER: Package contents vary by model number, please refer to your Quick Setup Guide for a complete list of contents.*

Wi-Fi NVR
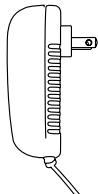
Camera(s)

Wi-Fi NVR Power Adapter (x1)

6 ft. HDMI Cable (x1)

6 ft. Ethernet Cable (x1)
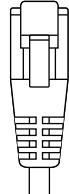
Wi-Fi Camera Antenna(s) (1 per Camera)
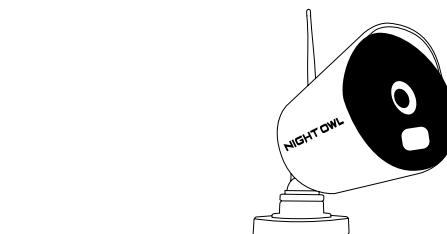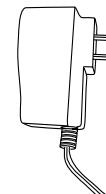
Camera Power Adapter(s) (1 per Camera)
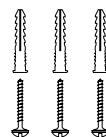
Mounting Hardware (Varies by Model)
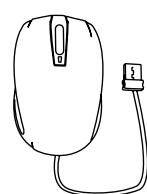
USB Mouse (x1)

Wi-Fi NVR Antenna (x2)
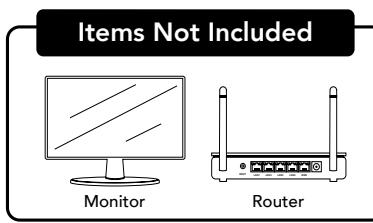
**Items Not Included**
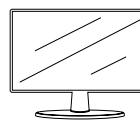
Monitor
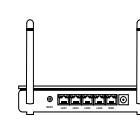
Router

**NOTE:** A TV or Monitor with a minimum 1080p HD resolution and an HDMI input is required for the initial setup. Use all of the included Night Owl accessories. Third-party accessories may not work correctly.

# Wi-Fi NVR Diagram

## FRONT VIEW

NIGHT OWL

## REAR VIEW

5  ANTENNA
GROUND

5  ANTENNA

HDMI  1
LAN  2
USB X2  3
POWER 12V  4
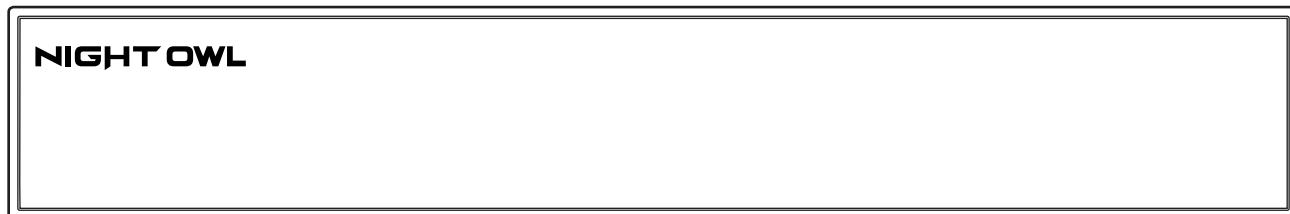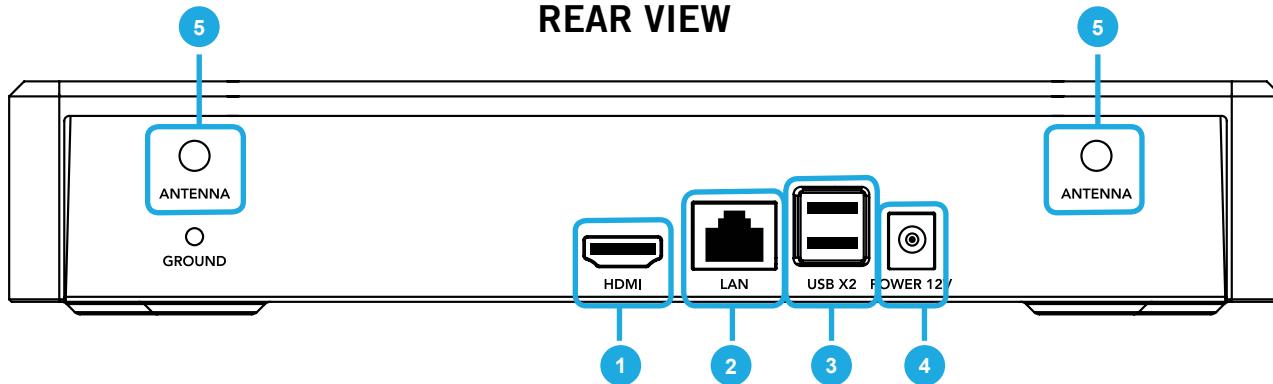
*Images used are for reference only. Your product may vary slightly depending on your model number.*

**1** **HDMI Port** – Connects the Wi-Fi NVR to a TV or Monitor using an HDMI cable.

**2** **RJ-45 (Ethernet) Port** – Used to connect the Wi-Fi NVR to your modem/router for remote viewing. Please note that your Wi-Fi NVR comes with built-in Wi-Fi for the cameras to transmit to the Wi-Fi NVR. However, you will need to manually connect the Wi-Fi NVR to your modem/router to remotely view on a smart device or PC/Mac®.

**3** **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 Wi-Fi NVR's menu interface. You will connect a USB flash drive to download video files from the Wi-Fi NVR for long term storage or sharing.

**4** **Power Input** – Used to connect the included 12V DC power supply.

**5** **Wi-Fi NVR Antenna Mounts** – For installation of the two included Wi-Fi NVR antennas.

## Camera Diagram

**CAMERA**

- Facial Capture
- Wide Viewing Angle 80°
- Night Vision up to 100 ft.
- Human Detection Technology
- Motion-Activated Spotlight
- 2-Way Audio Enabled

NIGHT OWL
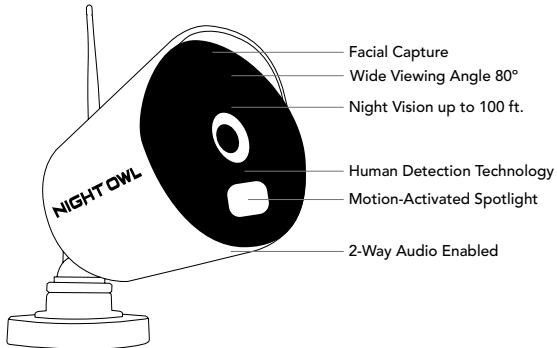
**STOP** Connect and pair all cameras locally before final placement to ensure that all components function properly.

## Mouse Diagram

**MOUSE**

- Left/Select Button
- Scroll Wheel
- Right/Menu Button
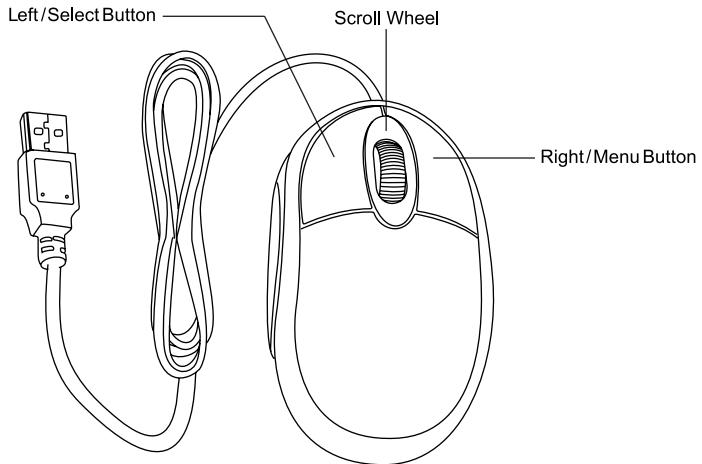
### Live Viewing:
Double-click the left button on any camera view in split-screen mode to bring it to full screen display. Double-click again to return to split-screen mode. Right-click to show the Tool Bar at the bottom of the screen. Left click on the Tool Bar or Menu to access the device's features.

### 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 1: Connecting Your System
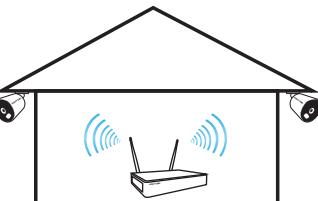
**1**

Place the Wi-Fi NVR in a central location. The Wi-Fi NVR must be within the range of all the cameras' final mounting positions.
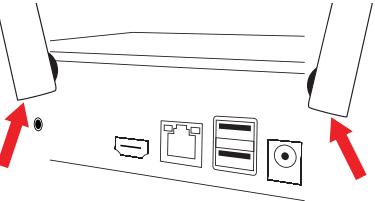
**2**

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

**3**
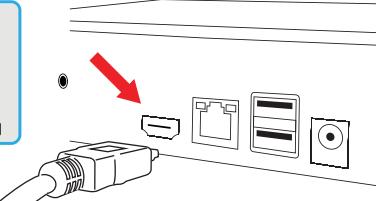
HDMI

Plug one end of the included HDMI cable into the HDMI port on the back of the Wi-Fi NVR.

**4**
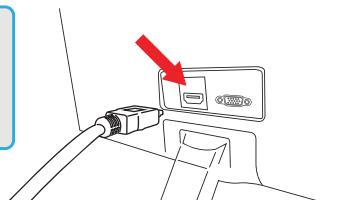
HDMI

Plug the other end of the HDMI cable into the back of your TV or Monitor.

**NOTE:** To view cameras, TV / Monitor must be tuned to the same input the HDMI is plugged into.

**5**
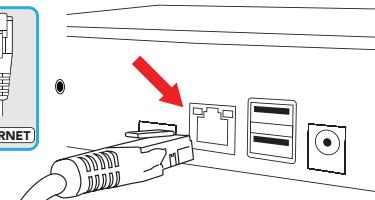
ETHERNET

Plug one end of the included Ethernet cable into the LAN port on the back of the Wi-Fi NVR.

**6**

ETHERNET

LAN3 LAN4 WAN
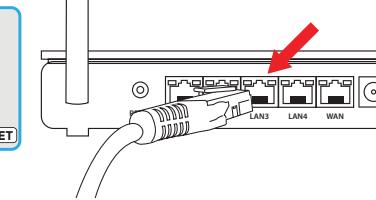
Plug the other end of the Ethernet cable into a port on the back of your router or modem. (Router Not Included)

**7**

USB
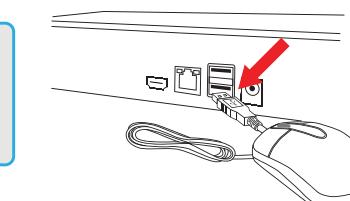
Plug the USB mouse into the USB port on the back of the Wi-Fi NVR.

**8**
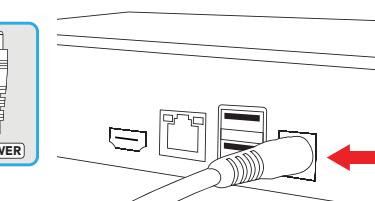
POWER

Connect the Wi-Fi NVR power adapter to the Power Input on the rear of the Wi-Fi NVR.
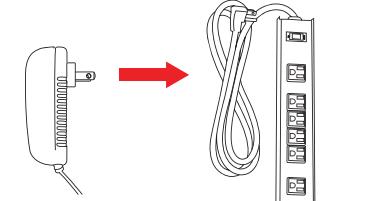
**9**

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

**10**

NIGHT OWL
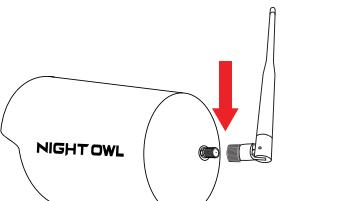
Connect the included camera antenna to the antenna mount on the back of the camera. Repeat with each camera.

**11**

NIGHT OWL

Connect all of the cameras to power adapters and plug them into an outlet within 10 feet of the Wi-Fi NVR.
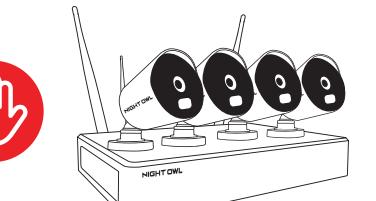
NIGHT OWL NIGHT OWL

**STOP:** BEFORE installing, the cameras must be paired to the Wi-Fi NVR. Do not mount the cameras until you have completed Step 3: Startup Wizard.

**1** If you're a First Time User, download Night Owl Protect from the App Store or Google Play Store onto your Smart Device. If you already have an account skip to Step 3a.



**2** Create and verify your Night Owl Protect account. Use the Night Owl Protect login credentials to log into the Wi-Fi NVR in Step 3.1a.
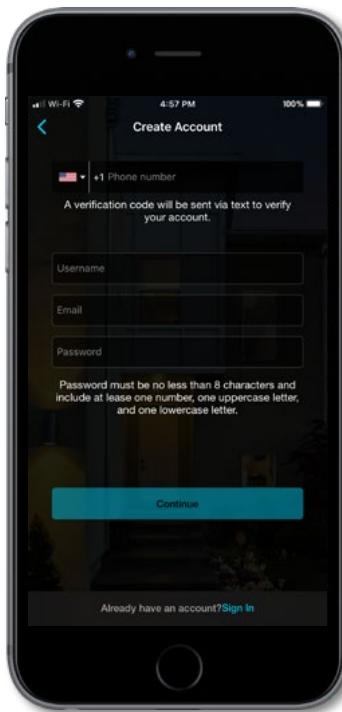


**NOTE: Setup is the same for Smartphone and Tablet.**

# Chapter 3: Startup Wizard

**STOP** | If you are NOT connecting your Wi-Fi NVR to the Internet, follow the onscreen steps for updating firmware, device registration, and pairing cameras. Then, skip to "I Don't Want to Connect the Wi-Fi NVR to the Internet."

## 3.1 Connected to the Internet

**A** When prompted, log in using the Night Owl Protect App credentials created in Step 2.

**NOTE:** The Wi-Fi NVR is automatically added to the Night Owl Protect App when you log in using your Night Owl Protect credentials.

**B** Follow the onscreen steps to pair the cameras to the Wi-Fi NVR.

**NOTE:** When powered on, the cameras are in pairing mode (Green Status Light flashes rapidly). Refer to the "Pairing Mode" section if a camera is not in pairing mode.

**C** Make sure you see all of the cameras in the Live View before completing the Startup Wizard.

**STOP** | **Night Owl Strongly Recommends connecting the Wi-Fi NVR to the Internet. If you have decided not to connect:**

- **You must manually update the device's firmware to the latest version to receive Technical Phone Support. The latest firmware version is available on the device's support page on the Night Owl Support Site.**

- **The Wi-Fi NVR must be registered to receive Technical Phone Support.**

- **You cannot view your system remotely.**

- **Resetting your password is a much longer process to ensure security**



**A** Go to **NightOwlSP.com/NOProtect** to register the Wi-Fi NVR. Use the information found on the Wi-Fi NVR's support sticker to complete registration.
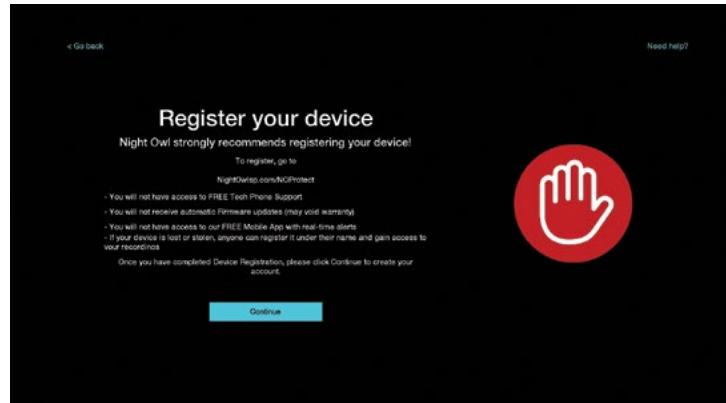


**B** Create Local Password

1. Default username is "admin"

2. Create a password (any alphanumeric combo with a minimum of 8 characters; MUST include a number, a lowercase, and uppercase letter).

3. Click "Continue" to go to the Login Screen.
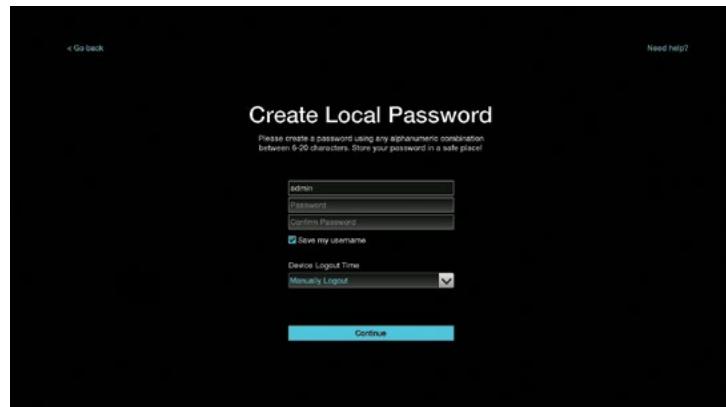
**C** Once the Wi-Fi NVR is added to the App, complete the Startup Wizard and camera installation.

**If a Camera is not in Pairing Mode**

- Make sure the camera is close to the Wi-Fi NVR and powered on.
- Insert a pin into the Reset Hole and press and hold for 5 seconds.
- Wait for the green Status Light to flash rapidly.
- Return to the Startup Wizard and search for the camera.

If you want to replace a camera, the replacement camera needs to be paired with the Wi-Fi NVR. The Wi-Fi NVR has an independent built-in Wi-Fi network for secure, uninterrupted video transmission and recording. Pairing allows the Wi-Fi NVR to detect the transmission from the camera.

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

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

1. Power on the replacement camera using the camera power adapter.
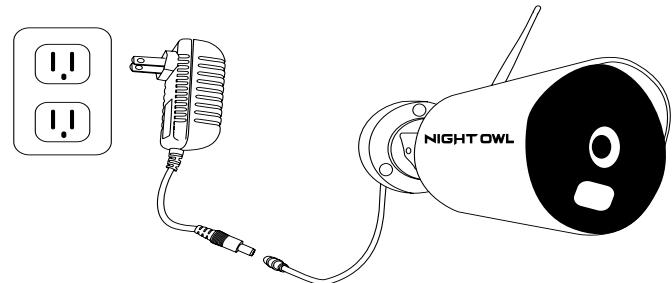
**NOTE:** This should be done locally at the Wi-Fi NVR to avoid interference.

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

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

3.
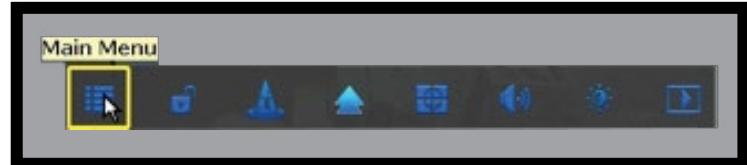
A. Go to the Camera Menu and Select the **Add Camera** tab on the left side of the menu.

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 Wi-Fi NVR.
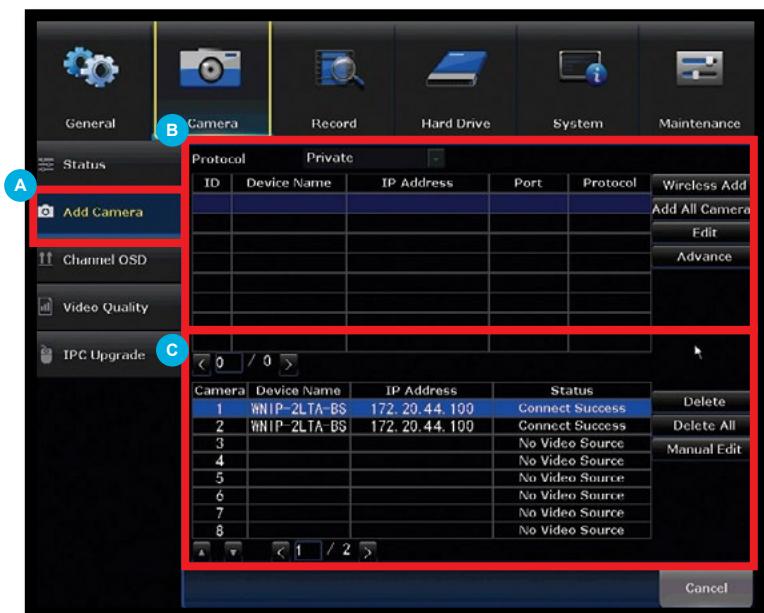
**4** Next, you will need to reset the replacement camera. Lift the rubber piece labeled SD/Reset. Using the included reset pin, press and hold the reset button until you hear a voice prompt indicating the camera is resetting.
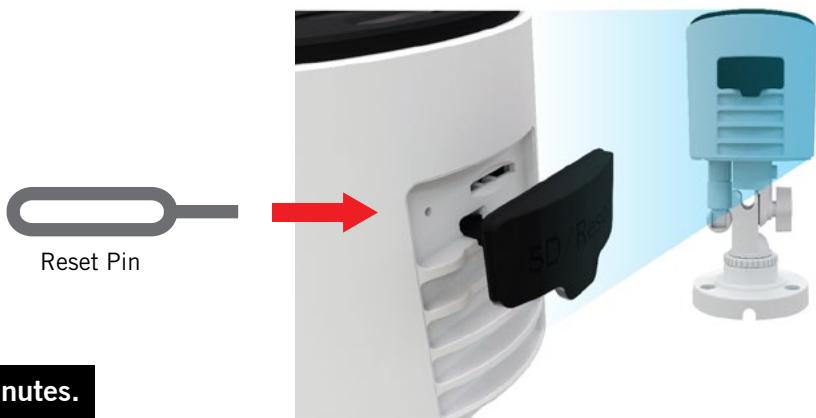


Reset Pin

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

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**5**

**A** After 3 minutes have passed or after hearing the camera beep, click on Wireless Add located on the Add Camera screen. Your Wi-Fi 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 Wi-Fi NVR finishes the process of finding and pairing the new camera.



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**6** Within the **Wireless Add** screen, the "Connected Cameras" number signifies those cameras that are already paired to the Wi-Fi NVR and will not immediately reflect this new camera.



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

# Chapter 5: Mounting the Cameras



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

● **Camera distance from Wi-Fi NVR.**
Your Wi-Fi IP cameras will reach up to 300 ft. wirelessly. Therefore, proper placement of the Wi-Fi 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 Wi-Fi NVR and Wi-Fi IP 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.
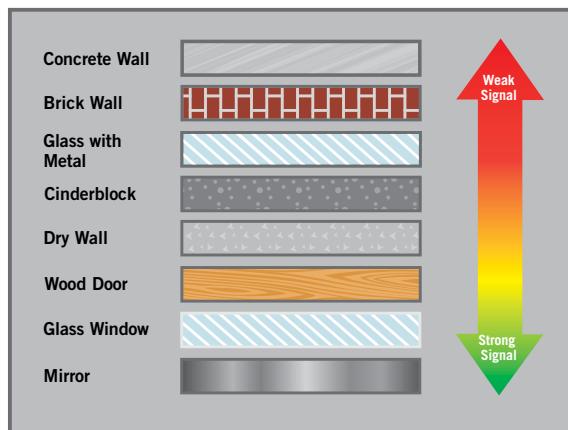


● **Place camera out of reach to avoid vandalism.**

● **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.**

**NOTE:** Do not point the cameras directly into sunlight.

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.
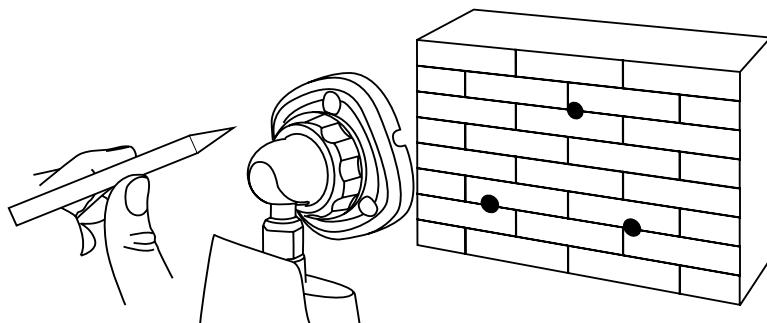


3. Using a drill bit slightly smaller than the included screw anchors, drill into the mounting surface using the guide marks you placed in the previous step.

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.
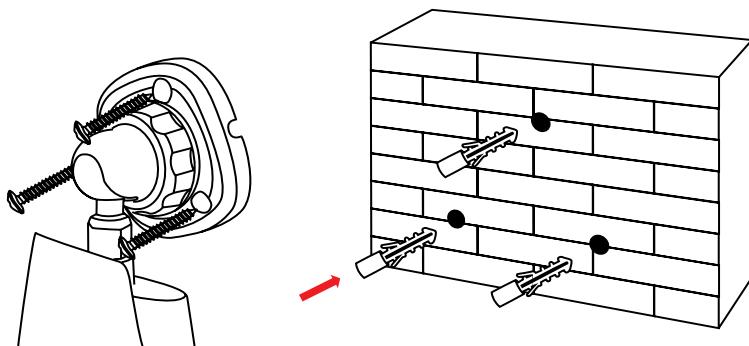


6. Once the base is screwed in place, make sure that the camera is securely mounted by placing gentle pressure on the mount.

7. Adjust the camera housing to point in the direction of the area you would like to monitor.

**NOTE:** The mounting bracket image may vary from your camera, but the installation is the same.

# Chapter 6: Live View

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

## 6.1 Live View (All Channels)

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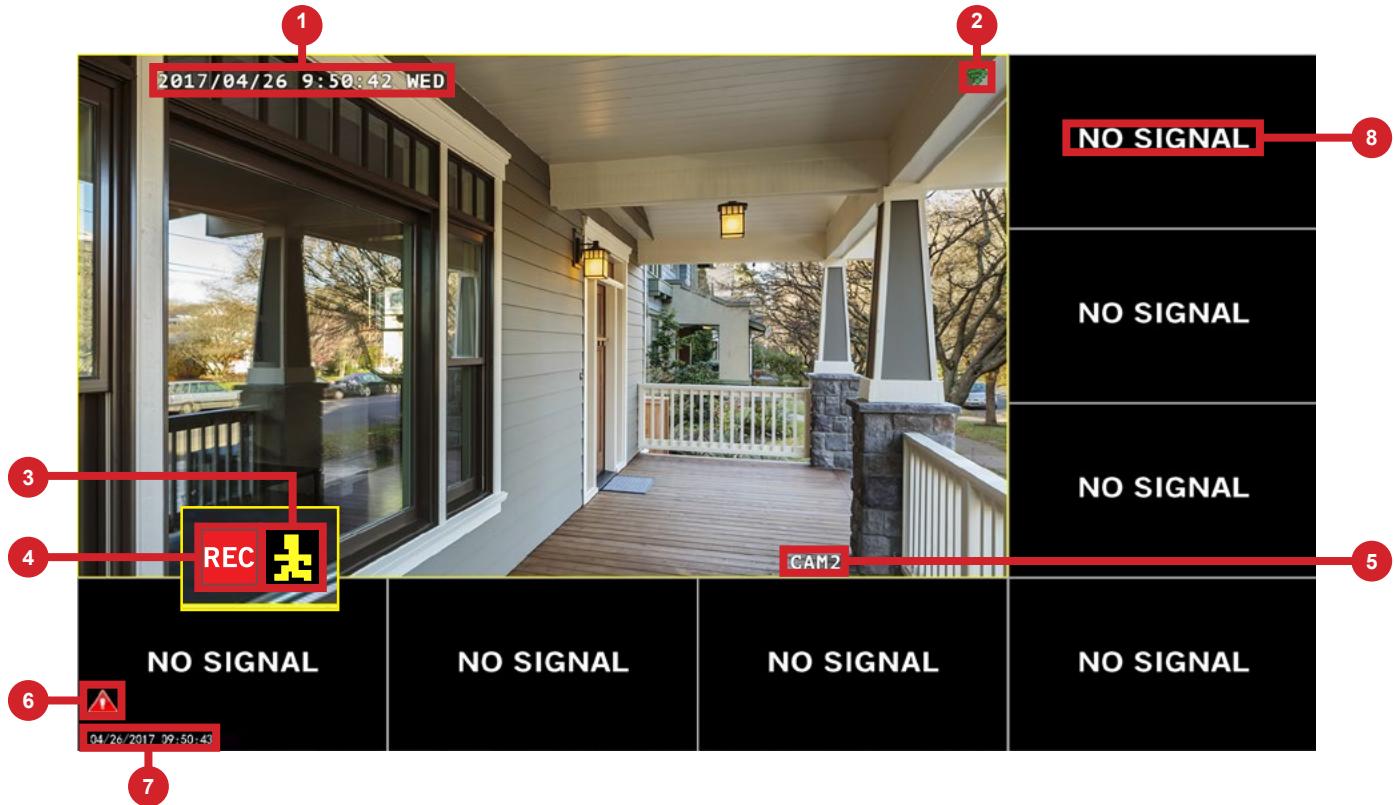


**1**    **Date and Time OSD:** Displays the date and time of your camera.

**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**    **Wi-Fi NVR status Recording Icon:** Indicates that the Wi-Fi 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 Wi-Fi NVR.

**8**    **No Signal:** Shows empty channels without a camera connected.

Right click the mouse on the Live View screen to bring up the Tool Bar.



1. **Menu:** Opens the Main Menu.

2. **Lock:** Locks the system (log out), making it necessary to enter the password to access any 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.

## 6.3 Login/Forget Password

Anytime you want to adjust system settings, you are required to log in with your username and password unless you have selected "Manually Logout" on the Login Menu.

Click "Forget Password" for steps to reset your account's password.



## 6.4 Forget Password: Recorder is Online

Open the Night Owl Protect App and reset the password by clicking on "Forget Password" and following the onscreen instructions. Use the new password to log into your device.

**NOTE:** Your Wi-Fi NVR must be connected to the Internet.

## 6.5 Forget Password: Recorder is Offline

Go to the Night Owl Protect Web Page using the following link: **https://www.no-protect.com/landing/**.

Follow the onscreen instructions to request a reset code. Your Wi-Fi NVR doesn't need to be connected to the Internet.

# Chapter 7: Video Playback

## 7.1 Video Playback
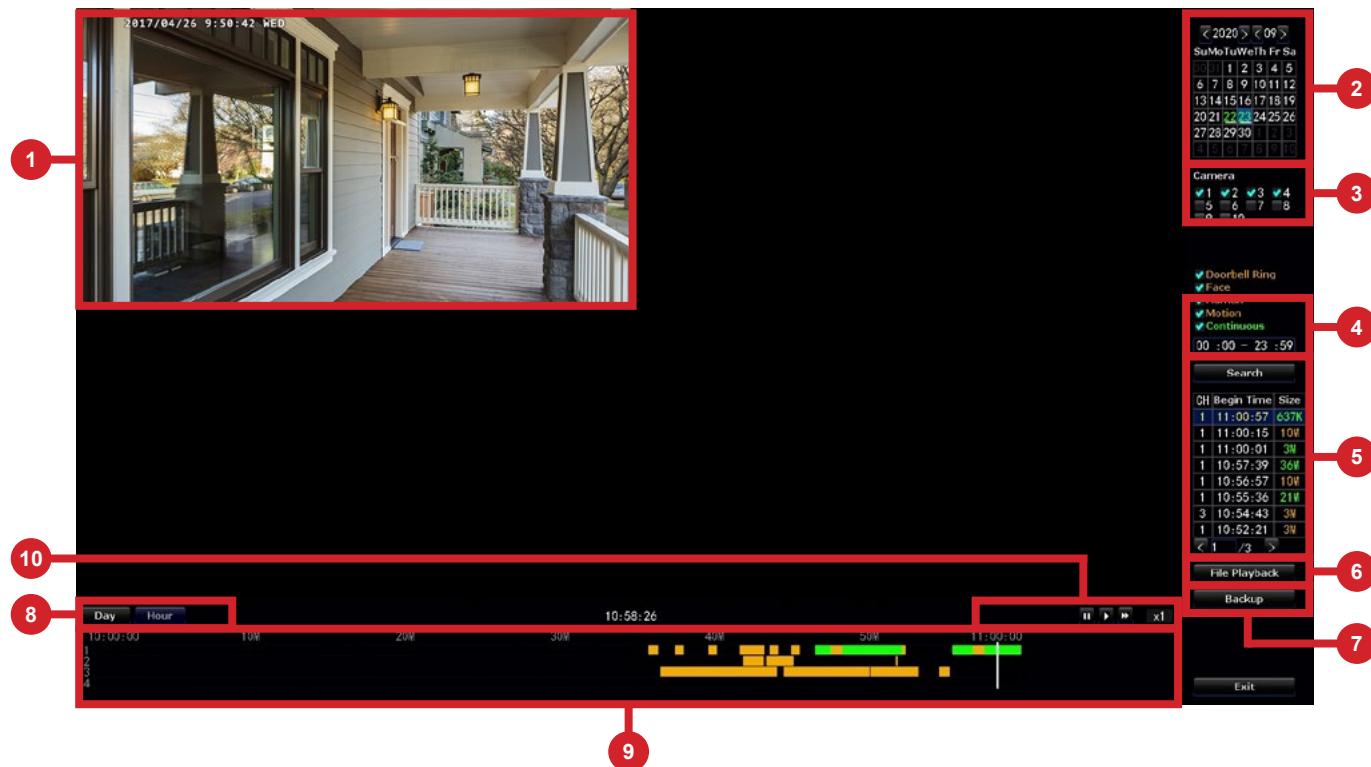


1. **Video Image:** Shows an image of the cameras that have video for the search parameters entered.

2. **Calendar:** Allows you to search by date.

3. **Camera:** Allows you to search certain cameras.

4. **Motion/Continuous:** Allows you to search for Doorbell ring, Face, Human, 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. **Backup:** 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.

## 7.2 Playback a Video Recording

Right click on the **Live View** screen to bring up the **Tool Bar**. Left click ▣ to access the Playback panel. Follow the steps below to watch a Playback:

1. Use the **CALENDAR** to select the time range and date you want to filter. Dates with video recordings are highlighted in green. By default, the device's current date is selected.

2. In the **CAMERA** section, select cameras to filter. You can playback up to 4 cameras at the same time. By default, cameras 1 - 4 are selected.

3. Apply filters **(Doorbell ring, Face, Human, Motion or Continuous)** and click search. The Doorbell ring filter only applies to connected WNIP2 series doorbells.

> **NOTE:** Motion playbacks are highlighted in yellow and Continuous playbacks in green.

4. Select a recording from the **Playback** list. Double click on the selected recording or left click on **File Playback**.

> **NOTE:** You can also play the selected video by sliding the timeline to the left or right.

# Chapter 8: Backup and Export Videos

Backup your recordings on a USB Flash Drive or External HDD. Before inserting a USB Flash Drive or connecting an External HDD to the Wi-Fi NVR, it must be formatted to FAT32/ExFat

## WARNING: Formatting erases ALL data on the USB or HDD

### NOTE: DO NOT connect the Wi-Fi NVR's hard disk drive to your PC or Mac!

## 8.1 Formatting a USB Flash Drive and External HDD

### 8.1.1 Formatting for Windows OS

**1** Insert an empty Flash Drive or connect to an external HDD into a USB port on your PC.
**2** Locate the Windows Key on your keyboard. Press and hold **Window key + Key "E,"** release both when the **File Explorer** pops up.
**3** Find your Flash Drive or external HDD on the left side of the **File Explorer**.
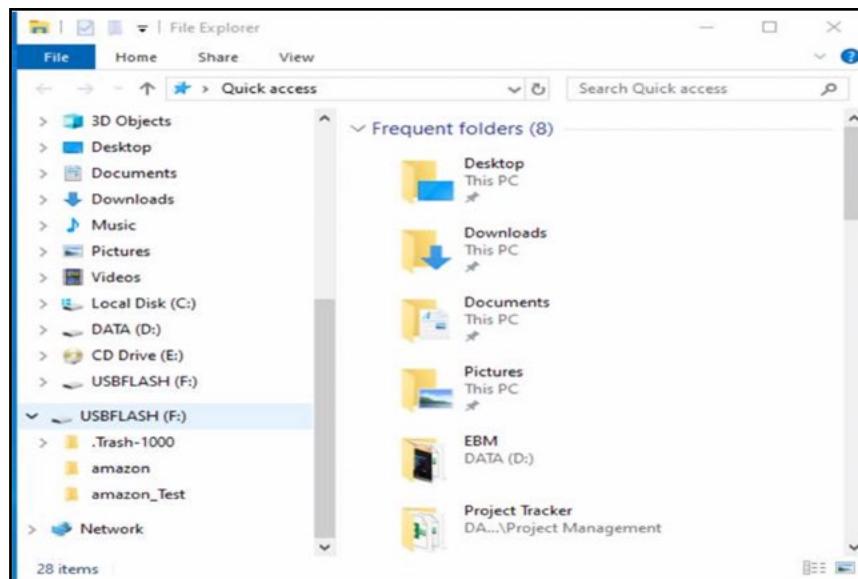


**4** Right click on the Flash Drive or external HDD. A menu window opens. Use an empty USB Flash Drive or external HDD and select it on the File Explorer.

**5** Locate "Format" on the dropdown list and click it. The Format Menu opens.
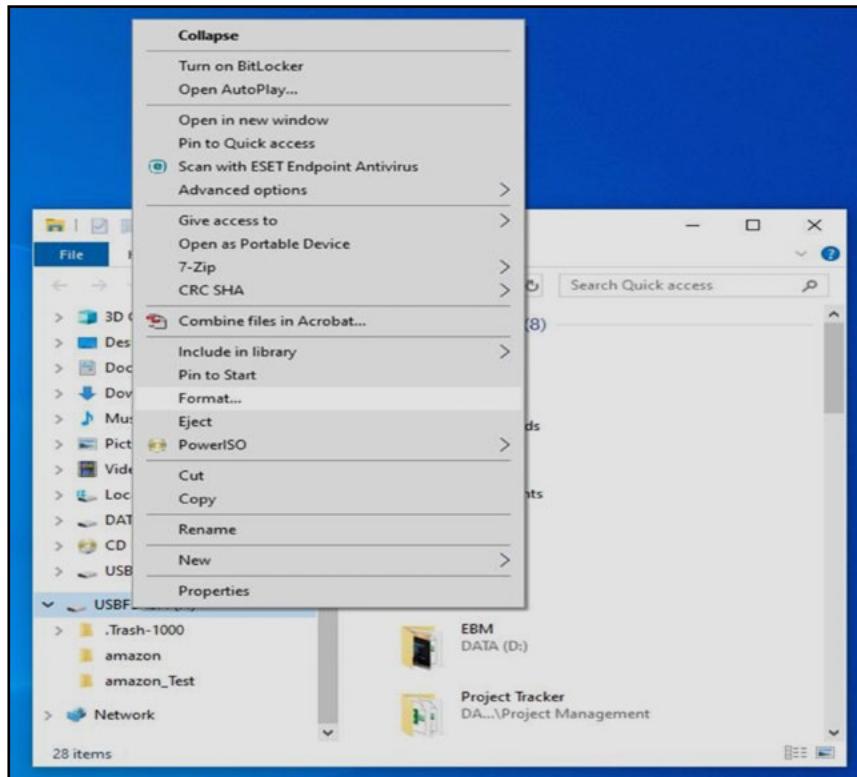


**6** In the "File System" field select FAT32 and click "Start."
**7** Don't unplug the Flash Drive or external HDD until formatting is complete.

## 8.1.2 Formatting for Mac OS

**1** Plug the USB Flash Drive or connect the extenal HDD into your Mac.
**2** Go to Applications>Utilities and launch **Disk Utility**.
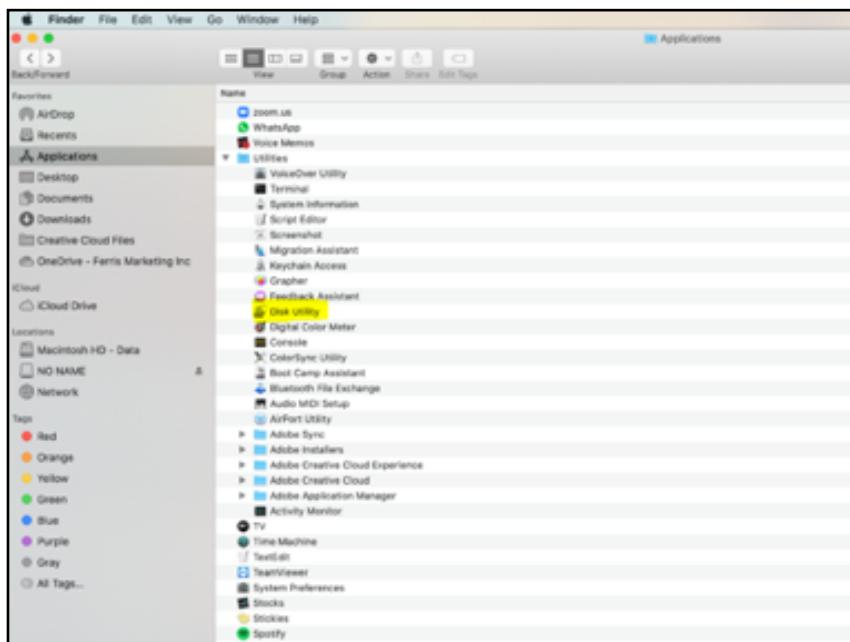
**3** Click the USB Flash Drive or external HDD in the sidebar in Disk Utility.
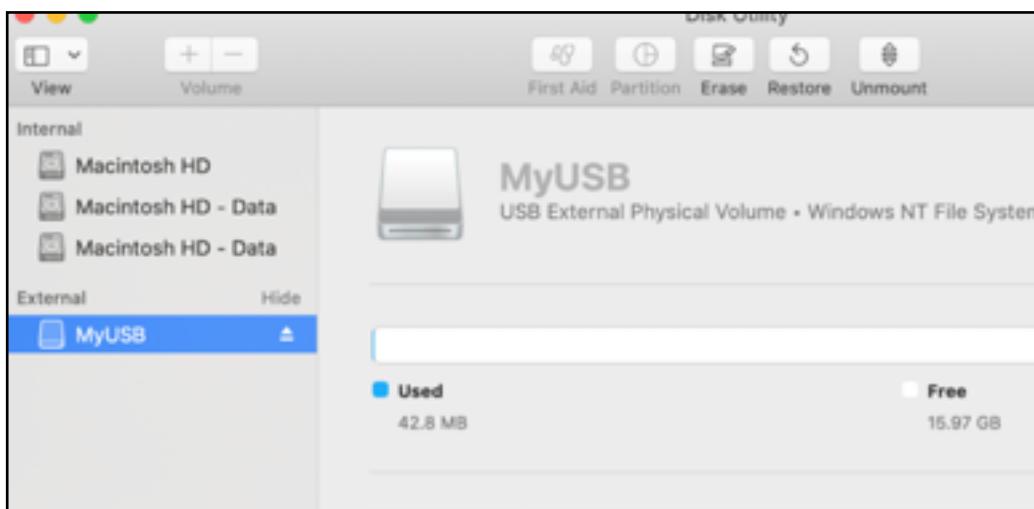


**4** Click "Erase" in the Disk Utility Toolbar.
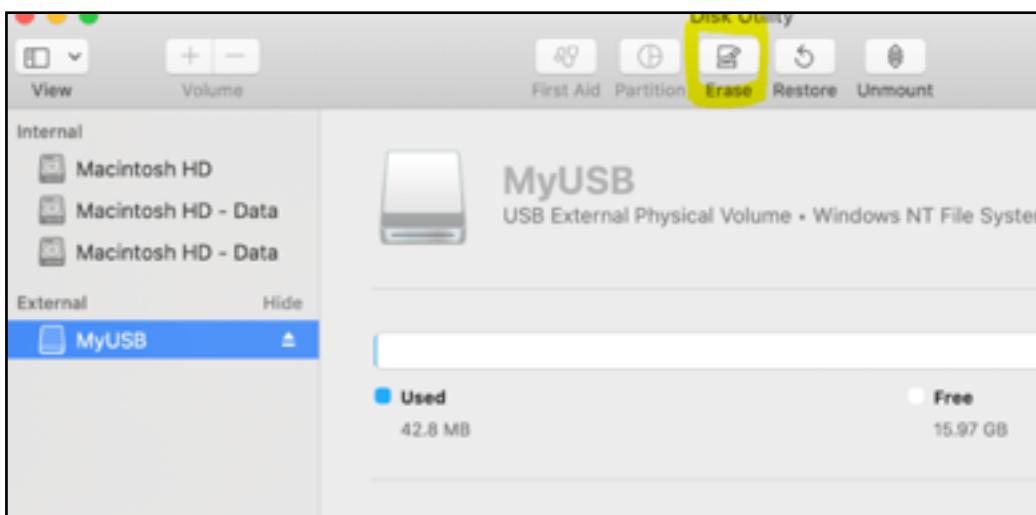


**5** Create a name and click on the Format dropdown menu and choose either MS-DOS (FAT32) or ExFAT.
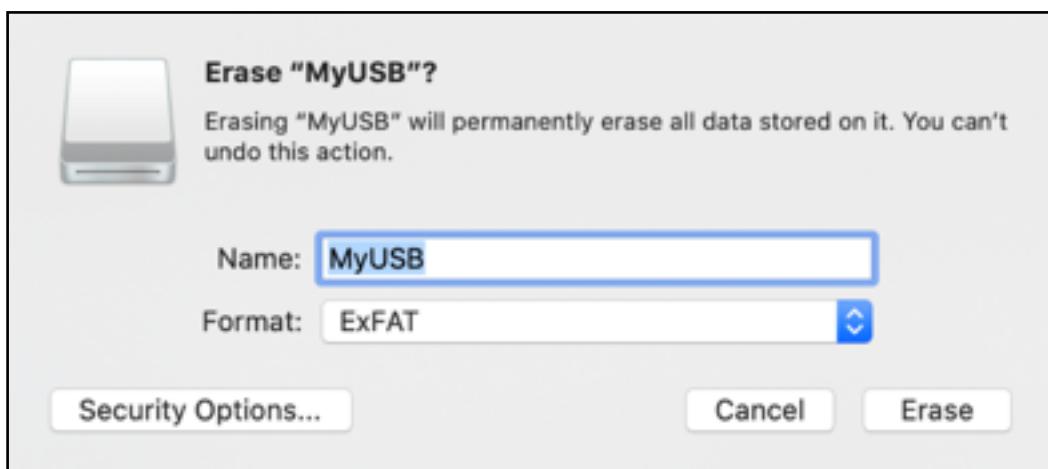


**6** Click "Erase."

## 8.2 Video Backup

Right click on the **Live View** screen to bring up the **Tool Bar**. Left click ▣ to access the Playback panel. Left click ⬇ to open the **Backup Menu**. Follow the steps below to backup video.

① Use the **CALENDAR** to select the time range and date you want to filter. Dates with video recordings are highlighted in green.

② Select the **CHANNEL(s)** to copy.

③ Apply filters **(Doorbell ring, Face, Human, Motion, or Continuous)** and click "Search."

④ Select the recording you want to backup.

⑤ Click **BACKUP** to save the data on a USB Flash Drive or external HDD (USB DEVICE). The backup video is in .MOV format.

**NOTE:** You can also go to MENU > RECORD > EXPORT RECORDINGS and follow the steps below:

1. Select the **CAMERA** channel(s) to copy.

2. Click the **CALENDAR** icon to select the time range and date you want to copy.

3. Apply Recording Mode filters **(Doorbell ring, Face, Human, Motion, or Continuous)** and click "Search."

4. Select the recording you want to backup.

5. Click **BACKUP** to save the data on a USB Flash Drive or external HDD **(USB DEVICE)**. The backup video is in .MOV format.

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).
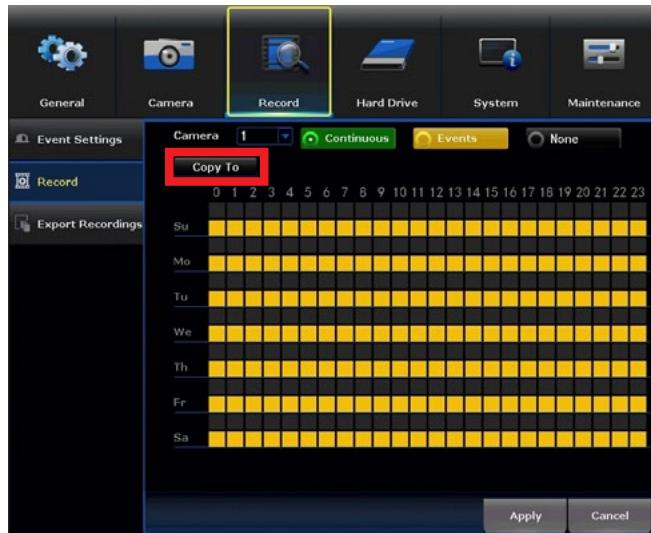


Click *Copy To* when the proper channels have been chosen.
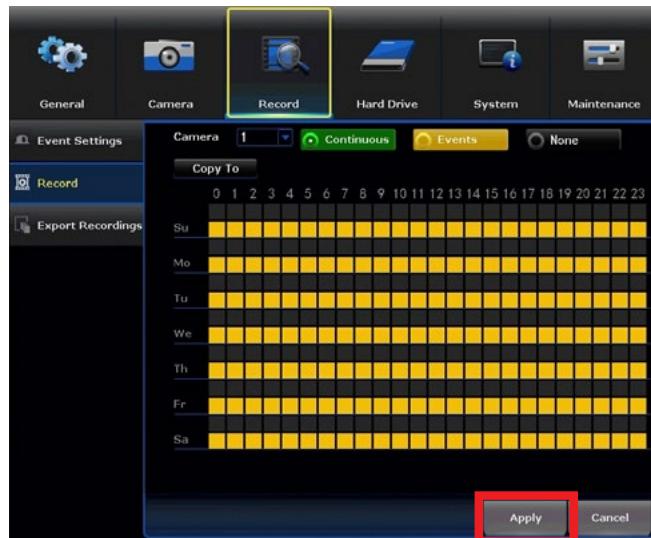




> **Be sure to click Apply to save all changes you make in the menus. If you do not save the changes, they will not be applied. You can also select the Default button on any page to restore default settings for those parameters.**

## Menu

The main menu lets you access many of your Wi-Fi 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 settings.
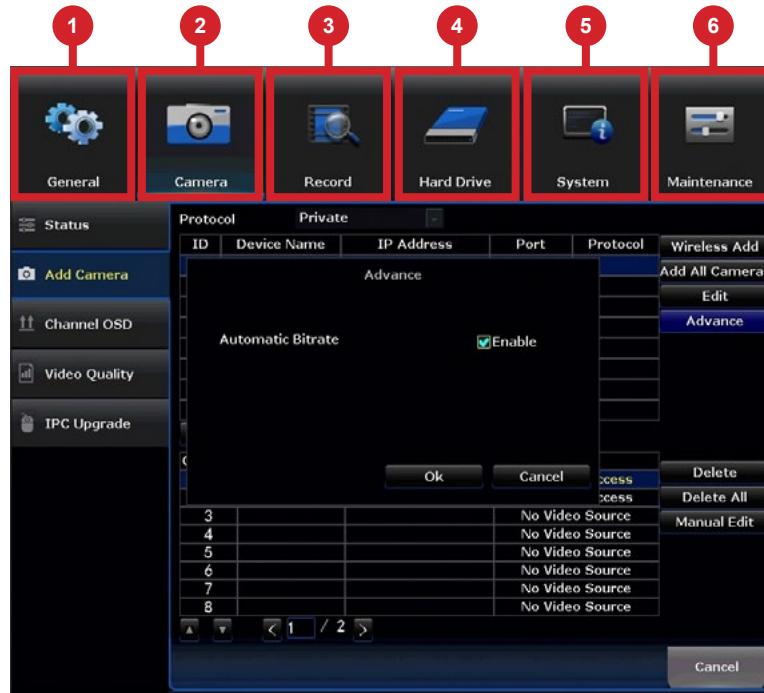


**1**    **General:** Allows access to Network, DDNS and Time Setup settings.

**2**    **Camera:** Will provide access to Status, Add Camera, On-Screen Display, Video Quality and Camera Firmware Update submenus.

**3**    **Record:** 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, Wi-Fi 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.

# 9.1 General Menu

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

## 9.1.1 Network    ADVANCED

Find network values and optimize connectivity based on your Internet connection. In most cases the values should populate automatically once your Wi-Fi 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.

> **NOTE:** Do not adjust the Advanced settings unless you are knowledgeable and understand the changes being made to the Wi-Fi NVR.

**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 Wi-Fi 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 Wi-Fi 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 Wi-Fi NVR.

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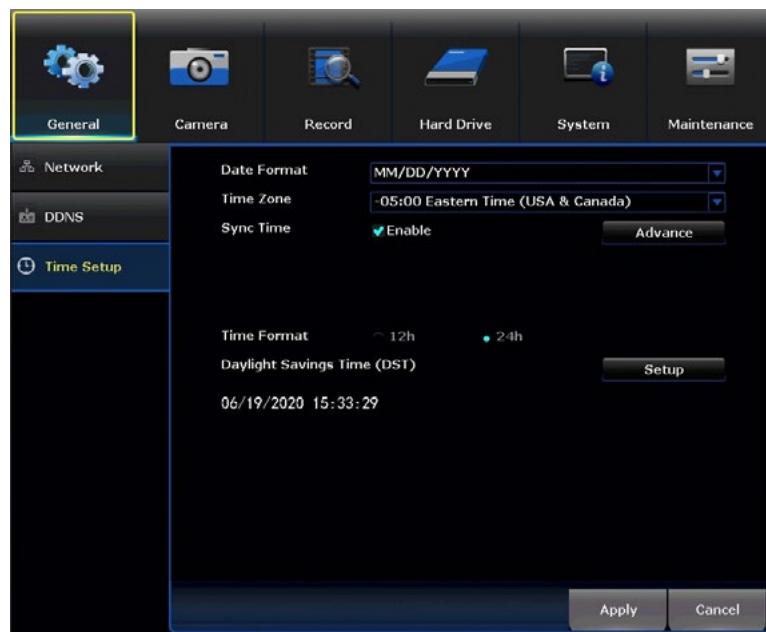
**Date Format:** Choose the display format for the date. You can select *Month/Day/Year, Year/Month/Day* or *Day/Month/Year.*

**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 Savings Time:** Configure daylight savings time by selecting *Setup.*

# 9.2 Camera Menu

Adjust or modify individual camera settings connected to your Wi-Fi NVR.

## 9.2.1 Status



**Table:** Table shows the cameras connected to the Wi-Fi 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.
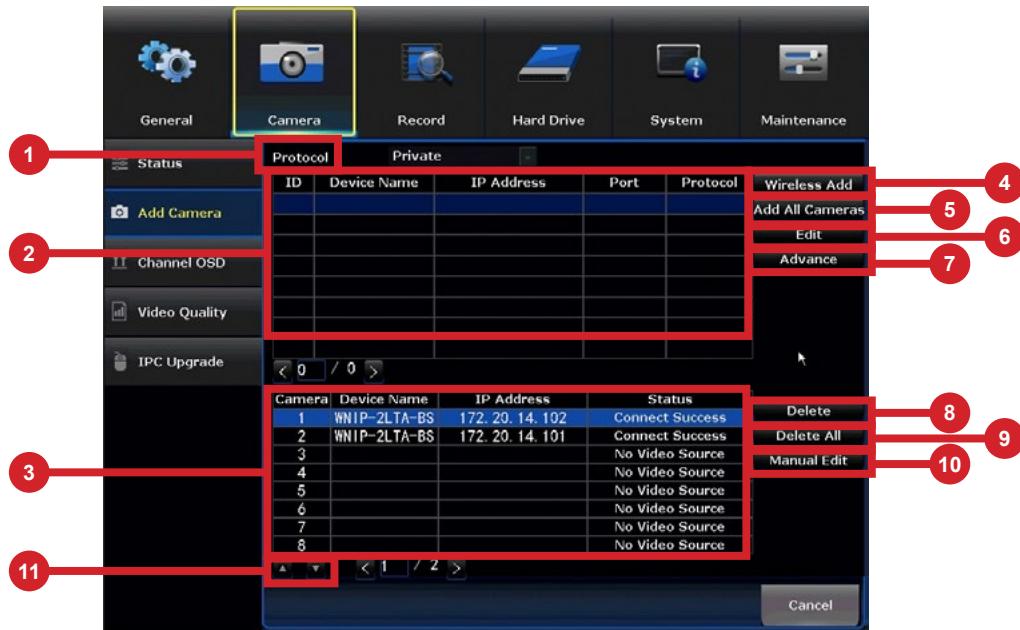
1. **Protocol:** Establishes the protocol used by the Wi-Fi NVR when it is looking for cameras to pair with.

2. **Table 1:** Shows the cameras available to pair with the Wi-Fi NVR.

3. **Table 2:** Shows the cameras already paired to the Wi-Fi NVR.

4. **Wireless Add:** Initiates the discovering and pairing process for available Wi-Fi IP cameras.

5. **Add All Cameras:** Pairs all cameras in Table 1 with the Wi-Fi 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 Wi-Fi NVR. This option also pairs cameras that are not in the same network segment as the Wi-Fi 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. **Arrows:** Allows you to move the selected camera to a different channel.

**Protocol:** 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, the username is **admin**.

**Password:** Shows the password of the credentials needed to establish a connection with the camera. By default, password field should be empty.
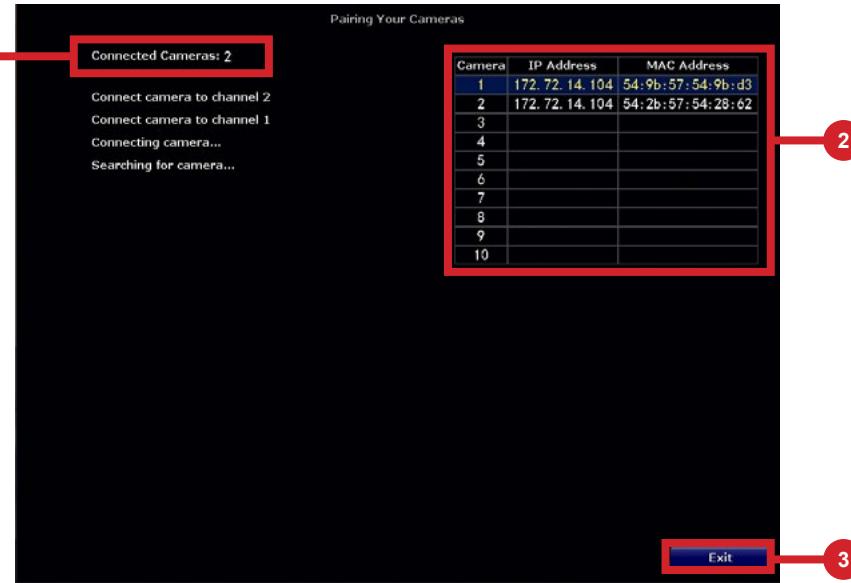
**1** **Connected Cameras:** Shows the number of cameras paired to the Wi-Fi NVR.

**2** **Camera Table:** Shows the IP Address and MAC Address of all the cameras already paired to the Wi-Fi NVR.

**3** **Exit:** Returns you to the Add Camera submenu.

## 9.2.2 (c) Advance



**Automatic Bitrate:** Bitrate speed is automatically configured based on the compression algorithm.
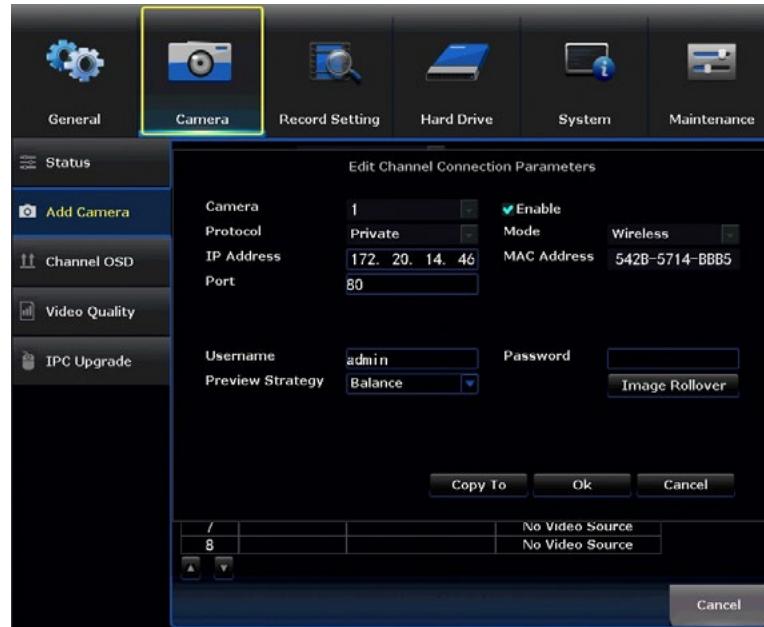
**Camera:** Select the camera you want to edit.

**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, the username is **admin**.

**Preview Strategy:** Used for live view. If the signal of the connected camera to the Wi-Fi 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.
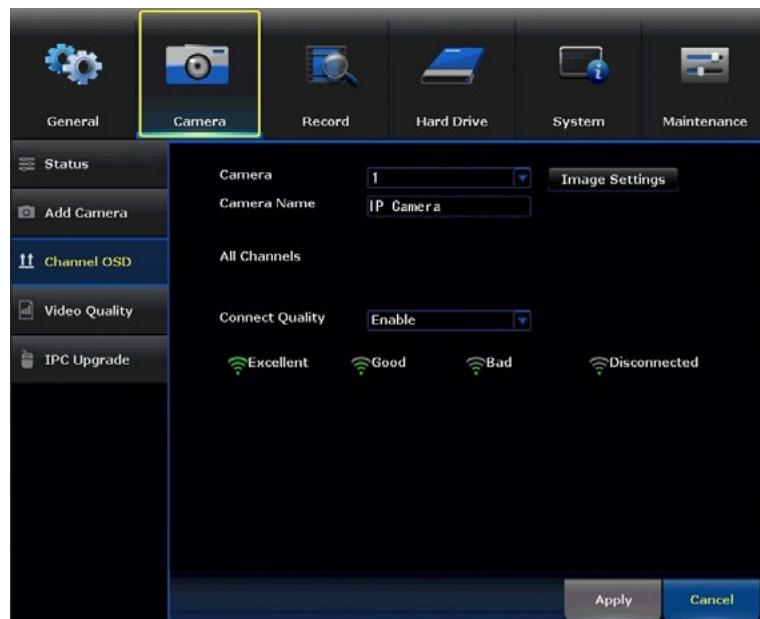
**Camera:** Allows you to select which camera to modify.

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

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

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

## 9.2.3 (a) Image Settings
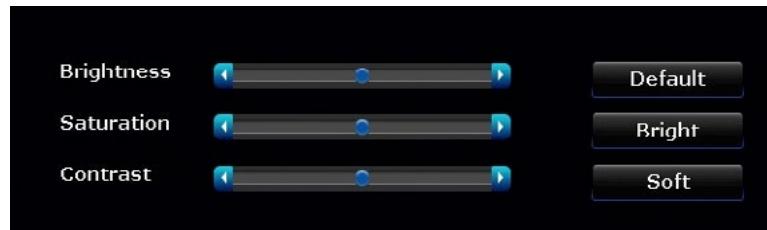


**Brightness:** Changes how light the image appears. This feature does not extend or enhance night vision mode.

**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.

**Camera:** Select a Camera to view.

**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:** Two modes are set; CBR (constant bit rate or a fixed encoding speed) or VB (variable bit rate or an average encoding speed).

**Encode Format:** Video compression format set to H.265+.

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

**Framerate:** The frequency at which consecutive images appear on a Monitor (referred to as frames per second).

**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.

# 9.3 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.

## 9.3.1 Event Settings
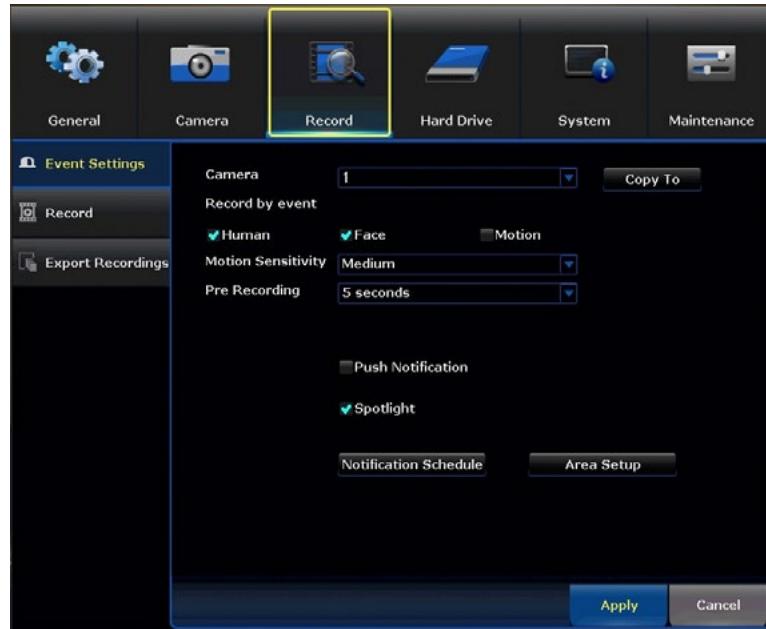


**Camera:** Select the camera for which you want to adjust event settings.

**Record by event:**

**Face Detection:** Captures a person's face up to 10 feet away from the camera.

**Human Detection:** Default setting for all channels. The Wi-Fi NVR will record at full frame rate when a human is detected.

**Motion Detection:** The Wi-Fi NVR will record at full frame rate when motion (pixel change) is detected.

**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 Wi-Fi NVR's motion sensitivity is set to High.

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

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

**Push Notification:** Enable or Disable the push notifications being sent to your Smart Device.

**Spotlight:** Enable or Disable the cameras spotlight.

**Notification Schedule:** Allows you to set a notification schedule.

**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.
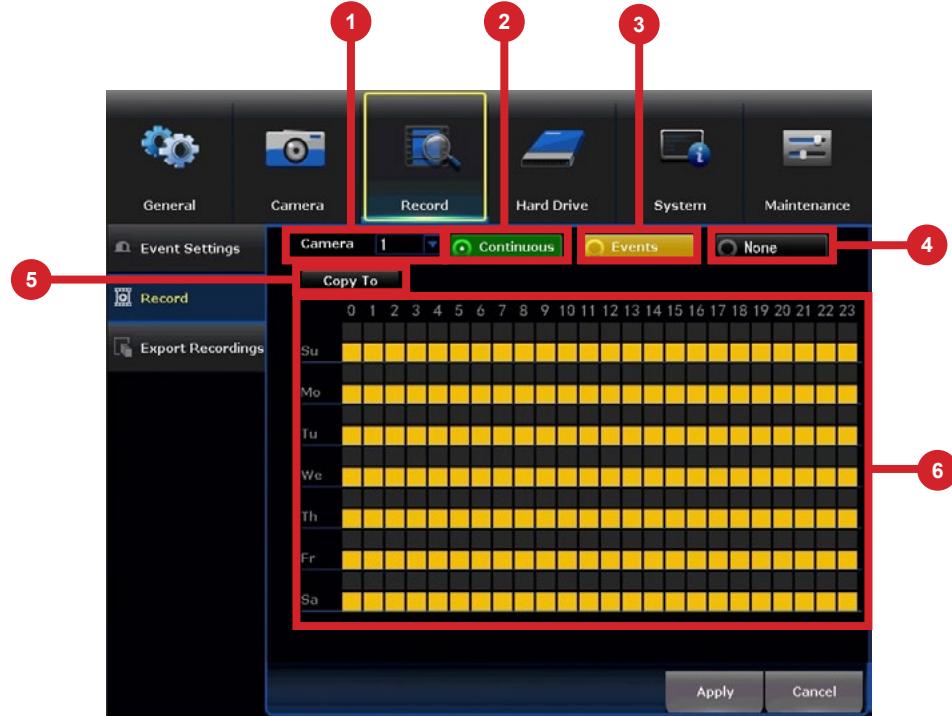
1. **Camera:** Choose which camera to edit.

2. **Continuous:** Enable continuous recording in the time diagram.

3. **Event:** Enable 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.

## 9.3.3 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.

**Record Mode:** Select a recording type to search for. Choose **Doorbell ring, Human , Face, Motion** or **Continuous.**

**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.

**To export a recording:**

1. Select the CHANNEL(s) to copy.

2. Click the CALENDAR icon to select the time range and date you want to copy

3. Apply Recording Mode filters (Motion or continuous) and search.

4. Select the recording you want to backup.

5. Click BACKUP to save the data on a USB Flash Drive or external HDD (USB DEVICE). The backup video is in .MOV format.

# 9.4 Hard Drive



**Hard Disk List:** List of all the hard drives, including their characteristics, installed on the Wi-Fi 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 Disable or Enable the automatic deletion of old files. This feature, if Enabled, will automatically delete all files not within the specified day range.

# 9.5 System

The System menu allows access to the System Settings, including Wi-Fi NVR Wi-Fi Settings, User Management, Device Info, Log, and Camera Speed submenus. From these submenus, you can manage the settings for those categories of the Wi-Fi NVR.

## 9.5.1 System Settings
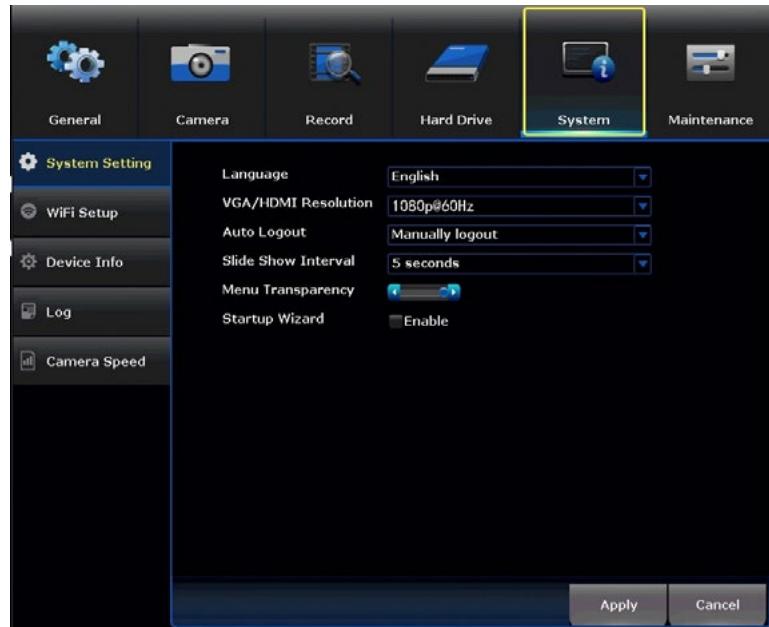


**Language:** Choose between English, Spanish and French.

**VGA/HDMI Resolution:** Optimize the display resolution to best fit your TV/Monitor. By default the Wi-Fi NVR 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 Wi-Fi 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.
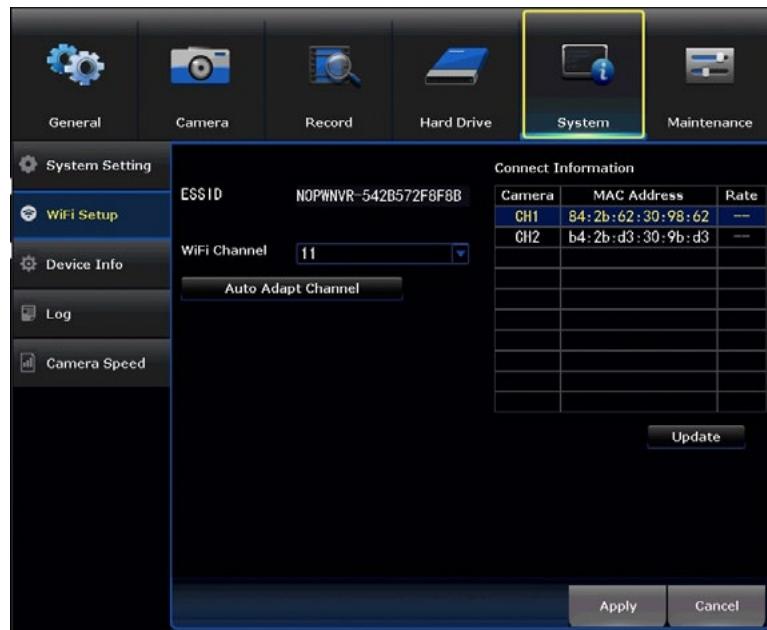
**ESSID:** The Wi-Fi name of the Wi-Fi NVR.

**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.

**Device Model:** Displays your Wi-Fi NVR model number.

**UID:** Unique Device ID number that identifies your Wi-Fi NVR.

**Hardware ID:** The current hardware version of your Wi-Fi NVR.

**Software Version:** The current firmware version of your Wi-Fi 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 Wi-Fi NVR. You can scan this when performing a QR code setup to add this Wi-Fi NVR to the Night Owl Protect App.

**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.

## 9.5.5 Camera Speed



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

# 9.6 Maintenance

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

## 9.6.1 Sys Maintenance
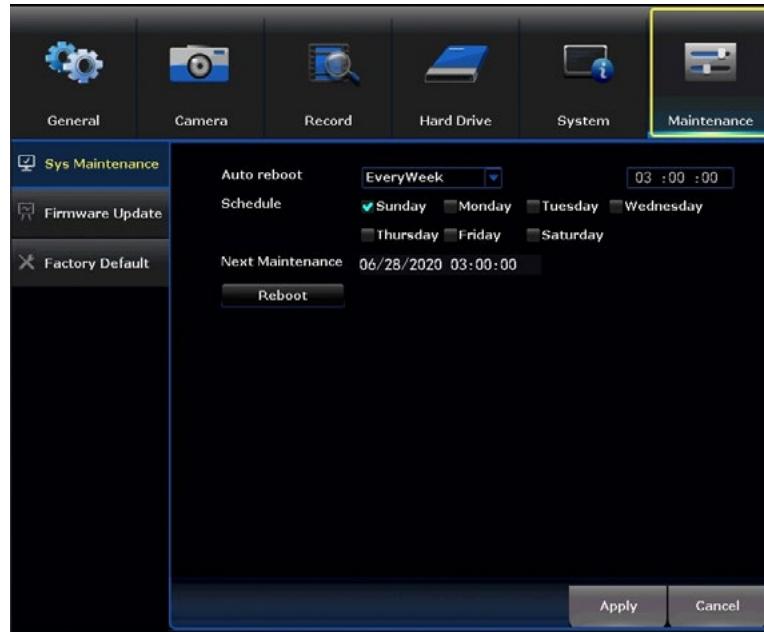


**Auto Reboot:** Determine how often an auto reboot will occur.

**Schedule:** Schedule the reboot frequency.

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

**Reboot:** Manually reboot the Wi-Fi NVR.
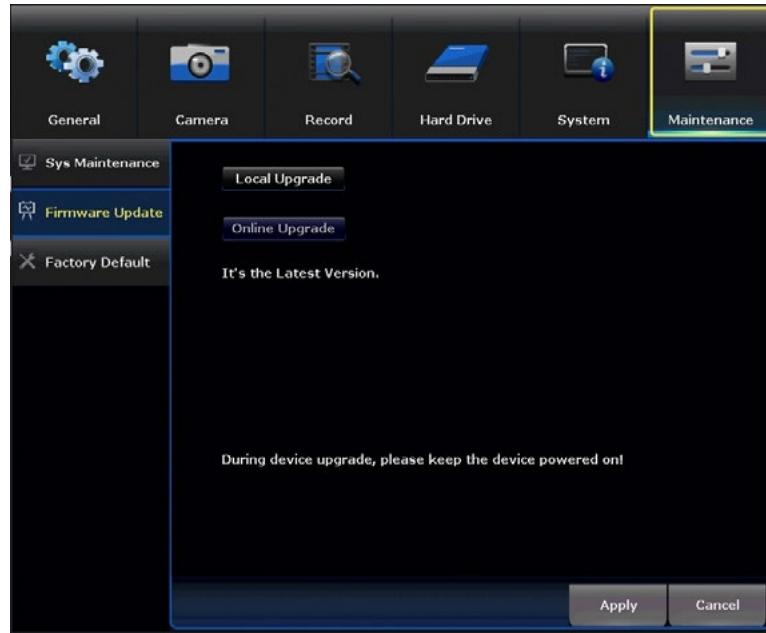
**Local Upgrade:** Select to upgrade device from a USB device.

**Online Upgrade:** Select to upgrade device from the network.

## 9.6.3 Factory Default
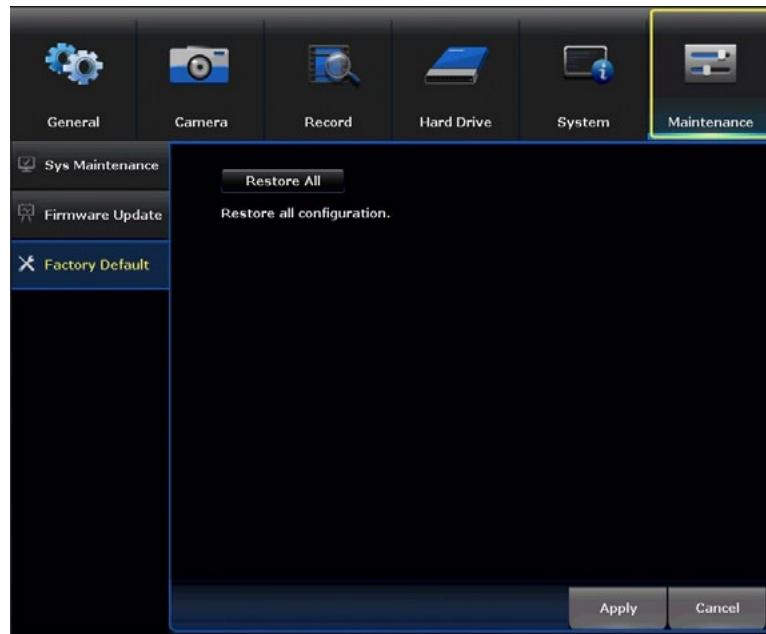


**Simple Restore:** Factory restore the settings for both the network and user.

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

# 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.

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

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

# 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. Product registration may be required to submit a warranty claim. In the event that the Product is defective, the Purchaser must i) contact Night Owl's Technical Support Team, ii) provide Night Owl with the proof of purchase showing the product is still under warranty and was purchased from Night Owl directly or an Authorized Reseller and iii) return the Product to Night Owl. 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 no 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 non-functioning 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.

## 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.

# 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.<br>**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).<br>**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.<br>**3.** Confirm that there is power at the outlet.<br>**4.** Connecting the power cable to another outlet.<br>**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 real panel. |

| Error | Possible Causes | Solutions |
|---|---|---|
| The image on the Wi-Fi NVR appears, but does not have sound. | Audio channels are disable. | Right click in Live View and ensure **Volume** is enabled. |
| 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. |

# User Information

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

## General Wi-Fi NVR Information

Admin Password: _____

User Password: _____

Component Model Number: _____

## Internet Login Information

Mac Address:_____

Web Port:_____

IP Address:_____

Subnet Mask:_____

Gateway:_____

Preferred DNS:_____

![NIGHT OWL logo]

# NEED HELP?

## Why Call? Our Support Site Has it All!

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

1. Please visit **Support.NightOwlISP.com**

2. Enter the Series listed on the Product Support Sticker into the Search bar.

3. Access the support material needed.

# www.NightOwlISP.com