

NIGHT OWL

COMPLETE SECURITY SOLUTION



Pro Remote Access

- ✓ Our Night Owl Pro App eliminates the need for a computer!
- ✓ View, configure and playback recorded files on your Smartphone or tablet.
- ✓ Receive motion activated push notifications directly to your Smartphone or tablet.
- ✓ Add on two audio enabled cameras to record and playback with streaming audio.



BJPRO-86-1TB

See more at <http://www.manualsworld.net>

*Compatible with iOS and Android.
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Interactive How-To videos are available for the chapters indicated with this icon.

You can also visit Night Owl's website at

<http://www.nightowlsp.com/Videos>

Chapter 1: FCC Radiation Norm

FCC

This equipment has been tested and found to comply with limits for Class B digital devices pursuant to Part 15 of Federal Communications Commission (FCC) rules.

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.



CAUTION!

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

Chapter 2: Package Contents

Your DVR Security Kit includes the following items.



- 1 x 8-channel DVR with 1TB HD
- 6 x Indoor/Outdoor Cameras
- 6 x 60' Bundles of Camera Cable
- 18 x Mounting Hardware and Screws
- 1 x 6' VGA Cable
- 1 x RJ45 Cable(Ethernet)
- 1 x Mouse
- 1 x Remote Control Includes Batteries
- 1 x Software CD
- 1 x Quick Setup Guide (Additional guides available online and on CD)
- 2 x Camera Power Adapters
- 1 x DVR Power Adapter
- 2 x 4-way Camera Power Splitters
- 3 x Night Owl Security Stickers

Chapter 3: System Requirements

Please be sure the computer that you will use with the DVR Security Kit complies with the following specifications:

- Windows[®] XP, VISTA, 7, or 8
- Mac[®] OS 10.6 and above
- Internet Explorer 7, 8, 9 or 10 web browser
- Includes CD-ROM drive

Chapter 4: DVR 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 DVR case or its openings.**

Inserting metal into the DVR case may cause electric shock.
- **Do not operate in wet or dusty area.**

Avoid placing the DVR in areas such as a damp basement or dusty attic.
- **Do not expose the DVR to rain or use near water.**

If the DVR accidentally gets wet, unplug it and contact technical support immediately.
- **Keep product surfaces clean and dry.**

To clean the outside case of the DVR, use a lightly dampened cloth. Do not use cleaning solutions or solvents.
- **Do not install near any heat sources.**

Do not install the DVR near any heat sources such as stoves, heat registers, radiators, or electronics (including amplifiers) that produce heat.
- **Unplug the DVR when moving it.**

Make sure that the DVR 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 DVR.**

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

Chapter 4: DVR Safety Instructions

- **Do not attempt to remove the top cover.**

If you observe any abnormal operation, unplug the DVR immediately and contact technical support. Do not attempt to open the DVR to diagnose the cause of the problem. (WARNING: You may be subjected to severe electrical shock if you remove the cover of the DVR.)

- **Handle the DVR carefully.**

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

- **Recommended: Use with an uninterruptable power supply (UPS).**

Connecting your DVR 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.

Chapter 5: Troubleshooting

If a problem occurs, you may be able to easily correct it yourself. The following table describes the most common problems and their solutions. Please refer to the table before calling Night Owl 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	• Confirm that all cables are connected correctly • Confirm that the power adapter is securely connected to the back of the unit
	• Cables are connected, but system is not receiving sufficient power	• Confirm that the system is powered ON (LED indicators on the front should be ON) • 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 • Confirm that there is power at the outlet • Connecting the power cable to another outlet • Test the outlet with another plugged device (such as an electric calculator or phone charger)
• Remote control is not detected by the system	• Battery in the remote control is drained	• Install two fresh AAA alkaline batteries in the remote control
	• There are no batteries in the remote control	
• Hard drive is not detected by the system	• Hard drive cables are loose or not properly connected	• Remove the cover and check that the hard drive cables are firmly connected
	• There is no hard drive in the system	• Open the cover and install a 3.5" SATA hard drive
• Hard drive is full (0%) and the unit is no longer recording	• Overwrite is not enabled	• From the Main Menu, select HDD>Overwrite>Enable and click Apply

Chapter 5: Troubleshooting

Error	Possible Causes	Solutions
<ul style="list-style-type: none"> Mouse not detected by system 	<ul style="list-style-type: none"> Mouse cable is not firmly connected to the system 	<ul style="list-style-type: none"> Firmly connect the mouse cable to the USB Mouse port on the front panel
	<ul style="list-style-type: none"> Mouse is not connected to the system 	
	<ul style="list-style-type: none"> System needs to be reset 	<ul style="list-style-type: none"> 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 12V port on the rear panel.
<ul style="list-style-type: none"> There is no picture on selected channels / camera picture is not being displayed 	<ul style="list-style-type: none"> Camera cables are loose or have become disconnected 	<ul style="list-style-type: none"> Check the camera video cable and connections Disconnect and reconnect the cable at the system and at the camera Try moving the camera to another channel or use another cable
<ul style="list-style-type: none"> The image on the DVR appears, but does not have sound 	<ul style="list-style-type: none"> Audio cables are loose or have been disconnected 	<ul style="list-style-type: none"> Check the AUDIO connections to the DVR
	<ul style="list-style-type: none"> Audio channels are disabled in the system menu 	<ul style="list-style-type: none"> Check the Configurations: Main Menu>Record>Audio
	<ul style="list-style-type: none"> Volume on external speakers (not included) is low or off 	<ul style="list-style-type: none"> Increase volume on external speakers (not included)
<ul style="list-style-type: none"> A "whirring" noise is coming from the system 	<ul style="list-style-type: none"> Fan is active 	<ul style="list-style-type: none"> The noise means the exhaust fan is working normally.
<ul style="list-style-type: none"> The system beeps at startup 		<ul style="list-style-type: none"> The beep at startup is normal
<ul style="list-style-type: none"> The system beeps during motion detection 	<ul style="list-style-type: none"> Motion detection is enabled, but the alarm buzzer is activated 	<ul style="list-style-type: none"> Open the Main Menu and click ADVANCE Click ALARM; set the Buzzer to 0s and click APPLY
<ul style="list-style-type: none"> I am not receiving email notifications 	<ul style="list-style-type: none"> Email notification is disabled 	<ul style="list-style-type: none"> Open Main Menu>Advance>Alarm; click EMAIL SETUP; under EMAIL select ENABLE
	<ul style="list-style-type: none"> Default setting is disabled, but you have not entered your own SMTP information 	<ul style="list-style-type: none"> If you want to use your own SMTP server, deselect the Default box, and enter your SMTP Server address, Port, User name, and Password in the respective fields

Chapter 6: DVR Components

6.1 Back Panel of DVR



Chapter 6: DVR Components

6.2 Front Panel of DVR



Chapter 6: DVR Components

6.3 Mouse

You can use a mouse instead of the remote control to navigate through your DVR's menus. Connect the included mouse to the USB port on the back of the DVR.



Use the mouse buttons to perform the following:

1. **Left Button:** Click to select a menu option. During live viewing in split-screen view, double-click on a channel to see the selected channel in full-screen view; double-click the channel again to return to split-screen view.
2. **Right Button:** Click to display a list of menus.
3. **Scroll Wheel:** Scroll up and down through menus.

Chapter 6: DVR Components

6.4 Remote Control

Use the remote control to navigate through the DVR's menus.



Button	Function
1-0	Select channels / Input numbers in currently selected field
ALL	Display all channels
MENU	Enter / Exit Menu
▲	Up
▼	Down
SEL	Select
◀◀	Rewind
▶	Play
▶▶	Fast Forward
●	Record
	Pause / Playback
■	Stop
AUDIO/ SEARCH	No function for this model
MUTE	Enable or disable sound

Chapter 7: DVR Installation

7.1 Connecting the Power Supply

1. Plug the included power adapter cable into the back of the DVR.



2. Plug the other end of the power adapter cable into an available wall outlet (or, if you are using an uninterruptable power supply, plug the adapter cable into one of its output sockets).



Chapter 7: DVR Installation

7.2 Connecting the DVR to a TV or Monitor

Using the supplied VGA connector:

1. Connect the VGA connector to the back of the DVR's VGA port.



2. Connect the other end of the cable to an available VGA input on your TV or monitor.



3. Select the appropriate video input channel on your TV or monitor to view the DVR.

Note: If your TV does not have a VGA port, you will need to purchase a BNC-to-RCA video cable. Attach the cable's yellow RCA video connector to a yellow Video Input port on your TV, and the cable's BNC video connector to the Video Out (V-OUT) port on the back of the DVR.

Chapter 8: Camera Installation

8.1 Connecting Cameras to the DVR

1. Your DVR system comes with one 60-ft. coaxial cable per camera. Connect each cable to a camera using the BNC connectors (yellow connector) and the DC connectors (red connector).
2. Plug the other end of the cables into the Video Input ports on the back panel of the DVR.
3. Connect the provided four-way power splitter cable into the DC connectors of the cables.
4. Plug the power splitter into the camera power supply.
5. Plug the camera power supply into an available wall outlet or uninterruptable power supply.



Make sure all cameras are working (prior to mounting them) by connecting them as described in the section above. Once all cameras are confirmed to be fully operational, you can run the cables and mount the cameras at their final locations.

Chapter 8: Camera Installation

8.2 Mounting the Cameras

1. **Choose a location:** Decide where you would like to mount the camera.
2. **Indicate screw positions:** Mark three holes on the surface where you plan to mount the camera, using the holes in the camera base as a guide.
3. **Anchor screws:** 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. Insert the screw anchors.
4. **Mount the camera:** Hold the camera in place and tighten each screw securely into the anchors.
5. **Make sure the camera is secure:** Once the camera's mount is screwed in place, make sure that the camera is securely mounted by placing gentle pressure on the mount.
6. **Adjust the camera position:** Adjust the camera housing to point the camera lens in the direction you would like to record.

Note: Your BJPRO Series Security Kit includes six cameras. Additional cameras may be purchased separately. The BJPRO system supports up to eight cameras.



Don't feel like installing the system yourself?

Let InstallerNet do the work for you.

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

www.nightowlsp.com/

Chapter 9: DVR Start-up

9.1 System Initialization

After you plug in the power adapter, the DVR will automatically start up and display the Night Owl logo on your TV while initializing.



After initialization, your screen will display a live camera view, showing all the cameras that are currently connected to the DVR.



When cameras are connected to the system, the main interface displays live images from the cameras. Using the mouse:

- Double-click (with the left button on the mouse) the live image of any channel to enlarge the image to a full-screen view.
- Double-click again to go back to the live split-screen view, displaying images from all channels.

Chapter 9: DVR Start-up

9.2 On-Screen Display

The on-screen display will also show the following information:

- **Date & Time:** Displays the date and time on the system.
- **Channel Title/Number:** Displays the channel name, which you can set in the Camera Menu.



By default, passwords are disabled on the system. However, for security purposes, it is highly recommended that you enable a system password (this is discussed in detail later).

Chapter 10: Startup Wizard



Use the Startup Wizard to enter the security system's basic settings, network settings, record settings, and HDD settings.

The Startup Wizard will open when the DVR is powered on.



Refer to the Startup Guide for step-by-step instructions on using the Startup Wizard.



Before you can access any menus, you must log in.



- **Remote ID:** This number should match the number in parentheses to the right of the field.
- **User Name:** Enter the user name you created in the Startup Wizard or the User Menu. If you have not created a user name, leave this setting as “admin.”
- **Password:** Enter the password that you created in the Startup Wizard or the User Menu. If you have not created a password, this field should remain empty.
- **Login Button:** Select this button when you have entered your user name and password (if any).



Opens the menu interface.



Allows you to check one channel at a time to enlarge the selected channel to a full-screen view.



Allows you to enter into a multi-screen view.



Allows you to start/stop an auto sequence. This will display the cameras as a slide show.



Opens the color settings menu to adjust the colors of the camera.



Allows you to zoom in to a specific area of the camera view that you have selected.



Opens the volume menu.



Opens the PTZ functions menu.



Allows you to start/stop continuous recording.



Opens the Playback menu.

Chapter 13: Menu Icons

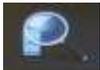
When you open the Main Menu you will see a line of icons at the top of the screen. Each icon represents a different menu. The menu names are listed below.



Basic Menu



Advanced Menu



Record Search Menu



Disk Management



Information Menu



Maintenance Menu



Exit



Basic Menu



Use the Basic Menu to access the System, Date/Time, Display, Record, and User menus.



Be sure to **Apply** all changes you make in the menus. If you do not apply the changes, they will not be saved.

You can also select the **Default** button on any page to restore the DVR's default settings.



14.1 System Menu

The System Menu allows you to change the language, output resolution, and logout time, and turn the Startup Wizard on/off. It is recommended that you leave the Device Name and Remote ID fields at their default values.

To access the System Menu, select the Basic button, and then select **System** from the list on the left side of the screen.



- **Device Name:** Displays the DVR you are using.
- **Remote ID:** Indicates the number of the DVR if there are multiple DVRs at one location.
- **Video Format:** Leave this setting at NTSC unless you are using a PAL-format TV.
- **VGA Resolution:** Select the resolution of the video output from the VGA port. The larger the number, the better the resolution will be. (However, a higher resolution will use more hard disk space when recorded video is stored.) Refer to your TV/monitor manual to see which resolution works best.
- **Language:** Set the language to English, French, or Spanish.
- **Logout Time:** This will allow the DVR to logout the user that is signed into the DVR after a certain amount of time.
- **Startup Wizard:** Allows you to turn the Startup Wizard on/off when the DVR is rebooted/turned on.



14.2 Date/Time Menu

You should set the date and time when first setting up your system. You can also configure Daylight Saving Time (DST) settings.

To access the Date/Time Menu, select the Basic button, and then select **Date/Time** from the list on the left side of the screen.



- **Date/Time:** Input the current date using the date format that is been selected, and input the current time using the time format that has been selected. If you have selected the 12-hour format, you will have to differentiate between AM and PM.
- **Date Format:** Use the drop-down menu to choose the way that you would like the date displayed.
- **Time Format:** Use the drop-down menu to choose the way that you would like the time displayed.
- **Time Zone:** Use the drop-down menu to choose the time zone in which you are located. Keep in mind that if you have already manually changed the date/time, it will change again to reflect the time zone you chose.
- **Auto Update:** Select this box if you would like the DVR to automatically update the date/time. Keep in mind that this feature will only work if the network settings have been configured properly.
- **Time Server:** You will generally not need to change this setting. This is the web address that updates the date and time.



14.2.2 DST Menu

Use the DST Menu to configure Daylight Saving Time settings.

To access the DST Menu, select the Basic button, select **Date/Time** from the list on the left side of the screen, and then select **DST**.



- **Enable:** Select this box if you would like to enable the Daylight Saving Time settings.
- **Mode:** Depending on the Daylight Saving Time settings, you can choose between the exact date and the week.
- **Offset:** Depending on the Daylight Saving Time settings, you can choose between one hour and two hours. Generally this should be set to one hour.
- **From:** The date/time that Daylight Saving Time begins.
- **To:** The date/time that Daylight Saving Time ends.



14.3.1 Display Menu

Use the Display Menu to configure channel name, channel masking, color, and time/name settings.

To access the Display Menu, select the Basic button and then select **Display** from the list on the left side of the screen.



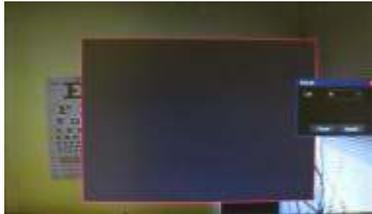
- **CH:** Indicates the channel that you will be configuring.
- **Name:** Give each channel a descriptive name if you wish (for example, Warehouse).
- **Mask:** Opens a window that allows you to block out certain areas of the channel screen.
- **Color:** Opens a window that allows you to adjust the colors in the channel that is being recorded.
- **Time/Name:** Opens a window that allows you to show/remove the date/time and the channel name displayed on the screen.



14.3.1.1 Mask Screen

Use the Mask Screen to block out certain areas of a channel screen.

To access the Mask Screen, select the Basic button, and then select **Display** from the list on the left side of the screen. Select the **Settings** button in the **Mask** column.



- **CH:** Indicates the channel that you will be configuring.
- Once you have selected the channel, left-click the mouse on the screen.
- Drag the mouse over the area of the screen you would like to block out.
- If you want to block out a different area or no area at all, select the **Clear** button.
- Once you have selected an area to block out, select the **Apply** button. This allows you to return to the menu screen.



14.3.1.2 Color Screen

Use the Color Screen to adjust the colors of a channel that is being recorded.

To access the Color Screen, select the Basic button and then select **Display** from the list on the left side of the screen. Select the **Settings** button in the **Color** column.



- **CH:** Indicates the channel that you will be configuring.
- **Hue:** Adjusts the color of the image by changing levels of the colors red, green, blue, and yellow. You can adjust the color levels from 0 to 63.
- **Brightness:** Determines how bright or dark the image is. You can adjust the brightness from 0 to 63.
- **Contrast:** Adjusts the contrast of the colors. You can adjust the contrast from 0 to 63.
- **Saturation:** Adjusts the dominance of the hue colors. You can Adjust this from 0 to 63.
- If you want to return to the original settings, select the **Default** button.
- Once you have made the appropriate changes, select the **Apply** button. This allows you to return to the menu screen.



14.3.1.3 Time/Name Screen

The Time/Name Screen is used to show/remove the date/time and a channel name displayed on the screen.

To access the Time/Name Screen, select the Basic button and then select **Display** from the list on the left side of the screen. Select the **Settings** button in the **Time/Name** column.



- **CH:** Indicates the channel that you will be configuring.
- **Time Overlay:** If you want the time to be displayed in this channel, check this box. If you do not want the time to be displayed, uncheck this box.
- **Name Overlay:** If you want the channel's name to be displayed, check this box. If you do not want the channel's name to be displayed, uncheck this box.
- If you want to return to the original settings, select the **Default** button.
- Once you have made the appropriate changes, select the **Apply** button. This allows you to return to the menu screen.



14.3.2 Auto SEQ Menu

Use the Auto SEQ Menu to adjust the channels and time that will be displayed when you start the auto sequence.

To access the Auto SEQ Menu, select the Basic button, select **Display** from the list on the left side of the screen, and then select **Auto SEQ**.



- **Auto Sequence:** Allows you to choose between Stencil 1x1, Stencil 2x2, and Custom. **Stencil 1x1** and **Stencil 2x2** show each channel in numeric order, one by one. **Custom** allows you to change the sequence in which the channels are displayed.
- **Sequence:** Indicates the order in which the channels will be shown.
- **Mode:** Indicates the view of the sequence (e.g., Stencil 1x1).
- **CH:** Indicates the channel that will be viewed for that sequence number.
- **Dwell:** Indicates how long the channel will be displayed before it switches to the next sequence.
- **Copy:** This option will only be available if you have chosen Custom under Auto Sequence. Allows you to copy Stencil 1x1 to all channels.
- **To Custom:** Select this button to copy Stencil 1x1 to all channels.



14.4.1 Record Menu

Use the Record Menu to enable recording, set audio preferences, and specify how you would like to record on each channel.

To access the Record Menu's basic functions, select the Basic button, select **Record** from the list on the left side of the screen, and then select **Basic**.



- **CH:** Indicates the channel that you will be configuring.
- **Record:** Check this box to enable recording on the channel.
- **Audio:** Check this box to enable audio recording on the channel.
- **Mode:** Select either **Schedule** or **Continuous**. Schedule allows you to record motion, record continuously, or have no recording during a specific time period. Continuous records constantly.
- **Copy CH:** Allows you to configure the settings on one channel and copy them to another channel.
- **To CH:** Allows you choose the channel that you would like to copy the configured settings to.



14.4.2 Bit Rate Menu

The Bit Rate Menu allows you to set the quality of the recorded video.

To access the Bit Rate Menu, select the Basic button, select **Record** from the list on the left side of the screen, and then select **Bit Rate**.

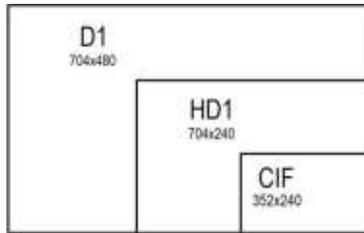


- **CH:** Indicates the channel that you will be configuring.
- **Resolution:** Choose D1 (704x480) (High), HD1 (704x240) (Medium), or CIF (352x240) (Low) resolution.
- **Frame Rate:** Allows you to allocate the frames per second (FPS) per channel. This will determine the smoothness of the video during playback; 30 FPS is real-time video.
- **Quality:** Set the recording quality to **Good**, **Better**, or **Best**.
- **Copy CH:** Allows you configure the settings on one channel and copy them to another channel.
- **To CH:** Allows you choose the channel that you would like to copy the configured settings to.

Chapter 14: Basic Menu

14.4.3 Resolution

Choose between D1 (704x480) (High), HD1 (704x240) (Medium), or CIF (352x240) (Low) resolutions to record videos. To help maximize the DVR's hard drive space, use the lowest resolution.



D1 Resolution (704x480 pixels):

- The highest resolution.
- Gives you the ability to blow up an image without it being pixilated.
- This is the best option if you would like to see details.
- Uses the most space on the hard drive.

HD1 Resolution (704x240 pixels):

- Medium resolution.

CIF Resolution (352x240 pixels):

- The lowest resolution.
- The image will become pixilated if it is blown up to see details.
- Uses the least space on the hard drive.



14.4.4 Schedule Menu

The Schedule Menu allows you to schedule recordings.

To access the Schedule Menu, select the Basic button, select **Record** from the list on the left side of the screen, and then select **Schedule**.



- **CH:** Indicates the channel that you will be configuring. Select **All** to set one recording schedule for all channels, or select individual channels to set different recording schedules.
- **Days and Times:** Allows you to choose times to record and how you would like to record. The days of the week are arranged in rows. The hours of the day are arranged in columns and are set to military (24-hour) time.
- **Recording Types:**
 - Alarm Recording is indicated in **Red**
 - Continuous Recording is indicated in **Green**
 - No Recording is indicated in **Black**
- Check the box next to the recording type you want, and left-click each box to indicate the type of recording for that hour. The box will change to the color of the recording type you selected.
- **Copy CH:** Allows you to configure the settings on one channel and copy them to another channel.
- **To CH:** Allows you to choose the channel that you would like to copy the configured settings to.



14.5 User Menu

The User Menu allows you to add users and permissions for those users.

To access the User Menu, select the Basic button, select **Record** from the list on the left side of the screen, and then select **User**.



- **User Name:** Displays the names that you assign to users. To make changes to a user, double-click on the user's name.
- **User Type:** Displays the Administrator (only one administrator is allowed) and Normal users (up to 5 normal users).
- **Hardware Access:** This will say Unlimited if the user can access the DVR from any computer, or it will display the MAC address of the computer that the user has been assigned to.
- **Add User:** Opens a new window to add a user.
- **Delete User:** Check the box located next to the User Name, then select the **Delete User** button to delete that user.



14.5.1 User Management Menu

Basic Tab

The User Management Menu allows you to add users and assign permissions to those users.

To access the User Management Menu's Basic Tab, select the Basic button, select **Record** from the list on the left side of the screen, select **User**, and then select **Add User** or double-click an existing user.



- **User Name:** Type the name you would like to assign to the user.
- **Password:** Enter a password that you will use to log in to the DVR. Passwords are case-sensitive.
- **Retype Password:** Enter the same password as above.
- **User Type:** This will say Administrator (there can be only one administrator) or Normal.
- **Limit Access to One Computer Only:** Check this box to limit who can access the system.
- **Hardware Address of Computer:** Displays the hardware address of the computer that the access was limited to.



14.5.1 User Management Menu

Authority Tab

To access the User Management Menu's Authority Tab, select the Basic button, select **Record** from the list on the left side of the screen, select **User**, and then select **Add User** or double-click an existing user. You will need to select the Authority Tab to limit access to certain menus for the user.



- Each menu in the DVR will be listed with a check mark next the menu name.
- Uncheck each box that you do not want the user to access.
- Select **Apply** and **Exit**.



Advanced Menu



Use this menu to access the Alarm, Network, Comm, and PTZ menus.



Be sure to **Apply** all changes made to the menus. If you do not apply the changes, they will not be saved.

You can select the **Default** button on any page to restore the DVR's original settings.



15.1 Alarm Menu

15.1.1 Motion Menu

The Motion Menu allows you to configure the motion settings on your DVR.

To access the Motion Menu, select the **Advanced** button, select **Alarm** from the list on the left side of the screen, and then select **Motion**.



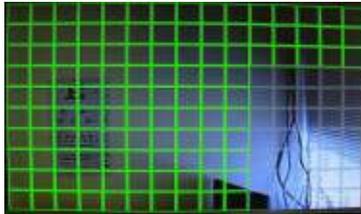
- **CH:** Indicates the channel that you will be configuring.
- **Enable:** Allows you to activate motion detection. It is recommended that you keep this checked.
- **Sensitivity:** Indicates the level of sensitivity of the camera. The lower the sensitivity, the more motion will be needed to start recording.
- **Area:** Select **Settings** to open a new window to block out areas that may have constant movement such as trees or roads.
- **Schedule:** Select **Settings** to open a new window that will show when the DVR is set to record alarms.
- **Trigger:** Select **Settings** to open a new window that will allow you to generate different responses by the DVR when motion has been detected.



15.1.1.1 Area Screen

The Area Screen allows you to see areas that will and will not detect motion.

To access the Area Screen, select the Advanced button, select **Alarm** from the list on the left side of the screen, and then select **Motion**. Select **Settings** in the Area column for the channel you are customizing.



- The **green boxes** show all active areas that will detect motion.
- The **grey boxes** show all inactive areas that will not detect motion.



15.1.1.2 Schedule Screen

The Schedule Screen allows you to choose when to record.

To access the Motion Menu's Schedule Screen, select the **Advanced** button, select **Alarm** from the list on the left side of the screen, and then **Motion**. Select **Settings** in the **Schedule** column for the channel you are customizing.



- **Days and Times:** Allows you to choose times to record and how you would like to record. The days of the week are arranged in rows. The hours of the day are arranged in columns and are set to military (24-hour) time.
- **Recording types:**
 - Alarm Recording is indicated in **Red**
 - Non-Alarm Recording is indicated in **Black**
- Select the recording type you want, and then left-click each box to indicate the type of recording for that hour. The box will change to the color of the selected recording type.
- **Copy:** Allows you to configure the settings for one day and copy them to another day.
- **To:** Allows you to choose the day that you would like to copy the configured settings to.



15.1.1.3 Trigger Screen

The Trigger Screen allows you see what has triggered an alarm.

To access the Trigger Screen, select the Advanced button, select **Alarm** from the list on the left side of the screen, and then select **Motion**. Select **Settings** in the **Trigger** column for the channel you are configuring.



- **Record:** Instructs the DVR to start recording when motion is detected.
- **Snapshot:** Saves a picture of what has triggered the alarm.
- **Send Email:** Sends a snapshot to an email address that has been configured.
- **Alarm output:** This has no function.
- **Push:** Select this if you would like to enable Push Notifications.
- **Alarm output duration:** This has no function.
- **Buzzer:** Causes the DVR to beep if alarms have been detected.
- **Pop-up Screen:** Enlarges the channel to the full screen of the channel that has detected the alarm.
- **Pre-Record:** Select the duration that the DVR will record before an alarm is triggered.
- **Post-Record:** Select the duration that the DVR will record after an alarm is triggered.
- **PTZ:** If you have a PTZ (Pan-Tilt-Zoom) camera connected, select whether you would like the camera to move to a preset point or cruise if an alarm is triggered.



15.1.2 Video Loss Menu

The Video Loss Menu allows you to configure the video loss settings on your DVR.

To access the Video Loss Menu, select the Advanced button, select **Alarm** from the list on the left side of the screen, and then select **Video Loss**.



- **CH:** Indicates the channel that you will be configuring.
- **Enable:** Allows you to activate the video loss alarm.
- **Trigger:** Select **Settings** to open a new window that will allow you to generate different responses by the DVR when alarms have been detected. (Refer to Chapter 15.1.1.3.)
- **Copy CH:** Allows you to configure the settings for one day and copy them to another day.
- **To CH:** Allows you to choose the day that you would like to copy the configured settings to.



15.1.3 Camera Block Menu

The Camera Block Menu allows you to configure the settings on your DVR for when the camera is covered.

To access the Camera Block Menu, select the Advanced button, select **Alarm** from the list on the left side of the screen, and then select **Camera Block**.



- **CH:** Indicates the channel that you will be configuring.
- **Enable:** Allows you to activate the alarm that indicates that the camera is blocked or covered.
- **Sensitivity:** Indicates the level of sensitivity of the camera. The lower the sensitivity, the more motion will be needed to start recording.
- **Schedule:** Select **Settings** to open a new window that will show when the DVR is set to record alarms. (Refer to Chapter 15.1.1.2.)
- **Trigger:** Select **Settings** to open a new window that will allow you to generate different responses by the DVR when alarms have been detected. (Refer to Chapter 15.1.1.3.)
- **Copy CH:** Allows you to configure the settings for one day and copy them to another day.
- **To CH:** Allows you to choose the day that you would like to copy the configured settings to.



15.1.4 Others Menu

The Others Menu allows you to configure the settings on your DVR for different alarm features.

To access the Others Menu, select the Advanced button, select **Alarm** from the list on the left side of the screen, and then select **Others**.



- **Disk Error:** If you enable this option, you will be alerted if the hard drive fails.
- **Disk Full:** If you enable this option, you will be alerted if the hard drive becomes full.
- **Trigger:** Select **Settings** to open a new window that will allow you to generate different responses by the DVR when alarms have been detected. (Refer to Chapter 15.1.1.3.)
- **IP Address Conflict:** If you enable this option, you will be alerted if the IP address of the DVR matches another device on the same network.
- **Trigger:** Select **Settings** to open a new window that will allow you to generate different responses by the DVR when alarms have been detected. (Refer to Chapter 15.1.1.3.)

Chapter 15: Advanced Menu

15.2 Network Menu

15.2.1 LAN Menu

The LAN Menu allows you to configure the IP address for your DVR. Make sure that the DVR is plugged directly into your internet router.

To access the LAN Menu, select the **Advanced** button, select **Network** from the list on the left side of the screen, and then select **LAN**.



- The IP address/DNS server information can automatically be obtained by the DVR if it is connected to a router/modem that is connected to the internet. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
- You can manually enter the IP address/DNS server information into the DVR by selecting **Use the following IP address** and **Use the following DNS** address and entering the correct information.
- **IP Address:** This is the identification of the DVR when it is connected to a network.
- **Subnet Mask:** Describes the range of IP addresses that can be found in the network. It should always be set to 255.255.255.000.
- **Default Gateway:** This is the connection between two networks. This should be the router's IP Address.
- **Preferred DNS Server:** The primary DNS (Domain Name System) server. It will vary from city to city.
- **Alternate DNS Server:** The secondary DNS server.

Chapter 15: Advanced Menu

15.2.2 PPPoE Menu

The PPPoE Menu allows you to configure the DVR using broadband dial-up network access.

To access the PPPoE Menu, select the Advanced button, select **Network** from the list on the left side of the screen, and then select **PPPoE**.



- You will need to use this option if you are using broadband dial-up network access. You will have to enter a user name and password that are provided by your Internet service provider.
- **PPPoE:** Enable this option if you are using broadband dial-up network access.
- **User Name:** Provided by you Internet service provider.
- **Password:** Provided by you Internet service provider.

Chapter 15: Advanced Menu

15.2.3 Port Menu

The Port Menu allows you to view your DVR through the Internet, software, and mobile phones.

To access the Port Menu, select the Advanced button, select **Network** from the list on the left side of the screen, and then select **Port**.



- **Media Port:** This needs to be set to 9000. It will allow you to access to the DVR through the Internet Explorer and the Control Management Software (CMS).
- **Web Port:** This needs to be set to 2949. This will allow access to the DVR through the Internet.

Chapter 15: Advanced Menu

15.2.4 Sub-Stream Menu

The Sub-Stream Menu allows you to configure the network transfer settings.

To access the Sub-Stream Menu, select the Advanced button, select **Network** from the list on the left side of the screen, then select **Sub-Stream**.



- **CH:** Indicates the channel that you will be configuring.
- **Resolution:** Choose D1 (704x480) (High), HD1 (704x240) (Medium), or CIF (352x240) (Low) resolution.
- **Frame Rate:** Allows you to allocate the FPS per channel. This will determine the smoothness of the video during playback, 30 FPS is real-time video.
- **Quality:** Set the recording quality to **Good**, **Better**, or **Best**.
- **Copy CH:** Allows you to configure the settings on one channel and copy them to another channel.
- **To CH:** Allows you to choose the channel that you would like to copy the configured settings to.

Chapter 15: Advanced Menu

15.3.1 DDNS Menu

The DDNS Menu allows you to configure DDNS setup after you have registered for a free domain name at <http://www.nightowldvr.com>.

To access the DDNS Menu, select the Advanced button, select **COMM**, and then select **DDNS** from the list on the left side of the screen.



- **DDNS:** This should be set to **Enable** if you are using a DDNS service.
- **Server:** This should be set to **NightOwl** when using Night Owl's free domain name service.
- **Host Name:** This should be set to the domain name that you created during DDNS registration.
- **Username:** The UserID that you created during DDNS registration.
- **Password:** The password that you created during DDNS registration.
- **Test:** Tests the settings to ensure that they work correctly.

Chapter 15: Advanced Menu

15.3.2 E-Mail Menu

The E-Mail Menu allows you to configure email alert settings.

To access the E-Mail Menu, select the Advanced button, select **COMM**, and then select **E-Mail** from the list on the left side of the screen.



- **E-mail:** Allows you to enable/disable email alerts. If you have the DVR set to Motion, you will receive an email alert with an attached image of the object that triggered the alarm.
- **Sending Interval:** The period in between each email alert that you receive.
- **Mail Server (SMTP):** The SMTP Address that is determined by the settings of your email provider.
- **Port:** Determined by the settings of your email provider.
- **Connection Security:** Determined by the settings of your email provider.
- **User Name:** Your email address that sends the emails.
- **Password:** Your password for the email provided in the User Name field.
- **To:** The email address that receives email alerts.
- **CC:** Additional email addresses that receive email alerts.
- **Test:** Test the settings to ensure that they work correctly.



Please refer to your email provider for the settings for your email account.

Chapter 15: Advanced Menu

15.3.3 UPnP Menu

The UPnP Menu allows you to enable the UPnP (Universal Plug and Play) setting of the DVR.

To access the UPnP Menu, select the Advanced button, select **COMM**, and then select **UPnP** from the list on the left side of the screen.



- **UPnP:** Choose **Enable** to allow the DVR to use UPnP. This enables your router and DVR to discover each other's presence on the network and establish a functional relationship for data sharing and communication.



15.4 PTZ Menu

The PTZ Menu allows you to configure settings on your DVR to control a PTZ (Pan Tilt Zoom) camera. (PTZ camera not included.)

To access the PTZ Menu, select the Advanced button and then select **P.T.Z.** from the list on the left side of the screen.



Refer to your PTZ camera's documentation for proper settings.

- **CH:** Indicates the channel that you will be configuring.
- **Enable:** Allows you to enable/disable the PTZ controls. To enable the controls, ensure that there is a check mark in the box.
- **Protocol:** Select **PELCO-D** or **PELCO-P** for the selected channel.
- **Baud Rate:** Select 1200, 2400, 4800, or 9600.
- **Address:** Enter an address from 001 to 255.
- **Copy CH:** Allows you to configure the settings for one day and copy them to another day.
- **To CH:** Allows you to choose the day that you would like to copy the configured settings to.



Refer to your PTZ camera's instruction manual for further details.
PTZ camera is not included.



Record Search Menu



Use this menu to find, play back, and back up recorded video.



Be sure to **Apply** all changes made to the menus. If you do not apply the changes, they will not be saved.

You can also select the **Default** button on any page to restore the DVR's original settings.

Chapter 16: Record Search Menu



The Calendar lets you select the dates of recorded video you wish to play back.

To access the Record Search Menu, select the Record Search button. The Calendar appears on the left.



Calendar

- **Left / Right Arrows:** Switch between months and years.
- **Start Time:** Select the time of day that you would like to begin the search.
- **End Time:** Select the time of day that you would like to end the search.
- **Record Type:** Select the type of recording you will be searching.
- **CH:** Place a check mark in the box(es) beside the channel(s) that you would like to play back.
- **Search:** Select this option when all information has been entered.
- **Backup:** Copies all currently selected files (indicated by the checkbox in the list to the right) to a USB drive inserted into the USB port on the back of the DVR.
- **Playback:** Allows you to view the playback screen for the day that is highlighted in blue.

Chapter 16: Record Search Menu



The File List shows a list of recordings.

To access the Record Search Menu, select the Record Search button. The File List is on the right.



File List

- **CH:** Indicates the channel that was recorded.
- **Start Time:** Indicates the time that the recording began.
- **End Time:** Indicate the time that the recording ended.
- **Type:** Indicates the type of recording (Alarm or Normal).
- **Status:** Indicates whether the file has been locked or unlocked.
- **First:** Takes you to the first page of the list.
- **Prev:** Takes you to the previous page of the list.
- **Next:** Takes you to the next page of the list.
- **Last:** Takes you to the last page of the list.
- **Backup:** Copies all currently selected files (indicated by the checkbox to the right of the file in the list) to a USB drive inserted into the USB port on the back of the DVR.
- **Lock:** Locks the unlocked files.
- **Unlock:** Unlocks the locked files.



Once files are backed up onto a USB drive, you will need to convert the files to .avi format

Chapter 16: Record Search Menu



When you play back a recorded file, a number of controls are available. Use the Calendar, File List, and Playback button to playback recorded files.



The playback screen has the following buttons:



Rewinds the recorded video.



Pauses/plays the recorded video.



Pauses the recorded video.



Plays back the recorded video in slow motion. Select repeatedly to access different playback speeds.



Fast-forwards the recorded video. Select repeatedly to access different playback speeds.



Zooms in on a particular area. (Click the area where you want to zoom in.)



Exits the playback screen.



Minimizes the top half of the menu but leaves the controls.



Minimize the menu, including the controls.



Mutes/unmutes the sound.



Indicates the playback volume.



Disk Management Menu



The Disk Management menu allows you to view and manage recordings on your DVR's hard disk drive (HD).



Be sure to **Apply** all changes made to the menus. If you do not apply the changes, they will not be saved.

You can also select the **Default** button on any page to restore the DVR's original settings.



To access the Disk Management menu, select the Disk Management button.



- **Status:** Indicates whether the HD is working (recording) or not working (no disk).
- **Capacity Total/Free:** Shows the total HD space available and how much free space is on the HD. The maximum HD capacity is 2 terabytes.
- **Format:** Check this box to enable the HD to be formatted.
- **Format Button:** Select this button to format the HD. Formatting the HD will erase all data and allow the DVR to read and write files to and from the HD.
- **Overwrite:** Choose one of three options: **By days**, **By capacity**, or **Never**). This will write over the oldest files first.
- **Max Reserved Days:** This will only be shown if you choose the **By days** option in the overwrite feature.



Information Menu



Use this menu to access the Device, Network, Online, and Record Information menus.



Be sure to **Apply** all changes made to the menus. If you do not apply the changes, they will not be saved.

You can also select the **Default** button on any page to restore the DVR's original settings.



18.1 Device Menu

The Device Menu allows you to view the MAC Address, serial number and the firmware version of your DVR.

To access the Device Menu, select the Information button and then select **Device**.



- **Device Name:** The DVR's name.
- **Remote ID:** The ID of the DVR if there are multiple DVRs in one location.
- **Serial No.:** The serial number of the DVR.
- **Firmware Version:** The DVR's firmware version. You will need to refer to this information from time to time to determine whether the DVR's firmware needs to be updated.
- **MAC:** The unique identifier assigned to the DVR.

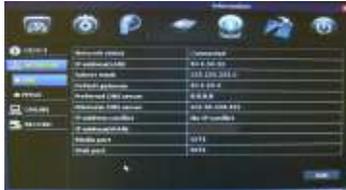
Chapter 18: Information Menu



18.2.1 LAN Menu

The LAN Menu allows you to information about your Local Area Network (LAN).

To access the LAN Menu, select the Information button, select Network, and then select LAN.



- **Network Status:** Indicates whether the DVR is properly connected to the internet.
- **IP Address(LAN):** The identification of the DVR when it is connected to a network.
- **Subnet Mask:** This should always be set to 255.255.255.000. It describes the range of IP addresses that can be found in the network.
- **Default Gateway:** The connection between two networks. This should be the router's IP address.
- **Preferred DNS Server:** Primary Domain Name System. This will vary from city to city.
- **Alternate DNS Server:** Secondary Domain Name System.
- **IP Address Conflict:** An IP address conflict will happen if two devices on the same network have the same IP address.
- **IP Address (WAN):** The external IP address of the DVR.
- **Media Port:** Shows the port that you configured.
- **Web Port:** Shows the port that you configured.



18.2.2 PPPoE Menu

The PPPoE (Point-to-Point Protocol over Ethernet) Menu allows you to view information about your network.

To access the PPPoE Menu, select the Information button, select **Network**, and then select **PPPoE**.



- **Network Status:** Shows whether the DVR is properly connected to the internet.
- **IP Address:** The identification of the DVR when it is connected to a network.
- **Preferred DNS Server:** Primary Domain Name System. This will vary from city to city.
- **Alternate DNS Server:** Secondary Domain Name System.



18.3 Online Menu

The Online Menu allows you to view the computers that are currently connected to the DVR.

To access the Online Menu, select the Information button and then select **Online**.



- **User Name:** The name of the computer that is accessing the DVR.
- **IP Address:** The identification of the device that is accessing the DVR.
- **Login Time:** The time that the user logged in to the DVR.
- **Disconnect:** Allows you to disconnect the computer that is logged in to the DVR.



18.4 Record Menu

The Record Menu allows you to view the configured recording resolution of the DVR.

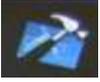
To access the Record Menu, select the Information button and then select **Record**.



- **CH:** Indicates the channel.
- **Resolution:** Shows the recording resolution of each channel.
- **Frame Rate:** Shows the frames per second of the channels when recording.
- **Quality:** Shows the recording quality of each channel.
- **Data per hour:** Shows the amount of data per hour that will be stored on the hard drive when recording at the settings that are configured.



Maintenance Menu



Use this menu to access the Basic Maintenance Settings and Settings menus.



Be sure to **Apply** all changes made to the menus. If you do not apply the changes, they will not be saved.

You can also select the **Default** button on any page to restore the DVR's original settings.



19.1 Basic Menu

The Basic Menu allows you to perform firmware upgrades and maintain the DVR's performance.

To access the Basic Menu, select the Maintenance button and then select **Basic**.



- **Auto Maintain:** Allows you to choose when you would like your system to automatically reboot. The DVR will reboot automatically on a specified schedule to help prevent system and hard drive failure and to preserve the life your DVR.
- **Time:** Allows you to choose a time when you would like the DVR to reboot. Keep in mind that the DVR is set to military (24-hour) time.
- **Firmware Upgrade:** Performs a firmware upgrade from a USB flash drive.
- **Standby:** Puts the DVR into standby mode.
- **Reboot:** Restarts the DVR.



19.1.1 Firmware Upgrade

Your system will periodically need a firmware upgrade to ensure optimal performance. Visit www.NightOwlISP.com to see if upgrades are available for your system.

To upgrade firmware:

1. Download and save the latest firmware upgrade for your system from www.NightOwlISP.com to your desktop.
2. Once you have saved the firmware to your computer, insert an empty USB flash drive into the computer.
3. Locate the file you just saved to your desktop and open the folder.
4. This folder will contain a folder titled **dvrupgrade** and a Word document with instructions.
5. Drag the folder labeled **dvrupgrade** to the empty USB flash drive.
6. Safely remove the USB flash drive from your computer.
7. Connect the USB flash drive to the USB port on the back of your DVR.
8. Select the **Maintenance** button and then select **Basic**.
9. Select **Firmware Upgrade**. The DVR will automatically scan the USB flash drive and begin upgrading the firmware. Do not remove the USB flash drive while the upgrade is taking place.
10. A window will pop up, telling you not to power off the DVR. The DVR will automatically install the upgrade and restart.



19.2 Settings Menu

The Settings Menu allows you to import or export the DVR's settings.

To access the Settings Menu, select the Maintenance button and then select **Settings**.



- **Export Settings:** Allows you to copy all of the settings on the DVR to a flash drive.
- **Import Settings:** Allow you download all of the settings from a flash drive to the DVR.
- **Load Factory Default:** Allows you to set the default settings for the entire DVR.

Chapter 20: Remote Access

This chapter will show you how to connect your DVR to the internet. You will learn how to properly connect your DVR to your router/modem and set up port configurations, internet configurations, Mobile configurations, and DDNS registration.



You will need to have the following in order to be able to successfully connect the DVR to the internet.

- High-speed internet connection (at least 512K of bandwidth, download and upload speeds)
- Router or modem with two open Ethernet ports
- Computer with Internet Explorer 7, 8, 9, or 10
- Ethernet cable (included with the system; see image below)

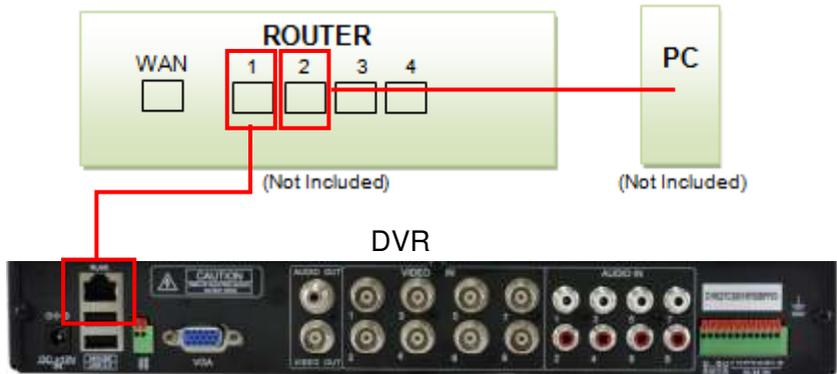


- Second Ethernet cable to connect your computer to the router/modem

Chapter 20: Remote Access

20.1 Connecting the DVR and Router/Modem

Use this section to learn how to connect the DVR to your router/modem.



1. Make sure that your DVR is connected to a power outlet.
2. Connect the DVR directly to the router through an open Ethernet port with the included Ethernet cable.
3. Connect a computer directly to the same router through another open port with an Ethernet cable.



Do not connect the DVR to a wireless router.

Chapter 20: Remote Access

20.2 Windows Network Configuration

In this section you will determine basic information about your network

Make sure that the DVR is properly connected to the router/modem and that you have a Windows computer connected to the same router.

Follow these steps to determine the basic information about your network:

1. Press the Windows key and the R key at the same time on your computer's keyboard. Type *cmd* and press the Enter key.



2. In the command prompt window, type *ipconfig* and press Enter. Find the section called “Ethernet adapter Local Area Connection” or “Wireless LAN Adapter Wireless Network Connection.”

```
ca. C:\windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\Jennifer>ipconfig
```

3. Find the IPv4 Address (it may be named “IP Address” in some versions of Windows). Write down this number.

```
Wireless LAN adapter Wireless Network Connection:
Connection-specific DNS Suffix . :
Link-local IPv6 Address . . . . . : fe80::bacc:11aa:53:9236::13
IPv4 Address. . . . . : 172.168.0.104
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : fe80::218:e7ff:fee4:ff4ex13
172.168.0.1
```

Chapter 20: Remote Access

4. Change the last three digits to 150. You will need this new number in a later step. (Example: Say you wrote down the IP Address 192.168.0.104. When the last digits are changed, the IP address will be 192.168.0.150.)
5. Write down this number. You will use this number as the IP address of your DVR in the next section.
6. Find the Default Gateway.

```
Wireless LAN adapter Wireless Network Connection:  
Connection-specific DNS Suffix . :  
Link-local IPv6 Address . . . . . : fe80::5832:ff4a:5a63:9226%13  
IPv4 Address. . . . . : 192.168.0.104  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . : fe80::218:a7ff:fe04:ff4e%13  
192.168.0.1
```

7. Write down the Default Gateway number. This is the IP address of your router. You will need to enter this in the DVR's network settings in the next section.

Chapter 20: Remote Access

Changing the Network Settings on the DVR

For the following steps, use the information that you just wrote down.

To access the LAN Menu, select the **Advanced** button, select **Network** from the list on the left side of the screen, and then select **LAN**.



- You can manually enter the IP address/DNS server information into the DVR by selecting **Use the following IP address**.
- **IP Address:** Change this to the IP Address that you wrote down in the previous section. You will have to enter a zero in front of any numbers that do not have three digits. (Using the example from the last section, the address would be 192.168.000.150 after the necessary zeros are added.)
- **Subnet Mask:** This should be set to 255.255.255.000.
- **Default Gateway:** Change this to the router's IP Address (Default Gateway) that you wrote down in the previous section. You will have to enter a zero in front of any numbers that do not have three digits.
- **DNS1:** This will be filled in automatically.
- **DNS2:** This will be filled in automatically.



Write this information on the Information Log at the end of the manual. Be sure to select **Apply** and restart the DVR to save all changes.

Chapter 20: Remote Access

20.3 Apple (Mac) Network Configuration

Follow the steps in this section to configure remote access for an Apple Macintosh computer.

Make sure that the DVR is properly connected to the router/modem and that you have a Macintosh computer connected to the same router/modem.

Follow these steps to determine basic information about your network:

1. Select the Airport icon on your computer screen.
2. Select the **Open Network Preferences** option.
3. Select **Ethernet (wired)**.
4. Select the **Advanced** button in the lower right corner.
5. Select the **TCP/IP** tab at the top to display your computer's network information.
6. Make note of your IPv4 Address.
7. Change the last digits to 150. (Example: Say you wrote down the IP Address 192.168.0.104. When the last digits are changed, the IP address will be 192.168.0.150.)
8. Write down this number. You will use this number as the IP address of your DVR in the next section.
8. Make note of the IP address listed for Router. This is the IP address of your router. You will need to enter this in the DVR's Network settings.

Chapter 20: Remote Access

Use the information that you just wrote down for the next steps.

To access the LAN Menu select Advanced button, select Network from the list on the left side of the screen, and then select the LAN tab.



- You can manually enter the IP address/DNS server information into the DVR by selecting **Use the following IP address**.
- **IP Address:** Change this to the IP Address that you wrote down in the previous section. You will have to enter a zero in front of any numbers that do not have three digits. (Using the example from the last section, the address would be 192.168.000.150 after the necessary zeros are added.)
- **Subnet Mask:** This should be set to 255.255.255.000.
- **Default Gateway:** Change this to the router's IP Address (Default Gateway) that you wrote down in the previous section. You will have to enter a zero in front of any numbers that do not have three digits.
- **DNS1:** This will be filled in automatically.
- **DNS2:** This will be filled in automatically.



Write this information on the Information Log at the end of the manual. Be sure to select **Apply** and restart the DVR to save all changes.

Chapter 21: Port Forwarding

After you have configured the Network Settings, you will need to forward the necessary ports to be able to view the DVR over the Internet from anywhere in the world.

Refer to your router's documentation to see how port forwarding works for that device. This process may be called the Port Forwarding, Port Mapping, or Virtual Server.

Below are some general considerations to keep in mind to make sure that the appropriate ports are forwarded:

1. Go to <http://www.whatismyip.com>. Your IP address will appear at the top of the page. This is your public IP address.

Your IP Address Is:

2. Open the Internet Explorer browser, enter `http://youripaddress` and then press Enter.



3. Log in into your router using your user name and password.
(Contact your Internet Service Provider if you are unsure about the login information.)
4. Once you have logged in to your router, go to the section indicated to forward your ports.



Chapter 21: Port Forwarding

5. You will need to enter a new port forwarding entry for each port that your DVR uses: **Media Port** (9000), **Web Port** (2049), and **Server Port** (2050). Repeat the steps below for each entry.
6. When entering the port numbers and IP address into your router's

Application Name	Port Range		Protocol	IP Address
	Public	Private		
Media Port	9000 ~ 9000	9000	TCP/UDP	192.168.0.150
Web Port	2049 ~ 2049	2049	TCP/UDP	192.168.0.150
Server Port	2050 ~ 2050	2050	TCP/UDP	192.168.0.150

port forwarding section, you will need to do away with the leading zeros (e.g., 09000 becomes 9000, 192.168.000.150 becomes 192.168.0.150, and so on).

7. In the port forwarding section of your router, you will typically be asked to enter the following information in order to forward a port (keep in mind that the wording may be different, depending on the model of your router):
 - a. **Application Name:** This can be anything you choose.
 - b. **Public Port:** This should be set to one of the three ports you need to forward: Media Port (9000), Web Port (2049), or Server Port (2050).
 - c. **Private Port:** This should be set to the same number you entered for the Public Port.
 - d. **Port Type/Protocol:** If your router has an option for both, use TCP and UDP. If your router allows either TCP or UDP port types, use TCP.
 - e. **Host IP Address:** This should be set to the IP address you configured for your DVR earlier.

Chapter 21: Port Forwarding

21.1 Checking the Ports After Port Forwarding

Once you have forwarded the necessary ports on your router, you should check to make sure they have been correctly forwarded.

1. Go to <http://www.yougetsignal.com/tools/open-ports/>.
2. Type in port 9000 and select the **Check** button to see if the port tests as open or closed.
3. Type in port 80 and select the **Check** button to see if the port tests as open or closed.
4. Type in port 2050 and select the **Check** button to see if the port tests as open or closed.
5. All ports should be open, as shown in the example below.
6. If any port tests as closed, that port is not forwarded correctly.

your external address

XXX.XXX.XXX.XXX

open port finder

Remote Address Port Number
[Use Current IP](#)

 Port 9000 is open on XXX.XXX.XXX.XXX



Write “your external address” in the Information Log at the end of the manual.

Chapter 22: DDNS Registration

22.1 Registering a Free Domain Name (DDNS)

This option allows you to set up a free website address that will point back to the DVR regardless of whether the IP Address changes. If you do not have a static IP Address, you should use this option.

Follow the steps below to register a free domain name (DDNS)

1. Go to <http://www.nightowldvr.com>.



2. Select the Registration button located at the top left corner of the page.



3. Complete the New User Registration form.



Chapter 22: DDNS Registration

4. Create a domain name.



5. If the domain name that you have chosen is available, you will see a window that tells you that your domain was successfully created. (If the domain name is taken, try again until you find an available name.)



Write this information in the Information Log at the end of the manual.

Chapter 22: DDNS Registration

22.2 Adding your New Domain Name to your DVR

Use the DDNS Menu to configure DDNS setup after you have registered for a free domain name.

To access the DDNS Menu, select the Advanced button, select **COMM**, and then select **DDNS** from the list on the left side of the screen.



- **DDNS:** This should be set to **Enable**.
- **Server:** This should be set to **NightOwl**.
- **Host Name:** This should be set to the domain name that you created during DDNS registration. An example is shown above.
- **Username:** Your user name is the UserID that you created during DDNS registration. An example is shown above.
- **Password:** Your password is the password that you created during DDNS registration.
- **Test:** Tests the settings to make sure they work correctly.



Be sure to **Apply** all the changes before selecting **Test**, or the test will not work.

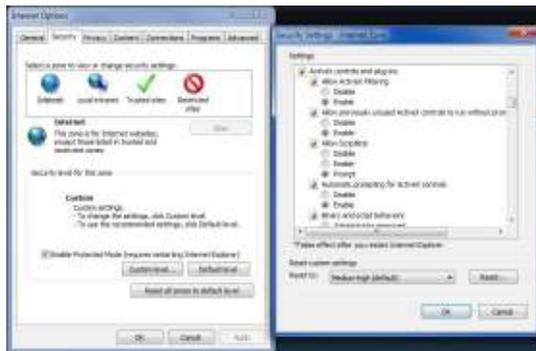
Chapter 23: Internet Viewing

Use the Internet Explorer or Control Management Software to access your DVR remotely over the Internet or within your local area network. Make sure that you have completed the steps in Chapters 21 and 22 of this manual before trying to access the DVR using this software.

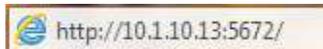
23.1 Setting ActiveX Controls

Before you can access the DVR using an Internet browser, you will need to configure the ActiveX Controls. Follow the below steps for configuration (Windows only).

1. Open the Internet Explorer browser.
2. Go to **Tools** (the gear icon) and select **Internet Options**.
3. Click the **Security** tab.
4. Select the **Custom Level** button.
5. Scroll down until you see **ActiveX controls and plug-ins**.
6. Set every setting to either **Enable** or **Prompt**.



7. Now enter <http://youripaddress:webport> to access your DVR through the Internet browser.



Chapter 23: Internet Viewing

23.2 DVR Login



- **User Name:** Type in the user name that you created in the Password Menu of the DVR.
- **Password:** Enter the password that was assigned to the User.
- **Language:** If you would like the information to be displayed in another language, you can change it to English, French, or Spanish.
- **Remember Me:** Check this box for the User Name to be saved on the computer.

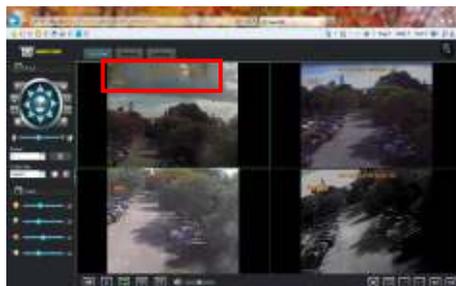
Chapter 23: Internet Viewing

23.3 Using Internet Explorer

Internet Explorer is a remote-viewing program that allows you to view live and recorded video over the Internet. This software can be downloaded from www.NightOwlSP.com or from the installation CD that came included with your DVR system

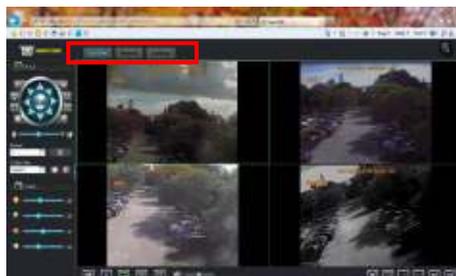
Channel Information

The channel names, date, and time will be indicated on every channel in real time.



Menu Bar

The Menu Bar gives you access to the Live Viewing, Playback, and Configure settings.



Chapter 23: Internet Viewing



Play Control

-  Takes a snapshot of the video.
-  Starts/stops recording on all channels.
-  Stops/plays the live video feed.
-  Enables Main-Stream on all channels. This requires a fast network for transmission.
-  Enables Sub-Stream on all channels. This requires a normal network for transmission and is the default for all channels. This setting may display poor image quality.
-  Adjusts the volume of any audio-enabled channels.
-  Shows the different viewing options.
-  Switches the viewing pages.

Chapter 23: Internet Viewing

PTZ Control

These control settings can only be used for cameras that have Pan, Tilt, and Zoom features. (A PTZ camera is not included.)



Arrows: Move the camera manually in the direction of the arrow.



Allows you to clean the camera lens if your camera has a wiper function



Allows you to fill in the light if your camera has this function.



Allows you to adjust the type of lens to get the best picture in different lighting conditions.



Allows you to zoom the camera in and out.



Allows you to focus the camera.



Changes the speed of the camera when rotating.

Preset: Allows you to set PTZ preset positions.

Cruise Line: Allows you to set four points for the camera to move to; the camera will follow these points during Cruise.



Starts PTZ cruise.



Stops PTZ cruise.

Chapter 23: Internet Viewing

Playback

This screen lets you search, play back, and back up recorded videos.

To access this menu, select the **Playback** button from the Menu Bar.



- **Calendar:** Shows days with recordings in bold numbers. Select a date to view a file list.
- **Refresh:** Refreshes the file list when a day is selected.
- **Ch:** Allows you to sort the file list by a particular channel.
- **Type:** Allows you to sort the file list by a particular type of recording such as alarm (motion detection) and normal (continuous).
- **Start Time:** Allows you to begin the search at a certain time.
- **End Time:** Allows you to end the search at a certain time.
- **Search:** Searches the file list for the indicated channel and recording type.
- **Record List:** Opens a submenu that lists all recordings for the selected day. You can back up files from this function.

Chapter 23: Internet Viewing

Playback (continued)

Use the bottom control panel for various video controls.



-  Plays the video.
-  Pauses the video.
-  Stops the video.
-  Slows down the video.
-  Speeds up the video.
-  Shows each frame during playback.
-  Captures an image.
-  Allows you to configure the timeline to show hours and minutes.
-  Adjusts the volume on channels with audio.
-  Displays the screen as a quad view.
-  Allows you to switch between pages of videos.
-  Allows you to stretch the view of the channels across the entire screen.

Chapter 23: Internet Viewing

Backup

This screen allows you to back up files to your computer.

To access this screen, select the **Playback** tab from the Menu Bar and then select the **Record List** button on the left side of the screen.



- **CH:** Shows the channel that recorded the file.
- **Start Time:** Shows the time the recording started.
- **End Time:** Shows the time the recording ended.
- **Type:** Allows you to sort the file list by a particular type of recording such as alarm (motion detection) or normal (continuous).
- **State:** Shows a status bar when backing up any file.
- **First:** Takes you to the first page of the list.
- **Prev:** Takes you to the previous page of the list.
- **Next:** Takes you to the next page of the list.
- **Last:** Takes you to the last page of the list.
- **Backup:** Copies all currently selected files (indicated by the checkbox to the right of the file in the list) to your computer. Be sure to go into the local settings and set the location that the files will be saved to.

Chapter 23: Internet Viewing

Remote Setting

This screen allows you to access all of the DVR setting menus.

To access the Remote Setting screen, select the **Remote Setting** button from the Menu Bar.



- **Information:** Refer to Chapter 19 of this guide for details on configuration.
- **Date/Time:** Refer to Chapter 14.2 for details on configuration.
- **Display:** Refer to Chapter 14.3 for details on configuration.
- **Record:** Refer to Chapter 14.4 for details on configuration.
- **User:** Refer to Chapter 14.5 for details on configuration.
- **Alarm:** Refer to Chapter 15.1 for details on configuration.
- **Network:** Refer to Chapter 15.2 for details on configuration.
- **COMM:** Refer to Chapter 15.3 for details on configuration.
- **System Manage:** Refer to Chapter 18 for details on configuration.
- **Local Settings:** Allows you set the location the files will saved to.

Chapter 23: Internet Viewing

23.4 Using Control Management Software (CMS – Nightowl View)

You can use the CMS software to access one or more DVRs remotely over the Internet or within your local area network. Make sure that you have completed the Remote Access chapter of this manual before trying to access the DVR using this software.

The CMS software can be downloaded from www.NightOwlSP.com or from the installation CD that was included with your DVR system.



Key Features of the CMS:

- Compatible with Windows XP, Vista, 7 & 8; Mac OS 10.6 and above
- Three users can access the software on one computer
- Connect over 100 devices with 16 channels
- View up to 64 channels on one screen
- Configure DVR settings remotely
- PTZ controls

Chapter 23: Internet Viewing

Starting the CMS

You will have to register as an administrator when starting the CMS.



- **Type:** Choose between **Local** and **Server**. Local allows you to configure DVRs. Server allows you to enter a server address. For example, the Night Owl DDNS Server.
- **Server:** This will be left blank if you chose Local. If you chose Server you will need to enter the name of the server, such as Night Owl Server.
- **User:** The initial user will be **admin** if you chose Local. If you chose Server, enter your UserID from the server that you set up.
- **Password:** The initial password should be left blank if you chose Local. If you chose Server, enter your UserID Password from the server that you set up.

Chapter 23: Internet Viewing

Device List

This menu shows all DVRs that have been added to the CMS.



Device List: Lists all DVRs that have been added to the CMS.

-  Allows you to refresh devices.
-  Allows you to add groups.
-  Allows you to delete devices.

Chapter 23: Internet Viewing

Device Tab

To add a device you must first add a group by selecting the plus (+) sign in the navigation pane. Next, right-click your mouse on the group that you would like to add the device to, and then select **Add a Device**.



Once you have selected Add a Device you will need to configure the settings:

- **Group:** Indicates the group you are adding the device to.
- **Name:** Name this anything, such as Home or Office.
- **IP:** Enter the IP Address that was configured in the DVR.
- **Port:** Enter the Media Port that was configured in the DVR.
- **Web Port:** Enter the Web Port that was configured in the DVR.
- **Channel Count:** This indicates the number of channels on the device.
- **Transmit Server IP:** Select when recording on all channels. This requires a fast network for transmission.
- **User:** Enter the user name that you created in the Password menu of the DVR.
- **Password:** Enter the password that was assigned to the User.
- **Stream Setup:** Leave this set to the default (Main Stream). This will give you the fastest speed for streaming your videos.

Chapter 23: Internet Viewing

Channel Group Tab

To configure a Channel Group, select the plus (+) sign in the navigation pane.



1. Make sure that your DVRs are properly added to the software.
2. Give the Channel Group a name (e.g., Front Doors).
3. Expand the DVR by selecting the plus sign (+) next to the DVR so that you can view all of the channels on the DVRs.
4. Right-click your mouse on the channel you would like to add to the Channel Group. Then select the arrow that points to the right.
5. If you added a channel that you do not want to include in that particular Channel Group, right-click on the channel that you would like to delete from the Channel Group. Then select the arrow that points to the left.
6. The box with the red "X" will delete all of the channels within the Channel Group.
7. To arrange the channels in a different order, select a channel and then click the up or down arrow.
8. Select **OK** when you have created your Channel Group.

Chapter 23: Internet Viewing

Patrol Tab

To configure a patrol group you must select the plus (+) sign in the navigation pane. This allows the Channel Groups to rotate.

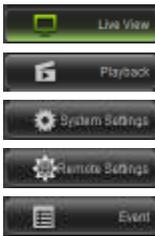


1. Make sure that you have created Channel Groups.
2. Give the Patrol Group a name.
3. Select the amount of time in which you would like the channel groups to rotate.
4. Right-click the mouse on the Channel Group that you would like to add to the Patrol Group. Then select the arrow that points to the right.
5. If you added a Channel Group that you do not want to include in that particular Patrol Group, right-click your mouse on the channel that you would like to delete in the Patrol Group. Then select the arrow that points to the left.
6. The box with the red "X" will delete all of the groups within the Patrol Group.
7. To arrange the channels in a different order, select a group and then click the up or down arrow.
8. Select **OK** when you have created your Patrol Group.
9. To begin the rotation, double-right- click the Patrol Group.

Chapter 23: Internet Viewing

Panel Options

You can view live video on the DVRs, play back recorded video, and configure the setting of the DVRs.



Allows you to view the channels live.

Allows you to play back recorded videos.

Allows you to set the location the files will saved to.

Allows you configure all of the settings on the DVRs.

Allows you to view a list of all of the activity of the DVRs.

Chapter 23: Internet Viewing

Live View

While viewing live video, you can change the viewing options, capture images, turn audio on/off, configure the color of the channels, and control a PTZ camera.



Play Control



Allows you to change the way that the channels are displayed. You can view up to 64 channels on one screen.



Switches the viewing pages.



Turns the volume of audio-enabled cameras on/off.



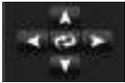
Captures an image during the live viewing.



Starts/stops the rotation of the Patrol Group.

Chapter 23: Internet Viewing

PTZ Control



Allows you to move the camera manually in the direction of the arrows.



Focuses the camera.



Allows you to adjust the type of lens to get the best picture in different lighting conditions.



Zooms the camera in and out.

Chapter 23: Internet Viewing

Live View



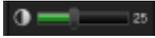
Color Settings



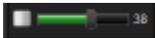
Adjusts the color of the image by changing the levels of red, green, blue, and yellow.



Adjusts the brightness of the image.



Adjusts the contrast of the colors.



Adjusts the dominance of the hues.

Chapter 23: Internet Viewing

Playback

This screen allows you to search, play back, and back up recorded videos. You must select the DVR from the Device List to view the recorded videos.



Calendar: Shows the days with recordings in bold numbers. Select a date to view a file list.



Displays the calendar. The days that have recorded videos are highlighted in red.



Displays the playback screens.



Plays the video.



Stops video playback.



Slows down the video.



Speeds up the video.



Shows each frame during playback.



Rewinds the recorded video by 5 seconds.



Adjusts the volume on channels with audio.



Captures an image.



This button will allow you to save a clip of the recorded video to your computer.



Allows you to configure the timeline to show hours and minutes.

Chapter 23: Internet Viewing

System Setting

This screen allows you set the location that the files will saved to.



- **System:** Allows you set the location the image captures will saved to.
- **Record:** Allows you set the location the videos will saved to.
- **Permission Settings:** Allows you set authorizations for users of the CMS software.

Chapter 23: Internet Viewing

Remote Setting

This screen allows you to access the DVR setting menus.

You must select the DVR from the Device List to view the settings.

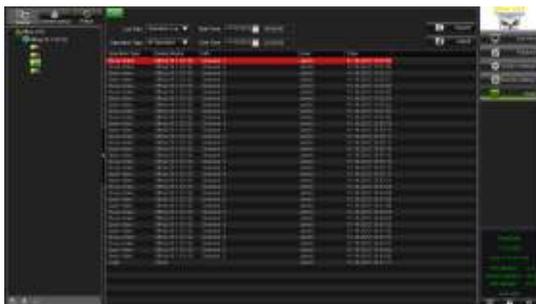


- **Information:** Refer to Chapter 19 for details on configuration.
- **Date/Time:** Refer to Chapter 14.2 for details on configuration.
- **Display:** Refer to Chapter 14.3 for details on configuration.
- **Record:** Refer to Chapter 14.4 for details on configuration.
- **User:** Refer to Chapter 14.5 for details on configuration.
- **Alarm:** Refer to Chapter 15.1 for details on configuration.
- **Network:** Refer to Chapter 15.2 for details on configuration.
- **COMM:** Refer to Chapter 15.3 for details on configuration.
- **System Manage:** Refer to Chapter 18 for details on configuration.

Chapter 23: Internet Viewing

Event

This screen displays a list of all of the activity of the DVR.



- **Log Type:** Allows you to choose the operation log or the alarm log.
- **Operation Type:** Shows the type of action that occurred in the DVR (e.g., logging in or opening a video).
- **Start Time:** Allows you to choose the beginning date and time you would like to search for activity on the DVR.
- **Record:** Allows you to choose the ending date and time for your activity search.
- **Search:** Searches for all activity for the date-and-time period that you entered.
- **Export:** Allows you to save all of the activity into an Excel document.

Chapter 24: Night Owl Pro Mobile Application

The Night Owl Pro mobile application (available online) lets you access your DVR remotely using a tablet or Smartphone.



- Apple
- Android

Night Owl Pro offers the following features:

- Live video streaming of your DVR(s)
- Add multiple DVR systems to this application (e.g., business, home and vacation home)
- View multiple channels from one DVR at the same time on one screen (4/8/16 channels per screen)
- Push alarm notifications: Receive notifications when an alarm has been triggered on the DVR
- Record audio and video to your device during live viewing
- Capture still images to your photo gallery during live viewing
- Remote playback: Record files from DVR systems using 3G/4G or Wi-Fi networks
- Play back local and event videos, which are saved in your phone's memory
- Control PTZ (Pan, Tilt, Zoom) camera(s)
- View cameras in portrait mode or landscape mode
- Direct stream connection: No video goes through third-party servers (except the push alarm function)
- Ability to change IP address or DDNS (do not include http://) and port as needed for internal and remote users
- Ability to access and configure DVR settings

Chapter 24: Night Owl Pro Mobile Application

Device Page

This page allows you to add, edit, and delete devices. Make sure that you have completed Chapters 20 and 21 of this manual before trying to access the DVR using this application.



Displays a screen that allows you to add a DVR.



Allows you to edit the settings for a device or delete a device from the application.

Chapter 24: Night Owl Pro Mobile Application

Adding/Editing a Device

This screen allows you to add or edit a device based on information that was gathered in Chapter 21.



- **Name:** Names the DVR in the application.
- **IP:** This is the public IP address of the domain that you created.
- **Media Port:** This is the port that was configured in the Port Menu.
- **Web Port:** This is the port that was configured in the Port Menu.
- **User Name:** This is the user name that you created in the User Management Menu.
- **Password:** This is the password that you created in the User Management Menu.
- **Channel:** The number of channels offered by your DVR.
- **Done:** Saves all changes.
- **Cancel:** Cancels changes without saving.

Chapter 24: Night Owl Pro Mobile Application

Live View

Live View lets you perform different functions during live viewing on a mobile device. You can view up to 16 channels on one screen.



Displays all of the configured devices. Select a device to enable live viewing.



Enables PTZ camera functions if a PTZ (Pan, Tilt, Zoom) camera is connected.



Starts/stops recording. These recordings will be located in the Local Playback section of this application.



Takes a snapshot of the live video feed.



Stops the live video feed.



Lets you hear the audio from audio-enabled cameras that are connected. Be sure the channel with the audio is selected (a green box will appear around the selected channel).

- Double-click on any channel to enlarge the image to a full-screen view.
- Using two fingers, swipe them apart to enlarge a section of the video; swipe them together to go back to normal view.

Chapter 24: Night Owl Pro Mobile Application

Playback

The Playback screen lets you control several playback operations from your mobile device.



- **Remote Playback:** Allows you to search and play back DVR recordings remotely.
- **Event Playback:** Allows you to view all of the recordings that were triggered by an alarm.
- **Local Playback:** Allows you to view all of the recordings that were started/stopped from the application.
- **Capture Playback:** Allows you to view all of the snapshots that were taken from the application.

Chapter 24: Night Owl Pro Mobile Application

Settings

This screen allows you to configure the settings of a device.



- **Information:** Refer to Chapter 19 for details on configuration.
- **Date/Time:** Refer to Chapter 14.2 for details on configuration.
- **Display:** Refer to Chapter 14.3 for details on configuration.
- **Record:** Refer to Chapter 14.4 for details on configuration.
- **User:** Refer to Chapter 14.5 for details on configuration.
- **Alarm:** Refer to Chapter 15.1 for details on configuration.
- **Network:** Refer to Chapter 15.2 for details on configuration.
- **COMM:** Refer to Chapter 15.3 for details on configuration.
- **System Manage:** Refer to Chapter 18 for details on configuration.

Chapter 24: Night Owl Pro Mobile Application

More

This screen allows you to view help functions, configure push notifications, and set the permissions.



- **System:** Allows you to change the speed of a PTZ camera when it rotates, set a permission for the application to work only in WiFi networks, and save snapshots taken during live view to a photo album on your phone.
- **Push Config:** Allows you to turn the push notifications of each DVR on and off.
- **Help:** Provides basic instructions on how to use the application.
- **About:** Shows a description of the application, the capabilities of the application, and the compatible DVR.

Chapter 25: DVR Specifications

DVR Specifications			
Video Compression	H.264		
Video/Audio Channels	Type - Port/Channels	Port/Channels	
Video Inputs	BNC	8	
Video Output	BNC	1	
	VGA	1	
Audio Inputs ⁽⁸⁾	RCA	8	
Audio Output ⁽⁸⁾	RCA	1	
Alarm	Yes		
PTZ (RS485)	Yes		
Remote Viewing Specifications			
Network Interface	RJ45, 10M/100M		
Network Protocol	TCP/IP, UDP, DHCP, DDNS, PPOE, UPNP		
Internet Viewing ⁽³⁰⁾	Operating System	Browser	Software
	PC	IE 7/8/9/10	Nightowl View
	MAC	N/A	Nightowl View
# of Users	5 simultaneously		
Mobile Phone Compatibility ⁽³⁰⁾	Mobile Platform	Model #	
	iPhone/iPad	iPhone OS 4.3 or above	
	Android/Pad	Android Ver 2.3 or above	
	Blackberry	Not at this time	
	Symbian	Not at this time	
	Windows	Not at this time	
Mac/PC Compatibility ⁽³⁰⁾	Platform	Browser	Software
	MAC	N/A	Nightowl View
	PC	IE	Nightowl View
Control Management Software ⁽³⁰⁾	Yes		
Tablet Viewing	Yes		
Camera Specifications			
	CM-600 (6 Cameras)		
TV Lines of Resolution	600 TVL		
IR Cut Filter	Yes		
Image Sensor	1/4" Color		
Number of Leds	36		
Length of Night Vision ⁽⁴⁾	Up to 100FT		
Lens Type	6.0mm (42° Field of View)		
Weatherproof Rating ⁽⁴⁾	IP-65 (Weather Resistant)		
Length of Cable	60FT per Camera		
Connection	BNC		
Signal	NTSC		
S/N Ratio	>48dB		
Effective Pixels	640 x 480		
Minimum Illumination	0Lux (IR On)		
Backlight Compensation	Auto		
Power Supply	DC 12V, 1500mA		
Power Consumption	300mA (One Camera)		
Operating Temperature ⁽⁴⁾	-14°F to 122°F		
Dimensions (L x W x H)	4.0" x 3.0" x 2.7"		

Chapter 25: DVR Specifications

Display Specifications				
Display Frame Rate	240fps			
Display Resolution	Type - Resolution	Resolution		
	VGA	1024 x 768, 1280 x 1024, 1366 x 768 and 1440 x 900		
	BNC	704 x 480		
Display Mode	Nine, Quad, Single Channel, Auto-switch and Hidden			
Recording & Playback	Channels	Resolution	Recording	Playback
Recording Frame Rate	1 CH maximum	D1 / CH	30	30
		HD1 / CH	30	30
		CIF / CH	30	30
	4 CH maximum	D1 / CH	15	15
		HD1 / CH	30	30
		CIF / CH	30	30
8 CH maximum	D1 / CH	7.5	7.5	
	HD1 / CH	15	15	
	CIF / CH	30	30	
Record Resolution	D1 @	704 x 480		
	HD1 @	704 x 240		
	CIF @	352 x 240		
Record Modes	Motion Activated, Continuous and Time Schedule			
Playback Options	By Event and Date			
Playback Mode	Multi-Channel (1/4/9)			
System Information				
Support HDD ¹⁾	1 2TB (1TB Pre-installed)			
Backup	USB2.0 (USB Keys,USB HD, USB CD/DVD-RW Drive)			
Compatible OS for Software ²⁾	Windows XP, VISTA, 7 & 8, Mac OS 10.6 and above			
Power Supply	DC12V/2A			
DVR Dimensions (L x W x H)	12.4" x 9.1" x 1.8"			
Operating Temperature	40°F to 110°F			
Other Functions				
PTZ Function	Yes			
Alarm Inputs	Yes			
Mouse Control	Yes			
Remote Control	Yes			
Multi-Tasking	Yes			
Languages Supported	English, French, Spanish			
Cable Specifications				
Type of Cable	Power/Video			
Cable Conductor	BC - Bare Copper			
Cable Shielding	Aluminum			
AWG Rating	24 AWG			
Maximum Run per Camera	200FT			

Chapter 26: Information Log

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

General DVR Information:

- Admin Password: _____
- User Password: _____
- Mac Address: _____
- Serial Number: _____

Internet Login Information:

- Internal IP Address: _____
- Public IP Address: _____
- DDNS Host Name: _____
- DDNS User Name: _____
- DDNS Password: _____
- Media Port: _____
- Web Port: _____

Chapter 27: 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:

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

Chapter 27: Warranty

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 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 reinstallation of products after repair.

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

Returns Under this Warranty

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

Chapter 27: 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.

TOLL-FREE CUSTOMER SERVICE

Email: Support@NightOwlISP.com

Website: www.NightOwlISP.com

Rev 1-2013

NIGHT OWL



CUSTOMER SUPPORT



BEFORE YOU RETURN TO THE STORE,
WE MIGHT BE ABLE TO SAVE YOU A TRIP



ONLINE

24/7 Product Support

- How-To Videos
- Manuals
- Firmware Updates etc.

www.NightOwlISP.com

EMAIL

Technical Support

- Technical Issues
- Warranty Replacement

Email: Support@NightOwlISP.com



Sales Support

- Accessory Sales
- Sales Related Questions

Email: Sales@NightOwlISP.com

PHONE *(Now in English & Spanish)*

Technical Support 1-866-390-1303

- 24/7 365 Days a Year

Sales Support 1-866-390-1303 choose option 1

- 9:00AM - 5:00PM EST Monday thru Friday

Professional Installation 1-800-806-5513

- 9:00AM - 5:00PM EST Monday thru Friday

