Q-SEE®

simplicity - quality - technology
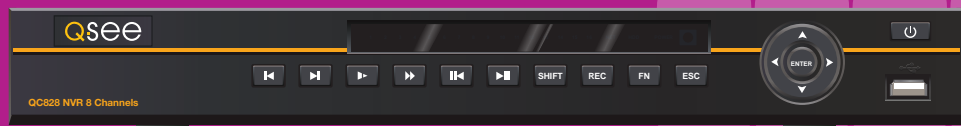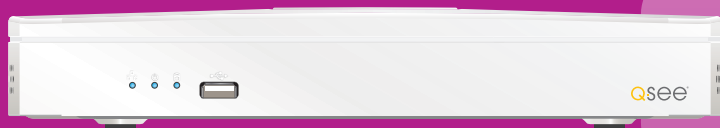
QC SERIES NVRS

QC828 NVR 8 Channels

QC SERIES

USER MANUAL

Thank You for Choosing a Q-See Product!

All of our products are backed by a conditional service warranty covering all hardware for 24 months from the date of purchase. Additionally, our products also come with a free exchange policy that covers all manufacturing defects for one month from the date of purchase. Permanent upgrading service is provided for the software and is available at www.Q-See.com.

Be certain to make the most of your warranty by completing the registration form online. In addition to warranty and technical support benefits, you'll receive notifications of product updates along with free downloadable firmware updates for your NVR. Register today at www.Q-See.com!

Please see the back of this manual for exclusions.

**ONLINE
PRODUCT REGISTRATION**

Register your product to receive
important downloads and updates.

www.q-see.com

About this Manual

This manual is written for the QC800 Series of Network Video Recorders (NVRs) and was accurate at the time it was completed. However, because of our ongoing effort to constantly improve our products, and the different capabilities of the three models additional features and functions may have been added since that time and on-screen displays may change. We encourage you to visit our website at www.Q-see.com to check for the latest firmware updates and product announcements.

This manual covers the setup and local operation of the NVR. Instructions for configuring the NVR for remote access, along with instructions for monitoring the NVR using a computer or mobile device, are contained within the **Remote Monitoring Guide** which is included on the CD that accompanied your NVR and which can also be found on **www.Q-See.com/support**.

Throughout the manual we have highlighted warnings and other important information that will assist you in operating your new system in a safe and trouble-free manner. Please take the time to read and follow all instructions and pay attention to alerts as shown below:

IMPORTANT! Red boxes with this icon indicate warnings. To prevent possible injury or damage to the product, read all warnings before use.

NOTE! Text in blue boxes with the Information icon offer additional guidance and explanations about how to make the most out of your system.

Rev. 3.0 2/20/2014

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FOR YOUR SAFETY

To prevent damage to your Q-See product or injury to yourself or to others, read and understand the following safety precautions in their entirety before installing or using this equipment. Keep these safety instructions where all those who use the product will read them.

WARNING! ELECTRIC SHOCK RISK!

■ Check the unit and any accessories included in the package immediately after opening. If items are missing or damaged, repackage and return to the point of purchase.

■ Use the proper power source. Only use the power adapter supplied with your system. Do not use this product with a power source that applies more than the specified voltage (100-240V AC).

■ Never insert anything metallic into the NVR. Inserting anything into the NVR or its case can be a source of dangerous electric shock.

■ Do not operate in dusty areas. Avoid placing the NVR in places that are dusty.

■ Do not expose this product to rain or use near water. If this product accidentally gets wet, unplug it and contact Q-See immediately.

■ Keep product surfaces clean and dry. To clean the outside case of the NVR, gently wipe using a lightly dampened cloth (only use water, do not use solvents).

■ Do not operate this NVR without the cover securely in place. Do not attempt to do any repairs to the NVR yourself. If there are unusual sounds or smells coming from the NVR, unplug it immediately and contact Q-See technical support. Under no circumstances should the cover be removed while the device is connected to a power source. You should only remove the cover to install/replace the hard disk drive (**See Chapter 9**) or replace the standard 3v lithium cell battery on the motherboard. These are the only user serviceable parts. You may need to replace the battery if the internal clock resets itself after a power outage

■ Handle the NVR carefully. If you accidentally drop your NVR on any hard surface, it may cause a malfunction. If the NVR doesn't work properly due to physical damage, contact an authorized dealer for repair or exchange.

■ Make sure there is proper air circulation around the unit. This NVR system uses a hard drive for video storage which generates heat during operation. Do not block air holes located on the bottom, top, sides and back of the NVR as they are designed to keep the system cool while running. Install or place this product in an area where there is ample air circulation.

■ Provide proper ventilation. This NVR has a built-in fan that properly ventilates the system. Do not cover or impede this fan.

FEATURES AND SPECIFICATIONS

Your NVR (Network Video Recorder) contains professional-grade features and flexibility that allows the do-it-yourselfer to easily setup and maintain a reliable and secure security system for home and office.

It utilizes a dual-core CPU running an embedded Linux operating system to maintain stable operation and a popular H.264 compression algorithm to produce high-quality, low bitstream footage that is easy to manage and efficient to transfer over the internet. It can use various functions such as record, playback, and monitoring at the same time and produces audio and video synchronization. This product has advanced network technology and data transmission functions allowing you to control and monitor your system remotely.

This product offers the following features:

Smartphone Compatible

Access live footage directly from your iPhone, iPad, Android phone and tablet or other supported mobile device. Your NVR can also be set to e-mail your hand held-device whenever specific activity occurs, such as motion detection.

Dual Video Streams

The NVR will record high definition video directly to its internal hard drive, while streaming a more compact, lower resolution or frame rate video feed over the network or Internet for real-time viewing on a computer or mobile device.

Built-in Power Over Ethernet (POE) Blocks

The POE Block allows you to power and view a number of cameras directly connected to the NVR without the need for additional power supplies or wiring. Connecting through the POE allows instantaneous video feed from your cameras.

View Your Video Feed Online with No Additional Service Fees

View your NVR's live or recorded video footage on any Internet accessible computer with Internet Explorer, Apple Safari, Mozilla Firefox and Google Chrome (using IE plug-in).

Stay Notified with Customizable Email Alerts

Set your system up to notify you when an event has occurred at the location you are monitoring. Notification alerts can easily be adjusted to your specifications.

Advanced Motion Detection Activated Recording

Advanced motion detection settings ensure that false alarms are minimized. The easy to use motion detect set up screen allows you to mask out certain areas which experience heavy movement in order to avoid false alarms and avoid unnecessary record triggering.

Multiple Backup Options

A built-in USB port gives you the option of backing up and transferring your video footage using a flash drive or external USB hard drive. Files can also be accessed from your NVR system to a remote computer location by logging on remotely.

Easily Connect to a VGA or HD Display

This system comes with VGA and HDMI video output ports to allow you to connect to a computer monitor or HD display for viewing purposes.   Some models also include a BNC video port to allow the use of an analog television as a video display.

Individually Configurable User Controls

Create up to 20 individual user accounts giving specific users access to only certain functions, cameras and etc.

24/7 Scheduled Recording

Choose which days of the week and hours of the day you want to set your NVR to record or not record.

Storage Function

Encrypted file format to ensure data security and avoid vicious data modification.

Multiple Playback Options and Advanced Search Functions

Supports real-time recording on each channel independently. Search through recorded files while you are playing live footage, monitoring through a remote location using a supported internet browsing application and backing up system files. A variety of playback modes include: slow play, fast play, backward play and frame by frame play.

Network Monitoring

Supports network remote real-time monitoring (available bandwidth permitting) and remote record search.

Alarm Activation Function

Systems with alarm ports can be paired with an on-site alarm system.

Communication Ports

Standard Ethernet port allows you to access the NVR from a network or the Internet.

> **NOTE!** Depending on your point of purchase, your DVR may have the hard disk drive already installed. If your drive was packaged separately or if you wish to upgrade to up to a larger hard drive, please see **Chapter 9** at the back of this manual which covers installing the drive.

CONNECTIONS AND CONTROLS

2.1 CONNECTIONS

The illustrations below show the ports found on the back of your NVR. Their location will differ by model, but their function will be the same. The **Connections and Specifications** sheet that came with your recorder will show the layout of your recorder's connectors along with any extra information that may apply to your model.
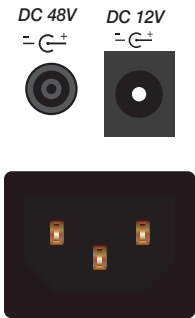
POWER

Your NVR will have either a pair of small ports (top) or a single, more conventional power port (below). On systems with the two ports, one is for the NVR's power supply while the second is for the power supply that powers the POE (Power Over Ethernet) ports. The two power supplies can only be plugged into the correct port. Do not attempt to force a power supply plug into the wrong port.

NVRs with a single power port have an internal power supply that also provides power to the POE ports.
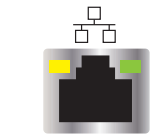
NETWORK PORT

Use this single Ethernet port to connect your NVR to your network router.

Do not connect a camera to this port.

POWER OVER ETHERNET (POE) CAMERA PORT

These ports will be in groups of four or more. Plug your camera's Ethernet cable into one of these ports.

HDMI

Use the included HDMI cable to connect to a high-definition video display.

USB

Depending on the model of your NVR, these ports may be located on both the front and back panels. Connect your USB mouse to one of the ports on the back panel, leaving the other port available for use in backing up files.

VGA

For connecting your NVR to a VGA computer monitor. VGA cable not included.

Depending on your model, your NVR may have one or more of these ports as well:

RS232

This port is for factory maintenance only.

AUDIO

Standard RCA-type connectors. Audio In ports are for connecting microphones which have been located near a camera to capture audio. The Audio Out port is to connect to a speaker. The color of these ports may vary.

VIDEO OUT (RCA)

Connect to a standard television as a video display using an RCA cable (not included).

VIDEO OUT (BNC)

Also used for connecting a standard television as a video display. Requires a BNC-to-RCA adapter or cable.
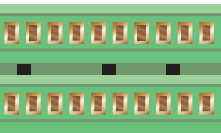
ALARM BLOCK

This serves as a connection point for one or more external alarms or sensors. Full details are given in the **Alarms** section of this manual. The size of the block will vary.

ESATA

Models with this port can back up files to an external hard drive.

2.2 MOUSE CONTROL

Your NVR is controlled through the USB mouse. Some models also include an infrared remote control and buttons on the front panel that serve as shortcuts.

The mouse works the same as on a computer with different functions possible:

LEFT CLICK: Selecting an item

Opening a menu

Checking a box or motion detection status

Selecting letters, numbers or symbols on the virtual keyboard.

DOUBLE CLICK: Selecting an event for playback

Selecting a screen to zoom into from multi-screen mode

RIGHT CLICK   Exits any window. Exits any menu or reopens previous menu.

Opens **Pop-Up Shortcut** Menu (right). The options shown - especially multi-channel viewing options - will vary by model

MOUSE WHEEL   Page up or page down

Switch items in check box

Increase or decrease numerical value in numerical input box

CLICK-AND-DRAG   Select motion detection zone

Select privacy mask zone

- View 1
- View 4
- View 8
- View 9
- View 16
- View 25
- View 36
- PTZ
- Auto Focus
- Color Setting
- Search
- Override
- Tour

PICTURE 2-1

VIRTUAL KEYBOARD

Whenever a menu field requires text - such as a password, new user name, or other setting - clicking on that field will bring up the virtual keyboard. It operates as regular keyboard using the point and click function of the mouse to select individual characters. Clicking the shift key allows access to the upper-case characters.

PICTURE 2-2

Spaces are entered using the ⌴ symbol and characters are deleted with the ⟵ key. Clicking **Enter** or clicking outside of the keyboard will close it.

2.3 REMOTE CONTROL

The buttons on the Remote Control operate in the same manner as on a conventional video player remote. Some buttons have multiple functions depending on which menu is being accessed.

| #	Name	Function
1	Power Button	Turn on or shut down the NVR before turning it off with the power switch.
2	Address	An additional security feature. You can require the NVR to ask you to enter the Device Number (found in the **General Settings** menu) before being able to access the log-in screen.
3	Fast Forward	Multiple fast forward speeds in Playback mode. Zoom in when in PTZ mode.
4	Next Record	Goes to next video in Playback mode. Adjust focus when in PTZ mode.
5	Slow Play	Multiple slow playback speeds and resumes normal playback. Zoom out when in PTZ mode.
6	Play/Pause	Will open Playback/Search mode. Begins playback of selected video or pauses current video. Adjust Iris (light level) in PTZ mode.
7	Previous Record	Goes to previous video in Playback mode. Adjust focus when in PTZ mode.
8	Reverse/Pause	"Rewind" current video or resume normal playback. Adjust Iris (light level) in PTZ mode.
9	Escape	Cancel current function or exit current menu.
10	Enter	Select default button. Go to main menu.
11	Multi-view mode	Cycle through available multi-screen display modes.
12	Record	Opens recording interface. Use directional keys to select recording mode and channel.
13	Directional Keys	Navigate through menus. Cycle through channels in single- or 8-screen viewing mode. Control Playback progress bar in Playback mode. Control PTZ camera and switch menus in PTZ mode.
14	Function	Opens volume control. Switches PTZ control menu. Use with Directional keys to set up Motion Detection
15	0-9 Keys	Use in similar manner to phone keypad to enter password, etc. Push number to select desired channel for viewing.

NOTE! Some NVRs are not designed to be used with a remote control and one will not be included with those models.
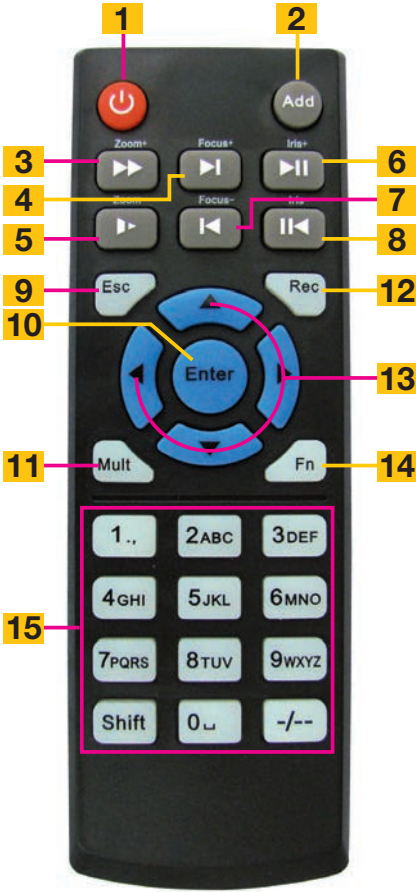
PICTURE 2-3

2.4 LIVE VIEW

Live View is the default mode for your NVR. It will display the video feeds from your cameras - either a single channel, or from multiples. You do not need to be logged in to view or change channels.

Single Screen   4 Screens   8 Screens

9 Screens   16 Screens
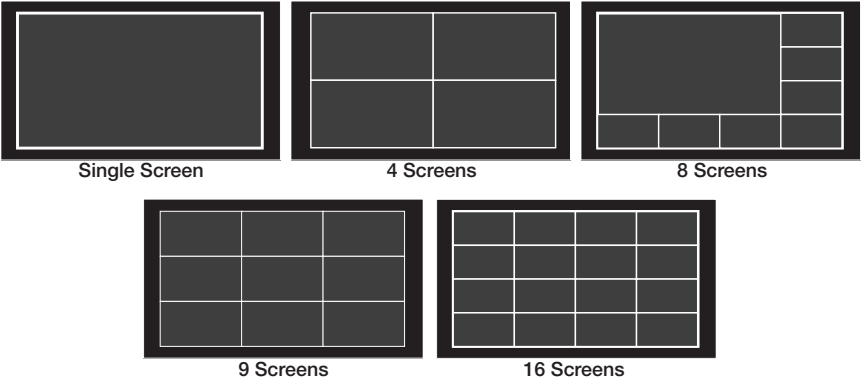
PICTURE 2-4

The number of channels that can be displayed at once depends on the capacity of your NVR. For instance, if you have a four-channel system, the viewing options will be limited to single- or four-screen modes.

Clicking on any one screen in multi-view mode will bring that screen to full-screen single-view mode. The exception is in eight-view where clicking on one of the smaller displays will move it to the larger display. You can also drag channels to a different position on the screen with the displaced channel relocating to the position of the one that was moved.

LOGIN

For your protection, the NVR will log you out after a period of inactivity. To make any changes to your system, or to view recorded video, you will need to log back in. Use the mouse to select your account from the pull-down and then to "push" the keys on the **Virtual Keyboard** to enter your password. Click **Enter** to submit the password and exit the keyboard.

PICTURE 2-5

Until new accounts are added, there are two pre-configured accounts available to users who log into the NVR:

- Administrator (local and network) User name: *admin* Password *admin*
- User name *user* Password *user*

The Admin account cannot be deleted, but you can - *and should* - change the password. After all, anyone who reads this manual would know your password, right?

> **IMPORTANT!** It is highly recommended that you change your system password after you complete the setup of your system to ensure the security of your system. Record your changes and keep that information stored securely as the system will prevent access if the incorrect login information is attempted three times within a 30-minute period. If you find yourself locked out of the NVR because of this, wait 30 minutes, reboot the NVR and attempt to log into it again.

SHORTCUT MENU

In **Live View** mode, right-clicking anywhere on the screen will bring up the pop-up **Shortcut Menu Shortcut Menu**.

This menu allows you to quickly change your viewing mode as well as moving directly to a selection of menus, including the **Main Menu**.

View - This allows you to view a group of cameras on screen at the same time. The number of cameras available will depend on how many cameras your NVR will support. The arrows to the right of the view options will allow you to select specific cameras.

PTZ (Pan/Tilt/Zoom) - This will take you directly to the **PTZ Control Window** The controls will only work with PTZ cameras.

Auto Focus - This option will only work with cameras equipped with auto focus. This feature is not available on all models.

Color Settings - You can adjust the camera's brightness, color balance, contrast and other aspects to best suit its operating environment. These changes can be made using the sliders or by selecting a pre-generated color mode.

Search - This opens the **Search and Playback Window** (See **Section 3.1**).

Override - This allows you to quickly change the recording status of your cameras.

Tour - This will cause **Live View** to cycle through your channels. This can be set up in **Displays** (See **Section 4.5**).

Remote Device - This opens the Remote Device window which allows you to access IP cameras which are located on a different network from your NVR. (See **Section 4.1**).

Main Menu - This opens the **Main Menu**.
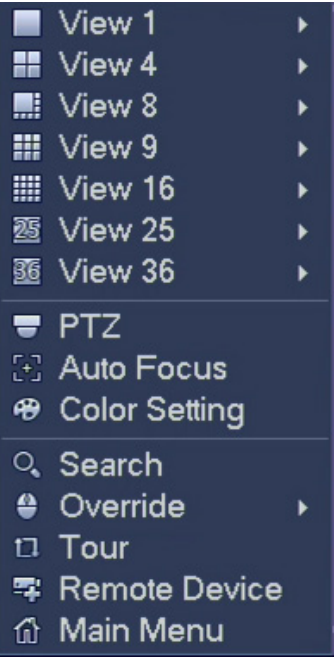
PICTURE 2-6

STATUS ICONS

There are four icons that will appear on the left side of each channel's view. They provide a quick look at that camera's status.

	Camera connected to PoE		Recording		Motion detected

NAVIGATION BAR

When this is enabled in the General Settings menu, left-clicking on the Live View display will open the Navigation Bar allowing you shortcut access to select menus and functions. It also serves as an easy-to-view status bar showing the current situation with alerts, network, and drives.

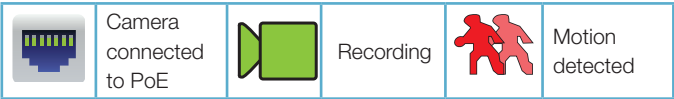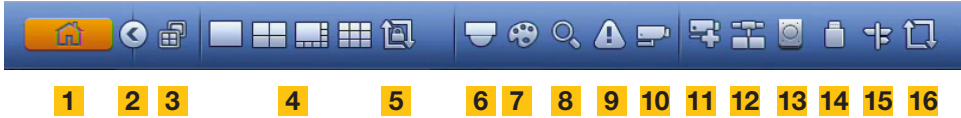|			
1	Main Menu	9	Alert Status
2	Maximize/Minimize Tool Bar	10	Channel Info
3	Shows Current Channel	11	Opens Remote Device Window
4	Screen Viewing Mode	12	Opens Network Window
5	Tour Control	13	Manage Hard Drives
6	Opens PTZ Controls	14	Manage USB Drives
7	Opens Image Controls	15	Startup Wizard
8	Opens Search	16	Tour

The icons on the navigation bar will also alert you to issues with the status of your drive, network connection and alarms with red icons when a situation arises.

SHORTCUT VIDEO CONTROLS

Moving the mouse to the upper center of a channel with a live feed will reveal the **Shortcut Video Controls**. These allow you to perform quick playback and backup functions, digitally zoom in and add another camera.

1	Realtime Playback	3	Quick Backup	5	Two-Way Talk
2	Digital Zoom	4	Snapshot	6	Add Remote Device

Realtime Playback - The window will play back the most recent segment of video recorded by that camera. The length of this video can be set in the **System > General** menu. (See **Section 4.5**).

Digital Zoom - Click to activate and then click-and-drag to select an area of interest in the video to enlarge it. Right-click to return to normal view.

Quick Backup - Saves five seconds of video. It can be live or Realtime Playback video. The file will be saved in .DAV format which will require the playback software included on your CD.

Snapshot - Captures still image(s) of the on-screen video. The number of images and the delay between each one can be set in the **Camera > Camera Settings > Snapshot** menu. (See **Section 4.1**)

Two-Way Talk - If you have a speaker and microphone located with the camera, and a microphone located at the NVR, clicking on this icon will allow you to talk to anyone near the camera. You will have to unclick the icon in order to hear any response.

Add Remote Device - Opens the **Remote Camera** window allowing you to replace the current camera with another camera that is not currently being used.

2.5 ON-SCREEN MENUS AND WINDOWS

Your NVR will normally display live video from your cameras in the **Live Viewing** mode. It is configured to record video only when it detects movement - and for most people, this is sufficient. But, everyone's needs are different so we've organized the on-screen menu in a way to make it easy for you to do what you want, quickly and easily.

Right clicking with the mouse will bring up the **Shortcut Menu** which lets you access the **Main Menu**:

PICTURE 2-4

Menu items are divided by category. You'll use the items in the **Functions** section most often. Items in the **Settings** area will allow you to set up your system exactly how you want it to operate and the **Info** section lets you monitor it. You can switch between items in the same category (i.e. switching to **Event** from **Camera**) from within the window without having to go back to the **Main** menu.

The "Menu Tree", at right, is your roadmap to your system. Not all models have certain features, such as alarms. In such cases, the option for that feature won't appear in the menu.
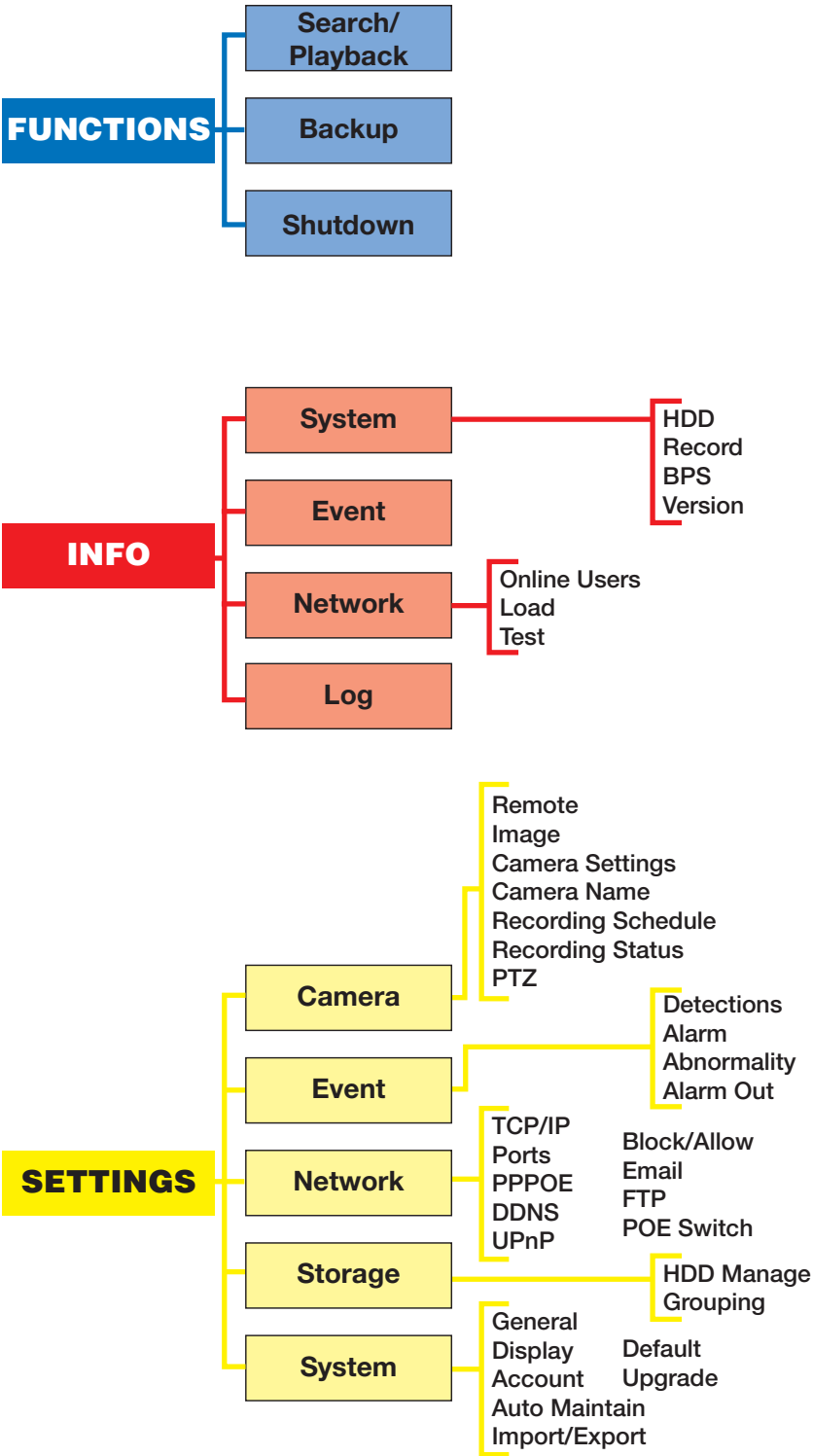
2.6 IP CAMERAS

What makes Internet Protocol (IP) or Network cameras different is that they each have a little computer processor inside them that allows them to talk to the NVR over a network - including the Internet.

There are three ways you can connect your cameras to your NVR:

1. Directly through the PoE Ports
2. Through your local network
3. Remotely over the Internet

USING THE POE PORTS

This is the simplest method. These ports provide power to the camera while receiving their video signal.

- Connect the camera and NVR using the RJ-45 Ethernet cable.
- The PoE port can power a camera up to 200 feet away.
- The camera's video will appear after a few seconds.
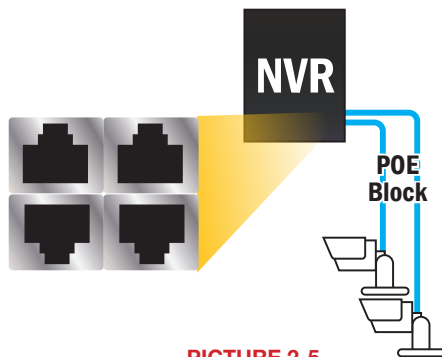- Cameras will be assigned to a channel based on the order they were connected.

PICTURE 2-5

ON YOUR LOCAL NETWORK

Instead of running the cable directly between your camera and NVR, you can connect the camera to the same network used by your NVR.

- The camera will require its own power supply, called a "POE Injector" or a power supply at the camera's location
- Both the camera must be on the same network (ie; connected to the same router)
- The camera's video will be received by the NVR through the latter's network connection.
- You will need to have the NVR search for the camera on the network. (see next page)
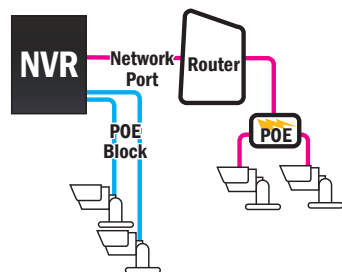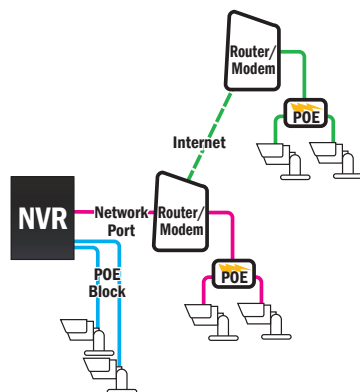

PICTURE 2-6

OVER THE INTERNET

This allows you to connect to cameras in a completely different location.

- You will need to use the **IP Tool** or **Smart PSS sofware** included on the **Manuals and Software CD**.
- Follow instructions in the **IP Camera Manual** (also on the CD) to get the IP address of the camera.
- Once you have the IP address of the camera, you can add it to the NVR through the Camera menu. More detailed instructions are available in **Section 4.1**.
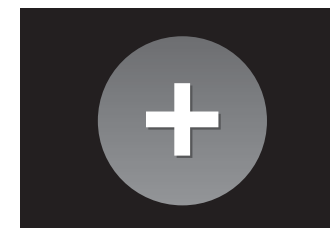

PICTURE 2-7

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ADDING AND REMOVING CAMERAS IN YOUR DISPLAY

While cameras connected to the NVR through the PoE are automatically added to the recorder's display, your system will need to be directed to cameras connected to the network or Internet.

Cameras on Local Network

Your local network are the devices connected to the same router as your NVR.

- Move your mouse to the center of any channel that is not showing video.
- The **Add Camera** icon (**Picture 2-8**) will appear.
- Click on the icon to open the **Remote Camera** window (**Picture 2-9**).
- The upper window will show available devices.
- Clicking **Device Search** will refresh the list.
- Select the desired camera and click **Add**. The camera will be added to that channel.
- Click **Save** before exiting.

PICTURE 2-8
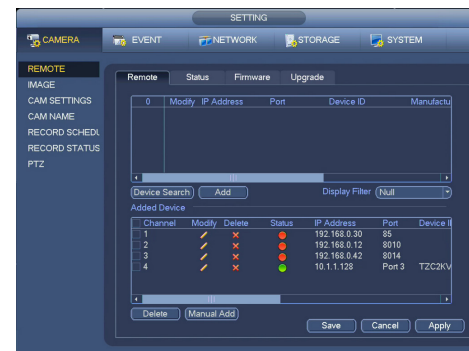
PICTURE 2-9

- You may also reach the **Remote Camera** window by right-clicking on the screen will bring up the **Shortcut Menu** (**Picture 2-10**).
- Click on **Remote Device** to open the window.
- Cameras will be added to the next open channel.
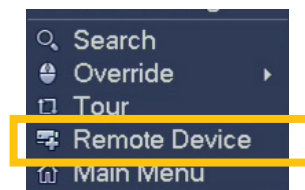
PICTURE 2-10

Please note that it is possible to add the same camera to more than one channel at a time. This will result in two identical video feeds. If this is not desired, return to the **Remote Camera** window (**Picture 2-9**) and delete the camera by clicking on the red **X** next to its name in the lower portion of the window and adding the intended camera.

Cameras over the Internet

- You will need to use the **IP Tool** or **Smart PSS sofware** included on the **Manuals and Software CD**.
- Follow instructions in the **IP Camera Manual** (also on the CD) to get the IP address of the camera.
- Once you have the IP address, use the **Manual Add** button in the **Remote Camera** window to have the NVR search for the camera and add it to the list.
- Click **Save** before exiting.

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2.7 IP PAN-TILT-ZOOM CAMERAS

IP Pan-Tilt-Zoom (PTZ) cameras share the same plug-and-play ease as other IP cameras, but, because of their extra capabilities, they require additional setup in order to perform. These settings are found in the same window used to control the direction of the PTZ camera. The **PTZ Control** window can be reached through either the **Navigation Bar** (left) or **Shortcut Menu** (right).

PICTURE 2-11

PICTURE 2-12

BASIC CONTROLS

The PTZ camera is manually controlled using the mouse in the **PTZ Control** window. Clicking and holding an arrow in the **Directional Controls** will move the camera in that direction until the mouse is released or the physical limits of the camera is reached (such as elevation).

PICTURE 2-13

An alternate way of directing the camera is with the mouse itself (QCN-series cameras only):

1. Click the Mouse icon to the immediate right of the **Directional Controls**.
2. The **PTZ Control** window will disappear.
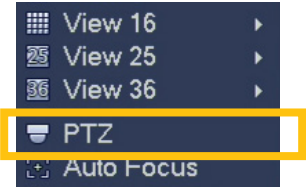3. Click and drag to point the camera where desired.
4. Right-clicking will return you to the **PTZ Control** window.

On cameras that support these features, the zoom, focus and iris (light level) can also be adjusted using the **+** and **-** buttons.

EXPANDED CONTROLS

Clicking on the arrow at the far right of the **PTZ Control** window reveals the expanded controls area which lets you command the camera to run a pre-programmed function.

PICTURE 2-14

	Aux	Controls additional features such as lamp or wipers.		Menu	Opens the camera's internal on-screen menu (if available).
	Preset Point	Moves camera to a pre-set point.		Tour	Camera will move to a sequence of pre-set points.
	Pattern	Camera will record your movements and then follow that path.		Auto-Scan	The camera will move horizontally between two points.
	Auto-Pan	Camera will automatically continue to rotate 360°		Flip	Flips video image.
	Stop/Reset	Stops the camera's current action.		Config	Set up and save Preset Points, Tours, Patterns and borders for Auto Scan

RUNNING PTZ FUNCTIONS

Enter the number of the action (tour, pattern, etc.) that you want the camera to run and then click the button for that action. The camera will follow that command until stopped using the **Stop/Reset** button or by a user taking direct control.

PROGRAMMING PTZ FUNCTIONS

Click the **Config** button to open up the **Configuration** window.

Preset Point

1. Enter a number for this point (1-80).
2. Move the camera to the desired point using the **Directional Controls**.
3. Click **Set**.
4. Repeat for additional points.
5. Right-click to exit this window back to the **PTZ Control** window.

PICTURE 2-15

Tour

This is also known as a "Patrol".

1. Enter the number (1-8) for this Tour (Patrol).

2. Select the first Preset Point by entering its number.

3. Click **Add Preset**.

4. Enter additional points (up to 16) the same way).

5. Right-click to exit this window back to the **PTZ Control** window.

PICTURE 2-16

Pattern

The camera will record a pattern you create using the Directional Controls in real-time and will repeat it exactly when you run the pattern.

1. Enter the number (1-5) for this Pattern.

2. Move your camera to where you want to start the pattern.

3. Click **Start** to begin the recording. The camera will record each stop, the time spent at each point, the zoom, focus and other settings.

4. Click End when you have finished setting your pattern.

PICTURE 2-17

Border (Auto-Scan)

Use this to set the left and right end points for the camera to shift between during its Auto-Scan. The two points can be at different elevations, but the camera will only rotate in a straight line between these two points. If you need the camera to move to - or stop at - a third point, you should set up a Tour (above). There can be only one Auto-Scan path.

1. Move your camera to either the left or right point.

2. Click **Left** or **Right** and then move the camera to the other point.

3. Click the other button to select the end point.

• If you get your left and right points "backwards" the camera will move between them, but facing the wrong way.

• When you select Auto-Scan in the **PTZ Control** window, the camera will move between these two points until stopped.
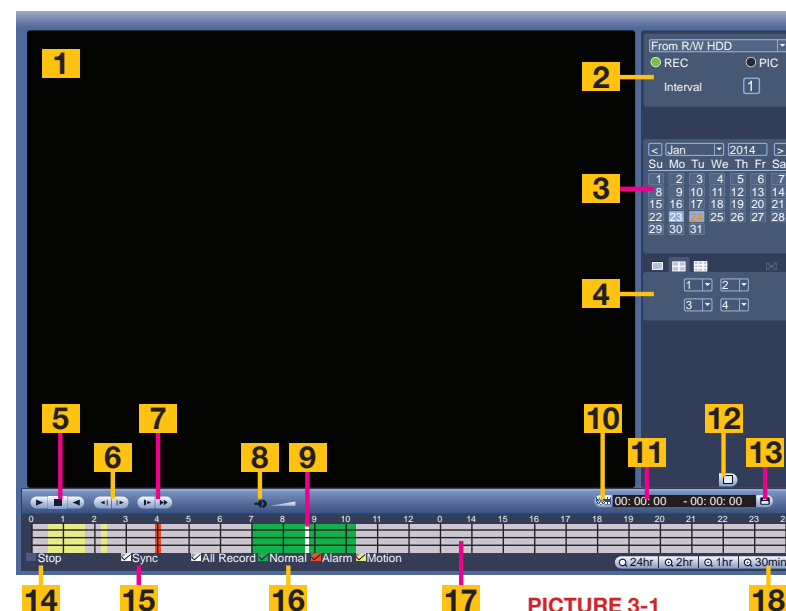
PICTURE 2-18

This chapter covers the most commonly used, day-to-day features which are found in the Functions area at the top of the menu.

Subjects in this chapter:

3.1 VIDEO SEARCH
VIDEO SEARCH & PLAYBACK WINDOW

PICTURE 3-1

#	Item	Function
1	Playback Window	Displays the video from one or more channels
2	File Source/Type	You can chose to search for videos or snapshots recorded on the hard drive or an external USB device.
3	Calendar	Shows dates that contain recordings
4	Screen Display Mode	Select the number of screens to display simultaneously. You can also select which screens are played back.
5	Play/Pause	Play video forward or backward.
6	Frame Advance	Each click advances or reverses the playback by one second.
7	Slow/Fast Play	Speed up or slow down playback. Four speeds each.
8	Volume	Adjust playback volume. Requires a microphone equipped camera.
9	Progress	Shows the progress of the video playback.
10	Create Video Clip	Set the start and end points within a video to create a shorter video clip.
11	Time Indicator	Shows the start and end points of the video clip.
12	File Search	Click to start the search once you've chosen the date and channel(s) to search.
13	Backup	Save the video clip to a removable USB flash drive or external USB hard drive.
14	Status Indicator	Indicates video playback status - playing, paused, etc.
15	Sync	When unchecked, allows simultaneous playback of different channels starting at different points in time.
16	Record Modes	Allows selection of which type of video recordings to search.
17	Video Indicator and Progress Bar	Shows the time period(s) that video was recorded, along with the recording mode of that video.
18	Time Scale	These adjust the scale of the Video Indicator and Progress Bar (#17) from 24 hours down to 30 minutes.

SEARCH

Select recorded videos to play back, back up, or lock for later using the **Search** function. You can reach the Search and Playback window can be reached through either the **Navigation Bar** (left) or **Shortcut Menu** (right).
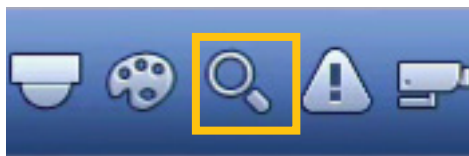
PICTURE 3-2

PICTURE 3-3

STEP 1. The calendar in the upper right of the **Video Search** window will show dates containing recorded video in blue.

PICTURE 3-4

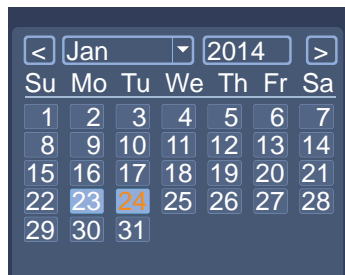**STEP 2.** Color-coded blocks indicating recorded video will appear in the **Video Indicator and Progress** bar.
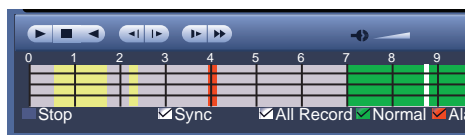
PICTURE 3-5

STEP 3. Click on a recording block to begin playing back from that time, or you can click on the **Start** button to commence playback from the first video recorded that day.

STEP 4. If needed, you can further refine the search to specific channels by choosing a single- or multiple-channel display format and then selecting the desired channel(s) to view simultaneously using the pull down menu.

You can also check or uncheck the colored boxes below the **Video Indicator and Progress** bar to choose which types of record (Motion Detection, Alarm, etc.) you're interested in.

PICTURE 3-6

STEP 5. Once you have refined your search, click on the **Search** (**Picture 3-6**) button to refresh your results.

STEP 6. The NVR will produce a list of recorded events. The list will show start time and type of recording.

> M = Motion
> A = Alarm
> R = Regular

• A box at the bottom of the list will show the start time, end time and file size of a selected video.

STEP 7. Double-click on a file to begin playback. You can double click on another file in the list to switch to that video.

• Click the ⬅ button (on the right of **Picture 3-9**) to begin a new search.
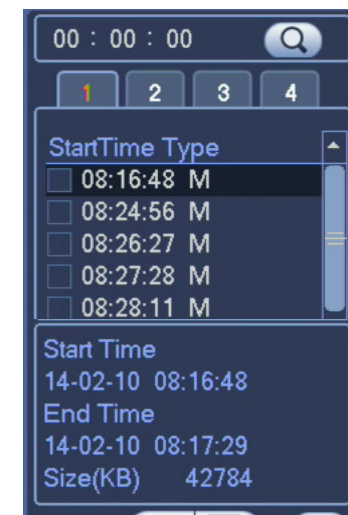
Locking Files

Important video files can be "locked" or protected against being overwritten on the hard drive as it fills up.

1. Select the file from the search list

2. Click the Lock button (on the left of **Picture 3-9**).

• Click the **Lock Search** button (cente of **Picture 3-9**) to search for locked files only.

PICTURE 3-7

PICTURE 3-8

PICTURE 3-9

> **IMPORTANT!** Critical video files should always be backed up and stored in a safe location away from the NVR as soon as possible!

3.2 PLAYBACK

Once you've selected your video(s), you can control the playback in the same manner as using a VCR or computer's media playback software using the controls below the video screen.

You can also play in reverse as well as forward, frame-by-frame movement and multiple playback speeds.

Double-clicking on a screen in a multi-channel display format will switch to a single-channel display. Double-clicking again will enlarge it to full screen mode, hiding the Search area on the right and the **Video Indicator and Progress** bar below, although the latter will pop up if the mouse is moved to the bottom of the screen. Double-clicking a third time will revert back to the multi-channel display mode that you had selected. Right-clicking when in single screen or full-screen mode will reverse the process. Right-clicking while in your original viewing mode will end the video playback.

Most of the time, the control buttons affect the video on all screens in a multi-channel display. Unchecking the **Sync** box at the bottom of the screen will allow independent control of each channel. In this case, the controls will only affect the screen highlighted in green. Click once on a camera's view to select that channel. It should also be noted that certain functions only work - or work best - in single-channel viewing mode.

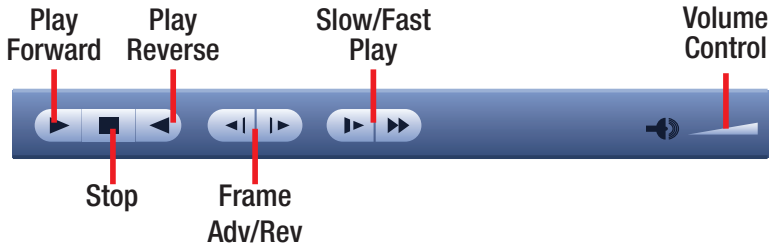**PICTURE 3-10**

Video Playback Controls

PICTURE 3-11

Start, Stop and Play

Clicking either of the **Play** buttons will start the playback in the desired direction. The button's icon will change to a **Pause** icon to allow you to freeze the playback as needed. If you have **Sync** unchecked, clicking **Stop** will end the playback of the video in the selected screen while any other videos will continue to play. Otherwise, **Stop** will end the video playback on all screens.

Frame Advance/Reverse

These buttons are only active when the playback has been paused. They allow you to move forward or backward in 2-second increments.

Slow/Fast Play

There are four speed settings for each button. Clicking these buttons will increasingly slow or speed up the playback as appropriate. When the after the fourth setting is reached, a subsequent click will return the playback to normal speed. You can also decrease the effect of one button on speed by clicking the other. Example: With playback set on "Fast 3", you can slow it down to "Fast 2" by clicking on the **Slow Play** button.

Volume

If you have a microphone-equipped camera or a microphone co-located with your camera you can play back any audio that was recorded along with the video. Adjust the volume with the slider as needed.

DIGITAL ZOOM

Digital zoom in video playback operates differently than it does in Live View as described at the beginning of this chapter. Both are digital zooms where the image is electronically enlarged - usually in exchange for a decrease in image clarity. You can digitally enlarge an area of a video by clicking and dragging with the cursor on the area of interest. This action will draw a green rectangle on the screen. When you release the mouse button, the cursor will change to a magnifying glass.

Click within the border to zoom into the area. If you need to re-draw the box, merely click outside the area to dismiss the box and then re-select the area.

In the case of a multi-screen viewing mode, the zoomed-in view will fill only that portion of the screen occupied by that channel. You can switch to single-screen mode by double-clicking on the screen as described earlier. You can also go to full-screen mode and back to multi-screen mode as well. Right-clicking with the mouse will return you to the full channel view.
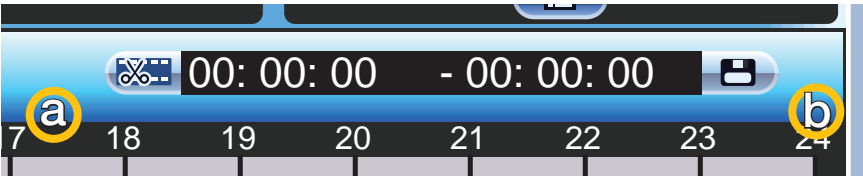

PICTURE 3-12

VIDEO CLIP

This allows you to save only a portion of a video clip. For example; if you have a camera set to record all the time and it captures some action in a five-minute segment, you can clip only that portion and back it up. In addition to making an incident readily available, saving only the portion of interest will reduce the amount of disk space needed to back it up.

STEP 1. Select a file to view in the normal manner.

STEP 2. Find the section of interest and press the **Clip** button (a)

STEP 3. Drag the playback bar to the end of the section, or allow the video playback to progress to the desired endpoint and press the **Clip** button again.

STEP 4. Press the **Backup** button (b) to save the file to a USB drive connected to the USB back-up port on the front of the NVR. It is not possible to save the edited clip to the NVR's hard drive.

PICTURE 3-13

SAVING A FILE

This process lets you back up the files you've selected. If you want to back up a lot of files, please see the next section. Once you have backed up these files to an external USB device they can be played back on a computer.

You must have a USB device connected to the USB port on the front of the NVR before proceeding.

STEP 1. In your file list to the right of the playback screen, check the box next to the file(s) you wish to save.

STEP 2. Click on the **Backup** button (**item b in Picture 3-13**) and the **Backup** window will open.

STEP 3. Your device will be listed at the top of the window showing how much space is available. Below it, the list of file(s) you wish to back up will be displayed along with type, start and end times and size. At the bottom of the window, the space required to save the file(s) will be displayed. You may uncheck any files you do not wish to back up at this time. The Remove button will remove all the files from your list.

STEP 4. Choose the video format you want to save your file(s) in - .ASF or .DAT. Files saved as .ASF can be played in most video playback programs.

STEP 5. Press **Start** to back up your selected files.
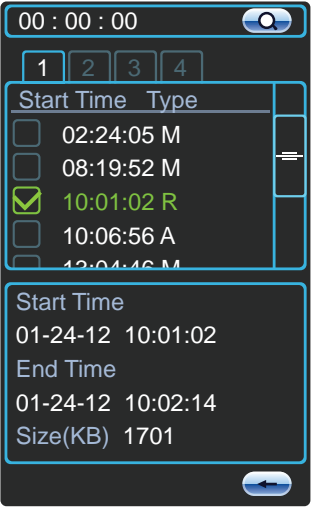
PICTURE 3-14
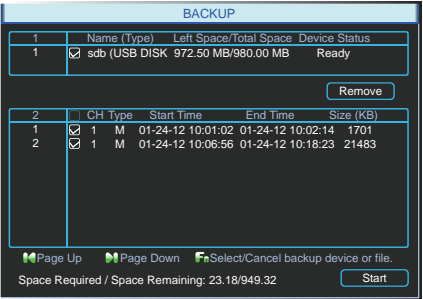
PICTURE 3-15

Right-clicking the mouse will exit this window without saving the files.

Right-clicking with the mouse will exit the playback window.

> **NOTE!** If the video files are in .DAT format, they will not play outside the NVR without being converted to .avi format using the included General Player software included on the Manuals and Software disc that came with this NVR or available for free download at Q-See.com by searching for your model number and looking under Software. This software can also convert the .DAT files to .AVI

3.3 BACKUP

This NVR supports backing up files from the hard drive to both an external USB storage device as well as over a network. Network downloads are covered in the **Remote Monitoring Guide**.

The **Backup** menu is located in the **Functions** section of the **Main** menu.

The **Backup** window will display any connected devices along with available space and status. If you have a device connected to the USB port on the front of the NVR and it does not appear, press the **Detect** button. If it still does not appear, then use a different USB device.

PICTURE 3-17

NOTE! External USB hard drives used for backing up data will need to be in the FAT32 format. Most new drives will need to be reformatted before use with this DVR. Formatting instructions are provided at the end of this chapter.

Once an external USB device is detected, pressing the **Backup** button will open a new window allowing you to select which files to back up. You can select by channel, start and end times, as well as which type of event; regular recording, alarm, motion detection or all of them.

Only files with a check mark in front of them will be backed up. You can deselect whichever files you choose or select them all by selecting the box at the top of the list.
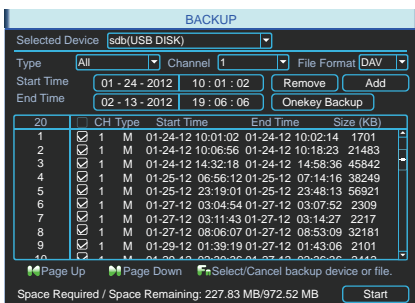
PICTURE 3-18

If you need to clear space on your external drive, you can use the **Erase** button. This will delete **ALL** files on that device.

Once you have selected the files, press **Start** to begin the download. A progress bar will be displayed showing estimated time remaining. During the download, the **Start** button will change to **Stop**. You can stop the process at any time by pressing the button again.

You can also right-click out of the menu once the file transfer has begun to go on to other activities without cancelling the download.
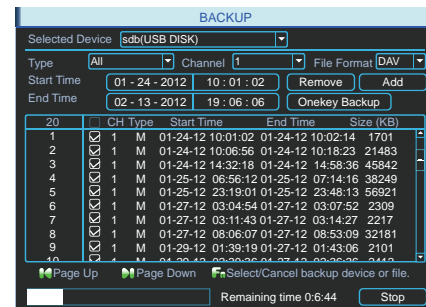
PICTURE 3-19

The files will be saved with the following naming format:

SN_CH(channel number)_TYPE_TIME(Year, Month, Date, Hour, Minute, Second)

Therefore, a file shown on the DVR as being a regular record (R), being recorded on 01/04/11 starting at 2:00:00 would have a file name of:

1_01_R_010411020000.dav

The Year Date Month format is the same as you have set in the **General** interface. The .DAT files can be played back or converted to .AVI format using the software included on the CD accompanying this NVR.

FORMATTING A USB DRIVE IN FAT32

To format a USB flash drive with FAT32, plug it into a PC running Windows XP or later. Go to **My Computer** to locate the drive's icon. Right click on it and select **Format** in the list of available options. Select **FAT32** and check the box marked **Quick Format** before clicking **Start**.

For USB drives over 32GB in size, you should use a FAT32 format utility such as those available through *CNET.com*.

On a Macintosh computer, you will need to reformat the USB flash drive using the Disk Utility app located in the Utilities folder within the Applications folder. Connect your drive to a USB port on the Mac and it should appear in the list on the left of the window.

Select your drive from the list, making sure that it is highlighted before proceeding.

In OSX 10.6, you can set the format to MS-DOS (FAT) in the **Erase** tab. In OSX 10.7, you will use the **Partition** tab.

Click the **Apply** or **Erase** button, depending on your system, to reformat the USB drive
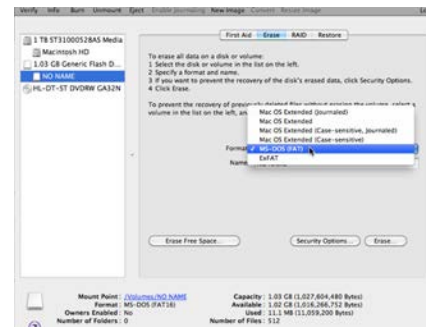
PICTURE 3-20

IMPORTANT! Reformatting a drive will erase ALL data on the drive!

3.4 SHUTDOWN

The NVR should never be shut off by unplugging it or by using the power switch without first using the **Shutdown** function.

This function allows you to shut down the NVR safely by letting the system finish writing files, parking the hard drive and other actions to preserve the electronics. Once the process has finished (generally a minute or two), the recorder will inform you that it can be safely unplugged or the power switch can be turned off.

PICTURE 3-21

LOG OUT

Normally, your system will log a user out after a period of inactivity. This period can be set in the **General** section of the **System** settings window. The **Logout** function allows you to secure the NVR before then if, for example, you will be away from your system and others have access to the room where it is located. It is also used when there are multiple users with different levels of access and control. Once logged out, a user will need to log back in as normal.

RESTART

Your NVR is essentially a highly specialized computer. Like any other computer, its performance may benefit from being rebooted on occasion. If you have not disabled the Startup Wizard, it will launch when the NVR restarts, but if you are not having network problems, you can exit the Wizard without having to go through it again.

SETTINGS

Most users will make occasional changes to their system using the Settings area of the menu as they become more familiar with their system and how to optimize it to best suit their needs.

Subjects in this chapter:

4.1 CAMERA

Use the **Camera** menu to add cameras, adjust their video settings, set recording schedules and control Pan-Tilt-Zoom (PTZ) cameras. These options are found in submenus and tabs.

PICTURE 4-1

Icon	Meaning	Description
✏️	Editable	You may edit the settings on this device by double-clicking on it
✖️	Cannot Delete	This device is connected directly to the NVR and must be physically unplugged to be removed from this list.
❌	Removable	This device may be deleted from the list by checking the box next to it and clicking on the **Delete** button below.
🟢	Device Status OK	The connected device is operating normally.
🔴	Device Error	There is an issue with the connected device that is preventing it from operating normally.

REMOTE

This submenu is for adding and controlling cameras connected to the NVR either through its POE ports or over a network/Internet connection.

Remote Tab

This tab shows all the cameras connected to your NVR. Cameras connected through the POE ports will automatically appear on this list. Cameras on the same local network and the Internet will need to be added.

Local Cameras

1 Connect the camera and NVR using the CAT5e Ethernet cable.

2 The PoE port can power a camera up to 200 feet away.

3 The camera's video will appear after a few seconds.

4 Cameras will be assigned to a channel based on the order they were connected.

Local Network Cameras

1 Connect your camera to any network port connected to the same router as your NVR

2 The camera will require its own power supply, called a "POE Injector", or a power adapter.

3 Connect the camera ton the same network (ie; connected to the same router) as the NVR.

4 The camera's video will be received by the NVR through the latter's network connection.

5 Click **Device Search** (**item a in Picture 4-3**)

**6** Select the desired camera and then click **Add**

Over the Internet

1 Connect the camera to any network port with access to the Internet.

2 The camera will require its own power supply, called a "POE Injector".

3 You will need to use the **IP Tool or Smart PSS Software** included on the **Manuals and Software CD**.

4 Follow instructions in the **IP Camera Manual** (also on the CD) to get the IP address of the camera.

5 Click **Manual Add** (**item b in Picture 4-3**)

6 Enter the camera's IP address and port, along with the user name and password. The default **TCP Port** is 3777. Leave the **Manufacturer**, **Decode Buffer** and **Remote Channel** settings unchanged.

7 Click **Save**

After adding any camera, be certain to click **Save** at the bottom of the **Setting** window.

PICTURE 4-2
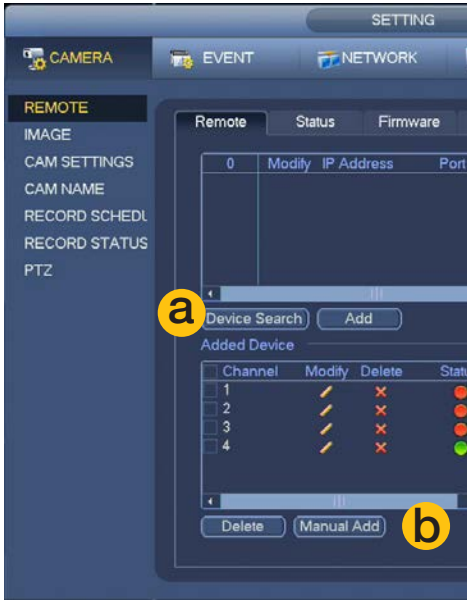
PICTURE 4-3

PICTURE 4-4

Removing and Configuring Cameras.

The **Added Devices** section of the window shows the list of cameras connected to the NVR along with information about each device including ID and manufacturer. A series of icons to the right of the channel ID provides additional information.

Icon	Meaning	Description
✏️	Editable	You may edit the settings on this device by double-clicking on it
✖️	Cannot Delete	This device is connected directly to the NVR and must be physically unplugged to be removed from this list.
✖️	Removable	This device may be deleted from the list by checking the box next to it and clicking on the **Delete** button below.
🟢	Device Status OK	The connected device is operating normally.
🔴	Device Error	There is an issue with the connected device that is preventing it from operating normally.

A locally connected camera may show itself as Removable but when deleted, it will automatically reconnect to the NVR.

Clicking the **Edit** icon will open the **Modify** window where changes can be made to the camera's connection settings.

NOTE! Changing a camera's connection settings can cause the NVR to lose that connection until changes are made at the camera.

Auto/TCP/UDP - QC IP cameras are set for automatic connection. Other cameras may require different connection protocols. Consult your camera's manual for the proper choice.

PICTURE 4-5

Status Tab

This tab shows some of the same information also found in the **Remote Device** tab, but also displays information regarding motion and alarm status for specific cameras as well.

PICTURE 4-6

Firmware Tab

You can view the firmware version - shown as System Version - of the cameras connected to your NVR.

PICTURE 4-7

Upgrade Tab

You can upgrade the firmware of your cameras - including those connected remotely.

⚠️ **IMPORTANT!** Only upgrade a camera's firmware to fix a problem or add a needed function! **DO NOT remove the USB** drive while the upgrade is taking place or you can permanently disable the camera.

PICTURE 4-8

1 Download the camera firmware file on a computer

2 Load the camera firmware file onto a removeable USB drive.

3 Insert the USB drive into a port on the NVR that is not being used by the mouse.

4 Click **Select** and navigate to the file on the USB drive.

5 Once you've selected the file, click on **Begin** to start the upgrade.

PICTURE 4-9

IMAGE

Use this submenu to adjust the video image for each camera.

PICTURE 4-10

• Select the channel you wish to modify in **Channel**.

Mirror - Image will be "backwards"
Saturation, Brightness, Contrast, Sharpness sliders - manually adjust video image.
Flip - Image will be upside down.
Light - Lightens picture. **Stop** disables this feature.
Scene Mode - Preset color settings for a variety of environments, plus user-customizable options.
    The Blue and Red gains may be adjusted between 0 and 100. The default is 50.
    Stop turns this feature off.
Daylight - Preset options for changing light conditions
    • Colorful – Video image is shifted towards red hues.
    • Auto – Constantly adjusts color balance to maintain accurat colors.
    • B/W – Camera will only operate in black and white mode.
    • By Time – Color is ajusted at specific times.

• Click **Apply** to test your settings.
• Click **Save** before exiting this window to preserve your changes.

CAMERA SETTINGS

Use this submenu has three tabs covering the video stream (data transmission), on-screen displays of information and event notice snapshots.

PICTURE 4-11

Network download speeds can affect the amount of data that can be transferred. If you notice that video from networked cameras to your NVR "lags" you should adjust the Main Stream settings. If video from your NVR to your mobile device "lags", adjust the Extra Stream settings. Changes made on the Extra Stream will not affect video saved to your NVR.

Main Stream and **Extra Stream** - The Main Stream is the video sent from your camera to your NVR. The Extra Stream is a smaller video stream for viewing on mobile or remote devices.

Channel - This is the channel you'll be modifying.

Code-Stream Type - You can have your camera record at different settings depending on whether it's recording normally or due to an alarm or motion-detection (MD) event.

Compression - Leave at H.264

Resolution - The default will be the maximum capability of your camera. Lower settings use less data.

Frame Rate (FPS) - Variable between 1 and 30. The higher the number, the smoother the video.

Bit Rate Type - Variable versus Constant. Variable provides better compression, but issues may arise when streaming for remote viewing.

Bit Rate (KB/S) - Reduce this first if you are having image quality or performance issues.

Audio/Video - Automatically enabled on the Main Stream, this can be turned off on the Extra Stream if needed. There must be a microphone or audio-enabled camera for audio to be recorded.

- **Copy** the settings from one camera and apply them to another channel, if desired.
- Click **Apply** to test your settings.
- Click **Save** before exiting this window to preserve your changes.

Overlay Tab

This window has controls for on-screen displays from the camera as well as for masking sensitive areas.

Channel - This is the channel you'll be modifying.

Time Display - This is in addition to the time display that the NVR places on your camera's video. Enabling this is usually unneccessary unless the camera is located in a different time zone.

Channel Display - This also duplicates the channel display generated by the NVR.

- Unlike the NVR's internal Time and Channel displays, the camera's displays will appear on recorded video.
- Click **Setup** to move the time or channel display with the mouse to another part of the screen.

Cover Area - Clicking the **Monitor** button will reveal four numbered buttons. These are the four on-screen areas that you can set to cover.

Click **Set** to reveal a live view of the camera's feed. There will be a numbered area on the display which can be moved and re-sized. You can deactivate any of these areas by deselecting the numbered button.

Snapshot Tab

Snapshots are still images captured either by clicking on the **Snapshot** button in the **Shortcut Video Controls** at the top of each screen, or when triggered by an event or schedule.

Manual Snap - You may take 1-5 snapshots each time the **Snapshot** button is pressed.

- The lower portion of this menu is for snapshots taken on a schedule or when triggered.

Channel - This is the channel taking the shots.

Mode -
    Timing - Snapshots will only be taken during the times set up in **Record Schedule > Snapshot**
    Trigger - Snapshots will only be taken when triggered by an alarm or when motion is detected.

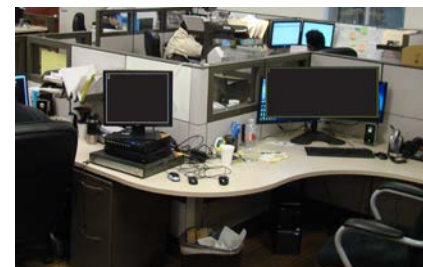**Image Size** - Up to the maximum resolution of the camera.

Quality - From 1 to 5 with 5 being the best.

Frequency - The number of snapshots (up to 6) taken each time.

- Snapshots can be searched for in the **Video Search** window.

PICTURE 4-12

PICTURE 4-13

PICTURE 4-14

PICTURE 4-14

CAMERA NAME

Naming your cameras to something more descriptive may help you or other users quickly identify the area in view.

PICTURE 4-15

RECORD SCHEDULE

Your NVR comes from the factory set up to record whenever motion is detected. If you need to modify this schedule, this is where to do it.

PICTURE 4-16

	Eraser	Clears the selected type of recording from that day		Settings	For precision scheduling
	Regular	NVR will record constantly		Motion Detection	NVR will record when motion is detected
	Alarm	NVR records when alarm triggers (NVRs with alarm inputs only).		Motion & Alarm	Alarm or motion will cause NVR to record

Setting a Recording Schedule

There are two ways to set up your schedule - either sheduling blocks of time using the timeline, or by setting precise start and stop times in the **Period** window.

Pre-Record - The NVR can record the scene up to 30 seconds before motion is detected.

Redundancy - If you have multiple hard drives, you can save the recording to a second hard drive.

Multi-Day Schedule - Click on the boxes to the left of the day names to link them and set the same schedule for all of those days. Linked days will be indicated by a chain icon.

Motion/Alarm/Motion & Alarm - If you schedule **MD & Alarm**, any previous, overlapping schedules of either **Motion Detection** or **Alarm**, will be erased as **Motion & Alarm** covers those functions.

Method 1 - Schedule Timeline

1. Select the desired channel.
2. Click the colored box above the timelines to choose which mode you'll be editing.
3. Click and drag the mouse in the time periods that you want the recording to continue.
4. Repeat for other cameras, recording modes or days as desired.

Method 2 - Precision Scheduling

1. Select the desired channel.
2. Click the gear icon to the right of one of the days to open the **Period** window.
3. Set the start and end times for one or more recording period.
4. Select the recording mode for each period.
5. Select the other day(s) you want this schedule to run.
6. Click **Save** to exit.

PICTURE 4-17

• Settings made in one method will affect the other method.

• **Default** - Restores recording settings for this channel back to 24/7 Motion Detection only.

• **Copy** - Copies the settings for this channel so you can apply them to another channel.

• Click **Save** before exiting this window to preserve your changes.

Setting a Snapshot Schedule

Control when snapshots are taken in the same way recordings are scheduled.

Holiday Schedule

• Creating a holiday in the **System > General** window (**Section 4.5**) will add another schedule below the Saturday timeline. You can set up a specific schedule that will automatically be used on any date added to the holiday list.

RECORD STATUS

This window offers a quick way to override the current camera settings should the need arise.

• This window can also be reached by selecting **Override** in the **Shortcut Menu**.

PICTURE 4-18

PTZ

This is for use when connecting legacy pan-tilt platforms that use RS485 control wires. Your NVR must have a green RS485 block located on the back panel for local control or a similar connection where a remote camera is located. Any camera so connected must be an IP camera and only the pan-tilt platform will be controlled.

• Choose **Local** or **Remote**
• Adjust settings to match those of the remote platform or camera to ensure proper control.

PICTURE 4-19

4.2 EVENT

Now that you've set up the recording schedule, you can use the **Event** window to direct the actions that the NVR will take when motion, tampering or loss of video is detected.

PICTURE 4-20

DETECTIONS
Motion Events

This tab is divided into two parts. The upper portion is for fine-tuning the motion sensitivity of each camera while the lower segment controls how the NVR will respond when it detects motion on that channel.

Channel - Each channel can be individually configured.

Enable - This turns motion detection on or off.

Region - You can turn off motion detection in certain areas of the video - such as the area covering a busy street or a hallway at the base of a restricted staircase.

PICTURE 4-21

Motion Detection Regions
1. Click the **Setup** button.
2. The camera's view will appear on screen with a grid overlay. Areas that are sensitive to motion detection will have a red hue.
3. Click or click-and-drag on an area to make it clear (motion detection off).
4. Clicking on the area again will restore motion detection sensitivity.
5. Right-click to exit the window.

Sensitivity - The sensitivity of this camera can be adjusted from 1-8 with "8" being "Most Sensitive."
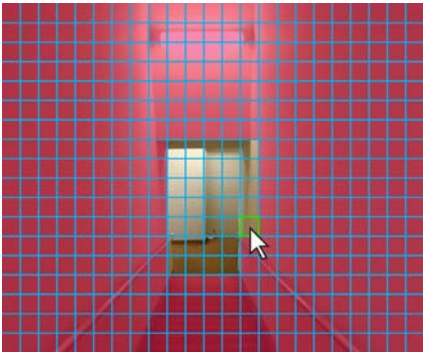
The lower portion of the **Motion Events** lets you control how the NVR will react when it detects motion.

Trigger Period - Just as you've configured the NVR to record on a schedule, you can set the alert notifications to occur only at certain times.

    EXAMPLE: Turning off motion alerts during business hours when employees are in the building.

Hold Time - This is the time, in seconds, that the NVR will wait after detecting motion before saving the file. If it detects motion during that time, it will treat it as part of the same event. The maximum delay is 10 minutes.

Alarm Out - If your NVR is equipped with an alarm block, you can have it trigger up to three audible alarms.

Alarm Continue - The alarms can be set to continue to sound for up to 5 minutes.

Show Message - An on-screen message can be displayed

Alarm Upload - Your NVR can upload an alert message to a computer monitoring your system using the Web Service or the Smart PSS software. See **Section 3.2** and **3.3** of the **Remote Monitoring Guide**.

Send Email - When enabled, an alert email will be sent to the address you've entered in the **Network Setting** window (again, see **Section 4.3**)

Record Channel - You can also have other cameras start recording when one detects motion.

PTZ Activation - An attached PTZ camera can be directed to a Preset Point (see **Section 2.7**).

Recording Continue - The camera - and cameras that were triggered - will continue to record for up to five minutes afterwards.

Tour - This is not the PTZ tour. When enabled, this will cause the NVR to cycle through the full-screen views from the selected cameras.

Snapshot - In addition to recording video, other cameras can be set to take snapshots (set up in **Section 4.1**).

Buzzer - The NVR's internal buzzer will sound for the same duration as the external alarms.

- **Copy** the settings from one camera and apply them to another channel, if desired. This does not include the Motion Detection area settings from the top of the window.
- Click **Apply** to test your settings.
- Click **Save** before exiting this window to preserve your changes.

Tampering

These options are identical to those for Motion Events but are triggered when the NVR determines that someone has covered the camera to avoid detection.

PICTURE 4-20

Video Loss

If the NVR loses contact with the camera through power loss, cut cable or anything else that interrupts the signal, it will trigger the actions you select. These are the same options as available in Motion Events.

PICTURE 4-21

ALARM

This window handles inputs from external alarms and sensors in the same way that the **Detections** window handles camera inputs. Even if your NVR does not have alarm inputs, some IP cameras have their own alarm connections and you can send an alarm to your system while remotely monitoring it.

PICTURE 4-22

IPC External Alarm

This tab handles inputs from alarms connected to IP cameras.

Channel - Select the channel of the camera with the attached alarm.

Enable - This box must be checked in order for the NVR to receive input from the alarm.

Type - Alarms are either set to be "Normal Open" or "Normal Close" choose the correct setting.

- The lower portion of the window works exactly as in the Detections window (see previous page).

IPC Offline Alarm

This will alert you if your NVR loses connection to a camera.

PICTURE 4-23

Local Alarm

This tab handles input from alarms connected directly to an alarm port on the back of the NVR, if your NVR has an alarm block. An illustrated example of an alarm block is shown in **Picture 4-25**.

Alarm Alias - You can create an easily identifiable name for the alarm.

PICTURE 4-24
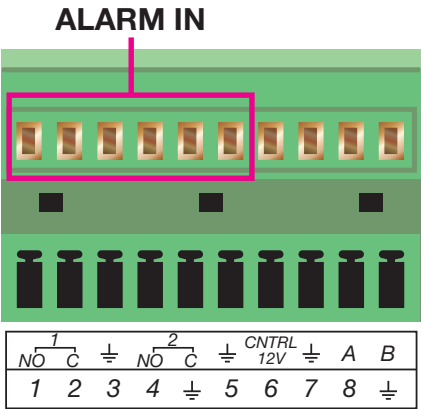
ALARM IN

PICTURE 4-25

Network Alarm

If you are remotely monitoring your NVR from a mobile device or computer, you can send an alarm to the system to alert someone, trigger recording or even scare off an intruder.

PICTURE 4-26

ABNORMALITY

If the NVR experiences an error with its hard disk drive (HDD) or its network connection, it can alert you to the problem so it can be quickly fixed.

Hard Drive

Hard drive failure (or removal), disk errors or a full drive can all trigger a customizable set of alarms. Obviously, recording to the drive is not one of the actions that can be performed.

PICTURE 4-27

Network

Loss of network connection and local network conflicts involving IP and MAC addresses will prevent remote monitoring.

• An IP address conflict typically happens when the NVR's address is manually entered rather than automatically assigned by the router.

PICTURE 4-28

4.3 NETWORK

The network settings control how the NVR communicates with your local network, the Internet and the IP cameras. For most users, following the instructions in the Setup Wizard will establish a reliable connection for remotely monitoring your system. The **Remote Monitoring Setup poster** provides instructions for more complex network connections.

This section will cover the most important settings found in this window. Full, in-depth instructions on connecting your system and troubleshooting most connectivity issues can be found in the **Remote Monitoring Guide** found on the same CD as this manual.

PICTURE 4-29

Most of the settings found in this window will have been made automatically as the NVR connects to the network. If you are not having issues connecting to your NVR remotely, or connecting to your cameras, you should not make any changes in this window as it could cause loss of connection.

TCP/IP

- Transmission Control Protocol is one of the core Internet Protocols that determines how devices communicate with each other.
- This window displays your NVR's IP address and other information which will be needed when remotely logging into the NVR using the **QC View** mobile app, the Smart PSS software or web app

  Use the **IP Address** when logging into your NVR over the Internet or away from your local network.

  Use the **WAN IP Address** when logging into your NVR on the same network.

- The **DHCP** box should remain checked unless you are setting up a static IP address. This is covered on the **Remote Monitoring Setup poster**.

PORTS

Ports are the "doorways" through which data travels to and from the NVR.

Max Connection - Your NVR will support up to 20 remote connections. You can reduce this number if desired.

TCP Port, HTTP Port - If you are experiencing problems with connecting your NVR to the Internet, it is likely because there are other devices on your network that use one of these two port numbers. Check the **Remote Monitoring Setup poster** or **Remote Monitoring Guide** for instructions on how to correct the situation.
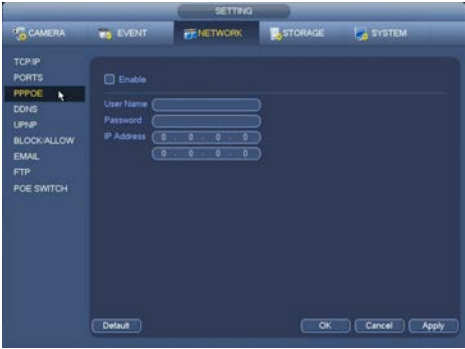
PPPOE

This is for use only with a dial-up modem. You will need to contact your Internet Service Provider for the correct information to enter into this window.

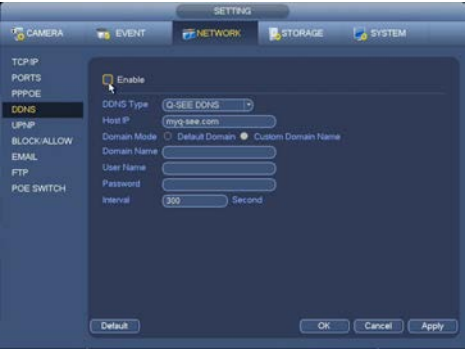### DDNS

This feature allows you to utilize an easy-to-remember web-style address to log into your NVR rather than the IP address.

PICTURE 4-30

PICTURE 4-31

PICTURE 4-32

UPNP

Universal Plug 'n Play is a technology that allows devices to discover each other on a network, which simplifies the process of adding your NVR to your network.

Status - Shows whether your NVR is successfully connected to your network via UPnP.

- UPnP is enabled on your NVR by default.
- AT&T's 2Wire brand routers do not support UPnP and you will have to forward ports 85 and 37777 according to the instructions on the **Remote Monitoring Setup poster**.

PICTURE 4-32

BLOCK/ALLOW LIST

You can allow remote users to log into the NVR only from specific IP addresses. You can also block specific IP addresses from access to your system.

- Up to 64 users may be entered as trusted.
- If the Block/Allow list is enabled, ONLY those on the trusted list will be allowed to log into the NVR.

PICTURE 4-33

EMAIL

Email alerts from your NVR keep you notified when you're away from your system.

- Your system can generate a lot of email traffic. If you do not have your own mail server, we suggest using the free Gmail service which will allow for a higher amount of emails.
- Emails should be sent to a different account than the sending account.
- You can add two more recipient emails using the Web Client software as shown in the **Remote Monitoring Guide**.

SMTP Server – smtp.(example).com

Port – This is the port your mail provider uses

User Name and Password – These are for the sending e-mail address and were set up when you created the e-mail account.

Receiver – This is the recipient e-mail account.
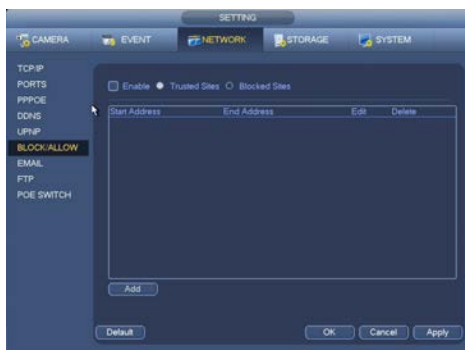
Sender – Example: QC NVR

Subject – This is the subject line of e-mails generated by this NVR.

Attachment – This allows the e-mail to include one or more snapshots as attachments

Encryption – The system supports SSL and TSL encryption.

PICTURE 4-34

Interval – This adjusts the amount of time that will pass before the DVR sends out another e-mail. The interval can be set from 0 minutes to 6 hours (360 minutes). If you are getting too many e-mails, you may wish to increase the length of the interval.

Health – When checked, the NVR will send out a test message at the interval below.

Interval - The Health check interval can be up to 24 hours.

- Once you've set up your email, click the **Test** button to check your settings.

FTP

File Transfer Protocol (FTP) allows you to securely share, manage, and distribute files over the internet. You will need to already have a server and FTP service tool to utilize this feature on the NVR.

- Enter the FTP server address (Host IP) and port.
- Enter the user name and password for the FTP account so the NVR can log into it.
- If the remote directory is left blank, the system will automatically create folders according to the IP, time and channel.

PICTURE 4-35

File Length – This is the maximum length (in minutes). Files under the maximum will upload completely. Files longer than the maximum limit will only upload to that limit and not continue. If the value is left at 0, there is no limit and the system will upload all files completely.

Image Upload Interval – This is the time taken between snapshots uploaded to the FTP.

- The lower portion of this window allows you to set up to two upload periods for each channel. Recordings made during the time(s) selected will be uploaded to the server. You can specify which type of incidents will be uploaded as well.
- Once you've completed your FTP setup, click the **Test** button to check your settings.

POE SWITCH

The network settings for the POE ports should not be changed unless absolutely necessary.
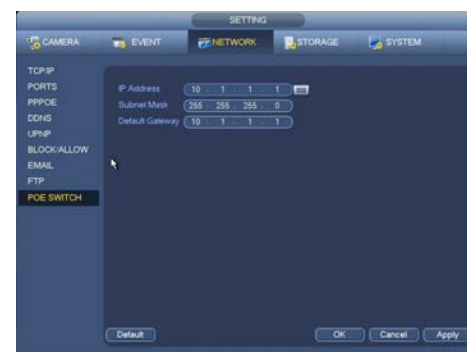
PICTURE 4-36

4.4 STORAGE

This window helps you manage your NVR's internal hard drive(s).

PICTURE 4-37

HARD DISK (HDD) MANAGER

This window shows the status of your hard drives, including free space, and allows you to (re)format them if needed.

- An installed and functioning hard drive will be represented by a line (-).
- A missing hard drive will be represented by an empty circle (O).
- You can switch the status of a drive between Read/Write and Read Only if needed to preserve records. If this is the only drive in the NVR, all recording will stop and you will receive Full Disk alerts, if you have set those up in the **Events** window.
- It is better to lock important files in the **Search and Playback** window and to back them up as well.

- Click **Apply** to test your settings.
- Click **OK** before exiting this window to preserve your changes.

Format

Your NVR will automatically format newly installed hard drives. The **Format** button is used to reformat a hard drive.

⚠️ **IMPORTANT!** Reformatting the hard drive will erase ALL records, including locked files!

GROUPING

On systems with more than one internal hard drive, you can group multiple hard drives into a group that will act as a larger, single hard drive and different types of recordings can be assigned to that group.

PICTURE 4-38

HDD

Short for Hard Disk Drive, this is the tab where you assign drives to a group.

Main Stream

- The Main Stream video is the larger data stream used by the NVR and viewed when you play back the video at the NVR.
- Use this tab to assign specific channels to the desired disk group.

Sub Stream

- The Sub Stream video is the lower quality, lower bandwidth video that is sent to your mobile device.
- This tab works exactly the same as **Main Stream**, above.

PICTURE 4-39

Snap Shots

- The still images captured by the **Snapshot** feature can be saved on a separate drive group, if you want.
- This tab works exactly the same as **Main Stream**, above.

4.5 SYSTEM

Settings in this menu control the basic operations of the NVR itself. Among the other options, you can make changes to settings you made when you first set up your system.

PICTURE 4-40

GENERAL SETTINGS
General
Device ID –Your name for your recorder.

Device No. – If you are controlling more than one NVR with a single remote, this allows you to give each NVR a separate numerical ID.

Language – QC NVRs can or will support English, Spanish or French. The system will need to be restarted for the language change to take effect.

Video Standard – By default, this NVR operates using the NTSC standard common to North America. Video output can be switched to PAL for areas where that is used.

NVR Full – After some period of time, your hard drive will fill up with recorded files. The NVR will overwrite old files with newer ones when this occurs. The other setting is for the NVR to stop recording when the drive is full.

Pack Duration – Rather than creating 24-hour long files when a channel is set to record all the time, this allows you to set the maximum record length up to two hours).

Realtime Play – This sets the duration (up to an hour) of the video clip that will play when the **Realtime Play** icon is clicked (See **Section 2.4 Live View**).

Auto Logout – Like your computer, your NVR will log out a user after a period of inactivity - up to 60 minutes in this case.

IPC Time Sync – Synchronizes remote cameras' clocks with the NVR.

Navigation Bar/Startup Wizard – Unchecking these boxes disables that feature. The Startup Wizard should be disabled after you successfully set up your NVR.

Mouse Sensitivity – Adjust the mouse speed to your preference.

Date & Time
As the name implies, this window is for setting the date and time on your system. This is important to ensure the ability to use your recordings as evidence.

Date Format – Choose your prefered format.

Time Format – AM/PM or 24-Hour format.

Date Separator – Period, dash or slash.

System Time/Time Zone – Set the current date, time and time zone. Click **Save**.

Daylight Savings Time – Set the date or week of the month that DST starts and ends for your area. If you do not have DST, uncheck the box.

Network Time Protocol – This allows your NVR to use the same time server that your computer does to adjust its internal clock.

• You can also use another server if desired. Simply enter the server's address and the correct port.

• Click **Apply** to test your settings.
• Click **Save** before exiting this window to preserve your changes.

PICTURE 4-41

Holiday
• Adding holidays to **your** NVR's internal calendar will add a holiday schedule option to the **Camera > Rec Settings** window (**Section 4.1**).
• Holiday record schedules will override the normal daily recording schedule.

1. Click on **Add Holidays**.
2. In the **Add Holidays** window:
   • Enter the Holiday Name
   • Select whether it's a one-time event or happens every year.
   • Select whether it's a specific date (like Christmas) or a specific week of the month (like Thanksgiving).
   • Set the start and end times.
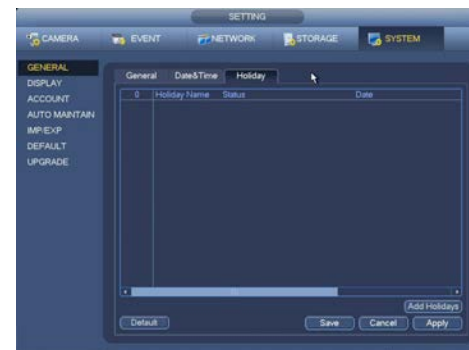3. If you want to add more than one holiday, check the box marked **Add More**.
4. Click **Add** to add your date to the calendar.
5. Click **Save** to exit the window.
6. Click **Save** in the **Holiday** window before exiting.
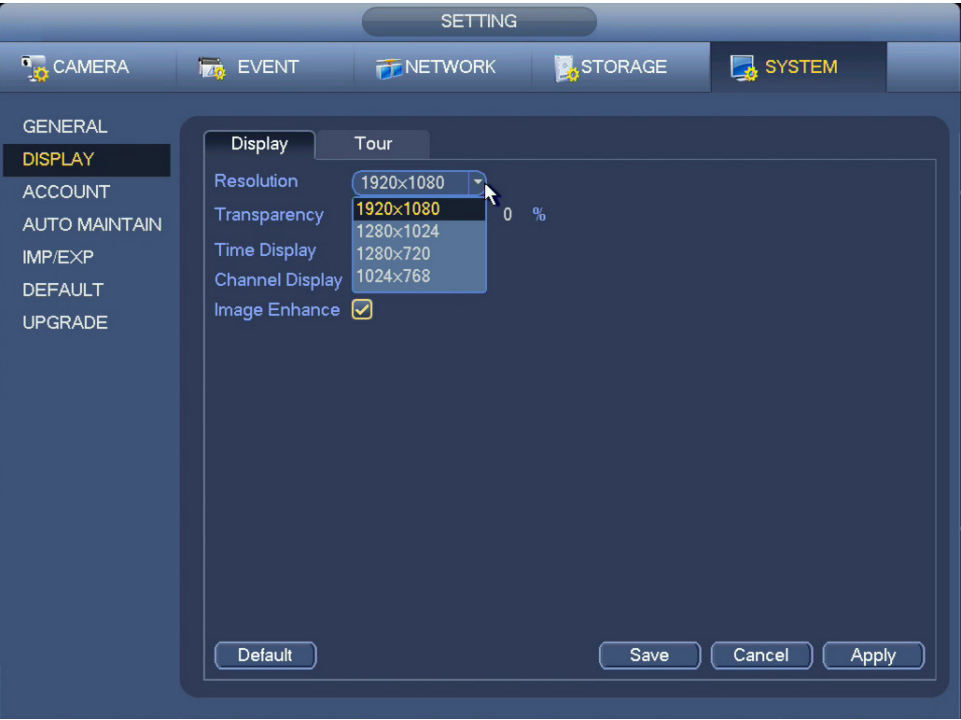

PICTURE 4-42

PICTURE 4-43

DISPLAY SETTINGS

This window lets you control your on-screen display.

### General

Resolution – Adjust the screen resolution to match your monitor's capabilities.

Transparency – You can make your on-screen menus more transparent to let you see more of the video image behind them.

Time Display/Channel Display – You can turn off these on-screen displays if desired.

Image Enhance – Enabling this feature will allow the NVR to adjust the on-screen video image for clarity and color balance. It will not affect the recorded video.

Tour

The NVR can cycle through individual - or groups - of channels.

Motion Tour/Alarm Tour Type – When a motion event or other alarm occurs, the monitor can start a tour.

Enable Tour – When enabled, clicking the **Tour** button in the **Navigation Bar** will start the tour.

Interval – The time each channel will be on screen.

Window Split – Display a single channel or more.

• Click the **Add** button to select channels for a split-screen group.

• Groups will appear in order, you can re-arrange the order with the **Move Up/Down** buttons.

• Only those groups with a check mark will display.
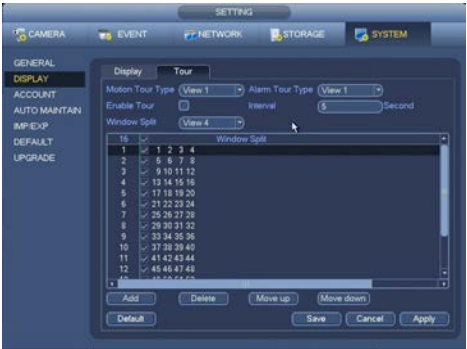
ACCOUNT SETTINGS

This is the account management window where you can add and remove users as well as change user settings and permissions.

• There are two user accounts which cannot be deleted: Admin and User.

• You should change their passwords from their defaults: Admin: admin   User: 666666

Adding a New User

• There are two types of accounts - Admin and User.

• Admin accounts can control 15 different functions while User accounts can access up to 5.

1. Click on the **Add User** button to open the **Add User** window.

2. Enter the user name and password. Add a memo with details, if desired.

Reusable – More than one user can log in using this account.

3. Select the type of account - Admin or User.

4. Authorize the user for specific functions including what channels they can play back and monitor.

5. Click **Save** before exiting.

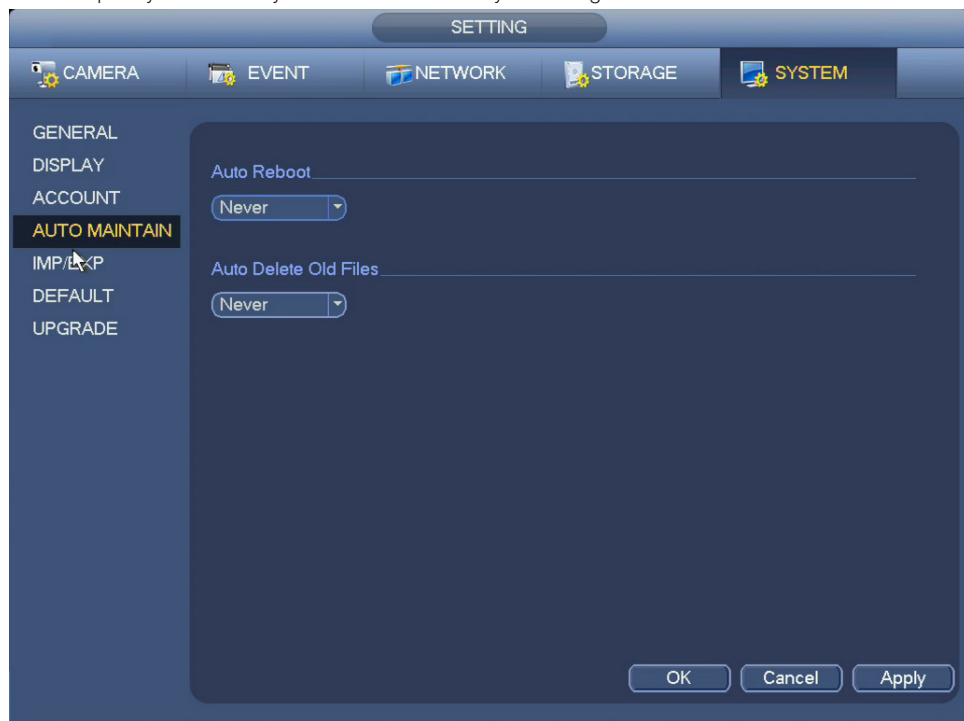• Delete a user by clicking on the red X. Edit an account by clicking on the yellow pencil.

Modify Group – Adjusts authority for all users in the Admin or User group.

AUTO MAINTENANCE

Just like your computer, the NVR can benefit from being restarted. This allows it to clear the memory and other temporary files that may slow it down. None of your settings will be deleted.

PICTURE 4-48

Auto Reboot

• Select the frequency (daily or weekly) that you want the system to reboot.

• Select the time you want the reboot to occur.

• The reboot process will take a few minutes.

> **NOTE!** You should set the reboot to take place on a date and time when it won't interrupt recording.

Auto Delete Old Files

• This will delete old recordings that have not been locked to clear room on the hard drive.

• Using the pull down, you can select that files older than the number of days specified (up to older than 31 days) will be deleted.

> ⚠️ **CAUTION!** Deleted recordings cannot be recovered!

IMPORT AND EXPORT

If you are using more than one QC NVR, you can copy the settings from one machine to the other.
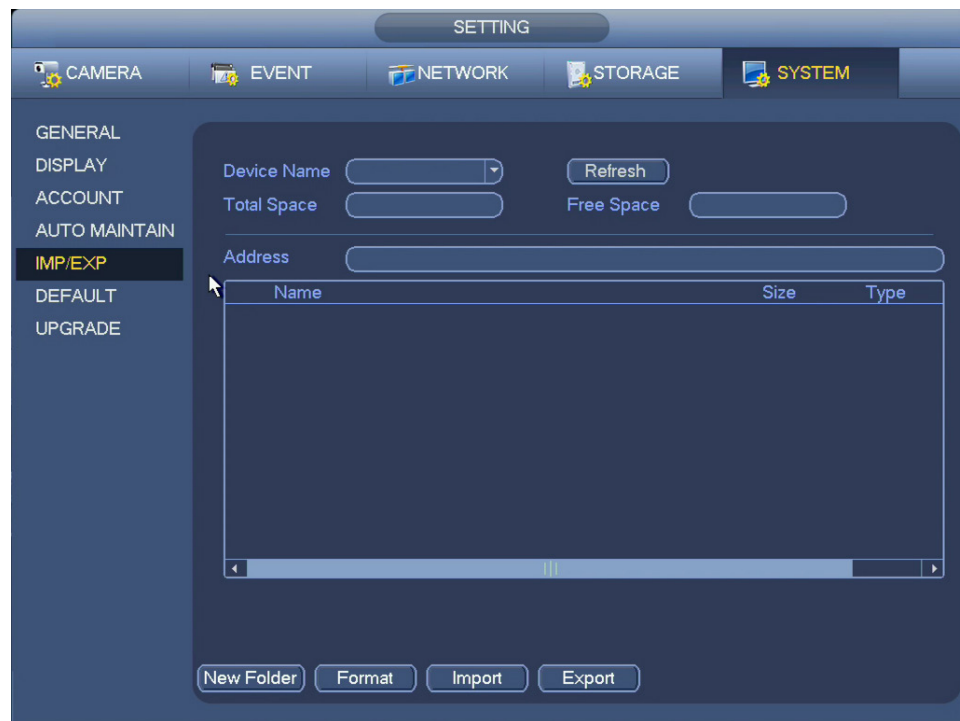
PICTURE 4-49

• When you insert a USB drive into the front port of the NVR, you will be presented with a window with several options. Right-click to close this window.

• Once a USB drive is connected, the Device Name, Total and Free Space windows will fill with information about that drive.

• The file window operates like that on a Windows PC.

New Folder – Create a new folder for your settings to be saved.

Format – This will erase all files on this USB drive.

Import – Navigate to where a settings file is saved on the drive and then click **Import**.

Export – Navigate to where you want to save the settings file and then click **Export**.

DEFAULT

Restore some or all of your system's factory settings.

PICTURE 4-50

> **IMPORTANT!** Restoring the default settings will remove any changes you've made to your recording schedules.

UPGRADE

Q-See is committed to improving our products. If you have registered your system with Q-See, you will receive notification of any product improvements. This includes firmware updates that can be downloaded from Q-See.com/support to your computer and then transferred to your system either via a USB disk or through the Smart PSS program running on your computer. (See **Section 3.3** of the **Remote Monitoring Guide**).

- Upgrading your firmware should only be done to fix a specific problem or adding a desired feature.
- It is recommended that you use a USB drive with only the firmware upgrade file on it.
- When you insert a USB drive into the front port of the NVR, you will be presented with a window showing options. Clicking on **System Upgrade** will take you to the Upgrade window.
- Click **Upgrade** to open the file list.
- Navigate to the file's location, select it and click **Start**.

PICTURE 4-51

> **CAUTION!** Do not turn off your NVR or remove the USB drive during the upgrade process. Interrupting the process can make your NVR unusable!

The Information section gives you easy access to information about your NVR's status. These windows are read-only as changes are made in the Settings section.

Subjects in this chapter:

5.1 SYSTEM INFORMATION

Get information on the status and health of your hard drive(s) as well as the data load on your system and network connection.
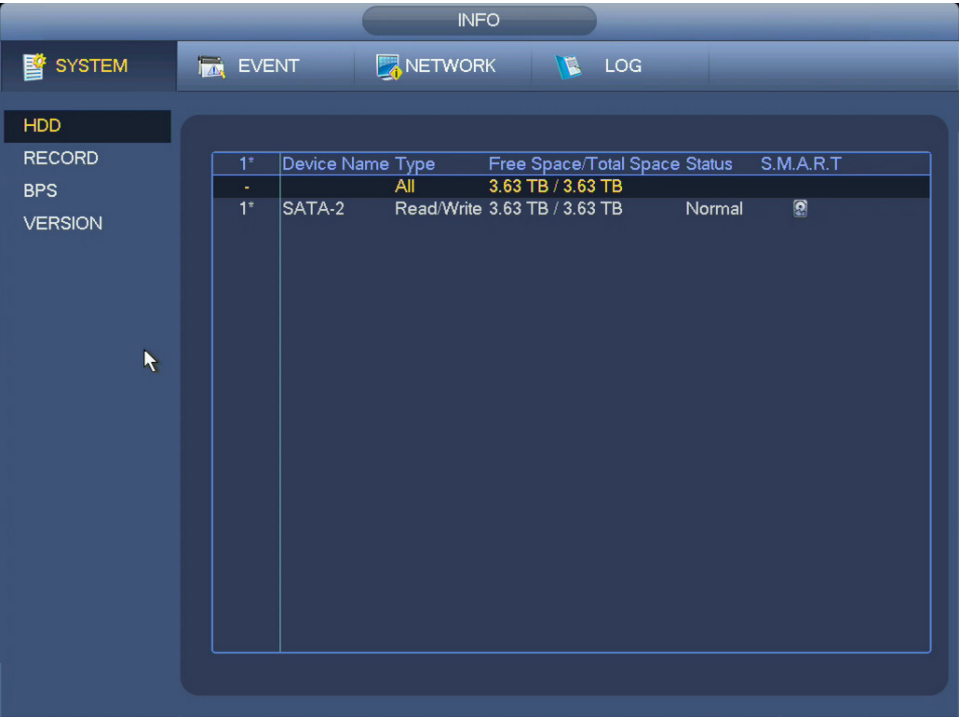
PICTURE 5-1

HARD DISK DRIVE

This window shows all of the drives installed in your NVR along with the drive status (Read/Write or Read Only), the size of the drive and how much free space is available. It also shows whether the drive is operating normally.

S.M.A.R.T. Info

Clicking on the hard disk icon to the far right of a drive's name in the S.M.A.R.T column will show more detailed information about that drive.

- S.M.A.R.T. stands for Self-Monitoring, Analysis and Reporting Technology
- The data shown here can help you anticipate a drive failure, or identify the cause of one.
- Today's hard drives are much more reliable than those in the past. Q-See uses A/V rated hard drives that can meet the demands of constant video recording and playback.
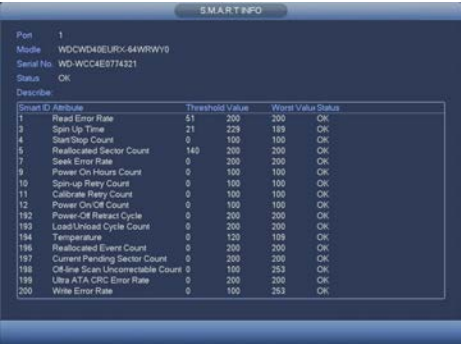
PICTURE 5-2

RECORD

This window shows the date and time of the first and last recordings on a hard drive.
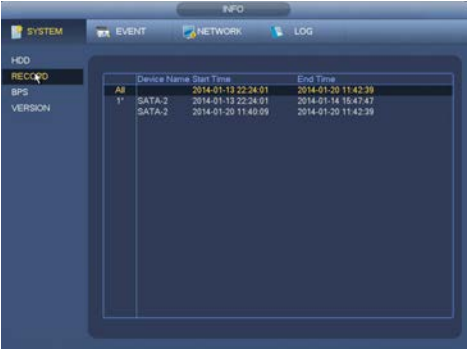
PICTURE 5-3

BITS PER SECOND (BPS)

When this window is opened, green traces will show the data load for each channel in real time.

• 1080p cameras will create a higher data load than 720p cameras

• The current data load - in Kilobits Per Second - will be shown as well.

• This data can help identify network bandwidth issues.

PICTURE 5-4

VERSION

This window shows the version of the firmware (the operating system) plus additional details about your recorder.

PICTURE 5-5

5.2 EVENT INFORMATION

This window shows the active event status of your NVR and connected cameras.
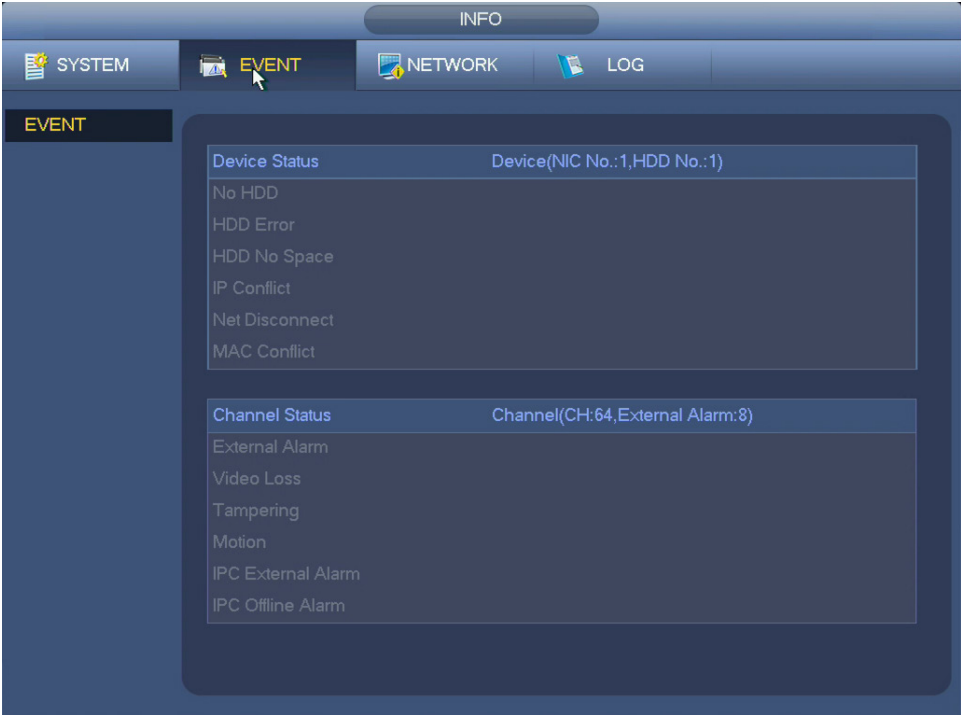
PICTURE 5-6

• Items will be grayed out unless there is an event currently taking place, such as movement seen on one channel, or the loss of connection to the network.

5.3 NETWORK INFORMATION

This is one of the "active" windows in the Information section. Here, you can see who is logged into your NVR as well as see and test the data transmission from your NVR.
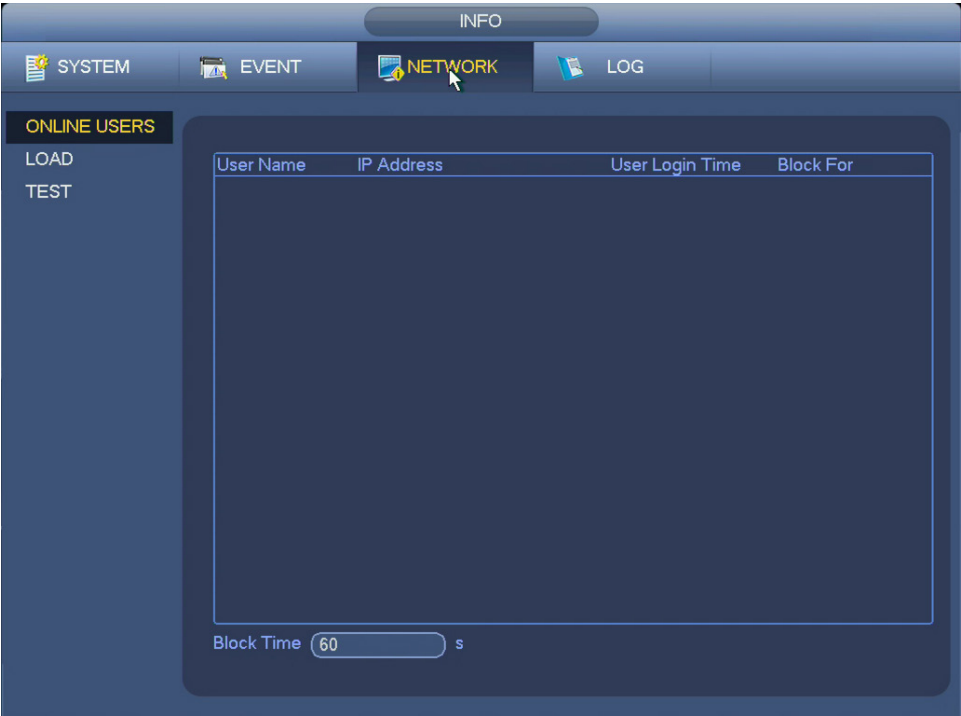
PICTURE 5-7

ONLINE USERS

This shows remote users who are logged into your system.

• Admin Accounts (**Section 4.5**) can disconnect a user.

• Users can be blocked for up to 18 hours.

LOAD

You can see the status of your NVR's network connection.

• If you are experiencing issues with choppy video, you can check your send and receive speeds against those of your network using an online speed test and adjust your substream settings if needed. (See **Section 4.1**)
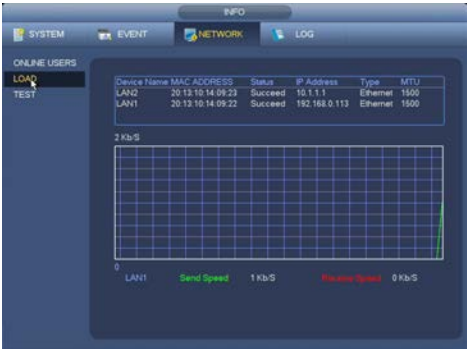
PICTURE 5-8

TEST

You can see the status of your NVR's connection to remote cameras and save the results for analysis. This is useful if you are experiencing problems receiving video.

1. Enter the camera's network address found in the Camera > Remote Window (**Picture 5-10**) (see **Section 4.1**) into the **Destination IP** field.
2. Click **Test**.
3. Messages regarding the test will appear below the **Destination IP** field.

Advanced users can analyze the network connection by saving the "network sniffer packet" to a USB flash drive.

1. Connect a USB drive.
2. Navigate to the location where you want to save the sniffer packet on the USB drive.
3. Click the yellow icon at the far right to start recording the data.
4. Click the yellow icon again to end the recording.

• Packet files will be saved in the .pcap format.

PICTURE 5-9

PICTURE 5-10

5.4 ACTIVITY LOG

This searchable window contains the list of all user and system activities such as reboots, time updates and etc.

INFO				
SYSTEM	EVENT	NETWORK	LOG	

LOG

Start Time 2014 - 01 - 20 00 : 00 : 00
End Time 2014 - 01 - 21 00 : 00 : 00
Types All   Search

20	Time	Event	Play	Details
7	2014-01-20 11:53:24	Save <Monitor> config!	--	☰
8	2014-01-20 11:53:24	Save <Monitor> config!	--	☰
9	2014-01-20 11:53:24	Save <Monitor> config!	--	☰
10	2014-01-20 11:53:24	Save <Monitor> config!	--	☰
11	2014-01-20 11:53:24	Save <Monitor> config!	--	☰
12	2014-01-20 11:53:24	Save <Monitor> config!	--	☰
13	2014-01-20 11:53:24	Channel 4 User logged out.	--	☰
14	2014-01-20 11:53:44	Channel 4 User logged in.	--	☰
15	2014-01-20 12:03:17	Synchronize System Time	--	☰
16	2014-01-20 12:10:16	Shutdown [14-01-20 12:09:24]	--	☰
17	2014-01-20 12:10:16	Reboot with Flag [0x00]	--	☰
18	2014-01-20 12:10:16	HDD Totals<1>, Current Working	--	☰
19	2014-01-20 12:10:36	Channel 4 User logged in.	--	☰
20	2014-01-20 13:03:56	User logged in.<admin>	--	☰

PgUp   PgDn   1/1(Current Page/Total Page)   Go To   1   Page(s)

Backup   Clear

PICTURE 5-11

• You can search for events by selecting a start and end time for the period to be searched

• The search can be refined by selecting the typ of event you are searching for.

• Clicking the icons under detail will show more information about the particular event, if available.

• You can save your search results to a USB drive. It will be a .txt (Text) file saved in a folder named "Log..." with the date and time it was recorded as part of the name.

Appendix

This section contains additional instructions for specific tasks and troubleshooting.

Subjects in this chapter:

A.1 CONNECTING ALARMS

Setting up alarm notifications is covered in Section 4.2 in this manual. This section covers how to connect alarms to your NVR.

If your NVR features connections for external alarms – both input and output, then it can notify local users or send notification to a monitoring service when an event is detected. At the same time, the system can accept signals from motion detectors, smoke detectors or other alarms and begin recording based on that input and your settings.

You will need to have the manual for your alarm(s) handy to ensure the proper settings within the NVR.

ALARM INPUT

When attaching alarms, the following criteria must be met:

1. The alarm input must be grounded.
2. A grounding signal is required for the alarm input
3. When connecting the NVR to another device - including another NVR - through the alarm input, a relay should be used to separate them.
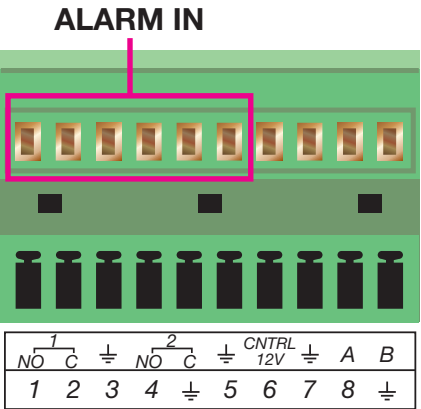
ALARM IN

PICTURE A-1

Parameter	Grounding Alarm
⏚	Ground line
Alarm Input	1, 2, …, 8 becomes valid in low voltage.
1-NO C 2-NO C	Two NO activation outputs.
CTRL 12V	Controls the power output You need to close the device power to cancel the alarm.

The accompanying diagram (**Picture A-2**), along with your alarm's manual should be consulted to ensure proper connection.

• Normal open or Normal close type

• Parallel connect COM end and GND end of the alarm detector (Provide external power to the alarm detector).

• Parallel connect the Ground of the combo NVR and the ground of the alarm detector.

• Connect the NC port of the alarm sensor to the combo NVR alarm input(ALARM)

• Use the same ground with that of combo NVR if you use external power to the alarm device.
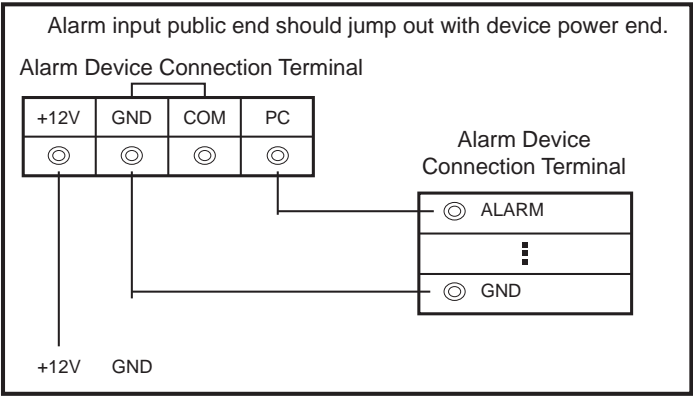
PICTURE 6-2

ALARM OUTPUT

The alarm output port should not be directly connected to a higher power load (greater than 1A) to avoid high current which may damage the relay. Use the co-contactor to establish the connection between the alarm output port and the load.

• 2 way relay alarm output (NO contact). Provides external power to external alarm device.

• To avoid overloading, please read the following relay parameters sheet carefully.

• RS485 A/B cable is for the A/B cable of the PTZ camera.

Relay Specification

Model:	JRC-27F	
Material of the contact	Silver	
Rating (Resistance Load)	Rated switch capacity	30VDC 2A, 125VAC 1A
	Maximum switch power	125VA 160W
	Maximum switch voltage	250VAC, 220VDC
	Maximum switch currency	1A
Insulation	Between contacts with same polarity	1000VAC 1minute
	Between contacts with different polarity	1000VAC 1minute
	Between contacts and winding	1000VAC 1minute
Surge voltage	Between contacts with same polarity	1500V (10×160us)
Length of open time	3ms max	
Length of close time	3ms max	
Longevity	Mechanical	50×106 times (3Hz)
	Electrical	200×103 times (0.5Hz)
Temperature	-40°C ~+70°C (-40°F to +158°F)	

A.2 HARD DRIVE INSTALLATION/REMOVAL

• Your NVR uses one or more standard computer A/V-rated SATA (Serial Advanced Technology Attachment) hard disk drive and will support up to a 4TB (terabytes) drive.

• These drives are the current industry standard and may be purchased wherever computer parts are sold.

It is strongly advised against opening the case when atmospheric conditions present the risk of static discharge which can damage electronic components.

> **WARNING! ELECTRIC SHOCK RISK!**
> The NVR **MUST** be unplugged from all power sources as well as from the cameras before opening the case. Failure to do so can result in damage to the NVR or its components as well as injury or death.

Whether installing the drive for the first time or removing the old one to install a new one, the steps are largely the same:

STEP 1. Disconnect the NVR from the power source as well as any other connections.

PICTURE 7-1

STEP 2. Loosen the cover screws on the rear and side panels.

PICTURE 7-2

STEP 3. Insert four screws into the mounting holes on the hard drive. DO NOT fully tighten, but give three twists each.

PICTURE 7-3

STEP 4. Line up hard drive mounting screws with mounting holes at the bottom of the NVR and slide the hard drive to move the screws to the narrow part of the holes.

PICTURE 7-4

STEP 5. Carefully turn NVR over taking care not to allow the drive to slide out.

PICTURE 7-5

STEP 6. Tighten the mounting screws firmly.

PICTURE 7-6

STEP 7. Flip the NVR right side up and connect the data and power cables to the hard drive.

PICTURE 7-7

STEP 8. Replace the cover onto the NVR.

PICTURE 7-8

STEP 9. Secure the screws in the rear and side panels.

A.3 TROUBLESHOOTING

1. **The NVR does not boot up properly** *Possible Causes:*

   a. Input power is not correct, check power supply.
   b. Power switch button is damaged.
   c. Updated firmware using wrong file.
   d. Hard drive malfunction or something wrong with hard drive cable.
   e. Front panel error.
   f. Main board is damaged.

2. **NVR often automatically shuts down or stops running.** *Possible Causes:*

   a. Input voltage is not stable or it is too low.
   b. Hard drive malfunction or something is wrong with the cable.
   c. Device is not getting enough power.
   d. Front video signal is not stable.
   e. Working environment is too hot, or too much dust.
   f. System board malfunction.

3. **System cannot detect hard drive.** *Possible Causes:*

   a. No hard drive is installed
   b. Hard drive is damaged.
   c. Hard drive cable connection is loose.
   d. Main board SATA port is damaged.

4. **There is no video output to one or more channels.** *Possible Causes:*

   a. Updated firmware using wrong file.
   b. Brightness is 0. Please restore factory default setup.
   c. There is no video input signal or it is too weak.
   d. Check privacy mask setup.
   e. Combo NVR hardware malfunctions.

5. **Real-time video color is distorted.** *Possible Causes:*

   a. When using BNC output, NTSC and PAL setup is not correct. The real-time video becomes black and white.
   b. NVR and monitor resolution settings are not compatible.
   c. Video cable is too long signal is becoming degraded.
   d. Combo NVR color or brightness setup is not correct.

6. **Cannot search local records.** *Possible Causes:*

   a. HDD ribbon is damaged.
   b. HDD has failed.
   c. The recorded file has been overwritten.
   d. Record function has been disabled.

7. **Video is distorted when searching local records.** *Possible Causes:*

   a. Video quality setting is too low.
   b. Program read error, bit data is too small. There is mosaic in the full screen. Please restart the NVR to solve this problem.
   c. Hard drive data cable error.
   d. Hard drive malfunction.
   e. NVR hardware malfunction.

8. **There is no audio when monitoring.** *Possible Causes:*

   a. Channel with audio is not full screen, make the channel you want to hear audio on full screen.
   b. Audio cable is damaged.
   c. Combo NVR hardware malfunction.

9. **There is audio when monitoring but there is no audio when system plays back**. *Possible Causes:*

   a. Setup is not correct. Please enable audio function
   b. Corresponding channel has no audio input.

10. **Time display is not correct.** *Possible Causes:*

    a. Setup is not correct
    b. Battery contact is not good or voltage is too low. Replace battery.
    c. Crystal is broken.

11. **Motion detection function does not work.** *Possible Causes:*

    a. Period setup is not correct.
    b. Motion detection zone setup is not correct.
    c. Sensitivity is too low.

12. **Cannot log in client-end or web.** *Possible Causes:*

    a. For Windows 98 or Windows ME user, please update your system to Windows XP or later.
    b. ActiveX control has not been enabled.
    c. Video card driver on computer may need to be upgraded.
    d. Network connection error.
    e. Network setup error.
    f. Password or user name is invalid.

13. **There is only mosaic no video when previewing or playing back video file remotely.** *Possible Causes:*

    a. Network bandwidth is not sufficient.
    b. Computer does not have enough resources to handle video flow.
    c. There is multiple-cast group setup in combo NVR. This mode can result in mosaic. Usually we do not recommend this mode.
    d. There is privacy mask or channel protection setup.
    e. Current user does not have monitoring rights.
    f. NVR local video output quality is not good.

14. **Network connection is not stable.** *Possible Causes:*

    a. Network is not stable.
    b. IP address conflict.
    c. MAC address conflict.
    d. PC or combo NVR network card is not good.

15. **Burn error /USB backup error.** *Possible Causes:*

    a. System uses too much CPU resources. Try stopping recording first and then begin backup.
    b. Data amount exceeds backup device capacity. It may result in burner error.
    c. Backup device is not compatible.
    d. Backup device is damaged.

16. **Remote control does not work.** *Possible Causes:*
   a. Need to enter the correct Device ID on the remote control.
   b. Distance is too far or control angle is too wide.
   c. Remote control battery power is low.
   d. Remote control is damaged or NVR front panel is damaged.

17. **Can not playback the downloaded file.** *Possible Causes:*
   a. There is no media player.
   b. Need Divx Codec in file player

18. **Forgot local menu operation password or network password**
   a. Contact Q-See tech support and we can generate a new password for the unit.

A.4 Q-SEE PRODUCT WARRANTY

Q-See is proud to back all of our products with a conditional service warranty covering all hardware for 24 months from the date of purchase. Additionally, our products also come with a free exchange policy that covers all manufacturing defects for one month from the date of purchase. Permanent upgrading service is provided for the software.

Liability Exclusions:

Any product malfunction or abnormalities in operation or damage caused by the following reasons are not within the free service scope of our company:

1. Equipment damage caused by improper operation.
2. Improper equipment operation environment and conditions (e.g., improper power, extreme environmental temperatures, humidity, lightning and sudden surges of electricity).
3. Damage caused by acts of nature (e.g., earthquake, fire, etc).
4. Equipment damage caused by the maintenance of personnel not authorized by Q-See.
5. Product sold over 12 months ago.

In order to fulfill the terms of your warranty, you must complete the registration process after purchasing our product. To do this, simply fill out the User's Information Card on our website at www.Q-See.com

A.5 TECHNICAL SUPPORT
- Most problems can be solved online via our 24/7 knowledge base at
  www.Q-See.com/Support
- Live chat is available at the same address from Monday to Friday 6am to 7pm
  Saturday and Sunday 9am to 5pm. All times are Pacific.