

# Remote Monitoring Setup Guide

**QS SERIES DVR MODELS** 





iPhone





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All of our products are backed by a conditional service warranty covering all hardware for 12 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 DVR. Register today at www.Q-See.com!

Please see the back of this manual for exclusions.



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## **About this Manual**

This remote monitoring guide contains information extracted from the user's guide and presents it in this smaller document for your convenience. and was accurate at the time it was completed. However, because of our ongoing effort to constantly improve our products, 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.

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.

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## **REMOTE ACCESS**

**CHAPTER** 

In order to access your DVR remotely, you must connect it to a router or a modem. Using a router allows you to connect to your DVR from other computers on your LAN (Local Area Network) in addition to over the Web. Directly connecting to a modem makes your DVR available for connection through the Internet only.

If you are using a router and wish to access your DVR from outside your LAN either over the Internet, or from your mobile device, then that router must be connected to the Internet. The instructions below will guide you through the process of configuring your DVR for remote access. Once completed, you will be able to access and control your system using one of two addresses. You will have a local IP address usable by computers connected to the same router as your DVR. This address can also be used by wireless devices as long as they are able to also connect to your router's WiFi signal. Once you leave the area covered by your local network, you will need to use a second address to access the DVR. This is the address which will allow you to connect to your system from anywhere in the world with Internet access. And, by using Q-See's free DDNS service, MyQ-See.com (more on this later), you'll be able to do so using a conventional web address.

If you are using a router, proceed with **Section 1.1**. If you are connecting directly to the Internet via a modern then begin with **Section 1.4**.



**NOTE!** In order to properly connect to your DVR from your computer, your network connection and computer system should both meet certain minimum specifications shown below. Performance will obviously be better if your specifications are better than the minimum.

#### MINIMUM SYSTEM REQUIREMENTS

Computer		
Min Video Ram	512MB for 4 to 8 cameras	
	1GB for 16 cameras	
Video Card	Must support Direct Draw	
Processor	2.66MHz single or dual core	
Macintosh	System OSX 10.7 or 10.8	
Windows	XP, Vista, 7, 8	

Network Connection		
Internet Connection Speed at the DVR	1Mbps download	
	1Mbps upload for 4 to 8 cameras	
	2Mbps upload for 16 cameras	
Internet Connection Speed at the Computer	1Mbps upload	
	1Mbps download for 4 to 8 cameras	
	2Mbps download for 16 cameras	

You can check the speed of your connection at both ends by going **www.SpeedTest.net** from both a computer attached to the same router as the DVR as well as the remote computer which you will be using.

#### 1.1 CONNECTING YOUR DVR TO A NETWORK

First and foremost, you will need to physically connect your DVR to a router. This router can be part of an existing network of computers, or it can be the router/modem supplied by your Internet Service Provider (ISP) to connect you to the Internet. This connection will be made by plugging the included Ethernet cable into the port on the back of the DVR marked RJ45. Your DVR is not designed to be connected wirelessly to a network. It is also recommended that the router that the DVR is connected to should be connected directly to the Internet rather than to another router if Internet access is desired as multiple routers can create problems with connectivity. You will also need to have a computer connected to the same router - at least temporarily - to make certain settings. If, after following the instructions you are still not able to access your DVR, please see **Section 1.6 Resolving Connection Issues** later in this chapter.



**IMPORTANT!** If the Startup Wizard reported success in connecting your DVR to the Router and the Internet, you should proceed directly to **Confirming That Ports are Opened at the end of Section 1.2.** Attempting any of the steps listed in the rest of Section 1.1 will cause connection problems.

#### **BEFORE YOU GET STARTED**

#### You will need to have:

- Your router's brand, model number and manual. The manual is also usually available on your router's manufacturer's website.
- The "Manuals and Software" CD that came with your DVR. It contains necessary software and links to other important programs which are mentioned in this guide.
- Your router's password (the default password should be in your router's manual).

#### **OBTAINING AN IP ADDRESS**

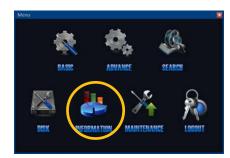
Each device on a network - both a LAN or the Internet - has a specific IP address. This address is what allows different devices on the network to communicate with each other. Your QS-series DVR displays both of these addresses in the **Network Information** window. If you were successful in connecting your DVR to the network using the **Startup Wizard**, or by following the instructions on the Remote Networking Poster, you may have already written this information down.

**STEP 1.** Using the mouse, click on the **Start** button in the **Control Bar** to open the **Main Menu**.



PICTURE 1-1

STEP 2. Select Information in the Main Menu window.



PICTURE 1-2

**STEP 3.** Click on **Network** on the left side of the menu.

STEP 4. Write down the series of numbers to the right of IP address (LAN), Default Gateway and IP address (WAN).



PICTURE 1-3

LAN, or Local Area Network, refers to your network of computers within your home or office which is connected to the Internet through your router. Use this number for accessing your DVR from a computer on the same network, or when using a mobile device using the wireless signal from your router. Please note that when you leave the area of this WiFi signal, you will need to access your DVR using the WAN address.

WAN, or Wide Area Network, is another name for the Internet. If you are away from your network, such as at home accessing your DVR at work, you will need to enter the WAN address into the browser or mobile remote monitoring app to be able to view it.

If you were unable to connect to your router, open the **Advance** menu and select the **Network** icon on the left of the menu. Make sure that the radio button for **Obtain an IP** address automatically is selected.

Click Apply before exiting and then return to the information window to view the LAN IP address. You can use this address in the next steps to get your DVR connected to the Internet.



**PICTURE 1-4** 

If you are still unable to establish a connection, make certain that the network lights on the Ethernet port on both the router and the DVR are lit. If not, it is likely that your Ethernet cord is faulty and it should be replaced. You may also connect to a different port on the router as well.

#### **1.2 OPENING PORTS**

To make your DVR accessible from outside of your local network, you have to "forward" ports 80, 100 and 9000 through your router to your DVR's IP address. We present two options which cover the majority of users - UPnP and Port Forwarding. You will only need to use one or the other. If you are unable to connect your DVR to the Internet using either of these procedures, the likely cause is the presence of multiple routers on your network. The solution is covered in **Section 1.6 Resolving Connection Issues**.



**IMPORTANT!** If you connect your system to your network using UPnP you should NOT forward your ports as described in **DMZ**, as it will create connectivity problems. You may skip to **Confirming that Ports are Opened**.

#### **OPTION 1: UPNP**

The QS series of DVRs come configured to take advantage of the latest networking technology, UPnP or Universal Plug 'n Play right out of the box. If you have an UPnP-enabled router, you will only need to plug the DVR into your network and you will then be able to proceed to the end of this section.

Consult your router's manual to determine whether it has UPnP or not. Please note that, as of this writing, 2Wire brand routers, which are used by AT&T Uverse, do not have the UPnP feature. If you do not have a UPnP-enabled Router, you will need to use the DMZ method described immediately below this section to forward your ports. There are special instructions for use with AT&T 2Wire routers listed in in **Option 3**.

Proceed to **Confirming That Ports are Open** the end of this section for instructions on how to confirm that your ports are open using an online tool.

#### **OPTION 2: OPENING PORTS USING DMZ**

#### Accessing your router's DMZ controls:

The exact location of DMZ within the router's settings vary by manufacturer so please consult your router's manual for the location of this feature. The method for accessing your router's settings, however, is pretty standard. If your router is an AT&T 2Wire router, please see **Option 3**.

STEP 1. On a computer connected to the same router as the DVR, open a web browser and enter the Gateway (Router's IP address) into the browser window's address bar to access your router. This address is also shown in the Network Information window used to obtain your IP address.



**PICTURE 1-5** 

**STEP 2.** Locate the DMZ settings in your router. Each manufacturer is different so please consult your router's manual for the location of this setting. Two examples are shown at right.



STEP 4. Enter the DVR's IP address.

**STEP 5**. Click on **Apply** or **Save** to preserve your settings.



**PICTURE 1-6** 



**PICTURE 1-7** 



**IMPORTANT!** If you connect your system to your network using UPnP you should NOT forward your ports as described in **DMZ**, as it will create connectivity problems. You may skip to **Confirming that Ports are Opened**.

#### **OPTION 3: AT&T U-VERSE® 2WIRE® ROUTERS**

Please note that the following steps are unique to the 2Wire brand of routers used by AT&T and they should not be attempted on other models. Rather, you should use Option 1 or 2.

STEP 1. On a computer connected to the same router as the DVR, open a web browser and enter the Gateway (Router's IP address) you obtained in Part 1 into the browser window's address bar to open your router's Admin Screen.

STEP 2. Click on the Settings tab and then Firewall. Once in Firewall, click on Applications, Pinholes and DMZ.

STEP 3. In the Select Your Computer area locate your DVR's IP address and click on it.

STEP 4. Scroll down to select User Defined.

**STEP 5**. Click on **Add** a new user-defined application.

**STEP 6**. In the box labeled **Application Profile Name**, enter DVR.

STEP 7. Ensure that TCP is selected.

**STEP 8.** Enter 80 in the **From** and **To** boxes for Port (or Range).

**STEP 9**. Leave the next two boxes blank to use the default settings.

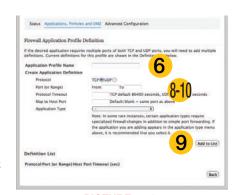
STEP 10. Click on Add to List. Your router will require you to log in to accept the settings. If you have not created your own password for your router, it is the 10-digit System Key printed on the label on your router between the square brackets "[]".



**PICTURE 1-8** 



PICTURE 1-9



PICTURE 1-10

**STEP 11.** Once your settings have been confirmed, repeat **Steps 8-10** twice more. Enter 100 for the **From** and **To** ports the next time, and 9000 the last time.

**STEP 12.** Click on **Back** and then select **DVR** from the list of Applications. Clicking on **Add** and then **Save**.

#### **CONFIRMING THAT PORTS ARE OPENED**

Whether you used UPnP or DMZ to open your ports, you should confirm that they have been opened without being blocked by going to *www.canyouseeme.org* using a computer connected to the same router as the DVR.

STEP 1. Enter "80" into the box labeled "What Port?"

STEP 2. Click on the Check button

**STEP 3.** You should see a green "Success" message.

If you get a red error message, you will need to return to the DVR's **Network Settings** page and change the **Web Port** to 81, 83 or 85 and click Apply to save your changes. The DVR will need to reboot to use the new settings. You can then reattempt the check by entering that new number in the **Port** field.



PICTURE 1-11

STEP 4. Repeat for ports 100 and 9000. If ports 100 and 9000 are blocked, then use a number in that range (ie; 110, 9100, etc.)

This website will also display your Public IP address near the top of the page above the box where you entered your port number. If your DVR was unable to provide you with a WAN number, due to setup difficulties, this is that number. Use this number to access the DVR using a web browser or your mobile device from outside of your local network (away from the building in which your DVR is located). Please note that if you had to use a different port number than 80 for the web port, you will have to add a colon (:) and that port number to the end of the address shown. Example 82.919.622.24:81.

#### 1.3 STATIC INTERNAL IP (NETWORK) ADDRESS

Most routers assign connected devices a random IP address that is not currently in use by another device on your internal network. When a router or networked device reboots due to a power loss or other issue, the addresses will change and the port forwarding configuration will no longer work. For that reason, we recommend changing your DVR's network setting to a fixed, or "static" IP address which will not change.



**IMPORTANT!** As of this writing, 2Wire brand routers do not support Static IP. Because of this, in the event that your router has to restart, you will need to repeat the steps to obtain the new IP address. Connecting the router to an uninterruptible power supply (UPS) can prevent this issue.

**STEP 1**. Open the **Information** menu and select **Network**.

STEP 2. Write down the information for IP Address (LAN), Subnet mask, Default gateway and Preferred DNS Server (you'll only need the one, not the Alternate).



PICTURE 1-12

STEP 3. Exit the Information menu and return to the Advance menu and select Network.

**STEP 4**. Click the radio button for **Use** the following IP address.

**STEP 5**. Enter the information obtained in **Step 2** into the appropriate fields.



PICTURE 1-13

STEP 6. Click Apply to save your settings before exiting the window.

Proceed on to **Section 1.5 Setting up Dynamic Domain Name Service** to create a custom web address that you can use instead of entering the IP address when monitoring remotely.

#### **1.4 CONNECTING VIA A MODEM (PPPOE)**

If you are going to attach the DVR directly to a DSL or Cable modem instead of a router you will want to select the **PPPOE** option in the **NETWORK** options. This method is instead of UPnP or DMZ and only applies if you are not using a router.

Contact your ISP for the User Name and Password needed for the Internet account. Click on the **PPOE** tab and then select **Enable** from pull-down menu. Enter the User Name and Password into the appropriate fields.



PICTURE 1-14

#### 1.5 SETTING UP DYNAMIC DOMAIN NAME SERVICE

This is an optional step which allows you to take advantage of Dynamic Domain Name Service, or DDNS. Not to be confused with DNS in the previous section, DDNS allows you to enter a conventional web address when remotely logging into your DVR from outside of your network. It also allows you to avoid having to repeat steps in **Obtain an IP Address** when/if your ISP reassigns IP addresses. Q-See offers DDNS service for free at www.MyQ-See.com and your DVR is configured accept account information from that site.

**STEP 1.** Open a browser window and go to *www.MyQ-See.com* 

**STEP 2.** Register with the website and follow the instructions for creating a domain name. The website will display your pubic IP address and your domain name which will look like this: http://example.MyQ-See.com



**PICTURE 1-15** 

STEP 3. Return to the Advance Window in your DVR and click on the COMM button on the left.

STEP 4. In the DDNS tab, select Enable from the pull-down menu. Next, enter your new MyQ-See address in the Host Name field along with the User Name and Password you used to create the account.



PICTURE 1-16

**STEP 5.** Click on **Test** to ensure that your settings are correct. You should receive a pop-up window indicating success or error.

**IF YOU RECEIVE AN ERROR MESSAGE:** Check your entries to ensure that they are correct. Also check that the DNS address from the router is the same as shown in the Primary DNS address field within the **Advanced Network Settings** window towards the bottom of the **LAN** tab (**Picture 1-13**).

STEP 5. Click Apply to save your settings before exiting the window.

#### 1.6 RESOLVING CONNECTION ISSUES

There are several hardware-related situations which can prevent the DVR's port from being properly forwarded. The presence of multiple routers or the routers not featuring UPnP or DMZ are the two most common issues.

#### **DETERMINE THE NUMBER OF ROUTERS ON THE NETWORK**

If there is more than one router between the DVR and the Internet it will block communication to and from your system. To find out the number of routers on your network, you will need to download a **FREE** router detection program.

STEP 1. Go to http://www.pcwintech. com/shanes-toolbox

STEP 2. Click on Detect Multiple
Routers to begin the download.



STEP 3. Unzip the application to install it.

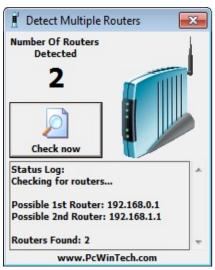
PICTURE 1-17

**STEP 4.** Click on the **detect\_routers** application to run it.



PICTURE 1-18

**STEP 5.** Click on **CHECK NOW** to detect how many Routers are in the network.



PICTURE 1-19

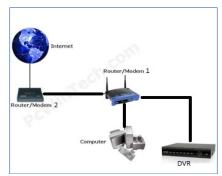
**STEP 6**. If there is only one router detected, and you are using UPnP, then you will need to turn off UPnP in the DVR by opening the **COMM** menu in the **Advance** window and disable it in the **UPnP** tab. Attempt to connect using DMZ as described in **Section 1.2 Opening Ports**.

If you are using DMZ, check to make sure that the UPnP option is turned off.

#### If Multiple Routers are Detected

If there are multiple routers, you will see a display similar to **Picture 1-20**.

If so, it may be preferable to connect your DVR and computer to the router that connects directly to the Internet. However, this is not always possible depending upon your particular situation.



PICTURE 1-20

In this case, you will need to proceed with the next section and set up DMZ in the second router to allow communications to pass through it from the first. If only one router is detected you will need to consult your router's manual.

#### **SETTING UP DMZ IN ROUTER 2**

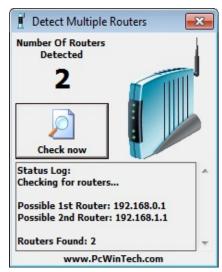
**STEP 1.** Login into Router 1 by putting the IP of Router 1 into the Internet Explorer browser, as in the example shown in **Picture 1-21** where the IP address of Router 1 is 192.168.0.1

STEP 2. Find the status page on the router settings that shows the WAN/ Internet IP address and write it down this WAN IP address.

**STEP 3.** Log into the Router 2 by putting the IP of Router 2 into the Internet Explorer browser, as in example shown in **Picture 1-21** where the IP address of Router 2 is 192.168.1.1

**STEP 4**. Find the **DMZ** page in the router settings.

**STEP 5**. Enter the WAN IP for Router 1 into the **DMZ** page and enable DMZ.



PICTURE 1-21



**NOTE!** If you do not have a **DMZ** setting in the router, check to see if there is a **Bridge** setting. If so, then use the **Bridge** setting instead of DMZ.

STEP 6. Save your changes.

You have forwarded the ports on the router to which the DVR is connected, to the IP address of the DVR, and set the primary router to pass the connection to this router.

## **E-MAIL NOTIFICATION**

**CHAPTER 2** 

The system can send an email notification to up to five addresses with an attached JPEG snapshot recorded by one or more cameras when triggered by an alarm event.

Setting the DVR to take snapshots and send e-mail is done in the **Alarm** section of the **Advance** menu. These are two options available in the **Trigger** settings for each camera. Setting up these triggers is covered in **Section 5.2 Advance Menu** in the **User Manual** that came on the same CD as this document. It is also available for free download through our online help site at **Q-See.com/support**.

Your DVR will need to be connected to the Internet - either through a router or by being directly connected to a modem - in order to be able to send out email alerts.

You will need to provide the DVR with a valid e-mail address that it can use to send the alert messages. These settings are made in the **Communications** section of the **Advance** menu. For the purposes of this guide, we will use Google's Gmail service because it is free and offers a higher volume of e-mails on a daily basis. The settings shown in the instructions will be that for Gmail. Other services' settings may be different, but can be found on their respective webpages.

If you have a corporate mail server, you will need to consult with your IT department regarding proper settings.

**NOTE!** Depending upon your settings, the system can generate a lot of e-mail alerts. For that reason, we recommend setting up a dedicated e-mail address specifically for the system to send alert notices. If you do not have your own e-mail system (such as a corporate mail server) you should consider using a free e-mail provider. However, because many free e-mail services allow only a

limited amount of e-mail traffic we specifically recommend using Google's Gmail service with its higher limit. Similarly, you will want the alert e-mails to go to a different account than the one sending them. This will ease your management of these alerts.

**STEP 1**. Create a Gmail account for the DVR to use to send e-mail.



**PICTURE 3-1** 

**STEP 2**. On your DVR, navigate to the **Advance** menu.

**STEP 3**. Select **Comm** from the left side of the screen and click on the **E-mail** tab.

**STEP 4**. Select **Enable** from the pull-down menu.



PICTURE 3-2

STEP 5. Choose whether you want e-mails sent out immediately upon an alarm, or if you want a delay.

**STEP 6**. Enter the following information into the respective fields:

Mail Server (SMTP) Enter the SMTP address of your email server. For example, smtp.gmail.com

Port Enter the SMTP port of your email server. Gmail's is 465.

**Connection Security** Leave this turned off. Only advanced users should enable this option.

User Name The "from" address of your alerts.

Password Enter the password of your sending email account

To Enter the destination email address for your notifications. This should be a different e-mail address than the sending account to avoid possible errors. You may enter up to four other e-mail accounts using the CC fields.

STEP 7. Click Test to verify your settings. You should receive a confirmation message in a pop-up window.

STEP 8. Click APPLY to save your settings before exiting the window.

## **REMOTE MONITORING**



#### 3.1 ACCESSING YOUR DVR REMOTELY

Once you have configured the network settings on the DVR to match those on your router and forwarded the ports needed by the DVR to enable remote access over the Internet, you will be ready to remotely view your cameras using your mobile device or your computer.

Windows users will be able to log into their system in Internet Explorer using a plugin called **View DVR**. It is strongly suggested that you be running the latest version of Internet Explorer (currently IE9). The instructions beginning on the next page will describe the process using both version 8 and 9 of Internet Explorer.

Users of Macintosh computers will need to download the free **View Client** software which is available from our support portal at:

http://qsee.custhelp.com/app/answers/detail/a\_id/1545/kw/qs494

You can click on the above link, above, to go directly to the download page.

View Client will work with OSX versions 10.7 and 10.8. Version 10.6 is not compatible. Use of View Client will be largely along the lines of View DVR with the exception that video cannot be recorded onto the computer. Video recorded on the DVR may be searched and played back using View Client. Additionally, the location of certain controls is slightly changed from View DVR. This manual will use screenshots of View DVR for the most part. After logging in to View Client, Macintosh users may proceed to Section 3.2.

Mobile remote monitoring will be covered in Chapter 4.

#### **LOGGING INTO THE DVR**

Open a new browser window and enter the IP address (WAN or LAN) appropriate to your network, or use the DDNS address you created in **Section 1.5** into the address bar just as you would for any regular web address. You may get an alert message warning about an attempt to modify Internet Explorer. Q-See is the publisher of the helper application. You should allow it to proceed.

After the page finishes loading, you will see a log in screen. Enter the same user name and password combination that you use to login into the DVR itself. You may also choose your preferred language at this time.



PICTURE 3-1

Upon logging in, you should see a live feed from your cameras.

If you experience problems such as lack of video or other issues, please see **Resolving Connection Issues** immediately following. Usage instructions begin in **Section 3.2**.



**PICTURE 3-2** 

#### **RESOLVING CONNECTION ISSUES**

Because users, other programs and even Windows itself modify Internet Explorer, some users may experience difficulty with displaying live video after accessing their DVR through that browser. There are two methods used to resolve this issue that cover the majority of users: installing a plug-in for IE, or turning off User Account Control.

#### **User Account Control for Windows Vista and Windows 7**

Some users of computers using Windows Vista or Windows 7 operating systems may receive an error message informing of a codec that is missing or not installed. This conflict can be resolved by turning off User Account Control (UAC).

#### **Windows Vista**

STEP 1. Open the Control Panel (accessible by clicking on the Windows icon in the lower left of your screen.



PICTURE 3-3

STEP 2. Select User Accounts and Family Safety.



**PICTURE 3-4** 

STEP 3. Select "Add or Remove User Account."



**PICTURE 3-5** 

STEP 4. Select the desired user account.

STEP 5. Select Turn User Account
Control on or off



PICTURE 3-6



STEP 6. Uncheck the box next to "Use User Account Control (UAC) to help protect your computer."

PICTURE3-7

**STEP 7.** You will then be asked to restart your computer for the change to take effect.



**PICTURE 3-8** 

#### Windows 7

STEP 1. Open up the Start Menu (accessible by clicking on the Windows icon in the lower left of your screen.

**STEP 2.** Type "uac" into the search bar and hit **ENTER**. The User Account Control will open or you will be offered a link to click to open it.



**PICTURE 3-9** 

**STEP 3.** Move slider to lowest setting and press **OK**.

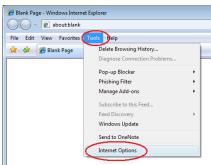
#### **Setting Up ActiveX Control**

**STEP 1.** Open Internet Explorer **STEP 2.** Click on **Tools** 



**STEP 3.** Select **Internet Options** in the pull-down menu





PICTURE 3-11

STEP 4. Click on the Security Tab

STEP 5. Select Trusted Sites
STEP 6. Click on the Sites button



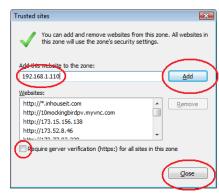
PICTURE 3-12

STEP 7. Uncheck the "Require server verification (https:) for all sites in this zone" button.

STEP 8. Type the DVR's IP address (obtained during **Network Setup**) or DDNS domain name into the "Add this website to the zone:" box.

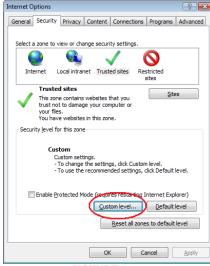
STEP 9. Click the Add button

STEP 10. Close the window.



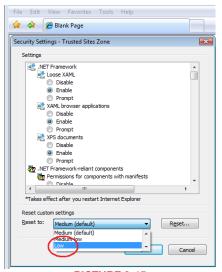
PICTURE 3-13

**STEP 11.** Click the **Custom level...** button.



PICTURE 3-14

**STEP 12.** Pull down the "Reset to:" menu button and select Low



PICTURE 3-15

STEP 13. Click the Reset button

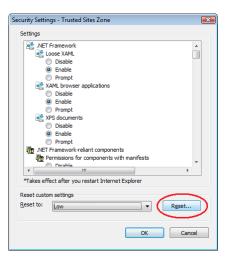
**STEP 14.** Click "Yes" when asked, "Are you sure you want to change the setting for this zone?"

STEP 15. Click OK

STEP 16. Click Apply

STEP 17. Click OK

STEP 18. Close Internet Explorer



**PICTURE 3-16** 

You are now ready to access the DVR using Internet Explorer.

#### **Downloading the Plug-In**

Another alternative is to download the plug in application directly.

The plug-in, named RM\_N9dvrocx.zip can be download by clicking on the Download plug-in link on the Login screen.

Save the .zip file to your hard drive. You will need to save or move it to a specific folder on your computer.

Windows XP: C-Windows-System32 folder Windows 7: C-Windows-SysWow64 folder

Once you have placed the file in the correct folder, you will need to unzip (extract) the files within that folder.



PICTURE 3-17

Quit out of Internet Explorer and restart the program to connect to the DVR.

#### 3.2 REMOTE MONITORING

The **View DVR** remote monitoring program's default mode is the **Live View** window, which shows video feeds from one or more cameras along with providing additional controls.

There are two other modes - **Playback** and **Configure** - which allow you to play back video recorded on the DVR and change the settings on your system, respectively.

#### **LIVE VIEW**

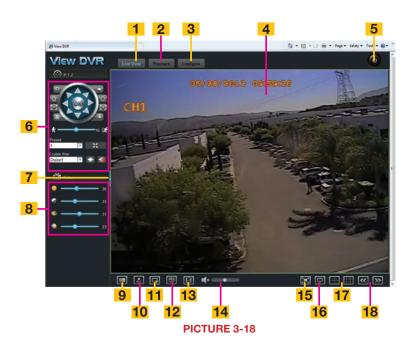
The controls in this mode are limited to those that affect the viewing of live feeds from your cameras.

In multiple-camera display mode, the controls will affect only the screen outlined in green. You can drag a camera's video to another section of a multi-camera view where the feed that was previously there will move to the now-empty location of the first channel. Double-clicking on a channel in multi-camera display mode will change the mode to single-camera view. Double-clicking it again will return to the multiple screen mode.

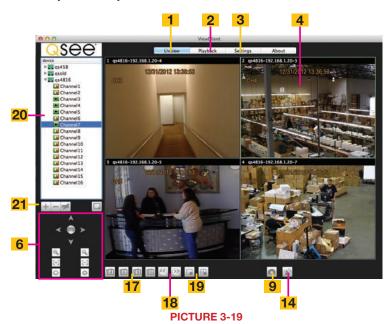
Switch to the Playback and Configure modes using the tabs at the top of the screen. You can log out of the remote monitoring program from any mode by clicking on the **Logout** button in the upper right corner for PC users. Users of **View Client** on the Macintosh only need to quit out of the program.

The following page shows screenshots from both the **View DVR** plugin for Windows and **View Client** for Macintosh, along with a table identifying key features.

### View DVR (PC)



## View Client (Macintosh)



#	Name	Function
1	Live View Tab	Sets program's mode to Live View
2	Playback Tab	Sets program's mode to Playback
3	Configure Tab	Sets program's mode to allow you to configure the DVR
4	Video Display	Displays video feeds from one or more cameras.
5	Logout	Logs out of View DVR (Quit Net Client to log out on Mac)
6	PTZ Controls	Control a PTZ camera directly, or cause it to begin a pre- programmed function
7	Hide Controls	Hides the left control panel, increasing viewing area (Not available on Mac)
8	Picture Adjust	Adjusts brightness, contrast, hue and etc. Only affects live video. (Not available on Mac)
9	Snapshot	Selected camera will capture a still image and save it to your computer's hard drive.
10	Record	All channels will begin recording video. (Not available on Mac)
11	Open/Close Window	Turns video feeds on or off
12	Main Stream	Uses the DVR's main stream for monitoring. This requires increased bandwidth.
13	Sub Stream	Uses a lower-resolution secondary stream from the DVR.
14	Mute/Volume Control	Mutes or adjusts volume if there is an audio feed
15	Original/Full Window	Adjusts aspect ratio of video image to fill available space.
16	Full Screen	Displays video feed(s) without controls. On systems with multiple monitors, this will fill the primary monitor. Right-click to exit this mode.
17	Multiple-display modes	Depending on your DVR model, you have the option to simultaneously view four or eight camera feeds at once.
18	Previous/Next Page	Moves to previous or next group of cameras.
19	Close Screen(s)	Close one screen (left button) close all screens (right button) (Mac only)
20	Device List	The list of connected DVRs being monitored by View Client (Mac only)
21	Add/Delete/Edit DVR (Mac Only)	Add and remove DVRs from the list of connected DVRs or edit the connection details.

#### **PTZ Controls**

The controls on the remote monitoring program allow you to control, but not configure an attached PTZ camera. You will need to set up preset points and cruise lines on the DVR itself as covered in **Chapter 6 PTZ Cameras** in the **User Manual**.

The controls themselves perform the same functions as on the DVR.



PICTURE 3-20

No.	Item	Function
1	Wiper	Turns on camera's wiper (if so equipped)
2	Iris-	Closes iris, reducing light level
3	Focus-	Adjusts focus
4	Zoom-	Zoom out
5	Directional Controls	Click on arrows to move camera in desired direction.
6	Preset	Select a preset point
7	Cruise Line	Selects a cruise for the camera to follow
8	Light	Turns on camera's light (if so equipped)
9	Iris+	Opens iris, increasing light level
10	Focus+	Adjusts focus
11	Zoom+	Zoom in
12	Speed	Adjust speed of camera's movement
13	Call	Goes to preset point
14	Start/Stop	Begins or ends cruise

#### Color Adjustments (PC Only)

Because monitors differ in how they produce color, and because adjusting the picture may assist in identifying details the program includes **Color Adjustment** controls.

These controls adjust brightness, contrast, hue and saturation, but only affect the live video being displayed within View DVR. They do not alter the color of the video being recorded either on your DVR or your computer's hard drive.



PICTURE 3-21

#### **Function Controls**

The series of controls underneath the Live View window are divided into two primary groups. The leftmost is concerned with functions of the remote viewing program while those to the right control the display itself.



PICTURE 3-22

**Snapshot** and **Record** both save files to your computer's hard drive, rather than to the DVRs. The DVR may be recording files or capturing still images on its own at the same time, but neither operation affects that on the other system.

The files will be saved into a destination file in your **User** folder (the folder with the name of the user currently logged into the computer) with each channel having its own sub-folder. You may specify a different destination for these files in the **Configure** mode by using **Local Config**. Snapshots are saved in .jpg format while videos are saved in the .264 format which requires use of the **Miniplayer** software that was included on your disk. Its use is covered **Chapter 4**.

Open/Close Window will end or restore the live feed from the cameras within **Live View**. This can be used to temporarily hide the feeds without logging out of the application.

**Main stream** and **Sub-stream** are parallel data streams from your DVR. The Main stream is larger, and therefore clearer, but motion can appear rough if there is not enough bandwidth. In such cases, using the smaller Sub-stream can result in smoother movement while sacrificing image quality. Your DVR always records to its hard drive using the Main stream.

**Volume** controls only function if there is an audio source, such as a microphone or audioenabled camera, connected to your DVR. You can mute the sound, or adjust the volume as needed.

#### **Display Controls**

These controls deal with how the video is displayed on your screen - full screen, multi-channel, etc.



PICTURE 3-23

**Original/Full window**. Because displays have various aspect ratios (height versus width), and because you may resize the browser window, View DVR may stretch out or otherwise distort the camera video as it attempts to use the space available. Clicking this button will restore the video to the proper aspect ratio, but may leave some unused black space within the frame.

**Full Screen** will hide all controls and display the video across the primary video monitor. Right-clicking will exit this display mode.

**Multiple video display modes**. These buttons allow you to view multiple video channels at the same time. If your system does not have as many cameras as the display mode, the unused channels will be black.

Page controls are used when you have more cameras than are being displayed on the screen. Clicking on either button will cycle through the remaining cameras, retaining the same display format - whether you're in single or multiple camera mode.

#### 3.3 PLAYBACK

The Playback function on View DVR functions in the same manner as the video playback on the DVR itself. When you click on the Playback button, the **Calender** will appear showing days with recorded video in red. The current date's video will automatically be shown in the timeline below the video displays. You can change the date you want to review simply by clicking on it in the **Calendar**, or you may refine your search using the options directly below it.



PICTURE 3-24

You may optionally click Record List to view a list of the recorded files available for playback.



PICTURE 3-25

It is through this latter format that you are able to backup files from the DVR to the computer's hard drive by selecting one or more videos and then clicking **Backup**. These will be saved as .264 format video files and stored according to your preferences set in the **Local Config**. You may also take a snapshot from the video which will be recorded to your hard drive in the same location that snapshots from live view feeds are stored.



PICTURE 3-26

The display controls at the bottom operate in the same manner as in the **Live View**. You will only be able to view the recordings from four channels at a time due to bandwidth concerns.

#### 3.4 CONFIGURE

The Configure mode of View DVR allows you to remotely access and change most of the settings on the DVR itself. With a few exceptions, accessing these settings through View DVR is identical to accessing them on the DVR itself so we refer you to the User Manual for in-depth information regarding these settings and their purposes rather than recapping them here.

Instead, this section will concentrate on instances where the features are either not present on the DVR or significantly different.

#### DATE/TIME

An added feature is the ability to synchronize the DVR's clock to that of the PC. The DVR will stay set to the PC's local time until the user logs off and the next automatic update from the selected time server occurs. To avoid this reset, disable the **Auto update** by unchecking the box.



PICTURE 3-27

#### **USER**

This area combines both the **User settings** in the **Basic** menu with the **Online Users** feature in the **Information** window. In addition to being able to create new user accounts, you are able to disconnect remote users if you are logged into the DVR as an admin.



PICTURE 3-28

#### **NETWORK**

This area functions as it does on the DVR, but it is worth noting that making changes in this area could result in your being unable to reconnect remotely to the DVR!

#### COMM

As with **Network**, above, changes made in this area through View DVR could result in you being disconnected from the DVR and unable to reestablish a connection until such time as you can make the settings at the DVR itself.

#### **LOCAL SETTINGS**

Unlike the rest of the areas in **Configure**, **Local Settings** only affects the computer you are connecting to the DVR with.



**PICTURE 3-29** 

**Record pack time** allows you to set a maximum duration for each file recorded. This allows for easier playback and transfer of files. If a file reaches the maximum limit, the system will immediately start a new file to continue the recording.

Snap/Record/Record backup paths This is where you set the destination location for the computer to save snapshots, video recordings and backup files taken or downloaded in View DVR. The default folder is in the User folder of the same name as the person logged into the computer being used to monitor the DVR. Whether you continue to use this folder or create your own, the program will save files into subfolders entitled "Capture" (snapshots), "Record" (video recorded from live view) and "Backup" (recorded video uploaded from the DVR's hard drive. Each folder will be subdivided by the channel of the camera that recorded the image or video.

## **MINIPLAYER SOFTWARE**



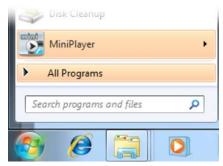
MiniPlayer is a standalone video playback program for Windows that will allow you to play back the .264 format video recorded using the View DVR program and downloaded from the DVR. Videos backed up at the DVR using a USB drive are saved in the more conventional .avi format, but are generally too large to be transferred over the Internet from the DVR.

Future versions of ViewDVR will provide .avi downloads. There are free software programs available online which will convert .264 video to .avi format.

#### 4.1 INSTALLATION

Locate the installation file, MiniPlayer\_ENG\_Setup.exe, on the CD that came with your DVR. Double-click to launch it and follow the installation instructions.

When you have completed your installation, MiniPlayer will be available in your **Windows Start Menu**.

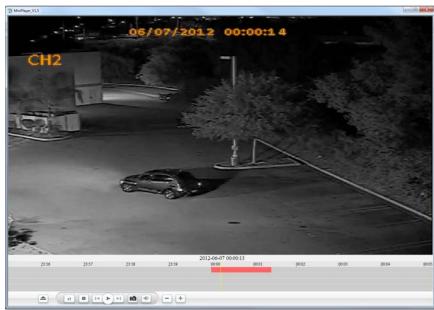


**PICTURE 4-1** 

#### **4.2 OPERATION**

MiniPlayer is a PC program who's sole purpose is to play back .264-formatted video files and, as a result, is straightforward in its operation. It is able to play back a single file at a time.

- **STEP 1**. Select a file to play by clicking on the Open button located at the far left of the controls under the timeline at the bottom of the screen.
- STEP 2. Navigate to the desired file which is saved in the destination folder that you selected using the Local Settings function of View DVR (see Section 3.4 Configure).
- **STEP 3.** Click on the file to begin playback. If the program shows the video as part of a multiple-screen display (with the other three channels being blank), you can double-click on the channel with video to bring it to the single video display.



**PICTURE 4-2** 

The controls are mostly straight forward and obvious in their functions and all controls display their name if you hover the mouse cursor over a button. **Start/Pause**, **Stop** and **Volume** all operate in the usual manner.

Additional controls include:

Speed - Playback speed is adjustable between 1/16x and 16x normal speed.

Forward Frame - Advance playback a single frame at a time.

Capture - Takes a still image from the currently displayed video.

**Zoom In/Out** - Zoom into our out of the video playback timeline for finer detail in selecting a specific point in the recording. The mouse wheel can also perform this function.

## **MOBILE SURVEILLANCE**

**CHAPTER 5** 

#### **5.1 ENABLING MOBILE SURVEILLANCE**

You can access your DVR from your Apple or Android smartphone or tablet. Search for **Q-See** in the iTunes store or Android market to download this free mobile app. The same application will operate on both phone or tablet. Be certain to select the **QS Series** version to ensure compatibility with your system.





**NOTE!** Before you can use mobile access you need to setup the network configuration on the DVR and forward ports 80, 100, and 9000 from the router the DVR is attached to, to the IP address of the DVR as described in **Chapter 1**.

**NOTE:** The bandwidth usage of monitoring your DVR remotely is roughly equivalent to streaming a movie for the same duration.

#### **5.2 USING QS VIEW**

QS View software operates identically on both Android and Apple iOS phones and tablets. The instructions below cover both platforms.

#### **LOGGING INTO YOUR DVR**

Once you've installed the QS View app, launch it as you would any other program.



PICTURE 5-1

Once the program has loaded it will display its default mode, the **Live View**.



PICTURE 5-2

You will need to add your DVR to the **Device List** in order to connect.

Tap on the **Device** icon to open the **Device List**.

To add a DVR to your list, tap the + (iOS) or **Add** (Android) button in the upper right corner.

Later, you can use this window to edit or delete DVRs in your list by using the **Edit** button on the upper left.





Clicking on the + or Add button opens another window allowing you to enter the DVRs IP address and other essential information, such as the user name and password. These are the same as you use to log into the DVR.

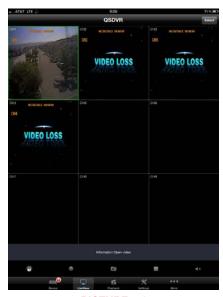
It is recommended that you create two "Devices" for each DVR. One should use the local IP address for when you are accessing the same network that the DVR is connected to, while the other will use the WAN IP for when you are connecting over the Internet.



**PICTURE 5-5** 

Once you've added your DVR to the list, you can tap on it to connect to it.

While in **Live View**, you may switch between Devices by tapping the **Select** button in the upper right corner. This will cause a list of your available DVRs to pop up allowing you to choose which system to access.



**PICTURE 5-6** 

#### **LIVE VIEW**

QS View will open in nine-channel multi-display mode by default. Any "extra" channels beyond what your DVR actually has will show up black while any channels that your DVR has but without a camera connected will display "Video Loss".

Spreading your fingers on the screen will change the display mode to four- and then single-channel display mode. A pinching action will increase the number of channels being displayed. You can also double-tap on a channel to bring it to full screen view. Double tapping on it again will return to the previous multi-screen mode.

In four-channel display mode, you can switch to the next group of four channels (if you have an eight-channel DVR) by dragging your finger across the screen. Similarly, you may move between single-channel views using the same page-turning motion. While in a single-screen view, you can digitally zoom in on the video by spreading your fingers. A pinching motion will zoom back out.

Most **Live View** functions will operate in portrait or landscape mode. Controls are hidden while in landscape mode. Other functions, such as video playback, will be in portrait mode only.





**PICTURE 5-7** 

In portrait mode a series of controls will appear under the video.



**PICTURE 5-8** 

The upper row of buttons directly affects the **Live View** video. In order from left to right, the buttons are: **PTZ Controls, Local Record, Snapshot, Close Video** and **Volume**.

#### **PTZ Controls**

Tapping the **PTZ** button will add PTZ controls to the a channel currently being viewed in full-screen mode. These will be functional only on a channel that has a PTZ camera connected to it. Touch the arrows to move the camera in the desired direction.

Spreading your fingers apart on the screen will cause the camera to zoom in while a pinching motion will zoom it back out.

You are not able to make changes to the PTZ settings through QS View, nor are you able to activate cruises or automatically move to a preset point.



PICTURE 5-9

#### **Recording Video**

You are able to record live video locally to your device by tapping on the **Record** button. These videos can be accessed and played back using the Playback function described later. Tapping the **Record** button a second time ends the recording.

#### **Snapshot**

Tapping this button captures a still image from the selected camera. You are then given the choice to save it or not. Images captured on the iPad and iPhone are saved to the device's **Photos** folder, while those captured on an Android device are available through the Playback function.

#### **Close Channel**

This button turns off the feed from the selected channel but does not disconnect your device from the DVR. The square icon is then replaced by a triangular "play" icon which will restore the channel's view to your device.

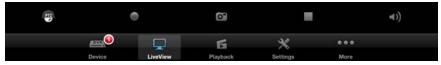
#### **Volume Control**

If you have an audio-enabled camera or a microphone connected to your DVR, you can turn the audio on or off by tapping this button.

#### **APPLICATION CONTROLS**

The lower row of controls at the bottom of the QS View window are used switch modes with the program as well as change the settings of the program itself.

**Live View** is the normal operating mode.



**PICTURE 5-10** 

#### **Device**

You can switch between DVRs using either the **Select** button at the top of the screen or the **Device** button at the bottom left. This latter button will display the number of available systems next to its icon.

However, you can only add DVRs and edit their profile with QS View from within the **Device List**.

As was described at the beginning of this chapter, to add a device, touch the + or Add button (Apple or Android devices, respectively) and then enter the information needed to log in.



Touching the **Edit** button within the Device List will add red icons to the left of the DVRs within your list. You can tap on the DVR's

When you have made your changes, tap the **Done** (Apple) or **Save** (Android) to save them.

name to edit its information - such as to

change the password.

You must have more than one device in the list to delete a system from your list. Tapping on the red icon to the left of the device that you want to remove will bring up a red **Delete** button allowing you to remove the DVR from your list.



PICTURE 5-12

#### **PLAYBACK**

Along with viewing live feeds from your system, the playback feature is the other major function of QS View. This function only operates in portrait mode. Only a single video may be played back at a time.

Selecting Playback brings up a window showing your options. You can play back video recorded on the DVR (remote) or local video which was recorded onto your device by tapping on the Record button in Live View. On Android devices, you may also view the still images taken using the Snapshot button in Live View using the Image View function. Although this last option is shown as Capture View in the iPhone/iPad version of QS View, the images are automatically saved to your device's Photos folder so this feature is not functional.

Select the type of playback you wish to perform and the appropriate window will open.



#### **Remote Playback**

You are able to access - and view - videos recorded onto your DVR's hard drive from your mobile device. When you select **Remote Playback**, a calendar will appear showing the current date. If that date has recorded files, they will automatically appear in the list below the **Calendar**. Dates with recorded video will be shown in blue.

You may select a different date and which channel(s) to search. The file list will show the start and end times, along with which channel made the recording. Double-tap upon a file to begin playback.



PICTURE 5-14

The playback controls are straightforward. In addition to playing the video at normal speed, the arrows to either side of the **Play/Pause** button allow you to speed up or slow down playback by a factor of two (1/2x to 2x normal speed).

The **Snapshot** button allows you to capture a still image from the recorded video. This image will be saved in the same location as snapshots taken from live video - in **Photos** on the iPhone or iPad and within a folder labeled **Streaming** on the SD card in Android devices.

**Volume** allows you to mute any included audio stream.

Tap on **Playback** in the upper left to return to the list of videos.

### Local Playback

Local files are videos recorded onto your mobile device when you press the Record button during Live View. Video from all cameras will be recorded when you select this operation.

Playback operates in exactly the same manner as with remote playback.

Tap on **Local Playback** in the upper right to return to the list of files.

You may double-tap on a video to begin playing it, or you may tap on the arrow at the far right.

To delete a video, simply touch and drag within the white area to the right of the file name and a Delete button will appear, allowing you to remove the file from the list.



PICTURE 5-15



PICTURE 5-16

#### **Image Playback**

Available only on the Android version of QS View, **Image Playback** allows you to review still images captured from Live or Playback video. These files are located on your device's SD card in a folder named Streaming where they may be copied, sent or deleted.

#### **SETTINGS**

The **Settings** menu allows you to make certain changes to your DVR remotely. The options listed in this menu mirror those on the DVR itself but aren't nearly as complete. You cannot access all of the funtions and options available on the DVR, including PTZ configuration, but you are able to change the recording schedule, set up alarm responses and so on.

Full and complete descriptions of the functions can be found within the **User** Manual as well as earlier within this Remote Monitoring Guide.

Use the **Back** button to exit a portion of the **Settings** menu without leaving the menu itself.

Worth noting, however, is the ability to access the list of online users. In addition to being able to create and modify user accounts from your mobile device, you may also disconnect another user from the system if you are logged in using the Admin account.

As was stated earlier in the **Remote** Monitoring portion of Chapter 3 of this Guide, care should be exercised when modifying any of the network settings as changes may result in your being logged out of the DVR with no way to reconnect until settings are changed again at the DVR itself.



PICTURE 5-17

#### MORE

This last portion of QS View collects two different functions into a pair of submenus.

#### **System**

The settings within the System submenu include Main/Sub Stream, Network and PTZ camera speed with the first two options giving you control of the amount of data being utilized by your device. Keep in mind that streaming video from your DVR utilizes approximately the same bandwidth as a streaming a movie or live video from another source. Depending upon your data plan, you may find it better to utilize only the lower-bandwidth substream. Disabling this option will provide reduced image quality as the device will only use the substream. But, it will not use as much data. Turning on Only Wifi in the Network option will prevent your mobile device from streaming video using 3G/4G data networks.

The last option does not affect bandwidth, but allows you to adjust the speed at which the PTZ camera operates in Live View mode.

#### About

This other submenu provides basic information about the QS View software - which version you are running and its release date.

## **Q-SEE PRODUCT WARRANTY**

Q-See is proud to back all of our products with a conditional service warranty covering all hardware for 12 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.
- 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



#### **QUESTIONS OR COMMENTS? CONTACT US**

## PRODUCT SUPPORT, DOWNLOADS, FIRMWARE UPDATES & MANUALS

24/7 Technical Resources Live Chat (M-F, 9-5 PST) www.Q-See.com/Support

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