



WHAT TO EXPECT INSTALLING

INTERNET REMOTE CAMERA VIEWING

So you have decided to install a surveillance system, congratulations. We understand you want the peace-of-mind that comes from having surveillance as a deterrent, and recourse to playback events. We also know you may also want the freedom to drop in on your system remotely, over the Internet, from your cell phone, tablet or computer.

Below is an overview of Internet Remote Viewing and a few tips on how to get the most from your new Surveillance System and what to expect from connecting your cameras to the Internet.

Your Internet Service Provider (ISP) delivers broadband Internet access to your home or business usually via a device called the **MODEM**. This is true for all DSL and Cable TV, and Satellite Internet Providers. The MODEM converts the ISPs network via cable TV or phones lines, to **Ethernet** (the standard network cable). Every device like this on the Internet has an Internet Protocol address (AKA: IP Address) usually made up of 4 sets of numbers 0 to 255, separated by a decimal point. (IE: 67.168.210.155 or something similar.) In the past you probably never knew or cared what your IP address was.

Now you are putting a server on your IP Address. That's right! Your DVR recorder for your cameras is a server. (Other types of DVRs such as TVRs, CVRs, AVRs, NVRs, are all also servers.) You want to gain access to your DVR and cameras when you are away from your home, or business, or the camera location. To gain access from the Internet to your cameras you need to first have programmed your MODEM, and any other network device such as a router, Wi-Fi router, to allow access to your DVR or other type of video recorder. This programming process is called "Port Forwarding" which allows just the data ports required by the DVR to get accessed from the Internet directly to the DVR.

Once this programming is completed on your MODEM and /or your ROUTER, the DVR and its cameras will be viewable from the Internet. To see the DVR and Cameras you can use an Internet Browser on your computer such as IE Internet Explorer, Mozilla Firefox (recommended), or Google Chrome. You can also use the PC application provided with the DVR. Smartphones and Tablets are also great for remote viewing after you download the appropriate application for your Google, Apple, or Microsoft phone or tablet. When logging in remotely you need to put in your outside IP address (the one assigned by your ISP). If you do not know it you can use any computer or Internet device on the same network with the DVR and go to the website <http://whatismyipaddress.com> this will always give you your current OUTSIDE IP address to the Internet, which is the address you need to use to access from remote.

What is the difference between an **INSIDE** and an **OUTSIDE IP address**? The OUTSIDE IP address is issued by your ISP. Usually there is only one OUTSIDE IP address at a home or small business however some commercial accounts may have 5 to 10 OUTSIDE IP addresses. An INSIDE IP address is one that is issued by your ROUTER or MODEM. Each computer, phone, tablet, or any network type device you have at your DVR location will be assigned an INSIDE IP address. Between your INSIDE IP addresses and your OUTSIDE IP address is the ROUTER or MODEM's FIREWALL. You may have up to 254 devices with INSIDE IP addresses on a LAN or Local Area Network. All these devices use the same single OUTSIDE IP address to connect to the Internet. When you are on a computer or phone or tablet that is on the INSIDE IP address network you may access your DVR on its INSIDE IP address. (usually set to 192.168.1.200). So say at home your phone may be connecting to the Internet using Wi-Fi, you can view your DVR and cameras on the related INSIDE IP address. When you are away from home and your phone is connected to the Internet via 3G or 4G or Wi-Fi at your remote location, you can only access your cameras via the OUTSIDE IP address. Inside when you are inside, outside when you are outside.

What about a **STATIC IP ADDRESS**? There are two types of IP ADDRESSES, **STATIC** and **DYNAMIC**. By default most ISPs (Internet Service Providers) assign you a random DYNAMIC IP ADDRESS assigned from a pool of numbers. The ISP can change and reassign the IP ADDRESS at any time without your knowing. Often when you power off and on your MODEM, the rebooted Modem gets assigned a new IP address. This can be annoying and frustrating when you want your remote camera access to always be available. If you want the rock solid way to always be able to access your cameras remotely, ask your ISP about a STATIC IP ADDRESS. Most Internet Service Providers charge a few bucks a month more for the STATIC IP but it is worth it in terms of ease and reliability. This will give you an IP ADDRESS number that never changes and you can count on it to reliably access your video.

What is **DDNS**? Dynamic Domain Name Service is a way to get to a server or DVR, without a static IP address, using a third party provider on the Internet. This third party such as DYNDNS.ORG or DVRLISTS.COM or others provide a free and sometimes subscription service that accepts a login from your DVR every 30 minutes or so and registers its current IP address. When you want to access your DVR and cameras you go to their website or DNS server to gain access to what the DVR IP address is now. These third party services do not always work. We like to say... "they work most of the time". However when the third part service is updating or down for service your cameras are not accessible. If you want reliability get a STATIC IP ADDRESS from your ISP.

NOTE: Down the road in the future you may change Internet Providers or your ISP may change your MODEM or equipment. When this happens be sure they reprogram your port forwarding settings for your DVR or your DVR and Cameras will no longer be accessible from the Internet. Remember if this happens it is not the Camera Company Installer's or the DVR's fault and it may cost you to have your MODEM or ROUTER equipment reprogrammed.