

## HOME ALARM SYSTEMS:

May contain door, window and/or motion sensor triggers, depending on the sophistication and cost of the system. Even just door alarms are a big help because, even though burglars may enter a home through a door or window, they will typically remove property through a door. A motion sensor can provide additional protection if there is any movement inside the home. A complete array of the door and window sensors is necessary to keep your home safe while you are in the home, especially when you're sleeping. (We set our alarm every night) The system will alert you in case any window or door is opened.

An alarm system can be either monitored or non-monitored. If the system is non-monitored, it will still activate a siren installed inside and/or outside your home, when a sensor is activated. This is enough to make 99 out of 100 burglars run. A monitored system automatically calls an alarm monitoring company and notifies them of the triggered alarm including the specific door or window or motion detector that triggered it. The monitoring company will call the home owner first and, if instructed by the homeowner or if the homeowner cannot be contacted, will call the police department.

Video surveillance systems are an enhancement (not a replacement) for your home alarm system. They help you determine, not only that your home is being burglarized or vandalized, but who is actually doing it and what they are actually doing! Video cameras can take good quality video of intruders or anyone entering the yard or home, nighttime or daytime. That video can be saved on digital video recorder (DVR) on the property or a computer that is located on or off the property and it can be sent via email to you anywhere in the world. Video saved by DVR or computer can be viewed at a later time or date if evidence of criminal activity is subsequently discovered. The system DVR, of course, should be located in a place where an intruder cannot easily discover it. If your system is connected to the Internet, you can also view inside your home or outside your home through any one of the cameras anytime you wish. Also, you can direct the system to send you an email each time a camera is triggered, if desired.

## THREE BASIC TYPES OF DO-IT-YOURSELF VIDEO SURVEILLANCE SYSTEMS:

**Wired:** With a wired system, you can have one, or any number of cameras, connected to a DVR by wire. The wire system requires more work during setup because the wires must be run from the cameras, through your attic, to the DVR. Once the initial setup is accomplished, however, wired cameras are more reliable and more consistent. Wired cameras are also somewhat less expensive.

**Wireless:** Wireless cameras are easier to setup. They are also easier to relocate in case you decide you want the camera in a different place.

Either wired or wireless cameras are typically connected to a DVR for recording when motion is detected. The DVR can be configured so that you can access its recordings through the internet on any computer or smart phone.

**Internet protocol (IP) cameras:** These latest technology cameras are wireless and are not connected directly to a computer or a DVR. They send real-time video through your home Wi-Fi router instantly to the Internet. You can access the video (securely) from your home computer or any computer or smart phone anywhere in the world. Video can be recorded and saved for later review by using one of several computer programs such as [Vitamin D Video](#). IP cameras can also be programmed to send you an email, with photographs, whenever triggered.

## SOME PRACTICAL CONSIDERATIONS OF VIDEO SURVEILLANCE SYSTEMS:

--While video cameras designed for outdoor use are water resistant, they are not waterproof. Outdoor video cameras should be mounted under a porch covering or under the eaves of the house to avoid direct rain contact.

--Email notifications do not work well with any of these cameras. Although, the cameras will reliably send you an email every time motion is detected, you will receive many unnecessary emails triggered by moving vegetation, illumination changes, pet movements, etc.

--All cameras need an AC power source. Don't believe claims by manufacturers that their cameras can be powered by batteries. Each camera is powered by a small AC adapter, similar to a cell phone charger adapter. Wired cameras can have all of their power supplies consolidated at the DVR on a power strip because, they have cables running to the DVR. Wireless cameras and IP cameras, however, must have an AC power supply to plug into, near the camera. This can limit outdoor locations for IP cameras.

--Although wired cameras with DVR recorder and an LED display are basically plug-and-play systems that can be set up by just about anyone who can read simple instructions, wireless camera setup requires basic computer skills and IP camera setup requires moderate computer skills, including wireless router manipulation. Much help can be obtained online, however, such as with [THIS VIDEO](#) which gives step-by-step instructions for setting-up the popular Foscam IP cameras.

--Additional cameras can be added to either system. The only limit to the number of cameras with a wired or wireless system is the capability of the DVR unit. Camera capacity capabilities are called "channels." So, a 12 channel system will accommodate 12 cameras. IP cameras, on the other hand, have a practical limit because of Internet bandwidth usage. Five or six cameras is a practical limit before the cameras could interfere with your Internet speed. IP cameras are often used to supplement a wired or wireless system by giving instant, constant and anytime worldwide access to one or two video cameras on a property. On the other hand, if you are going to install only one or two cameras on the property, and you already have a wireless router setup on the property, one or two IP cameras may be the way to go.

--Of course, a burglar or vandal could possibly interrupt power to a camera or to the entire home. Even if that happens, video will already be recorded on a computer or DVR. Video surveillance "tapes" often clearly show the face of a criminal walking up to a camera and trying to destroy or disable it, *after* they've been photographed. Also, backup battery power supplies for computers and DVR's can be purchased anywhere so that a system will continue to operate even if all household power is cut-off.

--Video surveillance cameras have a secondary use which is even more popular than their primary use, by many people. The cameras can be used to monitor any activity in or around your home such as strangers in your yard, or on the street in front of your house, that you may not have noticed at the time of the incident. Many people use these cameras to keep track of when their children arrive home or when they leave the house. Some people use the cameras to monitor Home Care professionals taking care of an elderly family member. Some people use the cameras to monitor contracted personnel such as baby sitters, house cleaners or yard maintenance people. Some people even use the cameras to monitor the well being of their pets while they're gone.

--Most video surveillance cameras have "night vision" capability. This is accomplished with built-in infrared LED illuminators. The effectiveness of this night vision capability differs widely among cameras. Some cameras have see-in-the-dark capability of only 8 to 10 feet. Indoor cameras need only a short night vision distance. Other cameras, like some [Foscam](#) outdoor IP cameras (\$100) have a night vision capability of up to 90 feet. They can monitor the street in front of your home 24 hours per day.

--Wireless cameras have a practical distance limit from the DVR, computer, or router. Cameras vary but, plan to keep that distance to 50 feet or less. Of course, wired cameras are limited only by the length of the wire. Cameras typically, come with a 60 foot cable. An additional 60 foot cable can be purchased if necessary but, it is rarely needed.