

# **Burglar and Fire Alarms**

## *A Customer Resource Guide*

**Taking away the mystery about the purchase, installation and monitoring of burglar and fire alarm systems including:**

- **How to pick an alarm installation company**
- **How to determine the protection you need**
- **How to select an alarm monitoring company**
- **How to decide what equipment to use**
- **How do alarms affect your insurance**
- **Licensing and false alarms**

**... and much more...**

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# Alarm System Design Basics

When someone decides to install a burglar alarm system, there are two motivations to be considered:

1. **Property Protection** (primarily for use when home is not occupied)
2. **Personal Protection** (for use when home is occupied)

**Property protection:** Property protection is the easier of the two types of protection to evaluate. It is primarily “*objective*” as it takes into consideration the operating statistics of burglaries and the observed methods of operation of burglars.

90% of burglars gain entrance through *unlocked* doors and windows. Once inside, the first action a burglar takes is to open an exit door to ensure they can escape quickly in the event they are “discovered” during the burglary. After they have made sure that they can get out easily in the event of detection, the burglars will move throughout the home “scouting” for the best items to take. Favorite areas include master bedrooms and media rooms.

A good basic strategy to design a system to protect your property is to protect:

1. All doors that go outside the house
2. Interior door to garage (if connected to the house)
3. Interior motion detector or glassbreak detector
  - a. Covering stairways that go between different levels of the home.
  - b. Covering hallways that lead to bedrooms
  - c. Covering daylight basement areas
  - Motion detectors are used to prevent movement from one area to another. If you have indoor pets (dogs or cats) that are left inside when you are away, great care should be used in both the placement and number of detectors. Motion detectors cause over 90% of false alarm activations and should be used very sparingly. If you cannot use motion detectors because of your pets, it is good to protect one or two interior doors to prevent burglars from having free access and movement throughout the house.
  - Glassbreak detectors are sometimes used in areas with a large number of windows. Pets do not affect the glassbreak sensors but it is important to remember that the window must be broken; opening the window does not trigger the system. A glass break sensor will cover a 25-foot area of window but will not cover more than one room. It is also not effective if there are curtains or blinds covering the windows

Property protection serves to prevent successful burglary attempts. By triggering the alarm sirens, the burglar usually leaves the premise immediately and loss is minimized.

**Personal protection:** Personal protection is more difficult to evaluate because it is a “*subjective*” analysis. Each person has their own level of protective comfort, which is a product of their experience. A person who has been burglarized will have different criteria than one who has not. Men and women often have different levels of protective comfort and security needs. The challenge for the burglar alarm system designer is to design a system that gives the homeowner a

system that makes them feel safe, while still keeping the system easy to use as well as being in a comfortable price range.

It is very difficult to give good design advice for personal protection without seeing the home and talking to the homeowners. My experience over the years has been that salesmen (who are paid on a commission basis) tend to sell the customer more protection than they need, creating a greater possibility of false alarms, difficulty of use and unnecessary expense.

All major alarm system manufacturers provide emergency features built into the alarm keypads that operate the system that allow the homeowner to alert the central monitoring station to **Emergency Police, Emergency Fire and Emergency Medical** conditions.

## **Design Questions**

There are six primary questions in the alarm system design process that must be answered before deciding on an alarm system design:

1. **What are you attempting to protect?** Are you protecting people, property or both? (Remember that insurance will replace most of your belongings with the obvious exception of family heirlooms and other personal keepsakes.)
2. **How much time and money is budgeted to this project?** Will this be a wired system, wireless or combination of both? Wired systems are by far the least expensive equipment-wise but significantly more labor intensive. Wireless on the other hand is fairly quick to install but the equipment cost is higher. If you are installing your own alarm system and are providing your own labor a hard-wired system will be less expensive. For a professionally installed system the price difference between hardwire and wireless system is minimal.
3. **When will you be arming (activating) the alarm system?** Will you or your family be setting the alarm just when you go to bed, when everyone leaves for work/school, or at anytime of the day or night while the home is still occupied? This answer is important since it drives how many and type of detection sensors will be necessary to meet your objectives.
4. **Do you have pets in the home and what type?** Cats, dogs, birds? Where do they sleep at night and do they have free roam of the house night and day? This will determine what type of interior alarm sensors you will use. Standard passive infrared motion sensors (PIRs) can only be used in areas that will not contain cats or dogs. However some manufacturers now offer special motion sensors that are "pet immune" to 80 lbs. As an alternative to motion sensors interior "Acoustic" Glassbreak sensors are available and many times used in conjunction with PIRs
5. **Who will be using (arming and disarming) the system normally?** Yourself, your spouse, kids, house keeper, a baby sitter? Most alarm panels offered contain multiple "passcodes" allowing every family member to have their own unique arm/disarm code. With wireless

capability, it is possible to have multiple wireless keyfobs that are able to arm and disarm the alarm system with a single button.

6. **Will this be a "local" alarm or Central Station monitored alarm?** A local alarm means you will have an outside siren and will be depending upon your neighbors to call the police. Some alarm panels can notify you via pager or cell phone. All panels have the ability to transmit the alarm signals to a central monitoring station. When the signals are received at the central monitoring station, operators notify the customer and the appropriate emergency responders in accordance with instructions that are predetermined by the customer. When a central monitoring station is used the customer will pay a monthly (quarterly, semi-annual or annual) fee.

## **Fire Protection**

Fire protection provides both property and personal detection. Because most new homes have smoke detectors in each hallway, bedroom and level in the house, a fire alarm that is connected to the burglar alarm system is redundant protection for those people inside the house. Smoke detectors added to the burglar alarm system are usually much more expensive than 110VAC hardwired smoke detectors or stand alone battery operated smoke detectors. The primary advantage of smoke detectors that are connected to the burglar alarm system is the ability to monitor them. Any smoke detector in your home will protect your life while you are in the house. If you are not home, a non-monitored smoke detector will not save your home or business. In most cases by the time a fire is visible outside the home or business, it is too late to save the structure. If you are not going to have your alarm system monitored then the smoke detectors tied into the burglar alarm system are not as cost effective as the stand-alone 110VAC or battery operated smoke detectors.

New homes can meet the building code by having all required smoke detectors connected to the security alarm system. The advantage of such a system is that the smoke detectors will trigger an audible alarm that is heard throughout the home and not just emanating from the activated smoke detector.

## **Medical Alarms**

Most people think of medical alarms as depicted in the "I've fallen and I can't get up!" commercials. Medical alarms are "on" at all times and usually consists of a base control unit that is connected to an electrical outlet and to a telephone line, and wireless activation buttons which might be worn around the neck as a pendant or on the wrist like a wristwatch. Most devices are water resistant, but not waterproof. The device is activate by pushing a button (or sometimes two buttons) There are basically two types of medical monitoring.

1. Two-way voice – When the alarm system is activated by either a stationary button or wireless pendent, the central monitoring operator comes on line over speakers in the house and is able to talk and listen to the person who activated the alarm.
2. Alarm only – When the alarm system is activated by either a stationary button or wireless pendent, the central monitoring operator places a phone call back into the location and either speaks with someone on site or summons aid as predetermined by the customer.

Some burglar alarm systems that have wireless capability can easily accommodate medical pendants without the need of any additional control equipment. Some alarm companies will not monitor medical alarms because of the liability involved. This is usually a result of requirements from their insurance carrier. (Be sure to check with any prospective alarm installation and monitoring company as to the services which they will and will not provide.)

## **Telephone Line Protection**

Most alarm systems use your phone line to send an alarm signal to a monitoring central station. The alarm system control “seizes” the phone line and then dials a phone number that is connected to the alarm monitoring company’s central monitoring receiver equipment. If you are using the phone when the alarm system “seizes” the line, you will be disconnected from your call and all the phones will go “dead” for the period of time that the alarm system control is signaling to the monitoring station (usually the call takes 18-30 seconds).

If your phone line is cut, disconnected or otherwise out of service, the alarm control cannot send a signal to the alarm monitoring center. The local siren will activate if a break-in occurs. Some of the more sophisticated alarm control panels can indicate on the keypad that the phone line is disconnected and can be programmed to trip the alarm siren when the phone line is disconnected and the alarm system is “armed”.

Equipment is available to “back-up” the telephone line with cell phone, radio and internet monitoring. The exact model and method will depend on the manufacturer you use and the alternative service providers in your area. None of the equipment and corresponding monthly service fee for connecting to the alternative networks are inexpensive. My experience is that the risk and frequency of the phone lines being compromised do not warrant the expense of these services. In any event, if this is a concern there are solutions available.

**VOIP** – (*Voice over Internet Protocol*). Many customers are switching their phone service to VOIP. This is offered by both the cable company and DSL internet providers. While most alarm panels can utilize the VOIP lines for communications, it does present some additional obstacles that are not present with traditional “hardwire” telephone lines. If you have VOIP we would look carefully at how your providers network is configured to make sure you are aware of any potential problems.

## **Alarm System Monitoring**

Alarm systems do not have to be monitored. If you choose not to have your alarm monitored you need to have some sort of “outside noise” like a bell or siren, in order to notify your neighbors to call for assistance. Most systems can be monitored for fire, medical, panic and burglary signals. Burglary dispatch of police can be subject to a fee to the police (*see section on false alarms below*) and homeowners are increasingly having the call from the monitoring company directed to them. At this point there are no cities that are charging homeowners for fire, panic or medical responses.

All alarm systems come with built in modems that allow you to connect the alarm system into the telephone line in order to send signals to a central monitoring station. Some alarm systems allow you to call a cell phone or a pager in addition (or in place of) a central monitoring company. Some

of the newer alarm systems can send their signals by cellular telephone, radio transmission or over the Internet. Police and Fire departments in almost all jurisdictions will not allow you to send alarm system signals directly to their dispatch centers. The modems in the alarm systems also allow your installation company to be able to remotely program (**download**) or diagnose problems with your alarm system over the telephone. These download features can be controlled so that the customer can prevent unauthorized program entry by the alarm company. (All the download programs are encrypted and or password protected to prevent any unauthorized access to the alarm system.)

Cost of alarm system monitoring varies greatly. One of the biggest reasons for the variety of rates is the practice of “**bundling**” services. Some of the services that are bundled are:

1. Alarm monitoring
2. Alarm system service (labor)
3. Alarm system service (parts)
4. Subsidized installation cost

Some companies will let you choose the services you want and others require that you take all the services. There is no universal best way to charge for monitoring. The important thing to understand is what services you need and what services you are paying for. That will allow comparing “apples to apples” as you make the choice as to which service is best for you.

## **Monitoring Contracts**

All companies that monitor alarm systems require you to sign a monitoring contract. If a company does not require you to sign a contract, they have no **liability** or **errors and omissions** insurance and should be avoided. There are several aspects of the contract to be aware of:

1. Term of the contract
  - a. month to month
  - b. Annual
  - c. Multi-year
2. Renewal term of contract
  - a. Month to month
  - b. Annual
  - c. Multi-year
3. Monitoring payments
  - a. Monthly
  - b. Quarterly
  - c. Semi-annually
  - d. Annually

Most alarm monitoring contracts can only be canceled with notice 30-60 days prior to the renewal date of the contract. This is fairly well enforced by the alarm companies. If you decide to cancel your monitoring because you are moving, having financial troubles or even die, you will be

responsible for the “**balance of contract**” payments. This means that the company will expect you to pay the full amount (*monthly fee X remaining months* left on the contract) regardless of whether you are using the service or not. Some companies will allow you out of the contract if you can get the new owner to sign up for the monitoring service or if you transfer your monitoring service to a new location.

These contracts are enforced because alarm companies use these contracts as collateral to borrow money, establish credit and even sell and buy contracts (similar to banks selling mortgages.)

Again, there are no good or bad contract terms. What is important is that you understand what the options are so that you can make the decision that will best suit your needs.

## **Changing Monitoring Companies**

If you are currently monitored and you are considering changing monitoring companies there are several things to consider.

1. Your existing monitoring contract. (See section “Monitoring Contract”)
2. Can the new company monitor your system? All alarm system and manufacturers have their own protocols, programming, programmers and receiver compatibility. To determine if the new company can monitor your alarm they will need to know.
  - a) Your alarm system manufacturer and model #
  - b) The “installer code” for your alarm. (Many times an alarm monitoring company will put their own “installer code” into your alarm panel to make sure that they can get into the control program to make changes and also to keep out unauthorized access to the control panel. You should either have your present monitoring company give you the “installer code” or, if they do not want to give out their “installer code”, have them return the “installer code” to the manufacturer’s default “installer code”.

## **Alarm Installation Pricing**

Installation pricing is the most difficult aspect of comparing different alarm companies. The best way to compare pricing is to ask for a bid that includes **itemized protection pricing**. By this I mean find out what the price is for a door contact, motion detector, smoke detector. If you are required to monitor your alarm system for 3 years, include the cost of those three years of monitoring when comparing your total price against the price of a company that does not require you to monitor the system. (Be sure to add the price of 3 years of that company’s monitoring too!) Also make sure when you are buying an alarm system that you will own the alarm equipment. Some companies have you pay for the alarm system and the installation and retain ownership of the equipment. It only becomes an issue if you decide to switch alarm companies and your old alarm company wants the equipment returned.

### **EXAMPLE:**

Company A installation **\$299.00** monthly monitoring fee **\$34.95** contract term **36** months

$$\$299.00 + (36 \times \$34.95) = \$299.00 + \$1258.20 = \mathbf{\$1557.20}$$

Company B installation **\$799.00** monthly monitoring fee **\$12.50** contract term **month to month**  
 $\$799.00 + (36 \times \$12.50) = \$799.00 + \$450.00 = \mathbf{\$1249.00}$

Although company A is less money at the outset, it costs over \$300.00 more over the life of the contract and you cannot discontinue service for three years. After three years Company B is \$269.40 less per year.

## **Alarm Service and Maintenance**

Most alarm companies will only service and maintain those systems that they monitor. It actually makes sense for companies that focus on monitoring to service those accounts that provide them with additional revenue from monitoring. With hundreds of different manufacturers and models of burglar and fire alarm panels installed, it is often difficult and time consuming to get the documentation and familiarize the technician on a piece of equipment he hasn't worked with previously. Some small companies specialize in servicing all makes and models of alarm panels.

When looking for companies ask them which manufacturers they use and service. Service rates vary from \$50.00 to \$120.00 per hour. Some companies charge more for "off hours" service. Some companies do not offer "off hour" service at all. To compare companies ask the following questions:

1. What is the hourly service rate?
2. Do you charge for travel time? What is that rate?
3. What partial hour increments do you bill? (i.e.15 min; 30 min)
4. Do you have a minimum service call charge?
5. Do you charge more for "off hour" service? What is that rate?

Always be wary of service technicians and alarm companies that say the solution to an alarm problem is to replace the control panel and keypads. After 35 years of servicing alarm systems, I found that 99% of the service problems were a result of problems with wiring and sensors (door and window sensors, motion and glassbreak sensors, smoke and heat detectors). If a technician is not familiar with the manufacturer and model of your alarm equipment he may not be able to ascertain the problem. Unfortunately more and more companies are teaching their technicians to replace panels and other alarm equipment rather than repairing it. If all their customers have the same equipment, it makes it easier for the alarm company to train their technicians. Newer panels do offer the customer some additional features, but the decision to upgrade should reside with the customer (who is paying for the upgrade) and not be the result of a decision of convenience for the alarm company.

If your alarm system was manufactured in the last 20 years installation most user manuals are available on-line. If you would like to get a manual for your system contact me and I can e-mail it to you.

## Alarm Equipment Upgrades

In recent years the advancements in features of alarm systems has been phenomenal. If your alarm system is working and meeting your needs there may be no reason to update your equipment. Below are some features that have been added to alarm controls in recent years and a brief explanation of each.

1. On board modem – This allows the alarm company to “program” and “diagnose” problems with the system remotely and not necessarily have to send a technician to the premise.
2. Wireless capable – This allows the alarm user to take advantage of hand held keypads, panic buttons or to protect out-buildings or other areas that are unable to be reached by hardwire methods.
3. Phone interactivity – This can allow you to operate your alarm from any telephone, either on or off the premises.
4. Pager & Cell Phone signaling – Allows the alarm to signal you directly to your pager or cell phone in the event of an alarm activation (can also be used to signal opening and closings such as use for latch-key monitoring)
5. Cell phone & Radio monitoring – Allows signaling to central stations by means other than conventional telephone line. Can be used as stand alone or as back-up to conventional phone lines.

## Equipment Manufacturers

Four companies manufacture a majority of burglar alarm equipment:

1. **Honeywell** – (Ademco, First-Alert)      [www.security.honeywell.com/hsce/](http://www.security.honeywell.com/hsce/)
2. **General Electric** – (ITI, Caddx)      [www.geindustrial.com/cwc/products/ge-interlogix?pnlid=9&famid=55&catid=1131&id=sle-cont&lang=en\\_US](http://www.geindustrial.com/cwc/products/ge-interlogix?pnlid=9&famid=55&catid=1131&id=sle-cont&lang=en_US)
3. **Tyco** – (Digital Security Controls DSC)      [www.dsc.com/Default.aspx?id=8](http://www.dsc.com/Default.aspx?id=8)
4. **Bosch** – (Radionics)      [www.boschsecurity.us/index.aspx?familyid=504](http://www.boschsecurity.us/index.aspx?familyid=504)

All these manufacturers make a good product. They each have their own special features and designs that set them apart from each other, but like Ford, General Motors, Honda or Toyota, they will all get you where you need to go.

One aspect of equipment that is important to know is whether the equipment you are buying is **proprietary**. Proprietary equipment can only be monitored or replaced by the company you bought it from. Brinks is an example of a company that uses proprietary equipment. Honeywell manufactures the equipment for Brinks, but only Brinks can monitor it. This type of situation can

leave you a “hostage” when it comes to service or monitoring needs. You might have to replace your system in the event that you decide to switch companies. Most alarm manufacturers make their equipment such that it can be “software locked”. By software locking the panel the alarm company keeps unauthorized users out of the programming of the system.

There is good reason for companies to “software lock” their customers panels for liability purposes. It is important that if you decide to change alarm companies that the alarm company “unlocks” the panel and restores the factory defaults on the locks (or to codes which you specify) so that you can have the option to monitor your alarm system where you choose and also be able to have any service company work on your alarm.

## **Do-it-yourself alarm installation**

If you want to install your own alarm system you can save hundreds of dollars in labor charges. The most important consideration is that you use the same equipment and manufacturers that professional alarm companies use.

You can easily find alarm equipment on the web. A few sites that have good retail prices are [www.homesecuritystore.com](http://www.homesecuritystore.com) , [www.youralarmstore.com](http://www.youralarmstore.com) and [www.AESecurity.com](http://www.AESecurity.com) . If you look at the manufacturers web-sites you can identify the products you want to use and find them either at the above stores or directly on the web by “Googleing” the product number.

E-bay has many used alarm products that can be purchased for 10-20% of the retail cost. If you are considering buying your own equipment it is probably a good idea to have someone review your design and product selection. (E-mail me your list and I will look at it.)

When installing your own system it is a good idea to buy a control that can be both hardwired or wireless. All of the manufactures listed above have these panels available. That will allow you all the flexibility you will need to add protection and features in the future.

## **Monitoring Central Stations**

There are local central stations and national central stations. Larger alarm installation companies have their own central stations, but 90% of the installing alarm companies use large 3<sup>rd</sup> party “wholesale” central stations. Be sure that any central station you choose is UL listed. This is a listing that is given by the Underwriters Laboratory and insures that the monitoring center meets specified requirements for:

- a) Building construction,
- b) Staffing requirements and training,
- c) Computer hardware and software
- d) Regular and backup power requirements
- e) Building and records security.

My own opinion is that either one will do a good job of responding to your alarm needs. Companies defending the location of the central monitoring station that they use generate most of the controversy.

**Below are some of the pros and cons of Local vs. National central stations**

<u>Local Monitoring</u>	<u>Local Monitoring</u>	<u>National Monitoring</u>	<u>National Monitoring</u>
<u>Pros</u>	<u>Cons</u>	<u>Pros</u>	<u>Cons</u>
Local monitoring provides the opportunity to visit the Central Station for assurance and familiarity.	Operators have a high stress low paying job. High turnover increases the likelihood of compromised customer security. Former operators remain in the market area of the customers, with security knowledge of those customers.	Non-local operators means 1000+ miles between alarm system and personnel providing monitoring. Less likelihood of potential "leaking" of security information to potential criminals in the same area as the central station. (Security risk)	Customer not able to visit the central station to "see" the operation
Customers perceive local service providers as "good neighbors"	Extreme weather or disasters will impact both customer and monitoring station simultaneously.	Disasters will have less effect proportional to the total customers monitored at "mega-stations".	Customers aren't keeping their monitoring money in the "community".
Local operators likely speak with familiar dialect or accent.	Local telephone service overload will affect alarms signals twice. Site to Telco, Telco to monitoring station.	Two carrier national "long distance backbone" provides dual redundancy to protect from either geographic or Telco provider service overload	National operators might be more difficult to understand because they speak with an unfamiliar dialect or accent.
	Smaller stations mean that costs per customer are higher. If prices are competitive with national firms, then either the monitoring platform (computers, generators, redundancy and capacity) is shortchanged or the operator ratio and thus service level/response time is degraded.	Greater size allows for more advancement and potential to employees. This promotes longer employee retention, which improves the quality of customer service. Economies of scale help control cost and increase savings for customers in reduced pricing per customer.	

## **Insurance Company Discounts**

Most homeowners insure companies will give the homeowner a premium discount for having a monitored burglar and fire alarm system in their home. Although the cost will not totally offset the cost of monitoring it may be worth \$5 - \$7 per month. Check with your insurance carrier to see what discounts they offer. Some companies claim to give a 20% discount for a monitored burglar and fire alarm system. (The reality is that they give the discount on “portions” of the insurance. As an example, my homeowners insurance is approx \$2000.00 per year and my insurance company gives me an \$80.00 credit (4%), although their literature claims to give a 20% credit for the alarm system I have installed)

## **Licensing**

Regulation of alarm systems and monitoring has exploded in recent years. It comes at many levels to serve many purposes.

1. **Alarm Installation Company** – Professional alarm companies in most states are required to be licensed electrical contractors. In most cases this is done on the state level. For specific requirements check with the state in question.
2. **Alarm System Installer** - Some states have extensive apprentice programs as well as continuing education for alarm installers, others have no requirements. . For specific requirements check with the state in question
3. **Alarm Monitoring Company** – Few states have specific licensing for alarm monitoring stations. Most larger stations will be certified by UL (Underwriters Laboratory) UL sets standards and inspects for building structure, staffing, computer and software, emergency power and security of building (fire & physical security)
4. **Homeowner** – In most states the homeowner can install an alarm system in his home without the need for any licensing.

## **Permits**

Most regulation regarding permits for alarm systems are done at the local jurisdiction (city or county) In some cases the state will require a permit if it is not handled at the local level.

1. **Alarm Installation Company** – Professional alarm companies in most areas are required to get electrical permits to install alarm systems. For specific requirements check with your local jurisdiction. (Some jurisdictions require the alarm company to have an alarm permit for each customer (usually related to ongoing monitoring))
2. **Alarm Monitoring Company** – Some jurisdictions require the alarm monitoring company to have an alarm permit for each customer..

3. **Homeowner** – Some jurisdictions require the homeowner to have an alarm permit for their alarm system. Contact your local jurisdiction to determine if you need to have a permit and how often it has to be renewed.

## **False Alarms**

No area in the security industry has been more controversial or misunderstood as the issue of false alarms. First it is important that we define what a false alarm is. This is not easily done because each group seems to have its own definition. Some examples are:

**Alarm Company:** A false alarm is the activation of the alarm system under circumstances where it should not have activated. (i.e. equipment malfunction.)

**Homeowner:** A false alarm is when I do something incorrectly that results in the activation of the alarm system. (i.e.” I went to get the paper and forgot to turn off the alarm” or “The cleaning lady came and I forgot to leave the alarm off.” or “I left the dog inside and it tripped the motion detector.”)

**Police Department:** A false alarm is when an alarm monitoring company requests police response to a location and no burglary or attempted burglary has transpired.

Each group is correct from their own perspective, and that is what makes any discussion of false alarms difficult. Perhaps a better way to talk about the issue is to better describe each situation. Rather than trying to identify them all in terms that have mutually exclusive meanings.

**Alarm Company:** *Alarm Malfunction* An **Alarm Malfunction** is the activation of the alarm system under circumstances where it should not have activated. (i.e. equipment malfunction.) Equipment malfunction could be for several reasons:

1. The electronic equipment is “bad” and has ceased to operate correctly
2. The electronic equipment was installed incorrectly.
  - a) installed in an area that is a “hostile” environment
  - b) wired incorrectly
3. The system was designed incorrectly and the equipment is programmed incorrectly for the intended use.

**Homeowner:** *Alarm User Error* An **Alarm User Error** is when an alarm user does something incorrectly that results in the activation of the alarm system. (i.e.” I went to get the paper and forgot to turn off the alarm” or “The cleaning lady came and I forgot to leave the alarm off.” or “I left the dog inside and it tripped the motion detector.”) In this case the alarm has functioned as it is intended to but has activated because the user did not follow the correct procedure to disarm the alarm system either prior to the event or took too long to disarm the alarm system after entry.

**Police Department:** *Unnecessary Police Response* An Unnecessary Police Response is when an alarm monitoring company or an individual requests police response to a location as a result of an automatic burglar alarm signal and no crime or attempted crime has transpired.

## **False Alarm Fines and User Fees**

As time goes on more and more municipal governments are feeling the pinch of reduced revenues to fund police and fire department activities. Some have started to assess false alarm fines for the unnecessary police response as well as user fees for having an alarm system. Some cities are assessing the fines to the alarm companies as fees but most cities bill directly to the customer. Since these fees are not built into the monitoring or installation fee structure of the alarm company, invariable the fines are paid for by the alarm user.

Be sure to find out from you police and fire departments what their policies are.

An alarm company website that has information on ordinances in the Puget Sound area is :

[www.spectrumhomesecurity.com](http://www.spectrumhomesecurity.com) Go to their link **alarm ordinances**

## **The Perfect Burglar & Fire Alarm Company**

In today's world of mega-sized corporations, many of the values and relationships we enjoyed with vendors in years gone by no longer exist. We are forced into service categories, as specified by the large companies, which only partly serve our needs. My goal is to become the *customer's agent* in dealing with the burglar and fire alarm companies. With 35 years of experience in all facets of the alarm business, I know the language, capabilities and vulnerabilities that exist within each company. I also have the ability to translate a customer's situation and desires into the language that the alarm companies understand. Too often, inefficiencies and poor communication are paid for by the customer in higher prices and poorer service. If you are just one of a thousand (or a hundred thousand) customers, there is no motivation for the company to go the extra mile to understand your particular needs and deliver service accordingly.

It isn't that the companies can't deliver the service you need, but that they do not have the mindset or the organization capable of determining individual needs. One on one communication is vital if you are to receive appropriate service. I can help you determine what your needs are and translate those needs into the products and policies that are currently available from the alarm companies.

I work with dozens of companies and security technicians in a network that I have developed over the last 30 years. The important traits I look for in companies are:

1. **EVOLVING** - The Company continues to develop the relationship between the customer and the Company. It involves believing that the relationship is enduring and dynamic as well as being a “two-way street”. The Company and the customer learn from one another and adapt their behavior accordingly.
2. **CARE FOR PERSONNEL** - Customers care about how a Company treats its own employees, including wages, benefits, or general management of employees, and it should be important to the Company also.
3. **DEPENDABILITY** - The Company’s products and services can be counted on as reliable and consistent. The Company is one that customers can place their trust in times of uncertainty. The Company is one that is always there for the customer and stands behind its products.
4. **HONESTY** - The Company provides straightforward and truthful information about the products it provides. Nothing is purposefully hidden from the customer.
5. **INNOVATION/CREATIVITY** - The Company is continuously attempting to develop new products or services that improves its ability to satisfy its customer’s interests and needs. The Company has the ability to think differently, switch framework and function in different ways to enable them to better serve their customers.. The Company is open to unconventional ideas instead of rigid adherence to the status quo.
6. **MORAL CHARACTER** - The Company takes into consideration the ethical nature of its actions. The Company recognizes potential good and bad outcomes of business practices.
7. **PROACTIVE ORIENTATION** - The Company has an attitude that attempts to preempt any problems by looking ahead, keeping in mind all possible outcomes and preparing accordingly.
8. **HOSPITALITY** - The Company is personable and goes out of its way to make the customer comfortable. The customer and their business is important to the company..

## **The Better Business Bureau (BBB) and Attorney General**

There are many companies to choose from. If you have questions about a company you can always contact the Attorney General’s office (AG) [www.atg.wa.gov](http://www.atg.wa.gov) or the Better Business Bureau (BBB) [www.BBB.org](http://www.BBB.org) .

The Attorney General’s office will not endorse any company, but they can tell you if there have been complaints against the company and how those complaints have been resolved.

The BBB will endorse companies that belong to their organization but will give you no positive information on companies that do not belong. They will give you information on any company that has complaints and how those complaints have been resolved. (In simpler terms if the BBB has no information on the company, that company has no complaints against it and is not a member.

Membership in the BBB costs a minimum of \$500 per company per geographical area. A majority of alarm companies do not belong to the BBB because of the cost.)

## **Glossary of Alarm Equipment**

**Control Panel:** A security system starts with a control panel. Usually located in a closet or a basement, the control panel contains the "brains" of the security system, and essentially operates as a central computer. Various sensors connect to the control panel from locations throughout your home. If your security system is armed and the sensors detect a problem, they send signals to the control panel. The control panel activates the siren and automatically dials the central monitoring station, where the proper authorities (police, fire, ambulance) are notified.

**Keypad:** You operate your security system by entering your security code at the keypad. Generally located at entry doors, keypads can arm and disarm with push-button ease, and literally put security at your family's fingertips! Good features to look for include illuminated keys to provide you with greater visibility at nighttime, easy-to-read English displays that spell out your system's status at a glance, and one-touch function keys that provide single-button operation for arming, disarming or emergencies. Most keypads even offer convenient additional user codes to give friends, neighbors or service people access to your home.

**Magnetic Contacts:** Magnetic contacts are two-part devices used to safeguard windows and doors. One part of the contact is a switch installed in the window or door jam; the other contains a magnet and is placed in the window or door itself. Any noticeable shift in contact with the switch results in an alarm. These can be home-run wired back to the main control panel, daisy-chained with other door/window contacts or part of a wireless transmitter combo.

**PIR Motion Sensors:** A passive infrared motion detector (PIR) is an electronic security device that detects intruders by "sensing" motion or body heat in the area being protected. Most PIRs are designed to be used when your family is away from home or when no one will be passing through the area "covered" by the PIR. Recent innovations in security technology have resulted in the creation of "pet immune" motion detectors-allowing dog and cat lovers to enjoy the same level of protection they would receive with a standard PIR. These state-of-the-art sensors provide "pet immunity" for animals weighing up to 80 lbs. Pet immune PIRs allow your pet to move about freely but can still detect an intruder's movement.

**Glassbreak Sensors:** Acoustic Glassbreak sensors, usually mounted on ceilings or walls, work by "listening" for the sound of breaking glass in a window. "Shock" glassbreak detectors are mounted on the window and "feel" the shock of breaking glass. This kind of advanced wireless technology can provide shatter and shock protection for your windows, for often intruders are "sensed" and an alarm sounded while they are still outdoors.

**Smoke Detectors:** You probably already have a battery-operated smoke detector. Do you need one installed as part of my security system? Smoke detectors are highly effective in preventing loss of life and property. However, there are differences between the "stand alone" or battery-operated smoke detector you would buy at your local hardware store and one installed as part of your home security system. "Stand alone" detectors are not connected to other detectors or warning devices. A smoke detector connected to your security system offers more protection when it is monitored by a central station. If fire strikes, the detector sets off an alarm and sends a signal to the control panel.

The control panel dials the central station, where the operator notifies the fire department. Only central station monitored smoke detectors provide automatic notification of authorities when you or your family are asleep, not at home or unable to get to the phone. Smoke detectors protect your pets from fire while you're away from home.

## **Qualifications**

**Russ VanDevanter** has been involved in the security industry in the Pacific Northwest since 1969. Russ owned Security Holdings Inc., which he started in 1984. Security Holdings installed and monitored over 15,000 alarm systems. Security Holdings was merged with Protection One (a national alarm company) in 1996. Russ also owned Alarm Monitoring Service (AMS) that he founded in 1975 and was the Northwest's largest central station monitoring company. AMS was sold to Security Associates (a national monitoring firm with 11 regional monitoring stations) in 1999.

Russ has been a long time member of the Washington Burglar Alarm Association and has served as its President, Vice President, Treasurer and Sergeant of Arms. Russ also has participated on several local and national focus groups that have worked with police departments to help develop methods and procedures to reduce false alarms.

Currently Russ is an equity partner and director of security relations for ION Digital LLP. ION Digital designs and manufactures wireless alarm devices for Honeywell in the security industry and distributes its products directly in the fenestration (window) industry. He provides consulting services for many local alarm companies and home and business owners.

## **In Closing**

Thank you for the opportunity to help you sort out the options available to you in meeting your security needs. There are many excellent alarm companies and more than a few poor ones. The important thing is to understand for yourself what you are trying to accomplish and matching that with a company that will help you fulfill your needs. I am always available to answer questions. (Even if you decide to use someone else, I am more than happy to give objective advice)

Please feel free to reproduce this document and pass it on to friends and associates. The more we understand how alarms work and interface with users, police and municipalities, the more effective they can be.

Russ VanDevanter

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