



NetWatchman® **Installation Planning Guide**

This document has been extracted from the HomeOwner's Reference Manual.
Electronic copies of this document are available at:
<http://www.x10home.com/pdfdocs/HOManual.pdf>

Requirements

- You must have an email account
- You must have voice/telephone service available on a phone jack. Long distance service on that phone number is also required.
- You must have access to the internet – although you do not need a computer at the site
- Never mount a NetWatchman product outdoors or in the attic (requires a dry location; normal living temperatures).

Notes regarding Requirements:

NetWatchman uses your standard voice phone service for communication. No broadband connection is required or used. NetWatchman links to the internet through our computers over a dialup connection and those computers may not be in your local area. As such, certain features may place toll calls and long distance service is required. We have several communications alternatives for your choice and these are discussed in Chapter 2. Subscribing to CallerID from your phone service provider is **not required** but does enable several additional features. As a professional grade product, NetWatchman is compatible with secure phone jacks typically used by banks, jewelry stores, etc. You may elect to have a secure phone jack (known as an RJ-31X) installed by your phone service provider – but this is also not required (more on this topic in Chapter 2).

For more information on phone line requirements visit:

<http://www.x10home.com/pdfdocs/PHONWARN.pdf>

(upper and lower case on this URL are important)

You must be able to receive and send email. You must also be able to access an internet site via the web. You must be able to read Adobe documents and fill out Adobe forms (a capability that is already common to almost every computer). Except in very rare cases, NetWatchman never connects to your computer. As such, no computer is required at your NetWatchman site. (There are a very few, very advanced features used by our most technical customers where a PC connection adds features --- but this is rare). In most cases, when you add or change features you'll use the internet, email and Adobe forms --- we'll handle it from there. If you are a very, technical person and want to perform your own customization, we'll provide a windows-based software package named NetHome/PC.

Skills and Tools for Installation

There are three 'flavors' of NetWatchman products. Though the features are almost the same, the physical packaging and installation skills differ. Our 'Table Top' products are designed for installation simplicity and portability. Chapter 2, Planning your Installation, focuses exclusively on these table-top products.

For 'Table Top' Products:

- No special skills or tools are required.

A second flavor of NetWatchman is our 'metal enclosure' products. As the name suggests, these products are packaged in more rugged metal boxes. They are typically

mounted to a wall in a closet. Some of these 'metal enclosure' products are available for consumer purchase as 'special order' items. A third 'flavor' of NetWatchman are products optimized for the tools, skills and labor economics of professional installers. The 'metal enclosure' products and 'professional labor' products are not discussed in this manual.

Some advanced features may require some additional skills. As discussed in Chapter 2, most customers will use table-top motion sensors and very few customers will need door sensors. Door sensors require some basic mechanical skills. If you are an advanced customer using NetWatchman to control sprinklers, we assume that you already know how to install any, typical electronic sprinkler timer system. If you are an advanced customer using NetWatchman to control your thermostat, special skills may be required (see Chapter 4). Sprinkler installations and thermostat installations require wire stripping skills, basic household mechanical skills and the ability to follow directions that include labeling multiple, color-coded wires.

Chapter 4 also discusses skills associated with home automation devices. You may choose to use plug-in automation devices. Other than observing basic safety rules, no special skills or tools are required. However, mounting home automation devices in wall-mount electrical boxes connected to your home's electrical wires requires special skills. Some of these devices are 'two wire' devices similar to mounting a standard dimmer. Some of these devices are 'four wire' devices requiring very professional skills – call an electrician.

Chapter 2 – Planning Your Installation

NetWatchman – A High-Level Overview

Most of our consumer-installable family consists of ‘table-top’ devices --- small enclosures that are intended to sit on tables in your living spaces. No mounting or tools are typically required for these products. The photo below shows a typical device. Although a motion sensor is optional, most devices in most rooms will have the motion sensor (shown mounted in the rear). An optional battery backup module plugs into the back (not shown) and can rest on the floor or conveniently out-of-view. In addition, the device has a power transformer that it plugged into a wall outlet. Most table-top devices have a small receptacle on the top/back corner. You will receive several small, secure electronically encrypted keys that command NetWatchman when briefly touched to this receptacle. (The key holders can also attach to your key chain).



In the most minimal installation a single, large, common room is protected with a single motion sensor. This device in this first room is the *master unit*. There is only one master unit. The master provides ‘brains’ for the entire system and also requires a connection to your phone line. For greater protection and redundancy, most households will optionally add additional motion sensors in other rooms. These add-on devices are referred to as *modules*. While the most common type of module provides alarm protection in an add-on room, other modules can be purchased to add very different capabilities such as operating lights, thermostats, sprinklers, panic/medical buttons, etc. In addition to expanding the installation by purchasing additional modules, features can be purchased for downloading into the master unit. This is similar to acquiring a new ringtone for your phone or a new music download for your MP3 player. Because of this modular, expandable approach, NetWatchman can provide inexpensive protection in a small apartment/vacation home while also being expandable to provide estate-class protection in a very large home.

NetWatchman can be accessed remotely via the internet (see Chapter 3). When NetWatchman detects an alarm that requires your attention, it can notify you via several different means. These choices range from simple/automated emails sent to your pager through full professional monitoring in which trained personnel offer assistance and then notify authorities.

Planning Your Installation – Key Questions

After reading this chapter you'll be able to answer the following questions:

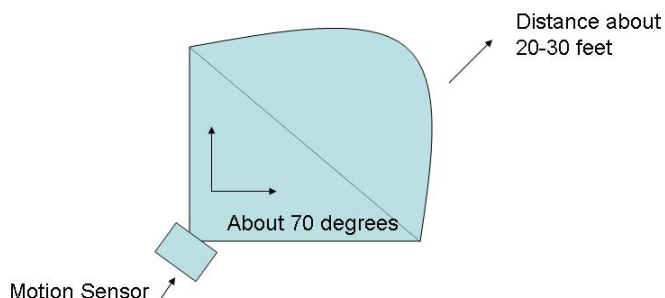
- How Many Modules do I need? Where do I place the Master unit and Modules?
The answer to this question will be influenced by several related topics:
 - Do I need protection while I'm at home/asleep or only while away?
 - Do I need panic / medical buttons to summon aid?
 - Do I need a secure phone jack?
 - What are the ideal locations to provide protection and avoid false alarms?
 - What are the ideal locations to provide convenient access for arming and disarming with my key fobs?
- How do I want to be notified by NetWatchman? What level of service best meets my security needs?
- Do I need home automation (including increased security by controlling my lights)?

Using Motion Detectors For Burglary Protection

Given sufficient skill, time and equipment, every alarm system can be defeated. Adding security adds not only cost but could also make your own home unfriendly to live in. Protecting an art museum or a home that would be specifically targeted by professional burglars is very different than protecting the average home. Selecting the right security design, then, is a tradeoff that only you can make based upon your needs, your budget and the convenience of moving about your own home.

The consumer-installed version of NetWatchman relies almost exclusively on motion detectors. How these devices operate is discussed in more detail in Chapter 3 of the Homeowner's Reference Manual. A single motion detector protects only the room it is located in. It must visually 'see' the space in front of it (objects, including most glass/plastic, will block that view and create an un-protected space). The area that it protects will vary based upon height, temperature, etc. However, as a general practice, it will 'see' a space that extends about 20-30 feet out across an angle of about 70 degrees (sort of like a quarter head sprinkler). Though not required, it is common to place a motion sensor in the corner of a room where it will have a substantial view of the room.

Motion Sensor Protection Pattern



It senses any change in the thermal (heat) pattern of objects within its vision (for example, a warm, moving human being). Although curtains are not 'warm' they are an example of something that might move and change the way sunlight shines on the floor. For obvious reasons you should avoid aiming a motion sensor within 8 feet of an air duct and avoid aiming a motion sensor at point-heat sources (fireplace, stove, automobile, water heater, etc). This restriction does not apply if you know with certainty that this heat source will always be cold when you arm the alarm. Avoid aiming the motion sensor directly at the sun or mirrored surfaces that see bright sunlight. Do not place a cordless or cell phone within 8 inches of the motion sensor. Although it is generally not a problem in most living spaces, avoid locations where a spider is likely to build a web around the sensor. If you own pets, they should be removed from the protected areas before you arm the alarm. (If you *must* allow your pets to stay in the protected area, you'll need to have NetWatchman installed by an alarm company. NetWatchman is compatible with very sophisticated motion sensors that are pet-friendly. But, these sensors require advanced installation skills). The motion sensors used by NetWatchman are reliable over a wide range of temperature. However, when testing your sensors you should be aware that motion technology is generally less-sensitive in rooms that are very warm (greater than 80 degrees).

While our table top sensors are a convenient form of protection, some additional caution is advised. Because these sensors can be bumped (while dusting, perhaps touched while arming/disarming, etc), their position can be changed. If this occurs while disarmed, no false alarm will occur. But, the sensor might be bumped into a new position where it is no longer aimed properly. This could reduce/eliminate protection or cause the sensor to be aimed at a false-alarm-producing heat source. If you are using table top motion sensors, always check to be certain that the sensor remains properly aimed.

Using motion sensors as the primary method of protection results in cost effective protection of whole rooms and makes this version of NetWatchman consumer-installable. But, only you can determine if this approach is right for your needs. This approach assumes that your most likely burglar chooses your home at random, that he does not know the specific location of valuables and that he does not know the specific location of sensors. In this approach we therefore assume that the burglar will wander through multiple rooms and eventually be detected by one or more motion sensors. Because motion sensors are only located in a few rooms, it is possible for a burglar to enter and exit through other rooms and go undetected. Given the profile we've proposed for your home's typical burglar, we believe this is likely and that a few-room motion-sensor-based approach is cost effective. Again, this is a decision you make based on your needs.

For protection while you are away we suggest the following guidelines for locating NetWatchman devices:

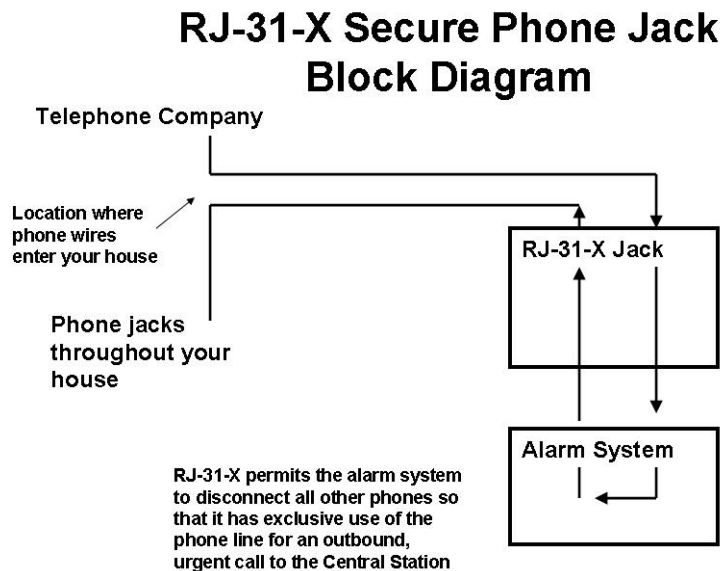
- Place at least one, preferably two (the more the better) in high traffic rooms especially on the first floor and towards the core/center of the house. Remember your goal to detect someone wandering through the house --- high-traffic rooms are key.
- Adding more than one motion sensor not only adds protection, it also adds redundancy. NetWatchman sends a special high-confidence alarm signal to the central station when it knows that multiple sensors are all confirming the same alarm
- Every NetWatchman includes a small plug-in power supply with 6 feet of cord; this could be a factor in selecting placement
- Table Top sensors require a flat, stable surface to rest on; this could be a factor in selecting placement
- Consider a motion sensor in your master bedroom. Many burglars will seek this room because it is more likely that they will find watches, wallets and other easily removed valuables. Although one or two high-traffic rooms on the first floor should be a priority, a master bedroom is a good place to catch a 'wandering burglar'
- The Master unit requires a phone connection. This may be a factor in placement. If you need a secure phone jack (next topic paragraph), placement of the secure phone jack will almost certainly decide the master unit location
- You'll need to plan a module location where you can easily arm/disarm as you exit and return. Sensor modules and the master unit have the small receptacle that is used for your key fob. As such, the most cost effective approach is to select one of the high-traffic rooms based upon its proximity to the door you will most often enter and exit through.
- Observe the false alarm rules for motion detectors discussed on the previous pages (hot objects, moving objects, air ducts, sunlight, pets). Room corners are common locations. The sensor must have line-of-sight vision of the protected area. Remember the safety rules that NetWatchman devices are not designed for wet locations, outdoor locations or extreme temperatures (e.g. attic).
- Do not locate a NetWatchman motion sensor within 8 inches of a cordless phone.
- Every NetWatchman module must be located within 150 feet of another NetWatchman module. Adding more modules improves network reliability and redundancy.

- Most NetWatchman products have small, non-skid ‘feet’ for stability on a table-top surface. Though such non-skid pads are common on other appliances, stereos, DVDs, phones, etc, caution is advised when locating NetWatchman on fine/expensive finished furniture where prolonged contact may leave a mark.
- In a best case scenario, NetWatchman needs about 20 seconds to send an alarm message. Select a Master Unit location such that an intruder is unlikely to find and destroy the Master Unit.

In the topic paragraphs that follow we will examine three special cases that may further influence placement of your modules.

Do You Need A Secure Phone Jack?

Over 20 years ago the alarm industry worked with phone companies and the Federal Communications Commission to define a high security phone jack known as an RJ-31-X jack. The FCC requires phone companies to support this type of phone jack. With an RJ-31-X phone jack, phone service enters your house and is wired directly to the security jack. A separate circuit leaves this special phone jack and returns to a point where it is then distributed to standard phone jacks throughout your house.



This means that the alarm system has priority over all other phones. When the alarm system needs to use the phone line, it physically disconnects all other phones from the telephone company (they go dead). Additional technical information, including wiring diagrams, is found on our web site:

<http://www.x10home.com/pdfdocs/RJ31Dwrg.pdf>

<http://www.x10home.com/pdfdocs/RJTest.pdf>

Although we have provided wiring diagrams, wiring an RJ-31-X requires particular skills (especially if you have DSL). If you need an RJ-31-X jack, we suggest that you pay for installation by your phone company or a phone installer (ask for a quote but expect a typical price of around \$100).

Do you *need* the secure phone jack? This is a decision only you can make. Without a secure phone jack, a skilled intruder can pick up any phone in the house and effectively block the important outbound phone call that summons police. Professionally installed alarms protecting businesses always use this special jack. High quality, professionally installed residential alarms almost always use this special jack. However, many consumer-installed alarms do not use the jack. We've even seen some bargain systems installed by professionals who have chosen not to install a security jack.

As a professional grade product, NetWatchman can be used with either an RJ-31-X security phone jack or a traditional RJ-11 standard phone jack (we supply the RJ11 cable with NetWatchman. The RJ31X cable is a very inexpensive available accessory).

If you are going to install a new RJ-31-X jack, this decision will likely impact the placement of your NetWatchman Master unit. A new wire will need to be run from the new jack to the point at which phone service enters your house. If you pick the wrong location for the new jack, you may significantly increase the labor cost being billed by your phone company. Typically, the jack is least expensive to wire when it is on an externally facing wall somewhere close to the point at which your phone service enters the building. Have several locations in mind when your telephone company installer arrives (locations that also meet the needs of the NetWatchman master). We suggest that you not commit the installation of your NetWatchman master until after the RJ-31-X is completed. We strongly urge you to perform the RJ Test procedure (see [URL above](http://www.x10home.com/pdfdocs/RJTest.pdf)) before your telephone installer leaves. If done improperly, an RJ-31-X may interfere with your DSL service. Recheck any such services before the telephone installer leaves.

What is a *Panic Button*? It is Needed?

In the topic paragraph that follows, we'll discuss protection while you are living in the house (not away from the house). The least expensive means of providing such protection, *if it is needed at all*, is a *panic button*. Alarm manufacturers use this term to describe a variety of features. Indeed, NetWatchman offers nearly a half dozen feature variations of a button you can press that somehow summons aid. The most common form of a 'panic button' will turn on a beeper/sounder and send a specially coded signal to the Professional Dispatcher. If you have Professional Monitoring, the dispatcher will call your premises to offer assistance (and will require a password). A police dispatch follows if there is no answer with password and the police are informed that this is a manually activated panic. If you have our home automation feature set, you may wish to have 'panic' turn on selected lights.

While we advocate panic buttons, we also need to remind you that the **fastest form of help is dialing 911 (your local police emergency number)**. Activating your alarm makes noise and turns on lights to scare the bad guy...but it actually slows police response when compared to directly dialing 911.

Because we're talking about Planning Your Installation in this chapter, we'll focus on the need for a physical button that summons aid --- you'll be able to associate a specific feature by making a software selection at the time of purchase.

Focusing entirely on the physical button and not the software feature it performs, there are three methods of implementing a physical button.

- Every Display Module (not the master) has a button on the rear of the module. By ordering a software download feature, you can use this button to implement several types of 'panic' features. This is the simplest and least expensive method of adding a 'panic' feature.
- Every module/master that supports an add-on sensor can also add-on a button. This wired panic button looks similar to a 'call button' found next to hospital beds. Note that this may also impact how you plan the placement of Modules. Priced at about \$65, this is a special-order item – call us for availability.
- If you need a hand-held panic button (similar to a garage door opener), NetWatchman offers a handheld radio device with a range of approximately 60 feet. It has two buttons (you can program the buttons to perform different asks). Please note that any hand-held wireless device is likely to have 'dead spots' – like your cell phone, there are places where it may not work and these 'dead spots' may move over time. Cost varies with model/features – though this is typically the most expensive approach (\$90-\$200). This is a special order item – call us for availability.

Protection While You Are Asleep or Moving About

When professionally installed in commercial buildings, NetWatchman can be configured for very complex arming rules. For example, individual employees typically have their own fobs and some employees' fobs may access to portions of the building while others are restricted. This very same software and capabilities are also in your NetWatchman. In fact, your table-top motion sensors can be used to protect portions of the house while other portions remain disarmed. Unfortunately, while your Master Controller, Modules and Sensors have these capabilities, it may require hours of very professional skills to configure NetWatchman for these features. And, this work requires knowledge of your floor plan and how you live in the house --- making it even more difficult to cost effectively offer such customization. For this reason, the consumer-installable version of NetWatchman focuses on protection while you are away. When approaching the topic of protection while you are *not* away, here are some guidelines:

- If you need help while you are at home, you should generally dial 911. This is the fastest way to summon aid. Knowing this fact, you may not need additional protection and may not need to read any further in this topic.
- If you want to scare an intruder away, consider 'panic buttons' as discussed previously. This may actually delay police response but will make noise and, with home automation, could be used to turn on lights. This is much less expensive

than adding sensors for night or perimeter protection. Knowing this fact, you may not need to read any further in this topic.

- If you need to move about freely while sensors protect windows and doors, you'll need a *perimeter* alarm. This is a very labor intensive and expensive type of alarm. Every window or door will cost between \$70-\$100. NetWatchman can be used for this purpose but you'll need to arrange for professional installation.

If, after reading these guidelines, you believe that you need protection while you are asleep then one of the following must generally be true:

- You place a Module in every sleeping space so that everyone can arm/disarm before leaving their sleeping space; While this does add costs (your planning step will need to include additional Modules), it is simple to implement and simple to use.
- Your house floor plan allows you to locate sensors in high-risk, high-traffic areas that are segregated from your sleeping areas. The best example is a two story home where the bedrooms / bathrooms are located upstairs and the most likely burglar entry points are all downstairs. In such homes you'll need to plan sensor-equipped modules such that sensors in your sleep areas are pre-selected to not-arm in *At Night* mode while they will arm in *Away* mode. We offer two software products for setting up this type of Night Security. Both are discussed in more detail at www.x10home.com/pdfdocs/AppendI.pdf An even deeper discussion of advanced arming features is found at www.x10home.com/pdfdocs/ArmFeat.pdf

Special Topic: Door Protection

The consumer-installable version of NetWatchman assumes that your primary protection is from motion sensors. In some installations, you may wish to protect a few doors. In addition, there are some advanced features that require (or work best) when a door sensor is available. For example, one advanced feature permits you to automatically disarm when your housekeeper enters through a specially authorized door in a specially designated time window (greatly simplifying housekeeper access). Although this feature could use a motion sensor, it works best when a sensor is installed on, for example, the front door. Similarly, having a sensor on the garage door enables some advanced features. Most customers will never use door sensors and can skip the remainder of this paragraph. For customers who may be considering door sensors, we have identified five 'use cases' where door-type sensors may prove handy:

- Burglary protection for a special closet that may contain valuable items (advanced customers may choose to leave this valuable closet 'armed' when housekeepers or guests have used their key to otherwise disarm the system);
- Monitoring a special room/closet that is 'off limits' to school age children when they are at home alone – you'll receive a special log entry or email if they break the rules. Other uses include protecting gun racks, liquor cabinets, etc. These may also be spaces where housekeepers and guests are disallowed. This usage does not dispatch police.

- Protecting a front door or other main access door where you intend to use the door opening to make a disarm decision (If you believe that your front door is always locked, is physically secure (no glass windows) and that all key holders are trusted, then the act of opening this door can be used to automatically disarm your alarm – making the system truly simple to use. Note that the front door must open first before any other sensor detects motion. For housekeepers and guests, you can further restrict this capability by time/calendar and other factors.
- Protecting the garage door used by your automobile (same rationale as above; this type of sensor requires extensive mechanical skills for proper installation);
- Protecting a bedroom door (enhances burglary protection while you are ‘Away’; If you are a person who closes your bedroom door at night, you can use the opening of this door to tell other sensors in *night mode* that you are leaving the bedroom --- temporarily disabling those other specially designated sensors as you walk to the bathroom or kitchen);

When NetWatchman is installed by a professional alarm company, ‘concealed’ sensors can be built into the door frame – nothing is visible. This type of sensor requires very extensive skills and seven foot long drill bits --- should not be attempted by a consumer and typically costs \$70/\$100 per door if done professionally. Consumer installable sensors will almost always be visible. If you are contemplating installing your own door sensors, NetWatchman offers several alternatives (with wires and wireless/radio). For more information read www.x10home.com/pdfdocs/Doors.pdf.

Special Topic: A Single Master Unit with NO Modules – Standalone Master

Genesis Engineering Inc offers a standalone version of its NetWatchman master unit. This product is ideal for protecting a single room in an apartment or vacation home. You can also add home automation to this standalone product for controlling lights and appliances as described in Chapter 4. While this product is more economical, it lacks the networking capability--- you cannot later add modules or additional sensors beyond the optional home automation module.

Special Topic: Smoke Detectors

Please remember that NetWatchman is not a Life Safety Product. You must not use NetWatchman in circumstances where a failure could cause loss of life, serious injury or substantial property loss. Also note that many states and several cities regulate fire alarm systems. Even though individual sensors may have approvals, many regulations require that the whole system be approved or certified. Many states require special licenses for persons who professionally install fire detection systems. NetWatchman is not an approved fire safety system. Automatically dispatching the fire department on any illegally installed fire alarm could result in substantial penalties. Only you can determine the legality for your location.

Noting these significant limitations, NetWatchman does offer a wireless smoke detector. This detector is available as a special order item to professional installation

companies. Contact an alarm industry professional and ask them to contact us for limitations / order details.

Special Topic: Flood and Freeze Detection

Please remember that NetWatchman should not be used in circumstances where a failure could cause substantial property loss. Flood and freeze protection often requires special skills to determine the best location for a sensor. Even with proper installation, there are many possible failures which could cause flood or freeze to go undetected --- causing substantial damage and loss. NetWatchman offers a flood detection sensor that can be added to any sensor-capable Module. This detector is available as a special order item to professional installation companies. Contact an alarm industry professional and ask them to contact us for limitations / order details.

How NetWatchman Notifies You – Your Choices

NetWatchman will place an outbound phone call to send a message regarding an alarm or other event. Your ability to remotely access NetWatchman, your ability to receive alarm/event messages and our ability to provide ongoing support require that you maintain a subscription as described below. Appendix W provides the actual Terms of Agreement.

- When you order a NetWatchman Master Controller you are subscribing to a monthly access service and you are typically making a multi-month commitment to this fee. We will not raise this fee during your commitment period. This service includes:
 - Full internet access to your NetWatchman from most browsers (the ability to view previous logs, obtain current status, remotely arm/disarm);
 - A log file sent from your NetWatchman to your email address every 5 weeks;
 - ‘Email Only Notification’ of alarm and other events as described below;
 - The ability to further customize/change your NetWatchman’s existing feature set using Acrobat pdf forms that you complete and return by email;
- Additional communication services can be added on a monthly basis usually without a long term commitment. This includes the ‘Professional Monitoring’ services described below.
- Additional features can be added. Most of these features result in a small, one time fee (just like adding a ringtone to your phone or a music download). These features can be purchased on our website.
- NetWatchman uses a standard phone line for sending messages. We believe that NetWatchman is more reliable because a broadband internet connection is not required or utilized. (As such, there is no requirement for power backup of your internet connection, routers or computers). However, because NetWatchman uses standard phone technology, you must maintain that phone line. When you

remotely access NetWatchman or when NetWatchman initiates communication (sending logs, sending alarm messages, other features you may add), NetWatchman places outbound toll calls. You must therefore maintain long distance service as part of this agreement.

NetWatchman sends four types of messages:

- Long Messages (such as log files, email letters, etc) are sent to a (single) email address you'll be asked to supply.
- Short Messages are notifications sent to you PDA, cell phone or other, similar device. This is also a single email address. Known internally as your 'pager email', it can be the same or different from your Long Message Address. Several optional features give you this capability for notifying your child has arrived from school (or is late), your housekeeper has arrived, etc.
- Alarm Messages are sent in response to an alarm condition – for example a burglary sensor.
- Blind Dial Messages are sent by a few optional features. This message type rings your cell phone. It makes one attempt to dial a single telephone number. If you answer, it does not speak or have any sound. Assuming CallerID is enabled, your cell phone will display your home phone number. The first three message types listed above require that your NetWatchman call our computers which, in turn, send the email or alarm message. This 'Blind' message places the call directly and may therefore avoid toll charges.

Alarm messages are handled differently using one of the choices described below. 'Professional Monitoring' is a premium service with additional monthly charges. If you are not paying for the premium services, your account is configured for 'Email Only Notification'.

- Email Only Notification: Messages from your NetWatchman are sent to your (single) 'pager email' address --- most typically a cell phone, PDA or pager. While this offering will meet the needs of many customers, the nature of email and the automated nature of our equipment prevent us from assuring delivery or timely delivery of these messages. As such, we urge caution in using this service for urgent messages.
- 'Professional Monitoring: Messages from your NetWatchman are received by a live person who will call your premises to verify the alarm and offer assistance. Our dispatcher will then notify police or other authorities. After notifying authorities, our dispatcher will then call up to 5 people with up to 2 telephone numbers each attempting to reach a person who live-answers their phone. Because this service includes police dispatch it may qualify for an insurance discount – just ask and we'll be glad to provide you with a certificate you can supply to your agent.

Should I Order Battery Backup?

The Master controller and Display Modules have a small AC power transformer. Though optional, the rechargeable battery (the 'Battery Module') is urged for most alarm applications. The Battery Module plugs into the back of the Master Controller, Display Module or Clock Module. As a physically separate module, it can be conveniently located on the floor or in an inconspicuous location within 5 feet. In addition to providing power during an AC failure, a battery module increases NetWatchman's immunity to some types of electrical noise and transients.

While even the best, professional grade security has limitations regarding the duration of power failure protection, you'll know that NetWatchman and its redundant Zigbee network are designed to operate on batteries during a power failure.

Many computer stores have battery backup devices that can be used with your home computer (known as uninterruptible power supplies or UPS). If you require battery backup we strongly advise **against** these computer power supplies with NetWatchman and strongly **prefer** that you use the optional battery backup module available for NetWatchman. NetWatchman's internal software monitors the status of the NetWatchman Battery Module allowing it send information about a pending failure. When a device not intended for use with NetWatchman is supplying power backup, this sophisticated software in NetWatchman cannot monitor the backup status.

Most common security camera systems have no battery backup and will not provide protection if AC power is turned off. We've seen many non-professional 'monitoring' products that require a broadband or DSL connection. But, unless you want to spend big money to make your entire internet system power safe (your routers, DSL modem, firewall, etc), these systems will fail when AC power fails. Many internet providers (including cable companies and some phone companies) will not guarantee that their internet services operate during a power failure --- the lights go out and you loose security. NetWatchman uses radio signals between modules to communicate security information. Cheap, 'wireless alarm' systems that use the power lines to send signals may be easily disabled by turning off your circuit breakers.

Should I add a WebCam (Internet Camera)?

Several NetWatchman customers also install web cameras. Uses for this video technology are almost as varied as our customers. We know that some folks use the cameras to look-in on their pets or to supervise a baby sitter. Cameras aimed outdoors provide a relaxing glimpse of your mountain hide-away while traveling on business or a useful view of the weather. On occasion, we know that these cameras have also allowed our customers to verify an alarm (NetWatchman activates; the customer receives notification from NetWatchman; customer accesses camera to determine whether alarm is real...). However, we caution you that internet cameras are not a substitute for a real alarm system. Unlike the pretend world we see in crime shows on TV, internet cameras rarely have AC power backup. A burglar who kills power disables protection. Internet cameras almost always use a broadband internet connection and your home network will often fail when your AC power fails. And, unfortunately only the most expensive

cameras have sufficient resolution to view license plate frames, facial detail, etc. When used indoors, even cameras that claim 'low-light' capability or have built-in light sources require sophisticated installation skills to avoid distortion caused by ever-changing ambient light sources. Unless you are familiar with lighting a television studio, you are not likely to have a useful image even with a low-light camera.

When you use internet cameras with NetWatchman they operate in harmony. NetWatchman, with its battery-backed motion sensor technology provides your primary level of protection. The video cameras are not used for burglary detection. Instead, the cameras are used for less critical activities such as baby-sitter viewing, pet viewing, weather viewing, etc in which resolution, low-light quality and AC power reliability are not required.

Your First Order Checklist

Check our website, www.x10home.com , for special package pricing. Construct your shopping list from the checklist below.

Step 1: Order one Master Unit from the list below:

- All Master Units also include a fob reader that can be used for arming/disarming.
- All Master Units provide a full status display using front panel indicator lights.
- When you order your Master Controller, you are also committing to a 24 month Communication/internet subscription service (as described on previous pages)
- ____ (item 201) Table Top Master Unit
 - Most customers will also want to order a whole room motion sensor and battery Module (see Step 5 below).
- ____ (item 204) Table Top Master Unit – Standalone Configuration
 - Includes full battery backup and a whole room motion sensor; although you can add home automation to this configuration, no other modules can be added

Step 2: In addition to your monthly internet subscription fee, considering adding one of the premium communication services. Although you are committed to the basic subscription fee described previously, these premium services do not require a long term commitment.

- ____ (item 990) Professional Monitoring

Step 3: Order Home Automation (optional)

- ____ (item 281) NetWatchman Pro Home Automation Package
 - Includes home automation module (also known as the power line modem); also
 - Includes three home automation features (dusk to dawn timer; security lighting – select lights operate randomly while you are away; and alarm lighting – lights on In an emergency).
- ____ (item 291) NetWatchman PC Radio Interface

Connects to the serial port of your windows PC. With your PC now on the NetWatchman radio network, your PC can display time, status and issue commands.

Step 4: Order Modules

All modules include a fob reader that can be used for arming/disarming (unless otherwise noted below). All modules also include full status display Using front panel indicator lights (unless otherwise noted).

____ (item 202) NetWatchman Status Display Module

You can add an optional Whole Room Motion Sensor in Step 5 below

____ (item 203) NetWatchman Clock Display Module

The standard Clock Display cannot accept any sensors.

Step 5: Order common accessories:

____ (item 121) Whole Room Motion Sensor; Attaches to the back of a Display Module or Master Controller to detect motion.

____ (item 111) Battery Backup Module; Provides up to 3 hours of battery backup in case of AC power failure. Though optional, battery backup is strongly urged for: the Master Controller, any Module that has a sensor providing alarm protection; any Module frequently used for disarming. This battery module is compatible with the Master Controller, Status Display Module and the Clock display Module.

____ (item 103) Additional fobs; Your Master Controller comes with three secure fobs that can be used for arming, disarming any other commands. Each fob results in a discrete, traceable log entry when used for arm/disarm. For very advanced users, each fob can be given specific capabilities for access. This product provides an additional three fobs.

Step 6: Software Features (including software-controlled ‘Panic Button’);

- NetWatchman features a vast library of add-on features that you can use to customize for your lifestyle. Because these features are easily added later by downloading, we usually suggest that customers become familiar with the standard product before ordering add-on features. If, however, you wish to browse/shop for these features, we suggest that you visit our website: www.x10home.com. At the top of the home page, click on ‘My Ideas’ tab.
- The Status Display Module includes a button on the back panel that can be programmed for a variety of purposes, including ‘Panic’. As this is also a simple, downloadable, feature purchase, we suggest that you defer this decision. Note that the button on the rear of the Mast Controller has a fixed purpose and is not available for a software download.

Placing Your First Order

- Visit our website: www.x10home.com and click on ‘Purchase’. Place your order at this website.
- You will receive notifications via email:

- A confirmation of shipment
- An email form that helps us set up your NetWatchman (your address, dispatch information, etc). Return this Account Information form by email. Your NetWatchman cannot be set up until we receive your email response.
- Upon receiving your Account Information form by email, we'll set up your NetWatchman configuration. When your configuration is prepared and waiting on our computers, we'll send you an email with 'Final Instructions'.
- You'll unpack NetWatchman and connect power per the instructions in Appendix A. Then follow the two steps in the Final Instructions email you will have received. When NetWatchman first comes out of the box, it does not know your configuration and cannot be used. These Final Instructions cause your NetWatchman to call our computers and fetch your unique configuration.
- You'll receive two final email messages from us:
 - An email confirming that your system has received its configuration;
 - An email containing your customized Operating Instructions (Appendix X).