



Choosing an Alarm

Intruder alarms are widely accepted as an effective deterrent for burglars, providing a useful warning and limiting theft and damage to premises.

The information below is aimed at untangling the jargon and promoting more customer choice by demystifying the technology. It will act as a useful reference to ensure that you have all the facts needed when buying an alarm to protect your home or commercial premises.

Physical security first

Before choosing the right alarm system, check that the physical security of your premises is up to standard. Take all the usual security precautions, like fitting mortice and window locks to make your property as uninviting a prospect as possible. Your local locksmith will be happy to provide advice on physical security before you install an alarm (contact the Master Locksmiths' Association, Tel: 0800 7831498 for more information). Also, find out from your insurance company what their requirements are for physical security. They will probably insist on the fitting of certain types of locks and bolts to your main doors and windows.

How do you pick the right alarm?

DIY system

If you are a competent DIY-er with experience in electrics, you will be able to fit your own system. DIY systems are available from hardware stores and DIY superstores, but do make sure the system you are considering conforms to British Standard BS 6707. It is not permitted for these systems to call the police automatically.

'Bells Only' System (Type 'B' Alarm Systems)

This is the most popular type of system available and ranges from the very simple to the extremely sophisticated. This type of system is not designed to call the police automatically – it sounds a bell or siren to attract attention and deter the potential burglar. It should always be installed to British Standards specifications.

'Police Call' System (Type 'A' Alarm Systems)

Otherwise known as a remote signalling system. Upon activation, the alarm system will send a 'digitally coded signal' to an Alarm Receiving Centre (ARC). Security companies own these centres. The ARC will pass the alarm call to the police after taking steps to ascertain if the call is false. This type of response system is more usual in commercial premises.

Right for the premises, but right for you?

When you have selected the type of intruder alarm to suit your pocket and premises, you need to take into consideration whether it is exactly right for everyone in the building. Do you need smoke alarms that can easily be fitted at the same time as the main alarm system?

The vast majority of alarms are now operated by inputting a PIN number into a keypad rather than using a key to operate the alarm. Keypad systems have the advantage of versatility. If you want a friend or neighbour to have access to your property in your absence, then a temporary PIN code can be programmed for that period only, reverting to your own number on your return.

The downside of alarms

Alarms 'crying wolf' account for the overwhelming majority of all alarm calls responded to by the police in England and Wales, wasting millions of pounds in lost police man hours per year. As a result of this level of false alarms, ACPO has introduced a policy aimed at reducing these figures in several ways.

For Type 'B' audible only and DIY alarms; the police remain committed to respond to these alarms where possible. However, you should be aware that over 99% of calls are false and police response is unlikely unless the call to attend suggests that criminal activity is taking, or has taken, place.

For Type 'A' automatic police calling alarms; these alarms falsely activate 92% of the time, and regulations are now being brought in so that calls are confirmed as genuine before being passed to the police.

Confirmation can be achieved in three ways:

- (a) listening to the alarmed premises by means of microphones installed as part of the alarm
- (b) viewing the site by miniature CCTV cameras
- (c) a system called sequential which requires one detector to confirm the activation of another detector.

Choosing an installation company

Costs of systems vary according to their level of sophistication, and installation charges will reflect the type of premises you want to secure. A typical cost for a small Type B alarm will be in the order of £500 – but this can rise to many thousands for larger and complicated systems.

To make sure you are charged the right price for the job, it is essential to obtain a minimum of three quotes from reputable installers before making your choice – but remember the cheapest installation is not necessarily the best option. The police recommend that these alarm companies be subject to inspection by an ACPO recognised independent inspectorate body.

The two largest inspectorates are: National Approval Council for Security Systems (NACOSS, Tel: 01628 637512, www.nacoss.org) and the Security Systems and Alarm Inspection Board (SSAIB, Tel: 0191 2963242, www.ssaib.co.uk).

Your local business telephone directory is a good source for finding suitable companies. Looking around the neighbourhood to see which company's bell boxes are fitted is another useful indicator.

Study the installation contract carefully before signing it. Some companies sell outright all the equipment and others tend to rent parts of the system such as the control panel and the outside bell. You obviously need to determine whether you will own outright or rent the system.

Similar attention should be paid to any proposed maintenance agreement and what it actually covers – including guarantees. If your insurance company is involved in choosing an alarm company, please ensure that your chosen alarm company is acceptable to them before proceeding.

Using your newly installed alarm system is not difficult if everyone is properly trained. Insist on a training session from the installer. A handover period in which the alarm company makes the users familiar with the system's operation is a very good idea. Be aware that if you call the installer out later, you may well have to pay a call-out charge. Go through the alarm instruction handbook carefully with the installer. If you do not understand any part of the instructions, or what the installer is saying, seek clarification until you do understand.

Any reputable installer should be able to conceal the wiring and cause no damage or mess to decor.

Don't be baffled by security-speak.

The Control Unit

The control unit is the nerve centre of the alarm and is usually situated in a cupboard, or under the stairs for a domestic system. The control unit works jointly from the mains supply and a rechargeable battery. It processes signals from the various detectors and sensors – and operates the sounders accordingly. Whilst it normally incorporates a keypad to allow you to set and unset the alarm, on some systems a separate keypad may be installed.

Movement Detectors

There are many types of movement detector available, which are generally used to protect a room. PIR's (Passive Infra-Reds) are the most commonly installed 'movement' detector. Designed to be mounted in a corner or flat to the wall near the ceiling, a PIR detector 'looks' at the room and monitors the amount of infrared energy present. Any rapid change in infrared energy, such as that caused by a moving person, will trigger an imbalance and activate the alarm. There are also microwave, ultrasonic and – a combination of all of these – dual technology movement detectors available. Your installer will advise which is most suitable for your premises.

Magnetic Contact Sensors

These sensors are used where detecting the opening of a window or door is required. A magnetic sensor comes in two parts - a magnet and a contact – both of which are usually encased in plastic. There are two basic types – the FLUSH type, designed to be unobtrusively sunk into a wooden door or window frame, and the SURFACE type, intended for use where sinking the sensor would be inappropriate, for example metal and UPVC doors and windows.

It is possible to fit sensors to every opening window and door, but it is unusual as it can become very costly – fitting one movement detector in the room is more usual. However, protecting all the doors and windows does allow the alarm to be fully set even when moving about the property – a situation that may be important to you – particularly if you have pets where a movement detector would be inappropriate.

Vibration and Acoustic Detectors

These can be fitted on walls, windows or doors to detect physical vibrations. Acoustic detectors use similar technology in detecting airborne vibrations such as those made by breaking glass. For increased reliability, a dual technology detector has been developed which incorporates both vibration and acoustic facilities.

Zone

For reasons of identification and convenience, the protected premises are split into zones, which are individually managed by the control unit. Only one detector should be fitted to each zone.

Personal Attack Button

Deliberately operated by a push button and reset via a key, this device is used to activate the alarm at any time, whether the control unit is switched on or off.

For a greater cost, a wireless personal attack button can be fitted to the alarm. This allows freedom to move anywhere around the property and grounds – but still provides protection. Particularly useful if carried in your car, for those times when you arrive home in the dark hours.

Internal Sounder

The internal sounder will provide a very loud audible warning inside the premises. This is particularly important when the outside warning device may be difficult to hear by your neighbours or even by you (and the burglar!) in the house. It also prevents a burglar from hearing what is going on outside, making him even more vulnerable.

External Bell and Bell Box

The outside sounder box (usually referred to as a 'bell box') will provide mechanical and weather protection for the warning sounder located inside the box. According to preference, either a bell or a siren-type sounder can be used – an electronic sounder is the most common. The bell box will be protected against unauthorised tampering or attack. Noise pollution legislation requires that external sounders do not operate for more than 20 minutes. You may well have to obtain planning consent to fit an outside bell box if you live in a conservation area.

Remember that your highly visible alarm bell box will provide a deterrent to intruders and if your house or property is vulnerable to attack from the rear, it may be worth fitting a dummy bell box at the back. The bell box should be sited as high as possible. As long as the alarm system is installed to British Standards, the bell box has its own battery back-up. It also contains a self-contained bell module (an electronic printed circuit board – PCB), that takes care of powering the sounder and the length of time it will operate. This ensures that the bell will continue to sound even if the unit is removed from the wall.

Strobe Flasher

Fitted on the underside or inside the bell box, a strobe light will give visual warning that the alarm has activated, which is useful for identification within a row of alarm box-bearing buildings. The strobe can be programmed to continue flashing even after the bell/sounder has cut out.

Remote Signalling – to an Alarm Receiving Centre

If you have particularly vulnerable premises, or you would like some form of guarantee that the police will attend your alarm calls, then it will be necessary for your alarm to transmit to a remote Alarm Receiving Centre.

There are two main ways of informing an ARC that your alarm has activated – via the telephone line or by radio signals. The main pieces of equipment are:-

1. **Digital Communicator.** Sends digital signals down the telephone line to the ARC. Low security because the signals cannot be transmitted if the telephone line is cut.
2. **Monitored Telephone Line (Redcare or similar).** Uses technology to constantly send encrypted signals to and from your alarm to the telephone exchange. The ARC will be notified if these signals are interrupted. High Security.
3. **Radio signals (GSM or satellite).** As the name implies, radio signals are sent from your alarm to the ARC. Advantages - high security and doesn't rely on a telephone line.
4. **Dual Signalling.** A combination of any of the other signalling methods. Usually for high security premises and to allow verification of a transmission error. Increasingly requested by insurance companies.

This is not an exhaustive list and the technology of transmitting signals to an ARC is constantly changing. Your chosen security company can advise you on the most up to date equipment and the extra cost implications of installing remote signalling equipment.

Other Security and Police Related Information

Keyholding and Manned Guarding Services

Organisations dealing with these services are:

ISI (Inspectorate of the Security Industry)

Tel: 01905 773131 www.isi.org.uk

BSIA (The British Security Industry Association Ltd)

Tel: 01905 21464 www.bsia.co.uk

IPSA (International Professional Security Association)

Tel: 01803 554849 www.ipsa.org.uk

Vehicle Security

THATCHAM (The Motor Insurance Repair Research Centre)

Tel: 0990 502006 www.thatcham.org