



CUSTOMER GUIDE

Managing False Alarms

For users of Automatic Fire Detection and Alarm Systems

This guide has been produced to advise and give recommendations for all users of automatic fire detection and alarm systems ways in which to avoid unwanted alarms, be they malicious, accidental or arising from neglect of a system.

Legislation update

Recent Changes to our British Standards

In Autumn 2002, British Standards relating to the Installation and Maintenance of Fire Alarms (BS 5839) were revised and section 3 includes measures to limit false alarms. The responsibility to limit false alarms not only rests with system designers, but also companies with fire alarms have a responsibility to service and maintain these systems and take due care to limit false alarms. The changes have also changed the way in which alarm activations are recorded in your Fire Log Book.

Managing False Alarms

Figures from a recent survey by the Communities & Local Government Fire Statistics Monitor, April-September 2010 showed that - 137,000 false alarms for a 6 month period, if broken down averages a staggering 752 false call outs per day, over 31 per hour, every day.

The problem of false or unwanted alarms generated by automatic fire detection (AFD) is as old as AFD itself but the problem is reaching epidemic proportions. In the 6 month period April – September 2010, there were 137,000 false alarms ...92,000 due to apparatus, and 5,500 due to malicious calls.

That is over 752 a day....the economic cost of false alarms is difficult to quantify, but the cost to the fire brigades is high, the cost to business is high, and there is always the potential loss of life in the event of the fire brigades not being able to reach a real fire because they have attended a false alarm. We have a moral and social responsibility to help reduce this figure, but also:

- The high number of false alarms is no longer regarded as acceptable by central government.
- Too many false alarms can prejudice the safety of occupants, who may not react correctly when the system responds to a real fire if they have experienced a number of false alarms.

Recording False Alarms in your Fire Log Book

The recent changes to British Standard BS 5839 now require end users of an automatic fire alarm system to not only log that there has been a false alarm on the system, but also categorizes the type of false alarm.

False alarms are classified in to the following five categories:

- **Unwanted alarms** – alarms caused by fumes from cooking, steam, tobacco smoke, dust, insects etc
- **Equipment False Alarms** – alarms due to faults with the equipment
- **Malicious False Alarms** – alarms arising from a malicious use of a call point
- **False alarms with good intent** – these occur when an individual suspects there is a real fire and raises the alarm.
- False alarms that do not fall into any of the categories listed should be entered in to your Fire log book as **Unknown**.

Listing the category of false alarms in the Fire system Log Book will aid investigation as to the cause.

The WMS engineer on his service visit will inspect the false alarm history on every service visit. If the false alarm rates exceed acceptable limits then a special investigation should be carried out.

Understanding False Alarms and Recommended Actions

1. Faulty Equipment

WMS have one of the lowest incidents of false alarms as a result of faulty equipment or poor installation, but even the best installed equipment will deteriorate without regular service and maintenance. We take false alarms due to equipment design and installation very seriously, and engineers are regularly trained to be aware of this issue. At the design stage of every system, formal consideration is made to the potential of false alarms, with a view to suitably minimising false alarms. Any relevant design information regarding information is always recorded and documented and shared with the customer.

Recommended Action

Service and Maintenance

A professional specialist service and maintenance agreement will maintain your systems performance and ensure your fire alarm and detection systems works when it is needed most - in the event of a fire. British Standards recommend that the number of service visits per annum should be based upon a risk assessment, and should be a minimum of twice a year. A professional specialist service and maintenance agreement will:

- Reduce the risk of incidence and failure.
- Maintain the systems performance.
- Extend the overall life expectancy of the equipment.
- Reduce unwanted alarms and associated costs.

2. Unwanted Alarms

Given the name 'unwanted alarms', not to be confused with False Alarms, because in these circumstances, the equipment has worked correctly, but the alarm was unwanted, e.g. burnt toast. When designing an AFD system, WMS will ask the questions about what kind of activities happen in various zones so that the right detector can be selected for the right risk to reduce unwanted alarms. Here are some of the most common causes:

- Cooking fumes (e.g. burnt toast).
- Steam (from bathrooms, shower rooms and industrial processes).
- Tobacco smoke.
- Dust (whether a build up over a period of time or released from an industrial process).
- Insects.
- Aerosol spray.
- Smoke from sources other than a fire in the building (e.g. external bonfire).
- Cutting, welding and similar "hotwork".
- Cosmetic smoke (discos and theatres).
- Incense and candles.
- Electromagnetic interference.
- High humidity.
- Water ingress.
- Substantial fluctuation in temperature.
- Accidental damage (particularly to call points).
- Testing of maintenance of system, without appropriate disablement of the system or warning to building occupants or alarm receiving center.
- Change of use or changes within the protected building.

WMS Fire Systems

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Recommended Action

Risk assessment and ongoing risk management

A well-conducted fire risk assessment should expose any risk of false alarms allowing you to take preventative measures. As part of ongoing risk management, it is crucial that you advise your service and maintenance company if you have a change of use or changes within protected building so consideration can be made on the effect to the alarm system. If building work is being undertaken, end users should be responsible for covering detectors to reduce the number of false alarms, or speak to your WMS service engineer for further advice.

Staff Training

A common cause of false alarms is human error. Staff training and awareness of basic good housekeeping rules, such as closing the windows if there is a bonfire outside, not boiling a kettle under a detector head, and not smoking in non-smoking areas will reduce the number of unwanted alarms. Employees should understand how to operate and respond to a fire warning system.

Remember when testing your fire alarm system to alert the Alarm Receiving Centre that you are about to conduct a test so that your system can temporarily be disabled.

3. Malicious False Alarms

Malicious false alarms tend to occur in premises where the public are in high numbers, such as shopping centres, pubs, places of entertainment, public car parks and sports centres and of course, in universities and schools. Mainly, it is the malicious use of a manual call point that is involved. Unfortunately, little can be done to deter an individual seizing the opportunity to wreak havoc or a young high spirited delinquent looking for fun, but in areas with a history of malicious false alarms, increased security can help minimise the risk.

Recommended Action

Call Point covers

WMS can provide call points with a hinged cover that may deter some from initiating a false alarm.

CCTV

CCTV cameras controlling the areas of a fire manual call point may be enough to deter a potential misuse, and will help in the prosecution or identification of repeat offenders.

Remote Video Response

Live images from your CCTV system can be transmitted to the Remote Video Response Centre. Trained operators will view the images and decide on appropriate course of action. This can include a live audible tannoy warning from the operator to the person on site.

Security Personnel

Security Personnel patrolling premises will deter misuse of call points, and possibly deter a would-be arsonist away from the premises.

4. False alarms with good intent

Little can be done to prevent false alarms with good intent. These are unlikely to present a significant problem, and it is important that people are never discouraged from operating a manual call point if they suspect that there might be a fire.

5. Unknown

Where the cause is not known, this too should be recorded as Unknown in your log book and an engineer called to investigate further.

Advice

For further advice on preventing false alarms contact:

*The Home Office at
www.homeoffice.gov.uk*

Total Fire Solution

WMS offers a complete solution to fire safety. With one company looking after all of your fire needs, we can work with you to ensure a risk assessment led process to provide you with optimum fire safety - with no gaps or overlaps.

Security and Fire Protection

Prevent fire -

*Fire risk assessment
Fire risk management
Fire training
Gas detection
Service and maintenance*

Detect fire -

*Fire detection systems
24/7 fire alarm monitoring*

Contain fire -

*Fire extinguishers
Hose reels
Fire extinguishing systems
Sprinklers*

Escape fire -

*Emergency lighting
Training
Voice alarms
Fire safety signs*

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