



## Devon & Cornwall Fire Protection Ltd



### BS 5839-1:2002 service and Maintenance of Automatic Fire Detection and Alarm Equipment

On 15 October 2002, revisions were made to the British Standard relating to the installations and Maintenance of Fire Alarms (BS 5839). It was last updated over 10 years ago in 1988 and since then, there have been changes in technology and changes in custom and practice with respect to the design, installation and servicing of automatic fire detection systems. The new standard takes in to account these changes. The 1988 edition of the standard was withdrawn as of the 15th July 2003.

#### Implications of the standard amendments

##### Improved Level of Service

BS5839-1:2002 calls for increased checks to be carried out on each service visit with a new emphasis on the continued suitability of the system in line with building use and the nature of occupancy, as well as further testing and recording of system performance, with a particular emphasis on "false alarm management". These changes require additional training and the introduction of new competencies and skills for our service technicians. Dependant on the nature of the fire system and the environment in which it is used the servicing and attention necessary to comply with BS5839 will increase. However in the majority of cases we do not see that any changes to our current pricing structure will be necessary. Although the frequency of visits may be altered. Under the new changes, you can expect our engineers to:

- Inspect your logbook and investigate any false alarms
- Spend time with you advising you of how to minimize false alarms

##### Managing False Alarms

In 2006, the fire and rescue services attended over 481,100 false alarms. Too many false alarms can prejudice the safety of occupants, who may not react correctly when the system responds to a real fire and places an unnecessary burden on the fire and rescue services. The revised changes have included measures to limit false alarms, and this responsibility does not just lie with system designers such as Devon & Cornwall Fire Protection Ltd; companies who have a fire alarm have a responsibility to service and maintain these systems and take due care to limit false alarms. Devon & Cornwall Fire Protection Ltd has produced this guide to 'Managing False Alarms'. Your alarm service engineers will advise each service visit.

**Remember the Fire Brigade has no legal obligation to attend your site if you call them.**

##### Fire Log Books

The recent changes now require users of automatic fire detection and alarm system to not only log that there has been a false alarm on the system, but also to categories the type of false alarm. False alarms are classified as:

**Unwanted alarms** – alarms caused by fumes from cooking, steam, tobacco, 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 raise the alarm

**Unknown** – where the cause of the false alarm is not certain listing the types of false alarms in your logbook will aid the investigation in to the cause.

**Devon & Cornwall Fire Protection Ltd Fire Log Book** are available to purchase and have already been updated to include the new sections to correctly record unwanted alarms and provide the user with a guide to responsibilities.

CAF638 Devon & Cornwall Fire Log book £12.00

## Number of service visits

The standard now states that the number of service visits as per BS5839part1 2002 for your fire alarm system should be based upon a fire survey (Fire Risk Assessment) of your system and Premises and should be a minimum of twice a year. A Devon & Cornwall Fire Protection engineer who looks after your system and is familiar with your site will be the best person to advise you on the number of service visits you should have. Devon & Cornwall Fire Protection Ltd will continue with 2 service visits a year unless we consider your site to be relatively low risk, small site, where some customers may be able to reduce the number of service visits each year.

## Fire Alarm Monitoring

It is now recommended that where the building is not continuously occupied, there should be some means of automatic transmission of a fire signal to an alarm-receiving centre. It also states that if the early summoning of the fire service is considered critical to the safety of occupants, Alarm monitoring is always recommended.

## Training

The Mental attitude of **Dial 999** and get out, may no longer be acceptable to the Fire Brigade, who can now operate a policy of only attending an emergency call for fire which the caller can confirm that it is a fire. This requires all staff to be trained in search, evacuation, response, and actions on false alarms procedures. All personal are required to attend this type of training whether they are full time, part time or auxiliary employed staff. For more information on certified training courses contact ourselves on 0800 3897050.

Fire Training should be carried out Six Monthly, for residential premises, places of entertainment, large shops and department stores.

Yearly for industrial and commercial premises.

All staff, part time, night workers, cooks and cleaners all are required to be trained.

## Variations and Non Compliance

Under BS 5839-1:2002, we are now obliged to inform you of any variations and non compliances to the new standard if your system has been installed to the previous standard. Whilst there is no legal obligation to upgrade, this audit may help you make enhancements that will improve the effectiveness of your system.

All advice will now be submitted to the customer in writing in the form of a service report and quotation.

## User Responsibilities – Role of Responsible Person

BS 5839-1:2002 provides guidelines on the role of the 'responsible person', who should be appointed to supervise all matters pertaining to the fire alarm system. The responsible person should see to it that:

- 1) The control panel is checked at least once every 24 hours to ensure that there are no faults on the system.
- 2) Arrangements are in place for the system to be tested and maintained in accordance with section 6 of BS 5839 part 1:2002.
- 3) The logbook is kept up to date.
- 4) All relevant persons are instructed in the proper use of the system including:
  - a. The ability to interpret pre alarm, fire and fault indications.
  - b. Use of the panel controls (including, silencing & resetting).
  - c. Measures necessary to avoid generating false alarms.
  - d. Facilities for disablement.
- 5) Appropriate action is taken to limit false alarms. (E.g. when building work is being carried out).
- 6) All false alarms are recorded in the fire system logbook including the category of false alarm.
- 7) A clear space of at least 500 mm is preserved all around and below each automatic detector
- 8) All manual call points remain unobstructed and visible.
- 9) Building maintenance work, occupancy or structural changes do not: cause false alarms or reduce the effectiveness of the fire system. (If structural changes are planned, changes to the fire system should be considered at an early stage).
- 10) Following system changes, as fitted drawings, and operating instructions are updated.
- 11) **At least 6 spare frangible elements for manual call points are held on the premises (2 if the system has less than 12 manual call points). Other spares are kept on the premises as recommended by the servicing organization.**

## **Routine Testing**

Recommendations for weekly testing of a Fire Alarm System are as listed below.

### **1) Weekly Testing**

A different call point should be operated during normal working hours at the time of the each weekly test, so that all call points are tested in rotation over a prolonged period of time. Results of the weekly test and the identity of the call point operated should be recorded in the logbook. Note: For systems with remote monitoring, the alarm-receiving centre should be contacted immediately before and immediately after the weekly test.

### **2) Systems Incorporating an 'Alert' and 'Evacuate' Signal**

On systems incorporating an alert and evacuate signal, the two signals should be operated sequentially in the order in which they would occur (i.e. alert then evacuate).

### **3) Premises Where Employees Work Outside of the Hours When the System is normally tested**

In premises where employees work outside of the hours when the system is normally tested, then at least once a month an additional test should be carried out to ensure that these employees are familiar with the fire signal.

### **4) Duration of Fire Alarm Test**

The duration for which any fire signal is given during the weekly fire test should not normally exceed 1 minute.

### **5) Voice Alarms**

These should normally be tested in accordance with BS 5839 part 8.

## **BS 5266 Part 1 1999 Emergency Lighting**

**Monthly** - Emergency lights should be tested by the simulation of power failure to ensure their operation.

**6 Monthly Test** - Emergency lights should be tested by the simulation of power failure for a continuous period: 1 Hour for 3 Hour Units and 15 minutes for 1 Hour Units.

**3 Yearly Test** – All luminaries with a specified duration of over 1 Hour to be tested for the full duration of their rated capability.

## **BS 5499 0r Council Directive 92/58/EEC Escape Routes**

All Escape signs should conform to Health & Safety (Signs and Signals) Regulation 1996 or the above standards and Escape routes inspected weekly to ensure all doors are operational and routes are clear.

## **Fire Extinguishers**

A weekly visual inspection should be carried out on all fire extinguishers for the following.

Ensure that none are missing and they are located in the correct positions with the correct identification sign.

They are securely mounted to the walls or are on stands.

The extinguisher has not been discharged or tampered with.

There is no sign of damage to the extinguisher.

Any faults the extinguisher should immediately be withdrawn from service and corrective action taken.