



# Automatic fire alarms, safety guidelines

Safety regulations S821, effective as of 1 April 2020

## 1 Purpose

These safety guidelines provide the policyholder with information on what they need to take into account when acquiring, using and maintaining a fire detector. They have been drawn up on the basis of a decision on automatic fire detectors and guidelines on designing and installing automatic fire detectors issued by the Ministry of the Interior, and are therefore binding where applicable. Rescue and construction legislation and building regulations need to be taken into account in the planning, acquisition and installation of an automatic fire alarm system.

The equipment and machinery referred to in the legislation or other regulations must be kept operational and both maintained and checked appropriately. When it comes to the common areas of the building and to the arrangements that serve the entire building, this is the responsibility of the owner, keeper or operator. The holder of a dwelling is responsible for the spaces in their possession.

## 2 Concepts

### Fire alarm

These guidelines concern fire alarms that have been connected to the emergency response centre and that have been built in response to the authorities' demand to increase personal safety or to facilitate rescue operations. A fire alarm is a piece of equipment that sends out an automatic notification of an incipient fire and faults that jeopardise operational capacity.

### Fire detector

A fire detector is that part of the fire alarm system which is located in the space being monitored and which reacts to fire, smoke or rise in temperature.

### Fire alarm push button

A device that can be used by the person who has detected a fire to manually set off a fire alarm.

### Alarm

A device that is used to raise a local fire alarm using a clearly distinguishable sound and/or light signal or vibration.

### Alarm system control board

A device to which the fire detectors and fire alarm push buttons and alarms are connected. The alarm system control board indicates the fire area, sets off the alarms and transmits the notification to the emergency response centre. The fire alarm also gives a notification of any faults that may jeopardise operational capacity.

### Fire alarm attendant

A designated person trained to use a specific device. The fire alarm attendant is also the contact person for the fire alarm. They are responsible for the service and condition of the fire alarm as well as its monthly testing.

### Emergency response centre

The emergency response centre is responsible for receiving emergency notifications and other notifications that need to be addressed, and for passing them on to those units who are legally responsible for handling them. The emergency response centre supports and helps units tending to their official duties and carries out the tasks defined in the law.

## 3 Acquisition of a fire alarm

### 3.1 Conditionality and phases of the acquisition

If the installation of a fire alarm is a condition for receiving a building permit, the building or part of the building will be equipped with a fire alarm in the extent that the building permit requires. The acquisition of the system may also be voluntary or it may be recommended by an insurance company.

The phases of acquiring a fire alarm are the following:

- preliminary plan: reports and ratings
- acquisition decision
- planning
- tenders and offers
- concluding the contracting agreement
- installation and supervision
- connecting to the emergency response centre
- training the staff
- final inspection
- approval and delivery to the client.

### 3.2 Preliminary plan

The preliminary plans of automatic fire alarm systems can be written by an electrical designer, electrical contractor or a fire alarm company (for instance for tender calculations). The fire detector is selected on the basis of the operating environment. Smoke detectors are the primary option.

### 3.3 Installation plan

The installation plan can be approved by a fire alarm designer or a fire alarm company approved by the Finnish Safety and Chemicals Agency (TUKES). An approved fire alarm company is responsible for the correctness of the planning of the fire alarm.

### 3.4 Installation, alteration and maintenance work

The installation and maintenance of fire alarms and fire extinguishing systems is a regulated activity. This work can only be carried out by a designated person with a qualification certificate employed by a company registered with the Finnish Safety and Chemicals Agency (TUKES). The company is responsible for carrying out an inspection for all its installation works.

The fire alarm company writes the final inspection report.

## 4 Inspections

### Inspections

The system needs to be inspected by an external operator, a so-called third party. The inspections can only be carried out by inspection institutions approved by the Finnish Safety and Chemicals Agency (TUKES). The inspections may result in a rejection or, if needed, a subsequent inspection of the fire alarm system.

### Verification inspection

Before the final inspection and the commissioning of a building or a part of a building, a third party performs a verification inspection where the fire alarm is verified and checked for proper functioning.

### Periodic inspections

The different systems are subjected to periodic inspections by an inspection institution at regular intervals. The holder of the fire alarm must ensure that the functioning of the fire alarm and its appropriateness for the site are inspected at regular intervals in accordance with the following inspection table. For existing sites, the inspection category is determined by a local fire and rescue authority, which may decide on a shorter, site-specific inspection interval.

Inspection category	Purpose of use	Inspection interval
A	Sites that are important in terms of personal safety and sites that present a notable or great risk of fire (eg accommodation, hospitals/clinics, spaces where the installation of a fire alarm is a condition for receiving a building permit )	3 years
B	Other	5 years
C	Exceptions	Site-specific

## 5 Usage and maintenance

An approved fire alarm needs to have a designated person in charge, a fire alarm attendant and a deputy to the attendant.

### 5.1 Guidance and training

After the installation work is finished, the fire alarm company needs to provide the attendants with sufficient guidance in the use and maintenance of the system. This involves going through the user manual and maintenance instructions. The representative of the fire alarm company instructs the attendants on the use of the fire alarm log. The designated attendants will be trained or otherwise inducted in accordance with the requirements of the job grade. If necessary, the staff of the site will be trained on how to act in the event of an alarm.

### 5.2 Role of the person in charge of the fire alarm

The person in charge of the fire alarm is responsible for making sure that a fire alarm attendant and their deputy are designated and that the fire alarm is maintained and used in accordance with instructions. The person in charge of the fire alarm will keep the telephone numbers of the contact persons up to date and send them to the emergency response centre.

### 5.3 The role and responsibility of the fire alarm attendant

The fire alarm attendant is tasked with maintaining and using the fire alarm and particularly with testing the connection to the emergency response centre once a month. The attendant needs to record all tests, maintenance work and service interruptions and fault signals in the log. The fire and rescue authority records all fire alarms and any fault signals related to their operations as needed. The fire alarm system attendant must pay special attention to proactive maintenance, for instance, by checking the condition of the fire alarm push buttons, batteries and indicators. The attendant must also ensure that the property's normal use, cleaning or maintenance and repair work do not cause unnecessary fire alarms or fault signals. In addition, they need to uncover the cause of any unnecessary notifications.

#### 5.4 Hot work

Carrying out hot work at a temporary hot work location requires the person doing the hot work to have a hot work card as well as a site-specific written hot work permit. Hot work requires a designated person in charge. Safety regulations Hot work S621 provide guidance for carrying out hot work. The majority of unnecessary notifications is caused by hot work.

#### 5.5 Structural alterations

If structural alterations, such as room changes, are carried out at a site that has been equipped with a fire alarm, the local rescue and building control authority needs to be contacted.

#### 5.6 Disconnection and notifications

If the fire alarm is disconnected either fully or partially, the emergency response centre needs to be informed immediately. The disconnection time and area are kept as short and small as possible and the site is continuously monitored for the duration of the disconnection. Only a fire and rescue authority, the fire alarm attendant or the deputy to the attendant may disconnect the fire alarm.

#### 5.7 Service and maintenance programme

The owner or holder of the fire alarm is responsible for ensuring that the fire alarm has a maintenance programme and that its maintenance and repair have been organised in accordance with the equipment-specific maintenance instructions in such a way that the system meets the necessary requirements for the duration of its lifecycle.

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Domicile: Helsinki, main line of business: non-life insurance companies

Regulatory authority: Financial Supervisory Authority, [finanssivalvonta.fi/en](https://finanssivalvonta.fi/en)

