

# **Guidance on the Testing & Maintenance of Fire Alarms, Emergency Lights and Fire Extinguishers**

Before continuing, please ensure you understand who is legally responsible for the fire safety of your building as this person is responsible for ensuring the necessary equipment has been installed by a competent installation company and the following testing procedures are adhered to.

The daily/weekly/monthly testing will need to be conducted by the responsible person or someone else within the organisation who has been delegated (and properly instructed) to test and log the test. The responsible person is also responsible for ensuring the regular maintenance is conducted by a competent maintenance company.

## **Fire Alarm System**



**Important:** The owner should appoint a responsible person to supervise all matters referring to the fire alarm system in accordance with the recommendations of section 7 of BS 5839-1 and that after completion, the system is maintained in accordance with section 6 of BS 5839-1.

**Regular User Testing** - of the fire alarm by a system user should be conducted and recorded in your fire logbook.

**Daily Check** - Check the main control panel each day to ensure the 'power' LED is illuminated and to ensure that there are no fault indications showing.

**Weekly Test** – Check that all panel LEDs are working by performing a lamp test. Then operate a different manual call point (or if possible, an automatic detector) in rotation each week to ensure the sounders can be heard, the test should be conducted at approximately the same time each week and results should be entered in the fire alarm logbook. Any faults should be reported immediately to the responsible person to arrange remedial work to be conducted by the competent maintenance company.



*Please ensure you notify everyone in the building before you conduct the test. If your system is monitored through to an alarm monitoring centre (either directly or via your monitored intruder alarm), please ensure you advise them to put the monitoring onto test for the duration of your weekly test.*

**Quarterly Test** – A visual inspection should be made to check whether structural or occupancy changes have affected the compliance of the system. Check all previous logbook entries. Operate a device as above for the weekly test. Enter test results in the fire alarm logbook.

## **Routine Maintenance by a competent maintenance company**

**Bi-Annual Service** - A visual inspection should be made to check whether structural or occupancy changes have affected the compliance of the system. Check all previous logbook entries. Examine the batteries and connections in the panel and test batteries for correct operation. Audibility test of all relevant sounders and test all Visual Alarm Devices etc.

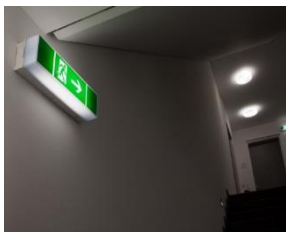
Operate approximately 50% of the devices as above for correct operation. We will remove the mains supply to check the batteries supply power to the alarm system and sounders. Check panel functions by simulating a fault condition. Enter test results in the fire alarm logbook.

**Annual Service** As above check the remaining devices (approx. 50%) for correct operation. Check the installation especially cable and equipment for signs of damage and check and test batteries for correct operation.

**Every 3-10 years** Replace sealed lead acid batteries every 4 years and other devices according to manufacturer's instructions. Inspect system cabling as per IEE wiring regulations.

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## **Emergency Escape Lighting**



Government guidelines (Fire safety risk assessment: offices and shops, P101) state that all emergency escape lighting systems should be regularly tested and properly maintained to an appropriate standard (i.e., BS 5266 - Code of practice for the emergency lighting of premises). This testing has traditionally been undertaken manually although, as noted above, emergency luminaires are available with a self-test facility.

Depending on the type of installation, trained members of staff should be able to conduct the majority of the routine tests by themselves. As the test methods will vary, there may be some doubt, in which case it is recommended that advice is sought after from the supplier or another competent person.

A typical test is via a key operated switch that is located either near the main fuse board or adjacent to relevant light switches. This is also known as a 'secret key' switch, as it designed to allow testing of emergency lights while preventing non-authorized operation of the test switch.

## **Testing Emergency Lighting**

Maintaining your emergency lighting units is important to ensure that lamps are working, and that the back-up battery is capable to last the full duration required by the standards. The "responsible person" of the organisation ensures that the periodic checks are conducted and documented in a fire safety logbook. Below we have provided an overview of the testing procedure and testing frequencies. To make the testing of your emergency lighting units quicker you can install self-test emergency lighting. These units automatically replicate a power cut, checking their own circuitry and functionality and should a fault be found some units can create both a visual and/or audible warning.

BS 5266-8 and BS EN 50172 give more detail on the testing of emergency lighting units.

### **Monthly User Testing**

Switch off the mains power supply to the lighting unit. Often, a separate secret test switch is installed allowing the testing of emergency lights without having to switch off all power. Walk past all emergency lights to ensure they are working. Note any defects and get them repaired/replaced asap. Record your results in your fire logbook.

### **Annual Testing by a competent maintenance company**

Switch off the mains power supply to the lighting unit. Leave the units illuminated for the rated period (1-3 hours). The lights should be on for the whole period. If lights fail within this time, replace the back-up battery or the complete fitting.

Particular care needs to be taken following a full discharge test. Batteries typically take 24 hours to re-charge and the premises should not be re-occupied until the emergency lighting system is fully functioning unless alternative arrangements have been made.



## **Fire Extinguishers**



Extinguishers should be **routinely inspected by the user** at no less than quarterly and preferably at **monthly** intervals to make sure that appliances are in their proper position and have not been discharged or lost pressure.

The user should replace extinguishers not available for use, with serviceable extinguishers. A competent person should conduct the annual inspection, service and test discharging. The UK servicing standard BS 5306 Part 3 puts the onus on the user (i.e., the customer) to use a competent person and those extinguishers should be serviced to that standard and the manufacturers recommended procedure.

### **Annual testing by a competent maintenance company**

To ensure a person is competent it is recommended that they should be able to prove he/she has completed a registered maintenance course. This will ensure he/she has been trained on the maintenance to be followed for portable fire extinguishers installed in industrial and commercial premises. When selecting a maintenance technician use the same procedures you would use when selecting a builder for instance never ever go on price alone.

The servicing procedures include three levels of maintenance, and when this maintenance is required to be undertaken:

**Basic** – Annually for an inspection and servicing by competent person.

**Extended** - Every 5 years for a basic service plus a discharge test and internal examination of stored pressure extinguishers.

**Overhaul** - Every 10 years for carbon dioxide extinguishers only. Detailed inspection and hydraulic pressure test to meet Pressure Systems Safety Regulations 2000.

**This report is for guidance only and whilst every effort has been made to ensure that all information given is accurate, reference should be made to the standard that applied at the time of installation and current standard. No responsibility can be taken for errors and omissions.**

