



EAST RIDING

OF YORKSHIRE COUNCIL

Fire Safety – Automatic Hold Open Devices for Self Closing Doors Safety Guidance Note

Lead Directorate and Service:	Corporate Resources - Human Resources, Safety Services.
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1. Introduction

Self closing fire doors are an essential part of a fire safety scheme but they can frequently create barriers to free movement around the building.

It is quite common to find that the self closing devices on these fire doors have been disabled by the use of wedges to improve movement and even air circulation in hot weather.

In the event of a fire, such actions can prejudice the safety of all occupants by permitting smoke, heat and flame to spread rapidly throughout the floor or building.

The only approved method of keeping a self closing fire door in the open position is by fitting an automatic 'hold open' device that is suitable for the location in question.

2. 'Hold Open' Devices

There are a variety of devices available that will hold a fire door in the open position, some even allow the door to be open, closed or any position in between by holding the closing device off the door until released.

There are two main types of device:

- Electro-magnetic linked electrically to the fire detection system, and,
- Acoustically operated devices that function when the fire alarm sounders operate (ie Dorguards)

Not all devices are suitable for all locations.

British Standard 7273 Part 4: 2007 Code of Practice for the Operation of Fire Protection Measures – Part 4 Actuation of Release Mechanisms for Doors covers this subject in detail.

The standard imposes criteria under which these devices must fail safe with three categories; **A** the highest and most reliable, **B** a lower standard and **C** a standard equal to category **B** but where there is no direct communication path between the fire detection control panel and the device itself (acoustically operated devices).

3. Building Design

Good building design will recognise that self closing fire doors can impede free movement in and around the premises and will seek to obviate user problems by applying compensating features. This is especially true for buildings that are designed for less able groups of people such as care premises and schools.

The use of fire door hold open or free swing devices must be considered at the design stage particularly as the cost of retro fitting is prohibitively expensive. The end user should be consulted at all stages to determine the appropriate option in

each individual case.

In principle, the aim should be to install the highest standard of device that is available, commensurate with user needs and budgetary constraints.

There are some locations where Category A devices are the only permitted option.

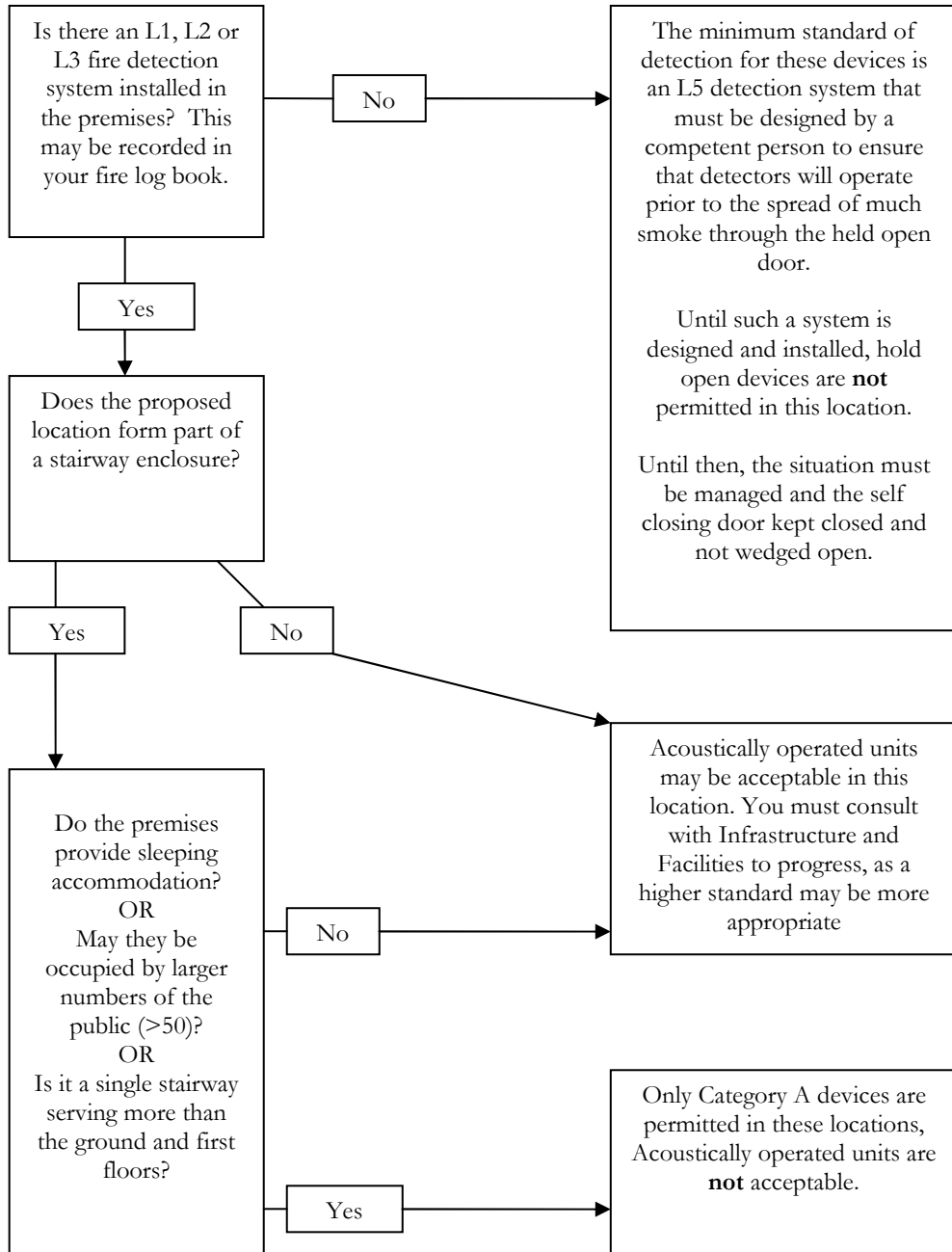
Proposed location of device							
Device Category	Stairway enclosures in:			Doors between corridors or rooms that form a fire resisting stairway lobby	Stairway enclosures in any other circumstances	Doors across or sub-dividing corridors	Doors to rooms including bedroom doors
	Premises that provide sleeping accommodation	Premises that may be occupied by larger numbers of the public (>50)	Premises or parts that have only one stairway serving more than the ground & first floors				
A	✓	✓	✓	✓	✓	✓	✓
B	x	x	x	✓	✓	✓	✓
C	x	x	x	✓	✓	✓	✓
✓ Acceptable			x Not Permitted				

Note: In the case of category C devices, the critical signal path and wiring between the release mechanism and any control equipment must fail to safety, i.e. the door is released to a closed position.

4. Considerations Necessary Prior to Fitting Category C Devices in Existing Premises

Building users often identify the need to retro fit some form of hold open device for self closing fire doors. This may be due to capability issues of occupiers or because the door(s) in question are otherwise wedged in the open position. The cheapest option is to use acoustically operated units but these are not permitted in all locations. Indeed due to lack of choice of mode of operation, these are often not suitable for bedroom doors where the 'free swing' devices are preferred. The following flowchart will guide users as to the suitability of these acoustically operated units in the proposed location.

Acoustically Operated Unit Flow Chart



5. Safety Signs

A sign bearing the words “Automatic Fire Door – Keep Clear” should be mounted at approximately eye level on both sides of all self-closing fire doors that are normally held-open by release mechanisms. The sign should conform to BS 5499-5.

6. Inspection Maintenance and Servicing

Every week, a fire alarm signal(s) should be used to cause actuation of all release mechanisms. It should be confirmed that each release mechanism operates correctly and that the doors close properly. This test should normally be carried out at approximately the same time each week.

Inspection and servicing should be carried out by a competent person at intervals not exceeding six months. This may be carried out as part of the periodic inspection and servicing of the fire detection and fire alarm system.

The fire safety and maintenance log book section for the fire detection and fire alarm system should be examined. It should be ensured that any faults in respect of release mechanisms, associated equipment or their circuits have received appropriate attention.

All fire alarm sounders needed for correct operation of acoustically actuated release mechanisms should be checked for correct operation unless this work has been carried out as part of the inspection and servicing of the fire detection and fire alarm system within the previous three /six months.(dependent on frequency of inspection as advised by Infrastructure and Facilities)

All further checks and tests recommended by the manufacturer of the release mechanisms and associated equipment should be carried out.

On completion of the work, any outstanding defects should be reported to the responsible person, an entry should be made in the fire safety and maintenance log book element relating to the fire detection and fire alarm system and a servicing certificate should be issued.

7. Acoustically Operated Units – Additional Considerations

Because these units operate by 'listening' for the fire alarm it is essential that the fire alarm sound level is sufficient to activate the device. As a minimum, there should be at least 65dB at each proposed location with all intervening doors closed.

These units also have the facility to automatically deactivate and release the door every night. This function must be enabled out of normal operating hours.

Some of the heavier fire doors require considerable closing forces and the use of an acoustically operated unit will require the fitting of the supplied floor plate. If this floor plate cannot be secured to the floor, the device will not function.

Acoustically operated units are battery powered and will require a replacement battery at least every 12 months. It would be good practice to consider a six monthly battery replacement programme.

Units that fail to continue to hold the door open may need a replacement battery fitting.