



Expert commentary

BS 5839-8:2023 — *Fire detection and fire alarm systems for buildings — Part 8: Design, installation, commissioning and maintenance of voice alarm systems — Code of Practice*

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1 Overview

BS 5839-8:2023, *Fire detection and fire alarm systems for buildings — Part 8: Design, installation, commissioning and maintenance of voice alarm systems — Code of Practice* covers how to design, install commission and maintain voice alarm systems. This revision updates and replaces BS 5839-8:2013. It incorporates the latest regulatory and legislative requirements for building evacuation, including provision for disabled people, and reflects industry changes since the last publication.

1.1 Reasons for change

This is a full revision of the document and introduces the following principal changes.

- Editorial changes in line with new BSI guidance.
- It removes additional product requirements not in BS EN 54-16:2008.
- Enforces of the requirements for loudspeakers conforming to BS EN 54-24:2008.
- Provides information on accessibility provision.
- Technical changes including changing Annex C from informative to normative.
- Provides additional clarification on verification.
- Adds additional requirements for documentation for the maintenance of the system.

1.2 Summary

Editorial changes

- The document has undergone restructuring.
- The clause on networked systems has been changed to “distributed systems”.
- The term “acoustically distinguishable area (a.d.a.)” has been amended.

Accessibility changes

- A new recommendation addressing the need to limit the level of a monitoring tone.
- A new recommendation to provide a warning for people who are D/deaf or have a hearing impairment.
- A new recommendation on warning devices for people who are D/deaf or have a hearing impairment.
- A new clause with recommendations for assistive listening systems has been introduced.

Technical changes

- A new recommendation for audio inputs (e.g. telephones, smartphones) are not to be used.
- A new recommendation has been added for Type V3.
- A new recommendation about voice alarm loudspeakers and disabled refuges.
- An explanation on the rear cover on ceiling loudspeakers.
- A new recommendation on loudspeakers that require equalization to achieve BS EN 54-24 certification.
- A new recommendation on the use voice sounders.
- The clause relating to emergency message generators has been deleted.
- The equation for calculating I_2 for standby batteries has been simplified.
- New recommendations on the level of the attention-drawing signal.
- A new recommendation on active noise cancellation.
- The clause on the measurement of intelligibility has been substantially rewritten.
- A new clause on cybersecurity has been included.

Changes to verification and maintenance

- The clause on verification has been simplified.
- Clarification that the maintainer of the VAS is not necessarily competent in electro-acoustic design for the corrective works.
- A new recommendation states that any ANS function is to be checked for correct operation.
- A new recommendation on ANS used for emergency broadcasts.
- A new recommendation on loudspeaker circuit impedance comparison.
- A new recommendation on subjective intelligibility testing.
- New recommendations for servicing and inspection on 6 month and 12-month intervals.