

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

First edition  
2007-08-15

---

---

## Fire detection and alarm systems —

Part 19:

### **Design, installation, commissioning and service of sound systems for emergency purposes**

*Systèmes de détection et d'alarme d'incendie —*

*Partie 19: Conception, installation, prise en charge et entretien des  
systèmes sonores pour les besoins de secours*



Reference number  
ISO 7240-19:2007(E)

© ISO 2007

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

## Contents

Page

Foreword.....	v
Introduction .....	vii
1 Scope .....	1
2 Normative references .....	1
3 Terms, abbreviated terms and definitions .....	2
3.1 Definitions .....	2
3.2 Abbreviated terms .....	3
4 Design requirements .....	4
5 Planning .....	4
5.1 Responsibilities .....	4
5.2 Qualifications .....	4
5.3 Documentation .....	4
5.4 System design.....	5
5.5 Category of s.s.c.i.e.....	6
5.6 Classification of priorities.....	7
5.7 Speech intelligibility .....	7
5.8 Warning signals .....	8
5.9 Emergency loudspeaker zones .....	9
5.10 Visual warning devices and tactile warning devices .....	10
5.11 Delay to outputs .....	10
5.12 Initiation .....	11
5.13 Manual alarm output.....	11
5.14 Sound system control and indicating equipment .....	11
5.15 Power supply.....	12
5.16 Supervision of transmission paths.....	13
5.17 Wiring.....	13
5.18 Interconnection to a fire detection and alarm system .....	14
5.19 Use for non-emergency purposes .....	14
5.20 Documentation .....	15
6 Equipment and material .....	16
6.1 Quality of components .....	16
6.2 Standards .....	16
6.3 Additional requirements .....	16
6.4 Sound system control and indicating equipment optional functions.....	16
6.5 Installation materials .....	16
7 Systems compatibility .....	16
7.1 Responsibility .....	16
7.2 Documentation .....	17
7.3 Certification .....	17
8 Approvals .....	17
9 Installation .....	17
9.1 Responsibility .....	17
9.2 Qualifications .....	17
9.3 Certification .....	18
10 Commissioning .....	18
10.1 Responsibility .....	18
10.2 Qualifications .....	18

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

10.3	Procedure.....	18
10.4	Certification .....	18
11	Normal use.....	18
11.1	Access to system.....	18
11.2	Other responsibilities .....	18
11.3	Routine tests and regular controls .....	19
11.4	Documentation .....	19
11.5	Operating instructions.....	19
12	Service.....	19
12.1	Responsibility.....	19
12.2	Qualifications.....	19
12.3	Service plan .....	19
12.4	Documentation .....	21
13	Abnormal situations — System disconnection .....	22
Annex A	(normative) Measurement of speech intelligibility .....	23
Annex B	(informative) Explanation of access levels.....	26
Annex C	(informative) Power source calculations .....	28
Annex D	(informative) Commissioning report .....	30
Annex E	(informative) Inspection report .....	31
Annex F	(informative) Test report .....	32
Bibliography	.....	33

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7240-19 was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 3, *Fire detection and alarm systems*.

This first edition of ISO 7240-19 together with ISO 7240-16 cancels and replaces IEC 60849:1998, which has been technically revised.

ISO 7240 consists of the following parts, under the general title *Fire detection and alarm systems*:

- *Part 1: General and definitions*
- *Part 2: Control and indicating equipment*
- *Part 4: Power supply equipment*
- *Part 5: Point-type heat detectors*
- *Part 6: Carbon monoxide fire detectors using electro-chemical cells*
- *Part 7: Point-type smoke detectors using scattered light, transmitted light or ionization*
- *Part 8: Carbon monoxide fire detectors using an electro-chemical cell in combination with a heat sensor*
- *Part 9: Test fires for fire detectors (Technical Specification)*
- *Part 10: Point-type flame detectors*
- *Part 11: Manual call points*
- *Part 12: Line type smoke detectors using a transmitted optical beam*
- *Part 13: Compatibility assessment of system components*
- *Part 14: Guidelines for drafting codes of practice for design, installation and use of fire detection and fire alarm systems in and around buildings (Technical Report)*

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

- *Part 15: Point type fire detectors using scattered light, transmitted light or ionization sensors in combination with a heat sensor*
- *Part 16: Sound system control and indicating equipment*
- *Part 19: Design, installation, commissioning and service of sound systems for emergency purposes*
- *Part 21: Routing equipment*
- *Part 22: Smoke-detection equipment for ducts*
- *Part 27: Point-type fire detectors using a scattered-light, transmitted-light or ionization smoke sensor, an electrochemical-cell carbon-monoxide sensor and a heat sensor*
- *Part 28: Fire protection control equipment*

A part 26 dealing with oil mist detectors is under development.

This is a preview of "ISO 7240-19:2007". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

A sound system for emergency purposes (s.s.e.p.) alerts occupants to a hazard that can require their safe and orderly evacuation from the building. It operates automatically or manually. Equipment to alert building occupants is, therefore, required to function after the hazard has been detected. Fire in a building is a common hazard that is often detected by an automatic fire detection and alarm system. A s.s.e.p. can operate as part of a fire detection and alarm system or can function in conjunction with other emergency detection systems.

When used for emergency purposes, it is recommended that the s.s.e.p. form part of a complete facility (equipment, operating procedures and training programmes) for the control of emergencies.

The s.s.e.p. can be the subject of approval by relevant authorities.

This part of ISO 7240 has been prepared by ISO/TC 21/SC 3 and is based on IEC 60849:1998, *Sound systems for emergency purposes* prepared by the International Electrotechnical Commission IEC/TC 100 *Audio, video and multimedia systems and equipment*.

This part of ISO 7240 contains specific requirements for the design, installation, commissioning and service of sound systems for emergency purposes and follows the general format specified in ISO/TR 7240-14.