

Specification for

Normal equal-loudness level contours for pure tones under free-field listening conditions

[ISO title: Acoustics — Normal equal-loudness level contours]

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The preparation of this British Standard was entrusted by the Environment and Pollution Standards Committee (EPC/-) to Technical Committee EPC/1, upon which the following bodies were represented:

- Association of Consulting Engineers
- British Broadcasting Corporation
- British Occupational Hygiene Society
- British Telecommunications plc
- Department of Health and Social Security
- Department of the Environment (Building Research Establishment)
- Department of Trade and Industry (Air Division)
- Department of Trade and Industry (National Physical Laboratory)
- Engineering Equipment and Materials Users' Association
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- Institute of Occupational Hygienists
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- Institution of Civil Engineers
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- Royal Institute of British Architects
- Society of Environmental Engineers
- Transmission and Distribution Association (BEAMA Ltd.)

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- British Association of Otolaryngologists
- British Society of Audiology
- Confederation of British Industry
- Medical Research Council
- Motor Industry Research Association
- Royal College of Surgeons of England
- Royal National Institute for the Deaf
- Royal Society of Medicine

This British Standard, having been prepared under the direction of the Environment and Pollution Standards Committee, was published under the authority of the Board of BSI and comes into effect on 29 February 1988

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National foreword

This British Standard has been prepared under the direction of the Environment and Pollution Standards Committee and is identical with ISO 226:1987 “Acoustics — Normal equal-loudness level contours”, published by the International Organization for Standardization (ISO). ISO 226 was prepared by Technical Committee 43 Acoustics, with the active participation and approval of the UK.

This standard supersedes BS 3383:1961 which is withdrawn.

This edition of BS 3383 differs from the previous edition in the following principal respects.

- a) Correction formulae for the age of listeners have been removed and revised data are now given in BS 6951.
- b) The data apply up to a maximum frequency of 12 500 Hz, not 15 000 Hz as previously.
- c) The age group for which data are given is now 18 to 30 years, inclusive, not 18 to 25 years.
- d) An Annex now specifies the equal-loudness level functions for narrow bands of random noise in a diffuse field.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used throughout as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “International Standard” appear, referring to this standard, they should be read as “British Standard”.

Cross-references

International Standard	Corresponding British Standard
ISO 131:1979	BS 3045:1981 <i>Method of expression of physical and subjective magnitudes of sound or noise in air</i> (Technically equivalent)
ISO 266:1975	BS 3593:1963 <i>Recommendation on preferred frequencies for acoustical measurements</i> (Technically equivalent) BS 2497 <i>Standard reference zero for the calibration of pure tone air conduction audiometers</i>
ISO 389:1985	Part 5:1988 <i>Specification for a standard reference zero using an acoustic coupler complying with BS 4668</i> (Identical)
ISO 389/ Addendum 1:1983	Part 6:1988 <i>Specification for a standard reference zero using an artificial ear complying with BS 4669</i> (Identical)
ISO 389/ Addendum 2:1986	Part 7:1988 <i>Specification for a standard reference zero at frequencies intermediate between those given in Parts 5 and 6 of BS 2497</i> (Identical)

In clause 0 the note following paragraph 3 draws attention to the withdrawal of ISO 454:1975. There is no British Standard related to ISO 454:1975.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.