AS ISO 389.5—2003
ISO/TR 389-5:1998

Australian Standard™

Acoustics—Reference zero for the calibration of audiometric equipment

Part 5: Reference equivalent threshold sound pressure levels for pure tones in the frequency range 8 kHz to 16 kHz

Standards Australia

This Australian Standard was prepared by Committee AV-003, Acoustics Human Effects. It was approved on behalf of the Council of Standards Australia on 14 March 2003 and published on 31 March 2003.

The following are represented on Committee AV-003:

Association of Australian Acoustical Consultants

Association of Consulting Engineers Australia

Australian Acoustical Society

Australian Chamber of Commerce and Industry

Australian Hearing

Department of Consumer & Employment Protection, WorkSafe Division, W.A.

Department of Labour, New Zealand

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee AV-003, Acoustics Human Effects. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

This Standard is identical with and has been reproduced from ISO/TR 389-5:1998, *Acoustics—Reference zero for the calibration of audiometric equipment,* Part 5: *Reference equivalent threshold sound pressure levels for pure tones in the frequency range 8 kHz to 16 kHz.*

The objective of this Standard is to specify reference equivalent threshold sound pressure levels (RETSPLs) of pure tones in the frequency range from 8 kHz to 16 kHz, applicable to the calibration of air conduction audiometers for specific earphones.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this part of ISO 389' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

This Standard provides for the use of the following Australian Standards in place of particular International Standards referenced herein:

Reference to International Standard		*Australian Standard*	
IEC		AS/NZS IEC	
60645	Audiometers	60645	Electroacoustics—Audiological equipment—
60645-1	Part 1: Pure-tone audiometers	60645.1	Part 1: Pure-tone audiometers (IEC 60645-1:2001, MOD)
60711	Occluded ear simulator for the measurement of earphones coupled to the ear by ear inserts	AS 2928	Occluded ear simulator for the measurement of earphones coupled to the ear by ear inserts

INTRODUCTION

An International Standard for extended high-frequency audiometers has been published, IEC 60645-4. Adaptors to be used with the IEC 60318-1 ear simulator to provide an interim acoustic coupler for the calibration of audiometric earphones in the extended high-frequency range are being standardized in IEC/TC 29 (IEC 60318-2). The reference equivalent threshold sound pressure levels for specific earphones described in this Technical Report enable calibration of those audiometers which are equipped with these earphones, in order to promote agreement and uniformity in the expression of hearing threshold level measurements worldwide.

NOTES

AUSTRALIAN STANDARD

Acoustics — Reference zero for the calibration of audiometric equipment —

Part 5:
Reference equivalent threshold sound pressure levels for pure tones in the frequency range 8 kHz to 16 kHz

1 Scope

This part of ISO 389 specifies reference equivalent threshold sound pressure levels (RETSPLs) of pure tones in the frequency range from 8 kHz to 16 kHz, applicable to the calibration of air conduction audiometers for specific earphones.

NOTE Some notes and references on the derivation and the test conditions used to determine the recommended reference levels are given in annex A and the Bibliography.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 389. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 389 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 389-1:—[1)], *Acoustics — Reference zero for the calibration of audiometric equipment — Part 1: Reference equivalent threshold sound pressure levels for pure tones and supra-aural earphones.*

ISO 389-2:1994, *Acoustics — Reference zero for the calibration of audiometric equipment — Part 2: Reference equivalent threshold sound pressure levels for pure tones and insert earphones.*

IEC 60318-1:1998[1)], *Electroacoustics — Simulators of human head and ear — Part 1: Ear simulator for the calibration of supra-aural earphones.*

IEC 60318-2:1998[1)], *Electroacoustics — Simulators of human head and ear — Part 2: An interim acoustic coupler for the calibration of audiometric earphones in the extended high-frequency range.*

IEC 60645-1, *Audiometers — Part 1: Pure-tone audiometers.*

IEC 60711, *Occluded ear simulator for the measurement of earphones coupled to the ear by ear inserts.*

1) To be published.