

Australian Standard[®]

Hearing aids

Part 8: Methods of measurement of performance characteristics of hearing aids under simulated in situ working conditions



This Australian Standard® was prepared by Committee AV-003, Acoustics—Human Effects. It was approved on behalf of the Council of Standards Australia on 3 November 2006. This Standard was published on 20 February 2007.

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- Association of Accredited Certification Bodies
 - Association of Australian Acoustical Consultants
 - Association of Consulting Engineers Australia
 - Audiological Society of Australia
 - Australasian Faculty of Occupational Medicine
 - Australian Acoustical Society
 - Australian Chamber of Commerce and Industry
 - Australian Council of Trade Unions
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 - New Zealand Audiological Society
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 - Safety Institute of Australia
 - The Australian Society of Otolaryngological Head and Neck Surgery
 - Victorian WorkCover Authority
 - WorkCover New South Wales
-

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 60118.8—2007

Hearing aids

**Part 8: Methods of measurement of performance characteristics of hearing aids
under simulated in situ working conditions**

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New Zealand Audiological Society
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WorkSafe Victoria

NOTES

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AV-003, Acoustics—Human Effects, to supersede AS 1088.8—1987.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to describe methods for a test which simulates the acoustical effects of a median adult wearer on the performance of a hearing aid.

This Standard is identical with, and has been reproduced from IEC 60118-8, Ed. 2.0:2005, *Electroacoustics—Hearing aids - Part 8: Methods of measurement of performance characteristics of hearing aids under simulated in situ working conditions*.

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 IEC 60118’ should read ‘this Australian Standard.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

CONTENTS

	<i>Page</i>
Introduction	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Limitations	5
5 Test equipment	5
5.1 Acoustical requirements for the test space	5
5.2 Sound source	6
5.3 Manikin	6
5.4 Ear simulator	6
5.5 Ear insert simulator	6
5.6 Equipment for the measurement of occluded-ear simulator sound pressure level	6
5.7 Equipment for automatic sweep frequency recording	7
5.8 Equipment for calibration of free field sound pressure level	7
6 Test conditions	7
6.1 Choice of test point	7
6.2 Ambient conditions	8
6.3 Manikin	8
6.4 Location of the hearing aid	8
6.5 Normal operating conditions for the hearing aid	8
7 Measurements	9
7.1 General	9
7.2 Adjustment of the reference input sound pressure level	9
7.3 Manikin frequency response (MFR)	10
7.4 Full-on simulated insertion gain measured by the constant reference input SPL method	10
7.5 Full-on simulated insertion gain measured by the constant ear simulator SPL method	11
7.6 Directional characteristics	11
7.7 Simulated <i>in situ</i> OSPL90 measurements	13
7.8 Simplified method to measure simulated <i>in situ</i> and insertion gain response	14
8 Frequency response recording charts	14
9 Maximum permitted expanded uncertainty of measurements	14
Annex A (normative) Free-field to hearing-aid-microphone transformation	16
Annex B (normative) Manikin unoccluded-ear gain (open ear response)	20
Annex C (informative) General requirements for a manikin	22
Bibliography	25

INTRODUCTION

Measurement methods that take into account the acoustical influence of the wearer on the performance of hearing aids are important, particularly when the results are to be used to assist in fitting of hearing aids. The information obtained using this standard is likely to be more relevant to the fitting of hearing aids than that provided by publications concerned with type approval and quality control such as IEC 60118-0 and IEC 60118-7.

The methods specified in this standard require a device such as a manikin to simulate the presence of the wearer. It has been found necessary to establish certain guidelines for simulated in situ measurements of hearing aids. The recommended methods are described in this standard.

STANDARDS AUSTRALIA

Australian Standard

Hearing aids—Part 8: Methods of measurement of performance characteristics of hearing aids under simulated in situ working conditions**1 Scope**

The purpose of this part of IEC 60118 is to describe methods for a test which simulates the acoustical effects of a median adult wearer on the performance of a hearing aid.

It establishes certain guidelines for simulated *in situ* measurements of hearing aids; it describes a simplified method for simulated *in situ* measurements of hearing aids and a description for determination of the directivity index (DI) of directional microphones in hearing aids in the horizontal plane.

In addition this second edition now specifies tolerances. Conformance to the specifications in this International Standard is demonstrated only when the result of a measurement, extended by the actual expanded uncertainty of measurement of the testing laboratory, lies fully within the tolerances specified in this International Standard extended by the values for U_{\max}

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

~~IEC 60118-0:1983, *Hearing aids — Part 0: Measurement of electroacoustical characteristics*~~

AS 60118.0, *Hearing aids, Part 0: Measurement of electroacoustical characteristics* (identical to IEC 60118-0)

IEC 60263, *Scales and sizes for plotting frequency characteristics and polar diagrams*

~~IEC 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* (identical to IEC 60711)

IEC 60959, *Provisional head and torso simulator for acoustic measurements of air conduction hearing aids*