

Australian Standard<sup>®</sup>

**Hearing aids**

**Part 1: Hearing aids with induction  
pick-up coil input**

**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 3 November 2006. This Standard was published on 20 February 2007.

---

The following are represented on Committee AV-003:

- 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
  - Australian Industry Group
  - Department of Consumer & Employment Protection, WorkSafe Division, WA
  - Department of Labour, NZ
  - National Acoustic Laboratories
  - New South Wales Nurses, Association
  - New Zealand Audiological Society
  - Royal Institute of Naval Architects
  - Safety Institute of Australia
  - The Australian Society of Otolaryngological Head and Neck Surgery
  - Victorian WorkCover Authority
  - WorkCover New South Wales
- 

This Standard was issued in draft form for comment as DR 06466.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

---

#### **Keeping Standards up-to-date**

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting [www.standards.org.au](http://www.standards.org.au)

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.org.au](mailto:mail@standards.org.au), or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

---

Australian Standard<sup>®</sup>

**Hearing aids**

**Part 1: Hearing aids with induction  
pick-up coil input**

Originally as part of AS 1088—1971.  
Previous edition AS 1088.1—1987.  
Revised and redesignated as AS 60118.1—2007.

**COPYRIGHT**

© Standards Australia

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 7914 X

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AV-003, Acoustics—Human Effects, to supersede AS 1088.1—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 specify a method of determining the electroacoustic performance of hearing aids fitted with an induction pick-up coil and used in an audio-frequency magnetic field.

This Standard is identical with, and has been reproduced from IEC 60118-1, Ed. 3.1 (1999), *Hearing aids—Part 1: Hearing aids with induction pick-up coil input*.

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 60118-1’ should read ‘this Australian Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

## CONTENTS

	<i>Page</i>
1 Scope .....	1
2 Normative references .....	1
3 Definitions .....	1
4 Test conditions .....	2
4.1 General .....	2
4.2 Residual output level .....	2
4.3 Magnetic field source .....	2
5 Test procedure .....	3
5.1 Strength of magnetic field source .....	3
5.2 Locating the hearing aid for test .....	3
5.3 Normal operating conditions for the hearing aid .....	3
5.4 Basic frequency response .....	3
5.5 Frequency response with full-on gain control setting .....	4
5.6 Maximum magneto-acoustical sensitivity level at the reference test frequency .....	4
5.7 Effect of gain control position on frequency response .....	4
5.8 Harmonic distortion .....	4
6 Equivalent acoustic input .....	5

Currently in preview, click buy full version

## STANDARDS AUSTRALIA

---

**Australian Standard**
**Hearing aids—Part 1: Hearing aids with induction pick-up coil input**


---

**1 Scope**

This standard specifies a method of determining the electroacoustic performance of hearing aids fitted with an induction pick-up coil and used in an audio-frequency magnetic field. The induction pick-up performance is measured in a loop simulating conditions of use in most applications.

NOTE – Performance of induction pick-up coils in telephone magnetic fields may differ from results obtained using this standard.

**2 Normative references**

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60118. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60118 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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* Amendment 1 (1994)~~

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

IEC 60711:1981, *Occluded-ear simulator for the measurement of earphones coupled to the ear by ear inserts*

**3 Definitions**

Terms and definitions other than those below are specified in IEC 60118-0 and IEC 60711.

**3.1 test point**

the position at which the strength of the magnetic field is defined

**3.2****test space**

a space which contains the test point where the hearing aid is to be placed for testing