

Australian/New Zealand Standard™

Electroacoustics—Sound level meters

Part 3: Periodic tests



AS/NZS IEC 61672.3:2019

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The following are represented on Committee AV-003:

- Accident Compensation Corporation (New Zealand)
- Association of Australasian Acoustical Consultants
- Australian Acoustical Society
- Australian Chamber of Commerce and Industry
- Australian Council of Trade Unions
- Australian Hearing
- Engineers Australia
- New Zealand Audiological Society
- Worksafe Division, Department of Commerce, Western Australia

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Part 3: Periodic tests

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AV-003, Acoustics Human Effects.

The objective of this Standard is to describe procedures for periodic testing of time-weighting, integrating-averaging, and integrating sound level meters that were designed to conform to the class 1 or class 2 specifications of the second edition of AS/NZS IEC 61672.1. The aim of this Standard is to ensure that periodic testing is performed in a consistent manner by all laboratories.

The purpose of periodic testing is to ensure the user that the performance of a sound level meter conforms to the applicable specifications of AS/NZS IEC 61672.1 for a limited set of key tests and for the environmental conditions under which the tests were performed.

This Standard is identical with, and has been reproduced from, IEC 61672-3:2013 (ED 2.0), *Electroacoustics — Sound level meters — Part 3: Periodic tests*.

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- (a) In the source text “this part of IEC 61672” should read “this Australian/New Zealand Standard”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTROACOUSTICS –
SOUND LEVEL METERS –****Part 3: Periodic tests**

FOREWORD

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International Standard IEC 61672-3 has been prepared by IEC technical committee 29: Electroacoustics, in cooperation with the International Organization of Legal Metrology (OIML).

This second edition cancels and replaces the first edition published in 2006. This second edition constitutes a technical revision.

The main technical changes with regard to the previous edition are as follows:

In this second edition, conformance to specifications is demonstrated when:

- a) measured deviations from design goals do not exceed the applicable acceptance limits, and
- b) the uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty, with both uncertainties determined for a coverage probability of 95 %.

The text of this second edition is based on that of the first edition and the following documents:

FDIS	Report on voting
29/814/FDIS	29/825/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61672 series, published under the general title *Electroacoustics – Sound level meters*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A list of all parts of the IEC 61672 series, published under the general title *Electroacoustics – Sound level meters*, can be found on the IEC website.

ELECTROACOUSTICS – SOUND LEVEL METERS –

Part 3: Periodic tests

1 Scope

This second edition of IEC 61672-3 describes procedures for periodic testing of time-weighting, integrating-averaging, and integrating sound level meters that were designed to conform to the class 1 or class 2 specifications of the second edition of IEC 61672-1. The aim of the standard is to ensure that periodic testing is performed in a consistent manner by all laboratories.

NOTE 1 In this document, references to IEC 61672-1, IEC 61672-2, and IEC 61672-3 refer to the second editions unless stated otherwise.

NOTE 2 Procedures for the periodic testing of sound level meters designed to conform to the specifications of IEC 61672-1:2002 were given in IEC 61672-3:2006.

The purpose of periodic testing is to assure the user that the performance of a sound level meter conforms to the applicable specifications of IEC 61672-1 for a limited set of key tests and for the environmental conditions under which the tests were performed.

The extent of the tests in this part of IEC 61672 is deliberately restricted to the minimum considered necessary for periodic tests.

Periodic tests described in this edition of IEC 61672-3 apply to sound level meters for which the manufacturer claims conformance to the specifications of the second edition of IEC 61672-1. Periodic tests described in this part of IEC 61672 apply to sound level meters for which the model has been, or has not been, pattern approved by an independent testing organization responsible for pattern approvals in accordance with the test procedures of the second edition of IEC 61672-2.

Because of the limited extent of the periodic tests, if evidence of pattern approval is not publicly available, no general conclusion about conformance to the specifications of IEC 61672-1 can be made, even if the results of the periodic tests conform to all applicable requirements of this edition of IEC 61672-3.

2 Normative references

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

IEC 60942, *Electroacoustics – Sound calibrators*

IEC 61094-5, *Measurement microphones – Part 5: Methods for pressure calibration of working standard microphones by comparison*

IEC 61094-6, *Measurement microphones – Part 6: Electrostatic actuators for determination of frequency response*

IEC 61183, *Electroacoustics – Random-incidence and diffuse-field calibration of sound level meters*