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Australian Standard[®]

Sound system equipment

**Part 8: Analogue audio disc
records and reproducing
equipment**

This Australian Standard was prepared by Committee TE/8, Audio and Video Engineering and Recording. It was approved on behalf of the Council of Standards Australia on 4 October 1988 and published on 19 June 1989.

The following interests are represented on Committee TE/8:

Australian Broadcasting Corporation
Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
Consumer Electronics Suppliers Association
Department of Transport & Communications (Commonwealth)
Federation of Australian Commercial Television Stations
Federation of Australian Radio Broadcasters
Institution of Radio and Electronics Engineers, Australia
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First published as AS 1127.8—1989.

PREFACE

This Standard was prepared by Standards Australia's Committee TE/8, Audio and Video Engineering and Recording. The Standard is identical with and reproduced from IEC Publication 98 (3rd Edition), *Analogue audio disk records and reproducing equipment*.

The purpose of this Standard is to specify the parameters which are necessary to ensure compatibility between analogue recordings (discs) and the corresponding reproducing equipment. These parameters are defined in the Standard which also specifies the units and symbols which should be used, the methods for making the drawings and the scales for presentation of the data. The Standard also defines the most important parameters affecting the performance of reproducing equipment and establishes uniform methods of measurement for them. In addition, examples of test records for a variety of measurements are described in appendices.

The IEC Publication attached includes in Clause 10.2.1 a roll-off in reproduction characteristic (see Figure 3, Page 51 of IEC 98) below 20 Hz, specified by an additional time-constant of 7950 μ s. This results in an overall response which is undesirable and is considered uncomplimentary to the recording characteristic, particularly in view of the increasing use of mid-range (sub-woofer) loudspeakers in reproduction.

The desirability of providing attenuation of this kind, to overcome limitations in specific playback equipment is recognized, in particular due to the rumble of turntables and to the fact that the acoustic output of some loudspeakers may fall at very low frequencies where the drivers are required to execute large excursions (up to some centimetres), the Committee considers the specification of mandatory high-pass filtering undesirable. Rather, the provision of high-pass filters of the first or higher orders of magnitude, should be a matter for each manufacturer to determine in the light of the limitations of the remainder of the playback chain.

The Committee believes that the 7950 μ s time-constant specified herein should therefore, be considered optional rather than mandatory as stated in Clause 10.2.1.

The page numbers of the English text are given on the bottom left corner of each page of this Standard.

For the purpose of this Australian Standard, the text of the IEC Publication used herein should be modified as follows:

- (a) *Terminology*: The words 'Australian Standard' should replace the words 'IEC Publication' wherever they appear.
- (b) *Cross-references*: The references to international Standards should be replaced by references to Australian Standards as follows:

<i>Reference to international Standard</i>	<i>Appropriate Australian Standard</i>
IEC	AS
38 IEC standard voltages	2926 Standard voltages—Alternating (50 Hz) and direct
50 International electrotechnical vocabulary (IEV)	1852 International electrotechnical vocabulary
65 Safety requirements for mains operated electronic and related apparatus for household and similar general use	3250 Approval and test specification—Mains operated electronic and related apparatus for household and similar general use
263 Scales and sizes for plotting frequency characteristics and polar diagrams	—
268 Sound system equipment Part 3: Sound system amplifiers Part 5: Loudspeakers	1127 Sound system equipment 1127.5 Part 5: Loudspeakers

IEC		AS	
386	Method of measurement of speed fluctuations in sound recording and reproducing equipment	3561	Speed fluctuations in analogue recording and reproducing equipment—Method of measurement
417	Graphical symbols for use on equipment	1104	Informative symbols for use on electrical and electronic equipment
581	High fidelity audio equipment and systems; Minimum performance requirements Part 3: Record playing equipment and cartridges	—	
651	Sound level meters	1259	Sound level meters
406	Technical drawings—Linear and angular tolerancing	1100	Technical drawing Part 101: General principles
ISO			
1101	Technical drawings—Geometrical tolerancing	1100	Technical drawing Part 101: General principles

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CONTENTS

Clause	Pages
1. Scope	5
2. Object	5
SECTION ONE — GENERAL	
3. Definitions	5
4. Units and symbols	7
5. Drawings	7
6. Scales for graphical presentation of data	7
SECTION TWO — COMPATIBILITY BETWEEN ANALOGUE AUDIO DISK RECORDS AND REPRODUCING EQUIPMENT	
7. The disk	8
8. The groove	9
9. Label information	10
10. Recording and reproducing characteristics	11
11. Reproducing equipment	12
SECTION THREE — METHODS OF MEASURING THE CHARACTERISTICS OF REPRODUCING EQUIPMENT FOR ANALOGUE AUDIO DISK RECORDS	
12. Information required from manufacturers of record playing units	14
13. Conditions of measurement	17
14. Methods of measurement	17
FIGURES	25
APPENDIX A — Test records for wow and flutter	29
APPENDIX B — Measurement of signal/rumble ratio	30
APPENDIX C — Examples of test records for the measurement of channel sensitivity (Sub-clause 14.5), channel unbalance (Sub-clause 14.6), separation (Sub-clause 14.7), signal response (Sub-clause 14.8.1) and separation response (Sub-clause 14.8.2)	32
APPENDIX D — Tracking ability (Sub-clause 14.9, Methods A, B and C)	33

STANDARDS AUSTRALIA

Australian Standard
Sound system equipment

Part 8: Analogue audio disc records and reproducing equipment

1. Scope

This standard applies to analogue audio disc records and the corresponding professional and domestic reproducing equipment. It excludes amplifiers and loudspeakers, methods of measurement for which can be found in IEC Publications 268-3 and 268-5 respectively. It also excludes all aspects of quality grading, which can be found in IEC Publication 581-3.

2. Object

This standard consists of three sections, the objects of which are as follows:

Section One lists all general information necessary to ensure correct interpretation of subsequent sections of this standard.

Section Two specifies the parameters which are necessary to ensure compatibility between analogue audio disc records and the corresponding reproducing equipment.

Section Three lists and defines the most important parameters affecting the performance of reproducing equipment, and establishes agreed methods of measurement for these parameters.

SECTION ONE — GENERAL

3. Definitions

The following definitions shall apply for the purposes of this standard. In cases where the definition appears in the International Electrotechnical Vocabulary (IEV) [IEC Publication 50], the appropriate reference is stated in brackets after the heading for the definition.

3.1 *Monophonic record* (IEV 806-03-67)

A record which carries one channel of information in the form of lateral displacements of a spiral groove.

3.2 *Stereophonic record* (IEV 806-03-68)

A record which carries two channels of information in the form of displacements of a single spiral groove in two mutually perpendicular directions.

3.3 *Rated value*

Exact theoretical or target value of a given parameter.

3.4 *Nominal value*

Approximate or abbreviated value of a given parameter.