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Cinematography — B-chain electro-acoustic reponse of motion-picture control rooms and indoor theatres — Specifications and measurements

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National foreword

This British Standard is the UK implementation of ISO 2969:2015. It supersedes BS 5550-7.4.1:1990 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CPW/36, Cinematography.

A list of organizations represented on this committee can be obtained on request to its secretary.

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INTERNATIONAL STANDARD

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Cinematography — B-chain electro-acoustic reponse of motion-picture control rooms and indoor theatres — Specifications and measurements

Réponse électro-acoustique de la chaîne B des salles de contrôle et d'exploitation cinématographique — Spécifications et mesurages

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/TC 36, *Cinematography*.

This third edition cancels and replaces the second edition (ISO 2969:1987), which has been technically revised.

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Introduction

This International Standard is to be used in conjunction with the relevant standards which cover that part of the motion picture sound system from the transducer to the input terminals of the main fader.

In this International Standard, normative text is text that describes elements of the design that are indispensable or contains the conformance language keywords: “shall”, “should”, or “may”. Informative text is text that is potentially helpful to the user, but not indispensable, and can be removed, changed, or added editorially without affecting interoperability. Informative text does not contain any conformance keywords.

All text in this document is, by default, normative, except: the Introduction, any section explicitly labelled as “Informative” or individual paragraphs that start with “Note”.

The keywords “shall” and “shall not” indicate requirements strictly to be followed in order to conform to the document and from which no deviation is permitted.

The keywords, “should” and “should not” indicate that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited.

The keywords “may” and “need not” indicate courses of action permissible within the limits of the document.

The keyword “reserved” indicates a provision that is not defined at this time, shall not be used, and may be defined in the future. The keyword “forbidden” indicates “reserved” and in addition indicates that the provision will never be defined in the future.

A conformant implementation according to this document is one that includes all mandatory provisions (“shall”) and, if implemented, all recommended provisions (“should”) as described. A conformant implementation need not implement optional provisions (“may”) and need not implement them as described.

Unless otherwise specified, the order of precedence of the types of normative information in this document are as follows: Normative prose is the authoritative definition; Tables are next; followed by formal languages; then figures; and then any other language forms.

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INTERNATIONAL STANDARD ISO 2969:2015(E)

Cinematography — B-chain electro-acoustic reponse of motion-picture control rooms and indoor theatres — Specifications and measurements

1 Scope

This International Standard specifies the measurement methods and characteristic electroacoustic frequency response of the B-chain of motion-picture dubbing theatres (mixing rooms), screening rooms, and indoor theatres whose room volume exceeds 125 m^3 (4,414 ft^3). It is intended to assist in standardization of monitoring and reproduction of motion-picture sound in such rooms. The goal is to have constant perceived loudness and frequency response from installation to installation, and from position-to-position within an installation. This International Standard does not cover that part of the motion-picture sound system extending from the transducer to the input source audio selector.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
complete sound reproduction system
system used in indoor theatres and screening rooms and in motion-picture sound post-production facilities such as dubbing theatres, mix rooms and ADR control rooms

Note 1 to entry: The complete system in an indoor theatre or review room is generally considered to consist of an A-chain and a B-chain.

Note 2 to entry: Represented diagrammatically in Figures 1 and 2.

2.2
pre-emphasized audio track
audio record, either magnetic or photographic, containing high-frequency boost equalization, which is intended for playback over de-emphasized theatre playback systems

Note 1 to entry: Now very rarely used, but found on all films prior to the mid-1970s. Part of the playback de-emphasis was generated by use of Curve-N in previous versions of this standard (see 2.10 and A.10).

2.3
wide-range audio track
audio record, either magnetic, analogue photographic or digital, which is intended for playback over theatre playback systems aligned to this International Standard

Note 1 to entry: This characteristic was previously referred as Curve-X (see 2.9). Such tracks are recorded without fixed pre- and de-emphasis. Analogue wide-range soundtracks invariably use noise reduction companding technology.

2.4
A-chain (transducer system)
part of a motion-picture audio system extending as far as the input source selector, as shown in Figures 1 and 2

2.5
B-chain (final chain)
part of a motion-picture sound reproduction system, as shown in Figures 1 and 2, commencing at the input source audio selector and terminating in the listening area

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