
PROPOSED SMPTE RECOMMENDED PRACTICE

Relative and Absolute Sound Pressure Levels for
Motion-Picture Multichannel Sound Systems —
Applicable for Analog Photographic Film Audio,
Digital Photographic Film Audio and D-Cinema

RP 200
Revision of RP 200-1999

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1 Scope

This practice specifies the measurement methods and wide-band sound pressure levels for motion-picture dubbing theatres, review rooms, and indoor theatres. Together with SMPTE 202M, it is intended to assist in standardization of reproduction of motion-picture sound in such rooms.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this practice. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this practice are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

SMPTE 202M-1998, Dubbing Theatres, Review Rooms and Indoor Theaters — B-Chain Electroacoustic Response

IEC 60268-17 (1990-10), Sound System Equipment — Part 17: Standard Volume Indicators

3 Definitions

3.1 absolute sound pressure level: The spatially averaged sound pressure level of a single channel of a theatrical sound system measured with broadband pink noise at the *reference electrical level* as a stimulus. The reference level for sound pressure is $20\mu\text{N/m}^2$.

3.2 average responding meter: A meter which provides a voltage indication proportional to the average value of the rectified signal, with ballistics as described in IEC 60268-17.

3.3 bass extension: The technique of taking low-frequency information from a film sound-track, processing it, and sending it to a subwoofer, as opposed to an LFE channel (see annex A.3).

3.4 B-chain (final chain): That part of a motion-picture sound reproduction system, as shown in figure 1 for a typical film system, commencing at the input terminals of the main rader and terminating in the listening area defined in figure 2 in which sound pressure measurements are taken (see annex A.7).

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