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Stable documents may not adhere to the latest style and format of SMPTE documents, or to current usage of normative language. Suitable care should be taken in interpretation.

SMPTE RP 25:2011
Revision of RP 25-1995

SMPTE RECOMMENDED PRACTICE

Audio and Picture Synchronization in Motion-Picture Film Relative to Leaders for Television and Theatrical Presentation for Magnetic and Photographic Records

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Approved **December 5, 2011**

Foreword

SMPTE (the Society of Motion Picture and Television Engineers) is an internationally-recognized standards developing organization. Headquartered and incorporated in the United States of America, SMPTE has members in over 80 countries on six continents. SMPTE's Engineering Documents, including Standards, Recommended Practices and Engineering Guidelines, are prepared by SMPTE's Technology Committees. Participation in these Committees is open to all with a bona fide interest in their work. SMPTE cooperates closely with other standards-developing organizations, including ISO, IEC and ITU.

SMPTE Engineering Documents are drafted in accordance with the rules given in Part XIII of its Administrative Practices.

SMPTE RP 25 was prepared by Technology Committee 20F on Film

Intellectual Property

At the time of publication no notice had been received by SMPTE claiming patent rights essential to the implementation of this Recommended Practice. However, attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. SMPTE shall not be held responsible for identifying any or all such patent rights.

1 Scope

It is the purpose of this practice to standardize the photographic and magnetic synchronizing signals and their position relative to the SMPTE Leaders for Television and Theatrical Presentation, as specified in SMPTE ST 55:2011 and SMPTE ST 301:2005.

2 Conformance Notation

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 labeled 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.

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

3 Normative References

Note: All references in this document to other SMPTE documents use the current numbering style (e.g. SMPTE ST 301:2005) although, during a transitional phase, the document as published (printed or PDF) may bear an older designation (such as SMPTE 301-2005). Documents with the same root number (e.g. 301) and publication year (e.g. 2005) are functionally identical.

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

SMPTE ST 55:2011, Motion-Picture Film — 35- and 16-mm Television Release Prints — Leaders and Cue Marks

SMPTE ST 301:2005, Motion-Picture Film —- Theatre Projection Leader, Trailer and Cue Marks

4 Usage

Two major areas for this synchronizing information are (a) in editing and rerecording operations and (b) in preparing printing materials in the laboratory. During the latter, the signal position may be used for visual and aural checking of synchronization of release prints. The synchronizing information, therefore, applies to both magnetic and photographic audio records.

5 Synchronizing Signal

The synchronizing signal shall consist of a length equivalent to one picture frame of 1000 Hz sine wave ± 10%. Modulation shall be at least 80%.

6 Location

The signal shall be so located on the audio track as to coincide with the single No. 2 (2-second) frame of the SMPTE Television Leader, or the single No. 3 (3-foot) frame of the SMPTE Theatre Projection Leader, when audio track and picture are aligned in editorial (parallel) sync.