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SMPTE RECOMMENDED PRACTICE

RP 45-1972

Use and Care of Sound Test Films



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1 Scope

1.1 This recommended practice describes the proper method for use of sound test films, the reliability of the conclusions to be drawn from their output, the precautions necessary for reasonable accuracy, and the proper storage for preservation of calibration.

1.2 This recommended practice is intended to apply to all sound test films, some of which bear a photographic recording and some a magnetic recording.

2 Preparation for reproduction

2.1 Prior to running a test film, it is desirable to make the following checks on the transport:

2.1.1 The transport should be clean, particularly at all film contact points of the film path and its associated devices, and at any optical or magnetic scanning point.

2.1.2 The mechanical alignment should be checked so that the film is properly transported and guided, and so that distortions of the web do not occur.

2.1.3 Proper supply and take-up reels should be provided, true and undamaged, free from burrs and other defects, properly aligned and seated on their spindles, and with the largest practical hub diameter, in all cases at least equal to the minimum recommended for the test film.

2.2 Prior to running any magnetic test film, the magnetic heads should be demagnetized. The entire film path should be checked for residual magnetism and demagnetized as needed.

2.3 Each test film should be examined for possible physical distortion at the time of use. If distorted, its reliability is questionable.

2.4 Each test film should be examined for dirt and, if obvious, should be cleaned before use. A photographic test film can be cleaned with any good motion-picture film cleaner. A magnetic test film can be cleaned only with a magnetic tape cleaner.

2.5 Sound test films should be run in the sequence recommended herein for the initial setup of a machine. A test film presupposes that the prior adjustments have been verified, and that the results may not conform to the intent of the calibration if this is not valid.

2.5.1 Proper widthwise alignment of the scanning beam or magnetic gap

2.5.2 Azimuth coincidence

2.5.3 Flutter

2.5.4 Amplifier gain adjustment for individual tracks and amplifier gain adjustment and balance for multiple tracks

2.5.5 Frequency response

3 Accuracy of test films

3.1 Quantitative test films are intended to be evaluated on reproduction by objective instruments whose readings provide a figure of merit by which equipment performance can be described and rated. If adjustment of performance is intended to follow evaluation, the readings from the reproduction of quantitative test films