

books reviewed



Handbook of Electronic Measurements

Edited by Moe Wind. Published by Poly-

technic Institute of Brooklyn, Microwave Research Inst., 55 Johnson St., Brooklyn 1, N.Y. 2 vols. 929 pages total. Price \$15.00 per set.

This two-volume book was written to fill the important requirement for an up-to-date reference, including a bibliography of sources, in the field of electronic measurements. The material is divided into 18 chapters, each written by a well-known authority on the particular topic. The authors of the various chapters have gone to considerable trouble to maintain reasonable continuity of style throughout the book, with gratifying results. Although methods of approach to measurements differ in various chapters, the volumes

suffer far less than most from the discontinuity caused by a number of authors.

Each chapter covers the methods of measurement of a specific quantity, starting with d-c and proceeding upwards in frequency to the microwave region. The chapters cover measurement of voltage and current, power, impedance, frequency and wavelength, time interval, phase, field intensity and radiation, bandwidth, gain, noise figure, transients, distortion, waveforms, stability, modulation, spectra, and attenuation. Special attention is paid in each case to the various sources of error in measurement, and for each of these, a complete explanation is given together with discussion of the order of magnitude and methods of compensation. In addition, a comprehensive theoretical treatment has been included wherever it seemed necessary and desirable.

One excellent feature is the first chapter, which provides an historical background and an introduction to the problem of electronic measurements. In this chapter are also to be found the definitions of the various units and a comprehensive and concise review of the fundamentals of electromagnetic theory, with emphasis placed on the application to measurements.

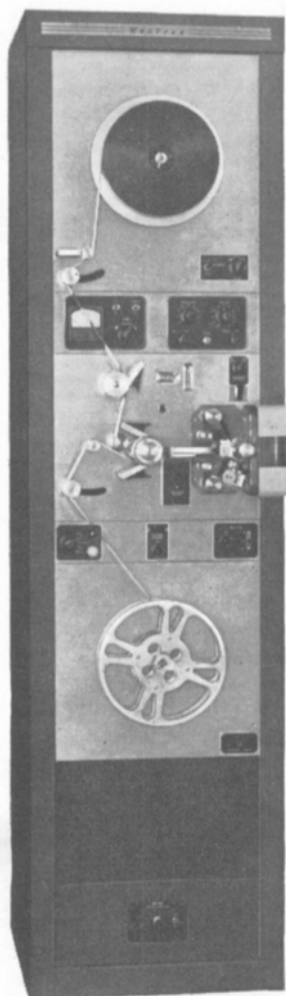
In general, the information is presented in a convenient form, and representative equipment necessary to make each of the measurements is discussed in some detail. Although, as might be expected, no material on measurements other than those in electronics is presented, much of the material on measurements at audio frequencies is of interest in the field of acoustics and related fields.

Engineers in both the motion-picture and television fields should find the book useful both as a reference and as an index to further sources of more detailed information on specific equipment and measurements. For those who have only an occasional need for information, and those who wish to acquire a fairly extensive background in this field, the book would be an excellent text for study. Each chapter is complete in itself, thus facilitating study of a particular measurement, while the book as a whole presents a comprehensive, detailed, and easy-to-understand picture of the field of electronic measurements.—*Harvey W. Mertz, Philco Corp., 22nd St. & Lehigh Ave., Philadelphia 32.*

The Handling, Repair and Storage of 16mm and 8mm Films is a new Eastman Kodak Co. publication of 12 pp. which gives instructions on how to extend the useful life of movie films. It is especially useful for schools, libraries and other users of audio-visual materials. Sections cover possible causes of damage to films and suggestions for inspection, repair and storage. The booklet is available without charge from the Sales Service Division, Eastman Kodak Co., Rochester 4, N.Y.

Also available without charge is a one-page reprint, "Anyone Interested in Higher Speed Color Film?" which explains how to obtain a speed increase of one full stop in Ektachrome Films using the E-2 process.

In Re-recorders . . . *Westrex* presents a **NEW DIMENSION OF SOUND QUALITY**



These new Westrex equipments give you:

- Magnetic and photographic film paths at separate scanning points
- 3000-foot reel capacity
- Fast rewind
- Minimum maintenance cost

These Westrex re-recorders have been designed to record and reproduce single magnetic tracks on 35mm, 17½mm or 16mm film . . . to reproduce standard photographic tracks on 35mm, 17½mm or 16mm film . . . to reproduce double-width push-pull photographic tracks on 35mm or 17½mm film.

The controls are arranged for quick accessibility and for simplicity of operation with fast run-down to the desired location for interlock operation.

The new magnetic-optical pre-amplifier provides reproduction from either standard or double-width variable-area track or from magnetic track at the same nominal output level.

The plug-in amplifier provides a flat or pre-equalized low-end characteristic. Equalization is adjustable for optical scanning and transfer losses.

Provision is made for interlock operation, either with or without a distributor, and for independent synchronous operation.

Selective post-equalization is provided which is complementary to the several magnetic recording characteristics employed in the industry today.

Westrex RA-1570-A
Re-recorder



Westrex Corporation

111 Eighth Avenue, New York 11, N. Y.
Hollywood Division: 6601 Romaine Street, Hollywood 38, Calif.

STUDIO
RECORDING
SYSTEMS
•
THEATRE
SOUND
SYSTEMS