

AIP Handbook of Condenser Microphones

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This text is the third in a series of books on modern acoustics and signal processing published by the American Institute of Physics. As its title indicates, it is devoted to the condenser microphone. The book opens with a history of the condenser microphone and the history of the Western Electric 640AA capacitance microphone. The following chapters cover the theory of condenser microphones, calibration methods, (free-field, reciprocity, and diffuse field calibrations), and calibration methods employed by national testing laboratories, including those in Japan, the United States, the United Kingdom, Germany, and Canada.

The book also deals with secondary calibration methods which are widely used in the field. These include comparison methods, calibration at high amplitudes, the use of the electrostatic actuator. Additional chapters deal with determination of the phase match of microphones and the practical aspects of handling and caring for these devices. The last chapter is devoted to the characteristics of commercially-available microphones, the data being supplied by the manufacturers.