CONTENTS

	Preface	v
	Introduction	XI
1.	Transducer Design Principle and Techniques Transducer principles and types described and classified. Magnetic design of moving iron, variable reluctance, dynamic systems; piezoelectric systems. Impedance-transforming and amplifying semiconductor microphone amplifiers. Omnidirectional and directional microphone principles. Mechanical design considerations, diaphragms and plates.	
2.	Communication Microphones and Earphones Carbon-granule microphones, variable-reluctance microphone and receiver configuration. Telephone earphones. Hearing-aid and other specialized miniature microphones and earphones. Moving-coil microphones and earphones. Piezoelectric units. Bone-conduction microphones and receivers. Noise-reducing microphones.	69
3.	High-quality Microphones and General-purpose Units Lavalier microphones. Omnidirectional moving-coil microphones. Bidirectional ribbon microphones. Unidirectional moving-coil, ribbon and capacitor microphones. Highly directional microphones. Radio microphones.	136
4.	Loudspeakers Performance in rooms. Moving-coil system and construction. Electrostatic loudspeakers. Enclosure and cabinet design. Directional loudspeakers.	185
5.	Acoustic Measurements on Loudspeakers and Transducers Subjective and objective measurements. Pressure-measuring capacitor microphones. Probe tube microphones. Computerized and automated measurements on microphones and receivers. Artificial ear couplers and measurements.	227

CONTENTS

6. Appendices

New telephone subsets and facilities. Loudspeaking telephones. Speech studies, vocoders, etc. Helium speech correction. Bone conduction.

Index

285

253