

nounced that the firm has added a number of new instruments to its equipment line for application in industrial, audio, videotape recording and related areas.

The earth station planned as the control center for satellite services supplied by RCA American Communications to NASA's communications network has been opened at the Goddard Space Flight Center at Greenbelt, Md. The satellite communication facilities have been installed in a 40- X 60-ft building including communications subsystems. The building also provides room for a remote command and control facility to monitor operations of other ground facilities within NASA's wideband network. Previously the earth station at Goddard had been operating from a mobile van. The RCA Americom earth station, dedicated to government use, will link Tracking and Data Relay Satellite System receiving antennas via RCA's satellite with NASA facilities that will process the information and direct the Shuttle as well as other programs. Satellite technology provides the high data transmission rates required for this service — from 224,000 bits/s to 1.544 million bits/s. A second RCA earth station at Goddard is expected to be completed this summer.

ViewData, a system developed by the British Post Office Telecommunications, Lutyns House, 1-6 Finsbury Circus, London EC2M 7LY, England, is designed to enable subscribers, at the touch of a button, to call up information over their telephones and display it in words or simple diagram form on their television screens.

ViewData is transmitted via the telecommunications network (a normal dial-up line from home or office) while the transmission medium for TeleText is a broadcast signal. Elements of ViewData include the terminal (a modified domestic television set); the transmission system; the computer; and the data base and its index philosophy. Development of a combined Tele-Text/ViewData receiver is underway.

RCA Broadcast Systems, Camden, NJ 08102, has announced an agreement with Sony Corp. to market worldwide the Japanese firm's line of television broadcast 1-in nonsegmented helical scan videotape recorders. Included under the terms of the agreement are the BVH-1000 studio model, the BVH-500 portable recorder, and accessories such as the BVT-1000 digital time-base corrector. The new 1-in products will conform to the recording format under consideration by the SMPTE for non-segmented helical scan recorders and will be available in NTSC, PAL and SECAM models. RCA will continue to market the Bosch segmented helical scan recorders as well as the RCA line of TR-600 quadruplex recorders and editing systems.

Chyron Corp., 223 Newtown Rd., Plainview, NY 11803, has announced the formation of a Video Products Division to be responsible for the marketing and distribution of the Chyron 3/4-in Video Cassette Cleaner and Evaluator and other specialized video products. Richard P. Boyd is Director of Marketing for the new division. Chyron graphics and titling equipment will continue to be marketed and distributed by the Chyron Telesystems Division.

Modern Talking Picture Service, a distributor of sponsored film programs and videocassettes, has entered a joint venture with Modern Telecommunications, Inc. (MTI), a newly formed company at One Dag Hammarskjold Plaza, New York, NY 10017. MTI offers videotape services including electronic editing; both on-line and off-line film-to-tape transfers; color correction; videotape duplication of 2-in, 3/4-in, and 1/2-in tape; and tape-to-film transfers employing a color separation and noise reduction process. Modern Talking Picture Service (headquarters at 2323 New Hyde Park Rd., New Hyde Park, NY 11040) is the exclusive sales agent for MTI in nonbroadcast markets.

J. Kenneth Moore and Arthur Kaiser of CBS Technology Center and William E. Glenn, formerly with CBS and at present with the Science and Technology Center at Dania, Fl., have been granted a U.S. Patent for their invention of a Digital Noise Reduction System (DNR) for color television. Development of the DNR System originated in 1971 at the CBS Technology Center under a broad program of digital television research.

The device markedly improves the quality of NTSC television pictures which have been degraded by noise. Possible applications include portable color television cameras used under marginal lighting conditions in electronic newsgathering; videotape recording and microwave and satellite transmission.

The principle of noise reduction is not new. In the past, picture averaging on a full frame basis, has been extensively used to reduce picture noise; however, with the digital techniques employed in this device, picture averaging is accomplished on a per picture element basis for the first time. The picture information in each frame is broken down into some 350,000 picture elements or pixels. This permits each pixel to be compared and averaged with its corresponding pixel in the earlier frames. This averaging process takes place at a rate of 10.7 million times per second. Improved signal-to-noise ratios up to 15 dB have been accomplished. As digital picture manipulation is refined even further, an additional 2 to 3 dB improvement may be possible with units of this type.

Joseph A. Flaherty, Vice-President of Engineering & Development for CBS Television Network said, "The DNR will improve picture quality of marginal signals and increase production flexibility by permitting the use of additional videotape generations in the recording, editing and processing of television programs."

The unit will be manufactured under license by Thomson-CSF Laboratories, Inc., at Stamford, Conn.

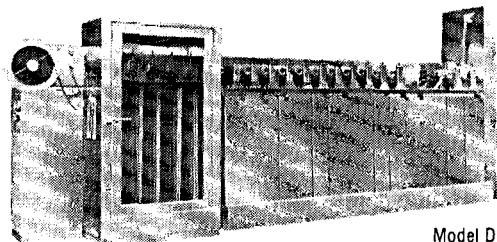
Books, Booklets, Brochures

The Beseler 35[®] sound filmstrip viewer is described in a 4-page color brochure available upon request from Charles Beseler Co., 8 Fernwood Rd., Florham Park, NJ 07932. Features described include fully automatic operation, pause/proceed capability and a large, sharp screen image.

The TCG-1432A character generator is described in a 6-page brochure available upon request from TeleMation, Inc., P.O. Box 15068, Salt Lake City, UT 84115. The brochure is illustrated by photographs and diagrams. Features described include stand-alone titling, titling over video, a color background generator, and special display features such as 12- and 24-h

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The CPR-16 Computer Programmed Reverberation

The Quad Eight CPR-16 represents a revolutionary breakthrough in the application of advanced computer technology for the professional audio marketplace.

Two years in development, the CPR-16 is the first product to embody advanced digital technology in a configuration which will allow an unprecedented degree of control over the reverberant field by signal processing.

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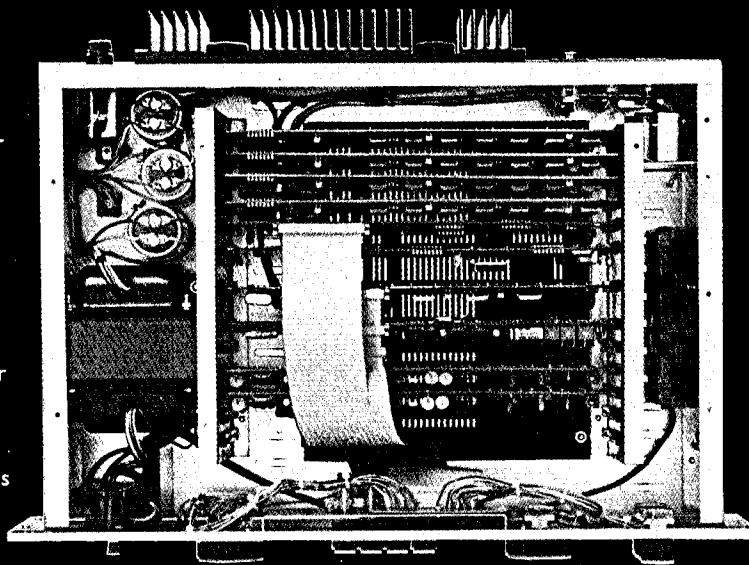
can be modified with a single control which adds a variable delay before the first echo or reflection signal.

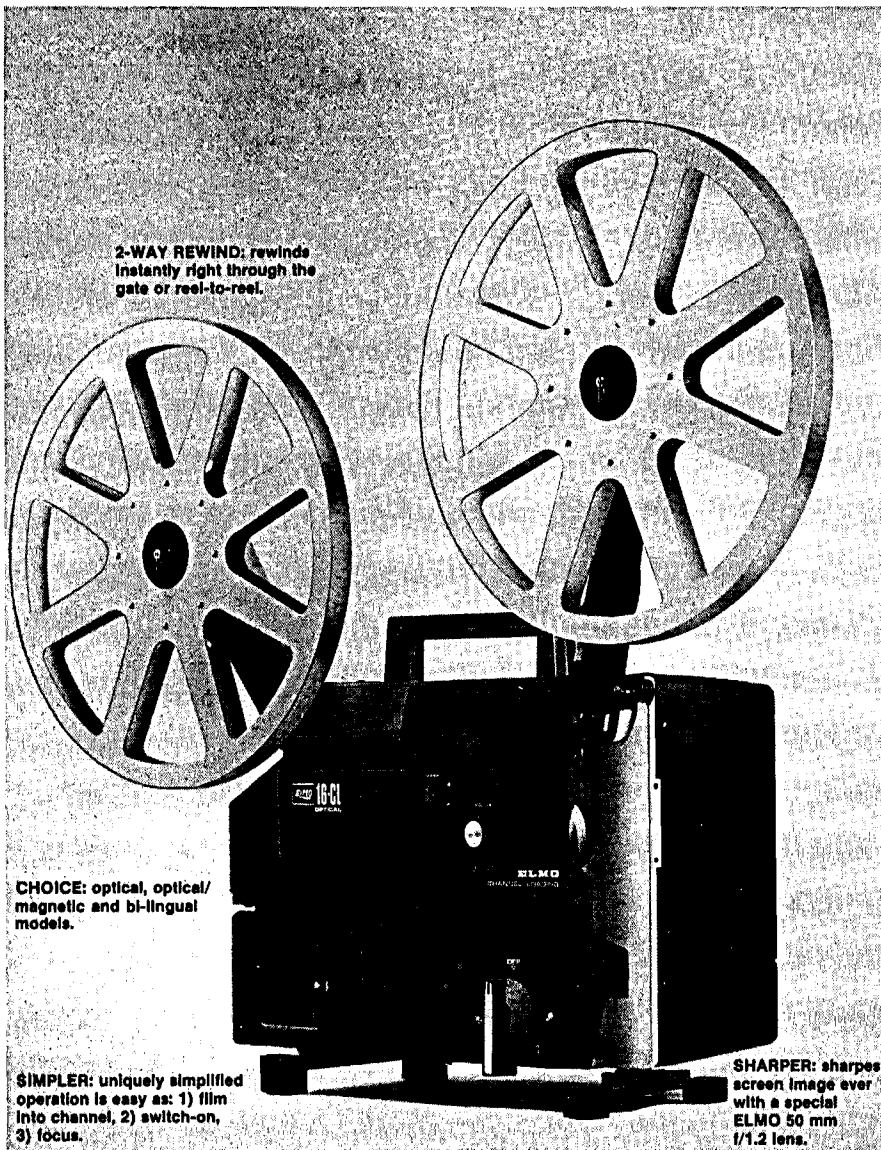
And, most importantly, the CPR-16 allows the prominence and density of resonant modes to be altered. Thus, the density and diffusion rate of echoes can be tailored to match any room, electromechanical device, or whim.

The CPR contains two individual reverb programs and one "open" program provision for future custom sound processing effects. Program 1 is analogous to a live acoustical chamber, and Program 2 creates a simulation of an artificial plate. Program 3 switching facility is pre-wired for a plug-in programming module and Program 4, ECHO allows a "Tape-Echo" simulation that is unobtainable by present mechanical methods.

The CPR-16 incorporates control over every critical aspect of the reverberant field. If you have a special application which requires a previously unavailable sound processing effect, information on custom programs is available from the factory.

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clock timers, a 12- and 24-h clock-timer calendar and five-line fixed titling.

Sound: Magnetic Sound Recording for Motion Pictures (S-75), a comprehensive guide to preparing and producing effective magnetic soundtracks, is available from Eastman Kodak Co., IPD Customer Services, Rochester, NY 14650; at a price of \$6.25. Written for professional filmmakers as well as cinema students the book (56 pages) details the diverse elements essential to the creation of effective, high-quality soundtracks. The book covers preparations for magnetic sound recording; magnetic recording production; working with the laboratory. It contains also an extensive listing of further informational sources and references. Both single- and double-system sound recording are discussed. Although the book is intended mainly for the 16mm filmmaker, most of the techniques are equally applicable to 35mm and super-8 filmmaking.

Coinciding with the 50th anniversary of sound motion pictures, the book opens with a brief history of the beginnings of early sound motion pictures.

Publication of Modern Crystal and Mechanical Filters, a book of selected reprints, has been announced by the Institute of Electrical and Electronic Engineers, 345 E. 47 St., New York, NY 10017. The book contains 464 pages of 49 reprinted papers covering the latest bandpass filters — ladder networks employing input and output electromechanical transducers, resonators and acoustic coupling elements. The mechanical filters described in the book are metal-alloy filters using discrete resonators — rods, discs or bars of wire-coupled designs. The book also contains an extensive bibliography. The book is priced at \$25.95 with discounts for IEEE members.

L-W International, 6416 Variel Ave., Woodland Hills, CA 91367, has announced a catalog describing its complete line of products. The catalog is available upon request. The firm manufactures instrumentation equipment for film analysis, its main products being 16mm slow-motion freeze-frame projectors. The catalog also describes a 16mm data recording camera as well as the recently developed 110C Film Viewer and Digitizer for analyzing, computing and digitizing information from film or other images. The information may be interfaced to computer, programmable calculator, perforated tape or other peripheral equipment.

A Metric Consumer Information Kit containing a wallet-sized conversion card and two booklets, *The Metric System Day-to-Day* and *A Metric Reference for Consumers*, is available from the American National Metric Council (ANMC), 1625 Massachusetts Ave., N.W., Washington, DC 20036, at a price of \$1.00. ANMC is an organization whose purpose is to provide guidance and coordination for voluntary conversion to the metric system in the United States.

A Brief Guide to Microphones, a 15-page instructional booklet, is available upon request from Audio Technica U.S., Inc., 33 Shiawassee Ave., Fairlawn, OH 44313. The booklet explains microphones through eight basic terms — dynamic, condenser, omnidirectional, unidirectional (or cardioid), proximity effect, feedback, impedance and sensitivity. The booklet is illustrated by diagrams. The information is intended to apply to all makes of microphones.