

# current literature



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 The Editors present for convenient reference a list of articles dealing with subjects cognate to motion-picture engineering published in a number of selected journals. Photostatic or microfilm copies of articles in magazines that are available may be obtained from The Library of Congress, Washington, D.C., or from the New York Public Library, New York, N.Y., at prevailing rates.

**American Cinematographer** vol. 41, May 1960  
 The Space age—New Challenge for Cinematography (p. 288) *J. Mermoud*  
 Ryder Sync Motor Drive (p. 293) *J. V. Mascelli*  
 Progress Reports on Film (p. 296) *E. J. Townell and L. A. Shaffer*  
 Panavision's Progress (p. 302) *D. Scot*  
 Some Aspects of Cinematography for Color TV Films (p. 306) *S. P. Solov*

vol. 41, June 1960

The Development of Follow-Focus in Cinematography (p. 346)  
 Shooting 16mm Plus-X at 1000 ASA (p. 356) *G. C. Fenyon*  
 Mitchell Introduces New 35mm Reflex Camera (p. 360) *J. V. Mascelli*  
 Tracking Music for TV Films (p. 362) *L. W. Gordon*  
 Optical Effects for TV Films and Commercials (p. 366) *M. Levy*  
 Single-System Film Production (p. 368) *J. Bohmer*  
 A Synchronous Quarter-inch Tape System for Film Sound Recording (p. 370) *G. M. Gallo-way*

vol. 41, July 1960

New, Fast Color Films Meet Jet-Age Needs (p. 416) *N. Simmons*  
 Extension Tubes in Cinematography (p. 424) *J. Henry*

## BBC Engineering Division Monograph

No. 29, Apr. 1960

A Summary of the Present Position of Stereophonic Broadcasting (28 pp.) *D. F. L. Shorter and G. J. Phillips*

## Bolex Reporter

vol. 10, No. 3, 1960

Underwater Movies Expand Scope of the Scuba Set (p. 14) *B. McNeely*  
**British Kinematography** vol. 36, March 1960  
 "Smell-O-Vision" (p. 60)  
 Commercial Television: British versus Transatlantic Methods of Presentation (p. 65)  
 The New Colortran Lighting Units (p. 73) *P. Cavazzuti*

## International Photographer

vol. 32, May 1960

Schott Rare Earth Glass Reason for High Quality of West German Lenses (p. 98)  
 Videotape in Commercials (p. 99) *R. L. Lawrence*  
 Sound From Kodak (p. 101)  
 The Cinephonic Eight (p. 104) *G. J. Toscas*

vol. 32, June 1960

Ampex Introduces Four New Developments (p. 120)  
 Thorium Glass Radiation Insignificant Except Under Two Conditions, Test Show (p. 123) *H. Klarmann*  
 Bolex Sonorizer Puts Sound on Film (p. 129)

## International Projectionist

vol. 35, April 1960

Large-Area Frames and Picture Quality. Part 2 (p. 5) *R. A. Mitchell*

vol. 35, May 1960

Non-Intermittent Projector Operating Principles Detailed; New Development Introduced (p. 5) *J. G. Jackson*  
 General Electric's Thermoplastic Recorder (p. 14)

vol. 35, June 1960

Curved Film Gates (p. 5) *R. A. Mitchell*

## Jour. Brit. IRE

vol. 20, Mar. 1960

Recommended Method of Expressing Electronic Measuring Instrument Characteristics: Pt. 3. Low Frequency Generators (p. 197) based on report by *M. B. Martin*

## Jour. Inst. Telecommunication Engineers (New Delhi)

vol. 6, Dec. 1959

Astigmatism in Cathode Ray Tubes (p. 31) *N. Palla*

Effects of Obstacles and Reflections on the Propagation of VHF Television Signals (p. 47) *B. Chatterjee*

Nomogram for Determination of Audio Power in Indoor Public Address System (p. 51) *N. K. D. Choudhury*

## Journal of the Television Society

vol. 9, Jan.-Mar. 1960

Television Film Production (p. 167) *J. K. Byers*  
 A Medium Screen Colour Projector (p. 176) *T. M. C. Lance*  
 Deflection Techniques for 110 Picture Tubes (p. 185) *B. Eastwood*

## Kino-Technik

vol. 14, Apr. 1960

Probleme des deutschen Industriefilms (p. 99) *F. Mörtzsch*  
 Goniometeruntersuchungen an Stereo-Tonträgern und-Geräten (p. 101) *K. O. Bäder*  
 Lautsprecher mit erhöhtem Präsenzgrad (p. 105) *H. Harz*  
 Klebetechnik in Atelier- und Kopierwerk (p. 111) *W. v. Bohnhorst*  
 Moderne Kino- und Photo-Objektive (p. 114) *H. Naumann*

(Concluded on page 687.)



## Scratches on Film Irritate Audiences

Scratches are havens for dirt, and refract light improperly. On the screen, they mar the picture and may distract attention. If on the sound track, they produce offensive crackling.

Fortunately scratches can almost always be removed — without loss of light, density, color quality, or sharpness.

Write for brochure

**PEERLESS**  
 FILM PROCESSING CORPORATION  
 165 WEST 46th STREET, NEW YORK 36, NEW YORK  
 959 SEWARD STREET, HOLLYWOOD 38, CALIF.

# Exhibit Directory

**Animation Equipment Corp.** Booth 65  
38 Hudson St., New Rochelle, N.Y.

*Exhibiting:* New electronic-controlled compound. Features extreme, continuous accuracy achieved by joystick control of the directional movement of the compound.

*Personnel:* Ed Willette, Gregory Bell.

**AnSCO Division, General Aniline & Film Corp.** Booths 59, 60

Vestal Parkway East, Binghamton, N. Y.

*Exhibiting:* Military cameras and rapid process equipment; industrial camera; 16mm suitcase type rapid processor; AnSCO Automatic Recording Microdensitometer. Equipment, in so far as practicable, will be demonstrated.

*Personnel:* A. L. Derr, H. Kirby, Arthur Nields, E. G. Stambouljian, C. W. Seager.

**Arriflex Corp. of America** Booths 1, 2  
257 Park Ave. South, New York 10  
7303 Melrose Ave., Los Angeles 46

*Exhibiting:* Arriflex 16 with buckle switch and buckle switch over-ride, signal generator and automatic slate; new Arriflex 35 special high-speed model; Arriflex 35 model II BV with variable shutter; varifocal lenses, 140mm Angenieux

for Arriflex 35 and Arriflex 16, 85 Pan Cinor for Arriflex 16; Auxiliary Target Finder; nickel cadmium batteries, models for both Arriflex 16 and Arriflex 35, hermetically sealed new improved cells, built-in Mini Charger. The 17.5 to 70mm Angenieux in Arriflex mount will be shown with a new motor-driven zoom movement.

*Personnel:* Erich Kestner (Arnold & Richter), Paul Klingenstein, Victor James.

**Avco Corp., Research & Advanced Development Div.** Booth 41  
201 Lowell St., Wilmington, Mass.

*Exhibiting:* Rotating Mirror Camera (writing rate: 3.9mm/ $\mu$ sec); Rotating Drum Camera (writing rate: 0.19mm/ $\mu$ sec); Kerr Cell Shutter (exposure times from 0.005 to 0.1  $\mu$ sec); Shadowgraph Photograph System to photograph projectiles moving in the 14,000 ft/sec range, and high-intensity spark light sources.

*Personnel:* Richard J. Burns, Bernard Slavin.

**Beckman & Whitley, Inc.** Booths 29, 30  
973 San Carlos Ave., San Carlos, Calif.

*Exhibiting:* Ultra-High-Speed Framing and Streak Cameras covering the range in framing rates from 200 to 4.3 million pictures/sec and covering the range in streak rates from 60 in./sec to one million in./sec.

*Personnel:* Robert D. Shoberg, Jack Patterson, Frank Provost.

**Bell & Howell Co.** Booths 7, 8  
7100 McCormick Rd., Chicago 45, Ill.

**Benson-Lehner Corp.** Booths 55, 56, 57  
11930 W. Olympic Blvd., Los Angeles 64

*Exhibiting:* HS 16, a 16mm instrument with intermittent movement, speed to 400 frames/sec, designed to withstand severe environmental conditions; HS 35, instrumentation camera, intermittent motion, register pin movement, 300 frames/sec; HS 70, 70mm instrumentation camera, intermittent movement, gear shift speeds to 80 pin registered frames/sec; UHS 35, Ellis Ultra-High-Speed Framing Camera, 500 frames/sec to 1.6 million frames/sec, total frames to 960, electronically controlled kerr cell shutter; Puppet, timing and correlation system for instrumentation cameras.

*Personnel:* Dave Webster, Len Reed, Guy Hearon, Robert Saunders.

**Camera Equipment Co.** Booth 42  
315 West 43 St., New York 36  
1335 East 10 Ave., Hialeah, Fla.

*Exhibiting:* Waddell High-Speed Camera, disc shutter governor-controlled model and double and single-motor models; Weinberg-Watson Model

## Equipment Papers and Demonstrations

Wednesday morning, October 19, from 9:30 to 12:00, exhibitors will present the following equipment papers and demonstrations. A complete list will be published in the 5th Congress Program

**Beckman & Whitley, Inc.:** Model 339 Continuous Writing Streak Camera.

**Benson-Lehner, Inc.:** Puppet Timing System and Ultra-High-Speed Framing Camera.

**Camera Equipment Co.:** Waddell High-Speed Camera, Weinberg-Watson Model B 16mm Projector and CECO Red Lake Stop-Motion 35mm Projector.

**Eastman Kodak Co.:** New Color Films for High-Speed Motion-Picture Photography.

**Florman & Babb, Inc.:** Acmade Mark II Editor.

**L-W Photo Products, Inc.:** L-W Industrialist 16mm Stop-Motion Instrumentation Projector.

**Prestoseal Mfg. Corp.:** 16-35-70mm Butt-Weld Splicer for intermixed material.

**Traid Corp.:** Traid 180° Lens for 35mm Cameras and Photo-Sonics 16mm High-Speed Prism Camera.

**Carl Zeiss, Inc.:** Zeiss Interferometer.

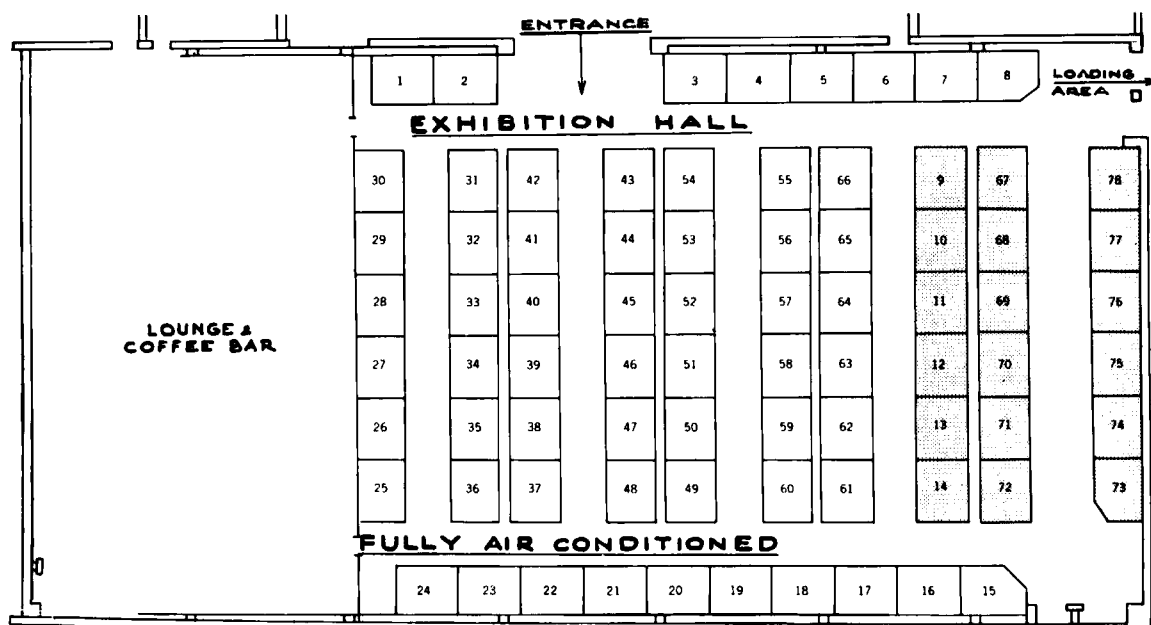
# Exhibit



## Fifth International Congress on High-Speed Photography

Displays and demonstrations of instrumentation and high-speed photographic equipment from manufacturers all over the world. See the newest developments in specialized electronic, optical and mechanical photographic instrumentation devices for all applications.

**Government and Industry Exhibits will be featured.**



### FOR RESERVATIONS

contact the Exhibit Chairman:  
 Keith B. Lewis, Eastman Kodak Co.,  
 1000 Connecticut Ave., N.W.  
 Suite 1101, Washington 6, D.C.

### EXHIBIT SPACE RENTAL RATES

|  |       |
|--|-------|
| Booths 1-2-3-4-30-31-42-43-54-55         | \$350 |
| Booths 15 to 19 incl. and 61 to 66 incl. | 250   |
| All other booths                         | 300   |

Booths 9 to 14 and 67 to 78 inclusive are being reserved for military and institutional exhibits.  
 All booths are 8 x 10 ft in size.

**October 17-21, 1960**

**SHERATON-PARK HOTEL, WASHINGTON, D.C.**

B 16mm Projector; CECO Red Lake Stop-Motion 35mm Projector; CECO accessories for high-speed and normal photography.

*Personnel:* Frank C. Zucker, Burton N. Zucker, John H. Waddell, Eugene H. Levy, Allen Green.

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**Canadian Applied Research Ltd.** Booth 47  
750 Lawrence Ave., W., Toronto 19, Ont., Canada

*Exhibiting:* The CARL Automatic Tri-Film Processor. Transportable processor develops and dries black-and-white negative or positive film at speeds up to 6 ft/min; 400-ft magazine; accommodates 4 16mm films simultaneously, 2 35mm or 1 70mm film; processes lengths 10 ft to 400 ft.

*Personnel:* W. V. O'Leary.

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**Computer Measurements Co.** Booths 15, 16,  
12970 Bradley, Sylmar, Calif. 17

*Exhibiting:* Automatic cleaner for 70mm instrumentation film; automatic 70mm film splicer for continuous processing; Printer Robot, programming tape-operated system for Bell & Howell continuous printers; keyboard-perforator for preparing tapes for automatic printer operation; automatic light-intensity controller for step printers; air-vacuum squeegee kit for film printers; color timer for improved printing color balance.

*Personnel:* J. L. Cassingham, George W. Greenville, T. Connors.

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**E. I. du Pont de Nemours & Co., Inc.** Booth 48  
1007 Market St., Wilmington 98, Del.

*Exhibiting:* High-speed CRONAR\*-based (\*Du Pont's trademark for its polyester photographic film base) motion-picture films. The films will be demonstrated to show the dimensional stability of CRONAR when subjected to extreme temperatures.

*Personnel:* F. Gerretson, D. Peak, R. Perrine, T. Harding, W. Lockwood, P. Porter, Jr., J. Vokoun.

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**Eastman Kodak Co.** Booths 33, 34  
Rochester, N.Y.

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**Edgerton, Germeshausen & Grier, Inc.** Booth 21  
160 Brookline Ave., Boston 15

*Exhibiting:* Mark VI Sensitometer; No. 501 Stroboscope; No. 2307 Double Flash Light Source for silhouette photography; Microscope Illuminator for macro- and microphotography; Type 2208 Rapatronic Camera; underwater photographic equipment; oceanographic cameras, light sources, sonar pingers which can be used for underwater photography up to the ultimate depth of 37,500 ft; XLS-10 Multiflash Unit; XLS-1 Electronic Flash Unit for night aerial photography; Micro

Flash Unit for stopping motion of rapidly moving objects.

*Personnel:* M. D. Altfillisch, B. F. Roberts, C. W. Wyckoff, J. Treadwell, S. O. Raymond, H. E. Edgerton, A. C. Johnson.

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**Fairchild Camera & Instrument Corp.** Booth 66  
580 Midland Ave., Yonkers, N.Y.

*Exhibiting:* Fairchild HS-401, 400-ft model, range of 10 to 8000 frames/sec; HS-100 Airborne Model, range of 32 to 2400 frames/sec; HS-101, range of 32 to 8000 frames/sec; HS-1101 Lens Kit; HS-2551 Tripod; Camera and Event Synchronizer; HS-401-C1 motor kit; HS-10500 Timing Light Generator; HS-5101B Full Wave Rectified Power Unit; HS-5004B Rechargeable Battery Pack; motors for high-speed cameras.

*Personnel:* Gerard J. Morio, Peter N. Payne, Herbert M. Oshan.

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**Field Emission Corp.** Booth 22  
210 N. Ford St., McMinnville, Oregon

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**Filmline Corp.** Booth 35  
43 Erna St., Milford, Conn.

*Exhibiting:* Model RT-S Processor for 16mm reversal and negative/positive film, dry to dry in 1 min, wash tank after each chemical solution, film squeegee on each tank, temperature control system, stainless steel Type 316 tanks, 1200-ft magazine for daylight operation, variable speed transmission, tachometer, new impingement-type film drying cabinet and related equipment.

*Personnel:* Edward B. Krause, John Jiruska.

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**Oscar Fisher Co.** Booth 58  
Newburgh, N.Y.

*Exhibiting:* Autotrac Processall—no-thread automatic processing machine for motion-picture, roll and sheet film and paper photographic materials up to 12-in. width and 1000-ft length, at operating speeds of 50 ft/min for motion-picture film and 9 ft/min for roll and sheet films and papers.

*Personnel:* Oscar Fisher, Stephen Fisher, Milton Kinsler.

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**Flight Research, Inc.** Booths 39, 40  
P.O. Box 1F, Richmond 1, Va.

*Exhibiting:* MULTIDATA cameras: 16mm Model III Series; 35mm Model IV Series and 70mm Model V Series; New Model VI-4 AUTEX, automatic exposure control; Model A-32 Series Intervalometer; Model 122 STROBEX Electronic Flash Unit; 35mm AUTOMAX Series Data Recording Camera; PROTECT-A-PRINT; Model A-50 Pulse Time Synchronizer.

*Personnel:* Wm. T. Curdts, III, John C. Pennock, Donald Bass, William K. Glave.

**Kino-Technik** vol. 14, May 1960  
 Hochfrequenzkinematographie mit Fastax-Zeitdehnerkamas im Millesekunden-Bereich (p. 137) *F. Kolb*  
 Die Impulsampe SPP 800 W in der Kinoprojektion (p. 141) *R. Doeckel*  
 Neue Kopier- und Entwicklungsmaschinen für 8-mm-Film (p. 147)

**Proc. Inst. Electrical Engineers**  
 vol. 107 Pt. B No. 32, Mar. 1960  
 High-Power Transmitting Valves With Thoriated Filaments for Use in Broadcasting (p. 172) *H. S. Walker, W. H. Aldous, R. G. Roach, J. B. Webb and F. D. Goodchild*

**RCA Review** vol. 21, Mar. 1960  
 Simultaneous Signal Separation in the Tricolor Vidicon (p. 8) *H. Borkan*  
 Ringing in Horizontal-Deflection and High-Voltage Television Circuits (p. 17) *T. Murakami*  
 The Influence of Magnetic Tape on the Field of a Recording Head (p. 45) *D. Della Torre*  
 Theoretical and Experimental Study of Wide-Band Paraboloid Antenna With Central-Reflector Feed (p. 94) *P. Foldes and S. G. Komlos*  
 Measurement of Semiconductor Properties Through Microwave Absorption (p. 124) *R. D. Larrabee*

**Research Film** vol. 3, No. 5, 1960  
 Time-Lapse Cinematography With the Interference Microscope (p. 267) *G. G. Rose*  
 Filming Light-Emitting Particles in Motion (Metal Drops in Vacuum Steel-casting) (p. 297) *D. Elle*

## Abstracts

Abstracts from other Journals, chosen for importance and timeliness, are published in the *Journal* from time to time. The greater number of these abstracts are translations, chiefly from the U.S.S.R., and made available by the *Kodak Monthly Abstract Bulletin*.

These subject areas are grouped below:  
 Cameras and Equipment  
 Film and Its Properties  
 Color Photography and Color Development  
 Film Processing (Apparatus and Chemistry)  
 Printing and Optics  
 Sensitometry and Image Structure  
 Projection

### CAMERAS AND EQUIPMENT (except High-Speed)

#### Camera Shutter With a System of Complete Internal Reflection

The action of the patented shutter is based on the complete internal reflection of the light rays. The shutter consists of two 90-degree, glass prisms, joined together along the hypotenuse faces, between which a small interval is left. In the latter is a transparent film. The space between the film and one of the prisms is filled with a transparent liquid, the pressure of which can be controlled. On increasing the pressure, the film is pressed against the hypotenuse face of the second prism, and both prisms form a transparent cube, transmitting the light rays. On lowering the pressure, the film comes away from the second prism, and the light rays cannot pass through the cube, since they experience complete internal reflection at the

hypotenuse face. S. C. G.—[Translated from *Referativnyi Zhur., Fiz.*] Japanese 7872. B. Takao. Filed Sept. 11, 1956.

#### For the Future Development of the Material and Technological Basis of Cinematography

At present the projected extension of the motion-picture network in the Soviet Union is hampered by insufficient output of apparatus and motion-picture film of the required quality. Plans for the next two or three years envisage the reconstruction of a number of apparatus factories in order to provide a sufficient number of projectors for the new cinemas, and also an increase in the number of processing laboratories, together with the improvement of those

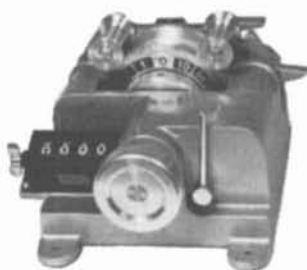
already in existence. Similar reconstructions and extensions are planned for the manufacture of motion-picture film, particularly color stock, and, if the plans for the manufacture of nonflammable base are fulfilled by 1962, the transition to safety base should be practically complete. A feature of the plans is the development of the industry in provincial centers. (S. C. G.) —*Tekh. Kino i Televideniya*, 4:1-4, Jan., 1960, (in Russian).

#### Motion-Picture Apparatus Factories in 1960. (I) Moscow "Kinap." (II) Odessa "Kinap." (III) Samarkand "Kinap."

Descriptions are given of apparatus being made by the three main Soviet

## PRECISION® FILM EDITING EQUIPMENT

### Precision Unitized Film Synchronizer



Pat. Appd. For  
 Model S635-1  
 Single Sprocket 35mm  
 Synchronizer \$95.00  
 Single Sprocket 16mm  
 Synchronizer \$95.00  
 (not shown)



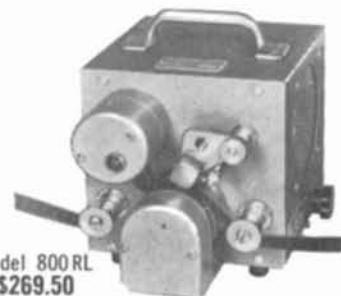
Sprocket Assemblies  
 16 or 35mm \$32.50 ea.

Model S616-3  
 Three sprocket  
 16mm Synchronizer with  
 Spacer and Magnetic head.  
 \$215.75

optical-magnetic  
 sound  
 readers

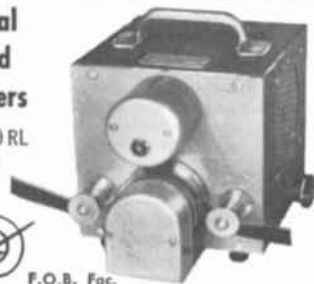


Model 800  
 \$259.50



Model 800RL  
 \$269.50

optical  
 sound  
 readers



Model 600RL  
 \$195.00



F.O.B. Fac.

magnetic film  
 and tape  
 sound  
 reader



Model 700  
 \$198.00

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