

PHOTO & SOUND COMPANY

audio-visual catalog

Price Changes

Many prices have changed since this was printed. Contact Photo & Sound for the latest information.



16mm Sound Projectors

Bell & Howell Specialist Autoload® FILMOSOUND



MODEL 1552B – The ultimate in modern, versatile 16mm sound projectors

MODEL 1552B FEATURES

- **AUTOMATIC THREADING** for easy and rapid set-up. The ultimate in film handling convenience. Fully automatic reel-to-reel threading onto 400' take-up reels with the time-proven Bell & Howell Autoload system.
- **BRILLIANT IMAGES** are provided by the 2" f/1.2 Super F Proval lens; and the 50-hour/250 watt tungsten-halogen lamp. The lamp features an integral dichroic reflector to maximize light on the film surface while minimizing heat.
- **BRIGHT-NORMAL SWITCH** allows you to choose between maximum screen illumination for special situations, and optimum lamp life.
- **BELL & HOWELL DIRECTAMOTION™**, allows you to show sequential action by stopping and starting the film, on frame, even one frame at a time; in forward or reverse. A useful advantage when showing educational films.
- **MODULAR PLUG-IN AMPLIFIER** of solid-state design, for reliability, simplicity of servicing, and a full ten-watts RMS output.
- **LENS LOCK SYSTEM** to discourage unauthorized lens removal.
- **BUILT-IN STORAGE COMPARTMENT**
- **PLUS THESE ADDITIONAL FEATURES:** Automatic loop and systems restorers. Still picture control. Compact design; all metal case. Gear-driven reel arms. Integral speaker and external speaker jack. Accepts 400' to 2000' reels. Illuminated control panel.

CHOOSE FROM THESE MODELS

Bell & Howell offers 3 Autoload and one manual-threading 16mm motion picture projectors in the 1500 series. All are handsomely styled in aqua and charcoal.

The full-featured **1552B** has Directamotion, still picture control, and a 2" f/1.2 lens, putting more light on the screen than previous models, in both the running position and the still or Directamotion modes.

The new **1550L** is lighter in weight because it uses a line voltage 25 hour/250 watt tungsten-halogen BHB lamp (elim-

inating the transformer). The amplifier on/off switch is no longer separate from the projector on/off switch; both turn on at the same time. The 1550L does not have Directamotion and still picture control.

The **1545B**, with 2" f/1.6 lens, has the same features as the 1552B, except for Directamotion, still picture control, the illuminated control panel and the side mechanism door. The **1540B** is the same as the 1545B, except it is manual-threading.

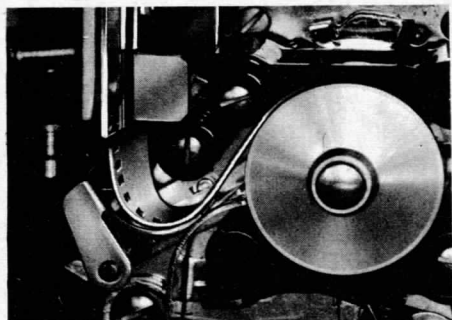
		Suggested List
1552B	Full-featured 16mm projector with 2" f/1.2 Super F Proval Lens	\$840.00
1552Y	Same, with Filmovara zoom attachment	897.00
1550L	Lightweight version of 1552B (using BHB lamp), less Directamotion and Still Picture Control	800.00
1550Y	Same, with Filmovara zoom attachment	857.00
1545B	Same as 1552B, with 2" f/1.6 lens, less Directamotion, Still Picture Control, illuminated control panel, and side mechanism door	782.00
1545Y	Same, with Filmovara zoom attachment	839.00
1540B	Same as 1545B, but is manual-threading	756.00
1540Y	Same, with Filmovara zoom attachment	813.00

ACCESSORIES

EMM/EKS	Replacement Lamp for 1500 series (except 1550L) – 50 hours, 250 watt	\$12.60
BHB	Replacement Lamp for 1550L model only – 25 hours, 250 watts	10.48
BAK	Exciter Lamp	2.90
44468	Protective Dust Cover for 1500 series	15.00
014128	Directamotion Remote Control (for 1552 models only)	36.00
014570	400' Plastic Autoload Take-up Reel	1.50

16mm Sound Projectors

THE ENTIRE 1500B SERIES OFFERS YOU THESE ELECTRICAL, OPTICAL AND MECHANICAL FEATURES FOR DURABILITY, BRILLIANCE AND CONVENIENCE

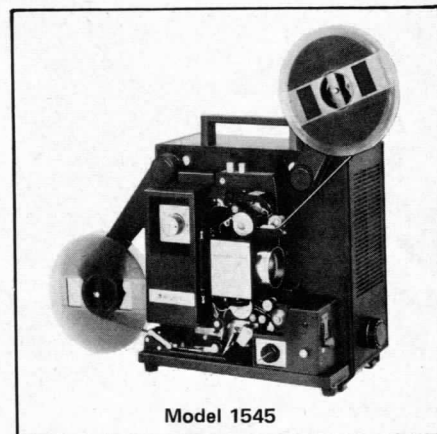


AUTOMATIC LOOP RESTORER. The Auto-load automatically restores the loop if film is worn or has torn perforations. Three-tooth shuttle engages three perforations at a time to keep the film moving smoothly, safely.



COMPLETE FILM PROTECTION. Film travels safely over recessed sprockets; the picture area and sound track float in air. Carbo-nitride guide rails.

- Bright/Normal Lamp Switch
- Anti-theft Lens Lock
- 50 Hour/250 Watt Tungsten-Halogen Lamp with Integral Dichroic Reflector
- Plug-in Solid State Amplifier with Integrated Circuit
- Fast warm-up time for amplifier
- Transformer Isolated Amplifier
- 10 Watts RMS output
- 350 Watt total power consumption
- Integral Speaker
- Standard 1/4" Phone Jack for Auxiliary Speaker (8 ohms)
- Built-in Film Leader Trimmer
- Low center of gravity for maximum stability
- Quiet operation
- All Metal (die-cast Aluminum) Case
- One-hand Precision Tilt Knob
- Enclosed Storage Compartment for Cord, Reel and Spare Lamps
- Synchronized Automatic Loop Restorer
- Systems Restorer
- Reverse Control
- Compact, trim modern design
- Snap-on Lamp House Cover
- Direct Drive Blower



Model 1545

- Silent and Sound Speeds
- 3 Interruption Shutter
- Gear Driven Reel Arms
- Precision Frame Control
- Swing-out Gate
- Carbon-Nitride treated Guide Rails
- Stellite Shuttle
- Accepts Reels from 400' to 2000'
- Folding, Gear Driven Reel Arms with Push Button Detent
- Push Button Activated Rewind
- Functionally Located Controls
- Factory Sealed lubrication system
- U/L® Listed

Accessories for all Bell & Howell Specialist Projectors

Filmovara® Attachment

The Filmovara attachment can be used on the 1.5" f/1.6, 2" f/1.6, 2.5" f/1.6, 2" f/1.2, and the 3" f/1.6. This attachment lets you change the size of your picture without moving the projector or screen. As an example, using the Filmovara on a 2" lens, you can place the projector and screen anywhere from 22 to 28 feet apart—and a twist of the Filmovara attachment will enlarge or shrink the picture to fill a 41" x 56" screen. See the preceding page for a projection table.

020251 Filmovara Attachment \$73.00

ANAMORPHIC LENS ATTACHMENT

Show breathtaking "wide screen" movies with your 500 or 1500 Series Film-ound. Fits 1.5", 2", 2.5", 3" and 4" lenses.

020652 Anamorphic Lens Attachment \$157.99

201357 Anamorphic Lens Adapter for 1 1/2", 2", 2.5" and 3" lenses \$10.00

202782 Anamorphic Lens Adapter for 4" lens. \$12.00

Orchestricon II 12"-Speaker

This speaker, built to ultra-quality specifications, provides the ultimate in sound. It's styled and finished to match the 500 series of projectors. Complete with a 50' cord and convenient, hand-winding cord reel.

012568

\$99.00



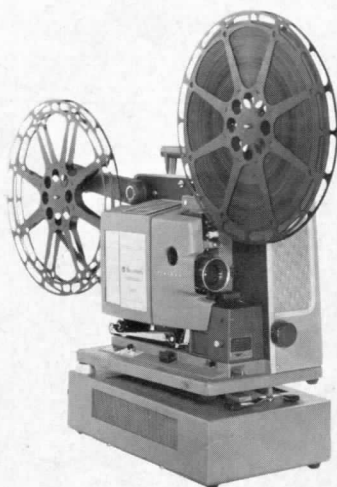
FIXED FOCAL LENGTH PROJECTION LENSES

For 1500 and 500 Series Projectors

Focal Length	Speed	Cat. No.	Price
.625"	f/2.1	201355	\$ 75.00
1"	f/1.9	201082	58.00
1.5"	f/1.6	201000	63.00
2"	f/1.6	021257	69.00
2"	f/1.2	021247	99.00
2.5"	f/1.6	203699	87.00
3"	f/1.6	201002	96.00
4"	f/1.6	201004	126.00

For special 16mm lenses, see Buhl on page 114.

High-Intensity 16mm Auditorium Projectors



Model 567

Models 566T & 567A

Featuring approximately six times the light output of mazda systems, the Model 567 Filmosound enables you to deliver a bright image in auditorium projection as well as in other locations requiring high output, or long projection distances. The projector utilizes a separate lamp power supply, designed to help maximize lamp life. An exclusive pushbutton changeover system makes dual projector operation easy and effective. Model 566T, with G.E. Marc-300 lamp, provides approximately four times the light output of mazda systems.

Optional metal pedestal designed for a projection booth, (free standing or anchored by four bolts to the floor) or for the rear of a projection room. The adjustable top permits tilting the projector to suit screen position. Fine height adjustment is made with front leveling feet on projector. Cup mounting holds projector in position. Cabinet has space for reels and storage of other items.

015092 Pedestal Base \$208.00
for 566T or 567

MODEL 1570 SERVO REEL STATION

Of special interest to 566T and 567 users is the Model 1570 Servo Reel Station, which accommodates 24 and 30-inch reels, to provide up to 4 continuous hours of film projection. The Servo Reel film system also features high-speed rewind and automatic stop at the end of the reel.



Pedestal Base

1570 SERVO REEL STATION with 2 reels (Specify 24 or 30")
\$1450.00

479046 24" Accessory Reel (5000') 55.00

255444 30" Accessory Reel (9000') 65.00

MODEL 567A

\$1906.00

- **ILLUMINATION** — GE MARC-350/16T lamp, a specially designed external power supply, and precision Bell & Howell optical system assure large bright pictures in situations requiring long projection distances, or with high ambient light levels. The metal arc lamp uses 350 watts of power and makes 50% more light available for projection when compared with other compact discharge type lamps. Average lamp life is 50 hours.
- **IMPROVED COLOR** — and visually judged screen uniformity.
- **2" f/1.2 LENS.** The new computer-formulated Bell & Howell 2" f/1.2 Super F Proval lens provides the latest in illumination technology by virtue of its improved transmission and image sharpness.
- **WIDE CHOICE OF ACCESSORY LENSES.**
- **AUTOMATIC THREADING** for easy and rapid set-up. Convenient film handling is provided by the time-proven Bell & Howell Autoload system.
- **PUSHBUTTON CHANGEOVER SYSTEM** allows dual projector operation for uninterrupted showing of multi-reel films. Two accessory cables required.
- **PORTABILITY AND STORAGE CONVENIENCE** — with the completely self-contained lamp power supply.

MODEL 566T

\$1669.00

Model 566T offers all of the features listed above, except the GE MARC-350/16T lamp and the related power supply. The G.E. MARC-300 lamp and matched power supply provided with the 566T offers up to four times the light output of mazda systems, with an average lamp life of 25 hours. Projector controls on the 566T are located on the side of the unit rather than at the rear as on the Model 567.

Other Features of Both Models

- Automatic Loop Restorer
- Fiber-Glass Case, Lightweight Castings
- Folding, Gear Driven Reel Arms
- Accepts up to 2000' Reels
- Carbo-Nitride Treated Guide Rails
- 3-Tooth Stellite Shuttle
- Illuminated Control Panel
- Dial Focusing
- Fast Rewind
- Reverse Projection
- Factory Sealed Lubrication
- Precision Pre-Aligned Lamp Mounting
- 48 Cycle Shutter
- Integral Speaker and Auxiliary Speaker Jack
- Solid State Audio Amplifier with 10 Watt (RMS) Output
- Separate Blower Motor for Lamp Cooling
- U.L. Listed

ACCESSORIES

MARC-300/16 Replacement lamp for Model 566T. \$41.95

MARC-350/16T Replacement lamp for Model 567. . . . 50.50

40837 12' Power Cord 7.50

013012 10' Changeover Cable — Two required for dual operation 9.75

16mm Filmchain CCTV Projectors

Models 561 & 562

Bell & Howell 16mm Filmchain projectors offer the option of optical-only sound track playback; or optical and magnetic sound playback. **Model 561** is the portable style unit offering optical playback; **Model 562** is the pedestal-mounted unit with optical and magnetic sound heads and built-in provisions for remote control operation. Both units are based on the reliable Bell & Howell 500 and 1500 series.



Model 562

LENS SELECTION

Your own installation will determine the lens system you will need to use the 561 or 562 projector with your existing installation. When you are planning a new installation, you may use this table as a guide for space planning, in relation to your camera or multiplexer.

IMAGE WIDTH RELATED TO LENS FOCAL LENGTH

Lens Focal Length	Distance (inches) from aperture plate to image plane.						
	12	24	30	36	42	48	
A	1.75"	1.6"	4.2"	5.5"	6.75"	8.0"	9.5"
	2.0"	1.4"	3.75"	4.9"	6.05"	7.2"	8.3"
	2.25"	1.06"	3.25"	4.25"	5.25"	6.25"	7.25"
B	2.25"	—	3.25"	4.25"	5.25"	6.25"	7.25"
	2.5"	—	2.84"	3.75"	4.8"	5.16"	6.2"
	2.80"	—	2.4"	3.25"	4.0"	4.75"	5.6"
C	2.6"	—	2.6"	3.5"	4.47"	5.25"	6.12"
	3.0"	—	2.2"	3.0"	3.75"	4.5"	5.3"
	3.4"	—	2.13"	2.6"	3.375"	4.0"	4.75"
	4"	—	—	—	2.6"	3.2"	3.75"

(Picture size may vary slightly due to tolerances on focal length of lens and to emulsion position.)

REFERENCE: SEC. A: 2" lens with Filmovara® attachment. **SEC. B:** 2½" lens with Filmovara attachment. **SEC. C:** 3" lens with Filmovara attachment.

IMPORTANT: Projection tables above are based on the latitude provided by the Bell & Howell Filmovara zoom lens. Where your application requires adjustment to a physical image outside the parameters of the available *prime* lenses, consult the chart and us for specific recommendations regarding your installation. See Page 111 for Lenses and Filmovara.

LAMP SELECTION

The illumination requirements of your system will, of course, vary with the type of equipment with which you will interface, and the size of image required. Your operating engineer and the operations manuals for your camera(s) will help determine the level of illumination which is required. Use the chart below to select the proper lamp.

LAMP CODE	WATTAGE	APPROX. LUMENS	PRICE
CAL	300	25	\$ 5.83
CZA	500	40	7.14
CWA	750	50	10.08
CTT	1000	65	11.18

FEATURES SHARED BY MODELS 561 and 562

- **REEL CAPACITY:** 100 to 2000 feet; from news clips to full length features.
- **MANUAL THREADING:** gets film in and out of the system, fast.
- **SINGLE-PHASE, SYNCHRONOUS MOTOR:** Assures freedom from "roll-over" or varying exposure.
- **FORWARD AND REVERSE OPERATION:** For on-frame cueing.
- **LIGHT OUTPUT VARIABLE:** From 25 to 65 lumens, depending on your needs and on the lamp you choose.
- **ACCESSORY LENSES:** From 2" to 4" focal length. See the preceding page under "Accessories for all B&H Specialist Projectors".
- **PICTURE JUMP LESS THAN 0.2%** of picture width; Weave less than 0.2%.
- **POWER OUTPUT:** +4DBM Across 600 ohm balanced line.
- **SOLID STATE** amplifier, on plug-in printed circuit module.
- **LESS THAN 1.5% HARMONIC DISTORTION** over the 70 to 10,000 Hz frequency range.
- **AMPLIFIER SIGNAL:** Noise Ratio: Better than -60dB in Optical playback mode; -50 dB in Magnetic mode.
- **SILICON DIODE PHOTOCCELL:** 200 hour (BAK) exciter lamp.
- **ON STREAM IN A HURRY,** and for a long time to come. Complete installation, operating and maintenance instructions are provided with each unit.

Model 561

\$1545.00

The Model 561 (not shown) is designed to replace the Bell & Howell 614ETVS projector in existing installations, and to provide quality optical sound filmchain projector at a moderate cost for new installations. The 561 provides high quality sound over the 50 to 7000 Hz range, and a sharp evenly illuminated picture, provided by fixed-axis framing and a condensing lens system. Other features:

- **PORTABILITY:** From its standard 3 wire, 117V line cord to its 600 ohm balanced output and its reinforced glass-fiber case, the 561 is truly a portable unit.
- **VERSATILITY:** Light availability ranges from 25 to 65 lumens, depending upon lamp used. Minimum focusing distance ranges from 11½" to 32", depending on lens selected. (uses the Model 500 or 1500 accessory lenses you may already own; listed on Page 111).

Model 562

\$2194.00

The Model 562 pedestal-mounted filmchain projector is designed as a direct replacement for the earlier 614EVMS, or as a reliable, pedestal-mounted unit for new installation. The 562 offers the same picture and sound quality as the 561, as well as magnetic sound track playback over the 50 to 10,000 Hz audio range. The control panel mounted in the pedestal provides push-buttons for Forward, Reverse, Stop and Run functions, with an indicator lamp for each operating mode. A switch transfers these functions to a main control console. Other features:

- **FIXED INSTALLATION:** The pedestal provided with the Model 562 may be bolted to the floor for added stability.
- **FINE SOUND QUALITY,** exceeding most standards. Low signal/noise ratio amplifier coupled with optical head capable of 50-7000 Hz range and magnetic head with 50 to 10,000 Hz frequency range.

NOTE: For ease of change-over in existing installations, the Model 562 projection head is available as a direct, bolt-on replacement to the Model 614EVMS pedestal, on special order.

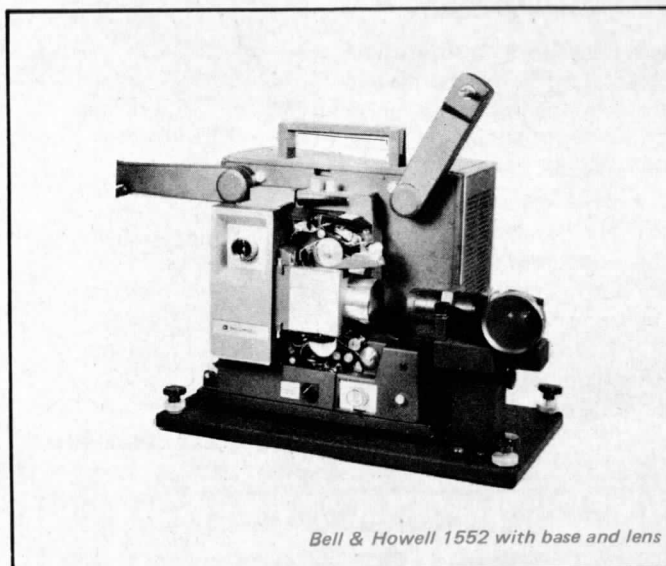
Special Projection Lenses

Rear Projection Base Mount Systems and Wide Angle Lenses for BELL & HOWELL (1500 and 500 Series)

The industry's finest ECU-RP (Extreme Close Up - Rear Projection) lens system . . . Working with the projector prime lens, it features a sealed internal highly reflective mirror thus eliminating the need for bulky, fragile, difficult to align external mirrors. Projector and ECU-RP lens mounted together on a common base becomes a precision working unit permitting the easiest alignment procedures feasible. Alignment of lens to projector is attained by fine screw adjustments built into the lens mount. Lens system can be mounted for either right or left hand projection.

MOUNTING BASES for ECU-RP

For Bell & Howell 1500 series Cat. No. 886-425 . . . \$50
 For Bell & Howell 500 series Cat. No. 886-100 . . . \$50



Bell & Howell 1552 with base and lens

BUHL LENSES USED WITH ECU-RP MOUNTING BASES

NET FOCAL LENGTH	PRIME LENS .F.L.	CATALOG NO.	PRICE	DESCRIPTION
.375" R.P.	2"	878-180	\$219.75	Unusually wide angle for right or left hand projection. Useful for exhibit and display work.
.500" R.P. .625" R.P.	2" 2.5"	836-60	159.00	Fixed ratio lens - can be mounted for either right or left hand projection.
.72" to 1.2" R.P. .9" to 1.5" R.P. 1.1" to 1.8" R.P.	2" 2.5" 3.0"	832-50	149.50	Combines the advantages of variable focal length, wide angle and internal mirror. Can be mounted for either right or left hand projection.

STRAIGHT-THROUGH LENSES FOR 16mm PROJECTORS

Focal Length	B & H 500 & 1500	B & H 399	KODAK	RCA 400	RCA 1600	GRAFLEX 800, 900 & 1,000	GRAFLEX 1115	IAV ROYAL
1/2" f1.4	878-70 \$148.50	812-400 \$ 79.50	812-430 \$ 79.50		878-70 \$148.50	812-450 \$ 79.50	812-960 \$ 85.50	812-810 \$ 79.50
5/8" f2.0	103-410 \$ 44.50	103-400 \$ 32.50	103-430 \$ 32.50	103-450 \$ 32.50	103-490 \$ 44.50	103-450 \$ 32.50	103-960 \$ 38.50	103-810 \$ 44.50
3/4" f1.4	593-410 \$ 79.50	593-400 f1.6 \$ 79.50	593-430 \$ 79.50	593-450 \$ 79.50	593-490 \$ 79.50	593-450 \$ 79.50	593-960 \$ 85.50	593-810 \$ 79.50
1" f1.4	803-410 \$ 68.00	803-400 \$ 68.00	803-430 \$ 68.00	803-450 \$ 68.00	803-490 \$ 68.00	803-450 \$ 68.00	803-960 \$ 75.00	803-810 \$ 68.00
1.5" f1.6	705-410 \$ 66.00	705-400 \$ 66.00	705-430 \$ 66.00	705-450 \$ 66.00	705-490 \$ 66.00	705-450 \$ 66.00	705-960 \$ 72.00	705-810 \$ 66.00

MANY OTHER SPECIAL BUHL LENSES ARE AVAILABLE FOR MOST MODELS AND MAKES OF PROJECTORS. PLEASE CONTACT PHOTO & SOUND COMPANY FOR YOUR SPECIAL LENS REQUIREMENTS.

WIDE ANGLE LENS SYSTEM FOR TECHNICOLOR 1000 PROJECTOR

Installed in front of the projector's standard 20mm focal length lens, the original picture size may be doubled without increasing projection distance. No modification of the projector required.
 Cat. No. 806-850 (includes bracket for holding system) \$125.00

MICROWIDE WIDE ANGLE LENS ATTACHMENT FOR DUKANE MICROMATIC PROJECTORS

Use with DuKane Micromatic models 14390, 14335, and "Push-Button" model 576-47. Slip the MicroWide over the standard 3 inch focal length lens. It produces the equivalent of 1 1/2" focal length.
 Cat. 612-380; Cat. 612-382 (for newer Micromatics) \$39.50

16mm Pageant Sound Projectors

Every 16mm KODAK PAGEANT Sound Projector features extra-gentle, no-scrape film handling. You also get high-fidelity, transistorized sound. Superb Kodak optics. Simple one-lever control. Portability. Film capacity of 2,000 feet. Lamp sizes to 1,200 watts. SUPER-40 Shutter (on all except the Arc Projector) provides optimum projection brightness at sound and silent speeds. Lifetime projection lubrication. Permanently attached 12-foot, 3-wire power cord. And, there are five models to choose from, ranging from the economy Model AV-12E6, to the powerful PAGEANT Arc Projector. One for every application or budget. Check below for more details.



KODAK PAGEANT Sound Projector, Model AV-126-TR. Fidelity control lets you focus on the sound track for crisp sound, which comes on instantly because the projector is transistorized. Heavy-duty, well-baffled 11 x 6-inch oval speaker handles full 12-watts of music power output of the amplifier, producing clean audio reproduction. The projector's easy-out soft-touch gate was designed to have soft tension to lessen the chances of abrasion to your films. The Model AV-126-TR is also designed so that no stationary parts ever touch the picture or sound track. Saves films from getting chewed up, and saves you the cost of replacing them. To set up the projector, simply unfold the overhead reel arms, plug in the cord, and thread by following a red line on the projector. There's also a single-switch control for easy operation. And, a 40-foot cord lets you put the speaker where you want.

KODAK PAGEANT Sound Projector, Model AV-12E6. Not only does the Model AV-12E6 have the same gentle film-handling system found in all Pageant Projectors, but most important, it provides the same reliable, virtually trouble-free projection at a low cost. Because the Model AV-12E6 Projector's sound system is transistorized, you have instant sound. Long-life features include lifetime exciter lamp combined with a solid-state solar cell, circuit breaker, and a film pulldown tooth made of super-hard tungsten carbide—all designed to give virtually trouble-free use.

KODAK PAGEANT Sound Projector, Model AV-256-TR. Here's a 16mm projector that delivers the full-bodied sound needed for effective presentations in lecture halls and large meeting rooms. The Model AV-256-TR features a 25-watt music power amplifier as the heart of its sound system. Because the system is electronically quiet, you get no hiss, no static, no popping, no crackling. No fuzzy, not-quite-perfect sound either, because of the projector's sound fidelity control. Lets you focus precisely on the sound track. And, since the sound system is solid-state, you probably won't have to bother with maintenance. Naturally, you get the same gentle film-handling system that is an integral part of all Pageant Projectors.

PRICES

Prices on all models include 2" f/1.6 Ektanar lumenized lens with field flattener; 750-watt DDB lamp (1000-w DFD and 1200-w DHD lamps optional); 1600' take-up reel; 3-wire grounded cord.

AV-256-TR	With 25-watt Solid State Amplifier;	
	weight 37½ pounds	\$850.00
AV-126-TR	With 12-watt Solid State Amplifier;	
	weight 35½ pounds	735.00
AV-12E6	With 12-watt Solid State Amplifier;	
	weight 37½ pounds	695.00

ACCESSORIES

AV-460	Protective Cover	\$ 24.95
KODAK Projection Lenses:		
	1½-inch f/2.0 Ektanar	70.00
	2-inch f/1.6 Ektanar	40.00
	3-inch f/2.0 Ektanar	139.50
	4-inch f/2.5 Ektanar	150.00
CINE-KODAK Bifocal Converter; adjusts 2" lens to focal length range 1-5/8" to 2½"		
		42.00
	Speaker Extension Cord, 35-foot Type B	12.50
PA-8	Microphone	19.95
DDB	750-watt Replacement Lamp	7.04
DFD	1000-watt Replacement Lamp	7.61

ASK FOR SCHOOL OR INDUSTRIAL PRICES

Pageant Arc Projector

THE AUDITORIUM PROJECTOR



The KODAK PAGEANT Arc Projector combines a high-efficiency, encased arc lamp with an outstanding sound system to produce a 16mm projector that's ideal for use in small auditoriums and large rooms. Permanent installation is not required. Nor is additional electrical power or special ventilation systems.

The PAGEANT Arc Projector is truly portable, can be set up in minutes. Weight is 40½ lbs. for the projector, 26½ lbs. for the power supply unit.

BRILLIANT SCREEN IMAGE

The heart of this highly efficient light source is the General Electric Mare 300 lamp—a compact lighting system consisting of a tiny, true-arc lamp, condenser-reflector, and power supply unit. The 300-watt lamp produces a screen image that is up to four times brighter than that produced by the normal 1000-1200 watt lamp in conventional 16mm projectors. The 5000 K color temperature creates a screen image of crisp, brilliant whites; alive, natural-looking colors; and apparent improvement in over-all contrast and sharpness.

THEATER QUALITY SOUND

The heart of its sound system is its powerful 25-watt Music Power transistorized amplifier and the heavy-duty, well-baffled speaker, the same used in the Pageant AV-256-TR projector described on the previous page. Other features are the same included in the Pageant AV-256-TR.

AV-295	With Power Supply	\$1,725.00
AV-296	Less Power Supply	1,225.00
AV-431	Power Supply	500.00
MARC 300/16A	Lamp	41.95
AV-460	Protective Cover	24.95

(Accessories—see preceding page.)

Other Kodak 16mm Projectors

KODAK PAGEANT SOUND PROJECTOR, MAGNETIC-OPTICAL

In addition to the traditional PAGEANT quality of picture and optical sound reproduction, the AV-12M6 records and plays back sound from magnetic tracks (full, half, and quarter widths) at either silent or sound speed. Overhead reel arms add to the convenience of projection. A VU meter indicates sound level during recording. The solid-state transistorized amplifier has a 12-watt "music power" output rating. Both high and low level inputs are provided and are independently controlled for balanced mixing of sound, with a separate master volume control to set the overall level. All controls are grouped for easy use. A 6-8 ohm output is provided for connection to the speaker; also 200 ohm output for headphone monitoring. A microphone is supplied. Corrections in magnetic recording are easily made; re-recording automatically erases the previous recording. The PAGEANT AV-12M6 projector has a lifetime solar cell for optical sound pickup. SUPER-40 shutter provides optimum projection brightness at sound and silent speeds. Special tungsten-carbide pulldown tooth gives long life. A 12-foot, permanently attached power cord with grounding type plug and lifetime projector lubrication are additional features.



For Film Producers

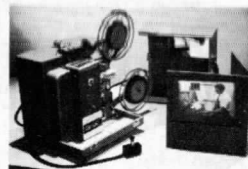
Equipment includes: EKTANAR lens, 2-inch f/1.6 (L); 750 watt lamp DDB (1000 or 1200-watt lamp may be used); Dynamic microphone.

AV-12M6	Magnetic-Optical Sound Projector	\$1,350.00
AV-460	Protective Cover	24.95
DDB	750-watt Replacement Lamp	7.04

SONOTRACK Coating for Super 8 film to permit sound recording: less than 400 ft., per ft.	.06
Minimum charge per order	12.00

16mm MOTION STUDY

KODAK ANALYST MOVIE PROJECTOR



Designed for making detailed analyses of film subjects. Separate motors for film transport and for lamphouse blower. Governor-controlled 5 and 24 frame per second speeds—rheostat control for speeds between 5 and 24 frames per second. Remote reverse control for rapid change of film movement.

Daylight screen permits easy projection viewing in lighted room. Lubricated for life. Attached reel arms with enclosed nylon gears.

Power Required—105- to 125-volt, 25-60-cycle ac. **Illumination**—750-watt lamp; 1000-watt lamp can be used. **Film Capacity**—400 feet, 16mm. **Speeds**—5 to 24 frames per second. **Dimensions**—Length 12½ inches; width 10¾ inches; height 14¼ inches. **Weight**—25 pounds.

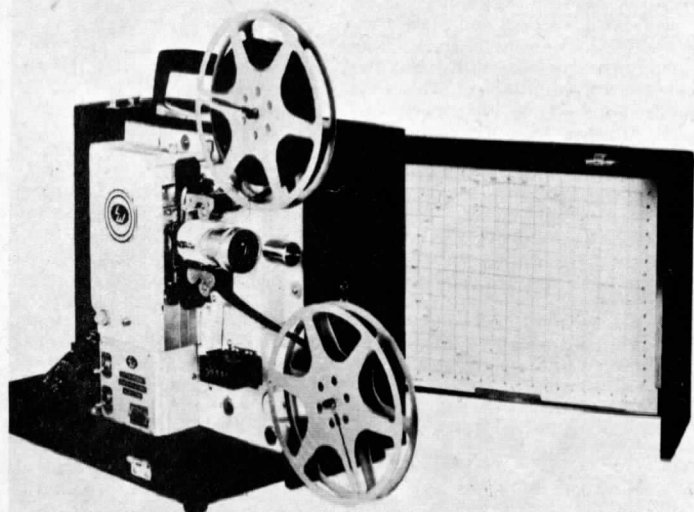
Model 199 Kodak ANALYST 16mm Projector with 2" Ektanar lens; 750-w. DDB lamp (1000-w. DFT lamp optional); 400' take-up reel; remote reversing switch; integral translucent projection screen and mirror for viewing in daylight. **\$595.00**

Cine-Kodak Bifocal Converter	\$42.00
DDB 750-watt Replacement Lamp	7.04
DFT 1000-watt Replacement Lamp	7.61



16mm Photo Optical Data Analyzer Projectors

For Medicine, Science, Time and Motion Study plus Special Effects



MODEL 224 ATHENA 16mm SOUND PROJECTOR

The L-W Model 224 brings a new dimension to the analysis of 16mm motion pictures for a wide variety of applications: sports, training, teaching, time-motion, radarscope recording, flight tests, etc. It is a modification of the Eastman Kodak PAGEANT sound projector, Model AV-126-TR.

Due to the complete elimination of flicker, the viewer sees events on film that previously have been imperceptible due to distracting flicker.

- Complete flicker-free projection at speeds of 1-2-4-6-8-12-16 and 24 fps, forward and reverse.
- Built-in intervalometer provides selected speeds.
- Instantaneous STOP while projecting at any speed.
- Brilliant picture with absolutely no loss of brightness, no film damage, and no change of color in STILL mode.
- Instant change of direction at all speeds with no danger of film damage.
- Positive single-frame indexing precludes projector stopping with shutter closed.
- Digital frame counter adds and subtracts.
- Daylight projection viewing screen built into carrying case.
- Remote control of all operating speeds and directions.
- Portable: weight 27 pounds.

L-W Model 224 Athena 16mm Sound Photo-Optical Data Analyzer . . . with 12-watt transistorized amplifier; 2" f/1.6 lens; 1600' take-up reel; 750 watt lamp (1000-watt optional)
 \$2195.00

L-W ACCESSORIES FOR ALL MODELS

Wide Aperture Plate to permit viewing timing marks. (Factory installed) \$50.00
 30-ft. Extension Cord for Remote Control \$30.00

MOTION ANALYZER 900-B

A rugged silent stop-action projector at a price that brings it within reach of all who must view 16 mm motion pictures at slow speeds or single frame—without objectionable flicker and eyestrain!

The 900-B features a new remote control box with a new solid-state circuit, plus an improved drive unit with two drive belts to provide greater dependability and longer life.

Features pertaining to the L-W Motion Analyzer 900-B:

- Variable speed 1 to 8 frames per second. Objectionable flicker removed.
- Still picture without light loss or film damage.
- Single frame by remote push-button control.
- All speeds forward or reverse — instant change of direction.
- Normal 16 and 24 frames-per-second operation.
- Frame counter.
- Remote control.
- Built-in daylight-viewing screen for desk-top viewing.
- Will accept 750- or 1000-watt projection lamp.

L-W Model 900-B Motion Analyzer. \$1295.00

SUPER SPORTS ANALYZER—MODEL 800 MK II

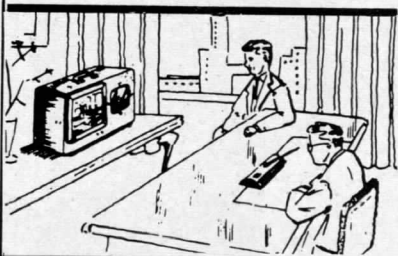
The L-W Model 800MK II is a modification of the Kodak Analyst to provide a projector coaches have been wanting. Operate in forward or reverse at variable speeds from 1-8 frames per second with objectionable flicker removed; run at normal speeds of 16 or 24 frames per second. Stop for still picture without loss of light or film damage; single-frame by remote pushbutton control.

- Film capacity 400 feet of 16mm film
- Projection lamp, 750W or 1000W
- All speeds forward or reverse, instant change of direction
- Remote control: dual-purpose "plug-in" control box
- Built-in daylight viewing screen for desk-top viewing in lighted room

L-W Model 800 MK II Super Sports Analyzer \$995.00

Continuous Four-Way Projector

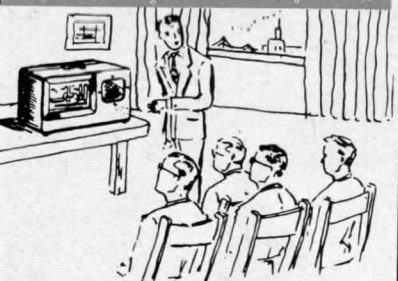
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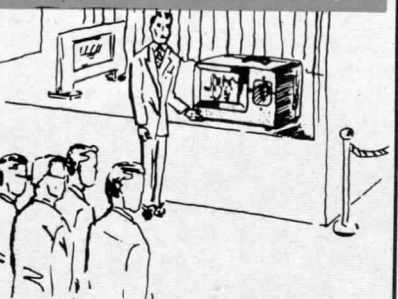
Sales Presentation



Point of Sale



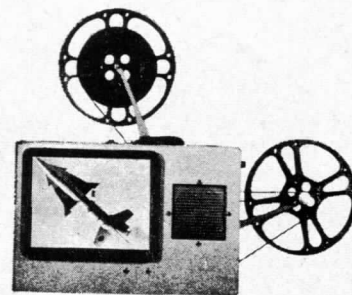
Training and Sales Meetings



Exhibits and Displays

COMPACT 16mm PROJECTOR WITH SOUND

For continuous projection or non-continuous projection on built-in screen in daylight, or on standard screen.



Self-contained 16mm sound projector with 4-way versatility . . .

1. For continuous film showing, with 1200' capacity film cartridge.
2. For standard film showing using 1600' capacity reel arms.
3. For daylight rear-projection on built-in 10"x13" screen (using 1/2" f/2.4 lens, included).
4. For projection on large outside screen (using 2"f/1.6 lens included).

Special engineered Eastman Kodak projector mechanism. 1000-watt lamp capacity. Automatic safety cut-off switches. 7-watt amplifier; self-contained 6" speaker. Lubricated for life. Weight 43 pounds. Model CS-4A \$1195.00

COMPACT SLIDE PROJECTOR WITH SOUND

NEW BUSCH SOUND CINE-SLIDE



The Busch Sound Cine-Slide projector shows color slides on a big built-in 14" x 14" Plexiglas TV-type screen. The projector operates manually, remotely, automatically and continuously. The Busch Sound Cine-Slide projector is built around the world-famous Kodak Carousel slide projector, which holds 80 slides, reliable, jam-proof and trouble free in operation, and a cartridge-type continuous tape recorder unit to provide audio and an inaudible signal that automatically controls the projector. Shows brilliant pictures in lighted rooms.

Model 325SS \$795.00

- Completely self-contained projector and recording unit.
- Slide projector and tape are controlled for a panel located on the front of the projector cabinet.
- HOLD - switch is provided on the control panel permitting any slide to be held on the screen for any period of time, then re-start the projector with the tape in synchronization.
- Microphone is provided to permit recording in the Cine-Slide.
- Show 35mm horizontal and vertical slides, instamatic and super slides.
- Both audio and control signal can be recorded on the tape unit.
- Protective case cover with side pockets and with board to protect built-in screen is provided.
- 1.4 wide angle lens is supplied with the projector.
- Durable - attractive painted plywood case with molded radius corners and edges.
- Continuous operation is possible with circular tray.
- Projector can easily be removed from Cine-Slide case for external projection on larger screen.