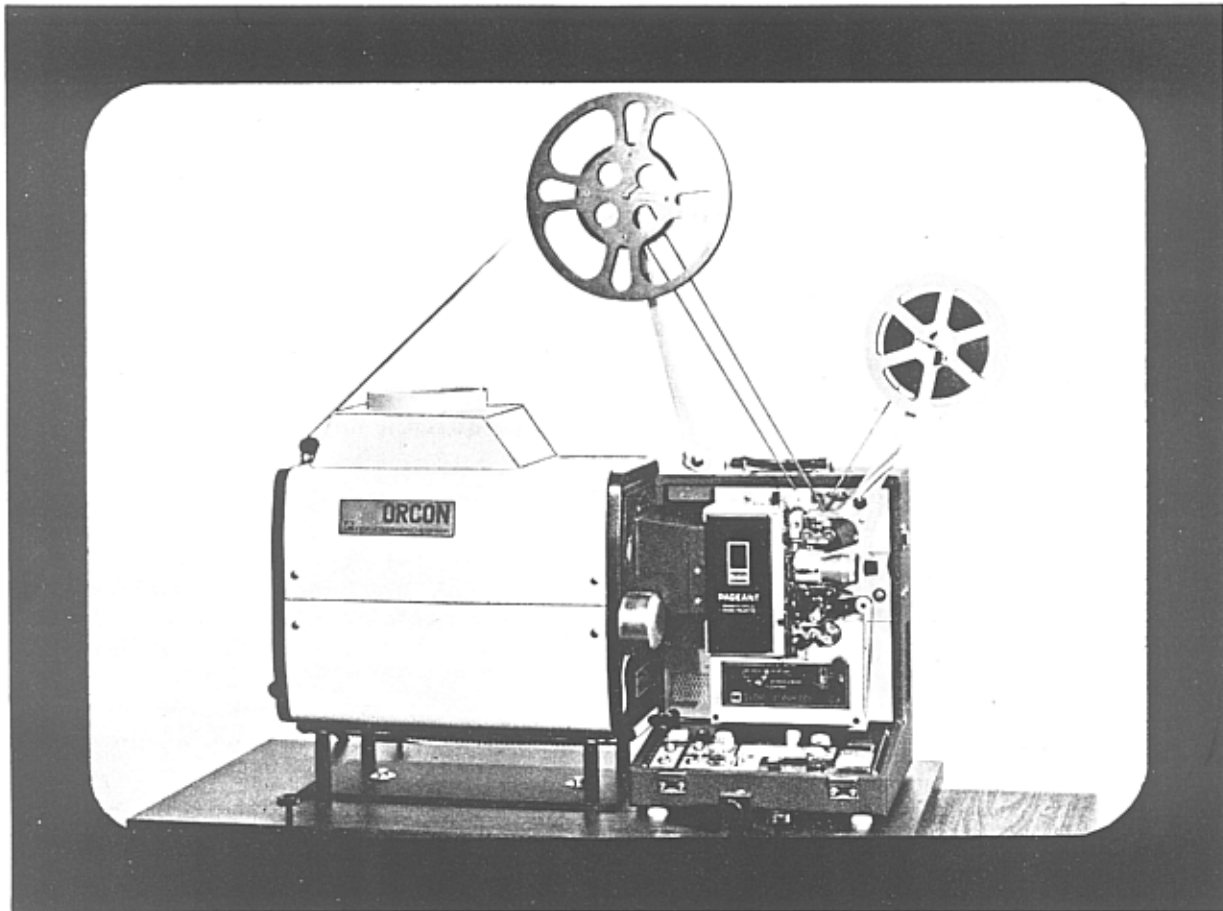


# XENOGRAPHIC® 16



## High-Intensity 16mm Motion Picture Projection System



Optical Radiation Corporation

## **XENOGRAPHIC® 16 HIGH INTENSITY PROJECTION SYSTEM**

Up to eight times more light than projectors using conventional 1200 watt incandescent bulbs—that's what you get with the XENOGRAPHIC 16mm High-Intensity Projection System. With its unsurpassed brilliance, the XENOGRAPHIC 16 is the ideal motion picture projection system for auditoriums, convention halls, small theatres and situations where high ambient light is present. In fact, in many applications where 35mm projection was required, the XENOGRAPHIC 16 system can do the job equally as well, and with less expense.

In addition to more light, the XENOGRAPHIC 16 utilizes a unique optical system to provide even screen illumination with no dark corners. Also, the light source has a daylight color temperature of 5400° K to give you crisp, more natural looking colors with apparent improvement in image contrast and sharpness on the screen.

Unlike many high-intensity projectors, the XENOGRAPHIC 16 requires no warm-up or cool-down time. You are always ready to show your film the instant you turn on the system.

### **DESCRIPTION**

The XENOGRAPHIC 16 consists of an Academy Award winning xenon lamphouse mounted either at the rear or side of a specially modified Bell & Howell or Kodak 16mm motion picture projector. The entire system is mounted on an attractive walnut baseplate containing four leveling adjustment feet, and operates from conventional 115 VAC, 60 Hz power. (50 Hz versions also available.)

The secret of the XENOGRAPHIC 16's brilliance is a high-intensity xenon bulb and a computer designed optical system contained within the lamphouse. The xenon bulb has a warranted life of 1500 hours for a guaranteed operating cost of less than 20c an hour. This compares favorably to the Kodak Marc 300 and 350 systems which cost more than \$1.00 an hour to operate, with a normal bulb life of 50 hours.

### **Lamphouse**

The standard lamphouse supplied with the system is an ORCON™ Model 1000, capable of providing 5000 lumens of light through a 16mm open aperture (F/1.6 projection lens and 70% shutter). The lamphouse utilizes a dichroic filter to remove film damaging infrared radiation making the system completely safe for your films.

Light from the horizontally mounted xenon bulb is projected by a patented, computer designed, aspheric metal reflector. The reflector collects 85% of the visible energy emitted by the bulb and projects a light which is free of hot spots, with a screen brightness distribution of 75-80%.

For ease of operation, a single on/off switch at the rear of the lamphouse turns on system power, and automatically

ignites the xenon bulb. Lamphouse system includes a manual lamp douser to protect the film, film gate and lens from heat when operating in the standby mode. Also included are single external three-axis optical adjustments located on the back panel, an elapsed-time indicator which records the operating hours on the bulb, and a built-in bulb current meter. A bulb current adjust potentiometer is provided to allow the projectionist to vary screen brightness to precisely set the illumination level required. The adjustment range for screen brightness is approximately 5 to 1.

The integral power supply is contained in the back portion of the lamphouse and has DC current regulation of 1%, maintaining proper current setting regardless of line voltage fluctuations. This accurate regulation provides a constant screen brightness for optimum projection quality. The power supply is also filtered to provide less than 1% rms current ripple, thus assuring optimum bulb life and flickerless projection.

### **Projector**

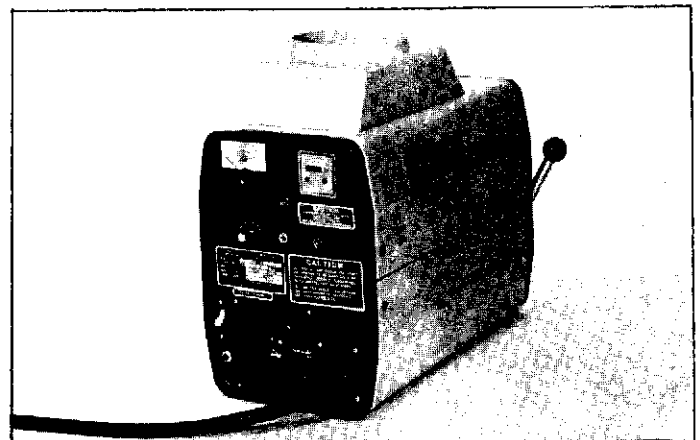
The standard system is available with either a modified Kodak Pageant AV-250S or AV-120M Projector, or a modified Bell & Howell Model 1590C Projector.

## **STANDARD PROJECTION SYSTEMS**

### **AV-250S-1000 SYSTEM**

The AV-250S-1000 System consists of a Kodak Pageant AV-250S Sound Projector and ORCON Model 1000 Lamphouse. The projector has optical sound with a rugged, transistorized, high-fidelity amplifier. The amplifier has a frequency response of 30 to 20,000 Hz and is rated at 25 watts music power output. Projector features include:

- Permanently prelubricated and time-tested Kodak Pageant 16mm Projector mechanism; permanently attached overhead reel arms.
- Straight line master control lever to operate the projector in either forward or reverse direction—either sound or silent speed.
- Sound fidelity control lever.
- 2000 feet film capacity.



**ORCON MODEL 1000 XENON LAMPHOUSE**  
Rear View Showing Controls and Indicators.

#### AV-120M-1000 SYSTEM

The AV-120M-1000 System consists of a Kodak Pageant AV-12M6 magnetic optical sound projector and ORCON Model 1000 Lamphouse. The projector combines both optical and magnetic sound capabilities, and records and plays back magnetic sound from magnetic tracks (full, half, and quarter widths) at either silent or sound speed. Magnetic sound can be added to any film—old or new. Projector features include:

- VU meter to indicate sound level during recording.
- Solid-state transistorized amplifier with 25 watt music power output rating
- Both high and low-level inputs which are independently controlled for balance mixing of sound, with a separate master volume control to set the overall level.

#### BH-1590C-1000 SYSTEM

The BH-1590C-1000 System consists of a Bell & Howell FILMSOUND Projector and a Model 1000 Lamphouse. This system comes with the Lamphouse mounted at the side of the projector. The projector, with xenon modification, features fully automatic reel-to-reel threading and has a film capacity of 2000 feet. The projector includes a built-in speaker and a jack for attachment of an auxiliary speaker. Other features are:

- Modular plug-in, solid-state amplifier to provide reliability, simplicity of servicing and a full ten-watts RMS output.
- Automatic film loop restorer.
- Gear-driven reel arms; sound and silent speeds.

#### SPECIAL MODIFICATIONS

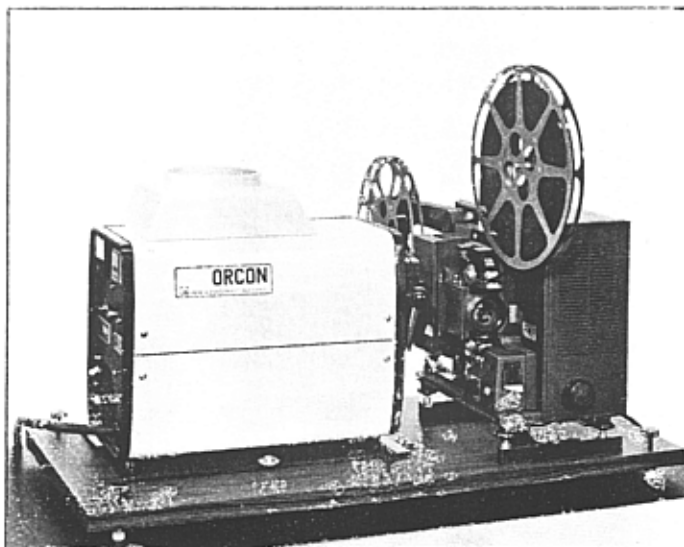
ORC can also modify customer furnished projectors to accept the high-intensity ORCON Lamphouse. Consult the factory for details.

#### BULBS

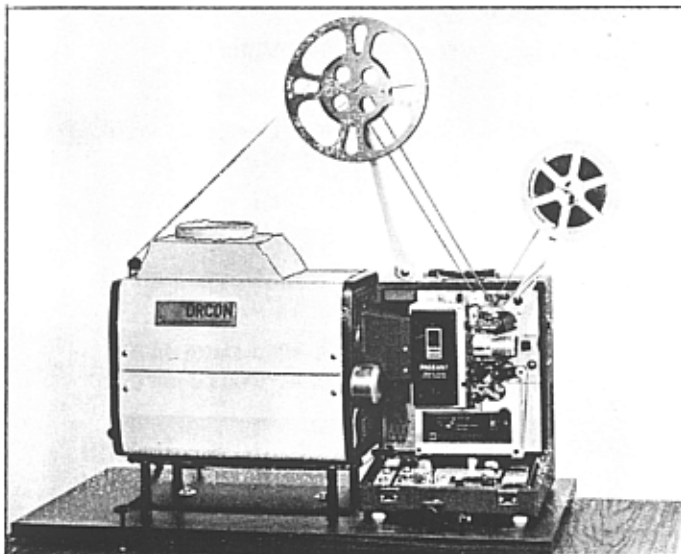
All xenon bulbs used in the XENOGRAPHIC 16 High-Intensity Projection System are manufactured by ORC in its own factory. Particularly designed for use in the ORCON Lamphouse, ORC bulbs are ozone free and warranted for 1500 hours. The latest sealing and electrode design techniques are used to provide a bulb of extreme ruggedness with the highest quality and reliability. They are manufactured to rigid specifications and specifically designed for operation over a wide range, requiring no external magnetic fields for stabilization. All xenon bulbs manufactured and supplied by ORC are fully warranted when used with ORCON Lamphouses, and when operated at or below the maximum current limits. Should a bulb fail within the first 50 hours of operation when operated within the current limits, ORC will replace it at no cost. Refund for subsequent failure is prorated linearly from 50 hours to the warranty life of the bulb.

#### ACCESSORIES

A complete line of accessories are available for use with the XENOGRAPHIC 16. In addition to those accessories provided for the Kodak and Bell & Howell Projectors, ORC offers automation packages (AP) for remote or automated use of the lamphouse, a solenoid operated lamphouse shutter for remote operation (RS) and a lamphouse manual start switch (MS) to provide override of automatic ignition circuit.



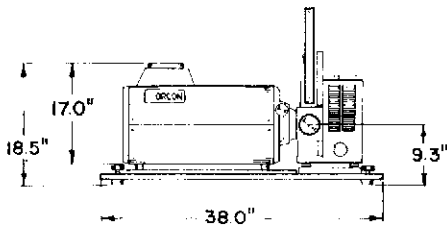
**BH-1590C-1000 SYSTEM**  
With Lamphouse Mounted at Side of Projector.



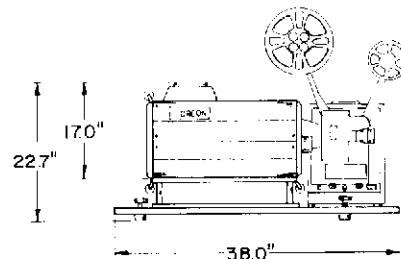
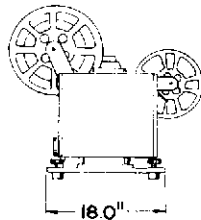
**AV-250S-1000 SYSTEM**  
Shown With Solenoid Operated Shutter Mechanism.

## SYSTEM SPECIFICATIONS

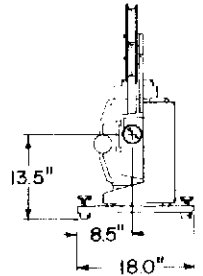
	<b>AV-250S-1000</b>	<b>AV-120M-1000</b>	<b>BH-1590C-1000</b>
<b>Projector:</b>	Kodak Pageant AV-250S (Modified)	Kodak Pageant AV-120M (Modified)	Bell & Howell Filmsound 1590C (Modified)
<b>Sound:</b>	Optical	Optical/Magnetic	Optical
<b>Projection Lens:</b>	2-in. F/1.6	2-in. F/1.6	2-in. F/1.2
<b>Audio Output:</b>	25 Watts	7 Watts	20 Watts
<b>Film Capacity:</b>	2000 feet	2000 feet	2000 feet
<b>Projector Dimensions:</b>	12-3/4" Lg. 11-1/2" Wd. 15-7/8" Hg.	13-3/8" Lg. 11-1/2" Wd. 16-3/4" Hg.	13" Lg. 10" Wd. 14" Hg.
<b>Projector Weight:</b>	35 pounds	37-1/2 pounds	40 pounds
<b>Threading:</b>	Manual	Manual	Automatic
<b>Total System Weight:</b>	150 pounds	150 pounds	150 pounds
<b>Standard Lamphouse:</b>	ORCON 1000	ORCON 1000	ORCON 1000



**BELL & HOWELL PROJECTOR**



**KODAK PAGEANT PROJECTOR**



### ORCON MODEL 1000 LAMPHOUSE

<b>Current Range:</b>	17-42 Amps DC
<b>Open Circuit Voltage:</b>	120 Volts DC
<b>Weight:</b>	85 Pounds
<b>Dimensions:</b>	18" Long, 9 1/4" Wide, 13" High
<b>Current Ripple:</b>	1% rms
<b>Current Regulation:</b>	1% rms
<b>Power Input:*</b>	105-130 VAC, 60 Hz at 18 Amps
<b>Bulb:</b>	Available with XL 750 or XL 1000 Xenon Bulb

\*NOTE: Model 1000B Lamphouse also available, which operates from 230 VAC, 50 Hz, 10 Amp power.

### OTHER XENON AUDIO VISUAL PRODUCTS AVAILABLE

Optical Radiation Corporation offers a complete line of xenon audio-visual products for professional audio-visual presentations. These include:

**XENOGRAPHIC® 500** High-Intensity, Portable 35mm Slide Projection System—projects up to 4000 lumens light output. Six times brighter than conventional 500 watt slide projectors. Bulb is contained in a unique prefocused plug-in module for safety and ease of bulb replacement. With or without random access capabilities.

**XENOGRAPHIC® 512** Fade/Dissolve Slide Projection System—fades, dissolves and cuts from one slide to another without a dark screen interval. Projects up to 5500 lumens light output.



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