

L3000 LAMPHOUSE —

User's Manual



The BIG SKY L3000 Lamphouse.

Thank you for selecting the BIG SKY 3000 Lamphouse. This Manual will provide the user and installer with technical information needed to install and operate this Lamphouse. For all other equipment (projector, readers, etc.), please refer to the appropriate manuals.

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THIS EQUIPMENT IS FOR PROFESSIONAL USE ONLY. ALWAYS REFER TO THE OPERATING MANUAL FOR USE AND INSTALLATION INSTRUCTIONS.

BIG SKY L3000 Lamphouse Specifications:

- 2000 to 3000 watt
- 45-100 amps DC
- Consistent, even and high light output as a result of custom-designed, 10" dichroic reflector
- Mounts on all standard Pedestal systems
- Modular design (including full side door) makes servicing simple
- Components clearly labeled for easy identification
- Designed, tested and approved to U.L. standards
- Simplified field-wiring
- Lamphouse dimensions: 18 1/4" Tall x 19" Wide x 25" Long
- Lamphouse weight: Approx. 50 lbs.
- Input voltages: 120/220VAC1PH

Also available in 3000, 5000, and 7000 watt. Please consult your dealer or BIG SKY directly for specifications.

Standard Lamphouse Layout:

Pictured below is a diagram of the L3000 Lamphouse, indicating major components, switches and controls.

For more detailed information regarding OEM components (those not manufactured by **BIG SKY**), please refer directly to manufacturer manuals.

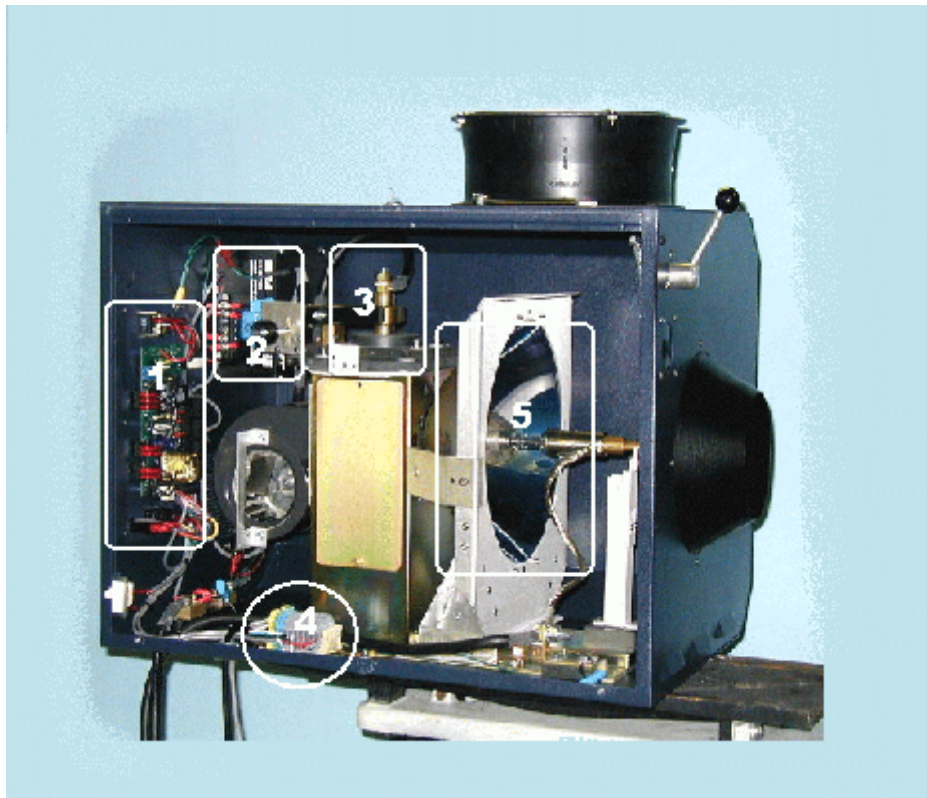
1-Meter Panel: Houses all controls and meters for the operation of the Xenon bulb. (Same panel as used in all BIG SKY Consoles)

2-Ignitor: IREM ASN 700, mounted to rear panel. (Same as one used in all BIG SKY Consoles)

3-Bulb adjustments: Top mounted Vertical, Horizontal, and Focus controls, all on operator's side. Rear mounted cooling blower for efficient bulb and reflector cooling.

4-Wiring Terminals: Din Rail blocks meet all international standards. All input wiring in one location.

5-Reflector Assembly: 10" Dichroic Electroformed mirror assembly. Entire unit can be moved for different projectors.



Xenon Lamp Controls:

Pictured below is a photo of the standard meter panel used on all BIG SKY consoles and lamphouses. Through this panel, bulb performance, hours used, ignition control and power control may be monitored.

Power may be controlled either manually, or through the automation. For manual operation, the ignitor control switch needs to be in the 'manual mode.' Power is then supplied through the Xenon power switch, striking the bulb by momentarily pressing the manual ignition switch.

When power is controlled through the automation, the Xenon power switch is to be set to the 'ON' position, and the ignitor in 'automatic.' Once the automation closes its contacts in the Xenon control loop, power is automatically supplied to the Xenon section, including the striking of the bulb.

Components:

1-Hour Counter- Counts total hours Xenon power is on.

2-Amps/Volts Meter- Indicates bulb current and voltage; reads open circuit voltage before ignition.

3-Meter control switch- Selects readout for amps/volts meter; defaults to amps reading.

4-Ignitor control switch- Selects manual or automatic ignition of Xenon bulb.

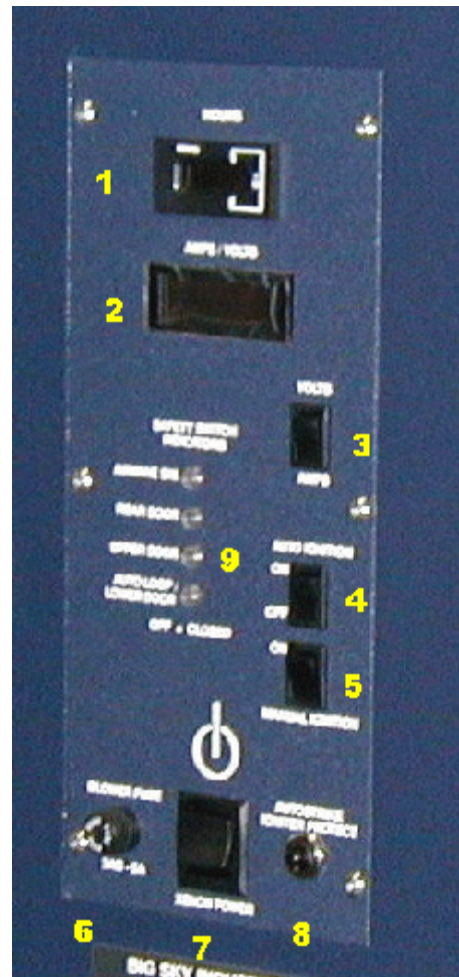
5-Manual ignition- Activates ignitor if pressed when Xenon power is on.

6-Fuse- Cooling fans and blowers

7-Xenon power switch- Controls on/off power for Xenon section.

8-Auto-strike circuit breaker- Protects auto-strike circuit against overload.

9-Safety sitch indicators- Indicates an open-door or safety switch in the Xenon power supply control loop.



Installation notes and directions:

Upon receipt of this Lamphouse:

- Inspect for any possible damage, missing parts, accessories and manuals.
- Check that all wiring and connection diagrams for this installation are included.
- Check that all connection information for all peripheral equipment is indicated on these diagrams

To locate components:

- Check the diagrams on page 5 for locations of major components.
- Main electrical connections are indicated on the main terminal block, mounted in front of the basic unit tower.

Proper installation and safety procedures:

- The lamphouse mounts on the pedestal lamphouse rail, and the locating rails on the lamphouse bottom fit in-between the pedestal rail outer guides. Slide forwards toward the projector until the nosecone reaches the light input port of the projector.
- There are 8 eight (8) 1/4-20 tapped holes in the rails on the bottom of the lamphouse, which will align with the openings in the pedestal mount. Use a 1/4-20 screw only long enough to thread into the rails, but not long enough to protrude into the lamphouse and raise the optical assembly. Use as many screws as possible to secure the lamphouse to the pedestal.
- Confirm the distance from the rear of the reflector to the film gate. Adjust the position of the optical bench as needed.
- Be sure to connect the correct voltages and control wiring as indicated on the wiring diagrams.
- Be sure all voltage levels are correct for the type of equipment used.
- Be sure to attach and wire all peripheral equipment used in conjunction with this Lamphouse.
- When replacing parts, use the same type, size, rating as the original.
- All Lamphouses must have a dedicated air evacuation system. See page 11 for ventilation specifications.

Installing Xenon Bulb:

- Install the Xenon bulb with the proper adapters, making sure to observe the bulb polarity.
- Center all basic unit adjustments
- Make sure the horizontal axis of the bulb is parallel to the optical axis.
- Always wear protective clothing/eye-wear and observe all cautions as indicated on page 10 of this manual
- Make sure all electrical connections are tight.
- Make sure the access cover on the Basic Unit tower is closed.
- When installing a 3000W or greater bulb, be sure the cooling openings on the positive end of the bulb are at top/bottom orientation.

Operation:

- After safety procedures and installation are complete, turn the power on.
- Once the main circuit breakers are turned on, the cooling fans should start.
- Check the local and manual controls of all components to verify proper operation
- Run the system, without the Xenon section on, to verify operation.
- Check the Xenon section manually for proper operation, voltage and current levels and auto-strike
- Check the Xenon section again through the automation.
- For the most even light, be sure to perform the final optical alignment of the projector to the light source.
- Set the current level of the power supply to the proper operating level for the bulb in-use.
- Make all alignments and adjustments to the sound system for optimum performance.
- Check connections of all auxiliary equipment.

Problems:

If problems occur, first consult the diagrams and photographs contained in this manual or the troubleshooting and service guides located on pages 19 and 20 of this manual.



Installation cautions:

Electrical:



-This unit has more than one electrical service and voltage level. Make certain all breakers are turned off or are disconnected before servicing, to avoid electric shock.

-Recommended electrical installation will include a single master breaker in the electrical supply panel to control all input voltages, and can function as the main on/off control for the console.

-High-voltage is present during bulb ignition. Make sure all doors and covers are in place before usage.

Explosion:



-Xenon bulbs are under high pressure; especially when hot. Allow the bulb to cool completely before handling. To avoid damage to the bulb and reflector, never power down the console until the bulb is cool. And, to avoid injury in case of explosion, be sure to wear a protective face shield and clothing, and use care when handling.

Light and burn caution:



-Xenon bulbs emit potentially hazardous UV and IR radiation when hot. Therefore, do not remain in front of the bulb, look directly into the projected light or lit bulb, as severe burns or damage to the eye may result. Be sure to operate the lamp for no longer than five minutes with the hand douser closed and allow the bulb to cool completely before opening the lamphouse door.

Automations:

Most modern theatre projection systems are controlled through an automation system. These systems are 'programmed' to control most presentation functions, such as lighting, sound, curtains and accessory control, all at the touch of a button.

The 'programming' is accomplished by readable cues contained on the film. Once the cue has been read, the signal can automate operation of desired functions including optical format, sound switching, lighting, intermission, special functions/optional equipment, interlock start and show end. All automations will start the projector motor, light the Xenon bulb, open the change-over and set light and sound levels. If desired, emergency inputs such as failsafe, platter tension sensors and fire alarms can also be connected to the automation. Basically, the automation system can be configured to meet very specific needs in each auditorium.

For information on BIG SKY automation systems, turn to the equipment list, located on page 17 of this manual. For Series 1 Automation features and operation, please refer to the Series-1 manual, sales brochures, corporate website, or your authorized dealer.



Series 1 Automation

Optical and Ventilation Specifications:

Bulb size: To determine the correct Xenon bulb for a particular system, a variety of factors, including projector type, lens type, port hole glass and projection throw should be considered. When determining the ratio of screen width and height to bulb size, refer to the following guide:

<u>Screen width</u>	<u>Screen height</u>	<u>Bulb size</u>
Up to 30'	Up to 15'	2000 watt
30'+ to 38'	15'+ to 20'	3000 watt
38'+ to 50'	20'+ to 26'	4000 watt

Ventilation: Proper air flow is important to long bulb life. When determining ventilation requirements, refer to the following guide:

<u>Console size</u>	<u>Recommended CFM</u> (Cubic feet/minute)
1000-2000 watt	500 (Minimum)
3000 watt	600 “
4000 watt	750 “
7000 watt	850 “

Working distance measurements: If the projector type was stated on the order, the basic unit is already positioned correctly for your installation. If not, refer to the following guide:

<u>Reflector size</u>	<u>Distance from rear refl. to proj. aperture</u>
10"	20.5"
13.5"	31.15"

Bulb Adapter Chart:

<u>Xenon bulb</u>	<u>Positive adapter</u>	<u>Negative adapter</u>
<u>10" reflector:</u>		
XBO 1000HS XBO 1600HS	16HSPOS	16HSNEG
XBO 2000H		20HNEG
XBO 2500HS XBO 3000HS	25HSPOS	25HSNEG
<u>13.5" reflector:</u>		
XBO 3000H		30H4KNEG
XBO 2500HS XBO 3000HS	25HS4KPOS	25HS4KNEG
XBO 4000HS		40HSNEG
XBO 5000H		50HNEG
XBO 7000HS		40HSNEG

