



# Xenon Fiberoptic Lightsource

## Operating Instructions for ASB-XE-175W Lightsource



2659A Pan American Frw N.E  
Albuquerque, New Mexico 87107  
USA

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# 1. INTRODUCTION

## **Congratulations on the purchase of your new ASB-XE-175W Lightsource!**

This user-friendly Xenon Illuminator is a high efficiency light source utilizing state-of-the-art superior illumination technology. It offers a variety of features such as:

- 5600° K daylight brightness for perfect color definition
- Quiet operation
- Compact and light weight
- Turret which adapts to various types of light guides
- Mechanical iris
- Easy lamp replacement
- Lamp life display indication

In short, you have chosen the best and we would like to make sure you receive the optimal results with your new Xenon Illuminator by using it correctly.

This Operating Instructions will help you to install the device and optimally integrate it with other components of your system. It will also instruct you how to operate the Xenon Illuminator and how to keep it clean. It will give you maintenance and service guidelines as well as recommendations for best performance results.

## 2. WARNINGS



To prevent fire or electric shock, do not open or expose the light source unit to rain or moisture. Refer all servicing to qualified personnel only.

Not suitable for use in presence of flammable anesthetic mixture with air or with oxygen or nitrate oxide.

To prevent any potential electro-magnetic interference, do not use any kind of cellular phone near the light source.

This product should be used only with type BF endoscopic instruments which have been certified according to IEC 601-1 for medical equipment and IEC 601-2-18 for endoscopic equipment.



This symbol indicates type BF equipment.



### Caution

This product is not provided as sterile.



### Caution

All devices connecting to the Illuminator must be classified as medical equipment. If additional information processing equipment is connected to the Illuminator, the operator must determine that all equipment complies with the appropriate end-product standards (such as IEC 60950 or IEC 60065 and the Standard for Medical Systems, IEC 60601-1-1).



### Caution

Light source can cause permanent eye damage if viewed directly with unprotected eye. To reduce the chance of eye damage, set the intensity control **always** to the minimum level and insert the fiberoptic cable into the unit before turning on the power.



### Caution

The fiber optic cable must be a NON-CONDUCTIVE CABLE. It should not have conductive shielding or any other conductive connection between the patient and equipment. Such connection will impair safety of the equipment. It must be rinsed free of soaking/disinfectant solution and dried before plugging into the light source receptacle. Ensure the optical surface is clean before engaging into the light source.

### 3. SPECIFICATIONS

Item	Specification
Lamp type	Cermax type 175 watt Xenon
Power	175 Watt
Color temperature	5600° K
Lamp life	650 hours (typical)
Lamp replacement	Cartridge replacement from the side of the unit
Light guide adapter	Output flange
Brightness control	Mechanical iris control from the front panel
Input voltage	100-120 V AC, 50/60 Hz 220-240 V AC, 50 Hz
Power consumption	250 watt max
Regulatory Approvals	UL60601, EN 60601-1, EN 60601-1-2, CAN/CSA, C22.2, No 601.1-M90
Equipment Class	Class I Europe, Class II USA, BF-type
Mode of Operation	Continuous operation
Water Resistant	Not Protected Equipment, IPX0
Operating Environment Temperature Relative Humidity Air Pressure	+10° to +40° C (50° to 104° F) 30 to 85% 700 to 1060 hPa
Storage Environment Temperature Relative Humidity Air Pressure	-20° to +60° C (-4° to 140° F) 0 to 95% 700 to 1060 hPa
Dimensions	355(14)W x 130 (5)H x 250 (10)D mm
Weight	9.5 lbs./4.3 kg

## 4. OPERATING ELEMENTS, SYMBOLS AND FUNCTIONS

### 4.1 FRONT PANEL

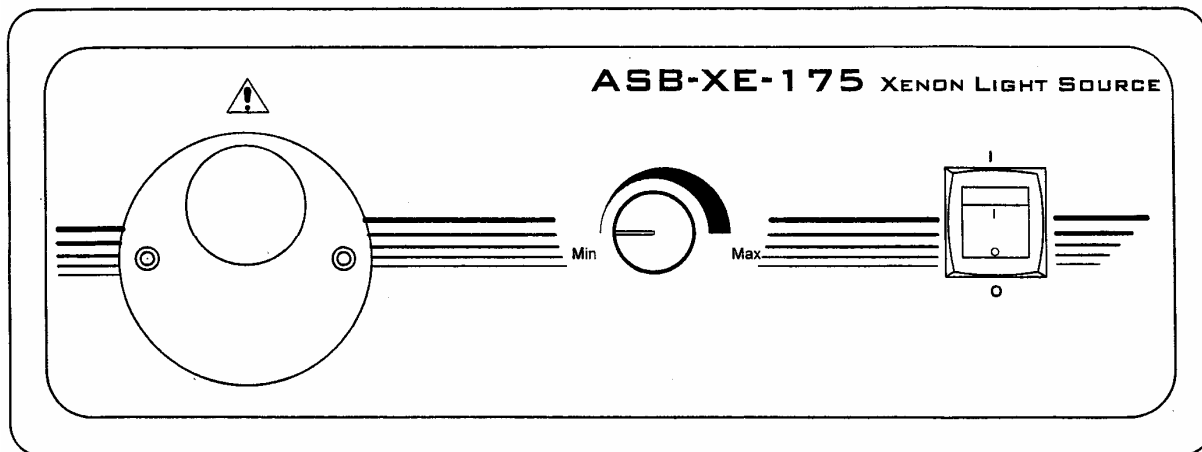


Figure 1. Light Source Front Panel

No	Name	Function
1	Output Flange	Accepts light source end fitting of light guide cable
2	Intensity Control	Mechanically controls the light output
3	Power switch	Turns the light source on and off; illuminates green when turned on.

## 4.2 REAR PANEL

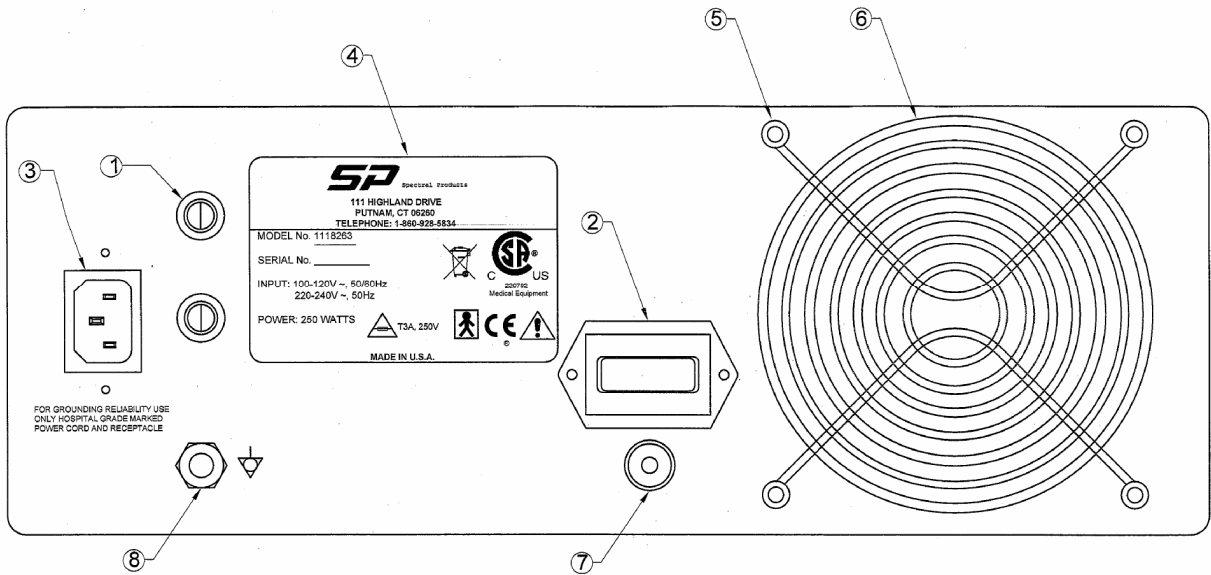


Figure 2. Light Source Rear Panel

No	Name	Function
1	Fuses	Over current protection. Type, AGC 3A
2	Hour Meter	Allows tracking of total running time on unit and provides a control on individual lamp hours
3	AC main inlet	Accepts AC Power cord
4	Serial number label	Serial number and power requirements
5	Venting grids	Allows adequate ventilation and cooling of the light source
6	Fan	Fan 12V DC, airflow for cooling of unit
7	Hour meter reset button	Resets hour meter to zero hours
8	Connector	For potential equalization

## 5. INSTALLATION

### 5.1 SETTING UP THE LIGHT SOURCE

Place the light source on a stable surface (cart, counter, stand, etc.).

**NOTE** *Avoid places where the light source may be splashed with liquid.*

*Absolutely DO NOT use in any environment with explosive or flammable gases.*

*DO NOT block the venting grids of the light source.*

Make sure the power switch is in OFF position.

Connect AC power cord to the power inlet located on the rear panel of the light source. Make sure power cord is completely seated into the power inlet.

**CAUTION** *Use only cords provided with the light source.*

Plug the AC power cord into a wall outlet using the three (3) prong plug supplied with the unit.

**CAUTION** *To prevent electric shock, connect power cords of peripheral equipment through medical isolation transformers.*

**NOTE** *When using medical isolation transformer, be sure to check the transformer power ratings.  
Make sure that the power cord is connected to the main power with three prong plug (USA use UL2601-1 rated isolation transformers and/or power strips only).*

**CAUTION** *When used in clinical or residential areas near radio or TV units, this equipment may be subjected to radio interference. To avoid adverse electromagnetic effects, DO NOT operate this equipment near RF energy equipment.*



## 6. OPERATION

### 6.1 POWERING UP THE LIGHT SOURCE

To operate the light source: Attach the light source to the instrument or headlamp. Turn on the power switch. The fan will start. The indicator on power switch will light.

### 6.2 LIGHT BRIGHTNESS DISPLAY AND CONTROL

The light brightness adjustment enables the user to obtain a brighter or darker illumination of the object of observation.

Adjust the light intensity by turning the intensity control knob.

### 6.3 LAMP LIFE HOURS DISPLAY

The hour meter shows the total elapsed running time of the unit. Record the hours when replacing the lamp.

## 7. CLEANING

**NOTE** *Always disconnect the power cord before cleaning the system.*

The control unit can be cleaned with any cleaning agents, which are used for external cleaning of electric equipment, according to instructions given by the manufacturer of the cleaning solution.

Do not allow excessive moisture or liquids to come in direct contact with the control unit.

Do not use cleaning agents that are not permitted for use with plastics, i.e., ammonia, acetone, salty acids (HCl), etc.

Do not allow cleaning agents or liquids to enter the control unit outlets.

## 8. MAINTENANCE, SERVICING AND REPAIR, WARRANTY

Performance of preventive maintenance is not essential. Regular maintenance can, however, contribute to identifying potential problems before they become serious; thus, enhancing the instrument's reliability and extending its useful operating life. Maintenance services can be obtained from your local representative or from the manufacturer.

Defective items of equipment are to be serviced and repaired exclusively by persons authorized by the manufacturer. All repair work shall employ original manufacturer's parts only.

### 8.1 LAMP REPLACEMENT

#### **WARNING**

***CERMAX lamps are at high internal pressure when cold and at operating temperature; therefore, CERMAX lamps may unexpectedly rupture resulting in discharge of hot fragments of quartz and/or glass and metal.***

***Only handle lamps with protective covers in place. Do not handle lamps without their protective covers unless government approved safety glasses, facemasks (with neck protector, chest protector and gauntlets) are worn.***

**CAUTION** ***Always disconnect power cord and turn main switch off before lamp replacement.***

**CAUTION** ***Take utmost care not to hit gas-seal edge of lamp; it may cause gas lamp failure.***

**CAUTION** ***Do not touch the lamp and patient simultaneously when changing the lamp.***

Open lamp compartment door and pull out lamp cartridge.

Replace lamp cartridge with new unit and log the serial number and hours on the hour meter.

Close the lamp compartment door.

Re-connect the power cord and turn the light source on according to 6.1.

Reset hour meter to zero by depressing hour meter reset button on rear panel.

## 8.2 LIMITED WARRANTY

Your fiberoptic product(s) carry a 3-year warranty from the date of shipment on workmanship and all defects of material, excluding replaceable sweatbands, headband, fiberoptic cable and lamps. Should your product prove to have such defects within three years of the shipment, **SPECTRAL PRODUCTS** will repair or replace the product or component part without charge. Should your fiberoptic product(s) need servicing under this warranty, please contact **SPECTRAL PRODUCTS** for return authorization documentation. You should carefully pack unit in a sturdy carton and ship it to the factory. Please include a note describing the defects, your name, telephone number and a return address. Warranty does not cover equipment subject to misuse, accidental damage, normal wear and tear or if transferred to a new owner without authorization from **SPECTRAL PRODUCTS**. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

**POST WARRANTY REPAIRS:** You may return your product(s) for repair, shipping prepaid to the factory. Your product will be inspected and an estimate of repair charges will be submitted to you for approval.

- In the U.S call: (860 928 5834)
- FAX number: (860 928 2676)

## 9. END OF PRODUCT LIFE

In accordance with the European Waste from Electrical and Electronic Equipment (WEEE) directive, we encourage our customers to recycle this product whenever possible. Disposal of this unit must be performed in accordance with the applicable local environmental regulations.

In the US a list of recyclers in your area can be found at: <http://www.eiae.org/>.

Please contact customer service to issue a return authorization to return product to manufacturer at the end of product life.



## 10. TROUBLESHOOTING

<u>Problem</u>	<u>Solution</u>
<b>The power indicator (refer to 4.1) is not lit.</b>	A. Check that the AC power cord is properly connected. B. Check the fuses. If necessary, replace.
<b>The power indicator is lit, but Xenon lamp will not ignite.</b>	A. Check lamp connection. B. Check that the lamp door cover is secured. C. Check hourmeter if lamp hours exceeds the rated lamp life. D. Replace the lamp (refer to 9.1).