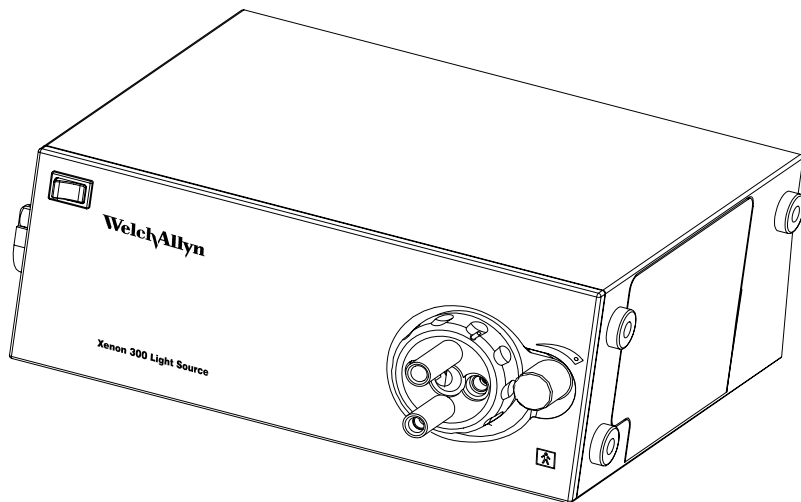


**WelchAllyn®**

**XENON 300 LIGHT SOURCE**



Thank you for purchasing the Welch Allyn Xenon 300 Light Source. By following the use and care guidelines given in this booklet, you will be rewarded with years of dependable, trouble-free service from your new light source.

**WARNING:** All users of this product should be thoroughly trained in the medical procedures appropriate to the equipment. Furthermore, they should read and understand the instructions for all other equipment used in conjunction with this product.

# Contents

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- 1 - Conventions . . . . . 3**
  - Symbols . . . . . 3
  - Warnings. . . . . 4
  - Cautions . . . . . 5
  - Indications. . . . . 6
  - Contraindications . . . . . 6
  
- 2 - Components . . . . . 7**
  - System Description . . . . . 7
  - Set-Up and Operation . . . . . 8
  
- 3 - Maintenance . . . . . 9**
  - Cleaning Instructions . . . . . 9
  - Lamp Care and Replacement . . . . . 10
  - Fuse Replacement . . . . . 11
  - Ordering Information . . . . . 11
  - Basic Troubleshooting. . . . . 12
  
- 4 - Technical Information . . . . . 13**
  - Specifications . . . . . 13
  
- 5 - Warranty and Service . . . . . 15**
  - Limited Warranty . . . . . 15
  - Service . . . . . 15



**WARNING:**








**Extremely high energy light. Some fiber optic bundles will not withstand the light intensity of this light source. USE ONLY WELCH ALLYN FIBER OPTIC BUNDLE or SUNOPTICS TECHNOLOGIES (formerly CUDA FiberOptics - 904-737-7611) CLAD ROD (CR) MODEL FIBER OPTIC BUNDLES.**



# 1 Conventions

---

## Symbols

	Power "ON"
	Protective Earth Ground
	Type BF
	CAUTION; consult Directions For Use
	Power "STANDBY"
	Alternating Current
	Warning

# Warnings

A warning statement in this manual identifies a condition or practice which, if not corrected or discontinued immediately, could lead to patient injury, illness, or death.



**WARNING** It is the user's responsibility to check the specifications of any device attached to this light source to verify that it can transmit the intense light output without generating high temperatures and heat build-up in the device that can cause serious burns.

**WARNING** High intensity light can cause burns to tissue even if the tip of the fiber optic cable or attached terminal device is cool. Burns are caused by the absorption of light by tissue and the subsequent conversion of that light energy into thermal energy. There is serious risk of igniting fires if the energized light cable fibers are placed on flammable materials, and full-thickness burns can be caused by prolonged exposure to concentrated light energy. Anesthetized patients are particularly susceptible to burn injuries via this mechanism. IT IS THE USER'S RESPONSIBILITY TO DETERMINE AND MAINTAIN THE MINIMUM SAFE DISTANCE BETWEEN THE END OF THE ENERGIZED FIBER-OPTIC LIGHT PATH AND ANY LIVING TISSUE OR FLAMMABLE MATERIAL.

**WARNING** When used to power the Welch Allyn MFI Headlight system, we recommend a standard 16" working distance separating the headlight and the patient. Under no circumstances should the energized headlight be placed closer than 10" to any object.


**WARNING** There is a risk of injury to tissue from exposure to the intense illumination. The risk of injury is reduced by using the minimum level of illumination necessary, by minimizing exposure time, and by avoiding close stationary viewing.

**WARNING** The high intensity light at the front of the light source and at the tip of a fiber optic bundle may give rise to high temperatures. To minimize the risk of injury, avoid contact with tissues.

**WARNING** As with any bright light, do not look into the beam. Permanent eye injury may result.

**WARNING** Total system risk current - excluding the patient applied instrument - should not exceed 100 microamps. an isolation transformer is required if total system risk current exceeds 100 microamps when accessories are interconnected.

**WARNING** POSSIBLE EXPLOSION HAZARD. Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

**WARNING**  The cover of the light source should never be removed. Electrical shock hazard due to high internal voltage. there are no user serviceable parts inside this light source except for the lamp and fuse, which are accessible through the bottom and side door panels. refer all service to Welch Allyn.

**WARNING**  Replace fuses as marked. See Fuse Replacement Section.

# Cautions

A caution statement in this manual identifies a condition or practice which, if not corrected or discontinued immediately, could lead to equipment failure, equipment damage, or data loss.



**Caution** Consult users manual for important information.

**Caution** This system should only be used by qualified medical personnel.

**Caution** ☀ To reduce the chance of direct visual exposure to the light, set the light intensity knob to the minimum level and plug the fiber optic bundle into the light source before turning the power ON.

**Caution** When the unit is on, never disconnect the fiber optic bundle from the light source or the accessory from the end of the fiber bundle. High intensity light from the end of the fiber optic bundle and light source can ignite flammable materials (i.e. drapes).

**Caution** Grounding reliability is achieved only when connected to hospital-use or hospital-grade receptacles. Inspect electrical plug and cord routinely. Do not use if damage is discovered.

**Caution** ⚠ PROVIDE VENTILATION TO PREVENT OVERHEATING. Do not cover or drape the light source.

**Caution** ⚠ Do not use the turret as a light attenuator or with the turret misaligned with the light port, overheating will result.

**Caution** ⚠ The ends of the fiber bundle get hot during use. Allow to cool before removing.

**Caution** Do not operate light source without lamp module in place.

**Caution** If this light source is used during invasive surgery, the failure of a component within the system, causing loss of illumination, may directly cause risk to the patient. Therefore, it is recommended to have alternative means of illumination available.

**Caution** Since the light source uses a custom lamp, always have a spare lamp available for replacement. Use only Welch Allyn replacement lamp number 04980. Use caution because lamp may be hot. Allow the lamp to cool before replacing.

**Caution** **IPX0** - Equipment not protected against the ingress of water. Do not use or store liquids above or on the light source.

## Indications

For use with the Welch Allyn Headlight System

## Contraindications

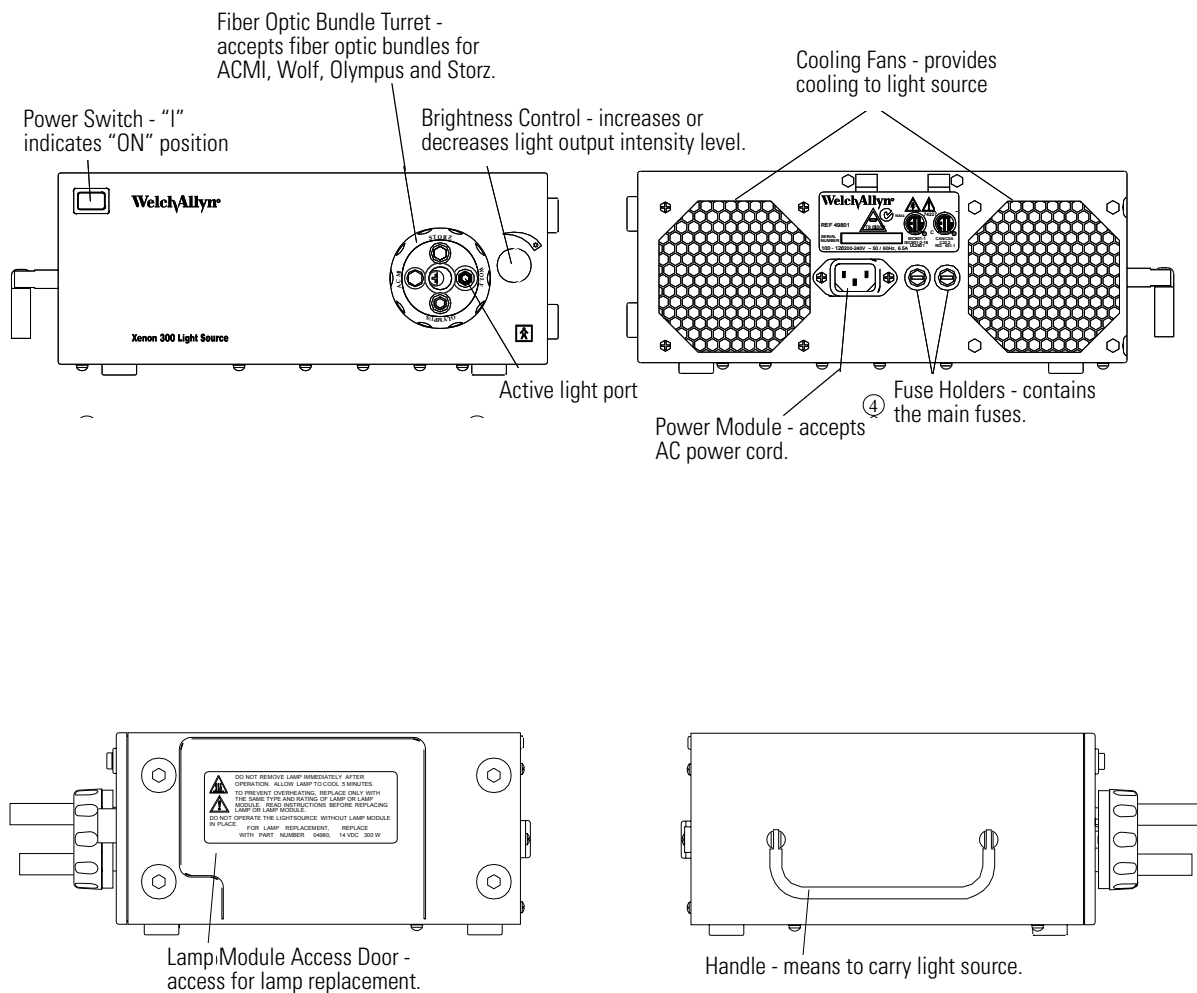
- Neonate transillumination
- Ophthalmic procedures
- For use with Rhinolaryngoscopes
- For use with Endoscopes

## 2

## Components

## System Description

The Welch Allyn 49801 light source is intended to be used as a 300 watt light source to supply illumination for surgical fiber optic headlights.



## Set-Up and Operation

1. Unpack unit and visually inspect it for damage that may have occurred during shipment.
2. Plug power cord into light source power module and the remaining end into a hospital grade receptacle.
3. Select type of fiber optic bundle port (ACMI, Wolf, Olympus, Storz) and rotate turret to align with light port.
4. Insure that the ends of the fiber optic bundle are clean before each use. Any residue on the ends of the fiber optic will absorb the high intensity light and will overheat or damage the fiber optic bundle.
5. Insert fiber optic bundle into light port and connect the headlight luminare. Set the light intensity to minimum level. This prevents inadvertent shining into the patient's or user's eyes when turned on.



**Caution** When the unit is on, NEVER disconnect the fiber optic bundle from the light source or the headlight from the fiber optic bundle. High intensity light from the end of the fiber optic bundle and light source can ignite flammable materials (i.e. drapes).

6. Turn the unit on.
7. Set light intensity to minimum level necessary for adequate visualization.
8. Turn unit off when not in use.
9. Allow the light source to cool before removing fiber optic bundle. The ends of the fiber optic bundle get hot during use..



**Caution** With the output of high intensity (Xenon) light sources, it is possible to convey a large amount of light energy and to concentrate this energy in a very small area. This may result in thermal injury to the tissue.

**Caution** The risk of injury is increased under the following conditions:

- Prolonged close contact or close stationary viewing of the mucosa or tissue.
- Using a high intensity light source at high output levels.
- Using multiple instruments to illuminate the same area.

**Caution** The following recommendations will reduce the risk of thermal injury:

- Use the minimum level of illumination necessary for adequate visualization.
- When possible, avoid close stationary viewing.
- Minimize exposure time.

# 3

## Maintenance

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### Cleaning Instructions

**Note** Do not sterilize or immerse the Welch Allyn Xenon 300 Light Source.

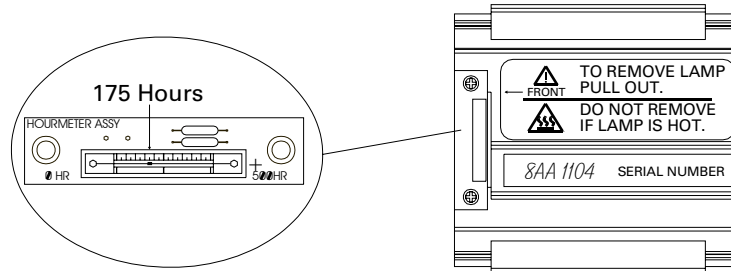
1. Turn power off and disconnect the power cord from both the wall outlet and the Welch Allyn Xenon 300 Light Source.
2. Wipe the external surfaces clean with a cloth dampened with mild soap and water or use one of the following cleaning/disinfecting solutions. DO NOT IMMERSE.
  - 70% isopropyl alcohol
  - 10% mild bleach solution
3. Wipe the power cord clean using the same cleaning/disinfecting solutions listed above. Wipe dry with a clean cloth. Take care not to get the plug prongs wet. DO NOT IMMERSE.
4. Do not plug the unit into a wall outlet until it is thoroughly dry.



**Caution** Clean the ends of the fiber optic bundle before each use. Any residue (including cleaning and disinfecting solutions) will absorb high intensity light on the surface of the fiber optic. Absorbed light will overheat the residue causing damage to the fiber optic bundle.

## Lamp Care and Replacement

The lamp in the Welch Allyn Xenon 300 Light Source will typically provide more than 500 hours of service. The symptoms indicating the need for replacement are:



- Low light output
- The unit requires more than four ignition strikes to start the lamp going into operation.
- The lamp life indicator reads more than 500 hours.

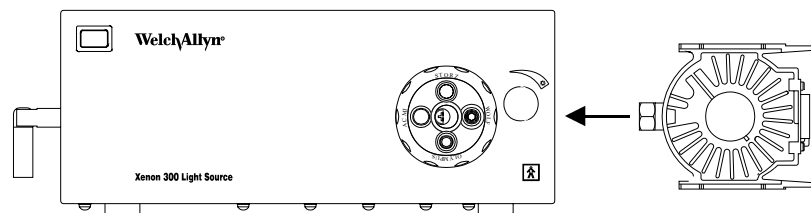
The light source is designed for simple and quick changing of the lamp module, which houses the lamp.

## Removing the Lamp

1. Turn unit off and unplug power cord from its power source.
2. Allow the lamp to cool.
3. Unlock and open access door located on the side of the light source.
4. Grasp the two handles and pull the entire lamp module out of the light source.

## Inserting a Lamp

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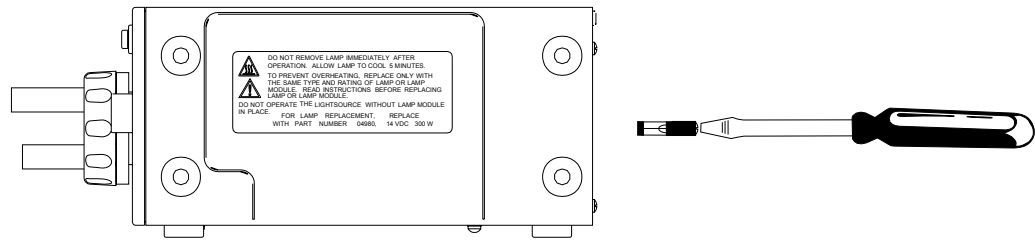


1. Orient the new lamp module so that the window of the lamp is facing the front of the light source.
2. Carefully align the connection pins with the brass sockets on the lamp module and push firmly to insure proper connection.
3. Close and lock the access door.



**Caution** DO not incinerate used lamps to avoid risk of explosion.

## Fuse Replacement



1. Turn unit off prior to checking the fuses.
2. Unplug the light source.
3. Use a flat blade screwdriver to remove fuse covers and check for blown fuse.
4. Replace the blown fuses with the same size and rating.
5. Replace fuse covers.

## Ordering Information

### Part Information

<b>49800</b>	Welch Allyn Xenon 300 Light Source 100-120/200-240 VAC, 50-60 Hz, 5.5A 50-60 Hz USA Plug type
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### Replacement Parts

<b>04980-U</b>	Replacement Lamp Module
<b>76400</b>	USA Power Cord

## Basic Troubleshooting

Symptom	Possible Problem	Remedy
Power does not come on.	Power plug is not plugged into the receptacle. Power switch is off. Fuse is blown. Lamp door is not closed tightly. Lamp module is not installed incorrectly.	Plug in power cord. Turn on power switch. Replace fuse. Close lamp door completely. Reinstall lamp module correctly.
No light output.	Power plug is not plugged into receptacle. Power switch is off. Fuse is blown. Lamp door is not closed tightly. Lamp module is installed incorrectly. Turret misaligned with light port. Lamp burned out. Fiber bundle is not connected. Light attenuator is set to minimum.	Plug in power cord. Turn on power switch. Replace fuse. Close lamp door completely. Reinstall lamp module. Set turret to detent position (light port aligned). Replace lamp. Connect fiber bundle correctly. Set the light attenuator to minimum level needed for adequate visualization.
Lamp flickers or dims.	Lamp is getting old.	Replace lamp.
Light source turns off after a few minutes of operation.	Obstructed air intake; overheating causes thermal switch to trip. Fan not running; overheating causes thermal switch to trip.	Allow unit to cool (5-10 minutes). Remove obstruction(s). Contact Welch Allyn.
Low light output	Accessory damaged. Lamp is old. Light transmission rod is damaged or contaminated.	Replace accessory. Replace lamp. Clean with isopropyl alcohol and allow to dry. Use care not to chip edges. Contact Welch Allyn for repair.
Several ignition attempts needed to start lamp.	Three or fewer ignition attempts are normal.	Replace lamp if four or more ignition attempts are required.

## 4

## Technical Information

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### Specifications

#### Electrical

Lamp Operating Power:	300 watts DC, nominal
Lamp Current:	21 Amps DC, nominal
Input Voltage:	100-120/200-240 VAC, 50/60 Hz, 5.5A
Lamp:	Cermax® Xenon Lamp
Lamp Life:	500 hours

#### Dimensions

Size:	12.75" (324mm)W x 4.75" (121mm) H x 12.5" (318mm) D
Weight:	12.5 lbs (5.7kg)

#### Fiber Optic Bundle Interface

Turret Fiber Bundle Port accepts ACMI, Wolf, Olympus, and Storz

#### Environment

Operating:	10°C to 40°C, 95% R.H., 500hPa - 1060 hPa, Altitude
Transport/Storage:	-20°C to 49°C, 95% R.H. Max, 500hPa - 1060hPa, Altitude

#### Fuses

5mm fuse, T 8.0L 8 amp 250V.

## Approvals

UL 2601-1  
CAN/CSA C22.2  
No601.1-M90  
IEC 601-1  
IEC 601-1-2:1993

## Equipment Classification

Class 1 Equipment  
Continuous Operation

## Patents

Patents Pending

Equipment Disposal: Do not incinerate this equipment at the end of useful life for risk of lamp explosion. Equipment contains no hazardous materials and can be discarded without environmental risks.

# 5

## Warranty and Service

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### Limited Warranty

The Welch Allyn Xenon 300 Light source is guaranteed by Welch Allyn against all manufacturing defects. Welch Allyn will repair or replace, free of charge, any parts of its own manufacture that prove to be defective for reasons other than misuse, neglect, damage in shipment, or normal wear. This warranty is in effect for one year from original date of purchase.

### Service

#### Service Policy

A Welch Allyn Service Center must perform or approve all repairs on products under warranty. Unauthorized repairs will void the warranty. Qualified electronics personnel or a Welch Allyn Service Center should repair products out of warranty.

#### Technical Assistance

If you have an equipment problem that you cannot resolve, you may call the Welch Allyn Service Center nearest you for assistance. Call the service center on normal business days at the phone numbers listed on page 16.

If you are advised to return a product to Welch Allyn for repair or routine maintenance, schedule the repair with the service center nearest you.

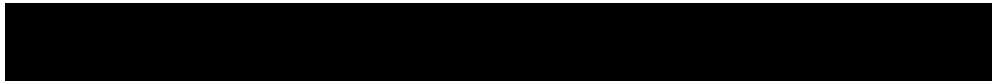
Before returning a product for repair you must obtain authorization from Welch Allyn. Our service personnel will give you a Service Notification number. Note this number on the outside of your shipping box. Service centers do not accept deliveries without an Service Notification number.

## Welch Allyn Service Centers

For Service or Repair

USA	800 535 6663 315 685 4560	Australia	61 2 9638 3000 800 074 793
Canada	800 561 8797	China	86 21 6327 9631
European Call Center	353 46 9067790	France	33 1 55 69 58 49
Germany	49 7477 9271 70	Japan	81 3 3219 0071
Latin America	305 669 9003	Netherlands	31 157 505 000
Singapore	65 6419 8100	South Africa	27 11 777 7555
United Kingdom	44 1332 368968		





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