SO-801 LED

HANDHELD SLIT LAMP

SCANOPTICS

USER MANUAL

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HAND-HELD SLIT LAMP

User Manual

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PARTS LIST

Please check that all parts listed are present. In the case of any discrepancy, advise Scan Optics immediately.

STANDARD PARTS

- Slit lamp head
- Battery handle/charger
- Power pack
- User Manual (this manual)

OPTIONAL SPARE PARTS

- SO-809 Spare Battery Unit
- SO-810 power pack

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CAUTION

Always insert the battery handle into the slitlamp head before use

Do not use the power pack if there is any evidence of damage to the mains supply cord.

Do not disassemble this device.

Do not immerse any part of this device, charger or charger power supply in liquids, or expose them to liquids generally.

Do not open or dismantle the battery unit, dispose of in fire, or short circuit - may ignite, explode, leak, or become heated causing personal injury.

Do not plug any other device other than the SO-810 power pack into the bottom of the SO-809 battery unit.

Do not plug or unplug the head mounting assembly into the battery unit while the battery unit is switched on.

Do not use this device if damaged.

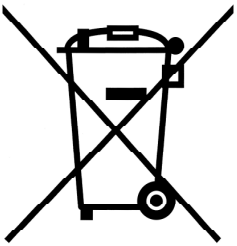
This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

Parts of this device may get hot after extended use.

DISPOSAL IN EUROPEAN UNION

The electronic components and sub-assemblies of the Scan Optics 801 slitlamp, are subject to the European Union Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC. This directive applies to all electrical and electronic equipment in the European Union (EU) only at this time.

- The disposal to municipal waste is prohibited for electrical and electronic equipment subject to this directive; this equipment must be reused or recycled. Each device that is subject to this regulation is marked on the device itself with the following symbol:



- In some cases where the device's size prohibits marking, the marking can be found on a flag attached to the power cord or on the packaging.
- In the European Union, recycling of the equipment is provided to the user at no cost. If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration agency.

INSTRUCTIONS AND SPECIFICATIONS

Please read the following information carefully. Scan Optics is responsible for the safety, reliability and performance of the equipment only if it used in accordance with these instructions.

USE OF THE EQUIPMENT

1. Turn the instrument on with the lower (black) knurled ring.
2. Select the appropriate aperture. The slit lamp has three apertures which can be selected by turning the upper (silver) knurled ring. These apertures are:
    - **Disk**: 3 mm diameter. This provides a high intensity beam for maximum reflected scatter.
    - **Slit**: 0.3 mm x 12 mm. This is used for examination of the corneal stroma.
    - **Rectangle**: 0.75 mm x 2.1 mm. This is used for examination of the corneal surfaces. It also provides separated images of the corneal and iris/lens surfaces for the detection of anterior chamber flare.

Check the eyepiece setting. The eyepiece consists of two optical elements, and is designed for very high image quality. The eyepiece is adjustable for the refractive error of the user. To adjust the eyepiece, first move the slit lamp so that the slit itself is focused sharply on a white surface. (The slit image is formed approximately 40 mm from the eyepiece.)

Look through the eyepiece. Rotate the eyepiece cell to move it forwards or backwards in its thread until the slit is clear. Take care not to touch the surface of the eyepiece lens.

The eyepiece lens is already correctly adjusted for an emmetrope when shipped from Scan Optics. For a myope, the eyepiece cell should be further forward (that is, the eyepiece lens should be closer to the slit image). For a hypermetrope, the lens barrel should be further back from the slit image. The amount of adjustment needed is approximately 1.3 mm for each D of refractive error.

Rotate the eyepiece bracket for left or right eye viewing as appropriate.

3. Place the slit image on the cornea of the patient, and then bring the examiner's eye to the eyepiece. This allows easier orientation than if the instrument is brought to the examiner's eye first.
4. Select the appropriate filter for the projected light by rotating the thumb wheel. The options are:
   - **Red free filter**: This filter appears green
   - **Blue filter**: This filter is suitable for viewing areas which have been treated with Fluorescein drops.
   - **No filter**

   Please ensure that the filter is correctly engaged in position (a definitive 'click' will be heard) otherwise the slit may be partially obscured.

BATTERY HANDLE

The battery unit in the Battery Handle will operate for approximately 60 minutes when fully charged. To preserve the life of the battery, make sure the instrument is switched off when not in use.

RECHARGING THE BATTERY

1. Connect the plug on the power pack to the socket on the base of the battery handle. *This will disconnect the output from the battery unit. Note that the instrument will not operate when the battery unit is plugged into the power pack.*
2. Connect the 'figure 8' socket end of the mains power lead to the power pack.
3. Connect the plug on the mains power lead to a suitable source of mains AC power and switch it on.
4. The power pack has a green LED which indicates when A/C power is connected.
5. A continuous green LED on the base of the slitlamp indicates when the power pack is connected to the battery unit.
6. A continuous orange LED on the base of the slitlamp indicates that the battery is being charged. It will take approx' 150 minutes to charge a fully exhausted battery. When the orange 'Charging' indicator switches off, the battery unit is fully charged.

NOTE:

- Li-ion batteries can be charged continuously.
- Li-ion batteries need 2-3 cycles for optimum performance. Charge and discharge the battery 2-3 times when the battery is new or has been stored for more than 6 months.
- Li-ion batteries should be stored charged. If stored for more than 6 months they should be recharged.

BATTERY CHARGING SAFETY

The Scan Optics SO-809 battery and SO-810 power pack should only be used in conjunction with each other. Do not charge the battery if the temperature is above 40 °C (105°F) or below 4 °C (40°F). Damaged batteries or a damaged power pack should never be used. Do not disassemble the battery unit or power pack. Do not immerse the charger or use the charger in wet or damp conditions at any time. While charging, it is normal for the batteries and charger to become warm. Unplug the power pack while not in use.

BATTERY SAFETY

The Li-ion battery is sealed in the battery unit and should not be removed. There are no user serviceable parts.

Dispose of the battery unit in accordance with U.S. Federal, State and Local regulations, regulations of the provinces of Canada or EC member states, or return to the supplier.

Do not incinerate.

REPLACING THE BATTERY PACK

Remove the battery unit by unscrewing it from the handle and pulling out. Insert a new battery unit into the handle. For safe and reliable use, ensure that the battery unit is screwed on completely after battery unit replacement.

SPECIFICATIONS

OPTICS

Eyepiece type	Achromat lens
Working distance	40 mm
Magnification	6.25 X
Apertures	Disk 3 mm diameter Slit 0.3 x 12 mm Rectangle 0.75 x 2.1 mm
Filters	Cobalt blue, red-free
Slit angle	35 ° left or right

LAMP

Type	LED
Rated life	10 years (based on average use)
Voltage	7 volts
Power	1W led (81m/W)
Colour temperature	3000K (typ)

BATTERY UNIT

Battery type	Li Ion
Battery voltage	3.7V
Capacity	3.0 hours at maximum intensity
Input charging voltage	13.8V dc
Output	7.0V, 80-350mA

CHARGER PACK

Type	Class II and Internally Powered Equipment.
Input	100-240 VAC / 50-60Hz.
Output	13.8V / 1.0A
Power Consumption	0.5A at 115V 0.25A at 230V

COUNTRY OF ORIGIN Australia