

OPTICLAR



Hand Held Slit Lamp - SL280 Instruction Manual













ALBERTWAESCHLE
SUPPORTING THE SURGICAL & MEDICAL PROFESSION

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The following symbols that may be used in this instruction manual where appropriate

-  Read User Instructions for Warnings, Cautions or additional information
-  Double Insulated
-  Type B protection from shock
-  Consult instructions for use
-  Not treated as household waste
-  Suitable for recycling
-  This way up
-  Fragile
-  Keep dry
-  Manufacturers name and address

Useful Codes for Spares and Accessories - SL280

| | |
|-----------------|-------------------------------------------------------|
| 100.050.300/1 | Replacement lithium cell. 7.4v 1600mAH |
| 100.050.300/2 | Measuring rod - fits into accessory slot on SL280 |
| 100.050.300/3 | Replacement pair of rubber (latex free) ocular covers |
| 100.050.300/4UK | 12v/2a mains transformer with UK 3 pin plug |
| 100.050.300/4EU | 12v/2a mains transformer with EU 2 pin plug |
| 100.050.300/5 | Replacement foot plate |
| 100.050.300/56 | Aluminium storage case |



Quick Reference Guide

Accessory Port. Use screwdriver blade to open



50mm 78mm

Rotate optical body to adjust PD

On/Off Button. Press once to activate

Top wheel - Aperture wheel

1x1 0.15 0.5 0.8 1.6 12mm

Lower wheel - Filter wheel

Red Free Cobalt Blue Neutral Density Clear

Recharge Time 2.5 Hours Working Duration 8 Hours



Magnification change lever. 16x lever left, 10x lever right

Illumination control wheel. Rotate left for maximum power, rotate right for minimum setting.



Battery low LED. Flashes red when cell requires recharging. Place in base plate to charge.



Rotate eyepieces to focus oculars

Battery compartment cover button. Press to remove cover

LED, illuminates when power on. SL280 has auto on/auto off.

Unit will switch off automatically when placed in charging pod. It will switch on automatically at the last power setting when lifted from the charging pod.

1 About your SL280

Thank you for choosing this Opticlar product.

To ensure the best performance from this product and the health and safety of your patient we recommend you read this manual prior to use.

Your Opticlar Hand Held Slit Lamp will include the following:

- Portable Slit Lamp Body and Optics
- Base unit
- Power Supply
- User instructions and quick guide
- Aluminium Carry/Storage case

As manufacturer we reserve the right to alter and amend specifications without prior notice.

2 Indications for use and general description - SL280

This Opticlar Hand Held Slit Lamp is a lithium rechargeable powered hand held ophthalmic microscope intended for examination of the anterior segment from the corneal epithelium to the posterior capsule. It is intended to aid the diagnosis of trauma and diseases which may affect the structural properties and integrity of the anterior segment of the eye.

This instrument may be used for general diagnosis, paediatric, geriatric, optometry, ophthalmic as well as veterinary medicine.

It is intended to be used only by suitably trained and authorised healthcare and veterinary professionals.

This hand held slit lamp consists of an LED light source that can be focussed to shine a beam of light onto the frontal segment of the eye. It is used in conjunction with the magnifying optics. The slit lamp facilitates examinations of the anterior segment, frontal structures and posterior segment of the eye in humans and veterinary applications. This may include the eyelid, sclera, conjunctiva, iris, lens and cornea.

The binocular optics provides a detailed stereoscopic magnified view of the eye structures, enabling appropriate anatomical diagnoses to be made.

The instrument is charged by placing into the desk plate. Press the button on the front of the handle to switch on. Apertures and filters are selected by rotating the appropriate wheel situated on the main illumination body of the instrument.

3 Standards and Safety - SL280

This Opticlar Hand Held Slit Lamp is designed and built to EC Directive 93/42/EEC and to ISO9000 and

EN46000 quality standards.

The CE mark confirms that the Opticlar Hand Held Slit Lamp complies with the provisions of Annexes I, VI, and VII of the EC Directive 93/42/EEC. This instrument is classified as Class I as per CE Regulation 93/42 EEC.

Production processes, testing, maintenance and repairs are conducted in conformity with the relevant laws and international standards of reference.

When using this instrument please observe all relevant accident prevention measures to ensure the safety of the patient.

Please note that research has indicated that exposure of the eye to intense light sources for extended and/or lengthy periods of time can pose a risk of retinal photic injury. The light level on your Opticlar Hand Held Slit Lamp is continuously adjustable from zero to maximum illumination. We strongly advised that examinations are conducted at the lowest light level conducive with a successful examination.


To reduce the possible risk from light emitted from this instrument we strongly recommend limiting exposure to the minimum time necessary to successfully conduct your examination.

4 Cleaning and disinfection - SL280

Please only use manual non immersive cleaning. Do not autoclave or immerse in fluids of any type. It is essential that the instrument is disconnected from the power supply before any cleaning. Wipe external surfaces with a moist, clean, lint free cloth or a proprietary alcohol wipe whilst avoiding optical surfaces. Carefully dry the slit lamp and discard the used cleaning materials.

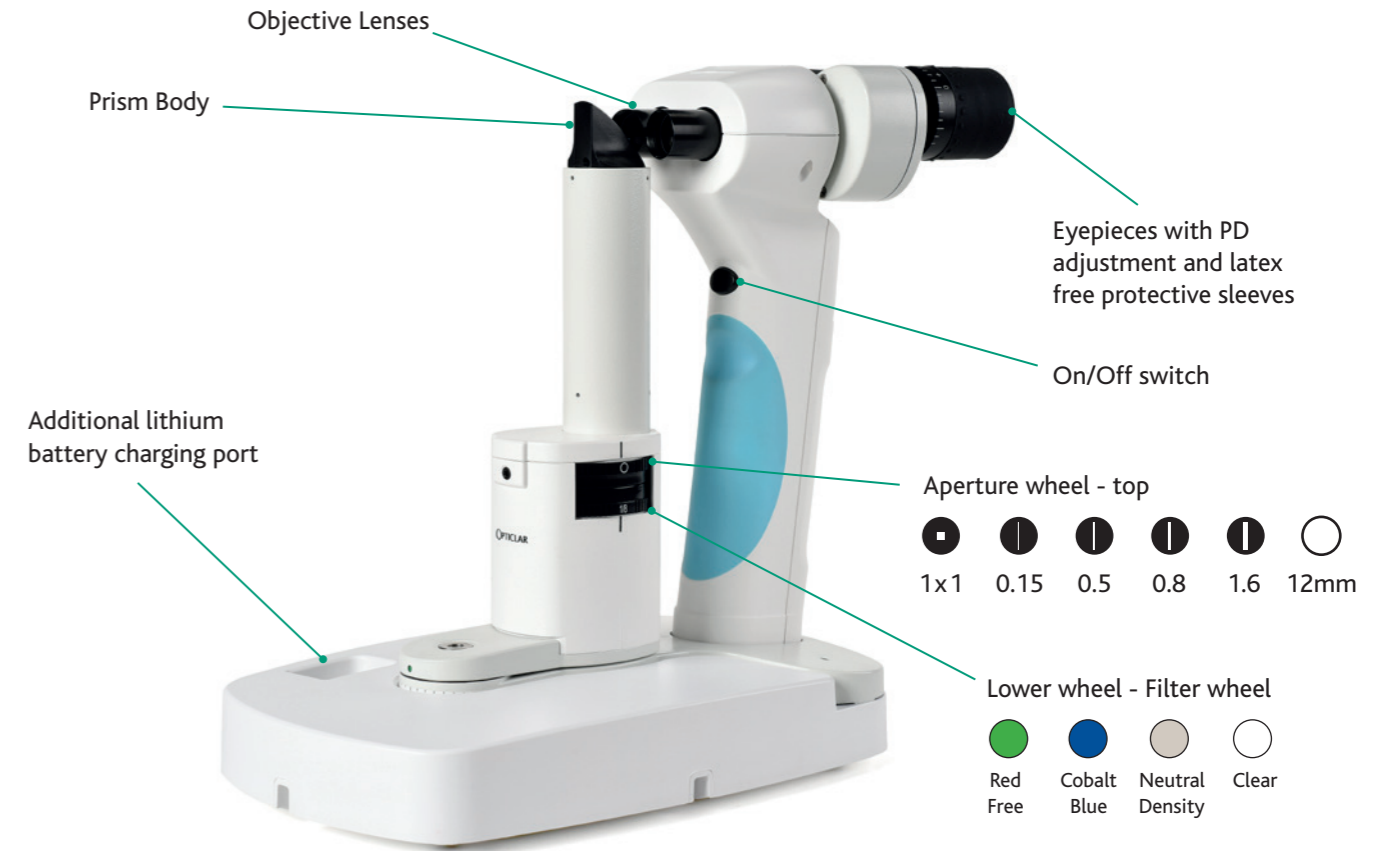
For deeper cleaning please use formulations such as Tristel.

5 Warnings and cautions - SL280

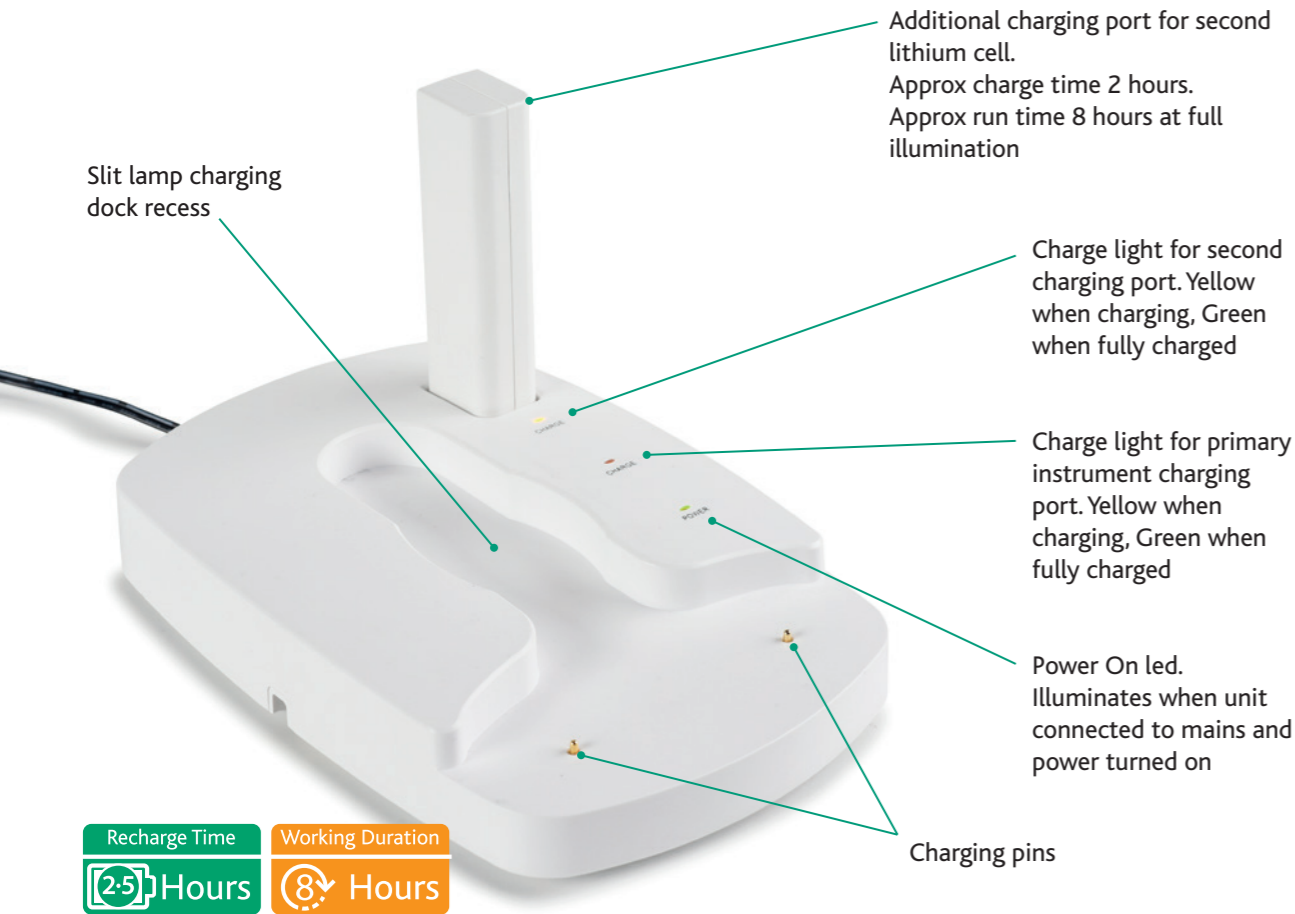
 Please observe the following to ensure safe use of the instrument:

- Do not use the instrument if visibly damaged.
- Disconnect slit lamp and base from mains power prior to cleaning.
- Do not immerse the base or slit lamp in fluids.
- Repairs and modifications can only be performed by authorized technicians or the manufacturers appointed service centres.
- The manufacturer declines all responsibility for loss and or damages arising from unauthorised repairs or use of a damaged or defective product. Furthermore, any such actions invalidate the warranty.
- Please do not drop the instrument. Should the instrument be dropped or suffer extreme shocks then the optical system may become damaged and should be returned for repair.
- Please only allow suitably trained healthcare professionals to use the instrument.
- The owner of the instrument is responsible for training personnel in its correct and appropriate use.
- Ensure all power cords are safely routed to avoid trip or catching hazards.
- Please ensure the transformer plug pin configuration is suitable for your mains outlets. Do not attempt to force an incorrect plug configuration.
- Only charge or place the instrument on a flat and stable surface.
- Do not use in the presence of flammable gas or liquids.
- Only use an approved power supply.

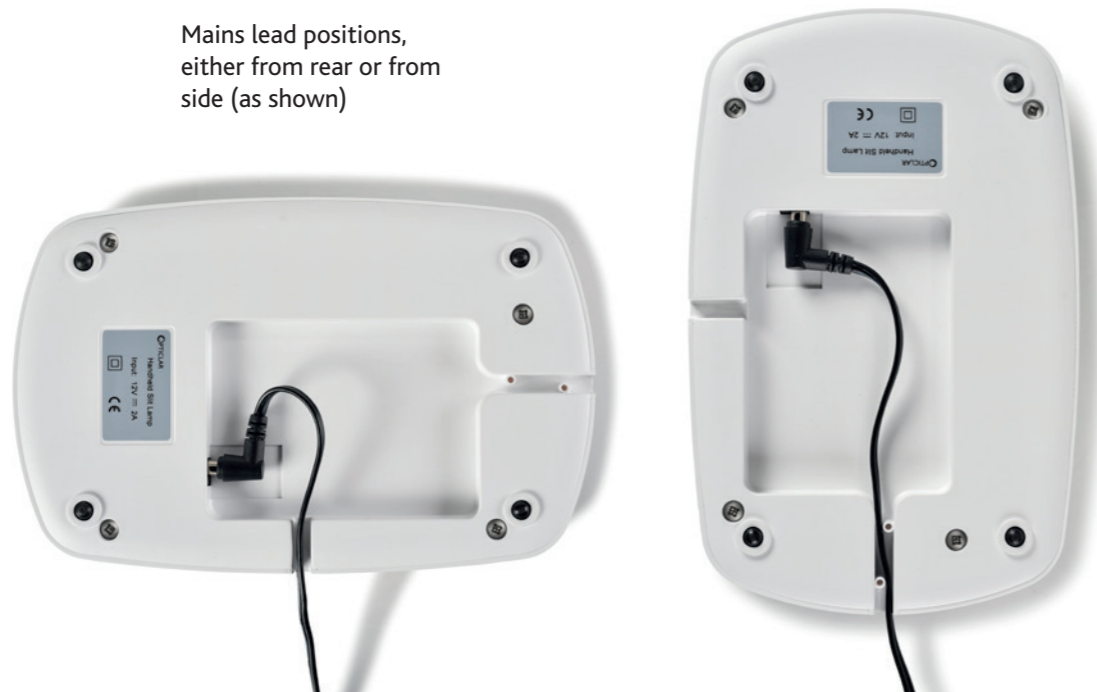
Identification of components and controls - SL280



6 Identification of components and controls - SL280



Mains lead positions, either from rear or from side (as shown)



7 Using the Portable Hand Held Slit Lamp - SL280

Initial Use

Connect mains charging transformer by pushing male connecting pin into female socket located underneath the charging dock.

Locate the mains lead in the most convenient slot to exit the charging plate.

Turn over charging dock and ensure it is on a level and solid surface. Plug in the mains transformer to an appropriate mains outlet. If the pin configuration is not suitable DO NOT FORCE into the mains outlet but remove and order a suitable pin configuration for your country. Turn on the mains socket once transformer is securely located in the socket. The Green power-on light will illuminate.

Place the Slit lamp into the charging dock recess and leave for approx 3 hours to fully charge.

Once fully charged the Charge light will switch from yellow to green.

The instrument is now ready to use.

Daily Use

When fully charged the Slit Lamp has enough charge for approximately 8 hours continuous use.

Set the Pupillary distance by rotating the optical prisms to suit.



Set the required magnification by moving the magnification lever to the left (16x) or right (10x).



Set the desired aperture by selecting the appropriate aperture via the top rotating wheel on the prism body.

Select the desired filter by selecting the required filter via the bottom rotating wheel on the prism body.

Set the angle of the slit by rotating the prism body to the left or right of the Zero (straight ahead) position. The angle chosen can be recorded by observing the green spot at the front of the rotating prism body in relation to the degrees shown on the fixed body of the instrument.



Press the power on button to illuminate the LED.

The Slit lamp can be used in the normal attitude or in an inverted attitude.

Ensure the patient is comfortable and that access to the eye(s) is easy.

The Slit lamp can be used right or left handed.

Commence the examination using the minimum light necessary to achieve diagnosis. Increase illumination as and when required.

The Slit Lamp will turn off automatically when placed into the charging dock and will automatically turn on when lifted from the dock.

8 Troubleshooting - SL280

In the unlikely event you experience problems with your Opticlar Hand Held Slit Lamp the following may be useful;

No/low illumination

Check unit is charged
Check that filters and aperture wheel are set correctly

Slit at an angle

Check position of aperture wheel

Incomplete/offset circle

Check position of filter and aperture wheel are set correctly

Poor focus Check diopter settings of the oculars

9 Maintenance - SL280

Please clean as per details in section 4 on page 4.

Clean optics by using a suitable lens cleaning solution.

No other maintenance is required.

NO USER SERVICEABLE PARTS IN THIS INSTRUMENT. DO NOT OPEN BASE OR INSTRUMENT. TO DO SO INVALIDATES YOUR WARRANTY.

9 TECHNICAL SPECIFICATIONS - SL280 Hand Held Slit Lamp

| | |
|-----------------------------|-------------------------------------------------------------------------|
| Optics | Binoculars converging at 13d |
| Magnification | Choice of 10x or 16x via selection lever |
| 10x working distance | Approx 90mm |
| 16x working distance | Approx 72mm |
| Field of view | 10x Approx 14mm |
| Field of view | 16x Approx 11mm |
| PD Range | 50mm to 78mm |
| Ocular adjustment | +/- 7 dioptres |
| Size | 163mm x 124mm x 205mm Slit Lamp 215mm x 135mm x 30mm Docking station |
| Weight | 880 grams Slit Lamp 290 grams Docking Station |
| Apertures | Slits - 0.15/0.5/0.8/1.6mm. Circle 12mm dia. 1mm square |
| Filters | Green (red free)/Cobalt Blue/Neutral density 0.8/Clear |
| Illumination control | Continuously variable from 1000 lux (min) to 40,000 lux (max) |
| Power Supply | 12v/2A |
| Complies with | BS EN 60601-1:2006 EN60601-1-2:2007 |



10 Warranty - SL280

Covers manufacturing, assemble and material defects.
It does not cover the cost of return to an authorised service centre.

| | |
|---------------------|--------------------------------|
| Main unit | 5 years from date of purchase |
| Base Plate | 5 years from date of purchase |
| Lithium Cell | 5 years from date of purchase |
| LED Module | 10 years from date of purchase |
| Accessories | Aluminium case etc. - 1 year |



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