

# DARAY®



## **DL1000**

### **HEAD-LIGHT**

### **OPERATING MANUAL**



# DARAY®

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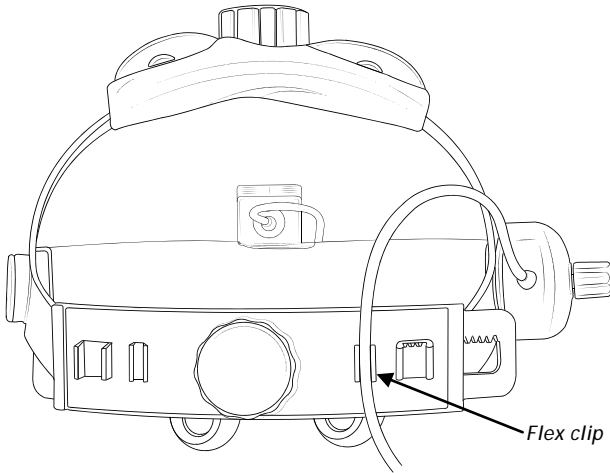
## 1. INTRODUCTION

Thank you for purchasing this product. To prevent damage to your product or injury to yourself or to others, read the following safety precautions in their entirety before using this equipment.

Keep these instructions where all those who use the product will read them.

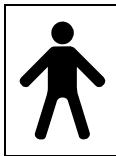
## 2. PRODUCT CARE

- Do not expose your product to liquids, moisture or humidity.
- Do not touch the lens surfaces with your hands or rough objects.
- Do not shine the light directly into the patient's eyes.
- Ensure that the headband power flex is located in the clips provided after the headband has been adjusted, to avoid damaging the flex as the headband is opened.



- The head-light body should not be covered as it may overheat.
- If it is not used for a long period, please take the batteries out of the power pack.

## SAFETY MARKS USED:



Type B F

### 3. FEATURES

The DL-1000 head-light is used for examination and surgical operation in microsurgery.

LED lamp light-source. With a 6,000 K colour temperature, the DL1000 head-light supplies bright, white, shadow-free light allowing the user to see tissue characteristics without distortion and without the heat associated with traditional halogen lamps.

- Portability. Use the head-light freely with its rechargeable lithium battery pack.
- Comfortable and lightweight.
- Suitable for all kinds of surgery.
- Can be used whilst charging.
- Low-battery indicator light.
- Compatible with DARAY DLL250 loupes.
- Smart design, convenient for mobile diagnosis.

### 4. OPERATING INSTRUCTIONS

**IMPORTANT: Before use, fully charge the battery until the battery charge light changes from yellow to green. Whilst charging for the first time, make sure that the DL1000 light is disconnected from the battery pack.**

Attach the power cable using the clip provided. Place the instrument on the head and adjust for width and height so that it fits comfortably.

Connect the head-light to the power source. Switch it on and use the head-band control to select the required light intensity.

Loosen the fixing screw to adjust the light-head up and down and backwards or forwards. After adjustment, re-tighten the screw. The illuminated field of view can be selected by means of the slide control.

Plugging the power-supply unit into the mains allows the head-light to be used regardless of the battery state.

## 5. MAINTENANCE

### 5.1 Battery charging and replacing

There are two battery indicator lights on the battery box, when the lights are yellow, the battery should be charged or a spare battery should be used. If one yellow indicator flashes, the head-light will switch off automatically to prevent the battery being excessively discharged.

You can use the head-light while the battery is being charged. The battery indicator changes from yellow to green when the battery is fully charged.

**Caution: Please use the correct battery and dispose of batteries properly.**

### 5.2 Battery use and care

The capacity of a lithium battery varies with temperature. For maximum battery capacity, use the battery at room temperature (25°C - 40°C). Do not expose the battery to extreme temperatures.

### 5.3 Cleaning and sterilisation

The outer surface of the head-light may be cleaned with a damp cloth. Tougher stains can be cleaned off with the mixture of 50% alcohol and 50% distilled water. Do not wipe with any corrosive detergent as the surface will be marked.

Cleaning the lenses: Lens-cleaning wipes or a drop of liquid solvent (50% alcohol and 50% ether) may be used to clean the lens. If there is dust on the lens, blow it with a lens blower or use a lens dust-pen.

**Caution: Be careful to prevent ingress of solvent into the instrument.**

## 6. TECHNICAL SPECIFICATION

Optical specifications	
Light-patch diameter at 420mm	20-80mm
Light intensity at 250mm	≥ 25,000 lux
Colour temperature	6,000 K

Adjustment range	
Fluctuation distance	12.5mm
Angle range	Vertical ±25°

Weight	
Head-light (excluding head-band)	69g

Electrical specifications	
Illumination Source	3W LED, life 20,000 hours continuous burn, no need to change the LED lamp
Battery	7.2V lithium battery
Battery life	Not less than 2.5 hours continuous on a fully charged battery
Charger supply rating	90-240 VAC, 50Hz-60Hz
Maximum input power	15W
Power adapter output	DC 10V ±0.5V, 1.5A
Electrical safety standard	GB9706.1, class II Type BF equipment

Environmental requirements		
Normal usage	Environment Temperature	+10°C to +40°C
	Relative Humidity	30% to 75%
	Atmospheric Pressure	700 hPa to 1060 hPa
Shipping and storage	Environment Temperature	-40°C to +55°C
	Relative Humidity	10% to 90%
	Atmospheric Pressure	500 hPa to 1060 hPa



## Returns Policy

**IMPORTANT!**  
Before returning your item, you must call us on 0844 375 9000

We want you to be completely satisfied with your purchase. If you need to return goods purchased from DARAY Ltd, please read the following information carefully.

The DARAY Ltd returns policy provides guidance on when you can return goods we have supplied, and what you can expect from us once you do. To see our detailed returns policy and procedure visit [www.daray.co.uk/returns](http://www.daray.co.uk/returns)

TYPE OF RETURN	REMEDY
<b>DAMAGED GOODS OR DOA*</b> Goods which are physically damaged on delivery, or which do not function.	We must be notified within 24 hours of receipt.
<b>GOODS DEVELOPING A FAULT</b> Goods which have developed a fault within the warranty period.	Within 14 days of delivery we will replace the item as DOA*. If the fault develops after 14 days, but within the warranty period, we will initiate the returns procedure.
<b>NON WARRANTY</b> Goods which have developed a fault outside the warranty period.	If a fault develops outside the warranty period, we will initiate the returns procedure.
<b>OTHER</b> Any situation which is not covered by the above.	We will try to help, but we cannot normally offer a refund.

\*DOA - dead on arrival

For additional clarification, please refer to our terms and conditions at [www.daray.co.uk/terms](http://www.daray.co.uk/terms).

In a small number of cases, we may determine that a replacement would not work any better than the original product we supplied. In such cases we will only offer a refund rather than a replacement for qualifying returns.

Replacement bulbs are not eligible for returns, unless they are faulty or damaged.

Spare parts ordered on our website or from supplied part codes are not eligible for credit. We will accept returns and exchange for the correct item.

If you purchase an item incorrectly you can return it within 14 days and it can be exchanged for another product of equal or high value, excluding transportation charges incurred.

If you send us goods that do not qualify for return, you will invalidate your claim to any refund, and you will be obliged to compensate DARAY Ltd for the cost of return postage and any other reasonable costs incurred processing the goods.

**Your statutory rights are not affected**

# WARRANTY

## TERMS AND CONDITIONS OF WARRANTY

1. To qualify for this warranty you must register on [www.daray.co.uk](http://www.daray.co.uk) or return to Daray Ltd (Daray) the duly completed warranty-registration form accompanying the product.
2. DARAY warrants this product (excluding lamp) against faulty material and workmanship during the period of the warranty. The period of warranty is the period stated on your warranty card and commences on the date of purchase of the product. In the event that the product is not in good working order DARAY will provide, during the warranty period, a free repair service within the United Kingdom. The warranty is subject to proof of purchase being provided; therefore, you should retain your original receipt.
  - 2.1 The repair service consists of the provision of spare parts and/or replacement products (at DARAY's discretion) which will be provided on an exchange basis and will either be new, equivalent to new or reconditioned. All replaced spare parts and products shall become the property of DARAY.
  - 2.2 DARAY's only obligation under this warranty is the provision of the service as set out above.
  - 2.3 All products are returned to Daray at the customer's cost and risk. Products to be returned should be adequately packed. For the address to send returns to please visit [www.daray.co.uk](http://www.daray.co.uk)
3. DARAY's arrangements for providing service provided under this warranty may include the use of sub-contractors.
4. This warranty does not cover damage or defects in the Product caused by or resulting from:
  - Wilful neglect or negligence by anyone other than DARAY;
  - Improper use, storage or handling of the product;
  - Use of non-DARAY approved parts (such as replacement lamps) not compatible with the Product;
  - Fire, accident or disaster;
  - Use of non-DARAY modifications other than in accordance with DARAY's instructions;Attachment of fittings and accessories not approved by DARAY;  
Repairs, modifications carried out by service personnel not approved by DARAY;
  - Damage caused by chemical corrosion from cleaning agents not approved by DARAY.
  - Failure to use or install the product in accordance with the manufacturer's instructions.
5. Nothing in this warranty shall have the effect of restricting or excluding the liability of DARAY in respect of:
  - a) Death and personal injury caused by the negligence of DARAY, or for fraud;
  - b) Under the *Consumer Protection Act 1987* to a person who has suffered damage caused by a defective product or to a dependant or relative of such a person;
  - c) Direct damage to your property caused by the proven negligence of DARAY.
6. This agreement does not give any rights other than those expressly set out above and in particular, DARAY will not be responsible for any loss of income, profits or contracts or any direct or indirect consequential loss, damage caused to or suffered by the purchaser as a direct result of this agreement.
7. This warranty is offered (subject to these terms and conditions) in addition to, and does not affect your statutory rights.
8. DARAY may disclose your details and other personal information to companies within the DARAY group including any subsidiary company or sub contractor of DARAY for the purposes of performing our obligations hereunder.
9. You must not resell outside the UK any products supplied by DARAY and covered by the *Export of Goods (Control) Order 1992* (or any law that replaces it) without obtaining all necessary licences. You also agree not to sell the product in the UK if you know or think that the person buying the product intends to export it without getting the necessary licences. You agree to impose similar conditions to these on anyone you sell the product to.
10. These conditions shall in all respect be governed and construed in accordance with English law and the exclusive jurisdiction of the English courts.

# DARAY<sup>®</sup>

WARRANTY REGISTRATION  
TO VALIDATE YOUR WARRANTY  
PLEASE COMPLETE IN BLOCK CAPITALS  
AND RETURN IN A WINDOWED DL ENVELOPE  
TO OUR FREEPOST ADDRESS

**ALTERNATIVELY REGISTER ONLINE AT [WWW.DARAY.COM](http://WWW.DARAY.COM)**



## 1 YEAR WARRANTY

NAME:
COMPANY:
EMAIL:
PHONE:
FAX:

ADDRESS:
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PURCHASED FROM:
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DATE OF PURCHASE:
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Freepost Plus RRAS-YGXE-SLBC  
Daray Ltd  
Marquis Drive  
SWADLINCOTE  
DE12 6EJ

Occasionally DARAY would like to send you information about our special offers and promotions. If you do not wish to receive such information, please tick here:

Privacy statement: DARAY will not pass on your details to any third party.

PRODUCT:
SERIAL No:









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email: [info@daray.co.uk](mailto:info@daray.co.uk) · url: [www.daray.co.uk](http://www.daray.co.uk)