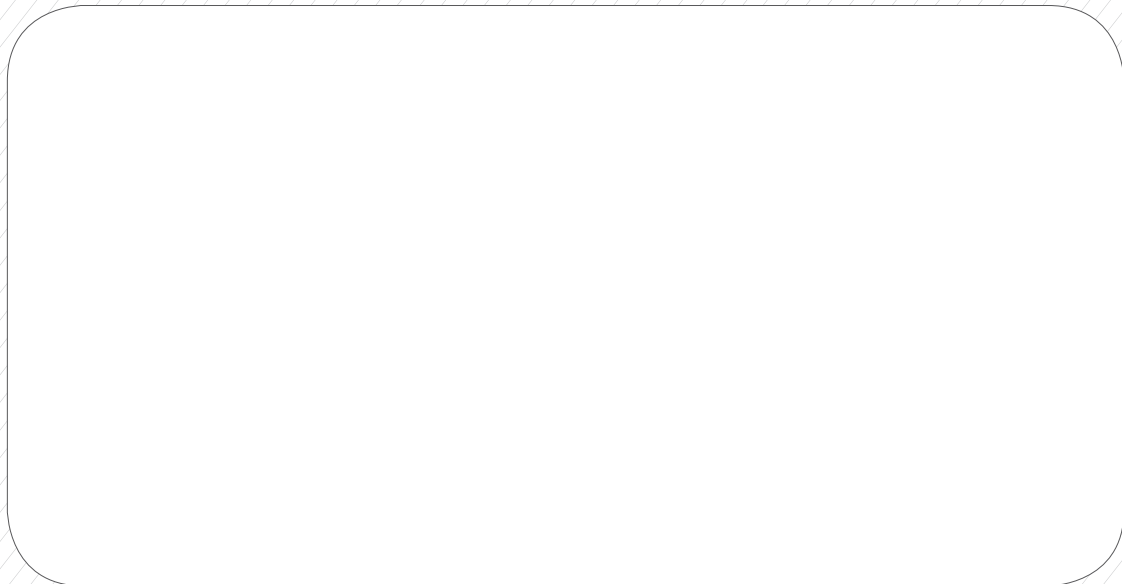




producing quality







# OP-HL15 LED HEAD LAMP

## 0. Index

<b>0. INDEX</b> .....	<b>2</b>
<b>1. WARNINGS</b> .....	<b>3</b>
1.1. QUALIFIED TECHNICAL PERSONNEL .....	4
<b>2. NOMENCLATURE</b> .....	<b>5</b>
<b>3. APPLICATIONS</b> .....	<b>6</b>
<b>4. MAIN CHARACTERISTICS</b> .....	<b>7</b>
<b>5. OPERATION</b> .....	<b>7</b>
<b>6. CLEANING</b> .....	<b>8</b>
<b>7. TROUBLESHOOTING</b> .....	<b>8</b>
<b>8. MAINTENANCE CHART</b> .....	<b>9</b>

## 1. Warnings

**THE INFORMATION GIVEN BELOW IS VERY IMPORTANT FOR SAFETY REASONS AND SHOULD BE TAKEN INTO CONSIDERATION DURING THE USE OF THIS EQUIPMENT.**



**OPTOMIC ESPAÑA S.A., MANUFACTURER OF THIS EQUIPMENT, TAKES NO RESPONSIBILITY FOR PERSONAL OR MATERIAL DAMAGES OR INJURY SUSTAINED BY THIRD PARTIES RESULTING FROM THE WRONGFUL OR INADEQUATE USE OF THIS EQUIPMENT, DISREGARD FOR INSTRUCTIONS PROVIDED IN THE PRESENT MANUAL, REPAIRS CARRIED OUT BY UNQUALIFIED OR UNAUTHORIZED PERSONNEL, DEFICIENT MAINTENANCE OR CARE FOR THE EQUIPMENT.**



The light emission through the LED head lamp illuminator is very powerful. Precautions must be taken to protect the patient's and doctor's eyes.



Never look directly into the illuminator when the LED head lamp is on, and never move the light beam without control, as it can affect other people's eyes. Moreover, be careful with reflections on glass surfaces or mirrors in the room.



As it is an electrical device which emits a high intensity light, its use is only recommended for qualified personnel who know the product. Never leave the unit within reach of children or non-qualified people.



Disinfectant and sterilizing liquids are agents which violently attack plastic and rubber, and eventually make them lose their physical properties, therefore use these liquids as little as possible.



This equipment should not be used where there is any risk of explosion.



This device includes electronic components which may be harmful to the environment if they are not handled correctly. Therefore, once the life cycle of the head lamp is over, the applicable national and local regulations related to the management of environmental waste must be observed, or the product can be returned to OPTOMIC ESPAÑA S.A. for the management of dangerous components.

**OPTOMIC ESPAÑA S.A. assumes no responsibility for any physical or material damage to third parties caused by an incorrect installation of the head lamp.**



According to legal regulations, the manufacturer only accepts liability for the device's safety specifications if maintenance, repair and modification procedures are carried out by the manufacturer or a person authorized by the manufacturer. Otherwise, the manufacturer will not assume any responsibility, and the warranty will be cancelled automatically.

**The manufacturer will not accept responsibility for the inappropriate use of the equipment or if it is used for purposes other than those for which it was manufactured.**

**Components relevant to safety will only be replaced with original parts.**

**After any modification or repair, a safety test will be carried out, to confirm the equipment meets all technical specifications related to safety in accordance with current regulations.**

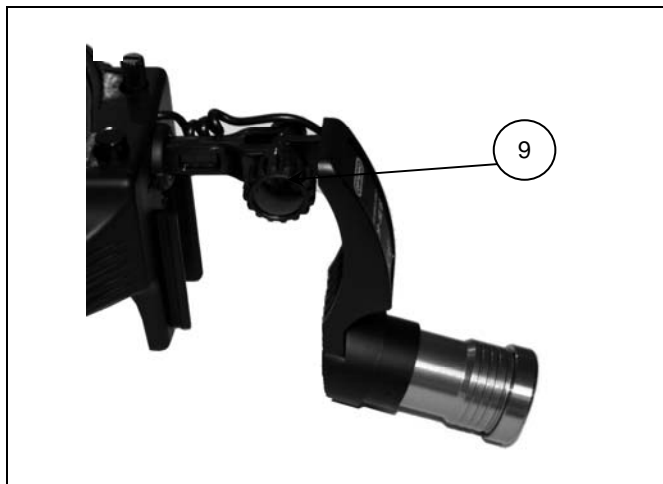
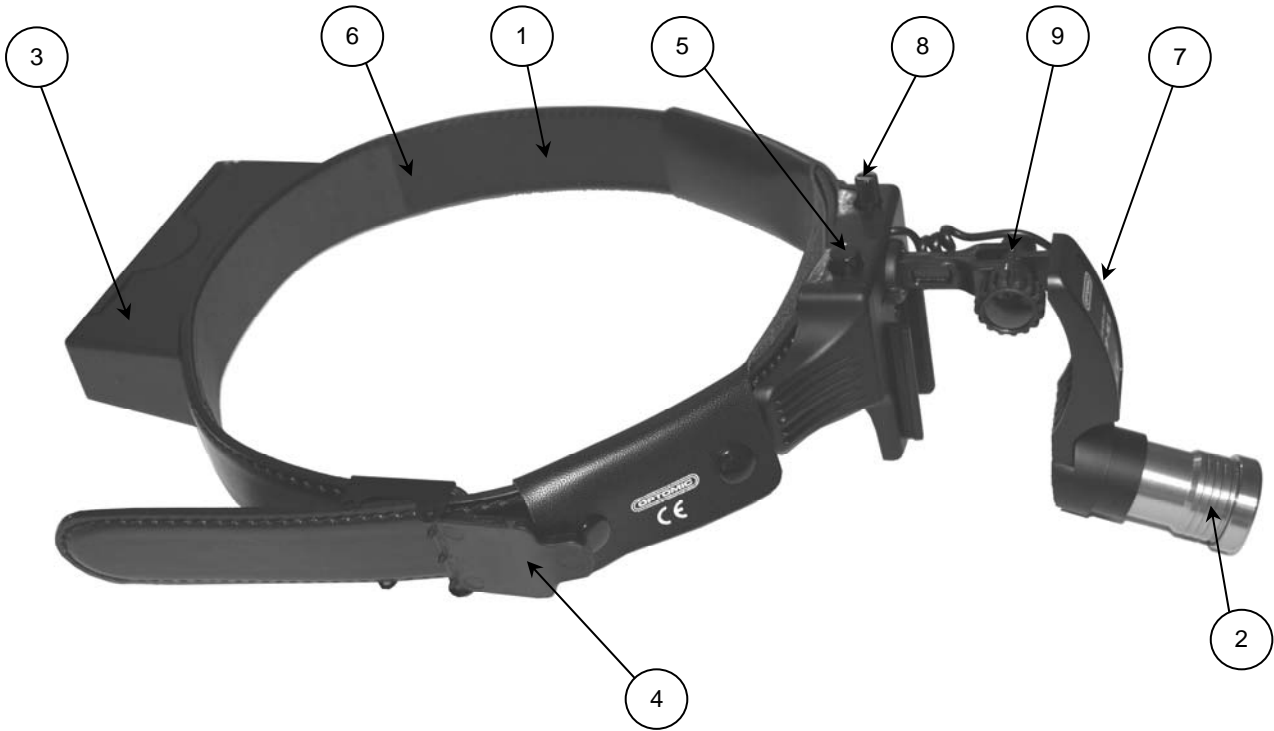
**All modifications, repairs and tests must be registered on the MAINTENANCE CHART.**

## **1.1. Qualified Technical Personnel**

Any repair of the OP-HL15 LED head lamp should be carried out exclusively by qualified technical personnel who have had the required technical training from OPTOMIC ESPAÑA S.A.

It is the responsibility of the user or authorized distributor to verify a technician is authorized and qualified.

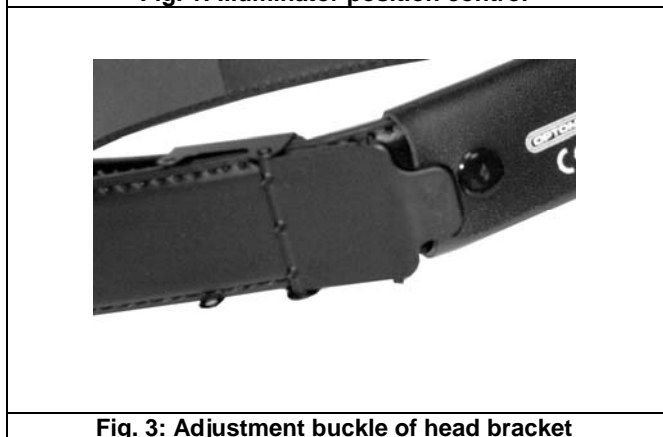
## 2. Nomenclature



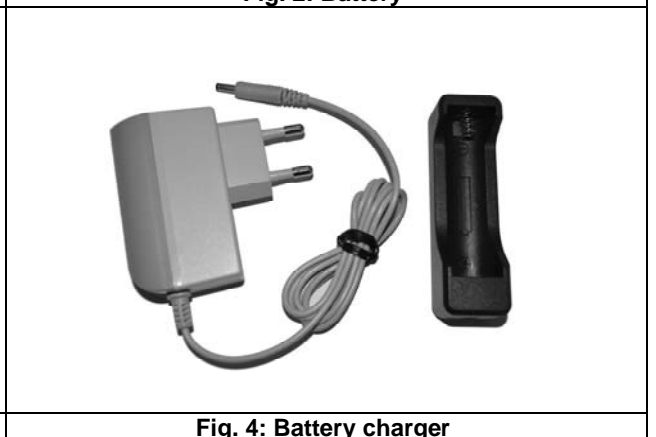
**Fig. 1: Illuminator position control**



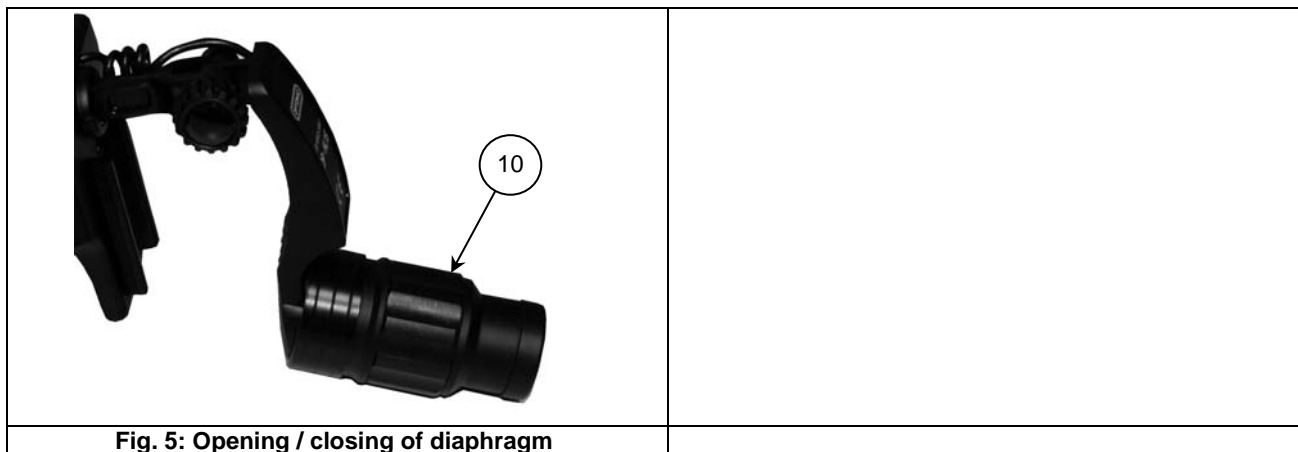
**Fig. 2: Battery**



**Fig. 3: Adjustment buckle of head bracket**



**Fig. 4: Battery charger**



**Fig. 5: Opening / closing of diaphragm**

<b>[1]</b> Head bracket	<b>[6]</b> Foam rubber pad
<b>[2]</b> Illuminator	<b>[7]</b> Head unit
<b>[3]</b> Battery	<b>[8]</b> Light adjustment
<b>[4]</b> Adjustment buckle	<b>[9]</b> Illuminator position control
<b>[5]</b> ON-OFF button	<b>[10]</b> Opening / closing of diaphragm (optional)

### 3. Applications

The OP-HL15 head lamp is suitable for the following uses:

- Diagnosis and surgery in deep cavities.
- Illumination of the operation field.
- Applications where coaxial lighting to the vision axis is required.



## 4. Main characteristics

- High brightness equipment.
- Focusable and adjustable [9] illuminator [2].
- Adjustable head bracket [1].
- Foam rubber pad [6] for greater comfort.
- Battery charger (Fig. 4).

### Accessories:

- Opening / closing of the diaphragm [10] (fig. 5).

## 5. Operation

### 1. OPERATION OF THE OP-HL15 LED HEAD LAMP

- Place the head lamp's head bracket on your head [1].
- Adjust the head bracket using the adjustment buckle [4] (Fig. 3) until it is tight and comfortable on your head.
- Regulate the illuminator [2] by using the illuminator position control [9] (Fig. 1) so it is as close as possible to your eyes but without interrupting vision. This way the light beam will be more coaxial to the vision axle and there will not be shadows.
- Press the ON-OFF button [5].
- Look at a white area, such as a wall, at the same distance that you will be observing the objects with the head lamp's light.
- You can vary the light intensity and concentration for your most suitable use by turning the light adjustment [8].
- Leave the illuminator in the most appropriate position for you; the head lamp is ready to use.

**NOTE:** To redirect the head lamp light during examination, touch only the plastic elements of the head unit.

### 2. BATTERY CHARGE

- Connect the battery charger cable [fig. 4].
- Plug the cable to the mains (240V-50Hz ó 110V-60Hz)
- Once the battery is charged place it in its housing [3] (Fig. 2)

### 3. ADDITIONAL INFORMATION ABOUT THE BATTERIES AND THE CHARGER

- The charge time of the battery is from 5h30' to 6h approximately.
- The charger emits a red light while it charges the battery and a green light once the battery is charged.
- To replace the battery, contact Optomic España, S.A. or your nearest distributor.

### 4. USE OF THE DIAPHRARGM (optional)

- Turn the opening / closing control of the diaphragm [10] to vary the beam diameter.

## 6. Cleaning

- 1) Make sure that the head lamp is switched off.
- 2) Clean with a cloth dampened in a soap water solution the whole plastic surface. Next, rinse with another cloth dampened in water and leave to dry completely.

## 7. Troubleshooting

PROBLEM	POSSIBLE CAUSE	ACTION
The head lamp doesn't give light when pressing the ON button.	The battery is flat.	Charge the battery.
The battery does not charge.	The charger is not properly connected to the head lamp.  The battery is worn-out.	Check the connection.  Replace the battery, contact OPTOMIC ESPAÑA S.A. or your closest distributor.

### RETURN OF THE EQUIPMENT

If the device needs to be returned, it must be done with the original packaging. OPTOMIC ESPAÑA S.A. is not responsible for the damages or defects caused during transport and due to deficient packing or incorrect handling. When returning the device, please enclose the following information:

- Name of the owner
- Complete address of the owner
- Serial number
- Description of the malfunction

## 8. Maintenance Chart

All maintenance, repair, and modification tasks should be registered in the following maintenance chart, with date and signature of the company and/or person who carried them out.

TASKS CARRIED OUT EQUIPMENT N°	REPAIRED BY	DATE	SIGNATURE

ALL REPAIRS OR MODIFICATIONS WERE CARRIED OUT BY AN EXPERT TECHNICIAN IN FULL ACCORDANCE WITH THE SAFETY STANDARDS UNE EN 60601/IEC 601.



producing quality

**OPTOMIC ESPAÑA S.A.**

C/ Madroño, 4 • 28770 Colmenar Viejo, Madrid. (Spain)

Tel: +34 902 22 11 77 · Fax: +34 902 22 11 78

mail@optomic.com · www.optomic.com

