



# IsoLED mini LED HEADLIGHT User's Guide



## 1.0 Purpose and Features of the product

### 1.1 Purpose

The headlight is used for examination, diagnostics and surgical operations for multifarious uses including microsurgery.

### 1.2 Features

- 40,000 hours of LED life provides for a free maintenance device with an end life of approximately 20 years.
- The unit has infinite mobility, not confined by access to power sockets, and its charge will last more than 10 hours at full intensity.
- Its light beam is extremely homogeneous and free of imperfections.
- Its high CRI of 90 rating is very desirable in color-critical applications such as neonatal care, medicine and surgery, as it shows the true colors of tissues and skin, thereby reducing the time to diagnosis and surgery.
- The light-weight battery pack has a retention clip to be used on the user's belt or pocket.
- The Battery Charger comes with a Charge Monitor that alerts the operator when the Battery is fully charged.
- The Headlight adapts to any Binocular loupes: Gallilei, Zumax, Zeiss, Orasoptic Flip up, Grendel Meier and Heine.
- Lightest weight and most compact 3W LED unit.
- The unit's replaceable Yellow filter reduces blue & UV light, preventing premature curing of composite in dental procedures.

## 2.0 Loupes Installation

You can directly install the plastic buckle on the arm of loupes. Position the buckle to ensure that it is in the middle of the arm. Insert the headlight into the slot of buckle (Fig.1 Fig.2). If you are using other types of loupes (Fig.3). You can use our universal clip to attach the headlight (Fig.4).



Figure 1



Figure 2



Figure 3



Figure 4

You can install an enclosed yellow filter on the headlight according to the user's requirements (Fig.5).



Figure 5

## 3.0 Operating Instructions

Attach the power cord by means of the clip provided. Connect the Headlight to the "Battery Pack" and turn it on.

If you wish to continue the exam without pausing to recharge the battery, connect the DC connector of the Battery Charger and simply plug in the Battery Charger to the mains supply.

## 4.0 Battery use and care

The capacity of Li-ion rechargeable batteries will be changed by its' environmental temperature. The appropriate temperature is (10 °C~40 °C) range. Do not expose the battery to extreme temperatures, if the battery is used in high or low temperatures, the battery capacity will be reduced.

Dispose of worn battery safely.

## 5.0 Cleaning and sterilization

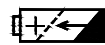
The outer surface of the instrument may be cleaned with a wet cloth, the remaining stains can be cleaned off with a mixture of 50% alcohol and 50% distilled water. Do not wipe with any corrosive detergent to avoid damaging the surface.

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

## 6.0 SPECIFICATIONS

<i>Illumination</i>	<i>&gt; 20,000 lux @ 30 cm</i>
<i>LED Life</i>	<i>&gt;40,000 hours</i>
<i>Color Temperature</i>	<i>4,500 °K</i>
<i>Color Rendition</i>	<i>90 Typical</i>
<i>Index (CRI)</i>	
<i>Light Degradation</i>	<i>None</i>
<i>Spot Size</i>	<i>60 mm @ 300 mm working distance</i>
<i>Intensity Range</i>	<i>3% to 100%</i>
<i>Operating Time</i>	<i>&gt;10 hours typical at maximum intensity</i>
<i>Normal Recharge Time</i>	<i>&lt; 3.5 hours</i>
<i>Quick Recharge Time</i>	<i>2 hours, for 8 hours of maximum intensity</i>
<i>Battery Charger</i>	<i>Universal: 100 to 264 VAC, 50 to 60 Hz., 8.4 VDC @ 1.3 A</i>
<i>Weight (headlight)</i>	<i>23 grams</i>
<i>Weight (Battery Pack)</i>	<i>190 grams</i>
<i>Size (control unit/battery pack)</i>	<i>4.25" x 2.7" x 1.1"</i>

## 7.0 Symbols:



Internal electrical power source



Class II



**Attention:** Read User's Guide for warnings and cautions and instructions for use.

## 8.0 Warnings and Cautions



**Warning:** This product must not be used in the presence of flammable gases.



**Warning:** This product should not be immersed in fluids.



**Warning:** Do not shine the light directly into the patient's eyes.



**Warning:** Ensure that the headband power cord is located in the clips provided

## 9.0 List of Spare Components

Item	Qty.	Description	Part No.
5	1	Battery Charger	IL-2327
2	1	Battery Pack (controller)	IL-2324