

# SHEERVISION

## LED Headlight System Operating Instructions



### ⚠ CAUTION ⚠

- Avoid direct illumination into your own eyes, or the eyes of the patient or person when the headlight is in use. The beam of the light may also cure dental composite materials when not used in conjunction with the Flip Filter accessory.
- Do not attempt to insert the headlight's plug into the charger's socket on the battery pack. This action could damage the battery.
- Use the LED headlight only with a SheerVision lithium polymer battery pack.
- Do not attempt to disassemble the headlight, battery pack, or charger. There are no serviceable parts in these components.
- This headlight is designed for indoor use. Do not expose to water or dust.
- Do not incinerate or expose to temperatures above 140°F.
- The charger is turned on by connecting it to a 100-240V wall outlet.
- Do not cover up the charger while in use.
- If the cord connecting the unit to the charger is damaged, the charger must not be used.
- This charger contains dangerous voltages and the cover should not be removed. Do not use in the vicinity of flammable anesthesia gases.
- If the battery pack was damaged or dropped, has expanded in shape, or is hot to the touch immediately remove from use.

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## An Overview

Thank you for purchasing the V-RAY Headlight System, Ultra mini Headlight Stem, or Infinity Ultra2 Headlight System.

Your SheerVision Headlight is an LED-based light source meant for illumination purposes only. Do not use this light for diagnosis or measurement.

Please review the following information to insure you receive optimum performance and a long life from your headlight system.

Included:			
			
LED Headlight Cable (w/ articulating arm)	Lithium Polymer (Ultra) Battery Pack	Battery Charger (100-240V)	Loupe Mounting Clip (TTL Clip Shown)
			
Elastic Strap (routes cable along frame)	Shirt Clip	Storage Case	Headband Mount (In place of Loupe Mounting Clip)
Optional Accessories:			
			
FlipFilter for Dental Composites	Second Lithium Polymer Battery Pack	Del Rey Frame Mount (Without Loupes)	

## Use of the Lithium Battery Pack and Charging System





Although it is not required, it is recommended that the Lithium Polymer Battery Pack be typically charged overnight.

**INITIAL CHARGING INSTRUCTIONS:** The Lithium Polymer Battery Pack for the Infinity Ultra Headlight no longer requires initialization -- it will have been initialized prior to shipment and is ready for use. The battery will not be fully charged -- and will need to be charged before first use.

Please charge as typical with other electronic devices (mobile phones, etc.). An orange indicator light on the battery charger indicates that charging is in process, with a green light indicating that the battery has been charged to a 90-100% level.

To charge the battery, first plug the charger into a wall socket. Then plug the small connector of the charger cable into the Charging Socket of the battery. The Charging Socket is located on the side opposite of the On/Off switch. The Charging Indicator light next to the Socket will come on, indicating the battery pack is charging.

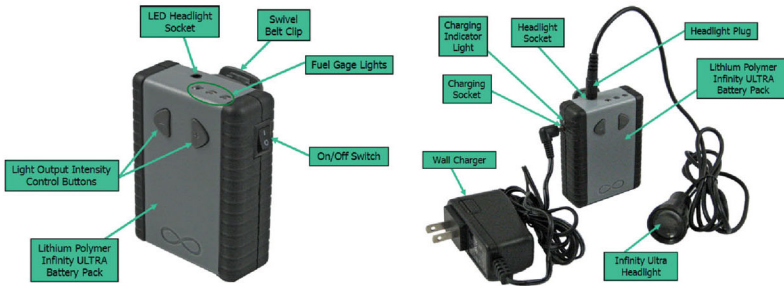
## Clip Types and Instructions

			
Flip-Up Type Clip	TTL Loupe Frame Clip	Soft Headband	Surgical Headband
For SheerVision, Orasoptic, Surgitel, and compatible Flip-Up Loupes.	For SheerVision, Orasoptic, Surgitel, Designs for Vision, and compatible TTL Loupes.	Compatible with all flip-up or TTL loupes.	Compatible with all flip-up or TTL loupes.
Insert the clip where your flip-up paddle is normally inserted as shown in the drawing above.	Mounts to the TTL frame via a thumbscrew. Note the screw orientation to insure a proper fit.	Place headband on head, and tighten if needed.	Place headband on head and turn both knobs to adjust fit.

The articulating arm of the light can be adjusted by hand to align the beam with your loupes or natural vision as needed.

For additional information on mounting the Infinity Ultra2 please visit our website at [www.sheerVision.com](http://www.sheerVision.com) and enter the Product Support webpage or contact our customer service department by telephone or e-mail.

## Operating the Battery Pack



### Battery Fuel Gauge Indicator Lights

- All three lit green = 75-100% Charge
- Left two lit green = 50-75% Charge
- Left one lit amber = 25-50% Charge
- Left one lit red = 1-25% Charge



## To Use The Headlight System

First mount the light housing to either your loupes or your headband as previously described.

Remove the battery charging cable from the battery pack. The headlight will not operate when the battery is being charged at the same time.

Plug the LED Headlight connector into the socket located on the top of the battery. Turn the power switch to on. Hold the tactile [+] and [-] buttons to increase or decrease the brightness of the light to your desired level from the 8 available levels.

For your comfort, the included elastic strap helps route the cable that exits the LED light

housing to the temple arm and your loupe frame, and then the shirt clip will route the cable to the battery pack so that it won't interfere with your procedures. The final clip is on the back of the battery to attach the battery to your belt or outside pocket with a rotating swivel for additional flexibility.

Enjoy using your SheerVision InFINITY Ultra Headlight, and please let us know if we can be of additional service!

## To Clean

**Unplug the charger from the wall outlet. Unplug LED headlight from the battery pack.**

You can use an alcohol wipe to clean and disinfect the cable, clip, headlight, battery, charger, and FlipFilter composite filter. Never immerse, spray, or run the system in water.

## Battery Life / Battery Replacement

Over time the battery pack capacity will diminish. The rate this occurs depends upon several factors, including how many times the pack is charged/discharged. The LED headlight operates at a fixed power level and will do so even as the battery capacity declines. This means that the light output will always appear the same (when set at full power) regardless of the age of the battery. However, usage time of the battery pack will diminish as the battery pack ages and with each successive battery charging cycle.

Because of these factors, the determination to replace a battery pack can be made at any time. Please note that there are no serviceable parts in the battery pack.

## Trouble Shooting

1. **Headlight won't light.**  
 Insure on/off switch is on. If on and no light, plug battery charger into pack. If charger light is red, leave battery on charger until the light turns green. Try headlight again.
2. **Headlight appears dim.**  
 Click the [+] to increase light intensity. If this does not correct the problem, please retry with a fully charged battery.
3. **Charger light does not light, or does not turn from red to green:**  
 Try the charger on both batteries. If the charger light does not come on for each battery, then replace the charger. If one battery charges and one doesn't, then replace that battery.

## Specifications

### Infinity Headlight Cable (SV Part #: INFINITY-U2 - CABLE)

- Lamp Type- LED- Light Emitting Diode
- Color Temperature- Pure White- 6,000 to 7,000 Kelvin
- Lamp Intensity- Minimum 8,000 foot candles (81,000 lux)
- Estimated LED Lamp Life- 50,000 hours

Only use with SheerVision Lithium Polymer Battery packs. (Reference SheerVision Part# INFINITY-U2-CABLE). Don't use third party components with your headlight, as they will damage your headlight and will void the SheerVision warranty.

### Lithium Polymer Battery (SV Part #: UB/ Model # 18W740)

- LED Battery Charge "Fuel Gauge" Indicator Lights (3)
- Adjustable light intensity level with each battery through tactile switch
- Includes a rotating swivel-type belt clip

Only charge the lithium-polymer battery pack with SheerVision Lithium Polymer Battery charger. (Reference SheerVision Party # UCHG).

### Lithium Polymer Battery Charger (SV Part # UCHG)

- Input: AC Current 100v-240v and 50Hz/ 450mA Max
- Output: DC Current: 9V/ 1.5A (Polarity Center + Outside Shell -)



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