

USER AND SERVICE MANUAL

DentLight Nano Loupe Light

1. DESCRIPTION

Dentlight Nano LED Loupe/Head Light system provides illumination using portable LED lighting technology for the dental office, physician's office, hospital, or emergency environment for any procedures which require a small homogenous and well-defined spot. These operating instructions provide recommendations and guidelines for the intended use of the light. Please read them carefully.

2. OPERATION

Dentlight Nano LED Loupe/Head Light consists of Nano Headlamp, Rechargeable Battery Pack(s), Battery Pouch, Composite Filter, Power Adapter, Mounting Adapter and Articulating Arm.



I. **MOUNT LIGHT:** Cross reference loupes/glass frame. Assemble light using the ordered mounting adapter/articulating arm at the frame center to align for line-of-sight illumination:

a) L Mounting Adapter

Adapter	Brand	Model	Frame	# of Arms
L	Orascoptic	Rydon, RaveX, Revolution	Rudy Project	1
		Standard 01		
	Surgitlel	Ergo	Titanium	
	DFV	Designer		
	PeriOptix	Ultralight		
	Sheervision	Performance		
Zeiss	EyeMag Pro	Any frame	0	



Screw on L-adapter to pre-threaded holes or metal back mounting plate

Made in USA

b) Universal Clip-on Mounting Adapter

Adapter	Brandname	Model	Frame	# of Arms
UNIVERSAL	General Prescription or Safety		Glasses	1
	DFV	Yoeman/Buddy Holly, Pounce, Revolve, Curfew	Aluminum or Nike	
		Sandy Grendel	TTL	
	Surgitlel	Bottle Rocket, Aero	Oakley or Titanium	

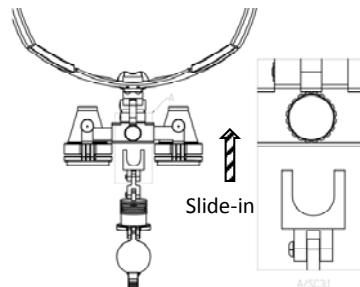
DFV Buddy Holly



Snap on frame center by opening the spring clip

c) U Mounting Adapter

Adapter	Brand	Model	Frame	# of Arms
U	Orascoptic	Any frame	LEGACY (before 2007)	0
	PeriOptix	Any frame	LEGACY, PANORAMIC, Prismatic	
	Rose Micro	Any frame	Flipup	
	Surgitlel	Ultralight, Compact Prism	Anyframe	
	Surgitlel	Micro	Anyframe	
	Sheervision	FLIP-UP	Any frame	
	Keeler		Flipup	



Slide-in U-Adapter to the middle of the flip-up bar

d) Variable Y Mounting Adapters

Y adapter mounts to curved frame with center thickness from 4 to 10 mm. Open the variable width enough to slide into the frame center bridge. Tighten adjustment screw to fix it.

Adapter	Brandname	Model	Style	Articulating Arm
Y	DFV	Skylon, Sport Frame	Nike	2
	PeriOptix	Adivista	Adidas	
	Sheervision	Under Armour	Plastic	
	Surgitlel	Half Jacket, Radar	Oakley	
	Orascoptic	Suby	Rudy Project	
	Sheervision	Del Rey	Plastic	



Surgitlel Half Jacket

DFV Skylon

e) UB Mounting Adapter

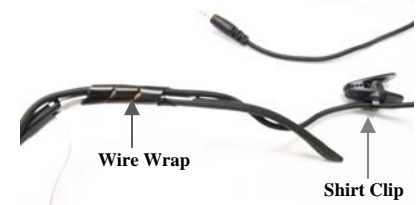
Adapter	Brandname	Model	Frame	# of Arms
UB	Orascoptic	Any frame	GEM	1
	Zeiss	EyeMag Smart	Any frame	
	Heine			



Snap on frame center by opening the spring clip

II. SET UP:

Use the spiral Wire Wrap to attach the lamp cord to the frame leg. Use Shirt Clip to fix the cord on the collar of scrub.



Plug Nano Headlamp cord to the female receptor in the middle of Battery Pack. Place Battery Pack on the belt/scrub using swivel clip on the Battery Pouch to route cord to minimum tension. Alternatively, place Battery Pack with Armband or slide in the scrub pocket.

III. **RUN:** Turn on Nano by pressing the raised ON/OFF button. Adjust power levels by pressing up (+) or down (-) button. Turn off anytime by pressing the ON/OFF button again.

At low battery, alarm indicator turns red together with warning sound. To recharge, simply plug in Power Adapter cord to Battery Pack male jack connector. The battery



charge indicator is green while charging and turns off when fully charged.

3. TIPS

Connection – Ensure good connections and route cord to minimum stress.

Battery – Charge Battery Pack while not in use and interchange between two Battery Packs. Use Dual Battery Charging Base (optional) to recharge Battery Pack all the time.



Uninterrupted Run – Plug in Power Adapter cord at low battery warning to run nonstop.

Composite Filter – Snap onto the front stepped rim of Nano Headlamp and removable when not needed.

- 1 Wire Shirt Clip
- 1 Battery Pouch
- 1 Universal Power Adapter
- 1 Clip-on Composite Filter
- 1 Composite Filter Flip Paddle
- 1 Operations Manual and Warranty

* One optional mounting adapter accessory per order

** One battery for **Nano Economy Kit**

6. CLEANING/DISINFECTING

- a) Thoroughly wipe off headlamp and battery pack with cleaning solution or soap and water. Do not spray. Disinfecting agents must not enter openings on unit.
- b) Clean lens using Q-tips slightly dampened (do not soak) with isopropyl alcohol.
- c) Always safeguard opening areas against moisture as this may cause electrical short-circuit or dangerous malfunction.

7. TECHNICAL DETAILS

Power Adapter	Universal 100-240 V (50-60Hz)
Voltage	Regulated 5V DC
Lamp	High Power 50000 hr LEDs
Color	5000 – 7000 K
Temperature	
Intensity	High Level: 45000 lux Mid Level: 31000lux Low Level: 16000 lux All at 12inch distance
Beam Size	2.5 inch at 12inch distance
Operation	Continuous with intermittent loading. Stop automatically at low battery with warning signal. Optional corded operation to simultaneously power headlamp and recharge battery
Battery	Poly Lithium Ion. Recharging time 2-2.5 hrs. LED indicator green during charging and dark when fully charged. Each full charge provides 2.0-6hrs/battery.
Fuse	Internal to LED lamp electronics and battery overheat, under voltage and overcurrent protection
Operating Temperature	0-30 °C
Storage	-10 – 40 °C
Weight	6 grams (headlamp itself), 87 grams (battery pack)

4. SAFETY PRECAUTIONS

- Do not touch and open any electronics parts and circuit boards. **Warranty void if seal broken.**
- Do not immerse headlamp in waters or solutions. **Warranty void in case of liquid damage.**
- Do not look directly at the light emitted from this unit. Eye injury may result.
- Do not use at distances closer than 10in for extend periods of time. Erythema may result.
- **Heatsink (metal ring) end of LED Headlamp will be hot when in use for extended period of time. Do not touch with bare skin.**
- Charge batteries while not in use to extend the lifetime of the rechargeable battery.
 - Do not short circuit battery.
 - Do not store above 60°C (140°F).
 - Dispose of unserviceable batteries and curing lights according to the national rules and regulations. Batteries must not be incinerated.

5. PARTS

Box Contains:

Qty	Description
1	Nano Headlamp with 1 Articulating Arm
1	Loupe L-Adapter *
1	Metal Mounting Plate *
1	Loupe U-Adapter *
1	Universal Clip-on Adapter *
1	Loupe Y-Adapter *
2	Rechargeable Battery Packs **
1	Wire Frame Wrap

Dimension	18 mm diameter (headlamp), 45x76x15mm (battery pack)
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8. REORDER AND OPTIONAL ITEM CODES

REF	Description
8600110	Nano Full Kit
8600111	Nano Economy Kit
8600020	Nano Headlamp
8600030	Battery Pack
8500040	Power Adapter
8500021	U-adapter
8500024	L-adapter
8500028	Y-adapter
8700100	Universal Clip-on
8700110	UB Adapter
8600022	Composite Filter
8500025	Battery Pouch
8501110	Dual Charging Stand
8500055	Safety Goggle
8500023	Universal Headgear

9. LIMITED ONE-YEAR WARRANTY

Register your purchase of **Nano** at www.dentlight.com. Your **Nano** is warranted to be free from defect in material and workmanship for a period of one year under normal use after its original purchase date. This warranty extends only to the original retail purchaser. This warranty does not cover products damaged by the following:

- Improper operation, accident or neglect, misuse or abuse, such as physical damage (cracks, scratches, etc.);
- Liquid, water, rain, extreme humidity;
- Improper repairs or modifications that have not been carried out by a certified Service Center.
- Use of other spare parts and accessories than from the manufacturer;
- Other acts which are not the faults of DentLight.

DENTLIGHT SHALL UNDER NO CIRCUMSTANCES BE LIABLE FOR INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR DAMAGE FROM MISUSE ACCORDING TO THE MANUAL.

In case of a claim under warranty, the complete kit must be returned, carriage paid, to a distributor or directly to DentLight, together with a receipt of purchase.



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