



# LED DayLite<sup>®</sup> Micro

## User Guide

Ver. 10.17



# CONTENTS

Indications for Use.....	4
Device Description.....	4
Device Diagrams .....	5
Directions for Use.....	7
<i>Charging the Battery</i> .....	6
<i>Using the Headlight</i> .....	9
<i>Understanding the Status Indicator</i> .....	10
<i>Holster Operation</i> .....	12
Inspection and Preventative Maintenance .....	13
Important Safety Instructions.....	14
Plug Adapter Kit.....	16
Specifications.....	17
Description of Various Symbols.....	18
Warranty.....	18

## INDICATIONS FOR USE

The Designs for Vision® LED DayLite® Micro is a lightweight, frame-mounted headlight that is designed for general illumination in laboratory settings.

## DEVICE DESCRIPTION

The Designs for Vision® LED DayLite® Micro provides bright, portable light to the laboratory environment. The headlight is designed to clip onto a wide variety of frames. It is powered by a lithium ion battery and generates a 3” spot of light at a 12-inch working distance. The light has a correlated color temperature of 5800K and a maximum intensity of 60,000 lux. The unit can run on battery power for up to 10 hours before needing to be recharged.

The LED DayLite® Micro consists of the following:

- Two Power Packs
- HDI™ Micro Headlight
- UV/Blue Light Filter (installed)
- Two Holsters
- Belt Clip

USB Power Supply  
Headlight Cable  
USB Power Cord  
Hex Drivers (2)  
T-Mount Bracket *(sold separately)*  
Operation Manual  
Registration Card  
Cable Wrap Kit

*Always examine the unit and accessories for damage before commencing use. Damaged accessories must not be used and must be replaced. Use original Designs for Vision, Inc. parts and accessories only. The use of unapproved parts may void the warranty.*

## **DEVICE DIAGRAMS**

Your LED DayLite® Micro is designed to be simple and lightweight. It consists of an HDi™ Micro Headlight, Power Pack, and USB Power Supply. *NOTE: The UV/blue light filter comes attached to the HDi™ Micro Headlight, but is removable.* The following diagram identifies each part for your reference in this manual:

# LED DayLite® Micro HDi™

**FIG. 1**



## DIRECTIONS FOR USE

### CHARGING THE BATTERY

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Remove the components from the shipping container, checking that all parts on the packing list have been

*NOTE: The batteries need to receive a full charge before initial operation*

received. Carefully remove the headlight, power packs, USB power supply and USB power cord from the packaging carton.

The USB power supply is designed to meet multi-national regulatory requirements and has multi-input voltage capability to accommodate various line voltages from 100-240 VAC. The power packs can be charged from any standard 5V USB output however, it is recommended that

they are charged with the supplied USB power supply for

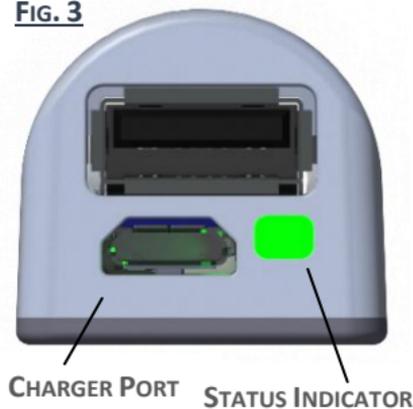


**FIG. 2**

optimal charge times.

Plug the large end of the USB power cord into the charger port of the USB power supply (Fig. 2).

**FIG. 3**



CHARGER PORT

STATUS INDICATOR

Connect to an available AC outlet. *NOTE: International adapters are*

**FIG. 4**

*available through Designs for Vision; refer*

*to the list on page 16.* Plug the small end of the power cord into the charger port on the power pack (Fig. 3).

*NOTE: The connectors only fit in one direction. Do not force together.*

The power button light will start pulsing to indicate the unit is in “Smart Charge” mode. The status indicator (Fig. 3) will



display the current state of charge. The LED will change colors as the battery charges; going from **RED** to **ORANGE** to **GREEN**. When the power button light remains steady, the unit is fully charged. You can now disconnect the power cord from the power pack.

## USING THE HEADLIGHT

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Place the HDi™ Micro headlight onto the t-mount bracket for your frame. Connect the small end of the headlight cable to the headlight. Connect the large end of the headlight cable to the headlight port on the top of the power pack. The headlight can be adjusted up and down to align with your point of view.

The headlight can then be locked into that position using the provided driver.



Locate the hex in the locking shaft of the headlight (*Fig. 5*). Place the driver into this opening and turn clockwise to

tighten the shaft. To unlock the position, loosen the shaft by turning counter-clockwise.

*NOTE: The shaft will only turn a limited distance. Do not force in either direction.*

Press the power button on the front of your battery pack. The headlight will turn on at high intensity. The power button will illuminate and the status indicator will display the current state of charge. A second press of the power button will lower the light intensity of the headlight. A third press turns the power pack off.

The LED DayLite® Micro also incorporates a Low Battery Warning system. With approximately ten (10) minutes of battery power remaining, the headlight will flash three times. At five (5) minutes remaining, the headlight will flash another three times. At 30 (thirty) seconds remaining, the headlight will flash continually until the battery is completely depleted.

A UV/blue light filter is provided to prevent premature curing of dental composites (comes pre-installed).

To use, slide the filter

over the front of the headlight until completely seated (Fig. 6). Using the supplied tool, tighten the set screw on the bottom of the filter to properly secure to the headlight. You can now rotate the UV/blue light filter into and out of the path of light, as required.

*NOTE: Be careful to not overtighten set screw when installing.*

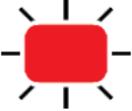


**FIG. 6**

## UNDERSTANDING THE STATUS INDICATOR

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The LED DayLite® Micro incorporates an advanced status monitoring system. The following table describes what each indication signifies:

	<p><b>SOLID GREEN:</b> FULLY CHARGED BATTERY</p>
	<p><b>SOLID/PULSING RED:</b> LOW BATTERY</p>
	<p><b>SLOW BLINK RED:</b> BATTERY SPENT. PLEASE CONTACT DESIGNS FOR VISION, INC. FOR FURTHER ASSISTANCE</p>
	<p><b>FAST BLINK RED:</b> GENERAL ERROR. PLEASE CONTACT DESIGNS FOR VISION, INC. FOR FURTHER ASSISTANCE</p>

*NOTE: A spent battery should not be used. Contact Designs for Vision Inc. for ordering a replacement.*

*REMARQUE: Une batterie usagée ne doit pas être utilisée. Contacter Designs for Vision Inc. pour le remplacement.*

*NOTE: Discard batteries in accordance with all regulations and contact Designs for Vision, Inc. for a replacement.*

*REMARQUE: Mettre au rebut les batteries usagées conformément aux lois et réglementations en vigueur contacter Designs pour Vision, Inc. pour un remplacement.*

## HOLSTER OPERATION

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The LED DayLite<sup>®</sup> Micro is supplied with a holster to allow you to swivel the power pack on your belt. Simply snap the holster onto the back of the power pack in the orientation shown (Fig. 7). The holster should hold

firmly to the power pack.

To release, pull back on one of the tabs and lift out power



**Fig. 7**

pack. Slide the back of the holster into the opening on the belt clip. Make sure you hear an audible “click” when properly seated. You can now attach it to your belt to carry it around with you.

## INSPECTION AND PREVENTATIVE MAINTENANCE

- Clean lenses with a standard glass cleaner and a soft, lint-free cloth, making sure not to scratch the surface. It is recommended for disinfection that all the exposed plastic sections of the headlight be wiped with Lysol IC surface disinfectant/cleaner or an equivalent plastic-safe cleaner. *Note: Do not use alcohol, phenol, ammonia, or iodine complex solutions*
- Wipe the sections rather than spraying onto plastic parts. *Note: Do not let liquids enter openings or ports. Do not immerse parts in solutions. Using solutions other than recommended may void warranty. Allowing liquids to enter openings or ports may void warranty.*
- Wipe cables with plastic-safe cleaners, if necessary. Do not allow cleaners to get onto the cable connectors as it may cause the electrical terminals to corrode
- It is *suggested* that power packs be replaced every 24 months to ensure proper operation

## IMPORTANT SAFETY INSTRUCTIONS

### INSTRUCTIONS IMPORTANTES CONCERNANT LA SÉCURITÉ

 *NOTE: Save these instructions. This manual contains important safety and operating instructions*

 *REMARQUE: GARDEZ CES INSTRUCTIONS - Ce manuel contient les consignes d'utilisation et de sécurité importantes*

 *NOTE: Always examine the unit and accessories for damage before commencing use. Damaged accessories must not be used and must be replaced. Use original Designs for Vision, Inc. parts and accessories only. The use of unapproved parts may void the warranty.*

 *REMARQUE: Toujours examiner l'appareil et les accessoires pour vérifier l'absence de dommage avant chaque utilisation. Accessoires endommagés ne doivent pas être utilisés et doivent être remplacés. Utiliser uniquement Designs for Vision, Inc. originaux pièces et accessoires. L'utilisation de pièces non approuvées peut annuler la garantie.*

 *NOTE: To reduce the risk of battery explosion, follow these instructions and those marked on the battery*

 *REMARQUE: Afin de réduire le risque d'explosion de la batterie, suivez ces instructions et celles indiquées sur la batterie.*

 *NOTE: Study all battery manufacturer's specific precautions such as removing or not removing cell caps while charging and recommended rates of charge.*

 *REMARQUE: Etudier toutes les précautions spécifiques de la batterie données par le fabricant, comme enlever ou ne pas enlever les bouchons de cellule pendant la charge, ainsi que le niveau de charge recommandé.*

 *NOTE: Do not Autoclave*

 *REMARQUE: Ne pas stériliser à l'autoclave.*

 *NOTE: For indoor use only*

 *REMARQUE: utiliser uniquement à l'intérieur.*

**⚠ NOTE:** *Disposal of the equipment and the accessories at the end of their useful lives should be in accordance with all national and local regulations*

**⚠ REMARQUE:** *la disposition de l'équipement et les accessoires à la fin de leur durée de vie utile doit être conforme à toutes les réglementations nationales et locales.*

**⚠ NOTE:** *If the equipment is used in a manner not specified by Designs for Vision, Inc., the protection provided by the equipment may be impaired.*

**⚠ REMARQUE:** *Si la méthode d'utilisation de l'équipement diffère de celle décrite par Designs for Vision, Inc., la protection assurée par l'équipement risque d'être altérée.*

## **PLUG ADAPTER KIT**

The following adapters are included in the Plug Adapter Kit:

United States Adapter	4911-0001-0016
European Adapter	4911-0001-0016
Australian Adapter	4911-0001-0016
UK Adapter	4911-0001-0016
UK Grounded Adapter	4911-0001-0016

## SPECIFICATIONS

POWER REQUIREMENTS Designs for Vision, Inc.® LED DayLite® Micro Model Number: DVI-LEDMC	Battery Power : 3.7VDC, 3400mAh 18650 Li-Ion Battery For Charging : Input : 100-240VAC, 50/60 Hz, 1.0A Output : 5.0VDC, 1.0A max	
ILLUMINATION At 12" measured with a cosine corrected light meter	High	60,000 lux ± 7%
	Low	34,000 lux ± 7%
OVERCURRENT PROTECTION	Firmware Controlled Protection	
ENVIRONMENTAL OPERATING CONDITIONS: TEMPERATURE: RELATIVE HUMIDITY: ATMOSPHERIC PRESSURE:	10°C to 40°C 30% to 75% 700 to 1060 hPa	
STORAGE & SHIPPING TEMPERATURE: RELATIVE HUMIDITY:	-20°C to 40°C 10% to 90%	
DIMENSIONS: LED HEADLIGHT: WEIGHT: POWER PACK: WEIGHT:	.76" x 1.27" .50 oz. 3.85" x .95" x .88" 2.5 oz.	
APPROVALS:	UL 61010-1: 2012 CAN/CSA C22.2#61010-1: 2012 IEC 61010-1:2010	
PATENTS:	US PATS. 8,851,709; 8,215,791; 7,690,806 B2; D600,728; D589,545 HDI™ Technology Patent Pending	

## DESCRIPTION OF VARIOUS SYMBOLS

	<i>ATTENTION: CONSULT ACCOMPANYING DOCUMENTS</i>
	<i>CAUTION: HOT SURFACE</i>
	<i>INDICATES CONFORMITY WITH MDD 93/42/EEC ANNEX VII</i>
	<i>INDICATES WHERE THE UNIT CAN BE TURNED ON AND OFF</i>

## WARRANTY

The HDi™ Micro headlight is warranted against imperfections, defects in materials, and workmanship for four years. The power supply and cables are warranted for one year. The power pack is warranted for two years.





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