



# LED DayLite<sup>®</sup> Micro

**USER GUIDE**  
Model: DVI-LEDMC  
Ver. 5.26 (En)

**DATE OF ISSUE:**

8-21-2025

## DESIGNS FOR VISION, INC. LED DAYLITE® MICRO

The Designs for Vision LED DayLite® Micro Headlights provide bright, portable light to the laboratory environment. They are designed to be comfortable yet functional. The headlights are made to clip onto a wide variety of frames and/or headsets.

### INDICATIONS FOR USE

The Designs for Vision LED DayLite® Micro is an illumination device used to aid in visualization for dental professionals. It is intended to illuminate various tissues and/or body parts. This device is intended to be used by dental professionals, requiring no specific training other than what is contained in this manual.

### CONTRAINDICATIONS

None known

### WARNINGS



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



*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.*

*To reduce the risk of battery explosion, follow these instructions*

*Do not Autoclave*

*For indoor use only*

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

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



*This equipment and accessories do not contain serviceable parts. All repairs need to be conducted by Designs for Vision, Inc. service personnel*

*Do not let liquids enter openings or ports. Do not immerse parts in solutions. Allowing liquids to enter openings or ports may void warranty.*

*Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or in an oxygen rich environment*

*Care must be taken when operating this equipment around other equipment to avoid reciprocal interference. Potential electromagnetic or other interference could occur to this or to the other equipment. Try to minimize this interference by not using other equipment in conjunction with this device*

*No modification of this equipment is allowed. Performing unauthorized modification on the equipment, accessories or the product labelling may void the warranty*



*Improper use of battery may cause them to get hot, ignite or explode. Always follow all safety precautions listed in this manual*

*Never make changes or modifications to the power pack*

*Do not short circuit*

*Do not expose to fire*

*Protect battery from fluids and damp environments*

*It is highly recommended that batteries are charged with the supplied power supply*



*Waste of electrical and electronic equipment must not be disposed as unsorted municipal waste. It must be collected separately, and must be disposed as per local regulations - RoHS 3 (EU 2015/863)*



*Do not plug or unplug the headlight to/from the power pack while the power pack is on.*

## SPECIFICATIONS

|                                                                                                                                                     |      |                                                     |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------|--|
| LED DayLite® Micro                                                                                                                                  |      | Model Number: DVI-LEDMC                             |  |
| POWER REQUIREMENTS                                                                                                                                  |      |                                                     |  |
| Battery Power : 3.7VDC, 3.5Ah 18650 Li-Ion<br>For Charging : USB 5V Power Supply<br>Input : 100-240VAC, 50/60 Hz, .35A<br>Output : 5.0VDC, 2.0A max |      |                                                     |  |
| ILLUMINATION                                                                                                                                        |      | Measured with a cosine corrected light meter at 12" |  |
| UltraMini® / UltraMini® IR /<br>UltraMini® HDi™ / UltraMini® IR HDi™                                                                                | High | 55,000 lux ± 10%                                    |  |
|                                                                                                                                                     | Low  | 30,000 lux ± 10%                                    |  |
| RUNTIME                                                                                                                                             |      | Measured with a fully charged battery               |  |
| UltraMini® / UltraMini® IR /<br>UltraMini® HDi™ / UltraMini® IR HDi™                                                                                | High | 5.5 hours +/-10%                                    |  |
|                                                                                                                                                     | Low  | 12 hours +/-10%                                     |  |
| DIMENSIONS                                                                                                                                          |      |                                                     |  |
| POWER PACK:                                                                                                                                         |      | 3.85" x .95" x .88"                                 |  |
| WEIGHT:                                                                                                                                             |      | 2.5 oz.                                             |  |
| UltraMini® HEADLIGHT:                                                                                                                               |      | .76" Dia. x 1.27"                                   |  |
| WEIGHT:                                                                                                                                             |      | .49 oz.                                             |  |
| UltraMini® HDi™ HEADLIGHT:                                                                                                                          |      | .76" Dia. x 1.27"                                   |  |
| WEIGHT:                                                                                                                                             |      | .50 oz.                                             |  |
| UltraMini® IR HEADLIGHT:                                                                                                                            |      | 1.5" x 1.1" x .81"                                  |  |
| WEIGHT:                                                                                                                                             |      | .58 oz.                                             |  |
| UltraMini® IR HDi™ HEADLIGHT:                                                                                                                       |      | 1.5" x 1.1" x .81"                                  |  |
| WEIGHT:                                                                                                                                             |      | .61 oz.                                             |  |
| ENVIRONMENTAL OPERATING CONDITIONS                                                                                                                  |      |                                                     |  |
| TEMPERATURE:                                                                                                                                        |      | 10°C to 40°C                                        |  |
| RELATIVE HUMIDITY:                                                                                                                                  |      | 30% to 75%                                          |  |
| ATMOSPHERIC PRESSURE:                                                                                                                               |      | 700 to 1060 hPa                                     |  |

| TRANSPORT & STORAGE                                                                                   |                                                                                               |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| TEMPERATURE:                                                                                          | -40°C to 70°C                                                                                 |
| RELATIVE HUMIDITY:                                                                                    | 10% to 100% including condensation                                                            |
| ATMOSPHERIC PRESSURE:                                                                                 | 500 to 1060 hPa                                                                               |
| APPROVALS                                                                                             |                                                                                               |
| UL 61010-1: 2012, CAN/CSA C22.2#61010-1: 2012, IEC 61010-1:2010, IEC 60601-1-2:4th Class B, IEC 62133 |                                                                                               |
| EQUIPMENT CLASS:                                                                                      | <br>Class II |
| INGRESS OF WATER:                                                                                     | IPX0 (ordinary equipment)                                                                     |
| MODE OF OPERATION                                                                                     | Continuous                                                                                    |
| PROTECTION FROM SHOCK:                                                                                | NO APPLIED PARTS                                                                              |
| OVERCURRENT PROTECTION                                                                                | Firmware Controlled Protection                                                                |
| METHODS OF STERILIZATION                                                                              | Not Intended to be Sterilized                                                                 |
| OXYGEN RICH ENVIRONMENT                                                                               | Not Intended for Oxygen Rich Environments                                                     |
| PATENTS:                                                                                              | 8,851,709; 8,215,791; 7,690,806; RE46,463; D600,728; D589,545 HDi™ Technology Patent Pending  |

# CONTENTS

|                                                   |    |
|---------------------------------------------------|----|
| Specifications .....                              | 7  |
| Device Description .....                          | 10 |
| Directions for Use .....                          | 11 |
| Charging the Battery .....                        | 11 |
| Using the Headlight.....                          | 13 |
| Using the UltraMini® IR HDI™ Headlight.....       | 16 |
| Using the Intuitive Response UltraMini HDI™ ..... | 17 |
| Understanding the Status Indicator .....          | 19 |
| Holster Operation .....                           | 19 |
| Inspection and Preventative Maintenance .....     | 20 |
| Replacement parts.....                            | 21 |
| Description of Various Symbols .....              | 23 |
| Warranty.....                                     | 24 |
| Notes.....                                        | 25 |

## DEVICE DESCRIPTION

The UltraMini® and UltraMini® IR generate a 2.75" spot of light at a 12-inch working distance with up to 55,000 lux. The UltraMini® HDi™ and UltraMini® IR HDi™ generate a 3" spot of light at a 12-inch working distance with up to 55,000 lux. All lights have up to 12-hour battery runtime. and have a correlated color temperature of 5800K.

The LED DayLite® Micro includes these main components:

- Power Pack(s)
- USB Power Supply
- USB Power Cord
- UltraMini® Headlight, or
- UltraMini® IR Headlight, or
- UltraMini® HDi™ Headlight, or
- UltraMini® IR HDi™ Headlight
- UV/Blue Light Filter (installed)
- Headlight Cable

Accessories include:

- One or Two Holsters
- Belt Clip
- Hex Drivers (2)
- T-Mount Bracket (*sold separately*)
- Operation Manual
- Registration Card
- Cable Wrap Kit

## DIRECTIONS FOR USE

### CHARGING THE BATTERY

---

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

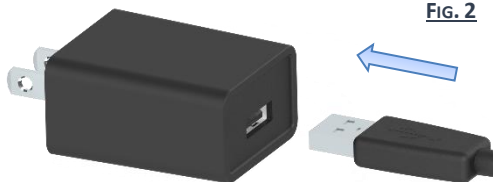
*NOTE: The batteries need to receive a full charge **before** initial operation*

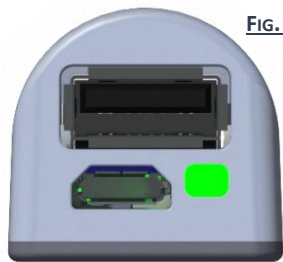
the headlight, power packs, USB power supply and USB power cord from the packaging carton.

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 optimal charge times.

Plug the large end of the USB

power cord into the charger port of the USB power supply (*Fig. 2*).





**CHARGER PORT**     **STATUS INDICATOR**

**FIG. 3**

Connect to an available AC outlet.

*NOTE: International adapters are 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.



**FIG. 4**

## USING THE HEADLIGHT

---

Place the 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.*



**NOTE:** Before inserting or removing any headlight cable from the power pack make sure the power pack is OFF

The power pack **MUST BE OFF** before plugging in

**FIG. 6**



the headlight cable into the headlight (Fig. 6). The micro USB connector can only be plugged in one way. The indicator on the connector must be facing in the direction shown. Connect the large end of the headlight cable to the headlight port on the top



of the power pack.

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. 7*). 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.

**FIG. 7**



**NOTE:**

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

The UltraMini® IR HDi™ incorporates an infrared (IR) sensor to allow for activation/deactivation of the headlight using only simple hand gestures. Located on the top of the headlight is the built-in sensor (Fig. 8).

Once power is applied from the power pack, move your hand over the sensor about four to six inches above. Wave your hand once to shut the light off, a second time to turn the light back on.

The UltraMini® IR HDi™ is designed to look for an *intentional* wave of your hand. To accomplish this, the headlight utilizes advanced circuitry that constantly monitors the headlight's position. It only allows operation if the headlight is relatively still and in an upright position. Simply put, if the headlight is hanging downwards or if it is moving, then the motion sensor will be deactivated. *NOTE: The sensor does not turn off the power pack. In*



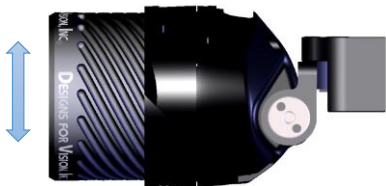
order to shut down power to the headlight, you need to press the button on the power pack.  Please see the guide sheet included with your light.

## USING THE INTUITIVE RESPONSE ULTRAMINI HDI™

---

Your new Designs for Vision LED DayLite® UltraMini IR™ headlight employs Infrared sensing technology along with on-board biometrics to provide a reliable user interface. When your LED headlight is first turned on, it will remain on for a period of approximately five (5) seconds. During this time you may freely adjust the position of the headlight as shown in Figure 9.

After this time is up, the light will blink twice to indicate that it is entering biometric mode.



**FIG. 9**

Once in biometric mode, your LED headlight constantly monitors body position to determine if you are in your working position. When in your working position, the LED

headlight will be on. If you look up from your working position the LED headlight should turn off automatically.

***Changing your working position:*** The working position of the headlight can be changed at any time. To do this, rotate your headlight or change your body position that best fits your working style.

Once this position is found, place your finger directly onto the IR sensor (blue arrow) and hold it there as shown in Figure 10. The light will blink faster

**FIG. 10**



and faster until eventually it turns on and stays on (approximately two (2) seconds). Remove your finger from the sensor, and the current position of the LED headlight will be saved as your new working position.

## UNDERSTANDING THE STATUS INDICATOR

---

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

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

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

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

## HOLSTER OPERATION

---

The LED DayLite® 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. 11*). The holster should hold firmly to the power pack.

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

**FIG. 11**



## **INSPECTION AND PREVENTATIVE MAINTENANCE**

- Recommended disinfectant: Clorox HC Versure Wipes (Ammonia-based)
- Recommended cleaner: Windex
- Intended Cleaning/Disinfection:
  - First, perform disinfection on all exposed sections with a Clorox Versure HC wipe (alcohol-free) or other ammonia-based disinfectant. Wipe the sections and then allow to air dry for two minutes.

- Clean all disinfected sections with Windex or a standard glass cleaner and a soft, lint-free cloth, making sure not to scratch the surfaces.
- Prohibited Uses:
  - This device is not intended to be sterilized
  - Do not autoclave this device.
  - Do not spray cleaner directly onto optics of this device.
  - This device should not be submerged or soaked in cleaners or disinfectants.
  - Do not use Alcohol, Amino, Phenol, Peroxide or Iodine complex-based solutions on this device.
- Using solutions/liquids other than recommended may void warranty.
- It is *suggested* that power packs be replaced every 24 months to ensure proper operation

## REPLACEMENT PARTS

|                       |                |
|-----------------------|----------------|
| UltraMini®            | 4929-3000-0002 |
| UltraMini® HDi™       | 4902-3000-0001 |
| UltraMini® IR         | 4933-3000-0001 |
| UltraMini® IR HDi™    | 4932-3000-0001 |
| Holster               | 0030-4911-0001 |
| Belt Clip             | 4911-0001-0029 |
| Cable                 | 4911-0001-0022 |
| USB Power Supply      | 4903-0002-2019 |
| 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 |

| <b>T-MOUNT DESCRIPTION</b>              | <b>PART NUMBER</b> |
|-----------------------------------------|--------------------|
| Orasoptic RDH Elite/ErgoEdge Braket Kit | 0075-8511-0085     |
| Univet Braket Kit                       | 0075-8511-0073     |
| Q-Optics TTL                            | 0075-0013-0031     |
| Surgitel TTL                            | 0075-0009-0031     |
| Orasoptic Tempo TTL                     | 0075-8511-0082     |
| Perioptix                               | 0075-8511-0080     |
| Keeler Flip-Up                          | 0075-8511-0050     |
| Flak Jacket                             | 0075-8511-0065     |
| Heine Flip-Up                           | 0075-8511-0049     |
| Sugitel Half Jacket                     | 0075-0012-0031     |
| Zeiss Flip-Up                           | 0075-8511-0041     |
| Flip-Up                                 | 0075-0010-0031     |
| Orasoptic Flip-Up                       | 0075-0014-0031     |
| Examvision                              | 0075-8511-0044     |

## DESCRIPTION OF VARIOUS SYMBOLS

|                                                                                     |                                                          |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|
|    | <i>ATTENTION: CONSULT ACCOMPANYING DOCUMENTS</i>         |
|    | <i>CAUTION: HOT SURFACE</i>                              |
|    | <i>INDICATES CONFORMITY WITH EU MDR 2017/745</i>         |
|    | <i>INDICATES WHERE THE UNIT CAN BE TURNED ON AND OFF</i> |
|  | <i>READ ACCOMPANYING DOCUMENTS</i>                       |

## WARRANTY

The UltraMini®, UltraMini® HDi™ , UltraMini® *IR* and UltraMini® *IR* HDi™ are 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. Any damage caused by improper maintenance as described in the manual may not be covered by the warranty.

## NOTES

[illegible]

[illegible]





MedEnvoy Switzerland  
Gotthardstrasse 28  
6302 Zug  
Switzerland



SEE WHAT'S RIGHT ABOUT  
MADE IN AMERICA<sup>®</sup>

TECHNICAL SUPPORT/CUSTOMER SERVICE

1.800.345.4009

Outside the US-Call Local Distributor



Manufactured by Designs For Vision, Inc.  
4000 Veterans Memorial Hwy  
Bohemia, NY 11716 • 631/585-3300  
Toll Free 800/345-4009 • Fax 631/585-3404 •  
Web Site: [www.DesignsForVision.com](http://www.DesignsForVision.com)  
0075-1185-0095



Emergo Europe BV  
Westervoortsedijk 60  
6827 AT Arnhem  
The Netherlands  
[info@romed.be](mailto:info@romed.be)