



LED DayLite[®] WireLess[™]

USER GUIDE

Model: DVI-WRLS
Ver. 4.21 (En)

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INDICATIONS FOR USE

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

DEVICE DESCRIPTION

The Designs for Vision® LED DayLite® WireLess™ 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 5800°K and a maximum intensity up to 3,000 lux. The unit can run on battery power for approx. 100 minutes before needing to be recharged.

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 and those marked on the battery

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 pod should not be used. Contact Designs for Vision Inc. for ordering a replacement

Replace with Designs for Vision, Inc. battery only. Using unapproved batteries may not work and will void the warranty



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

Remove battery pod from headlight if this device is not in use and will be stored for some time. Maintain storage at environmental conditions listed below



Improper use of battery pod 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 battery pod

Do not short circuit

Do not expose to fire

Protect battery pod from fluids and damp environments

Charge battery pods with supplied charger only



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

SPECIFICATIONS

POWER REQUIREMENTS Designs for Vision, Inc.® LED DayLite® WireLess™ Model Number: DVI-WRLS Charger Model Number: SMT-CH	Battery Power : 3.7VDC, 700mAh 1 Cell 16340 Li-Ion Battery For Charging : Input : 100-240VAC, 50/60 Hz, 0.5A rms Output : 4.2VDC, 1.0A max per port
ILLUMINATION At 12" measured with a cosine corrected light meter	35,000 lux \pm 5% 45,000 lux \pm 5% (HdI version)
OVERCURRENT PROTECTION	Resettable Polyfuse/One-Time AC Fuse
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: WIRELESS™ W/BATT POD: WIRELESS™ IR HDI™ W/BATT POD: WEIGHT: CHARGING CRADLE: WEIGHT:	1.80" x 0.90" x 2.75" 1.79" x 0.88" x 2.81" 1.45 oz/ HdI 1.80 oz 3.63" x 3.75" x 1.50" 8.35 oz.
APPROVALS:	UL 61010-1: 2012 CAN/CSA C22.2#61010-1: 2012

	IEC 61010-1:2010 UL 1310:2011 CAN/CSA C22.2#107.1:2001 EN 60335-1:2012 EN 60335-2-29:2004	
PATENTS: HDi™ Technology Patent Pending	US PAT. 8,851,709 US PAT. 8,215,791 US PAT. 7,690,806 B2 US PAT. 8,215,791	US PAT. D600,728 US PAT. D589,545 US PAT. 8,851,709 US PAT. 7,690,806

The LED DayLite® WireLess™ includes these main components:

Wireless™ Headlight
or
Wireless™ IR HDi™ Headlight
Three Battery Pods
Smart Charging Cradle
AC Power Cord

Accessories include:

Hex Drivers (if equipped)
UV/Blue Light Filter
T-Mount Bracket (*sold separately*)
Color Coded Bands
Operation Manual
Warranty Card

DEVICE DIAGRAMS

Your LED DayLite® WireLess™ is designed to be simple and lightweight. It consists of an LED Headlight, Battery Pods and a Charging Cradle. *NOTE: The UV/blue light filter (not shown) comes attached to the LED Headlight, but is removable.* The following diagrams identify each part for your reference in this manual:

FIG. 1



SMART CHARGING CRADLE



FIG. 2

DIRECTIONS FOR USE

CHARGING THE BATTERY PODS

Remove the components from the shipping container, checking that all

NOTE: The battery pods need to receive a full charge before initial operation

parts on the packing list have been received. Carefully remove the headlight, battery pods, charging cradle and AC power cord from the packaging carton.

The charging cradle is designed to meet multi-national regulatory requirements and has multi-input voltage capability to accommodate various line voltages from 100-240 VAC. The battery pods are to be charged with the supplied charger *only*.

Plug the AC power cord into the charging cradle and connect to an AC outlet. *Note: International plugs are available through Designs for*

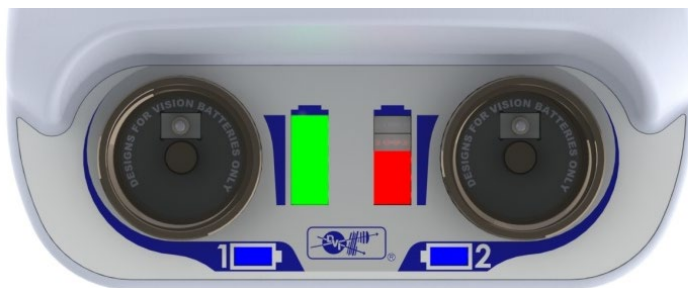


FIG. 3

Vision; refer to the list of part numbers on page 19. You can now flip the power switch on the back of the charging cradle to turn on the power. You should notice two pulsing **BLUE** lights on the battery indicators, which show that the charging bays are ready to charge (Fig.3). Screw two battery pods **firmly** into the two charging bays all the way down (Fig. 4). The **BLUE** lights should now turn off and **YELLOW** indicator lights should start flashing. Once the charge cycle has begun, the lights will illuminate **RED** and display the current state of charge. When the batteries are finished charging, (approx. 60 mins), the LEDs should all light up **GREEN**. You can now remove the battery pods from the charging cradle.



FIG. 4

USING THE HEADLIGHT

Place the LED headlight onto the t-mount bracket for your frame. Take a charged battery pod and screw it ***firmly*** down onto the LED headlight. *NOTE: Make sure to remove dust plug before installing battery pod. Do not apply excessive force when installing battery pod.*

Your LED DayLite® WireLess™ uses a capacitive touch switch to control the light. The indicated area shows where you can touch (Fig. 5). Touch the silver band once to activate the light. The light will turn on at its highest intensity. If you touch the band a second time, the light will reduce to medium intensity. The light will deactivate the third time you touch the silver band. *Note: Make sure the capacitive touch sensor is not making contact with other items when in use.*



FIG. 5

The LED DayLite® Wireless™ also includes a Low Battery Warning. At approximately five (5) minutes remaining, the headlight will flash three times. This will continue once each minute until the headlight shuts off. The headlight can be adjusted up and down to align with your point of view. *NOTE: Move only the headlight to make adjustments. Do not grab battery pod to make adjustments to headlight position.*

A UV/blue light filter is provided to prevent premature curing of dental



FIG. 6

composites. To use, slide the filter over the front of the headlight until completely seated. Tighten the set screw on the bottom of the filter

to properly secure to the headlight. You can now flip the UV/blue light filter in and out of the path of light as required.

WIRELESS IR HDI HEADLIGHT OPERATION

Your LED DayLite® WireLess™ IR HDi™ uses an infrared (IR) switch to



FIG. 7

control the light. The indicated area shows where the sensor is located (Fig. 7). Pass your hand within six inches of the top of the sensor. The headlight will be looking for an intentional swipe. The first swipe will activate the light. The light will turn on at its highest intensity. If you swipe your hand pass the sensor a second time, the light will reduce to medium intensity. The light will deactivate on the third pass.



Please see the guide sheet

included with your light.

The LED DayLite® WireLess™ IR HDi™ incorporates an accelerometer which monitors the headlight's absolute position. When the headlight is mounted onto a frame and the frame is on your face, the IR sensor is

active. However, when the frame is hanging from a pair of chum straps the IR sensor is deactivated. This is done to minimize unintentional activation while the headlight is not in use.

The headlight can also be adjusted up and down to align with your point of view. *NOTE: Move only the headlight to make adjustments. Do not grab battery pod to make adjustments to headlight position.* The headlight can then be locked into that position using the provided driver.





Locate the hex in the locking shaft of the headlight (*Fig. 8*). 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.*



FIG. 8

Your LED DayLite® WireLess™ comes with a rapid-charge smart battery monitoring system. This feature will check the health of your battery as well as indicate when it needs to be replaced. The Battery Status indicators can display messages according to the following chart:

Battery Status	Message
	POWER ON
	WAITING TO CHARGE
	REPLACE BATTERY
	BATTERY OVERHEAT

- **POWER ON:** Indicates that power is on to the charging bay
- **WAITING TO CHARGE:** Indicates that the charge cycle is preparing to start (*NOTE: Typical charge prep is 5 seconds*)
- **REPLACE BATTERY:** Indicates an error with the battery pod.

Remove from charging bay and reinstall. If the error continues, discard the battery pod

- **BATTERY OVERHEAT:** Indicates an overheat condition on the battery. Make sure the charger is in a cool location. If the error continues, discard the battery pod

NOTE: Never use a battery pod that continuously gives Replace Battery and/or Battery Overheat indications. Discard in accordance with all regulations and contact Designs for Vision, Inc. for a replacement.

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.

- Battery Pods should be replaced every 12 months to ensure proper operation

NOTE: Do not Autoclave

NOTE: For indoor use only

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






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



PLUG AND CORD SETS

United States Plug & Cord Set	4706-0000-0038
European Plug & Cord Set	4706-0000-0030
Australian Plug & Cord Set	4706-0000-0032
South African Plug & Cord Set	4706-0000-0039

Indian Plug & Cord Set	4706-0000-0033
English Fused Plug & Cord Set	4706-0000-0034
Japanese Plug & Cord Set	4706-0000-0037

DESCRIPTION OF VARIOUS SYMBOLS

	<i>ATTENTION: CONSULT ACCOMPANYING DOCUMENTS</i>
	<i>INDICATES CONFORMITY OF THE PRODUCT WITH MDD 93/42/EEC ANNEX VII</i>
	<i>INDICATES WHERE THE UNIT CAN BE TURNED ON AND OFF</i>
	<i>WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE SYMBOL</i>
	<i>CAUTION: HOT SURFACE</i>

	<i>ELECTRICAL SHOCK HAZARD</i>
	<i>READ ACCOMPANYING DOCUMENTS</i>

WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

WARNING: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the LED DayLite®

WireLess™. Otherwise, degradation of the performance of this equipment could result.

NOTE: The EMISSIONS characteristics of this equipment make it suitable for use in a residential environment (CISPR 11 class B).

NOTE: The LED DayLite® WireLess™ may be adversely affected by EM DISTURBANCES possibly resulting in a loss of light output.

WARRANTY

The LED DayLite® WireLess™ / WireLess™ IR HDi™ Headlights are warranted against imperfections, defects in materials, and workmanship for four years. The charging cradle is warranted for two years and the lithium-ion battery pods are warranted for one year. Any damage caused by improper maintenance as described in the manual may not be covered by the warranty.



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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



Emergo Europe
B.V. Prinsessegracht 20 2514
AP
The Hague, Netherlands