

# **SOLARMAX <sup>TM</sup>**

## *The Virtual Sunlight Visor* **INSTRUCTION MANUAL**



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Congratulations on your purchase of SolarMax™! Follow the instructions on its use and it should provide years of trouble-free service. **Please charge the battery pack for 16-24 hours before turning it on the first time.**

## **NATURAL LIGHT**

Natural light is a critical part of daily life. Light signals from the environment help set our internal "biological clock," which is a major determining factor of how energetic and alert we feel. Mood swings, jet lag and some sleep disorders can occur when one's clock is incorrectly "set."

The long days of spring and summer have a natural and obvious effect on energy level. Most of us find that getting up in the summer is easier than in the winter, and we often feel better, more alert, and more productive during the day. After work, we may even have enough energy left over to play a quick game of softball or mow the lawn.

By contrast, the relative lack of light in the winter causes many animals to slow down and conserve energy, even to the point of hibernation. Many people also experience reduced energy levels in the winter months. Most of us have trouble getting up and out when it is dark outside, and we may feel lethargic throughout the day as well. When we get home from work, it's much easier to settle down in front of the TV or go to bed early than to take on a new project.

The consequences of low energy levels in the winter can be significant. Work and school performance can suffer, resulting in career problems or poor grades. Personal relationships may undergo higher levels of stress in the winter as well.

Bright artificial light can help make up for a lack of sufficient sunshine in the winter. But normal indoor lighting isn't the solution to light deprivation. Standard fluorescent and incandescent lights aren't bright enough. You could always travel to the Caribbean each winter to get enough sunshine ... but if that isn't practical, the BioBrite SolarMax™ is the answer. It's a new approach to light stimulation that can give you summer-like light signals in the depths of winter.

***IMPORTANT: BioBrite urges individuals who think they may be suffering from serious depression to consult a qualified physician or therapist.***

## **A SIGNIFICANT IMPROVEMENT IN LIGHT APPLICATION**

The patented SolarMax™ represents a breakthrough in light use convenience. It is very lightweight and fits comfortably on your head. Because rechargeable batteries power the Visor, the user is free to move about. The Visor delivers glare-free, UV-free light from above the eyes, so it does not obscure vision, and does not interfere with normal activities – eating breakfast, doing household chores, watching TV, or even riding an exercise bike. It is also easy to travel with the Visor because of its unique portability.

Scientists studying the effect of light on human behavior and performance developed the Light Visor in the early 90's. Since then, it has been carefully engineered and tested at Federal Government laboratories, universities, and major medical centers across the U.S. and Canada. The research demonstrated that the Visor is an effective supplement for natural light.

## **HOW TO USE SOLARMAX™ AS A LIGHT SUPPLEMENT**

There is a significant amount of variation in how individuals respond to light, so it is impossible to suggest a specific Visor time and intensity program that is right for everyone. Response may depend in part on external factors such as local weather patterns, latitude, and physical environment. For example, a person living in Alaska and working in a windowless office is likely to need more supplemental light than a person living in California working in the outdoors. There are also individual light response factors that make some people more sensitive to light than others (e.g., eye color). BioBrite strongly recommends that you work with an experienced health professional to develop a program that is appropriate for you.

### **Light Session Timing**

Most people who use SolarMax™ as a light supplement begin using it in the Fall when days start to get shorter, and taper off use in the Spring as the daylight hours increase. The Visor is normally used every day in the morning just after you wake up. Controlled clinical trials have established that light applied in the morning is more effective than at other times. However, evening applications can also be effective. And, because light can have an energizing, alerting effect, you may want to use SolarMax any time you need an energy boost.

### **Light Duration**

Visor users typically begin with a moderate program of 30-minute sessions. After a period of time, individuals may feel the need for more light, and can increase to 60-minute sessions. Extended Visor use (more than an hour) is not recommended because it can disturb sleep patterns.

# **OPERATING SOLARMAX™ - GENERAL INSTRUCTIONS**

## **Turning on SolarMax™**

The Visor is operated by pushing in the black on/off button that is located on the lamp module. If the batteries are uncharged, the Visor will not operate correctly. Charging is accomplished by plugging the power supply into the battery jack, which can be reached through the slit in the headband located on the right of the headband. NOTE: The Visor cannot be operated while plugged into the power supply/charger.

## **Batteries and Charging – First Time Usage & Conditioning**

Please fully charge the batteries prior to the first use! This is 16-24 hours for the first time. Charge time thereafter is 12-15 hours. In order to maximize battery capacity and lifetime, we recommend that you use the Visor without charging it between sessions for the first four charge cycles. In other words, use the Visor until the lights shut off or begin to flicker and then charge the batteries fully. We also recommend doing this if the Visor has not been used for a month or more.

## **Batteries and Charging – Regular Usage**

The battery system consists of two batteries, located in the headband of the Visor, and a power supply. Depending on frequency of use, the rechargeable batteries should last about 2-to-5 years before requiring service. The batteries should power the Visor in excess of three hours. When the battery charge is too low, the lights will turn off or flicker. If this happens in the middle of a session, you can charge the batteries for a few minutes and then finish the session. The Visor needs about 12 hours to fully recharge. Charging the batteries for more than 48 hours is not recommended. To recharge the batteries, insert the plug into the jack located inside the right side of the Visor headband. Be sure the charger is plugged into a standard electrical outlet. If you will not be using your Visor for a month or more (during summer, for example) we recommend charging the Visor about once a month and following the instructions below once you begin use again.

## **Battery Charger**

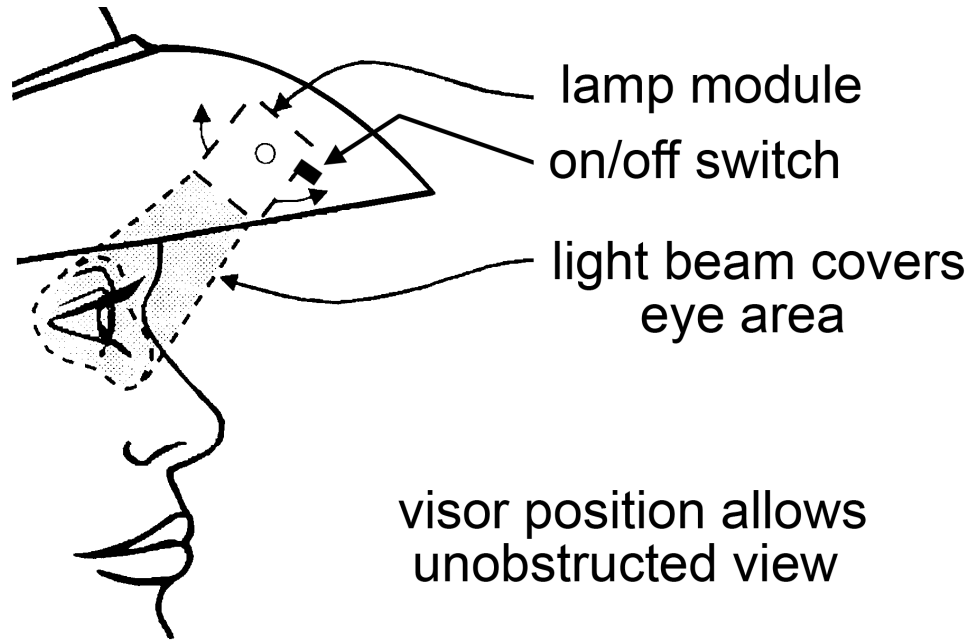
If your Visor came with an adjustable power supply, be sure to keep the voltage set to 3 volts. The tip of the barrel plug should face the “+” sign, for inside positive polarity. The jack at the end of the power supply wire should never touch metal or be immersed in water.

## **Adjusting the headband**

By adjusting the Velcro™ fastener, the headband can be sized to hold the Visor comfortably on your head. The Visor should not obstruct your vision, and you should be able to move your head normally without dislodging the Visor.

### **Adjusting the Lamp Module**

The lamp module should be adjusted to provide optimal light delivery. Turn the Visor on and look into the mirror while wearing the Visor. Looking straight ahead, rotate the lamp module until the light covers your eye area. The lamp module joint will click as you rotate it, and the module should stay firmly in place. Once you have established an optimal position, you should not need to readjust the lamp module again.



Adjusting the Lamp Module

### ***IMPORTANT PRECAUTIONS***

BioBrite strongly urges individuals who think they may be suffering from serious depression to consult a qualified physician or therapist.

- Although most normal activities can be performed while wearing SolarMax™, operating a vehicle or dangerous machinery is not recommended. Extra caution should be exercised while using stairs and walking in a darkened room.
- Ordinary room lighting may seem dim after using the Visor. After your session, allow a few minutes for your eyes to adjust to indoor light levels.
- Although the Visor is designed for regular use, some parts are breakable. Avoid activities which might make the Visor fall onto a hard surface.
- The Visor is not waterproof. Avoid using in damp or wet areas.
- If you develop a headache, blurred vision, or other symptoms while using the Visor, discontinue use and consult your physician.

## SOLARMAX™ COMPONENTS

Your Visor kit should contain the following items:

- The SolarMax™ directional light module with built-in rechargeable NiMH batteries
- Washable headband that is fully adjustable for maximum comfort
- Instruction manual
- AC power supply (battery charger)

## PRODUCT SPECIFICATIONS

### Light Source:

- **Bulb type:** durable, energy efficient Light Emitting Diodes (LED's)
- **Bulb Life:** 100,000 hours
- **Spectral duration:** white light, no ultraviolet

### Batteries:

- **Battery Type:** 2 rechargeable nickel metal hydride type / AA batteries located in the headband
- **Rechargeable time:** 12-15 hours for full recharge
- **Battery charge life:** at least three hours
- **Battery life:** approximately 500 rechargeable cycles
- **Light intensity:** light intensity is 1,000 lux at a distance of 1 and ½ inches from the lamp diffuser to the eye.

### Charger:

- Inside-positive, 3V DC output, 120V AC input at 60 Hz. 300 mA.

## TROUBLE SHOOTING

The Visor has been engineered to provide years of trouble-free service. However, if you do experience difficulty, we suggest the following:

- **Visor too tight or too loose:** Make sure that you have adjusted the Velcro™ fastener appropriately
- **Light won't come on with charged batteries:** Make sure that the AC charging outlet is working by plugging in some other electrical appliance, then try operating Visor from AC outlet. If the Visor lights up, try charging batteries again. If light still will not come on from batteries alone, contact BioBrite Service Department.
- **Battery power delivery too short:** Completely discharge the batteries before recharging (see section "Charging the Batteries")

If you continue to have questions about the SolarMax™, call our customer service line at (301) 961-5940 or send an email to [biobrite@aol.com](mailto:biobrite@aol.com).

### ***MONEY BACK GUARANTEE***

If you are dissatisfied with the Visor for any reason, return it in good condition within 30 days for a full refund of your purchase price.

### ***LIMITED WARRANTY***

BioBrite, Inc. warrants to the original purchaser that this product shall be free of defects in material and workmanship under normal use and circumstances for a period of three years from the date of original purchase for use. Battery replacements are not included under warranty. When the original purchaser returns the product to BioBrite, Inc. within the warranty periods, if the product is defective, BioBrite will at its option repair or replace the unit. This warranty shall constitute the sole liability of BioBrite, Inc. concerning this product. BioBrite expressly disclaims all other warranties, including, without limitation, the warranties of merchantability and fitness for a particular purpose. No person, firm, or corporation is authorized to assume for BioBrite and agents and distributors will bear no liability whatsoever for incidental or consequential damages or charges of any kind. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above disclaimer regarding incidental and consequential damages may not apply to you.

**THIS WARRANTY SHALL BE EFFECTIVE ONLY IF THE REGISTRATION FORM IS FULLY COMPLETED AND MAILED WITH PROOF OF PURCHASE TO: BIOBRITE, INC., 4330 EAST-WEST HWY, SUITE 310, BETHESDA, MD 20814-4410 (301) 961-5940.**

This warranty is void if the product or any of its parts has been damaged or tampered with, or if the outside surface of the product or any of such parts had been opened. In all cases of damage during shipment, a claim must be filed with the shipping carrier and not with BioBrite, Inc. This warranty gives you specific legal rights; you may also have other rights, which vary, by state.

### ***REPLACEMENT PARTS AND OUT OF WARRANTY REPAIRS***

BioBrite will service SolarMax™ after the three-year warranty has expired at a cost to be determined. BioBrite, Inc. will, at its option, either replace or repair the original product for a reasonable repair or replacement charge.

# WARRANTY FORM

## **BIOBRITE SOLARMAX™**

Please complete and return this warranty registration.  
2011.10.25

Name:

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Address:

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Telephone:

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Date Purchased:

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Place Purchased:

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How did you hear about BioBrite?

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Visor Serial Number:

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Comments:

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