

SUNNEX MEDICALIGHT ©

## INSTALLATION & OPERATING MANUAL

# TRISTAR LED



**MOBILE  
TSLED-M**

**WALL  
TSLED-W**



## Table of Contents

<b>1. SHIPPING CARTON &amp; CONTENTS .....</b>	<b>3</b>
<b>2. INTRODUCTION.....</b>	<b>4</b>
<b>3. OPERATION.....</b>	<b>5</b>
<b>4. ASSEMBLY OF TRISTAR MOBILE .....</b>	<b>5</b>
<b>5. ASSEMBLY AND INSTALLATION OF TRISTAR WALL .....</b>	<b>6</b>
<b>6. ABOUT YOUR TRISTAR.....</b>	<b>9</b>
<b>7. CARE FOR YOUR TRISTAR LIGHT .....</b>	<b>10</b>
<b>8. SERVICE AND MAINTENANCE.....</b>	<b>11</b>
<b>9. WARRANTY .....</b>	<b>12</b>
<b>10. TROUBLESHOOTING .....</b>	<b>15</b>

### *Dear Customer:*

We appreciate that you have chosen to purchase a Sunnex Medical product and believe that it will fulfill your expectations. Sunnex takes great pride in our products which have been designed and manufactured in accordance with our strict ISO 9001 certified quality system, UL and CE electrical standards and, if applicable, the United States Food and Drug Administration's regulations. You will find Sunnex brand products to be reliable, durable, and an exceptional value providing innovation while maintaining a low overall lifetime cost.

We try our utmost to focus on our customer's needs. Our sales and customer service staff will assist you with any questions you might have regarding your new Sunnex product - the functionality, installation, or other concerns. Sunnex's network of business partners - National and Regional distributors - may also be called upon to provide excellent advice and additional sales support.

Again, I thank you for purchasing a Sunnex product and I believe it will serve you well.

John Hebert  
President, Sunnex, Inc.

***SAVE THIS PRODUCT MANUAL  
READ ALL INSTRUCTIONS BEFORE ASSEMBLY AND USE  
IF YOU DON'T UNDERSTAND ANY GUIDELINES IN THIS MANUAL, CALL  
DISTRIBUTOR OR MANUFACTURER  
DO NOT USE THIS LIGHT IF IT IS DAMAGED, BROKEN, OR HAS MISSING PARTS***

## **1. SHIPPING CARTON & CONTENTS TSLED-M**

The 14" (35cm) base  
The Hand-Ez upright column  
The lamp head and Dual/Flex arm  
A five-wing base with locking casters

## **TSLED-W**

Wallboard with Tee Nuts and "U" mounting bracket  
Wall extension arm 30" (75cm)  
The lamp head with the balance arm  
2 X (1/4"-20) socket cap screws for attaching wall extension arm to wallboard  
Plastic washers (Two), Allen wrench (5/32)

**CAREFULLY CHECK THE CONTENTS OF THE SHIPMENT. REPORT SHORTAGES AND/OR ERRORS, TO SUNNEX OR YOUR DEALER'S CUSTOMER SERVICE DEPARTMENT, WITHIN FIVE (5) WORKING DAYS.**

THE RECOVERY OF COSTS RELATED TO SHIPPING DAMAGE, CONCEALED OR OTHERWISE, CAN BE A LONG AND FRUSTRATING EXPERIENCE. IN ORDER TO AVOID THE UNCOMFORTABLE ASPECTS, either ALL FREIGHT CLAIMS BY THE DEALER OR CONSIGNEE SHOULD BE FILED WITH THE TRANSPORTATION COMPANY WITHIN FIVE (5) WORKING DAYS. THE CARTON AND ITS INSERTS SHOULD BE KEPT FOR INSPECTION BY THE TRANSPORTATION COMPANY.



**CAUTION: PLEASE BE AWARE, IF THIS ROUTINE IS NOT FOLLOWED, AND THE CARTON AND ITS CONTENTS ARE DISPOSED OF OR DESTROYED BEFORE INSPECTION BY THE TRANSPORTATION COMPANY, OUR ASSISTANCE IS OF NO VALUE TO YOU.**

## 2. INTRODUCTION

The objective of this manual is to assist you in assembling your TRISTAR LED light, and, to familiarize you to its more important features. Some suggestions for its care are also included.

**CAUTION: IF A WALL DIMMER IS USED WITH THE LIGHT, IT VOIDS CERTIFICATION LISTING OF THE PRODUCT. NO DIMMERS ARE APPROVED FOR USE WITH THIS LIGHT.**

### 2.1 APPLICATIONS

The Sunnex TRISTAR LED offers an economical alternative to traditional minor surgical and examination lights. It is ideal for a myriad of clinical applications, minor surgical procedures and gross examination. It provides excellent illumination with a minimum of shadows for use in emergency departments, trauma rooms, and other critical care areas.

### 2.2 TECHNICAL DATA

This light is certified according to the following standards:

**Power Supply:**

**Input** 110V-240V, 50/60Hz  
1.2 AMPS

**Output** 24V, 6.5A MAX.

**Consumption** 36 W MAX.

**Nominal Effect** 120Vac, 60Hz, 3 X 12W - 1.5A  
230Vac, 50Hz, 3 X 12W - 1.0A

**Light Intensity:** 48,000 LUX @ 1 METER

**Light Source:** LED, 4000K, CRI (Ra) 96-98, R9 INDEX - 98

**Luminous flux:** 2700 lm

**Medical Standard:** Class I Listing

**Weight:** 25 lbs. (11.3 kg) (Mobile)  
20.4 lbs. (9.25kg) (Wall)

**This product is suited for continuous use.**

**NOTES:** This light poses no significant risk of reciprocal interference.  
This light poses no significant risk of electromagnetic or other interference.

**Radiated and conducted emissions testing has been completed on the TSLED series lights and for compliance with IEC 60601-2-41:2009 Ed. 2 + A1**

## **2.3 TRANSPORTATION AND STORAGE**

The light is packaged in card board and should be transported protected from moisture. The light should be stored in a dry environment and room temperature.

### **TRANSPORTATION AND STORAGE ENVIRONMENTAL LIMITS:**

Temperature -13 °F to 158 °F, -25 °C to 70 °C, Humidity 10% to 75% Atmospheric Pressure 50 kPa to 106 kPa

## **3. OPERATION**

Plug the three prong molded plug into an appropriate Hospital Grade receptacle. Power-on and off your light via the rocker switch in the back cover of the lamp head. The TRI\*STAR is powered by a 160W max power, universal input power supply that contains an internal over voltage cutoff for your added safety. The power supply automatically adjusts to voltages from 90-240Vac.

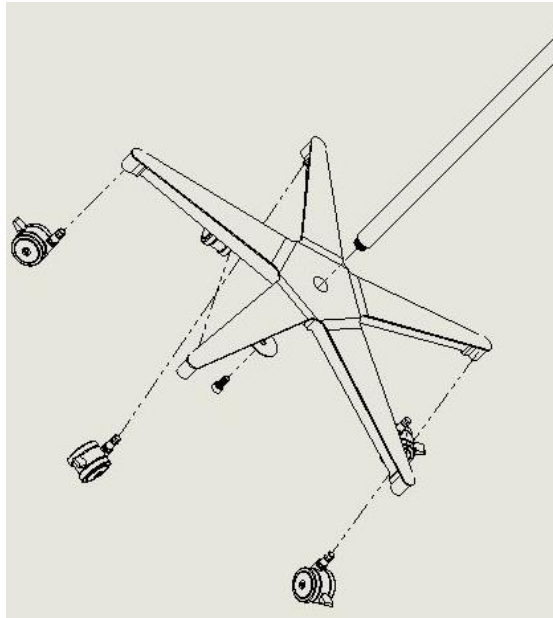
### **OPERATIONAL ENVIRONMENTAL LIMITS**

Temperature 30 °F to 105 °F, -1 °C to 41 °C, Humidity 30% to 75%, Atmospheric Pressure 50 kPa to 106 kPa

## **4. ASSEMBLY OF TRISTAR MOBILE**

Remove the Hand-Ez upright column and the lamp head assembly from the shipping carton.

Insert the bottom of upright column into the base. Mount the screw with washer to the bottom of pole, using Allen wrench (provided).



Attaching the lamp head assembly is a simple procedure. Raise the metal collar of the connector, and slip the assembly onto the standoff on top of the Hand-Ez upright column. Once in place, push down on the metal collar to properly seat the connection. **CAUTION: IF YOU DO NOT FEEL A POSITIVE SEATING, PROPER CONNECTION HAS NOT BEEN ACCOMPLISHED. CHECK AGAIN TO ENSURE YOU HAVE SECURELY CONNECTED THE LAMP HEAD ASSEMBLY TO THE UPRIGHT COLUMN.**

## **5. ASSEMBLY AND INSTALLATION OF TRISTAR WALL**

Your shipping carton will contain a lamp head and flex arm, an extension arm, Melamine covered wall board (24" W X 16" L X 0.78" THK OR 610mm W X 407mm L X 20mm THK) with U-bracket and transformer enclosure mounted on the board, and four (4) plastic fasteners to capture the power cord on the underside of the arm. Surface mounting lag bolts are not supplied. These should be purchased to meet local codes, and to ensure they are appropriate for your particular mounting surface.

There are several factors involved with proper installation. Considering them will help you produce a safe work environment for you and your patients.

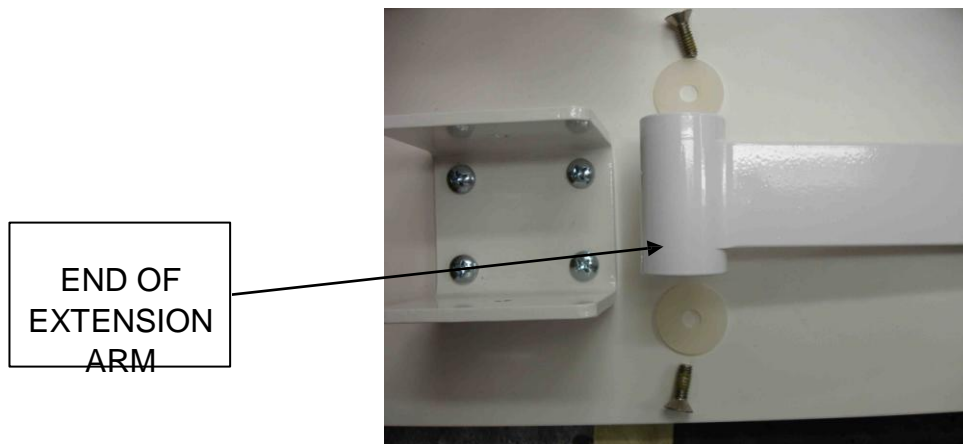
1. The length of the board has been chosen so that two wooden wall studs may be engaged during installation.
2. The wooden wall studs or surface holding the mounting board and the four (4) lag bolts, **SHOULD SUPPORT A MINIMUM OF 100 POUNDS (45.3kg) PULL ON EACH MOUNTING BOLT, AND A MINIMUM OF 100 POUNDS (45.3kg) SHEAR ON EACH BOLT.**
3. Use no smaller than 1/2" (M12) lag bolts. The bolts should penetrate the Wooden wall studs to at least a depth of 2 1/2" (63.5mm).

The pilot holes should be drilled beyond full depth to ensure the lag bolts are not broken off during installation. These MINIMUM REQUIREMENTS are called for in order to support loads applied each time the beam is adjusted. CAUTION: IF METAL WALL STUDS ARE A PART OF YOUR FACILITY CONSTRUCTION, ADDITIONAL STEPS MUST BE TAKEN TO ENSURE THE LIGHT IS SAFELY INSTALLED.

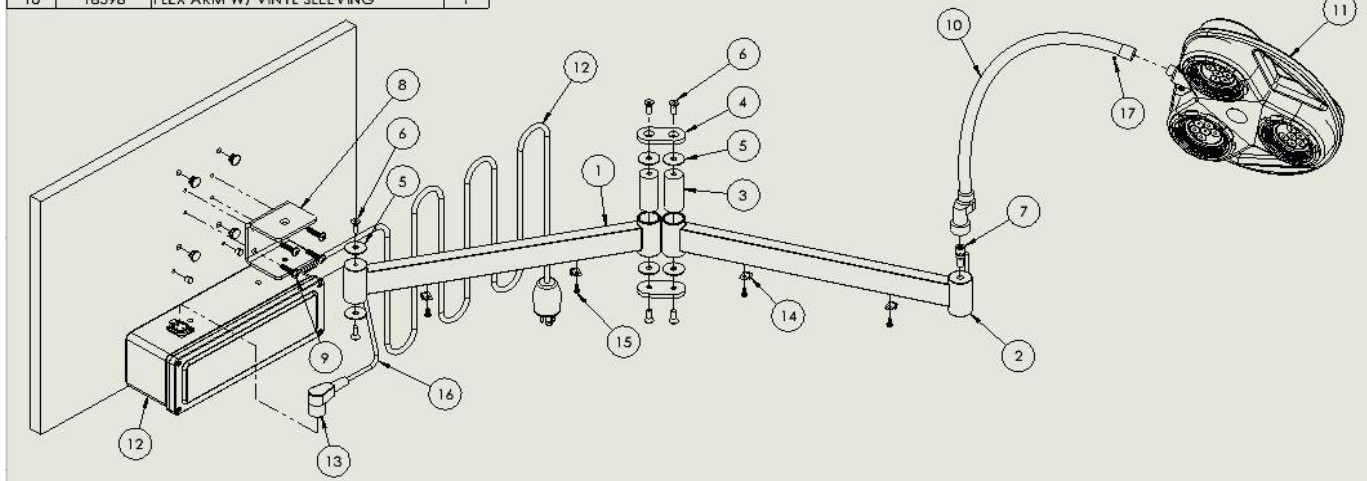
WARNING! METAL WALL STUDS ARE TOO THIN TO ADEQUATELY ACCEPT AND SECURE LAG BOLTS. ANY ATTEMPT TO DO ONLY THAT WILL LEAD TO PROBLEMS OF SAFETY, WHICH MAY INCLUDE THE LIGHT FALLING FROM THE WALL.

#### ATTACHMENT OF LAMP HEAD/ARM/ASSEMBLY:

1. Attaching extension arm to wallboard: Place the end of the extension arm inside U-bracket and place plastic washers so that washers are between U-bracket and end of arm. Secure arm end to U-bracket with socket cap screws (2 X 1/4"-20), use provided Allen key (5/32). (See following illustrations).




ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	18526	EXTENSION ARM, WHITE, WALL SIDE	1	11	SUB TSLEDHA-W	ASSY. HEAD, TS LED	1
2	18526-1	EXTENSION ARM, WHITE, LAMP SIDE	1	12	ASB TSLEDTA-W	ASSY., TRANSFORMER, TS WALL	1
3	18527	EXTENSION ARM ROD	2	13	18645	MOUSER RIGHT ANGLE CONNECTOR	1
4	18525	EXTENSION ARM CONNECTOR, WHITE	2	14	18611	CLIP, CABLE, SELF CLOSING	4
5	18616	WASHER, NYLON, 0.3 ID	6	15	18589	SCREW, 8-32 X 3/8" PPH	4
6	32108	SCREW 1/4-20 X 1/2, NYLON PATCH	6	16	32271	CORD, O/P, 2 CON, 16 AWG, TS WALL	10'
7	4275098	QUICK DISCONNECT PLUG 10MM	1	17	18597	SCREW, SET, TS GN	1
8	18528	BKT, WALL MT., TS WALL	1				
9	32216	SCREW, 1/4 - 20 X 1" PPH	4				
10	18598	FLEX ARM W/ VINYL SLEEVING	1				



2. Raise the metal QUIK-CONNECT collar at the base of the DUAL/FLEX arm, and slip the assembly onto the standoff on top of the wall extension arm. Once in place, push down on the collar to properly seat the connection. CAUTION! IF YOU DO NOT EITHER HEAR IT SNAP INTO PLACE OR FEEL A POSITIVE SEATING, PROPER CONNECTION HAS NOT BEEN ACCOMPLISHED. CHECK AGAIN TO ENSURE YOU HAVE SECURELY CONNECTED THE LAMP HEAD/ARM ASSEMBLY TO THE STANDOFF.
3. Fix the lamp head arm cord to the under surface of the arms with the furnished plastic fasteners.
4. Plug the lamp head cord into the outlet in the transformer enclosure.
5. Plug the three-prong power cord from the transformer enclosure into the wall outlet.

## 5.5 WIRING – WALL MOUNT

1. The light is supplied with a terminal block in the transformer (mounting box) to connect mains supply. The terminal block has 3 connectors (Hot, Neutral and Ground) and is labeled as indicated below.

GROUND	
NEUTRAL	N



2. The transformer box is supplied with a hole for a standard ½" conduit fitting. The use of conduit is recommended. The hole in the transformer box is Ø7/8" (Ø22mm) for a metal conduit of trade size ½" or metric designator 16. The conduit must be fixed to the transformer box with use of nut.
3. Connect the earth conductor with earth of the facility, neutral conductor with neutral of mains supply and hot conductor with hot terminal of mains supply.
4. Remove .35" (8.9mm) of insulation from wires.
5. Push wires into the corresponding holes in the terminal block to insert each of the mains supply wires to the corresponding poles.
6. Use a small blade screwdriver to remove.
7. To remove power to light, flip breaker.
8. For permanently installed equipment, mains disconnect is achieved through a mains terminal switch (terminal connector inside transformer box, see below).
9. For cord connected equipment, mains disconnect is achieved by removing the approved power supply cable.



DISCONNECT THIS SIDE OF CONNECTOR, INSERT WIRES INTO TRANSFORMER BOX AND THEN INTO CORRECT TERMINAL OF CONNECTOR AND REINSERT INTO OTHER HALF OF CONNECTOR.

## 6. ABOUT YOUR TRISTAR

**TRISTAR LAMP HEAD:** The lamp head is constructed of high impact polycarbonate, which offers certain protection not available with metal reflector lights. The covers and frame provide a safeguard to the reflectors encased within their design. Along with good physical and thermal qualities, polycarbonates offer the added advantage of presenting a level of protection against possible current leakage.

The lamp head rotates 359 degrees in either direction at the point at which it attaches to the DUAL/FLEX, vinyl coated arm. The control of its movement is via the handles built into the lamp head frame.

**THE DUAL/FLEX ARM:** A vinyl covered 17" (432mm) flexible positioning arm connects the lamp head to the Hand-Ez upright column, via a QUIKLOK CONNECTOR. The arm is engineered to two sections with different degrees of tension. The lower section has

a tenseness, which allows for proper positioning of the lamp head while ensuring the beam does not drift. The upper section provides a lesser degree of tension to allow you the fine lamp head adjustments needed for more precise positioning.

**LAMP HEAD & DUAL/FLEX ARM MOVEMENT:** The combination of the lamp head on the DUAL/FLEX arm, the arm on the Hand-Ez Upright column, plus the unrestricted movement of the DUAL/FLEX arm itself, provides you the greatest range of lamp head motion and positioning. They adjust to your requirements, and not you to them.

**HAND-EZ UPRIGHT EXTENSION COLUMN:** This uniquely designed column allows you one hand control of the height of your lamp. Simply squeeze the control at the top of the column and you can raise or lower the column, easily. The lamp head DUAL/FLEX positioning arm connects with an inner column that extends 32" (813mm) out of a 31" (787mm) outer, fixed column. The lamp head and DUAL/FLEX positioning arm combines with both Hand-Ez columns, to offer you a range of light positioning from a low of 55" (1397mm), to a height of 80" (2032mm) and, anywhere in between.

**THE BASE:** The five-caster base provides good support, whether the column is at full extension or, at its lowest position. The five locking casters provide for stability when mobility is not desired.

## **7. CARE FOR YOUR TRISTAR LIGHT**

The design of the LED modules is such the ambient heat radiates through the back cover louvers, providing a cooler and more comfortable work atmosphere for you and your patient. While your TRI\*STAR has been designed to provide many hours of professional performance, it will benefit from your periodic care and concern.

Good physical characteristics of polycarbonate offer other advantages in combination with our low voltage circuitry; they offer a level of "DOUBLE INSULATION" against possible current leakage.

The covers and frame may be easily cleaned with a soft damp cloth of a mild soap and water solution or, mineral spirits. Isopropyl alcohol is another acceptable cleansing agent.

The metal components of your light are powder coated for long life. They can be cleaned with a damp cloth of mild soap and water solution, mineral spirits or, isopropyl alcohol.

### **7.1 Cleaning and Disinfection**

- The responsible organization shall follow all of the national requirements, including standards and directives, for both hygiene and disinfection.

- The covers and frame may easily be cleaned with a soft damp cloth of a mild soap water solution or mineral spirits.
- Isopropyl alcohol is another acceptable cleansing agent. The front glass filters can be cleaned with any commercial glass cleaner.
- The metal components are powder coated for long life and can be cleaned with a damp cloth of mild soap and water solution, mineral spirits or, isopropyl alcohol.
- Periodically dust the backside louvers to ensure uninterrupted convection of ambient air. This air movement also cools the three lamp/reflector assemblies, further extending their effectiveness and useful life.

**SUGGESTION!** Periodically dust the back side louvers to ensure uninterrupted convection of the ambient air and filtered infrared rays through them. This arm movement cools three lamp assemblies, further extending their useful and effective life. Using a vacuum in a manner similar to the cleaning of a computer key board, will ensure no internal build-up of dust or powder.

## **8. SERVICE AND MAINTENANCE**

There are no repair procedures or preventive maintenance requirements for the lamp. The life expectancy of the LED modules is 50,000 hours and should last for many years. Any repairs to the lamp must be performed by a qualified technician or the lamp can be returned to the manufacturer for repair.

### **LED Module Replacement**

1. Refer to figure 1. Turn the lamp head over so the lamps face upward.
2. With one hand supporting the backside of the lamp, grasp the notched ring assembly (1) and twist it counter clockwise.
3. Grasp the LED assembly with one hand and remove unit from housing.
4. Carefully unplug the wire connector from the LED module.
5. Insert wire connector into new LED module and click into place. Connector will only fit properly in one position.
6. Replace the LED assembly in the lamp head by aligning the three guide projections into the slots on the lamp head. Press gently inward as you twist the assembly clockwise. You will hit a stop and module will be set in place. The light is now ready for use.

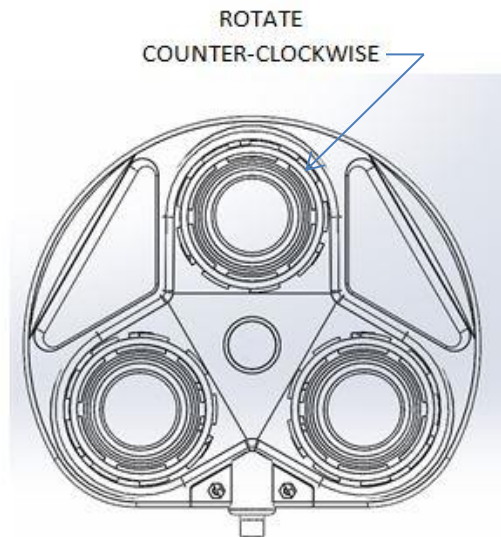







FIGURE 1

For more information on our product, visit our web site at [www.sunnexonline.com](http://www.sunnexonline.com) or call us at (800) 445-7869.

## SYMBOLS

				
<b>GROUND</b>	<b>SWITCH ON</b>	<b>SWITCH OFF</b>	<b>CAUTION</b>	<b>REFER TO USER MANUAL</b>

## 9. WARRANTY

### Limited Warranty

Sunnex warrants that the Product, if properly used, will be free from defects in material and workmanship, for a period of three (3) years from the date of shipment to Customer. This Limited Warranty extends only to the original buyer. If the Product is determined to be defective within the warranty period, Sunnex, at its option, will repair or replace the Product, at no charge or refund the then-current value of the Product.

### 8.2 Disclaimers and Limitations.

This Limited Warranty shall be the sole remedy of Customer and the sole liability of Sunnex to Customer.

**WARNING:** No modification of this equipment is allowed. Modification to the equipment will be cause to void any UL, CE, manufacturer's warranty or any other electrical listing, which this product may carry and may result in an electrical hazard.

This Limited Warranty does not extend or apply to any defects, failures or damage due to or resulting from: (a) acts of God, accident, misuse, use of the Product other than its normal and customary manner, abuse or negligence; (b) every day wear and tear; (c) alteration or modification of, or to any part of, the Product is not allowed; (d) improper operation and maintenance; or (d) any repairs or attempted repairs by anyone other than Sunnex. This Limited Warranty does not cover any products sold AS IS or WITH ALL FAULTS. This Limited Warranty excludes the replacement of bulbs for the Product.

TO THE FULL EXTENT PERMITTED BY APPLICABLE LAW, THIS LIMITED WARRANTY REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SUNNEX DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF TITLE, NONINFRINGEMENT, ABSENCE OF LIENS OR INCUMBRANCES, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, REGARDLESS OF WHETHER SUNNEX KNOWS OR HAS REASON TO KNOW OF CUSTOMER'S PARTICULAR NEEDS. IF IMPLIED WARRANTIES MAY NOT BE DISCLAIMED UNDER APPLICABLE LAW, THEN ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD SET FORTH HEREIN, AND THEREAFTER ANY IMPLIED WARRANTIES ARE EXPRESSLY DISCLAIMED.

No employee, agent, dealer, reseller or distributor of Sunnex is authorized to modify this Limited Warranty, or to make any additional warranties.

REPAIR, REPLACEMENT OR REFUND, AS PROVIDED UNDER THIS LIMITED WARRANTY, ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL SUNNEX BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR TORT DAMAGES OR LOSSES, WHETHER TO PERSON OR PROPERTY, INCLUDING DEATH, ARISING OUT OF OR RESULTING FROM ANY BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY, OR ARISING OUT OF OR IN CONNECTION WITH THE PRODUCT OR CUSTOMER'S USE OF THE PRODUCT, EVEN IF SUNNEX IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY EVENT, THE TOTAL LIABILITY OF SUNNEX TO YOU FOR ANY CAUSE

WHATSOEVER SHALL BE LIMITED TO THE PURCHASE PRICE YOU PAID FOR THE PRODUCT. THIS LIMITATION SHALL APPLY REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OR TORT (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE).

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

### 8.3 Claims Procedure.

**(a)** Customer must contact Sunnex at (800) 445-7869 with a request for warranty service or to report a technical issue. Sunnex Technical Support will attempt to identify, diagnose and resolve the reported problem via the telephone.



**(b)** If attempts by Sunnex to resolve a reported problem are unsuccessful, Customer will then be provided with a Customer-specific Returned Merchandise Authorization number ("RMA"). The RMA number must be noted on any correspondence to Sunnex and displayed prominently on the outside packaging of any Product shipped to Sunnex.

**(c)** Within ten (10) days of receipt of the RMA number, Customer must ship the Product to Sunnex at Customer's expense (insuring the Product is recommended) in either its original packaging or packaging affording an equal degree of protection, to *Sunnex Inc. 8001 Tower Point Drive, Charlotte NC 28227* with a statement describing the problem in reasonable specificity. Proof of purchase must be included to obtain warranty service.

Sunnex will not be held responsible for shipping damages that occur in transit. Any damage to the Product during shipping will not be covered under this Limited Warranty and shall be subject to a service charge.

**(d)** Subject to the limitations specified herein, upon receipt, Sunnex will inspect the shipped Product and, at its sole discretion, repair or replace the Product with the same or a like product to the extent it does not conform to this Limited Warranty. In the event Sunnex, at its sole discretion, opts to replace the Product, should said product be discontinued or no longer be offered for sale by Sunnex, a like product in design and functionality will be provided to Customer.

**(e)** Sunnex will ship the repaired Product or a replacement to Customer within ten (10) business days after receipt from the date that Sunnex receives the Product. Sunnex will pay standard shipments to the Customer. Sunnex assumes no responsibility for shipment delays by the carrier.

**(f)** If Customer requires warranty service to be provided in less than ten (10) business days, but not less than three (3) business days, Sunnex will charge Customer an additional One Hundred Dollars (\$100.00) express handling charge per request for each Product.

#### 8.4 Customer Responsibilities.

**(a)** To validated warranty customer is required to fill out online or provided warranty card.

**(b)** Customer is required to follow the user manual associated with the Product for proper operation.

**(c)** Customer is required to perform periodic preventive maintenance as called for in the user manual associated with the Product.

**(d)** Any modifications or repairs made to the Product without prior written authorization from Sunnex will render this Limited Warranty null and void. Instances whereby this is determined to be the case by Sunnex technical staff will be subject to an initial service charge of \$75.00 (\$25.00 evaluation charge and \$50.00 minimum labor cost).

#### 8.5 Miscellaneous.

In the event that any provision of this Limited Warranty should be or becomes invalid and/or unenforceable during the warranty period, the remaining provisions shall continue in full force and effect.

The provisions of this Limited Warranty shall be governed by the laws of the Commonwealth of Massachusetts without regard to its conflict of laws principles. This Limited Warranty shall not be modified except by an agreement signed by both parties specifically referencing this Limited Warranty.

This Limited Warranty represents the entire agreement between Sunnex and Customer with respect to the subject matter herein and supersedes all prior or contemporaneous oral or written communications, representations, understandings or agreements relating to this subject.

For service assistance or resolution of a service problem, or for Product or warranty information, write to *Sunnex Inc. 8001 Tower Point Drive, Charlotte NC 28227* or visit [www.sunnex.com](http://www.sunnex.com).

### 8.6 Optional Extended Limited Warranty Plan.

The purchase of the Optional Extended Limited Warranty extends the duration of this Limited Warranty from a period of three (3) years to a period of five (5) years from the date of shipment to Customer. The Optional Limited Warranty may be purchased at the time of the original purchase of the Product or the Extended Limited Warranty to become effective and apply to the Product. Customer must pay the appropriate Extended Limited Warranty fee and upon initial purchase, register each Product with Sunnex within thirty (30) days from the date of shipment to Customer by Sunnex, or a Sunnex authorized dealer or reseller.

### Sunnex Customer Service

Sunnex Inc., USA	+ 1 800 445 7869
Sunnex Equipment AB Sweden	+ 46 554 555 160
Warranty	+ 1 800 445 7869

## 10. TROUBLESHOOTING

Please refer to the following table for troubleshooting.



**CAUTION! DISCONNECT THE LIGHT FROM THE POWER SUPPLY BEFORE ATTEMPTING ANY OF THE ELECTRICAL CHECKS MENTIONED BELOW.**

PROBLEM	POSSIBLE CAUSE	SOLUTION
No light from light head	Light head switch is on OFF position	Turn on the ON/OFF switch to ON position
No light from light head, when ON/OFF switch is ON	Connection at balance arm and extension arm not correct	Check the connection
	No power to the transformer box	Check for facility power to the transformer box
	Transformer is malfunctioning	Check for 24 V DC output at the transformer when it is under load
No light from light head even when the LEDs are in good condition, light head flashes intermittently when light head or arms are moved	Circuit or wiring problem within transformer, arm assemblies or other part of lighting system. Transformer failure [functioning transformer measures 24VDC on output.	Check wiring and connectors in lamphead, swivel joint (page 14: inset 2.0) and transformer box. If problem cannot be repaired, call Customer Service
Head & balance arm drift (moves down) slightly	Normal wear in leather anti-squeak washer	GENTLY tighten balance arm nut

Extension arm does not rotate freely or drifts (Ceiling)	Improper installation of the ceiling bracket	Check for excessive flexing of ceiling support structure and check if ceiling plate is level. Readjust if necessary.
Extension arm does not rotate freely or drifts (Wall)	Improper installation of the wall board on wall studs of the room	Check the joint of transformer housing with wallboard, and wallboard with wall studs. Readjust if necessary.
Balance arm does not rotate freely or drifts when released in desired position	The nut joining the balance arm and the extension arm is loose	Tighten this nut slightly
Light head does not rotate freely at lamp head/yoke joint	The screw/nut joining lamp head with the yoke is too tight or too loose	Tighten/loosen as appropriate until free movement of lamp head is achieved



