

Sunnex MedicalLight®

INSTALLATION AND SERVICE MANUAL

Tristar™



MOBILE
TS2035M, TS2015M

WALL
TS2035W, TS2015W

www.sunnexmedical.com

Table of Contents

1. SHIPPING CARTON & CONTENTS.....	3
2. INTRODUCTION	4
3. OPERATION	5
4. ASSEMBLY OF TRISTAR MOBILE	5
5. ASSEMBLY AND INSTALLATION OF TRISTAR WALL.....	5
6. ABOUT YOUR TRISTAR.....	7
7. CARE FOR YOUR TRISTAR LIGHT	8
8. SERVICE AND MAINTENANCE	9
9. WARRANTY.....	12
10. TROUBLESHOOTING	13

- ***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

TS2015M / TS2035M

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

TS2015W / TS2035W

- Wall board 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 wall board
- 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, ALL FREIGHT CLAIMS BY EITHER 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 light, and, to familiarize you to it's 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 TO BE USED WITH THIS LIGHT.

2.1 APPLICATIONS

The Sunnex Tristar offers an economical alternative to traditional minor surgical and examination lights.

2.2 TECHNICAL DATA

This light is certified according to the following standards:

CAN/CSA-C22.2 No. 601.1-M90
EN 60601-1, UL 60601-1, IEC 60601-2-41

Power Supply:	120V or 230V, 50- 60Hz
Nominal Effect	105VA
Light Intensity:	38,000 Lux @ 1 meter (35 W MODEL) (with UV filter) *
	27,000 Lux @ 1 meter (20 W MODEL) (with UV filter) *
Light Source:	35 W MODEL: Halogen Bulb –12V/3x35W/10° 20 W MODEL: Halogen Bulb –12V/3x20W/10°
Color temp:	3,000K
Medical Standard:	Class II Listing
Weight:	25 lbs (Mobile) 20.4 lbs (Wall)

* 46,000 Lux at 1 meter available without UV filter for 35 W MODEL

This product is rated as a Class II device, mode of operations is suited for continuous use

Radiated and conducted emissions testing has been completed on the TS2015 series lights and for compliance with IEC 60601-1-2 (2001-09) 2nd edition (EN55011:1991, Group I Class B)

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 temperature: -5°F to 140°F

Humidity < 95%

3. OPERATION

Plug the three prong molded plug into an appropriate Hospital Grade receptacle. Power-on your light via the rocker switch in the back cover of the lamp head. The TRI*STAR is powered by a 105W isolation, step-down transformer, that contains an internal thermal cutoff for your added safety. The transformer steps down ordinary wall current to allow for activation of the three lamp reflectors.

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 and screw the 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.**

Next, place the wire frame/caster assembly on the floor or a flat surface. Position the cast iron base within the wire frame. It should be captured by the three (3) wings. Grasp the fourth (4th.) wing. While gently pulling outward, push down on the surface of the iron base. It should **SNAP DOWN AND NOW SEAT WITHIN THE GRASP OF ALL FOUR (4) WINGS.** Roll the base around to ensure the base is properly seated and the light rolls easily.

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.

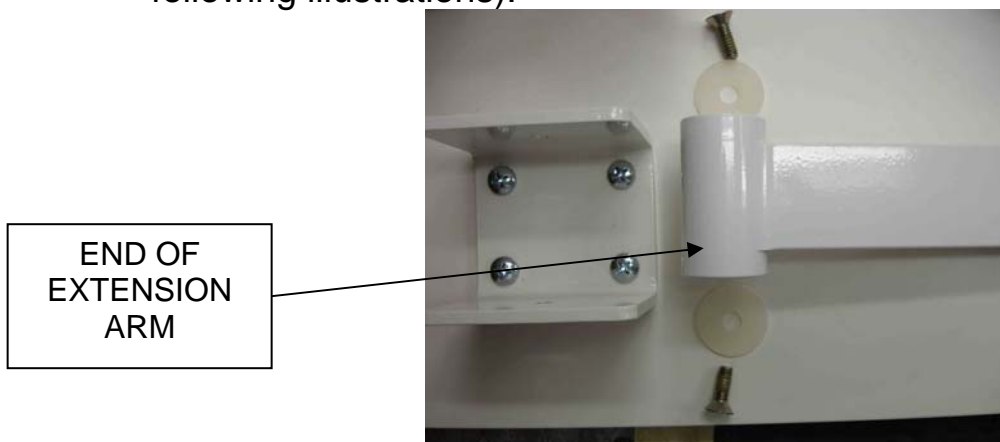
1. The length of the board has been chosen so that two wooden wall studs may be engaged during installation.
2. The wooden wall studs or surface holding the mounting board and the four (4) lag bolts, SHOULD SUPPORT A MINIMUM OF 100 POUNDS PULL ON EACH MOUNTING BOLT, AND A MINIMUM OF 100 SHEAR ON EACH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

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 wall board: 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).





WASHER

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.

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 reward is a lack of heat build-up that is normally experienced with metal reflectors, thus eliminating the danger of contact burns from a hot reflector surface.

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 TRISTAR lamp head has been designed to accept a Sterilizable handle. Should you desire this option, order a **STERILIZABLE HANDLE & MOUNT ASSEMBLY, COMPLETE, P/N STHM-2.**

THE DUAL/FLEX ARM: A vinyl covered 17” 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” out of a 31” 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”, to a height of 80” and, anywhere in between.

THE BASE: The low-profile base provides good support, whether the column is at full extension or, at its lowest position. And, the 4-caster assembly can easily be removed, when and if mobility is not desired. CAUTION: THE TRANSFORMER IS ENCLOSED IN POLYCARBONATE HOUSING. WHILE THAT HOUSING MAY BE CARED FOR AS COVERED IN THE SECTION RELATING TO THE CARE OF YOUR LIGHT, ENSURE THAT NO FLUIDS ARE SPILLED ON IT.

7. CARE FOR YOUR TRISTAR LIGHT

The design of bulb housing is such the ambient heat that builds up in front of any lamp, is moved up and through the back cover louvers, providing a cooler and more comfortable work atmosphere for you and your patient. In addition, that movement of air over each lamp/reflector adds to their longer and more useful life. 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 heat absorbing glass filters offer a protection between the patient and the lamp/reflectors. They provide you a BARRIER to falling pieces of those assemblies should they experience a physical failure. In addition, they contribute to a cooler task site by absorbing certain light rays which could dissipate into heat when incident on the task. "They can be cleaned with any commercial glass cleaner. CAUTION! DO NOT USE EXCESSIVE AMOUNTS OF ANY FLUID AND WHEN CLEANING, DO NOT INTRODUCE ANY FLUIDS TO THE INSIDE OF THE LAMP HEAD HOUSING.

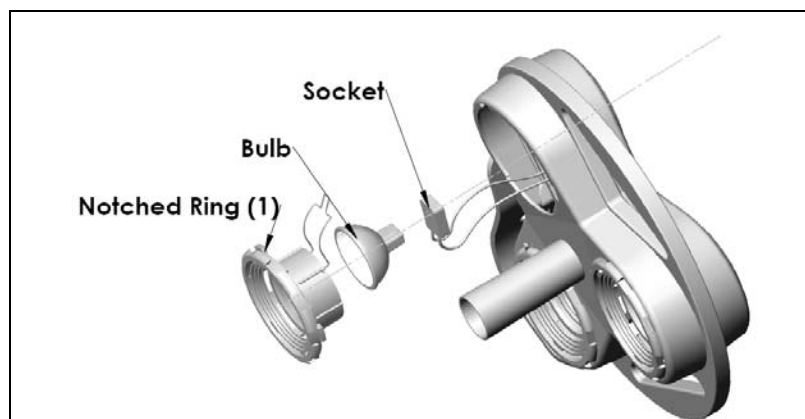
The metal components of your light are powder coated for long life. They too can be cleaned with a damp cloth of mild soap and water solution, mineral spirits or, isopropyl alcohol.

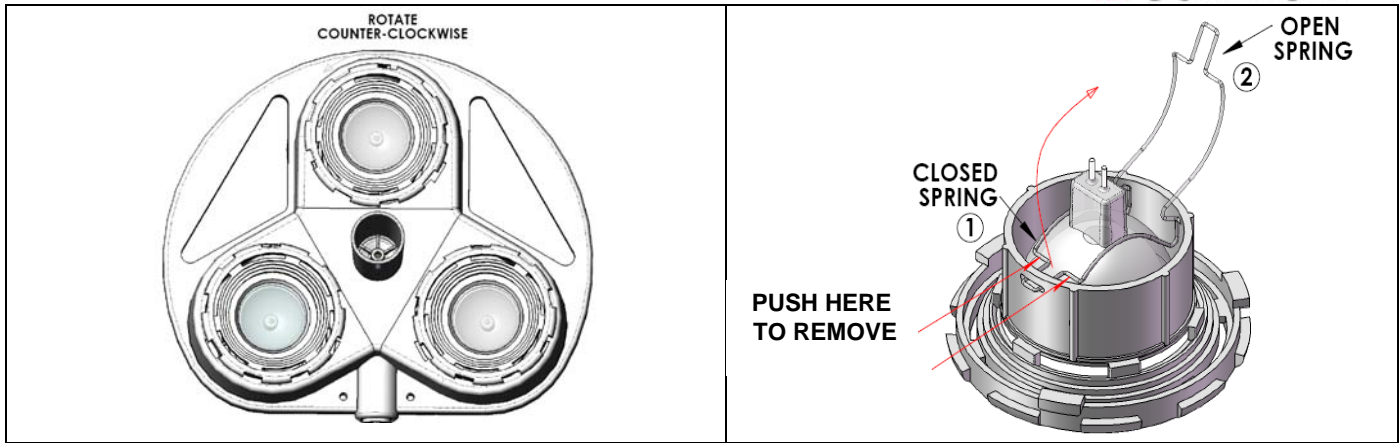
SUGGESTION! Periodically dust the back side louvers to ensure uninterrupted convection of the ambient air and filtered infrared rays through them. This arm movement cools three lamp/reflector assemblies, further extending their useful and effective life. Using a vacuum in a manner similar to the cleaning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

8. SERVICE AND MAINTENANCE

Other than fuse replacement and bulb replacement, there are no repair procedures or preventive maintenance requirements for the lamp. Any repairs to the lamp must be performed by a qualified technician or the lamp can be returned to the manufacturer for repair.

8.1 BULB REPLACEMENT





CAUTION: ONLY USE OSRAM/SYLVANIA TRU-AIM TITAN BULBS, ANY DEVIATION FROM THE DIRECTIONS MAY SERIOUSLY DAMAGE YOUR LIGHT. 35W IS MAXIMUM ALLOWED.

When a lamp/reflector burns out, ALLOW SUFFICIENT TIME FOR IT TO COOL BEFORE ATTEMPTING A REPLACEMENT. Once cool, you should:

1. Refer to figure. Turn the lamp head over so the three glass assemblies 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 bulb with one hand and unplug socket connector with the other.
4. The notched ring assembly may now be removed from the lamp head and placed face down on a flat surface.
5. Hold the notched ring assembly with thumbs and place two index fingers at flat part of spring (two red lines in figure 8), pull the spring towards you pulling it out from the slot (Keep two ends of spring inside it's holes)
6. Remove old bulb
7. Install new bulb. Do not touch inside reflector surface of bulb, always grasp from bulb outside edges
8. Close the retainer spring on the bulb by inserting the front tab of spring in the slot (using index fingers), so that it fits properly. Check to ensure proper seating of the spring, by pulling on the bulb. [Position (1) in figure 8 is "CLOSED SPRING"]. Ensure that two open ends of spring are properly seated into holes in the notched ring assembly.
9. Reconnect plug socket to bulb.
10. Replace the notched ring assembly in the lamp head by aligning the three guide projections into the slots on the lamp head. Refer to figure 9. Press gently inward as you twist the assembly clockwise. You will hit a stop and set in place. Before turning the lamp head over, BE POSITIVE THE ASSEMBLY IS PROPERLY SEATED by comparing it with the other two.

11. The light is now ready for use.

Only use the following bulbs:

Sunnex part# 18560

3x35W: Sylvania Tru-Aim Titan FRB 35MR16Q/10/NSP/T

3x35W: Osram IRC 35W 10°

CAUTION! A CHOICE OF A REPLACEMENT LAMP/REFLECTOR CAN AFFECT THE PERFORMANCE OF YOUR TRISTAR LIGHT. WE STRONGLY SUGGEST THAT ONLY OSRAM/SYLVANIA TRU-AIM TITAN ESX LAMP/REFLECTORS BE USED. THESE

ARE DESIGNED TO FILTER BOTH INFRARED AND ULTRAVIOLET RAYS, PROVIDING YOU A CONTINUED SAFE, COOL PERFORMANCE. THEY PRODUCE A PATTERN WITH A TIGHT CENTER, HARMONIOUS TO A TEN INCH PERIMETER. INCREASED FRONTAL HEAT AND A DISTORTED PATTERN ARE BUT A COUPLE OF THE DISADVANTAGES OF PURCHASING INCORRECT REPLACEMENT LAMP REFLECTORS.





8.2 FUSE REPLACEMENT

1. Remove the plug from wall receptacle.
2. Access the transformer housing and detach the front cover by removing the four plastic screws using a flat screwdriver.
3. Locate fuse blocks (2) in the transformer.
4. Turn the fuse holder counter clockwise using a suitable tool and remove the fuse holder from the fuse block by pulling it out.
5. Replace fuse with proper replacement fuse.
Fuse Replacement Specifications:
USA (110V): Buss Fuse – MDA 2 250 Volt OR Interpower 813MDA-2 (250V, 2 Amp Fuse, **MUST USE A SLOW-BLOW FUSE**)
Europe (230V): Littlefuse – T-1.25A-218 (250V, 1.25 Amp Fuse, **MUST USE A SLOW-BLOW FUSE**)
6. Follow procedure in reverse to return lamp to operating condition.

The functional earth conductor is not intended for use as a protective earth (chassis) ground.

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

SYMBOLS

			
GROUND	SWITCH ON	SWITCH OFF	CAUTION

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.

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) everyday wear and tear; (c) alteration or modification of, or to any part of, the Product; (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 ALSO 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. 3 Huron Drive, Natick MA 01760*, 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. Standard shipments to the Customer will be paid by Sunnex. 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. 3 Huron Drive, Natick MA 01760*, or visit 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	+ 1 508 651 0009
Sunnex Equipment AB Sweden	+ 46 565 177 00
Warranty	+ 1 508 651 0009

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 is on OFF position	Turn on the ON/OFF switch to ON position
No light from light head, when ON/OFF switch is ON	Bulb has not been installed or it has burned out	Refer to bulb replacement procedure in the manual
	Fuse is blown	Inspect / replace the fuse following the fuse replacement procedure
	No power to the transformer box	Check for facility power to the transformer box
	Transformer is malfunctioning	Check for 14 V AC output at the transformer when it is under load.
	Incorrect bulb installed	Install correct bulb
Bulb burns out quickly	Incorrect bulb installed in the light head	Install correct bulb
Light output is irregular in its shape or intensity	Incorrect bulb installed in the light head	Install correct bulb
	Bulb/reflector is not seated in its holder correctly	Adjust the bulb/reflector so it seats in the holder properly.
No light from light head even when the bulb and fuse 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	Check all wiring connections. If problem cannot be repaired, call Sunnex Customer Service

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