

Operating and Maintenance Instructions  
Surgical Luminaires LED Light  
Solar Series



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# Introduction

Thank you for your purchase of the Solar Series Surgical Luminaire LED Light.

This installation manual gives you instructions on how to install the Solar Surgical Luminaire light. Please read the following instructions very carefully and follow the safety instructions and requirements.

The installation instructions provided are for the Amico Surgical 2x4, 2x2 and 1x4 troffers. (Images of surgical 2x4 troffers are used for representation purposes only). Slight modifications to the installations may be required. The product may not be exactly as shown.

Please read the following instructions very carefully and follow the safety instructions and requirements.

## Safety Instructions

### **Intended use**

The Solar Surgical Luminaire LED Light is intended to provide patient room lighting. It is to be used near the patient to support treatment, which pose no risk to the patient in the event of any interruption caused by light failure. It is meant for continuous operation.

### **Safety Instructions**

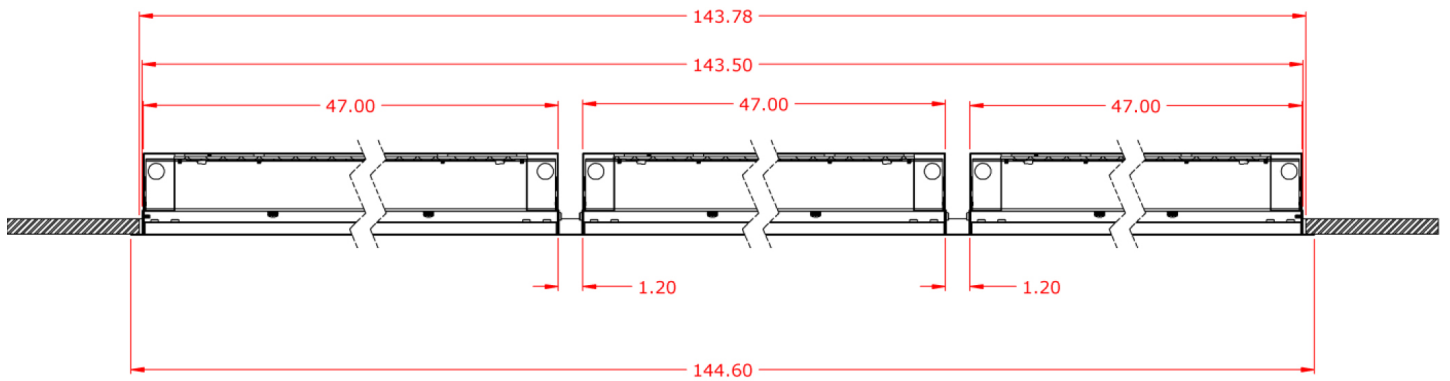
No modifications can be carried out by the end user. Doing so will void warranty, ETL approval, and may cause severe risks. Serviceable parts must be replaced with factory OEM parts. The user must comply with all building safety codes and disinfection requirements. Fixture must be installed with the reading light (end of fixture) towards the wall, closer to the head of the patient's bed.

# Surgical 2x4 Row Mount - Ceiling Cut-out Instructions

Ceiling Cutout length can be calculated based on Table 1. Ceiling Cut-Out should be accurate within 1/16 of an inch.

**Table 1 - Example for Ceiling Cutout Length Calculation**

Surgical 2x4 Fixtures in 1 row (1)	(1) X 47" = (2)	Number of Joiner Plates [(1)-1] = (3)	(3) x 1.2" = (4)	Total Cutout Length [(2)+(4)+3/8"]
3	141	2	2.4	143.775"



*Table 1 - Example for Ceiling Cutout Length Calculation*

**Table 2 - Ceiling Cutout Dimensions**

Ceiling Cutout length can be calculated based on table 1. Ceiling Cut-Out should be accurate within 1/16 of an inch.

Number of Surgical 2x4 fixtures	Ceiling Cutout Length (Inches)	Ceiling Cutout Width (Inches)
1	47.375	23.125
2	95.575	23.125
3	143.775	23.125
4	191.975	23.125
5	240.175	23.125

# Surgical 2x2 Row Mount - Ceiling Cut-out Instructions

Ceiling Cutout length can be calculated based on table 1. Ceiling Cut-Out should be accurate within 1/16 of an inch.

**Table 3 - Example for Ceiling Cutout Length Calculation**

Surgical 2X2 Fixtures in 1 row (1)	(1) X 22.8" = (2)	Number of Joiner Plates [(1)-1] = (3)	(3) x 1.2" = (4)	Total Cutout Length [(2)+(4)+3/8"]
3	68.4	2	2.4	71.175

**Table 4 - Ceiling Cutout Dimensions (Ceiling Cut-Out should be accurate within 1/16 of an inch)**

Number of Surgical 2x2 fixtures	Ceiling Cutout Length (Inches)	Ceiling Cutout Width (Inches)
1	23.175	23.125
2	47.175	23.125
3	71.175	23.125
4	95.175	23.125
5	119.175	23.125

# Surgical 1x4 Row Mount - Ceiling Cut-out Instructions

Ceiling Cutout length can be calculated based on table 1. Ceiling Cut-Out should be accurate within 1/16 of an inch.

**Table 5 - Example for Ceiling Cutout Length Calculation**

Surgical 1x4 Fixtures in 1 row (1)	(1) X 46.6" = (2)	Number of Joiner Plates [(1)-1] = (3)	(3) x 1.2" = (4)	Total Cutout Length [(2)+(4)+3/8"]
3	139.5	2	2.4	142.275"

**Table 6 - Ceiling Cutout Dimensions**

Number of Surgical 2x4 fixtures	Ceiling Cutout Length (Inches)	Ceiling Cutout Width (Inches)
1	46.875	11.125
2	94.575	11.125
3	142.275	11.125
4	189.975	11.125
5	237.675	11.125

# Installation Instructions

1. Open the cover of first fixture. Attach End flange at one end with #8-32 nuts and joiner piece on the other end with #8-32 screws

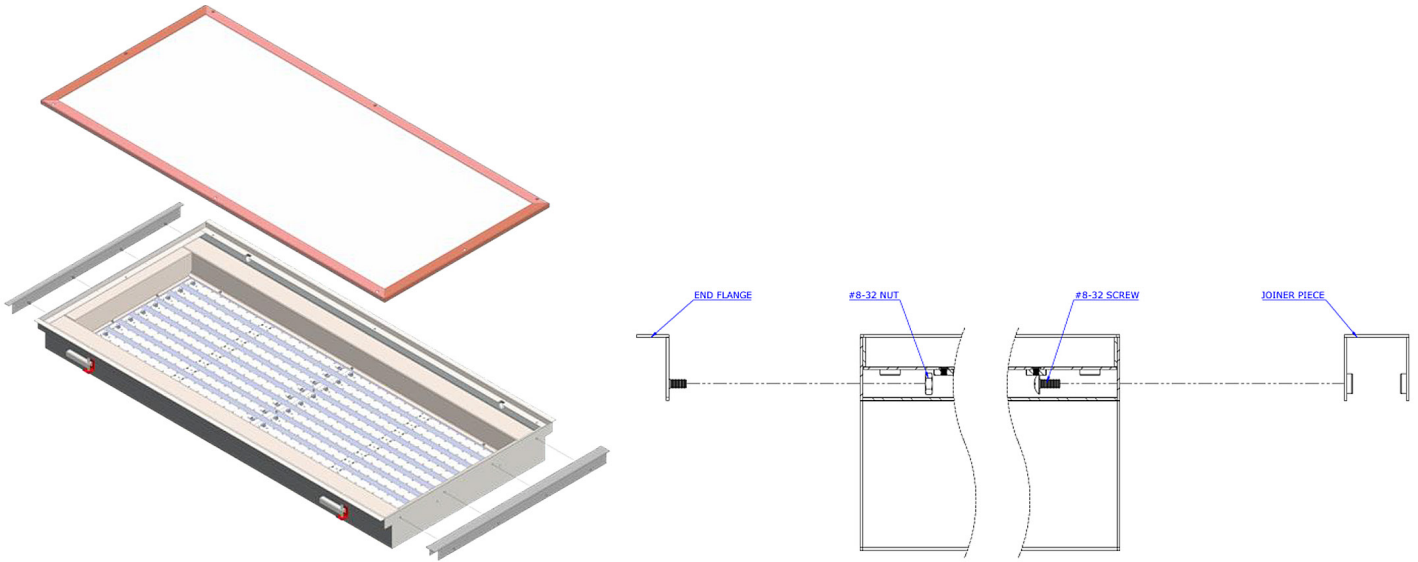


Figure 2 Attach End Flange and Joiner Piece on First Fixture

2. Raise the fixture to the ceiling and mount as per instructions in the following section.
3. Open the cover of the next fixture and attach a joiner piece to one end using #8-32 screws.

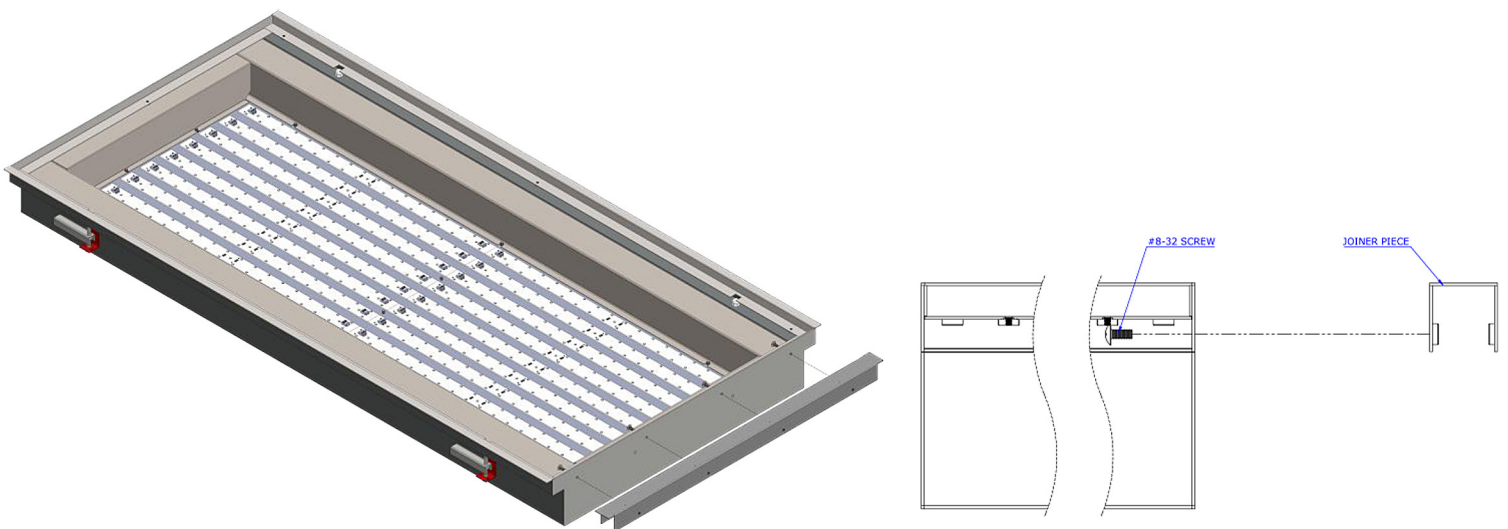
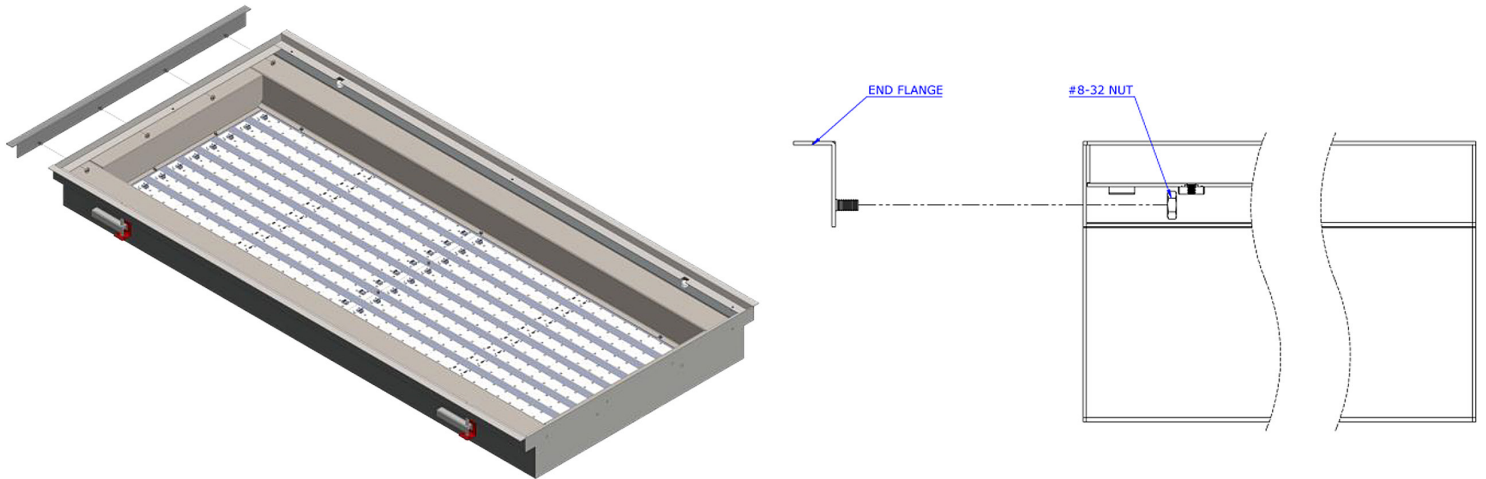


Figure 3 - Attach Joiner Piece to the Next Fixture

# Installation Instructions

4. Mount this fixture to the ceiling and attach with the first one using #8-32 screws.
5. Repeat steps 4 and 5 till the last fixture.
6. For the last fixture open the cover and attach an end flange using #8-32 nuts.



*Figure 4 - Attach the End Flange to the Last Fixture*

7. Mount the last fixture to the ceiling and attach with the other fixtures using #8-32 screws.

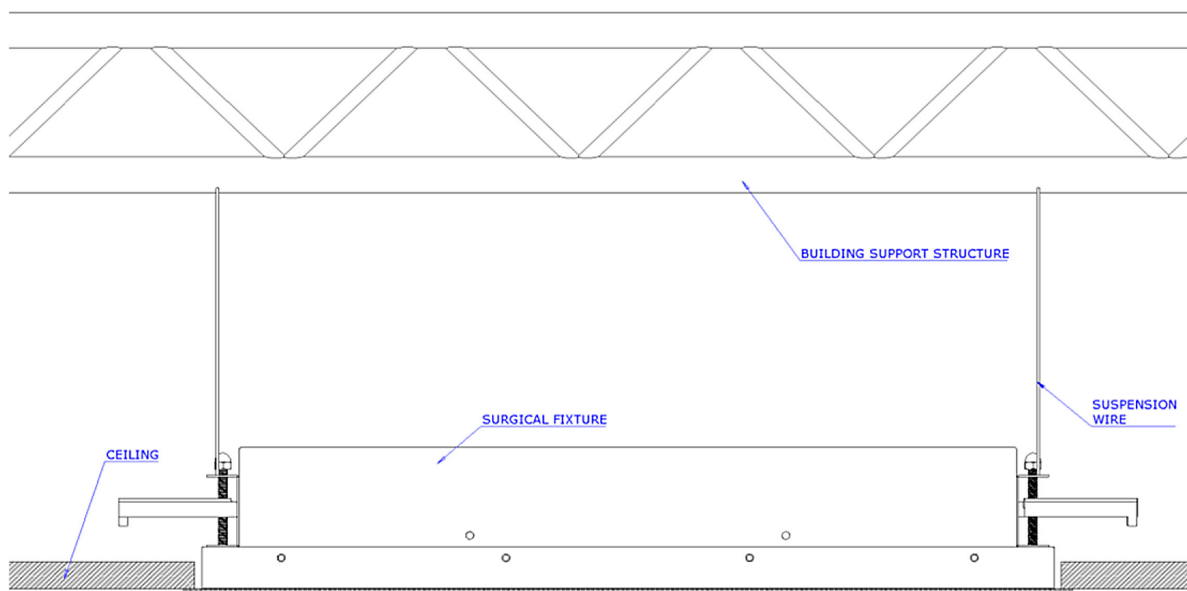
Fixtures can be mounted to dry wall ceiling by two methods - Suspension wires and swing arm.



# Installation Instructions

## Suspension

1. Make cut out in the ceiling based on the dimensions provided in table 2.
2. Use 12GA splay wire to support and suspend the fixture by attaching one end to the holes in swing arm bracket.
3. Secure the fixture to the ceiling by wrapping the other end of the wire to building support structure (designed by structural engineer of record).



*Figure 5 - Installation Using Suspension Wires*

# Installation Instructions

## Swing Arm

1. Make the cut out in ceiling as specified in table
2. Framing the entire opening is recommended. The minimum thickness of ceiling plus frame material is 1.5 Inches. The maximum thickness of the ceiling plus frame is 3 inches. 1-5/8 Unistrut is used typically, to frame the opening because of its straightness. But Straight lumber can also be used (Framing material by others).
3. Open the cover of surgical and raise the fixture to the frame.
4. Tighten the screw on each of the 4 swing arms such that it turns away from the fixture and lower it on the framing.
5. Continue tightening the swing arm screws until the fixture sits firmly in the cut out.
6. Place the cover in the fixture opening and tighten all the screws.

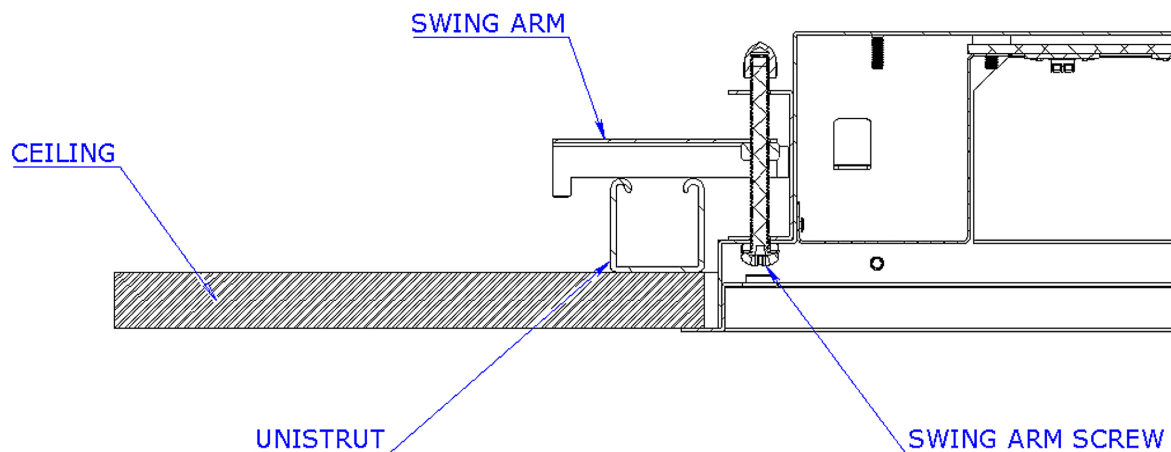


Figure 6 - Cross-section of Fixture on Unistrut Frame

# Mounting on Recessed Grid Ceiling

1. **Fixture is designed for use with 1.00"/1.50" T bar grid systems with vertical grid T thickness of less than ¼ inch with a maximum height of 1.50" inches.**
2. **Raise and position the fixture into the grid. Secure the fixture to the building support structure by attaching one end of the suspension wire to the holes in swing arm bracket and the wrap the other end to the superstructure.**
3. **Use 12 GA (0.1" DIA) splay wire (1) vertical and (2) diagonal to overhead support structure. Connection to overhead structure by structural engineer of record.**



## Warranty Policy - Lighting Products

### **Architectural Lighting Solutions (Solar Series, Skyline Series, Lunar Series, LightMaster)**

Amico Lights Corporation warrants its products against defective materials and workmanship for twelve (12) months from the date of shipment. Within this period, Amico Lights Corporation will repair or replace any part on site or at the factory which is proven to be defective at Amico Lights Corporation's cost.

Furthermore, Amico Lights Corporation will warrant its material to be free from defect for an additional period of four (4) years (five [5] years from the date of shipment). Within this period, Amico Lights Corporation will replace any part at no charge, which is proven to be defective. Shipping and installation costs after the first twelve (12) months will be borne by the customer.

The warranty applies to normal usage and does not apply to any product that has been subject to alteration, abuse, negligence, or use (including voltage and/or current) other than that for which the product was designed.

### **Medical Lighting Solutions (Mira Series, Gamma Series, Clarity Series, Magna Series)**

Amico Lights Corporation warrants its products against defective materials and workmanship for twelve (12) months from the date of shipment. Within this period, Amico Lights Corporation will repair or replace any part on site or at the factory which is proven to be defective at Amico Lights Corporation's cost.

Furthermore, Amico Lights Corporation will warrant its material to be free from defect for an additional period of four (4) years (five [5] years from the date of shipment). Within this period, Amico Lights Corporation will replace any part at no charge, which is proven to be defective. Shipping and installation costs after the first twelve (12) months will be borne by the customer.

The spring arms for the above mentioned are warranted for a period of twelve (12) months. The warranty for the spring arms shall include parts and labor and shall commence from the date of shipment.

The warranty applies to normal usage and does not apply to any product that has been subject to alteration, abuse, negligence, or use (including voltage and/or current) other than that for which the product was designed.

Amico Lights Corporation shall not be liable for incidental or consequential damages resulting from the use of the equipment.

All claims for warranty must first be approved by Amico Lights Corporation. A valid Return Goods Authorization (RGA) number must be obtained from Amico Lights Corporation prior to commencement of any service work. Warranty work which has not been pre-authorized by Amico Lights Corporation will not be reimbursed.

# Notes

[www.amico.com](http://www.amico.com)

Amico Lights Corporation | 122-B East Beaver Creek Road, Richmond Hill, ON L4B 1G6, Canada  
Toll Free Phone: 1.877.462.6426 | Toll Free Fax: 1.866.440.4986 | Tel: 905.764.0800 | Fax: 905.764.0862  
Email: [alt-sales@amico.com](mailto:alt-sales@amico.com) | [www.amico.com](http://www.amico.com)