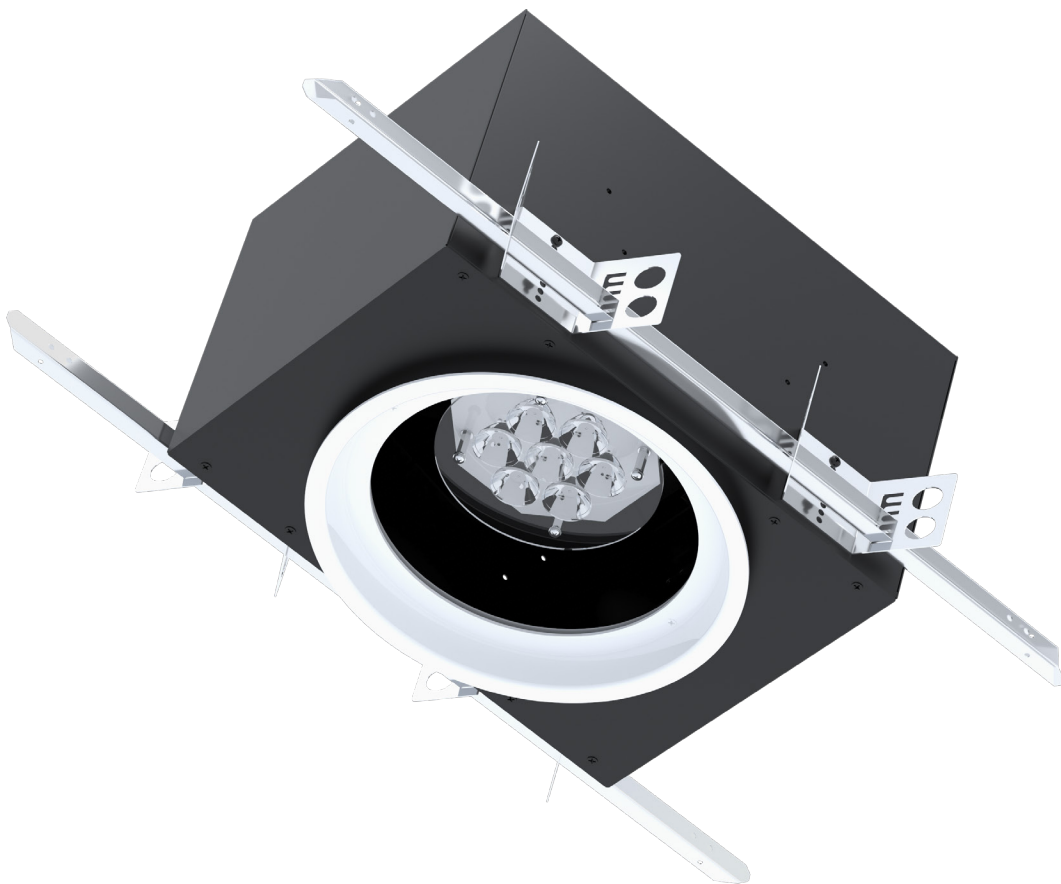


Operating and Maintenance Instructions

# Nova Motorized Exam Light - NICU



**A**mico

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# Introduction

Congratulations and thank you for your purchase of the Amico Nova Motorized Exam Light - NICU.

To ensure proper functionality and performance of the Nova Light please read the following instructions very carefully before installing the fixture. Keeping safety in mind please follow the safety instructions and requirements included in this document. The installation instructions provided are for Amico's standard products. Slight modifications to the installation may be required for custom configurations and wall conditions.

If you need information for further instructions on operation, maintenance, and/or descriptions of the product please feel free to contact Amico's Customer Service at: [alt-customerservice@amico.com](mailto:alt-customerservice@amico.com)










For technical support please contact: [alt-techsupport@amico.com](mailto:alt-techsupport@amico.com)

The product shipped to the job site may not be exactly as shown in the installation drawings.

To learn more about Amico's portfolio of healthcare lighting products, visit <https://www.amico.com/lights>

## Symbols Used in This Manual

The warning symbols indicate all instructions that are important for safety. Failure to comply with them can lead to injury, damage to the luminaire or the equipment. In combination with the following signal words the warning symbols means:

 <b>DANGER</b>	Can lead to death or serious injury	<b>L1</b>	Live conductor		Manufacturer
 <b>WARNING</b>	Can lead to injury		Storage humidity		Read manual
	Comply with operating instructions		Storage temperature	<b>RH</b>	Relative humidity
	Protective conductor		Disposal	<b>P</b>	Live conductor
<b>N</b>	Neutral conductor/ return conductor for the electrical current				

Trademarks: All trade names mentioned in these instructions are the exclusive property of the relevant manufacturers.

# Intended Use

The Nova Motorized Exam Light - NICU is intended to provide illumination for birthing room, exam room, and intensive care unit. It is to be installed to the ceiling to support treatments, which pose no risk to the patient in the event of any interruption caused by light failure. It is meant for continuous operation.

## User Profiles

### **Medical Staff**

All persons with medical training who work in the field for which they were trained.

### **Cleaning Staff**

All persons familiar with national and workplace hygiene requirements.

### **Electricians**

All persons with training in electronics and electrical technology who are familiar with the relevant standards and regulations.

### **Certified Installers**

Persons qualified by training, experience and knowledge of the regulations to install and remove the equipment.

## Safety Instructions

Please note that certain duties must be carried out by people with the appropriate corresponding qualifications. The instructions are part of the product and must be kept so they are accessible for all subsequent users:

- These instructions are for the Nova Motorized Exam Light - NICU. This includes ceiling mounted equipment
- Please carefully read these operating instructions before using the equipment. It will help protect you and others from potential injuries that may occur
- All work on the light (including repairs) must be done by qualified electricians only. The light must be installed by a certified installer
- The light must not be modified or manipulated. Use in any other manner than with the original parts may result in different specifications and life-threatening dangers
- Only persons with medical training are permitted to operate the equipment
- Only trained cleaning personnel are permitted to clean the equipment
- The light must not be used in an explosive environment. The power supply to the light is a potential ignition source
- The light must be used in dry rooms only
- The light must not be left on unattended
- Keep all flammable equipment and objects away from the fixture during use

# Safety Instructions

- Do not use a damaged light. Defective cables can also be a potential hazard. Do not position cables near heat sources or sharp edges
- Eye damage. Never look directly at the light cone
- Replace damaged lenses before using the light again
- The light must be connected to the mains with a protective earth to prevent electric shock
- Never apply additional loads to the light fixture
- Do not cover the light with a cloth or similar material while operating
- If problems are encountered that have not been addressed in these operating instructions, please contact your supplier in the interest of your own safety
- Do not place the fixture such that it is difficult to remove the power cord

**Please Keep These Operating Instructions in a Secured Place Near the Device. This Ensures Easy Access to Safety Instructions and Important Information Should the Need Arise.**

- The inspections and maintenance work, as described on page 13, should only be done by trained service technicians. Anyone else is not authorized to perform inspections and maintenance work
- The adjustment work should only be carried out by a hospital technician or someone with similar qualifications. Anyone else is not authorized to perform adjustment work
- This equipment has been built accordingly and is operationally safe. Nonetheless, it may still present some danger, especially if not used according to the operating instructions as specified in this manual
- Modifications are never to be made for any reason. This is to ensure safety for all persons involved. Any modifications made to the system void the warranty
- The contents of the operating instructions are subjected to change without notice

**Specific Fitting Instruction Nova Motorized Exam Light - NICU**

- Mounting materials are included in delivery
- The ceiling mount may be fitted to ceiling only with a concrete strength of B25 (C20/25) or greater
- Contact with reinforcing elements of the solid slab ceiling must be avoided. In case of doubt, a structural engineer should control the mounting on the respective surface
- The drill holes should be made by a skilled person in accordance with the drill hole tolerances recommended by the manufacturer of the fastening anchors
- The screws must be carefully tightened using a torque wrench in accordance with the recommendations of the manufacturer of the fastening anchors

# Safety Instructions

## **DANGER**

Indication of hazards that can lead to death or serious injury if measures are disregarded.

## **WARNING**

Indication of hazards that can lead to injury if measures are disregarded.

## **CAUTION**

Indication of hazards that can lead to damage to property if measures are disregarded.

## **EXPLOSION HAZARD**

The above is an explosion hazard warning symbol. Non-compliance with this symbol may result in damages or injuries due to explosion.

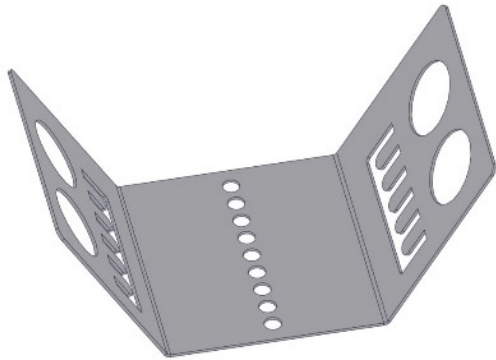
## **ELECTRIC SHOCK**

The above is an electric shock warning symbol. Non-compliance with this symbol may result in damages or injuries due to electric shock.

# Scope of Delivery

## Ceiling Mount

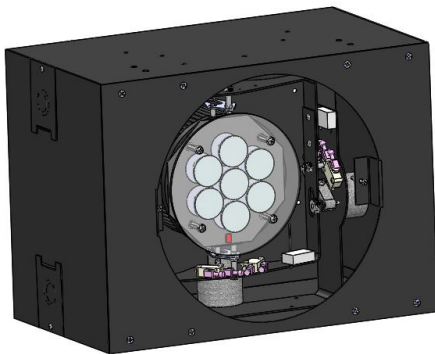
Included:



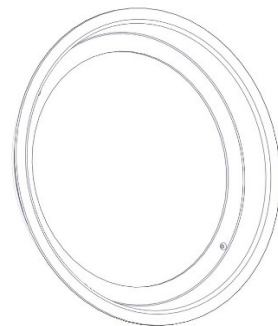
4x Mounting brackets



2x Mounting bars



1x Nova-NICU light



1x Bezel with lens



2x Phillips Head screws for bezel



8x Panhead screws for mounting bracket

# Installing Nova Motorized Exam Light - NICU



## **DANGER**

### **MOUNTING BY QUALIFIED PERSONNEL.**

- Mounting must be done by qualified personnel only. Lack of appropriate knowledge could be life-threatening



## **DANGER**

### **LIFE-THREATENING DANGER FROM FALLING LUMINAIRE.**

- The ceiling must be made of solid concrete to guarantee a secure hold



## **DANGER**

### **ELECTRIC SHOCKS ARE LIFE-THREATENING.**

- The ceiling must be made of solid concrete to guarantee a secure hold



## **DANGER**

### **RISK OF INJURY FROM FALLING PARTS.**

- Mounting must be performed by two people



## **DANGER**

### **USE PROTECTIVE EQUIPMENT IN LINE WITH TOOL MANUFACTURER'S INSTRUCTIONS.**



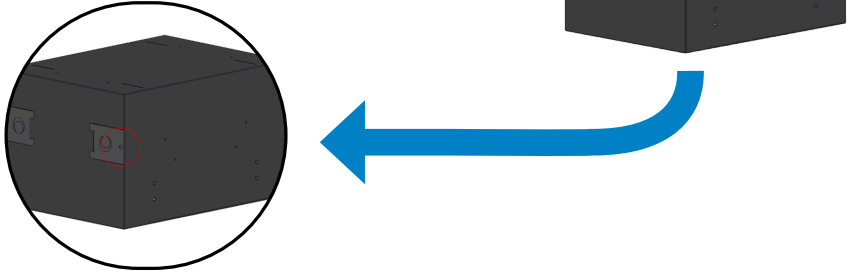
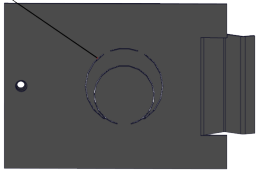
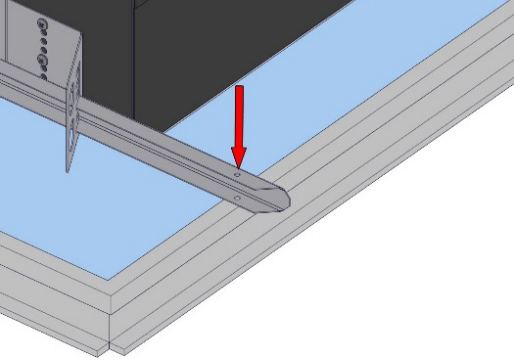
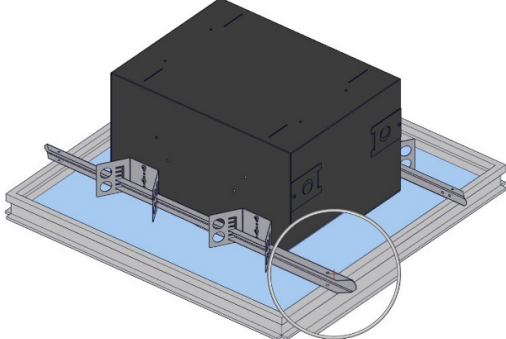
# Installing the Nova Motorized Exam Light - NICU



## DANGER

Danger of injury from loose parts.

**NOTE:** INSTALL THE MOUNTING PLATE TO THE CEILING AS PER THE STRUCTURAL ENGINEER.

1.	<p>Loosen the screw and open conduit door on the Nova box.</p> 
2.	<p>Use a hammer and flathead screwdriver to open the knockout. Wiring needs to be done after opening the knockout. (Refer to Wiring on page 12). Push conduit into the opened knockout and reassemble knockout door with the Nova box.</p> <p>Double knockout</p> 
3.	<p>Make sure to adjust vertical position of mounting bars within the bracket so that the parts rest on adjacent T-channel grid. Secure the mounting bars to the grid as required. (Refer to Appendix on page 19 for Structural Seismic Calculations).</p>  

# Installing the Nova Motorized Exam Light - NICU



## DANGER

Danger of injury from loose parts.

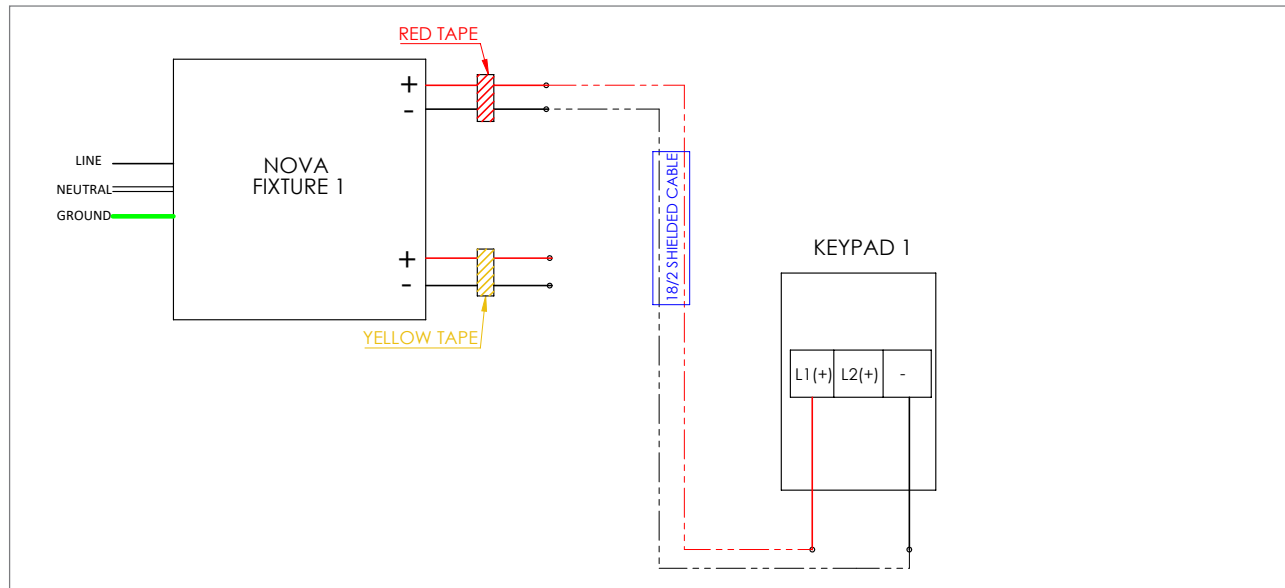
**NOTE:** INSTALL THE MOUNTING PLATE TO THE CEILING AS PER THE STRUCTURAL ENGINEER.

4.	<p>For drywall or plaster ceiling, be sure to adjust vertical position of mounting bars within the bracket so that the parts rest on adjacent ceiling joists. Secure the mounting bars to joists as required.</p> <p>(Refer to Appendix on page 19 for Structural Seismic Calculations).</p>	
5.	<p>Recommended dimension of the hole cutout will be given.</p> <p>Recommended Diameter: 11.5 inches.</p>	
6.	<p>Insert the bezel into the cutout, make sure the bottom edge of the bezel is flush on the bottom edge of the cut hole. Secure the bezel to the light fixture using two Phillips Head screws.</p>	
7.	<p>Section view of the installed fixture. Make sure the bezel is secured and flush to the ceiling.</p>	

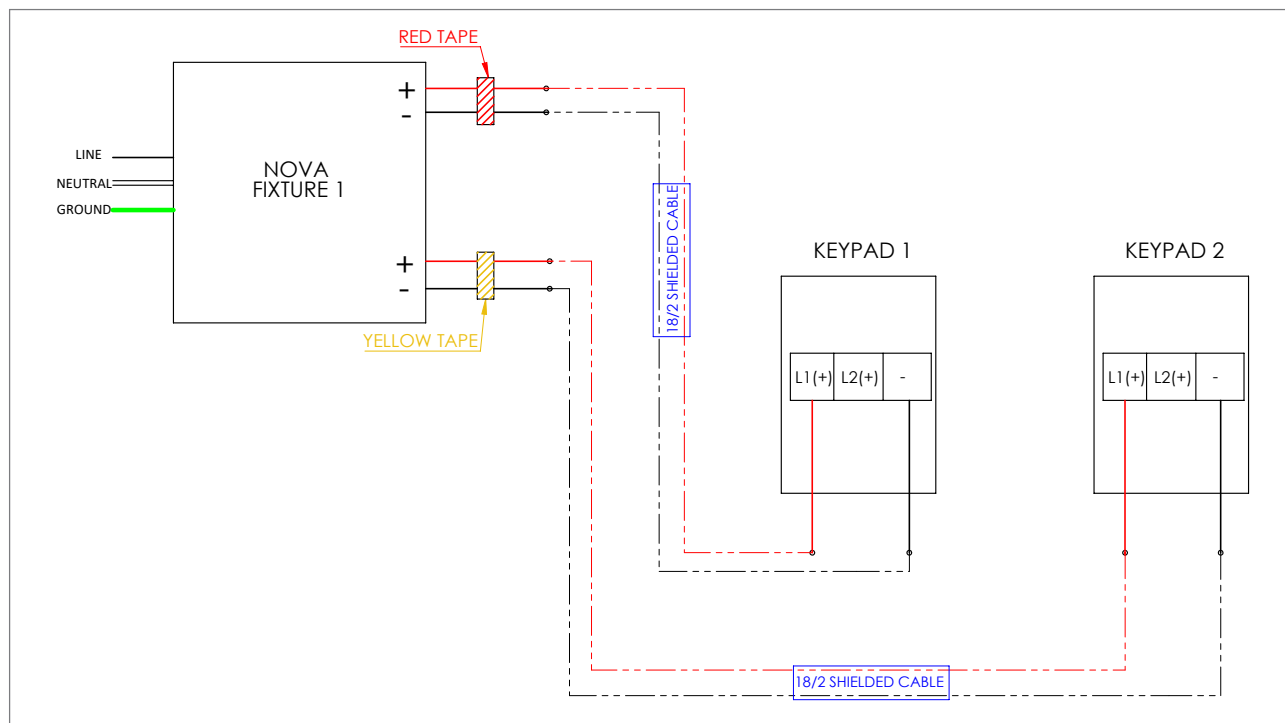
# Electrical Wiring

## Nova Motorized Exam Light - NICU Electrical Wiring - Single Light Fixture

Single Light Fixture, One Keypad



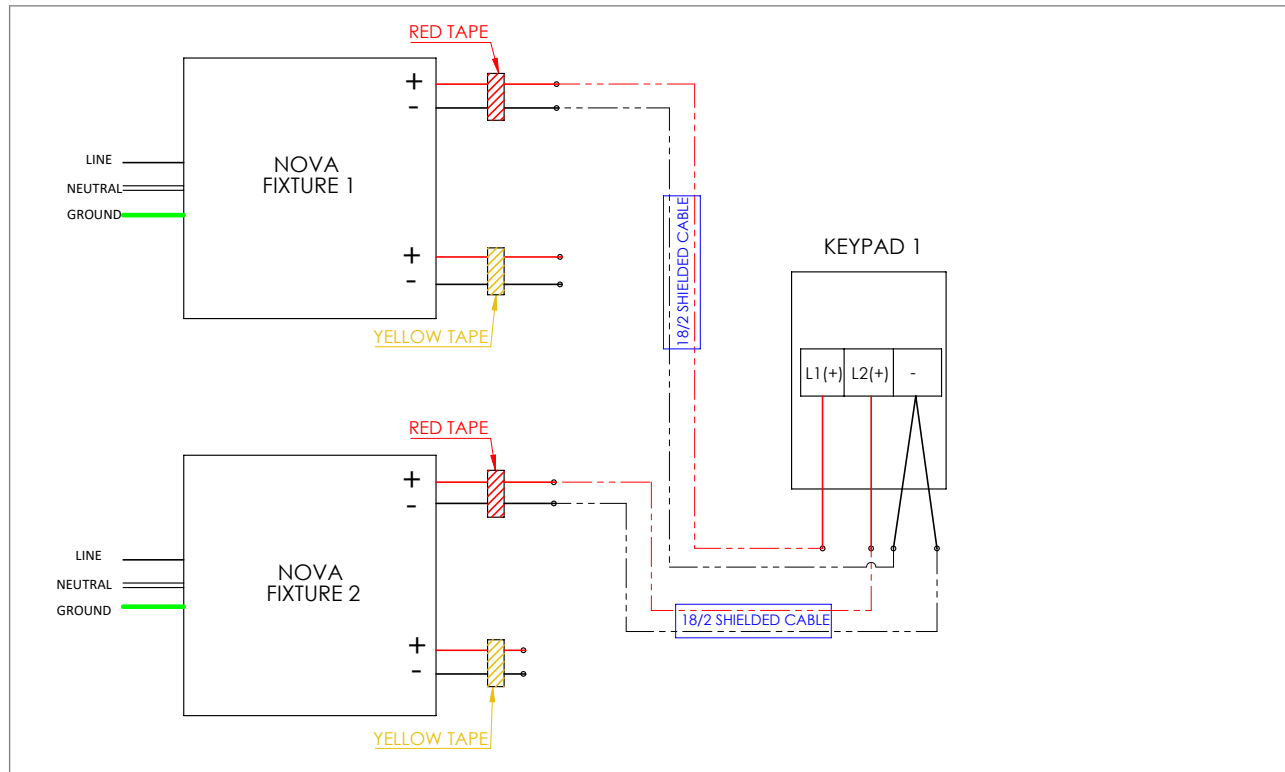
Single Light Fixture, Two Keypads



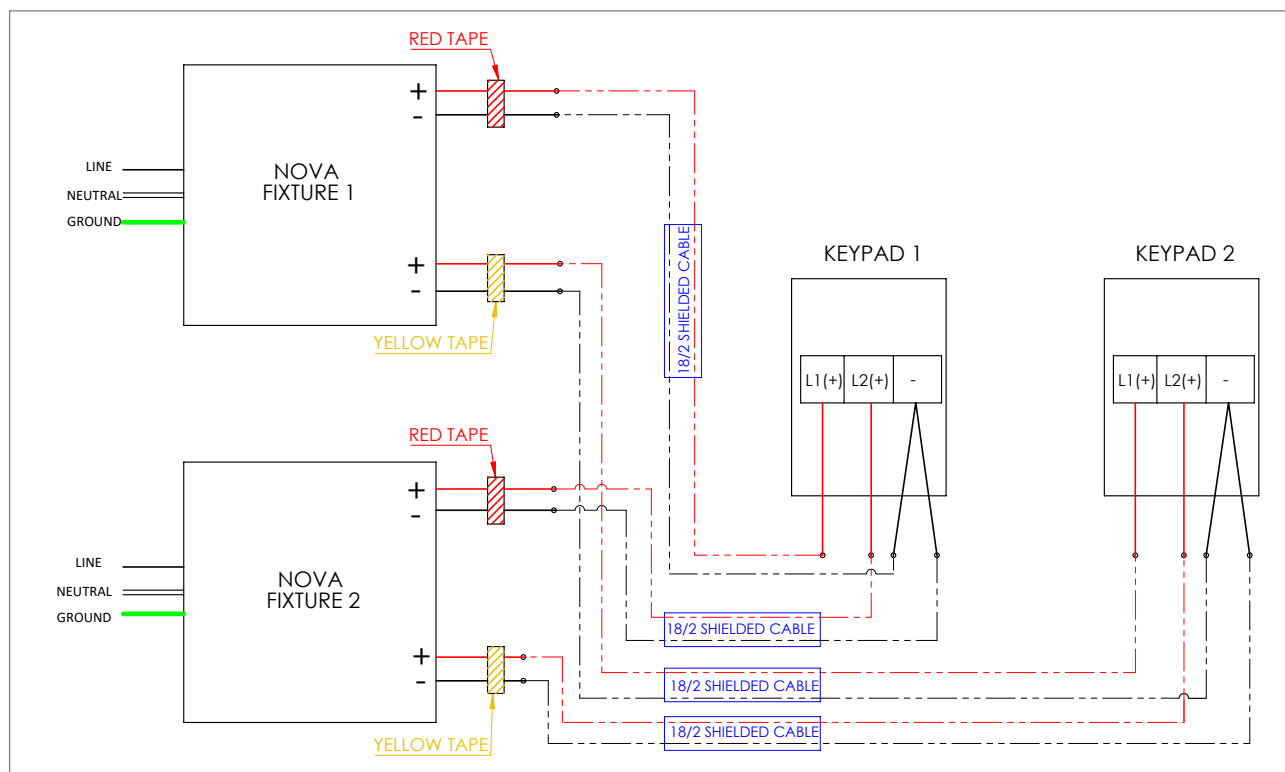
# Electrical Wiring

## Nova Motorized Exam Light - NICU Electrical Wiring - Double Light Fixtures

Double Light Fixtures, One Keypad



Double Light Fixtures, Two Key pads

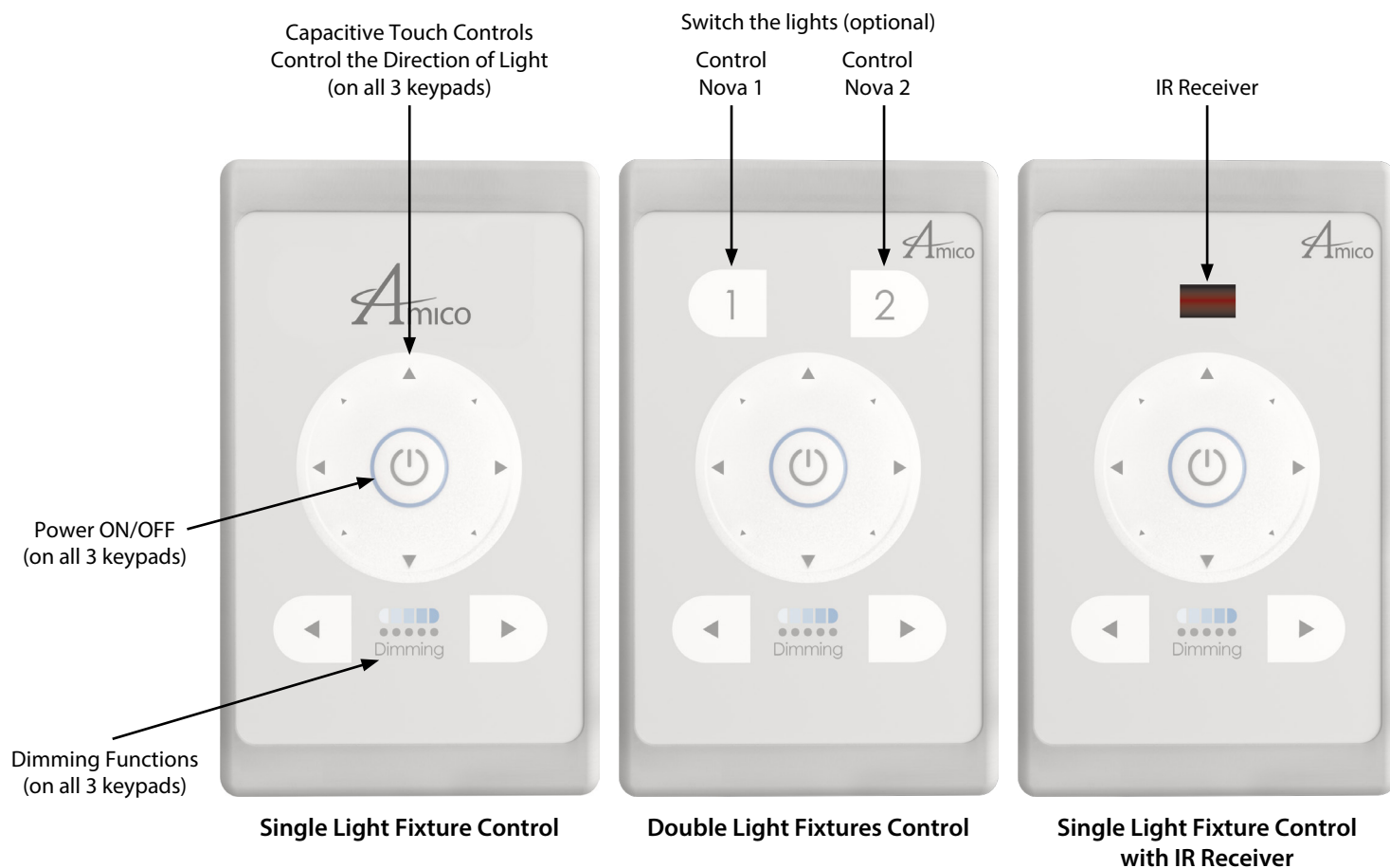


# Operation

## Nova Motorized Exam Light - NICU Control Keypad

Switch on the Nova Motorized Exam Light - NICU from the control keypad.

### Keypad Options:

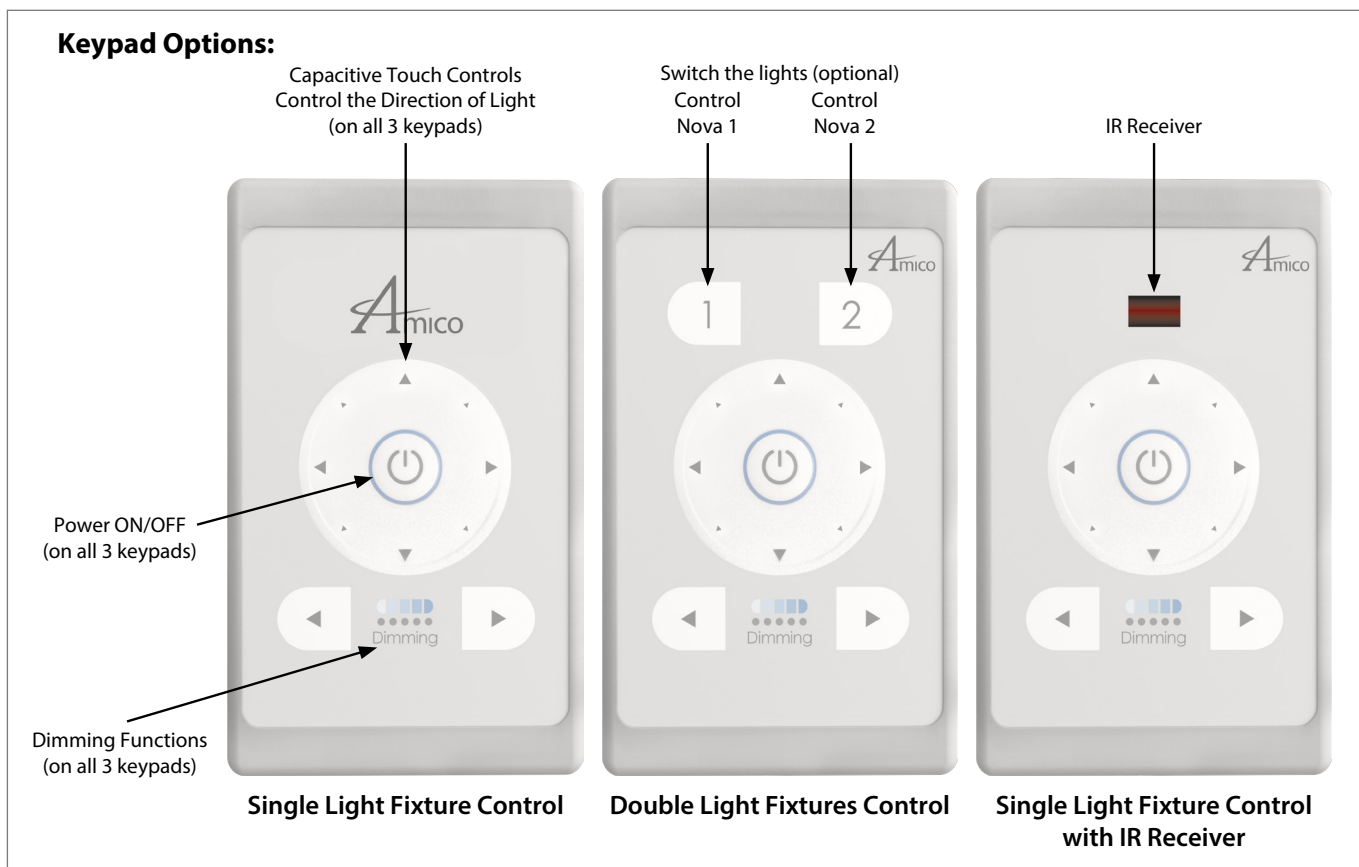


### IMPORTANT NOTES:

1. Avoid touching the keypad during the calibration process. Calibration process is indicated by the flashing lights on the keypad when it's connected to power. Wait a minimum of five seconds before using the keypad.
2. Keypad with IR receiver should be installed near the head of the bed.
3. Use 18/2 shielded cable to connect NICU Nova fixture with keypad.

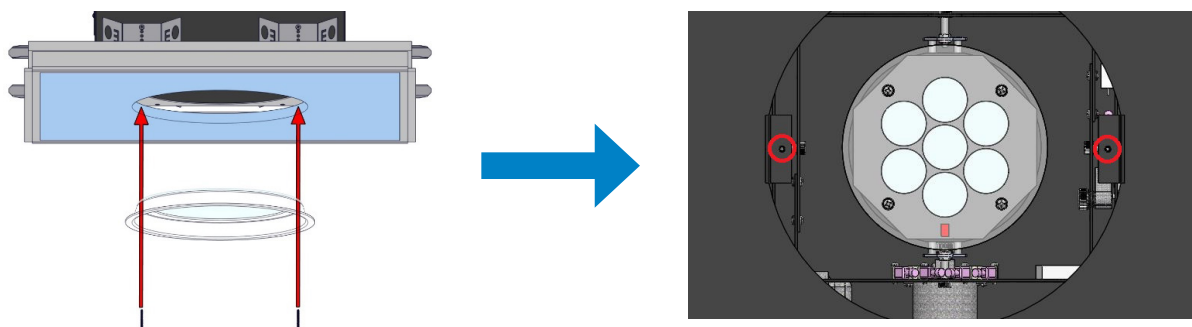
# Commissioning and Testing Checklist

- ☐ Ensure the power is working on the keypad by ensuring the keypad is LED backlit.
- ☐ Press the **ON/OFF** button on the keypad to ensure power is connected to the fixture.
- ☐ Ensure the keypad controls are working properly by moving the fixture in all directions (left, right, up, down).  
**Note: UP direction should point towards the head of the patient bed and the DOWN direction should point towards the foot of the patient bed.**
- ☐ Check that the **Dimming** feature is working correctly by pressing and holding the Dimming levels on the keypad.
- ☐ Ensure both fixtures (#1 & 2) are working correctly from the same keypad, and repeat steps above (if applicable).



- ☐ Ensure Lens (bezel) is securely fastened to the fixture.

Insert the bezel into the cutout, make sure the bottom edge of the bezel is flush on the bottom edge of the cut hole. Secure the bezel to the light fixture using two Phillips Head screws.



# Cleaning, Disinfection, and Sterilization

## **NOTICE:**

Damage due to improper cleaning authorized to perform inspections and maintenance work.

- Do not use alcohol, solvent or cleaning agents containing chlorine or scouring agents
- Damage to lens by concentrated disinfectant or solvent
- Follow the manufacturer's recommended mixing ratio
- Use of incorrect cloths may scratch lens

## **NOTICE:**

A dirty lens will reduce the illuminating power.

- Clean lens regularly
- Spray and wipe disinfection is permitted
- Clean the lens with a leather cloth soaked in cleaner
- Spray disinfectant in horizontal position

## **NOTICE:**

The external components of the light can be disinfected with the following diluted products:

- Lysoformin
- Dismozon
- Hexaquart Plus
- Sagrotan – Fast Disinfecting Cleaner
- Tuffie 5

**NOTE:** THE LOCAL GOVERNMENT REGULATIONS FOR DISINFECTION MUST ALSO BE OBSERVED IN ADDITION TO THESE INSTRUCTIONS.

# Maintenance



## **DANGER**

### **ELECTRIC SHOCKS ARE LIFE-THREATENING.**

- Remove the connector from the power supply and put the switch in the "OFF" position
- The connector cable must be checked for damage at least once per year

## **NOTE:**

- Maintenance and repairs must only be carried out by qualified electricians
- Nova Motorized Exam Light - NICU is not serviceable or repairable by anyone other than the manufacturer
- Locking mechanism should be provided by contractor as means of isolation

# Notes on the Systems

## Selection of Fastening Material

We recommend the use of (not included in the delivery) counter-plates for fastening to drywall.

## Cleaning and Disinfecting



### **DANGER**

#### **ELECTRIC SHOCKS ARE LIFE-THREATENING.**

- The devices can conduct electricity and must be handled with care during cleaning and disinfection
- If there is a power plug, remove it from the socket
- Do not use spraying methods for cleaning and/or disinfection
- Do not spray liquid into the openings of electrical power sockets, gas sockets or devices, or allow liquid to enter these

### **Recommended Cleaning Agents**

Use mild soap solutions or standard detergents as cleaning agents. Wipe down the surfaces of the equipment with a dampened cloth. If necessary, use small quantities of mild soap solution as a cleaning agent. Then wipe the outer surfaces with a soft, clean cloth until they are completely dry.

### **Disinfection Procedure**

Disinfection by wiping is intended to be the standard disinfection procedure for the support arm system. Hygiene guidelines and corresponding safety measures must be determined by the operator for the disinfection procedures that are applied.

- After the contamination by any potentially infectious material (such as blood, secretions or excrement), the areas must be disinfected immediately in a targeted way
- Comply with application concentrations
- Wipe the area to be disinfected rather than spraying it
- Do not use areas that have been wiped until the disinfectant is dry

## Testing



### **DANGER**

#### **ELECTRIC SHOCKS ARE LIFE-THREATENING.**

- During all testing work, disconnect the device from the power supply/remove the plug from the power socket and secure the device so that it cannot be switched on again

### **Every six (6) months check for:**

- Paint damage
- Cracks in plastic parts
- Deformation of the support system
- Loosening of parts

### **Every two (2) years:**

- The securing element of the cantilever arm must be checked and greased by a qualified professional



# Troubleshooting

Malfunction	Possible Cause	Remedy	User Profiles
Light does not come on	Contact fault	Switch on again	All
	Illuminant defective	Contact manufacturer's After-Sales Service	Only by manufacturer's After-Sales Service
	No mains power	Check power supply and all connections	Qualified electrician

## Disassembly



### **DANGER**

#### **ELECTRIC SHOCKS ARE LIFE-THREATENING.**

- Remove connector from the power supply and put the switch in the "OFF" position before disassembling

### **Disposal**



Do not dispose of this product with normal refuse. Dispose of the product at a recycling center or return it to a dealer with a disposal service depending on local regulations. Cut off the cable flush with the housing.

## Technical Data of Nova Motorized Exam Light - NICU

***All outputs are from a single NICU Nova***

	Units	Nova-NICU
Color Temperature	K	4500K/4000K/3500K/3000K <i>Contact factory for other color temperatures</i>
Central Illuminance @ 10ft	LUX	30,000 Lux
Ultraviolet radiation	W/m <sup>2</sup>	0.0025 W/m <sup>2</sup>
CRI	Ra	95+
Voltage	Vac	120 V
Current	A	0.4 A
Frequency	Hz	50/60 Hz
Total Irradiance	W/m <sup>2</sup>	80.46 W/m <sup>2</sup>
Dimming	---	1%
Beam Angle	---	D <sub>50</sub> - 4.5°, D <sub>10</sub> - 8°

#### **NOTE: ESSENTIAL PERFORMANCE PARAMETERS:**

- Delivery of minimum and adequate illumination on the diagnostic field
- Limitation of energy in the diagnostic field

# Technical Data of Nova Motorized Exam Light - NICU

## Electrical:

Nominal input voltage	120 VAC
Frequency range	50/60 Hz
Input current	0.4 A Max
Device Protection	Class 1 Approval ETL/cETL

## Environmental Conditions for Transport, Storage, and Operation:

### Storage and transport

After 15 weeks the conditions for operation apply.

-10°C to +34°C Ambient  
20% to 90% humidity  
70 kPa to 94 kPa

### Operation:

This product should be acclimatized to its operating conditions for 24 hours prior to its first use.

+10°C to +34°C  
70 kPa to 94 kPa  
20% to 90% humidity

## Weight:

Nova Motorized Exam Light - NICU	9.8 kg (21.5 lbs)
----------------------------------	-------------------

## Operating Mode:

Continuous operation

## Classification:

Nova Motorized Exam Light - NICU	Class I
Classification under 93/42 EEC – Annex IX	Class I (Medical device class)
Safety testing according to:	CSA C22.2 #60601 - 1 IEC/EN 60601 - 1 2nd. UL 60601-1

## Structural Seismic Calculations

	<b>EQUIPMENT ANCHORAGE &amp; SEISMIC ENGINEERING</b> <small>www.EquipmentAnchorage.com</small>	
<b>AMICO CORPORATION</b>  <b>NOVA MOTORIZED EXAM LIGHT</b>	<b>DES. J. ROBERSON</b>  <b>JOB NO. 11-2311</b>  <b>DATE 4/24/23</b>	<b>SHEET</b> <span style="font-size: 2em;">1</span>  <b>OF 2 SHEETS</b>

SEISMIC ANCHORAGE
CEILING MOUNTED

**FRONT ELEVATION**  
(WOOD FRAMING SHOWN)

USE (4) #10 x 1" TEK SCREWS  
AT SUSPENDED & STEEL JOIST CEILINGS  
OR (4) #10 x 1-1/2" WOOD SCREWS  
AT WOOD JOIST CEILINGS

2x WOOD/STL BLKG  
OR SUSPENDED CEILING  
RAIL

FINISHED CEILING  
5/8" THK. GYP BOARD  
(TYP)

CG WT= 25 LB MAX

$T_u = 16 \text{ LB/SCREW (MAX)}$   
 $V_u = 28 \text{ LB/SCREW (MAX)}$

NOTES:

- FORCES ARE DETERMINED PER 2022 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (EXAMPLE:  $S_d s = 2.30$ ,  $a_p = 1.0$ ,  $I_p = 1.5$ ,  $R_p = 1.5$ ,  $z/h \leq 1$ )

$\text{HORIZONTAL FORCE (E}_h\text{)} = 2.76 W_p$   
 $\text{VERTICAL FORCE (E}_v\text{)} = 0.46 W_p$
- THIS CALCULATION ENCOMPASSES WEIGHTS AND VERTICAL C.G. POSITIONS NOT EXCEEDING VALUES SHOWN.
- THIS CALCULATION WAS PREPARED WITHOUT KNOWLEDGE OF ANY SITE CONDITION. COMPATIBILITY FOR USE WITH A SITE SHALL BE EVALUATED BY THE STRUCTURAL ENGINEER OF RECORD OF THE INSTALLATION (SEOR). USE REQUIRES APPROVAL BY THE SEOR.
- STRUCTURAL ENGINEER OF RECORD FOR THE INSTALLATION SHALL VERIFY ALL CONDITIONS, EVALUATE INTERACTION WITH ADJACENT EQUIPMENT AND ANCHORS, AND PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.

# Warranty Policy

## Medical Lighting Solutions

### (Mira Series, Nova Series, Vega 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.