WARNING!

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS:

1. Turn off/unplug before mounting, interconnecting fixtures, or replacing LED module.

2. Do not look directly into LEDs when lit.

3. Do not operate fixture(s) with missing or damaged parts.

4. Do not install fixture(s) in any unventilated compartment. Do not recess fixtures in any material. Surface mount only.

5. Use only LED Power Supplies:

NSL Part No.	Wattage	Max. Fitures
LMS-24-18W	18 watts	4
LMS-24-60W	60 watts	13
LMS-24-120W:		
Single Tap Usage	90 watts	22
Dual Tap Usage	120 watts (60 watts per tap)	26 (13 per tap)

6. If lead wire in excess of 36" fixture leads is required, use only UL listed CL2 wire (NSL Part No. LW-18G-CL2) to join fixtures to LED Driver and to interconnect fixtures. Parallel wire only. Do not exceed 40 total feet from power supply to last fixture.

7. UL listed Damp Location for under cabinet, cabinet, and shelf mount.

8. Securely mount with included double-sided tape and/or wood screws. Wood screws offer a more permanent temperature resistant option, and are required for all wood installations.

9. Not for use with dimmers.

10. Properly dispose of all small parts and packing material. Small parts and packing material may be hazardous to children.

11. Install in accordance to manufacturer's instructions, current local codes, and/or the current National Electric Code (NEC).

INSTALLATION GUIDE

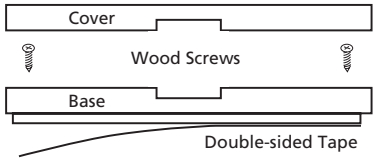
1. Each LED Mini Star ships with the fixture, including 36" of lead wire, attached double- sided mounting tape, two mounting wood screws, and junction box with terminal block.

2. The complete system includes an LED Power Supply, wiring to interconnect the system, and fixture(s).

3. Lay out the entire system without mounting any of the parts. With the system laid out, make sure you have all the required parts keeping in mind the LED power supply must be mounted within 5.5 feet of a wall outlet. Do not exceed 40 total feet from power supply to last fixture.

4. Install fixtures as per the following two options:
   A. Double-Sided Tape (Glass & Metal Surfaces)
   (1) Clean mounting surface.
   (2) Remove paper backing on double-sided tape.
   (3) Firmly apply fixture to mounting surface.

   B. Wood Screws (Wood Surfaces)
   (1) Clean mounting surface.
   (2) Remove fixture cover (see #1 and #5 in Relamping LED Module on reverse side).
   (3) Remove paper backing on double-side tape.
   (4) Firmly apply fixture to mounting surface to temporarily hold in place.
   (5) Permanently attach fixture to mounting surface using two included wood screws.
   (6) Replace fixture cover.



5. Assure power supply is unplugged.

6. LED fixtures require polarity (+ and -) to be maintained throughout the wiring. To connect the fixtures to lead wire and power supply note the following and see below wiring schematics:
   A) For the 18 watt and 60 watt power supplies, note each has a terminal block marked on the side with "+" and "-".

   B) For the 120 watt power supply, remove cover and note secondary 24VDC wires are labeled: red wires (+) and black wires (-). Lead wire to 120 watt power supply should be brought through holes in strain relief and attached to red or black wires.

   C) The LED Mini Star fixture itself has two lead wires with the following markings: white only = "+", and white with black stripes = "-".

   D) Measure twice, and then cut fixture leads and/or CL2 lead wire to desired length leaving at least 3/8" stripped of insulation for terminal block connections.

   E) Interconnect fixtures to power supply and/or lead wire as per the Terminal Block Wiring Schematic and the Single Fixture Wiring Schematic, below.

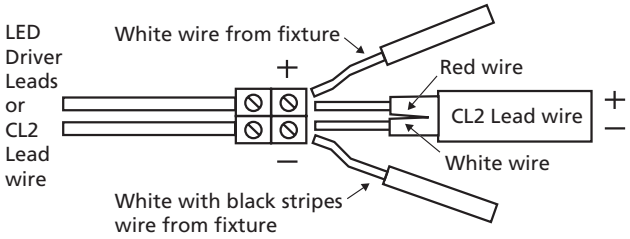
7. Passing either fixture leads or CL2 lead wire through a cabinet will require a 3/16" diameter hole to be drilled.

8. Lead wire from the LED Mini Star fixtures, or the power supplies, should never penetrate any wall. Lead wire from the LED Mini Star fixtures or the power supplies may penetrate through cabinets with access doors to all interior spaces. Only the UL listed CL2 lead wire may penetrate walls allowing the power supply to be mounted in an adjacent room to the fixture application.

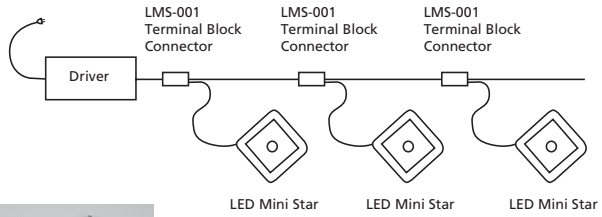
9. After assuring wiring is correctly installed as per all diagrams, +/- polarity is maintained throughout, and all terminal block screws are tightened, cover all terminal block connections with junction box covers and included screws. Mount junction box to surface using included double-sided tape and/or wood screws. Affix lead wires to mounting surface with included wire screw clips.

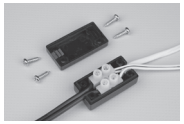
10. Plug in power supply, turn on power supply switch (18W and 60W).

TERMINAL BLOCK WIRING SCHEMATIC



SINGLE FIXTURE WIRING SCHEMATIC





- **All lead wire can be cut to exact lengths**
- **No custom cords to buy/stock**
- **No excess cord to hide**

SPECIFICATIONS

Fixture Dimensions	3" x 3" x 1/2"
Cover Finish	White, Black, Bronze, Aluminum
Base Finish	Aluminum
Wiring/Connections	Each fixture has 36" leads. Fixture leads and optional CL2 lead wire can be custom cut to desired length. Fixture leads, lead wire, and power supply connect together with included terminal blocks. Each terminal block connection is covered with a plastic junction box (see Single Fixture Wiring Schematic).
Cord Color	White
Maximum Fixtures Per LED Power Supply	LMS-24-18W (18 watt): 4 fixtures LMS-24-60W (60 watt): 13 fixtures LMS-24-120 (120 watt): Single Tap Usage = 22 fixtures Dual Tap Usage = 26 fixtures (13 fixtures per tap)
Voltage	24 volt direct current
Wattage	3.5 watts per fixture
LED Color Temperature	2900K +/- 200K
Mounting	Doubled-side tape and/or wood screws
Agency Approval	UL listed for under cabinet or cabinet mount, Damp Location. Listing requires usage of LED Power Supply (NSL part numbers LMS-24-18W, LMS-24-60W, and LMS-24-120W).

RELAMPING LED MODULE

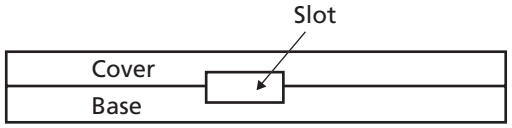
In the highly unlikely event of an LED module failure, please follow the instructions listed below:

CAUTION! If unit has recently been operating, glass, LED module, and fixture are hot! Turn off fixture and allow it to cool for 15 minutes before relamping.

CAUTION! Always replace LED module with power supply switch in the OFF position.

NOTE: Using a thin pair of gloves during this procedure will eliminate fingerprints on glass lens and LED module(s).

1. With a small screw driver, use slot in cover to remove cover from base.
2. With a pair of needle nosed pliers, remove module connector from printed circuit board.
3. Unscrew old LED module. Replace with new LED module (NSL Part No. LEDMOD-22-CR). Tighten screws just snug.
4. Push male connector from LED module into female connector in printed circuit board.
5. Replace cover by aligning slot in cover with slot in base. Press firmly together.



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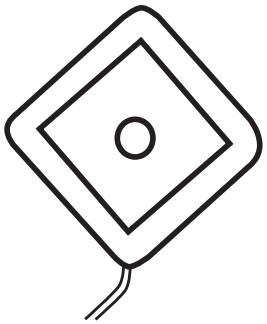
INSTALLATION INSTRUCTIONS

LED MINI STAR FIXTURE



APPLICATIONS

Under Cabinets

Cabinets

Shelves

Display Cases

Work Stations

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