

## WARNING!

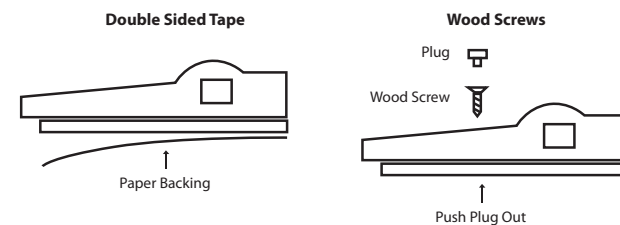
### TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS:

1. Turn off/unplug before mounting or interconnecting fixtures.
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.
5. Use only UL/RU/ETL Listed Class 2 power supplies, shown below.
6. Use only NSL joiner or extension cords to join fixtures to Class 2 LED Driver and to interconnect fixtures.
7. Dry location only. Cabinet, shelf, or wall mount.
8. Securely mount with included double-sided tape or wood screws. Wood screws offer a more permanent temperature resistant option.
9. Dimmable. See dimmer instructions for details.
10. Properly dispose of all small parts and packing material. Small parts and packing material may be hazardous to children.
11. Do not use Mini USB power cords or extension cords for any other product.
12. Install in accordance to manufacturer's instructions, current local codes, and/or the current National Electric Code (NEC).

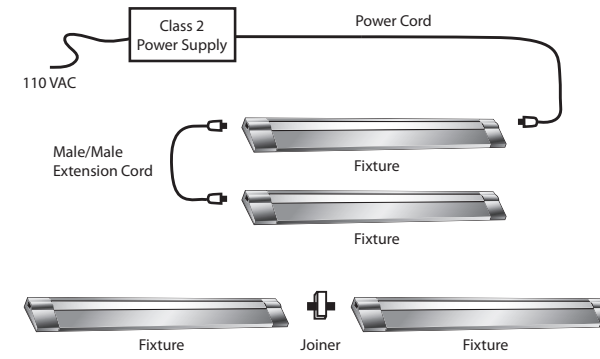
## INSTALLATION GUIDE

1. Each LED Thin Star ships complete with the fixture, attached double-sided mounting tape, and two mounting screws.
2. The complete system includes an LED Power Supply, extension cords or joiners to interconnect the system, and the fixtures.

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 following limitations:
  - A. The Class 2 power supply must be mounted and connected to 120VAC as per power supply instructions and in accordance with current local and NEC requirements.
  - B. Do not exceed more than 60 LEDs per Power Supply (see **NOTE!**).
  - C. Do not exceed more than 91 feet of total extension cords can be placed between the LED Power Supply and the last fixture in the system.
4. Install fixtures as per the following two options:
  - A. Double-Sided Tape
    - (1) Clean mounting surface.
    - (2) Remove paper backing on double-sided tape.
    - (3) Firmly apply fixture to mounting surface.
  - B. Wood Screws
    - (1) Clean mounting surface.
    - (2) Remove plugs (two per fixture) from end caps of fixture, by pushing out endcap from bottom.
    - (3) Position fixture in desired location and attach fixture to mounting surface using two included wood screws.



5. Interconnect Class 2 LED Power Supply to the first fixture by plugging the low voltage wire from power supply into either end of the first fixture.
6. Interconnect additional fixtures from the first by plugging additional male/male extension cords, or fixture joiners, from the first fixture into additional fixtures. See diagram below, and keep in mind the three limitations outlined in #3 above.



### NOTE!

Do not connect more than:  
5 pieces of 12 LED fixtures  
10 pieces of 6 LED fixtures  
or any combination not to exceed 60 LEDs .

Do not exceed 91 feet of total extension cord per LED power supply.

## WARNING

To reduce the risk of fire, electrical shock, or injury to persons:

### LED DRIVER SELECTION

	Dimmable Non-Dimming	Min. LEDs	Max. LEDs
LTH-24-65W	Non-Dimming	6	60
TR24L20DC	Both	6	30
TR24L40DC	Both	24	60

If you do not wish to dim the LED Thin Star use any of the LED Drivers listed above and be careful to abide by the minimum and maximum load values listed above.

If you wish to dim the LED Thin Star, use only the TR24L20DC or TR24L40DC and a magnetic low voltage dimmer listed below. All dimmable LED Drivers have no minimum load when used with an appropriate dimmer, however, all dimmable LED Drivers are more efficient if specified as per the minimum and maximum load values listed above.

Run appropriate lead wire from LED Thin Star to LED Driver (see *below*). Check all connections and clearances.

1. Our 24 Volt Direct Current dimmable LED magnetic power supplies are designed to work with most 'stand alone' low voltage magnetic analog dimmers. A recommended dimmer list is as follows:

LUTRON "Ariadni" AYLV-600PH  
LUTRON "Lyneo" LXLV-600PL  
LUTRON "Skylark" SLV-600P  
LUTRON "Diva" DVLV-600PH  
LUTRON "Glyder" GLV-600

2. Carefully following the dimmer instructions, dimmable LED magnetic power supply instructions, and the NEC, wire dimmer between 120VAC power input and 24 Volt Direct Current dimmable LED power supply.

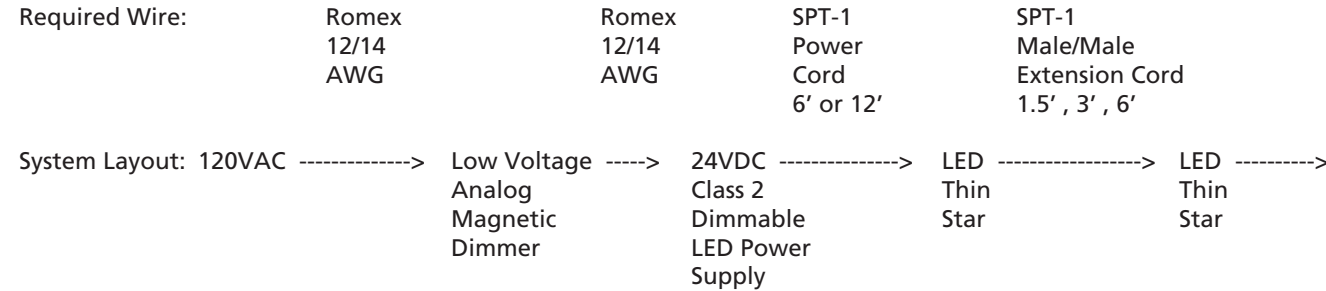
## WIRING INSTRUCTIONS

1. Parallel wire LED Thin Star to LED Driver.
2. Use only 18G wire of the following specifications:
  - For all applications with wire interior to a wall, use only molded CL2 power cords or male/male extension cords
  - For all other applications use only molded STP-1 power cords, male/male extension cords, or joiners.
2. First, make sure LED Driver is not receiving power in any way. Wire LED Thin Star per these instructions, assure proper tightness, on all strain reliefs, and then apply 120VAC power to LED Driver.
3. Low voltage Power Cord can be shortened or lengthened by cutting to desired dimension and placing cut end/splice in power supply box or LMSII-001 junction box(es). Low voltage male/male extension cord can be shortened or lengthened by cutting to desired dimension and placing splice(s) in LMSII-001 junction box(es). **CAUTION:** All splices and connections are only allowed exterior to all walls or structural members.
4. Do not try to adjust, fix, rewire, LED Thin Star fixture. In the unlikely event fixture does not illuminate, check wiring first. If this does not work, send LED Thin Star back for warranty replacement, if applicable.

**NOTE:** These products may represent a possible shock or fire hazard if improperly installed or attached in any way. Products should be installed in accordance with the owner's manual, current local codes, and/or the current National Electrical Code (NEC).

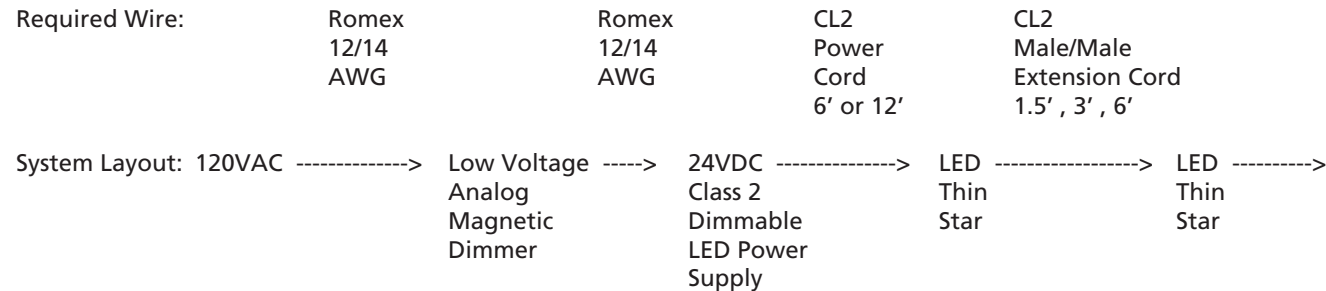
## DIMMING INSTALLATION FLOW CHART

### No Low Voltage Wire Interior to Walls or Structural Members



## DIMMING REMOTE POWER SUPPLY INSTALLATION FLOW CHART

### Low Voltage CL2 Wire Interior to Walls or Structural Members



**NOTE:** If you Do Not want LED Thin Star to dim, the above charts are modified to remove "Low Voltage Analog Magnetic Dimmer", the power supply becomes "Non-Dimmable" LTH-24-65W (plug-in). As always, check the current NEC and local building codes for acceptance of your application design.

Fixture stranded lead wire should never penetrate any wall. Fixture stranded lead wire 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.

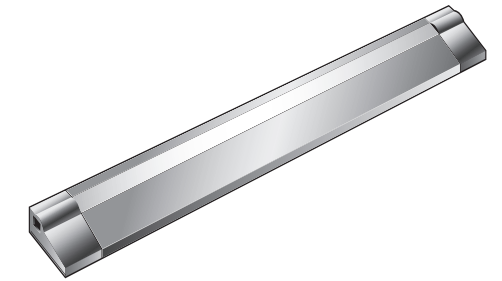
After assuring wiring is correctly installed as per all diagrams, +/- polarity is maintained throughout, and all terminal block screws are tightened, cover all terminal block connections with junction box covers and included screws. Mount junction box to surface using included double-sided tape and/or wood screws. Lead wires should be neatly affixed to mounting surface with WSC-004 wire screw clips.

## SPECIFICATIONS

Fixture Length	6 LED = 11.125" 12 LED = 21.825"
Fixture Finish	White, Black, Bronze, Aluminum
Fixture Joiner	0.875" after installation
Power Cord Length	6', 12'
Extension Cord Length	1.5', 3', 6'
Maximum Fixtures Per LED Power Supply	Do not connect more than: 5 pieces of 12 LED fixtures 10 pieces of 6 LED fixtures or any combination not to exceed 60 LEDs. Do not exceed 91 feet of total extension cord per LED power supply.
Voltage	24 volt direct current
Wattage	6 LED = 3.2 watts 12 LED = 6.4 watts
LED Color Temperature	3000K +/- 200K
Mounting	Doubled-side tape or wood screws
Connection	Molded connectors from 24VDC lead at LED Driver to each LED Thin Star fixture. See schematic.
Agency Approval	ETL listed for wall or cabinet mount, dry location only. Class 2 power supplies only.

## INSTALLATION INSTRUCTIONS

# LED THIN STAR



## APPLICATIONS

- Undercabinet
- Shelves
- Display Cases
- Cabinet Interiors
- Consoles
- Podiums
- Work Stations

**NATIONAL SPECIALTY LIGHTING**  
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