# **Commercial Grade Light String**

Installation instructions for LS-C, LS-I, LS-M and LS-MS light string product for permanent installation

**WARNING:** 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 these instructions; and current electrical codes and/or the current National Electric Code (NEC).

# **CAUTION** – To reduce the risk of fire, electric shock or injury to persons:

- 1. Commercial Grade Light String is intended for installation by trained, qualified electrical contractors.
- 2. Light string can be supported by steel guide cables, with zip ties and eyebolts. Proper diameter cabling must be used for the maximum span distance between supports according to local building codes. See chart on reverse side for maximum span distances between supports.
- 3. Suspend strings properly by attaching suspension cable (not provided) to solid support structures, such as joists, beams or wall studs.
- 4. Light sockets must be suspended so that bulbs are facing down ONLY.
- 5. Keep combustible material clear of bulbs. Do NOT allow lamps or sockets to come into contact with walls, ceilings, fabrics associated with shades, blinds or other materials. Lamps should hang freely in a downward direction with a minimum of 3" space from the nearest object.
- 6. Do not cluster the bulbs.
- 7. Not intended for installation in ceilings, soffits, cabinets or other enclosed spaces.
- 8. Not intended for lighting aquariums.
- 9. Do NOT secure light string to buildings or other structural supports using nails, staples or other sharp, conducting materials.
- 10. Avoid damage to the insulation during installation. Do NOT pierce or other wise compromise wire's or socket's outer covering, jacket or sheathing.
- 11. Periodically inspect wire and sockets for degradation due to weather, UV light or other damage. Promptly replace worn out light string.
- 12. DO NOT MOUNT THE LIGHT STRINGS WITH SOCKETS FACING UPWARD!
- 13. DO NOT OVERLOAD ANY SOCKET'S MAXIMUM WATTAGE RATING!
- 14. DO NOT OVERLOAD MAXIMUM WATTAGE CAPACITY IN ANY RUN!

### WARNING – RISK OF ELECTRIC SHOCK!!

Disconnect power at source prior to wiring, re-lamping or servicing in any way.

#### LIGHT STRING SETS WITH POLARIZED PLUG

- 1. Do not connect the light string to any other string.
- 2. The plug-in light string sets are supplied with an attached polarized plug that will only fit into a polarized outlet. If it does not fit, reverse the plug. If it still does not fit, contact a qualified electrician. Do not alter the plug.
- 3. DO NOT EXCEED THE MAXIMUM WATTAGE FOR LIGHT STRING SETS WITH ATTACHED PLUG:

600 WATTS MAXIMUM FOR 48 FOOT PLUG-IN LIGHT STRING SETS! 1250 WATTS MAXIMUM FOR 100 FOOT PLUG-IN LIGHT STRING SETS!

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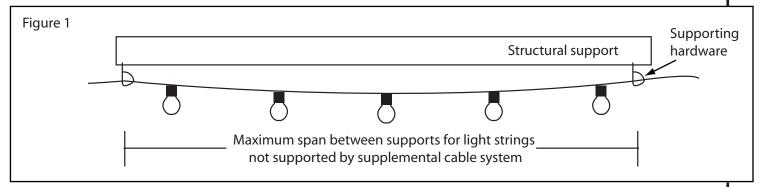
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## **SUSPENDING LIGHT STRINGS**

1. Light string must be securely attached to a support structure at each end of each span. See chart below for maximum span distances:

MODEL #	Max. span between supports
LS-M and LS-MS 24" spacing between sockets	10 sockets or 20'
LS-I with 15" spacing between sockets	15 sockets or 19'
LS-C with 12" spacing between bulbs	20 sockets or 20'

2. Secure light string to supporting hardware (eyebolts, brackets, etc., not provided) using cable ties (not included). See Figure 1.



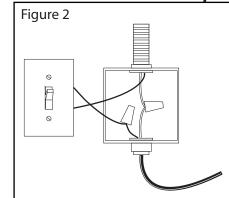
3. For spans exceeding the above, use properly rated cable support system and cable ties (both not provided) and follow local codes for suspended structures and loads.

#### CONNECTING LIGHT STRINGS TO POWER SOURCE

**WARNING – RISK OF ELECTRIC SHOCK!!** Disconnect power at source prior to wiring and follow any required lock-out/tag-out procedures. Wiring instructions intended for use by qualified and licensed electrical contractors.

- 1. Located power source in properly rated junction box (not supplied) for indoor or outdoor application. See Figure 2.
- 2. Thread light string end through strain relief fitting (indoor installations) or water tight strain relief fitting (outdoor installations) and into junction box.
- 3. Connect light string to power source: smooth wire to black (hot) wire; ribbed wire to white (neutral) wire.
- 4. Ensure that no bare wires are exposed outside the electrical connections.
- 5. Power source may be switched with properly rated switch or dimmer control (not provided). For maximum run distances, see Table 1 on following page.

Note: Use14AWG for connection to power source. Check local electrical codes for variations before installing or lamping light string.



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### **RE-LAMPING LIGHT STRINGS**

**WARNING – RISK OF ELECTRIC SHOCK!!** Disconnect power at source prior to re-lamping light strings. For outdoor light strings, do NOT re-lamp light strings during rain or other inclement weather conditions.

- 1. Re-lamp light strings only during dry and calm weather conditions.
- 2. Unscrew existing lamps by lightly holding the socket in one hand and twisting the lamp counter-clockwise. Lamps may be tight in the sockets. This is normal to prevent moisture from getting into the socket.
- 3. Replace with proper wattage and type lamps according to the following chart.

Table 1

	Maximum Load in Watts	Maximum Load in Watts		
MODEL #	(per socket type)	Plug-in (48'/100')	Hardwire	
LS-M and LS-MS	25 (medium base)	600/1250*	1800**	
LS-I	10 (intermediate base)	N/A	1200**	
LS-C	10 (candelabra base)	N/A	1200**	

<sup>\*</sup>Maximum run for 48 foot plug-in sets is 600 watts, based on 24 sockets at 25 watts each maximum; maximum run for 100 foot plug-in sets is 1250 watts, based on 50 sockets at 25 watts each maximum.

## 4. DO NOT OVERLOAD SOCKETS OR LIGHT STRING!!

#### COMMERCIAL GRADE LIGHT STRINGS SPECIFICATIONS

Specifications	LS-C Series	LS-I Series	LS-M Series	LS-MS Series
Socket Type	Candelabra Base	Intermediate Base	Medium Base	Medium Base
Max Bulb Wattage	10 watts	10 watts	25 watts	25 watts
Max Amperage Load	10 Amps	10 Amps	15 Amps	15 Amps
Socket Spacing	12 inches	15 inches	24 inches	24 inches
Maximum Run	1200 watts <sup>†</sup>	1200 watts <sup>†</sup>	1800 watts <sup>†</sup>	1800 watts <sup>†</sup>

<sup>\*\*</sup>Use 14AWG for hardwire connection to 120V power source. Check local electrical codes for variations before installing or lamping light string.

<sup>&</sup>lt;sup>†</sup>Maximum run for LS-C and LS-I bulk reels is 1200 watts, based on 10 amps allowed on 16AWG wire; maximum run for LS-M and LS-MS bulk reels is 1800 watts, based on 15 amps allowed on 14AWG wire.