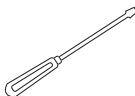


STOP READ THESE INSTRUCTIONS COMPLETELY AND CAREFULLY

Tools required



Tape measure



Screwdriver



Electric drill

Components



Streamliner Gen 2 tube

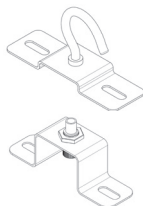
No additional power supplies required. Mounts direct to socket.



Surge Protector (HPEB-SP10KV)

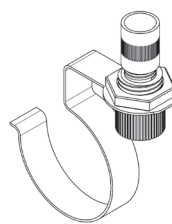
* Maximum number of sticks on a surge protector is equal to the maximum number of sticks in series. Sold separately.

- 3-lead surge protector
- Protects against surges according to IEC61643-11
- None load current
- 10kA and 10kV
- IP67-rated for wet locations
- Parallel wiring



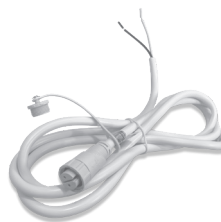
Cable Mounts and Cable (A-SLE-MS-WIRE)

*Sold separately.



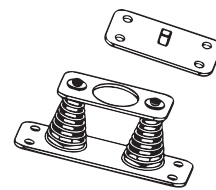
Mounting Clip (A-SLE-MS-CLIP)

*Sold separately.



Connector Cable (HPEB-SL-CABLE)

* All Stiks with SwiftConnect must use Streamliner Connector Cable to make AC connections. Sold separately.

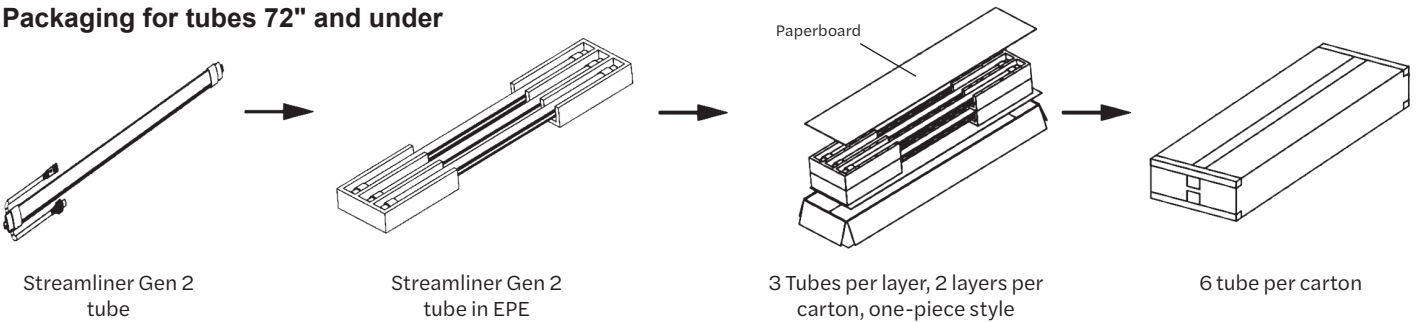


Brackets (HPEB-SL-BRACKET)

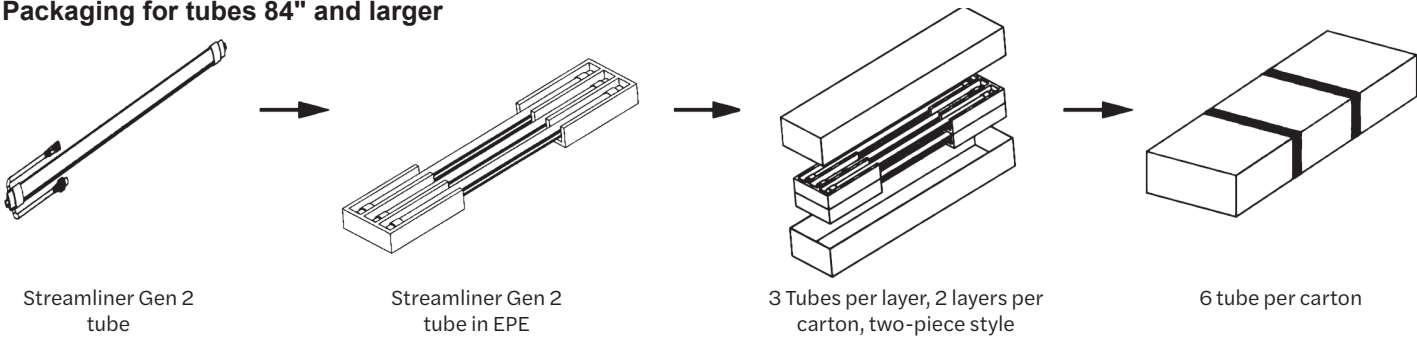
* Sold separately.

Installation Guide for M-SLE(XXX)-AC-70

Packaging for tubes 72" and under



Packaging for tubes 84" and larger



SKU	Tubes per layer	Tubes per case
M-SLE024-AC-70	3	6
M-SLE030-AC-70		
M-SLE036-AC-70		
M-SLE042-AC-70		
M-SLE048-AC-70		
M-SLE060-AC-70		
M-SLE064-AC-70		
M-SLE072-AC-70		
M-SLE084-AC-70		
M-SLE096-AC-70		
M-SLE108-AC-70		
M-SLE117-AC-70		
M-SLE120-AC-70		

NOTE: All materials removed must be disposed of in accordance with applicable local, state, and federal laws.

WARNING: Check polarity. All connections must be WHITE-TO-RED (+) and BLACK-TO-BLACK (-). Reverse polarity connections may damage the LEDs and will void product warranty.

CAUTION: Turn off power to sign before inspecting or removing existing light source. Power must remain off while installing the Concorde Cabinet System.

Installation Guide for M-SLE(XXX)-AC-70

Retrofit Installation Guide

Streamliner Gen 2

This guide is designed to aid in the installation of Streamliner Gen 2. Skilled trades people that are familiar with general construction, electrical, and sign installation techniques should do the installation. Licensed electricians should provide all installation and hook-up of both the primary and secondary input/outputs of the Principal Sloan power supply. All installation and hook-up should be done in accordance with all National and Local codes and permits. In no way is this document intended to construe warranty or fitness of use of the products described, nor is it intended to provide safety instruction for those installing the product.

THE FIELD INSTALLATION OF THIS RETROFIT SYSTEM INTO A SIGN IS SUBJECT TO THE ACCEPTANCE OF LOCAL INSPECTION AUTHORITY.

CAUTION: TURN OFF POWER TO THE SIGN BEFORE INSPECTING OR REMOVING EXISTING LIGHT SOURCE.
THE POWER MUST REMAIN OFF WHILE INSTALLING THE LED RETROFIT KIT.

Tools Required

- Wire cutter & strippers
- Marking pens
- Standard hardware and supplies in addition to the modules
- Measuring tape
- Drill
- installation guides (UL listing may be required on certain items).

Prepping the Channel Letter or Cabinet

Step 1: Remove existing neon or fluorescent bulbs by having a licensed electrician disconnect and remove the neon transformers or fluorescent ballasts. Remove existing neon and standoffs or fluorescent lamps. Leave fluorescent sockets in cabinets with leads disconnected. This should leave an empty cabinet.

ALL MATERIALS REMOVED MUST BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS.

Step 2: Installer should examine all parts that are not intended to be replaced by the retrofit kit for damage and replace any damaged parts prior to installation of the retrofit kit. Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation. Any existing holes in the letters or cabinet that will not be used in the installation of Streamliner Gen 2 should be patched to avoid water damage. Opening smaller than 0.5" diameter may be sealed with the appropriate amount of rated caulk or sealant. Openings larger than 0.5" should be patched using an aluminum or zinc coated steel patch with rivets and sealant.

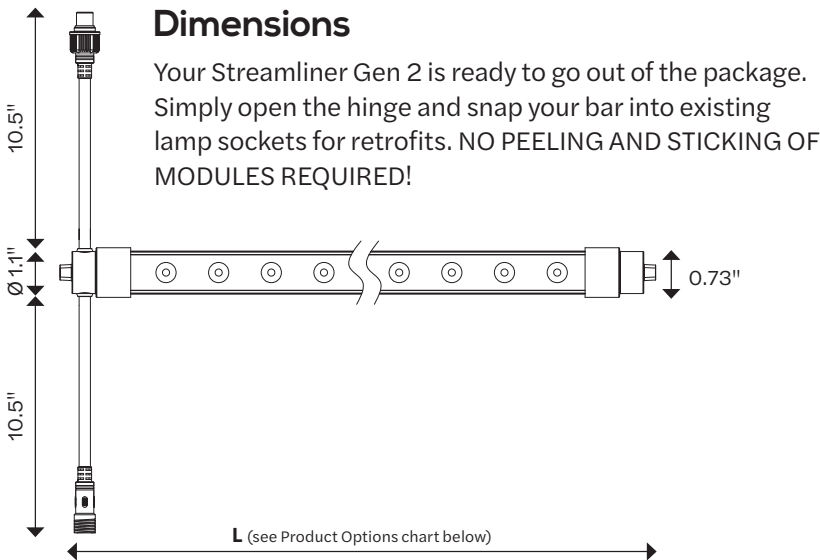
Step 3: Proceed with the appropriate Streamliner Gen 2 installation guide for your specific product.



GENERAL PURPOSE
RETROFIT SIGN CONVERSION.
FOR USE ONLY IN ACCORDANCE
WITH KIT INSTRUCTIONS.

KIT IS COMPLETE ONLY WHEN ALL PARTS REQUIRED
BY THE INSTRUCTIONS ARE PRESENT.

Installation Guide for M-SLE(XXX)-AC-70



Layout Guidelines

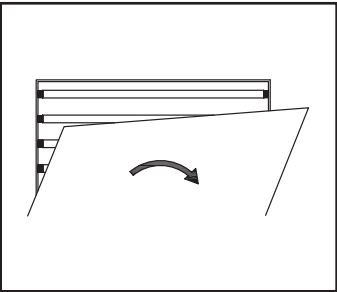
Double-sided light box depth	Max. space between tubes
6"	6"
9"	12"
12"	12"
16"	16"

Notes: Lightbox size: 79" x 59".
Tested with 3/16" 7328 white acrylic.

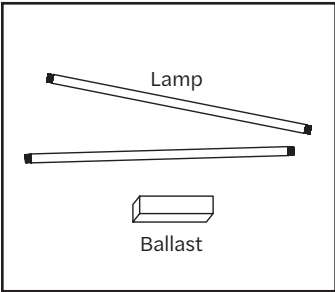
Length	Actual size	SKU	LED lamp cross reference	Power (W)	Lumens (lm)	Max input (Amps)	Max. cascade (pcs)
24"	21.0"	M-SLE024-AC-70	F24HO	10	1300	0.10	55
30"	27.0"	M-SLE030-AC-70	F30HO	13	1950	0.12	46
36"	33.1"	M-SLE036-AC-70	F36HO	16	2100	0.14	37
42"	39.1"	M-SLE042-AC-70	F42HO	18	2375	0.16	33
48"	45.0"	M-SLE048-AC-70	F48HO	21	2750	0.18	28
60"	57.0"	M-SLE060-AC-70	F60HO	26	3400	0.22	23
64"	61.1"	M-SLE064-AC-70	F64HO	28	3700	0.24	21
72"	69.0"	M-SLE072-AC-70	F72HO	31	4080	0.26	19
84"	81.0"	M-SLE084-AC-70	F84HO	37	4800	0.32	16
96"	93.0"	M-SLE096-AC-70	F96HO	42	5500	0.36	14
108"	105.0"	M-SLE108-AC-70	F108HO	47	6150	0.40	12
117"	114.0"	M-SLE117-AC-70	F117HO	50	6500	0.42	12
120"	117.0"	M-SLE120-AC-70	F120HO	52	6800	0.44	11

Beam angle170°
Input voltage100~277VAC
Color temperature.....7000 K
Efficacy130 lm/W
Socket typeR17d

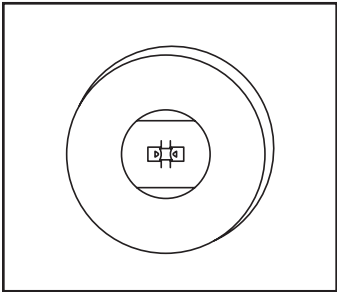
Retrofit Instructions



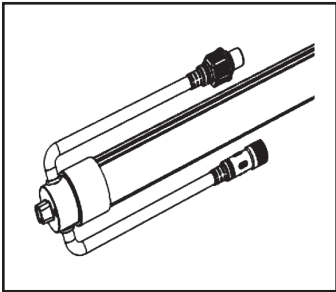
1. Turn off power and open cabinet.



2. Remove existing fluorescent lamps.



3. Leave fluorescent sockets in cabinets with leads disconnected.

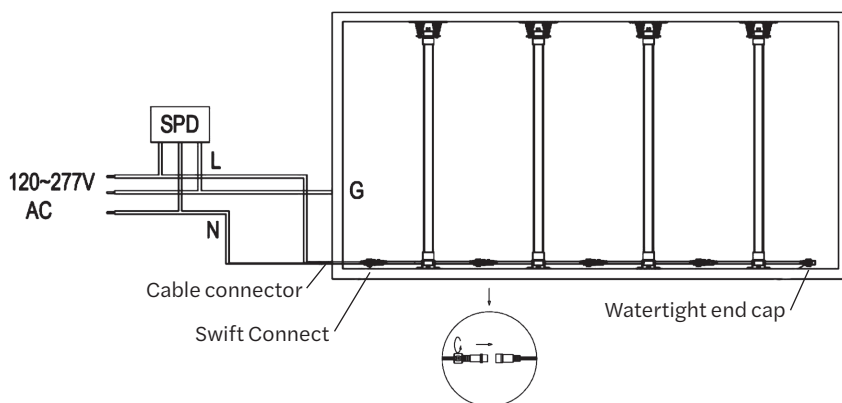


4. Insert the end caps of Streamliner Gen 2 into the sockets in the desired direction.

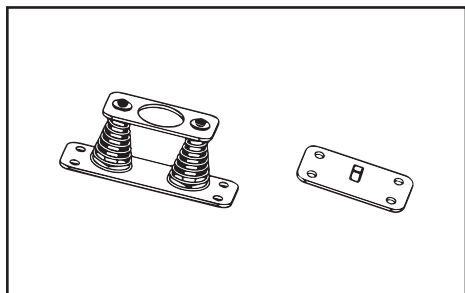
Installation Guide for M-SLE(XXX)-AC-70

Retrofit Instructions (cont.)

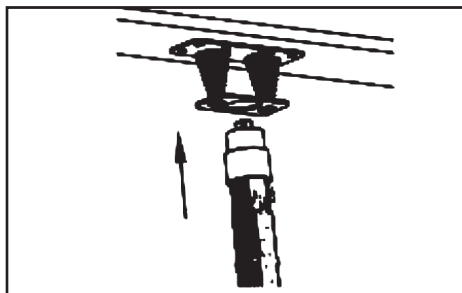
5. Surge protectors are highly recommended. If surge protector is applied, connect black wire (L) of surge protector to input (L) line from mains and white wire (N) of surge protector to (N) neutral line from mains and connect green wire (G) to the ground wire of cabinet or to the ground. **NOTE:** One SPD per cabinet.



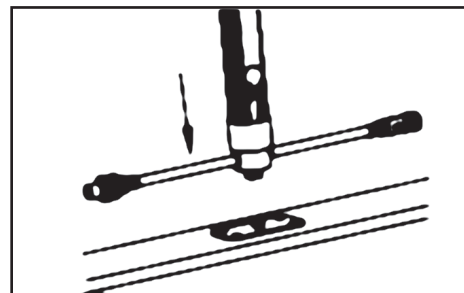
New Cabinet Instructions



1. Install the AI brackets in the cabinet.

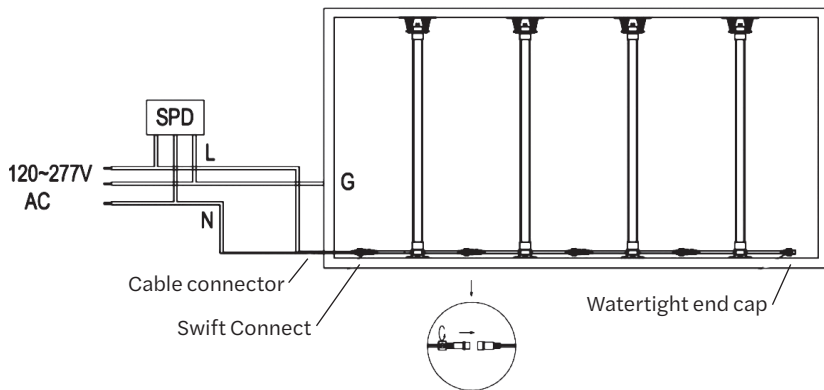


2. Insert the end cap without swift connector into the spring bracket in the desired location.



3. Then insert the end cap with swift connector into the other part of the bracket without spring.

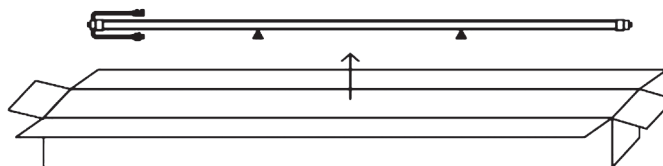
4. Surge protectors are highly recommended. If surge protector is applied, connect black wire (L) of surge protector to input (L) line from mains and white wire (N) of surge protector to (N) neutral line from mains and connect green wire (G) to the ground wire of cabinet or to the ground. **NOTE:** One SPD per cabinet.



Installation Guide for M-SLE(XXX)-AC-70

Special Notes for Tubes 72" and Larger

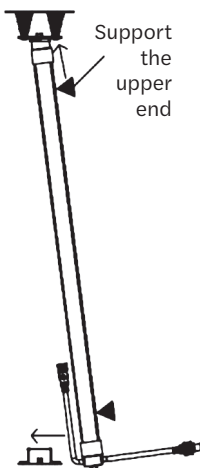
Take out tube from carton: When taking out long tube from carton, hold it with both hands and support it at position marked "▲" as shown in diagram. Do not hold only one end, as this may cause deformation of tube.



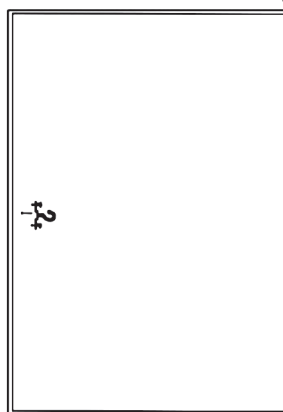
Extra Support Necessary for Installation

Vertical Installation – Install Streamliner Gen 2 tube

to cabinet: It is recommended that two installers simultaneously support the tube at both ends, holding it at positions marked "▲" in the diagram. One installer inserts the end cap without the Swift Connect into the spring bracket and presses it firmly into place. The other installer then inserts the end cap with the Swift Connect into the stationary bracket, allowing it to engage and lock naturally via spring-back action.

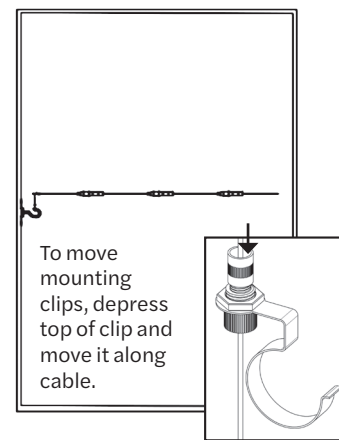


2.0 Install the Extra Support

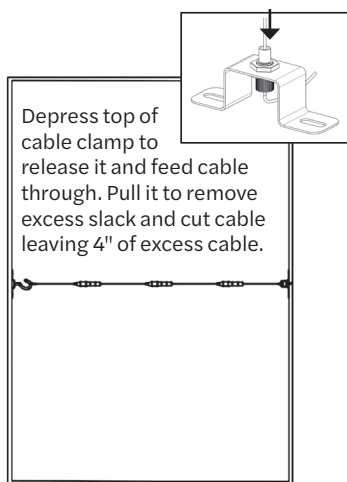


2.1 Use mounting clip (optional accessories):

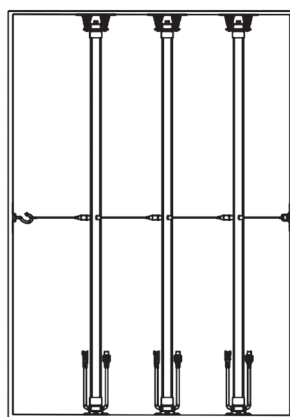
1. Fix the hook to one side of the cabinet with screws.



2. Attach the cable wire into the hook. Thread the other end of the cable through the mounting clips ensuring that the locking nut is loose. Ensure there are the same number of clips as there are tubes.



3. Secure the cable wire to the cable clamp and then fasten it to the other side of the cabinet with screws.



4. Snap the tubes into the mounting clips and adjust it to the proper position; tighten locking nut on each mounting clip.

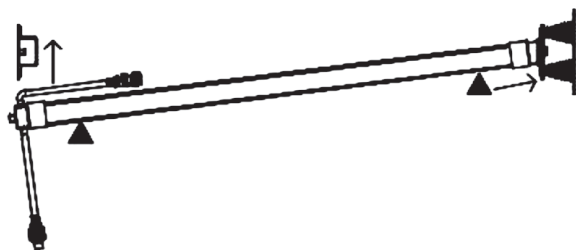
NOTE: Alternate support methods may be used at the installer's discretion, provided they are suitable for the application and installation conditions.

Installation Guide for M-SLE(XXX)-AC-70

Extra Support Necessary for Installation (cont.)

Horizontal Installation –

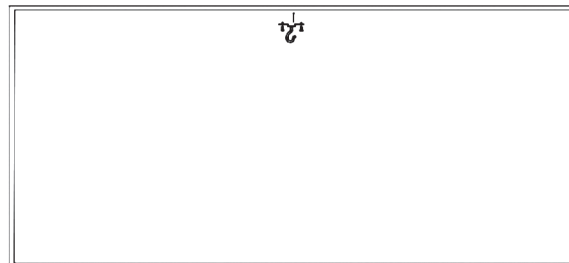
Install Streamliner Gen 2 tube to cabinet: It is recommended that two installers simultaneously support the tube at both ends, holding it at positions marked "▲" in the diagram. One installer inserts the end cap without the Swift Connect into the spring bracket and presses it firmly into place. The other installer then inserts the end cap with the Swift Connect into the stationary bracket, allowing it to engage and lock naturally via spring-back action.



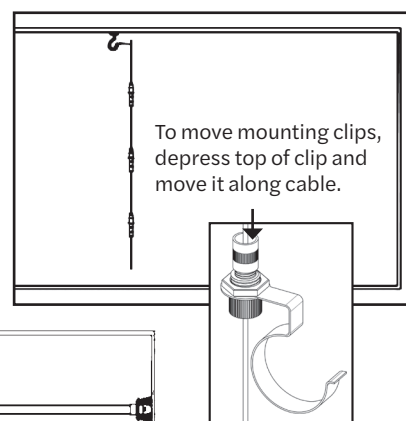
2.0 Install the Extra Support

2.1 Use mounting clip (optional accessories):

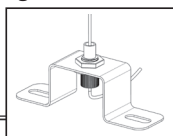
1. Fix the hook to the top of the cabinet with screws.



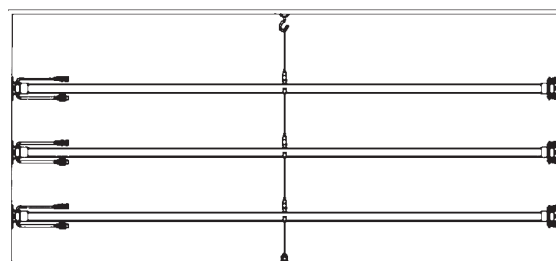
2. Attach the cable wire into the hook. Thread the other end of the cable through the mounting clips ensuring that the locking nut is loose. Ensure there are the same number of clips as there are tubes.



Depress top of cable clamp to release it and feed cable through. Pull it to remove excess slack and cut cable leaving 4" of excess cable.



3. Secure the cable wire clamp to the wire rope and then fasten it to the other side of the cabinet with screws. Be sure to leave 4" for subsequent fine tuning. Trim off the excess and tighten the locking nut.



4. Snap the tubes into the mounting clips and adjust it to the proper position; tighten locking nut on each mounting clip.

NOTE: Alternate support methods may be used at the installer's discretion, provided they are suitable for the application and installation conditions.

Installation Guide for M-SLE(XXX)-AC-70

Cautions

- This product must be installed by qualified electrician or electrical engineer
- This product must be installed according to the requirements and instructions in the specification sheet
- Disconnect power before installation to ensure safety
- Disconnect or remove existing ballast before installation to avoid short circuit
- Surge protector is highly recommended to be used with this product, otherwise, this product might be damaged in thunderstorm
- This product is not intended for use with dimmers and is not intended for emergency lighting
- Suitable for dry and damp locations; suitable for use in enclosed luminaires
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects

Troubleshooting

Malfunctions	Possible causes	Solutions
All LEDs off.	No power supply from mains.	Restore power.
	Poor contact between sockets and product.	Reinstall product or adjust sockets.
	Open circuit or faulty input line.	Check and repair input line.
	Damaged internal driver.	Replace product.
Partial LED failure.	Failed LED chips.	Replace product.
	Open circuit to LEDs.	Repair circuit or replace product.
Low or uneven brightness.	Defective LEDs.	Replace product.
	Insufficient driver power.	Replace product.
LEDs flickering.	Damaged internal driver.	Replace product.
	Poor contact between sockets and product.	Adjust socket contact.

WARNING – Risk of fire or electric shock. Installation requires knowledge of sign electrical systems. Only qualified electricians should perform this work.

WARNING – Risk of fire or electric shock. Install only in host signs listed in the instructions and where the retrofit kits input rating does not exceed the signs rating.

WARNING – Risk of fire or electric shock. Drilling or punching may be required. Check for concealed wiring/components to avoid damage.

WARNING – Prevent wire damage: Do not expose wires to sheet metal edges or sharp objects.

Do not create or modify openings in wiring or component enclosures during installation. Only make or alter openings as shown in the provided photos/drawings. Seal all unused enclosure openings. Holes >0.5" (12.7 mm): patch with metal (screws or rivets) + non-hardening caulk. Smaller holes: seal with non-hardening caulk only.

Warranty

SKU	Warranty period
M-SLE024-AC-70, M-SLE030-AC-70, M-SLE036-AC-70, M-SLE042-AC-70, M-SLE048-AC-70, M-SLE060-AC-70, M-SLE064-AC-70, M-SLE072-AC-70, M-SLE084-AC-70, M-SLE096-AC-70, M-SLE108-AC-70, M-SLE117-AC-70, M-SLE120-AC-70	7-year product, 5-year limited labor

Warranty period is only for products which are used inside of waterproof light box and valid only when used as a system with surge protectors.



Customer service and technical support

- 🌐 principalsloan.com
- 📞 325.227.4577
- 📍 3490 Venture Dr., San Angelo, TX 76905

