

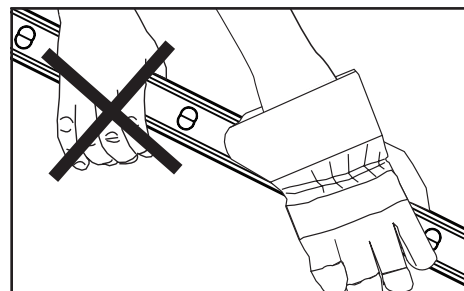
Cold Door 2 LED Retrofit Kit Lighting System

Center and End LED Lights and Retrofit Kit

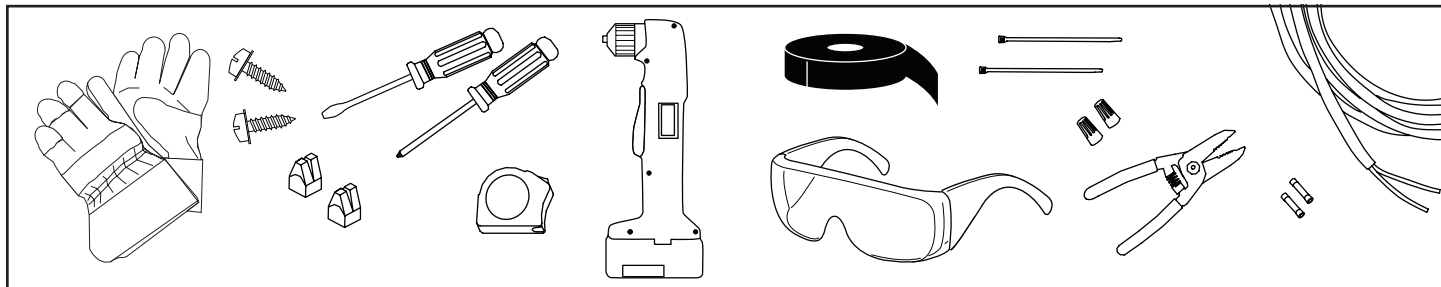
Installation Guide for 701906-(XXXXX)2

General Information

- Cold Door 2 is intended for use inside commercial refrigeration cases with packed foods only.
- Cold Door 2 LED luminaire should only be used with SloanLED 100 Watt 24 VDC Power Supply or an approved equivalent.
- Use only a damp cloth and mild cleaning agent to clean Cold Door 2.
- The Cold Door 2 Retrofit Kit (retrofit kit), in the context of this guide, is the entire component parts needed, including these installation instructions, for a retrofit luminaire conversion.
- Retrofit luminaire conversion is the act of modifying, with the parts provided in the retrofit kit, a luminaire already manufactured and in service in order to convert the luminaire to a LED light source from its original light source. The refrigerated display merchandiser is considered the luminaire in this context, and the complete retrofit kit is assembled during the audit of each merchandiser, on site, prior to installation.



Tools and Accessories Recommended



Do not cut or remove existing primary case wiring.

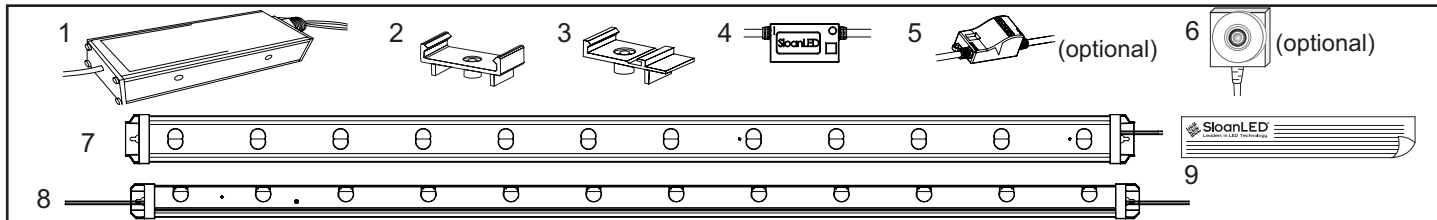
Tools and connections shown are for secondary connections: Gloves, safety glasses, flat and Phillips head screwdrivers, $\frac{3}{4}$ or 1 in (19 or 25 mm) self-drilling/self-tapping #8 or #10 pan or hex head screws, angle drill is required (standard cordless drills will not work), measuring tape, electrical tape, wire strippers, twist-on or push-in UL Listed wire connectors, tie-wraps, and 18 gauge wire.

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1. Power Supply 2. Center Clip 3. End Clip 4. Power Controller 5. Dimming Controller 6. Motion Sensor
7. Cold Door 2 Center 8. Cold Door 2 End 9. Retrofit Sticker



- Check inventory of retrofit equipment prior to dismantling current lighting system in refrigerated case.
- Identify required quantity of Cold Door 2 Centers and Ends and power supplies.
- One power supply is needed for one to five doors in most configurations. Five door cases/frames with Cold Door 2 using 6 ft (1800 mm) or greater length luminaires require two power supplies.

FOR YOUR SAFETY

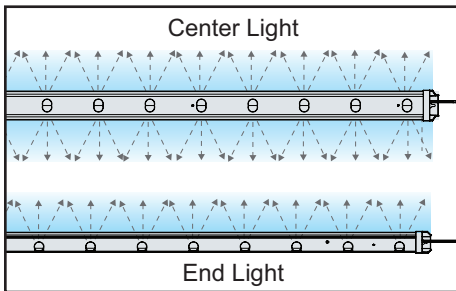
- Read and observe all NOTES, CAUTIONS and WARNINGS shown throughout these instructions.
- Installation to be performed by factory trained service personnel only.
- For use inside commercial refrigeration cases with packaged foods only.
- Gloves and safety glasses or goggles should be worn while performing installation.
- This product is UL listed for dry and damp locations.
- Electrical specifications per luminaire: maximum 1.0 A, 24 VDC, Class 2 circuit.
- The Cold Door 2 retrofit kit, also known as Retrofit LED Panels, may be employed as replacement panels for any UL Listed Commercial Refrigerators & Freezers, Door Frame type.
- WARNING – Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.
- WARNING – Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of Refrigerator/Freezer electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- WARNING – Risk of fire or electric shock. Install this kit only in Refrigerators/Freezers that have the construction features and dimensions shown in the photographs and/or drawings and where the input rating of the retrofit kit does not exceed the input rating of the luminaire.
- Only those open holes indicated in the photographs and/or drawings may be made or altered as a result of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.
- WARNING – To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- THE RETROFIT ASSEMBLY IS ACCEPTED AS A COMPONENT WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY UL OR AUTHORITIES HAVING JURISDICTION.
- Place Retrofit Sticker next to power switch on the refrigerator or freezer case.

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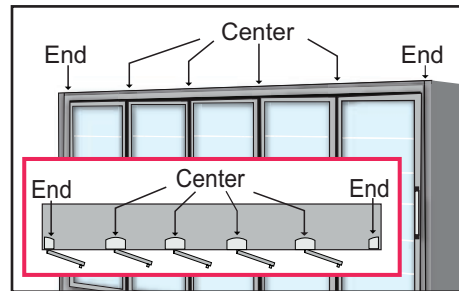
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LED Light Directivity



Cold Door 2 Center luminaires emit light on both sides. Cold Door 2 End luminaires emit light in one direction only.

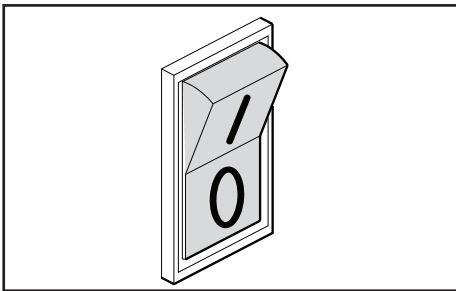
LED Light Placement



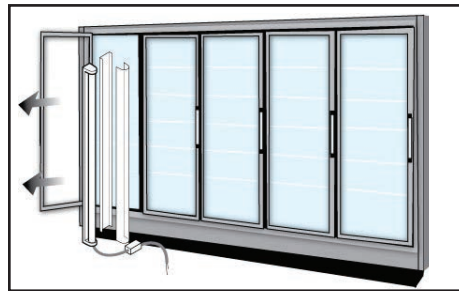
End luminaires can go on right or left sides of refrigerator case.

NOTE: Pay careful attention to orientation of end luminaire directivity during installation.

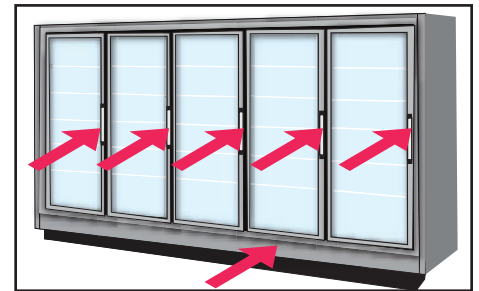
Preparation for Install



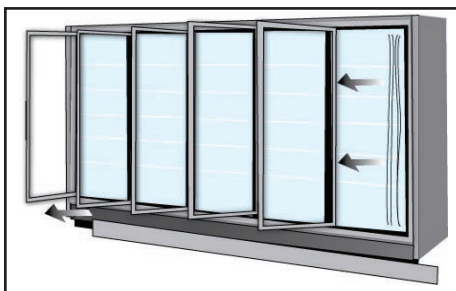
WARNING: Risk of electrical shock. Locate main circuit breaker panel, de-energize, and perform lockout/tagout prior to retrofitting case. All primary wiring must be done by a licensed electrician.



1. Remove fluorescent lamp fixtures on all doors to be retrofitted (metal clips, lens cover, lamp holders and reflector, if installed).



2. Open raceways to expose all primary wiring, secondary wiring, and ballasts. These will either be in door mullions or behind the lower panel in the electrical raceway, depending on case model type.



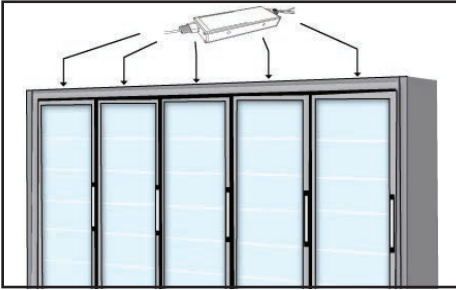
3. Disconnect both primary and secondary wiring from all ballasts. Remove secondary wiring from refrigerated case.

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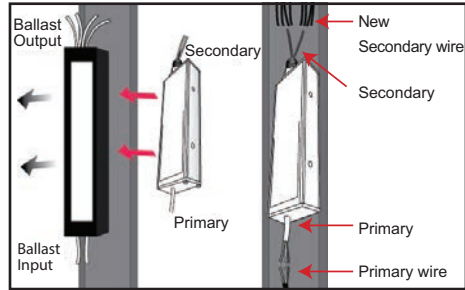
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Installation



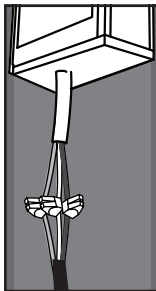
One power supply is needed for one to five doors in most configurations.

NOTE: Five door cases/frames with Cold Door 2 using 6 ft (1800 mm) or greater length luminaires require two power supplies.



CAUTION: Power supplies should not be mounted near any other heat generating element.

4. Remove installed ballast(s). Choose one former ballast location for power supply to be installed in. Mount power supply with two self drilling/self tapping screws through tabs in both end caps.

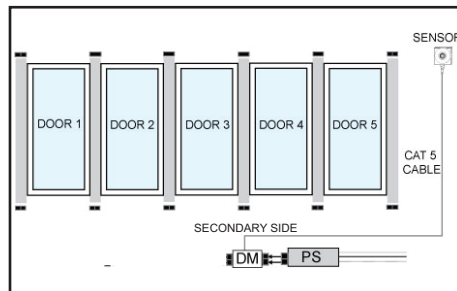


Note: Primary Wiring Connections

AC Neutral to Power Supply White
AC Line to Power Supply Black
Earth Ground to Power Supply Green

5. Connect 120/240 VAC 50-60 Hz to power supply's primary wires (refer to wire description on power supply label). Use UL listed twist-on or push-in connectors for connections. Follow connector manufacturer's instructions.

CAUTION: All primary connections including grounding must comply with all national and local codes and/or requirements. Have a licensed electrician connect primary wires.



CAUTION: Primary and secondary wiring need to be physically separated inside of the raceway.

6. **Installation with optional Power Controller or Dimming Controller:** The Power Controller or Dimming Controller is connected to secondary side of power supply. Cat 5 cable for dimming may run behind panel and outside of case if required.

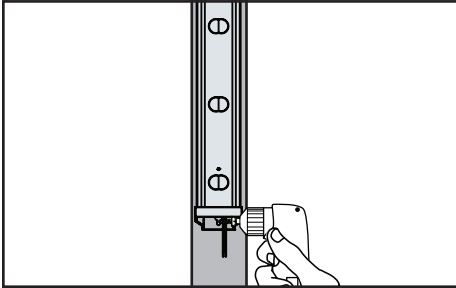
NOTE: One Power Controller or Dimming Controller required per power supply. A Power Controller and Dimming Controller should not be used together.

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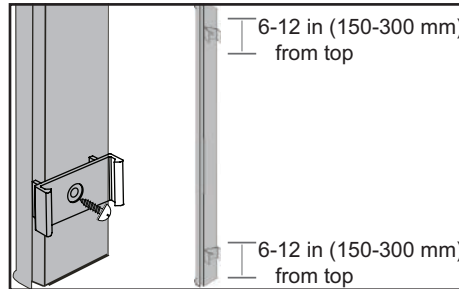
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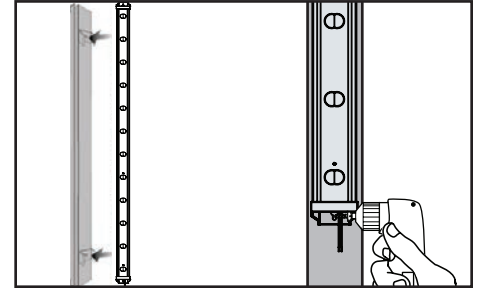
Mounting



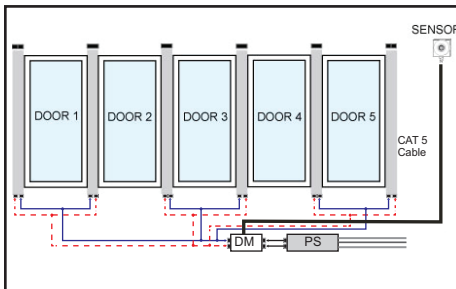
7. Mount luminaire by screwing a $\frac{3}{4}$ in (19 mm) self-drilling/self-tapping screw into mullion through bracket in top and bottom end cap. If interference is experienced between light and mullion, refer to steps 8 and 9. Otherwise continue to step 10.



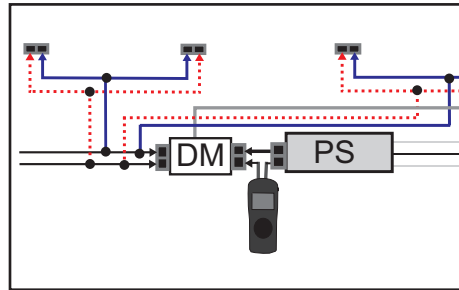
8. **Alternate Mounting:** Attach mounting clips as shown in diagrams. Use 1 in (25 mm), self-drilling/self-tapping screws. Stainless steel screws are recommended.



9. **Alternate Mounting Continued:** Snap luminaire into mounting clips. Fix vertical position of lights by screwing a $\frac{3}{4}$ in (19 mm) self-drilling/self-tapping screw into mullion through bracket in bottom end cap.



10. Run new secondary wire from power supply through holes in door frame mullions to luminaire.



11. Re-energize power circuit after installation is complete. Check secondary current of each power supply to ensure it is not overloaded per rating on label. Replace all covers and guards that were removed during preparation and installation.

WARNING: Risk of electrical shock. Unused wires on Cold Door 2 End luminaires must be individually capped off or removed.



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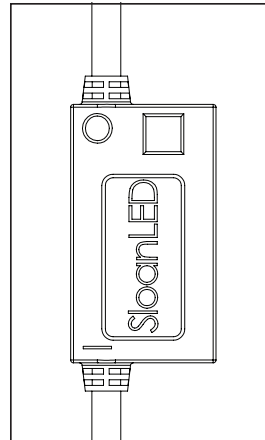
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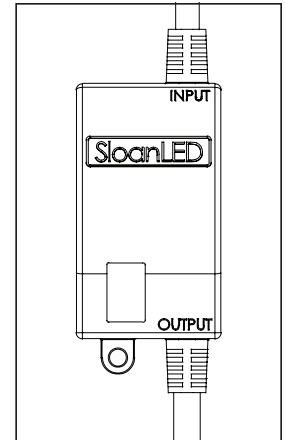
Power Controller Settings

Merchandising Setting (Brightness)			
Brightness Level	SW1	SW2	Percent of Full Brightness
Energy Saver	ON	OFF	50%
Standard	OFF	ON	75%
MerchandiseMax	ON	ON	100%

 Factory setting



Power Controller
P/N 701929



Dimming Controller
P/N 701890-PWR

Dimming Controller Settings

Factory setting is 100% Brightness, 0% Dimming.

Brightness level

Selectable Duty Cycle output via SW 1 and SW 2
(Brightness level when shopper in area)

SW 1	SW 2	SW 3	SW 4	Brightness level
OFF	OFF	X	X	100% – No dimming mode
ON	OFF	X	X	50%
OFF	ON	X	X	75%
ON	ON	X	X	100%

Dimming

Selectable Duty Cycle output via SW 3 and SW 4
(Brightness level when area is not occupied)

SW 1	SW 2	SW 3	SW 4	Brightness level
OFF	ON	OFF	OFF	100%
OFF	ON	ON	OFF	12.5%
OFF	ON	OFF	ON	25%
OFF	ON	ON	ON	45%

Removal Instructions

- De-energize system as outlined in Preparation for Install section on page two of this installation guide and undo electrical connections to LED lights.
- 2a. Remove lower, then upper mounting screws in end caps while supporting light.
- 2b. For alternate mounting method, using a flat tip screwdriver, insert tip between mounting clip and LED light to pry from clip edge.
- Repeat process for remaining lights. Make sure to continually support LED lights with a free hand during removal.
- Open mullions or raceway, remove power supplies.
- Cap or remove all primary wires.

US patents and foreign patents pending



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