

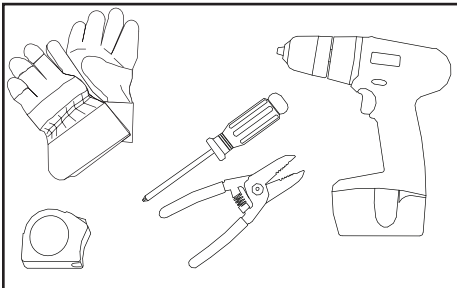
PrismBEAM 3

Installation Guide for 701972-(CC)24P(D,S)3

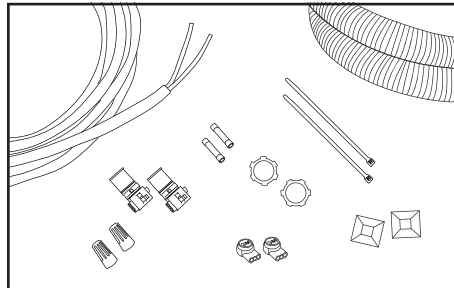
WARNING: Risk of electrical shock. New installation and LED Retrofit Kit installation requires knowledge of sign electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician. Follow all NEC and local codes. PrismBEAM 3 is not suitable for submersion or direct exposure to water for extended periods of time. **AVERTISSEMENT:** Risque de choc électrique. La nouvelle installation et l'installation du kit de modification à LED nécessitent la connaissance des systèmes électriques de signalisation. Si non qualifié, ne tentez pas l'installation. Contactez un électricien qualifié. Suivez tous les codes NEC et locaux. PrismBEAM 3 ne convient pas à la submersion ni à l'exposition directe à l'eau pendant de longues périodes.

For New Installation, proceed with Step 1 below. For Retrofit Installations, begin with Retrofit Instructions on page 3.

New Installation

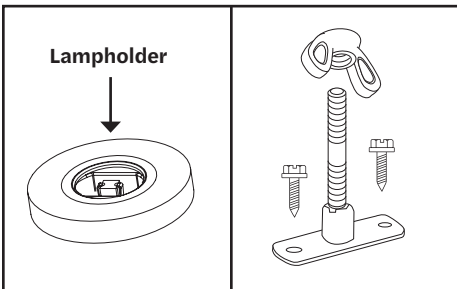


- 1. Tools required:**
1. Measuring tape
 2. Wire strippers
 3. Gloves
 4. Drill
 5. Screwdriver

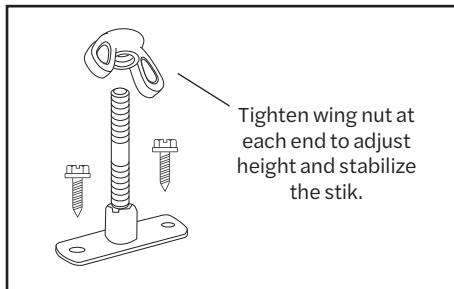


WARNING: Use PrismBEAM 3 with Class 2 24 VDC Power Supply only. **AVERTISSEMENT:** Utilisez uniquement le PrismBEAM 3 avec une alimentation Class 2 24 VDC uniquement.

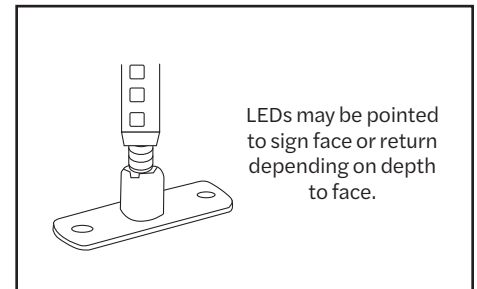
- 2. Components list:**
- PrismBEAM 3 assemblies:
Double-sided assemblies:
model numbers 701972-(CC)24PD(X)3
Single-sided assemblies:
model numbers 701972-(CC)24PS(X)3
 - Power supplies: 24 V Class 2 output power supply
 - UL approved 18 AWG (1 mm²) or larger diameter supply wire
 - UL approved wire connectors appropriate for wire gauge used
 - Optional: Electrical grade silicone, 4" (101.6 mm) nylon zip ties, conduit and conduit connectors (water tight if necessary)



- 3.** Install fluorescent lampholders or New Construction Brackets 12" (305 mm) center-to-center along returns of cabinet (see Layout Guidelines on page 2).



- 3a. New Construction Bracket Installation:**
Mount base to each side of return.



- 3b. New Construction Bracket Installation:**
Insert PrismBEAM 3 onto threaded base and adjust using wing nut to desired position and tighten.

WARNING: If lampholders are used, ensure they are disconnected from any power source. **AVERTISSEMENT:** Si des douilles sont utilisées, assurez-vous qu'elles sont déconnectées de toute source d'alimentation.

- 4.** Determine lengths and quantities of PrismBEAM 3 (see Power Supply capacity table on page 4). Determine quantity of brackets: Two (2) per PrismBEAM 3 assembly.

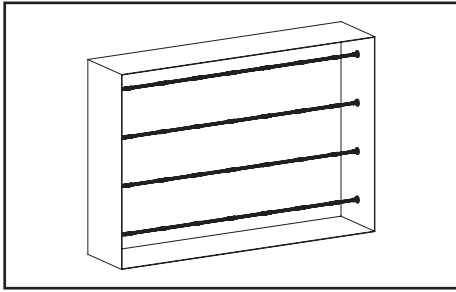
NOTE: Lamps must be mounted in an enclosed sign. This product is not suitable for immersion or direct exposure to water for extended periods of time.

Lamp Lengths

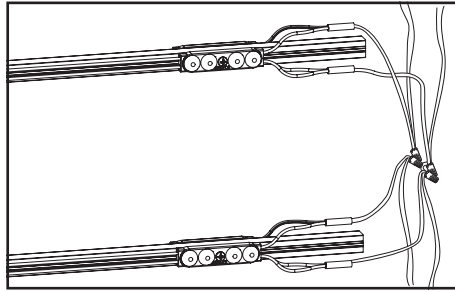
Nominal	Actual	Nominal	Actual
18" (0.46 m)	15.91" (0.40 m)	64" (1.63 m)	61.91" (1.57 m)
24" (0.61 m)	21.91" (0.56 m)	72" (1.83 m)	69.91" (1.78 m)
30" (0.76 m)	27.91" (0.71 m)	84" (2.13 m)	81.91" (2.08 m)
36" (0.91 m)	33.91" (0.86 m)	96" (2.44 m)	93.91" (2.39 m)
42" (1.07 m)	39.91" (1.01 m)	108" (2.74 m)	105.91" (2.69 m)
48" (1.22 m)	45.91" (1.17 m)	117" (2.97 m)	114.91" (2.92 m)
60" (1.52 m)	57.91" (1.47 m)	120" (3.05 m)	117.91" (2.99 m)

PrismBEAM 3

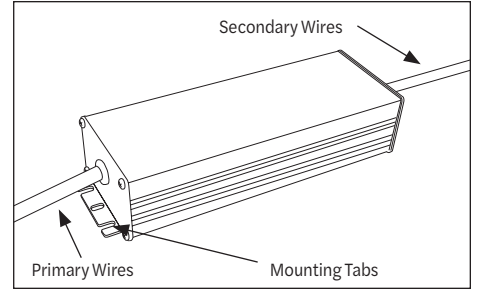
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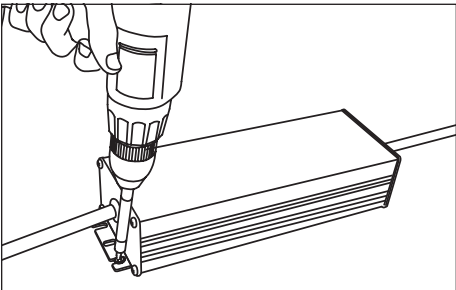
6. Insert PrismBEAM 3 into lampholders or new construction brackets. Support center for lengths 96" and above. Tip: For easy wire connections, install all lamps in same direction with wire leads on same end.



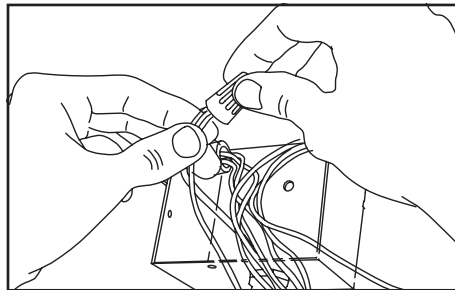
7. **Connections:** Connect PrismBEAM 3 sticks to power supply (NOTE: All connections must be RED-TO-RED [+] and BLACK-TO-BLACK [-]).



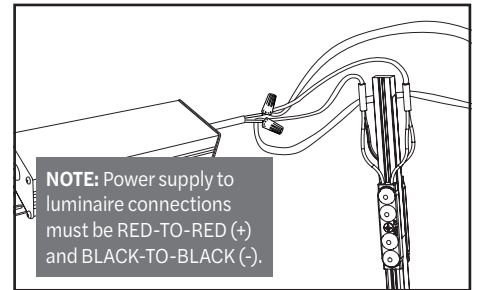
8. **Mount power supply:** Identify primary wires, secondary wires, and location of mounting tabs.



9. Units may be mounted in any orientation using mounting tabs.



10. **Connect primary: CAUTION! Have a licensed electrician connect primary. ATTENTION! Demandez à un électricien agréé de connecter le primaire.**



NOTE: Power supply to luminaire connections must be RED-TO-RED (+) and BLACK-TO-BLACK (-).

11. **Connect to power supply:** Using UL Listed electrical connectors, connect to power supply. **Do not connect power to lamp sockets. Ne pas brancher l'alimentation sur les douilles.**

Layout Guidelines

Mount PrismBEAM 3 in center of returns in double-sided cabinets. For best results, lamps should be $\geq 8"$ (≥ 203 mm) from face of sign. It's recommended to test LED density in a sample cabinet to evaluate brightness, uniformity, and color. If you have questions or require assistance in testing, please contact your Principal Sloan Customer Service Representative.

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Retrofit Instructions for Existing Signs



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.

WARNING: Use PrismBEAM 3
with Class 2 24 VDC Power Supply
only. **AVERTISSEMENT:** Utilisez
uniquement PrismBEAM 3 avec
alimentation Class 2 24 VDC.

WARNING: Risk of fire or electric shock. Install this kit only in host signs that have been identified in the installation instructions, and where the input rating of the retrofit kit does not exceed the input rating of the sign. Installation of this LED retrofit kit may involve drilling or punching of holes into the structure of the sign. Check for enclosed wiring and components to avoid damage to wiring and electrical parts. **AVERTISSEMENT:** Risque d'incendie ou de choc électrique. Installez ce kit uniquement sur les panneaux hôtes identifiés dans les instructions d'installation et dans lesquels les caractéristiques nominales d'entrée du kit de modification ne dépassent pas celles du panneau. L'installation de ce kit d'amélioration des LED peut impliquer de percer ou de percer des trous dans la structure de l'enseigne. Vérifiez le câblage et les composants inclus pour éviter d'endommager le câblage et les pièces électriques.

CAUTION: Turn off power to sign before inspecting or removing existing light source. Power must remain off while installing LED product.

ATTENTION: Coupez l'alimentation générale du panneau avant d'intervenir ou de retirer la source lumineuse existante. L'alimentation générale doit être coupée tout au long de l'installation du kit de remplacement en LED.

1. Identify sign to be retrofit and ensure branch circuit supplying existing sign are within voltage range for LED power supply.
2. Remove existing lighting equipment intended to be replaced, such as neon or fluorescent, and all power supplies, transformers, or ballasts. Remove existing neon and all standoffs to leave an empty sign cabinet. NOTE: All materials removed must be disposed of in accordance with applicable local, state, and federal laws.
3. Determine suitability and structural integrity of existing sign after removal of existing lighting equipment. If retrofit does not require the making of any new holes, do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation. If existing holes are present in a wet or outdoor location sign, repair and seal any unused openings in the electrical enclosure. Openings greater than 0.5" (12.7 mm) diameter require a metal patch secured by screws or rivets and caulked with non-hardening caulk. Smaller openings may be sealed with non-hardening caulk.
4. Clean inside of sign using non-oil based cleaner. Follow all manufacturer's instructions and ensure inside of sign is dry before proceeding with installation.
5. To populate sign, refer to PrismBEAM 3 density guidelines as well as power supply capacity chart (page 4) to determine appropriate number of lamps and power supplies.
6. Follow all instructions on pages 1 and 2 under "New Installation" to properly install LED lamps.
7. Connect PrismBEAM 3 assemblies to power supply output as shown on page 2 under "New Installation".
8. Connect power supply input as outlined in power supply installation guide in accordance with local, state and national electrical codes by qualified personnel. Refer to power supply install guide included with power supply for details.
9. If required, install disconnect switch in accordance with local, state and national electrical codes by qualified personnel.

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WARNING: Use PrismBEAM 3 with 24 VDC Power Supply only. **AVERTISSEMENT:** Utilisez uniquement le PrismBEAM 3 avec une alimentation 24 VDC uniquement.

24 VDC Power Supply Capacity Chart

Power output	Maximum lamps per power supply (single-sided / double-sided)													
	18 in (0.46 m)	24 in (0.61 m)	30 in (0.76 m)	36 in (0.91 m)	42 in (1.07 m)	48 in (1.22 m)	60 in (1.52 m)	64 in (1.63 m)	72 in (1.83 m)	84 in (2.13 m)	96 in (2.44 m)	108 in (2.74 m)	117 in (2.97 m)	120 in (3.05 m)
60 W	21 / 10	21 / 10	14 / 7	14 / 7	10 / 5	8 / 4	7 / 3	7 / 3	6 / 3	5 / 2	4 / 2	3 / 1	3 / 1	3 / 1
96 W	36 / 18	36 / 18	24 / 12	24 / 12	18 / 9	14 / 7	12 / 6	12 / 6	10 / 5	9 / 4	8 / 4	6 / 3	6 / 3	6 / 3
Power used per lamp in Watts:	2.5 / 5.1 W	2.5 / 5.1 W	3.8 / 7.6 W	3.8 / 7.6 W	5.1 / 10.2 W	6.4 / 12.7 W	7.6 / 15.3 W	7.6 / 15.3 W	8.9 / 17.8 W	10.2 / 20.4 W	11.5 / 22.9 W	14.0 / 28.0 W	15.3 / 30.5 W	15.3 / 30.5 W

Capacities based on 90% of power supply output.

Extension of Power Supply Leads

If longer lead wire from power supply to LED product is needed, an extension can be used. Extension should be kept as short as possible, i.e., under 15 ft use 18 AWG UL Listed PLTC (4.6 m for 1 mm² PLTC) or under 50 ft use 14 AWG UL Listed PLTC (15.2 m for 2.5 mm² PLTC).

Troubleshooting

Entire box/cabinet or product does not light after complete installation.	Check connection from power supply lead to first lamp. Make sure polarity of connections made at power supply lead and any jumper wire is correct. Power supply outputs should be connected RED-TO-RED (+) and BLACK-TO-BLACK (-).
Still does not light.	Check output voltage of power supply using a voltmeter. Output voltage should be DC 24.0 V ± 0.5 V. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, try a different power supply.
Still does not light.	If power supply is getting primary power and lamps don't light, there may be a short in secondary wiring. Check all connections and cap all loose wires.
The beginning of a lamp lights, but entire lamp does not light or lights intermittently.	Primary cause of a portion of a lamp not lighting or lighting intermittently is a bad connection or reverse polarity connection between lamps that light and lamps that don't light. Check this connection.
One lamp does not light, but all others in cabinet light.	PrismBEAM 3 is designed so if one lamp fails, it will not cause entire box/cabinet to go out. If one lamp does not light, but all others do, replace this lamp with a new one.



Customer service and technical support

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