

Installation Instructions

<p>DANGER Case and any connected metal may become electrified if unit is not grounded properly. Hazardous Voltage may cause shock, burn, or death.</p> <p>AVERTISSEMENT Case et tout métal relié peut devenir électrisée si l'unité est pasmée à la terre correctement Tension. Hazardous peut provoquer un choc, une brûlure ou la mort.</p> <p>CAUTION Disconnect power prior to installation or service.</p> <p>PRUDENCE Puissance disconnect avant l'installation ou service lampes. Remplacement doivent être de type de correspondance indiquée sur l'étiquette du produit</p>	<p style="text-align: center;">Included in this package</p> <ul style="list-style-type: none"> (1) Pre-wired base with mogul socket (1) Wiring compartment cover (1) Screw for compartment cover (1) Plastic Plug (1) 27W, 36W, 45W, 54W, 75W, 100W, or 120W MoguLED Lamp (1) Optional Clip Strap 	 <p style="text-align: center;">KIT IS COMPLETE ONLY WHEN ALL PARTS REQUIRED BY THE INSTRUCTIONS ARE PRESENT</p>
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WARNING - Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of sign 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 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.

WARNING - Risk of fire or electric shock. 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.

WARNING - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.

AVERTISSEMENT - Risque d'incendie ou de choc électrique. Kit de conversion à dell'installation nécessite des connaissances de signer des systèmes électriques. Si ce n'est pas qualifié, n'essayez pas de l'installation. Contactez un électricien qualifié.

AVERTISSEMENT - Risque d'incendie ou de choc électrique. Installez ce kit uniquement dans les signes qui ont été identifiés dans les instructions d'installation et où le score d'entrée de le kit de mise à niveau ne dépasse pas le score d'entrée de l'enseigne.

AVERTISSEMENT - Risque d'incendie ou de choc électrique. L'installation de ce kit de conversion à DEL peut impliquer le perçage ou Poinçonnage de trous dans la structure de l'enseigne. Pour vérifier le câblage et les composants ci-joint pour éviter d'endommager le câblage et les pièces électriques.

AVERTISSEMENT - Pour éviter tout dommage ou abrasion du câblage, ne l'exposez pas aux bords des tôles ou autres objets coupants.

STEP 1 - Which Model, How Many, and Spacing of LED Sign Bright Units in a Rectangular Sign

Which Model?

MoguLED	LEDSB-27W	LEDSB-36W	LEDSB-45W	LEDSB-54W	LEDSB-75W	LEDSB-100W	LEDSB-120W
Cabinet							
Depth	18"	20"	24"	28"	30"	30"/36"	36"

How Many & Spacing: The spacing between LIGHT CENTERS of the lamps is calculated. Light center dimensions relative to the unit base are shown in STEP 3. Please refer to the layout diagram at the bottom of this page. **Total units required = (no. of rows) x (no. of columns).**

LEDSB-54W	LEDSB-75W	LEDSB-100W	LEDSB-120W
No. of columns* = (width of sign face)/2	No. of columns* = (width of sign face)/3	No. of columns* = (width of sign face)/3.5	No. of columns* = (width of sign face)/4
No. of rows = (height of sign face)/2	No. of rows = (height of sign face)/3	No. of rows = (height of sign face)/3.5	No. of rows = (height of sign face)/4

For LEDSB-27W, LEDSB-36W, LEDSB-45W see table below

*If this no. is odd (e.g. 3, 5, 7, etc) and sign has a center support pole, add one column

If the result of either calculation is less than 1/2 unit round down (e.g. a result of 3.4 means to use 3 columns or rows). Likewise, if calculation results in 1/2 unit or more, round up (e.g. a result of 3.7 means to use 4 columns or rows). After having determined the number of rows and columns, calculate spacing between units:

Column spacing = (width of sign face)/no. of columns Row spacing=(height of sign face)/no. of rows
 Column left and right spacing= 1/2 column spacing Row right and left spacing = 1/2 row spacing

EXAMPLE 1: A sign 30 inches deep with a face measuring 12 feet wide 6 feet tall, depth should have **LEDSB-75W** units (this example at page bottom) and:

No. of columns = 12/3 = 4	No. of rows = 6/3 = 2	Total units required = 4 x 2 = 8
Column spacing= 12/4 = 3 ft	Column left and right spacing = 3/2 = 1.5 ft	
Row spacing = 6/2 = 3 ft	Column top and bottom spacing = 3/2 = 1.5 ft	

EXAMPLE 2: A sign with a center support pole, 42 inches deep with a face measuring 19 feet wide x 9 1/2 feet tall, depth should have LEDSB-120W units and:

No. of columns = 19/4 = 4.75, round up to 5 (odd) so add 1	No. of rows = 9.5/4 = 2.375 round down to 2	Total units required = 6 x 2 = 12
Column spacing= 19/6 = 3.17 ft (38 in)	Column left and right spacing= 3.17/2 = 1.583 ft (19 in)	
Row spacing = 9.5/2= 4.75 ft (57 in)	Row top and bottom spacing = 4.75/2 = 2.375 ft (28.5 in)	

For **double-faced signs**, mount the units at the center point between the two faces. For **single-faced signs**, mount the units at least 14 inches from the face for LEDSB-54W, 15 inches from the face for the LEDSB-75W/LEDSB-100W, or 18 inches for the LEDSB-120W.

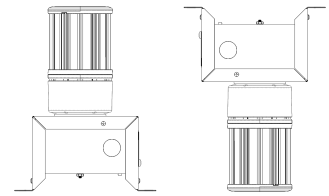
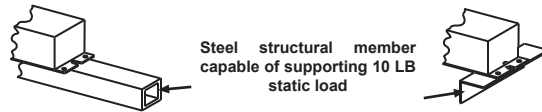
Unsure of the calculations for your particular installation or have a non-rectangular or multi-post sign? Please call Technical Support at (615) 418-9710 for assistance.

*Actual applications may vary. Optimal layout is dependent on sign construction and graphics. All recommendations are for reference only.

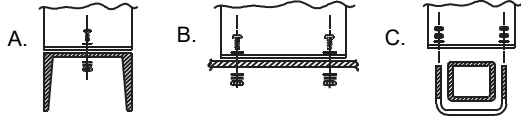
Lamp	27 Watt	36 Watt	45 Watt	54 Watt	75 Watt	100 Watt	120 Watt
Minimum distance from the face	9"	10"	12"	14"	15"	15"	18"
Lamp to lamp distance	12"	14"	16"	24"	36"	36"/48"	48"

STEP 2 - Determine desired mounting location

For more guidance, see STEP 1 for spacing examples. LED Sign Bright can be mounted upright or downward.



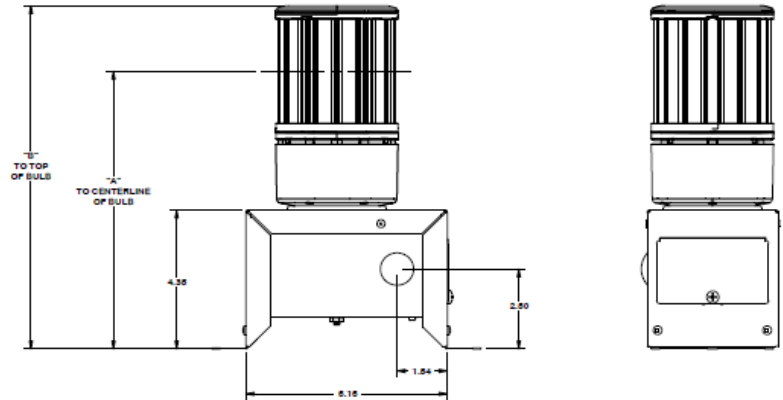
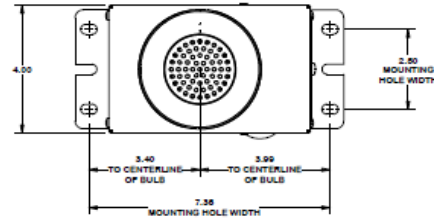
STEP 3 - Mounting LED Sign Bright base on structural member



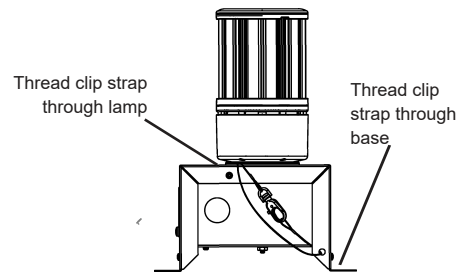
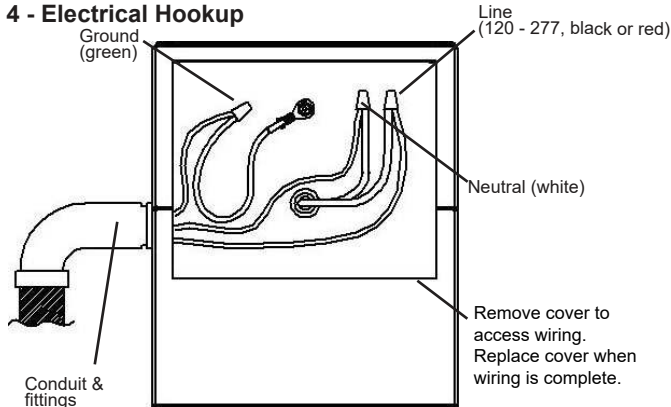
Mount base on structural member with appropriate hardware:

- A: .312 centerbolt mount on heavy framework
- B: .250 double bolt mount on lighter framework
- C: 2.50 x .250 clamp bolt around max 2.0 tubular framework

Dimension	27W	36W	45W	54W	75W	100W	120W
"A"	8.2	8.7	9.2	9.6	8.8	9.8	11.2
"B"	9.7	10.9	11.7	12.6	11.8	13.4	15.7



STEP 4 - Electrical Hookup



After wiring, screw LED lamp into mogul socket.

OPTIONAL: Thread clip strap through lamp and base to prevent loosening in high vibration environments.

Maximum Input Current Per LED Sign Bright	LEDSB-27W	LEDSB-36W	LEDSB-45W	LEDSB-54W	LEDSB-75W	LEDSB-100W	LEDSB-120W
At 120 VAC input	0.27 A	0.36 A	0.45 A	0.54 A	0.75 A	1.0 A	1.2 A
At 277 VAC input	0.11 A	0.14 A	0.18 A	0.22 A	0.3 A	0.4 A	0.48 A

If Retrofitting an Existing Sign

France LED Sign Bright replaces all ballasts, lampholders, lamps and HID Sign Bright units.

1. 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.
2. Disconnect power from sign.
3. Remove or disconnect all existing lampholders, ballasts, capacitors, and HID ignitors. In a wet or outdoor sign, repair and seal any unused openings in the electrical enclosure during this process. Openings greater than 12.7-mm (1/2-in) in 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. Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation. Only those open holes indicated in the photographs and/or drawings may be made or altered as a result of kit installation.
5. If the existing installation included internal auxiliary electrical enclosures (for ballasts, etc.) employing switches to control power to devices within the enclosure, a sign disconnect switch may have to be installed.
6. Select the appropriate MODEL and NUMBER of LED Sign Brights based on STEP 1 guidelines above.
7. Mount and wire LED Sign Brights in the manner commencing in STEP 2.
8. A permanent label that is intended to remain in the applied position for the lifetime of the sign under conditions of normal use shall be affixed to the sign where readily visible by the user during normal maintenance, including re-lamping. The label shall be marked with the following statement:

"This sign has been modified to operate LED lamps. Do not attempt to install or operate * lamps in this sign"

The "*" shall be replaced by the original illumination type such as "fluorescent," "HID," etc. This marking shall be provided on a separate permanent label that is intended to remain in the applied position for the lifetime of the sign under conditions of normal use. The marking shall have a minimum letter height of 2.4 mm (3/32 in) and shall be in Universe Bold, Arial Bold, Helvetica Bold, or Zurich BT Bold or equivalent font.