

INSTALLATION INSTRUCTIONS WHEELLOCK SERIES LEMD-2 MESSAGE DISPLAY AND LEMD-SB SURFACE BACK BOX WALL MOUNT

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Use this product according to this instruction manual. Please keep this instruction manual for future reference.

GENERAL:

The Series LEMD-2 is a message display is capable of displaying two warning messages. Each message operates independently on 24VDC and can display in a continuous or flashing LED illumination mode. The LEMD-2 features low current draw, and terminals that can accept wires #14 to #18 American Wire Gauge (AWG). This product is designed to be used in indoor, dry locations only. This message display unit is only suitable for connections to a UL Listed or Recognized Class 2 power source. The LEMD-2 may be flush mounted directly in a wall opening of 13 1/4" X 5 1/2". The series LEMD-SB back box is designed to allow LEMD-2 to be surface mounted (see mounting procedures).

CAUTION: Do not change factory applied finishes. "DO NOT PAINT".

ATTENTION: Ne pas modifier les finitions appliquées en usine. "NE PAS PEINTURER"

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO COMPLY WITH ANY OF THE FOLLOWING INSTRUCTIONS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

SPECIFICATIONS:

Table 1: Specifications	
Models	LEMD-2 (Message Display, Flush Mount), LEMD-SB (Surface Box)
Agency	UL1638, ULC-526
Input Voltage	DC (Special Application), 16 to 28Vdc
Settings	Continuous or Flashing (Jumper J4)
NAC Characteristics	Max. line resistance: 35Ω
Environmental	Indoor Use Only. 0° C to 50° C (32° F to 122° F) 93% R.H.

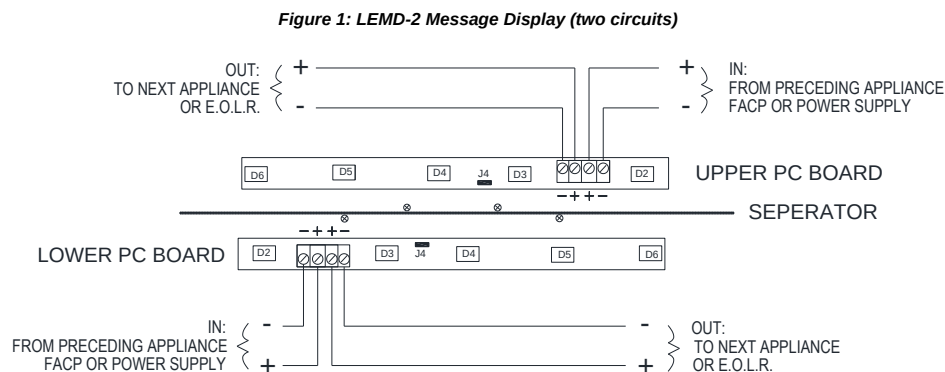
Table 2: LEMD-2 Message Display Current Ratings (AMPS)		
	Upper Message Display	Lower Message Display
DC	0.075	0.075

When calculating the total current, use Table 2 to determine the highest value of "RMS Current" for an individual appliance, then multiply these values by the total number of appliances; be sure to add the currents for any other appliances powered by the same source and include any required safety factors.

Make sure that the total RMS current required required by all appliances that are connected to the system's PRIMARY and SECONDARY power sources, NAC circuits, DSM Sync Modules or Wheelock Power Supplies does not exceed the power sources' rated capacity or the current ratings of any fuses on the circuits to which these appliances are wired.

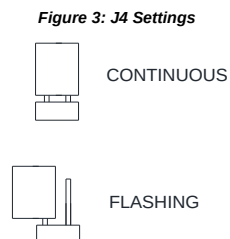
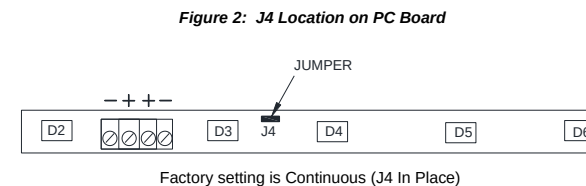
Check the minimum and maximum output of the power supply and standby battery, and subtract the voltage drop from the circuit wiring resistance to determine the applied voltage to the appliance.

WIRING DIAGRAM:



SETTINGS:

Jumper (J4) on the PCB is used to select Continuous or Flashing (see Figure 2 and 3).



NOTES:

- This model has wiring terminals that accept #14 to #18 American Wire Gauge (AWG) wires at each screw terminal. Strip leads 3/8 inches and connect to screw terminals.
- The effect of shipping and storage temperatures shall not adversely affect the performance of the appliance when it is stored in the original cartons and not subjected to misuse or abuse.

Figure 4: Cover Removal

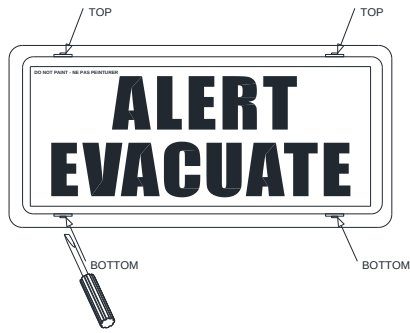


Figure 5: Surface BackBox – LEMD-SB

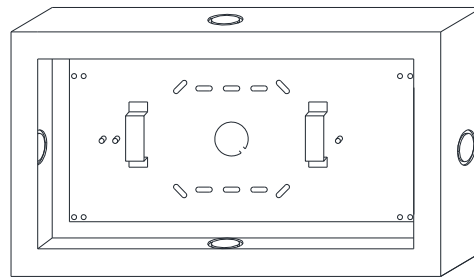


Figure A: Surface Mount with LEMD-SB (1/2" or 3/4" K/O Available)

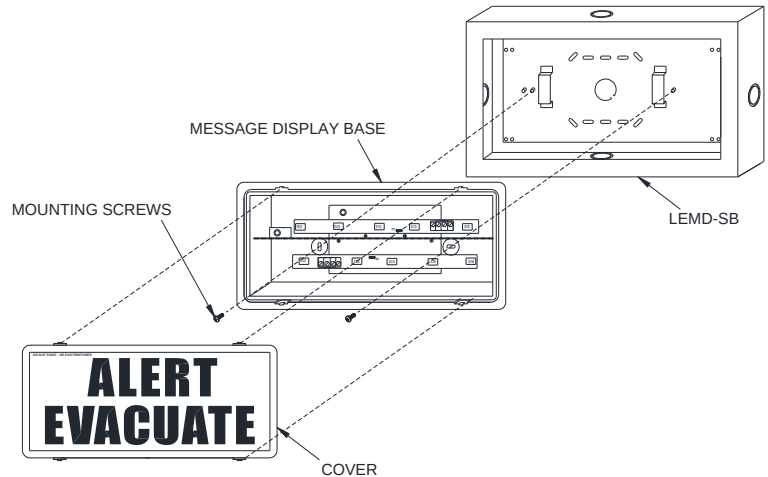
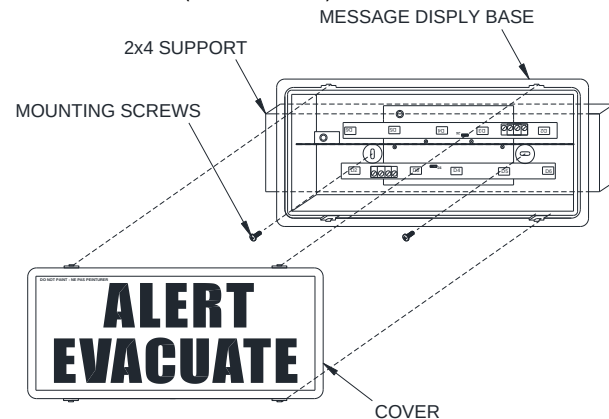


Figure B: Flush Mount LEMD-2 (1/2" K/O Provided)



Maximum Number of Conductors

AWG	#18	#16	#14
Figure A (1/2" K/O):	8	8	X
Figure B (3/4" K/O):	8	8	8

MOUNTING OPTIONS:

The following figures (A and B) show the maximum number of field wires (conductors) that can enter the backbox used with each mounting option. If these limits are exceeded, there may be insufficient space in the backbox to accommodate the field wires and stresses from the wires could damage the product.

Check that the installed product will have sufficient clearance and wiring room prior to installing backboxes and conduit, especially if sheathed multiconductor cable or 3/4" conduit fittings are used.

All installations shall be in accordance with:

- 1) In the United States, the National Electrical Code, NFPA 70, and the National Fire Alarm and Signaling Code, NFPA 72.
- 2) In Canada, CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32; and the Canadian Standard for the Installation of Fire Alarm Systems ULC-524.

MOUNTING PROCEDURES:

1. **Preliminary Info:** Select a mounting option: Use LEMD-2 with LEMD-SB (Fig. A) for surface mount, or LEMD-2 alone (Fig. B) for flush mount. Conduit entrances should be selected to provide sufficient wiring clearance for the installed product. Do not pass additional wires (used for other than the signaling appliance) through the backbox. Such additional wires could result in insufficient wiring space for the signaling appliance.
2. **A: Surface Mount - Install the LEMD-SB backbox (see Figure A)** at desired location. Mounting hole spacing is 11 3/4" X 5 1/2". For concealed conduit installation, Single Gang, Double gang, or 4"SQ back box may be used.
3. **B: Flush Mount - Install a 2x4 Support (see Figure B)** behind a wall opening of 13 1/4" X 5 1/2". Set back is 1 3/8" from finished wall."
4. **Remove the front cover** by inserting a flat head screwdriver into the two releases at the top or bottom of the front cover.
5. **A: Surface Mount - Install the LEMD-2 on the LEMD-SB (see Figure A)** using two M4 screws provided.
6. **B: Flush Mount - Install the LEMD-2 on the 2x4 support (see Figure B)** with wood screws (spacing is 7 1/4").
7. **Connect field wires to terminals** on LEMD (reference Figure 1). Use care and proper techniques to position the field wires in the backbox so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing. When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the signaling appliance.
8. **Verify appliance settings** are correct for your application. See Fig. 2 and 3. Factory setting is Continuous (J4 installed).
9. **Align cover to LEMD base.** Verify lettering orientation is correct. Then, **snap the cover** in place.
10. **To remove the cover,** insert a flat-bladed screwdriver into two top or bottom openings to release snap as shown in Figure 4. Then "pull" remove the cover.

Important: Do not fully back out terminal screws. Do not over tighten screws or terminals. Excessive torque may affect operation. When using power tools, ensure the torque is set to the lowest setting available.

NOTE: Final acceptance is subject to Authorities Having Jurisdiction.

Check the installation instructions of the manufacturers of other equipment used in the system for any guidelines or restrictions on wiring and/or locating Notification Appliance Circuits (NAC) and notification appliances. Some system communication circuits and/or audio circuits, for example, may require special precautions to assure immunity from electrical noise (e.g. audio crosstalk).

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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