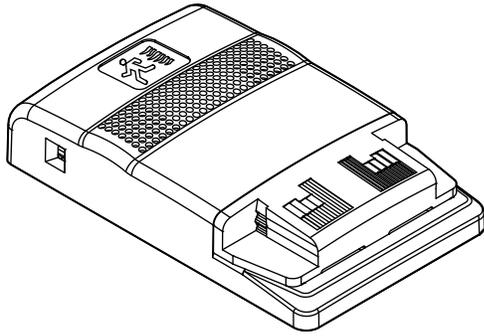




DC-M9413 Series Wall Mount Sounder Strobe Installation Sheet



Description

The DC-M9413 Series Wall Mount Sounder Strobe is a fire alarm notification appliance that is designed for mounting on indoor walls. See Table 1 for a list of model numbers.

Table 1: Models

| Description | Model number |
|---|--------------|
| Sounder-strobe, 15 to 110 multi-cd, white | DC-M9413W |
| Sounder-strobe, 15 to 110 multi-cd, red | DC-M9413R |

There are field-configurable options for selecting dB output, sounder signal, and strobe signal output. See Figure 1.

The strobe includes a field-configurable switch for selecting the desired candela output. The candela output setting is locked in place and remains visible after final installation. See Figure 2.

This strobe features an enhanced synchronization circuit to comply with the latest requirements of UL 1971 *Signaling Devices for the Hearing Impaired*.

Synchronized operation requires that you connect the DC-M9413 Series Wall Mount Sounder Strobe to a NAC output set for Sync Mode, or to a separate DC-M9410 Signal Synchronization Module.

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

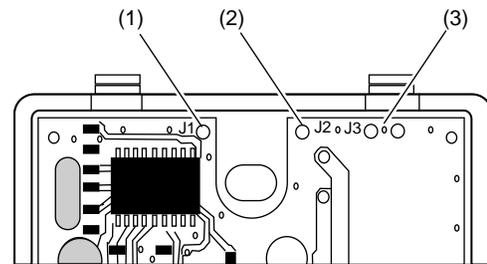
WARNING: Electrocution hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow 10 minutes for stored energy to discharge before installing or removing equipment.

Caution: Electrical supervision requires breaking the wire run at each terminal. Do not loop the signaling circuit field wires around the terminals.

To install the sounder-strobe:

1. Remove the cover by depressing both tabs on the top of the unit with a small screwdriver and twisting slightly.
2. Set the sounder signal, sound output level, and strobe signal to the desired settings. See Figure 1.
3. Slide the candela switch to the desired candela output by aligning it with the indicator located left of the switch. See Figure 2.
4. Connect the strobe terminals to the signal circuit field wiring. You must observe polarity for the unit to function properly. See Figure 3.
5. Mount the unit onto a compatible electrical box, making sure not to overtighten the mounting screws.
6. Replace the cover by aligning it at the bottom, then snapping it in at the top.
7. Test the unit for proper operation.

Figure 1: Sounder and strobe settings



- (1) To change the strobe to temporal (private mode), cut from circle J1 to the edge of circuit board.
- (2) To change the sounder signal from temporal to steady, cut from circle J2 to the edge of circuit board.
- (3) To change the sounder output level from high dB to low dB, cut the J3 trace between the holes.

Note: If the strobe is set to temporal (private mode), this device is no longer UL 1971 listed, but is UL 1638 listed.

Figure 2: Candela switch

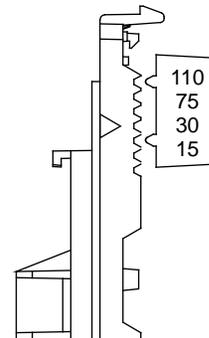
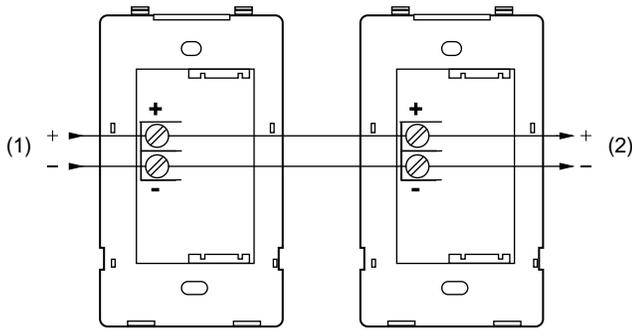


Figure 3: Wiring diagram



- (1) From NAC output
- (2) To next appliance, EOLR, or return to source

Note: Polarity is shown in the alarm condition.

Maintenance

Caution: To maintain the required agency listings, do not change factory applied finishes.

This unit is not serviceable or repairable. Should the unit fail to operate, contact the supplier for replacement.

Perform a visual inspection and an operational test twice a year or as directed by the local authority having jurisdiction.

Specifications

| | |
|-------------------------------------|--|
| Operating Voltage | 24 VDC or 24 VFWR nominal |
| Operating sounder-strobe current | See Table 5 |
| Sound level output | See Table 2 |
| Audible directional characteristics | See Table 3 and Table 4 |
| Light output | Selectable at 15, 30, 75, and 110 cd |
| Synchronization | Meets UL 1971 requirements. Maximum allowed resistance between any two devices is 20 Ω. Refer to specifications for the synchronization control module, this strobe, and the control panel to determine allowed wire resistance. |
| Strobe signal rate | 1 flash per second (fps) |
| Wire size | 12 to 18 AWG (0.75 to 2.50 mm ²) |
| Compatible electrical boxes | Single-gang box, 2-1/2 in. (64 mm) deep |
| Operating environment | |
| Temperature | 32 to 120°F (0 to 49°C) |
| Relative humidity | 0 to 93% noncondensing |

Table 2: UL Ratings, temporal output

| Signal and voltage | Low | High |
|--------------------|------|------|
| Temporal | 76.0 | 81.4 |
| Continuous | 80.1 | 85.5 |

UL 464: Sound level output at 10 ft. (3.05 m) measured in a reverberant room at 16 V.

Table 3: Audible directional characteristics (horizontal pattern)

| Angle (°) [1] | Output (dB) [2] |
|---------------|-----------------|
| 0 | 0 |
| +18 | -3 |
| +42 | -6 |
| -50 | -3 |
| -75 | -6 |

[1] Angles are measured from a perpendicular axis; positive angles to the right.

[2] Peak output at 16 VDC, set for steady tone

Table 4: Audible directional characteristics (vertical pattern)

| Angle (°) [1] | Output (dB) [2] |
|---------------|-----------------|
| 0 | 0 |
| +20 | -3 |
| +45 | -6 |
| -20 | -3 |
| -52 | -6 |

[1] Angles are measured from a perpendicular axis; positive angles are up.

[2] Peak output at 16 VDC, set for steady tone.

Table 5: Operating sounder-strobe current in RMS (A)

| Voltage | Strobe (cd) | Operating current |
|---------|-------------|-------------------|
| VDC | 15 | 0.129 |
| | 30 | 0.167 |
| | 75 | 0.281 |
| | 110 | 0.337 |
| VFWR | 15 | 0.176 |
| | 30 | 0.230 |
| | 75 | 0.397 |
| | 110 | 0.443 |

VDC = Volts direct current, regulated and filtered

VFWR = Volts full wave rectified

Note: The operating currents shown above were measured by UL at 16 VDC and 16 VFWR and high dB setting.

Figure 4: UL 1971 minimum light output (% of rating vs. angle)

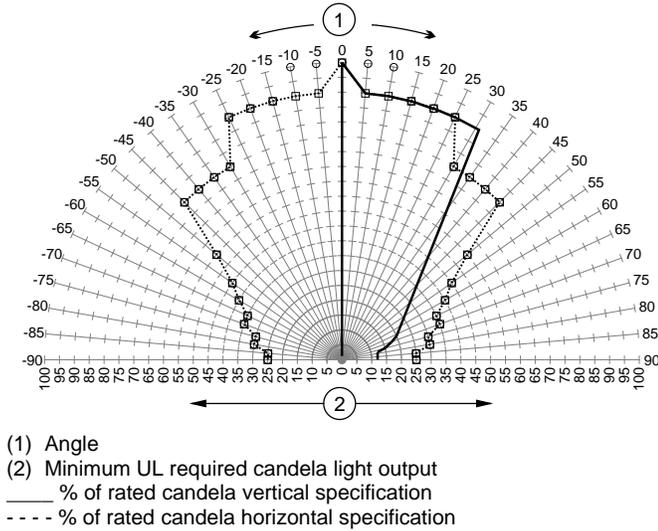


Figure 5: Typical horizontal light output profile, 110 cd setting

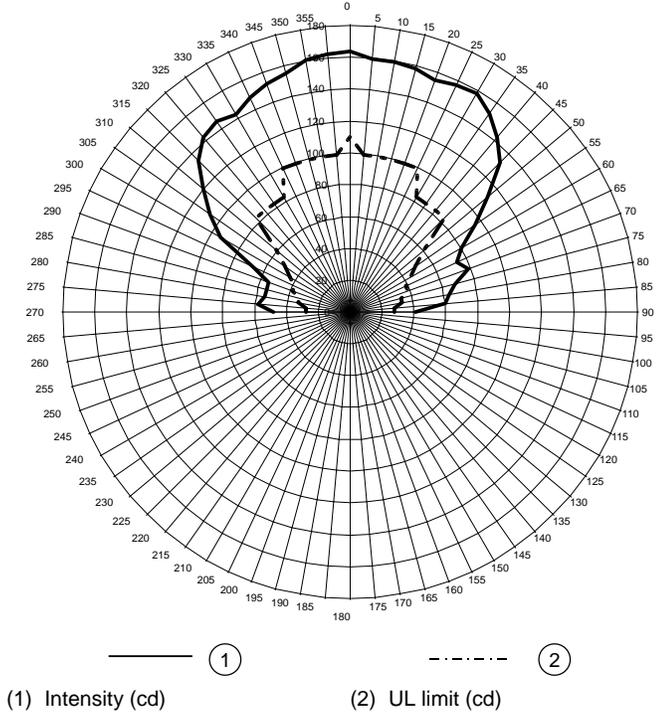
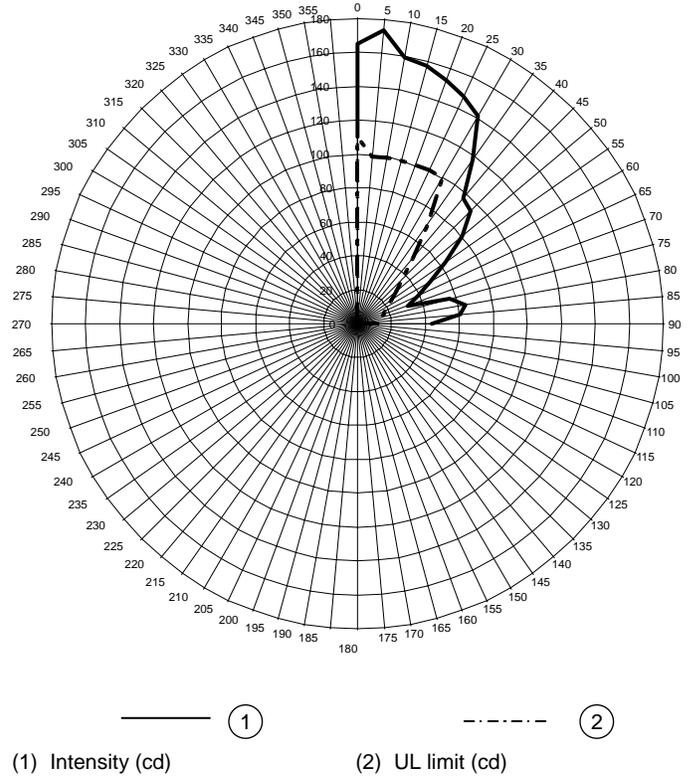


Figure 6: Typical vertical light output profile, 110 cd setting



Regulatory information

| | |
|--------------------------|------------------------------|
| UL rating | Regulated 24 DC and 24 FWR |
| Environmental class | UL: Indoor, Dry |
| North American standards | UL 464, UL 1638, and UL 1971 |

Contact information

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