



Installation Instructions for 48XBRM Series XBR (XTRA-BRITE™) LED DUAL-MODE Visual Indicator

Description

The Catalog Series 48XBRM Visual Indicator is a UL and cUL Listed signaling appliance rated for NEMA 4X applications. The signals are suitable for indoor or outdoor (weatherproof) installation and are available in AC and DC models as listed above.

The 48XBRM Series XBR (XTRA-BRITE™) LED Dual-Mode signals are well suited in high ambient noise level areas, especially where ear protection must be worn. These LED beacons are also ideal for high-vibration applications and areas where long lamp life is advantageous. 48XBRM LED beacons ship from the factory in steady-on mode and can be readily transformed by changing the dipswitch setting to 65 FPM flashing mode.

The 48XBRM series signals can be mounted on 1/2" (13mm) NPT conduit (indoor or outdoor) or direct surface mounted (indoor only). For outdoor (weatherproof) installation, the signals *must* be mounted with their lens dome facing directly up. When installing indoors, these signals can be mounted in any position.

Electrical Specifications

| Catalog Number | Electrical Specs | Color |
|----------------|------------------|-------|
| 48XBRMA24D | 24V DC, 0.215A | Amber |
| 48XBRMA120A | 120V AC*, 0.108A | Amber |
| 48XBRMB24D | 24V DC, 0.215A | Blue |
| 48XBRMB120A | 120V AC*, 0.108A | Blue |
| 48XBRMG24D | 24V DC, 0.215A | Green |
| 48XBRMG120A | 120V AC*, 0.108A | Green |
| 48XBRMR24D | 24V DC, 0.215A | Red |
| 48XBRMR120A | 120V AC*, 0.108A | Red |
| 48XBRMW24D | 24V DC, 0.215A | White |
| 48XBRMW120A | 120V AC*, 0.108A | White |

*120V AC 50/60 Hz

Mechanical Specifications

Outdoor Locations

Temperature Ratings -31F to +150F (-35C to +66C)

PLC Compatibility

Signaling devices may be directly connected to PLC output cards that meet the electrical input load specifications listed in Table 1. When signaling device flash rates are to be controlled via PLC, dip switch settings should be left in "steady-on" mode as originally shipped from the factory.

Installation

WARNING

To prevent electrical shock, ensure that power is disconnected before installing the signals.

Install in accordance with the latest edition of the *National Electrical Code* and local regulations. Install the signals using one of the following applicable mounting procedures.

Conduit Mounting (Indoor or Outdoor) - Figure 1

WARNING

To prevent leakage and a potential shock hazard, when mounting outdoors the signal must be installed with the lens or dome facing directly up.

1. Insert a small flat blade screwdriver between the locking mechanism and the lens. Gently push down and then pry up, unseating the lens. Pull the lens up and off of the signal mounting base, being careful not to damage the internal circuit.
2. **Setting the Flash Pattern:** The 48XBRM Series Visual Indicator is a dual-mode device supplied with a default setting of steady-on. If flashing (65 fpm) mode is desired, set dipswitch as shown in Figure 4. Refer to Figure 3 for dipswitch location.
3. After setting the flash pattern, carefully place the lens back on the unit and snap in place.
4. Route the signal's wire leads through 1/2" NPT conduit (not supplied) and thread the conduit into the signal mounting base.
5. Connect the field wiring to the signal wire leads as described in the Wiring Section.

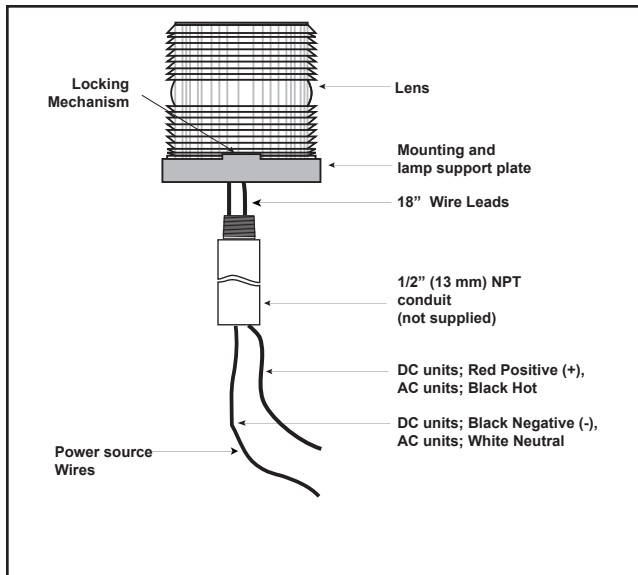


Figure 1. Conduit Mounting

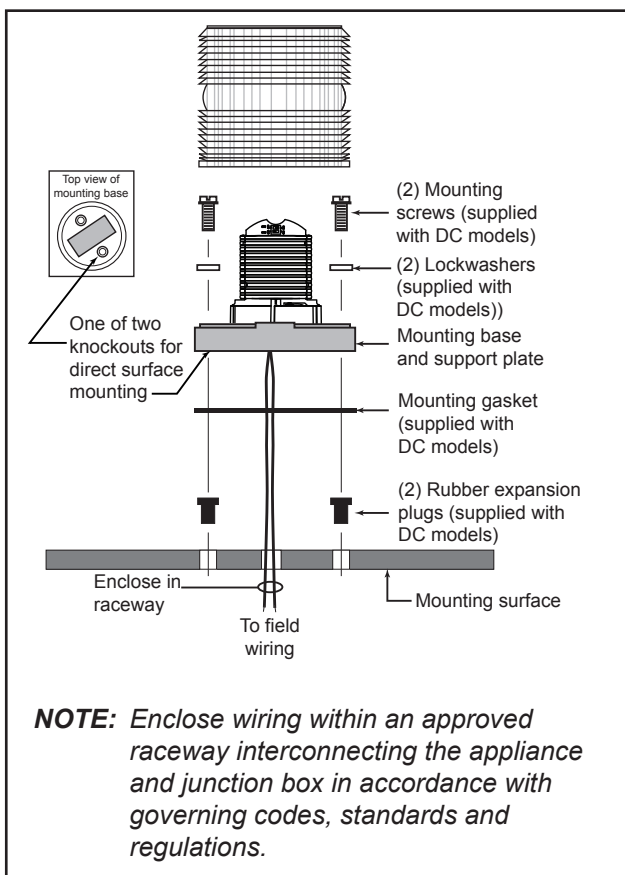


Figure 2. Direct Surface Mounting of the 48XBRM Series Signals

Direct Surface Mounting (Indoor Only) - Figure 2

NOTE: The installer should use suitable hardware appropriate for the installation.

1. Insert a small flat blade screwdriver between the locking mechanism and the lens. Gently push down and then pry up, unseating the lens. Pull the lens up and off of the signal mounting base, being careful not to damage the internal circuit.
2. **Setting the Flash Pattern:** The 48XBRM Series Visual Indicator is supplied with a default setting of steady-on. If flashing (65 fpm) is desired, set dipswitch as shown in Figure 4.
3. Remove the two knockouts for mounting screws from the signal base. Place the 3-3/4" (95mm) mounting gasket provided in the direct surface mounting kit on the mounting surface and mark the center of the three holes in the gasket on the mounting surface. Remove the gasket and drill a 3/8" (10mm) hole at each of the marked positions.
4. Install the two rubber expansion plugs provided in the hardware kit into the two outer holes in the mounting surface.
5. Route the wire leads from the signal base through the center hole in both the mounting gasket and surface. The wiring should be run through an approved raceway or conduit connected between the bottom of the signal base and an approved junction box (not supplied). Bring wire leads into the junction box. Refer to the signal's label for voltage rating.
6. Align the outer holes in the mounting gasket with the holes in the surface. Insert two screws with lockwashers through the two outer holes in the signal base and align the screws with the rubber expansion plugs as shown in Figure 2. Press the signal base firmly against the mounting surface and tighten the screws.
7. Carefully place the lens back on the unit and snap in place.
8. Connect the field wiring to the signal wire leads as described in the Wiring Section.

Wiring

1. For AC models, use wire nuts (not supplied) and connect the signal's black and white wire leads to the power source wires. Polarity is not important.
2. For DC models, connect the signal's red wire to the positive power source wire and connect the signal's black wire to the negative power source using appropriate connectors (not supplied). Polarity must be observed.

Maintenance

Cleaning



CAUTION

To prevent damage to the lens, do not use abrasive materials or cleaners.

Periodically clean the lens surface with a soft cloth or sponge and water or a mild detergent solution to maintain optimum light visibility. Ensure that the lens is completely dry before assembling the signal.

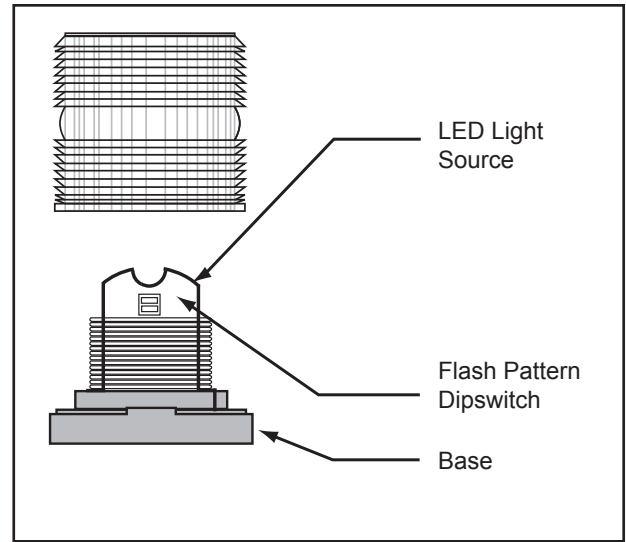


Figure 3. Dipswitch Location

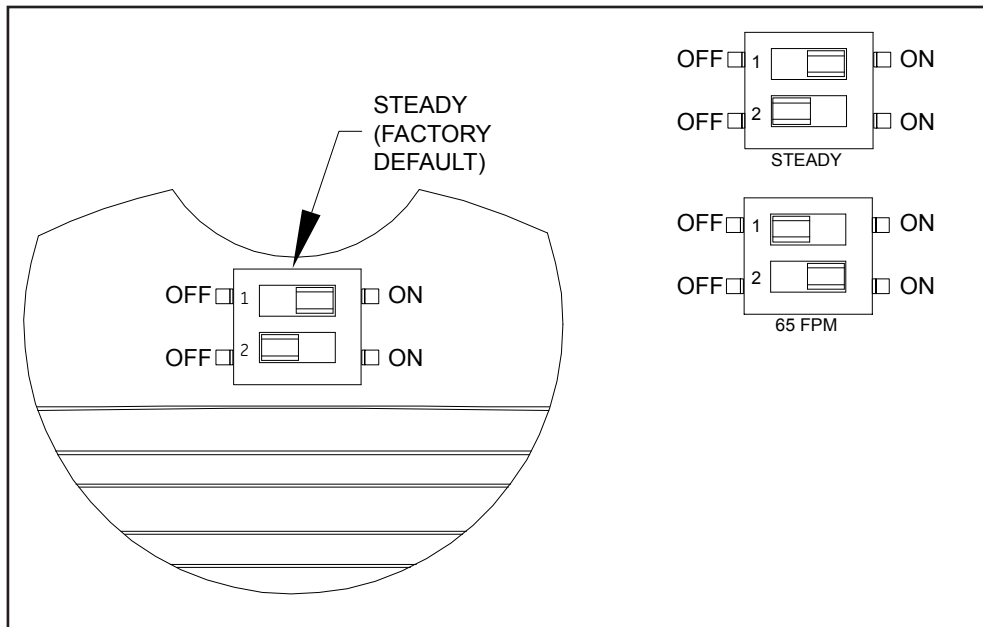


Figure 4. Flash Pattern Dipswitch Settings

Table 1. PLC Compatibility

| Cat. No. | Operating voltage* | Maximum off state leakage current (mA) | Continuous on current (mA) | Surge (inrush/duration) (A/μs**) |
|---------------|--------------------|--|----------------------------|----------------------------------|
| 48XBRM()24D | 24V DC | 5 | 215 | 34.5/52 |
| 48XBRM()120A | 120V AC | 5 | 108 | 37.5/164 |

*All AC volts at 50/60 Hz

**Amps/microseconds

Replacement Parts

| Component | Catalog Number |
|-----------------------|----------------|
| Lens* - 48XBRM Series | 96-L(*) |

*Specify color of lens by adding one of the following letters to the catalog number: A-amber, B-blue, G-green, or R-red, C - clear (used with white LEDs). Example: A red lens for the 48XBR series signal is 96-LR.