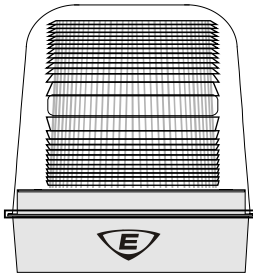


94PLEDM Series Rotating Polaris LED Beacon Installation Sheet



Description

The 94PLEDM Series Rotating Polaris LED Beacon is UL and cUL listed for general signaling use. The beacon is available in 120 VAC or multivoltage 12 VDC, 24 VAC, or 24 VDC models. There are six lens colors to choose from, and a choice of black or gray bases. The beacon utilizes high-power LED lights and is suitable for indoor or outdoor use. The beacon is provided with an enclosure rated for NEMA Type 4X and IP66.

The beacon is well suited for high ambient noise level areas, especially where ear protection must be worn. The beacon is also ideal for high vibration applications and areas where long lamp life is advantageous. The beacon features a 360-degree beam of light with 16 user-selectable flash or rotation patterns including Steady. The patterns are selected by pressing the Edwards logo push button. The factory setting is Light Burst.

The beacon is designed to be mounted on 3/4 in. NPT conduit (indoor or outdoor). To maintain the NEMA Type 4X and IP66 ratings for outdoor installation, the beacon must be mounted with the dome facing directly up. When installing the beacon indoors in dry environments, it can be mounted in any position.

Installation

Install the beacon in accordance with the applicable requirements in the latest edition of the National Electrical Code, Canadian Electrical Code, and local codes.

WARNINGS

- Electrocutation hazard. To prevent electrical shock, ensure that power is disconnected before installing the beacon
- Electrocutation hazard. To prevent leakage and potential electrical shock, use care when disassembling the beacon to prevent tearing of the permanently affixed gaskets provided for the environmental integrity and ratings.
- Electrocutation hazard. To prevent leakage and potential electrical shock when mounting outdoors, install the beacon with the lens or dome facing directly up.

Note: The beacon is designed to be conduit mounted.

To install the beacon:

1. Release the latch on the clamp ring and remove the ring holding the protective dome to the signal base. Lift the dome straight up off of the beacon base (Figure 1).
2. Loosen the three screws in the keyhole slots in the base of the lens, turn the lens clockwise, and lift it off of the LED light source support plate.
3. Remove the three screws holding the LED light source support plate to the beacon base.
4. Gently grasp the LED tower and carefully lift the support plate off of the beacon base.

Note: The beacon mounts on a 3/4 in. NPT conduit pipe. The female threaded entry is located on the bottom of the base.

5. Route the field wiring from the appropriate power source through the conduit, and then through the conduit entrance hole in the beacon base.
6. Install the base on the conduit. Wrench-tighten for a leak free seal.
7. Wire in accordance with "Wiring" below.
8. Place the connected wires inside the base and reassemble the beacon (Figure 1).
9. Apply power and verify that the beacon operates properly.

Wiring

Wire this unit in accordance with all applicable local codes and standards and the local authority having jurisdiction.

To wire the beacon for 120 VAC:

1. Using wire nuts (not supplied), connect the field wiring to the beacon wiring.
2. Connect the beacon's black lead to hot, and the white lead to neutral. Connect the beacon's green lead to the grounding point located in the signal base.

To wire the beacon for 12 VDC:

1. Using wire nuts (not supplied), connect the field wiring to the beacon wiring.
2. Connect the beacon's red lead to positive (+) and the black lead to negative (-).

To wire the beacon for 24 VAC/VDC:

1. Connect the field wiring to the beacon wiring using wire nuts (not supplied).
2. Connections depend on the voltage supply. Choose the connections that match your power supply:

24 VAC: Connect the black lead to hot and the red lead to neutral.

24 VDC: Connect the red lead to positive (+), and the black lead to negative (-). Connect the green lead to the grounding point located in the beacon base.

Selecting the flash or rotation pattern

The beacon can be configured with one of 16 user-selectable flash or rotation patterns using a push button (membrane switch). The push button is located in the center of the Edwards shield logo on the base of the beacon (Figure 1).

Table 1: Flash and rotation patterns

Pattern	Description
1. Steady	On steady
2. S65	65 Single FPM
3. Light Burst	1,100 FPM (seven pulses), 440 ms off, Repeat
4. Singular Burst	310 Single FPM
5. Binary Burst	200 Double FPM
6. Quad Burst	100 Quad FPM
7. iBurst	4 pulses at 750 FPM, Off, 4 pulses at 750 FPM, Off, 6 pulses at 870 FPM, Off, Repeat
8. Rotating 80 RPM	80 RPM
9. Rotating 95 RPM	95 RPM
10. Rotating 130 RPM	130 RPM
11. Rotating 200 RPM	200 RPM
12. Slow Rotating with Burst	2 rotations at 84 RPM, 2 pulses at 940 FPM, Repeat
13. Flash Rotating with Burst	3 rotations at 174 RPM, 4 pulses at 900 FPM, Repeat
14. Quad Flash with Pop	4 pulses at 650 FPM, 160ms Off, 1 pulse at 410 FPM, 410 ms Off, Repeat
15. Variable Rotating	83 to 420 RPM repeated every 6.6s
16. Variable Flashing	137 - 535 Single FPM repeated every 4.1s

FPM – Flashes Per Minute
RPM – Rotations Per Minute

To select a flash or rotation pattern:

1. Press and hold the push button for one second to switch the beacon to the next pattern (Table 1).
2. Press and hold the push button for three seconds to set the beacon to the first pattern (Steady).

Maintenance

Lens and dome replacement

WARNING: Electrocutation hazard. To prevent electrical shock, disconnect the beacon from the supply circuit and allow five minutes for stored energy to dissipate before disassembling.

Caution: Do not overtighten the screws or damage to the dome may occur.

To replace the lens or dome:

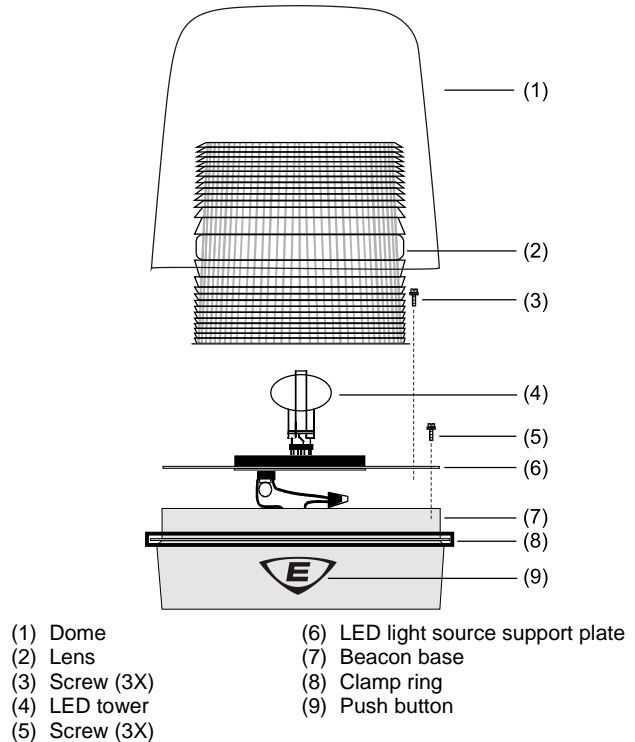
1. Release the latch on the clamp ring and remove the ring holding the protective dome to the signal base. Lift the dome straight up off of the signal base.
2. Loosen the three screws in the keyhole slots in the base of the lens. Turn the lens clockwise and lift it straight up off of the support plate.
3. Replace the lens by turning it counter-clockwise in the keyhole slots, and then tightening the three screws.
4. Replace the dome and reinstall the clamp ring.

Cleaning

Caution: To prevent damage to the lens or dome, 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. Make sure the lens is completely dry before assembling the beacon.

Figure 1: Installation



Specifications

Table 2: Specifications

Model number		Electrical specs	Dimensions	Color
Gray base	Black base			
94PLEDMA24AD	94PLEDMA24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 x 7.75 in. (210 x 200 mm)	Amber
94PLEDMB24AD	94PLEDMB24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 x 7.75 in. (210 x 200 mm)	Blue
94PLEDMG24AD	94PLEDMG24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 x 7.75 in. (210 x 200 mm)	Green
94PLEDMM24AD	94PLEDMM24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 x 7.75 in. (210 x 200 mm)	Magenta
94PLEDMR24AD	94PLEDMR24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 x 7.75 in. (210 x 200 mm)	Red
94PLEDMW24AD	94PLEDMW24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 x 7.75 in. (210 x 200 mm)	White
94PLEDMA120A	94PLEDMA120AB	120 VAC, 0.250 A	8.25 x 7.75 in. (210 x 200 mm)	Amber
94PLEDMB120A	94PLEDMB120AB	120 VAC, 0.250 A	8.25 x 7.75 in. (210 x 200 mm)	Blue
94PLEDMG120A	94PLEDMG120AB	120 VAC, 0.250 A	8.25 x 7.75 in. (210 x 200 mm)	Green
94PLEDMM120A	94PLEDMM120AB	120 VAC, 0.250 A	8.25 x 7.75 in. (210 x 200 mm)	Magenta
94PLEDMR120A	94PLEDMR120AB	120 VAC, 0.250 A	8.25 x 7.75 in. (210 x 200 mm)	Red
94PLEDMW120A	94PLEDMW120AB	120 VAC, 0.250 A	8.25 x 7.75 in. (210 x 200 mm)	White

Figure 2: Dimensions

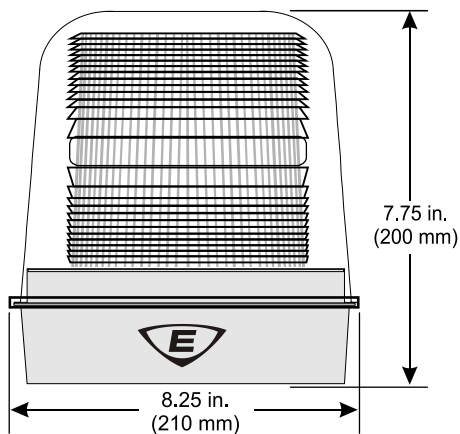


Table 3: Electrical specifications

Specification	94PLEDM(*)24AD	94PLEDM(*)120A
Operating voltage	12 VDC 24 VAC/VDC	120 VAC
Off state leakage current	5 mA	5 mA
Continuous On current	700 mA (12 VDC) 550 mA (24 VAC/VDC)	250 mA
Surge (inrush/duration)	8.5 A / 2 ms	4.5 A / 1 ms

* The letter in this position denotes color.

Table 4: Replacement parts

Component	Catalog number
Clear outer dome	94DV2-DC
Lens*	93-L(*)

* The letter in this position signifies the color of the lens. A = amber, B = blue, C = clear, G = green, M = magenta, or R = red. For example, a part number for a red lens would be 93-LR.

Note: 94PLEDMW uses a clear lens.

Regulatory information

North American standards UL 1638A, cUL C22.2 No. 205

Contact information

For contact information, see www.edwardsfiresafety.com.