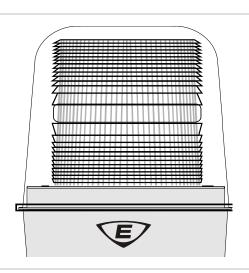# 94 Series Polaris LED Beacon Installation Sheet

Description

The Edwards 94 Series Polaris LED Beacons are UL and cUL listed for general signaling use. The beacons are available in 120 VAC or 24 VAC/DC. There are six lens colors to choose from, and a choice of black or gray painted bases. The beacons utilize high-power LED lights and are suitable for indoor or outdoor use. They are provided with an enclosure rated for NEMA 4X and IP66.

The signals are well suited for 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. The LED beacon is provided with a 360-degree beam of light with seven user-selectable flash patterns including steady-on. The patterns are selected by pressing the Edwards logo. The factory setting is Light Burst mode.

The 94 Series beacons are designed to be mounted on 3/4 in. NPT conduit (indoor or outdoor). For outdoor (weatherproof) installation and to maintain the NEMA and IP ratings 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 this unit in accordance with all applicable local requirements in the latest edition of the National Electrical Code, Canadian Electrical Code, and local codes.

WARNINGS

- Shock hazard. To prevent electrical shock, ensure that power is disconnected before installing the beacon
- Shock 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.
- Shock hazard. To prevent leakage and potential electrical shock when mounting outdoors, install the beacon with the lens or dome facing directly up.

Note: The 94 Series 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. See 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.

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 black lead to hot, and the white lead to neutral. Connect the green lead to the grounding point located in the signal base.

3. Place the connected wires inside the base and reassemble the beacon.

4. Turn the power on to verify that the beacon operates properly.

To wire the beacon for 24 VAC/VDC:

1. Using wire nuts (not supplied), connect the field wiring to the beacon wiring.

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 (+), the black lead to negative (−). Connect the green lead to the grounding point located in the beacon base.

3. Place the connected wires inside the base and reassemble the beacon.

4. Turn the power on to verify that the beacon operates properly.

Selecting the flash pattern

The beacon can be configured with one of seven user-selectable flash 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. See Figure 1.

To select a flash pattern:

1. Press and hold the push button for one second to switch the beacon to the next pattern in the sequence of patterns. See Table 1.

2. The beacon can be set to the first flash pattern (Steady) by pressing and holding the push button for three seconds, and then releasing it.

Table 1: Flash patterns

Patterns	Description
1. Steady	Steady-on
2. S65	65 flashes per minute (FPM)
3. Light Burst	1000 FPM (seven pulses) 440 ms off/repeat
4. Singular Burst	120 FPM
5. Binary Burst	65 double FPM
6. Quad Burst	65 quad FPM
7. iBurst	750 FPM (nine pulses)/ 480 FPM (one pulse)/ 85 FPM (six pulses)/ 460 FPM (one pulse)

Maintenance

Lens and dome replacement

WARNING: Shock hazard. To prevent electrical shock, disconnect from the supply circuit and allow five minutes for stored energy to dissipate before disassembling the unit.
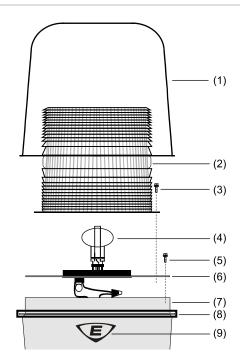
To replace the lens or dome:

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 tighten 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

(1)	Dome	(6)	LED light source support plate
(2)	Lens	(7)	Beacon base
(3)	Screw (3X)	(8)	Clamp ring
(4)	LED tower	(9)	Push button
(5)	Screw (3X)		

Specifications

Table 2: Specifications

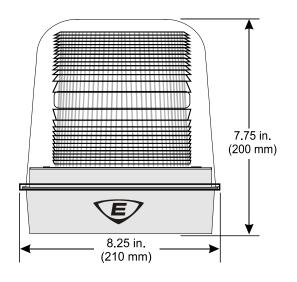| Catalog number		Electrical specs	Dimensions	Color
Gray base	Black base			
94PLEDMA24AD	94PLEDMA24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 in. (210 mm) × 7.75 in. (200 mm)	Amber
94PLEDMB24AD	94PLEDMB24ADB	12 VDC, 0.700 A 24 VAC/VDC 0.550 A	8.25 in. (210 mm) × 7.75 in. (200 mm)	Blue
94PLEDMG24AD	94PLEDMG24ADB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

Figure 2: Dimensions

7.75 in. (200 mm)

8.25 in. (210 mm)

Table 3: PLC compatibility

Catalog number	94PLEDM*24AD	94PLEDM*120A
Operating voltage	24 VDC	120 VAC
Off state leakage current	5 mA	5 mA
Continuous on current	700 mA	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

Manufacturer	Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA
North American standards	UL 1638, cUL C22.2 No. 205

Contact information

For contact information see our Web site: www.edwardssignaling.com