

Installation Instructions for Catalog Series 51 AdaptaBeacon® Signals

Description

The Catalog Series 51(*)-E1 and 51(*)-G1 Adaptabeacon signals are dc operated, weatherproof, combination flashing lights with horns. They feature optically designed polycarbonate lenses. These signals are suitable for installation on a vehicle, or permanent outdoor or indoor installation. Their base allows direct surface mounting, mounting on 1/2" (13 mm) NPT conduit, or mounting on a 4" (102 mm) octagon box. A hardware kit is included with the signals for direct surface mounting applications.

Specifications

Catalog Number	Rated Voltage	Current
51(*)-E1	12V DC	1.0 Amps
51(*)-G1	24V DC	1.0 Amps

*The letter (A - amber, B - blue, C - clear, G - green, M - magenta or R - red) in this position signifies the color the supplied lens.

Replacement lamps, horns, flasher modules and lenses are available for the signals. Refer to the table at the end of these instructions for details.

PLC Compatibility

The electrical input load requirements for PLC compatible signaling devices are listed in Table 1. Signaling devices may be directly connected to output cards that meet these input load requirements.

Installation

Install in accordance with the latest edition of the National Electrical Code and local codes.

⚠ WARNINGS

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

To prevent leakage and potential electrical shock, use care when disassembling the signal to prevent tearing of the permanently affixed gaskets provided for weatherproofing.

1. Remove the base from the signal using the following procedure:

See Figure 1. Remove the screw in the clamp ring, remove the ring, and lift the lens/lamp assembly off the base. Now, install the base as described in Step 2.

2. The signal can be direct surface mounted, mounted on 1/2" (13 mm) NPT conduit, or mounted on a 4" (102 mm) octagon box. Install the signal base using one of the following mounting procedures.

Direct Surface Mounting

- a. Remove the two knockouts for mounting screws from the signal base bottom. (See Figure 1 for the location of knockouts.)
- b. Refer to Figure 2 before continuing the mounting procedure. Then place the gasket provided in the hardware kit on the mounting surface, and mark the center of the three holes in the gasket on the surface. Remove the gasket and drill a 3/8" (9.5 mm) hole at each of the marked positions.
- c. Install the two rubber expansion plugs provided in the hardware kit into the two outer holes in the mounting surface as indicated in Figure 2.
- d. Route the field wiring from the required power source for the signal (refer to its label for the voltage rating) through the center holes in the mounting surface, gasket and base.
- e. Align the holes in the gasket with the holes in the base. Insert the two screws with lockwashers provided in the hardware kit through the mounting holes inside the base and align the screws with the rubber expansion plugs as shown in Figure 2. Press the base firmly against the mounting surface and tighten the screws. Now proceed to step 3 for wiring connections.

NOTE: For direct surface mounting, the 51 series signals may be installed in any position.

Mounting on 1/2" (13 mm) NPT Conduit

⚠ 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.

- a. Route the field wiring from the required power source for the signal (refer to its label for the voltage rating) through a 1/2" (13 mm) NPT conduit (not supplied) and through the center hole in the signal base.

Table 1. PLC Compatibility

Cat. No.	Operating voltage	Maximum off state leakage current (mA)	Continuous on current (mA)	Surge (inrush/duration) (A/ms*)
51()-G1	24V DC	25	1100	3/100

**Amps/milliseconds

- b. Install the base on the conduit. Now proceed to Step 3 for wiring connections.

Mounting on a 4" (102 mm) Octagon Box (Indoor Installation Only)

- a. Remove the two knockouts for mounting screws from the bottom of the signal base.
 - b. Route the field wiring from the required power source for the signal (refer to its label for the voltage rating) through the center hole in the base.
 - c. Fasten the base to the octagon box (not supplied) by installing the screws supplied with the box through the holes in the base. Now proceed to Step 3 for wiring connections.
3. Using wire nuts (not supplied), connect the signal's red wire to the positive (+) power source lead and connect the black wire lead to the negative (-) power source wire. Then neatly place the connected wires inside the base and reassemble the signal on the base.
 4. Turn on power and verify that the signal operates properly.

Maintenance

 **WARNINGS**

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

To prevent leakage and potential electrical shock, use care when disassembling the signal to prevent tearing of the permanently affixed gaskets provided for weatherproofing.

Lamp Replacement

Refer to the Replacement Parts table below for the required type of lamp. After disconnecting power, replace the lamp using the following procedure:

See Figure 1. Remove the three screws from the top of the skirt and lift off the skirt and lens. Remove the old lamp. Insert the new lamp.

Horn Replacement

Refer to the Replacement Parts table below for the required horn. After disconnecting power, remove the old horn and attach the new one. Reattach the horn module wiring to the flasher module wiring.

Cleaning

 **CAUTION**

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

The signal lens should be periodically cleaned to maintain optimum light visibility. It may be cleaned with a soft cloth or sponge using mild detergent. Dry the lens completely before replacing.

Troubleshooting

If the lamp fails to operate, check that power is on. If power is on, either the lamp or the solid state flasher module should be replaced. Replace the lamp first as directed in the Lamp Replacement section above. If the replacement lamps also fails to operate, the flasher module must be replaced. Refer to the Replacement Parts table below for the required flasher. Instructions for replacing the flasher are provided with the flasher.

NOTE: If both the lamp and horn fail to operate, the flasher module must be replaced.

Replacement Parts

Replacement lamps, horns and lenses for the 51 series signals may be obtained from your Edwards distributor.

Component	Used On	Replacement Part
Lamp - 32W, double contact, bayonet base	51(*)-E1	P-041695-0097 or Ind. Trade No. 94
Lamp - 32W, double contact, bayonet base	51(*)-G1	P-041695-0099 or Ind. Trade No. 1638
Horn - 12/24V DC	51(*)-E1 or 51(*)-G1	P-047570-0743
Solid state flasher module - 12/24V DC	51(*)-E1 or 51(*)-G1	P-041917-0028
Lens (Amber, Blue, Clear, Green, Magenta or Red)	51(*)-E1 or 51(*)-G1	92-L(*)

*Specify lens color by adding one of the following letters to the catalog number: A - amber, B - blue, C - clear, G - green, M - magenta or R - red.

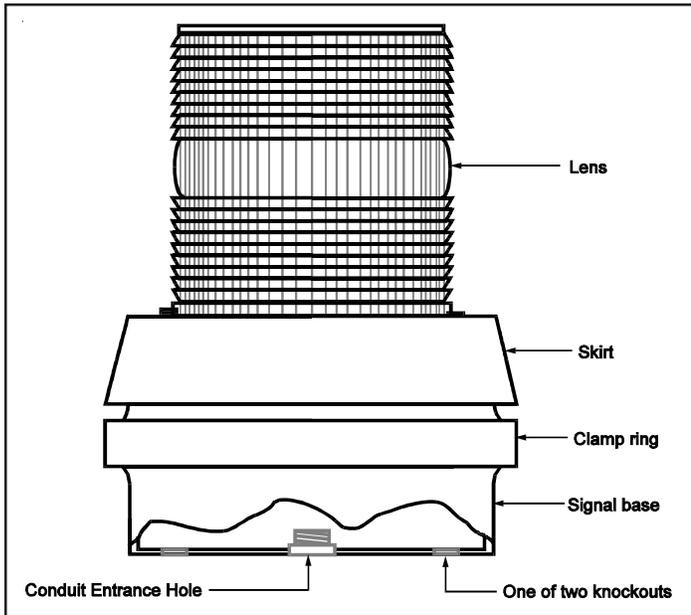


Figure 1. Catalog Series 51 Flashing Light with Horn

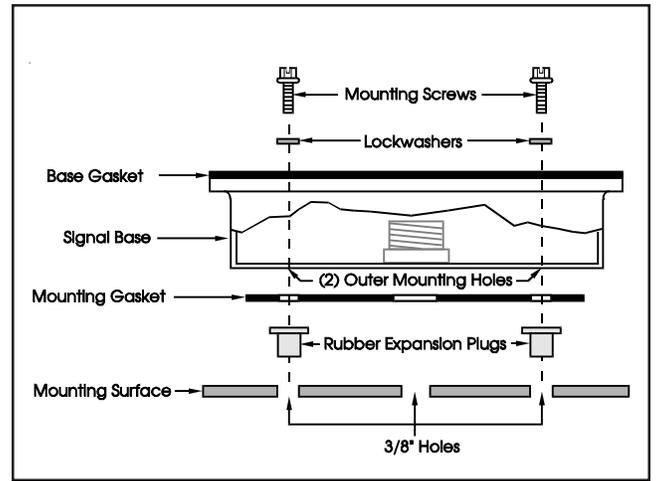


Figure 2. Direct Surface Mounting