

Installation Instructions for 116DEXSTC-FJ AdaptaBeacon® Fire Alarm Strobe Lights for Use in Hazardous Locations

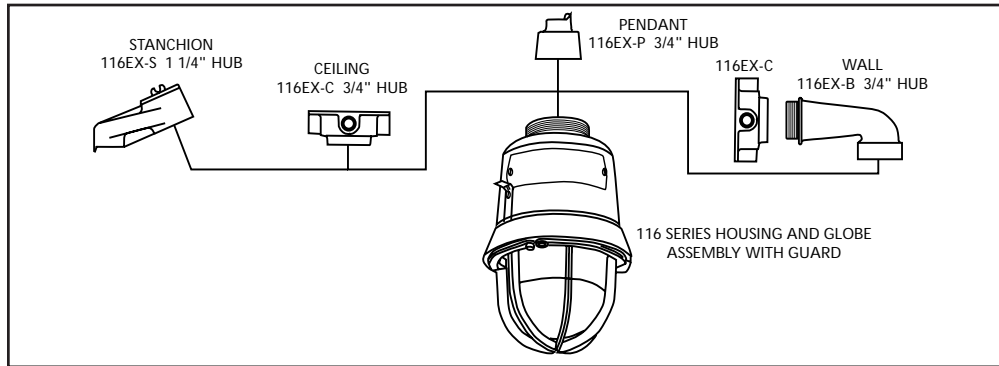


Figure 1. Mounting Options

Description

The 116DEXSTC-FJ AdaptaBeacon is an in-rush current limited strobe light. When pendant, wall or ceiling mounted, it is UL1971 Listed Signaling Appliance for the Hearing Impaired. Stanchion mount models are UL 1638 Listed for Private Mode Emergency Signaling. All models are CSFM Listed.

The strobe is intended for indoor use in UL listed compatible fire alarm systems and other applications requiring electrical supervision of signaling circuit field wiring. This strobe flashes a 360-degree beam of light approximately 65 times per minute with a UL 1971 60 cd wall and ceiling light output per Figure 7.

When assembled in accordance with these instructions, the 116DEXSTC-FJ visual strobe signal is UL Listed for use in Class I, Division 1, Groups C and D, Class I, Division 2, Groups A, B, C and D, Class II Division 1, Group E, F and G, Class II, Division 2, Group F and G, and Class III Division 1 and 2 hazardous locations with Operating Temperature Codes per the following chart. See Table 1 for Electrical Specifications.

This strobe is UL and cUL Listed as a Type 3R and 4X enclosure. See Figure 1.

Installation

Install this unit in accordance with the applicable requirements in the latest edition of the National Fire Alarm Code (NFPA 72), National Electrical Code (NFPA 70), and Canadian Electrical Code.

⚠ WARNING

To reduce the risks of ignition of hazardous atmospheres and shock, do not apply power to the unit until installation has been completed and unit is tightly assembled and secured.

1. Mount using the following applicable method.

- a. **Pendant Mount Models** (Figure 2): Install the catalog number 116EX-P, pendant mounting module, to the main housing. Install explosion-proof hanger box (not supplied). Secure 3/4" (19 mm) NPT threaded conduit (not supplied) to the box. Install the unit on the conduit. Proceed to step 2.
- b. **Ceiling Mount Models** (Figure 3): Mount the catalog number 116EX-C, ceiling/wall mounting module, using appropriate hardware (not supplied) suitable for the mounting surface. Proceed to step 2.
- c. **Bracket Mount Models** (Figure 4): Install the catalog number 116EX-C ceiling/wall mounting module using appropriate hardware (not supplied) for the mounting surface. Install the catalog number 116EX-B wall mounting elbow to the wall box. Run the unit's wiring through the elbow to the wall box. Proceed to step 2.
- d. **Stanchion Mount Models** (Figure 5): Install the catalog number 116EX-S, stanchion mounting module, to the main housing. Run the unit's wires through the 1 1/4" conduit to the appropriate junction box. Install the unit on the conduit. Proceed to step 2.

2. Connect field earth ground wire to ground screw or earth ground via conduit system.
3. Wire the unit in accordance with Figure 6. See Table 3 for required supply wire temperature ratings.
4. As appropriate, install the fixture on the mounting module.

⚠ WARNING

To reduce the risk of ignition of hazardous atmospheres and shock, keep assembly tightly closed when circuits are energized.

5. Apply power to the unit and ensure proper function.

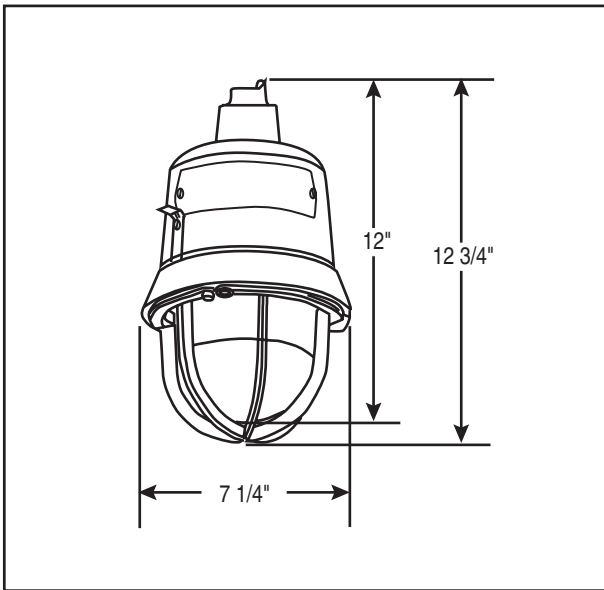


Figure 2. Detail of Pendant Mounting

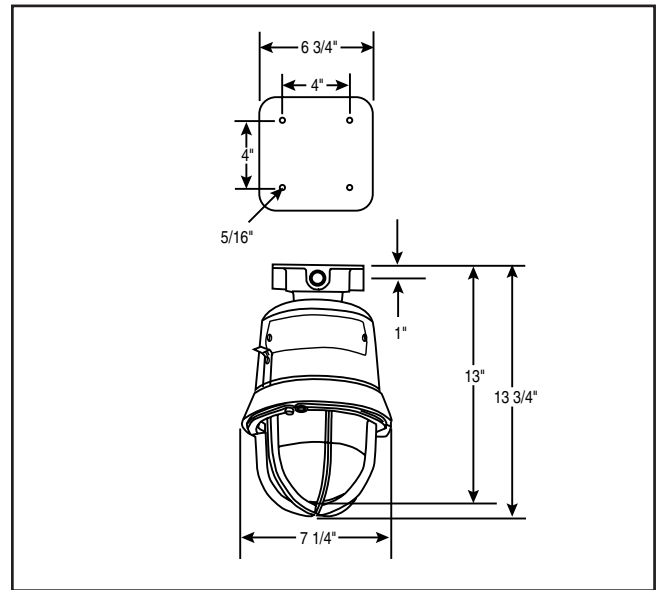


Figure 3. Detail of Ceiling Mounting

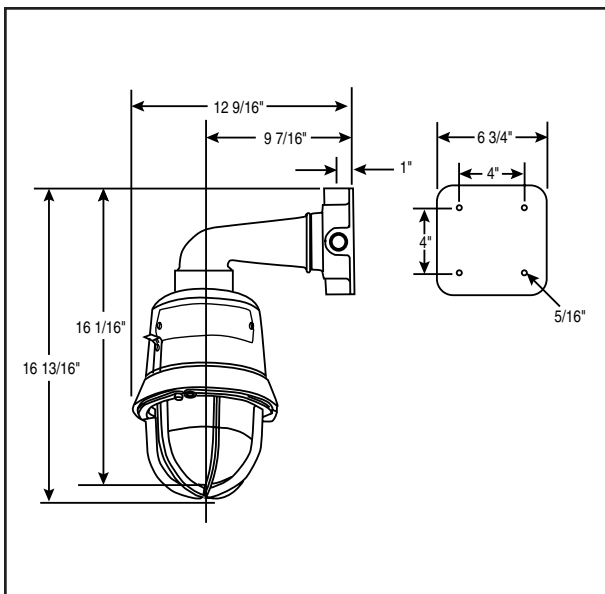
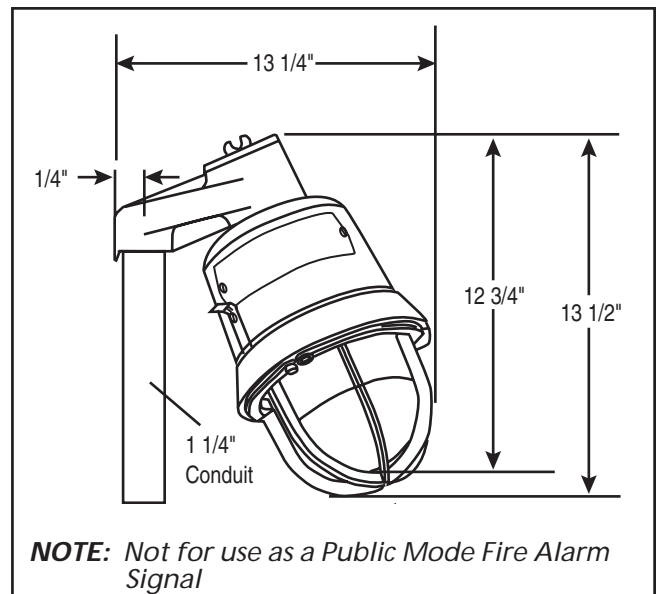


Figure 4. Detail of Wall Bracket Mounting



NOTE: Not for use as a Public Mode Fire Alarm Signal

Figure 5. Detail of Stanchion Mounting

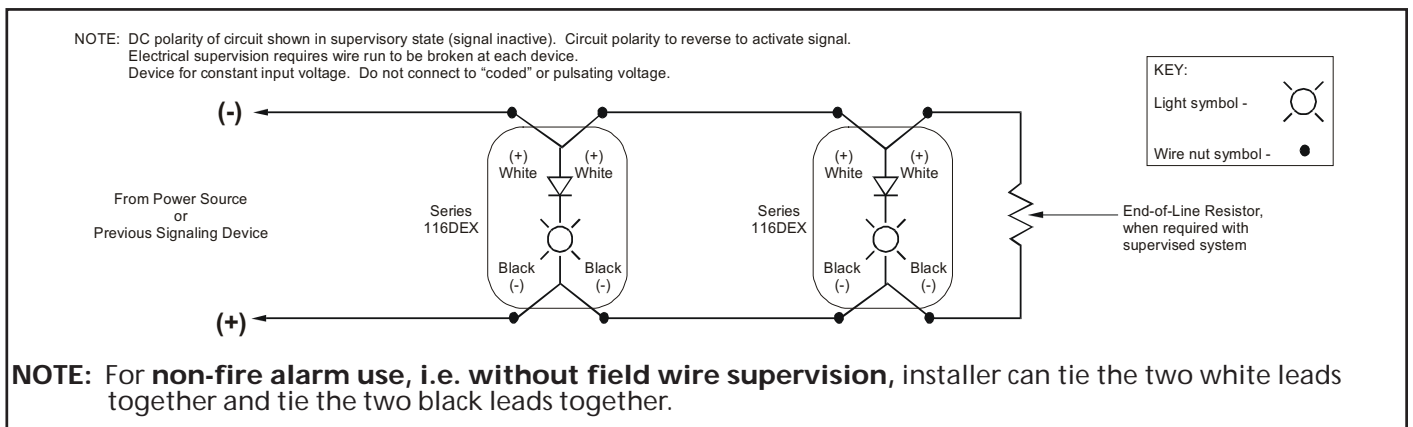


Figure 6. Wiring Diagram

Maintenance

Disassemble the unit as follows (Figure 8):

WARNING

To reduce the risk of ignition of hazardous atmospheres and shock, keep assembly tightly closed when circuits are energized.

To reduce the risk of ignition of hazardous atmospheres and shock, disconnect from the supply and circuit and allow five (5) minutes for stored energy to dissipate before disassembling the unit.

1. Loosen the (3) guard screws and remove the guard.

2. Loosen the globe and ring assembly set screw. Insert a suitable tool into the notches in the globe and ring assembly and loosen the assembly by prying in a counterclockwise direction. Remove the ring and globe assembly.
3. Refer to Table 2 for the correct replacement catalog number and replace the necessary part.
4. To replace, simply screw the unit on until it seats firmly onto its gasket. Tighten the unit another 1/8 to 1/4 turn. Tighten the setscrew.
5. Reinstall the guard, where applicable, and secure using the three supplied screws.
6. After the unit is assembled, apply power and make sure the unit functions properly.

Table 1. 116DEXSTC-FJ AdaptaBeacon Strobe Light Electrical Specifications

Voltage Designation*	Max RMS Operating Current (A)**
Regulated 24V DC	0.802
Regulated 24V FWR	1.140

CAUTION: To prevent damage to the signal circuit and to otherwise assure continued proper functioning, DO NOT operate the unit outside of the Regulated 24V DC/FWR voltage range of 16 - 33V DC/V FWR.

*The designation Regulated 24 refers to the voltage range of 16 - 33 volts.

**The Max RMS Operating Current is defined as the current rating over the entire voltage range.

Table 2. 116DEXSTC-FJ

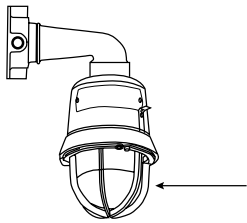
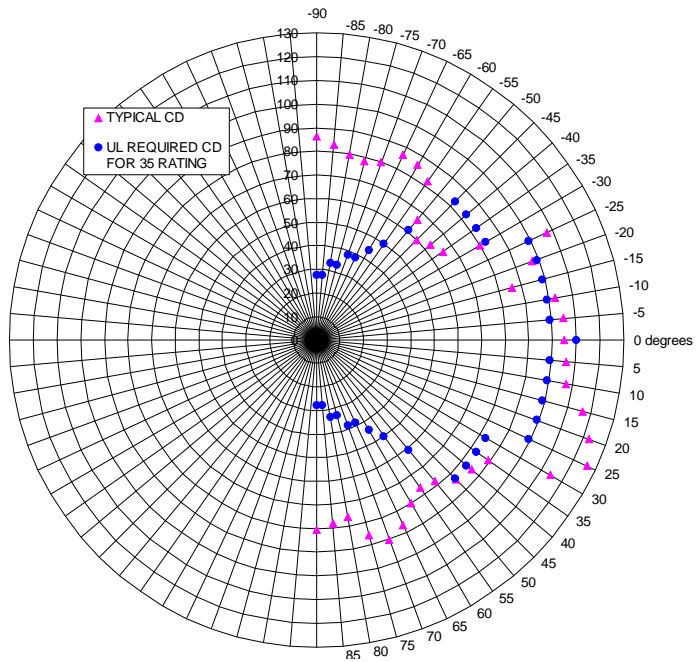
Description	Catalog Number	Electrical Ratings	Conduit Size	Flash Rate	Strobe Tube Replacement
Housing Less Mounting Module	116DEXSTC-FJ	16 - 33V DC 0.802/1.104A	N/A	Approx. 65 fpm	92-ST
Ceiling/Wall Mounting Module	116EX-C	N/A	3/4" NPT	N/A	N/A
Pendant Mounting Module	116EX-P	N/A	3/4" NPT	N/A	N/A
Stanchion Mounting Module	116EX-S	N/A	1 1/4" NPT	N/A	N/A
Wall Bracket Mounting Elbow	116EX-W	N/A	N/A	N/A	N/A

Table 3. Ratings

Ambient Temp.	Supply Wire Temp. Marking	Operating Temperature			
		Class I, Div. 2 Groups A, B	Class I, Div. 1 & 2 Groups C, D	Class II & III, Div. 1 Groups E, F, G	Class II & III, Div. 2 Group F, G
40°C	75°C	T2D (215°C)	T6 (85°C)	T4A (120°C)	T4A (120°C)
55°C	90°C	T2C (230°C)	T6 (85°C)	T4 (135°C)	T4 (135°C)

WALL BRACKET MOUNTING	UL1971 REQUIRED DISPERSION AS % OF CD RATING	
ANGLE (DEGREES)	VERTICAL PLANE	HORIZONTAL PLANE
zero	100%	100%
5	90%	90%
10	90%	90%
15	90%	90%
20	90%	90%
25	90%	90%
30	90%	75%
35	65%	75%
40	46%	75%
45	34%	75%
50	27%	55%
55	22%	45%
60	18%	40%
65	16%	35%
70	15%	35%
75	13%	30%
80	12%	30%
85	12%	25%
90	12%	25%
Compound 45		24%

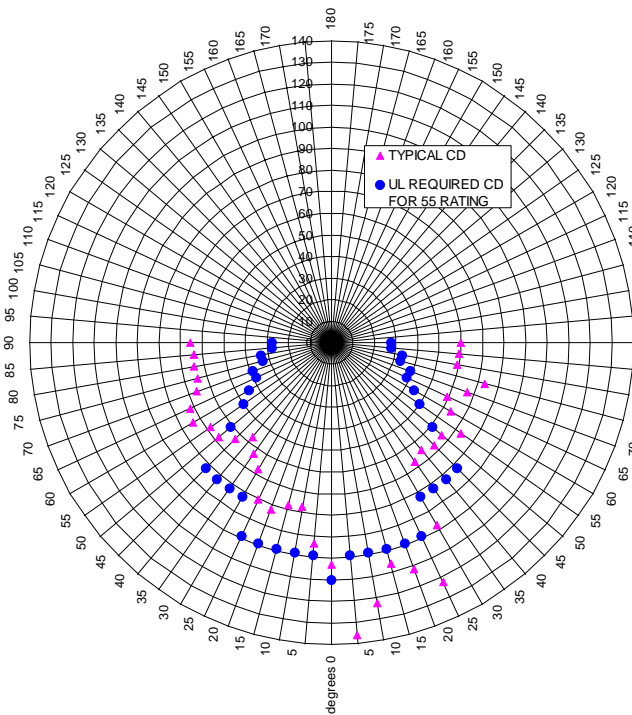
Effective Candela Light Output for Wall Bracket Mount Vertical Plane (Zero degree angle at side of globe)



UL 1971 Hearing Impaired: 60 cd wall

CEILING MOUNTING	UL1971 REQUIRED X & Y PLANE DISPERSION AS % OF CD RATING
ANGLE (DEGREES)	
0	100%
5	90%
10	90%
15	90%
20	90%
25	90%
30	75%
35	75%
40	75%
45	75%
50	55%
55	45%
60	40%
65	35%
70	35%
75	30%
80	30%
85	25%
90	25%
Compound 45	24%

Effective Candela Light Output for Ceiling Mount X & Y Planes (Zero degree angle at bottom of of globe)



UL 1971 Hearing Impaired: 60 cd ceiling

Figure 7. Light Output Patterns for 116DEXSTC-FJ

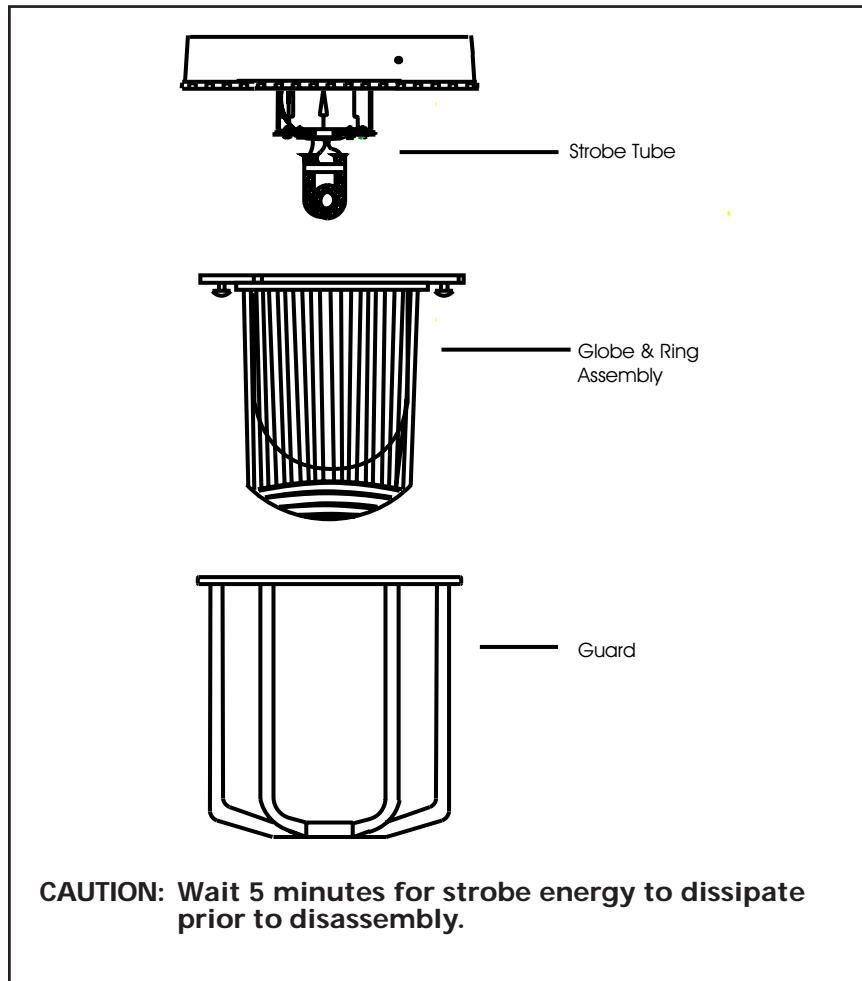


Figure 8. Disassembly of the 116DEXSTC-FJ AdaptaBeacon

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