

### Description

The 106DEXSTC-FJ (clear lens only) AdaptaBeacons are in-rush current limited strobe lights that are UL1971 listed as Special Application 20-30V DC Signaling Appliances for the Hearing Impaired, with CSFM Listing as well. They are intended for indoor use in UL listed compatible fire alarm systems and other applications requiring electrical supervision of signaling circuit field wiring. The strobe flashes a 360-degree beam of light approximately 65 times per minute with a 55 cd ceiling light output (35 cd other) per Figure 5.

When assembled in accordance with these instructions, these 106DEX Series visual strobe signals are UL listed for use in Class I, Division 1, Group C and D, Class I, Division 2, Group 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.

#### Operating Temperature Codes

Ambient Temp.	Class I, Div. 2 Groups A and B	Class I, Div. 2, Groups C and D	Class II, Div. 2, Groups F, G; Class III, Div. 2
		Class I, Div. 1 Groups C and D	Class II, Div. 1, Groups E, F, G; Class III, Div. 1
40°C	260°C (T2B)	85°C (T6)	120°C (T4A)
55°C	280°C (T2A)	100°C (T5)	135°C (T4)
65°C	280°C (T2A)	120°C (T4A)	160°C (T3C)

### Installation

Install this unit in accordance with the applicable requirements in the latest edition of the National Electrical Code.

**⚠ WARNING**

**To reduce the risk 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.**

**NOTE:** This unit **must** be mounted vertically with the globe assembly vertically facing down in Hearing Impaired Applications.

1. Mount using the following applicable method.
  - a. **Pendant Mount Models** (Figures 1 and 4): Unscrew the globe assembly from the mounting hood and set aside. Install explosion-proof hanger

box (not supplied). Secure 3/4" (19 mm) NPT threaded conduit (not supplied) to the box. Install the hood on the conduit. Proceed to step 2.

- b. **Ceiling Mount Models** (Figures 2 and 4): Unscrew the globe assembly from the ceiling mount box. Mount the ceiling box using appropriate hardware (not supplied) suitable for the mounting surface. Proceed to step 2.
  - c. **Bracket Mount Models** (Figures 3 and 4): Unscrew the globe assembly from the wall bracket. Install the mounting bracket using appropriate hardware (not supplied) for the mounting surface. Pull the field wiring through the mounting bracket. Proceed to step 2.
2. Extend the required power source wiring down through the mounting hood. See Table 4 for required supply wire temperature ratings.
  3. A ground screw is provided in the wiring compartment for attachment of field earth ground wire.
  4. Connect the two red positive (+) and two black negative (-) wire leads to the supervised circuit in accordance with Figure 4.
  5. Install the fixture on the mounting hood, bracket or box as applicable.

**⚠ WARNING**

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

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

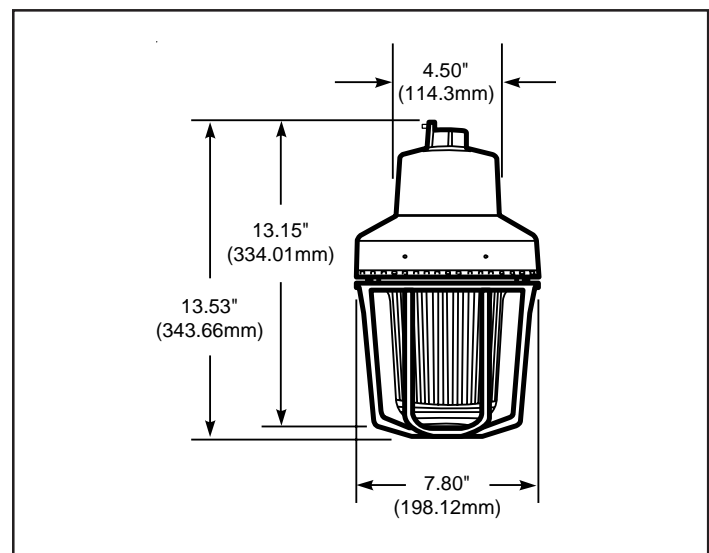


Figure 1. Detail of Pendant Mounting

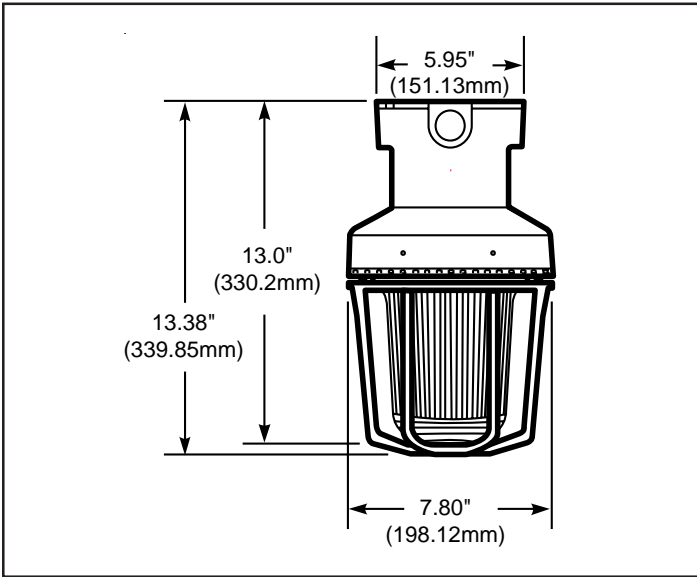


Figure 2. Detail of Ceiling Mounting

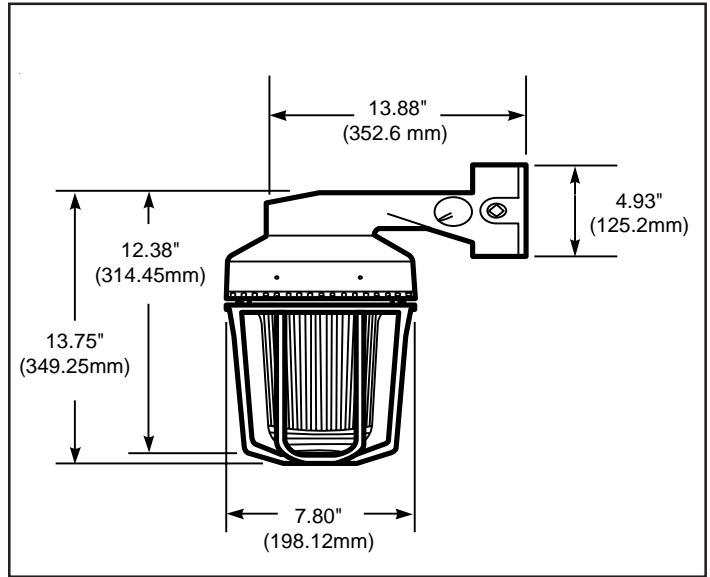


Figure 3. Detail of Bracket Mounting

## Maintenance



### 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.

For strobe tube replacement, disconnect from the supply circuit and allow five (5) minutes for stored energy to dissipate before starting work or disassembly (Figure 6).

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.



### CAUTION

When replacing the strobe tube, do not handle the tube. Hold the strobe tube only by its base to prevent damage to the tube.

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.

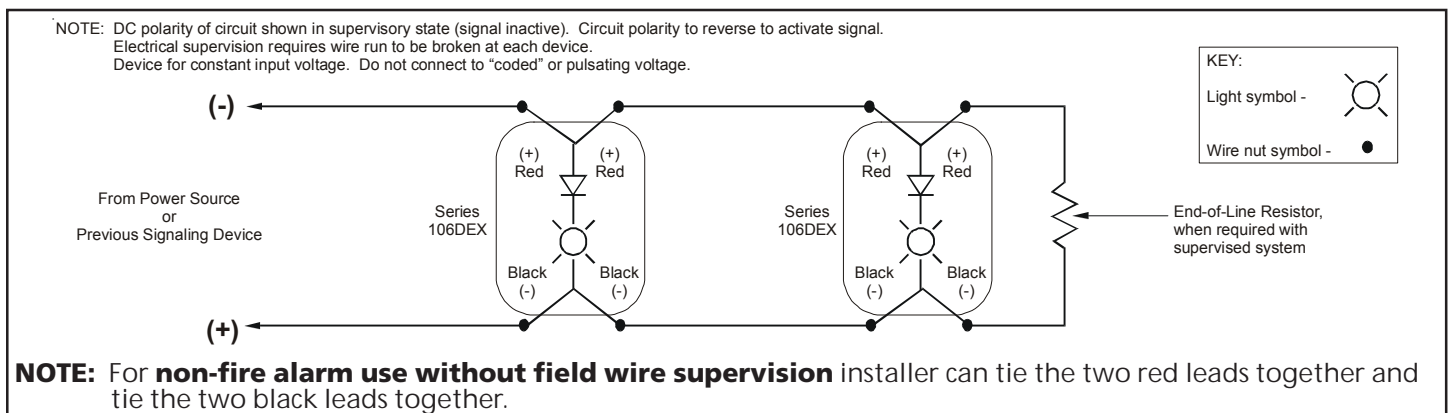


Figure 4. Wiring Diagram

Table 1. 106DEX AdaptaBeacon Strobe Light Electrical Specifications

Voltage**	Operating Current*		Initial Surge Inrush Current		Repetitive Surge Current	
	RMS Current (A)	Mean Current (A)	Current (A)	Time (mS)	Current (A)	Time (mS)
20V DC	1.08	0.84	2.70	1.10	2.24	450
24V DC	0.95	0.69	2.97	1.13	2.21	400
28V DC	0.85	0.66	3.06	1.24	2.16	381
30V DC	0.83	0.64	3.14	1.27	2.14	360

\*Use the operating current to establish the wire gauge and standby power requirements. Consult the control unit manufacturer to determine surge and peak current effects and maximum number of strobes on the system.

**\*\*CAUTION: To prevent damage to the visual signal's internal circuit and to assure its continued proper functioning, DO NOT operate the unit outside of the Special Application Voltage range of 20-30V DC.**

Table 2. 106DEX AdaptaBeacon Strobe Light Specifications

Cat. No.	Mounting Method	Conduit Size	Flash Rate	Rated Light Output
106DEXPSTC-FJ	Pendant Figure 1	3/4" NPT	360° beam of light at ~65 fpm	55 cd/35 cd per Figure 5
106DEXCSTC-FJ	Ceiling Figure 2			
106DEXBSTC-FJ	Bracket Figure 3			

Table 3. 106DEX AdaptaBeacon Strobe Light Replacement Parts

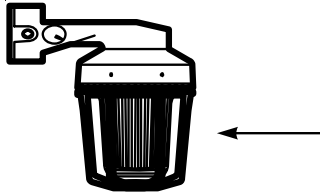
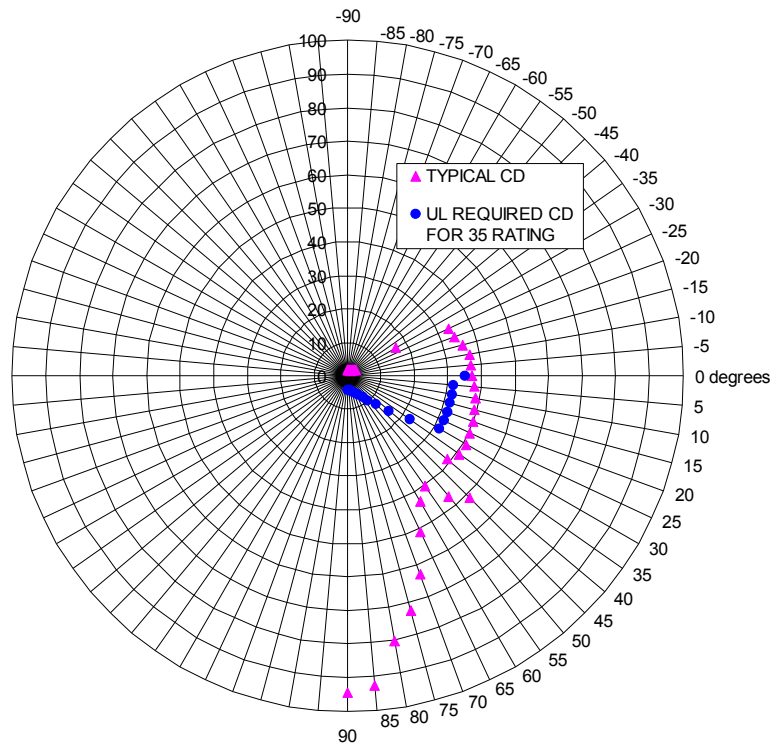
Cat. No.	Mounting Method	Replacement Strobe
106DEXPSTC-FJ	Pendant Figure 1	Cat. No. 92-ST
106DEXCSTC-FJ	Ceiling Figure 2	
106DEXBSTC-FJ	Bracket Figure 3	

Table 4. Supply Wire Temperature Markings

Ambient Temperature	Supply Wire Temperature Marking
40°C	75°C
55°C	90°C
65°C	105°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%	

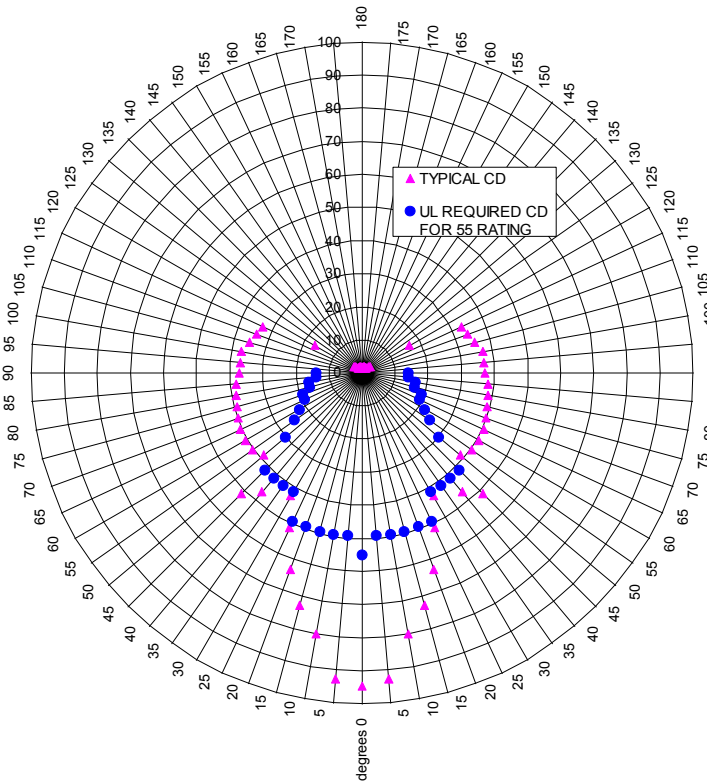
### Effective Candela Light Output for Wall Bracket Mount Vertical Plane (Zero degree angle at side of globe)



UL 1971 Hearing Impaired: 35 cd wall  
UL 1638 General Utility: 35 cd at 0° axis

CEILING MOUNTING		UL1971 REQUIRED X & Y PLANE DISPERSION AS % OF CD RATING	
ANGLE (DEGREES)	RATING		
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: 55 cd ceiling  
UL 1638 General Utility: 94 cd at 0° axis

Figure 5. Light Output Patterns for 105DHISTC-FJ (Unit with clear lens only)

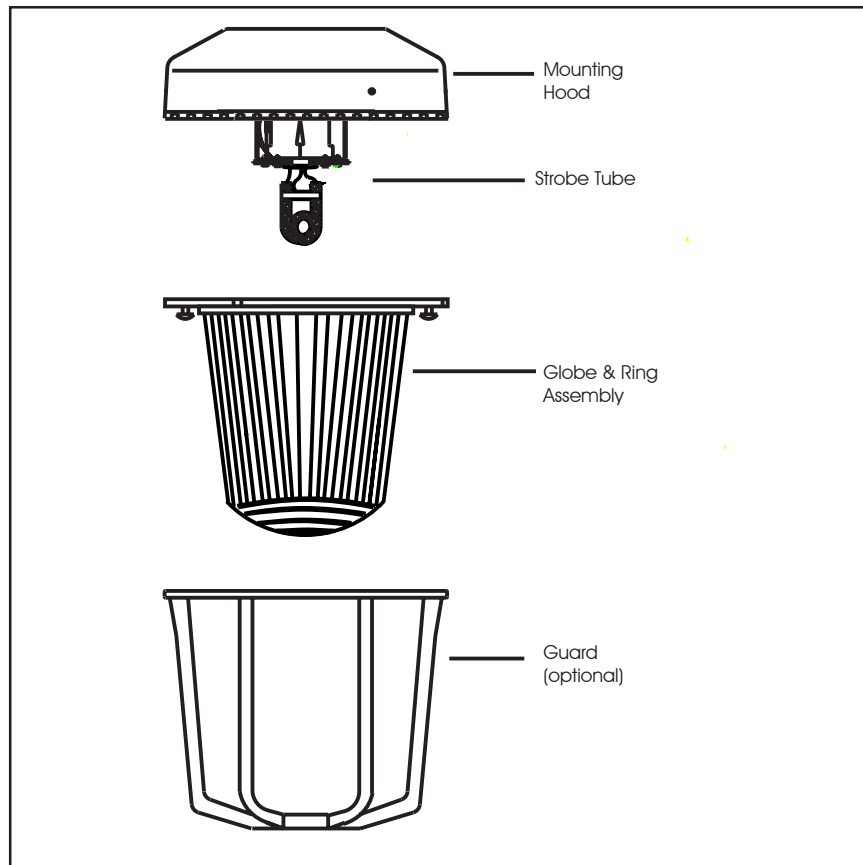


Figure 6. Disassembly of the 106DEX Series AdaptaBeacons

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