

Cautions

ELECTRICAL HAZARD: Disconnect power from equipment prior to making any internal adjustments. Service should only be performed by qualified personnel.

FRAGILE: Inspect the equipment prior to installation. Do not install the equipment if damage is apparent. Do not attempt to disassemble this equipment. If damaged, return to the supplier.

ELECTROSTATIC HAZARD: This is sensitive electronic equipment. Apply safe ant-static practices when handling this equipment.

CIRCUIT LIMITATIONS: The maximum number of detectors connected to a single detection zone is limited by the control and indicating equipment, and may be limited by local regulations.

In no sync mode, the flash and sound maybe out of sync, therefore please consider your own local code requirements due to the potential for seizures in patients diagnosed with Epilepsy.

Factory finish should not be altered: Do not paint!

General Description

The multi-Candela notification appliances are LED strobe and sound alarm products which are non-addressable and powered by 2-wired DC24V and wall mounted indoor use only notification appliances. That could provide 15cd, 30cd, 75cd, 110cd level strobe and multi-tone sound alarm. The appliances could be activated by GST DC-M9420 SFM (Non-Addressable Sync Function Module) or control panel that is UL/ULC Listed.

When multiple products are connected to control panel or SFM, the sound and light between products in the same circuit area can be synchronized.

The product can be separated from the control panel or SFM to work independently.

When an alarm signal is active please contact Local First Responders and if deemed false please contact qualified personnel for technical support.

Product Specifications

Nominal Voltage	Regulated 24 VDC
Operating Voltage Range	Regulated 16 VDC to 33 VDC
Strobe Flash Rate	1 flash per second
Operating Temperature	32° to 120° F (0° to 49°C)
Humidity Range	10% to 93%, non-condensing at 100° F (38°C)
Dimensions	140mm × 140mm × 45.5mm (without strobe) 140mm × 140mm × 66mm (with strobe)
Connections	Terminal for 18 AWG to 12 AWG (0.82 mm ² to 3.31 mm ²)
Mounting Box	4 × 4 inch Double Gang Box or DC-M9435-B
Model: DC-M9432R/W [®]	Wall Mount Strobe
Model: DC-M9435R/W	Wall Mount Chime/Strobe
Model: DC-M9433R/W	Wall Mount Multitone/Strobe
Model: DC-M9431R/W	Wall Mount Multitone
Model: DC-M9439R/W	Wall Mount Chime
Model: DC-M9430R/W	Lower consumption Wall Mount Multitone/Strobe

②-R: Red -W: White

Sound Level and Electrical Characters



The Chime series is fitted with two potentiometers: one for frequency adjustment and the other for volume control, both of which can be tuned with a Phillips screwdriver.

Fig.1: potentiometer

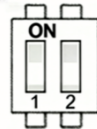


Fig2. Switch: SW2

1: OFF T3 pattern in Synchronization status
Note: Only works SW2 is set to ON position and Temporal sync signal is received.

2: ON Synchronized
OFF Regulated 24VDC (non-sync)



Fig3. Switch: SW1



The HORN series is equipped with a 4-bit DIP switch, which can be adjusted with a screwdriver to switch between multiple tones.

For Wall-mount multi-tone:

SW1 Settings				Horn Mode	Sound Pressure Level Measurement (dBA)		
4	1	2	3	Tone	Measured in Reverberant room(dBA@10ft) @16V		
					DC-M9433	DC-M9430	DC-M9431
0: High Output	1	1	1	Hi/Lo	83.95	84.13	83.92
	1	1	0	Horn	87.78	88.36	87.7
	1	0	1	Slow Whoop	81.87	82.1	81.8
	1	0	0	60BPM	84.27	83.53	83
	0	1	1	Siren	82.8	82.94	82.67
	0	1	0	500 Hz Horn	85.91	85.21	85.39
	0	0	1	Bell	88.09	88.58	88.53
	0	0	0	120BPM	84.35	83.39	83.2
1: Standard Output	1	1	1	Hi/Lo	81.38	81.36	81.2
	1	1	0	Horn	85.73	86.58	85.93
	1	0	1	Slow Whoop	79.12	79.24	78.94
	1	0	0	60BPM	81.66	81.31	81.12
	0	1	1	Siren	80.04	80.19	79.83
	0	1	0	500 Hz Horn	83.76	83.43	83.59
	0	0	1	Bell	84.23	84.61	84.74
	0	0	0	120BPM	81.64	81.22	81.2

The sound pressure is measured in UL reverberant test chamber@16VDC

Adjust the Dip-switch in the back of the product to change the alarm horn mode. See Figure 3.

Note:

1. This notification appliances are not suitable for carbon monoxide signal

2. T3 pattern is only suitable for three sound types: 500Hz, Bell and Horn.

For wall-mount Strobe Series:

Candela Rating	Input Voltage Regulated DC	Maximum Operating Current RMS*		
		DC-M9432	DC-M9435	DC-M9433
15	16 VDC	32 mA	45 mA	40 mA
30	16 VDC	60 mA	69 mA	70 mA
75	16 VDC	87 mA	93 mA	95 mA
110	16 VDC	106 mA	122 mA	121 mA

For DC-M9430 Lower consumption Wall-mount Strobe:

Candela Rating	Input Voltage Regulated DC	Maximum Operating Current RMS*
20	16 VDC	27 mA

For Wall-mount Chime Series:

Max Volume Sound Level	Maximum Operating Current RMS@16VDC	Sound Pressure Level Measurement (dBA)@10ft			
		DC-M9435		DC-M9439	
	DC-M9439	max	min	max	min
750Hz	24 mA	70.6	51.22	68.84	50.96
1250Hz	24 mA	70.59	51.47	73.96	57.33

For DC-M9431 Wall-mount multi-tone:

High Output Sound Level	Maximum Operating Current RMS@16VDC
High (1100)	13 mA

Directional Sound Characteristics:

DC-M9435			
Horizontal Axis		Vertical Axis	
Angle (°)	dBA	Angle (°)	dBA
142, 42	-3	23	-3
158, 22	-6	15	-6

DC-M9433			
Horizontal Axis		Vertical Axis	
Angle (°)	dBA	Angle (°)	dBA
140, 41	-3	37	-3
166, 14	-6	12	-6

Strobe Light Output

There are four grades in the S/V appliance strobe strength: 15cd (factory preset), 30cd, 75cd, 110cd, adjust the slide switch to the required brightness in the back of the product

(See Figure 8), There is a small window under the lens to observe the strength grade (See Figure 7). The strobe dispersion ratings of the product follow the standard UL 1638, the relationship between the angle and the strength is as following tables:

Wall Mount Strobe Vertical and Horizontal Light Dispersion Ratings (Room Temperature)			
Vertical Dispersion (wall to floor)		Horizontal Dispersion	
X-Plane Degrees*	Percent of rating	Y-Plane Degrees*	Percent of rating
0	100	0	100
5 - 30	90	± 5 - 25	90
35	65	± 30 - 45	75
40	46	± 50	55
45	34	± 55	45
50	27	± 60	40
55	22	± 65 - 70	35
60	18	± 75 - 80	30
65	16	± 85 - 90	25
70	15	Compound ± 45 right	24
75	13	Compound ± 45 left	24
80 - 90	12		

*Tolerance of ± 1 degree is permitted.

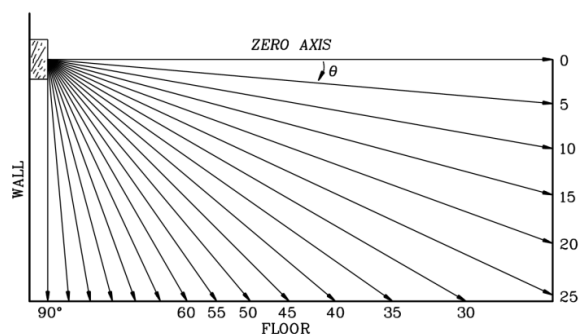


Figure 4.

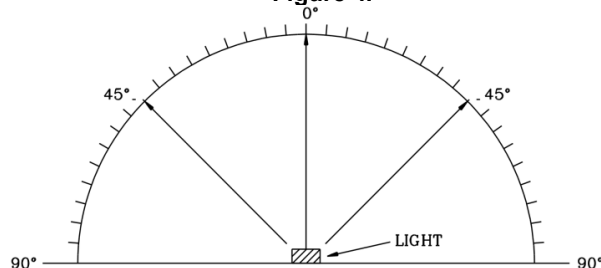


Figure 5.

In order to ensure that the total current consumption of the circuit does not exceed the maximum load current of the FACP or SFM module, the device quantity must be considered in the design of the loop system.

The wiring circuit is shown in Figure 6

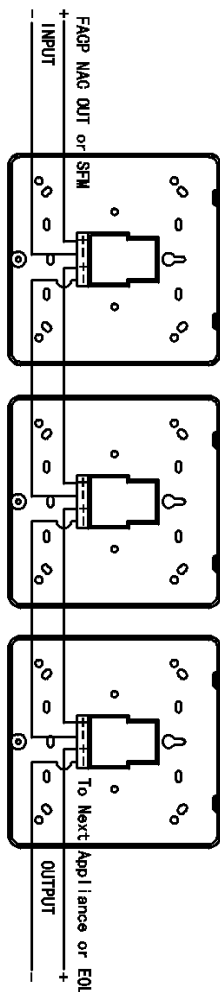


Figure 6.

Mounting Application Device

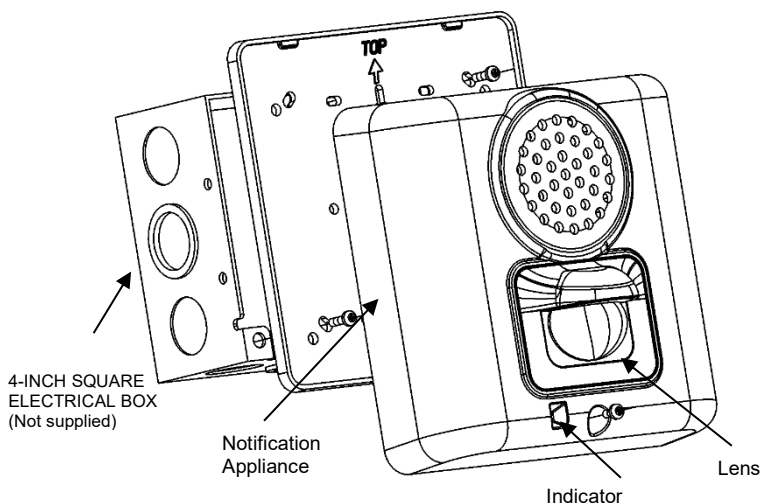


Figure 7.

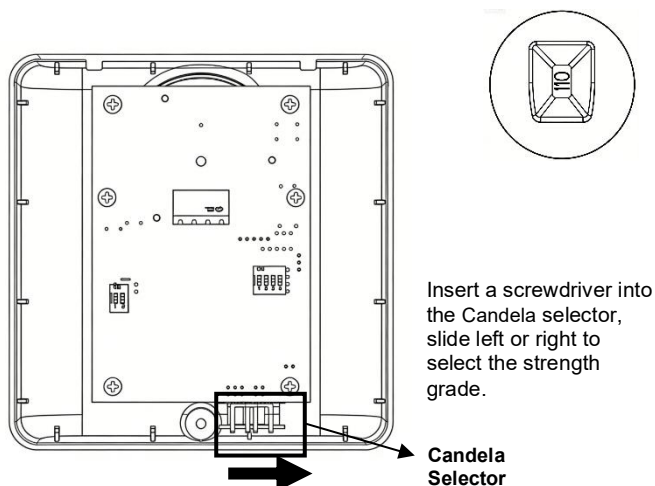


Figure 8.

Products could be installed in standard square 4-inch double gang box. if you don't have gang box, you can purchase GST DC-M9435-B base.

Before installing and wiring, the power of the loop circuit must be power off,

After the completion of the terminal to ensure that the terminal lock.

Product installation diagram shown in Figure 6

Note:

Wire type: 18-12AWG,

Maximum tightening torque: 0.5Nm (4.4Lb.in).

Limited Warranty

GST will repair or replace the product to the original purchaser free of charge, if defective in materials or workmanship during the warranty period, subject to the terms below. GST and KDSS are not responsible for defects or problems as a result of conditions or applications including normal wear and tear; catastrophe; fault or negligence of any user or any party other than GST and KDSS; improper installation, application, storage, maintenance, or use of products; other causes external to products; or failure to conform to any applicable recommendations of GST and KDSS. In no event shall GST and KDSS be liable for incidental, indirect, special or any other consequential damages. To the fullest extent permissible by law, the foregoing limited warranty is exclusive and in lieu of all other warranties, whether written, oral, implied or statutory. Subject to applicable law, in no event shall the liability of GST and KDSS exceed the purchase price of the products. NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. Anybody, including the agents, distributors or employees, is not in the position to amend the contents of this warranty.