

INSTALLATION AND MAINTENANCE INSTRUCTIONS

SS24ADAS Series Strobes and MASS24ADAS Series Synchronized Horn/Strobes for Fire Protective Signaling Systems



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Table 1. SS24ADAS Series Electrical Ratings:

Model	Supply Voltage Range	Operating Current from Regulated Supply			Operating Current from Full-Wave Rectified Unfiltered Supply		
		Average Operating Current (mA)	Peak Current (mA)	Inrush Current (Amps) 20/30 Vrms	Average Operating Current (mA)	Peak Current (mA)	Inrush Current (Amps) 20/30 Vrms
SS2415ADAS	20-30V	106	200	5.0/7.0	125	250	5.0/7.0
SS241575ADAS	20-30V	195	350	5.0/7.0	180	395	5.0/7.0

NOTE: In-rush current duration is less than 20 microseconds (.00002 seconds).

General Description

The National Fire Protection Association has published standards and recommended practices for the installation and use of the listed appliances. It is recommended that the installer be familiar with these requirements, with local codes, and any special requirements of the local fire authority having jurisdiction.

The Multi-Alert™ sounder and signaling strobe are intended to be connected to the alarm indicating circuit of a UL-listed fire alarm control panel and is compatible with DC line supervision. The electronic sounder can be connected to either 12 or 24 VDC panels. Models SS2415ADAS, SS241575ADAS, and combination models incorporating these strobes, require 24 volt panels. Panels may have full-wave rectified, unfiltered power supplies. The strobes are synchronized and flash at a rate of one flash per second with continuous voltage applied. SS24ADAS, SS24ADA, MASS24ADAS, and MASS24ADA series devices may be combined in the same zone.

The MA12/24D sounder is suitable for outdoor applications (-35° to 66° C) when it is used with a WBB Weather-proof Back Box. The signaling strobe is rated for 0° to 49° C and is NOT suitable for outdoor use.

The UL-rated light output of the SS2415ADAS, SS241575ADAS, MASS2415ADAS, and MASS241575ADAS is 15 cd (See Figure 1).

NOTE: The light output at 0° viewing angle for SS241575ADAS and MASS241575ADAS is 75 cd.

Any one of eight sounds can be selected on the electronic sounder, as indicated in Table 2.

NOTE: SS24ADAS, MASS24ADAS AND MAEH24ADAS SERIES DEVICES OPERATING IN THE SAME ZONE WILL NOT BE SYNCHRONIZED IF ENERGIZED AT DIFFERENT TIMES (I.E., IF MORE THAN ONE CONTROLLER IS CONTROLLING THE SAME ZONE.)

Table 2. Sound output and current ratings for the MA12/24D:

Sound (Hz)	Clips on Tabs (Note 1)	Current (mA)			Output (dBA)		UL (dBA) Ratings		UL (dBA) w/MDL Module	
		DC Regulated/ FWR Unfiltered			(Note 3)		(Note 4)		Temp. Tone (Note 5)	
		12V	24V	30V	12V	24V	12V	24V	12V	24V
Slow Whoop	ABC	21/40	38/56	46/72	85	92	79	85	N/A	N/A
800 Continuous	BC	15/24	28/45	35/55	87	93	79	85	75	79
800/1000 Alternating	AC	17/32	34/46	43/58	85	92	79	85	N/A	N/A
2400 Interrupted	AB	19/23	35/56	43/64	89	90	79	85	N/A	N/A
2400 Continuous	C	21/31	38/59	46/73	85	94	79	85	75	79
1200 Interrupted	B	13/19	23/33	27/41	85	91	75	82	N/A	N/A
Swept Frequency	A	17/24	34/47	43/60	85	92	79	85	N/A	N/A
Fast Warble	NONE	15/27	30/47	38/59	85	92	79	85	N/A	N/A

Note 1: See Figure 2 for tab clip removal & storage.

Note 2: All models can be powered using full wave rectified unfiltered supplies. Under no circumstances can SS24ADAS or MASS24ADAS series devices input voltage exceed 33 VDC or be less than 16 VDC (18-33Vrms for full-wave rectified, unfiltered supplies).

Note 3: Measured at 10 feet in an anechoic chamber.

Note 4: Measured in a UL reverberant room.

Note 5: Only continuous tones (800Hz, 2400 Hz) can be temporally coded per UL. Strobes cannot be used on an MDL module providing temporal coding to Multi-Alert™ horns.

The sound selected determines the maximum current and sound power output per device. See Table 2 for these values.

Independent Sounder/Strobe Operation

There may be applications where it is desirable to drive the sounder and strobe as independent devices. The System Sensor MASS12/24ADA series sounder/strobes are easily configured for this capability. The terminal connection for this application is shown in Figure 6. Independent strobe operation in a coded system requires a separate uncoded power supply for the strobe.

Installation - For Strobe Placement, See NFPA 72, Chapter 6

A. General: Slotted head screws are used to attach each device or combination of devices to the electrical outlet box. Phillips head screws are used to attach accessories to the horn. Refer to Figures 3,4,5, and 6 for wiring methods.

NOTES: Do not loop wires under the terminal screw. Wires connecting the device to the panel must be broken at the device terminal connection in order to maintain electrical supervision.

Strobe and strobe/horn combination are designed for wall mounting ONLY.

The sounder is 1-1/4" deep. Back boxes must be 4" square by at least 1-1/2" deep - 2-1/8" deep box is recommended.

All strobes must be mounted so that the top of the lens is 24 inches (61 cm) below ceilings or as required by the authority having jurisdiction.

B. Sounder/Strobe combination mounting:

1. Surface Mount: (See Fig. 10)
2. Semi Flush Mount: (See Fig. 11 and 14)

C. Sounder mounting:

1. Surface Mount : (See Fig. 7)
2. Semi Flush Mount: (See Fig. 11 and 14)
3. Flush Mount (See Fig. 13)

Flush mounting requires the use of the deep box (Part # BB-D) or equivalent. Determine which of the two device holes will be used to attach the device to the box. Mount the flush plate to the sounder using the other two holes with two 1-inch phillips head screws and two square nuts.

D. Strobe mounting:

1. Surface Mount: (See Fig. 9)
2. Semi Flush Mount (See Fig.12)

Installation procedures must conform to all applicable codes and the requirements of the authority having jurisdiction.

NOTE: The rated output of the sounder is specified at 10 feet. It cannot be assumed that the output will meet the NFPA standard of 15 dB over ambient noise at all locations within a room. Additional sounders may be needed to ensure sound output level complies with NFPA requirements.



The Limitations of Sounder/Strobes

The Sounder and/or Strobe will not work without power. The sounder/strobe gets its power from the fire/security panel monitoring the alarm system. If power is cut off for any reason, the sounder/strobe will not provide the desired audio or visual warning.

The Sounder may not be heard. The loudness of the sounder meets (or exceeds) current Underwriters Laboratories' standards. However, the sounder may not alert a sound sleeper or one who has recently used drugs or has been drinking alcoholic beverages. The Sounder may not be heard if it is placed on a different floor from the person in hazard or if placed too far away to be heard over the ambient noise such as traffic, air conditioners, machinery or music appliances that may prevent alert persons from hearing the alarm. The Sounder may not be heard by persons who are hearing impaired.

The Signal Strobe may not be seen. The electronic visual warning signal that flashes at least once every three seconds meets or exceeds current Underwriters Laboratories' standard 1971 and uses an extremely reliable xenon flash tube. The visual warning signal is suitable for direct viewing and must be installed within an area where it can be seen by building occu-

pants. The strobe must not be installed in direct sunlight or areas of high light intensity (over 60 foot candles) where the visual flash might be disregarded or not seen. The strobe may not be seen by the visually impaired.

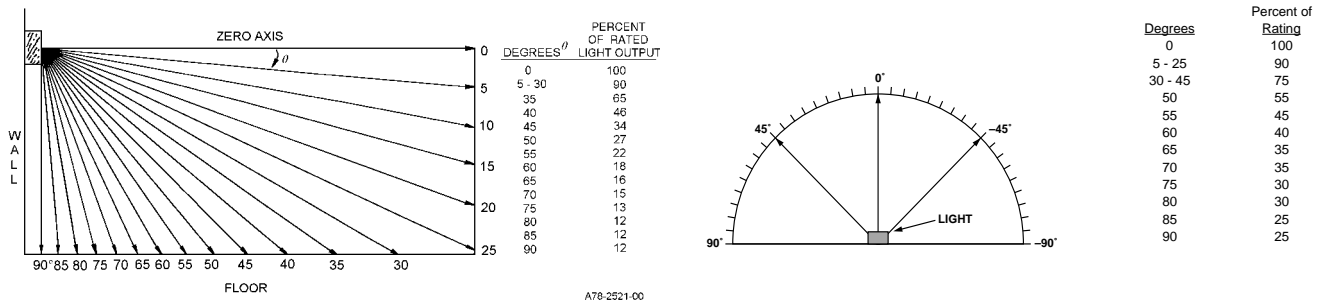
The signal strobe may cause seizures. Individuals who have a positive photic response to visual stimuli with seizures, such as epileptics, should avoid prolonged exposure to environments in which strobe signals, including this strobe, are activated.

System Sensor recommends that the Multi-Alert Sounder and Signal Strobe always be used in combination so that the risks from any of the above limitations are minimized.

The signal strobe cannot operate from coded power supplies. Coded power supplies produce interrupted power. The strobe must have an uninterrupted source of dc power in order to operate correctly.

Synchronized strobes may not prevent photosensitive reactions to signal strobes in alarm condition.

Figure 1. Vertical and horizontal light distribution:



NOTE: ALL STROBES THAT ARE TO BE IN SYNC MUST BE ON THE SAME POWER CIRCUIT.

Figure 2:

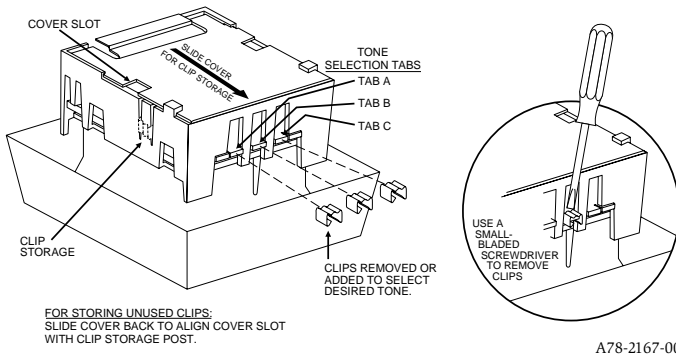


Figure 3. Multi-alert sounder:

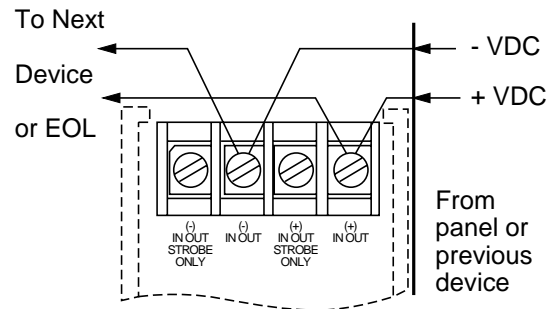
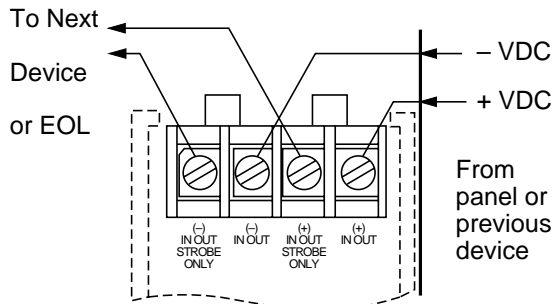


Figure 4. Multi-alert sounder and strobe operating in tandem:



Note: Use uncoded supply only.

Figure 5. Strobe:

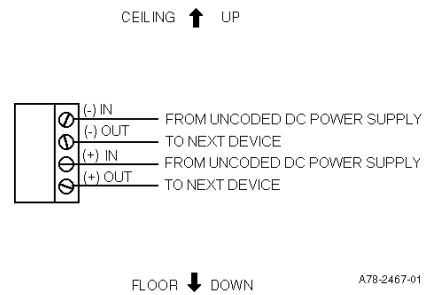


Figure 7. Sounder surface mount:

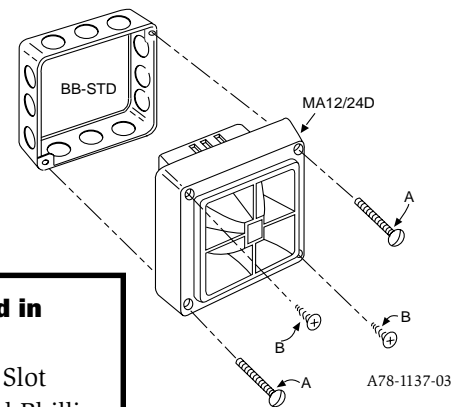
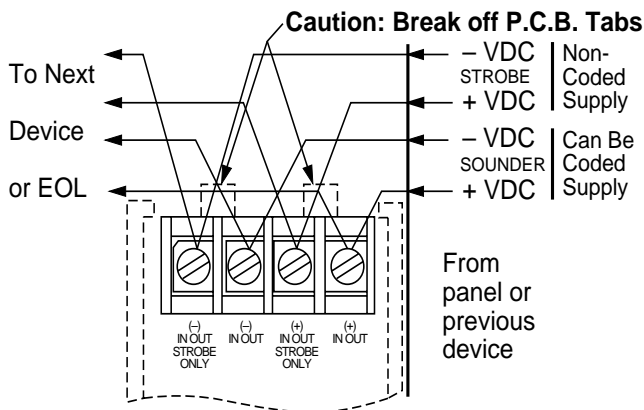


Figure 6. Multi-alert sounder and strobe operating independently:



Screw types used in Figures 9 to 15
 A = 8-32x1-7/16" Slot
 B = #8 Sheet Metal Phillips
 C = 8-32x1" Phillips
 D = #8 Square Nut
 E = 8-32x5/8" Slot
 F = 8-32x2-3/4" Slot
 G = 6-32x5/8" Slot

Figure 9. Strobe surface mount:

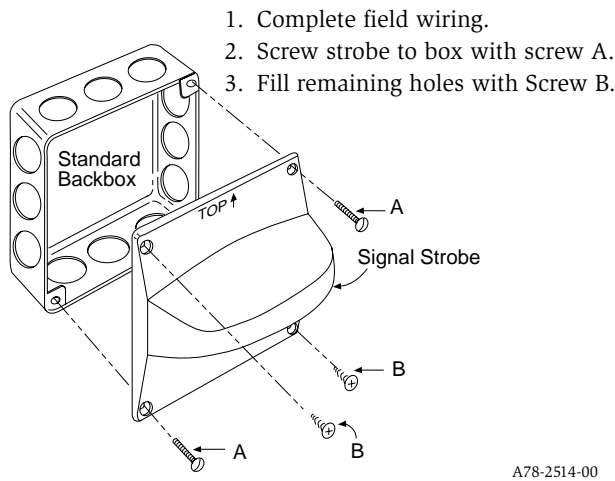


Figure 10. Sounder/strobe surface mount:

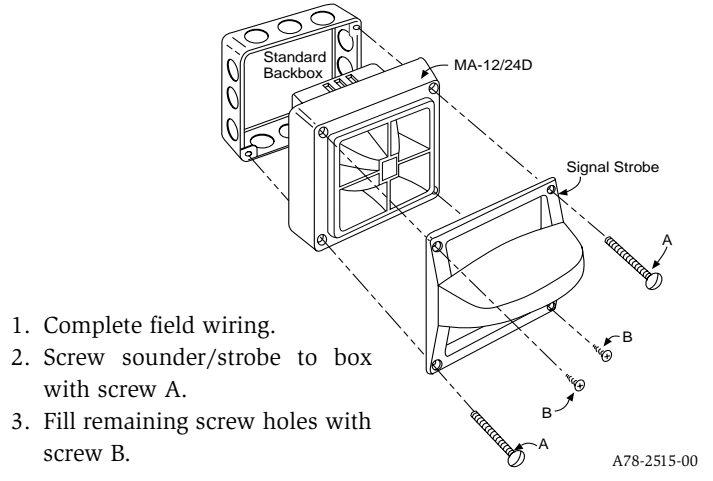


Figure 11. Sounder or sounder/strobe semi-flush mount:

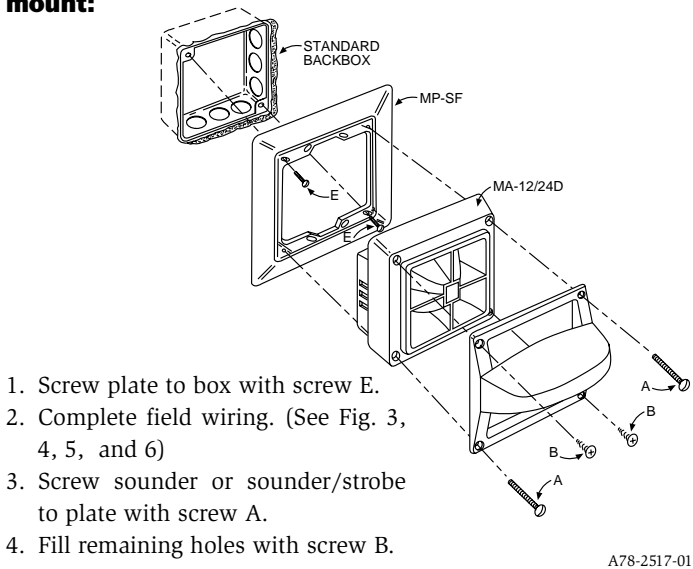


Figure 12. Strobe semi-flush mount:

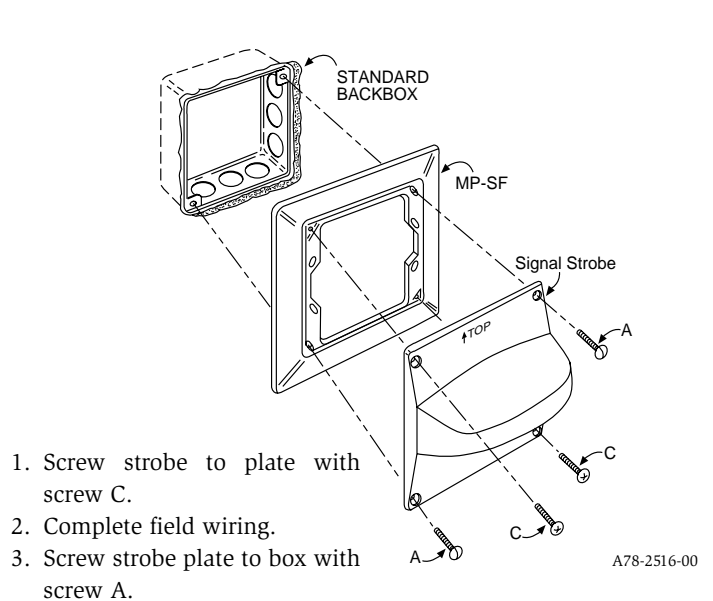


Figure 13. Sounder flush mount (deep box required):

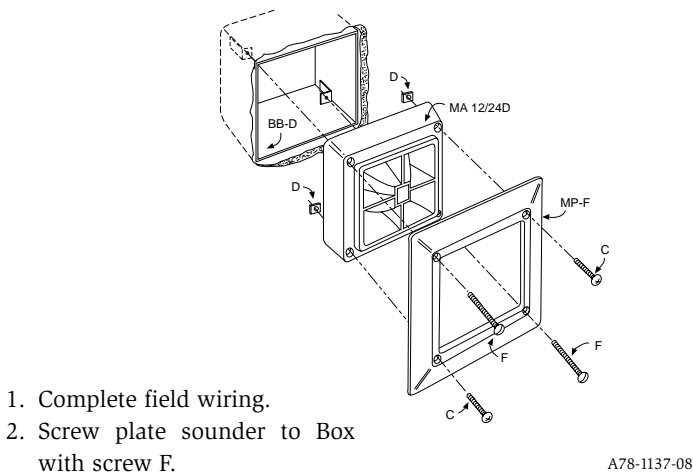


Figure 14. Sounder or sounder/strobe semi-flush mount with plaster ring:

1. Plaster ring should be properly mounted to electrical box with screws supplied with box.
2. Screw plate to plaster ring with screw G.
3. Complete field wiring. (See Fig. 5, 7, and 8)
4. Screw sounder/strobe to plate with A.
5. Fill remaining holes with screw B.

