

RP12/24ADA Series Retrofit Strobes for Fire Protective Signaling Systems



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Table 1. RP12/24ADA Series electrical ratings:

Model	Supply Voltage Range	Operating Current from Regulated Supply				Operating Current from Full-Wave Rectified Unfiltered Supply			
		Average Operatin Current	Peak Current (mA) 20/30V	Peak Current (mA) 10.5V/17V	Inrush Current (mA in access of Peak)	Average Operating Current (mArms)	Peak Current (mA) 20Vrms/30Vrms	Peak Current (mA) 10.5Vrms/17Vrms	Inrush Current (Amps in excess of Peak)
RP24110ADA RP24110ADAW	20-30V	210	470/500	-	0	245	400/500	-	0.08
RP2475ADA RP2475ADAW	20-30V	170	385/400	-	0	200	320/370	-	0.04
RP2415ADA RP2415ADAW	20-30V	75	160/180	-	0	90	275/290	-	0.02
RP1215ADA RP1215ADAW	10.5-17V	170	-	360/380	0	200	-	330/380	0.02
RP241575ADA RP241575ADAW	20-30V	93	210/220	--	0	120	275/290	--	1
RP121575ADA RP121575ADAW	10.5-17V	225	--	510/560	0	270	--	500/530	0.02

NOTE: In-rush current duration is less than 20 microseconds (0.0002 seconds).

NOTICE: This manual should be left with the owner/user of this equipment.

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 RP12/24ADA series retroplates are ADA compliant (75 and 110 cd models) signaling devices and designed for use in existing or new installations. They are a low-cost alternative to replacing a sounder with a new sounder/strobe. This signaling strobe is intended to be connected to the alarm indicating circuit of a UL-listed fire alarm control

panel. It is compatible with DC line supervision. Models RP2415ADA, RP2475ADA, RP24110ADA, and RP241575ADA require 24 volt panels. Models RP1215ADA and RP121575ADA require 12 volt panels. Panels may have full-wave rectified, unfiltered power supplies. The strobes produce one flash per second (nominal) with continuous nominal voltage applied.

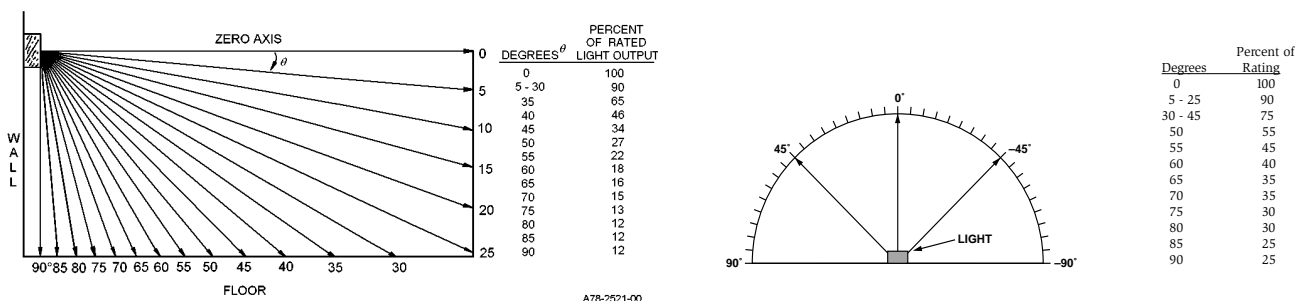
The rated light output of the RP2415ADA, RP1215ADA, RP241575ADA, and RP121575ADA is 15 cd (see Figure 1).

The rated light output of the RP2475ADA is 75 cd (please see Figure 1).

The rated light output of the RP24110ADA is 110 cd (please see Figure 1).

NOTE: The light output at 0° viewing angle for RP12/241575ADA models is 75 cd (see Figure 1).

Figure 1. Vertical and horizontal light distribution:



NOTE: All models can be powered using full wave rectified unfiltered supplies. Under no circumstances can RP24ADA series devices input voltage exceed 33 VDC or be less than 16 VDC (16-33Vrms for full-wave rectified, unfiltered supplies). Under no circumstances can a RP12ADA series device input voltage exceed 18.7 VDC or be less than 8.5 VDC (8.5 - 18.7Vrms for full-wave rectified, unfiltered supplies).

NOTE: The supply voltage rating of the horn must be equal to or within the supply voltage rating of the strobe.

Installation

A. General:

Phillips head screws are used to attach each device or combination of devices to the electrical outlet box. See Figures 2 and 3 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.

The strobe/horn combination is designed for wall mounting ONLY.

Back boxes must be 4" square and at least 1-1/2" deep; 2-1/8" deep is recommended.

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

B. Mounting:

1. Surface Mount: (See Figure 4)

NOTE: For the strobe to function properly, the horn must not be more than 1.9" deep (see Figure 5).

2. In standard installations the strobe is mounted above the horn (see Figures 4 and 5). If the strobe is mounted below the horn, see page 4 for inverted mounting instructions

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



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 occupants. 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.

Three-Year Limited Warranty

System Sensor warrants its enclosed sounder/strobe to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this sounder/strobe. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the sounder/strobe which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Repair Depart-

ment, RA # _____, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Figure 2. Independent horn/strobe wiring:

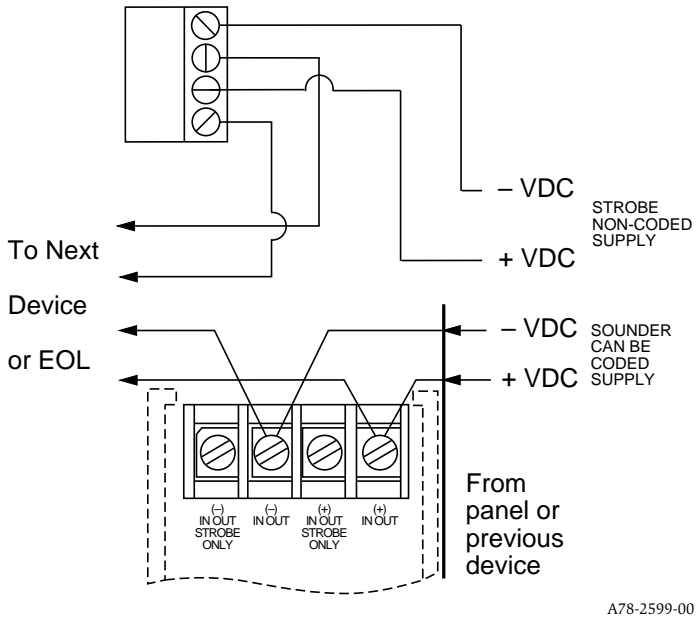
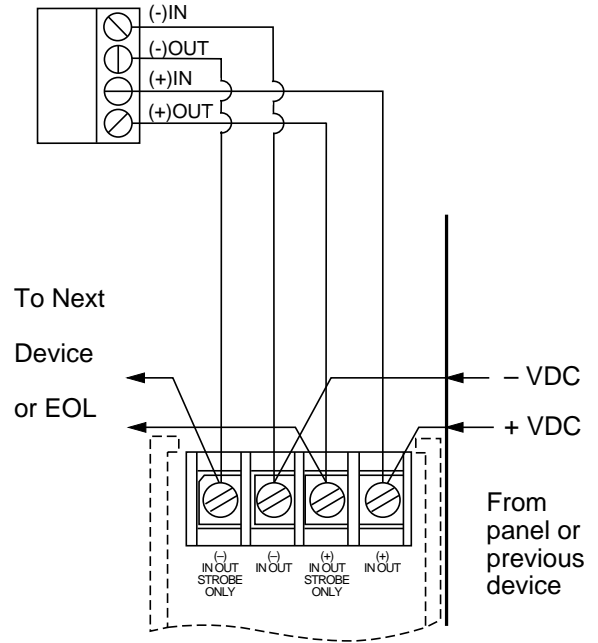


Figure 3. Combination horn/strobe wiring:

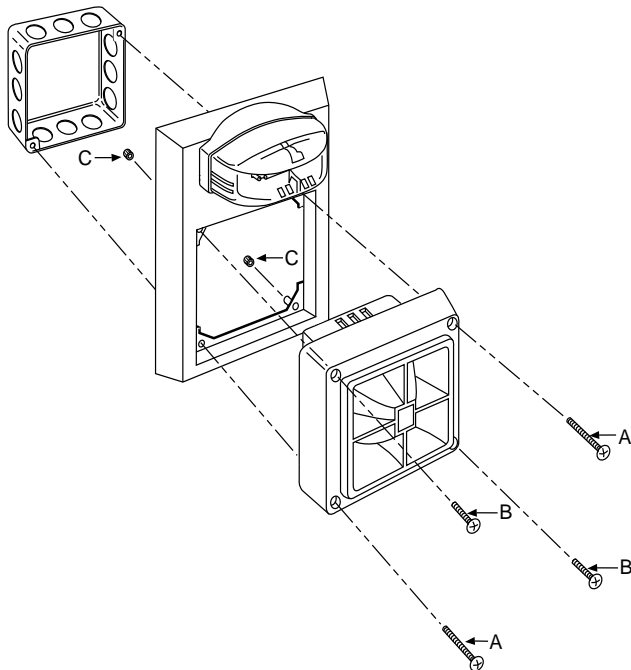


Note: Use uncoded supply only.

Screw Types Used

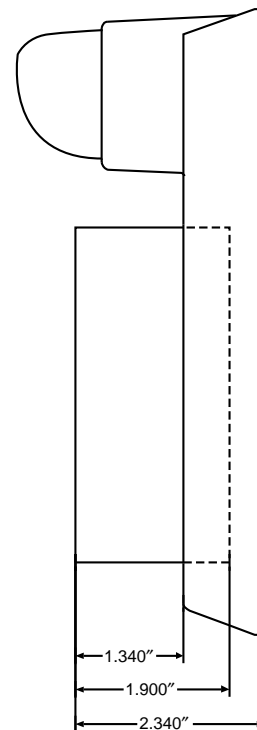
- A = #8-32 x 3-1/4" Phillips Head
- B = #8-32 x 2" Phillips Head
- C = #8 Pal Nut

Figure 4. Surface mount:



1. Remove Mounting Screws Holding Horn in Place
2. Slide Horn Through Opening in Retrofit Plate
3. Attach Horn to Retrofit Plate Using Screws B and Nuts C
4. Complete Field Wiring (See Figures 2 and 3)
5. Screw Strobe/Horn Combination to Electrical Box Using Screws A

Figure 5. Maximum horn depth allowed:



Inverted Installation

1. Remove strobe unit by inserting a screwdriver behind the locking tabs, and gently pry the tabs inward (see Figure 5).
2. Carefully pull the strobe unit out from the back of the backplate.
3. Rotate the backplate 180 degrees with sounder on top (see Figure 6).
4. Snap strobe unit back into place noting the alignment of the text on the back of the strobe unit (see Figure 7).
5. Place new FIRE label over old print using the backplate edge for alignment (see Figure 6).
6. Refer to Figure 4 on page 3 for mounting procedures.

Figure 5. Remove strobe:

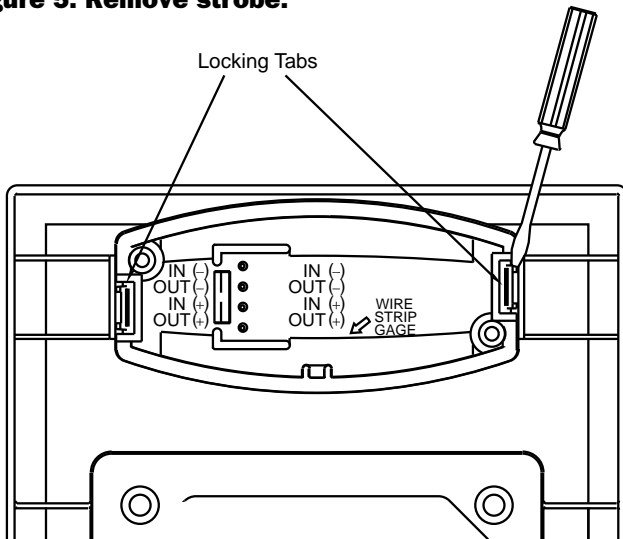
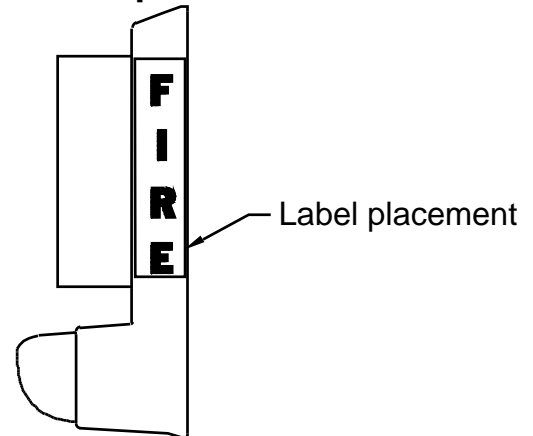


Figure 6. Rotate backplate 180°:



Note: Proper lens orientation.

Figure 7. Snap strobe back into place:

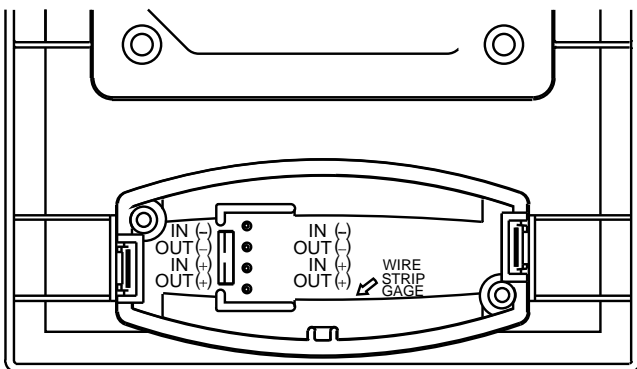


Figure 8. Final inverted unit:

