System Sensor SpectrAlert® Advance
Selectable Output Notification Appliances

Indoor Wall Horn/Strobe

Indoor Ceiling Horn/Strobe

Indoor Ceiling Strobe

Indoor Wall Horn

Outdoor Ceiling Strobe

Outdoor Wall Strobe

Features

- Plug-in design
- Same mounting plate for wall and ceiling mount units
- Shorting spring on mounting plate for continuity check before installation
- Captive mounting screw
- Tamper resistance capability
- Field selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185
- Automatic selection of 12 or 24 volt operation at 15 and 15/75 candela
- Outdoor wall and ceiling products
- Outdoor products rated from –40°C to 66°C (-40°F to 151°F)
- Design allows minimal intrusion into the back box
- Rotary switch for tone selection
- 3 horn volume settings
- Electrically compatible with existing SpectrAlert products
- Outdoor products rainproof per UL 50 (NEMA 3R)

Description

System Sensor's SpectrAlert® Advance selectable-output horns, strobes and horn/strobes are rich with features guaranteed to cut installation times and maximize profits. The SpectrAlert Advance series of notification appliances is designed to simplify your installations, with features such as: plug in designs, instant feedback messages to ensure correct installation of individual devices, and eleven field-selectable candela settings for wall and ceiling strobes and horn/strobes.

When installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Then, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

SpectrAlert Advance products offer the following options:

- 12 or 24 volts
- At 24 volts, 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177 or 185 candela by way of rear-mounted slide switch and front viewing window
- Horn tones and volume by way of rotary switch

The SpectrAlert Advance series includes outdoor notification appliances. Outdoor strobes and horn/strobes (two wire and four wire) are available for wall or ceiling. Outdoor horns are available for wall only. All System Sensor outdoor products are rated between –40°C to 66°C (-40°F to 151°F) in wet or dry applications.

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U.S.A. 4575 Witmer Industrial Estates, Niagara Falls, NY 14305 Telephone: (888) 695-3545 Fax: (888) 660-4113 • **E-mail:** mail@secutron.com
Catalog Number 3027 • Not to be used for installation purposes.

Engineering Specifications

General

SpectrAlert Advance horns, strobes and horn/strobes shall mount to a standard 4 × 4 × 11/2-inch back box, 4-inch octagon back box or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 17/8-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between nine and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 0 and 49 degrees Celcius from a regulated DC, or full-wave rectified, unfiltered power supply. Strobes and horn/strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and CAN/ULC S526 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn/Strobe Combination

The horn/strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and CAN/ULC S525 and S526 and shall be approved for fire protective service.

The horn/strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn/strobe models shall operate on a coded or non-coded power supply.

Outdoor Products

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by ULC and shall operate between –40°C to 66°C (-40°F to 151°F). The products shall be listed for use with a System Sensor outdoor/weatherproof back box with half inch and three-fourths inch conduit entries.

Synchronization Module

The module shall be a System Sensor Sync•Circuit _____ listed to UL 464 and ULC and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn/strobe models over a single pair of wires. The module shall mount to a 411/16 × 411/16 × 21/8-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Specifications

Standard Operating Temperature
0°C to 49°C (32°F to 120°F)
K Series Operating Temperature
–40°C to 66°C (–40°F to 151°F)
Humidity Range
10 to 93% non-condensing (indoor products)
Strobe Flash Rate
1 flash per second
Nominal Voltage
Regulated 12DC/FWR or regulated 24DC/FWR[1]
Operating Voltage Range[2]
8 to 17.5 V (12V nominal) or 16 to 33 V (24 nominal)

Input terminal wire gauge
12 to 18 AWG
Ceiling mount dimensions (including lens)
6.8″ diameter × 2.5″ high (173 mm diameter × 64 mm high)
Wall mount dimensions (including lens)
5.6″L × 4.7″W × 2.5″D (142 mm L × 119 mm W × 64 mm D)
Horn dimensions
5.6″L × 4.7″W × 1.3″D (142 mm L × 119 mm W×33 mm D)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time varying power source that is used on some power supply and panel outputs.

2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

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Max. Strobe Current Draw (mA RMS)

	Candela	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

Max. Horn Current Draw (mA RMS)

Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

Rotary Horn and Horn/Strobe Switch Settings

Setting	Repetition Rate	dB Level
1	Temporal horn	High
2	Temporal horn	Medium
3	Temporal horn	Low
4	Normal horn	High
5	Normal horn	Medium
6	Normal horn	Low
7*	Externally coded	High
8*	Externally coded	Medium
9*	Externally coded	Low

Horn and Horn/Strobe Output (dBA - Anechoic Room)

Switch Position	Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
			DC	FWR	DC	FWR
1	Temporal	High	96	93	101	99
2	Temporal	Medium	89	89	95	95
3	Temporal	Low	86	87	91	92
4	Non-temporal	High	90	86	96	93
5	Non-temporal	Medium	82	82	90	89
6	Non-temporal	Low	79	80	86	86
7*	Coded	High	90	87	96	93
8*	Coded	Medium	82	82	90	89
9*	Coded	Low	78	80	86	86

*Settings 7, 8, and 9 are not available on 2-wire horn/strobe.

Max. Current Draw (mA RMS), 2-wire Horn/Strobe, Standard Candela Range (15–115 cd)

DC Input	8–17.5 Volts		16–33 Volts						
	15	15/75	15	15/75	30	75	95	110	115
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-temporal High	141	152	91	100	116	176	201	221	229
Non-temporal Medium	133	145	75	85	102	163	187	207	216
Non-temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-temporal High	142	161	103	112	126	181	203	221	229
Non-temporal Medium	134	155	85	95	110	166	189	208	216
Non-temporal Low	132	154	80	90	105	161	184	202	211

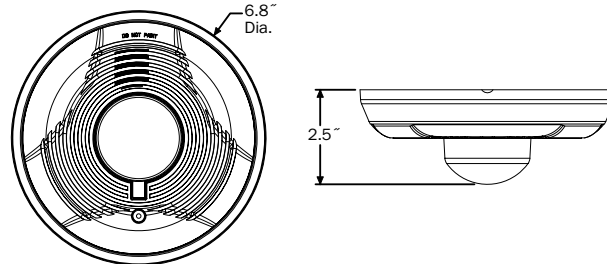**Max. Current Draw (mA RMS), 2-wire Horn/Strobe, High Candela Range (135–185 cd)**

DC Input	16–33 Volts				FWR Input	16–33 Volts			
	135	150	177	185		135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-temporal High	255	270	303	309	Non-temporal High	233	248	275	281
Non-temporal Medium	242	259	293	299	Non-temporal Medium	219	232	262	267
Non-temporal Low	238	254	291	295	Non-temporal Low	214	229	256	262

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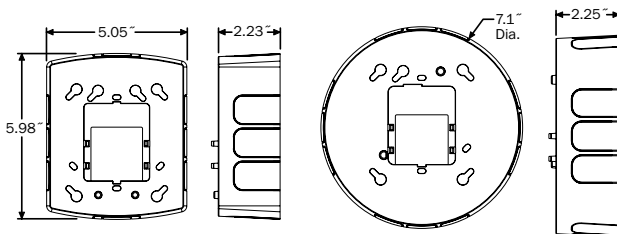**Not to be used for installation purposes.**

SpectrAlert Advance Dimensions
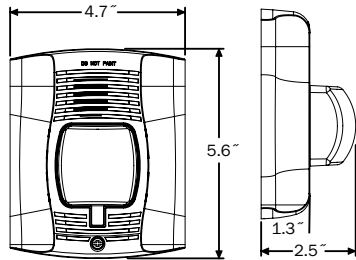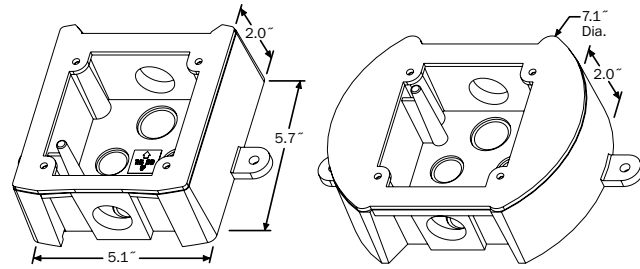

Wall-mount horn/strobes

Ceiling-mount horn/strobes

Wall back box skirt

Ceiling back box skirt

Wall weatherproof back box

Ceiling weatherproof back box

Ordering Information

Model	Description
Wall Horn/Strobes	
P2RA	2-wire Horn/Strobe, Standard cd, Red
P2RHA	2-wire Horn/Strobe, High cd, Red
P2RKA	2-wire Horn/Strobe, Standard cd, Red, Outdoor
P2RHKA	2-wire Horn/Strobe, High cd, Red, Outdoor
P2WA	2-wire Horn/Strobe, Standard cd, White
P2WHA	2-wire Horn/Strobe, High cd, White
P4RA	4-wire Horn/Strobe, Standard cd, Red
P4RHA	4-wire Horn/Strobe, High cd, Red
P4RKA	4-wire Horn/Strobe, Standard cd, Red, Outdoor
P4RHKA	4-wire Horn/Strobe, High cd, Red, Outdoor
P4WA	4-wire Horn/Strobe, Standard cd, White
P4WHA	4-wire Horn/Strobe, High cd, White
Wall Strobes	
SRA	Strobe, Standard cd, Red
SRHA	Strobe, High cd, Red
SRKA	Strobe, Standard cd, Red, Outdoor
SRHKA	Strobe, High cd, Red, Outdoor
SWA	Strobe, Standard cd, White
SWHA	Strobe, High cd, White
Ceiling Horn/Strobes	
PC2RKA	2-wire Horn/Strobe, Standard cd, Red, Outdoor
PC2RHKA	2-wire Horn/Strobe, High cd, Red, Outdoor

Model	Description
Ceiling Horn/Strobes (cont'd.)	
PC2WA	2-wire Horn/Strobe, Standard cd, White
PC2WHA	2-wire Horn/Strobe, High cd, White
PC4RKA	4-wire Horn/Strobe, Standard cd, Red, Outdoor
PC4RHKA	4-wire Horn/Strobe, High cd, Red, Outdoor
PC4WA	4-wire Horn/Strobe, Standard cd, White
PC4WHA	4-wire Horn/Strobe, High cd, White
Ceiling Strobes	
SCRKA	Strobe, Standard cd, Red, Outdoor
SCRHKA	Strobe, High cd, Red, Outdoor
SCWA	Strobe, Standard cd, White
SCWHA	Strobe, High cd, White
Horns	
HRA	Horn, Red
HRKA	Horn, Red, Outdoor
HWA	Horn, White
Accessories	
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White

For strobes and horn/strobes, add suffix "-F" for French or "-B" for bilingual.

Notes:
"High cd," refers to strobes that include 135, 150, 177, and 185 candela settings. "Standard cd," refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings.
All outdoor units ending in "KA" include a weatherproof back box.