## SpectrAlert® Advance

# Field-Selectable Mass Notification Devices



**Audio/Visual Devices** 

### General

SpectrAlert® Advance mass notification devices and accessories combine application versatility with all the time- and money-saving benefits of the SpectrAlert Advance line.

SpectrAlert Advance, the broadest and most versatile line of notification devices available, includes a wide range of devices to meet mass notification application requirements.

ALERT-printed on white housings, SW-ALERT, SWH-ALERT and SPSW-ALERT amber lens strobes and speaker strobes provide visual signaling for mass notification in compliance with ANSI/UL 1638 Standard for General Signaling Visible Appliances. Other ALERT-printed models provide clear lenses for use with color lens strobe attachments (amber, blue, green, and red) that easily attach to strobe and speaker strobe devices without a candela derating.

In addition, SpectrAlert Advance mass notification devices include plain (non-printed) strobes, horn strobes and speaker strobes. These devices, along with ALERT-printed devices and SpectrAlert Advance accessories, can meet a wide range of requirements for indoor and outdoor applications, including mass notification, general signaling, severe weather and emergency response.

All SpectrAlert Advance mass notification and general signaling devices are compatible with the entire SpectrAlert Advance and include all the same time- and money-saving innovations. For example, plug-in designs simplify installation and reduce costly ground faults; universal mounting plates with onboard shorting springs test wiring continuity to speed installation and protect devices from damage; and field-selectable settings provide versatility and enable installers to quickly set each device to meet application requirements.

## **Mass Notification Features**

- Plain or ALERT-printed white housings
- Amber lens strobes and speaker strobes
- Color lens attachments for use with clear lens wall or ceiling strobes
- · Meets DOD specification requirements

## SpectrAlert Advance Features

- Plug-in design for simplified installation and troubleshooting
- Mounting plate shorting spring easily tests wiring continuity
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings of 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185 (please refer to Equivalent Candela Rating for UL 1971 Table)
- Rated from 32°F to 120°F (0°C to 49°C) (indoor devices);
   -40°F to 151°F (-40°C to 66°C) (NEMA 4X, IP56 weather-proof devices)
- · Optional tamper-resistant Torx head screw
- Compatible with System Sensor synchronization protocol



SPSCW-P with LENS-RC



**SPSW-ALERT** 



**SW-CLR-ALERT** 



SW-ALERT

## **SpectrAlert® Advance Specifications**

## ARCHITECTURAL/ENGINEERING SPECIFICATIONS GENERAL

SpectrAlert Advance strobes and horn strobes shall mount to a standard 4" x 4" x 1.5" back box, 4-inch octagon back box or double-gang back box. Two-wire products shall also mount to a single-gang 2" x 4" x 1 7/8" (5.08 x 10.16 x 4.76 cm) back box. SpectrAlert Advance speaker strobes shall mount to a 4 x 4 x 2 1/8-inch (10.16 x 10.16 x 5.40 cm) back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring and amplifier 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 9 and 17.5 volts; 24-voltrated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32°F and 120°F (0°C and 49°C) from a regulated DC or full-wave rectified unfiltered power supply. Strobes, horn strobes and speaker strobes shall have field-selectable candela settings, including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177 and 185.

### **STROBE**

The strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_\_ listed to UL 1971 (clear lens strobes) and shall be approved for fire protective service or shall be approved for fire protective as listed in ANSI/UL 1638 (amber lens strobes). The strobe shall be wired as a primary-signaling notification appliance and comply with the Ameri-

cans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz 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 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 1 Hz 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 shall be set by a multiple position switch. The horn and horn strobe models shall operate on a coded or non-coded power supply.

### SPEAKER STROBE COMBINATION

The speaker strobe shall be a System Sensor SpectrAlert Advance Model \_\_\_\_\_\_ listed to UL 1480 and UL 1971 and be approved for fire protective signaling systems. Speaker shall be capable of operating at 25.0 or 70.7 nominal Vrms selected via rotary switch, and shall have a frequency range of 400 to 4000 Hz. Speaker shall have power taps that are selected by rotary switch. The strobe shall comply with the NFPA 72 requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

### **OUTDOOR PRODUCTS**

SpectrAlert Advance outdoor strobes, horn strobes and speaker strobes shall be listed for outdoor use by UL and shall operate between -40°F and 151°F (-40°C and 66°C). 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 model MDL3R or MDL3W listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz 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 4 11/16 x 4 11/16 x 2 1/8-inch (11.90 x 11.90 x 5.40 cm) 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.

### **COLOR LENS STROBE ATTACHMENT**

The System Sensor SpectrAlert Advance color lens attachments shall be approved for fire protective service as listed in UL 1638. The lens attachments shall only be used with (plain non-fire-printed) System Sensor strobe devices. They shall mount to any wall or ceiling strobe and be rated from –35°F to 151°F (-37°C to 66°C).

## **Specifications**

### PHYSICAL SPECIFICATIONS

**Standard Operating Temperature:** 32°F to 120°F (0°C to 49°C)

K Series Operating Temperature: -40°F to 151°F (-40°C to 66°C)

Humidity Range: 10 to 93% non-condensing (indoor models)

### **Dimensions:**

- Wall-Mount Strobe and Horn Strobe (including lens):  $5.6^\circ$  L x  $4.7^\circ$  W x  $2.5^\circ$  D
- SPS Speaker Strobe (including lens and speaker):
   6.0" L x 5.0" W x 4.7" D
- Ceiling-Mount Strobe (including lens): 6.8" diameter x 2.5" D

#### **ELECTRICAL/OPERATING SPECIFICATIONS**

Nominal Voltage (strobes and horn strobes): Regulated 12 DC/FWR or regulated 24 DC/FWR

Nominal Voltage (speakers): 25 V or 70.7 V (nominal)

Maximum Supervisory Voltage (speakers): 50 VDC

Operating Voltage Range: 8 to 17.5 V (12 V nominal) or 17

to 33 V (24 V nominal)

Strobe Flash Rate: 1 flash per second

Speaker Frequency Range: 400 to 4000 Hz

Speaker Power: 1/4, 1/2, 1, 2 watts

### SPEAKER SOUND OUTPUT

UL Reverberant (dBA @ 10 ft.)	2W	1W	1/2W	1/4W
Wall-Mount SPS Series	85	82	79	76
Wall-Mount SPV Series	90	87	84	81
Ceiling-Mount SPC Series	86	83	80	77
Ceiling-Mount SPCV Series	90	87	84	81

## UL CURRENT DRAW DATA UL Max. Strobe Current Draw (mA RMS)

		8–17	.5 Volts	16-33 Volts		
	Candela	DC	FWR	DC	FWR	
	15*	123	128	66	71	
	15/75*	142	148	77	81	
	30*	NA	NA	94	96	
Standard Can- dela Range	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	

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15-115 cd)

	8–17.	5 Volts	16-33 Volts							
	15	15/75	15	15/75	30	75	95	110	115	
DC Input	•	•	•	•		•	•	•	•	
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	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	

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

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

## EQUIVALENT CANDELA RATING FOR UL 1971 Amber Lens Strobe Output (cd)

Listed Candela	On-Axis Rating (UL 1638)	Equivalent cd Rating for UL 1971 Profile
15	15	12
15/75	15/75	15/75
30	30	24
75	75	60
95	95	75
110	110	85
115	115	90
135	135	110
150	150	120
177	177	140
185	185	150

**NOTE:** UL 1971 is not applicable to mass notification devices, but these readings were obtained using the measurement procedure specified under UL 1971.

# CANDELA DERATING/OUTDOOR DEVICES Strobe Output (cd)

Listed Candela	Candela rating at –40°F (-40°C)				
15	<b>5</b> .				
15/75	Do not use below 32°F (0°C)				
30	, ,				
75	44				
95	70				
110	110				
115	115				
135	135				
150	150				
177	177				
185	185				

**NOTE:** For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

## Horn Tones and Sound Output Data (dBA)

						24-Volt Nominal				
			8–17	.5 Volts	16–3	33 Volts Reverberant		Anechoic		
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-temporal	High	82	82	88	88	93	92	100	100
5	Non-temporal	Medium	78	78	85	85	90	90	98	98
6	Non-temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92
†Settings 7, 8 and 9 are not available on 2-wire horn strobe.										

### **Product Line Information**

#### **ALERT DEVICES**

SW-ALERT: Strobe, Standard cd, White, Amber Lens

SWH-ALERT: Strobe, High cd, White, Amber Lens

SW-CLR-ALERT: Strobe, Standard cd, White, Clear Lens

SCW-CLR-ALERT: Strobe, Standard cd, White, Clear Lens

SPSW-ALERT: Speaker Strobe, Standard cd, White, Amber

Lens

SPSCW-CLR-ALERT: Speaker Strobe, Standard cd, White, Clear Lens

#### **PLAIN WALL STROBES**

SR-P: Strobe, Standard cd, Red, Clear Lens

SRH-P: Strobe, High cd, Red, Clear Lens

SW-P: Strobe, Standard cd, White, Clear Lens

SWH-P: Strobe, High cd, White, Clear Lens

SRK-P: Strobe, Standard cd, Red, Clear Lens, Outdoor

SRHK-P: Strobe, High cd, Red, Clear Lens, Outdoor

SWK-P: Strobe, Standard cd, White, Clear Lens, Outdoor

SWHK-P: Strobe, High cd, White, Clear Lens, Outdoor

### **PLAIN CEILING STROBES**

**SCW-P:** Strobe, Standard cd, White, Clear Lens

#### PLAIN WALL HORN STROBES

P2R-P: Horn Strobe, Standard cd, Red, Clear Lens

P2W-P: Horn Strobe, Standard cd, White, Clear Lens

P2WH-P: Horn Strobe, High cd, White, Clear Lens

P2RK-P: Horn Strobe, Standard cd, Red, Clear Lens, Out-

P2RHK-P: Horn Strobe, High cd, Red, Clear Lens, Outdoor

P2WK-P: Horn Strobe, Standard cd, White, Clear Lens, Out-

P2WHK-P: Horn Strobe, High cd, White, Clear Lens, Outdoor

## PLAIN CEILING HORN STROBE

PC2R-P: Horn Strobe, Standard cd, Red, Clear Lens

PC2W-P: Horn Strobe, Standard cd, White, Clear Lens

PC2WH-P: Horn Strobe, High cd, White, Clear Lens

### PLAIN WALL SPEAKER STROBE

**SPSW-P:** Speaker Strobe, Standard cd, White, Clear Lens **SPSR-P:** Speaker Strobe, Standard cd, Red, Clear Lens

SPSWH-P: Speaker Strobe, High cd, White, Clear Lens

SPSRH-P: Speaker Strobe, High cd, Red, Clear Lens

SPSWV-P: Speaker Strobe, Standard cd, White, High Volume, Clear Lens

SPSRV-P: Speaker Strobe, Standard cd, Red, High Volume, Clear Lens

**SPSWK-P:** Speaker Strobe, Standard cd, White, Clear Lens, Outdoor

SPSRK-P: Speaker Strobe, Standard cd, Red, Clear Lens, Outdoor

### PLAIN CEILING SPEAKER STROBE

SPSCW-P: Speaker Strobe, Standard cd, White, Clear Lens

SPSCWH-P: Speaker Strobe, High cd, White, Clear Lens

SPSCWV-P: Speaker Strobe, White, High Volume, Clear

SPSCWVH-P: Speaker Strobe, White, High cd, High Volume, Clear Lens

**NOTE:** All –P models have a plain housing (no "FIRE" marking on cover). All outdoor units with a "K" designation in the part number include a weatherproof back box. All "ALERT" models are printed as such.

## **Agency Listings**

#### UL-Listed:

- S4048 Speaker & Speaker Strobes
- S4011 Horn Strobes\*\*
- S5512 Strobes
- S3593 Strobes\*, SW-ALERT
- UL3594 SWH-ALERT

### · CSFM-Listed:

- 7125-1653:188 Horn Strobe\*\*
- 7125-1653:186 Strobes
- 7125-1653:187 Strobes\*
- 7125-1653:198 Alert Strobes
- 7320-1653: 201 Speaker & Speaker Strobes\*\*
- -7125-1653:186
- 7300-1653:198 SW-CLR-ALERT

## FM Approved

- 3023572 Horn Strobes\*\*
- 3030863 Speaker & Speaker Strobes

\*(outdoor) \*\*(indoor and outdoor)

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