

FIELD-SELECTABLE EMERGENCY COMMUNICATION DEVICES

DESCRIPTION

SpectrAlert® Advance emergency communications 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 emergency communications application requirements.

ALERT-printed on white housings amber lens strobes and speaker strobes provide visual signaling for emergency communications in compliance with ANSI/UL 1638 — Standard for General Signaling Visible Appliances. Other Plain or 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 emergency communications 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 emergency communications, general signaling, severe weather, and emergency response.

All SpectrAlert Advance emergency communications and general signaling devices are compatible with the entire SpectrAlert Advance line and include all the same time- and money-saving innovations. For example, plug in design simplifies installation and reduces 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.

FEATURES

Emergency Communication

- Plain or ALERT-printed white housings
- Clear or Amber lens strobes and speaker strobes
- Color lens attachments for use with clear lens wall or ceiling strobes or clear dual strobe expander plates
- Dual Strobe Expander Plates for use with Strobe and Speaker Strobe devices
- Meets DoD specification requirements

SpectrAlert

- 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
- Rated from 32°F to 120°F (indoor devices); -40°F to 151°F (NEMA 4X, IP56 weatherproof devices)
- Optional tamper-resistant Torx head screw
- Compatible with System Sensor synchronization protocol
- Listed for ceiling or wall mounting

ARCHITECT/ENGINEER SPECIFICATIONS

General

SpectrAlert Advance strobes and horn strobes shall mount to a standard 4 x 4 x 1½-inch 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 17/8-inch back box. SpectrAlert Advance speaker strobes shall mount to a 4 x 4 x 21/8-inch 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 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit 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 service as listed in ANSI/UL 1638 (amber or colored lens strobes). 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 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.



SEP-SPSW Speaker Strobe Expander Plate (Speaker Strobe Device Sold Separately)

APPROVALS:

- UL -
S4048 (speaker & speaker strobes)
S4011 (horn strobes**)
S5512 (strobes)
S3593 (strobes*)
- FM -
3023572 (horn strobes**)
3030863 (speaker & speaker strobes)
- CSFM -
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)

Notes

* outdoor

** indoor and outdoor



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 4,000 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 minus 40 degrees and 151 degrees Fahrenheit. 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 MDL3 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 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.

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 minus 35 degrees to 151 degrees Fahrenheit.

SPECIFICATIONS

Physical Specifications

Standard Operating Temperature:	32°F to 120°F
K Series Operating Temperature:	-40°F to 151°F
Humidity Range:	10 to 93% non-condensing (indoor models)

Dimensions Wall-Mount

Strobe and Horn Strobe (including lens):	5.6" L x 4.7" W x 2.5" D
SPS Speaker Strobe:	6.0" L x 5.0" W x 4.7" D (including lens and speaker)
Dimensions 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)
Operating Voltage Range with MDL3:	8.5 to 17.5 (12V nominal) or 16.5 to 33V (24V nominal)
Strobe Flash Rate:	1 flash per second
Speaker Frequency Range:	400 to 4,000 Hz
Speaker Power:	¼, ½, 1, 2 watts

Speaker Sound Output				
UL Reverberant (dBA @ 10 ft.)	2 W	1 W	1/2 W	1/4 W
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)					
	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

UL 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

UL 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

CANDELA DERATING/OUTDOOR DEVICES

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

Strobe Output (cd)	
Listed Candela	Candela rating at -40°F
15	Do not use below 32°F
15/75	
30	
75	44
95	70
110	110
115	115
135	135
150	150
177	177
185	185

HORN TONES AND SOUND OUTPUT DATA

Horn and Horn Strobe Output (dBA)										
Switch Position	Sound Pattern	dB	8-17.5 Volts		16-33 Volts		24-Volt Nominal			
			DC	FWR	DC	FWR	Reverberant		Anechoic	
							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.

ORDERING INFORMATION

Fike P/N	Mfg. Model	Description
Alert Devices		
20-1861	SEP-SW	Strobe Expander Plate, White, Amber Lens
20-1860	SEP-SPSW	Speaker Strobe Expander Plate, White, Amber Lens
20-2017	SEP-SW-P	Strobe Expander Plate, Standard cd, White, Plain
20-2016	SEP-SPSW-P	Speaker Strobe Expander Plate, Standard cd, White, Plain
20-1464	SW-ALERT	Strobe, Standard cd, White, Amber Lens
20-1465	SWH-ALERT	Strobe, High cd, White, Amber Lens
20-1466	SW-CLR-ALERT	Strobe, Standard cd, White, Clear Lens
20-1467	SCW-CLR-ALERT	Strobe, Standard cd, White, Clear Lens
20-1468	SPSW-ALERT	Speaker Strobe, Standard cd, White, Amber Lens
20-1469	SPSCW-CLR-ALERT	Speaker Strobe, Standard cd, White, Clear Lens
20-1470	SPSW-CLR-ALERT	Speaker Strobe, Standard cd, White, Clear Lens
20-2025	SPSWK-CLR-ALERT	Speaker Strobe, Standard cd, White, Clear Lens, Outdoor
20-1993	SPSCWK-CLR-ALERT	Speaker Strobe, Standard cd, White, Clear Lens, Outdoor

Plain Wall Strobes		
20-1294	SR-P	Standard cd, Red, Clear Lens
20-1295	SRH-P	High cd, Red, Clear Lens
20-1300	SW-P	Standard cd, White, Clear Lens
20-1301	SWH-P	High cd, White, Clear Lens
20-1471	SRK-P	Standard cd, Red, Clear Lens, Outdoor
20-1472	SRHK-P	High cd, Red, Clear Lens, Outdoor
20-1473	SWK-P	Standard cd, White, Clear Lens, Outdoor
20-1474	SWHK-P	High cd, White, Clear Lens, Outdoor
Plain Ceiling Strobe		
20-1328	SCW-P	Standard cd, White, Clear Lens
Plain Wall Horn Strobes		
20-1272	P2R-P	Standard cd, Red, Clear Lens
20-1278	P2W-P	Standard cd, White, Clear Lens
20-1279	P2WH-P	High cd, White, Clear Lens
20-1348	P2RK-P	Standard cd, Red, Clear Lens, Outdoor
20-1349	P2RHK-P	High cd, Red, Clear Lens, Outdoor
20-1475	P2WK-P	Standard cd, White, Clear Lens, Outdoor
20-1476	P2WHK-P	High cd, White, Clear Lens, Outdoor
Plain Ceiling Horn Strobes		
20-1306	PC2R-P	Standard cd, Red, Clear Lens
20-1310	PC2W-P	Standard cd, White, Clear Lens
20-1311	PC2WH-P	High cd, White, Clear Lens
Plain Wall Speaker Strobes		
20-1425	SPSW-P	Standard cd, White, Clear Lens
20-1427	SPSR-P	Standard cd, Red, Clear Lens
20-1429	SPSWH-P	High cd, White, Clear Lens
20-1431	SPSRH-P	High cd, Red, Clear Lens
20-1433	SPSWV-P	Standard cd, White, High Volume, Clear Lens
20-1435	SPSRV-P	Standard cd, Red, High Volume, Clear Lens
20-1411	SPSWK-P	Standard cd, White, Clear Lens, Outdoor
20-1412	SPSRK-P	Standard cd, Red, Clear Lens, Outdoor
Plain Ceiling Speaker Strobes		
20-1441	SPSCW-P	Standard cd, White, Clear Lens
20-1444	SPSCWH-P	High cd, White, Clear Lens
20-1449	SPSCWV-P	High Volume, White, Clear Lens
20-1452	SPSCWVH-P	High cd, High Volume, White, Clear Lens
20-1992	SPSCWHK-P	High cd, White, Clear Lens, Outdoor
Colored Lenses		
20-1814	LENS-B	Wall-Mount Lens Attachment, Blue
20-1819	LENS-R	Wall-Mount Lens Attachment, Red
20-1820	LENS-G	Wall-Mount Lens Attachment, Green
20-1821	LENS-A	Wall-Mount Lens Attachment, Amber
20-1822	LENS-BC	Ceiling-Mount Lens Attachment, Blue
20-1823	LENS-RC	Ceiling-Mount Lens Attachment, Red
20-1824	LENS-GC	Ceiling-Mount Lens Attachment, Green
20-1816	LENS-AC	Ceiling-Mount Lens Attachment, Amber

Notes:

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.

For information on colored lenses, see data sheet AVDS004.

For information on Dual Strobe Expander Plates, see data sheet AVDS117.