

## SELECTABLE OUTPUT HORNS, STROBES, AND HORN/STROBES

### DESCRIPTION

The SpectrAlert Advance series of notification appliances is designed to simplify installations, with features such as plug in designs, instant feedback messages to ensure correct installation of individual devices, and 11 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.

Next, 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.

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 minus 40 degree Fahrenheit and 151 degrees Fahrenheit in wet or dry applications.



### APPROVALS

- UL Listed
- FM
- MEA
- CSFM

### FEATURES

- Electrically compatible with existing SpectrAlert products
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Plug-in design
- Field selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185
- Same mounting plate for wall- and ceiling-mount units
- Shorting spring on mounting plate for continuity check before installation
- Tamper resistant construction
- Outdoor wall and ceiling products rated from -40°F to 151°F
- Design allows minimal intrusion into the back box
- Horn rated at 88+ dbA at 16 volts
- Rotary switch for horn tone and three volume selections
- Outdoor products UL listed to UL 1638 (strobe) and UL 464 (horn) outdoor requirements
- Outdoor products rainproof per UL 50 (NEMA 3R)
- Compatible with MDL sync module

Form No. P.1.102.01

## ARCHITECTURAL/ENGINEERING SPECIFICATIONS

SpectrAlert Advance horns, strobes and horn/strobes shall mount to a standard 4 x 4 x 1 1/2 inch back box, 4-inch octagon back box or double-gang back box. Two-wire products shall also mount to a single-gang 2 x 4 x 1 7/8 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 appliances 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 32 and 120 degrees Fahrenheit 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 shall be approved for fire protective services. 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 strobes 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 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 on 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 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 MDL 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 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	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 products)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12DC/FWR or regulated 24DC/FWR <sup>1</sup>
Operating Voltage Range <sup>2</sup>	8 to 17.5V (12V nominal) or 16 to 33V (24 nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Ceiling Mount Dimensions (including lens)	6.8" diameter x 2.5" high (173 mm diameter x 64 mm high)
Wall Mount Dimensions (including lens)	5.6"L x 4.7"W x 2.5"D (142 mm L x 119 mm W x 64 mm D)
Horn Dimensions	5.6"L x 4.7"W x 1.3"D (142 mm L x 119 mm W x 33 mm D)
Wall Mount Back Box Skirt Dimensions	5.9"L x 5.0"W x 2.2"D (151 mm L x 128 mm W x 56 mm D)
Ceiling Mount Back Box Skirt Dimensions	7.1" diameter x 2.25" high (180 mm diameter x 57 mm high)
Wall Mount Weatherproof Back Box Dimensions	5.7"L x 5.1"W x 2.0"D (145 mm L x 130 mm W x 51 mm D)
Ceiling Mount Weatherproof Back Box Dimensions	7.1" diameter x 2.0" high (180 mm diameter x 51 mm high)

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.

## 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 Ranges	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL 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

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	13	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
Temporal High	142	161	103	112	126	181	203	221	229
Temporal Medium	134	155	85	95	110	166	189	208	216
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
Temporal High	255	270	303	309	Temporal High	233	248	275	281
Temporal Medium	242	259	293	299	Temporal Medium	219	232	262	267
Temporal Low	238	254	291	295	Temporal Low	214	229	256	262

## CANDELA DERATING

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

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

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

## ORDERING INFORMATION

Fike P/N	Mfg. P/N	Description
<b>Wall Horn/Strobes</b>		
20-1345	P2R	2-wire Horn/Strobe, Standard cd, Red
20-1269	P2RH	2-wire Horn/Strobe, High cd, Red
20-1271	P2RHK	2-wire Horn/Strobe, High cd, Red, Outdoor
20-1349	P2RHK-P	2-wire Horn/Strobe, High cd Red, Outdoor, No Lettering
20-1273	P2RH-P	2-wire Horn/Strobe, High cd, Red, No Lettering
20-1275	P2RH-SP	2-wire Horn/Strobe, High cd, Red, Spanish
20-1270	P2RK	2-wire Horn/Strobe, Standard cd, Red, Outdoor
20-1348	P2RK-P	2-wire Horn/Strobe, Standard cd, Red, Outdoor, No Lettering
20-1272	P2R-P	2-wire Horn/Strobe, Standard cd, Red No Lettering
20-1274	P2R-SP	2-wire Horn/Strobe, Standard cd, Red, Spanish
20-1276	P2W	2-wire Horn/Strobe, Standard cd, White
20-1277	P2WH	2-wire Horn/Strobe, High cd, White
20-1279	P2WH-P	2-wire Horn/Strobe, High cd, White, No Lettering
20-1278	P2W-P	2-wire Horn/Strobe, Standard cd, White, No Lettering
20-1280	P4R	4-wire Horn/Strobe, Standard cd, Red
20-1281	P4RH	4-wire Horn/Strobe, High cd, Red
20-1283	P4RHK	4-wire Horn/Strobe, High cd, Red, Outdoor
20-1351	P4RHK-P	4-wire Horn/Strobe, High cd, Red, Outdoor No Lettering
20-1285	P4RH-P	4-wire Horn/Strobe, High cd, Red, No Lettering
20-1282	P4RK	4-wire Horn/Strobe, Standard cd, Red, Outdoor
20-1350	P4RK-P	4-wire Horn/Strobe, Standard cd, Red, Outdoor No Lettering
20-1284	P4R-P	4-wire Horn/Strobe, Standard cd, Red, No Lettering
20-1286	P4W	4-wire Horn/Strobe, Standard cd, White
20-1287	P4WH	4-wire Horn/Strobe, High cd, White
<b>Wall Strobes</b>		
20-1290	SR	Strobe, Standard cd, Red
20-1291	SRH	Strobe, High cd, Red
20-1293	SRHK	Strobe, High cd, Red, Outdoor
20-1295	SRH-P	Strobe, High cd, Red, No Lettering
20-1297	SRH-SP	Strobe, High cd, Red, Spanish
20-1292	SRK	Strobe, Standard cd, Red, Outdoor
20-1294	SR-P	Strobe, Standard cd, Red, No Lettering
20-1296	SR-SP	Strobe, Standard cd, Red, Spanish
20-1298	SW*	Strobe, Standard cd, White
20-1299	SWH*	Strobe, High cd, White
<b>Ceiling Horn/Strobes</b>		
20-1302	PC2R	2-wire Horn/Strobe, Standard cd, Red
20-1303	PC2RH	2-wire Horn/Strobe, High cd, Red
20-1305	PC2RHK	2-wire Horn/Strobe, High cd, Red, Outdoor
20-1307	PC2RH-P	2-wire Horn/Strobe, High cd, Red, No Lettering
20-1304	PC2RK	2-wire Horn/Strobe, Standard cd, Red, Outdoor

Fike P/N	Mfg. P/N	Description
<b>Ceiling Horn/Strobes (continued)</b>		
20-1306	PC2R-P	2-wire Horn/Strobe, Standard cd, Red
20-1308	PC2W	2-wire Horn/Strobe, Standard cd, White
20-1309	PC2WH	2-wire Horn/Strobe, High cd, White
20-1311	PC2WH-P	2-wire Horn/Strobe, High cd, White, No Lettering
20-1313	PC2WH-SP	2-wire Horn/Strobe, High cd, White, Spanish
20-1310	PC2W-P	2-wire Horn/Strobe, Standard cd, White, No Lettering
20-1312	PC2W-SP	2-wire Horn/Strobe, Standard cd, White, Spanish
20-1314	PC4R	4-wire Horn/Strobe, Standard cd, Red
20-1315	PC4RH	4-wire Horn/Strobe, High cd, Red
20-1317	PC4RHK	4-wire Horn/Strobe, High cd, Red, Outdoor
20-1316	PC4RK	4-wire Horn/Strobe, Standard cd, Red, Outdoor
20-1318	PC4W	4-wire Horn/Strobe, Standard cd, White
20-1319	PC4WH	4-wire Horn/Strobe, High cd, White
<b>Ceiling Strobes</b>		
20-1320	SCR	Strobe, Standard cd, Red
20-1321	SCRH	Strobe, High cd, Red
20-1323	SCRHK	Strobe, High cd, Red, Outdoor
20-1325	SCRHK-P	Strobe, Standard cd, Red, Outdoor, No Lettering
20-1322	SCRK	Strobe, Standard cd, Red, Outdoor
20-1324	SCR-P	Strobe, High cd, Red, No Lettering
20-1326	SCW	Strobe, Standard cd, White
20-1327	SCWH	Strobe, High cd, White
20-1329	SCWH-P	Strobe, High cd, White, No Lettering
20-1331	SCWH-SP	Strobe, High cd, White, Spanish
20-1328	SCW-P	Strobe, Standard cd, White, No Lettering
20-1330	SCW-SP	Strobe, Standard cd, White, Spanish
<b>Horns</b>		
20-1334	HR	Horn, Red
20-1335	HRK	Horn, Red, Outdoor
20-1336	HW	Horn, White
<b>Accessories</b>		
20-1339	BBS-2	Back Box Skirt, Wall, Red
20-1341	BBSC-2	Back Box Skirt, Ceiling, Red
20-1342	BBSCW-2	Back Box Skirt, Ceiling, White
20-1340	BBSW-2	Back Box Skirt, Wall, White
<b>Electronic Chime/Sounder</b>		
20-1337	CHR	Chime, Red
20-1338	CHW	Chime, White
<b>Chime/Strobe</b>		
20-1332	CHSR	2-wire Chime/Strobe, Standard cd, Red
20-1333	CHSW	2-wire Chime/Strobe, Standard cd, White

