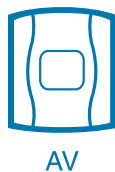


ECS and MNS

Audible/Visible Notification
PRODUCTS



- Accessories
- ALERT Strobes and Speaker Strobes
- Directional Sounders
- Plain Speakers and Speaker Strobes
- Plain Strobes, Chimes and Chime Strobes



Emergency Communications Systems

In an emergency, people need to know how to react. Their lives depend on it. Emergency communications systems (ECSs) and mass notification systems (MNSs) are designed to provide large groups of people in a single building or dispersed throughout a campus with real-time messages and notification that can keep them safe.

Most experts recommend a combined fire alarm and emergency communications system to leverage the robustness of the fire alarm system. But to fully take advantage of the benefits of a combined system, you need a notification line with the versatility to meet a wide range of emergency communications, mass notification, fire intelligibility and strobe requirements using a common platform.



Save lives with ECS devices from the world leader in life safety notification.

System Sensor SpectrAlert® Advance offers a broad and versatile line of devices to meet National Fire Protection Association (NFPA) and Unified Facilities Criteria (UFC) requirements for combined ECS systems – from speakers and speaker strobes that provide clear, intelligible sound to plain devices that can be customized with decals and colored lenses to meet different emergency requirements to combined strobes and speaker strobes that can meet multiple requirements with a single device. For our full line of SpectrAlert Advance products, please visit systemsensor.com/av.

Look inside to learn all the time-, cost-, and life-saving benefits that SpectrAlert Advance ECS products can bring to your emergency communications and mass notifications systems.



Plain **Speakers** and **Speaker Strobes**
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ECS and MNS Accessories
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Plain **Strobes, Chimes,** and **Chime Strobes**
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ExitPoint Directional Sounders
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NFPA **Codes** and **Applications**

Emergency Communications Systems

...a single control system or may serve as an interconnection of several control systems, such as:

- Fire Alarm
- Mass Notification
- Fire Fighter Communications
- Area of Refuge Communications
- Elevator Communications

– NFPA 72®: 2010 and NFPA 72®: 2013

Any location where large groups of people gather is a prime candidate for an ECS, including:

- College and university campuses
- Corporate campuses
- Entertainment and sports venues
- Hospitals and medical institutions
- Industrial plants
- Mass transit facilities
- Public schools

UFC **Codes** and **Applications**

Mass Notification Systems

...a technology that provides real-time information to groups of individuals within large buildings, campus settings, geographic regions, or entire nations.

– UFC 4-021-01

Military and Government Facilities

While UFC requires indoor and outdoor mass notification for all new construction, major renovations, and leased buildings for government and military facilities, specific fire and MNS requirements can vary. For example, the table below provides strobe requirements for different military branches.

Military Branch	Fire Alarm System Requirement	MNS Requirement
Air Force	Clear Strobe marked "FIRE"	Amber Strobe marked "ALERT"
Army	Clear Strobe marked "FIRE"	Amber Strobe marked "ALERT"
Marine Corps	AHJ will provide guidance	AHJ will provide guidance
Navy	Clear Strobe marked "FIRE"	Clear Strobe marked "ALERT"



NFPA Intelligibility Requirements

Intelligible

Capable of being understood; comprehensible; clear

Acoustically Distinguishable Space (ADS)

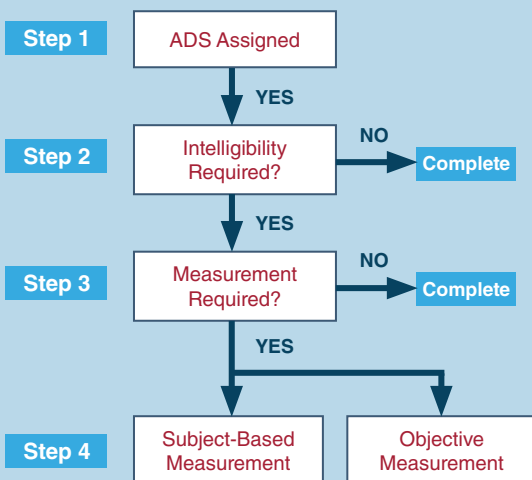
...an emergency communication system notification zone, or subdivision thereof, that might be an enclosed or otherwise physically defined space, or that may be distinguished from other spaces because of different acoustical, environmental or use characteristics such as reverberation time and ambient sound pressure level.

18.4.10.1 Voice Intelligibility ADSs shall be determined by the system designer during the planning and design of all ECSs

18.4.10.2 Each ADS shall be identified as requiring or not requiring voice intelligibility

18.4.10.3 Where required by the AHJ, ADS assignments shall be submitted for review and approval

See the diagram below for a high-level overview of the NFPA Intelligibility Process.



Plain Speakers and Speaker Strobes

During an emergency, building occupants and those on a property's grounds need to quickly understand what is happening and what actions they need to take. SpectrAlert Advance speakers transmit the clear, intelligible messages necessary to meet code, save lives and protect property. Like all SpectrAlert Advance devices, indoor, outdoor, wall, and ceiling speakers and speaker strobes provide a plug-in design that speeds installation and virtually eliminates costly ground faults. Field-selectable candela settings, 12- and 24-volt options, and the option of plain (non-printed) housings make a single device easily adaptable to a wide range of applications, simplifying inventory, specification, and installation.



Plain Ceiling-Mount Speakers

Location	Red Model No.	White Model No.	Description
Indoor	SPCR	SPCW	Dual-voltage evacuation speaker
	SPCRV	SPCWW	Dual-voltage evacuation speaker with high dB sound output
Outdoor	—	SPCWK	Dual-voltage evacuation speaker
	—	SPCWK-R	Dual-voltage evacuation speaker, Device only

Plain Wall-Mount Speakers

Location	Red Model No.	White Model No.	Description
Indoor	SPR	SPW	Dual-voltage evacuation speaker
	SPRV	SPWW	Dual-voltage evacuation speaker with high dB sound output
Outdoor	SPRK	SPWK	Dual-voltage evacuation speaker
	SPRK-R	—	Dual-voltage evacuation speaker, Device only

Notes:

- -R represents replacement device only, ships minus plastic weatherproof back box.
- -R outdoor replacement models are meant for use with WTP series of weatherproof flush-mount plates or MWBB outdoor metal weatherproof back boxes.



Plain Ceiling-Mount Speaker Strobes

Location	Red Model No.	White Model No.	Candela	Description
Indoor	—	SPSCW-P	Standard	Clear lens
	—	SPSCWW-P	Standard	High dB, Clear lens
	—	SPSCWH-P	High	Clear lens
Outdoor	—	SPSCWHK-P	High	Clear lens

Plain Wall-Mount Speaker Strobes

Location	Red Model No.	White Model No.	Candela	Description
Indoor	SPSR-P	SPSW-P	Standard	Clear lens
	—	SPSWH-P	High	Clear lens
Outdoor	SPSRK-P	SPSWK-P	Standard	Clear lens

Notes:

- Standard Candela settings: 15, 15/75, 30, 75, 95, 110, and 115
- High Candela settings: 135, 150, 177, and 185
- -P denotes plain devices with no markings.
- Compatible with DECAL-R and DECAL-RC for white devices (red letters) and DECAL-W or DECAL-WC for red devices (white letters).

ALERT Strobes, Speaker Strobes and Expander Plates

ALERT-printed devices include all the time and cost-saving benefits of the rest of the SpectrAlert Advance line while meeting NFPA Chapter 24 strobe requirements.

For systems that require an amber strobe, our Dual Strobe and Dual Strobe with Speaker Expander Plates can meet both fire and MNS requirements with only one device and back box on the wall.



ALERT Ceiling-Mount Strobes and Speaker Strobes

Location	White Model No.	Candela	Marking	Description
Indoor	SCW-CLR-ALERT	Standard	ALERT	Strobe, Clear lens
	SPSCW-CLR-ALERT	Standard	ALERT	Speaker Strobe, Clear lens
Outdoor	SPSCWK-CLR-ALERT	Standard	ALERT	Speaker Strobe, Clear lens

ALERT Wall-Mount Strobes and Speaker Strobes

Location	White Model No.	Candela	Marking	Description
Indoor	SW-ALERT	Standard	ALERT	Strobe, Amber lens
	SW-CLR-ALERT	Standard	ALERT	Strobe, Clear lens
	SWH-ALERT	High	ALERT	Strobe, Amber lens
	SPSW-ALERT	Standard	ALERT	Speaker Strobe, Amber lens
	SPSW-CLR-ALERT	Standard	ALERT	Speaker Strobe, Clear lens
Outdoor	SPSWK-CLR-ALERT	Standard	ALERT	Speaker Strobe, Clear lens

Dual Strobe Expander Plates

Location	White Model No.	Candela	Marking	Description
Indoor	SEP-SW	Standard	ALERT	Strobe, Amber lens
	SEP-SW-P	Standard	None	Strobe, Clear lens
	SEP-SPSW	Standard	ALERT	Speaker Strobe, Amber lens
	SEP-SPSW-P	Standard	None	Speaker Strobe, Clear lens

Notes:

- Standard Candela settings: 15, 15/75, 30, 75, 95, 110, and 115
- High Candela settings: 135, 150, 177, and 185
- -ALERT models are Amber Lens marked ALERT
- -CLR-ALERT models are Clear Lens marked ALERT
- -P suffix denotes plain housing (no "FIRE" print)

NFPA Strobe Requirements*

24.4.2.20.3 The word "ALERT" shall be stamped or imprinted on the appliance and be visible to the public. Strobes need to meet the requirements of 18.5 for public mode or 18.6 for private mode. Main strobe must show the word "ALERT."

24.4.2.20.6 Strobes used in combination systems where the same strobe is used for both mass notification and fire notification shall be clear or nominal white, meeting the listing requirements of ANSI/UL 1971, *Standard for Signaling Devices for the Hearing Impaired*.

24.4.2.20.7 Strobes with colored lenses shall be marked with the listed effective intensity using the lens color installed.

NFPA does not require an amber strobe. Strobe lens color is typically determined by the building owner.

*NFPA® 72: 2010

ECS and MNS Accessories

Colored Lenses - For use with plain (non-FIRE marked) strobe devices.

Ceiling Model No.	Wall Model No.	Color	Description
LENS-AC	LENS-A	Amber	Lens attachment for all SpectrAlert Advance plain (non-FIRE marked) indoor or outdoor, ceiling- or wall-mounted strobes
LENS-BC	LENS-B	Blue	
LENS-GC	LENS-G	Green	
LENS-RC	LENS-R	Red	



Decal Kits - For use with plain (non-FIRE marked) devices.

Mounting	Model No.	Color	Description
Ceiling	DECAL-RC	Red Letters	60 decals* for up to 5 white devices (3 decals are required per device)
	DECAL-WC	White Letters	60 decals* for up to 5 red devices (3 decals are required per device)
Wall	DECAL-R	Red Letters	40 decals* for up to 5 white devices (2 decals are required per device)
	DECAL-W	White Letters	40 decals* for up to 5 red devices (2 decals are required per device)



*All decals include labels "AGENT, EVAC, ALERT and FIRE" for up to 5 devices.

Plain Strobes, Chimes, and Chime Strobes

SpectrAlert Advance® plain strobes, chimes and chime strobes for ECS and MNS applications are the most versatile and easy-to-use line in the industry. With white and red plastic housings, wall and ceiling mounting options, field-selectable settings, and plain (non-printed) housings that can be quickly modified for a variety of applications using field applied colored lenses and decals, these devices can help you meet several ECS requirements.



Chimes

Location	Red Model No.	White Model No.	Description
Indoor	CHR	CHW	Chime with selectable chime tone and volume settings

Chime Strobes

Location	Red Model No.	White Model No.	Candela	Description
Indoor	CHSR	CHSW	Standard	2-wire, Clear lens



Plain Ceiling-Mount Strobes

Location	Red Model No.	White Model No.	Candela	Description
Indoor	—	SCW-P	Standard	Clear Lens

Plain Wall-Mount Strobes

Location	Red Model No.	White Model No.	Candela	Description
Indoor	SR-P	SW-P	Standard	Clear lens
	—	SWH-P	High	Clear lens
Outdoor	SRK-P	SWK-P	Standard	Clear lens
	SRHK-P	SWHK-P	High	Clear lens

Notes:

- Standard Candela settings: 15, 15/75, 30, 75, 95, 110, and 115
- High Candela settings: 135, 150, 177, and 185
- -P denotes plain devices with no markings.
- Compatible with DECAL-R and DECAL-RC for white devices (red letters) and DECAL-W or DECAL-WC for red devices (white letters).

NFPA Exit Marking Audible Notification Appliance Requirements

18.4.71* Exit marking audible notification appliances shall meet or exceed the frequency and sound level settings and guidelines specified in the manufacturer's documented instructions.

18.4.72* ...The signal shall penetrate both the ambient noise and the fire alarm signal.

18.4.74* Where required by the enforcing authority; governing laws, codes, or standards; or other parts of this Code, exit marking audible notification shall be located at the entrance to all building exits and areas of refuge as defined by the applicable building or fire code.

18.4.75 Where exit marking audible notification appliances are utilized to mark areas of refuge, they shall provide an audible signal distinct from that used for other exits that do not have areas of refuge.

Directional Sounders

Our ExitPoint™ Directional Sounder with Voice Messaging is a unique product that uses broadband sound to lead building occupants to the nearest, safest exit – even in low to no visibility. This device has been shown to improve evacuation times up to 75 percent.



Directional Sounders

Location	White Model No.	Description
Indoor	PF24v	ExitPoint™ Directional Sounder with Voice Messaging
	BBS-SP201W	Wall-mount, back box skirt for ExitPoint

Specifications and Ratings

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. Chime Current Draw (mA RMS)

Sound Pattern	dB	8-17.5 Volts		16-33 Volts	
		DC	FWR	DC	FWR
1 Second Chime	High	34	50	58	51
1 Second Chime	Low	30	51	51	54
1/4 Second Chime	High	34	51	50	50
1/4 Second Chime	Low	31	51	50	52
Temporal Chime	High	30	50	48	54
Temporal Chime	Low	30	47	50	51
5 Second Whoop	High	32	52	34	54
5 Second Whoop	Low	30	40	34	52
Coded ¹	High	48	49	50	50

Note 1: This data represents coding at 3 chimes per second. Actual current draw will vary depending upon coding standard.

Candela Measurements, Amber Lens Strobe

	Candela	On-Axis Rating (UL 1638)
Standard Candela Range	15	15
	15/75	15/75
	30	30
	75	75
	95	95
	110	110
High Candela Range	115	115
	135	135
	150	150
	177	177
	185	185

Indoor Speaker and Speaker Strobe Sound Output

UL Reverberant (dBA @ 10 ft.)	2 W	1 W	½ W	¼ W
Wall- and Ceiling-Mount SP Series	86	83	80	77
Wall- and Ceiling-Mount SPV Series	90	87	84	81
Wall- and Ceiling-Mount SPS Series	85	82	79	76
Wall- and Ceiling-Mount SPSV Series	89	86	83	80

Outdoor Speaker and Speaker Strobe Sound Output

UL Reverberant (dBA @ 10 ft.)	2 W	1 W	½ W	¼ W
Wall- and Ceiling-Mount Speaker K Series	90	87	84	81
Wall- and Ceiling-Mount Speaker Strobe K Series	89	86	83	80

ExitPoint™ Current Draw Measurements and Sound Output Guide

Speed Selection			Maximum DC Operating Current (mA RMS) (16 to 33 V)	Audibility (dBA) (16 to 33 V) Note 1	Audibility (dBA) (16 to 33 V) Note 2
Speed	DIP Switch Selection	Power Setting			
Fast (Exit)	10	High	185	98	75
Fast (Exit)	10	Med-High	131	95	72
Fast (Exit)	10	Med	78	92	69
Fast (Exit)	10	Med-Low	76	89	66
Fast (Exit)	10	Low	64	86	63
Med-Fast	9	High	170	98	74
Med-Fast	9	Med-High	124	95	71
Med-Fast	9	Med	75	93	68
Med-Fast	9	Med-Low	73	90	65
Med-Fast	9	Low	62	87	62
Med-Slow	8	High	135	97	73
Med-Slow	8	Med-High	104	95	70
Med-Slow	8	Med	67	92	67
Med-Slow	8	Med-Low	65	89	64
Med-Slow	8	Low	57	87	61
Slow	7	High	120	98	72
Slow	7	Med-High	92	95	69
Slow	7	Med	62	92	66
Slow	7	Med-Low	61	89	63
Slow	7	Low	54	86	60

Note 1: Sound output data is peak dB measured in ULC anechoic room at 10 feet.

Note 2: Sound output measured in a reverberant room at 10 feet.

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 12 DC/FWR or regulated 24 DC/FWR¹

Operating Voltage Range²

8 V to 17.5 V (12 V nominal) or 16 V to 33 V (24 V nominal)

Input Terminal Wire Gauge

12 AWG to 18 AWG

Ceiling-Mount Dimensions (including lens)

6.8 in Dia. x 2.5 in H (173 mm Dia. x 64 mm H)

Wall-Mount Dimensions (including lens)

5.6 in L x 4.7 in W x 2.5 in D (142 mm L x 119 mm W x 64 mm D)

Chime Dimensions

5.6 in L x 4.7 in W x 1.3 in D (142 mm L x 119 mm W x 33 mm D)

Wall Back Box Skirt Dimensions

5.1 in L x 6.0 in W x 2.25 in D (130 mm L x 152 mm W x 57 mm D)

Wall Weatherproof Back Box Dimensions

5.7 in L x 5.1 in W x 2.0 in D (145 mm L x 130 mm W x 51 mm D)

Ceiling Weatherproof Back Box Dimensions

7.1 in Dia. x 2.0 in H (180 mm Dia. x 51 mm H)

Wall Surface Mount Back Box Dimensions

5.6 in L x 4.7 in W x 2.5 in D (142 mm L x 119 mm W x 109 mm D)

Ceiling Surface Mount Back Box Dimensions

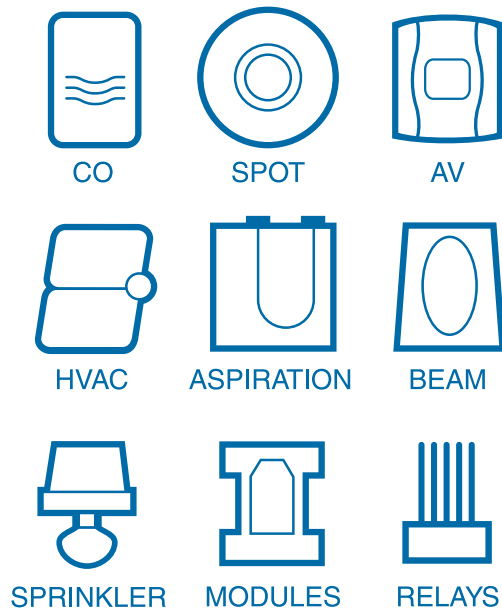
6.9 in Dia x 3.4" H (175 mm Dia x 86 mm H)

Wall Speaker Surface Mount

Back Box Dimensions
6.0 in L x 5.1 in W x 5.3 in D (152 mm L x 130 mm W x 135 mm D)

Notes:

1. Full Wave Rectified (FWR) voltage is an unfiltered, 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.
3. To calculate current draw for 4-wire horn strobes, combine horn and strobe current draws from the tables at left.



Founded in 1984, System Sensor is a global manufacturer of fire and life safety devices, specializing in smoke detection, carbon monoxide detection, and notification technology. System Sensor develops products for real-world applications worldwide. With sales, service, and manufacturing facilities throughout the Americas, Europe, and Asia, System Sensor places a premium on research and development to provide the most reliable, innovative, and comprehensive line of products in the industry.

