

# Notification Appliances

SEH – High-Fidelity Speakers and Speaker Strobes

Application: Indoor



SEH-HMC-W  
Speaker Strobe



SECH-R  
Speaker



SEH-HMC-CW  
Speaker Strobe



SEH-R  
Speaker

## Product Overview

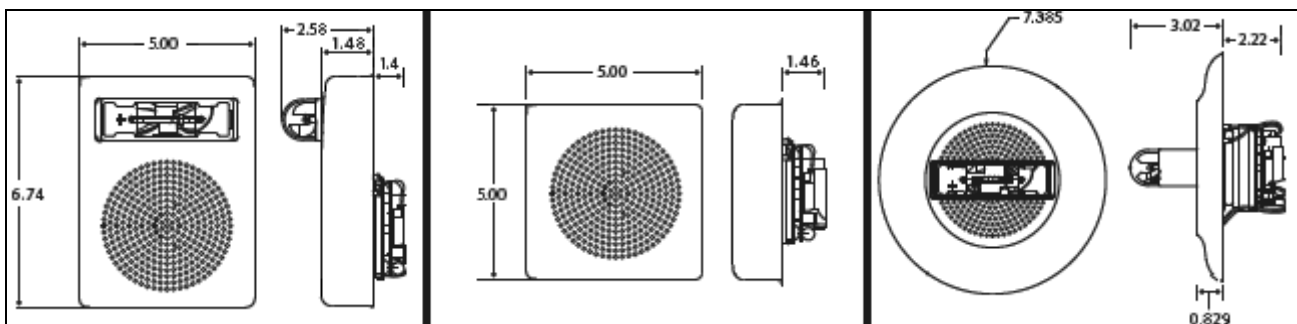
- Siemens Series `SEH` of High-Fidelity (HiFi) speakers / speaker-strobes are comprised of high-efficient design for maximum output (at minimum wattage) across a sizeable frequency range, 300 to 8000 Hz
- Current Siemens Series `SE` of speakers / speaker-strobes can easily be upgraded into the Siemens Series `SEH`
- Siemens Series `SEH` appliances have a plastic finish in which each model has a built-in level-adjustment feature
  - Snap-on grille cover with non-visible mounting screws for a level finish
- Series `SEH` appliances mounts to a 4-inch [10.2 cm.] square by 2-1/8"-deep [5.4 cm.] back box:
  - Compatible with the SPECT extension ring, which prevents wire damage
  - Model SPECT is an optional extender used for mounting to 4" [10.2 cm.] back boxes without an extension ring
- The strobes portion of the Series `SEH` appliances can be synchronized when used with any of the following:
  - 252 / 504-point addressable fire-safety systems
  - Siemens Modular systems and FireFinder® XLS control panels
  - Siemens Dual-Sync Control Modules -> Model DSC-series with built-in sync protocol
  - Siemens PAD-series of NAC Extenders
- Faceplates for Siemens Series `SEH` speaker-strobe appliances contain "FIRE" and "ALERT" text
  - "ALERT" strobes orderable in either Clear or in Amber
- Siemens Series `SEH` meets the requirement for low-frequency signal tone [as described in the section for **Determination of Low Frequency Signal Format** in the **Standard for Audible Signal Appliances**, per ©UL464] when used with:
  - One (1) Amplifier Card {Model VCI2001-U1} with Siemens 252-point / 504-point addressable FACPs
  - One (1) Booster Amplifier {Model EBA200x Series} with Siemens 252-point / 504-point addressable FACPs
  - One (1) 40W Zone Amplifier Card {Model ZAC-40} with Siemens Modular systems and FireFinder XLSV
- Fast installation with In / Out screw terminals using #12 to #18 AWG wires
- Field-selectable taps for 25 or 70 VRMS operation from 1/8 Watt up to 2 Watts
- HiFi speaker-strobes produce one (1) flash per second
- Ceiling-mount HiFi signaling devices are available with six (6) field-selectable settings:
  - 15/30/75/95cd for single-Candela strobes
  - 15/30/75/95cd or 115/177cd multi-Candela strobes
- Wall-mount HiFi signaling devices are available with six (6) field-selectable settings:
  - 15/30/75/110cd or 135/185cd for multi-Candela strobes
- Wall-mount, standalone speaker available
  - Red and white
- ©UL 1480 and 1971 Listed, ©ULC-S526, -S541 Listed; CSFM (#7320-0067:0275) Approved
- ADA, NFPA and ANSI Compliant; Complies with OSHA 29 Part 1910.165

'SEH' Series Notification Appliances **2589**

## Specifications

- High-fidelity speaker appliances are Siemens Series 'SEH' HiFi Speakers, and the speaker-strobe appliances are Siemens Series 'SEH' HiFi Speaker Strobes or approved equals
- HiFi speakers are ®UL Listed under Standard 1480 for Fire Protective Service, and speakers equipped with strobes are listed under ®UL Standard 1971 for Emergency Devices for the Hearing-Impaired
- HiFi speakers are designed for a field-selectable input of either 25 or 70 VRMS, and with selectable power taps from 1/8 Watt to 2 Watts
- Both HiFi ceiling and wall-mount models have listed sound outputs of up to 87 dBA at 10 feet, and a listed frequency response of 300 to 8000 Hz
- Speaker appliances feature sealed-back construction for optimum audibility
- All inputs employ terminals that accept #12 to #18 AWG wire sizes
- Strobe intensity, where multi-Candela appliances are specified, have six (6) field-selectable settings, and are rated per ®UL Standard 1971 for:
  - 15/30/75/110cd (wall mount)
  - 135/185cd (wall mount, high Candela)
  - 15/30/75/95cd (ceiling mount)
  - 115/177cd (ceiling mount, high Candela)
- Selector switch, which is used for manually selecting the candela setting, is tamper-resistant by design
- The strobe portion, when synchronization is required, is compatible when used with any of the following:
  - 252 / 504-point addressable fire-safety systems
  - Siemens Modular and FireFinder® XLS/V control panels
  - Siemens Dual-Sync Control Modules -> Model DSC-series with built-in sync protocol
  - Siemens PAD-series of NAC Extenders
- Siemens Series 'SEH' meets the requirement for low-frequency signal tone, per ®UL464, when used with:
  - One (1) Amplifier Card {Model VCI2001-U1} with Siemens 252-point / 504-point addressable FACPs
  - One (1) Booster Amplifier {Model EBA200x Series} with Siemens 252-point / 504-point addressable FACPs
  - One (1) 40W Zone Amplifier Card {Model ZAC-40} with Siemens Modular systems and FireFinder XLSV
- The strobes do not drift out of synchronization at any time during operation
- 'SEH'-series strobes revert to a non-synchronized flash-rate, if the dual-sync module or the Siemens PAD-series NAC Extenders should fail to operate (i.e. – contacts remain closed)
- HiFi ceiling speaker and speaker-strobe appliances are designed for indoor, flush mounting
- Wall-mount speaker and speaker-strobe appliances are designed for indoor flush mounting to 4" –x– 2-1/8" electrical boxes without the need for an extension ring or surface mounting
  - Model SPECT is an optional extender used for mounting to 4" [10.2 cm.] back boxes without a ring
- HiFi speakers and speaker-strobe incorporate a speaker-mounting plate with a snap-on grille cover:
  - Low-profile design allows for faster and easier installation of the speaker mounting plate
- Series 'SEH' HiFi speakers and speakers strobes is available for ordering in either white or red
- All speakers and speaker-strobe appliances are listed for Special Applications:
  - 24 VDC with wide, ®UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage
  - Strobes are designed to flash at 1-flash-per-second minimum over their "Regulated Input Voltage Range"
    - **Note:** NFPA-72 specifies a flash rate of 1-to-2 flashes per second, and ADA Guidelines specify a flash rate of 1-to-3 flashes per second
  - All candela ratings represent minimum-effective Strobe intensity, based on ®UL Standard 1971

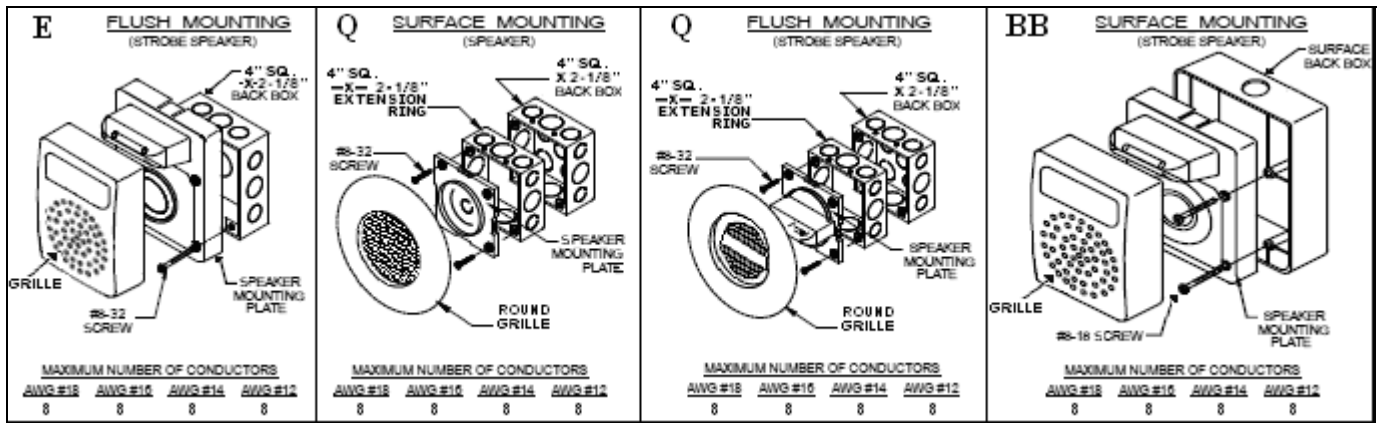
## Wiring Diagram



(Shown In Inches)

# Wiring Diagram – (continued)

## Mounting Options



## Technical Data

### SEH-MC Series: Wall-Mount Strobe Only

Current Ratings (AMPs)						
MAXIMUM RMS Current – Per $\text{UL}$ and $\text{ULC}$						
Input Voltage Range		Operating Voltage (Special Application)	15cd	30cd	75cd	110cd
DC	16.0 – 33.0VRMS	@ 24 VDC	0.064	0.098	0.175	0.233
FWR	16.0 – 33.0VRMS	@ 24 VDC	0.108	0.164	0.268	0.368

### SE HiFi Series: Ceiling-Mount Strobe Only

Current Ratings (AMPs)						
MAXIMUM RMS Current – Per $\text{UL}$ and $\text{ULC}$						
Input Voltage Range		Operating Voltage (Special Application)	15cd	30cd	75cd	95cd
DC	16.0 – 33.0VRMS	@ 24 VDC	0.069	0.111	0.200	0.264
FWR	16.0 – 33.0VRMS	@ 24 VDC	0.117	0.180	0.297	0.398

### SEH-HMC Series: Wall-Mount Strobe Only

Current Ratings (AMPs)				
MAXIMUM RMS Current – Per $\text{UL}$ and $\text{ULC}$				
Input Voltage Range		Operating Voltage (Special Application)	135cd	185cd
DC	16.0 – 33.0VRMS	@ 24 VDC	0.318	0.445
FWR	16.0 – 33.0VRMS	@ 24 VDC	0.482	0.684

### SE HiFi Series: Ceiling-Mount Strobe Only

Current Ratings (AMPs)				
MAXIMUM RMS Current – Per $\text{UL}$ and $\text{ULC}$				
Input Voltage Range		Operating Voltage (Special Application)	115cd	177cd
DC	16.0 – 33.0VRMS	@ 24 VDC	0.318	0.445
FWR	16.0 – 33.0VRMS	@ 24 VDC	0.482	0.684

### SEH Series: Wall-Mount Speakers Only

$\text{UL}$ and $\text{ULC}$ Listed Models and Ratings											
Model*	Operating Voltage (VRMS)	dBA at 10 Feet (Rated Watts)					Anechoic dBA (Per CAN / $\text{ULC}$ -S541-07)				
		1/8	1/4	1/2	1	2	1/8	1/4	1/2	1	2
SEH	25/70	73	76	79	82	84	74	76	80	83	86
SEH-MC	25/70	73	76	79	82	84	74	76	80	83	86
SEH-HMC	25/70	73	76	79	82	84	74	76	80	83	86

\* All models available in red or white.

$\text{ULC}$ Directional Characteristics		
25V / 70V	-3dBA	+/- 19 degrees horizontal; +/- 18 degrees vertical
	-6dBA	+/- 37 degrees horizontal; +/- 39 degrees vertical

### SE HiFi Series: Ceiling-Mount Speakers Only

$\text{UL}$ and $\text{ULC}$ Listed Models and Ratings											
Model*	Operating Voltage (VRMS)	dBA at 10 Feet (Rated Watts)					Anechoic dBA (Per CAN / $\text{ULC}$ -S541-07)				
		1/8	1/4	1/2	1	2	1/8	1/4	1/2	1	2
SECH	25/70	74	77	80	83	85	74	78	80	83	86
SEH-MC-C	25/70	74	77	80	82	85	73	76	79	82	85
SEH-HMC-C	25/70	74	77	80	82	85	73	76	79	82	85

\* All models available in red or white.

$\text{ULC}$ Directional Characteristics		
25V / 70V	-3dBA	+/- 34 degrees horizontal; +/- 17 degrees vertical
	-6dBA	+/- 40 degrees horizontal; +/- 32 degrees vertical

- Notes:**
1. Speaker and Strobe models are  $\text{UL}$  Listed for indoor use with a temperature range of +32°F to +120°F (0°C to +49°C) and maximum humidity of 95% RH.
  2. For Speaker Appliances, dBA is rated per  $\text{UL}$  Standard 1480. Frequency range of speakers is 300 – 8000Hz.
  3. Strobes produce 1 flash-per-second over the input voltage range.

### Speaker Voltage & Wattage Connection Chart

Position	25V	70V
A	2	---
B	1	---
C	1/2	---
D	1/4	2
E	1/8	1
F	----	1/2
G	----	1/4
H	----	1/8

# Details for Ordering – (Including Mounting Options & Agency Approvals)

								Agency Approvals		
Model	Part Number	Description	Wall Mount	Ceiling Mount	Text	Mounting Options*	UL	ULC	CSFM	
SECH-R	S54360-F1-A1	SEH HiFi Speaker: Round, Red	–	YES	N/A	Q,U	✓	✓	✓	
SECH-W	S54360-F1-A2	SEH HiFi Speaker: Round, White	–	YES	N/A	Q,U	✓	✓	✓	
SEH-CW-ALERT	S54329-A21-A1	SEH HiFi Speaker: Round, White	–	YES	ALERT	Q,U	✓	✓	✓	
SEH-MC-CW-ALERT	S54329-A24-A1	SEH HiFi Speaker: Multi-Candela Round, White	–	YES	ALERT	Q,U,V	✓	✓	✓	
SEH-MC-CW-BLANK	S54329-A25-A1	SEH HiFi Speaker: Multi-Candela Round, White	–	YES	N/A	Q,U,V	✓	✓	✓	
SEH-HMC-CR	S54360-F7-A1	SEH HiFi Speaker: Hi Multi-Candela Round, Red	–	YES	FIRE	Q,U,V	✓	✓	✓	
SEH-HMC-CW	S54360-F7-A2	SEH HiFi Speaker: Hi Multi-Candela Round, White	–	YES	FIRE	Q,U,V	✓	✓	✓	
SEH-AMC-CW-ALERT	S54329-A11-A1	SEH HiFi Speaker: Amber Multi-Candela Round, White	–	YES	ALERT	Q,U,V	✓	✓	✓	
SEH-HMC-R	S54360-F8-A1	SEH HiFi Speaker-Strobe: Hi Multi-Candela, Red	YES	–	FIRE	E,Q,U,BB	✓	✓	✓	
SEH-HMC-W	S54360-F8-A2	SEH HiFi Speaker-Strobe: Hi Multi-Candela, White	YES	–	FIRE	E,Q,U,BB	✓	✓	✓	
SEH-HMC-W-ALERT	S54329-A19-A1	SEH HiFi Speaker: Multi-Candela, White	YES	–	ALERT	E,Q,U,BB	✓	✓	✓	
SEH-AMC-W-ALERT	S54329-A12-A1	SEH HiFi Speaker: Amber Multi-Candela, White	YES	–	ALERT	E,Q,U,BB	✓	✓	✓	
SEH-MC-CR	S54360-F9-A1	SEH HiFi Speaker: Multi-Candela Round, Red	–	YES	FIRE	Q,U,V	✓	✓	✓	
SEH-MC-CW	S54360-F9-A2	SEH HiFi Speaker: Multi-Candela Round, White	–	YES	FIRE	Q,U,V	✓	✓	✓	
SEH-MC-R	S54360-F10-A1	SEH HiFi Speaker-Strobe: Multi-Candela, Red	YES	–	FIRE	E,Q,U,BB	✓	✓	✓	
SEH-MC-R-ALERT	S54329-A17-A1	SEH HiFi Speaker-Strobe: Multi-Candela, Red	YES	–	ALERT	E,Q,U,BB	✓	✓	✓	
SEH-MC-W	S54360-F10-A2	SEH HiFi Speaker-Strobe: Multi-Candela, White	YES	–	FIRE	E,Q,U,BB	✓	✓	✓	
SEH-MC-W-ALERT	S54329-A18-A1	SEH HiFi Speaker: Multi-Candela Round, White	YES	–	ALERT	E,Q,U,BB	✓	✓	✓	
SEH-MC-W-BLANK	S54329-A20-A1	SEH HiFi Speaker: Multi-Candela Round, White	YES	–	N/A	E,Q,U,BB	✓	✓	✓	
SEH-R	S54360-F11-A1	SEH HiFi Speaker: Square, Red	YES	–	N/A	E,O,P,Q,R,U,Y,AA	✓	✓	✓	
SEH-W	S54360-F11-A2	SEH HiFi Speaker: Square, White	YES	–	N/A	E,O,P,Q,R,U,Y,AA	✓	✓	✓	
SEH-W-ALERT	S54329-A16-A1	SEH HiFi Speaker: Square, White	YES	–	ALERT	E,O,P,Q,R,U,Y,AA	✓	✓	✓	
SPEXT-R**	500-636116	** SPEXT is an extender ring that mounts behind the speaker to permit mounting to a 4" square –x– 2-1/8" deep electrical box – without the need for an extension ring on the box.					✓	✓	✓	
SPEXT-W**	500-636117						✓	✓	✓	

**NOTE:** There are no regulatory restrictions in mounting Siemens Series 'SEH' Speaker-only appliances to either wall or ceiling applications.

✓ = listed / approved

\* = Refer to data sheet # 2585 for detailed mounting options

**Notice:** This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.