

SIEMENS



SC-HS-WR-F



SC-HS-WW-F



SC-ST-WR-F



SC-ST-WW-F



SC-HN-WR-N



SC-HN-WW-N

Siemens Acend™ Series

**SC-HN-WW-N, SC-ST-WW-F, SC-HS-WW-F,
SC-HN-WR-N, SC-ST-WR-F, SC-HS-WR-F**

Installation

1 GENERAL INFORMATION

⚠ WARNING! Read this instruction manual carefully before using the product. Failure to comply with any of the following instructions, cautions and warnings could result in improper application, candela setting, installation and/or operation of these products in an emergency, which could result in property damage and serious injury or death to you and/or others.

This document pertains to Siemens Acend™ horn-only, strobe-only and horn/strobe dual-type audible and/or visual notification appliances for wall mount applications. The included products are:

Horn-only Appliances	Strobe-only Appliances	Horn/strobe dual-type Appliances
SC-HN-WW-N	SC-ST-WW-F	SC-HS-WW-F
SC-HN-WR-N	SC-ST-WR-F	SC-HS-WR-F

Lens-based strobe-only and horn/strobe dual-type appliances have six candela settings. They can be provided as non-synchronized or synchronized strobe appliances, depending on whether the connected Fire Alarm Control Unit (FACU) incorporates the Siemens sync protocol or the Siemens Power Supply. All appliances meet the NFPA72 20 millisecond light pulse duration code requirements.

All appliances are UL/ULC listed as “Special Application 16 to 33VDC” and compliant with applicable clauses of FCC Part 15. They are intended to be used with compatible FACUs (Compatibility charts can be found either in the FACU installation instructions or in the compatibility document listed in the table below).

General Specifications

Compliant Standards	- UL 1971, UL 1638, UL 464 - ULC 525, ULC 526 - FCC Part 15
Compatible Fire Alarm Control Units (FACU)	See document IDs 315-096363, A6V10333530 and A6V10333532 for all compatible FACUs.
Environmental Specifications	- Operating Values: Indoor dry environment only; 32 to 122 °F (0 to 50 °C); 95% R.H. - The product's environmental declaration contains data on environmentally-friendly product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).
Horn Sound Output	High, Low (Field Selectable)
Horn Pattern	10 Patterns (Field Selectable). See Section 2 [→ 4] for more details.
Strobe Candela	6 Candela Levels (Field Selectable). See Section 3 [→ 6] for more details.
Input Power	Special Application 16 to 33VDC
Flash Rate	1Hz

Table 1: General Specifications

Items	Horn/Strobe Appliances	Horn-only Appliances	Strobe-only Appliances
Max. Initial Peak(mA)	105	57	46
Max. Initial RMS(mA)	48	50	34
Max. Repetitive Peak(mA)	198	26	160
Max. Repetitive RMS(mA)	188	24	158
Surge Current Time Frame(ms)	16.7	16.7	16.7

Table 2: Manufacturer Defined Surge Current

2 HORN PATTERN SETTINGS

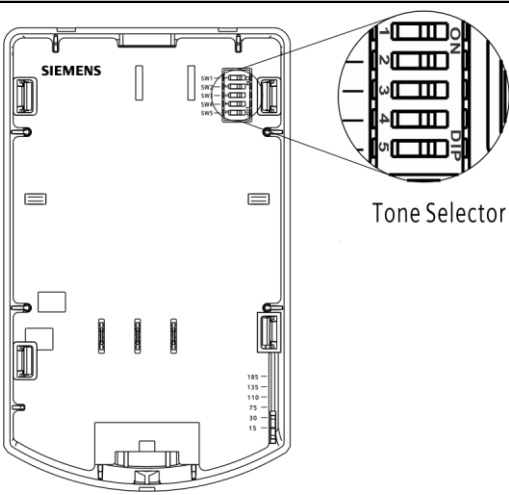
Horn Pattern Overview

The appliances containing a horn element support the following tones and patterns:

Horn Pattern	Description	Remarks
Continuous	Broadband Horn (continuous)	UL Listed for Fire
Bell	Modulated (0.07 Sec. ON/Repeat)	Tone is not evaluated by UL
March Time Horn	Horn (0.25 Sec. ON/0.25 Sec. OFF/Repeat)	
Code 3 Horn	Horn (ANSI S3.41 Temporal Pattern)	UL Listed for Fire
Code 3 Tone	500 Hz (ANSI S3.41 Temporal Pattern)	Tone is not evaluated by UL
Code 4 Tone	ANSI S3.41 Temporal Pattern	UL Listed for CO
Slow Whoop	500-1200Hz Sweep (3.75 Sec. ON/0.25 Sec. OFF/Repeat)	Tone is not evaluated by UL
Siren	600-1200-600Hz Sweep (1.0 Sec. ON/Repeat)	
HI/LO	1000/800 Hz (0.5 Sec. ON/Alternate)	
Canadian March Time 30	0.2 Sec ON/1.8 Sec OFF/Repeat	

Horn Pattern Selection

Use DIP switches on the appliance to select a horn pattern. Of the five DIP switches, the first one is for sound volume selection and the other four for horn pattern selection.

Tone Selector	Horn Pattern	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5
 Tone Selector	Continuous	1	1	1	1
	Bell	1	0	1	1
	March Time Horn	0	0	1	1
	Code 3 Horn (Default)	1	1	0	1
	Code 3 Tone	0	1	1	1
	Code 4 Tone	1	1	1	0
	Slow Whoop	0	1	0	1
	Siren	1	0	0	1
	HI/LO	0	0	0	1
	Canadian March Time 30	1	0	1	0

Note:

- 1 indicates **ON**, 0 indicates **OFF**.
- Switch **ON** DIP switch 1 to turn up the sound volume; switch it **OFF** to turn down the volume. The default volume is high.

2.1 Sound Output Values

Horn Pattern	Volume	Sound Output (dBA) within a Voltage Range of 16 to 33V		
		16V	24V	33V
Continuous	High	82	87	89
	Low	79	83	86
Code 3 Horn	High	82	87	89
	Low	79	83	86
Code 4 Tone	High	82	87	89
	Low	79	83	86

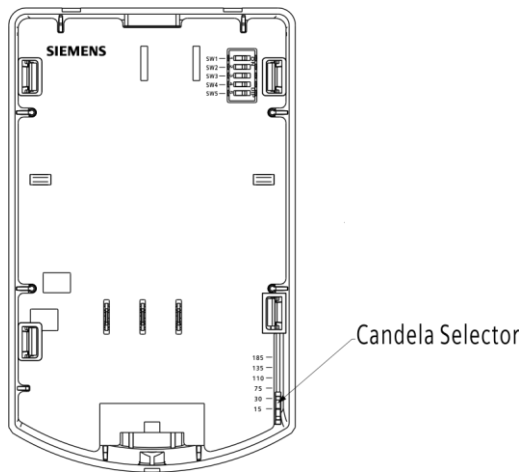
Table 3: Reverberant dBA Per UL 464 within a Voltage Range of 16 to 33V

Horizontal		Vertical	
-3dB:	145°	-3dB:	130°
	45°		55°
-6dB:	160°	-6dB:	155°
	25°		35°

Table 4: Directional Characteristics

3 CANDELA LEVEL SETTINGS

The appliances containing a strobe element support the following settings. Six candela levels are field selectable using the candela selector on the appliance: 15cd (default), 30cd, 75cd, 110cd, 135cd, and 185cd. The selected candela level is displayed on the faceplate.



3.1 Light Output

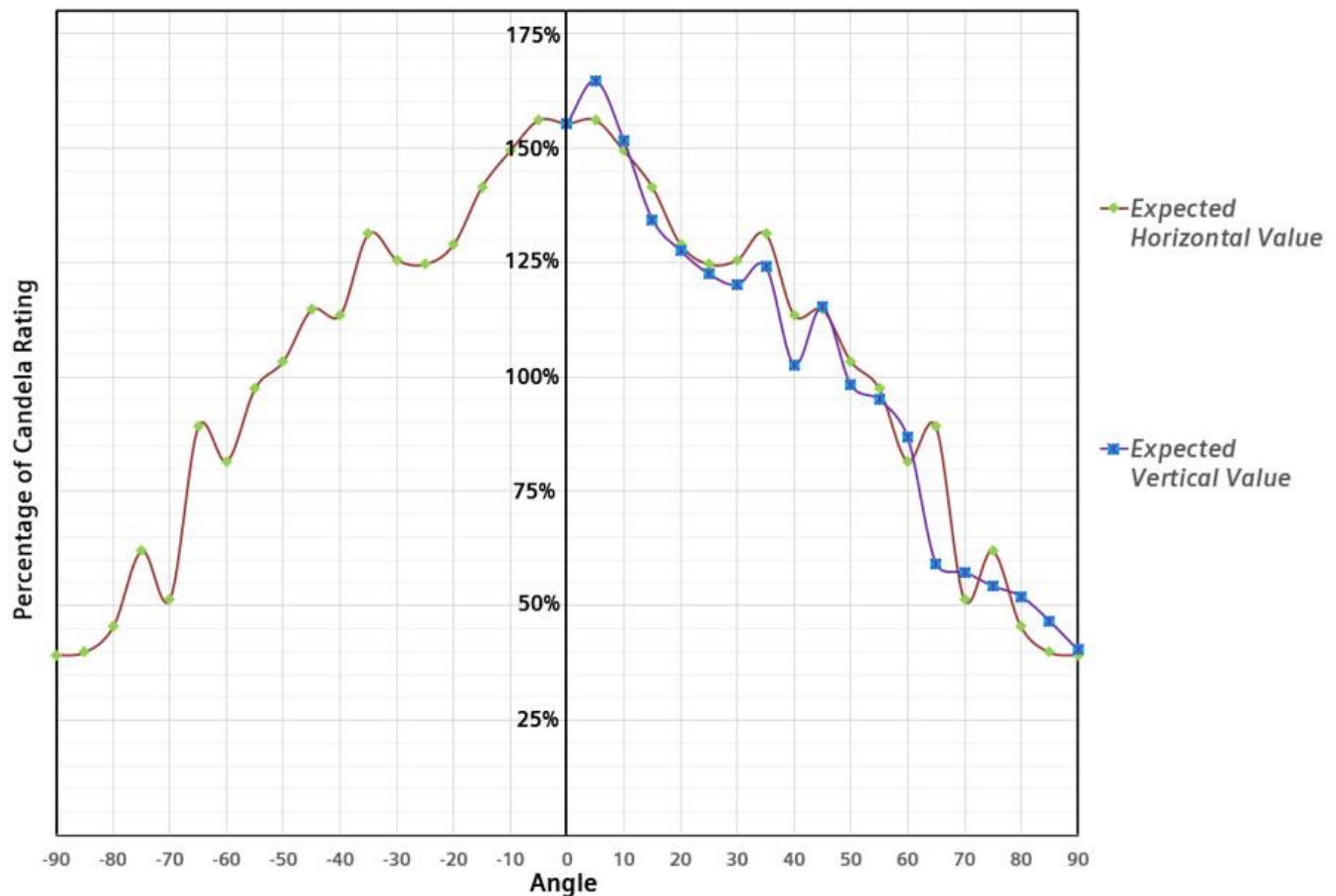


Fig. 1: SC-ST-WW-F, SC-ST-WR-F, SC-HS-WW-F and SC-HS-WR-F Expected Light Output

4 CURRENT DRAW INFORMATION

Current Draw (mA) at Different Strobe Candela Settings					
15cd	30cd	75cd	110cd	135cd	185cd
24	27	39	68	93	143

Table 5: Strobe Current Draw (mA) at Different Candela Settings within a Voltage Range of 16 to 33V

Horn	Volume	Current Draw (mA) at Different Strobe Candela Settings					
		15cd	30cd	75cd	110cd	135cd	185cd
Continuous	High	36	38	50	77	112	188
	Low	36	38	50	77	112	179
Bell	High	36	38	50	77	112	183
	Low	36	38	50	77	112	180
March Time Horn	High	45	47	59	86	121	170
	Low	45	47	59	86	121	168
Code 3 Horn	High	37	39	51	78	113	172
	Low	37	39	51	78	113	168
Code 3 Tone	High	39	41	53	80	115	167
	Low	39	41	53	80	115	166
Code 4 Tone	High	42	44	56	83	118	157
	Low	42	44	56	83	118	150
Slow Whoop	High	36	38	50	77	112	146
	Low	36	38	50	77	112	145
Siren	High	36	38	50	77	112	163
	Low	36	38	50	77	112	162
HI/LO	High	36	38	50	77	112	150
	Low	36	38	50	77	112	149
Canadian March Time 30	High	44	46	58	85	120	155
	Low	44	46	58	85	120	144

Table 6: Horn/strobe Current Draw (mA) at Different Candela Settings within a Voltage Range of 16 to 33V

Horn	Volume	Current Draw (mA)
Continuous	High	29
	Low	20
Bell	High	27
	Low	24
March Time Horn	High	38
	Low	36
Code 3 Horn	High	30
	Low	26
Code 3 Tone	High	32

Horn	Volume	Current Draw (mA)
	Low	31
Code 4 Tone	High	35
	Low	28
Slow Whoop	High	21
	Low	20
Siren	High	28
	Low	27
HI/LO	High	28
	Low	27
Canadian March Time 30	High	37
	Low	26

Table 7: Horn Current Draw (mA) within a Voltage Range of 16 to 33V

NOTICE



Refer to “Compatibility list” to calculate the maximum number of appliances when the appliances are used with FACUs.

⚠ WARNING

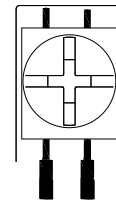
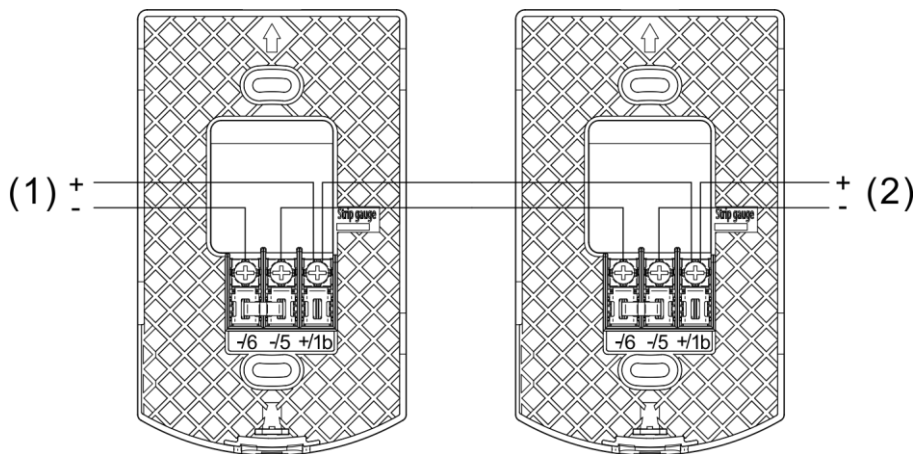


Overloading power sources or exceeding ratings could result in loss of power and failure to alert occupants during an emergency, which could result in property damage and serious injury or death to you and/or others.

5 WIRING

- All appliances have three in-out wiring terminals (-/6, -/5 and +/1b) that accept two #12 to #18 American Wire Gauge (AWG) solid and stranded wires at each screw terminal. Strip leads 3/8 inches and connect them to screw terminals. A strip gauge is available on the mounting plate to guide in wire stripping.
- The polarity shown in **Wiring Diagram** is in the alarm state. The FACU reverses the polarity during supervision.
- Do not fully back out terminal screws.
- A continuity jumper is factory installed between terminals 5 and 6 to allow wiring continuity testing before installation of appliance electronics. Remove the jumper before mounting the appliance to the base.
- Wiring shall be done in accordance with:
 - In the United States, the National Electrical Code, NFPA 70, and the National Fire Alarm and Signaling Code, NFPA 72.
 - In Canada, CSA C22.1, Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations, Section 32.
 - In Canada, CAN/ULC S524, Standard for Installation of Fire Alarm Systems.

Wiring Diagram



Note: Break all in-out wire runs on supervised circuits to ensure integrity of circuit supervision.

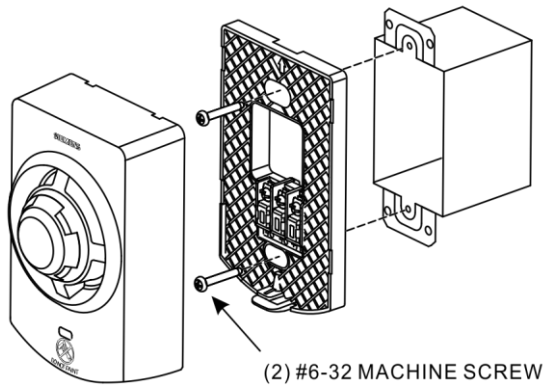
(1) To next appliance or EOL

(2) From preceding appliance or FACU

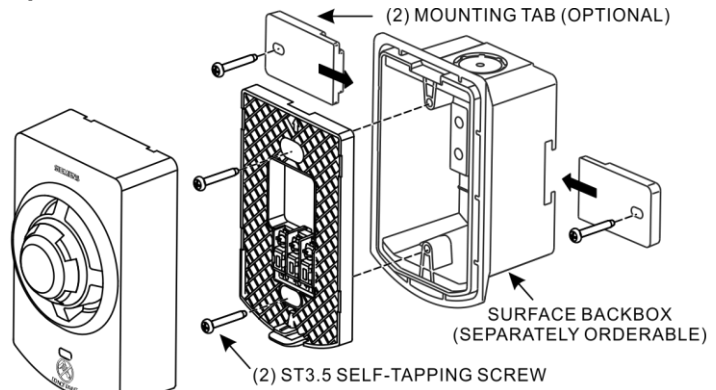
6 MOUNTING

6.1 MOUNTING OPTIONS

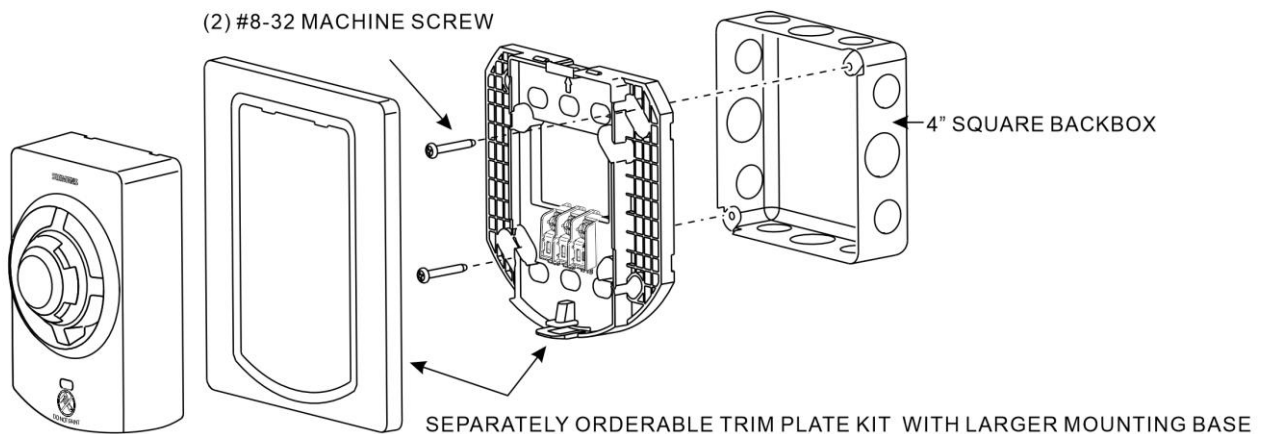
Option 1: Single Gang Mount



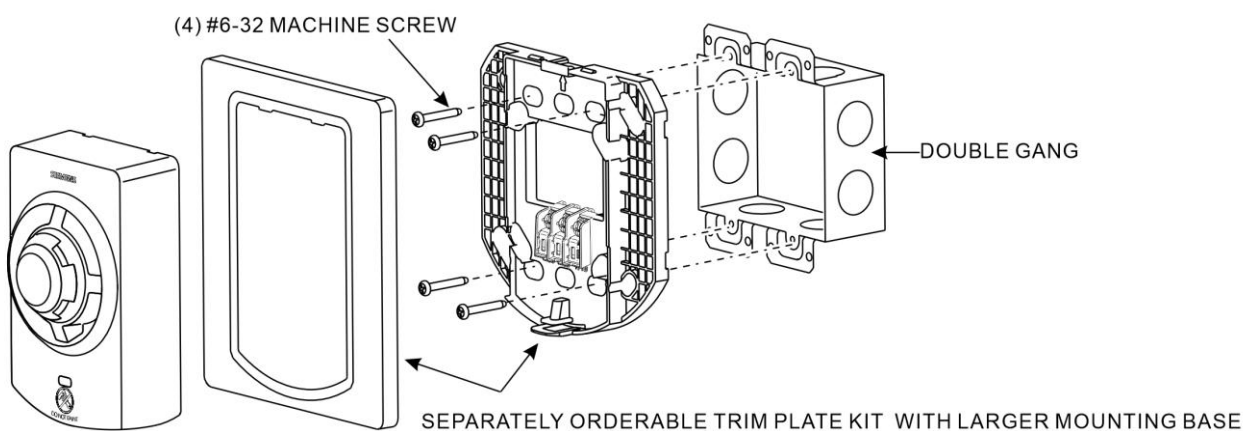
Option 2: Surface Mount



Option 3: 4" Square or Octagon Backbox Mount with Wall-Mount Mounting Plate and Trim Plate

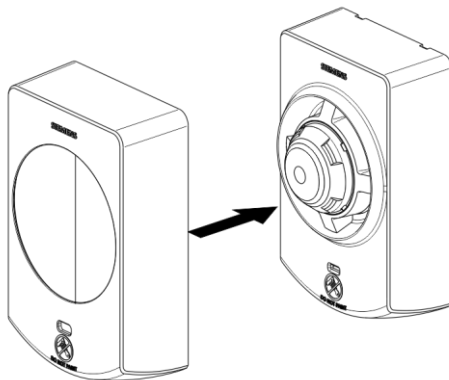


Option 4: Double Gang Mount with Wall-Mount Mounting Plate and Trim Plate

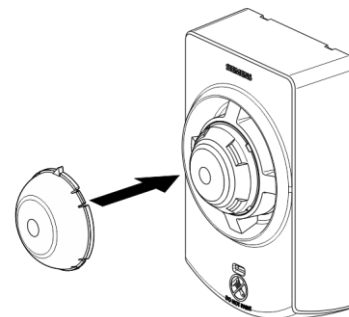


6.2 MOUNTING PROCEDURE

1. Ensure there is enough clearance and wiring room before installing backboxes and conduit, especially if sheathed multiconductor cable or 3/4-inch conduit fittings are used.
2. Select a mounting option (see MOUNTING OPTIONS [→ 10]) and install the backbox. Supported backboxes include single gangs, double gangs, octagon and 4" backboxes. If surface mounting is needed, install a separately orderable surface backbox from Siemens.
NOTICE! Conduit entrances to the backbox should be selected to provide sufficient wiring clearance for the installed product. Do not pass additional wires (used for anything other than the signaling appliance) through the backbox; doing so could result in insufficient wiring space for the signaling appliance.
3. Install the mounting plate on the backbox with the up arrow facing up. Use 6-32 screws for single/double gangs, 8-32 screws for 4" square or octagon backboxes, and ST3.5 self-tapping screws for surface backboxes.
NOTICE! 1) Do not over tighten mounting screws. Excessive torque can distort the mounting plate and may affect operability; 2) when using power tools to tighten mounting screws, ensure the torque is set to the lowest setting available.
4. Connect field wires to terminals on the mounting plate (see WIRING [→ 9]). Use care and proper techniques to position the field wires in the backbox so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing. When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the signaling appliance.
5. Snap trim plate (separately orderable, optional) over the mounting plate. A trim plate is needed if the cutout of a single gang is wider than the appliance, or if the mounting plate is installed on a double gang, octagon or 4" backbox.
6. Check wire continuity at the FACU with the continuity jumper between terminals 5 and 6.
NOTICE! Remove the continuity jumper after wire continuity test is completed.
7. Verify appliance settings are correct for your application:
 - Set horn pattern and tone volume using DIP switches for horn and horn/strobe appliances. See HORN PATTERN SETTINGS [→ 4] for more information.
 - Set candela level by manually switching the candela selector for strobe and horn/strobe appliances. See CANDELA LEVEL SETTINGS [→ 6] for more information.
8. Snap the notification appliance onto the mounting plate.
9. Install the LK-11 separately orderable locking screw (optional) to secure the appliance in place on the mounting plate and reduce risk of tampering.
10. If needed, snap separately orderable accessories (alternate cover and colored lens, optional) onto the appliance as demonstrated in the following graphics.



Snap Alternate Cover onto The Appliance



Snap Colored Lens onto The Appliance

⚠ WARNING! Do not paint this device.

NOTICE! Final acceptance is subject to Authorities Having Jurisdiction.

⚠ WARNING! When installing strobes in an open office or other areas containing partitions or other viewing obstructions, special attention should be given to the location of the strobes so that their operating effect can be seen by all intended viewers, with the intensity, number, and type of strobes being sufficient to make sure that the intended viewer is alerted by proper illumination, regardless of the viewer's orientation.

⚠ WARNING! A small possibility exists that the use of multiple strobes within a person's field of view, under certain circumstances, might induce a photo-sensitive response in persons with epilepsy. Strobe reflections in a glass or mirrored surface might also induce such a response. To minimize this possible hazard, Siemens strongly recommends that the strobes installed should not present a composite flash rate in the field of view which exceeds five (5) hz at the operating voltage of the strobes. Siemens also strongly recommends that the intensity and composite flash rate of installed strobes comply with levels established by applicable laws, standards, regulations, codes and guidelines.

⚠ WARNING! Colored lenses must only be used with devices that are not fire printed. Colored lens strobes are UL Listed under UL 1638 (Visual Signaling Appliances) for Private Mode Signaling; this includes Emergency Warning Signaling (not for Fire Evacuation). See table below for candela deratings of strobe devices.

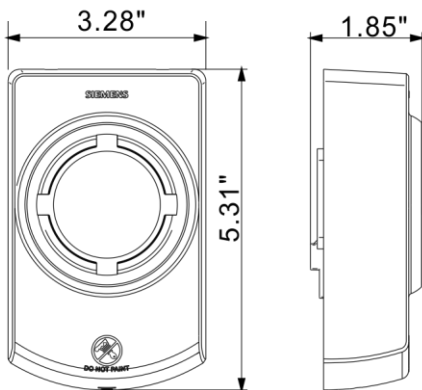
Lens Color	Candela De-Rating on-axis (straight on)
Amber	0%
Green	0%
Blue	-30%
Red	-40%

6.3 MOUNTING MATRIX

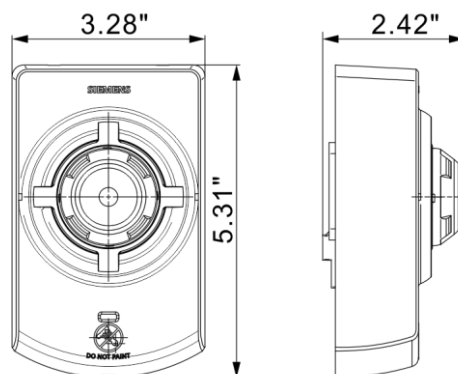
Accessories	Notification Appliances					
	SC-HS-WR-F	SC-HS-WW-F	SC-ST-WR-F	SC-ST-WW-F	SC-HN-WR-N	SC-HN-WW-N
STP-HS-WR	x		x		x	
STP-HS-WW		x		x		x
SCVR-HS-WR-EMG	x		x		x	
SCVR-HS-WW-EMG		x		x		x
SCVR-HS-WR-ALR	x		x		x	
SCVR-HS-WW-ALR		x		x		x
SCVR-HS-WR-AGT	x		x		x	
SCVR-HS-WW-AGT		x		x		x
SCVR-HS-WR-HOF	x		x		x	
SCVR-HS-WW-HOF		x		x		x
SCVR-HS-WR-BNK	x		x		x	
SCVR-HS-WW-BNK		x		x		x
SMB-HS-WR	x		x		x	
SMB-HS-WW		x		x		x
STLENS-R	x	x	x	x		
STLENS-A	x	x	x	x		
STLENS-B	x	x	x	x		
STLENS-G	x	x	x	x		

7 DIMENSIONS

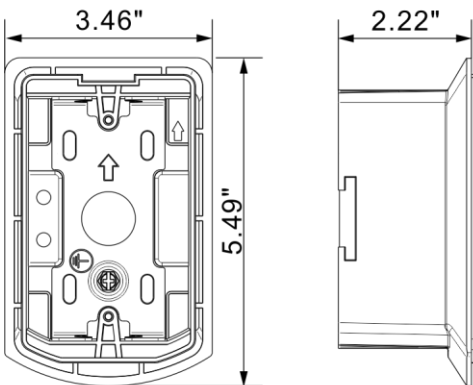
Horn Only



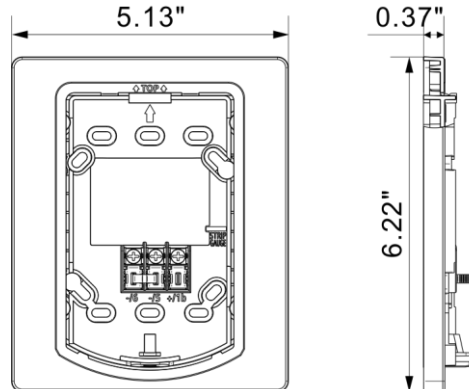
Strobe and Horn/Strobe



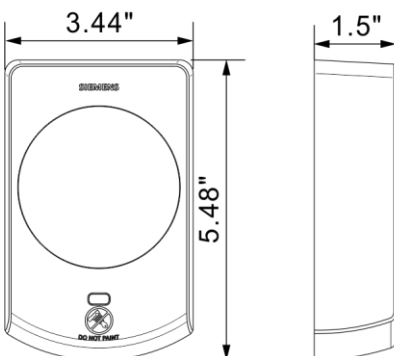
Surface Mounting Box



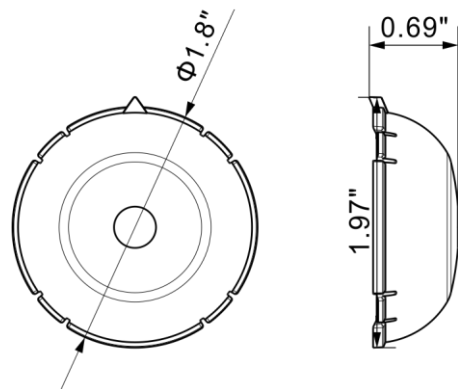
Trim Plate with Mounting Plate



Alternate Cover

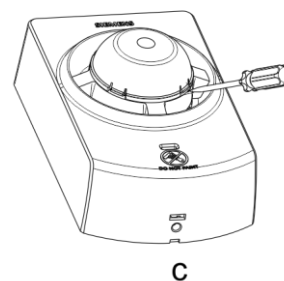
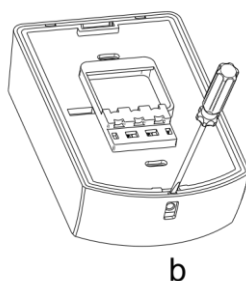
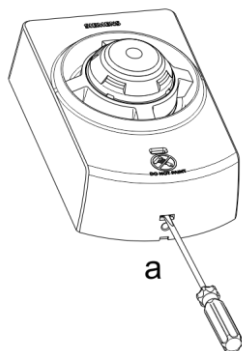


Colored Lens



8 DISASSEMBLY

First, remove the LK-11 locking screw (if used). Then, insert a small flat blade screwdriver (e.g., 1/4 inch) into the slots as shown in the following illustrations. Push in to release and lift up to disassemble the appliance (a), then remove alternate cover (b) and colored lens (c) if installed. **Note:** Alternate covers can only be removed after the appliance is disassembled.



9 REGULATORY COMPLIANCE INFORMATION

FCC Statement

⚠ WARNING	
	Installation and usage of equipment not in accordance with instructions manual may result in: Radiation of radio frequency energy Interference to radio communications • Install and use equipment in accordance with installation instructions manual • Read the following information

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications.

It has been tested and found to comply with the limits for a Class A computing device pursuant to Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

IN NO CASE WILL SELLER'S LIABILITY EXCEED THE PURCHASE PRICE PAID FOR A PRODUCT.

10 ORDERING INFORMATION

Model Number	Part number	Description
SC-HN-WW-N	S54361-F14-A2	Horn (wall, white)
SC-HN-WR-N	S54361-F14-A1	Horn (wall, red)
SC-ST-WW-F	S54361-F6-A2	Strobe (wall, white, Fire)
SC-ST-WR-F	S54361-F6-A1	Strobe (wall, red, Fire)
SC-HS-WW-F	S54361-F9-A2	Horn-Strobe (wall, white, Fire)
SC-HS-WR-F	S54361-F9-A1	Horn-Strobe (wall, red, Fire)

10.1 ACCESSORIES

Model Number	Part Number	Description
STP-HS-WR	S54370-F38-A1	Horn-Strobe Trim Plate (wall, red)
STP-HS-WW	S54370-F1-A2	Horn-Strobe Trim Plate (wall, white)
SCVR-HS-WR-EMG	S54370-F30-A1	Horn-Strobe Alternate Cover (wall, red, Emergency)
SCVR-HS-WW-EMG	S54370-F30-A2	Horn-Strobe Alternate Cover (wall, white, Emergency)
SCVR-HS-WR-ALR	S54370-F32-A1	Horn-Strobe Alternate Cover (wall, red, Alert)
SCVR-HS-WW-ALR	S54370-F32-A2	Horn-Strobe Alternate Cover (wall, white, Alert)
SCVR-HS-WR-AGT	S54370-F34-A1	Horn-Strobe Alternate Cover (wall, red, Agent)
SCVR-HS-WW-AGT	S54370-F34-A2	Horn-Strobe Alternate Cover (wall, white, Agent)
SCVR-HS-WR-HOF	S54370-F36-A1	Horn-Strobe Alternate Cover (wall, red, HOF) 
SCVR-HS-WW-HOF	S54370-F36-A2	Horn-Strobe Alternate Cover (wall, white, HOF) 
SCVR-HS-WR-BNK	S54370-F19-A1	Horn-Strobe Alternate Cover (wall, red, Blank)
SCVR-HS-WW-BNK	S54370-F19-A2	Horn-Strobe Alternate Cover (wall, white, Blank)
SMB-HS-WR	S54370-F15-A1	Surface Mount Box (wall, red)
SMB-HS-WW	S54370-F15-A2	Surface Mount Box (wall, white)
STLENS-R	S54370-F17-A1	Colored Lens Red
STLENS-A	S54370-F17-A2	Colored Lens Amber
STLENS-B	S54370-F18-A1	Colored Lens Blue
STLENS-G	S54370-F18-A2	Colored Lens Green

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