



**Ordering Information**

<u>Stock Number</u>	<u>Model Number</u>	<u>Model Designations</u>
4890005	EH-24R	R = Red faceplate
4890006	EH-24W	W = Off-White faceplate
4890007	EH-24PR	P = Plain
4890008	EH-24PW	

**SIGNALING**



**LISTED**

*Product includes a 5 year warranty*

**Description**

The EH24 Series is a low profile electronic horn that offers dependable audible output at the lowest current available.

The EH24 Series horn offers a continuous or synchronizable temporal three in 2400Hz and mechanical tone, a chime, and whoop tone. All tones are easy for the professional to change in the field by using switches.

**Features**

- Nominal voltage 24 VDC
- Horn is available in 12 VDC or 24 VDC
- Super-Slide Bracket - ease of supervision testing
- Checkmate® - instant voltage verification
- Synchronize strobe and/or horn with AVSM Control Module
- Prewire entire system, install mounting bracket, then install signals
- Documented lower installation and operating costs
- Input terminals 12 to 18 AWG
- Switch selection for high or low dBA
- Switch for chime, whoop, mechanical, and 2400 Hz tone
- Switch for continuous or temporal 3 (not available on whoop tone)
- Tamperproof re-entrant grill
- Surface mount with the AVBB (Surface Back Box)
- Silence horn while strobes remain flashing
- Faceplate available in red or off-white

*Dimensions*

- 5" (12.7 cm) height x 4.5" (11.43 cm) wide x 2.5" (6.35 cm) deep

*Operating temperature*

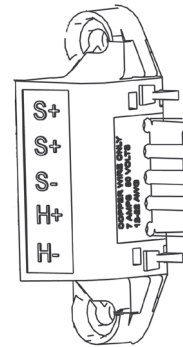
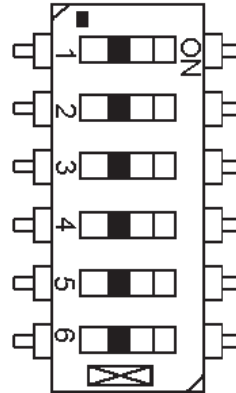
- 32°F to 120°F (0°C to 49°C). The EH-24 Series is not listed for outdoor use.

The EH24 Series is supplied with the standard 4" mounting plate which incorporates the popular Super-Slide® feature that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The EH24 Series also features the patented Checkmate® - Instant Voltage Verification feature, which allows the installer to check the voltage drop draw and match it to the blueprint.

**Tone Switch Locations**

TONE	SWITCH POSITION		
	3	4	5
Mechanical Temporal 3	ON	ON	ON
Mechanical - Continuous	OFF	ON	ON
2400Hz - Temporal 3	ON	OFF	ON
2400Hz - Continuous	OFF	OFF	ON
Chime - Temporal 3	ON	ON	OFF
Chime - Continuous	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

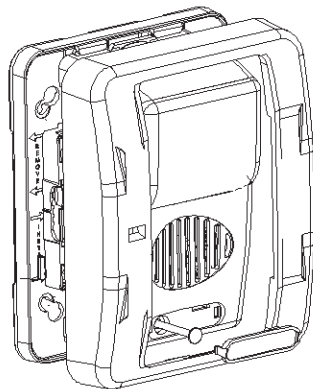


**NOTE:**

- Switch Positions 1 and 2 in the OFF position to select isolated horn and strobe power inputs.
- Switch Position 6 ON = HIGH dBA
- Switch Position 6 OFF = LOW dBA

**Super-Slide®  
Mounting Bracket**

Allows the installer to pre-wire the system, test for system supervision, remove the signal head until occupancy, switch out signals without changing mounting brackets and has locking edge connector for snap-in place installation.



To remove bezel, grip both sides of bezel and pull in a downward and outward motion.

**Checkmate® Instant Voltage Verification**

It is often necessary to confirm the voltage drop along a line of devices. The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically this would be done at the end of the line to confirm design criteria. Most measurements will be taken using the S+ and S- locations although access is provided to other locations.

NOTE: Care should be taken to not short the test probes.

EH-24 Product Horn Decibel and Current Ratings			
Horn Mode	Minimum dBA @ 10ft. per ANSI/UL 464 (HIGH)	Minimum dBA @ 10ft. per ANSI/UL 464 (LOW)	Regulated 24 VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	78	71*	28
Temp 3 Mechanical	76	70*	25
Temp 3 Chime	70*	66*	15
Continuous 2400Hz	81	74*	28
Continuous Mechanical	80	72*	25
Continuous Chime	70*	66*	15
Whoop	82	69*	56

**NOTES:**

- The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode.
- For nominal and peak current across UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual. 12VDC models are DC only.
- \* Operating the horn in this mode at this voltage will result in not meeting the minimum ANSI/UL 464 reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).

**Architect & Engineering Specifications**

The audible and/or visible signal shall be Potter EH24 Series or approved equal and shall be listed by Underwriters Laboratories Inc. per ANSI/UL 464. The notification appliance shall also be listed with the California State Fire Marshal (CSFM).

The notification appliance shall produce a peak sound output of 100 dBA or greater at 12 VDC or 24 VDC as measured in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of power wires. Additionally, the user shall be able to select either continuous or temporal tone output with the temporal signal having the ability to be synchronized.

The appliance shall be polarized to allow for electrical supervision of the system wiring. The unit shall be provided with a mounting bracket with terminals with barriers for input/output wiring and be able to mount to a single gang or double gang box or double workbox without the use of an adapter plate. The unit shall have an input voltage range of 16-33 volts with either direct current or full wave rectified power.

The appliance shall be capable of test supervision without disconnecting wires, verify voltage without removing unit, and be capable of mounting to a surface back box.

**GEH 24 VDC Low Profile Evacuation Horn**

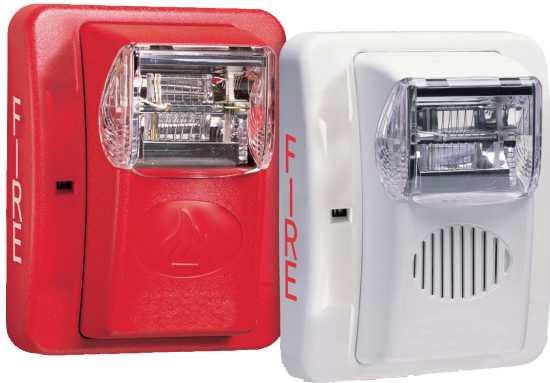
Model Number	Part Number	Nominal Voltage	Reverberant dBA @ 10ft., per ANSI/UL 464	In Anechoic Room dBA @ 10ft.
GEH24-R	904-1205-002	24 VDC	70-82	100
GEH24-W	904-1207-002	24 VDC	70-82	100

Model Designations:

W = Wall Mount  
R = Red Faceplate  
W = White Faceplate

All units are available in plain (no lettering).

Plain units are non-returnable.  
ALERT bezel available  
AGENT bezel available



#### Features

- 24VDC units have field selectable candela options of 15, 30, 60, 75, & 110
- Super-Slide® Bracket - Ease of Supervision Testing
- Checkmate® - Instant Voltage Verification
- Synchronize strobe and/or horn with AVSM Control Module
- Prewire entire system, install mounting bracket, then install signals
- Documented lower installation and operating costs
- Input terminals accept 12 to 18 AWG
- Switch selection for high or low dBA
- Switch for chime, whoop, mechanical and 2400Hz tone
- Tamperproof re-entrant style grill
- Switch for continuous or temporal 3 tone (not available on whoop tone)
- Surface mount with the AVBB (Surface Mount Back Box)
- Silence audible while visual appliance will remain flashing (for use in accepted jurisdictions)
- Faceplate available in red or off-white

#### Operating Temperature

- 32°F to 120°F (0°C to 49°C). The HS and S Series are **not** listed for outdoor use.

#### Unit Dimensions

- 5" (12.7 cm) high x 4.5" (11.43 cm) wide x 2.5" (6.35 cm) deep

#### Description

The S-24/HS-24 Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms and the absolute lowest current available.

The S-24 & HS-24 Series 24VDC offers tamperproof field selectable candela options of 15, 30, 60, 75, and 110 candela.

The Strobe and Horn/Strobe offers a continuous or sync temporal three in 2400Hz and mechanical tone, a chime and whoop tone. All tones are easy for the professional to change in the field by the use of switches.

The S-24 & HS-24 Series has a minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage.

This Series is shipped with a standard 4" metal mounting plate which incorporates the popular Super-Slide® feature that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The S-24/HS-24 also features the patented Checkmate® - Instant Voltage Verification feature which allows the installer to check the voltage drop draw and match it to the blueprint.

The S-24 & HS-24 Series appliances are ANSI/UL 464 and ANSI/UL 1971, listed for use with fire protective systems and are warranted for three years from date of purchase.

#### Tone Switch Locations

TONE	SWITCH POSITION		
	3	4	5
Mechanical Temporal 3	ON	ON	ON
Mechanical - Continuous	OFF	ON	ON
2400Hz - Temporal 3	ON	OFF	ON
2400Hz - Continuous	OFF	OFF	ON
Chime - Temporal 3	ON	ON	OFF
Chime - Continuous	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

#### NOTE:

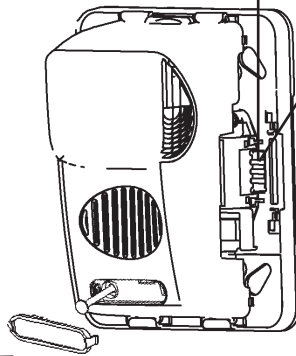
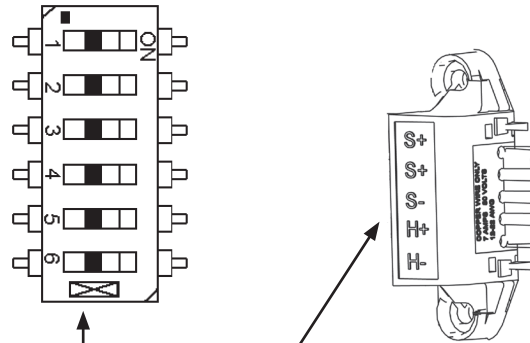
- Switch Positions 1 and 2 in the OFF position to select isolated horn and strobe power inputs
- Switch Position 6 ON = HIGH dBA
- Switch Position 6 OFF = LOW dBA

#### Super Slide® Mounting Bracket

Allows the installer to pre-wire the system, test for system supervision, remove the signal head until occupancy, switch out signals without changing mounting brackets and has locking edge connector for snap-in-place installation.

Candela selection slider switch. Depress center and slide switch to desire brightness level.

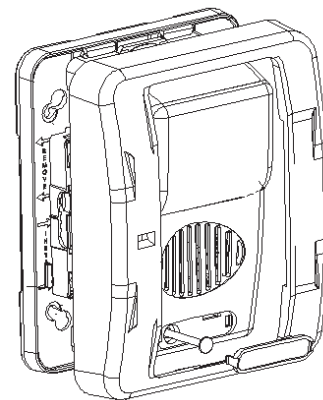
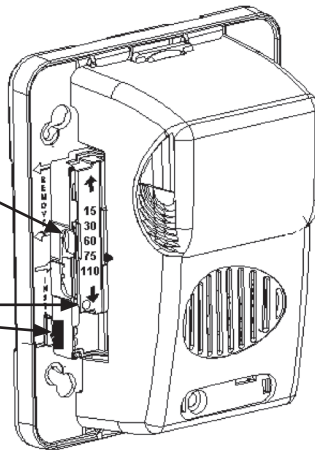
Break off pin and insert into hole at the bottom of the selector to lock candela setting. Signal must be removed from bracket and pin pushed forward from backside out of hole to change candela.



#### Checkmate® Instant Voltage Verification

It is often necessary to confirm the voltage drop along a line of devices. The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically, this would be done at the end of line to confirm design criteria. Most measurements will be taken using the S+ and S- locations although access is provided to other locations.

**NOTE:** Care should be taken to not short the test probes.



To remove bezel, grip both sides of bezel and pull in a downward and outward motion.

**S-24 24 VDC Selectable Candela, Low Profile Evacuation Strobe**

Model Number	Part Number	Nominal Voltage	Candela (ANSI/UL 1971)
S-24WR	4890010	24 VDC	15, 30, 60, 75, 110
S-24WW	4890011	24 VDC	15, 30, 60, 75, 110

**HS-24 24 VDC Selectable Candela, Low Profile Evacuation Horn/Strobe**

Model Number	Part Number	Nominal Voltage	Candela (ANSI/UL 1971)	Reverberant dBA at 10 ft., per ANSI/UL 464	In Anechoic Room dBA at 10 ft.
HS-24WR	4890030	24 VDC	15, 30, 60, 75, 110	62-82	100
HS-24WW	4890031	24 VDC	15, 30, 60, 75, 110	62-82	100

**S-24 & HS-24 Product Strobe Current Ratings (mA)**

	24 VDC (16-33 Volts)	
Candela	24 VDC	UL Max <sup>1</sup>
15 cd	30 mA	42 mA
30 cd	35 mA	58 mA
60 cd	66 mA	97 mA
75 cd	80 mA	116 mA
110 cd	103 mA	161 mA

**Model Designations:**

W = Wall Mount

R = Red Faceplate

W = White Faceplate

All units are available in plain (no lettering).

Plain units are non-returnable.

ALERT bezel available for order.

ALERT bezel available for order.

**S-24 & HS-24 Product Horn Current Ratings**

Horn Mode	Horn Decibel Levels		Horn Current Ratings
	Minimum SPL at 10 ft., per ANSI/UL 464 (HIGH)	Minimum SPL at 10 ft., per ANSI/UL 464 (LOW)	Regulated 24 VDC Max. Operating @ High Setting (mA)
Temp 3 2400 Hz	78 dBA	71* dBA	28 mA
Temp 3 Mechanical	76 dBA	70* dBA	25 mA
Temp 3 Chime	70* dBA	66* dBA	15 mA
Continuous 2400 Hz	81 dBA	74* dBA	28 mA
Continuous Mechanical	80 dBA	72* dBA	25 mA
Continuous Chime	70* dBA	66* dBA	15 mA
Whoop	82 dBA	69* dBA	56 mA

**NOTES:**

- For nominal and peak current across ANSI/UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual.
- Potter does not recommend using a coded or pulsing signaling circuit with any of our strobe products.
- The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode.
- \* Operating the horn in this mode at this voltage will result in not meeting the minimum ANSI/UL 464 reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).

**Architect & Engineering Specifications**

The audible and/or visible signal shall be Potter S-24 strobe and Potter HS-24 horn/strobe Series or approved equal and shall be listed by Underwriters Laboratories, Inc. per ANSI/UL 1971 and/or ANSI/UL 464. The notification appliance shall also be listed with Factory Mutual Listing Service (FM) and the California State Fire Marshal (CSFM).

The notification appliance (combination audible/visible) shall produce a peak sound output of 100dBA or greater at 24VDC as measured in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of power wires. Additionally, the user shall be able to select either continuous or temporal tone output with the temporal signal having the ability to be synchronized.

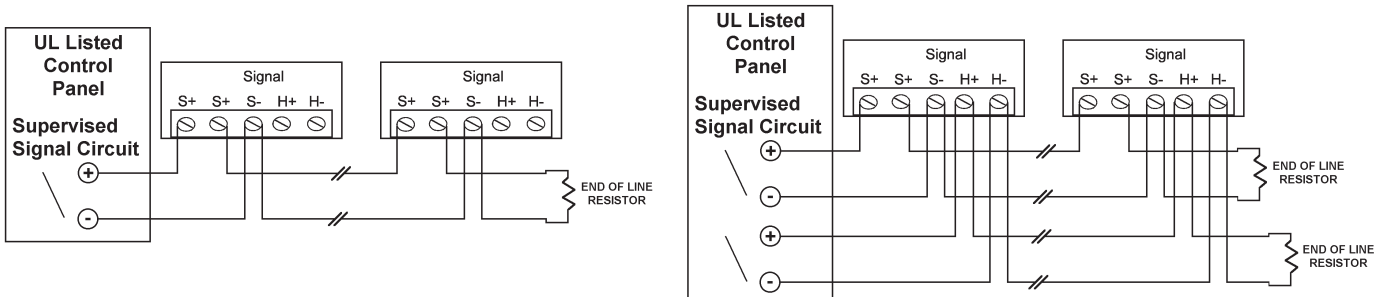
Unit shall be capable of being installed so that any unauthorized attempt to change the candela setting will result in a trouble signal at the fire alarm control panel.

The audible/visible and visible signaling appliance shall also maintain a minimum flash rate of 1Hz or up to 2Hz regardless of power input voltage. The strobe appliance shall have an operating current of 42mA or less at 24VDC for the 15Cd strobe circuit.

The appliance shall be polarized to allow for electrical supervision of the system wiring. The unit shall be provided with a mounting bracket with terminals and barriers for input/output wiring and be able to mount to a single gang or double gang box or double workbox without the use of an adapter plate. The unit shall have an input voltage range of 16-33 volts with either direct current or full wave rectified power for 24VDC models.

The appliance shall be capable of testing supervision without disconnecting wires, verify voltage without removing unit and be capable of mounting to a surface back box.

**Conventional Wiring Diagrams for Emergency Notification Evacuation Series**



**NOTES:**

- All strobes are designed to flash as specified with continuous applied voltage. Strobes should not be used on coded or pulsing signaling circuits. However, use of the Potter AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn, and/or mute the horn.
- **FOR SYNCHRONIZATION WIRING INFORMATION, REFERENCE AVSM CONTROL MODULE DATA SHEET (8830050) AND/OR AVSM CONTROL MODULE MANUAL FOR SYNCHRONIZATION MODULE WIRING DIAGRAMS. AVSM CONTROL MODULE DATA SHEET AND MANUAL CAN BE OBTAINED AT <http://pottersignal.com> OR CALL POTTER ELECTRIC AT 1-800-325-3936.**

# NEC3-24WR

## Strobe Horn



### Features

- Selectable candelas: 15, 30, 60, 75 & 110
- Prewire entire system, install mounting bracket, then install signals
- Horn/strobe switch selection for high or low dBA
- Horn/strobe switch for 2400 Hz, mechanical, chime and whoop tones
- Horn/strobe switch for continuous or temporal 3 (not available on whoop tone)
- Synchronize strobe and/or horn with Gentex AVSM Control Module (Horn silence-able while strobe will remain flashing)
- Tamperproof re-entrant style grill and locking screw (optional use)

### Description

The NEC3-24WR is a low profile strobe/horn combination that offers dependable audible and visual alarms and the absolute lowest current available.

The NEC3-24WR offers tamperproof field selectable candela options of 15, 30, 60, 75, and 110 candela. The NEC3-24WR horn/strobe offers a continuous or synch-able temporal 3 in 2400Hz, mechanical and chime as well as a whoop tone. All tones are easy for the professional to change in the field by the use of switches.

The NEC3-24WR is shipped with a standard 4" metal mounting plate that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The NEC3-24WR is ANSI/UL 464, ANSI/UL 1971, CAN/ULC S525 and/or CAN/ULC S526 listed.

### Ordering Information

Model no. NEC3-24WR

### Specifications

No.	Item	Specification
1	Rated voltage	24VDC
2	Operating voltage range	16 to 33VDC
3	Selectable candela of strobe	15, 30, 60, 75, 110
4	Reverberant dBA of horn at 10ft	62 to 82 dBA
5	Anechoic room dBA of horn at 10ft	100 dBA
6	Operating temperature range	0°C to 49°C (32°F to 120°F)

### Strobe Current Ratings (mA), 24 VDC (16-33 Volts)

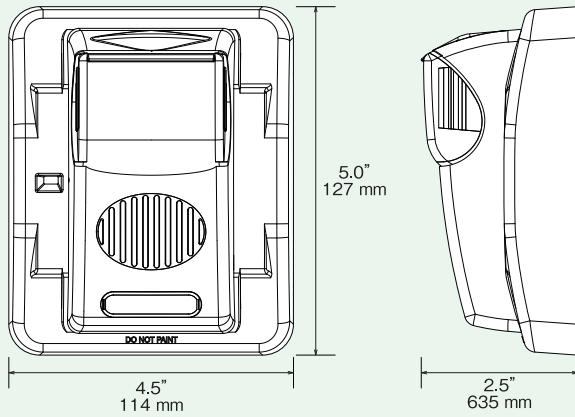
Candela	24 VDC	UL Max
15cd	30 mA	42 mA
30cd	42 mA	58 mA
60cd	66 mA	97 mA
75cd	80 mA	116 mA
110cd	103 mA	161 mA

### Horn Decibel (dBA) and Current Ratings (mA)

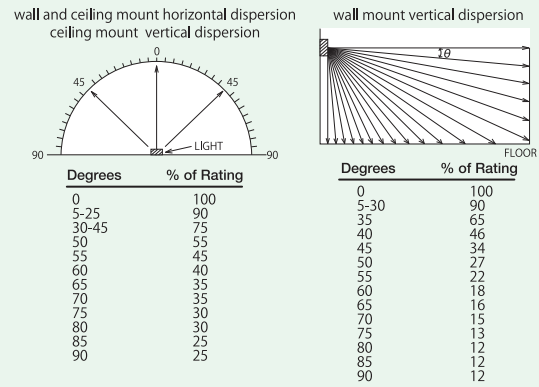
Horn Mode	Horn decibel level (dBA)		Horn current ratings (mA)
	Min. SPL at 10ft., per ANSI/UL 464 (High)	Min. SPL at 10ft., per ANSI/UL 464 (Low)	UL max. regulated 24VDC operating current (High)
Temporal 3 2400 Hz	78 dBA	71 dBA*	28 mA
Temporal 3 Mechanical	76 dBA	70 dBA*	25 mA
Temporal 3 Chime	70 dBA*	66 dBA*	15 mA
Continuous 2400 Hz	81 dBA	74 dBA*	28 mA
Continuous Mechanical	80 dBA	72 dBA*	25 mA
Continuous Chime	70 dBA*	66 dBA*	15 mA
Whoop	82 dBA	69 dBA*	56 mA

\*Operating the horn in this mode at this voltage will result in not meeting the minimum ANSI/UL 464 reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).

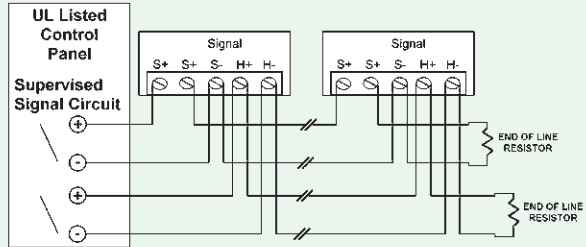
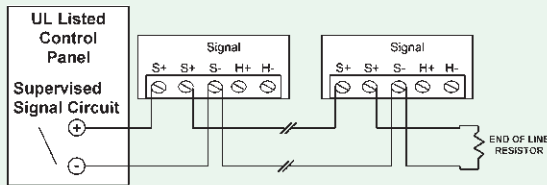




**LIGHT OUTPUT IN PERCENTAGE WHEN MEASURED FROM THE FOLLOWING DIRECTIONS - PER UL 1971**



**Effective Intensity Requirements for Sleeping Areas	
Visible Notification Appliance	
Distance from Ceiling to Top of Lens	Intensity
greater than or equal to 24 in. (60.96 cm)	110cd
less than 24 in. (60.96 cm)	177cd



You may connect both the strobe and the horn directly from a source of rated power without the use of a control module. Place switches 1 and 2 in the ON position on the NEC3-24WR to power both the audible and visible from a single pair of power wires. If you wish to power the horn and strobe from independent sources of power, place switches 1 and 2 in the OFF position on the NEC3-24WR and connect power to the appropriate terminals.

**CAUTION:** When using only a single power source to energize the strobe and horn (switches 1 and 2 in the ON position), the in/out wiring must be under the S+ and S- terminals only. Failure to do so may result in damage to your signal.

For the synchronization of Strobe Horn, refer to the installation manual of Gentex AVSM Control Module. The horn silence during strobe flashing is also available when the AVSM Control Module is used.

**NOTE**

- The information contained herein does not purport to cover all the details or variations of the equipment described, nor to provide for every possible contingency that may be met in connection with its installation, operation or maintenance.
- Specifications are subject to change without notice. Contact Nohmi before relying on the information.
- Actual performance is based on proper application of the product by a qualified professional.
- Should further information be required or should particular concerns arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to Nohmi or your nearest distributor.



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