

Commander³ Series Selectable Candela Evacuation Signals

Applications

The Commander³ Series is a low profile strobe or horn/strobe combination that offers dependable audible and visual alarms and the lowest current available.

The GE3 Series 24VDC offers tamperproof field selectable candela options of 15, 30, 60, 75, and 110 candela. The 12VDC offers tamperproof field selectable candela options of 15, 30, 60, and 75 candela.

The Commander³ Series horn offers a continuous or synchable 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.

The GE3 Series has a minimal operation current and has a minimum flash rate of 1Hz regardless of input voltage.

The Commander³ Series is shipped 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 Commander³ also features the *Checkmate™* - Instant Voltage Verification feature which allows the installer to check the voltage drop draw and match it to the blueprint.

The GE3 Series appliances are UL 464 and UL 1971, listed for use with fire protective systems and are warranted for three years from date of purchase.

Standard Features

- Nominal Voltage 12 & 24 VDC
- 24 VDC units have field selectable candela options of 15, 30, 60, 75, and 110 candela
- 12 VDC units have field selectable candela options of 15, 30, 60, and 75 candela
- GEH horn is available in 12 or 24 Volt
- Super-Slide™ Bracket - Ease of Supervision Testing
- Checkmate™ - Instant Voltage Verification
- **Unit Dimensions:** 5" high x 4.5" wide x 2.5" deep
- Synchronize Strobe and/or Horn with Gentex Series Control Module (12 Volt product must use the AVSM Module)
- Prewire Entire System, Then Install Your Signals
- Lower Installation and Operating Costs
- Input Terminals 12 to 18 AWG
- Switch Selection for High or Low dBA
- Switch for Chime, Whoop, Mechanical and 2400Hz Tone
- Tamperproof Re-entrant Grill

GEC3/GES3 12 & 24 VDC S E R I E S



Product Listings



- BFP (City of Chicago)
- BS+A/MEA #285-91-E
- CSFM 7135-0569:122 (GEC3-24 & GEH-24)
7125-0569:123 (GES3-24)
7125-0569:129 (GES3-12)
7135-0569:130 (GEC3-12 & GEH-12)
- FM Approved
- UL 464 & UL 1971 Listed
- CAN/ULC S526-M87 Listed
ULSZ7.S3406 Listed (GEC3-24,
GEH24 & GEH12)

Product Compliance

- NFPA 72
- Americans with Disabilities Act (ADA)



- Switch for Continuous or Temporal 3 (not available on whoop tone)
- Surface Mount with the GSB (Gentex Surface Mount Box)
- Silence Horn While Strobes Remain Flashing
- Wide Voltage Range 8-17.5 VDC (12 Volt Models)
16-33 VDC or FWR (24 Volt Models)
- Faceplate Available in Red or Off-White

GEH 12 or 24 Volt Low Profile Evacuation Horn

Model Number	Part Number	Nominal Voltage	Reverberant dBA @ 10ft. Per UL 464 ¹	In Anechoic Room dBA @10ft.
GEH12-R	904-1239-002	12 VDC	62-82	100
GEH12-W	904-1241-002	12 VDC	62-82	100
GEH24-R	904-1205-002	24 VDC	62-82	100
GEH24-W	904-1207-002	24 VDC	62-82	100

GES3 12 or 24 Volt Selectable Candela Low Profile Evacuation Strobe

Model Number	Part Number	Nominal Voltage	Candela (UL 1971)
GES3-12WR	904-1235-002	12 VDC	15, 30, 60, 75
GES3-12WW	904-1237-002	12 VDC	15, 30, 60, 75
GES3-12PWR	904-1236-002	12 VDC	15, 30, 60, 75
GES3-12PWW	904-1238-002	12 VDC	15, 30, 60, 75
GES3-24WR	904-1321-002	24 VDC	15, 30, 60, 75, 110
GES3-24WW	904-1319-002	24 VDC	15, 30, 60, 75, 110
GES3-24PWR	904-1322-002	24 VDC	15, 30, 60, 75, 110
GES3-24PWW	904-1320-002	24 VDC	15, 30, 60, 75, 110

Model designations:

"W" = Wall Mount
 "R" = Red Faceplate
 "W" = Off-White Faceplate
 "P" = Plain (no lettering) Available with all models.
 These units are non-returnable.
 "Agent" bezel also available.

GEC3 12 or 24 Volt Selectable Candela Low Profile Evacuation Horn/Strobe

Model Number	Part Number	Nominal Voltage	Candela (UL 1971)	Reverberant dBA @ 10ft Per UL 464 ¹	In Anechoic Room dBA @ 10ft.
GEC3-12WR	904-1231-002	12 VDC	15, 30, 60, 75	62-82	100
GEC3-12WW	904-1233-002	12 VDC	15, 30, 60, 75	62-82	100
GEC3-12PWR	904-1232-002	12 VDC	15, 30, 60, 75	62-82	100
GEC3-12PWW	904-1234-002	12 VDC	15, 30, 60, 75	62-82	100
GEC3-24WR	904-1317-002	24 VDC	15, 30, 60, 75, 110	62-82	100
GEC3-24WW	904-1315-002	24 VDC	15, 30, 60, 75, 110	62-82	100
GEC3-24PWR	904-1318-002	24 VDC	15, 30, 60, 75, 110	62-82	100
GEC3-24PWW	904-1316-002	24 VDC	15, 30, 60, 75, 110	62-82	100

Notes:

- The GE3 Series is not listed for outdoor use. • Operating temperature: 32° to 120°F (0° to 49° C).
- For nominal and peak current across UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual. 12 volt models are DC only.
- Gentex does not recommend using a coded or pulsing signaling circuit with any of our strobe products (see Technical Bulletin Number 014).

GE3-12 Product Strobe Current Ratings

Candela	15cd	30cd	60cd	75cd
12 VDC	106mA	131mA	186mA	237mA
UL Max ²	163mA	212mA	331mA	436mA

GE3-24 Product Strobe Current Ratings

Candela	15cd	30cd	60cd	75cd	110cd
24 VDC	55mA	63mA	88mA	112mA	136mA
UL Max ²	78mA	96mA	137mA	180mA	224mA

GE3-12 Product Horn Current Ratings

Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Minimum dBA @ 10ft. per UL464 (LOW)	Regulated 12VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	76	69*	29
Temp 3 Mechanical	75	68*	26
Temp 3 Chime	62*	60*	13
Continuous 2400Hz	79	74*	29
Continuous Mechanical	78	72*	26
Continuous Chime	63*	61*	13
Whoop	78	71*	55

GE3-24 Product Horn Current Ratings

Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Minimum dBA @ 10ft. per UL464 (LOW)	Regulated 24VDC 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

*Operating the horn in this mode at this voltage will result in not meeting the minimum UL 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).

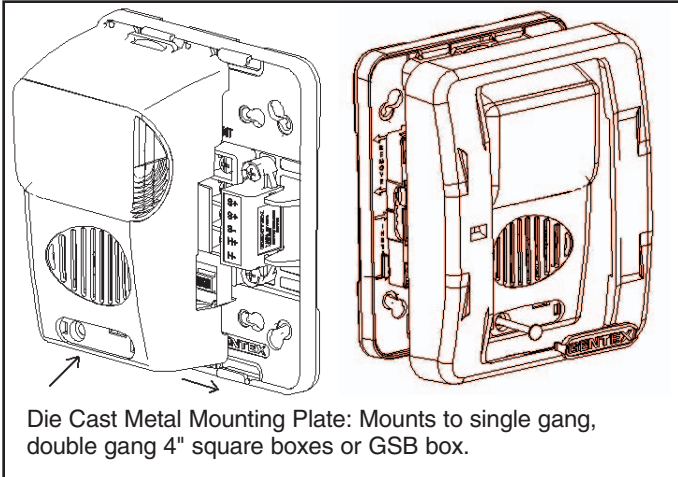
Notes: The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode.

To obtain the horn/strobe current draw, add the strobe current draw and the horn current draw.

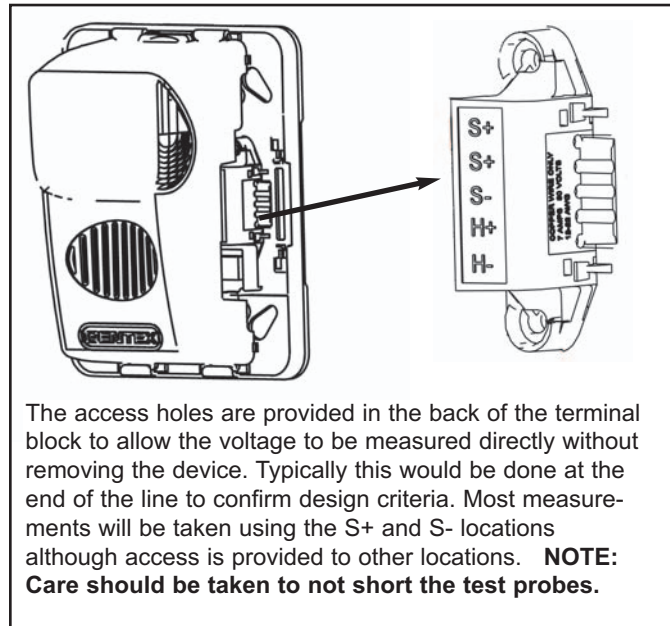
¹ The listed reverberant dBA are for the Continuous Tone mode. The Temporal 3 Tone has a reverberant dBA @ 10ft. per UL 464 is 77-83 with a horn current draw of 34mA.

² RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33VDC for 24VDC units) (8-17VDC for 12VDC units). For strobes the UL max current is usually at the minimum listed voltage (16VDC for 24VDC units) (8VDC for 12VDC units). For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

Mounting Super-Slide™



Checkmate™ - Instant Voltage Verification



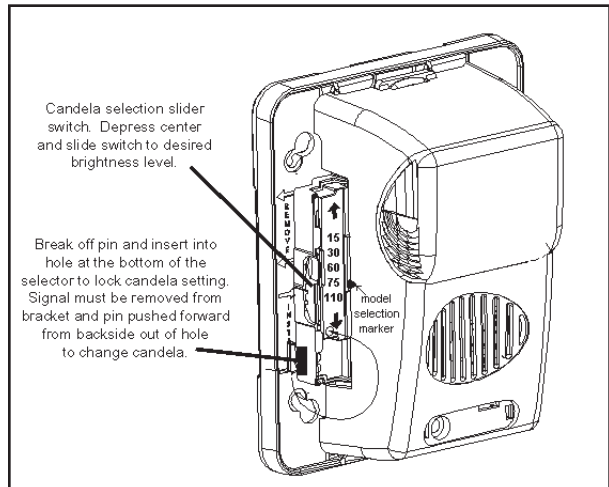
Switch Locations

	SWITCH POSITION		
	3	4	5
Mechanical-Temp.	ON	ON	ON
Mechanical-Cont.	OFF	ON	ON
Hi-Temp.	ON	OFF	ON
Hi-Cont.	OFF	OFF	ON
Chime-Temp.	ON	ON	OFF
Chime-Cont.	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

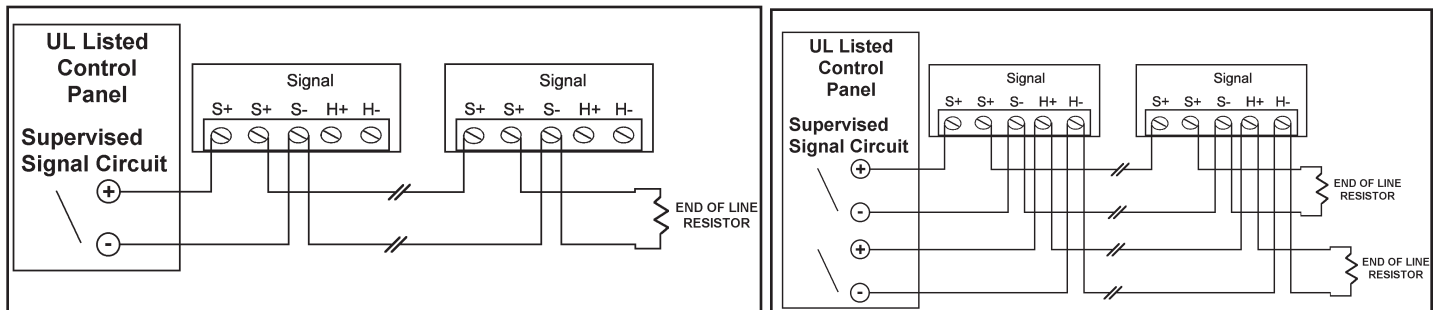
Switch Position 6
ON > HIGH dB
OFF > LOW dB

Switch positions 1 and 2 in the off position to select isolated horn and strobe power inputs.

Candela Selection

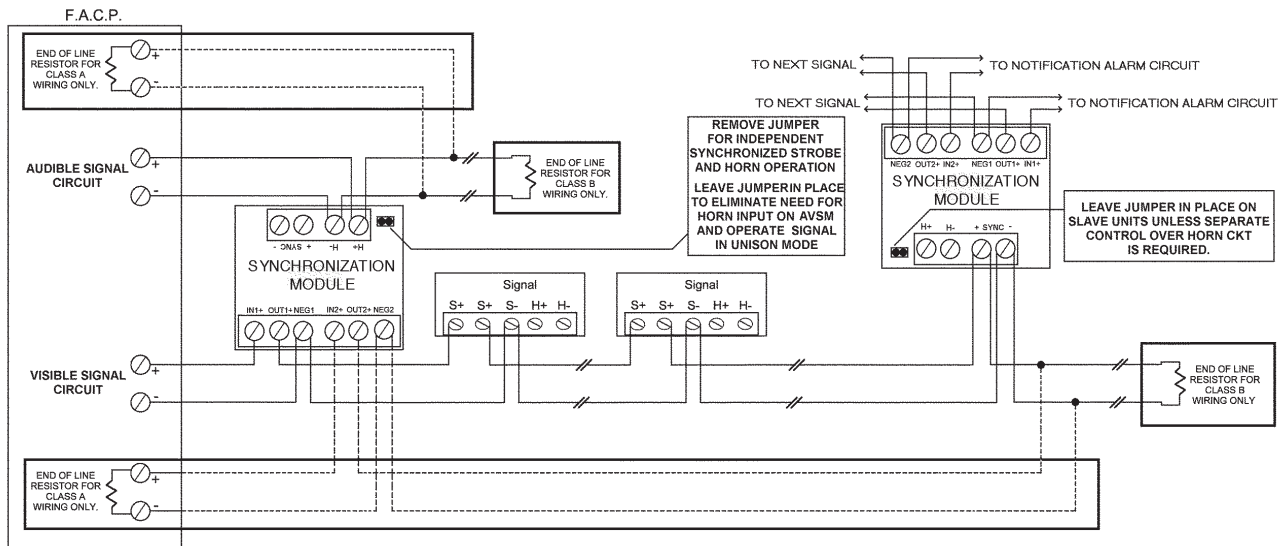


Conventional GES3/GEC3 Series Wiring Diagrams



GEC3/GES3 12 & 24 VDC S E R I E S

Wiring Diagram GE3 Series with Gentex Synchronization Module



Note: See Technical Bulletin 015 for proper synchronization module for application.

Note: When synchronizing the GE3 12 VDC Series, the AVSM synchronization module **MUST** be used.

Architect & Engineering Specifications:

The audible and/or visible signal shall be Gentex GE3 Series or approved equal and shall be listed by Underwriters Laboratories Inc. per UL 1971 and/or UL 464. The notification appliance shall also be listed with the California State Fire Marshal (CSFM) and the Bureau of Standards and Appeals (NYC).

The notification appliance (combination audible/visible) shall produce a peak sound output of 100dBA or greater at 12 or 24V 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 2 Hz regardless of power input voltage. The appliance shall have an operating current of 55mA or less at 24 VDC for the 15Cd strobe circuit and 106mA or less at 12 VDC 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 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 of full wave rectified power for 24 volt models or a voltage range of 8-17.5 volts for 12 volt models.

The appliance shall be capable of testing supervision without disconnecting wires. Also the appliance shall be capable of mounting to a surface back box. The unit shall also be able to verify voltage at the unit without removing unit.

24 units per carton
28 pounds per carton

GENTEX
CORPORATION

Fire Protection Products: www.gentex.com
10985 Chicago Drive Box 310 • Zeeland, Michigan 49464
616.392.7195 • 1.800.436.8391 • 616.392.4219 Fax

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