

Commander² Series Low Frequency Evacuation Signals

Applications

The Commander² Series is a low profile strobe, horn or horn/strobe combination that offers dependable audible and audible/visual alarms and the lowest current available.

The GE Series is available in fixed candela options of 15, 30, 60, 75, 110, 177 and 15/75.

The Commander² Series horn offers a continuous or synchable temporal three in 2400Hz and mechanical tone, a chime as well as a whoop tone. All tones are easy for the professional to change in the field by using switches.

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

The Commander² 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 Commander² Series also features the *Checkmate*™ - Instant Voltage Verification feature which allows the installer to check the voltage without removing the signal.

The GE 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 24 VDC (12 VDC available on GEH)
- Fixed Candela Options of 15, 30, 60, 75, 110, 177 and 15/75
- **Unit Dimensions:** 5" high x 4.5" wide x 2.5" deep
- Prewire Entire System, Then Install Your Signals
- Super-Slide™ Bracket - Ease of Supervision Testing
- Checkmate™ - Instant Voltage Verification
- 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
- Switch for Continuous or Temporal 3 (not available on whoop tone)
- Tamperproof Re-entrant Grill

GEC/GES/GEH 24 VDC S E R I E S



Product Listings



This symbol on the product's nameplate means it is Listed by UNDERWRITERS LABORATORIES, INC.

- BFP (City of Chicago)
- BS+A/MEA #285-91-E - XV
- CSFM 7135-0569:122 (GEH, GEC)
7125-0569:123 (GES)
7135-0569: 130 (GEH-12)
- FM Approved
- UL 464, UL 1971 & UL 1638 Listed
- CAN/ULC S526-M87 Listed
ULSZ7.S3406 Listed (GEC24,
GEH24 & GEH12)

Product Compliance

- NFPA 72
- Americans with Disabilities Act (ADA)



- Surface Mount with the GSB (Gentex Surface Mount Box)
- Synchronize Strobe and/or Horn by Using the Gentex Synchronization Module (12 VDC product must use the AVSM Module)
- Silence Horn While Strobes Remain Flashing
- Wide Voltage Range 16-33 VDC or FWR
- Faceplate Available in Red or Off-White

GEH 12 and 24 VDC Low Profile Evacuation Horn

Model Number	Part Number	Nominal Voltage	Reverberant dBA @ 10ft. Per UL464 ¹	In Anechoic Room dBA @ 10ft.
GEH12-R	904-1239-002	12 VDC	70-82	100
GEH12-W	904-1241-002	12 VDC	70-82	100
GEH24-R	904-1205-002	24 VDC	70-82	100
GEH24-W	904-1207-002	24 VDC	70-82	100

Notes:

- The GE 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.
- Gentex does not recommend using a coded or pulsing signaling circuit with any of our strobe products (see technical bulletin number 014).
- To obtain the horn/strobe current draw, add the strobe current draw and the horn current draw.

Model designations:

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

GEC 24 VDC Low Profile Evacuation Horn/Strobe

Model Number	Part Number	Nominal Voltage	Strobe Candela	Reverberant dBA @ 10ft. Per UL464 ¹	Anechoic Room dBA @ 10ft.
GEC24-15WR	904-1125-002	24 VDC	15	70-82	100
GEC24-15WW	904-1145-002	24 VDC	15	70-82	100
GEC24-30WR	904-1129-002	24 VDC	30	70-82	100
GEC24-30WW	904-1149-002	24 VDC	30	70-82	100
GEC24-60WR	904-1133-002	24 VDC	60	70-82	100
GEC24-60WW	904-1153-002	24 VDC	60	70-82	100
GEC24-75WR	904-1135-002	24 VDC	75	70-82	100
GEC24-75WW	904-1155-002	24 VDC	75	70-82	100
GEC24-110WR	904-1139-002	24 VDC	110	70-82	100
GEC24-110WW	904-1159-002	24 VDC	110	70-82	100
GEC24-177WR	904-1143-002	24 VDC	177	70-82	100
GEC24-177WW	904-1163-002	24 VDC	177	70-82	100
GEC24-15/75WR	904-1127-002	24 VDC	15 (UL1971) 75 (UL1638)	70-82	100
GEC24-15/75WW	904-1147-002	24 VDC	15 (UL1971) 75 (UL1638)	70-82	100

GES 24 VDC Low Profile Evacuation Strobe

Model Number	Part Number	Nominal Voltage	Strobe Candela
GES24-15WR	904-1165-002	24 VDC	15
GES24-15WW	904-1185-002	24 VDC	15
GES24-30WR	904-1169-002	24 VDC	30
GES24-30WW	904-1189-002	24 VDC	30
GES24-60WR	904-1173-002	24 VDC	60
GES24-60WW	904-1193-002	24 VDC	60
GES24-75WR	904-1175-002	24 VDC	75
GES24-75WW	904-1195-002	24 VDC	75
GES24-110WR	904-1179-002	24 VDC	110
GES24-110WW	904-1199-002	24 VDC	110
GES24-177WR	904-1183-002	24 VDC	177
GES24-177WW	904-1203-002	24 VDC	177
GES24-15/75WR	904-1167-002	24 VDC	15 (UL1971) 75 (UL1638)
GES24-15/75WW	904-1187-002	24 VDC	15 (UL1971) 75 (UL1638)

¹ The listed horn current draws 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.

GE-24 Product Strobe Current Ratings

Candela	15cd	30cd & 15/75cd	60cd	75cd	110cd	177cd
24 VDC	55mA	63mA	88mA	112mA	136mA	186mA
UL Max ²	78mA	96mA	137mA	180mA	224mA	288mA

GE-24 Product Horn Current Ratings

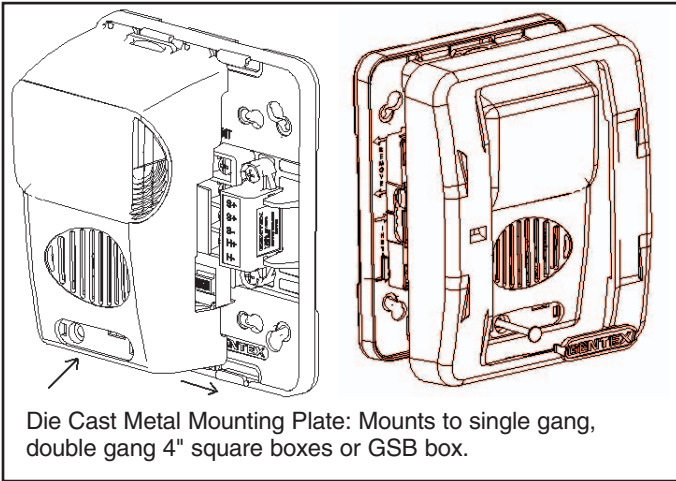
Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Minimum dBA @ 10ft. per UL464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	78	71*	28
Temp 3 Mechanical	76	70*	25
Temp 3 Chime	70*	66*	15
Continuous 2400Hz	81	74*	28
Continuous Mechanical	80	72*	25
Continuous Chime	70*	66*	15
Whoop	82	69*	56

GEH-12 Product Horn Current Ratings

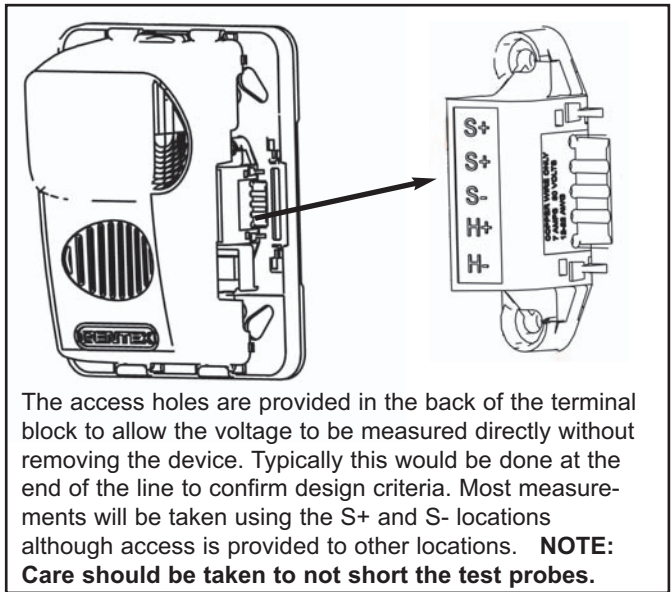
Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Minimum dBA @ 10ft. per UL464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	76	69*	29
Temp 3 Mechanical	75	68*	26
Temp 3 Chime	62*	60*	13
Continuous 2400Hz	79	74*	29
Continuous Mechanical	78	72*	26
Continuous Chime	63*	61*	13
Whoop	78	71*	55

* 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.

Mounting Super-Slide™



Checkmate™ - Instant Voltage Verification



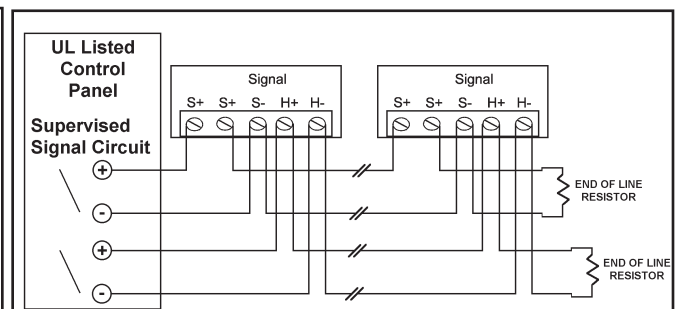
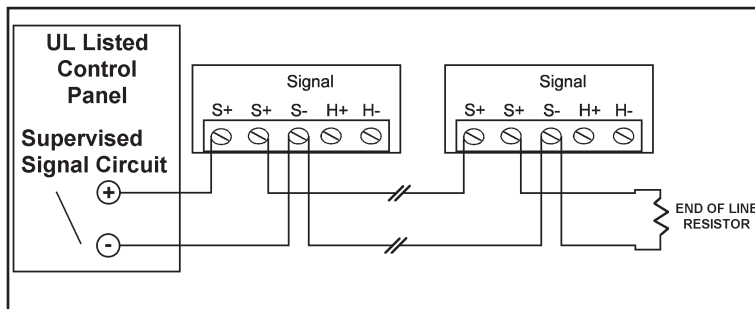
Switch Locations

	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

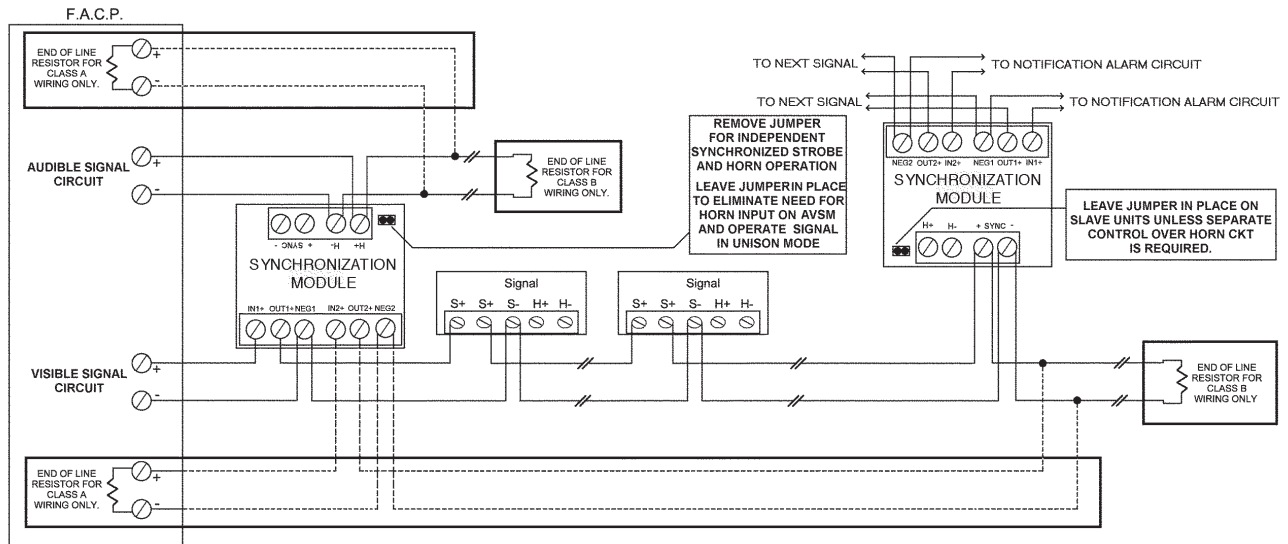
Switch positions 1 and 2 in the Off position to select isolated horn and strobe power inputs.

Conventional GES/GEC Series Wiring Diagrams



GEC/GES/GEH 24 VDC S E R I E S

Wiring Diagram GE Series with Gentex Synchronization Module



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

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

Architect & Engineering Specifications:

The audible and/or visible signal shall be Gentex GE Series or approved equal and shall be listed by Underwriters Laboratories Inc. per UL 1971, UL 1638 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 and audible units only) shall produce a peak sound output of 100dBA or greater 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 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 appliance shall also be capable of meeting the candela requirements of the ADA (75Cd) for the combination listed (UL 1971/UL 1638) listed models. The appliance shall have an operating current of 63mA or less at 24 VDC for the 15/75Cd for the 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 or full wave rectified power.

The appliance shall be capable of test 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
27 pounds per carton

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