

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 absolute lowest current available.

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

The Commander² 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 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 patented Checkmate[®] - Instant Voltage Verification feature which allows the installer to check the voltage drop draw and match it to the blueprint.

The GE Series appliances are ANSI/UL 464, ANSI/UL 1971 and/or ANSI/UL 1638 listed for use with fire protective systems and are warranted for three years from date of purchase.

Standard Features

- Nominal voltage 24VDC
- Fixed candela options of 15/75 and 177
- GEH horn is available in 12VDC or 24VDC
- Super-Slide[®] Bracket - ease of supervision testing
- Checkmate[®] - instant voltage verification
- Unit Dimensions: 5" (12.7 cm) high x 4.5" (11.43 cm) wide x 2.5" (6.35 cm) deep
- Synchronize strobe and/or horn with Gentex 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 2400Hz tone
- Switch for continuous or temporal 3 (not available on whoop tone)
- Tamperproof re-entrant grill
- Surface mount with the GSB (Gentex Surface Mount Box)
- Silence horn while strobes remain flashing
- Faceplate available in red or off-white

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



Product Listings

SIGNALING



LISTED



- ANSI/UL 464, ANSI/UL 1971 and/or ANSI/UL 1638 Listed
- CSFM: 7135-0569:122 (GEH-24 & GEC-24)
7125-0569:123 (GES-24)
7135-0569:130 (GEH-12)
- MEA: 285-91-E-XV

Patents

- 7,375,617 May 20, 2008

Product Compliance

- NFPA 72
- Americans with Disabilities Act (ADA)
- IBC/IFC/IRC
- City & State Ordinances/Laws/Regulations
- Quality Management System is certified to: ISO 9001:2008



ASSEMBLED IN
THE USA

GEH 12VDC and 24VDC Low Profile Evacuation Horn

| Model Number | Part Number | Nominal Voltage | Reverberant dBA @ 10ft., per ANSI/UL 464 | 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 |

GES 24 VDC Low Profile Evacuation Strobe

| Model Number | Part Number | Nominal Voltage | Strobe Candela |
|---------------|--------------|-----------------|---------------------------------------|
| 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 (ANSI/UL 1971) / 75 (ANSI/UL 1638) |
| GES24-15/75WW | 904-1187-002 | 24 VDC | 15 (ANSI/UL 1971) / 75 (ANSI/UL 1638) |

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

GEC 24VDC Fixed Candela, Low Profile Evacuation Horn/Strobe

| Model Number | Part Number | Nominal Voltage | Strobe Candela | Reverberant dBA @ 10ft., per ANSI/UL 464 | In Anechoic Room dBA @ 10ft. |
|---------------|--------------|-----------------|---------------------------------------|--|------------------------------|
| 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 (ANSI/UL 1971) / 75 (ANSI/UL1638) | 70-82 | 100 |
| GEC24-15/75WW | 904-1147-002 | 24 VDC | 15 (ANSI/UL 1971) / 75 (ANSI/UL 1638) | 70-82 | 100 |

GE-24 Product Strobe Current Ratings (mA)

| | 24VDC (16-33 Volts) | |
|---------|---------------------|---------------------|
| Candela | 24VDC | UL Max ¹ |
| 15/75cd | 63mA | 67mA |
| 177cd | 96mA | 213mA |

GEH-12 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 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 |

GE-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 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 |

NOTES:

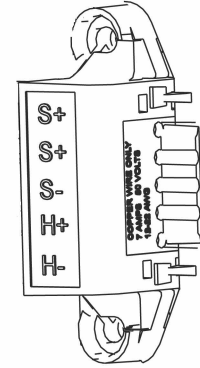
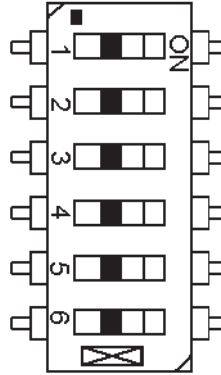
- Operating temperature: 32° to 120°F (0° to 49°C). The GE Series is not listed for outdoor use.
The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure 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).
- ¹ 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.

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 |

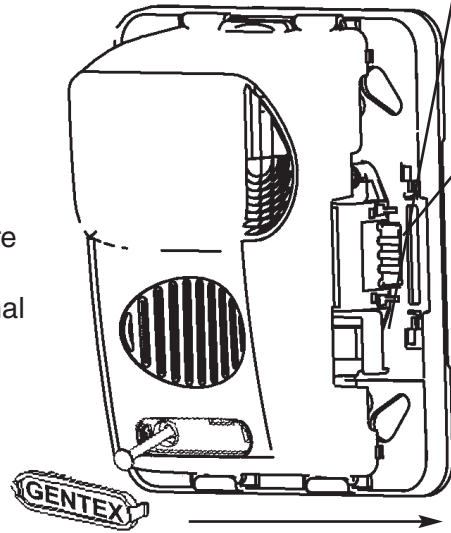
NOTE:

- 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



Gentex Super-Slide® Mounting Bracket

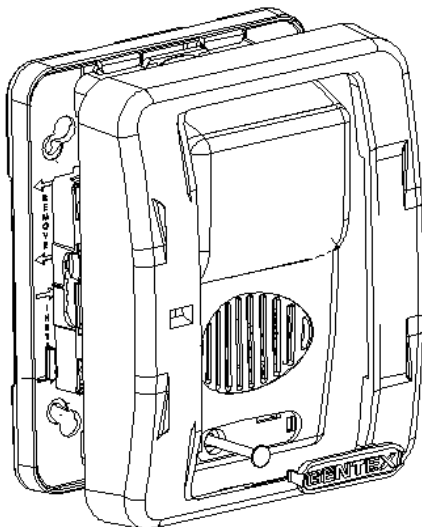
Allows the installer to pre-wire the system, test for system supervision, remove the signal head until occupancy, switch out Gentex signals without changing mounting brackets and has locking edge connector for snap-in-place installation.



Gentex 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.

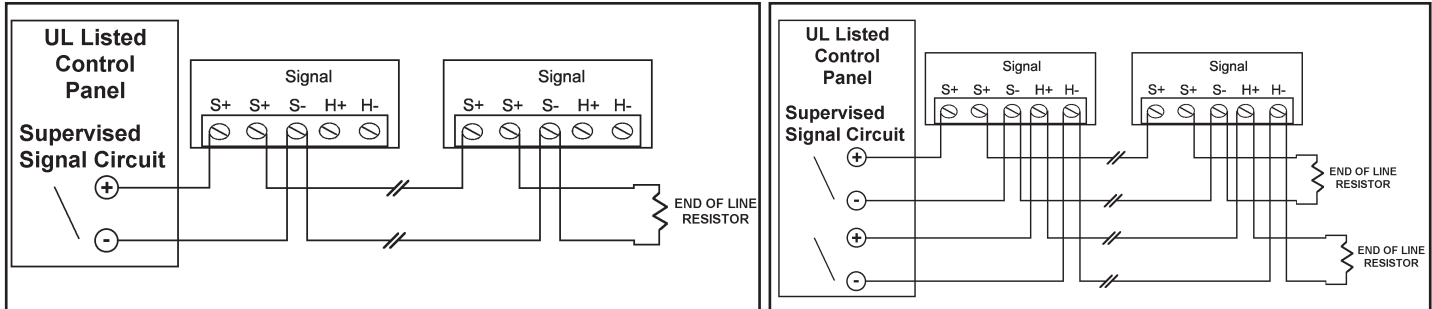
NOTE: Care should be taken to not short the test probes.



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

GEC/GES/GEH 24 VDC SERIES

Conventional GES/GEC Series Wiring Diagrams



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 Gentex AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn and/or mute the horn. See Technical Bulletin 014 for additional information.
- **FOR SYNCHRONIZATION WIRING INFORMATION, REFERENCE AVSM CONTROL MODULE DATA SHEET (551-0031) AND/OR AVSM CONTROL MODULE MANUAL (550-0284) FOR SYNCHRONIZATION MODULE WIRING DIAGRAMS. AVSM CONTROL MODULE DATA SHEET AND MANUAL CAN BE OBTAINED AT <http://www.gentex.com> OR CALL GENTEX CORPORATION AT 1-800-436-8391.**
- When synchronizing the GEH 12VDC Series, the Gentex AVSM control module or Gentex synchronization protocol 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 ANSI/UL 1971, ANSI/UL 1638 and/or ANSI/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 at 12VDC or 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.

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 67mA 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, verify voltage without removing unit and be capable of mounting to a surface back box.

24 units per carton
27 pounds per carton

GENTEX CORPORATION

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

Gentex Corporation reserves the right to make changes to the product data sheet at their discretion.

Important Notice:

These materials have been prepared by Gentex Corporation ("Gentex") for informational purposes only, are necessarily summary, and are not purported to serve as legal advice and should not be used as such. Gentex makes no representations and warranties, express or implied, that these materials are complete and accurate, up-to-date, or in compliance with all relevant local, state and federal laws, regulations and rules. The materials do not address all legal considerations as there is inevitable uncertainty regarding interpretation of laws, regulations and rules and the application of such laws, regulations and rules to particular fact patterns. Each person's activities can differently affect the obligations that exist under applicable laws, regulations or rules. Therefore, these materials should be used only for informational purposes and should not be used as a substitute for seeking professional legal advice. Gentex will not be responsible for any action or failure to act in reliance upon the information contained in this material.

551-0049-02