

Commander 3 Series

The Commander 3 Series is a low profile strobe and 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 Commander 3 Series horn offers a continuous or syncable 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 Commander 3 Series is shipped with the 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 Commander 3 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.

Features

Field Selectable Candela Options (15, 30, 60, 75, and 110 Candela)
Super-Slide™ Bracket
Ease of Supervision Testing Checkmate™
Instant Voltage Verification Switch Selection for High or Low dBA
Silence Horn While Strobes Remain Flashing
Faceplate Available in Red or Off-White
Unit Dimensions: 5" High x 4.5" Wide x 2.5" Deep
Lower Installation and Operating Costs
Input Terminals 12 to 18 AWG
Switch for Chime, Whoop, Mechanical and 2400Hz Tone
Tamperproof Re-entrant Grill
Switch for Continuous or Temporal 3 (Not available on whoop tone)

Listings and Approvals

UL 464 & UL 1971 Listed
CAN/ULC S526-M87 Listed
ULSZ7.S3406 Listed (GEC3-24, GEH24 & GEH12)
FM Approved
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)
BS+A/MEA: 285-91-E (GEC3-24 & GES3-24)
580-06-E (GEC3-12 & GES3-12)

GEH 12 VDC / 24 VDC Low Profile Evacuation Horn

Model Number	Part Number	Nominal Voltage	Reverberant dBA @ 10ft. per ul 464	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 VDC or 24 VDC Selectable Candela Low Profile Evacuation Strobe

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

Model Number	Part Number	Nominal Voltage	Candela (UL 1971)Reverberant dBA @ 10ft., per UL 464	In Anechoic Room dBA @ 10ft.
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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

GE3-12 Product Strobe Current Ratings

Candela	15cd	30cd	60cd	75cd
12 VDC	106mA	131mA	186mA	237mA
UL Max ¹	136mA	212mA	331mA	436mA

GE3-24 Product Strobe Current Ratings

Candela	15cd	30cd	60cd	75cd	110cd
24 VDC	55mA	63mA	88mA	112mA	136mA
UL Max ¹	78mA	96mA	137mA	180mA	224mA

GE3-12 Product Horn Current Ratings

Horn Mode	Minimum dBA @ 10ft. per UL 464 (High)	Minimum dBA @ 10ft. per UL 464 (Low)	Regulated 12 VDC 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 UL 464 (High)	Minimum dBA @ 10ft. per 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:

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

Operating temperature: 32°F to 120°F (0°C to 49°C). The GE3 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. 12 VDC models are DC only.

Gentex does not recommend using a coded or pulsing signaling circuit with any of our strobe products (See technical bulletin 014).

¹RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33 VDC for 24 VDC units, 8-17 VDC for 12 VDC units). For strobes the UL max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

Mounting Super Slide TM

Die cast metal mounting plate: Mounts to single gang, double gang 4" square boxes or GSB box.

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

Checkmate TM Instant Voltage Verification

Candela Selection

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.

Conventional GES3 & GEC3 Series Wiring Diagram

GE3 Series With Gentex Synchronization Module Wiring Diagram

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.

Specification

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 Factory Mutual Listing Service (FM), 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 VDC or 24 VDC as measured in an anechoic chamber. The signalling 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 appliance shall have and operating current of 55mA or less at 24VDC for the 15Cd strobe circuit and 106mA or less at 12VDC 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 adaptor plate.

The unit shall have an input voltage range of 16-33 volts with either direct current or full wave rectified power for 24 VDC models or a voltage range of 8-17.5 volts for 12 VDC 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.

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