



# **Fire Systems West, Inc.**

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## **FIRE ALARM Equipment Submittal**

FOR  
**Tableau**  
401 Park Place Center  
3<sup>rd</sup> Floor  
Kirkland, Washington  
98033



by Honeywell

# HPF24S6 and HPF24S8

## Description

The HPF24S6 and HPF24S8 are compact, cost-effective, 6 amp. or 8 amp. remote power supplies with integral battery chargers. These adaptable power supplies may be connected to any 12 or 24 volt Fire Alarm Control Panel (FACP) or the power supplies may stand-alone. Primary applications include the following:

- Notification Appliance Circuits (NAC) expansion to support ADA requirements and NAC synchronization
- Auxiliary power to support 24 volt system accessories

These power supplies provide regulated and filtered 24 VDC power to four (4), notification appliance circuits, configured as either four (4), Class B (Style Y) or Class A (Style A, with ZNAC-4 Option Module). Alternately, the four outputs may be configured as follows:

- all non-resettable
- all resettable
- two non-resettable
- two resettable

The power supplies also contain a battery charger with a charging capacity of up to 18 Amp Hour batteries.

The HPF24S6 and HPF24S8 power supplies comply with the following Agency standards:

- NFPA 72 National Fire Alarm Code,
- UL Standard 864, 9th Edition for control units for Fire Alarm Systems (NAC expander mode).
- UL 1481 Power Supplies for Fire Alarm Systems (stand-alone mode).

## Power Supplies with Battery Chargers



HFP24S6/8

dh1061.jpg

## Features

- UL® Listed NAC synchronization using System Sensor, Cooper-Wheelock or Gentex (Commander Series) appliances
- Uses a cascade of up to ten (10), power supplies or (four (4), power supplies with Gentex) with strobe timing maintained
- Operates as a sync follower or a sync generator (default)
- Contains two (2), fully -isolated input/control circuits energized from FACP notification appliance circuit (NAC expander mode) or jumpered permanently on (stand-alone mode)
- Configured to internally house an addressable SLC control module for alarm activation
- Supports four (4), Class B (Style Y) or four (4), Class A (Style Z) (with ZNAC-4 Module) notification appliance circuits
- Provides 6.0A or 8.0A (depending on model) full load output (3.0A maximum per circuit) in NAC expander mode (UL Standard 864)
- Uses 4.0A or 6.0A continuous output in the stand-alone mode (UL Standard 1481)

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### GAMEWELL-FCI

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Specifications are for information only, are not intended for installation purposes, and are subject to change without notice. No responsibility is assumed by Gamewell-FCI for their use.

## Features (Continued)

- In stand-alone mode, output power circuits are configured as resettable, (using the FACP reset switch), non-resettable, or a combination of both
- Fully regulated and filtered power output (optimal for powering four-wire smoke detectors, annunciators and other system peripherals requiring regulated/filtered power)
- Class 2 Power-Limited technology complies with UL Class 2 Power-Limited requirements
- Includes a normally-closed trouble relay
- Provides fully, supervised power supply, battery and notification appliance circuits
- Selectable earth fault detection
- AC trouble report selectable for immediate or up to an 8 hour delay
- Compatible with any UL Standard 864 fire alarm control panel which uses an industry standard, reverse polarity, and notification circuit (including unfiltered and unregulated bell power)
- Requires input trigger voltage of 9.0 -32 VDC
- Built with a self-contained compact, lockable cabinet 15" H x 14.5" W x 2.75" D (38.1 H x 36.8 W x 7.0 D cm)
- Includes an integral battery charger capable of charging up to 18 AH batteries. The cabinet has the capacity of housing 7.0 AH batteries
- Battery charger may be disabled via a DIP (Dual In-Line Package) switch for applications requiring larger batteries
- Offers fixed, clamp-type terminal blocks that accommodate up to 12 AWG (3.1 mm<sup>2</sup>) wire

## Specifications

### Primary (AC) Power

- HPF24S6: 120 VAC 60 Hz, 3.2A maximum
- HPF24S8: 120 VAC 60 Hz, 3.2A maximum
- Wire size: minimum 14 AWG (2.0 mm<sup>2</sup>) with 600V insulation

### Control Input Circuit

- Input Voltage: 9.0 to 32 VDC
- Input Current: 2.0 mA (16 - 32 V)  
per input 1.0 mA (9 - 16 V)

### Trouble Contact Rating

- 5.0A at 24 VDC

### Auxiliary Power Output

- Specific Application Power - 500 mA maximum

### Output Circuits

- +24 VDC filtered, regulated
- 3.0A maximum for any one circuit

## Specifications (Continued)

### Output Circuits (Continued)

- 4.0A maximum total continuous current for all outputs (Stand-alone mode) for the HPF24S6 and 6A for the HPF24S8
- 6A or 8A, depending on the model, maximum total short-term current for all outputs (NAC Expander mode).

### Secondary Power (Battery) Charging Circuit

- Supports lead-acid batteries only
- Float Charge Voltage: 27.6 VDC
- Maximum Charge Current: 1.5A
- Maximum Battery Capacity: 18 AH

## Ordering Information

Part Number	Description
HPF24S6	Remote charger 6A power supply (120 VAC). Includes the main printed circuit board, transformers, red enclosure, and installation instructions
HPF24S8	Remote charger 8A power supply (120 VAC). Includes the main printed circuit board, transformers, red enclosure, and installation instructions
FCPS-24S6RB	Replacement mother board
ZNAC-4 -	Class A (Style Z) NAC option module
BAT-1270 -	Battery, 12 volt, 7.0 AH (two required)

### GAMEWELL-FCI

## Commander<sup>4</sup> Series Selectable Candela Evacuation Signals

## GCS/GCC 24VDC SERIES

### Applications

The GCS/GCC Series is a ceiling mount strobe or horn/strobe combination that offers dependable audible and visual alarms and the lowest current consumption.

The GCS/GCC offers tamperproof field selectable candela options of 15, 30, 75, 95, 115 and 150 candela.

The GCC horn offers a continuous or synchable temporal three in 2400Hz and mechanical tone. All tones are easy for the professional to change in the field by using switches. The models are shipped from the factory in the temporal three alarm mode.

The GC Series has a very minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage.

The Commander<sup>4</sup> Series comes standard with the 4" mounting plate which incorporates the popular Super-Slide<sup>®</sup> 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<sup>4</sup> also features the patented Checkmate<sup>®</sup> - Instant Voltage Verification feature which allows the installer to check the voltage drop draw without removing the signal.

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



### Product Listings

#### SIGNALING



LISTED



- ANSI/UL 464 and ANSI/UL 1971 Listed
- FM Approved
- CSFM: 7135-0569:122 (GCC)  
7125-0569:123 (GCS)
- MEA: 285-91-E

### 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

### Standard Features

- Nominal voltage 24VDC
- Tamperproof field selectable candela options of 15, 30, 75, 95, 115 & 150
- Super-Slide<sup>®</sup> Bracket - Ease of Supervision Testing
- Checkmate<sup>®</sup> - Instant Voltage Verification
- Unit Dimensions: 6" (15.24 cm) x 2.6" (6.604 cm)
- 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 Selection for 2400Hz or Mechanical Tone
- Switch Selection for Continuous or Temporal 3
- Tamperproof re-entrant grill
- Surface mount with the GCSB (Gentex Ceiling Surface Mount Box)
- Silence audible while visual appliance will remain flashing (for use in accepted jurisdictions)
- Faceplate available in red or off-white

## GCS Series 24 Volt Ceiling Mount Selectable Strobe

Model Number	Part Number	Nominal Voltage	Candela
GCS24CR	904-1213-002	24VDC	15, 30, 75, 95, 115, 150
GCS24CW	904-1215-002	24VDC	15, 30, 75, 95, 115, 150
GCS24PCR	904-1214-002	24VDC	15, 30, 75, 95, 115, 150
GCS24PCW	904-1216-002	24VDC	15, 30, 75, 95, 115, 150

## GCC Series 24 Volt Ceiling Mount Selectable Horn/Strobe

Model Number	Part Number	Nominal Voltage	Candela	Reverberant dBA @ 10ft. per ANSI/UL 464	In Anechoic Room dBA @ 10ft.
GCC24CR	904-1209-002	24VDC	15, 30, 75, 95, 115, 150	81-86	90
GCC24PCR	904-1210-002	24VDC	15, 30, 75, 95, 115, 150	81-86	90
GCC24CW	904-1211-002	24VDC	15, 30, 75, 95, 115, 150	81-86	90
GCC24PCW	904-1212-002	24VDC	15, 30, 75, 95, 115, 150	81-86	90

### Model Designations:

C = Ceiling Mount

R = Red Faceplate

W = White Faceplate

All units are available in plain (no lettering).

**Plain units are non-returnable.**

## GC24 Product Strobe Current Ratings (mA)

	Candela	15cd	30cd	75cd	95cd	115cd	150cd
24VDC (16-33 Volts)	24VDC	72mA	101mA	167mA	200mA	214mA	286mA
	UL Max <sup>1</sup>	120mA	120mA	200mA	220mA	290mA	321mA

## GCC24 Product Horn Decibel and Current Ratings (mA)

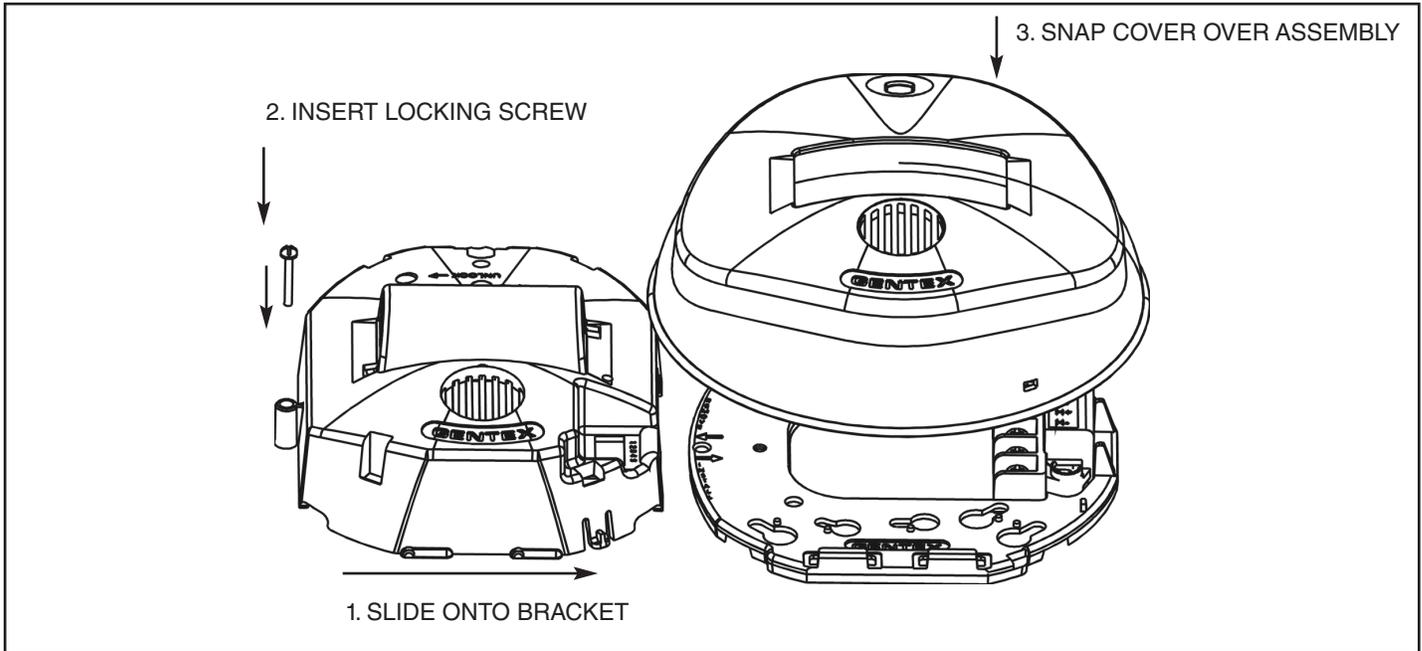
Horn Mode	Minimum dBA @ 10ft. per ANSI/UL 464 (HIGH)	Minimum dBA @ 10ft. per ANSI/UL 464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	83	75	23
Temp 3 Mechanical	81	73*	22
Continuous 2400Hz	86	78	23
Continuous Mechanical	84	76	22

### NOTES:

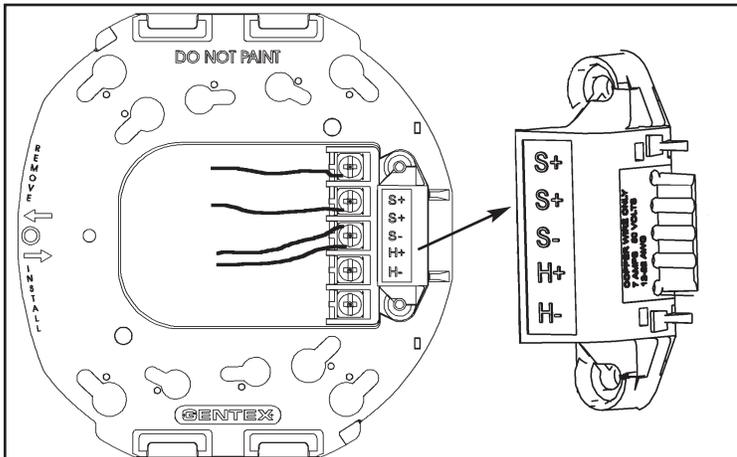
- Operating temperature: 32° to 120°F (0° to 49°C). The GC Series is not listed for outdoor use.
- The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure 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.
- Gentex does not recommend using a coded or pulsing signaling circuit with any of our strobe products (see Technical Bulletin Number 014).
- \* 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).

<sup>1</sup> 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). For strobes the UL max current is usually at the minimum listed voltage (16VDC for 24VDC units). For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

## Mounting Super-Slide®

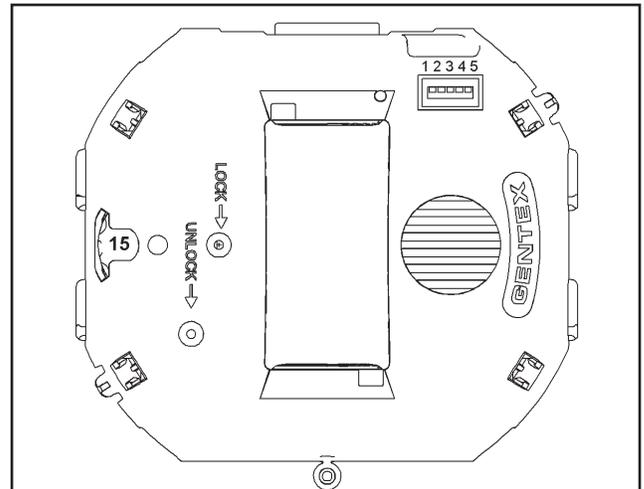


## Checkmate® Instant Voltage Verification



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. **NOTICE: CARE SHOULD BE TAKEN TO NOT SHORT THE TEST PROBES.**

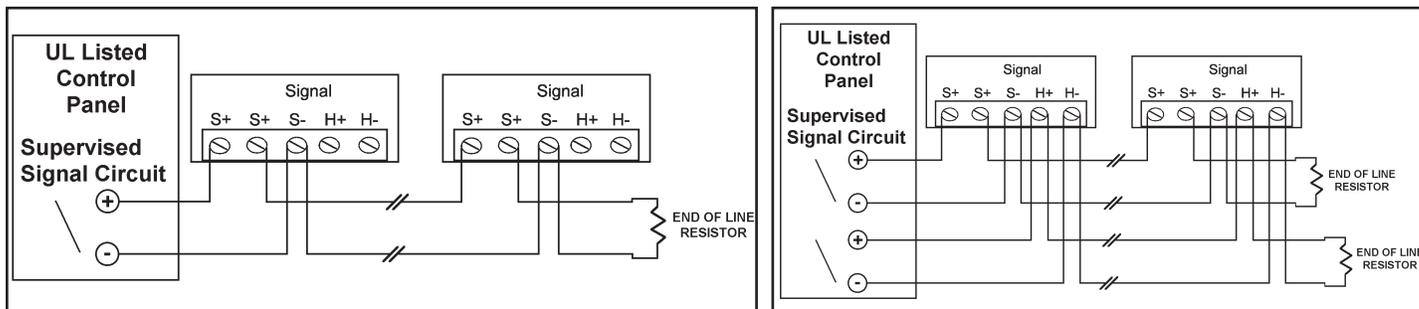
## Switch Locations



Switch positions 1 and 2 in the down position to select isolated horn and strobe power inputs. Switch 3 selects between temporal or non-temporal tone. Up is temporal. Switch 4 selects between mechanical or high frequency tone. Up is mechanical. Switch 5 selects between high or low dBA. Up is high dBA.

# GCS/GCC 24VDC SERIES

## Conventional GC 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.**

### Architect & Engineering Specifications

The visible and audible/visible signal shall be Gentex model GCS or GCC or approved equal and shall be listed by Underwriters Laboratories Inc. per ANSI/UL 1971 for the GCS and ANSI/UL 464 for the GCC. 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 units and audible units only) shall produce a peak sound output of 90dBA or greater as measured at 24VDC 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 have an operating current of 72mA or less at 24VDC for the 15 candela 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 with 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  
29 pounds per carton

# GENTEX CORPORATION

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