

# GENTEX CORPORATION

A Smarter Vision®

Gentex Corporation offers high quality fire protection products engineered to meet or exceed all installation and performance codes and standards requirements of NFPA, Underwriters Laboratories, and the Americans with Disabilities Act (ADA), state and local codes.

## Installation Guide for Gentex GN-503FF Smoke/CO Alarms and Connecting to Signaling Device



### Features of the Gentex GN-503FF Combination Smoke and Carbon Monoxide Alarm include:

- **FEATURES TWO (2) SETS OF FORM A/C CONTACTS THAT ACTIVATE INDEPENDENTLY FOR SMOKE AND CO EVENTS.**
- **Differentiating Signal for Each Alarm Type Annunciation**
- 120VAC with 9VDC Battery Back-Up
- Photoelectric Smoke Sensor and Electrochemical CO Sensor
- Listed to ANSI/UL 217 and ANSI/UL 2034 and NFPA 72 and NFPA 720 Compliant

**GENTEX**  
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## GN-503FF Combination Photoelectric Smoke / CO Alarm

The GN-503FF is a combination photoelectric smoke and electrochemical sensor carbon monoxide alarm for use as an evacuation device in all dwelling units.



- ANSI/UL 217 and ANSI/UL 2034 Listed
- CSFM # 5276-0569:144
- NFPA 72 and NFPA 720 Compliant
- IBC/IFC/IRC Compliant



### Standard Features:

- 120VAC with 9VDC battery back-up
- **GN-503FF FEATURES TWO (2) SETS OF FORM A/C CONTACTS THAT ACTIVATE INDEPENDENTLY FOR SMOKE AND CO EVENTS**
- Relay contacts operate on battery back-up
- Push button self test feature
- Push button functional test feature
- Quick-disconnect wiring harness
- Non-latching (self restoring) alarm
- Tandem interconnect with Gentex GN-503, GN-503F, CO1209, CO1209F, S1209 and S1209F alarm models
- Low or missing battery indicator
- **Temporal 3 evacuation sound pattern for smoke annunciation**
- **Temporal 4 evacuation sound pattern for CO annunciation**
- End of life signal indicates CO sensor has reached depletion state and time to replace

## Gentex Commander<sup>3</sup> Signaling Devices



- ANSI/UL 464 and ANSI/UL 1971
- CSFM # 7135-0569:122 and 7125-0569:123
- NFPA 72 Compliant
- IBC/IFC/IRC Compliant



The Commander<sup>3</sup> Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms.

### Standard Features

- Nominal voltage 24VDC
- Field selectable candela options of 15, 30, 60, 75 & 110
- Fixed candela options of 15/75 and 177
- Super-Slide<sup>®</sup> Bracket - Ease of Supervision Testing
- Checkmate<sup>®</sup> - Instant Voltage Verification
- Input terminals accept 12 to 18 AWG
- Switch selection for high or low dBA
- Switch for chime, whoop, mechanical and 2400Hz tone
- Tamperproof re-entrant style grill
- Switch for continuous or temporal 3 tone (not available on whoop tone)
- Documented lower installation and operating costs
- Faceplate available in red or off-white
- ALERT bezels available
- Plain (no lettering) models available

## Gentex GXS Signaling Devices



- ANSI/UL 1971
- CSFM # 7125-569:114
- NFPA 72 Compliant
- IBC/IFC/IRC Compliant



The GXS-120 Series is a high quality visual signaling appliance.

### Standard Features

- Nominal voltage 120VAC
- 177 candela strobe meets the requirements of NFPA 72 and meets the requirements of ADA
- Terminal blocks (12-18 AWG)
- Flash rate 1Hz
- Wide variety of mounting options for new construction and retrofit applications
- ANSI/UL 1971 listed for fire protective service/signal for hearing impaired
- Ceiling and wall mount models available
- Faceplate available in red or off-white
- Plain (no lettering) models available

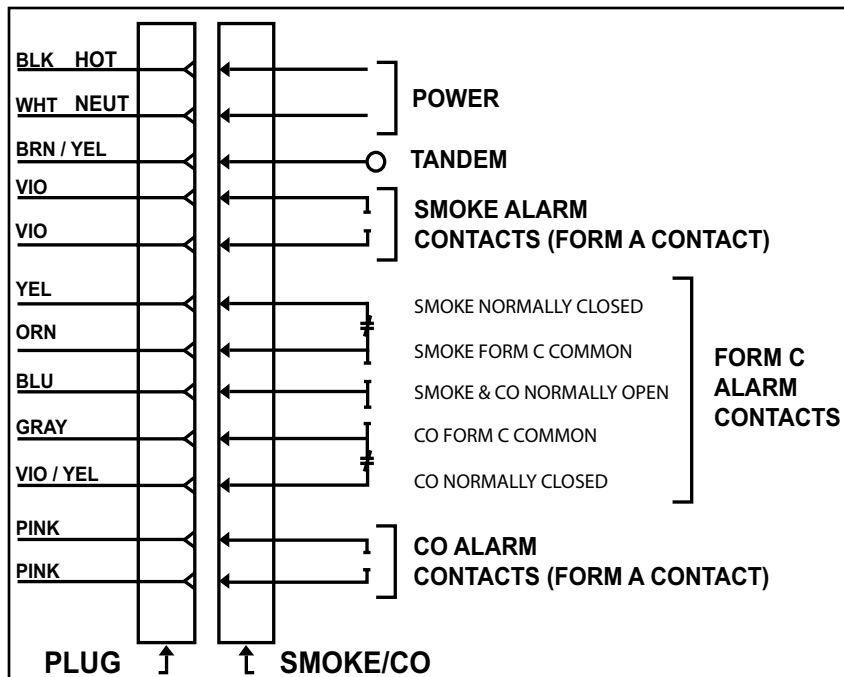
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**Using the Gentex GN-503FF Combination Smoke and Carbon Monoxide Alarm allows the ability to:**

- **Interface with a FACP Panel**
- **Interface with NAC Circuits**

**GN-503FF WIRING DIAGRAM**



**GN-503FF ADDITIONAL PRODUCT INFORMATION**

Use brown/yellow wire to tandem interconnect GN-503FF alarms to additional GN-503 Series, S1209 Series and CO1209 Series.

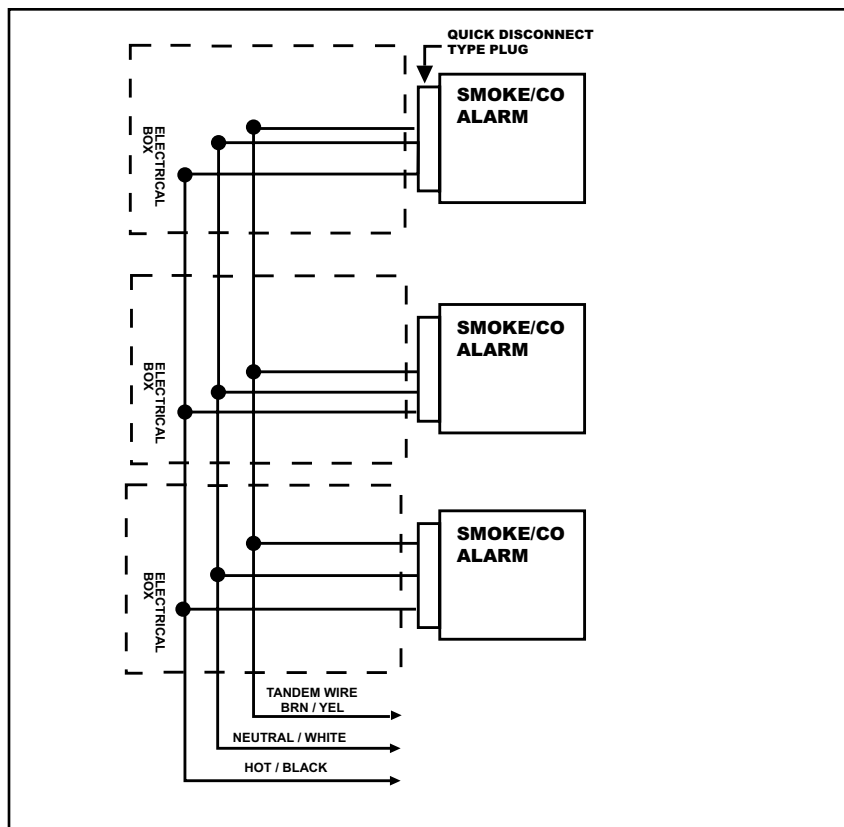
NOTICE: THE GN-503FF IS ONLY CAPABLE OF TANDEM INTERCONNECT WITH GN-503 SERIES, CO1209 SERIES AND S1209 SERIES.

THE GN-503FF AND GN-503F PRODUCT WIRING HARNESS IS NOT INTERCHANGEABLE. THE GN-503FF AND GN-503F MUST USE PROPER WIRING HARNESS. PRODUCT WILL NOT FUNCTION IF INCORRECT HARNESS IS USED.

- DO NOT connect Gentex alarms to other manufacturers' alarms.
- Per NFPA 72, a maximum of 18 compatible smoke, heat, CO and/or combination smoke/CO alarms may be interconnected. No more than 12 of the 18 can be smoke alarms.
- All units connected in tandem MUST get their power from the same circuit, that is, all smoke alarms in tandem must be controlled by the same fuse or circuit breaker.

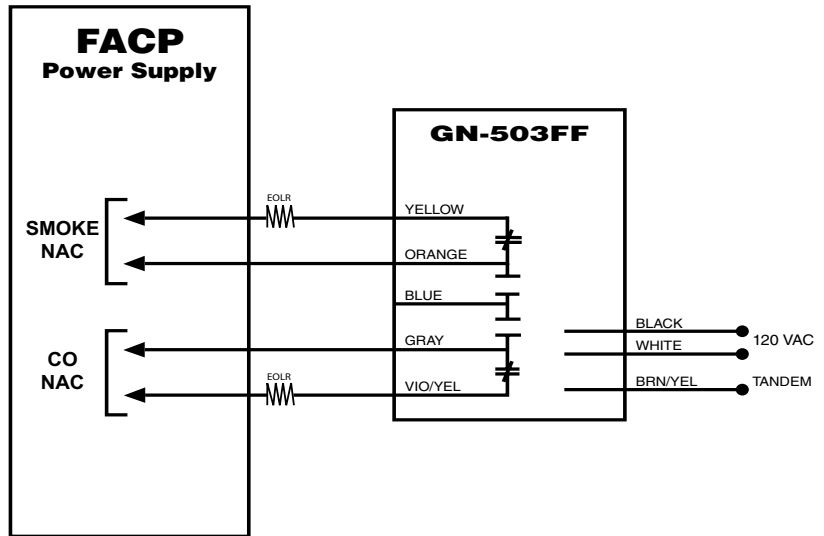
NOTICE: PER NFPA 72, A MAXIMUM OF 12 SMOKE/CO ALARMS OF GN-503 WITH THE RELAY OPTION (FF) MAY BE TANDEM INTERCONNECTED.

**GN-503FF TANDEM WIRING DIAGRAM**



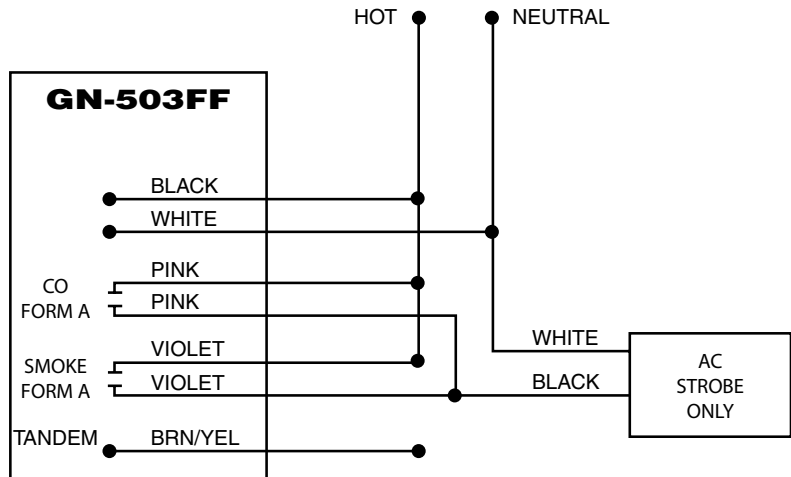
## Proper Connection of a Gentex GN-503FF to a Fire Alarm Control Panel (FACP)

- The GN-503FF alarm is equipped with 2 sets of Form A and Form C contacts. Each set of contacts will transfer state when each portion of the device goes into alarm. The contacts will return to normal position once the alarm condition is cleared and the GN-503FF returns to normal standby position.
- Units connected in tandem will activate the relays of the 'non-alarming' units, thereby activating the FACP.



## Proper Connection of Gentex GN-503FF to Gentex AC Alarm

- The diagram at the right illustrates connection of one strobe that activates for either a smoke or CO event.
- The strobe will receive its source of power from the same source that provides power to the GN-503FF. Power is routed through the normally open contacts.
- Units connected in tandem will activate the relays of the 'non-alarming' units thereby activating the strobe.
- The GN-503FF alarm is equipped with 2 sets of Form A and Form C contacts. Each set of contacts will transfer state when each portion of the device goes into alarm. The contacts will return to normal position once the alarm condition is cleared and the GN-503FF returns to normal standby position.



- One Gentex strobe per relay contact may be connected to a Gentex GN-503FF smoke/CO alarm. This allows a total of two AC strobes to be connected to the GN-503FF.

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

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