

# 913 Series

## 9 Volt Battery Powered Smoke Alarm

24 units per carton, 32 pounds per carton

### Applications

The Gentex 913 Series smoke alarm is a 9V battery photoelectric type smoke alarm for use as an evacuation device in residential applications. Each smoke alarm has a solid state 85 dBA piezo signal in a temporal 3 pattern to warn and alert the household of the presence of smoke and to evacuate the building.

The 913 Series is engineered to virtually eliminate nuisance alarms and deliver outstanding performance wherever reliable fire and smoke detection is required. The 913 Series provides a patented three position test feature that simulates 0.85% and 3.5% actual smoke conditions in full compliance with ANSI/UL 217 standards and NFPA 72. It also provides a maintenance indicator and makes the 100% testing requirement easy.

### Standard Features

- Operating voltage: 9V battery powered
- 85 dBA at 10 feet
- Temporal 3 evacuation piezo horn
- Nominal 2.5% sensitivity
- Patented 3-position test switch
- 5 to 1 signal to noise ratio
- Pulsing IR LED sensing chamber
- Non-latching (self restoring) alarm
- Optional self restoring 135°F integral heat thermal (913T)
- Fully insect protected
- Wall or ceiling mountable
- Easy Wash® on site maintenance washing program
- Mounting hardware
- Shrink wrapped to prevent contamination during installation
- One year warranty from date of purchase

Model	Part Number	Integral 135°F Heat Thermal
913	909-0133-002	
913T	909-0134-002	•

### Electrical Specifications

Operating Voltage .....	9V alkaline battery
Power Source .....	Alkaline 9V battery Duracell® MN 1604
Operating Current .....	0.09 amps
Operating Current (Relay Options).....	0.070 amps
Operating Ambient Temp Range.....	40°F to 100°F (4.4°C to 37.8°C)
Alarm Horn Rating .....	85 dBA at 10 feet
Nominal Sensitivity .....	2.5% obscuration
"T" Integral Thermal (Self-Restoring).....	135°F at 50 feet
Size .....	5.7" (14.48 cm) square x 2.7" (6.858 cm) deep



### Product Listings

SIGNALING



- ANSI/UL 217

### Product Compliance

- NFPA 72
- Quality Management System is certified to:  
ISO 9001:2008

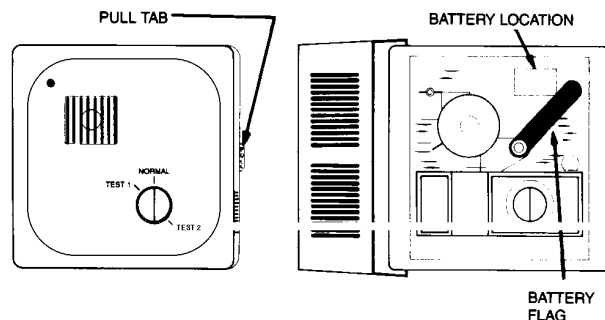
 **Easy Wash®**  
On Site Maintenance Program

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### Battery Installation

- Once the smoke alarm is mounted, the cover can be opened by using the pull tab located on right side of cover.
- NOTICE: USE ONLY DURACELL® MN 1604 BATTERY WITH THE 913 SERIES SMOKE ALARMS.
- Connect battery to terminals located near upper right-hand corner inside the smoke alarm after first resetting battery removal flag back to its stand-by condition.
- Close smoke alarm by snapping cover shut.
- After battery has been installed or replaced, test smoke alarm.



### Architect & Engineering Specifications

The photoelectric smoke alarm shall be a Gentex model 913/913T or approved equal which shall provide at least the following features and functions:

- Nominal sensitivity of 2.5%.
- The alarm shall utilize an infrared LED sensing circuit which pulses in 4 to 5 second intervals when subjected to smoke. After 2 consecutive pulses in smoke, the alarm will activate.
- The alarm shall provide an indication when the battery is low.
- The alarm shall provide minimum 5-to-1 signal-to-noise ratio in the optics frame to assure stability of operation in environments of high RF and transient conditions.
- The sensing chamber shall be fully protected to prevent entrance of small insect, thus reducing the probability of false alarms.
- A solid state piezo alarm rated at 85 dBA at 10ft.
- An easily accessible test knob shall be provided. The test knob in the TEST position will simulate an actual smoke condition of approximately 3.5% causing the detector to alarm within 20-36 seconds. It will also have the capability of testing to 0.85% as a required minimum. A magnetic switch closure or smoke generating equipment which does not scatter the light beam or test sensitivity is not sufficient as indicated in National Code.
- Units shall be listed by Underwriters Laboratories (ANSI/UL).

The 913 Series photoelectric smoke alarm operates on the photoelectric light scatter principle. The unit's sensing chamber houses a light source and a light sensor. The darkened sensing chamber is exposed to the atmosphere and designed to permit optimum smoke entry from any direction while rejecting light from outside the alarm. The light source is an infrared (invisible) LED which pulses every 8 seconds. The light sensor is a photodiode matched to the light frequency of the LED light source.

Under normal conditions, the light generated by the pulsing infrared LED is seen by the light sensor, as it is positioned out of the direct path of the light beam. When smoke enters the sensing chamber, light from the pulsing LED light source is reflected by the smoke particles onto the photodiode light sensor. At the first sighting of smoke, the alarm is put into a pre-alarm mode. This is indicated by the rapidly flashing LED on the face of the alarm. Once the light sensor confirms smoke for 2 consecutive pulses inside the chamber, the light sensor produces the signal necessary to trigger the alarm. This technique of verifying the smoke condition, combined with a 5 to 1 noise ratio, substantially reduces the possibility of nuisance alarms.