

**DRAFT**  
February 22, 2005



**SYSTEM  
SENSOR®**

3825 Ohio Avenue, St. Charles, Illinois 60174  
800/736-7672, FAX: 630/377-6495  
www.systemsensor.com

# 5808W3 Photoelectronic Smoke/Heat Detector with Built-in Wireless Transmitter

Before installing detectors, please thoroughly read these installation instructions and Manual I56-407, Guide for Proper Use of System Smoke Detectors, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications. Copies of this manual are available from ADEMCO.

**NOTICE:** This manual should be left with the owner/user of this equipment.

**IMPORTANT:** This detector must be tested and maintained regularly following NFPA 72 requirements. The detector should be cleaned at least once a year.

## General Description

The 5808W3 photoelectronic smoke/heat detector with built-in wireless transmitter is intended for use with wireless alarm systems that support 5800 series devices. Refer to control/communicator installation instructions for compatibility. The 5808W3 smoke/heat detector can be used with 5881 series (L, M, H) and 5881EH receivers for residential installations. For commercial installations, the 5881EH receiver should be used. The transmitter can send alarm, tamper, maintenance (when control panels are equipped to process maintenance signals), and battery condition messages to the system's receiver. The maintenance signal fully complies with the sensitivity test requirement specified in NFPA 72, 7-2.2. Refer to the wireless system's instructions for the maximum number of transmitters that can be supported.

The 5808W3 incorporates a state-of-the-art optical sensing chamber and an advanced microprocessor. The microprocessor allows the detector to automatically adjust its sensitivity back to the factory setting when it becomes more sensitive due to contaminants settling in its chamber. In order for this feature to work properly, the chamber must never be opened while power is applied to the smoke detector. This includes cleaning, maintenance or screen replacement. All models also feature a restorable, built-in, fixed temperature (135°F) thermal detector and is also capable of sensing a freeze condition if the temperature is below 41°F.

The 5808W3 contains a piezoelectric horn which generates the ANSI S3.41 temporal pattern in an alarm condition. In

alarm, a message is also sent to the wireless control panel and the smoke detector's ID number is displayed at the console. The alarm message is transmitted every 4 seconds until the smoke or heat condition has cleared and the detector has reset. During an alarm condition, pressing the detectors test switch will silence the piezoelectric horn for 5 minutes. Once the detector has reset, a RESTORE message is transmitted to the control panel and the ID number can be cleared from the panel. The built-in Drift Compensation algorithm automatically maintains the sensitivity of the detector. Once the detector reaches its limit of compensation, it transmits a maintenance signal to the panel. The mounting base installation is simplified by the incorporation of features compatible with drywall fasteners.

Two LEDs on the detector provide a local visual indication of the detector's status:

**Table 1: Detector LED Modes**

	Green LED	Red LED	Piezoelectric Horn
Power-up	Blink 5 sec	Blink 5 sec	Off
Normal (standby)	Blink 10 sec	—	Off
Out of sensitivity	—	Blink 5 sec	Off
Freeze Trouble	—	Blink 10 sec	Off
Smoke Alarm	—	Blink 1 sec	Temporal Pattern
Thermal Alarm	---	Blink 4 sec	Temporal Pattern
Low Battery	---	Blink 45 sec	Chirp 45 sec

During an initial power-up delay, the red and green LEDs will blink synchronously once every five seconds. It will take approximately 20 seconds for the detector to finish the power-up cycle (see Table 2).

After power-up has completed and the detector is functioning normally within its listed sensitivity range, the green LED blinks once every ten seconds. If the detector is in need of maintenance because its sensitivity has shifted outside the listed limits, the red LED blinks once every five seconds. When alarm has been activated by smoke, the red LED blinks every 1 second. During a thermal alarm condition (>135°F) the red LED blinks once every 4 seconds. The LED indication must not be used in lieu of the tests specified under Testing. In a freeze trouble condition, the red LED will blink once every 10 seconds (refer to Table 1).

## Specifications

Power Source:	One 3-volt CR123A Lithium Batteries (included). (Replace with Duracell DL123A, Sanyo CR123A, Panasonic CR123A or ADEMCO 466.)
Height:	2.3 inches (58 mm)
Diameter:	5.3 inches (135 mm) with mounting base
Weight:	8.5 oz. (241 g) without battery
Operating Ambient Temperature Range:	0° to 38°C (32° to 100°F)
Operating Humidity Range:	0% to 95% Relative Humidity
Heat Sensor:	135° F Fixed Temperature Electronic Thermistors
Freeze Trouble:	41°F (5°C)
Agency Listings:	UL 268 – Commercial and Residential Installations

### Please refer to insert for the Limitations of Fire Alarm Systems

Smoke detectors shall be replaced after being in service for 10 years. However, any smoke detector, fire alarm equipment, or any component of that system which fails prior to that shall be repaired or replaced as soon as possible. Batteries shall be replaced upon indication of a pre-low battery condition.

#### ADEMCO One-Year Limited Warranty

Alarm Device Manufacturing Company, a Division of Pittway Corporation ("Seller"), 165 Eileen Way, Syosset, NY 11791, warrants its security equipment (the "product") to be free from defects in materials and workmanship for one year from date of original purchase, under normal use and service. Seller's obligation is limited to repairing or replacing, at its option, free of charge for parts, labor, or transportation, any part proven to be defective in materials or workmanship under normal use and service. Seller shall have no obligation under this warranty otherwise if the product is altered or improperly repaired or serviced by anyone other than the seller. In case of defect, contact the security professional who installed and maintains your security system or the Seller for product repair.

This one year Limited Warranty is in lieu of all other express warranties, obligations, or liabilities. THERE ARE NO EXPRESS WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF. ALL IMPLIED WARRANTIES, OBLIGATIONS, OR LIABILITIES MADE BY SELLER IN CONNECTION WITH THIS PRODUCT, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, ARE LIMITED IN DURATION TO A PERIOD OF ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. ANY ACTION OR BREACH OF ANY WARRANTY, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY, MUST BE BROUGHT WITHIN 18 MONTHS OF DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT. Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so above limitation or exclusion may not apply to you.

Seller does not represent that the product may not be compromised or circumvented; that the product will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of a burglary, robbery, or fire occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THAT THE PRODUCT FAILED TO GIVE WARNING. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising under this Limited Warranty or otherwise, regardless of cause or origin, Seller's maximum liability shall not in any case exceed the purchase price of the product, and shall be the complete and exclusive remedy against Seller. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. No increase or alteration, written or verbal, to this warranty is authorized.

**FCC ID: CFS8DL5808W3**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**IC: 573F-5808W3**