ESL 570N Smoke Detector
Model: 572NS

CSFM

OEM Accounts Only

Installation Instructions

Description

The ESL 572NS smoke detector must be used as part of a wireless system and requires a transmitter.

The detector provides the following features:

CleanMe® Self-diagnostics monitors its own sensitivity and operational status. If the detector drifts out of the UL listed sensitivity range or fails internal diagnostics, it extinguishes its LED and sends a trouble signal to the control panel.

Tamper switch sends a trouble signal to the control panel when the detector is removed from its mounting base.

Transmitted Signal Outputs

Once a wireless transmitter is installed, the detector can transmit the following signals to the control panel:

- Alarm
- Alarm restore
- Low battery
- CleanMe®
- Maintenance alert
- Tamper

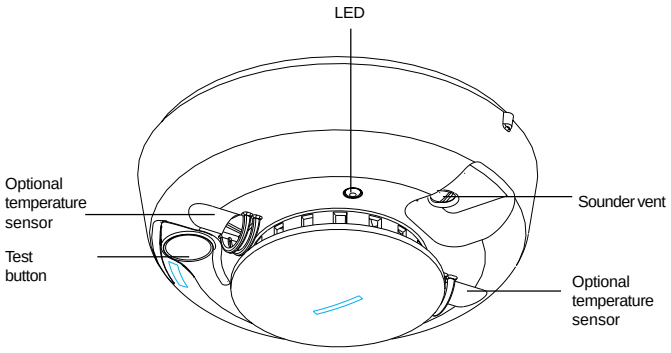


Figure 1 - Detector Features

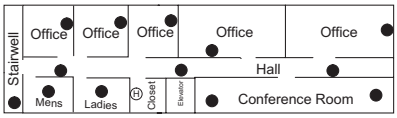
Installation Guidelines

Selecting a suitable location is critical to the operation of smoke detectors. This equipment should be installed in accordance with the National Fire Protection Association's (NFPA) Standard 72, Chapters 2 and 8. Depending on the application, you may need to reference other chapters of NFPA 72 or NFPA 101.

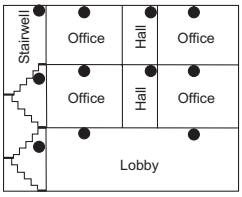
Since regulations pertaining to smoke detector installation vary from state to state, contact the authority having jurisdiction (AHJ). Where public safety is primary, the AHJ may be a federal, state, local, or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor or health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the AHJ. In some cases, the property owner or their designated agent assumes the role of the AHJ. At government installations, the commanding officer or department official may be the AHJ.

General Guidelines

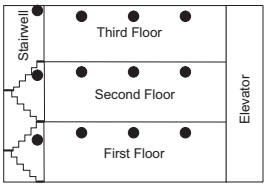
- Locate the detector in evironmentally controlled areas where the temperature range is between 40° and 100° F (4.4° and 37.8° C) and the humidity is between 0 and 90% noncondensing.
- Locate detectors away from ventilation sources that can prevent smoke from reaching the detector.
- Locate ceiling mounted detectors in the center of the room or hallway, at least 4 inches (10cm) away from any walls or partitions.
- Locate wall mounted detectors so the top of the detector is 4 to 12 inches (10 to 31cm) below the ceiling.
- In rooms with sloped, peaked, or gabled ceilings, locate detectors 3 feet (.9 meters) down or away from the highest point of the ceiling.
- When mounting to suspended ceiling tile, the tile must be secured with the appropriate fastener to prevent tile removal.

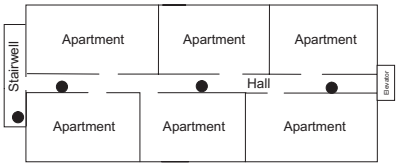


In commercial buildings a smoke detector should be located in each room.

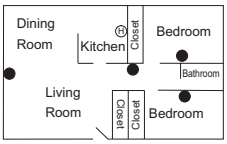


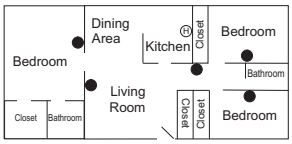
A smoke detector should be located on each level.





In multifamily dwellings, smoke alarms/detectors should be located in hallways and stairwells of each level.





Smoke alarms/detectors should be located in the living area, hallway, and in each bedroom of the apartment.

Figure 2 - Smoke Detector Placement

NFPA Guidelines

NFPA 72, 2-1.4.2.1 Total (Complete) Coverage. If required, total coverage shall include all rooms, halls, storage areas, basements, attics, lofts, spaces above suspended ceilings, and other subdivisions and accessible spaces; and the inside of all closets, elevator shafts, enclosed stairways, dumbwaiter shafts, and chutes. Inaccessible areas shall not be required to be protected by detectors. (For exceptions, refer to this section of NFPA 72.)

NFPA 72, 2-1.4.2.2 Partial Coverage. If required, partial detection systems shall be provided in all common areas and work spaces, such as corridors, lobbies, storage rooms, equipment rooms, and other tenantless spaces in those environments suitable for proper detector operation in accordance with this code.

NFPA 72, 2-1.4.2.3 Selective Coverage. Where codes, standards, laws, or authorities having jurisdiction require the protection of selected areas only, the specified areas shall be protected in accordance with this code.

NFPA 72, 2-1.4.2.4 Supplementary (Non required) Coverage. Where installed, detection that is not required by an applicable law, code, or standard, whether total (complete), partial, or selective coverage, shall conform to the requirements of this code. (For exceptions, refer to NFPA 72 Chapter 2 Spacing Requirements.)

NFPA 72, 2-1.4.3 Where non required detection devices are installed for a specific hazard, additional non required detection devices shall not be required to be installed throughout an entire room or building.

NFPA 72, 2-2 Heat-Sensing Fire Detectors Heat-sensing fire detectors shall be installed in all areas where required by the NFPA codes and standards or by the authority having jurisdiction.

NFPA 72, 8-1.4.1.3.2 Detection in New Apartment Buildings Approved, single-station smoke alarms shall be installed in accordance with 7-6.2.10 of NFPA 101 outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit including basements. (101: 18-3.4.4.2) (For exceptions, refer to this section of NFPA 72.)

NFPA 72, 8-1.4.1.4.2 Detection in Existing Apartment Buildings Approved, single-station smoke alarms shall be installed in accordance with 7-6.2.10 of NFPA 101 outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit including basements. (101: 19-3.4.4.1) (For exceptions, refer to this section of NFPA 72.)

Locations to Avoid

Do not install smoke alarms/detectors:

- in or near areas where combustion particles are normally present such as in kitchens, garages, near furnaces, hot water heaters, or gas space heaters.
- on the ceiling in rooms next to kitchens where there is no transom between the kitchen and such rooms.
- in damp or very humid areas or next to bathrooms with showers. Locate detectors at least 5 feet (1.5 meters) away from bathrooms.
- in very cold or very hot areas.
- in dusty, dirty, or insect infested areas.
- near fresh air inlets or returns or excessively drafty areas. Heating/air conditioning vents, fans, and fresh air intakes can drive smoke away from smoke alarms/detectors.
- in dead air spaces at the top of peaked ceilings or in corners where walls and ceiling meet. Dead air may prevent smoke from reaching a smoke alarm/detector.
- near fluorescent light fixtures. Locate smoke alarms/detectors at least 10 feet (3 meters) away from these fixtures.

Installing the Detector

1. Slide the battery compartment cover away from the detector to unsnap it and lift it off. See Figure 3.
2. Observing proper polarity, insert two 3V lithium batteries into the detector battery compartment and replace the battery compartment cover.
3. Locate and record the seven digit ID address from the transmitter and program it into the RF gateway receiver and control panel. See the control panel programming guide.
4. Remove the red plastic dust cover from the detector. The detector is shipped with a dust cover for protection on construction sites with dusty environments.
5. **If applicable**, disconnect the alarm notification appliances, service release devices and extinguishing systems and test the

communication between the control panel and the detector before permanently mounting the detector as follows:

- Hold the detector up where you plan to install it.

- Press the Test button on the detector for 4 seconds. The detector sends a signal to the control panel.

- At the control panel, verify the signal was received and the RF signal strength is adequate. If no signal is received or the RF signal is low, relocate the detector and retest.

6. Using the two screws and anchors provided, mount the base.
7. Attach the detector to the mounting base as follows:

   - Line up the raised alignment tab on the lip of the detector with the arrow on the mounting base. See Figure 4.

   - Insert the smoke detector into the base and turn clockwise approximately 15 degrees. It should snap firmly into place.

   Important: The detector cannot be attached to the mounting base if no batteries are installed.

8. Test the communication between the control panel and detector as follows:

   - Press the Test button on the alarm for 4 seconds. The detector sends a signal to the control panel.

   - At the control panel, verify that the signal was received.

9. Test the detector (see *Smoke Testing the Detector)* and if applicable, reconnect the alarm notification appliances, service release devices and extinguishing systems.

Important: The control panel alarm and all auxiliary functions should be verified for a complete test of the system.

Smoke Testing the Detector

Smoke detectors should be tested in place annually using one of the following methods:

A. Use Smoke! in a can® (product number SM-200), a canned aerosol simulated smoke and follow the directions on the can.

B. Use the following steps to test the detector with smoke:

1. Hold a smoldering punk or cotton wick close to the smoke entry openings.
2. Gently direct the smoke into the detector for 20 seconds or until an alarm is indicated.

Be sure to extinguish the smoke source after testing! The detector LED should stay on and an alarm should be indicated at the control panel. Use the system reset switch to reset the detector.

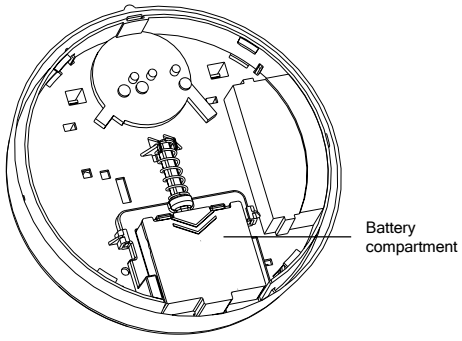


Figure 3 - Battery Compartment

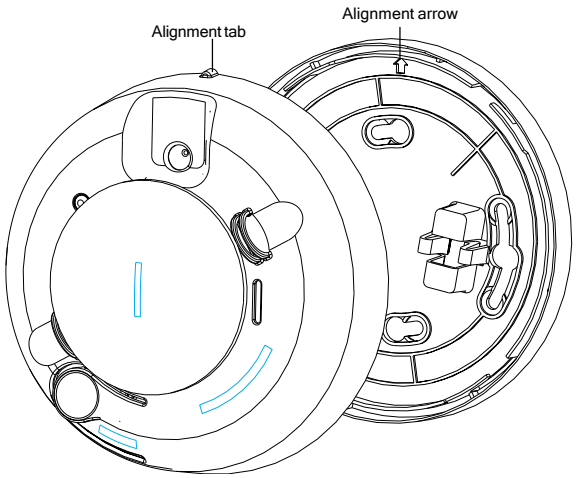


Figure 4 - Smoke Detector-to-Base Alignment

Testing the Detector Sensitivity

The detector provides a sensitivity level test mode that allows you to check the detector sensitivity using the Test button and the LED indicator on the detector as follows:

1. Press the Test button on the detector for 4 seconds. Once the test starts, the detector LED flashes one to nine times.
2. Count the number of times the LED flashes and use the following table to determine the status of the detector sensitivity and what action to take, if any.

Flashes	Indication	Action
1	Unserviceable hardware fault	Reset unit and rerun sensitivity test. If error persists, replace the unit.
2-3	Detector is becoming insensitive.	Clean the unit. Reset the unit and rerun sensitivity test. If the error persists, replace the unit.
4-7	Detector is within normal sensitivity range.	N/A
8-9	Detector is becoming too sensitive.	Verify that the smoke chamber is snapped down securely. Clean the unit and replace the smoke chamber.

After the flashes, if the sensitivity is within limits and all other tests pass, the detector goes into alarm and resets after 7 seconds.

If the sensitivity is not within limits, or an unserviceable hardware fault has been detected, the detector LED extinguishes until the detector is serviced and the built-in transmitter sends a CleanMe® or maintenance alert signal to the control panel.

Attaching and Removing the Detector

To remove the detector from the mounting base, grasp the detector and turn it counterclockwise approximately 15 degrees. The detector should snap off of the mounting base.

Attach the smoke detector to its mounting base as follows:

- Line up the raised alignment tab on the lip of the smoke detector with arrow on the mounting base. See Figure 3.

- Insert the smoke detector into the base and turn clockwise approximately 15 degrees. It should snap firmly into place.

Understanding the LED

The LED on the detector indicates the status of the detector as follows:

FLASHING = Flashes every 8 seconds to indicate normal operation.
ON = Detects smoke, sending an alarm.
OFF = Trouble or maintenance is required. Check the control panel to determine what action to take.

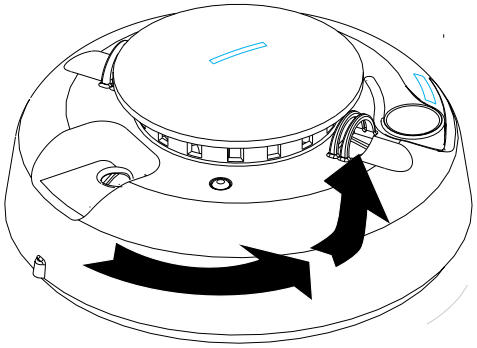


Figure 4 - Removing the detector from the base

Understanding the Test Button

The Test button on the detector performs three functions as follows:

Testing = Press the Test button for 4 seconds. The detector performs a sensitivity test and then sends a test signal to the control panel.

Silence alarm = Press to silence the sounder during an alarm. After a few minutes, the sounder and alarm resume if smoke is still present.

Silence trouble chirp = Press to silence a trouble chirp. The trouble chirp resumes after 24 hours if the trouble condition is not corrected.

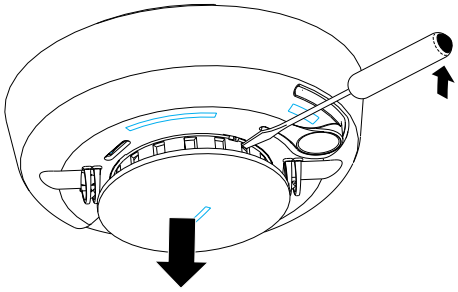


Figure 5 - Removing Detector Cap

When to Replace the Batteries

The smoke detector requires two 3V lithium 123 batteries as listed on the battery compartment cover. The required batteries are available where other batteries are sold.

Battery life is a minimum of 1 year and varies depending on how often the alarm is tested. When the batteries are low, the detector sends a low battery signal to the control panel, extinguishes its LED, and chirps every 45 seconds until the batteries are replaced. The low battery trouble chirps can be silenced for 24 hours by pushing the Test button.

Replacing the Batteries

Use only 3V lithium 123 batteries as listed on the battery compartment cover.

1. Remove the detector from the mounting base. See *Attaching and Removing the Detector.*
2. Slide the battery compartment cover away from the detector to unsnap it and lift it off. See Figure 3.
3. Remove the batteries and dispose of them properly.
4. Observing correct polarity, insert two new 3V lithium batteries into the battery compartment and replace the cover. Use only new batteries when replacing the old batteries.
5. Reattach the detector to the mounting base. See *Attaching and Removing the Detector.*
6. Test the system.

Cleaning the Detector

Clean the detector cover with a dry or damp (water) cloth as needed to keep it free from dust and dirt.

When necessary, clean the detector interior and **replace** the smoke chamber as follows:

1. Disconnect the alarm notification appliances, service release devices, and extinguishing systems.
2. Remove the detector from its mounting base. See *Attaching and Removing the Detector.*
3 Remove the batteries. See *Replacing the Batteries.*
4. Slide a flat-blade screwdriver in the slot on the detector cap and gently push the handle down to pry the cap up and off. See Figure 5.
5. Squeeze the smoke chamber where indicated by the alignment arrows and pull it up and away from the detector and discard. See Figure 6.
6. Blow out or use a soft-bristled brush to remove dust and dirt from the smoke chamber base.
7. Line the new smoke chamber up with the optical base by lining up the arrows on the smoke chamber to the latches on the optical base and snap down into place.
8. Replace the detector cap as follows:

   -Line the cap up with the smoke detector.

-Insert the cap into the smoke detector and turn clockwise approximately 15 degrees. It should snap firmly into place.

9. Observing the proper polarity, put the batteries back in the detector and replace the battery compartment cover.

10. Reattach the detector to its mounting base. See *Attaching and Removing the Detector.*

11. Test the detector sensitivity (see *Testing the Detector Sensitivity)* and reconnect all detector notification appliances, service release devices and extinguishing systems.

Important: The control panel alarm and all auxiliary functions should be verified for a complete test of the system.

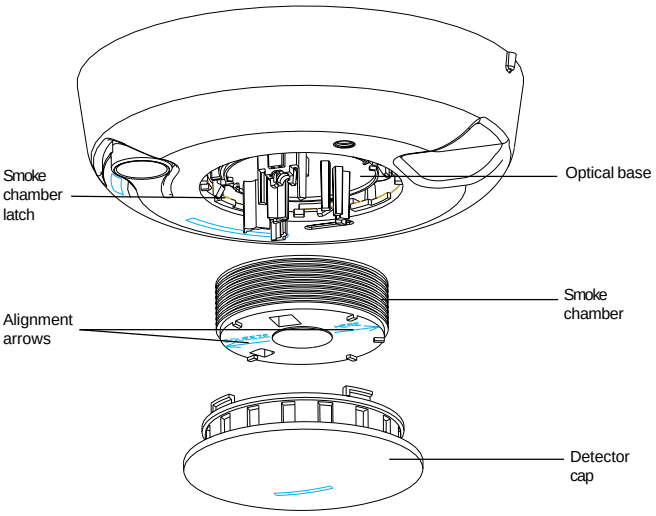


Figure 6 - Detector Parts

Maintaining the Detector

The smoke detectors are designed for easy field service and maintenance. When installed and used properly, they require minimal maintenance.

The smoke detector should be tested weekly. See *Testing the Detector Sensitivity* and *Smoke Testing the Detector*.

When the detector requires maintenance, it extinguishes its LED and sends a signal to the control panel as described in the following table.

Signal	Maintenance required
CleanMe	Smoke detector sensitivity is out of range and needs cleaning. See *Cleaning the Detector*.
Maintenance alert	Detector failed power up self test. Perform a sensitivity test. See *Testing the Detector Sensitivity*. If the problem persists, replace the detector.
Low battery	Batteries in the detector are low, replace the batteries.

⚠ WARNING

Smoke detectors CANNOT provide warnings for fires resulting from explosions, smoking in bed or other furniture, ignition of flammable liquids, vapors and gases, children playing with matches or lighters.

Limited Warranty

ESL is a brand name of GE Interlogix. The manufacturer warrants this smoke detector (except batteries) to be free from defects in material and workmanship under conditions of normal use for a term of 3 years from the date of manufacture.

During the warranty period, if a GE Interlogix product or any of its components becomes defective, it will be repaired or replaced without charge.

Out-of-warranty units will be repaired at the discretion of the manufacturer, if not, a card will be forwarded to the customer suggesting a replacement unit and the cost of that unit.

This warranty does not apply to units which have been subject to abuse, misuse, negligence or accident, or to which any modifications, alterations or repairs have been made or attempted.

This warranty is extended only to the original purchaser of the smoke detector and may be enforced only by such person. During the warranty period, if the detector or any warranted components thereof becomes defective, at the manufacturer's discretion, it will be replaced or repaired without charge if returned in accordance with the following instructions:

Obtain a Return Authorization Number by calling 1-800-648-7422 or 503-692-4052, then carefully pack the detector in a well padded and insulated carton and return, postal charges prepaid to:

Customer Service RMA#
GE Interlogix
12345 SW Leveton Drive
Tualatin, OR 97062-9938

A note should be included advising the nature of the malfunction. Care must be exercised in the proper packing of detectors returned under this warranty as GE Interlogix will not be responsible for warranty repairs to equipment damaged because of improper packing.

The above warranty is in lieu of all other express warranties, and implied warranties of merchantability and fitness for a particular purpose are limited in duration for a period of 3 years from the date of manufacture. Under no circumstances shall manufacturer be liable to the purchaser or any other person for incidental or consequential damages of any nature, including without limitation damages for personal injury or damages to property, and however occasioned, whether alleged as resulting from breach of warranty by manufacturer, the negligence of manufacturer or otherwise. Manufacturer's liability will in no event exceed the purchase price of the product. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. Unless a longer period is required by applicable law, any action against manufacturer in connection with this smoke detector must be commenced within one year after the cause of action has occurred.

No agent, employee, or representative of the Manufacturer nor any other person is authorized to modify this warranty in any respect. Repair or replacement as stated above is the exclusive remedy of the purchase hereunder. This warranty gives you specific legal rights and you also have other rights which vary from state to state.

Limitations

Smoke detectors may not work under all conditions. Smoke detectors cannot provide total protection of life or property and are not a substitute for insurance. All alarms are subject to possible compromise or failure-to-warn for a variety of reasons. For example:

- This smoke detector will not operate and an alarm will not sound if its batteries are dead, removed, or not installed correctly.
- Radio signals transmitted by this smoke detector may be blocked or reflected by metal objects. Adjacent devices or systems using radio frequency signals may interfere with the operation of this detector. Test the system weekly to ensure signals are transmitted and received properly.
- Closed or partially closed doors and distance can block or reduce the alarm sound from this detector. This detector is not designed for the hearing impaired.
- Smoke detectors cannot detect smoke inside chimneys, walls, roofs, or smoke blocked by a closed door.
- Smoke detectors may not detect smoke on other levels of the building.
- Smoke detectors may not warn in time when fires are caused by smoking in bed, explosions, improper storage of flammables, overloaded electrical circuits, or other hazardous conditions.

Specifications

Voltage.....3VDC
Typical average standby current 35µA
Typical test current..... 2mA
Typical alarm current 70mA
Battery life.....1 year (min)
Battery type .....3V lithium, Duracell® 123;
.....Sanyo®, Panasonic® CR123A
Low battery threshold..... low battery signal at 2.7V
Sounder ..... 85dBa at 10' temporal pattern
Low battery beep rate .....1 every 45 sec. ± 2 sec.
Sensitivity ..... 2.25 % ± 1.35 %
Operating temperature .....40°-100° F (4.4°-37.8° C)
Operating humidity range ..... 0-95% non-condensing
Color .....White
Detector dimensions .....5.6" x 2.4" (14.3cm x 6.1cm)
Base dimensions .....5.4" x 0.46" (13.7cm x 1.17cm)
Drift compensation adjustment ..... 0.5%/ft. max.
Listings ..... UL268, CSFM, CE

FCC Compliance

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.

CE

Means of Conformity

We declare under our sole responsibility that this product is in conformity with Directive 93/68/EEC (Marking) and directive 89/336/EEC (EMC) based on test results using (non)-harmonized standards in accordance with the Directives mentioned.

Product Ordering

Model	Description
572NS	3V wireless transmitter-compatible smoke detector, two 3V lithium batteries, 85dBa sounder, base tamper
Accessories	
SM-200	Smoke! in a can® (canned smoke) for functional testing of smoke detectors
SM-EXT 1	Extension tube for Smoke! in a can®
211	Replacement smoke chambers (set of 10)
60-933	6 pack 3V lithium batteries

GE Interlogix

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