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# GEM-SMK-1 SUPERVISED DIGITAL SMOKE ALARM INSTALLATION INSTRUCTIONS

WI1616 5/07

**Description:** The GEM-SMK-1 is a high-quality photoelectric smoke alarm with built-in supervised digitally-coded radio transmitter. It is compatible with Napco's GEM-RECV Series supervised security receivers that monitor alarms, restores, low battery and status.

During normal operation, the LED on the GEM-SMK-1 flashes once every 30 seconds. As soon as smoke is detected, the GEM-SMK-1 sounds a local alarm and the trans-

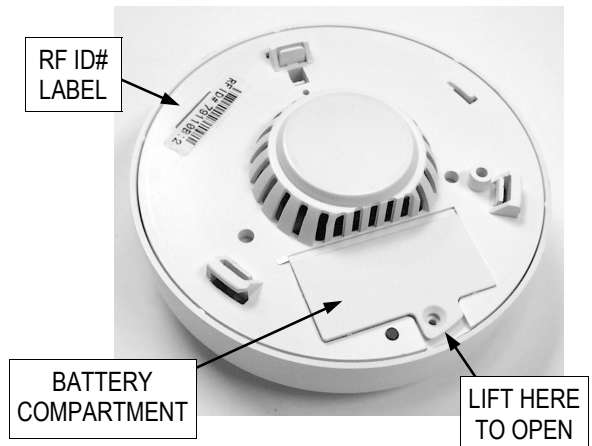
mitter sends an alarm signal to the supervised receiver. The alarm signal is repeated every 10 seconds thereafter as long as smoke is still present. A restore report is sent when the smoke detection chamber clears. Supervisory status reports are sent from the GEM-SMK-1 every hour.

Coding switches are not required or used in the GEM-SMK-1. Each transmitter is assigned a unique identification code number at the factory.

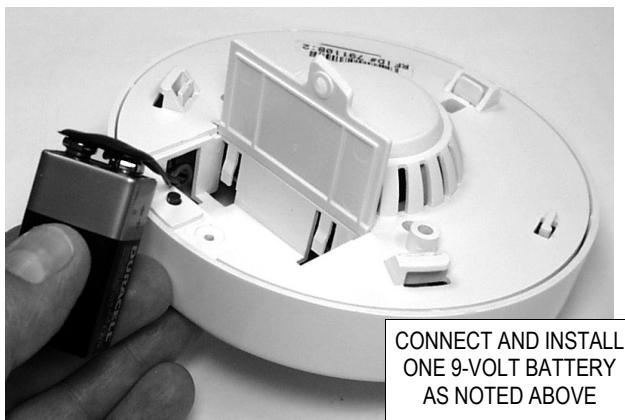
**Step 1. Remove the mounting plate.** Remove the GEM-SMK-1 mounting plate by turning the plate counter-clockwise and pulling it up.



**Step 2. Identify components.** Examine the GEM-SMK-1 to identify the component locations.

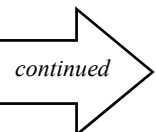


**Step 3. Install battery.** Connect one 9-volt Duracell MN-1604 alkaline battery and place it into the battery holding compartment.

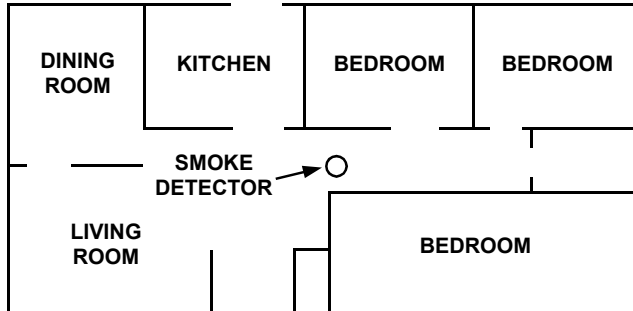


The smoke alarm and transmitter are powered by one 9-volt alkaline battery (supplied) which can power the unit for at least one year. If the battery voltage drops below normal, a low-battery report will be sent to the receiver with any status or alarm transmission. If a low-battery condition is indicated, replace battery.

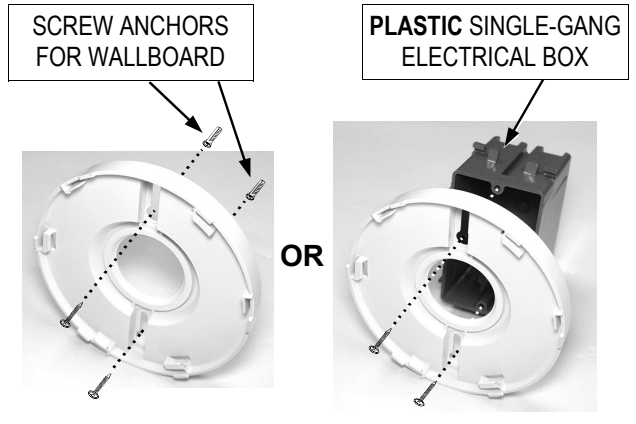
**NOTE:** Temperature and humidity extremes may reduce the life of the battery. In addition, the GEM-SMK-1 alarm is designed to prevent re-mounting to the mounting plate unless a battery is installed in the battery compartment.



**Step 4. Pick smoke-alarm location.** Referring to the NFPA standard on page 3, select a suitable location to mount the GEM-SMK-1.  
**Note:** Mounting the GEM-SMK-1 on foil-backed wallpaper or on a metal single-gang electrical box is NOT recommended because the radio range will be reduced.



**Step 5. Install mounting plate.** Use the two screws and anchors provided to attach the mounting plate to the wall or ceiling. Alternatively, the mounting plate may be attached to a **plastic** single-gang electrical outlet box.

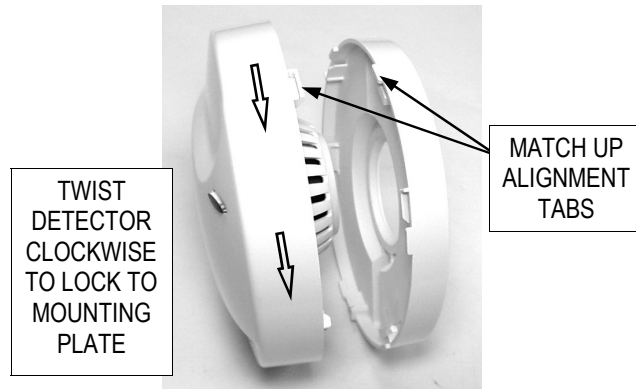


**Step 6. Map the GEM-SMK-1 Transmitter.** Referring to the instructions for the panel and keypad in use, enter the following:

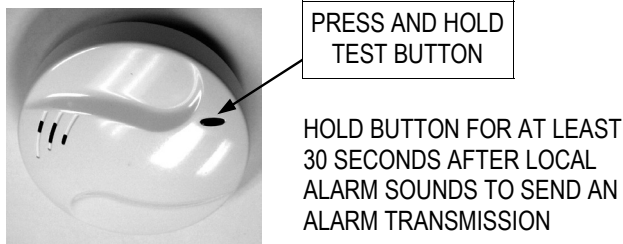
- the zone to which the transmitter will be mapped;
- the 6-digit RF identification number/1-digit check-sum number printed on the transmitter (include all numbers and/or letters and leading zeros, if any); and
- the transmitter point number ("1").

**NOTE:** In fire alarm installations, the control panel must be programmed to activate the fire alarm bells or horns upon detection of a fire.

**Step 7. Attach the GEM-SMK-1 to mounting plate.** Match up alignment tabs on detector and plate. Turn detector clockwise until it locks into place.



**Step 8. Test system weekly with unit mounted.** If the system is monitored, notify central station of impending test. Press and hold the Test button for 30 seconds after the local alarm sounds. The sounder will turn on while the button is pressed and the LED will flash every half-second. Verify that the GEM-SMK-1 triggers the correct zone on the control panel and that the correct report is sent to the central station.



**Silence Mode**

Allows the temporary disabling of the unit. Press and hold the Test button for more than 10 seconds to enter Silence Mode.

**Silencing the Unit**

**To silence the unit** during a smoke alarm, press and hold the Test button for 10 seconds to temporarily silence the unit for 5 minutes.

**Low Battery Warning**

Sounder chirps and the LED flashes simultaneously.

**Maintenance Warning**

The smoke alarm will warn that it must be cleaned when the unit chirps (without a simultaneous LED flash) but the LED flashes between chirps. To clean the smoke alarm, vacuum the outside of the unit at least once a year (preferably every six months) using a soft brush attachment. *Do not attempt to clean the unit in any other way.* If this maintenance procedure fails to clean the unit sufficiently, call for service and/or replace the unit.

**NOTE:** Smoke alarms are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.

## NFPA STANDARD FOR SMOKE-ALARM LOCATION

The GEM-SMK-1 should be installed in accordance with the National Fire Protection Association (NFPA) Standard 72. For your information, the National Fire Protection Association's Standard 72, reads as follows:

### 11.5.1 One- and Two-Family Dwelling Units.

11.5.1.1 Smoke Detection Where required by applicable laws, codes, or standards for the specified occupancy, approved single- and multiple-station smoke alarms shall be installed as follows: (1) In all sleeping rooms. Exception: Smoke alarms shall not be required in sleeping rooms in existing one- and two-family dwelling units. (2) Outside of each separate sleeping area, in immediate vicinity of the sleeping rooms. (3) On each level of the dwelling unit, including basements. Exception: In existing one- and two-family dwelling units, approved smoke alarms powered by batteries are permitted.

11.8.3 Are More Smoke Detectors Desirable? The required number of smoke detectors might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke detectors. For this reason, it is recommended that the householder consider the use of additional smoke detectors for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke detectors. The installation of smoke detectors in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation.

There exist certain situations where the presence of a smoke alarm is not effective, such as smoking in bed, the testing of gas leaks with a flame or for warning against the existence of high carbon monoxide levels inside a family living unit. Current studies have shown smoke alarms may not awaken all sleeping individuals; it is therefore the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound and to provide assistance to those who may be incapable of safely evacuating the area unassisted.

For family living units with one or more split levels (i.e., adjacent levels with less than one full story separation between levels), a smoke detector required as above shall suffice for an adjacent lower level, including basements.

Exception: Where there is an intervening door between one level and the adjacent lower level, a smoke detector shall be installed on the lower level.

- Ceiling-mounted smoke alarms should be located in the center of the room or hall, or not less than 4 inches from any wall. When the detector is mounted on a wall, the top of the detector should be 4 to 12 inches from the ceiling.
- Do not install smoke alarms where normal ambient temperatures are above 100°F (37.8°C), below 40°F (4.4°C) or greater than 92% humidity unless the alarm has been determined to be capable of being used at installation points with higher or lower ambient temperatures. Also, do not locate alarm in front of air conditioners, heating registers, or other locations where normal air circulation will keep smoke from entering the detector. Installing smoke detectors in kitchens, garages or furnace rooms is NOT recommended.

All installation wiring must be in accordance with the provisions of Article 210 of the National Electrical Code, ANSI / NFPA 70. All protected premises fire alarm systems shall be maintained and tested (at least once every month) in accordance with NFPA 72.

## FIRE PREVENTION AND ESCAPE

The purpose of an early warning smoke alarm is to detect the presence of fire in its early stages, and sound an alarm giving the occupants more time to exit the premise before the smoke reaches a dangerous concentration level.

Fires start even with the best of housekeeping and fire-prevention procedures. Fire is an unexpected event. Early warning detection alerts occupants in time to act.

**KNOW FIRE HAZARDS.** No detection device can protect life in all situations. Therefore, safeguards should be taken to avoid such potentially dangerous situations as smoking in bed, leaving children home alone, cleaning with flammable liquids such as gasoline.

The best fire protection is minimizing fire hazards through proper storage of materials and general good housekeeping techniques. A cluttered basement, attic, or other storage area is an open invitation to fire.

Careless use of combustible materials and electrical appliances, or overloading of electrical outlets are other prime causes in starting fires.

It is most important that explosive and/or fast-burning materials be eliminated from the home if at all possible.

Even after proper precautions have been taken, fires can start. Be prepared.

**IN CASE OF FIRE.** Leave immediately. Don't stop to pack or search for valuables. In heavy smoke, hold your breath and stay low -- crawl if necessary. The clearest air is usually at the floor.

If you have to go through a closed door, carefully feel the door and door knob to see if undue heat is present. If they seem relatively cool, brace your foot against the bottom of the door with your hip against the door and one hand against the top edge. Open it slightly. If a rush of hot air is felt, slam the door quickly and latch it. Unvented fire tends to build up considerable pressure. Be sure all the household realizes and understands this danger.

Use your neighbor's phone or a street fire alarm box. The job of extinguishing the fire should be left to the professionals. Too many unforeseen things can occur when inexperienced people try to extinguish a fire.

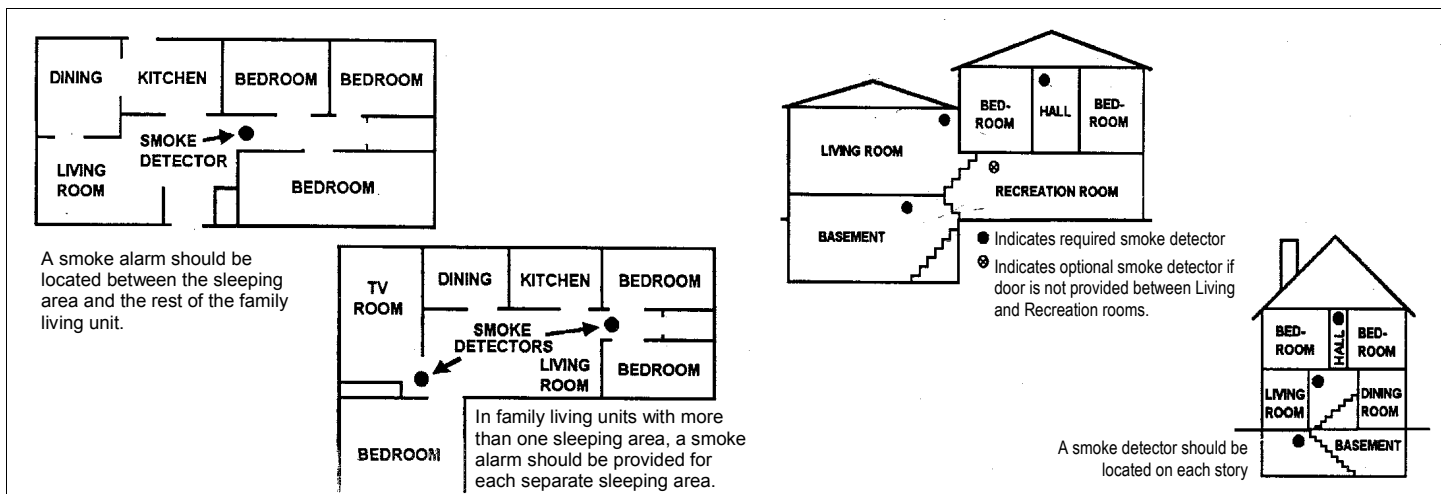
**BE PREPARED.** Perform fire drills regularly. Use them to assure recognition of an alarm signal. For your protection, simulate different circumstances (smoke in hall, in living room, etc.). Then have everyone react to the situation.

Draw a floor plan and show two exits from each room. Frequently, a knotted rope or ladder from a window will serve this purpose. It is important that children be instructed carefully, because they tend to hide in times of crisis.

It is imperative that one meeting place outside the home be established. You should insist that everyone meet there during an alarm. This will eliminate the tragedy of someone reentering the house for a missing member who is actually safe.

If you have children and/or invalids residing in your household, you can help your fire department. Most fire departments have window decals available for use in children's or invalid's bedrooms. Properly used, these decals will quickly identify sleeping quarters of these individuals and show the department where to look first for members of your household.

Additional information on Household Fire Warning is available at nominal cost from The National Fire Protection Agency, Batterymarch Park, Quincy, MA 02269. Request Standard No. NFPA 72.



## NAPCO LIMITED WARRANTY

NAPCO SECURITY SYSTEMS, INC. (NAPCO) warrants its products to be free from manufacturing defects in materials and workmanship for *thirty-six months* following the date of manufacture. NAPCO will, within said period, at its option, repair or replace any product failing to operate correctly without charge to the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANT ABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF NAPCO.

Any action for breach of warranty, including but not limited to any implied warranty of merchant ability, must be brought within the six months following the end of the warranty period.

IN NO CASE SHALL NAPCO BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to NAPCO. After repair or replacement, NAPCO assumes the cost of returning products under warranty. NAPCO shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. NAPCO will not be responsible for any dismantling, reassembly or reinstallation charges.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are

expressly canceled. NAPCO neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, or to assume for it, any other warranty or liability concerning its products. In no event shall NAPCO be liable for an amount in excess of NAPCO's original selling price of the product, for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as herein above set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished thereunder.

NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

Warning: Despite frequent testing, and due to, but not limited to, any or all of the following; criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.

NAPCO is not an insurer of either the property or safety of the user's family or employees, and limits its liability for any loss or damage including incidental or consequential damages to NAPCO's original selling price of the product regardless of the cause of such loss or damage.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, or differentiate in their treatment of limitations of liability for ordinary or gross negligence, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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