1161/1162 Residential Wireless Detectors

Description

The Model 1161 Smoke Detector with Sounder, and 1162 Smoke/Heat Detector with Sounder are residential, photo electric wireless detectors used with DMP Wireless. Model 1162 also offers a built-in fixed and rate-of-rise heat detector.

Optional integrated fixed 135°F temperature and rate-of-rise heat detector. The rate-of-rise function detects heat quickly by responding to a rapid temperature increase. The element responds to a rapid rise in temperature and sends an alarm to the panel. The fixed temperature function reacts to heat by responding to the fixed 135° temperature setting. When activated, an alarm is sent to the panel.

Compatibility

All DMP 1100 Series Wireless Receivers and Panels

What is Included

The 1161/1162 Residential Wireless Detector package includes the following items:

- One 1161 Smoke Detector with DMP wireless transmitter installed

OR

- One 1162 Smoke/Heat Detector with DMP wireless transmitter installed

AND

- Two 3V lithium Panasonic CR123A or DMP CR123-FIRE batteries
- Hardware pack
- Zone name and number label
- Serial number labels

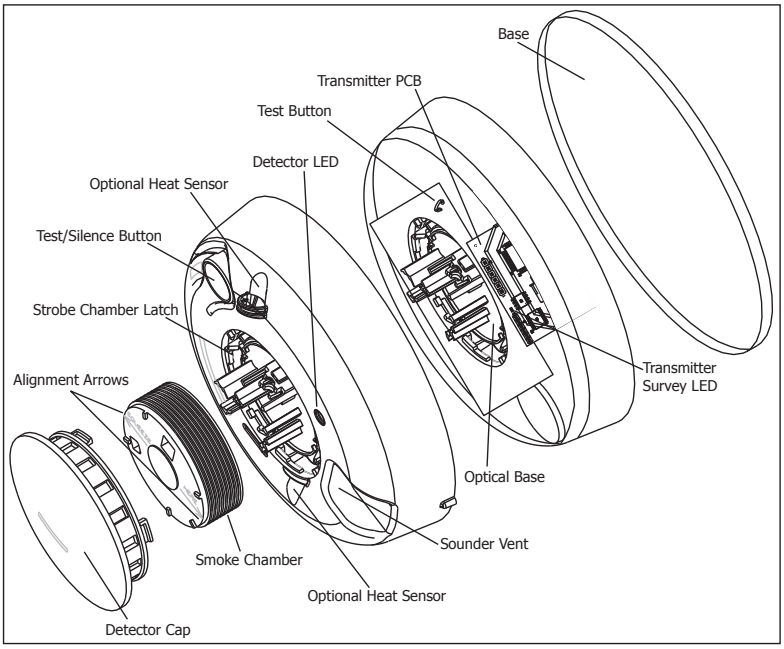

Figure 1: Smoke Detector Exploded View

Transmitter Serial Number

For your convenience, an additional pre-printed serial number label is included. Prior to installing the device, record the serial number or place the pre-printed serial number label on the panel programming sheet. This number is required during programming. As needed, use the zone name and number label to identify a specific transmitter.

Programming the Transmitter in the Panel

Program the device as a zone in **Zone Information** during panel programming. At the Serial Number: prompt, enter the eight-digit serial number. Continue to program the zone as directed in the panel programming guide.

Note: When a receiver is installed, powered up, or the panel is reset, the supervision time for transmitters is reset. If the receiver has been powered down for more than one hour, wireless transmitters may take up to an additional hour to send a supervision message unless tripped, tampered, or powered up. This operation extends battery life for transmitters. A missing message may display on the keypad until the transmitter sends a supervision message.

Transmitted Signal Outputs

The smoke detector provides the signals listed in the table:

Signal	Keypad Display
Alarm	ALARM
Alarm restore	OK
Low battery	LO BAT

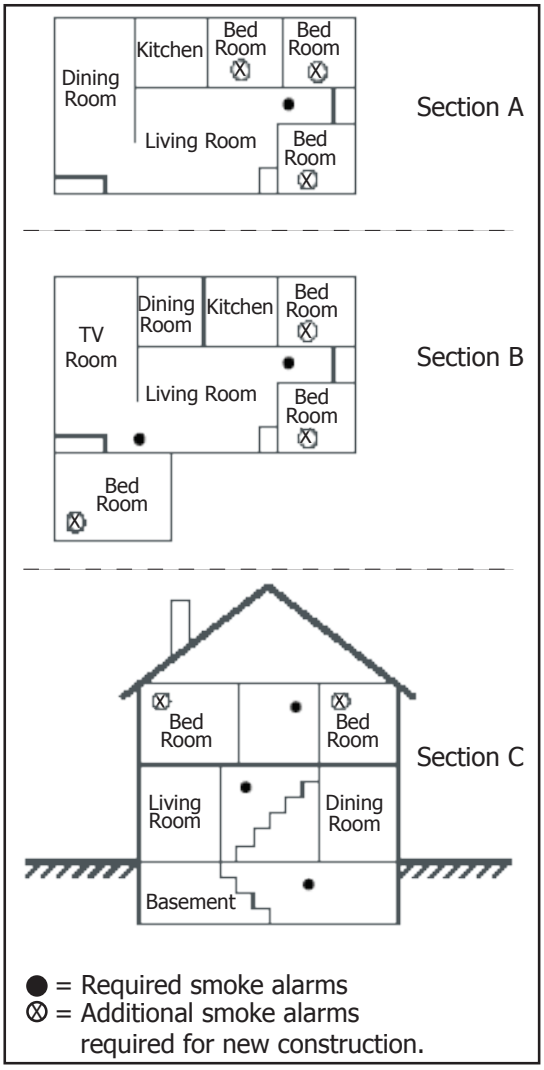

Figure 2: Smoke Detector Placement

Selecting the Proper Location (LED Survey Operation)

The 1161/1162 Transmitter provides a survey capability to allow one person to confirm transmitter communication with the receiver. The 1161/1162 Transmitter PCB Red Survey LED turns on whenever data is sent to the receiver then immediately turns off when the receiver acknowledgement is received. Pressing the test button is a convenient way to send data to the receiver to confirm operation. The transmitter survey LED can be seen around the test button location. When the transmitter does not receive an acknowledgement from the receiver the LED remains on for about 8 seconds to let you know communication is not established. Communication is also faulty when the LED blinks multiple times in quick succession. Relocate the transmitter or receiver until the LED immediately turns off indicating the transmitter and receiver are communicating properly. To verify proper communication, use the test button until five separate consecutive LED flashes display. Program the transmitter as a zone in the panel to communicate with the receiver.

One- and Two-Family Dwelling Units

Smoke Detection: Where required by applicable laws, codes, or standards for the specific occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

a) In all sleeping rooms. Exception: Smoke alarms shall not be required in sleeping rooms in existing one- and two-family dwelling units.

b) Outside of each separate sleeping area, in immediate vicinity of the sleeping rooms.

c) 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.

Additional Smoke Detectors: 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.

Additional Location Recommendations

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.

Additional NFPA Guidelines, Smoke Detector Limitations, and Fire Prevention information are listed at the end of this document.

Assistance Guidelines

An indication that current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is 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, or to those who may be incapable of safely evacuating the area unassisted.

General Guidelines

In addition to NFPA 72, use the following location guidelines to optimize performance and reduce the chance of false alarms from the detector:

- Locate ceiling-mounted smoke detectors in the center of a room or hallway at least 4 inches from any walls or partitions
- Locate wall-mounted smoke detectors so the top of the detector is 4 to 12 inches below the ceiling
- Mount smoke detectors on a firm permanent surface
- Locate the detector in environmentally 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% non-condensing
- 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

Locations to Avoid

To avoid false alarms, do not install smoke alarms/detectors:

- In or near areas where combustion particles are normally present such as in kitchens, garages, near furnaces, 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
- Away from air conditioners, heating registers, and any other ventilation source that may interfere with smoke entering the detector.
- 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

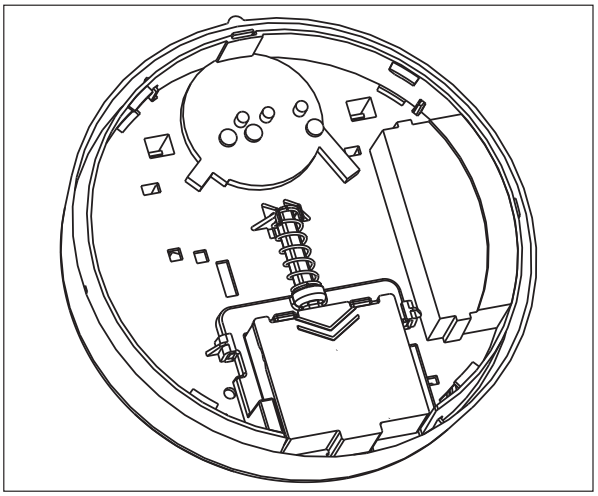

Figure 3: Battery Compartment

Installing the Detector

Note: When setting up a wireless system, it is recommended to program zones and connect the receiver before installing batteries in the transmitters.

Use the following steps to install 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. Place the ribbon over the top of the batteries and replace the battery compartment cover.
3. Locate and record the detector serial number. This number is required during programming. See *Programming the Transmitter in the Panel*.
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. 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. Line up the raised tab on the lip of the detector with the slot on the lip of the mounting base. See Figure 4.

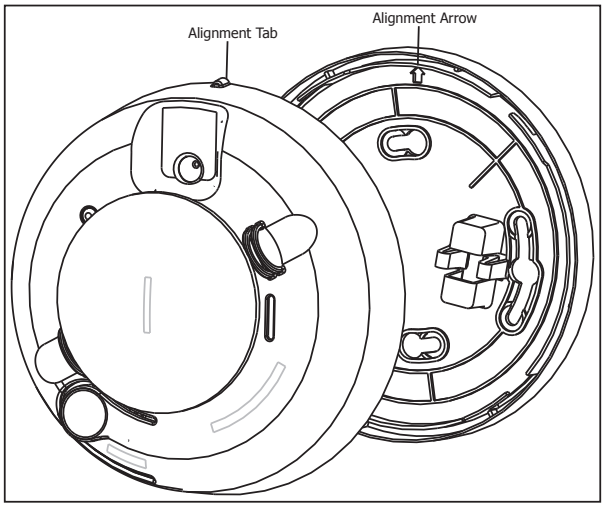

Figure 4: Smoke Detector-to-Base Alignment

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 DMP Model 526, Smoke! In a Can®, 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.

Note: System Type Smoke Detectors shall be tested per the guidelines set forth in NFPA 72 2013 Standard section 14.4.3.2 Testing table for System Smoke Detectors used in one - and two - family dwellings and as per manufacturer's instructions.

Testing the Detector Sensitivity

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

1. Press the Test/Silence button on the smoke detector for 2 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 smoke detector sensitivity and what action to take, if any.

Flashes	Indication	Action
1	Unserviceable hardware fault	Rest unit and rerun sensitivity test. If the error persists, replace the unit.
2-3	Detector is becoming sensitive	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 smoke detector LED extinguishes until the detector is serviced.

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.
OFF = Trouble or maintenance is required.

Understanding the Test/Silence Button

The Test/Silence button on the detector performs the following three functions:

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

Silence sounder = 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.

Attaching and Removing the Detector

Attach the smoke detector to its mounting base as follows:

1. Line up the raised alignment tab on the lip of the smoke detector with arrow on the mounting base. See Figure 4.
2. Insert the smoke detector into the base and turn clockwise approximately 15 degrees. It should snap firmly into place.

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. See Figure 5.

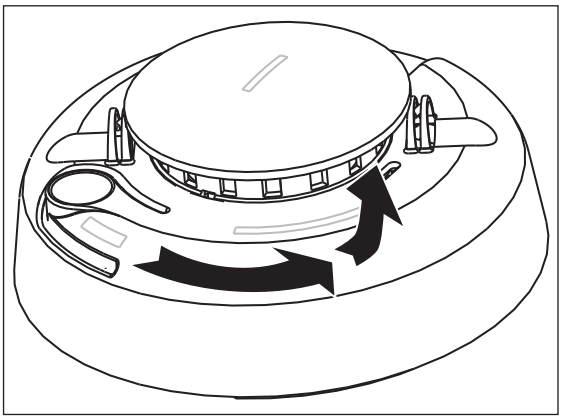

Figure 5: Remove Detector from Base

Installing or Replacing the Batteries

Observe polarity when installing the battery. Use only 3.0V lithium batteries, Panasonic Model CR123A or DMP Model CR123-FIRE.

When the batteries are low, the detector extinguishes its LED and chirps every 30 seconds until the batteries are replaced. The sounder can be silenced for 24 hours by pushing the Test/Silence button. See Figure 1.

Note: When setting up a wireless system, it is recommended to program zones and connect the receiver before installing batteries in the transmitters.

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. If replacing the batteries, remove the old 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 old ones.
5. Reattach the detector to the mounting base. See *Attaching and Removing the Detector.*
6. Test the detector. See *Smoke Testing the Detector.*

Caution: Properly dispose of used batteries. Do not recharge, disassemble, heat above 212°F (100°C), or incinerate. Risk of fire, explosion, and burns.

Battery Life Expectancy

Typical battery life expectancy for DMP wireless smoke detectors is at least 1 year. DMP wireless equipment uses two-way communication to extend battery life.

The following situations can reduce battery life expectancy:

- If a receiver is unplugged or not installed, transmitters send supervision messages until a receiver returns an acknowledgement.
- Frequent transmissions, such as how often the detector is tested.
- When installed in extreme hot or cold environments.

The following situation can extend battery life expectancy:

- Extend transmitter supervision time in panel programming.
- Infrequent transmission trips, such as extending the detector test time schedule.

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. Remove the detector from its mounting base. See *Attaching and Removing the Detector.*
2. Remove the batteries. See *Installing or Replacing the Batteries.*
3. 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 6.
4. Press the sides of the smoke chamber in where indicated by the alignment arrows. Pull the chamber up and away from the detector and discard. See Figure 7.
5. Blow out or use a soft-bristled brush to remove dust and dirt from the smoke chamber base.
6. Line the new smoke chamber up with the smoke chamber base by lining up the arrows on the smoke chamber to the latches on the optical base and snap down into place.

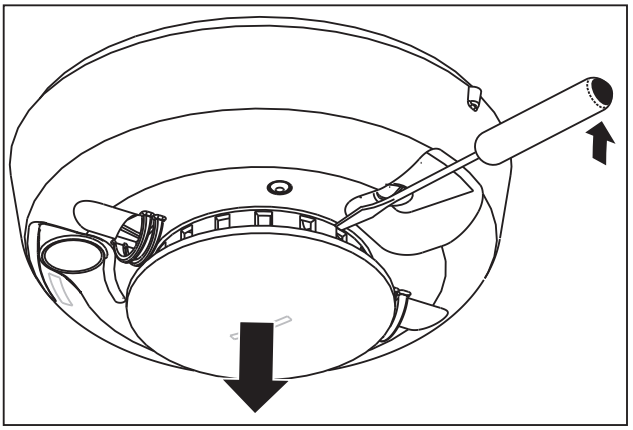

Figure 6: Remove Detector Cap

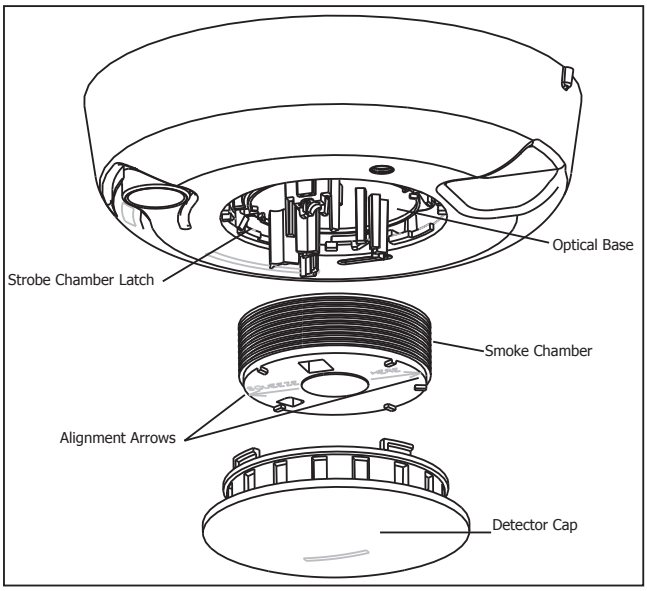

Figure 7: Detector Parts

7. 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
8. Observing correct polarity, insert two new 3V lithium batteries into the battery compartment and replace the cover.
9. Reattach the detector to its mounting base. See *Attaching and Removing the Detector*.
10. Test the detector sensitivity. See *Testing the Detector Sensitivity*.

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

Maintaining the Detector

The 1161/1162 detectors are designed for easy field service and maintenance. When installed and used properly, they require minimal maintenance. The smoke detector **should** be tested annually per NFPA 72 2013 Standard section 14.4.3.2 testing table for System smoke detectors used in one-and two-family dwellings. It is recommended that the batteries be replaced with fresh new batteries at this time even though DMP has tested life expectancy of the batteries to be a minimum of 1 year under normal conditions, many factors can reduce this time. *See Testing the Detector Sensitivity and Smoke Testing the Smoke Detector.* When an 1161/1162 detector requires maintenance, it extinguishes its LED.

WARNING

Smoke alarms 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.

NFPA Guidelines

A-8-1.2.1.a Where to Locate the Required Smoke Detectors in Existing Construction. The major threat from fire in a family living unit occurs at night when everyone is asleep. The principal threat to persons in sleeping areas comes from fires in the remainder of the unit. Therefore, a smoke detector(s) is best located between the bedroom areas and the rest of the unit. In units with only one bedroom area on one floor, the smoke detector(s) should be located as shown in Figure 2 Section A.

In family living units with more than one bedroom area or with bedrooms on more than one floor, more than one smoke detector is required, as shown in Figure 2 Section B.

In addition to smoke detectors outside of the sleeping areas, the installation of a smoke detector on each additional story of the family living unit, including the basement, is required. These installations are shown in Figure 2 Section C. The living area smoke detector should be installed in the living room or near the stairway to the upper level, or in both locations. The basement smoke detector should be installed in close proximity to the stairway leading to the floor above. Where installed on an open-joisted ceiling, the detector should be placed on the bottom of the joists. The detector should be positioned relative to the stairway to intercept smoke coming from a fire in the basement before the smoke enters the stairway.

A-8-1.2.1.b Where to Locate the Required Smoke Detectors in New Construction. All of the smoke detectors specified in A-8-1.2.1.a for existing construction are required and, in addition, a smoke detector is required in each bedroom.

A-8-1.2.1.c 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, bed-rooms, 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.

Important: Regulations pertaining to smoke detector installations vary from state to state. For more information, contact your local fire department or local authority having jurisdiction.

WARNING! Limitations of Smoke Detectors

Wireless smoke alarms are very reliable, but may not work under all conditions. No fire alarm provides total protection of life or property. Smoke alarms are not a substitute for life insurance.

Smoke alarms require a source of power to work. This smoke alarm will not operate and the alarm will not sound if batteries are dead or not installed properly.

Smoke alarms may not be heard. A sound sleeper or someone who has taken drugs or alcohol may not awaken if the alarm is installed outside a bedroom. Closed or partially closed doors and distance can block sound. This alarm is not designed for the hearing impaired.

Smoke alarms may not always activate and provide warning early enough. Smoke alarms only activate when enough smoke reaches the alarm. If a fire starts in a chimney, wall, roof, on the other side of closed doors, or on a different level of the property enough smoke may not reach the alarm for it to alarm.

Smoke alarms are a significant help in reducing loss, injury and even death. However, no matter how good a detection device is, nothing works perfectly under every circumstance and we must warn you that you cannot expect a smoke alarm to ensure that you will never suffer any damage or injury.

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 time to exit the premises safely.

Avoid Fire Hazards

No detection device can protect life in all situations. Therefore, safeguards should be taken to avoid potentially dangerous situations as follows:

- **Do not** smoke in bed.
- **Do not** leave children home alone.
- **Never** clean with flammable liquids such as gasoline.
- Properly store materials. Use general good housekeeping techniques to keep your home neat and tidy. A cluttered basement, attic, or other storage area is an open invitation to fire.
- Use combustible materials and electrical appliances carefully and only for their intended uses. **Do not** overload electrical outlets.
- **Do not** store explosive and/or fast burning materials in your home.
- Even after proper precautions have been taken, fires can start. **Be prepare**d.

In Case of Fire

In the event of a fire, you should do the following:

- 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 near 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 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 members of the household realizes and understands this danger.
- Use your neighbor's phone or a street fire alarm box to call the fire department. The job of extinguishing the fire should be left to the professionals.

Be Prepared

Practice the following steps to prepare you and your family in the event of a fire:

- Perform fire drills regularly. Use them to assure recognition of an alarm signal.
- Draw a floor plan and show two exits from each room. It is important that children be instructed carefully, because they tend to hide in times of crisis.
- Establish one meeting place outside the home. 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 physically challenged people residing in your household, use window decals to help emergency personnel identify the sleeping quarters of these individuals.

FCC Information

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.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Specifications

Battery	
Life Expectancy	At least 1 year (normal operation)
3.0V Lithium	Panasonic CR123A or DMP CR123-Fire
See Battery Life Expectancy for full details.	
Low battery	
Threshold signal	2.70V
Beep rate	1 every 30 sec. ± 2 sec.
Sounder pattern	
Temporal	85dBa at 10'
Sensitivity	2.3% ±0.8%
Frequency Range	903 - 927 MHz
Dimensions	
Detector	5.6" x 2.4" (14.3cm x 6.1cm)
Base	5.4" x 0.46" (13.7cm x 0.46cm)
Heat alarm specifications:	
Rate-of-rise	15˚F/min > 105˚F (8.3˚C/min > 40.6˚C)
Fixed	135˚F ± 5˚F (57.2˚C ± 2.8˚C)
Drift compensation adjustment	0.5%/ft. max.
Color	White

Compatibility

1100D Wireless Receiver

1100DH Wireless High Power Receiver

1100DI Wireless In-line Receiver

1100X Wireless Receiver

1100XH Wireless High Power Receiver

XTL, XTLN, XTLC and XTLN-WiFi panels with integrated wireless receiver

XT50 with integrated wireless receiver

XT30/XT50 Series panels

XR100/XR500 Series panels

XR150/XR350/XR550 Series panels

Patents

U. S. Patent No. 7,239,236

Certifications

California State Fire Marshal (CSFM)

FCC Part 15: CCKPC0088

Industry Canada: 5251A-PC0088

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