



Smart Smoke Detector

Installation Manual



Smart Home Security



Installation Support:
(877) 998-1457
AAA.com/SmartHome-Install

Introduction

PGPx976 is a wireless smoke detector with a fixed temperature, a rate of rise heat sensor, and an internal piezoelectric alarm. The reference to PGPx976 throughout this manual covers the models listed in the following table unless otherwise stated.

Model numbers and associated frequencies are outlined in the following table.

Table 1: PGPx976 model numbers and frequencies

Model number	Frequency	Region
PGP9976	912-919MHz	North America, UL/ULC certified
PGP8976	868MHz	Europe, CE certified

PGP9976 is the only UL/ULC certified model and it must be used in conjunction with UL/ULC certified compatible control panels: PowerSeries NEO, PowerSeris Pro, IQ Pro, IQ Pro P, Qolsys IQPanel4, IQ4 Hub, IQ4 NS.

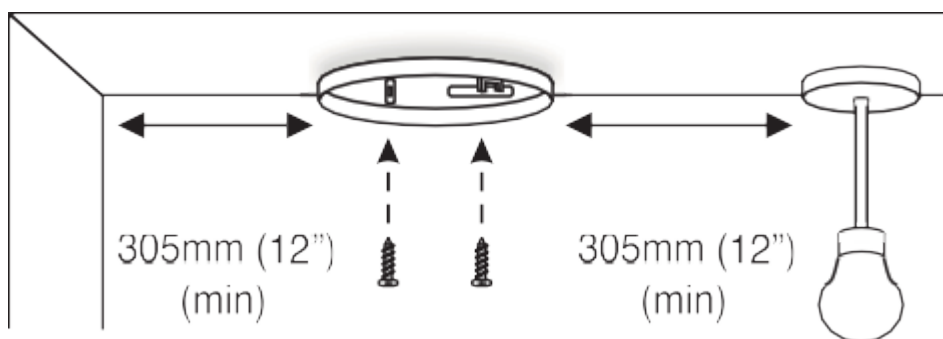
Location and positioning

Use the following steps to mount your alarm.

For more detailed information about mounting, installing, and testing your alarm, see the relevant sections in this manual.

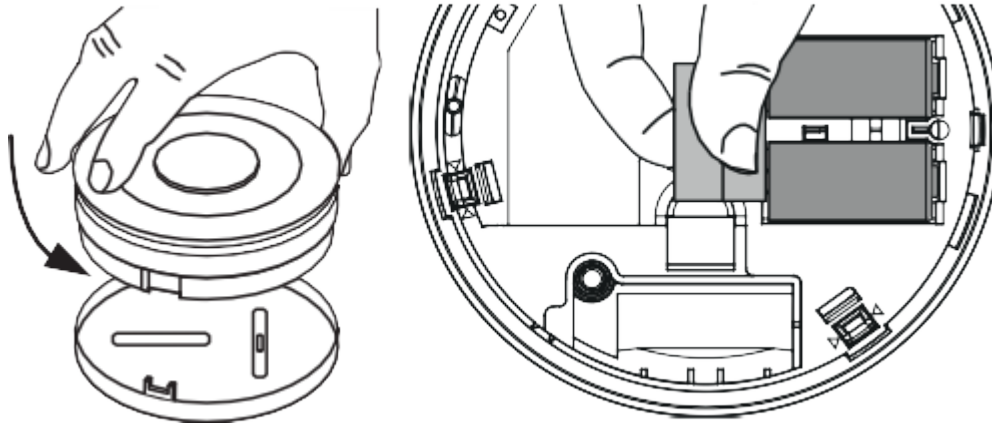
1. Locate where you want to mount your detector. Mount the detector centrally on the ceiling at least 305 mm (12 in.) from walls.
2. Attach the base plate to the ceiling.

Figure 1: Mounting your detector

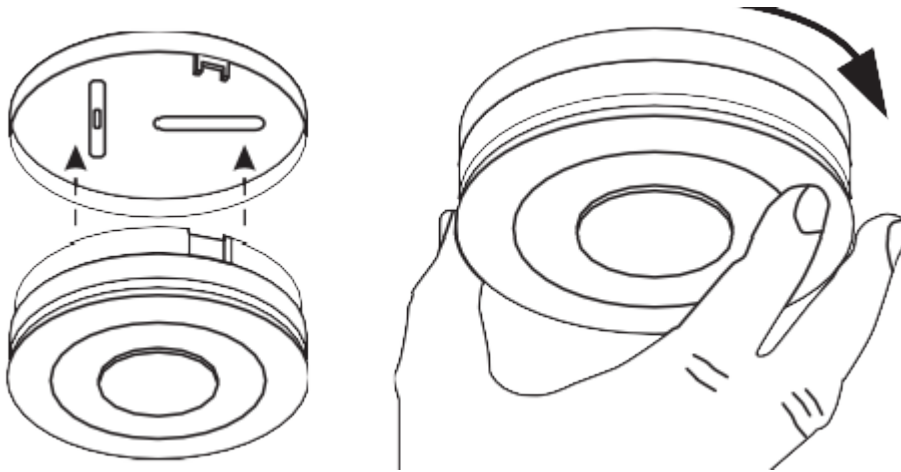


3. Insert the batteries.
 - a. Detach the detector from the mounting plate. Refer to your control panel installation guide for more information.
 - b. Remove the pull tab to connect the batteries and power the unit. When the device is recognized by the panel, customize the name and settings as desired and tap **Add**.

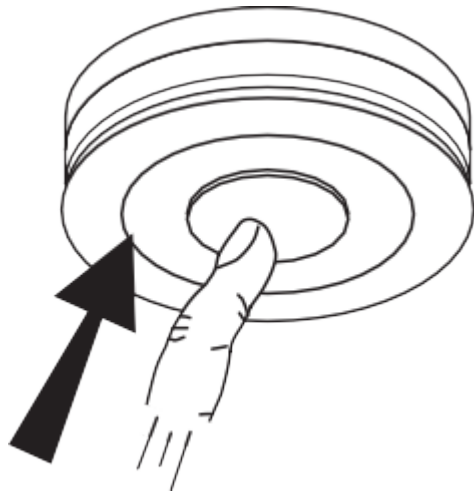




4. Twist the detector back onto the base.



5. Press **Test** to test the detector. Test the alarm weekly.



Recommended protection

Install individual smoke detectors in or near all rooms where fire is most likely to start. The living room is the most likely place for a fire to start at night, followed by the kitchen, where a heat detector is recommended, and then the dining room.

For minimum protection, follow these guidelines:

- Install a smoke detector on each story.
- Install a smoke detector in each sleeping area.
- Install a smoke detector within every 6.4 m (21 ft) of hallways and rooms.
- Install a smoke detector within 3 m (10 ft) of all bedroom doors.
- Install a smoke detector where all detectors are interconnected if the interconnect feature is enabled on your control panel.

For increased protection, in addition to minimum protection, follow these guidelines:

- Install smoke detectors in every room, except kitchens and bathrooms.
- Install heat detectors in kitchens and garages within 5.3 m (17 ft) of potential fire sources.
- **Important:** Install smoke detectors in any bedrooms where fires might occur, for example, where there is an electrical appliance in use or where the occupant is a smoker.
- **Important:** Install smoke detectors in any bedrooms where the occupant is elderly, sick, or very young and is unable to respond to a fire that starts in their room.

Smoke detectors

Sufficient smoke must enter your smoke detector before an alarm occurs.

Install your smoke detector within 6.4 m (21 ft) of a potential fire to respond quickly. Install smoke detectors where they can be heard throughout the property. A single smoke detector gives some protection if it is correctly installed. Most homes require two or more smoke detectors, that are preferably interconnected, to ensure that they give a reliable early warning.

Install your first smoke detector between the sleeping area and the most likely sources of fire, no more than 6.4 m (21ft) from the door to any room where a fire may start and block your escape from the house.

National Fire Protection Association required protection

Where required by applicable laws, codes, or standards for the occupancy in the building, install approved single and multiple station smoke detectors in the following areas:

1. In all bedrooms and guest rooms
2. Outside each separate sleeping area within 6.4 m (21 ft) of any door to a sleeping room
3. On every level of a dwelling unit, including basements
4. On every level of a residential board and care occupancy, including basement, and excluding crawl spaces and unfinished attics
5. In the living areas of a guest suite
6. In the living areas of a residential board and care occupancy

The required number of smoke detectors might not provide reliable early warning protection for those areas separated by a door. 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 finished or unfinished kitchens, attics, or garages is not normally recommended. These locations can experience conditions that can result in improper operation.

- **Important:** Specific requirements for smoke detector installation can vary. Check with your local fire department for current requirements in your area. Consult National Fire Alarm Code NFPA 72 and CAN/ULC-S524 or other department for current requirements in your area. Consult National Fire Alarm Code NFPA 72 or other appropriate national standards for installation recommendations. Smoke detectors must always be installed in USA in accordance with Chapter 29 of NFPA 72, the National Fire Alarm Code: 29.5.1.1 installed in USA in accordance with Chapter 29 of NFPA 72, the National Fire Alarm Code: 29.5.1.1.

Multistory dwellings

If your home has more than one floor, install at least one detector on each level. Interconnect the detectors if the feature is present on your control panel to give sufficient warning throughout the property. If the interconnect feature is enabled, refer to the control panel manual for more information.

- **Important:** Locate heat detectors in rooms adjoining escape routes, for example, kitchens, garages, and boiler houses where smoke detectors are unsuitable.

Single story dwellings

If the premises is one story, install your first smoke detector in a corridor or hallway between the sleeping and living areas. Install it as near to the living area as possible, but make sure that it can be heard in the bedrooms.

In houses with more than one sleeping area, install smoke detectors between each sleeping area and the living area.

- ① **Note:** Install heat detectors in the kitchen and garage.

Enrolling your device

Use the 7-digit serial number on the back of your detector to enroll your detector on the detector system control panel. The following instructions apply only to the IQ Panel. For other panels, refer to the panel installation guide.

1. In the panel menu, select **Settings**.
2. Select **Advanced Settings > Installation > Devices**.
3. Select **Security sensors**, then select **Auto learn sensor**.
4. **Optional:** To enroll the device manually, select **Add Sensor**, identify the seven digit device ID number on the device label, and manually enter it in the panel. It appears in the following format: ID: 205-XXXX – for SMOKE and Smoke_HEAT
5. On the panel, select **Confirm**.
The PGPx976 enrolls with device ID 205-XXXX. In fall back mode, it enrolls as PGx936 with device ID 202-XXXX. A supervisory message is transmitted at 128 second intervals for the device. If the signal is not received, the control panel reports that the detector is missing.

Performing a unit test

1. Press Test/Hush for 7 seconds minimum to initiate a test.
2. Alarm activation is indicated by the flashing red radio LED, the sounder, and transmission of the detector signal to the control panel.
3. The detector returns to normal when you release the test button.
 - ① **Note:** Allow a minimum of 20 seconds after power up and after test, alarm, or tamper restore activations.
4. Upon completing the functional testing of the smoke detector, check the unit's sensing chamber to ensure proper operation. To test the sensing chamber, use an aerosol test gas such as Solo A5 smoke detector tester. Shake the can well, aim it at the smoke detector, and spray a short burst (no more than 1 second) at the detector. If the alarm does not sound, repeat every 10 seconds until alarm sounds or for a maximum of 1 minute. If the smoke detector does not function properly, call your smoke detector installer or dealer for service.

Sensitivity indicating means

Upon test button press and hold, normal operation shows rapid red LED flashing and sounding. Upon test button press and hold, the alarm can be deemed insensitive when the yellow LED flashes twice with two beeps followed by rapid flashing.

Upon test button press and hold, the alarm can be deemed as sensitive when the yellow LED shows four flashes with rapid flashing, along with four beeps then sound.

Table 2: Sensitivity indicating means

Test button	Action	Green LED	Red LED	Yellow LED	Sounder	Reaction
Detector status good: normal alarm	Press and hold button	Off	Rapid flashing	Off	Temporal 3	Replace button
Faulty sensor (insensitive)	Press and hold button	Off	Off	2 flashes then rapid flashing	2 beeps only	Replace unit
Maintenance (sensitive)	Press and hold button	Off	Off	4 flashes then rapid flashing	4 beeps then Temporal 3	Clean unit. See Cleaning your detector

Drift compensation

If the detector is indicating Contaminated Chamber with a Yellow LED flashing four times every 48 seconds, the detector is no longer within the marked sensitivity. If the detector is indicating Normal/Standby with no flash and no beep, it is within the marked sensitivity range.

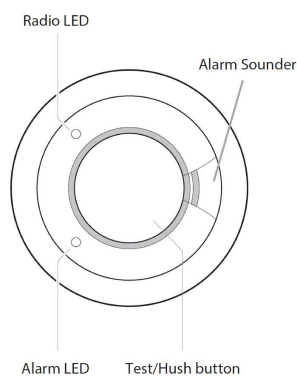
- ① **Note:** If the panel still displays the Contaminated Chamber message after cleaning, call the installer or dealer for service.

Performing a diagnostic test

Strong signal strength is required. Poor or good signal strength is not acceptable. If you receive poor or good signal from the device, relocate it and retest until you receive strong signal strength. For UL installations, the test results must be strong. See the detector system installation guide for detailed diagnostic tests.

1. Insert the battery to complete a smoke detector test.

Figure 2: Detector buttons



2. After you insert battery, wait 2 minutes before you test. The detector enters into local diagnostic test mode for 15 minutes.
3. It is recommended to perform the periodic test and use either the Installer code (Installer Diagnostic Mode) or the User code (User Diagnostic Mode) to test.

4. While in diagnostic mode, press the test/hush button, indicated by a red radio LED blinking for 1 second to start a device self-test. To simulate an alarm press test/hush for 7 seconds; this will simulate an alarm transmission to the control panel.
5. The detector performs a link quality test, followed by the radio LED blinking 3 times. [Table 3](#) shows the radio LED indication and signal strength:

Table 3: Radio LED signal strength

LED Response	Green LED blinks	Orange LED blinks	Red LED blinks	No blinks
Reception	Strong	Good	Poor	Paired, no communication

Note: During diagnostic mode, the devices do not transmit dirt level reports.

Installation instructions for RF equipment

The maximum separation (range) of the detector from the compatible receiver/control panel combination (free space) is around 120 meters. However, this specified range is for comparative purposes only and is not applicable when the equipment is installed in a typical home. The range of the RF equipment is greatly impacted (reduced) by the building construction or any metallic bodies that are on the path of communication and are not visible on the outside. The proper location of the RF equipment is determined by strong signal strength as indicated in this manual. Upon completion of installation the system operation shall be tested as instructed in this manual.

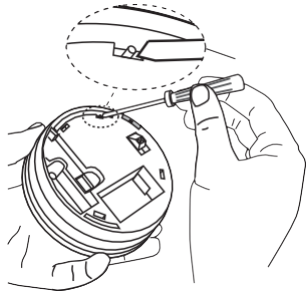
Installing your detector

- Note:** The back tamper is located under the battery. The back tamper cannot be closed unless the battery is inserted, and the bracket cannot be installed if the back tamper is open.
1. Select a location that aligns with the guidelines in: [Location and positioning](#).
2. Lift off the mounting plate from the smoke detector.
3. Place the mounting plate on the ceiling exactly where you want to mount the detector. With a pencil, mark the location of the two screw holes.
4. Taking care to avoid any electrical wiring in the ceiling, drill holes through the center of the marked locations with a 5.0 mm drill bit. Push the provided plastic screw anchors into the drilled holes. Screw the mounting plate to the ceiling.
5. Insert the battery, ensuring the orientation is correct. If the battery is already installed in your detector, pull the battery tab to power the detector.
6. Rotate the detector anticlockwise. If you cannot twist off the detector, it may be tamper-proofed. See [Figure 3](#).
7. Carefully line up the detector on the mounting plate, gently press home, and twist clockwise. Install all the other detectors similarly.
8. Press and hold the test/hush button for ten seconds on each detector to ensure that it sounds. Check that any interconnected detectors also sound within this period.

Tamper proofing your detectors

To prevent unauthorized removal of the detector, you can make the detector tamper proof.

1. Break off the small seal on the base. See [Figure 3](#).
2. To remove the detector from the ceiling, use a small screwdriver to release the catch. Push the catch toward the ceiling and then twist off the detector.

Figure 3: Tamper proofing your detector

3. If necessary, use a No.2 or No.4 self tapping screw to firmly lock the detector and the mounting plate together. The detector does not include a self tapping screw. Use a self tapping screw with the following dimensions: Diameter = 2 mm to 3 mm (1/8 in.). Length = 6mm to 8mm (1/4 in.)
4. Attach the detector to the mounting plate. Line up the screw on the “U” shaped recessed area and screw in firmly.
5. To remove the detector from the ceiling, remove the screw first, and then twist off anticlockwise.

Checking your detectors work

To check that the installed detectors work, complete the following steps:

1. Sound the detectors in their intended locations, check that you can hear the detector in each room with the door closed, above the sound of any TV or audio systems.
2. Set the TV and audio systems to a reasonably loud conversation level. If you cannot hear the detector over the sound of the TV or audio system, it will not wake house occupants. Use the interconnect feature on your panel to ensure that the detector is heard throughout the property.

Mounting your detector

Mount your detector on a ceiling or a wall. You can mount a detector on a sloping ceiling if required.

Do not place smoke detectors in any of the following areas:

- Bathrooms, kitchens, shower rooms, garages or other rooms where smoke detectors are triggered by steam, condensation, normal smoke, or fumes. Keep at least 6 m (20 ft) away from sources of normal smoke and fumes.
- Very dusty or dirty areas as dust buildup in the chamber can affect performance. It can also block the insect screen mesh and prevent smoke from entering the smoke detector chamber.
- In insect infested areas. Small insects in the smoke detector chamber can cause intermittent alarms.
- Places where the normal temperature can exceed 100°F (38.7°C) or go below 40°F (4.4°C), for example attics, furnace rooms, directly above ovens or kettles, as the steam could cause nuisance alarms.
- Near a decorative object, door, light fitting, or window molding that prevents smoke entering the detector.
- Surfaces that are normally warmer or colder than the rest of the room, for example, attic hatches. Temperature differences might stop smoke reaching the detector.
- Next to or directly above heaters or air conditioning vents, windows, and wall vents that can change the direction of airflow.
- In very high or awkward areas, for example, over stairwells where it is difficult to reach the detector for testing, silencing, or battery replacement.

- ⓘ **Note:** Locate the detector at least 1 m (39 in.) from dimmer controlled lights and wiring as some dimmers can cause interference.

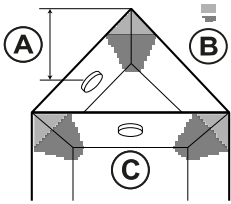
- ❶ **Note:** Locate the detector at least 1.5 m (59 in.) and route wiring at least 1 m away from fluorescent light fittings as electrical noise and flickering may affect the unit.

Mounting your detector on the ceiling

Hot smoke rises and spreads out, so a central ceiling position is the recommended location to mount the detector. Mount smoke detectors away from corners.

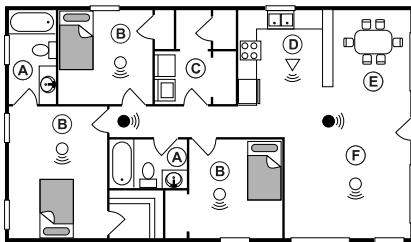
- **Important:** Keep smoke detectors at least 305 mm (12 in.) from walls and corners. Mount the detector at least 305 mm (12 in.) from any light fitting or decorative object that might prevent smoke entering the smoke detector.

Figure 4: Mounting location



Callout	Definition
A	Smoke alarms should be more than 610 mm (24 in.) from the roof apex.
B	Dead air space
C	Detector mounted in a central location

Figure 5: Two story floor plan



Callout	Definition
A	Bathroom
B	Bedroom
C	Laundry room
D	Kitchen
E	Dining room
F	Living room

- **Important:** Before you mount the detector permanently, conduct a walk test. Review the control panel instructions to verify adequate signal strength and adjust the device location and orientation as necessary. You can mount the detector on the ceiling or on the wall.

Mounting the detector on the wall

If it is not practical to mount the detector on the ceiling, mount the detector a wall. Consider wall mounting only where close spaced beams or similar obstructions hinder ceiling mounting.

If you mount a detector on the wall, ensure that:

1. The top of the detection element is between 150 mm (6 in.) and 305 mm (12 in.) below the ceiling.

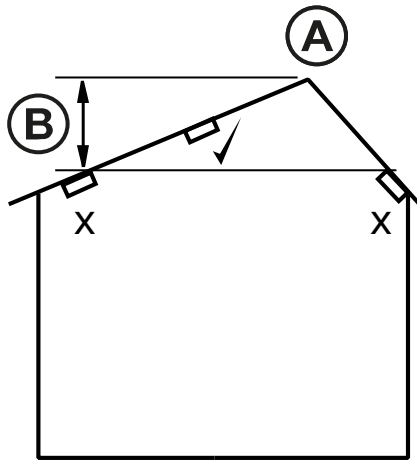
2. The bottom of the detection element is above the level of any door openings.

- **Important:** It is the responsibility of the installer to determine if the presence of asbestos in the ceiling material makes the ceiling an impractical location to mount the device.

Mounting your detector on a sloping ceiling

If you want to mount a smoke detector on a sloping or peaked ceiling, install it within 610 mm (24 in.) of the peak when the space is measured vertically. If this height is less than 610 mm (24 in.), consider the ceiling flat.

Figure 6: Mounting the detector on a sloping ceiling



Callout	Definition
A	Apex
B	Smoke detectors - height should be less than 610 mm (24 in.)

Fire safety information

When you use household protective devices, follow basic safety precautions.

- Rehearse emergency escape plans so everyone in the house is aware of what to do when the detector sounds.
- Use the detector test button to familiarize your family with the detector sound and practice fire drills regularly with all family members. Draw up a floor plan that shows at least 2 escape routes from each room in the house. Teach children how to escape, open windows, and use roll up fire ladders and stools without adult help. Make sure children know what to do if the detector goes off.
- Constant exposure to high or low temperatures or high humidity may reduce battery life.
- You can quickly silence nuisance alarms by fanning vigorously with a newspaper or similar to remove the smoke. Alternatively, press **Test / Hush**.
- Do not attempt to remove, recharge, or burn the battery, as it may explode.
- If it is necessary to remove the battery for separate disposal, handle carefully to avoid eye damage or skin irritation if the battery leaks or is corroded.
- To maintain sensitivity to smoke, do not paint or cover the detector in any manner; do not permit any accumulation of cobwebs, dust, or grease.
- If the detector is damaged in any way or does not function correctly, do not attempt to repair it. See [Servicing your detector](#).
- This detector is intended only for residential premises.
- This detector is not a portable product. It must be mounted.
- Smoke detectors are not a substitute for insurance. The supplier or manufacturer is not your insurer.

- Store petrol and other flammable materials in proper containers.
- Discard oily or flammable rags.
- Always use a metal fireplace screen and have chimneys cleaned regularly.
- Replace worn or damaged sockets, switches, home wiring, and cracked or frayed electrical cords and plugs.
- Do not overload electrical circuits.
- Keep matches away from children.
- Never smoke in bed. In rooms where you do smoke, always check under cushions for smouldering cigarettes and ashes. Ensure all electrical appliances and tools have a recognized approval label.
- Smoke detectors are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.
- This device cannot protect everyone at all times. It may not protect against the three most common causes of fatal fires:
 - a. Smoking in bed
 - b. Leaving children at home alone
 - c. Cleaning with flammable liquids, such as petrol

Planning your escape route

Use the following guidelines when you plan your escape route.

1. Check room doors for heat or smoke. Do not open a hot door. Use an alternate escape route. Close doors behind you as you leave.
2. If smoke is heavy, crawl out, staying close to floor. Take short breaths, if possible, through a wet cloth or hold your breath. More people die from smoke inhalation than from flames.
3. Get out as fast as you can. Do not stop to pack. Have a prearranged meeting place outside for all family members. Check everybody is there.
4. Call the fire brigade from a neighbor's house or mobile phone. Remember to give your name and address.
5. Never reenter a burning house.

Limitations of smoke detectors

While smoke detectors are extremely effective, independent authorities have stated that they may be ineffective in some circumstances. There are a number of reasons for this as follows:

- Smoke detectors do not work if the batteries are depleted or if they are not connected. Replace the batteries if necessary. Check the replace by date on the side of the detector.
- Smoke detectors do not detect fire if sufficient smoke does not reach the detector. If the fire is on another floor, behind a closed door, in a chimney, in a wall cavity, or if the prevailing air draughts carry the smoke or heat away, smoke may not reach the detector. Install smoke detectors on both sides of closed doors and install more than one detector.
- The smoke detectors may not be heard.
- A smoke detector may not wake a person who has taken drugs or alcohol.
- The detectors may not detect every type of fire to give sufficient early warning. They are particularly ineffective with: fires caused by smoking in bed, escaping gas, violent explosions, poor storage of flammable rags and liquids, for example, petrol, paint, spirits, overloaded electrical circuits, arson, children playing with matches.
- Current studies show smoke detectors may not wake 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 are not be woken by the detector sound, or to those who may be incapable of safely evacuating the area unassisted.

Limitations of heat detectors

There are various situations where a heat detector is not effective as follows:

- Fires where the victim is close to a flaming initiated fire, for example, when a person's clothes catch fire while cooking.
- Fires where the heat does not reach the heat detector due to a closed door or other obstruction.
- Incendiary fires where the fire grows so rapidly that an occupant's exit is blocked even with correctly located heat detectors.

Servicing your detector

If your detector fails to work after you read [Installing your detector](#), [Testing, maintenance, and power supply monitoring](#), return to:

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State the nature of the fault, where the detector was purchased, and the date of purchase.

Detector indicator summary

The following table contains definitions about detector indicators, device (Alarm) LED.

Table 4: PGPx976 series indicator summary

Normal Operation	Action	Red LED	Yellow LED	Sounder
Power Up	Pull battery tab	1 Flash	1 Flash	Off
Standby		Off	Off	Off
Sensing Fire		Rapid Flashing	Off	Full Sound
Fault Mode	Action	Red LED	Yellow LED	Sounder
Low Battery		Off	1 Flash every 48 sec	1 Beep
Device Sensor		Off	2 Flashes every 48 sec	2 Beeps

Table 4: PGPx976 series indicator summary

End of Life		Off	3 Flashes every 48 sec	3 Beeps
Contaminated chamber		Off	4 Flashes every 48 sec	Off
Silence Sounding detector	Press and Release Button	1 Flash every 8 sec	Off	Off for 10 minutes
Silence End of Life indication (up to 30 days)	Press and Release Button	Off	Off for 72 hours	Off for 72 hours
Test Mode	Action	Red LED	Yellow LED	Sounder
Test Smoke detector	Press Button	Rapid Flashing	Off	Full Sound
Detector Memory	Action	Red Led	Yellow LED	Sounder
24 Hour Memory		2 Flashes every 48 sec for 24 hours	Off	Off
Long Term Memory	Press and Hold Button	Rapid Flashing	Off	Rapid Chirping

Detector indicator definitions

Normal Operation - Power Up

When the device powers up, the orange radio LED lights up for 1 second, indicating the device is starting and performing self tests. After a successful self test that indicates radio connection to the detector, the green radio led blinks for 2 seconds. If the device does not connect to the detector, the red radio led blinks continuously.

Normal operation - Standby

In standby mode, there are no active visible or audible indications that can be intrusive to the householder. To confirm that the detector is operational, perform a weekly button test.

Normal operation - Weekly button test

Press and hold the test button and verify that the red LED flashes rapidly and the detector ramps up to full sound.

Normal operation - sensing fire

As soon as the detector senses smoke, it goes into alarm (along with any interconnected detectors). The alarm LED on the detector sensing smoke flashes rapidly to indicate this is the detector sensing smoke / fire. Evacuate the building.

Normal operation - silence false alarm

Occasionally smoke detectors are activated by events other than fire, for example, dust, insects, and cooking fumes. When you are sure the alarm is caused by a nuisance detector, press **Test/Hush** to silence the detector for 10 minutes. The alarm LED then flashes every 8 seconds for 10 minutes.

Normal operation - false alarm in an interconnected system

In the case of a real fire, evacuate the dwelling. If the system responds to a recurring false alarm, identify the detector that causes the false alarm so you can clean or replace the detector. The detector that causes the false alarm is identified by a rapidly flashing alarm LED. See [Normal operation - silence false alarm](#).

Fault condition - low battery

The detector emits a short beep and the alarm LED flashes when the battery is low. Check the date on the side of the detector to identify when the battery is due to be replaced. When electronic self testing indicates that the battery is low, the detector beeps and the alarm LED flashes at the same time every 48 seconds to warn the user. Replace the battery or batteries as soon as possible. See [Replacing batteries](#).

Fault condition - contaminated chamber

If the detector sounds without any apparent smoke present, press **Test/Hush** to silence the detector for 10 minutes. If the detector sounds again, it may be contaminated. Press **Test/Hush** again, within 4 minutes of the detector sounding. If the detector sounds for a third time, the detector is excessively contaminated and you must replace it. If it is not convenient to replace it immediately, press **Test/Hush** within 4 minutes of it going into alarm for the third time. This silences the detector for 8 hours.

- ① **Note:** The detector then beeps twice every 10 minutes to remind you it is disabled. If the contamination clears, the detector returns to normal operation.

Fault condition - faulty smoke chamber

If the smoke sensing chamber becomes defective, the detector beeps twice and the alarm LED flashes every 48 seconds. You must replace the detector. If it is not convenient to replace it immediately, press **Test/Hush** to silence the alarm and stop the alarm LED flashing for 12 hours. This can be repeated as required.

Testing, maintenance, and power supply monitoring

Your detector is a life saving device. Test the detector immediately after installation and at least once a year.

If you hold **Test/Hush** for more than 7 seconds, a red radio LED blinks for 2 seconds and a fire alarm occurs. This alarm is sent to the panel, so you can test the entire reporting path.

- ① **Note:** Notify the central station when the smoke detector is undergoing tests so they do not dispatch authorities.

After you enroll the device, verify adequate signal strength by conducting a sensor test with the device in the mounting location. See the control panel user manual for more information. Adjust the device location and orientation as necessary.

Manually testing your detectors

Test your detectors after they are installed and then at least weekly to ensure the units are working. To manually test your detectors, complete the following steps:

1. Press and hold **Test/Hush** until the detector sounds and the red light flashes. The detector stops sounding shortly after you release the button.
2. Repeat this procedure for all other detectors in the system.
Do not test with a flame. This can set fire to the detector and damage the house. Do not test with smoke as the results can be misleading unless you use specialist equipment.

Using the Test/Hush button

The smoke detectors have a Test/Hush button to control nuisance or false alarms.

When the detector sounds, if there is no sign of smoke or noise to indicate that there is a fire, assume that it is due to an actual fire. Evacuate the dwelling immediately. If there are frequent false alarms, relocate the smoke detector away from the source of the fumes.

1. To cancel a false alarm from a smoke detector, press **Test/Hush**. The smoke detector switches to a reduced sensitivity condition.

The smoke detectors are silenced for a period of approximately 10 minutes. The alarm LED on the cover of the smoke detector flashes every 8 seconds to indicate that the unit is silenced.

2. The smoke detector resets to normal sensitivity at the end of the 10 minute silence period. If additional time is required, push **Test/Hush** again.
3. If the kitchen usage or layout causes too many nuisance alarms, relocate the smoke detector further away where it is less affected by cooking fumes.

① **Note:** Use a heat detector in the kitchen area to avoid nuisance alarms.

Replacing batteries

When the device battery power is low and replacement is necessary, the smoke detector beeps and the yellow light flashes at the same time once every 48 seconds for at least 30 days. Replace the battery, ensuring the orientation is correct, as soon as possible.

When you replace the battery, ensuring the orientation is correct, press **Test/Hush** to check that the detector is functioning correctly.

① **Note:** Replace the battery if the detector does not sound when you press **Test/Hush**.

⚠ **CAUTION:** Dispose of used batteries promptly. Keep away from children. Do not disassemble or recharge and do not dispose of in fire.

⚠ **WARNING:** Constant exposure to high or low temperatures or high humidity may reduce battery life. Use only Panasonic CR123A Batteries. If you use a different battery, it may have a detrimental effect on detector operation. The detectors are intended for use at ordinary temperatures where anticipated temperatures are not expected to exceed 100°C (212°F). Prolonged periods of alarm will also reduce battery life. The battery used in this device may present a fire or chemical burn hazard if mistreated.

Cleaning your detector

Clean your detector once every year. Use a soft bristle brush or the brush attachment on your vacuum cleaner to remove dust and cobwebs from the side slots where the smoke enters. To clean the cover, wipe with a damp cloth and dry thoroughly.

⚠ **WARNING:** Do not paint your detector.

Other than maintenance and cleaning, do not perform any other servicing of this product. Repairs must be performed by the manufacturer.

Cleaning the detector chamber

A suitably trained person should clean or replace the chamber cover. To clean the detector chamber, complete the following steps:

1. Remove the detector from the mounting plate and remove the battery.
2. With a flat screwdriver unclasp the three cover clip points and remove the cover.
3. Hold the thermistor PCB and pull the pins out of the sockets to unplug the thermistor.
4. To remove the chamber top, turn the chamber anticlockwise approximately 15°.
5. Use a soft bristled brush to remove dust and dirt from the chamber base.
6. Fit a new chamber top and clip in place by turning clockwise 15°.
7. Insert the thermistor PCB into the sockets and ensure the thermistor is perpendicular to the chamber.

8. Place the cover back on the detector, ensuring the thermistor protrudes out over the cover.
9. Replace the battery and reattach to the mounting plate.
10. Press the **Test/Hush** button to ensure the detector is working correctly.

ⓘ Note: If the device is tampered with for cleaning, it will enter diagnostic mode. See [Performing a diagnostic test](#) for more details.

Smoke detector automatic self test

The smoke chamber in the smoke detectors automatically tests itself every 16 seconds. If the chamber is degraded the detector beeps twice every 48 seconds and 2 yellow LEDs flash. If this happens, clean the unit. If the beeping persists and the beep does not coincide with a yellow light flash, return the unit for service. See [Servicing your detector](#).

Dust and insect contamination

All smoke detectors and particularly the optical or photoelectric detectors are prone to dust and insect ingress that can cause false alarms.

The latest design, materials, and manufacturing techniques are used in the construction of the detectors to minimize the effects of contamination. It is impossible to completely eliminate the effect of dust and insect contamination. To prolong the life of the detector, ensure that it is kept clean so that excess dust does not build up. Any insects or cobwebs near the smoke detector should be removed.

In certain circumstances, even with regular cleaning, contamination can build up in the smoke sensing chamber which causes the detector to sound. If this happens, return the smoke detector for servicing or replacement. See [Servicing your detector](#).

➤ **Important:** Contamination is not covered by the guarantee and you will be charged for all such servicing work.

End of life

It is recommended to replace the entire detector if the unit was installed more than 10 years ago. Check the expiry date on the side of the detector.

Before the detector is discarded, remove from the mounting plate and disconnect the batteries.

⚠ **WARNING:** Do not dispose of your detector in a fire.

Dispose of your detector in a safe and environmentally sound manner at your local recycle center. Contact your local authority for further advice.

Technical specifications

For PGPx976 technical specifications, see [Table 5](#).

Table 5: Technical specifications

Power	2 X Panasonic 3V CR123A Lithium Batteries.
Smoke Sensitivity	3.13 +/- 0.59%/Ft for PGP9976 (UL)
Test/hush button	<p>The test button is used to test the device: a short button press starts a self-test on the device. A longer button press (7 s) places the device into alarm which is transmitted to a compatible panel.</p> <p>ⓘ Note: If the panel setting Interconnect Alarms is enabled all smoke detectors on the system go into alarm.</p> <p>The test button can also be used to silence alarms, if permitted by the level of obscuration, and also to silence trouble beeps for 12 h.</p>

Table 5: Technical specifications

Operating Temperature	PGP9976 (UL): 4.4°C to 37.8°C (40°F to 100°F) PGP8976 (CE) Normal: -10°C to 40°C (Storage: -10°C to 40°C)
Humidity Range	15% to 95% R.H. (non-condensing)
Audible detector	>85dB(A) at 3m (10ft) minimum
Current Drain	Standby average: 40µA Alarm average: 25mA
Heat Sensor Fixed Rating	PGP9976: 57°C +/- 2°C (135°F +/- 5°F) /PGP8976:58C+/-4C
Heat Sensor Rate of Rise	>40°C (104°F) 8.3°C (15°F) every minute
Dimensions	120mm (4.7") x 46mm (1.8")
Weight (grams)	210g (0.46 lbs)
Detector life	It is recommended to replace the entire detector after 10 years
Battery life	Up to six year under normal usage Up to one year under normal usage for PGP9976 (UL)
Accessories	Supplied with mounting plate, screws, and wall anchors

Troubleshooting

For guidance around investigating problems with your detector, see the following troubleshooting topics to restore your detectors to normal operation:

The detector does not sound when you press Test/Hush

1. Check how old the detector is. See the **Replace by** label on side of detector.
2. If necessary, replace the battery or batteries with Panasonic CR123A batteries.

Detectors sound for no apparent reason

1. If you enroll your detector and the interconnect feature is enabled, refer to your control panel to detect which device is causing the alarm.
2. Check for fumes or steam from the kitchen or bathroom. Paint and other fumes cause nuisance detectors.
3. Check for any sign of contamination such as cobwebs or dust. See [Cleaning your detector](#).
4. Press **Test/Hush** on the smoke detector causing the alarm. You can identify the detector in alarm by the alarm LED flashing rapidly. This silences the smoke detector and all other interconnected detectors in the system for 10 minutes.

Radio red LED blinks persistently

The radio red LED blinks persistently to indicate a connection issue between the radio and the detector head.

1. Power off: Remove the batteries to turn off the detector.
2. Reconnect: Carefully detach the radio unit from the detector head. Then, securely reconnect them.
3. Power on: Reinsert the batteries to power the detector back on.

Drift compensation

If the detector is indicating Contaminated Chamber with a Yellow LED flashing four times every 48 seconds, the detector is no longer within the marked sensitivity. If the detector is indicating Normal/Standby with no flash and no beep, it is within the marked sensitivity range.

- ❗ **Note:** If the panel still displays the Contaminated Chamber message after cleaning, call the installer or dealer for service.

Regulatory information

The smoke detector PGPx976 has a recommended service life of 10 years under normal conditions of use. Please refer to the label applied to the device indicating the recommended replacement year. For servicing the unit or replacement batteries please call your installation company that provided you with the alarm system.

FCC and IC Compliance Statement

▲ CAUTION: Changes or modifications not expressly approved by DSC could void your authority to use this equipment. The letters "IC:" indicate that this is an Innovation, Science and Economic Development Canada's certification number.

This device PGP9976 complies with FCC Rules Part 15 and with Industry Canada licence-exempt RSS standard(s). Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation. For Industry Canada: Le présent appareil est conforme aux CNR d'ISED Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

▲ WARNING: To comply with FCC and IC RF exposure compliance requirements, the device should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.

Avertissement! Le dispositif PGP9976 doit être placé à une distance d'au moins 20 cm à partir de toutes les personnes au cours de son fonctionnement normal. Les antennes utilisées pour ce produit ne doivent pas être situés ou exploités conjointement avec une autre antenne ou transmetteur.

① 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.

Simplified EU declaration of conformity

Hereby, Tyco Safety Products Canada Ltd. declares that the radio equipment type PGP8976 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

PGP8976: <http://dsc.com/pdf/2411001>

Frequency band	Maximum power
868.0 MHz - 868.6 MHz	14 mW / 11.46 dBm
868.7 MHz - 869.2 MHz	14 mW / 11.46 dBm

European single point of contact: Tyco Safety Products, Voltaweg 20, 6101 XK Echt, Netherlands

Product Certification

PGPx976 complies with the following standards:

PGP9976	FCC (912 to 919 MHz): 47CFR part 15.247 ISED Canada (912 to 919 MHz): RSS-247 UL/ULC: UL268/ULC-S529
PGP8976	EN 300220, EN 301489, EN 61000-6-3, EN 62368-1, EN 14604



Model: PGP8976
Notified Body BSI (2797)
DSC, Toronto, Canada
Smoke Alarm Device
EN14604: 2005/AC:2008 2020
2797-CPR-819013

Heat Detector Classification A1
Alarms at 58°C +/- 4°C



Safety Instructions

Read the safety information before you install the equipment.

The detector shall be installed and used within an environment that provides the pollution degree max 2 and over voltages category II in non-hazardous locations, indoor only. The equipment is designed to be installed by SERVICE PERSONS only; (SERVICE PERSON is defined as a person having the appropriate technical training and experience necessary to be aware of hazards to which that person may be exposed in performing a task and of measures to minimize the risks to that person or other persons).

The detector is to be installed in an indoor dry location. Exposure to weather or corrosive conditions may damage the unit.

CAUTION: Risk of explosion if the battery is replaced with an incorrect type. Dispose of used battery according to the manufacturer's instructions.

WEEE Product recycling declaration	
	For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste. Directive 2012/19/EU Waste Electrical and Electronic Equipment.

Warranty and EULA

To download the Warranty for this product, scan the QR code:



To download the EULA for this product, scan the QR code:



Website: www.dsc.com

Tech. support: 1-800- 387-3630

