1168 Wireless Smoke/CO/ Low Temp Detector

INSTALLATION AND PROGRAMMING GUIDE

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ABOUT THE 1168

The 1168 Wireless Smoke/CO/Low Temp Detector features multi-criteria smoke sensing using a combination of photoelectric, heat, IR flame flicker, and carbon monoxide indicators. When multiple triggers are not present the smoke detector will also report after being exposed to alarm levels of smoke for 5 minutes. The 1168 reports fire, CO, and low temp alarms to the control panel. Use the built-in wireless transmitter to connect the 1168 with DMP 1100 Series Wireless Receivers.

Indicator LEDs

The 1168 has a multi-color top LED that indicates the state of the device:

- **GREEN**—Supervisory indication; blinks during power on, reset, and during normal operation
- **AMBER**—Signal maintenance and trouble events
- **RED**—Alarm (Smoke/CO)

Indicator lights on the side alarms (initiating detector only):

- **RED**—Smoke
- **BLUE**—CO

Power Supply

The 1168 is powered by four 3.0 V lithium batteries. Battery life expectancy for the unit is at least three years under normal conditions.

Voice Annunciation

The 1168 audibly announces alarm and maintenance requirements, enhancing occupant understanding and evacuation. See *LED Indication and Sounder* table.

Tamper Magnet

The 1168 features a tamper magnet which sends a trouble message to the panel if the detector is removed from the mounting base.

Cadence Synchronization

The 1168 provides cadence synchronization with other 1168 or 1164 units on the system.

Low Temp Sensor

The 1168 includes a low temperature sensor that sends a message to the panel when inside temperature falls below 41 °F (5 °C).

1168 FEATURES

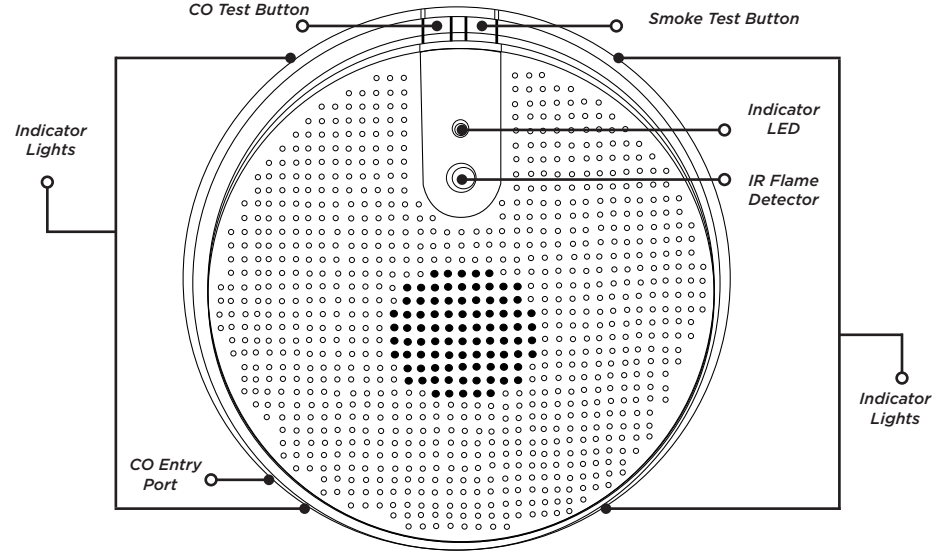


Figure 1: Product Features

PROGRAM THE DETECTOR

When programming an 1168 Wireless Smoke/CO/Low Temp Detector, refer to the appropriate panel programming guide as needed.

PROGRAMMER

Program Start Display
Enter **6653** (PROG) at the keypad to enter the **PROGRAMMER** menu.

ZONE INFORMATION

Zone Information
Press **CMD** until **ZONE INFORMATION** displays. Press a select key or area to enter the menu.

ZONE NO:

Zone Number
Enter the zone number. Press **CMD**.

The 1168 takes up to three zone numbers (Smoke, CO, Temp). The zone numbers must be consecutive.

Fire/Smoke Zone

* UNUSED *

Zone Name
Denote the zone name as a fire zone. Press **CMD**.

ZONE TYPE			
FI	PN	EM	SV

Zone Type
Press any select area. Press **CMD** to move to the next set of menu options. Select **FI** (fire) as the **ZONE TYPE**.

FIRE BELL OUT: **0**

Fire Bell Out
Default is **0**. Press **CMD**

NEXT ZONE? **NO** YES

Next Zone
At the **NEXT ZONE?** prompt, select **NO**.

WIRELESS? **YES**

Wireless
At the **WIRELESS?** prompt, select **YES**.

Note: If you are programming the 1168 onto a zone that can be either hardwired or wireless, then this prompt appears. If the zone you are programming is wireless-only, then the prompt does not appear.

TRANSMITTER
SERIAL #: -

Serial Number
Enter the eight-digit serial number found on the device and press **CMD**.

CONTACT: **FIRE**

Contact Type
Enter the **CONTACT** type as **FIRE** and press **CMD**.

SUPVSN TIME: **240**

Supervision Time
Enter the **SUPVSN TIME**, and press **CMD**.

NEXT ZN? **YES**

Next Zone
At the **NEXT ZONE?** prompt, select **YES**.

Carbon Monoxide Zone

ZONE NO:

Zone Number
Enter the zone number. This number must be consecutive with the previous zone. For example, if **500** was entered for Fire, **501** should be entered here. Press **CMD**.

* UNUSED *

Zone Name
Denote the zone name as a carbon monoxide (CO) zone. Press **CMD**.

ZONE TYPE
CO IN

Zone Type
Press any select area. Press **CMD** to move to the next set of menu options. Select **CO** (carbon monoxide) as the **ZONE TYPE**.

FIRE BELL OUT: **0**

Fire Bell Out
Default is **0**. Press **CMD**

NEXT ZONE? **NO** YES

Next Zone
At the **NEXT ZONE?** prompt, select **NO**.

WIRELESS? **YES**

Wireless

At the **WIRELESS?** prompt, select **YES**.

Note: If you are programming the 1168 onto a zone that can be either hardwired or wireless, then this prompt appears. If the zone you are programming is wireless-only, then the prompt does not appear.

TRANSMITTER
SERIAL #: -

Serial Number

Enter the eight-digit serial number found on the device and press **CMD**.

CONTACT: **CO**

Contact Type

Enter the **CONTACT** type as **CO** and press **CMD**.

NEXT ZN? **YES**

Next Zone

At the **NEXT ZONE?** prompt, select **YES**.

Low Temperature Zone

ZONE NO:

Zone Number
Enter the zone number. This number must be consecutive with the previous zone. For example, if **500** was entered for Fire, and **501** was entered for CO, **502** should be entered here. Press **CMD**.

* UNUSED *

Zone Name
Denote the zone name as a temperature (TEMP) zone. Press **CMD**.

ZONE TYPE FI PN EM **SV**

Zone Type
Press any select area. Press **CMD** to move to the next set of menu options. Select **SV** (supervisory) as the **ZONE TYPE**.

FIRE BELL OUT: **0**

Fire Bell Out
Default is **0**. Press **CMD**

NEXT ZONE? **NO** YES

Next Zone
At the **NEXT ZONE?** prompt, select **NO**.

WIRELESS? **YES**

Wireless
At the **WIRELESS?** prompt, select **YES**.

Note: If you are programming the 1168 onto a zone that can be either hardwired or wireless, then this prompt appears. If the zone you are programming is wireless-only, then the prompt does not appear.

TRANSMITTER
SERIAL #: -

Serial Number
Enter the eight-digit serial number found on the device and press **CMD**.

CONTACT: **TEMP**

Contact Type
Enter the **CONTACT** type as **TEMP** and press **CMD**.

NEXT ZN? **YES**

Next Zone
At the **NEXT ZONE?** prompt, select **YES**.

Back out of Zone Information and press back until Bell Options appears.

BELL OPTIONS

Bell Options
Press the back arrow key until **BELL OPTIONS** displays, and then press a select key or area.

FIRE TYPE: T

Fire Bell Action
At **FIRE TYPE:**, select **T** (temporal) as the action type.

Note: Program this option to enable cadence synchronization with other 1168 and 1164 units on the system.

SELECT A LOCATION

Use the LED survey operation to select a proper location for the 1168. The LED survey operation allows one person to confirm communication with the wireless receiver or panel while the cover is removed. Because the transmitter LED on the 1168 is not visible, use a separate 1100 Series transmitter for the LED survey operation, such as the 1106 Universal Transmitter.

The 1168 is intended to be installed as the primary notification device to maintain audible sync. Do not install in areas with other notification devices.

1. Hold the 1106 in the exact desired location.
2. Press the tamper switch on the 1106 to send data to the panel and determine if communication is confirmed or faulty.

Confirmed: If communication is confirmed, for each press or release of the tamper switch the LED blinks immediately on and immediately off. Repeat this test to confirm five separate consecutive LED blinks. Any indication otherwise means proper communication has not been established.

Faulty: If communication is faulty, the LED remains on for up to eight seconds or flashes multiple times in a quick succession. Relocate the wireless receiver until the LED confirms clear communication.

INSTALL THE DETECTOR

1 *Mount the Base*

After selecting a location, mount the 1168 on a flat wall or ceiling. The ensure optimum performance, mount the 1168 away from large metal objects. See Mounting Guidelines for more information.

1. Grasp the detector and twist counterclockwise to remove the detector from the mounting base. See Figure 2.
2. Use the supplied screws and anchors to mount the base to the surface. See Figure 3.

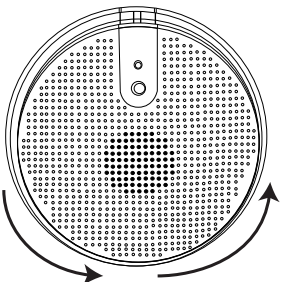


Figure 2: Remove Detector from Base

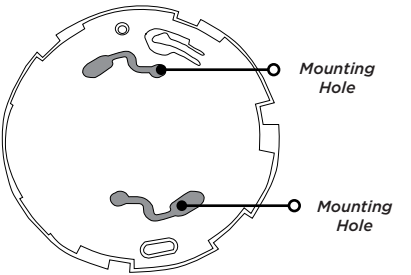


Figure 3: Mounting Hole Locations

2 *Install the Battery*

The 1168 comes pre-installed with four 3.0 V lithium batteries. Firmly grasp the battery pull-tab on the battery compartment and remove it. See Figure 4.

3 *Replace the Cover*

After installing the battery, replace the cover back on the base. Follow the directions below:

1. Place the detector on the base, aligning the raised tab on the detector's lip and the cover latch on the base's lip.
2. Rotate the detector until it clicks into place.

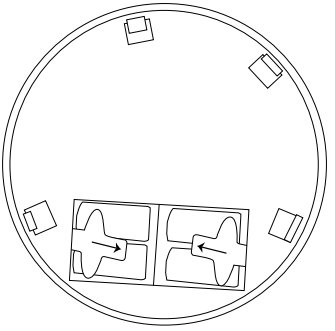


Figure 4: Battery Location

MOUNTING GUIDELINES

In addition to NFPA 72, use the following location guidelines to optimize performance and reduce false alarms. Refer to Figure 5.

- Place ceiling-mounted smoke detectors in the center of a room or hallway at least 4 inches from walls and partitions. If a ceiling is sloped, peaked, or gabled, place the detector 3 feet from the highest-point. If mounting to suspended ceiling tile, the tile must be secured with an appropriate fastener across ceiling panel supports.
- Place wall-mounted smoke detectors at least 4 inches below the ceiling.
- Mount smoke detectors on a firm, permanent surface.
- Place in environmentally-controlled areas with a temperature range between 41 °F and 100 °F (5 °C and 37.8 °C) and humidity between 0% and 90% non-condensing.

Authority Having Jurisdiction

A proper location is critical to ensuring proper operation. Equipment should be installed in accordance with the National Fire Protection Association's (NFPA) Standard 72, Chapters 2 and 8. You may need to reference other chapters of NFPA 72 or NFPA 101.

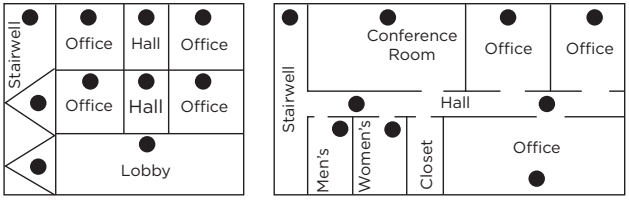
Smoke detector regulations vary from state to state, so contact the Authority Having Jurisdiction (AHJ). Where public safety is primary, the AHJ may be a federal, state, local, or other regional department or individual (such as a fire chief, fire marshal, chief of a fire prevention bureau, labor or health department, building official, electrical inspector, or others having statutory authority.

For insurance purposes, an AHJ may be an insurance inspection department, rating bureau, or other insurance company representative. Sometimes, a 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.

Locations to Avoid

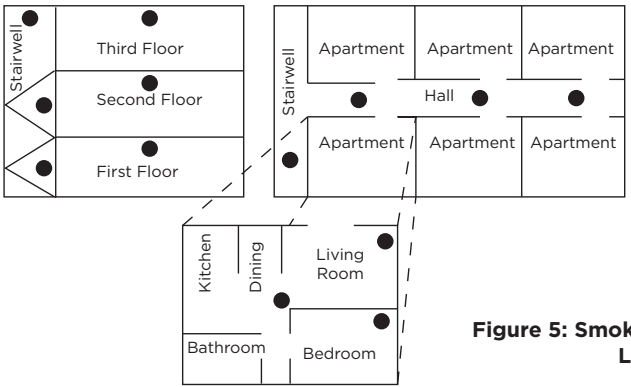
Smoke detectors should not be installed in or near the following locations:

- In or near areas where combustion particles are common (kitchens, garages, furnaces, hot water heaters, or gas space heaters).
- On ceilings in rooms next to kitchens if there is no transom between the room and the kitchen.
- In damp or humid areas, such as bathrooms with showers.
- In extremely cold or hot areas.
- In dusty, dirty, or insect-infested areas.
- Near air conditioners, heating registers, or any other ventilation source that may interfere with smoke entering the detector.
- Near fresh air inlets or returns or excessively drafty areas (heating or air conditioning vents, fans, etc.).
- In dead-air spaces at the top of peaked ceilings or corners where walls and ceiling meet.
- Near fluorescent light fixtures (smoke detectors should be at least 10 feet away).



Commercial

In commercial buildings, place smoke detectors in stairwells and every room on each level.



Multi-Family

In multifamily buildings, place smoke detectors in hallways and stairwells on each level.
Inside each apartment, place smoke detectors in the living area, hallway, and each bedroom.

Figure 5: Smoke Detector Placement Locations

TEST THE 1168

Refer to the *LED Indication and Sounder* table during the following tests.

Smoke Test

Local Test

Press the Smoke Test button on the 1168 to initiate a smoke alarm test. The alarm will not sound at the panel.

Functional Test

Press and hold the Smoke Test button for 5 seconds. Hold a container of canned smoke close to the smoke entry openings. Spray the smoke directly into the detector for 1 second or until the unit goes into alarm. The fire alarm sounds at the panel.

CO Test

Local Test

Press the CO Test button on the 1168 to initiate the CO test. The alarm will not sound at the panel.

Functional Test

Press and hold the CO Test button for 5 seconds. Hold a container of Solo C6 CO Detector Tester (or similar) close to the CO Gas Entry Port. See Figure 1 for port location. Spray the can directly into the detector for 1 second or until the unit goes into alarm. The CO alarm sounds at the panel. For more information, refer to the LED Indication and Sounder table.

LED Indication and Sounder				
Mode	Status LED (Top)	Side LED Windows	Sounder	Speaker
CO Alarm—Successful gas entry	Blink **RED** every 10 secs	Blink **BLUE** every 10 secs	Temp-4	"Warning: Carbon Monoxide. Move to fresh air."
CO Test[1;2]	Blink **GREEN** once a sec	Dark	Temp-4	Voice CO sensor test result, remaining sensor life, and remaining battery life
CO Trouble	Double Blink **AMBER** every 5 secs	Dark	Silent	No voice announcement
CO End of Life[3]—First 29 days	Double Blink **AMBER** every 3 secs	Dark	Silent	Voice end of life instructions when either test button is pressed
CO End of Life[3]—First 30 days	Double Blink **AMBER** every 3 secs	Dark	Chirp every 45 secs	Voice end of life instructions when either test button is pressed

LED Indication and Sounder				
Mode	Status LED (Top)	Side LED Windows	Sounder	Speaker
Smoke Alarm	Blink **RED** once every 10 secs	Blink **RED** once every 10 secs	Temp-3	"Warning: Smoke. Evacuate."
Smoke Test	Blink **RED** once every sec	Dark	Temp-3	No voice announcement
Smoke Maintenance	Blink **AMBER** every 5 secs	Dark	Silent	Voice smoke maintenance instructions if either test button is pressed
Low Battery	Blink **AMBER** every 10 secs	Dark	Chirp every 45 secs after 7 days	Voice instructions when chirp is hushed by pressing either test button

[1] Test activated by the test switch or from the controller. Detector is functioning properly (within proper sensitivity).

[2] If Test mode is activated and the LED and Sounder do not function, check for maintenance or trouble conditions.

[3] Starts chirping after 30 days, continues until the batteries are replaced or die.

ADDITIONAL INFORMATION

Reset the Language Selection

Press and hold both the Smoke and CO test switch simultaneously for 10 seconds, then release. The green light will flash rapidly. Press and hold both buttons again for one second and release. The sensor begins speaking a welcome message. Language selection can now be made. The options are English and Spanish.

Supervision Message

When a wireless receiver is installed, a receiver is restarted, the panel is reset, or if programming is complete, then the supervision time is reset. If the receiver has been powered down for more than one hour, then the 1168 may take up to an additional hour to send a supervision message. A missing message may display on the keypad until the supervision message is sent.

Inspection Testing and Maintenance

The 1168 is designed for easy field service and maintenance. When installed and used properly, the 1168 requires minimal maintenance. The device should be functionally tested per NFPA 72 for system type smoke detectors. When a smoke detector requires maintenance, the red LED blinks every 5 seconds.

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

Replace The Batteries

Remove old batteries. Wait 10 seconds and then replace with four new batteries. To avoid a low battery indication when installing new batteries, all four batteries must be installed within 15 seconds of installing the first one. Any low battery condition that may have occurred should clear when the detector is installed onto the backplate. If the low battery condition does not clear, a sensor reset will be necessary.

Caution: The batteries used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 212 °F (100 °C) or dispose of in fire. Use only Panasonic CR123A Lithium batteries. Use of other batteries may present a risk of fire or explosion. Keep used batteries away from children. Dispose of used batteries properly.

Sensor Reset to Clear LOBAT

Once the battery is replaced, a sensor reset is required at the keypad to clear the **LOBAT** message. On an LCD keypad, press and hold 2 for two seconds. On a graphic touchscreen keypad, press **RESET**. Enter your user code, if required. The keypad displays **SENSORS OFF** followed by **SENSORS ON**.

NFPA 72 Guidelines

Total (Complete) Coverage

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

Partial Coverage

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

Selective Coverage

Where codes, standards, laws, or authorities having jurisdiction require the protection of selected areas only, the specified areas shall be protected in accordance with this code.

Supplementary (Non required) Coverage

Where installed, detection that is not required by an applicable law, code, or standard, whether total (complete), partial, or selective coverage, shall conform to the requirements of this code. (For exceptions, refer to NFPA 72 Spacing Requirements.) Where non required detection devices are installed for a specific hazard, additional non required detection devices shall not be required to be installed throughout an entire room or building.

Heat-Sensing Fire Detectors

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

Detection in New Apartment Buildings

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

Detection in Existing Apartment Buildings

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

WARNING! Limitation 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 the battery is 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

- 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 prepared.

Operation Modes				
Mode	Status LED (Top)	Side LED Windows	Sounder	Speaker
Power Up	Blink **GREEN** every 2 secs	Dark	Silent	Voice welcome, instructions after first time power-up or after default
Normal (Standby)	Single blink **GREEN** every 10 secs	Dark	Silent	No voice announcement
Smoke Alarm	Blink **RED** every 10 secs	Blink **RED**	Temp-3	Voice smoke warning
CO Alarm	Blink **RED** every 10 secs	Blink **BLUE**	Temp-4	Voice CO warning
Powered Down	Dark	Dark	Silent	No voice announcement

SPECIFICATIONS

Battery Life Expectancy	ETL Rating: 1 Year Under Normal Conditions: 3 Years
Battery Type	4 x 3.0 V, CR123A Lithium; Panasonic CR123A only
Sensitivity	UL Limits 0.9 to 3.50%/ft; ULC Limits 0.9 to 3.08 %/ft
Audible Signal	85 dBA
Frequency Range	905-924 MHz
Dimensions	16.002 cm Diameter x 4.19 cm Thick 6.3 in Diameter x 1.65 in Thick
Tamper	Cover
Operating Temperature	32 °F to 100 °F; 0 °C to 38 °C
Storage Temperature	14 °F to 158 °F; -10 °C to 70 °C
Relative Humidity	20% to 95% RH (Agency Compliance is 93% max), Non-condensing
Color	White

COMPATIBILITY

1100DH Series Wireless Receiver
Firmware Version 203 or higher

1100XH Series Wireless Receiver
Firmware Version 203 or higher

XT30/XT50 Control Panels
Firmware Version 192 or higher

XT75 Control Panels

XR Series Control Panels

Firmware Version 192 or higher

XTL Series Control Panels

Firmware Version 192 or higher

CERTIFICATIONS

California State Fire Marshal (CSFM)
New York City Fire Department (#6167)
FCC Part 15 Registration ID CCKPC0204
IC Registration ID 5251A-PC0204
Intertek (ETL) Listed

ANSI/UL 268	Smoke-Automatic Fire Detectors
ANSI/UL 2075	Gas and Vapor Detectors and Sensors

Patents

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

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:

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

INDUSTRY CANADA INFORMATION

This device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

This system has been evaluated for RF Exposure per RSS-102 and is in compliance with the limits specified by Health Canada Safety Code 6. The system must be installed at a minimum separation distance from the antenna to a general bystander of 7.87 inches (20 cm) to maintain compliance with the General Population limits.

Le présent appareil est conforme aux CNR d'Industrie 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.*

L'exposition aux radiofréquences de ce système a été évaluée selon la norme RSS-102 et est jugée conforme aux limites établies par le Code de sécurité 6 de Santé Canada. Le système doit être installé à une distance minimale de 7.87 pouces (20 cm) séparant l'antenne d'une personne présente en conformité avec les limites permises d'exposition du grand public.

Information furnished is believed to be accurate and reliable.
This information is subject to change without notice.

