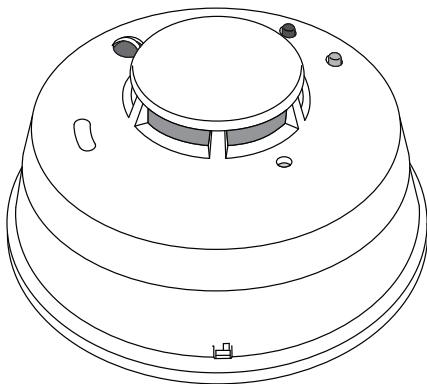


# 1164/1164NS

## Wireless Smoke Detector

INSTALLATION AND PROGRAMMING GUIDE



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# ABOUT THE 1164

1164/1164NS Wireless Smoke Detectors are 3.0 V battery powered, wireless, low-profile, photo-electric smoke detectors used with 1100 Series DMP Wireless Receivers. The 1164 synchronizes its Temporal 3-alarm cadence with other 1164s installed on the same fire system. Any fire zone that is tripped on the panel will cause the sounder to initiate. The 1164NS has the same functionality as the 1164, except the 1164NS does not have a built-in sounder. The 1164NS is intended for use in installations with existing notification devices.

## ***INDICATOR LEADS***

The 1164/1164NS provides two indicator LEDs. Depending on how the LED is operating, the red LED indicates there is either smoke detected, a test alarm in progress, low battery, or maintenance is needed. The green LED indicates the 1164/1164NS is in Standby.

## ***OPTIONAL TAMPER***

The 1164/1164NS features a tamper switch to send a trouble message to the panel if the detector is removed from the mounting base.

## ***POWER SUPPLY***

The 1164/1164NS is powered by one 3.0 V lithium battery. (Panasonic Model CR123A or DMP Model CR123-FIRE). Typical battery life expectancy for the 1164/1164NS is at least one year.

## ***CADENCE SYNCHRONIZATION***

The Model 1164 only provides a cadence synchronization with other 1164s on the system. This option can be enabled in device programming.

# 1164 FEATURES

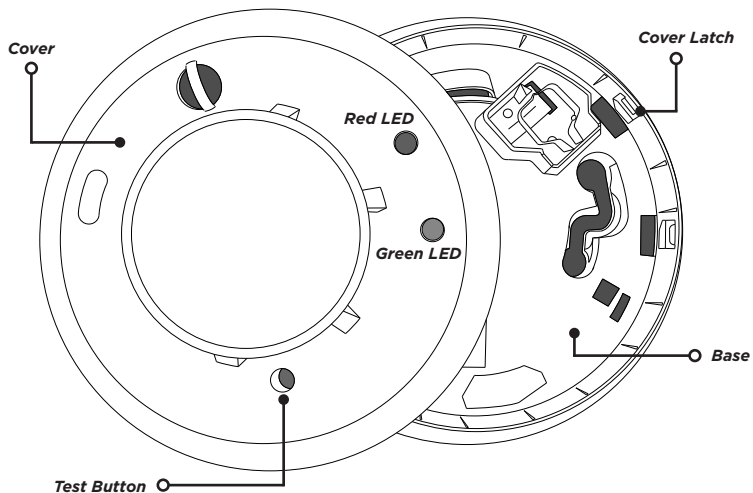


Figure 1: 1164 Features

# PROGRAM THE 1164

When programming an 1164/1164NS smoke detector, refer to the appropriate panel programming guide, as needed.

PROGRAMMER

## PROGRAMMER MENU

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 NO.:**

ZONE NAME:

## ZONE NAME

Enter the **ZONE NAME.**

ZONE TYPE

**FI**      **EM**      **PN**

## ZONE TYPE

Select **FI** (fire) as the **ZONE TYPE.**

NEXT ZONE? **NO** YES

### NEXT ZONE

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

WIRELESS ZONE? **YES**

### WIRELESS ZONE

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



**Note:** If you are programming the smoke detector 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.

SERIAL NO:

### SERIAL NUMBER

Enter the eight-digit **SERIAL NO** found on the device and press **CMD**.

SUPVSN TIME: **3**

### SUPERVISION TIME

Enter **3** as the **SUPVSN TIME**, and then press **CMD**.

NEXT ZN? **NO**

### NEXT ZONE

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

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 1164s on the system.



# SELECT A LOCATION

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

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.

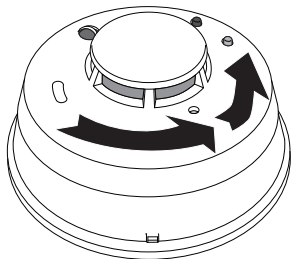
✗ **Faulty:** If communication is faulty, the LED remains on for up to eight seconds or flashes multiple times in a quick succession. Relocate the wireless receiver until the LED confirms clear communication.

# INSTALL THE 1164

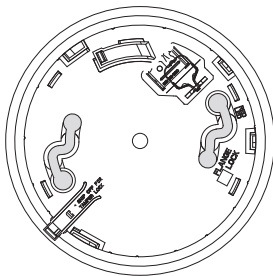
## 1 MOUNT THE BASE

After selecting a location, mount the smoke detector on a flat wall or ceiling. To ensure optimum performance, mount the smoke detector 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.



**Figure 2: Remove Detector from Base**



**Figure 3: Mounting Hole Locations**

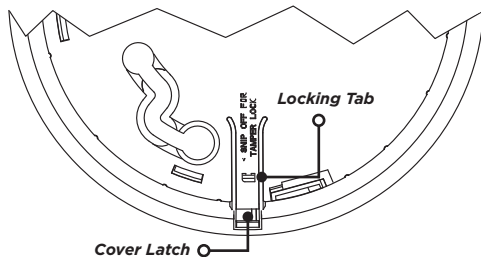
## 2 **ENABLE THE TAMPER SWITCH (OPTIONAL)**

The 1164 features a tamper switch to send a trouble message to the panel if the detector is removed from the mounting base. To enable the tamper switch, follow the directions below:

1. Identify the small plastic tab that's located on the mounting base. See Figure 4.
2. Cut the tab off of the base. The tamper switch will take effect after the detector is installed.



**Note:** After the tamper switch is enabled, a small screwdriver must be used to depress the cover latch before the detector can be removed from the base.



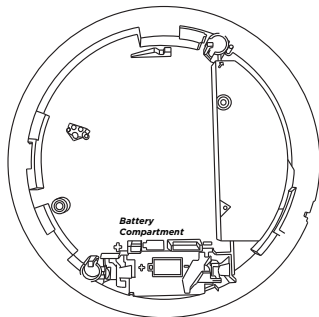
**Figure 4: Mounting Base and Tamper Switch**

### 3 REPLACE THE BATTERY

The battery comes pre-installed and is located in the battery compartment in the detector. The typical battery life expectancy is at least one year.

When the battery gets low, a LOBAT message is sent to the panel. When the LOBAT message appears on the keypad, replace the battery and perform a sensor reset by following the process below:

1. Remove the battery from the smoke detector's battery compartment. See Figure 5.
2. Observing polarity, place the new 3.0 V lithium battery (Panasonic Model CR123A or DMP Model CR123-FIRE) into the battery compartment in the detector. The green and red LEDs located on the 1164 cover will simultaneously flash four times, and then the green LED will flash every ten seconds indicating the detector is in standby.



**Figure 5: Battery Location**

#### **Sensor Reset to Clear LOBAT**

1. Once the battery is replaced, a sensor reset is required at the system keypad to clear the LOBAT message.
2. On a Thinline keypad, press and hold "2" for two seconds. On a touchscreen keypad press RESET.
3. Enter your user code, if required.
4. The keypad displays SENSORS OFF followed by SENSORS ON.

## **4 REPLACE THE COVER**

After replacing the battery, replace the cover. 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.
3. Remove the orange plastic dust cover from the detector once installation (and any surrounding construction) is complete.

## 5 TEST THE 1164

Use a tool with a diameter of 0.18 inches or less to press the test button. If the smoke detector is operating in its proper sensitivity limits and not in low battery condition, then the green LED turns off and the red LED stays on continuously while the test button is being pushed. No signal is sent to the alarm panel during this test. Verify the control panel alarm and all auxiliary functions to perform a complete test of the system. See Figure 6

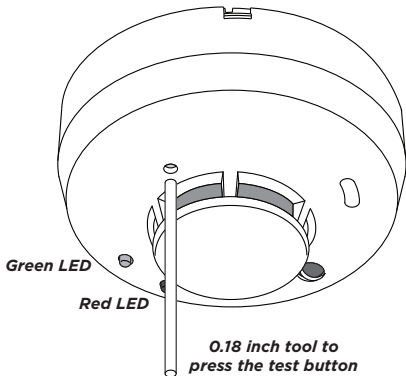


Figure 6: Test Button Location

| LED OPERATION                     |  |
|-----------------------------------|--|
| Green LED blinks every 10 seconds | Standby  |
| Red LED is steady                 | Smoke Detected or Test Success while Test Button Pressed |
| Red LED blinks every 45 seconds   | Low Battery  |
| Red LED blinks every 5 seconds    | Maintenance Needed                                       |

Table 1: LED Operation

## **TEST/SILENCE BUTTON**

The Test/Silence button performs the following functions:

**Testing:** Pressing the Test/Silence button tests the functionality of the circuitry, proper sensitivity limits, and battery condition. If pressed and held for 2.5 seconds or longer, the sounder will be enabled (1164 only). When released, the sounder will silence (1164 only) and the detector returns to the state prior to the test button being pressed. Additionally, when the Test/Silence button is pressed, the red LED turns on and remains steady until the button is released. No signal is sent to the alarm panel during this test.

**Silence Alarm:** (1164 only) When pressed during an alarm, the sounder is disabled for five minutes.

**Silence Trouble Chirp:** (1164 only) Press to silence a trouble chirp for 12 hours. If the test button is pressed during the silence period, the detector does not respond. If an alarm condition occurs during the silence period, the sounder enables as per alarm requirements. The trouble chirp resumes after 12 hours if the trouble condition is not corrected.

## **SMOKE TESTING**

Smoke detectors should be smoke tested in-place annually.

1. Hold a can of smoke close to the smoke entry openings.
2. Aim the smoke into the detector for 20 secs or until the detector goes into alarm.



**Caution:** Remember to stop the smoke after testing. The detector's red LED stays on and the control panel recognizes an alarm. Perform a sensor reset to reset the detector after the canned smoke is blown out of the detector.

# CLEAN THE 1164

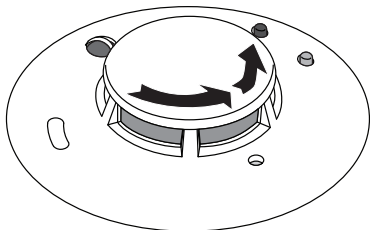
Smoke detectors must be maintained to meet NFPA 72 requirements. Smoke detectors should be cleaned at least once per year.



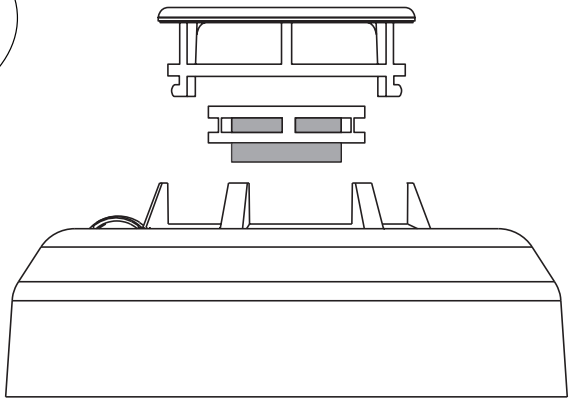
**Note:** Before performing maintenance on the detector, notify the proper authorities that the smoke detector will be temporarily out of service.

1. Remove the detector cover from the mounting base. See Figure 2.
2. Remove the battery from the detector. See Figure 5.
3. Use a vacuum or canned air to clean the detector.
4. Grasp the detector cap, gently twist to the left, and then lift up. See Figure 7.
5. Press in the sides of the sensing chamber where indicated by the alignment arrows. Pull the sensing chamber straight up out of the detector. See Figure 8.
6. Use a vacuum or canned air to clean the sensing chamber.
7. Line up the arrows on the sensing chamber and the latches on the smoke detector base, and then snap the sensing chamber back into place.
8. Replace the detector cap by lining up the new cap with the detector.
9. Insert the cap into the smoke detector and twist it gently to the left until it snaps into place.
10. Reinsert the battery, and then reattach the detector to the mounting base.





**Figure 7: Remove Detector Cap**



**Figure 8: Detector Cover and Sensing Chamber**

# MOUNTING GUIDELINES

## ***GENERAL GUIDELINES***

In addition to NFPA 72, use the following location guidelines to optimize performance and reduce false alarms. Refer to Figure 9.

- Place ceiling-mounted smoke detectors in the center of a room/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 40°F and 100° F (4.4°C and 37.8°C) and the humidity is 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.

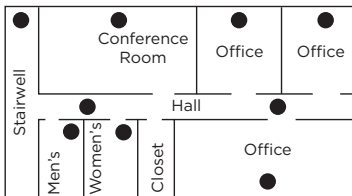
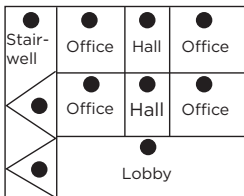
Smoke detector regulations vary from state to state, so contact the Authority Having Jurisdiction (AHJ). Where public safety is primary, the AHJ may be a federal, state, local, or other regional department or individual (such as a fire chief, fire marshal, chief of a fire prevention bureau, labor or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

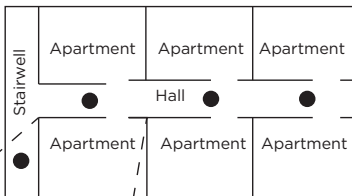
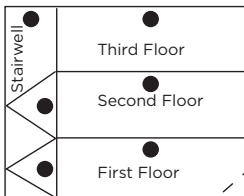
Smoke detectors should not be installed in or near the following locations:

- In/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/returns or excessively drafty areas (heating/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**

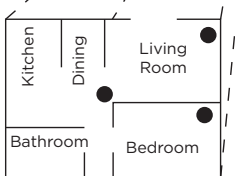
In commercial buildings, place smoke detectors in stairwells and every room on each level.



## **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 9: Smoke Detector Placement Locations**

# ADDITIONAL INFORMATION

## ***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 1164/1164NS 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 smoke detector is designed for easy field service and maintenance. When installed and used properly, they require minimal maintenance. The smoke detector should be functionally tested per NFPA 72 for system type smoke detectors. See Smoke Testing. 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.

## ***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.)



**Note:** The sounder in the 1164 is not a 520Hz low-frequency sounder.



## **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 areas are 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.

# SPECIFICATIONS

## Specifications

|                             |  |
|-----------------------------|--|
| Battery Life Expectancy     | At least 1 year                                  |
| Battery Type                | 3.0 V lithium Panasonic CR123A or DMP CR123-FIRE |
| Low Battery Threshold       | 2.65 V   |
| Low Battery Beep Rate       | 1 every 30 seconds $\pm$ 2 seconds               |
| Sounder Pattern (1164 only) | 85 dBa at 10 feet Temporal                       |
| Sensitivity                 | 2.0%   |
| Frequency Range             | 905-924 MHz                                      |
| Detector Dimensions         | 5.6" x 2.4" (14.3 cm x .046 cm)                  |
| Base Dimensions             | 5.4" x 0.46" (13.7 cm x .46 cm)                  |
| Color                       | White  |

# COMPATIBILITY

1100DH Series Wireless Receiver

*Version 203 or higher*

1100XH Series Wireless Receiver

*Version 203 or higher*

XTL Series Control Panels

XT30/XT50 Control Panels

*Version 123 or higher*

XT75 Control Panels

XR Series Control Panels

*Version 108 or higher*

XF6 Series Fire Control Panels

# CERTIFICATIONS

California State Fire Marshal (CSFM)

FCC Part 15 Registration ID CCKPC0104

IC Registration ID 5251A-PC0104

New York City (FDNY)

Underwriters Laboratories (UL) Listed

ANSI/UL 268 7th Edition Smoke-Automatic Fire Detectors

## **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:

- 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.

# INDUSTRY CANADA INFORMATION

This device complies with Industry Canada Licence-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.

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.

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

