USER'S MANUAL
MODEL: VST-WS588IH

rientalert
www.orientalert.com

IMPORTANT! PLEASE READ CAREFULLY AND SAVE.

This user's manual contains important information about your Alarm's operation. If you are installing the Alarm for use by others, you must leave this manual—or a copy of it—with the end user.

WIRELESS PHOTOELECTRIC SMOKE ALARM

Photoelectric smoke alarms are generally more effective at detecting smoldering fires which smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning in couches or bedding.
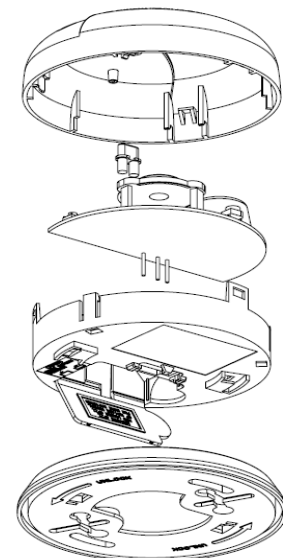
MAIN FEATURES

➢ DC operated Wireless Interconnectable Smoke Alarm
➢ Photoelectric sensor for slow smoldering fires
➢ Non-radioactive technology for environmental friendly
➢ Test / Hush Button
➢ Insects proof
➢ High and stable sensitivity
➢ With quick fix mounting bracket for easy installation
➢ Fitting and battery tamper-resist feature
➢ LED operation indicator
➢ Extra loud alarm sound over 85 dB at 3m
➢ Low-battery and battery missing warning indicator
➢ Auto reset after smoke is clear

SPECIFICATION

➢ Detection Type: Photoelectric sensor for smoke
➢ Power Source: 9V(6F22) Battery
➢ Working frequency: 868MHz
➢ Emission distance: >60m（open space）
➢ Standby Current: 25uA max
➢ Alarm Current: 40mA max
➢ Sensitivity to Smoke: 3.0-6.0 %Obs /m
➢ Alarm Sound Level   85 Decibels at 3 meters
➢ Operation Temperature: 4℃ to 45℃
➢ Ambient Humidity: 10% to 90% Relative Humidity
➢ Compact size: 110mm diameter

IMPORTANT SAFETY INFORMATION

1. This smoke alarm requires constant working 9-volt battery to operate properly. This smoke alarm WILL NOT work if DC power is not connected or has failed or been interrupted for any reason AND the battery is removed, drained or improperly connected. DO NOT use any other kind of battery except as specified. DO NOT connect this smoke alarm to any other type of smoke alarm or auxiliary device, except those listed in this manual.

2. The Test button accurately tests all smoke alarm functions. Do not use any other test method. Test smoke alarm weekly to ensure proper operation.

3. DO NOT remove or disconnect battery to quiet unwanted alarms. This will remove your protection. Open windows or fan the air around smoke alarm to silence it

4. Observe and follow all local and national electrical and building codes for installation.

5. This smoke alarm is designed to be used inside a single room only. In multi-room buildings, each individual living unit should have its own smoke alarms. Do not install in non-residential buildings. And this smoke alarm is not a substitute for a complete alarm system.

6. Smoke may not reach the smoke alarm for many reasons. For example, if a fire starts in a remote part of the home, on another level, in a chimney, wall, roof, or on the other side of a closed door, smoke may not reach the smoke alarm in time to alert household members. A smoke alarm will not promptly detect a fire except in the area or room in which it is installed.

7. Smoke alarms may not alert every household member every time. The alarm sound is loud in order to alert individuals to a potential danger. However, there may be limiting circumstances where a household member may not hear the alarm (i.e. outdoor or indoor noise, sound sleepers, drug or alcohol usage, the hard of hearing, etc.). If you suspect that this smoke alarm may not alert a household member, install and maintain specialty smoke alarms. Household member must hear the alarm's warning sound and quickly respond to it to reduce the risk of damage, injury, or death that may result from fire. If a household member is hearing impaired, install special smoke alarms with lights or vibrating devices to alert occupants.

8. Smoke alarms can only sound their alarms when they detect smoke. Smoke alarms detect combustion particles in the air. They do not sense heat, flame, or gas. This smoke alarm is designed to give audible warning of a developing fire. However, many fires are fast-burning, explosive, or intentional. Others are caused by carelessness or safety hazards. Smoke may not reach the smoke alarm QUICKLY ENOUGH to ensure safe escape.

9. Smoke alarms have limitations. This smoke alarm is not foolproof and is not warranted to protect lives or property from fire. Smoke alarms are not a substitute for insurance. Homeowners and renters are responsible for insuring their lives and property. In addition, it is possible for the smoke alarm to fail at any time. For this reason, you must test the smoke alarm weekly and replace every 10 years.
NOTE: For best protection, we recommend that you install a smoke alarm in every room.
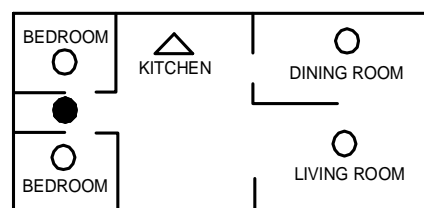
INSTALLATION

SMOKE ALARM PLACEMENT

- **Typical single-story home**

SINGLE-STORY RESIDENCE,APARTMENT, MOBILE HOME

Install a smoke alarm on the ceiling of wall inside each bedroom and in the hallway outside each separate sleeping area. If a bedroom area hallway is more than 30 feet long, install a smoke alarm at each end.
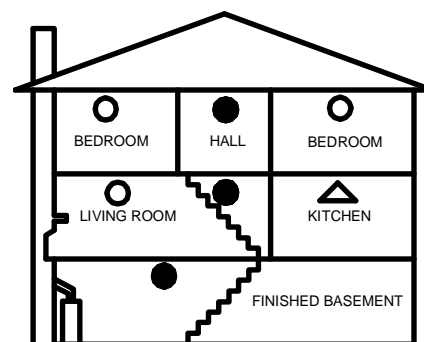
If there is a basement: Install a smoke alarm on the basement ceiling at the bottom of the stairwell.

- **Typical Multi-story or split level home**

Install a smoke alarm on the ceiling of wall inside each bedroom and in the hallway outside each separate sleeping area. If a bedroom area hallway is more than 30 feet long, install a smoke alarm at each end. And please install a smoke alarm on the top of a first-to-second floor stairwell.
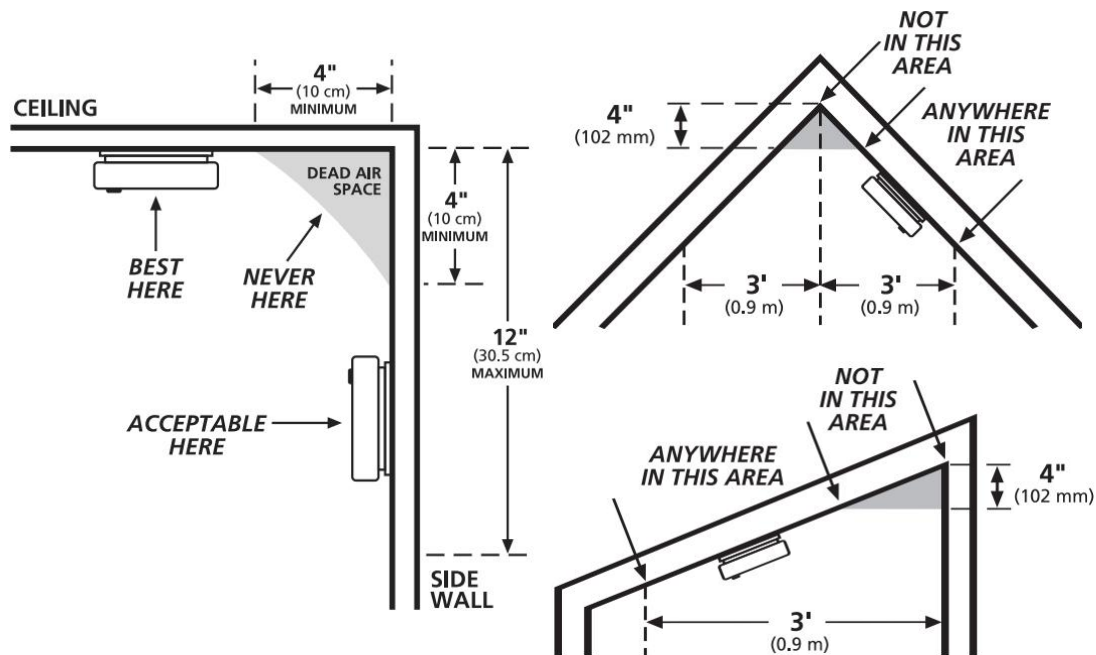

MULTI-STORY RESIDENCE

KEY:

●Minimum required smoke alarm locations

○Recommended additional smoke alarm locations

△Smoke alarms with hush features recommended for additional protection

IMPORTANT SMOKE ALARM PLACEMENT AND EXCEPTION INFORMATION

1. Install a smoke alarm as close to the center of the ceiling as possible. If this is not practical, mount no closer than 4 inches from a wall or corner. Also, if local codes allow, install smoke alarms on walls, between 4 and 12 inches from ceiling/wall intersections.

2. Install a minimum of two smoke alarms in every home, no matter how small the home.

3. Install a smoke alarm in each room that is divided by a partial wall (either coming down from the ceiling at least 8 inches, or coming up from the floor).

4. Install a smoke alarm in lived-in attics or attics which house electrical equipment like furnaces, air conditioners, or heaters.

DO NOT INSTALL SMOKE ALARMS

1. Near appliances or areas where normal combustion regularly occurs (kitchens, near furnaces, hot water heaters). Use specialized smoke alarm with unwanted alarm control for this areas.

2. In areas with high humidity, like bathrooms or areas near dishwashers or washing machines. Install at least 10 feet away from these areas.

3. Near air returns or heating and cooling supply vents. Install at least 3 feet away from these areas. The air could blow smoke away from the detector, interrupting its alarm.

4. In rooms where temperatures may fall below 5℃ or rise above 40℃.

5. In extremely dusty, dirty, or insect-infested areas where loose particles interfere with smoke alarm operation.

⚠WARNING!
Incorrect orientation will result in a decrease in operational effectiveness.
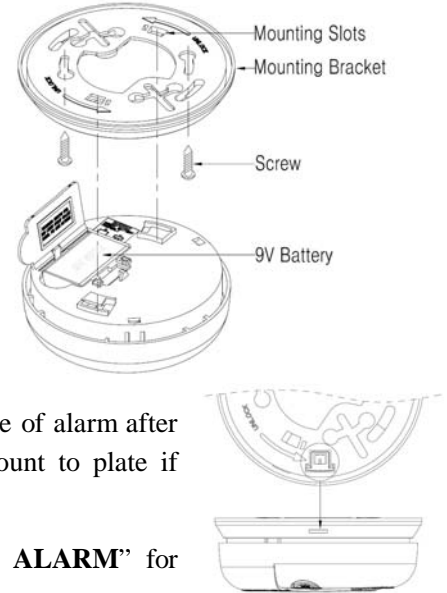
HOW TO INSTALL THIS ALARM

This Alarm is designed to be mounted on any standard wiring junction box up to a 4-inch (10 cm) size, on either the ceiling or wall (if allowed by local codes).

⚠ WARNING!

Make sure the Alarm is not receiving excessively noisy power. Examples of noisy power could be major appliances on the same circuit, power from a generator or solar power, light dimmer on the same circuit or mounted near fluorescent lighting. Excessively noisy power may cause damage to your Alarm.
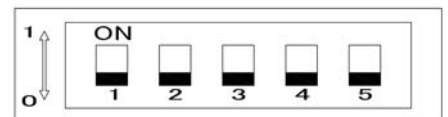
FOLLOW THE INSTALLATION STEPS

1. From back of alarm, remove the mounting plate by turning it counterclockwise. (To later engage tamper-resist feature, twist out and set aside one of the pins molded into plate. Both pins are exactly the same.)

2. Secure plate to ceiling or wall with mounting screws.

3. Set the wireless interconnection. See "**HOW TO SET THE WIRELESS INTERCONNECTION FUNCTION**" for details.

4. Position alarm to mounting plate and turn clockwise to lock into place. To engage tamper-resist feature, insert pin into notch on edge of alarm after alarm is properly positioned in base. **NOTE:** Alarm will not mount to plate if battery is not installed.

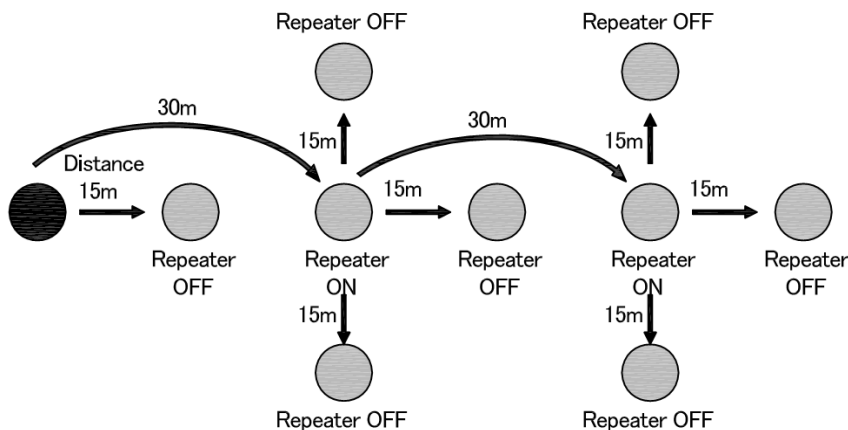5. Push test button to test alarm. See "**TESTING THE SMOKE ALARM**" for details.

HOW TO SET THE WIRELESS INTERCONNECTION FUNCTION

DIP switch function: The 1~4numeric is for ID coding, total 16 coding (refer to **TABLE1**). ID 0 (coding 0000) is a public ID, it can communicate with other all other 15 IDs. Except ID0, the devices can communicate each other only in same ID coding. The 5 numeric is for repeater function.

When being slid ON, the repeater function works. Repeater function: When the device receives emission signal and gives alarm, it will emit signal immediately to drive other units alarming. It is also a relay station of wireless signal to form a wireless alarm network with relay transmit. The emit distance is 30m in house area.for the repeater setting the right diagram is for your reference.

TABLE1			
1~4	ID	1~4	ID
0000	0	1000	8
0001	1	1001	9
0010	2	1010	10
0011	3	1011	11
0100	4	1100	12
0101	5	1101	13
0110	6	1110	14
0111	7	1111	15

FOLLOW THE ID SETUP STEPS

1. Remove the battery.

2. Press and hold the button for a minimum of 10 seconds.

3. Find the 5-position dipswitch located on the back of each device.

4. Select one of the units. You will define the ID of your system by positioning the switches of the dipswitch in a random pattern. The ID will need to be the same for each alarm. This ID will differentiate your alarm system from similar systems nearby.(refer to **TABLE 1**)

5. Using a pen or pencil, change the switches in each of the wireless devices to match the pattern you selected in step 3. Ensure that the sequence is not reversed.

6. Insert a 9-volt battery to compartment. **NOTE POLARITY OF CONNECTIONS.** The alarms only read the ID that has been set when they are first supplied power. Any changes to the switch after the unit is powered will not be recognized, and will require the power to be removed, Press and hold the button for a minimum of 10 seconds before powering again.

7. Close battery compartment door, snapping it into place.

8. Push test button to test alarm. See "**TESTING THE SMOKE ALARM**" for details.
CAUTION: Due to the loudness of the alarm, always stand at an arm's length away from the unit when testing.

OPERATING YOUR SMOKE ALARM

Once the smoke alarm has been installed A RED indicator light (LED) should flash approximately once a minute to indicate the battery is healthy and the unit is operating properly.

If smoke is detected or the unit receives signals from other devices in the wireless system, the unit will produce an alarming sound until the air is clear.

VARIOUS STATUS OF THIS ALARM   (TABLE2)

Current Status	Red LED	Horn	Description
Normal Operation	1 Flash every 45seconds	Silent	The device is on the normal self-testing status
Local Alarm	1 Flash every 0.5seconds	Alarming sound	Fire smoke is detected by the device and trigger the device to alarm
Remote Alarm	Off	Alarming sound	The device is triggered to alarm by receiving the wireless alarm signal from other device
Locate Alarm	1 Flash every 0.5seconds	Alarming sound	Only Local alarm can be in this state, but it cannot transmit the alarm signal out
Hush	1 Flash every 10seconds	Silent	The sensitivity of the device is lower
Low Battery	1 Flash every 45seconds	1 beep every 45 sensond	Low battery warning

The device has TEST, HUSH, LOCATE functions which can be implemented by pressing the button with different holding time under various status.

Button Definition as below: **(TABLE3)**

Current Status	Function (Press button and release it in 2 seconds)	Function (Press button and hold it for 3 seconds minimum)
Normal Operation、Hush State、Low Battery	Test	Local Hush
Local Alarm	Locate	All Hush
Remote Alarm	Locate	All Hush
Locate Alarm	None	Local Hush

Function Definition as below:

Test: This function can simulate the alarm signal, and lead the device to **Local Alarm Status** (refer to **TABLE2**). The simulated alarm signal will disappear after 15 seconds.
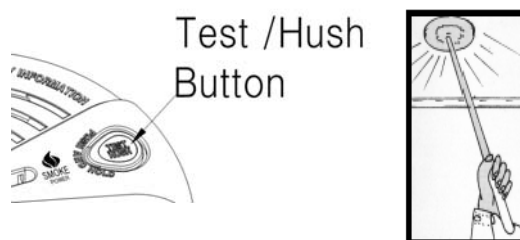
Locate： This function can lead the device to **Locate Alarm Status** (refer to **TABLE2**).

Local Hush： This function can lead the device to **Hush Status** (refer to **TABLE2**).（Only to the device）

All Hush： This function can lead all the devices which are in the same ID to **Hush Status** (refer to **TABLE2**).

TESTING THE SMOKE ALARM

1. Test each smoke alarm to be sure it is installed correctly and operating properly.

2. The push-to-test button accurately tests functions. Do not use an open flame to test this smoke alarm. You may ignite and damage the smoke alarm or your home.

3. Test smoke alarms weekly and upon returning from vacation or when no one has been in the household for several days.

4. Stand at arm's length from the smoke alarm when testing.

5. Press the test button and release it in 2 seconds，the smoke alarm will sound a loud beep. The other devices in same ID should sound a loud beep in 8 seconds. The alarm will stop sounding after 15s.

6. If smoke alarm does not sound, please retest the smoke alarm.

DANGER: If the alarm sounds, and smoke alarm is not being tested, the smoke alarm is sensing smoke. THE SOUND OF THE ALARM HORN REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION.

NUISANCE ALARMS

When the nuisance alarms occur, press the test/hush button and hold it for 3 seconds minimum which can lead the device to be in **Hush status** (refer to **TABLE2**) for 10 minutes. If, when the alarm goes off, there is no sign of smoke, heat or noise to indicate that there is a fire, you should get your family into a safe place, before you start investigating.

Check the house carefully in case there is a small fire smoldering somewhere. Check whether there is some source of smoke or fumes, for example cooking fumes being drawn past the smoke alarm by an extractor.

If there are frequent nuisance/false alarms it may be necessary to re-locate the device away from the source of the fumes. If for some reason the alarm continues to sound without smoke or heat being present (due to insect infestation or contamination build-up for example) the units can be silenced by disconnecting the mains power and removing the unit. If cleaning the alarm does not correct the problem it can be returned to the manufacturer

for repair or replacement.

HUSH FEATURE

This smoke alarm has a combined Test/Hush button to help you control nuisance false alarms.

Through pressing and holding the Test/Hush button for 3S min to cancel the nuisance false alarms。The alarm will automatically switch to a reduced sensitivity condition (very large levels of smoke from a nearby fire will override the Hush on the smoke alarms). This condition allows unwanted alarms to be silenced for a period of approximately 10 minutes.

The unit will flash the red light every 10 seconds (instead of the normal 45 seconds) to indicate the sensitivity is reduced.

For the wireless devices in the same ID, when the devices are in **Local alarm** or **Remote alarm status** (refer to **TABLE2**), Triggering the Hush function will lead all the devices to be in Hush Status.   Triggering the Hush function to the device which is in the **Normal Operation status** (refer to **TABLE2**) will lead only this device to be in **Hush status**.

The unit will reset to normal sensitivity at the end of the silenced period. If additional silenced time is required, simply push the Test/Hush button again.

LOCATE FEATURE

When the devices alarming for detecting fire smoke signal, users can find the kindling point through the Locate Feature :

Find any one of the alarming device（Local Alarm or Remote Alarm）,   press the Test/Hush button and release it in 2 seconds. Then the Locate Feature will be triggered. After triggering Locate Feature, all the alarming devices will be stop sound, except the initial device which is detecting fire smoke signal keeps alarming until fire smoke signal goes off.

REGULAR MAINTENANCE

⚠WARNING!
Use only the replacement batteries listed below. The unit may not operate properly with other batteries. Never use rechargeable batteries since they may not provide a constant charge.

This unit has been designed to be as maintenance-free as possible, but there are a few simple things you must do to keep it working properly:

- Test it at least once a week.

- Clean the Alarm at least once a month; gently vacuum the outside of the Alarm using your household vacuum's soft brush attachment. Test the Alarm. Never use water, cleaners or solvents since they may damage the unit.

- If the Alarm becomes contaminated by excessive dirt, dust and/or grime, and cannot be cleaned to avoid unwanted alarms, replace the unit immediately.

- Relocate the unit if it sounds frequent unwanted alarms. See "**Where This Alarm Should Not Be Installed**" for details.

- When the battery back-up becomes weak, the Alarm will "chirp" about once a minute (the low battery warning). This warning should last 7 days, but you should replace the battery immediately to continue your protection.

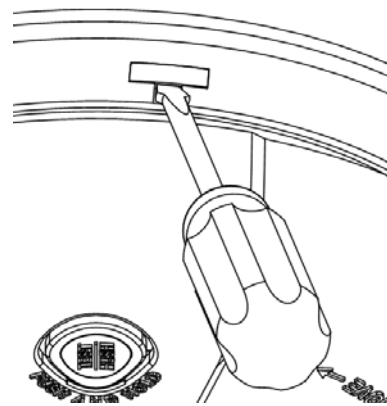**The unit requires one standard 9V battery. The following batteries are acceptable as replacements:**

Golden Power #6F22; New Leader #6F22; Gold Peak #6F22; Eveready #522, #1222.; Golden Power G6F22; Golden Power GL6F22A

IMPORTANT!

Actual battery service life depends on the Alarm and the environment in which it is installed. All the batteries specified above are acceptable replacement batteries for this unit. Regardless of the manufacturer's suggested battery life, **you MUST replace the battery immediately once the unit starts "chirping" (the "low battery warning").**

To replace the batteries:

1. Use screwdriver to twist out the tamperproof tabs on both sides of the alarm。

2. Turn smoke alarm counterclockwise to detach it from the mounting plate.

3. Open the battery cover and remove the battery from the compartment.

4. Press and hold Test/Hush bottom for 10s and then release it.

5. Insert a new 9-volt battery to compartment. **NOTE POLARITY OF CONNECTIONS.** Ensure the metal tab is fully depressed when the battery has been fitted.

6. Close the battery cover.

7. Using Test button, test the alarm to verify 9V DC battery. See "**TESTING THE SMOKE ALARM**" for details

8. Reattach the alarm to the mounting plate by turning alarm clockwise until it snaps into place. Insert the tamperproof tabs back into the notch on edge of alarm after alarm is properly positioned in base

9. Test the alarm using "Test" button. See "**TESTING THE SMOKE ALARM**" for details.

IF YOUR SMOKE ALARM SOUNDS

RESPONDING TO AN ALARM

⚠WARNING!

· **If the unit alarms and you are not testing the unit, it is warning you of a potentially dangerous situation that requires your immediate attention. NEVER ignore any alarm. Ignoring the alarm may result in injury or death.**

· **Never remove the batteries from a battery operated Alarm to stop an unwanted alarm (caused by cooking smoke, etc.). Removing batteries disables the alarm so it cannot sense smoke, and removes your protection. Instead open a window or fan the smoke away from the unit. The alarm will reset automatically.**

· **If the unit alarms get everyone out of the house immediately.**

WHAT TO DO IN CASE OF FIRE

● Don't panic; stay calm. Follow your family escape plan.

● Get out of the house as quickly as possible. Don't stop to get dressed or collect anything.

● Feel doors with the back of your hand before opening them. If a door is cool, open it slowly. Don't open a hot door. Keep doors and windows closed, unless you must escape through them.

- Cover your nose and mouth with a cloth (preferably damp). Take short, shallow breaths.

- Meet at your planned meeting place outside your home, and do a head count to make sure everybody got out safely.

- Call the Fire Department as soon as possible from outside. Give your address, then your name.

- Never go back inside a burning building for any reason.

- Contact your Fire Department for ideas on making your home safer.

⚠WARNING!
Alarms have various limitations. See " IMPORTANT SAFETY INFORMATION " for details.

TROUBLE SHOOTING GUIDE

Problem	Possible cause	Solution
Not all of the alarms/accessories produce an alarm signal when one device is tested.	Devices may not all be on the same ID.	Locate the 5-position dipswitch on the back of each unit and ensure that all of the corresponding switches are set the same. If an ID needs to be changed: Remove power，Press and hold the button for a minimum of 10 seconds, change the ID and reapply power.
	Devices may not have power.	Check that battery is properly attached to connector.
	There may be too much interference between units.	Move the other units to a new location and try again. You should try to locate the wireless units as closely to each other as possible.
Smoke alarm beeps about once a minute.	Low-battery	Replace battery. See " **REGULAR MAINTENANCE** " for details.
Units signal an alarm when no fire is present and none of the test buttons have been pushed.	Unit is set to the same ID as a system nearby.	Change the ID of your units by following the instructions in **HOW TO SET THE WIRELESS INTERCONNECTION FUNCTION**. Make sure to turn power off to all units before changing the switch positions.
	Wireless Interference.	Move the other units to a new location.
Smoke alarm sound unwanted alarms intermittently or when residents are cooking, taking showers, etc.	Unit is covered by too much dirt	Clean smoke alarm. See " **REGULAR MAINTENANCE** " for details.
	Incorrect orientation	Move smoke alarm to a new location. See " **SMOKE ALARM PLACEMENT** " for details.

For your records, please record:

Date Purchased: _____

Where Purchased: _____

Data Installed: _____

Replacement data is 5 years after installation: _____

NOTE: End of Life Signal — Once the unit reaches the end of its lifecycle, the **MALFUNCTION SIGNAL** will sound once a minute to indicate the need to immediately replace the Alarm.

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