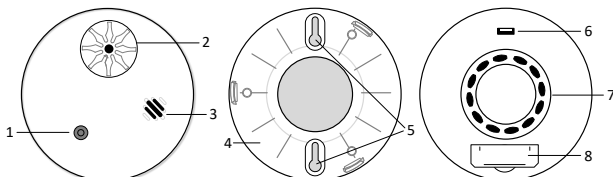


DSH

Installation Instructions

English



1	Test/Silence Button + LED
2	Ventilation Slots
3	Alarm Sounder
4	Mounting Bracket
5	Mounting Keyholes
6	Tamper Switch
7	Smoke Chamber
8	Battery Compartment

DSH Wireless Smoke/Heat Detector

The DSH is a FastLink technology indoor wireless smoke/heat combo detector, designed for PIMA's intruder alarm systems. The FastLink communication is encrypted using true, 128-bit AES encryption for a high level of security. Using the DSH requires the installation of a wireless receiver.

The photoelectric smoke detector is designed to detect any buildup of smoke, in homes and offices, sound an alarm, and wirelessly alerts the control panel. It continuously monitors the surrounding air and gives early warning before potentially dangerous levels exist. The heat sensor is designed to give early warning of developing fire, and to provide precious time to escape before a fire spreads.

The DSH is based on Everday's MD368SHB1 detector. For enrollment information, see the alarm system's Installation guide.

Warnings and cautions

1. ***This combination Smoke/Heat detector has two separate alarms. The Smoke Alarm is designed to detect the presence of smoke at the sensor. Smoke may be present in other areas, but the smoke alarm will only indicate the presence of smoke that reaches the sensor. The Heat Alarm is designed to detect a rise in the immediate ambient temperature.***
2. ***This combination Smoke/Heat detector is designed for use in single residential units only, which means it should be used inside a single family home or apartment. In apartment buildings, each unit should install its own smoke detector.***
3. ***This combination Smoke/Heat detector is not meant to be used in non-residential buildings. Warehouses, industrial or commercial buildings, and special purpose non-residential buildings require special fire detection and alarm systems. This Smoke detector alone is not a suitable substitute for complete fire detection systems for places where many people live or work, such as hotels or motels. This also applies to dormitories, hospitals, nursing homes or group homes of any kind, even if they were once single family homes.***
4. ***This combination Smoke/Heat detector will not alert people who are hard of hearing. It is strongly recommended that the special-purpose Smoke detectors, using lights or vibrating devices, should be installed to alert occupants who are hard of hearing.***
5. ***This combination Smoke/Heat detector is based on wireless (RF) transmissions. Any wireless transmission can be subject to RF interference and, although unlikely, this interference may cause the detector to not operate as intended. RF transmissions will be attenuated by tinted glass, in wall isolation with metal foils, metal objects, etc.***



Smoke detectors limitations

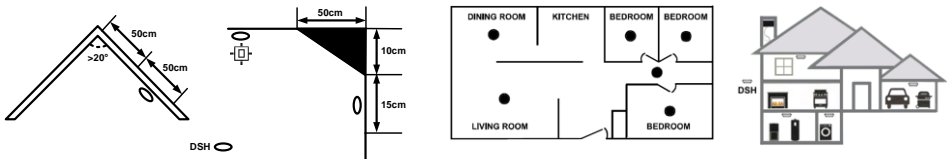
- Smoke detectors will not sense a fire if the smoke does not reach the sensor.
- In order for a smoke detector to sense smoke, it must be installed in the immediate vicinity of the fire. In addition, smoke from fires in chimneys, in walls, on roofs, in remote parts of the building, or on another level from where the smoke detector is located, may not reach the smoke detector quickly enough for occupants to escape unharmed. For this reason, a smoke detector must be installed on every level, in every sleeping area, and in every bedroom of the household.
- Smoke detectors may not be heard. If the smoke detector is not located in the same room as the occupant, or if it is blocked by a closed door or normal noise, the alarm horn may not be heard. In addition, sound sleepers, or persons who are under the influence of drugs or alcohol may not hear the alarm or be able to react to it. Therefore, locate this smoke detector, which has a sounder rated 85dB at three meters, on every level, in every sleeping area, and in every bedroom of the household.
- Any detector may not always warn you about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson.
- Smoke detectors are not fool-proof. Like all electronic devices, smoke detectors have limitations. No type of smoke detector can sense every kind of fire every time. In addition, smoke from slow, smoldering fires rises slowly and may not reach the smoke detector until actual flame breaks out. This type of smoke may not reach the smoke detector in time for occupants to escape unharmed.
- Smoke detectors are not a substitute for life or property insurance. Though smoke detectors have been responsible for saving many lives, they are not warranted or implied to protect lives or property in the event of a fire.

Where to install the DSH

Warning



It is recommended to install smoke detectors in accordance with the NFPA (National Fire Protection Association, USA) standard 72, chapter 5. For complete coverage in residential units, smoke detectors should be installed in all rooms, halls, storage areas, basements, and attics in each family living unit. Minimum coverage is one detector on each floor and one in each sleeping area.



Placement of the DSH will affect how well the device performs and how well residents hear the alarm siren. Install a detector in every room where someone sleeps with the door closed. A closed door may prevent a detector not located in that room from waking the occupant. For bedrooms, hallways, or large rooms greater than 12m in length, install detectors at both ends of the room or hallway.

Where not to install the DSH

- In or near areas where combustion particles are normally present such as kitchens and garages; near furnaces, hot water heaters, or gas space heaters. Install detectors at least six meters away from areas where combustion particles are normally present.
- On the ceiling in rooms next to kitchens where there is no transom between the kitchen and these rooms.
- Do not to install smoke detectors within 50cm of any corner, and more than 15cm from the ceiling.
- In damp or very humid areas, or next to bathrooms with showers. The moisture in humid air can enter the sensing chamber as water vapor, then cool and condense into droplets that cause a nuisance alarm. Install detectors at least 1.5 meters away from bathrooms.
- In very cold or very hot rooms or areas. Operating temperature of the smoke detector is 0° to 50° Celsius.
- In dusty, dirty, or insect-infested areas. Dust and dirt can build up on the detector's sensing chamber and make it overly sensitive, or can block openings to the sensing chamber and keep the detector from sensing smoke.
- Near fresh air inlets or returns or excessively drafty areas. Air conditioners, heaters, fans, and fresh air intakes and returns can drive smoke away from smoke detectors, making the detectors less effective.
- In dead air spaces at the top of a peaked ceiling or wall/ceiling intersect. Dead air may prevent smoke from reaching a detector.
- Near fluorescent light fixtures. Install detectors at least 30cm away from such light fixtures.

Technical specifications

- Frequencies (MHz):
 - DSH143: 433.92
 - DSH187: 868.95
- Battery: 1X 3VDC, Panasonic CR123A/ Duracell DL123A (or any compatible battery), Lithium.
- Battery Life: Up to one Year
- Standby Current: 25uA
- Alarm Current: 60mA (max.)
- Sizes: 12 X 5.75cm
- Weight: 200gr
- Sound Level: 85dB/3M Smoke
- Sensitivity Range:
 - EN14604: 0.105dB/m~0.165dB/m
 - UL217/268: 1.8%/ft~3.5%/ft
- Heat Temperature Range:
 - EN54-5: 1°C/min in 29 (lower limit) / 46 (upper limit)
 - UL539: 53.3°C (min) / 73.9°C (max)
- CE Compliance
- Temperature: -10 to +50 °C
- Humidity (Max.): Up to 90% R.H., Non-condensing.

Content of the product package

- DSH detector
- Battery
- Screws, wall plugs
- This guide

How to replace the battery

The battery compartment is located at the back of the DSH detector. To get to it, remove the bracket, by rotating it counterclockwise.

1. Open the battery compartment and place the battery; observe polarity!
2. Press the silence/test button (no. 1 in the figure on the first page) to test the alarm.

How to install the DSH

Mount the smoke/heat detector on the ceiling or on the wall if necessary.



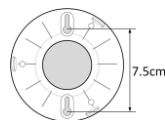
Warning

Do not connect the DSH to any other detector or auxiliary device. Connecting anything else to this detector will keep it from working properly.

1. Remove the mounting bracket by turning it counterclockwise.
2. Mount the bracket on the ceiling or wall using the supplied screws and wall plugs.
3. Open the battery cover and place the supplied battery; observe polarity!. The horn will chirp and the green LED will blink one time. After that, the red LED will start double blinking for three minutes (warm-up time).



The DSH's battery compartment has a cover latch that prevents it from closing, if a battery is not installed.



4. Close the battery cover and press the test button (no. 1 in the figure on the first page). The horn will emit a loud, pulsating alarm.
5. Attach the detector to the mounted bracket and rotate it clockwise until clicked into place.
6. Enroll the detector (see the alarm system's installation guide for details) and test it.

Modes

Standby

While in standby mode, the green LED blinks one time every 48 seconds.

Test

While in standby mode, when pressing the test button (no. 1 in the figure on the first page) the red LED blinks every one second and the horn emits three chirps.

Alarm

When the alarm is set off, the horn emits three chirps, and the red LED blinks every four seconds, as follows:

Alarm	Chirps	Red LED
Heat	3	1 blink
Smoke	3	3 blinks
Smoke and Heat	3	4 blinks
Tamper	2	2 blinks

Warning



The DSH detector sounds the alarm when it senses smoke or combustion particles in the air. If malfunction alerts are sounded, it requires your immediate attention.

Nuisance alarms can be caused by cooking smoke and dusty furnace, for example. If this happens, open a window or fan the air to remove the smoke or dust. The alarm will turn off as soon as the air is completely clear.

Silence

You can mute a sounding alarm for eight minutes, by pressing the test/silence button (no. 1 in the figure on the first page). If the smoke concentration around the detector is still at alarming level when this time expires, the detector will sound the alarm immediately.

Pressing the test/silence button during silence time will retrigger the alarm.

Hush

You can mute a malfunction warning for one hour, by pressing the test/silence button (no. 1 in the figure on the first page). In hush warning press test button, the smoke detector back audible warning.

Pressing the test/silence button during hush time will retrigger the warning.

Operation Modes

- **Warm-up:** the first three minutes after the unit is powered up, and before the detector becomes operable.
- **Standby:** the normal operation mode, during which the surrounding air is sampled every 10 seconds, and the detector is self-tested every 160 seconds. The green LED will blink if no trouble exists.

Silencing modes

- **Silence:** pressing the Test/Silence button when the detector is alarming, silence it for eight minutes. If the gas concentration remains high or is becoming high again during the silence time, the detector will sound the alarm again.
- **Hush:** pressing the Test/Silence button when the detector is in trouble situation, silence it for one hour (unless gas concentration raises).

The LEDs

When placing the battery, the green LED starts blinking. When the three-minute warm-up time expires, the detector starts the process of continually sampling the air around it. The LEDs illuminate as follows:

Color and State	Description
Green blinking	Warm up time; see <i>Operation Modes</i> below.
Green solid	The detector is ready for operation
Yellow blinking	Trouble event; see <i>Malfunction signals</i> below.
Red blinking	Alarm event; see the <i>Alarm</i> section above

Tamper switch

If the detector is not mounted into the bracket properly, the tamper is triggered - the yellow LED blinks two times with the horn sounding two chirps every four seconds.

Malfunction signals and troubleshooting



WARNING

Do not attempt to open the detector for any reason! Do not try to repair the detector yourself. No serviceable parts included.

If the DSH detector is malfunctioning, the yellow LED is blinking every 48 seconds together with a chirp sound. Call service!

The malfunction warnings are listed below.

Warning	Signal (every 48 seconds)	Troubleshooting
Smoke Trouble	3 chirps + yellow LED 1 blink	The smoke sensor is at fault and may need to be replaced!
Heat Trouble	3 chirps + yellow LED 2 blinks	The heat sensor is at fault and may need to be replaced!
Smoke and Heat Trouble	3 chirps + yellow LED 3 blinks	See the options above
Smoke Low Sensitivity	2 chirps + yellow LED 1 blink	The smoke sensor's sensitivity is degraded because the smoke chamber is not clean. The main cause of this is dust; see <i>Regular Maintenance</i> below.
Smoke High Sensitivity ("Clean Me")	2 chirps + yellow LED 2 blinks	The smoke sensor needs immediate cleaning; see <i>Regular Maintenance</i> below.
Low Battery	1 chirp + yellow LED 1 blink	Replace the battery; see below.

Low battery warning

When a low battery condition is detected, the horn begins to chirp one time every 48 seconds with the yellow LED blinking one time. Low battery condition is detected when the battery voltage drops below 2.6V. After that, the battery can last for up to seven days, but should be replaced immediately. After replacing the battery (refer to *How to replace the battery* above), press the test/silence button to check the alarm.



Warning

The DSH is powered by a 3.0V, CR123A Lithium battery. Do not use any other type, or the detector may not operate properly.

How to test the DSH

Test the smoke detector weekly, by pressing the silence/test button - the horn emits three chirps with the red LED blinking four times. If the yellow LED is blinking, the detector is not working properly; see *Malfunctioning alerts* above.



Warning

Never use an open or any other flame to test the DSH detector. You may set fire to damage the detector, as well as your premises.

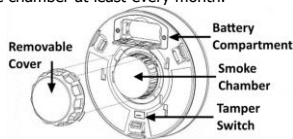
Taking care of your smoke detector

The DSH detector is designed to be maintenance-free as possible. To keep it in a good working condition, test the detector weekly, as described in *How to test the DSH* above.

Regular Maintenance

Over time, the smoke sensor's chamber is getting filled with dust and small particles that degrade its sensitivity and may cause nuisance alarms. To keep the smoke detector operational and reduce nuisance alarms, clean the smoke chamber at least every month.

1. Remove the battery.
2. Open the chamber's cover: press it where there is a small notch on the side and remove it.
3. Vacuum the dust off the sensor, or use a soft brush. Inspect the chamber and make sure no particle is left on its metal net.
4. Replace the chamber's cover; observe its direction.
5. Replace the battery and test the detector.



If the DSH gives nuisance (false) alarms, in addition to dirt, high humidity, insects, strong chemical odors, and power issues can also cause nuisance alarms. If nuisance alarms continue, you might consider to relocate the detector (refer to Where to install the DSH above).

What to do in case of fire

1. DON'T PANIC. Your safe escape may depend on clear thinking.
2. If it does not hold you back, call the local fire department.
3. Get out of the premises as quickly as possible. If a door in the escape route is hot and there is an alternate escape route, follow it.
4. In case of heavy smoke, stay close to the floor - smoke and hot gases rise. Breathe through a cloth (wet, if possible) and take short shallow breaths.

Limitations of smoke detectors

Although smoke detectors play a key role in reducing damage resulting from home fires, they can only work if they are properly installed, located and maintained.

- **Smoke detectors may not be heard if residents are hearing impaired.** Special designed units such as those with visual and audible alarms should be installed for hearing impaired residents.
- **Smoke detectors may not waken sound sleepers.** If children or others do not waken readily to the sound of the smoke detector, or if there are infants or others with mobility limitations, make sure someone is assigned to assist them in the event of emergency.

Lithium battery safety



Constant exposure to high or low humidity or temperatures may reduce battery life.

CAUTION

The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C or dispose of in fire.



BATTERY REMOVAL AND HANDLING SAFETY WARNING

While the battery can normally be safely removed by hand, care should be used to ensure that the battery terminals are not shorted, nor the battery damaged, during the removal process. Dispose of depleted batteries by complying with applicable national and local regulations. In the event of the battery being damaged, use personal protective equipment to remove it immediately, and dispose of it in a safe manner (refer to the battery manufacturer's specifications for such situations).