Wireless Smoke Detector

Partcode: SMOKE-WB / SMOKE-WD / SMOKE-WE

PYRONIX
HIKVISION

Features

- Photoelectric Smoke Alarm
- Removable smoke chamber for easy maintenance
- Automatic calibration and self test
- Fully supervised for low battery and malfunction
- Manual test button helps to verify battery status and alarm operation
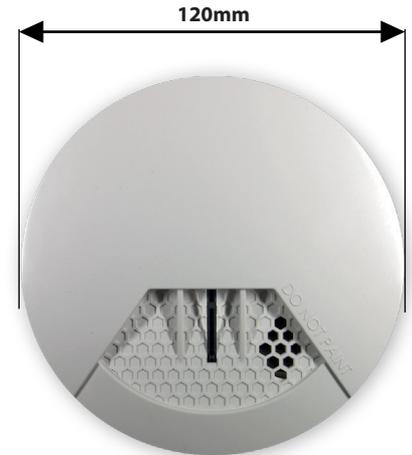- Built-in 85dB local sounder and flashing red LED light will indicate presence of smoke

Dimensions

120mm

Width: 120mm
Height: 120mm
Depth: 50mm

CE 0786

For electrical products sold within the European Community. At the end of the electrical products useful life, it should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice in your country.
When disposing of the product and accessories, the batteries must be removed and disposed of separately in accordance with the local regulations.

Introduction

The Enforcer wireless photoelectric smoke alarm is designed to sense smoke that comes into the alarm chamber. It does not sense gas, heat, or flame. This smoke alarm is designed to give early warning of developing fires by giving off the alarm sounds from its built-in alarm piezo. It can provide precious time for you and your family to escape before a fire spreads. However, the smoke alarm makes such pre-warning of fire accident possible, only if the smoke alarm is located, installed, and maintained properly as described in this manual.

WARNING: This alarm 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 alarm alone is not a suitable substitute for complete fire detection systems for places where many people live or work, such as hotels or motels. The same is true of dormitories, hospitals, nursing homes or group homes of any kind, even if they were once single family homes. Please refer NFPA 101, the Life Safety Code, NFPA71, 72A, 72B, 72C, 72D, and 72E for smoke alarm requirements for fire protection in buildings not defined as "households".

WARNING: This smoke alarm will not alert people who are hard of hearing. It is strongly recommended that the special-purpose smoke alarms, using lights or vibrating devices, should be installed to alert occupants who are hard of hearing.

Frequency Band (MHz)	Wireless Frequency indicator
433.050 - 434.790	W**B**
866.000 - 866.600	W**D**
868.000 - 868.600	W**E**

Learning the device onto the control panel

When you are ready to learn the device to the control panel receiving equipment, and when the equipment is in the learn mode follow the procedure below.
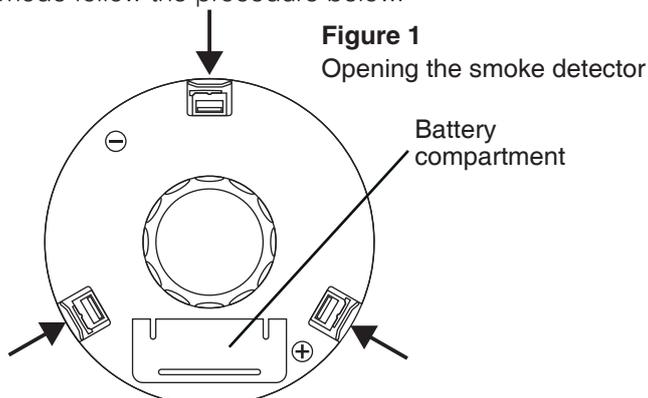

Figure 1
Opening the smoke detector

Battery compartment

1. Unclip the base of the smoke detector at the three points shown on Figure 1.
Note: Open the device very carefully so as not to damage any wiring.
2. Make sure the battery is installed correctly and the plastic wrapping removed.
3. Press and hold the Learn button until the LED flashes red and green, - then release.
4. The device is correctly learnt when the Green LED flashes.
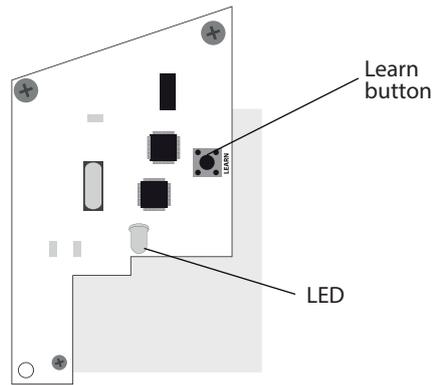
Wireless signal strength test

Figure 2
Printed Circuit Board

Learn button

LED

The LED gives a visual indication of the wireless signal strength:
• Green indicates good signal strength and is a good location to install.
• Red indicates poor signal strength and the device should not be installed in that position.
• If no LED illuminates then the device is completely out of range.

Locations to install your smoke alarm

Smoke alarms should be installed in accordance with the NFPA Standard 72 (National Fire Protection Association). For complete coverage in residential units, smoke alarms should be installed in all rooms, halls, storage areas, basements, and attics in each family living unit. Minimum coverage is one alarm on each floor and one in each sleeping area.
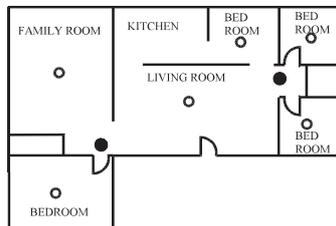
Figure 3
Locations for placing smoke alarms for single residence with only one sleeping area
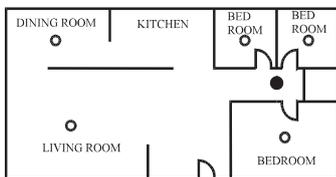
□ Smoke alarms for minimum security
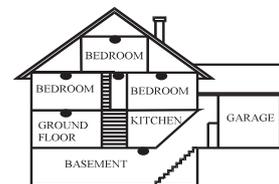■ Smoke alarms for more security

Figure 4
Locations for placing smoke alarms for single-floor residence with more than one sleeping area

□ Smoke alarms for minimum security
■ Smoke alarms for more security

Figure 5
Locations for placing smoke alarms for multi-floor residence

● Smoke alarms for minimum security

Some useful tips:
• Install a smoke alarm in the hallway outside every separate bedroom area, as shown in Figure 3. Two alarms are required in homes with two bedroom areas, as shown in Figure 4.
• Install a smoke alarm on every floor of a multi-floor home or apartment, as shown in Figure 5.
• Install a minimum of two alarms in any household.
• Install a smoke alarm inside every bedroom.
• Install smoke alarms at both ends of a bedroom hallway if the hallway is more than 12 metres long.
• Install a smoke alarm inside every room where one sleeps with the door partly or completely closed, since smoke could be blocked by the closed door and a hallway alarm may not wake
    up the sleeper if the door is closed.
• Install basement alarms at the bottom of the basement stairwell.
• Install second-floor alarms at the top of the first-to-second floor stairwell.

Be sure no door or other obstruction blocks the path of smoke to the alarm.
• Install additional alarms in your living room, dining room, family room, attic, utility and storage rooms.

- Install smoke alarms as close to the centre of the ceiling as possible. If this is not practical, put the alarm on the ceiling, no closer than 50 cm from any wall or corner, as shown in Figure 6.
- If ceiling mounting is not possible, put wall-mounted alarms between 10 - 15 cm from the ceiling, also see Figure 6.
- If some of your rooms have sloped, peaked, or gabled ceilings, try to mount alarms 0.9m measured horizontally from the highest point of the ceiling as shown in Figure 7.

Figure 6
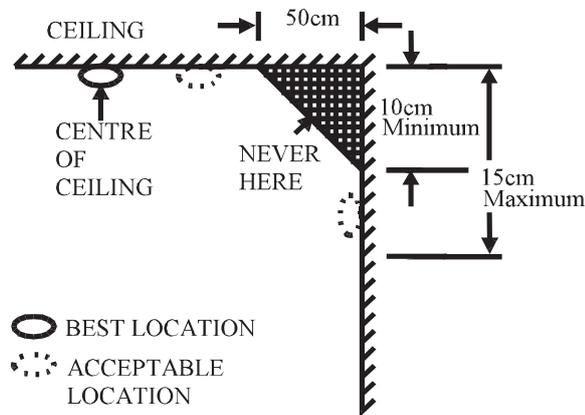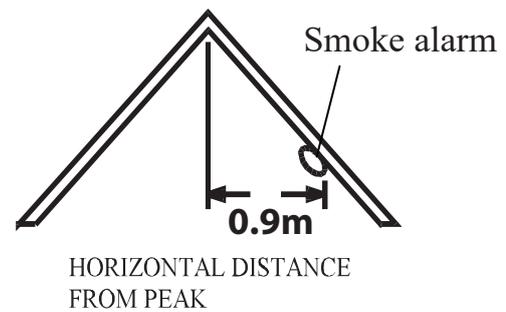Recommended best and acceptable locations to mount smoke alarms

Figure 7
Recommended location to mount smoke alarms in rooms with sloped, gabled, or peaked ceiling

Locations not to install your smoke alarms

Nuisance alarms take place when smoke alarms are installed where they will not work properly. To avoid nuisance alarms, do not install smoke alarms in the following situations:

- Combustion particles are the by-products of something that is burning. Thus, in or near areas where combustion particles are present you do not install the smoke alarms to avoid nuisance alarms, such as kitchens with few windows or poor ventilation, garages where there may be vehicle exhaust fumes.
- Do not install smoke alarms less than 6 metres away from places where combustion particles are normally present, like kitchens. If a 6 metre distance is not possible, e.g. in a mobile home, try to install the alarm as far away from the combustion particles as possible, preferably on the wall. To prevent nuisance alarm alarms, provide good ventilation in such places.
- In air streams passing by kitchens. The way a smoke alarm senses combustion particles in normal air-flow paths is shown in Figure 8, indicating the correct and incorrect smoke alarm locations concerning this problem.
- In damp or very humid areas, or near bathrooms with showers. Moisture in humid air can enter the sensing chamber, then turn into droplets upon cooling, which can cause nuisance alarms. Install smoke alarms at least 3 metres away from bathrooms.
- In very cold or very hot areas, including unheated buildings or outdoor rooms. If the temperature goes above or below the operating range of the smoke alarm, it will not work properly. The temperature range for your smoke alarm is 0°C~49°C
- In very dusty or dirty areas, dirt and dust can build up on the alarm's sensing chamber, to make it overly sensitive. Additionally, dust or dirt can block openings to the sensing chamber and keep the alarm from sensing smoke.
- Near fresh air vents or very drafty areas like air conditioners, heaters or fans, fresh air vents and drafts can drive smoke away from smoke alarms.
- Dead air spaces are often at the top of a peaked roof, or in the corners between ceilings and walls. Dead air may prevent smoke from reaching an alarm . See Figures 6 and 7 for recommended mounting locations.
- In insect-infested areas. If insects enter an alarm's sensing chamber, they may cause a nuisance alarm. Where bugs are a problem, get rid of them before putting up an alarm.
- Near fluorescent lights, electrical "noise" from fluorescent lights may cause nuisance alarms. Install smoke alarms at least 1.5 metres from such lights.
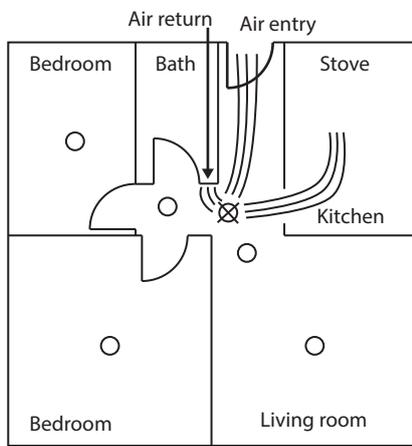
Figure 8
Recommended smoke alarm locations to avoid air streams with combustion particles

○   Correct location
⊗   Incorrect location

IMPORTANT: Do not disable the unit to avoid nuisance alarms.

WARNING: Never remove battery from smoke alarm to stop a nuisance alarm. Open a window or fan the air around the smoke alarm to get rid of the smoke. The alarm will turn itself off when the smoke is gone. If nuisance alarms persist, attempt to clean the smoke alarm as described in this manual.

WARNING: Do not stand close to the smoke alarm when the alarm is sounding. The alarm is loud in order to wake you in an emergency. Too much exposure to the piezo at close range may be harmful to your hearing.

Installing your smoke alarm

The Enforcer smoke alarm is made to be mounted on the ceiling or on the wall if necessary.

Read "LOCATIONS TO INSTALL YOUR SMOKE ALARMS" and "LOCATIONS NOT TO INSTALL YOUR SMOKE ALARMS" section in this manual first, then decide where to install an alarm. Please follow these steps to install your smoke alarm:
1. At the place where you are going to install your smoke alarm, draw a horizontal line 15cm long.
2. Remove the mounting bracket from your unit by rotating it anticlockwise.
3. Place the bracket so that the two longest hole slots are aligned on the line. In each of keyhole slots, draw a mark to locate a mounting plug and screw.
4. Remove the bracket.
5. Using a 5mm (3/16-inch) drill bit, drill two holes at the marks and insert plastic wall plugs. Place the smoke alarm away from dust when drilling holes for mounting.
6. Using the two screws and plastic wall plugs (all supplied), attach the bracket to the wall.
7. Line up the slot of the bracket and the smoke alarm. Push the alarm onto the mounting bracket on turn it clockwise to fix it into place. Make sure the smoke alarm is securely attached to the mounting bracket.
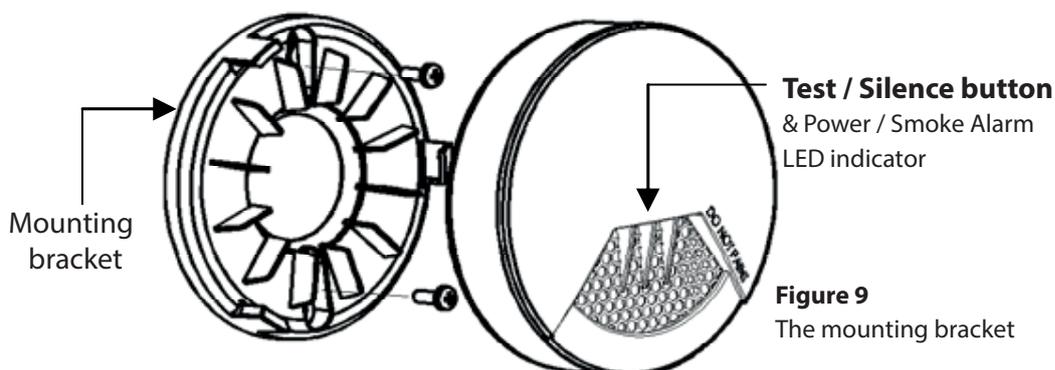

Test / Silence button
& Power / Smoke Alarm
LED indicator

Mounting bracket

Figure 9
The mounting bracket

CAUTION: This smoke alarm comes with cover latches that will prevent the smoke alarm cover from closing if battery is not installed. This tells you that the smoke alarm will not work until a new battery is properly installed.

NOTE: When the alarm is first installed into the bracket, the piezo sounder should sound a loud, pulsating alarm once within 2 to 4 seconds.
This means the smoke alarm is working normally and also indicates that the battery is positioned correctly.

Product specification

Approved Batteries:	1: (Duracell) DL123A (minimum lifetime: 1 year under normal operation)
	2: (Panasonic) CR123A (minimum lifetime: 1 year under normal operation)
Sensitivity:	Meet with EN14604 standard 1.8%~3.1%
Warning sound pattern:	Temporal three
Alarm Audibility:	85dB/3m
LED indication	Red alarm
Operation Temperature:	0°C~49°C
Relative Humidity :	10~85%
Size:	120mm diameter x 50mm depth
Transmission frequency:	FM Transceiver narrow band
Transmission method:	Fully encrypted rolling code
Transmission range:	300m free space
Indication:	2 LED indication (RSSI, battery status)

Standby mode

The red LED alarm indicator can be seen through the clear test button on the cover of the unit. When the red LED flashes once every 334 seconds, it indicates that the smoke alarm is operating normally. When the smoke alarm senses smoke and simultaneously sounds an alarm with 3 beeps, pause and 3 beeps. The red LED will flash continuously and rapidly.

Low battery warning signal

If the alarm piezo begins to chirp once in every 43 seconds with the yellow LED flashing, this means that the smoke alarm's battery is weak. This low battery warning signal will be transmitted to the Enforcer control panel. You should replace the battery immediately to secure your protection.

NOTE: Use only the replacement battery listed below:
1: (Duracell) DL123A,   2: (Panasonic) CR123A
WARNING: Do not use any other kind of battery. This smoke alarm may not operate properly with another kind of battery. After the new battery is installed, test the smoke alarm using the test button.

Error / Fault indication

If the yellow LED flashes 3 times and the buzzer 'beeps' 3 times every 43 seconds - it indicates that there is a malfunction with the smoke detector and it should be replaced immediately.

Tamper switch feature

If the smoke alarm is not mounted into the bracket properly within 3 minutes of the battery being installed, the tamper function is triggered and the yellow LED illuminates and stays lit. The control panel will also indicate a tamper fault and the piezo sounder should sound a loud pulsating alarm. Please note that the tamper alarm is the same as the smoke alarm (i.e. 'temporal three') - mount it correctly onto the bracket immediately to end the alarm.

Testing your smoke alarm

Test the alarm weekly by pushing firmly on the test button with your finger for around 4 seconds until the piezo sounds, the sound pattern is 3 beeps, pause, and then 3 beeps with red LED flashing continuously and rapidly. See Figure 9, Page 5.

IMPORTANT: The smoke alarm will transmit the alarm signal to the control panel, enter your code or present your tag to silence the alarm.

If the smoke alarm beeps three times with yellow LED flashing three times in 43 seconds, it indicates the smoke alarm is not working properly , it needs to be repaired or serviced. This is the only way to make sure that the smoke alarm unit is working properly. If the unit fails to test properly, have it repaired or replaced immediately. If you suspect that your smoke alarm does not go into alarm, test it by pressing the test button with your finger to ensure it works properly.

WARNING: Never use an open flame of any kind to test your alarm. You may set fire to and damage the alarm, as well as your home. The built-in test switch accurately tests all functions, and is the only correct way to test the unit.

WARNING: When you are not testing the unit and the alarm piezo sounds this means the smoke alarm has sensed smoke or combustion particles in the air. Be sure that the alarm piezo is a warning of a possible serious situation, which requires your immediate attention.

• The alarm could be caused by a nuisance situation. Cooking smoke, sometimes called "friendly fire" can cause the alarm to sound. 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. To silence the alarm at the Enforcer control panel, enter your code or present your tag.

NOTE: Do not disconnect the power or remove the battery from the smoke alarm. This will leave you unprotected.

Temporary Mute Feature

The mute feature can temporarily silence an alarm for upto 10 minutes. To use this feature, press the 'test/silence' button when the detector is in alarm. After 10 minutes of silence the unit will go back into alarm immediately -if sufficient smoke density is still detected. This feature is intended to be used for clearing smoke from harmless burnt cooking incidents etc. - Please be very cautious of using this feature, and do not use it in the event of a real fire hazard.

Battery installation

1. Open battery compartment (see figure 10)
2. Install battery into compartment and make sure the "+" and "-" ends of each battery are aligned properly.
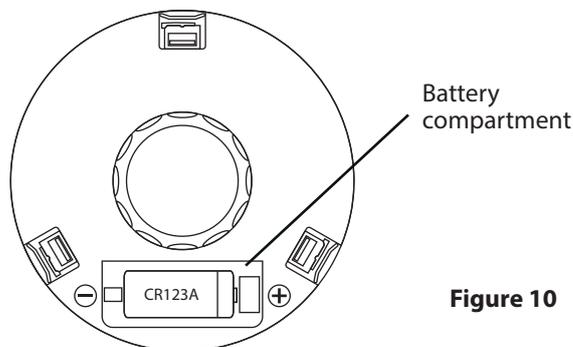

Battery compartment

CR123A

**Figure 10**

Taking care of your smoke alarm

Your smoke alarm is designed to be as maintenance free as possible. To keep your smoke alarm in good working condition, you must test the unit weekly, as referring to section "TESTING YOUR SMOKE ALARM".

Regular Maintenance:
• Open the cover and vacuum the dust off the alarm's sensing chamber at least once a month.

Remove battery before cleaning. To clean smoke alarm, use the soft brush attachment on your vacuum. Carefully remove any dust on smoke alarm components, especially on the openings of the sensing chamber. Replace battery after cleaning. Test the smoke alarm to make sure battery is working correctly. Never use liquid cleaners as they may damage the unit.

Figure 11

Removable cover
of smoke chamber

Battery compartment

Tamper Switch
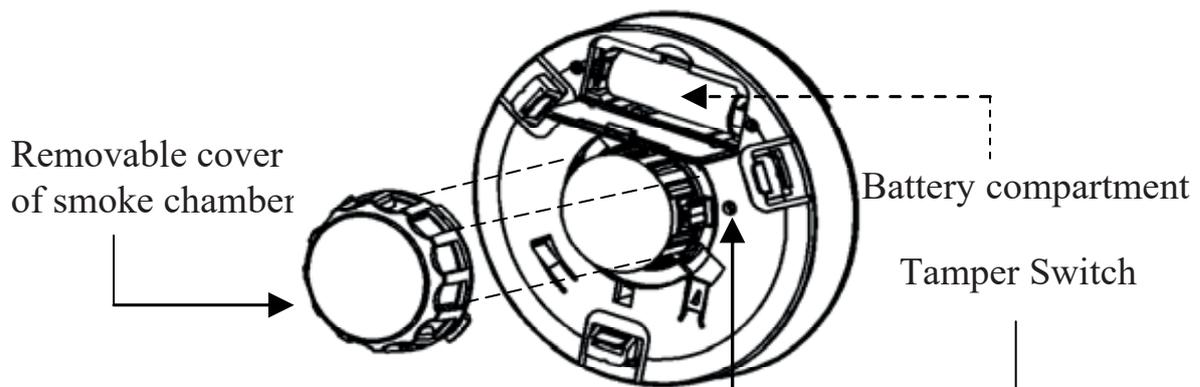
NOTE: If nuisance alarms keep coming from the unit , you should check whether the smoke alarm unit's location is adequate. Refer to section "WHERE TO INSTALL SMOKE ALARMS ".   Move your smoke alarm if it is not located properly. Clean the unit as described above.

Limitations of smoke alarms

Although smoke alarms play a key role in reducing damage resulting from home fires, they can only work if they are properly installed, located and maintained.
• Smoke alarm 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 alarm may not awaken all individuals if they are sound sleepers.
   If children or other family members do not waken readily to the sound of the smoke alarm ,
or if there are infants or members with mobility limitations, make sure someone is assigned
to assist them in fire drill and in the event of an emergency

Customer Support:
Technical support line (UK only): +44(0)333 444 1280 (local rate)
Hours: Mon to Fri, 8:00am till 6:30pm
Email: customer.support@pyronix.com
Website: www.pyronix.com

CE
0786

EU Declaration of Conformity
(in accordance with 93/68/EEC)

We, Pyronix Ltd., located at the above address declare under our sole responsibility that the products, to which this declaration relates, meet the essential requirements and are in conformity with the relevant EU requirements.

Certificate number: PYR029 Issue 5

We accept all the responsibilities for the products mentioned below.

The Products Covered by this Declaration:

Model Number	Product Name
SMOKE-WE	Wireless smoke detector

Mentioned model numbers above are under the coverage of these directives.

The EU Directives covered by this Declaration:
2014/53/EU - Radio Equipment Directive (RED)
2011/65/EU & 2015/863 - EU RoHS restriction of the use of certain hazardous substances in electrical and electronic equipment
305/2011 - Construction Products Regulations (CPR) – see declaration of performance on the next pages as required by this Directive

The Basis on which Conformity is being declared:

The products identified above comply with the requirements of the above EU Directives by meeting the below standards though design and manufacturing processes.

We hereby declare that these standards are valid for the products mentioned above.
EN 14604: 2005 + AC: 2008 Smoke alarm devices

Article 3.1a – Safety:
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2012 Information technology equipment. Safety. General requirements – risk assessment

Article 3.1b – Electromagnetic Compatibility:
EN 61000-6-3: 2007 + A1: 2011 EMC. Generic emission standard. Residential, commercial and light industry.
ETSI EN 301 489 -3 V1.6.1 Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz
EN 50130-4:2011 + A1: 2014 Immunity requirements for components of fire, intruder and social alarm systems.

Article 3.2 – Radio Spectrum:
EN 50131-5-3: 2005 + A1: 2008 Alarm systems – Intrusion and hold-up systems – Part 5-3: Requirements for interconnections equipment using radio frequency techniques
ETSI EN 300 220-2 V3.1.1 (2017_02) Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU for non specific radio equipment

The technical documentation supporting this declaration is available at the above address for inspection by the relevant enforcement authorities.

The CE mark was first applied in *2013*.

The products described above comply with the essential requirements of the directives specified.

Name	**Steven Fazey**	Signed	*Steven Fazey*
Authority	*Compliance Engineer*	Date	**17th October 2019**

ATTENTION!
I hereby declare that the aforementioned products have been designed to comply with the relevant sections of the above referenced specifications. Pyronix Limited can only guarantee compliant operation when installed and operated according to the installation and user manuals that accompany the product(s).

List of essential characteristics of construction product according to EN14604
According to Construction Products Regulation EU 305/ 2011

European harmonized standard:	**EN 14604:2005+AC:2008** Smoke alarm devices
Name of construction product:	SMOKE-WE
Declared intended use of product **in accordance with harmonised standard*:**	Photo electric type smoke detector for use in and installed in and around buildings (private residential premises only) suitable for BS 5839 part 6 grade F2 (suitable for installation in existing single-family dwellings of no more than two storeys with a user replaceable battery).

No.	Essential characteristics of the product	Harmonised standard EN 14604:2005 +AC:2008	NPD ND** *Scope of essential characteristics regarding intended use of product (place „+" or „NPD" or "NA")* **
	Nominal activation conditions / sensitivity / response delay (response time) and performance under fire conditions		
1	*Smoke alarm signals*	4.12	Passed
2	*Inter-connectable smoke alarms*	4.18	N/A
3	*Repeatability*	5.2	Passed
4	*Directional dependence*	5.3	Passed
5	*Initial sensitivity*	5.4	Passed
6	*Air movement*	5.5	Passed
7	*Dazzling*	5.6	Passed
8	*Fire sensitivity*	5.15	Passed
9	*Sound output*	5.17	85dB(A) at 3m
10	*Sounder durability*	5.18	Passed
11	*Inter-connectable smoke alarms*	5.19	N/A
12	*Alarm silence facility*	5.20	Yes - push button
	Operational reliability		
13	Compliance	4.1	Passed
14	*Individual alarm indicator*	4.2	Yes - red LED
15	*Mains-on indicator*	4.3	N/A
16	*Connection of external ancillary devices*	4.4	N/A
17	*Means of calibration*	4.5	N/A
18	*User replaceable components*	4.6	Battery only
19	*Normal power source*	4.7	Battery
20	*Standby power source*	4.8	N/A
21	*Electrical safety requirements*	4.9	Passed
22	*Routine test facility*	4.10	Passed
23	*Terminals for external conductors*	4.11	N/A
24	*Battery removal indication*	4.13	Yes - label
25	*Battery connections*	4.14	Passed
26	*Battery capacity*	4.15	Passed
27	*Protection against the ingress of foreign bodies*	4.16	Passed
28	*Additional requirements for software controlled smoke alarms*	4.17	Passed
29	*Marking and data*	4.19	Passed
30	*Impact*	5.11	Passed
31	*Battery fault warning*	5.16	Yes - flashing LED
32	*Battery reversal*	5.22	Passed
33	*Back-up power source*	5.23	N/A
34	*Electrical safety – assessment and testing to determine the adequacy of personal protection against hazardous currents passing through the human body (electric shock), excessive temperature and the start and spread of fire*	5.24	Passed
	Tolerance to supply voltage		
35	*Variation in supply voltage*	5.21	N/A - battery only
	Durability of operational reliability,temperature resistance		
36	*Dry heat (operational)*	5.7	Passed
37	*Cold (operational)*	5.8	Passed
	Durability of operational reliability, vibration resistance		
38	*Vibration (operational)*	5.12	Passed
39	*Vibration (endurance)*	5.13	Passed

	Durability of operational reliability, humidity resistance		
40	*Damp heat (operational)*	5.9	Passed
	Durability of operational reliability, corrosion resistance		
41	*Sulphur dioxide (SO$_2$) corrosion (endurance)*	5.10	Passed
	Durability of operational reliability, electrical stability		
42	*Electromagnetic compatibility (EMC), immunity (operational)*	5.14	Passed

  *   *Define precise intended use or uses of construction product including requirements in place where producer intends to put product on market.*

**   *No Performance Determined*
       Essential characteristics to be determined by CNBOP-PIB, should be marked with „+", in other case place "NPD" (No Performance Determined).
       NOTE: For components to which the requirement does not apply, please indicate „NA" (not applicable).

17th October, 2019

      Date

Steven Fazey
…………………………………………

Steven Fazey
Compliance Engineer
Legibly name, surname, signature