

# UltraFire

USER MANUAL

UBS1RF OPTICAL SMOKE ALARM



EN 14604:2005/AC:2008  
DOP:UBS1RF-001-V1

CE 18

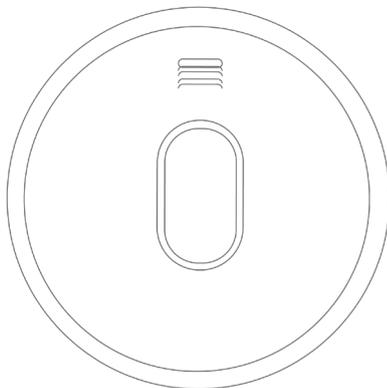
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# UBS1RF Optical Smoke Alarm

## Overview

This optical smoke alarm is a fire detection and alarm device which gives off an audible and visual warning when it detects the presence of smoke within a specially designed detection chamber. Optical smoke sensors are less prone to false alarms than ionisation sensors which have previously been more commonplace, whilst also being slightly more sensitive to slower, smouldering fires typically seen around electrical equipment and the fabrics used for furniture. They are ideal for living rooms, bedrooms, hallways and near kitchens (but not in kitchens).



During standby, the LED will flash every 50 seconds to indicate normal operation. When in alarm mode the LED flashes approximately once per second and the alarm enters into one of the alarm patterns described in the Alarm Signals section.

# Product Specification

- **Sensor Type:** Optical with thermal enhancement
- **Battery Specification:**
  - **Voltage:** DC 3V
  - **Type:** 2x AA alkaline
  - **Recommended:**
    - Energizer E91
    - Gold Peak Group GP 15A
    - Raymax LR6
- **Dimensions (HxDia):** 35x125mm
- **General Operating Temperature:** 0°C - 40°C
- **Humidity Range:** 0% to 93% RH
- **Operating Current:**
  - **Standby:** <6µA
  - **Alarm:** <75mA
- **Alarm Volume:** >85dBA at 3 meters
- **Smoke Sensitivity:** 0.101 – 0.153dB/m
- **Silence Time:** Approx. 10 minutes
- **Do Not Disturb Time:**  
Approx. 10 hours  
(see Additional Features)
- **Wireless Frequency:** 868MHz
- **Wireless Range:**
  - **Clear Line of Sight:** 100m
  - **Typical Indoors:** 35m
- **Wireless Limit:** 50 devices
- **Certified to:** BS EN 14604:2005
- **Usable Lifespan:** 10 years
- **Disposal:** Not for general waste;  
see local electronic waste  
disposal guidelines.
- **Suitable for:** BS 5839-6 Grade F

# Suitability

UltraFire's range of battery-powered fire detection and alarm devices are designed to meet BS 5839-6 Grade F requirements. Even if interlinked as a network with multiple sensor types, these alarms are only intended for use in single household premises which are permitted to use battery-powered alarms.

Local Building Regulations, legislation, or other requirements may specify mains-powered alarms, in which case this product is not suitable.

Multi-household domestic premises and commercial premises usually require more advanced fire detection and alarm systems.

## Additional Features

### Radio-Interlink

UltraFire radio-interlinked alarms are designed to be wirelessly interlinked as a network with up to 50 products. These alarms need to be "learned in" or interlinked in order to communicate with each other. If one alarm activates, all other interlinked alarms will also sound. They are not designed to communicate with wireless alarms from other ranges or manufacturers.

# Additional Features

## Alarm Silence Mode

**WARNING:** Before silencing an active alarm you must ensure the environment is safe. Do not silence the alarm in the event of an actual fire, as this may prevent other occupants from evacuating.

When in alarm mode, pushing the test button will silence the unit for approximately 10 minutes. The red LED will flash as per the Status Indicators section to indicate that the alarm has been silenced.

The alarm will automatically reset after approximately 10 minutes. If after this period there are still signs of a potential fire then the alarm will sound again. The alarm silence mode can be repeated.

## Do Not Disturb Mode

When the alarm is indicating any kind of fault it will chirp as per the Status Indicators section. Pressing the silence button at this time will silence the warning for approximately 8 to 10 hours, ideal for postponing corrective action overnight.

The alarm will still continue to monitor for signs of a potential fire during this time, providing the fault does not prevent normal operation, so it may go into alarm mode. The alarm's Do Not Disturb Mode only prevents the fault warning chirp.

# Alarm Signals

Test Alarm Pattern	Smoke Detected Alarm Pattern	All Other Alarms in the Network
1. Chirp 3 times.	1. Chirp 3 times.	1. Chirp 2 times.
2. Pause 1.5s.	2. Pause 1.5s.	2. Pause 1.2s.
3. Chirp 3 times.	3. Chirp 3 times.	3. Repeat from beginning.
4. Pause 4.5s.	4. Pause 4.5s.	4. The alarm will reset after 60 seconds without further wireless activation signal from other alarms.
5. Repeat from beginning.	5. Repeat from beginning.	

## Status Indicators

- During standby operation the red LED will flash once every 50 seconds.
- When the battery fails or a low battery is detected, the alarm will chirp once every 50 seconds in conjunction with the red LED flashing.
- When a fault is detected the alarm will chirp once every 50 seconds.
- If the alarm has been silenced the red LED will flash once every 16 seconds for approximately 10 minutes.

## Installation

### Location

Smoke alarms are recommended for all rooms which are not regularly exposed to steam, fumes, dust or other contaminants.

### Do Not Install in the Following Places:

- On walls, shelves, or cupboards
- Where the alarm is likely to be exposed to liquids
- At the very apex of pitched ceilings
- In the corner of the ceiling
- Within 30cm of a wall, light fitting, or other obstruction
- In bathrooms and other rooms that will be exposed to steam
- Near appliances or areas where combustion occurs regularly
- In areas regularly exposed to excess dirt, dust, gases, vapours, or humidity
- Where the ambient temperature regularly exceeds 0°C to 40°C

## Placement

UltraFire Wireless Smoke Alarms must be installed on the ceiling, at least 30cm from the nearest wall, light fitting, or other obstruction. The alarms cannot provide adequate warning of a fire if installed on or too close to a wall.

At least one smoke alarm should be installed in each hallway or corridor and on each main landing of every staircase. In hallways or corridors exceeding 7.5m in length, no point in the hallway or corridor should exceed 7.5m from the nearest smoke alarm. For best protection install optical smoke alarms also in living rooms, dining rooms and bedrooms. This gives the earliest possible warning should a fire start in these rooms.

These alarms should be installed no more than 600mm vertically below the apex of a pitched ceiling. Where the depth from apex to eaves is 600mm or less the ceiling should be treated as flat.

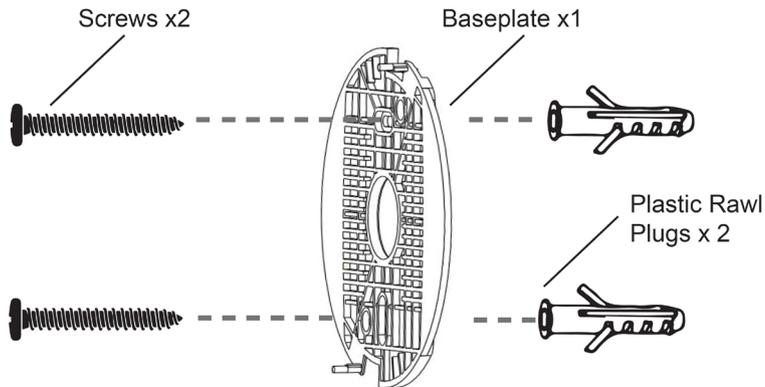
Try to ensure that the alarm is within reach without taking any undue risks, so that you can perform routine maintenance and replace the batteries.

Above all else you must ensure that you follow local building regulations, legislation, and official standards.

## Installation Procedure

**WARNING:** The label on the alarm must not be removed as it shows important information about the product.

1. Check the desired installation position for wires, pipes, or other obstructions that would be dangerous to drill into.
2. Hold the baseplate against the ceiling at the desired installation position.
3. Mark the installation holes with a pencil.
4. Drill the two installation holes as previously marked using a 5mm diameter drill bit.
5. Strike the two included plastic rawl plugs into the holes with a hammer.
6. Align the baseplate to the plastic rawl plugs and fix in place using the provided screws.
7. Fit the batteries into the alarm.
8. Follow the instructions in the Radio-Interlink section.
9. Line the alarm up to the baseplate and turn the alarm head clockwise, until securely attached.
10. After mounting, test the alarm as described in the Maintenance section.



## Radio-Interlink

UltraFire radio-interlinked alarms are designed to be wirelessly interlinked as a network with up to 50 products. These alarms need to be “learned in” or interlinked in order to communicate with each other. If one alarm activates, all other interlinked alarms will also sound. They are not designed to communicate with wireless alarms from other ranges or manufacturers.

**Note:** Obstructions such as steel reinforcement in concrete could block or impede the wireless signal. While the wireless range is over 200m in open spaces, the effective range may be reduced by walls and other obstructions within a building. It is recommended not to exceed 35m as the maximum distance between the alarms in a network.

## Interlink Master Mode

1. Press the test button three times within two seconds on an optical smoke alarm; if the red LED flashes once then the alarm has entered learning mode, otherwise repeat accordingly.
2. If this alarm has not received a wireless interlink code within 2 seconds it will go into master mode. At this point the red LED should always be on.
3. In master mode the alarm is constantly transmitting a wireless interlink code; if there is no response to this command within 10 seconds, the alarm will exit master mode automatically and return to standby operation.

**Note:** When the alarm is in master mode you can press the test button at any time to exit and return to standby operation.

## Interlink Learning Mode

1. Press the test button on another alarm three times within 2 seconds, repeating for all alarms within ten seconds of each other.
2. This connects the alarms to the master unit.
3. Once an alarm successfully receives the master unit's radio-interlink code the red LED will flash for about two seconds. The alarm will then exit learning mode automatically and return to standby operation.

## Adding a New Alarm to an Existing Interlink Network

1. Fit the batteries into the new alarm and test it as described in the Maintenance section.
2. Remove an already interlinked alarm from its baseplate and press the test button three times within two seconds; if the red LED flashes once then the alarm has entered learning mode, otherwise repeat accordingly.
3. After 2 seconds it will automatically go into master mode. At this point the red LED should always be on.
4. In master mode the alarm is constantly transmitting a wireless interlink code; if there is no response to this command within 10 seconds, the alarm will automatically reset to standby operation.
5. On the new alarm, press the test button three times within two seconds; if the red LED flashes once then the alarm has entered learning mode.
6. The new alarm is now listening for the wireless interlink code transmitted from the existing alarm which is in master mode.
7. Once the new alarm successfully receives a wireless interlink code the red LED will flash for about two seconds. The new alarm will then exit learning mode automatically and return to standby operation, ready to be attached to its baseplate.

## Clear Interlink Code

It may be necessary to remove an alarm from the network in some situations, for example if troubleshooting an alarm that does not respond to the test signal.

1. Turn the alarm head anti-clockwise and remove it from the baseplate.
2. Take the batteries out from the battery compartment.
3. Press and hold the test button while reinserting the batteries. If successful, the red LED will turn on for about 3 seconds, otherwise repeat accordingly.
4. Once the LED turns off, release the test button.
5. Press and release the test button again when the LED turns back on.
6. The LED will turn off and the alarm will chirp, indicating success.
7. The alarm is now in standby operation as a standalone unit, no longer interlinked with any other alarms.

## Maintenance

### Testing

Test your alarms to ensure proper operation once per week by pressing the test button. If there is no sound output it means that the alarm is faulty, the batteries are flat, or that the installation procedure may not have been followed correctly. Please try replacing the batteries and reinstalling the alarm head. If the alarm still fails to react to the test button, please read the Troubleshooting section of this manual.

**WARNING:** The test button accurately tests the alarm's components and functions. Do not expose the alarm to an open flame. You may contaminate and damage the sensor, preventing the alarm from providing adequate protection from real fires, and invalidate the warranty. You may use an approved smoke detector test spray to test your detector.

**Note:** When testing a single alarm, because the alarm transmits a wireless signal, other connected alarms should also sound. Once the test button has been released, the other alarms will silence within 1 minute.

## Repairing

Do not attempt to repair the alarm yourself; dismantling the alarm will affect your warranty. If the alarm is not operating properly, and it is still under warranty, contact the retailer who sold you the product or the manufacturer.

## Cleaning

Do not paint smoke or heat alarms. Your alarms should be cleaned every 3 months, using a vacuum cleaner fitted with the soft brush attachment.

**WARNING:** Do not attempt to remove the cover to clean inside. This will affect the warranty.

# Maintenance Continued

## Troubleshooting

Problem	Action
Alarm does not sound when tested.	Remove alarm head from the baseplate. Check batteries are installed properly and have power.
Alarm chirps with the red LED flash about every 50 seconds.	Replace batteries as described in the <b>Maintenance</b> section.
Regular false alarms.	<ol style="list-style-type: none"><li>1. Clean the alarm as described in the <b>Maintenance</b> section.</li><li>2. Move the alarm to a new position in the room.</li></ol>
Alarm chirps about every 50 seconds.	<ol style="list-style-type: none"><li>1. Clean the alarm as described in the <b>Maintenance</b> section.</li><li>2. Replace the alarm. Contact the retailer or manufacturer if still within warranty period.</li></ol>
Alarm fails to interlink to a network.	Follow the steps to clear the interlink code and try to interlink the alarm again using a different alarm as the master.

# Fire Safety Advice

Familiarise yourself with and follow the national and local regulations regarding selection and installation of the different kinds of smoke and heat alarms.

## Plan Your Escape

If an alarm sounds but you did not push the test button and it is not a fault tone then it is likely a dangerous situation has developed in the property. To prepare for such occurrences, it is recommended that you develop escape plans for the premises and discuss them with all occupants. Regular practice of your emergency plans can be vital to a successful evacuation.

1. Familiarise everyone with the alarm patterns of all alarm devices and explain what they represent.
2. Identify all exits from each room and plan an escape route to the outside from each exit.
3. Teach all occupants to carefully touch doors and to use an alternate exit when the door is hot; instruct them not to open the door if the door is hot.
4. Teach occupants to crawl along the floor, to stay below dangerous fumes and gases.
5. Identify a safe meeting place for all occupants outside the building and make sure everyone is aware of it.

## What to Do in Case of Fire:

1. Calmly leave the premises as quickly as possible. Follow your personalised Escape Plan if possible; otherwise:
  - a. Carefully touch doors to ensure they are not hot before opening them.
  - b. Use an alternate exit if necessary.
  - c. Crawl along the floor to avoid smoke.
  - d. Do not stop to collect anything.
2. Meet at a pre-arranged meeting place outside the building if there are multiple occupants. Check if anyone is missing, but do not re-enter the premises.
3. Call the fire service from outside the building; do not delay your escape to contact the emergency services.
4. Do not go back inside a burning building for any reason. Wait for the fire service to arrive.

**Note:** These guidelines will assist you in the event of a fire; however, UltraFire cannot predict the exact situation of any home fire. Creating your own escape plan based on your specific premises and occupants is the best way to ensure safe evacuation. Follow fire safety guidance and legislation to reduce the chance that fires will start and prevent hazardous situations.

## Warranty Information

UltraFire warrants to the original purchaser that its enclosed UBS1RF battery-powered radio-interlinked alarm, under normal domestic use and service, will operate as described and be free from material and workmanship defects for a period of five years from the date of purchase.

UltraFire hereby warrants that during the warranty period, commencing from the date of purchase, UltraFire, at its discretion, agrees to repair or replace the unit free of charge. The warranty on any replacement alarm will last for the remainder of the period of the original warranty in respect of the alarm originally purchased – that is from the date of original purchase and not from the date of receipt of the replacement product.

UltraFire reserves the right to offer an alternative product similar to that being replaced if the original model is no longer available or in stock. This warranty applies to the original retail purchaser from the date of original retail purchase and is not transferable. Proof of purchase is required.

This warranty does not cover damage resulting from accidents, misuse, abuse, disassembly, lack of reasonable care of the product, or applications not in accordance with the user manual. Consumables such as batteries are also not covered by this warranty. In no case shall UltraFire be liable for any incidental or consequential damages or any other warranty, express or implied.

The warranty does not apply to retail stores, service centres or any distributors or agents. UltraFire will not recognise any changes to this warranty by third parties. Except to the extent prohibited by applicable law, any implied warranty of fitness for a particular purpose is limited in duration for five years.

This warranty does not affect your statutory rights. Except for death or personal injury, UltraFire shall not be liable for any loss of use, damage, cost or expense relating to this product or for any indirect, or consequential loss, damages or costs incurred by you or any other user of this product.

## **Returning Your Alarm**

Contact either the original retailer or UltraFire before attempting to return your alarm. Pack the alarm in a well-padded box, tape securely and affix an appropriate address label. Send the alarm either to the retailer you purchased from or to the manufacturer if still under warranty.

If the alarm is no longer under warranty, replace it immediately with a comparable product. If your current alarms are interlinked only replace with UltraFire alarms from the same model range to ensure compatibility and optimal performance.

# UltraFire

## UltraFire



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