

1. PRODUCT DESCRIPTION

All FireHawk smoke and heat alarms are approved to the most recent and rigorous standards. The photoelectric smoke alarms with their new High-Performance X-Profile sensing chamber are approved to EN14604: 2005 and are particularly sensitive to slow smouldering fires typically originating in living rooms, bedrooms and hallways, whilst being highly resistant to nuisance alarms. The FHN250BB alarms are guaranteed for 6 years (not including batteries) and the FHN250RB for 10 years. However, their lives can be significantly reduced by adverse environments, incorrect location and a failure to regularly clean and maintain them according to the following instructions. Incorrect location and a lack of reasonable care may also cause them to malfunction and will invalidate the warranty.

Product Features

- All models are supplied with a back-up power source. The FHN250RB has a lifetime rechargeable lithium battery that is automatically switched on as the detector is installed onto its mounting plate and automatically switched off when detector is removed. Fully charging the battery will offer up to 6 months of backup without requiring mains power. The FHN250BB has 3 x AAA replaceable alkaline batteries offering up to 2 years back up power.
- Alarm Silence - Silence your smoke alarm by momentarily pressing the test button. Ideal in non-emergency situations when nuisance alarms may have been created, for example, by steam. The red light flashes every 8 seconds to remind you that the smoke alarm has been silenced and will automatically reset to standby mode in 10 minutes.
- Bespoke software maximizes detection ability and false alarm rejection via the new Dust Compensation feature.
- A permanent green LED indicates mains power is connected and switched on.
- Red LED flashes approximately every minute confirming unit is receiving power and ready to detect fire conditions. (Quiescent or standby Mode)
- Low Battery Warning alarm gives one beep every minute.
- Low Battery Warning Silence - Low battery warnings often start at night. Silence the audible warning for 10 hours by pressing the test button, thus avoiding removing the alarm from its mounting plate and turning it off or removing the batteries. The batteries on non-rechargeable battery alarms can then be replaced when convenient the following day.
- Extra Large Test Button for ease of use, tests sensitivity, circuitry, power supply and alarm sounder.
- Loud 85 Decibel Piezo Electric alarm automatically resets when hazardous condition has past and chamber is clear.
- Easy Installation - Fixing screws and plugs supplied.
- The interconnect facility allows the connection of up to 16 smoke alarms together so that when one alarm sounds all connected alarms will sound via our latest digitally encoded protocol.

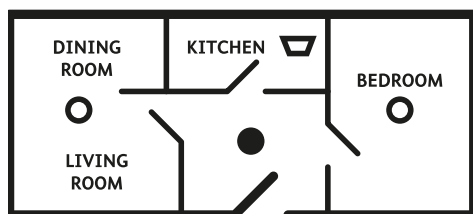
2. CHOICE AND LOCATION OF ALARMS

Optical Smoke Alarms are best at detecting smouldering fires such as those started in electrical equipment, clothing and soft furnishings such as seating, bedding, curtains and carpets. They are, therefore, ideally suited for living rooms, bedrooms and escape routes in domestic accommodation.

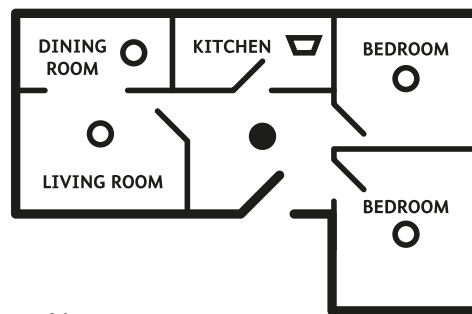
For minimum protection, install at least one smoke alarm on each level of your home. They should be installed in hallways, corridors and all escape routes from the building and within 3 meters of all bedroom doors. All alarms should be interconnected.

Recommended siting of smoke and heat alarms in:

Single storey home with one sleeping area

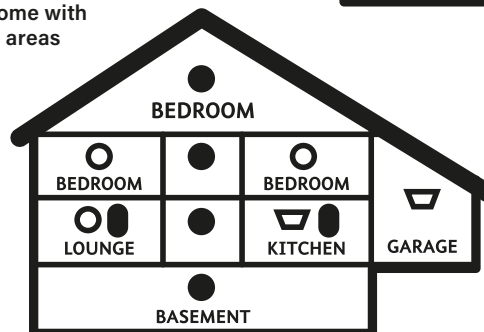


Single storey home with two sleeping area



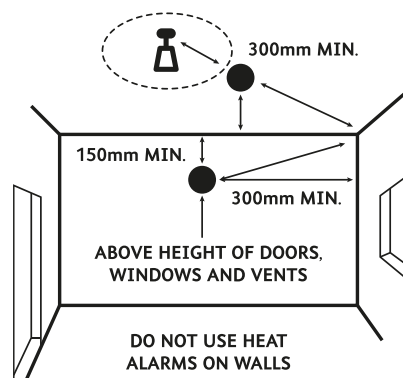
Multiple storey home with multiple sleeping areas

Fig. 1



- Røgalarmer, der sikrer et minimum af beskyttelse
- Røgalarmer, der giver større beskyttelse

Recommended position of alarms Recommended in a room, corridor or escape route:



Recommended position of alarms on apex ceilings:



3. AVOID THE FOLLOWING LOCATIONS

The life of this alarm can be significantly reduced by adverse environments, incorrect location and a failure to regularly clean and maintain it in accordance with the instructions below. Incorrect location and a lack of reasonable care may also cause it to malfunction and will invalidate the warranty.

- Do not locate near fans or extractors. These can pull smoke and heat away from the alarms.
- Do not install smoke alarms in or near high humidity areas such as showers, bathrooms or kitchens where humidity levels exceed 85% or the room temperature exceeds 40°C or falls below 0°C. These conditions may cause nuisance alarms and damage.
- Do not install in the peak of an "A" frame or sloping ceiling. This may delay smoke and heat reaching them due to the presence of dead air.
- Do not install less than 300mm from walls and light fittings when mounted on the ceiling where heat and dead air may prevent smoke reaching the alarm.
- Do not install smoke alarms in insect infested areas.
- Do not install smoke alarms in areas subjected to heavy concentrations of cigarette smoke that will cause nuisance alarms and the alarm to become contaminated.

- Do not install smoke alarms in boiler rooms and garages where fumes and dust may cause nuisance alarms.
- Do not install smoke or heat alarms on poorly insulated walls and ceilings where cold air boundary layers could delay smoke and heat reaching the alarm.
- Do not install near objects that could prevent smoke and heat reaching the alarm.
- Do not install close to fluorescent light fittings that could trigger nuisance alarms.
- Do not paint the alarm.

Avoid installing the alarm in a new build construction environment as dust can contaminate smoke alarms leading to frequent nuisance alarms. If alarms must be installed during construction, please initially install only the base plate and attach the alarm upon completion.

The location of the alarms must be in accordance with applicable building regulations.

4. FURTHER DETAIL ON ALARM LOCATION

- At least one smoke alarm should be installed in the escape route from all floors of the building.
- The detection element of smoke alarms should be between 25mm and 600mm below the ceiling. Smoke alarms should be at least 300mm from any wall or light fitting.
- If ceiling mounting is impractical smoke alarms may be installed on walls provided that the area is no longer or wider than 10 metres and the total area does not exceed 50 square metres and that:
 - The detection element is between 150mm and 300mm below the ceiling.
 - The bottom of the detection element is above openings such as vents, doors and opening windows.
 - They are not mounted close to or above heaters or air-conditioning vents.
- Where smoke alarms are located in a hallway, corridor or landing, the alarm should be no further than three metres from any bedroom door to assist audibility behind closed doors.
- For maximum protection no point on the ceiling in any room, hallway or corridor should be further than 7.5 metres from any smoke alarm.
- To give the earliest warning of a developing fire, smoke alarms should be installed in all the rooms of your home and interlinked. (other than those in section 3, AVOID THE FOLLOWING LOCATIONS, point 2 above)

5. INSTALLATION PROCEDURE

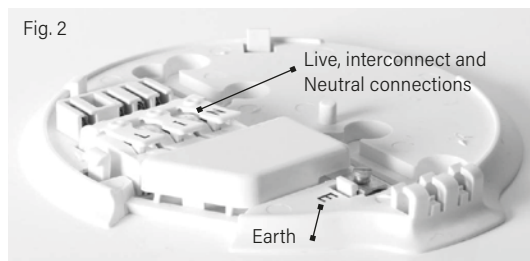
Important Note: Mains powered smoke and heat alarms should be installed by a qualified electrician.

WARNING: Storing or installing alarms in temperatures below 5°C and above 30°C, and in low humidity may cause beeping and nuisance alarms when first installed. These will clear after a short time when the alarm has become acclimatised. Extended periods under these conditions will reduce the life of the alarms and invalidate the warranty. Do not expose to dripping or splashing. Disconnect the alarm before dismantling. Interconnect terminals and circuits are not to be accessible and must only ever run to other Interconnect terminals. Do not interconnect to alarms with other brand-namers or made by other manufacturers.

The power supply should be from one of two sources:

- An independent circuit at the dwellings main distribution board with no other electrical equipment connected (other than a dedicated supply failure monitoring device) or;
- A separately electrically protected and regularly used local lighting circuit. Only suitably approved cabling should be used. The alarms should be wired using a minimum of 1mm² "3 core and earth" cable; with the Brown to Live (L), Grey to neutral (N) and the Black to Interlink (I). All alarm circuits should be protected by a 6amp over-current device. The maximum total length of wiring should not exceed 250m. Mini-trunking systems can be used via the removable cover shown in Fig. 3 overleaf

Installation:



WARNING: Ensure the power supplies are turned off before installing smoke and heat alarms.

1. Using the fixings supplied attach the base plate of the alarm to the desired position.
2. Connect the supply wires to the connectors - Brown to Live (L), Grey to neutral (N), the Black to Interlink (I) and yellow/green to earth terminal.
3. 7800400002 only: Fit batteries in accordance with section.
4. Close the alarm making sure the 3 retaining clips are fitting securely. When removing the alarm from its base-plate, use a small flat bladed screwdriver in the slots to push away the clips and lever the alarm away.



5. Test the alarm using the large test button (shown above) without mains power and check it sounds at least 3 times and that the red LED flashes.
6. Turn on the mains power supply. (7800400003 only: When installing, connect it to mains power immediately. The backup battery may not be fully charged during production. The alarm may beep once every minute for around an hour while the battery charge is topped up).
7. Check that the Green LED is on and that the red LED flashes once every minute.
8. Press the test button to test a single alarm and press again after the sounder to test all interlinked alarms.

IMPORTANT: Use only the test button to test the alarm weekly. Do not test the alarm with either a naked flame or smoke, this will damage and contaminate the alarm causing nuisance alarms in the future.

6. USER INFORMATION

Protect your Home Against Fire

Make sure all occupants of the home know what a fire alarm sounds like. Prove and practise a fire escape plan and arrange a suitable and safe assembly point.

What to Do if the Alarms Sound

Alarms sounds are as follows:

Full alarm indicating smoke and fire	Repeating series of 3 beeps every 4 seconds. Flashing light	••• ••• ••• •••
Low battery	Single beep every minute. 3 red flashes every 8 seconds	• • • •
Testknappen sidder fast	Ét bip hvert. 11. sekund	• • • •
Anden fejl	Dobbeltbip én gang i minuttet	•• •• •• ••

If the full alarm sounds, ensure everyone leaves the building as soon as possible.

- Do not run.
- Do not stop to collect belongings.
- If it is safe to do so, close all windows and doors as you escape to prevent the spread of fire.
- Smoke is the main cause of death from fire. If trapped inside the building, cover your mouth, conserve breath and crawl to safety.

Do not silence a fire alarm until you know the cause of the alarm and when all occupants are safely outside the building. The red LED on the test button of the alarm that has set the system off will be flashing Red once every second. The lights on the other alarms will be flashing once every minute. The system can only be silenced from this alarm.

7. CHANGING THE BATTERIES

CAUTION: Danger of explosion if the battery is incorrectly replaced. Replace only with correct batteries.

The alarm will beep once a minute to indicate the batteries need replacing. If this happens at night press the test button to silence the warning for 10 hours and replace the following day.

In the event of a low battery warning on 7800400003 make sure the green power light is on; if so replace the alarm. If the green power light is not on, turn the mains power on to the alarm and then leave the battery to charge. The battery is not replaceable.

To replace the batteries on 7800400003, isolate mains power to the alarm, release the retaining clips, lower the alarm on its hinge and refer to Fig. 4.



Changing the 3 AAA batteries (7800400002 only)

Remove the alarm from its mounting plate as in the section "5. Installation Procedure" above. Replace the 3 AAA batteries taking care to insert the new ones in the correct orientation. Re-close the alarm taking care to ensure the alarm is fitted securely to its mounting plate and then test the alarm.

Alarm Maintenance

A regular program of fire alarm maintenance will help to keep your alarm in good working order.

- Test the alarms monthly making sure that all interconnected alarms in the system sound within 10 seconds.
- Vacuum the alarms every six months and wipe the external surfaces with a damp cloth.

8. TROUBLE SHOOTING

Problems are indicated in several ways:

1. The alarm beeps twice every minute indicating a malfunction.
2. The smoke alarm emits an acoustic signal once a minute to indicate that the battery is low on power. For model 7800400002, replace the batteries as described above. For model 7800400003, check that the 230V supply is working. If it does, the lithium battery is exhausted and the entire smoke alarm must be replaced.
3. The alarm beeps once every 8 seconds indicating the test button is jammed on. Press the test button to reset.
4. The full alarm sounds for no reason. (A repeating series of three beeps with flashing light). Clean the alarm as above.

5. The alarm does not sound when pressing the test button.
6. The red LED remains steadily on or off. (i.e. does not flash approximately once every minute, when the unit is not in alarm).
7. The green LED is off.

Inspect for obvious damage. Check that the alarm has been installed in accordance with the instructions, that the alarm is connected and the supply turned on. In the case of repeated nuisance alarms, check that it is free from dust, cobwebs and external contamination from such things as cigarette smoke, drying paint, spray from household aerosols and steam that may invalidate the warranty. If this does not correct the problem, do NOT attempt to repair. Other than the replaceable batteries there are no user serviceable parts. If the alarm is within the warranty period and terms, indicate the nature of the problem and return the unit with proof of purchase to the address at the end of this manual.

Units beyond warranty cannot be economically repaired.



Stationsalléen 40 · DK-2730 Herlev



VAERK
LEMVIGH-MÜLLER

SMOKE ALARM OPTICAL

Read and retain this user manual



Type 400002 / 400003
ART. NR. 7800400002 / 7800400003

230 V · 85 dB