

# Smoke alarm User manual

Wireless interconnected optical  
smoke alarm with hush feature

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## 1. Introduction

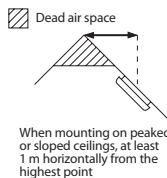
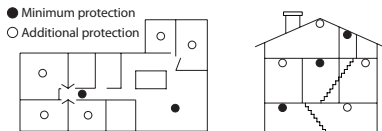
Bellman&Symfon wireless interconnected optical smoke alarm BE1283 is designed to fast and reliable detect the presence of smoke particles in the air.

In larger dwellings interconnected alarms provide early warning against fire and increases your ability to hear an alarm anywhere, regardless of where the fire starts, giving your family more time to escape. These smoke alarms are equipped with a very sophisticated and reliable radio system. Due to the use of modern and advanced components, the range and penetration is high, while the current consumption is extremely low, giving a long battery life. To enable radio trans-

mission of alarms, including during severe radio conditions such as radio interference etc., each smoke alarm has a code switch to reduce the risk of interference of (or to) similar systems nearby (code switch only available in some countries).

## 2. Positioning

A smoke alarm should be fitted in centre of ceiling in the immediate area of the bedrooms, and areas such as hall- and stairways. If more than one sleeping area exists, locate additional smoke alarm in each sleeping area. Locate at least one alarm on every floor. Additional smoke alarms gives better coverage. Ensure that the alarm can easily be heard from the bedrooms. The distance between two smoke alarms in a typical dwelling should not exceed 10–12m, were each alarm should not cover more than 60m<sup>2</sup>.



Avoid placement near kitchens or garages, where combustion particles from cooking or exhaust fumes may trigger an alarm. Also avoid placement in damp or humid areas, such as unfinished attics. Nor close to ceiling fans or fresh air vents, draughts can blow smoke away from the alarm.

### 3. Important information about radio transmission

Regularly check the range and function, so that the smoke alarm could be heard sufficiently in the bedrooms, both before and after installation. Please note that radio conditions and interference etc. can change over time, therefore no guarantee can be given about a specific transmission range etc. Each time, place and building are unique from a radio transmission point of view.

### 4. Coding (only available in some countries)

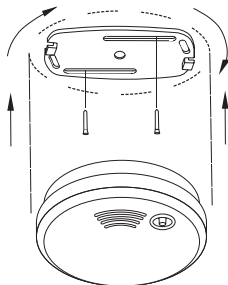


In a smoke alarm system, in order for all units to alarm, they must be set to the same code. The factory pre-set code is "0" and to prevent interference from other systems, we recommend that you change the code on all units on installation. The same is recommended if you – for any reason incur problems suspected to be nuisance alarms from a similar system nearby operating on the same channel (or on channel "0" ). When new codes are set, each unit and the whole system should be tested again (Please refer to the "Testing & Maintenance" section.)

Special alarm functions for code "0" . If a smoke alarm has code "0" this unit will receive an alarm from units with all other codes after a 3-minute delay, If an unit alarms for more than 3 minutes this will be transmitted to units with code "0". This special feature could be used in

several applications, it could be used for escape purposes, for example it could be given to a smoke alarm in a staircase of a HMO building. If a smoke alarm coded with code "0" sounds, which has special "priority" functions, then all other units regardless of codes will sound. This channel setting could be especially suitable in the immediate area of the children's bedroom.

### 5. Installation/Mounting



Remove the mounting plate by turning it slightly counterclockwise. Insert battery and connect the snap-on contact. Red LED is lit under the test button the unit sounds for a brief moment shortly after. If audible signal is obtained, all functions are accurately tested and your alarm is now ready to be fitted.

Tip! Before fitting mounting plate, make sure all units are within radio communication range. Try switching two or more unit's location if the range proves to be insufficient (please refer to the "TESTING & MAINTENANCE" section).

Now fit the mounting plate to the ceiling or wall using the screws provided and twist your smoke alarm into place.

## 6. Main features

### *Alarm - Pre-alarm - Alarm memory*

There are two different alarm sounds to differentiate which unit is the source of the alarm and what type of alarm has occurred. In the detecting (primary) smoke alarm there is a characteristic sound for the smoke detection. In all other (secondary) detectors the alarm sound has a different characteristic; before fully alerting, a pre-alarm occurs emitting short chirps every 6s as LED flashes periodically during 30s – in order for you to stop any unwanted alarms. The alarm sound could be silenced in two ways, either by pushing the test/ silencer button in one secondary unit, and if so, only this unit will be silenced, (all other units will continue to sound as long as the primary unit senses smoke). Or by pushing the test/silencer button in the primary unit. The primary unit will stop alarm immediately, and the other secondary units will stop after a short (25-40 seconds) delay. The detecting (primary) unit which triggered the alarm has a alarm memory, indicated by a double flash of the LED and a short chirp every 8s during 12 h. This signal is silenced by a push of the test button.

### *Silencer / Hush feature (sensitivity reduction)*

If there is a risk of a nuisance alarm (before an alarm has occurred) push the test/hush button briefly and the sensitivity will be reduced temporarily for 10 minutes (it will automatically re-set to normal sensitivity after this period), whilst in hush mode the test LED will flash twice every 8 seconds. Re-set is indicated with two short fast beeps. The smoke alarm could also be re-set manually by a short push of the test/hush button, and the sensitivity immediately returns to normal

(indicated with 3 short chirps).

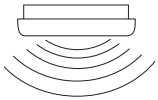
Silence nuisance alarms by pushing the test/silencer button on the initiating (primary) smoke alarm after the alarm has started. The test LED will continue to flash as long as the smoke level is higher than the reduced smoke sensitivity (silencer/hush) level. All other units will continue to alarm for another 5-15 seconds, however with another sound character (please refer to *“Alarm - Pre-alarm - Alarm memory*).

## 7. Low battery warning & Battery replacement

The power supply should be a good quality 9-volt block battery of alkaline type e.g. Duracell MN1604. When it is time to replace the battery, the smoke alarm will give a low battery warning “beep” once a minute, for up to 30 days (the smoke alarm is fully operational during this period).

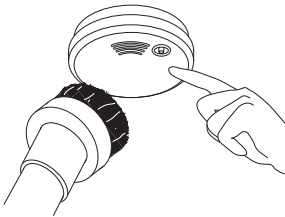
Each time a battery is connected, the smoke alarm will re-calibrate itself and check the detection system. A LED located underneath the test button will be lit for a while, shortly after the battery is connected. When this process is completed, the smoke alarm sounds with a longer beep, and the LED is unlit. The LED will flash once every 8 seconds, indicating proper operation. For extra safety, the smoke alarm also re-checks itself every 24 hours. If the detector chamber is contaminated and the smoke alarm needs to be cleaned, this is indicated by 4 repeated short beeps. If there is any technical problem in the circuitry, or interference in the detection system, this is indicated by either 2 or 3 short beeps. Technical problems could also occur from dust, or from external electromagnetic or ex-

treme light sources, etc. Cleaning or re-positioning may overcome this kind of problem, if not the smoke alarm needs to be returned to the supplier for service. Please note that the indications for the operation and PR-status of the hush/silence feature are 2 or 3 fast beeps (Please refer to the "Silencer / Hush feature" section).



Tip! If battery life deceeds 1 year, this is most often due to interference from any nearby radio system operating on the same frequency. Please note that radio conditions and interference etc. can change over time. Each time, place and building are unique from a radio transmission point of view.

## 8. Testing & Maintenance



The LED will flash once every 8 seconds, indicating proper operation. Every unit can be tested individually by a short press of the test button. The unit will emit a loud alarm, and all functions (except radio transmission) is accurately tested. At the same time the smoke alarm will enter silencer mode and two short beeps

are emitted. (please refer to the "Silencer/Hush feature" section).

Test the smoke alarm at least once every month, preferably once every week, e.g. when you house clean. Always test the smoke alarm after returning from holidays or after being away for a prolonged period. The smoke alarm sounds as long as the test button is pressed down or as long as there is smoke in the chamber. Ensure the battery is correctly connected, replace battery if the smoke alarm does not sound.

**WARNING:** Do not test with flames, this may cause damage to the smoke alarm or result in injury or death. We do not recommend test with smoke, this could be misleading unless proper test equipment is used. The test button accurately tests all functions of the smoke alarm.

If you would like to test the wireless alarm feature the test/silencer button should be pushed for more than 3 seconds. (The smoke alarm will not go into silencer mode) After this the test/alarm LED will shine constantly for 40 seconds, and this confirms that radio transmission is taking place. After a short delay all other units will start to alarm (but with a different alarm sound) the alarms will stop after 25-40 seconds. If other units are to be tested, there should be a delay of at least 40 seconds between each testing.

Vacuum your smoke alarm regularly (and always when the battery is replaced) with the soft brush attachment and wipe the unit with a slightly damp cloth.

## 9. Alarm signal & LED indication

|  |   |
|--|---|
| Power source:                                | Alkaline 9V Duracell battery (life expectancy 1 year) |
| Current consumption:                         | 20 $\mu$ A  |
| Frequency range (radio transmission):        | 434.33 MHz  |
| Max. no. of units interconnectable:          | Unlimited   |
| No. of coding channels (radio transmission): | In total: 16, incl. channel "0" with priority         |
| Range (radio transmission):                  | Depending on local radio conditions, ca 100m          |
| Audible alarm tone:                          | 85 dB at 3m   |
| Maximum relative ambient humidity:           | 90%   |
| Operation temperature:                       | 0°C to 45°C   |

## 10. Important fire safety information

### *This could be done to avoid fire*

Always keep matches out of children's reach. Never leave lighted candles unattended. Never empty ashtrays into a wastepaper basket or rubbish bag without first seeing that everything is properly extinguished. Pour water into the ashtray before you empty it – or let it stand overnight.

Before you go to bed, make sure that the fire in the fireplace is properly extinguished or that the firescreen is in place so that no sparks can fly out. Handle and store inflammable liquids in a safe manner. Only use fuses of the correct strength in the electrical system. Never experiment with homemade fuses of any sort. Replace faulty electric leads and power points. Only use approved electrical appliances in your home.

### *Always be prepared for fire*

If there is a fire in your house, your family's life depend on seconds. Therefore, everyone in the house should be well prepared for such a situation.

### *Make an escape plan*

Choose the windows most suitable for an emergency exit if the normal exit should become blocked by smoke or fire. If the windows is high above ground, provide a ladder or a rope. Decide on a meeting place outside in case of alarm. Preferably have the bedroom doors closed at night. A door can keep a fire at bay a sufficient time so that you will be able to escape through a window. If you have access to firefighting equipment, make sure that it is in working order and that you know how to use. Practice fire drill with your family. Make a game of it, as not to frighten the children.

## When a fire starts

Alert the other members of the household and make sure that they leave the house immediately. Follow the escape plan. If possible, shut the windows and doors to stop the fire spreading. Call the Fire Brigade from, e.g. the neighbour's house. If the fire is small, you can try to put it out yourself with a fire extinguisher, hose or, if the fire is very small, with a blanket or rug.

Make sure that you have an escape route. If you cannot put out the fire yourself, leave the house as quickly as possible. Do not return to the house once you have left it.

## 11. Technical specification

| Signal:  | Message:  | Action:   |
|--|---|---|
| 1 short beep every minute                      | Low battery voltage                                   | Replace battery ASAP  |
| 1 short beep every 8 seconds                   | Alarm memory, triggered alarm                         | Reset by pressing test button Operation OK                                    |
| 1 long beep (always after battery replacement) | Detector sensitivity and operation accurately tested  | Operation OK  |
| 2 short beeps (after pressing the test button) | Smoke alarm tested, and hush feature activated        | Operation OK  |
| 3 short beeps (after pressing the test button) | hush feature deactivated, unit returns to normal mode | Operation OK  |
| 3 short beeps                                  | Technical problem / operation fault                   | Replace battery, if this doesn't solve the problem; return unit for servicing |
| 4 short beeps                                  | Detection chamber contaminated                        | Clean unit by vacuuming with the soft brush attachment                        |

**Warning:** Any changes or modifications not expressly approved by Bellman & Symfon could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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