

# Operating instructions for wireless smoke alarm detector type: GS559A

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Thank you for choosing a product of SEBSON. Please read the instructions carefully and keep them for looking up before start-up this product. A long and failure-free operation can only be guaranteed if the installation and start-up is done properly.

Note: Please read all warnings and instructions before using this equipment!

This photoelectric wireless smoke alarm detector is used for early warning of dangerous smoke. As soon as smoke enters the interior of the equipment, a loud alarm will sound. The smoke alarm detector identifies the smoke and not the flame of a fire. The smoke alarm detector is also reacting from a heat of 54 to 70°C.

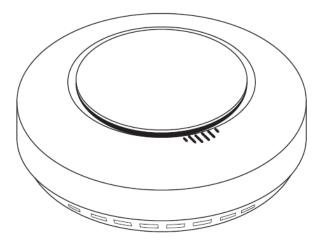
- This wireless smoke alarm detector type GS559A may only be used in private rooms.
- After a maximum of 10 years this device must be replaced!
- The wireless smoke alarm detector can detect a fire early by recognizing the smoke or the burning articles This device is not suitable for preventing a fire!
- This wireless smoke alarm detector can be networked with the following devices: GS559A, GS412, GS156A, GS816A, GS188
- This detector does not react to flames or gas!
- This smoke detector can monitor a range of 20 to 40m<sup>2</sup>.

#### Scope of delivery:

- Wireless smoke alarm detector type: GS559A
- 2 x 1,5V DC type: AA batteries
- 2 screws and 2 dowels

Model-number: GS559A

#### DoP: 559A-CPR-0001



Wireless smoke alarm detector GS559A

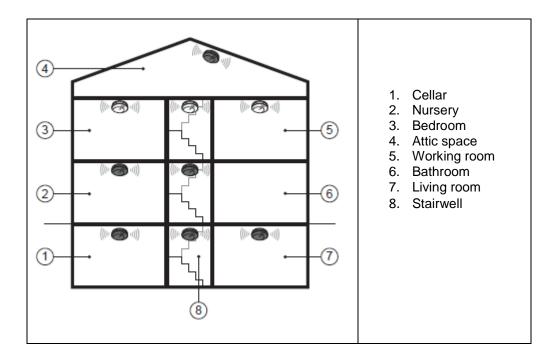


### 1. Safety instructions

- *Note:* The alarm sound is very noisy! Your hearing can be damaged if you are exposed to the loud alarm sound over a longer period of time!
- Please do not paint over the smoke alarm detector with paint or similar!
- Do not install the detector in difficult to access areas! The detector must be checked regularly for its function!
- **Caution:** Never test the smoke alarm detector with an open flame, e.g. by a candle or a lighter! This will damage the built-in sensor!
- Get rid of the smoke alarms regularly (at least every six months) of dust and other deposits of dirt! Please use a paint brush or a slightly cloth moistened with water. In dusty conditions, the smoke alarm detector should be cleaned monthly.
- Please note that certain groups of people can not hear the alarm because they are under heavy medications, drugs or alcohol influence, are hard of hearing or sleep very deeply. In this case, take further measures so that these persons are warned accordingly by the alarm.
- Do not drop the device as this may damage it!
- The conversion of this product is not allowed!
- Another use than described may damage the product.
- This product is only suited for indoor-use and not for outdoor-use. Protect it against humidity and moisture, splashing or dripping!
- Damaged smoke alarm detectors must be replaced immediately!

#### 2. Suitable and unsuitable locations

2.1 Smoke alarm detectors should be installed in the following rooms:





- Bedrooms: If several bedrooms are in the house, then the attachment of smoke alarm detectors in each bedroom are advised.
- *Corridors:* Install a device in each corridor that leads to a bedroom. If the corridor is longer than 9m, install a device at the beginning and end of the corridor.
- Stairwell: Because stairwells easily serve as chimneys for smoke and fire, they contribute to the further spreading. Therefore it is recommended to install on each floor at least one smoke alarm detector!
- Living and working rooms as well as storage areas.
- Cellar: Mount a smoke alarm detector in the entrance area to the basement.
- Attic space: With the attic space a distance should be kept to the roof point of at least 50 cm (see Figure 1).

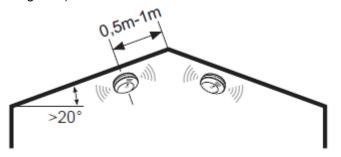


Figure 1: Mounting the smoke alarm detector on the roof slope

- Rooms are equipped with electrical appliances.
- For rooms that have sloping ceilings, the following must be considered: With the assembly a
  distance of from 50 to 100 cm to the roof point must be kept

If the horizontal ceiling is less than 1 m wide, then the smoke alarm detector must be installed in rooms with sloping ceilings as shown in Figure 2. If the ceiling is greater than 1m, then the smoke alarm detector is placed on the horizontal ceiling

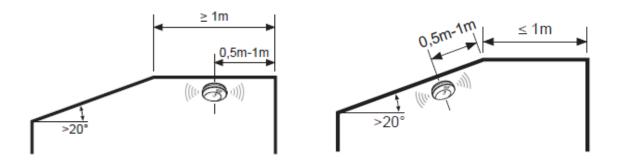


Figure 2: Mounting the smoke alarm detector on the ceiling

*Note:* If you are unsure about the mounting of the smoke alarm detector in your rooms, please advised by a qualified electrician!

The smoke alarm detector must be installed on the ceiling in the middle of the room, because smoke rises to the ceiling of the room and spread horizontally. The smoke alarm detector should be



placed possible so that this is at least 50cm from the side wall and 61cm mounted away from the corner of the room (*see Figure 3*).

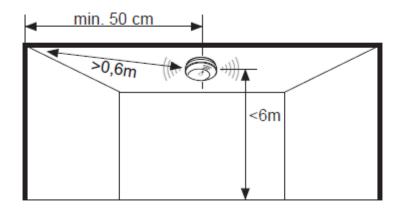


Figure 3: Mounting the smoke alarm detector on the ceiling

- On ceiling beams, which are thicker than 20 cm, no installation of smoke alarm detector should be done. A minimum distance of 50 cm is urgently recommended.
- The smoke alarm detector should be mounted at least 50 cm away from lamps and fluorescent lamps.
- An installation height of 6m maximum should not be exceeded. If the installation height is more than 6m, the smoke alarm detector must be installed on several levels.
- The smoke alarm detector can supervise a maximum area of 60m<sup>2</sup>.
- The maximum distance of smoke alarm detectors in extensive corridors can be up to 15 m. To the end side of corridors the smoke alarm detectors should be applied in the distance of maximum 7.5 m.
- In small corridors and rooms which are not wider than 1m, the smoke alarm detector must be mounted in the middle of the ceiling.

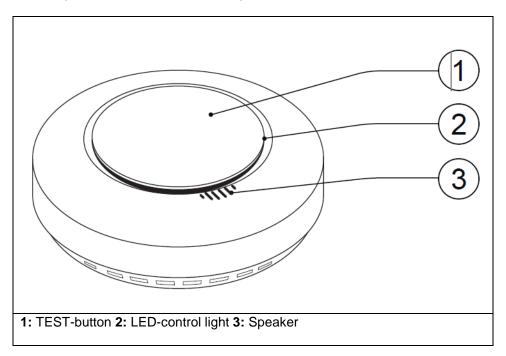
#### 2.2 Rooms where no smoke alarm detector should be installed

- Rooms which have a high air humidity (>93%) for example in the bathroom.
- In garages or kitchens. A smoke alarm detector in the kitchen should only be installed, if the distance to the stove is at least 4m.
- Smoke alarm detectors should not be installed close to heaters, heating-, cooling- and ventilation-shafts. Also, they may not be mounted on open fires or fireplaces.
- In very dusty rooms.
- With A-shaped roofs the smoke alarm detectors may not be mounted at the highest point.
- Rooms having a room temperature of below 0°C or above 40°C.
- In caravan or similar rooms. In these living areas, the attachment to the inside of parts are advised. The air in the upper part of these areas as well as the ceiling is strongly warmed up by intense solar irradiation. This can result that the strongly warmed up air keeps the smoke from reaching to the smoke alarm detector.



#### 3. Startup

Before starting up this product, please check for external damage. In case of visible external damage we immediately dis-advise the start-up of this product! Please remove all packaging material of this product before the first start-up.



#### 3.1 Activation the smoke alarm detector

Remove the mounting base by turning it clockwise (counterclockwise) and insert the batteries into the battery compartment (*see figure 4*). If the batteries are correctly inserted (observe polarity!), the red LED flashes briefly. The smoke alarm detector is now ready for use!

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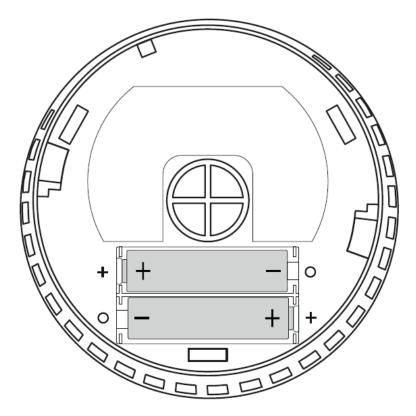


Figure 4: Battery case on the back of the smoke alarm detector

#### 3.2 Function control

To check the function, press and hold the TEST button. After pressing the button a very loud alarm will sound! Keep the device at least an arm's length away from your body while pressing the TEST button. *Note:* Please note that the TEST alarm tone to protect your hearing is significantly quieter than the fire alarm tone! The alarm sounds at regular intervals 3 times in a row while the LED flashed. In this case the function of the electronics, the alarm device of the smoke alarm detector and the battery is checked. After releasing the TEST button, the alarm will turn off automatically. If the alarm does not sound, replace the batteries! If the alarm does not sound even after replacing the batteries, the smoke alarm detector must be replaced!

Attention: Test the smoke alarm detector weekly to its function by pressing the TEST button!

#### 3.3 Activation and Deactivation of the mute mode

In a false alarm, which was not caused by a fire, the alarm can be switch off for about 10 minutes. However you must absolutely make sure that the alarm was not activated by a fire, but rather e.g, by strong smoke during the cooking or by strong smoking of cigarettes or cigars in small rooms! To temporarily turn off the alarm, press the TEST button. Then open doors and windows to clean the air. While the smoke alarm detector is in mute mode, the LED will flash every 16 seconds. Should the air still have a high number of combustion particles after 10 minutes, the alarm sounds again. By pressing the test button, the mute function can be repeated as often as desired. The mute



function can be simply deactivated by pressing again the TEST button. At an excessively large amounts of smoke, this function is not adjustable.

#### 3.4 Recurrent self-test of the smoke alarm detector on its function

The smoke alarm detector performs every 50 seconds a self-test. You can see this by a short blink of the LED.

Note: In case of improper function of the smoke alarm detector, please contact the manufacturer!

#### 4. Networking of smoke alarms among each other

For networking, you need at least two networked devices. Each device is provided with a code by the manufacturer. There are a total of over 60,000 encodings. If one device is connected to another one, it will accept the code of the other. An already networked device, which is to be connected to a new device, takes over the code of the new device. Please note that devices may only be interlinked within an apartment or a family home! Note: Please connect only devices that are not more than 35 meters apart! Please note that only devices from the same manufacturer can be networked with each other!

- 1. **Note:** To prevent damage to your hearing, keep the device at least one arm's length away from your body while pressing the TEST button! Take a device that you want to network with another device and put it in the transmission mode. Press the TEST button 3 times in succession. The LED lights up red for about 10 seconds continuously.
- 2. While the first device is in transmission mode for approximately 10 seconds (LED lights continuously red), take another device and press the TEST button 3 times in succession. If a short beep sounds and the LED flashes briefly, networking was successful.
- 3. In order to network additional devices with the first device, repeat steps 1 and 2 until all devices are networked together.
- 4. Afterwards, check whether the devices are properly networked by carrying out a functional check. Press and hold the TEST button on any networked device. If the alarm sounds on all networked devices while you hold down the TEST button, the networking was successful. To stop the function check, release the TEST button. The other devices stop beeping after a maximum of one minute.
- 5. Attention: If the alarm sounds not on all devices, repeat the first two steps with the affected device, and repeat the function check.
- 6. If the function check is unsuccessful again, perform a RESET (see chapter 5) of the device and check the batteries. Then repeat the first two steps.



#### 5. RESET Mode

In order to perform a RESET, proceed as follows:

- 1. Remove the batteries.
- 2. Press and hold the TEST button while reinserting the batteries. Pay attention to the correct polarity!
- 3. The LED lights solid red for about 3 seconds after inserting the batteries. *Note:* Keep and hold the TEST button pressed!
- 4. When the LED light turns off, release the TEST button.
- 5. The LED light turns on. Press the TEST button again.
- 6. The RESET process is completed by a short beep sound.

#### 6. Explanation of the LED modes

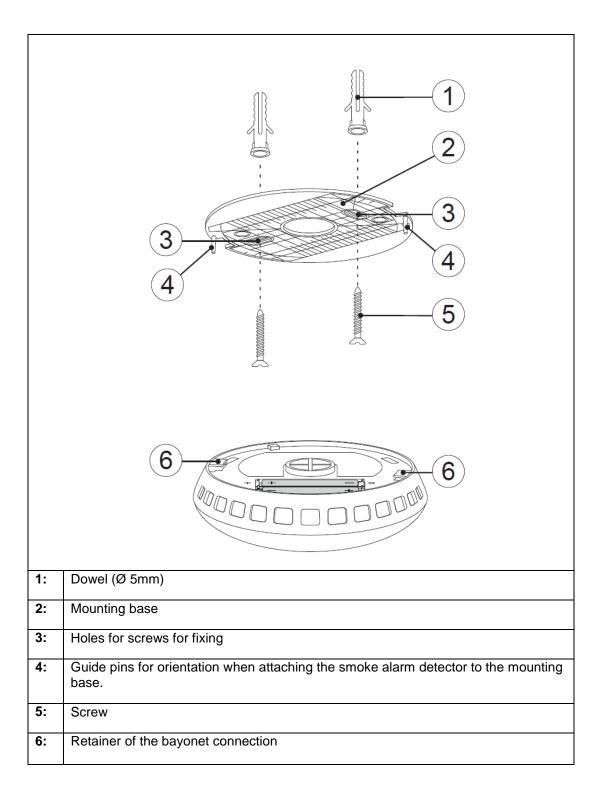
| LED flashes every 50 seconds:                                    | The smoke alarm detector is working properly.                    |
|--|--|
| LED flashes every second and alarm sounds:                       | TEST button is pressed or the alarm has been triggered by smoke. |
| LED flashes every 16 seconds:                                    | The device is in the mute mode ( <i>see section 3.3</i> ).       |
| LED flashes every 50 seconds and a short alarm tone sounds:      | Batteries are low. The batteries must be replaced.               |
| Every 50 seconds a short alarm tone sounds (LED does not flash): | The housing needs to be cleaned ( <i>see section 12</i> ).       |

#### 7. Installation

- 1. Disconnect the mounting base by turning it counterclockwise from the case.
- 2. Hold the mounting base to this position on the ceiling, where you want to mount the smoke alarm detector. Draw with a pencil the holes for the bores to the ceiling.
- 3. Then drill two holes (Ø 5mm).
- 4. Now take the two in the scope of delivery supplied dowels and put them in the bores.
- 5. Screw the mounting base to the ceiling. The screws are included in scope of delivery.
- 6. Then hold the smoke alarm detector on the mounting base so that the two guide pins engage in the openings next to the retaining clips on the bayonet connection (*see No. 4 in the mounting diagram*).



7. Through a short rotation of the housing clockwise and overcoming a slight resistance, the smoke alarm detector can be securely fixed to the ceiling



#### 8. Replacing batteries

1. The smoke alarm detector makes a recurring beep sound in 50 second intervals for 7 days. Thia means that the battery must be changed. Additionally the LED flashes. The smoke alarm



detector is still fully functional at this time. However, it is recommended to replace the battery, as soon as the device is warning about the empty state of the battery! *Note:* The recurring warning sound can be muted for about 10 hours by pressing the TEST button. After 10 hours, a short warning tone sounds again every 50 seconds. Please always replace the battery with an identical battery type, which is having the same technical specifications as the used battery. Never use rechargeable batteries or power supplies for operation of the smoke alarm detector. These can cause false alarms or lead to a complete failure of this product.

- 2. Turn the alarm case to counterclockwise and solve the housing from the mounting plate.
- 3. Remove the empty batteries.
- 4. Insert the new batteries into the battery compartment. Pay attention to the correct polarity (see *section 3.1*)!
- 5. Reattach the mounting base by turning it clockwise to the housing.
- 6. After replace the batteries please carry out a function-test by pressing the TEST-button. Keep the smoke alarm detector at least an arm's length away from your body. While holding down the TEST-button, three short alarms should sound at 1.5 seconds intervals, and the LED flashes.
- 7. The smoke alarm detector is now ready for use again!

Attention: For safety reasons, please replace the batteries at least once a year!

#### 9. Notes to the use of batteries

- Non-rechargeable batteries are not to be re-charged!
- New batteries should not be used together with used batteries. Please always use batteries with the same type.
- Please always pay attention to the correct polarity when inserting the battery!
- The connection terminals never short-circuit!
- Throw batteries never into the fire!
- Keep batteries away from children and animals!
- Please make sure that the batteries are not swallowed especially of infants. Here is danger to life!
- Dispose leaking batteries immediately as described in chapter: " Disposal of waste batteries".
- Avoid in any case direct skin contact of leaking batteries. If you have come into contact with battery acid, wash your hands immediately. Please make sure that the battery acid does not come into contact with skin, eyes and / or mucous membranes!

#### 10. Technical Data

| Power supply:             | 2 x AA 1,5V DC batteries  |  |
|---------------------------|---|--|
| Alarm Volume:             | ≥ 85dB (A) within 3m  |  |
| Warmth sensitivity:       | 54°-70°C  |  |
| Radio frequency:          | 868MHz  |  |
| Smoke alarm signal local: | Peep 0,5s –Pause 0,5s - Peep 0,5s – Pause 0,5s - Peep 0,5s<br>– Pause 1,5s LED flashes – repetition of the signal |  |



| Warm alarm local:   | Peep 0,2s – Pause 0,1s – LED flashes – repetition of the signal  |  |
|---------------------|--|--|
| Radio alarm signal: | Peep – Peep – Pause 1,2s – LED flashes – repetition of the signal  |  |
| Networking:         | Up to 15 networking alarm detectors of the same manufacturer and product line                            |  |
| Radio range:        | Up to 100m (free field) <i>Note:</i> Please connect only devices that are not more than 35 meters apart! |  |

#### 11. Reasons for triggering a false alarm

The following may be causes of a false alarm:

- Water and kitchen steam
- high air humidity
- dust
- Strong drafts etc.

Usually the smoke of cigarettes does not trigger the alarm. If the alarm still be triggered, please make sure that not a fire has activated the smoke alarm detector! If no fire is detected in one of the rooms, you can set the alarm of the smoke detector temporarily mute (*see chapter: 3.3*).

#### 12. Behavior in case of fire

The installation of a heat or smoke alarm detector is only one of many fire protection measures. Other fire protection measures are e.g. the provision of a fire extinguisher or a fire blanket. Another measure is the creation of an escape plan and the subsequent discussion with your roommates or your family.

If the fire cannot be extinguished with a fire extinguisher or a fire blanket by yourself, then leave the house immediately! Do not waste time to put clothes on or by transportation of personal objects - because every second counts!

After leaving the house please inform the fire department immediately!

When leaving the burning room, please check first the surface of the door to its temperature. Should the door be hot or under the door smoke rising up, do not open the door! If possibly please use another door or a window to escape from the room. If the surface of the door is cold, then brace yourselves with the shoulder against the door and open it a small gap. Be always careful and ready to slam the door quickly, if heat or produced penetrates from the next door.

With strong production of smoke please keep close to the ground and breathe - if possibly - through a cloth. Better still by a damp cloth!

You may enter the house again only after release or permission of the fire brigade!



#### 13. Maintenance and cleaning

This device is maintenance free. Please remove the housing regularly from dirt, dust or spider webs! For this, use the best vacuum cleaner with soft suction brush or a soft cleaning cloth. Ensure that the housing and the air slots are free from contamination at all times, in order to ensure proper functioning.

*Note:* Never open the housing to clean the unit from the inside. This can impair the functionality and the warranty guarantee will be extinguished!

#### 14. Disposal of waste batteries

Batteries and rechargeable batteries may not be disposed in the household waste. The endconsumer are legally obligated to the return of all used batteries and/or accumulators. After usage you can return batteries and / or accumulators gratuitous in the sales point or in their direct vicinity (for example at municipal collection points and trade). Otherwise, you can also return the batteries and / or accumulators by post to us: SEBSON - Gernotstr.17-44319 Dortmund – Germany



Batteries and / or accumulators which contain harmful substances are marked with the symbol of a crossed-out waste bin and may not be disposed of with household waste Under the dustbin symbol is the chemical name of the harmful substance - in the example below - "CD" for cadmium, "Pb" stands for lead, "HG" for mercury .

Meaning of symbols:



1 Battery containing more than 0,002 mass percent of cadmium

- 2 Battery containing more than 0,0005 mass percent of mercury
- 3 Battery containing more than 0,004 mass percent of lead

The harmful Substances which are contained in the batteries, may cause danger to health and the environment in case of improper disposing.

#### 15. General Disposal



This product may not be disposed of with household waste. At the end of its useful life, the product must be returned to a point of acceptance for the recycling of electric and



electronic device. Please ask your local municipality for the point of acceptance! As the devices contain valuable recyclable materials, they should be sent for recycling, in order not to harm the environment or human health from uncontrolled waste disposal.

#### 16. CE Declaration of Conformity

This product has been prepared according to the listed below guidelines:

- EMC 2014/30/EU
- RoHS 2011/65/EU
- RED 2014/53/EU

Siterwell Electronics Co., Limited No.666 Qingfeng Road, Jiangbei District, Ningbo, Zhejiang Province, 315034 China



| Essential                 | Perfomance | Harmonised technical specification |
|---------------------------|------------|------------------------------------|
| characteristics           |            |                                    |
| Nominal activation        |            |                                    |
| conditions/ Sensitivity.  |            |                                    |
| Response delay            | PASS       |                                    |
| (response time) and       |            |                                    |
| Performance under fire    |            |                                    |
| conditions                |            |                                    |
|                           |            |                                    |
| Operational reliability   | PASS       |                                    |
| Tolerance to supply       |            |                                    |
| voltage                   | PASS       |                                    |
| Durability of operational |            |                                    |
| reliability and response  |            |                                    |
| delay; temperature        | PASS       | EN 14604:2005/AC:2008              |
| resistance                |            | EN 14604:2005/AC:2008              |
| Durability of operational |            |                                    |
| reliability; vibration    | PASS       |                                    |
| resistance                |            |                                    |
| Durability of operational |            |                                    |
| reliability; humidity     | PASS       |                                    |
| resistance                |            |                                    |
| Durability of operational |            |                                    |
| reliability; corrosion    | PASS       |                                    |
| resistance                |            |                                    |
| Durability of operational |            |                                    |
| reliability; electrical   | PASS       |                                    |
| stability                 |            |                                    |



The declaration of performance for this product can be found under the following link:

www.sebson.de/DOP\_GS559A\_EN.pdf

SEBSON: Sebastian Sonntag - Gernotstr.17 - 44319 Dortmund – Germany - www.sebson.de