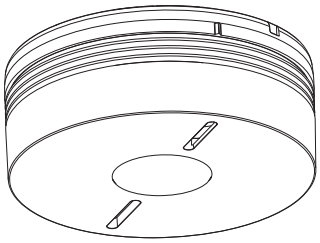
S157-22X



installation manual

Heat detector, interconnectable radio, lithium battery 10 years

Recommendations
The user must not attempt to access the detector's internal parts, except areas described in this manual. If the user does access these parts, the product guarantee will be considered null and void and Hager shall not be held responsible for any problems. Touching the detector's internal parts and/or electronic components can damage the product. Furthermore, the detector is designed in such a way that these parts and components do not need to be accessed for operation or maintenance purposes.

1. Introduction

1.1. How the detector works

The heat detector is designed to protect the private areas of apartment buildings, residential properties and mobile homes.

Heat detection is activated when:
- the rate of elevation of the ambient temperature is abnormal,
- or the ambient temperature reaches a value between 54 and 70 ° C.

It can be:
- used alone,
- included in a hager alarm system with TwinBand® control panel,
- interconnected in a wireless network with 40 detectors maximum.

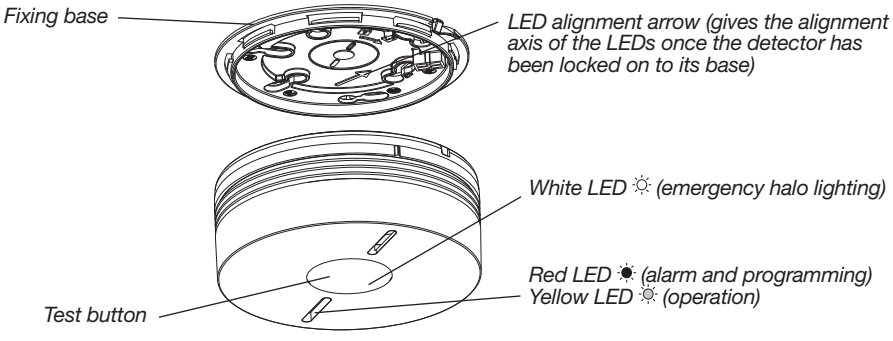
Subject to the smoke detector being properly serviced on a regular basis, it should be replaced according to the replacement date indicated on the back of the product or when its battery runs out.

When something is detected, this is indicated as follows:

	Detector activated	Other interconnected detectors
	Rapid flashing	-
	Emergency halo lighting	Emergency halo lighting
	Triggering of **continuous** sounding (85 dB (A) at 3 m)	Triggering of **intermittent** sounding (85 dB (A) at 3 m)

The detector having detected something sounds until the smoke have disappeared.
The interconnected detectors trigger in less than one minute and sound until the smoke detected by the activated detector have disappeared and for a maximum period of 15 minutes.
Connected to a hager alarm system, it causes in addition:
- the triggering of the control panel and radio sirens in fire modulation for 5 min,
- triggering the phone dialller,
- triggering wired sirens.

1.2. Description



2. Installation

The detector comes ready powered. Simply lock it on to its base (step 4. Chapter 2.2. Installing the detector as a standalone device) to put it in normal operating mode.

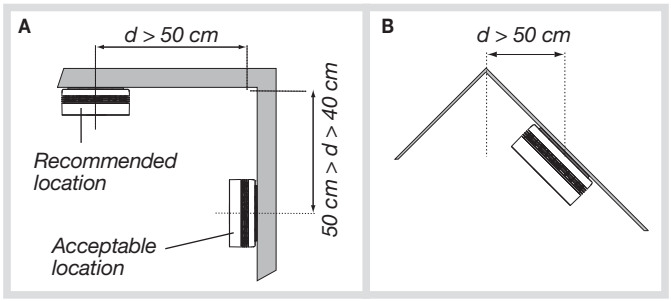
2.1. Choosing the best place to install the detector

- The heat detector is not intended to replace smoke or gas detectors to ensure the safety of people and especially in rooms such as bedrooms, playroom and other places of life.
- The heat detector is suitable for fire detection where an optical smoke detector can not be used.
- For minimum fire protection, a smoke detector should be installed at least in each corridor or stairwell and in each bedroom (refer to the S155-22X smoke detector manual, for example).

The detector must be placed:
- in rooms where there is a fire hazard (living rooms with fireplace, children's bedrooms, occupied lofts or basements, etc.) (**Fig. A**),
- preferably in the centre of the ceiling,
- far away from fan vents likely to spread smoke,
- more than 50 cm away from any obstacles (walls, partitions, beams, etc.) (**Fig. B**),
- at each end of corridors if they are longer than 10 m.

If the detector cannot be installed horizontally on the ceiling, fix it:
- at a distance of 40 to 50 cm from the ceiling (**Fig. A**),
- far away from any sources of electrical disturbance (electricity meter, metal cabinet, electronic ballast, etc.).

The detector must not be placed:
- close to an electronic ballast, low voltage transformer, energy saving light bulbs, fluorescent tubes, etc. (minimum distance: 50 cm),
- in excessively dusty rooms,
- in a room where the temperature might drop below -10°C or rise above +65°C, which would prevent the detector from operating properly,
- at least 1 m away from heating, cooling or air circulation vents likely to disseminate smoke or heat,
- at least 6 m away from a fireplace or wood burning stove where the smoke from combustion might trigger an unnecessary alarm,
- in a room where there might be condensation or damp (do not use in bathrooms, laundries, etc.)
- at the centre of a pointed ceiling (A-shaped), as the air pocket located here can prevent smoke from reaching the detector (**Fig. B**),
- directly on to a metal wall: use a non-magnetic spacer (wooden or plastic).



2.2. Installing the detector as a standalone device

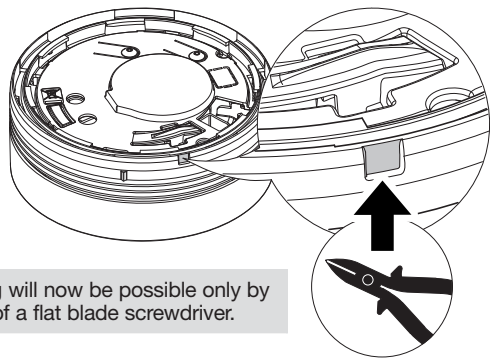
Use the LED alignment arrow on the base in order to position the detector in the best possible manner (see Description).

1 Fix the base keeping in mind the precautions outlined in the chapter entitled Choosing the best place to install the detector. The detector can be fixed in 2 ways:

Fixing the detector on a flush-mounting box
- For Ø 60 mm boxes, use fixing holes marked 60.
- For Ø 78 mm boxes, use fixing holes marked 78.
- For Ø 85 mm boxes, use fixing holes marked 85.
- Fix the base using suitable screws.

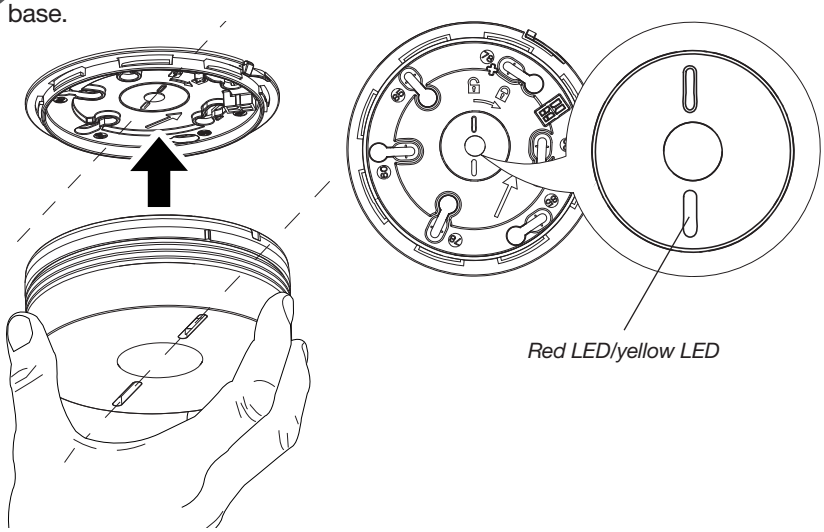
Fixing the detector on a surface
- Place the base in the planned location and mark the position of the 2 fixing holes with a pencil.
- Drill the holes using the right-sized diameter drill bit.
- Fix the base in place using suitable wall plugs and screws.

2 Optional locking of the detector on themounting base. Optional locking is designed to prevent unauthorized dismounting of the detector.
Using cutting pliers, cut out the locking slot.



Opening will now be possible only by means of a flat blade screwdriver.

3 Line the marker up with the LEDs in order to position the detector on its base.



4 Turn the detector clockwise until it is completely locked. The yellow indication LED flashes for 5 s and then once every 10 s to indicate the detector is operating normally.

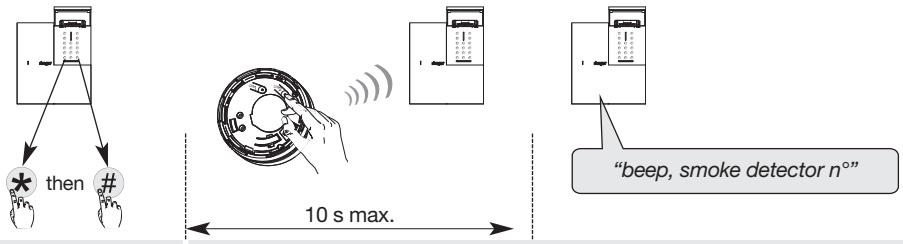
5 Proceed to chapter 3. Testing the detector.

2.3. Installing the detector in association with a hager alarm system

Recognition programming allows the detector to be recognised by the control panel.
The control panel allocates a detector number following the chronological order of programming.
All the radio detector must be recognized and in radio range with the control panel.

- To perform recognition programming operations, the control panel must be in installation mode.
  If it is not, enter on the control panel keypad:
  ○○○○ # 2 # # then ○○○○ # 3 # #
  master code *installer code*
- There is no need to place the product close to the control panel for recognition programming. Indeed, it is advisable to move it away from the control panel by at least 2 metres.
- If the detector is installed in association with a control panel with a version lower than 1.11.6, it must be placed by at least 4 meters from this one.
  Control panel in installation mode, enter # 5 0 3 # # on her keypad to check the version.
- It is possible to record a personalised message vocally identifying the fire detector (see Control panel installation manual § Detector vocal identification message).

1. Perform the following learning sequence:



Press * then # on the control panel keypad.	Hold down the **Cfg2 key** for 10 s until the response of the control panel.

2. Keeping in mind the precautions outlined in the chapter entitled Choosing the best place to install the detector, position the detector in the chosen location without fixing it in place.

3. Test the radio range with the control panel by pressing and holding down the programming key Cfg2.
- **Satisfactory link:** the control panel issues the voice message *"Beep, test fire detector n° X"* to confirm,
- **Unsatisfactory link:** no voice message is issued. Move the detector closer to the control panel or use a radio repeater relay.

4. Fix the detector in place following steps 1 to 4 in chapter 2.2. Installing the detector as a standalone device.

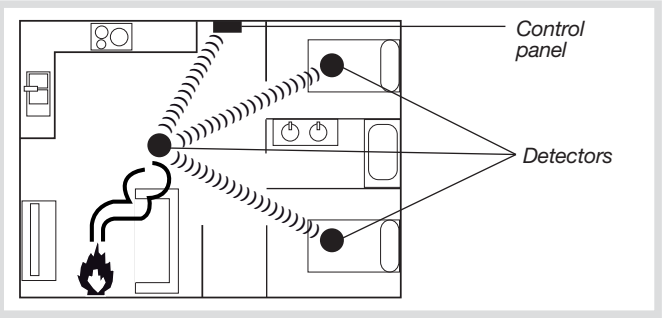
5. Put the control panel back in user mode by entering:

○○○○ # 1 # #
installer code

6. Proceed to chapter 3. Testing the detector.

2.4. Installing the detector as part of a network

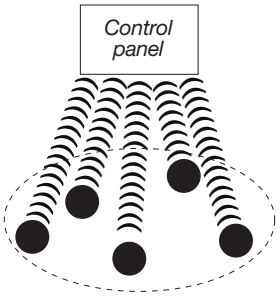
It is possible to interconnect up to 40 detectors so that all the detectors in the home as well as the alarm system can be triggered together.
The smoke detector can be connected with S155-22X smoke detectors and/or S157-22X heat detectors.



The responses to detection are described in chapter 1.1. How the detector works.

Installing detectors in a network

All radio detectors must imperatively to be learned and within reach radio station.

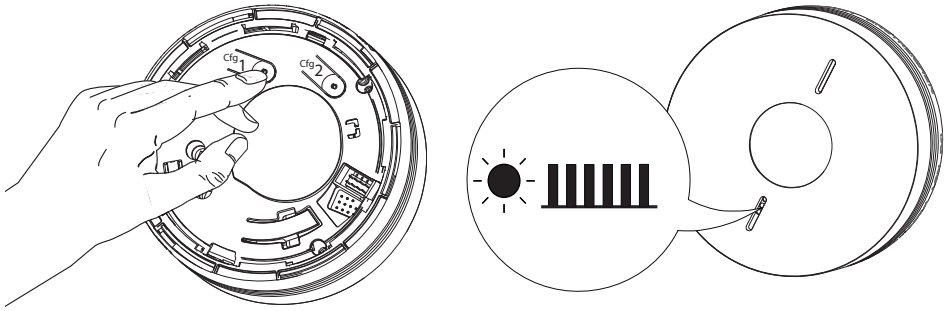


● *S157-22X radio detector*

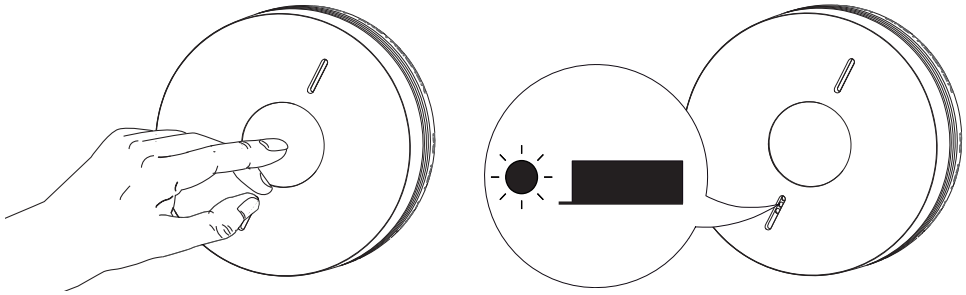
Network

To connect the detectors in a network:

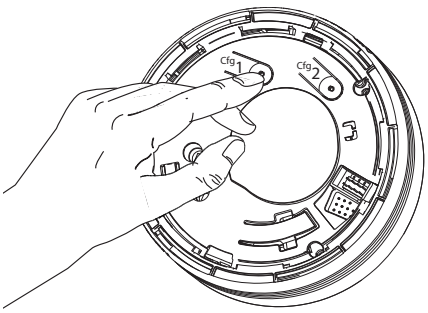
1 Put **all the detectors** to be networked in recognition programming mode **by pressing 2 times on the Cfg1 key. The red LED flashes.**



2 Press the test button on one of the detectors until the red LED on **all the other** detectors lights up steadily. Release the button, the red LED of this detector flashes.



3 **Lightly press on the Cfg1 key on all of the detectors** to exit recognition programming mode.
Without press on the Cfg1 key the detectors outside the programming mode after one minute.
In this case, the networking of the detectors **is taken into account.**



4 Test the radio range.

A. Put all the detectors in test mode by pressing once on the Cfg1 button. The red LED lights up for 5 sec and then flashes.

B. Press the **test button on one of the detectors** and the detector will test the radio range in permanent transmission mode. The red LED on all the other detectors lights up steadily.

C. Position the detectors in their planned locations without fixing them in place.
- If the radio range is satisfactory, the red LED remains steadily lit.
- If the radio range is not satisfactory, the red LED flashes.

D. Move the detectors located outside of the radio range or programme one detector as a relay (see 2.5. Installing the detector as a relay) then perform the test again.

E. To exit the test mode, press once on the Cfg1 button on all the detectors. The red LED goes out.

F. Perform the radio range test for all the detectors again to make sure they trigger, whatever the detector having activated the alarm.

5 Fix the detectors in place following steps 1 to 4 in chapter 2.2. Installing a detector as a standalone device.

Specific cases

Adding a detector to an existing network

1. Put the detector to be added to the network in recognition programming mode by pressing 2 times on the Cfg1 key. The red LED flashes.
2. Put one of detector that are already in the network in recognition programming mode by pressing 2 times on the Cfg1 key. The red LED flashes.
3. Press the test key on a detector that is already in the network until the red LED on both detectors lights up steadily.
4. Briefly press Cfg1 on one of the detectors to exit the programming mode.

Putting a detector back into its factory configuration

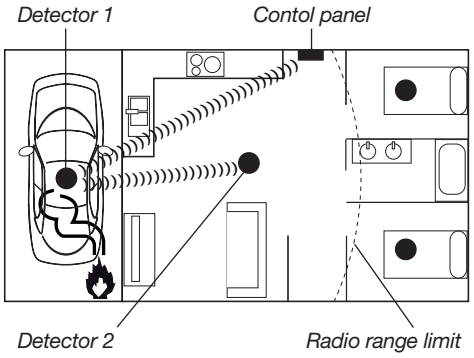
Upon the back into factory configuration, the interconnection between the detectors will be deleted.
1. Press 2 times on the Cfg1 key.The red LED flashes.
2. Keep holding on the Cfg1 key until the red LED light up steadily. Release the button.
3. Briefly press Cfg1 to exit the programming mode.

2.5. Installing the detector as a relay

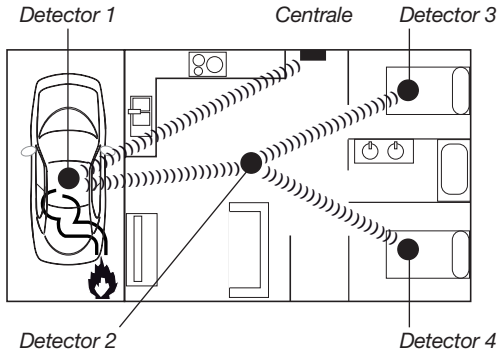
If the radio range between all the detectors is insufficient, one of the detectors can be progra-med as a relay. This means that it will re-transmit alarms received to all the other detectors.

Examples:

A. If an alarm is activated on detector 1, only detector 2 and the control panel will be triggered.



B. Detector 2 is programmed as a relay. If an alarm is activated on detector 1, the detector retransmits the information on the whole installation.



It is possible to programme just one “relay” detector per network.
- To be programmed as a relay, the detector must first have been programmed for recognition by the network.

To programme a detector as a relay:

1. Press Cfg1. After 4 s, the red LED flashes. **Keep holding the button down.**
2. After 10 s, the flashing speeds up or slows down:
- if the flashing speeds up, the relay function has been **activated**,
- if the flashing slows down, the relay function is still **deactivated**.
3. Release the button and press briefly on Cfg1 to exit the programming mode.

3. Testing the detector

- The detectors must be installed before test.
- Before a smoke detector test, it is advisable to first let your neighbours know and take the necessary precautions to prevent hearing disorders.
- Never use a naked flame to test the detector.
- The test must be performed at least once a month and notably after a prolonged absence.

Press the detector test button until you hear the 2nd beep and then release it.

	Detector activated	Other interconnected detectors
	Rapid flashing	-
	Emergency halo lighting	Emergency halo lighting for **250 ms** followed by a **1.75 sec.** pause
	Sounding for **1 sec.** (75 dB (A) at 1 m) followed by a **1 sec.** pause	Sounding for **250 ms** (75 dB (A) at 1 m) followed by a **1.75 sec.** pause

Press the test button again to stop the integrated sounding.

4. Using the detector

4.1. Inhibiting the detector

To prevent untimely triggering due to activities likely to generate smoke or dust (sweeping a dusty room, sweeping a chimney, etc.), the detector can be deactivated for roughly 15 min.
To do this, press one time on the test button. The detector beep, the red LED flash every 2 s.

	Inhibited detector	Other interconnected detectors
	1 flash every 2 seconds	-

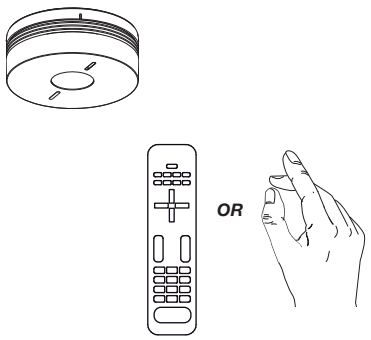
After 15 min or after the manual test, the detector automatically becomes operational once more.

- During these 15 minutes, the detector will not be able to recognise smoke or generate an alarm.
- To exit inhibition mode more quickly, press the detector test button. The detector beep, the red LED stop flashing.

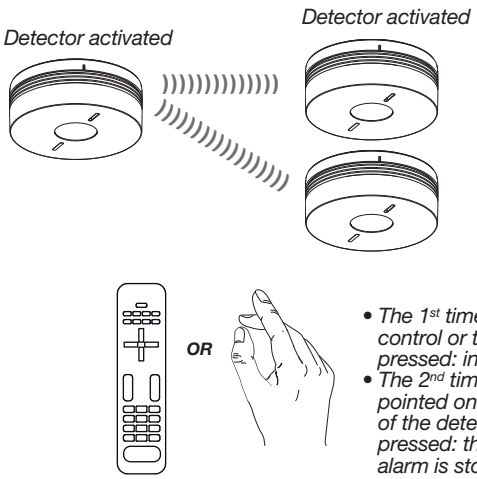
4.2. Stopping the alarm in the event of non-dangerous detection

To stop the alarm if it has detected harmless smoke:
• press the test button,
or
• press one of the keys on an infrared remote control (remote control of a TV, DVD player, hi-fi system) and point the remote control towards the sounding detector.
The detector will switch to inhibited mode (see chapter 4.1.) for 15 minutes.
Please note that the alarm can be stopped 20 s after the detector triggers the system.
If the detector is associated with a hager alarm system (see chapter 2.4.) Press the **"Off"** key command to stop the central and the sirens.

If the detector is installed as a standalone device:
• press the test button,
or
• press **2 times** one of the keys on the remote control pointed on the detector.



If the detector is part of a network:
The detector(s) having been activated (red LED flashing) must be stopped to end network sounding.



- *The 1st time one of the keys on the remote control or the detector test button is pressed: interconnected detectors stopped.*
- *The 2nd time one of the remote control keys pointed on the detector or the test button of the detector having triggered the alarm is pressed: the detector having triggered the alarm is stopped.*

4.3. Fault indications

In order not to wake you up, alarms resulting from mains supply problems or dirty sensors are shut down during the night. Any errors are corrected after daybreak within 10 minutes i.e. 8 hours after the event.

4.3.1. Power fault

	Detector at the source of the fault indication	Other interconnected detectors
☼	2 flashes every 5 sec.	1 flash every 10 seconds
🔊	2 rapid beeps every 60 sec.	2 rapid beeps every 60 sec.

⚠ When the supply anomaly appears, the detector continues to work perfectly for 30 days. It is advisable to replace the detector as soon as possible.

If the **audible** power fault **indication** occurs at an inconvenient time, it can be postponed for 8 hours over a maximum duration of 7 days by pressing the test button until you hear the first beep.

If the detector is associated with a control panel, the panel provides vocal notification following a system command: *“Beep, power fault, detector n° X”*.

4.3.2. Detection head faulty or dirty

	Detector at the source of the fault indication	Other interconnected detectors
☼	8 flashes every 8 sec.	1 flash every 10 seconds
🔊	8 rapid beeps every 60 sec.	8 rapid beeps every 60 sec.

⚠ If sounding continues after a postponement attempt, this means that the detection head is not working. Replace the detector.

If the **audible** power fault **indication** occurs at an inconvenient time, it can be postponed for 8 hours over a maximum duration of 7 days by pressing the test button until you hear the first beep.

5. Maintenance

5.1. Replacing the detector

⚠ When you replace the detector, you must also replace its mounting base.

1. If the detector is replaced because of a battery or detection head fault, press on the test button until it beeps to clear the fault.

2. If the detector was associated with an alarm system:

A. Switch the control panel to installation mode by dialing on its keypad:

○○○○ # 2 # # then ○○○○ # 3 # #

master code *installer code*

B. Clear the detector by dialing on the keypad of the central:

* 1 9 4 * 2 * ○ * *

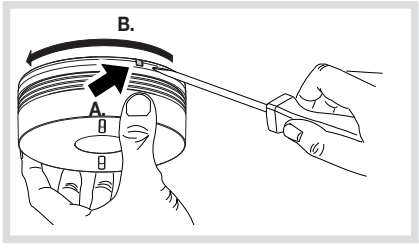
detector number

3. • If detector optional locking is not activated: turn the detector anti-clockwise to unlock it.

• If detector optional locking is activated:

A. insert a flat blade screwdriver into the slot,

B. turn the detector anti-clockwise to unlock it.



4. If the detector was associated with an alarm system, refer to the chapter 2.3. Installing the detector in association with a hager alarm system.

5. If the detector was part of a network, refer to 2.4. Installing a detector as part of a network.

6. Position the new detector on its base by turning it clockwise until it is completely locked.

7. Test the detector (see Testing the detector).

5.2. In case of work in the home

The detector must not be painted.
If work is to be carried out after the detector has been installed, cover it completely..

⚠ Do not forget to remove the protection when the work is finished.

6. Technical data

Technical data	Heat detector
Radio links	TwinBand®: • 433.050 - 434.790 MHz, 10 mW max, Duty cycle: 10% • 868 - 870 MHz, 25 mW max, Duty cycle: 0,1% Rx: category 2
Type of detection	heat detector able to detect: • temperature rise speed • reaching of temperatures between 54 and 70°C
Average coverage	50 m^2
Use	indoor
Power	sealed, non-replaceable lithium battery 2 x 3 V with a 10-year battery life
Indication	• detector status • faults
Integrated sounding upon detection	of 85 dB to 3 m
75 dB integrated sounding at 1 m	• during testing • during fault indications
Interconnection via radio	40 detectors max.
Operating temperature	-10°C to + 65°C
Storage temperature	-10°C to + 65°C
Degree of protection	IP22
Dimensions (D x H)	116 mm x 49 mm
Weight	255 g

It is imperative that you keep the documentation provided with this product throughout its life.

Waste processing of electrical and electronic devices at the end of their service life (Applicable in European Union countries and other European countries with a waste collection system). Used on products or product packaging, this symbol indicates that the product must not be thrown out with household waste. It must be taken to a waste collection point for electrical and electronic product recycling. When you make sure that this product is disposed of in the most appropriate manner, you are helping to protect the environment and human health. If you would like additional information concerning the recycling of this product, please contact your town/city council, nearest waste collection centre or the shop where you bought the product.

Hager Security SAS hereby declares that the radioelectric equipment, reference S157-22X, complies with the requirements of the following 2014/53/EU RE-D directive.
The full text of the EU declaration of conformity is available at the address: www.hager.com.

Non-binding document, may be modified without prior notice.