

# STOVE GUARD SGK430 REFERENCE MANUAL

For installers and end-users



**Thank you for choosing  
Innohome SGK430 Stove Guard.**

**Before using this product, please read  
'safety instructions' first.**

The manual and the user guide are an integral part of the product and contain important information about use and handling. Ensure that the manual is left with the end-user for future reference.

Package contents:

- Intelligent Heat Sensor SGS530
- Control Unit SGC430-U3-35 or SGC430-U4-35
- Installation manual
- Guide for User
- Reference manual
- Cupboard sticker

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## 1. Safety Instructions

- ! The Stove Guard does not cover all possible hazardous situations but significantly increases the safety of a range. Never leave the range unattended on purpose.**
- ! Indoor use only.**
- ! Not suitable for use in professional kitchens.**
- ! Do not leave the range unattended after resetting the pre-alarm signal.**
- ! Ensure a minimum distance of 6" (15cm) between you and an intelligent heat sensor in full alarm, due to risk of damage to hearing.**
- ! Do not leave small children unsupervised with the product, its parts or packaging, due to risk of swallowing small parts.**
- ! Do not disassemble.**
- ! Do not immerse the Intelligent Heat Sensor in water.**
- ! The Stove Guard alarm is not triggered if the hob's temperature is too low for a hazardous situation to be identified, or if the range automatically limits a temperature increase.**
- ! The Stove Guard does not cut all phases when turning off the range: it should never be used to switch off range electricity for range servicing/repair procedures.**
- ! Disconnect power during installation.**
- ! Opening the Control Unit voids warranty.**

### Batteries

- ! Do not short-circuit or charge batteries, due to risk explosion.**
- ! Do not attempt to open or burn batteries due to risk of explosion.**

## 2. Frequently Asked Questions

- 1. I cannot turn the range on and the Control Unit is emitting a ring every 5 seconds.**
  - The range has been locked due to several concurrent maximum temperature alarms. Unlock the range by turning the electricity to the range off for 15 seconds, using the range fuse (on the main electricity board).
- 2. I cannot turn the range on, and no signal sounds from the Stove Guard**
  - The Sensor has been removed from its mounting plate or it is not placed on it correctly. The LED on the side of the Heat Sensor should face towards the user (see image 2 in the Installation manual sheet). Check that the Sensor fits tightly on the mounting plate with no gaps.
  - If the Sensor is placed on its mounting plate correctly, the Control Unit overheating protection has turned the Control Unit and the range off. The range can be turned back on by turning the electricity off for a moment using the range fuse (on the main electricity board). If the overheating protection turns the range off again, the range is getting overheated due to a fault in the range or for another reason not dependent on the Stove Guard. Have the range checked by a qualified electrician.
- 3. The fault diagnosis alarm (Control Unit: a short ring and a long ring, alternating at 5 second intervals) did not reset by pressing the Heat Sensor cover once.**
  - The fault diagnosis alarm can be triggered by the Heat Sensor not being on its mounting plate, it being placed the wrong way round, or if dirt or fat is covering its sensors. It can also be triggered by a problem in the radio connection or in the functioning of some part of the system.
  - Ensure that the Heat Sensor fits tightly on its mounting plate with no gaps, and that it is placed the right way round (see image 2 in the Installation manual sheet). Clean the Heat Sensor by wiping it with a cloth dampened with a mixture of household detergent and water. Only use a cloth that does not leave fibres.
  - Reset the alarm by turning the electricity off for 15 seconds using the range fuse (on the main electricity board).
  - If the fault diagnosis turns the range off again, contact the product retailer. *A range that is constantly turned off by the fault diagnosis, can only be used for 5 minutes at a time, by switching the electricity off for 15 seconds in the above mentioned way.*
- 4. I accidentally reset the pre-alarm signal even though the alarm was triggered by a hazardous situation. Has the Intelligent Heat Sensor now become too insensitive?**
  - Resetting the pre-alarm signal changes the Intelligent Heat Sensor's sensitivity but only to such a small extent, that resetting it a couple of times does not cause insensitivity.

## **5. The Stove Guard alarm triggers during normal cooking**

- The alarm sensitivity has a learning component - pressing the Sensor cover during pre-alarm signal adjusts Sensor sensitivity (see Guide for User). However, if this has been done a couple of times and the alarm still triggers in a similar cooking situation, see below.
- The Heat Sensor may interpret placing a hot oven tray on the range or removing a pot from a hot hotplate as a hazardous situation and signal a short alarm.
- A stove-top coffee maker or a pot that is much smaller than the hotplate can continuously trigger the Stove Guard alarm. The alarm can also trigger more easily if a pot is used without a lid.
- It is recommended to use a pot/pan that fits the hotplate, and to use a lid when possible. To use a stove-top coffee maker, see question 6.
- If the Stove Guard alarm still triggers in situations not mentioned above, adjust the Intelligent Heat Sensor sensitivity manually, see chapter 3.1 in this manual.

## **6. The Stove Guard alarm triggers when I make coffee with a stove-top coffee maker.**

- Stove-top coffee makers are often much smaller than the hotplate, hence the Stove Guard cannot distinguish it from a risk situation. This is usually a problem with the smaller coffee makers, and with ones that take a longer time to make the coffee.
- To carry on using a stove-top coffee maker, we recommend using a larger model covering more of the hotplate (perhaps only making half a portion each time), and/or getting a different model.
- If you however wish to use the existing stove-top coffee maker, the Stove Guard alarm can be reset when it triggers during making coffee. This does not cause changes in the Heat Sensor sensitivity (the coffee maker triggers the non-learning maximum temperature alarm).

## **7. The Stove Guard alarm did not trigger in a hazardous situation**

- It is possible that the temperature in the situation was not yet high enough to be identified as a risk situation. The Heat Sensor needs to take different cooking scenarios into account, including frying at high temperatures, and not trigger too easily. Hence, the alarm is triggered only when a certain temperature (or rate of increase) is reached, still long before the ignition of a fire. However, it is important to double check the Stove Guard operation with the following procedures (see the next points).

- Check that the Intelligent Heat Sensor is installed correctly by double checking the points mentioned in the installation manual sheet (also available online at [www.innohome.com](http://www.innohome.com)).

- If the Sensor is installed correctly, turn on a hotplate and do a test alarm by pressing the Sensor cover until the Sensor emits a beep. Check that the Control Unit turns the range off. If the test alarm does not succeed, contact the product retailer.

- It is possible to change the Sensor's sensitivity so that it reacts earlier (increase by one or two levels, see chapter 3.1 in this manual).

## **8. What to do when replacing the Intelligent Heat Sensor or the Control Unit with a new one?**

- See chapter 3.3 in this manual for device pairing instructions.

## **9. What to do when changing the range to a new one/moving house?**

- First return the Heat Sensor sensitivity level to its factory settings (see chapter 3.2). Then install the Stove Guard as for first installation. The installation manual sheet can be found at [www.innohome.com](http://www.innohome.com).

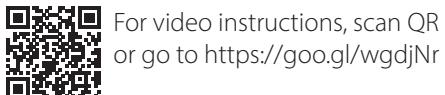
### 3. Settings

#### 3.1. Increasing/decreasing Heat Sensor sensitivity level

The sensitivity can be set to levels between 3 and 8, after which it adjusts to the cooking habits, and can move up to level 15.

**First check the current sensitivity level as instructed below.**

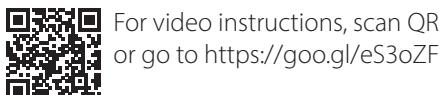
##### 1. Checking the current sensitivity level



- Detach the Intelligent Heat Sensor. (Wait until the Sensor emits four beeps and the cooker is turned off.)
- Press and hold the Heat Sensor cover. Wait until you have heard two beeps, then release the cover.
- Wait for a moment until the Heat Sensor starts to emit beeps to confirm its sensitivity setting. The beeps are emitted in four (4) sequences. Listen to the 1st, 2nd and 4th sequence and note them down with a pencil.

As an example, the beeps could be  
5 – 4 – x – 4

##### 2. Set the new sensitivity level



**To increase sensitivity,** set the sensitivity level to match the smallest number - in the example above, it would be set to "4". (If all the three sequences are the same, for example 4 – 4 – x – 4, then set the sensitivity level one step downwards from this number. In this example, the level would be set to "3".)

**To decrease sensitivity,** set the sensitivity level one step upwards from the smallest number (in the example above, since the smallest number is "4", the sensitivity level would be set to "5").

1. Press and hold the Heat Sensor cover. Wait until you have heard two beeps, then release the cover.
2. Now set the sensitivity level by pressing the Heat Sensor cover at one second intervals (eg. 7 presses = level 7).

3. The Intelligent Heat Sensor confirms its new sensitivity level with beeps (eg. 7 beeps = level 7). If the level was not correct carry out the procedure again.
4. Return the Heat Sensor to the mounting plate and press its cover once.

Beeps	Sensitivity level
3	3
4	4
...	...
15	15

#### 3.2. Returning sensitivity level to factory setting

1. Detach the Intelligent Heat Sensor. (Wait until the Sensor emits four beeps and the range is turned off.)
2. Put the battery disconnection piece into the hole on the bottom surface of the Sensor (see image 1). Hold the Sensor in your hand and press the disconnection piece and the cover towards each other, hold for at least 5 seconds.
3. Release the hold (the Sensor emits a beep). Remove the battery disconnection piece and save it for possible later use.

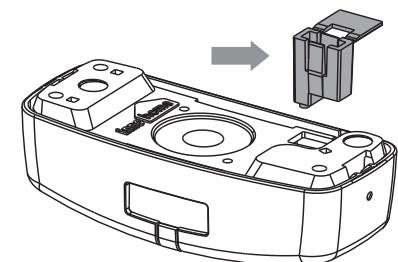


Image 1

4. Press the Sensor cover and hold it down until you have heard three separate beeps.

5. Return the Heat Sensor to its place and press its cover once.

*If you have lost the battery disconnection piece, you can alternatively use a screwdriver to carefully press the button on the bottom surface of the Sensor (see image 2).*

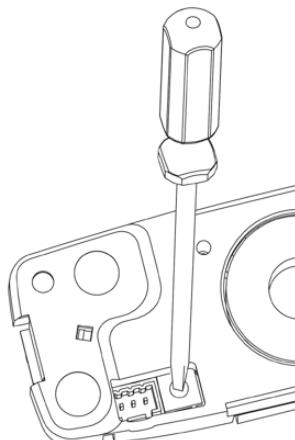


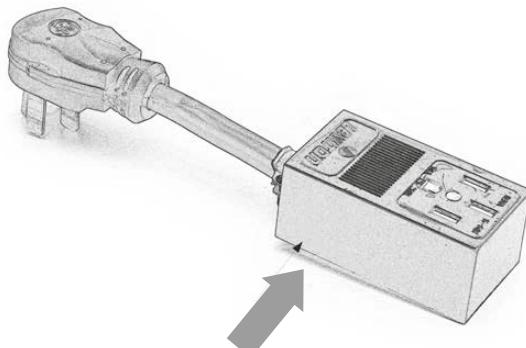
Image 2

### 3.3. Pairing of devices

If the Control Unit is hard to access, use the pairing method B.

#### Method A

1. Turn the range electricity off for 15 seconds, using the range fuse (in the main electricity board).
2. Turn the electricity on.
3. Within one minute, touch the right side of the Control Unit with one of the Heat Sensor's round magnets and wait until the Control Unit emits a ring.
4. Within one minute, return the Heat Sensor on to its mounting plate and press its cover until the Sensor emits a beep. The Control Unit turns the range off and the Sensor emits a test alarm. Reset the test alarm by pressing the Sensor cover once.



Method B  
(The Heat Sensor should be placed on its mounting plate.)

1. Turn off range electricity for 15 seconds, using the range fuse (on the main electricity board).
2. Turn the electricity on for 5 seconds, then turn off again for 15 seconds.
3. Turn the electricity back on, wait for 20 seconds, then press the Sensor cover until the Sensor emits a beep. The Control Unit turns the range off and the Sensor emits a test alarm. Reset the test alarm by pressing the Sensor cover once.

### 3.4. Silent alarm

The Heat Sensor alarm signal can be turned off for users that find it disturbing.

Since the user will not notice the Heat Sensor pre-alarm signal and therefore will not be able to use the learning sensitivity feature, it is recommended to **decrease** Heat Sensor's sensitivity by one level, see chapter 3.1.

#### Procedure:

Open the cover (see 'Opening and closing the Intelligent Heat Sensor cover', on next page). Turn the DIP switch 2 to 'off' position (see image 3 – the image shows the switch in 'on' position). Place the cover back according to instructions.

Be careful not to move DIP switch 1.

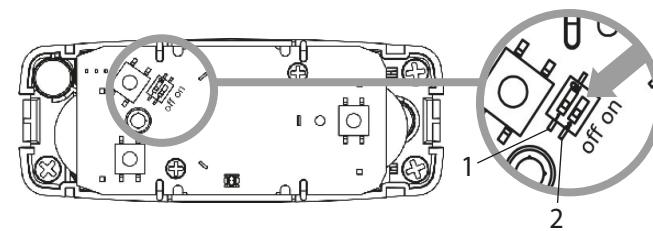
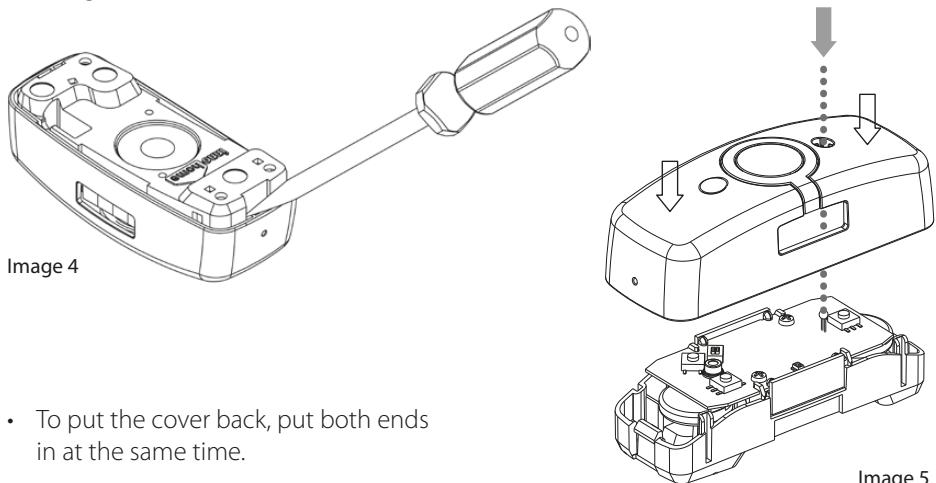


Image 3

## 4. Low battery alarm

### Opening and closing the Intelligent Heat Sensor cover

- Use the tip of a screwdriver to carefully detach the cover, one end at a time (image 4).



- To put the cover back, put both ends in at the same time.
- Make sure that the black round sensor goes through the opening in the cover (image 5).

The Intelligent Heat Sensor is powered by solar panels and batteries. The working life of the Sensor is on average 10 years, based on the number of alarms. The batteries are fixed and cannot be changed.

The battery alarm starts for at least 1 – 2 months (depending on the amount of light) before the batteries run out. It is however recommended to immediately change the Intelligent Heat Sensor, since **if the batteries run out, the range can only be used for 5 minutes at a time, until a new Heat Sensor is installed.**

The battery alarm can be postponed for 12 hours by pressing the Heat Sensor cover once.

### If the Intelligent Heat Sensor batteries have run out

The range is turned off. To activate 5 minute cooking time, and to reset the Control Unit battery signal, turn the electricity off for 15 seconds using range fuse (on the main electricity board).

*When the Sensor is at the end of its working life, please take care to recycle the old Sensor appropriately, see the next chapter.*

## 5. Applied standards

FCC Rule Part: 15.231:2015 (Periodic operation in the band 40.66-40.70 MHz and above 70 MHz)

IC Rule Part: RSS-210 Issue 8, 2010 and RSS-GEN Issue 4, 2014.

UL 60730-1 AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE - PART 1: GENERAL REQUIREMENTS - Edition 4 - Revision Date 2014/05/21

UL 60730-2-9 STANDARD FOR AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE - PART 2-9: PARTICULAR REQUIREMENTS FOR TEMPERATURE SENSING CONTROLS - Edition 3 - Revision Date 2013/08/16

CSA E60730-1:13 AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE - PART 1: GENERAL REQUIREMENTS - Edition 4 - Issue Date 2013/03/01

CSA E60730-2-9 AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE - PART 2-9: PARTICULAR REQUIREMENTS FOR TEMPERATURE SENSING CONTROLS - Edition 3 - Issue Date 2015/09/01

## 6. Warranty

This product has a 2 year manufacturer's warranty that covers defects in material or workmanship, starting from the date of purchase. This warranty does not affect your legal rights. The warranty covers use of the product in normal conditions in private households and shared housing. The warranty is limited to the replacement or repair of faulty components. The warranty includes batteries in normal private household use.

The warranty applies only when the product is used according to instructions. It does not cover damage arising from misuse, improper handling, while in transit, application of force, dust, dirt, water or other environmental factors, defects due to causes beyond control such as lightning, abnormal voltage, acts of God.

In case of a warranty claim, please contact the vendor for instructions. Only authorised returns with a full description of the fault are accepted. After the warranty period, repairs may be charged and are not always possible.

Warranty claims do not extend the original warranty period and the warranty of the replacement parts expires with the warranty of the product. Unless there is a statutory obligation, the manufacturer is not responsible for further claims, including personal or material damages, arising from the use of the product or from non-functioning or mis-functioning of the product.

## 7. Technical Specifications

Patents pending

### Control Unit SGC430-U3-35 or SGC430-U4-35

- SGC430-U3-35: NEMA 10-50P/R, 35 A, 250 V~ X, Y, W
- SGC430-U4-35: NEMA 14-50P/R, 35 A, 250 V~ X, Y, W, G

### Intelligent Heat Sensor SGS530

- Wireless 315 MHz/10mW RF
- Audible alarm max. 80 dB(A) @ 40"(1 m)
- Battery powered with long battery  
No external power needed.

### Features

- Range electricity supply cut-off in hazardous temperatures (self-learning maximum temperature and rate of temperature increase) (patent pending)
- Sensor Dislocation Alarm
- Fault diagnosis (patent pending)
- Range 'emergency use' in a fault situation for 5 min
- 15 adjustable sensitivity levels (learning) (patent pending)
- Pre-alarm signal prior to cutting the power
- Manual alarm reset
- Audible alarm signal min. 65dB(A), max. 80dB(A) @ 40" ft (1 m)
- Silent alarm
- Alarm light
- Sensing distance (from the range top) 18"-40" (45 - 100 cm) hood installation, 26"-32" (65 - 80 cm) wall installation

Maximum rated current (A):	35 A
Rated voltage or rated voltage range in volts:	250 V for SGC430-U3-35 and SGC430-U4-35
Nature of supply:	AC
Purpose of control:	Operating control
Construction of control:	Independently mounted control
The type of load controlled by each circuit:	Resistive
Degree of protection by enclosure:	Open type
Operating ambient temperature:	0 °C to 40 °C
Classification of control according to protection against electric shock:	Class I equipment
Number of automatic cycles (A) for each automatic action:	100 000 cycles
Method of mounting controls:	Surface mounting
Method of attachment for non-detachable cords:	Type Y
Intended transportation condition of control:	-10 °C to 55 °C
Additional features of Type 1 or Type 2 actions:	Type 1.B
Control pollution degree:	2
Rated impulse voltage:	2500 V

