1. Welcome

Thank you for purchasing this Honeywell smoke or heat alarm.

The alarm is suitable for use in domestic premises (including static holiday homes) and leisure accommodation vehicles (LAVs)

This manual contains important safety information about the installation and operation of the alarm. Please read the manual carefully and keep it in a safe place for future reference. Please also explain the alarm operation to all other occupants of the building.

You are advised to have a fire evacuation plan, which you should test every month. Everyone in the building should be familiar with the alarm signals, so that they react to them without delay.

Warnings

To avoid dust and debris contamination, the smoke or heat alarm should be removed from the mounting for the duration of any building work involving dust or debris. If this is not possible then the alarm vents must be fully covered with a plastic bag or tape whilst the work is in progress.

While covered, the alarm will not detect fires or smoke, so it is vital the covering is removed when work is completed each day, and replaced the following day if necessary.

The alarm is permanently sealed for safety, so do not attempt to open it.

If you are in any doubt regarding the cause of an alarm it should be assumed that the alarm is due to an actual fire and the dwelling should be evacuated.

2. Description

XH100 XS100 XS100T

Honeywell offers three models of its battery powered smoke or heat alarms:

XH100 is a **heat alarm** approved to BS5446-2:2003.

XS100 is an **optical smoke alarm** approved to EN14604:2005 and uses an optical detection technique only.

XS100T is a **optical-thermal smoke alarm** approved to EN14604:2005, which uses dual detection techniques for quicker response times, wider range of fire types and fewer false alarms.

All have a sealed-in battery with a 10-year lifetime and warranty. They have clear visible status indications for Power (green), Fault (yellow) and three extra-large Alarm indicators (red).

In addition, all versions have an audible alarm and a **TEST/HUSH** button.

Each smoke or heat alarm has a dot on its side indicating which type of alarm it is.

Heat alarm	Optical smoke alarm	Optical-thermal smoke alarm
•	• •	• • •

All Honeywell X-Series alarms (including optional X-Series Carbon Monoxide alarms) can be wirelessly interconnected using an optional plug-in module. This means that if one X-Series Alarm triggers an alarm, all interconnected units will give a loud audible alarm (85dB) as well. This is especially useful, when living in a large or multi-story dwelling. The maximum number of devices that can be added to a network is 32. Some wireless module information is included in this manual for completeness. If equipped, the module will use the indicator for Wireless (blue) on the smoke or heat alarms. The XH100 gives a fire warning when the temperature at the alarm reaches 58°C.

CE 16 — 0333 DOP-RSA002 DOP-RSA003 EN 14604:2005/AC:2008

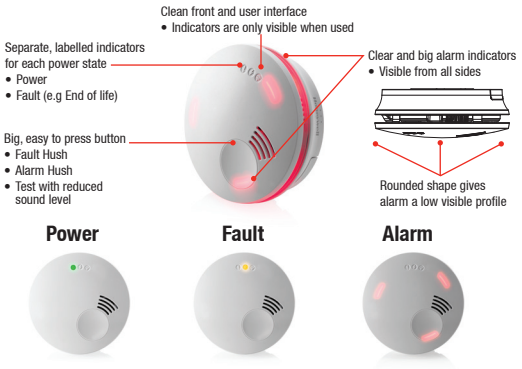
bsi. Domestic Smoke Alarms KITEMARK™ — KM 634563 BS EN 14604:2005/AC:2008

bsi. Heat Alarms KITEMARK™ — KM 630857 BS 5446-2:2003

The CE mark affixed to the XS100 and XS100T confirms their compliance with the European Directives which apply to the products and, in particular compliance with the harmonised specifications of standard EN 14604 relating to Construction Products Regulation 305/2011.

The BSi Kitemark is a product or service certification mark that shows it has been tested independently and audited to ensure it meets the appropriate standards of quality and safety.

3. Smoke and Heat Alarm Operation



All alarms have three (four, if equipped with wireless module) status indicators and a **TEST/HUSH** button.

The green **POWER** light indicates that the unit is activated and working normally.

The red **ALARM** light indicates that a fire has been detected.

The yellow **FAULT** light indicates that the unit is not working properly.

The **TEST/HUSH** button is used to test the unit, or to mute an alarm or fault signal.

Normal operation

The green **POWER** light will flash once per minute, to indicate that your alarm is working*.

Note: There is an option to disable the flashing power light during initial setup e.g. for installation in bedrooms. Please see the installation instructions for further details.

Alarm

If a fire is detected, the red **ALARM** indicators will flash and the loud audible alarm will sound continuously. You should immediately evacuate the premises and then contact the emergency services. (Do not pause to collect property or to ring for help.)

However, if you are certain that it is a false alarm caused by steam, cooking fumes or burnt toast; you can press the **TEST/HUSH** button to silence the alarm for 5 minutes while the air clears.

Caution: If you cannot reach the alarm from floor level, use a broom handle (or similar) to press the test button. Please do not climb on anything to help you reach.

*Note: The Alarm **HUSH** function will silence the alarm for 5 minutes after which the alarm will return to full sensitivity. The Alarm **HUSH** function can be operated repeatedly if required.*

Faults

If the unit is in **FAULT** the **YELLOW** light will flash every minute with one short chirp. (The only exception is a wireless module fault, which is signalled with 3 chirps. In this case, refer to the wireless module manual for further details).

If there are other alarms connected to it in a network, they will flash and chirp every four hours to show that an alarm somewhere in the network has a fault, and that it needs to be investigated.

When an interconnected alarm is in fault or alarm, all the interconnected alarms will chirp. The alarm that is in fault or has detected a threat will chirp and flash. Only the alarm that is in fault or detected the threat can be silenced, silencing the interconnected alarms.

Once the alarm in the fault state is located, counting the number of chirps and flashes will establish whether it is a wireless module fault or a smoke alarm fault.

The chirps can be silenced for 24 hours by pressing the **TEST/HUSH** button until the yellow LED blinks. Pressing the button again will restore the chirps. The 24 hour period can be restarted by pressing the **TEST/HUSH** button twice. When a remote fault occurs, press the **TEST/HUSH** button on the alarm that is in the fault state as that will hush the other alarms in the network.

You must investigate and clear all faults without delay. When you find the faulty alarm:

- Check the 'Replace by...' date, and replace the alarm if it has expired.
- Check the dates on all of the other alarm modules if one module has passed its 'Replace by...' date.

Note: The fault signal could be caused by a low battery, or an electronics failure, or by dust entering the unit and obstructing the optical sensor.

A replace by date is also printed on the side of the unit to facilitate an advance replacement before the end-of-life signal is given. This date includes a 6 months shelf life, i.e. this is the latest date the unit should be replaced.

This package contains:

- ☑ An XS 100 optical smoke alarm which uses the light scattering principle

or

- An XS100T optical-heat alarm which uses the light scattering principle in combination with a heat sensor

or

- An XH100 Heat Alarm (certified by BSi only)

☑ The alarm includes a non-servicable battery giving a 10 year life

☑ Screws and wall plugs for mounting the alarm

☑ Installation and maintenance instructions

3. Smoke and Heat Alarm Operation continued

Status	Lights and Sound				Meaning
	Alarm (Red)	Power (Green)	Fault (Yellow)	Sound	
NORMAL OPERATION*	○	✳	○	🔇	Normal operation No smoke and/or heat present
	Flashes once every minute. *NB light can be switched off (see installation section)				
ALARM	✳	○	○	***	Smoke and/or heat detected
	3 chirps and flashes continuously for 60 minutes. Pattern is then repeated once every 30 seconds.				
REMOTE SMOKE OR HEAT ALARM or REMOTE CARBON MONOXIDE ALARM**	○	○	○		Fire detected by an interconnected smoke or heat alarm or Carbon monoxide leak detected by an interconnected Carbon Monoxide alarm
	Smoke or heat ALARM: 3 chirps continuously / Carbon Monoxide ALARM: 4 chirps continuously.				
REMOTE FAULT**	○	○	☀		A wireless connected unit is in fault
	Networked units – 4 chirps and 4 flashes every 4 hours. The fault will be broadcasted on the network				
WIRELESS MODULE FAULT	○	○	☀	***	The wireless module is not working correctly. Refer to the wireless module manual for further details
	Unit with the fault – 3 chirps and 3 flashes every minute. This fault will not be broadcasted on the network				
FAULT	○	○	☀	***	The unit has reached its end of life and must be replaced
	1 chirp and 1 flash every minute				

*unless the light is switched off during installation
**Only applicable when a wireless plug-in module is installed. Only silencing the alarm that is in fault or that detected the threat will silence the interconnected alarms. See Warning in section 1
***unless muted by pressing the TEST/HUSH button

4. Precautions during use

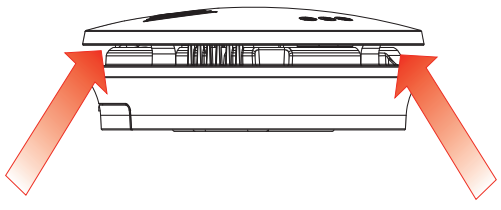
The smoke or heat alarms do not require any maintenance other than to clean the outside case occasionally with a damp cloth and mild detergent.

For the smoke alarms (XS100T, XS100) ensure that the openings on the side of the unit are not blocked with dust or dirt.

Dust and insect contamination can inhibit the operation of the smoke alarm. Use a vacuum cleaner to ensure that it is kept clean and free of dust and other contamination.

Warning

Do not paint the detector



5. Testing your alarm

Automatic self-test

Your smoke or heat alarm has a self-test function, which is performed automatically every 10 seconds.

Monthly Test

The smoke or heat alarm should be tested monthly to check that all visual and audible signals are working.

Press the **TEST/HUSH** button for 1 second to activate a full test cycle showing all lights/messages (green, yellow, red) and sound with the audible output at a reduced level

Hold the **TEST/HUSH** button for 10 seconds or more if you want to test the full 85dB sound level.

Test/Measuring mode overview

Press the button for	1 s	2 s 3 s	4 s 5 s 6s 7s	8s 9s	10s 11s 12s 13s	14s 15s 16s 17s	18+s
Unit mode		Green Flash + chirp Yellow Flash + chirp Red Flash + chirp	Reduced volume alarm pattern	Pause	High volume alarm pattern	Pause	Remote Test* (see 'Monthly Test with Wireless Function note below)
		Done even if button released		Will go back to Normal mode as soon as button released			Button may be released

Warning

If you cannot reach the alarm from floor level, use a broom handle (or similar) to press the test button. Please do not climb on anything to help you reach.

Monthly Test with Wireless Function

To test your wireless alarm communication, press the test/hush button on one alarm and keep it pressed. Once the alarm has completed its full volume alarm test, it enters a Remote Test state comprising one red LED flash with a chirp every 6 seconds. This is repeated by all interconnected alarms, enabling each connected alarm to be checked at the same time. Pressing the test/hush button again returns the alarms back to the Normal Condition. Alternatively, the alarms will return to a normal condition after 10 minutes if the test/hush button isn't pressed.

For more information, refer to the Wireless Module manual.

I56-6200-002

Contact us

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Honeywell

Please Note:
While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract. Please retain product documentation for the lifetime of the product.

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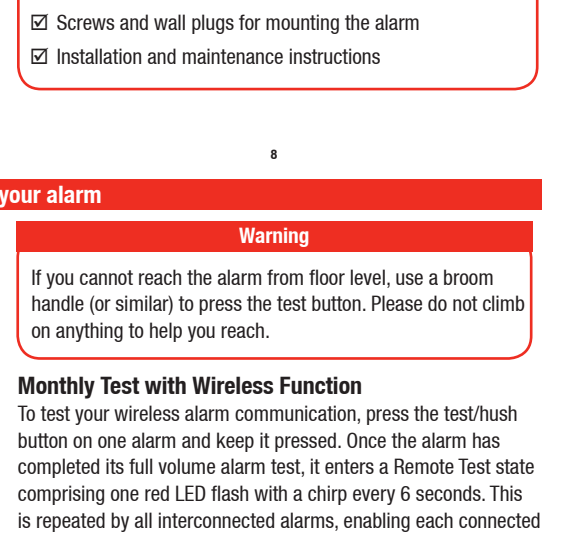
Operating and Installation Instructions

Honeywell



X-Series Battery Powered Smoke and Heat Alarms
XS100T Optical-thermal smoke alarm
XS100 Optical smoke alarm
XH100 Heat alarm

6. Specification

Reliability	
Detection principle	XS100T: Optical with thermal assistance XS100: Optical XH100: Thermal
Approvals	XS100T, XS100: CE EN14604:2005/AC:2008 XH100: BS5446-2:2003 BSi Kitemarked
Other compliances	RoHS, REACh, R&TTE and EMC
Self-test function	Every 10 seconds
Lifetime and warranty	10 years
Operating environment	
Temperature	-10 °C to 55 °C
Humidity	25-95% Relative Humidity (non-condensing)
IP rating	IPX2D
Electrical and interconnection	
Power supply	Long-life lithium battery, 3V sealed-in
Wireless	A separately sold wireless plug-in module XW100 is available
User interface	
Visual indicator	Power: Green LED Alarm: 3 large red LEDs Fault: Yellow LED Wireless (if installed): Blue LED
Audible	>85 dB @ 3 m with distinct alarm sound (3 chirps)
Button	Test with reduced sound level Alarm hush Fault hush (24 hours)
Product	
Size	Ø 116 mm x 42 mm
Weight	185 g
Packaging	
Type	Carton Box with Euro-hole hanger
Dimension	119 x 119 x 55 mm
Scope of supply	Smoke or heat alarm including sealed battery Mounting kit: screws + plugs Instruction manual

7. Installation – Where to site the alarms

This section provides general recommendations for the location of battery powered smoke or heat alarms in residential premises. Please ensure that you also follow country specific regulations and guidelines such as the British BS5839-6 or the German DIN14676. For example, certain countries require the installation of interconnected mains powered smoke or heat alarms.

The selection of the correct smoke or heat alarm model depends on the location it will protect.

Where to install Smoke Alarms (XS100T and XS100)

Ideally a smoke alarm should be installed in every room of a house, except kitchens, bathrooms and garages. As a minimum, one **smoke alarm** should be fitted on every level of the house, including stairways. While the XS100 smoke alarm is sufficient for this purpose, the XS100T optical-thermal fire and smoke alarm is specially recommended for use on exit routes and stairways as it has the potential to detect heat build-up in narrow or high areas where smoke may not reach the alarm.

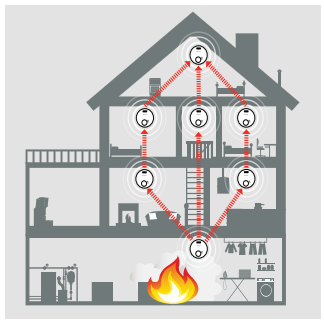
Where to install Heat Alarms (XH100)

Heat alarms should be installed where smoke alarms can't go, as they are not affected by fumes, vapours or condensation. I.e. they can go in kitchens, bathrooms or garages.

7. Installation – Where to site the alarms continued

Using alarms in a network

Networked alarms can give advance warning of potential danger from hidden fires. They operate as shown below.



8. Installation – Where not to put the alarm

Where <u>not</u> to put the Smoke Alarms (XS100T and XS100)

A smoke alarm (XS100T, XS100) should not be installed in bathrooms or kitchens where steam or cooking fumes could give rise to false alarms, or in a garage where it could react to exhaust fumes from your vehicle.

Where <u>not</u> to put the Heat Alarm (XH100)

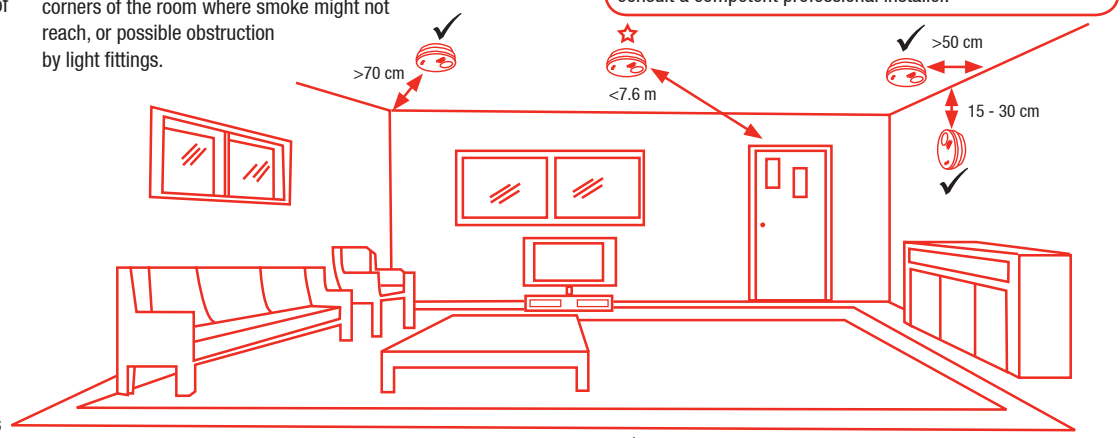
Heat alarms should not be installed in locations where local regulations require a Smoke alarm that satisfies EN14604. Check with your local fire and rescue service if you are unsure.

Preferred locations

The alarm should be fitted on the ceiling, as close to the centre of the room as possible but at least 50 cm (10 inches) from any wall or light fitting. This is to avoid dead air in the corners of the room where smoke might not reach, or possible obstruction by light fittings.

Warning

It is the responsibility of the installer to ensure the product is installed in line with current regulations. If in doubt please consult a competent professional installer.



The alarm should be fitted where you can hear it when you are asleep, for example in the hallway outside your bedrooms. This will also protect you from smoke rising up the stairs from a lower level.

Note: National regulations differ with respect to quantity and placement of smoke detectors. If in doubt, please check, for example by contacting your local Fire Service.

9. Installation – Mounting the Alarm

The Alarm pack contains:

- 1 x Smoke or heat alarm
- 1 x Ceiling mounting plate
- Plugs and screws
- Instructions (this document)

The alarm must be fixed horizontally and to the ceiling using the enclosed mounting plate. The mounting plate can be screwed to the ceiling using either the central hole or the two slots in the ceiling mounting plate (see diagram).

Fitting the alarm to the plate will switch it on.

Note: In special circumstances an alarm may be mounted on a wall.

Mounting the Alarm on a ceiling

The central hole may be used on its own or alternatively if specific fixed orientation is required, the two slots can be used

1. Place mounting plate where you want to mount the alarm.
2. With a pencil, mark the location of the screw holes.
3. Drill either one or two holes 5 mm in diameter and >25 mm in depth and then insert the provided plastic plugs.
4. Screw the mounting plate to the ceiling using supplied screws.

Mounting the Alarm on a wall

Sometimes it may be advisable to mount additional alarms on a wall instead of a ceiling. For example, this might be necessary in tall vertical spaces such as stairwells, because heat and smoke may rise rapidly and by-pass the 'dead air' areas that can form beneath stair landings. Also, by visibly flashing above the stairs, it can warn occupants of danger on a lower floor before they descend into it.

If you do use this method, the alarm(s) should be placed where they can be seen from above, and should be well away from any corners or obstructions.

The procedure for fitting the alarm is the same as that used for ceiling mounting, but you may want to put the locking tab at the bottom or side where it is more easily accessible.

10. Deactivating the power light flashes

Once fully mounted in the mounting plate, the green power light will flash every minute to show that the batteries are OK. However, this might be annoying in bedrooms, so you have the option to stop this happening.

Warning

The optional power light de-activation can only be done during the first 30 seconds after pushing the alarm fully into the mounting plate!

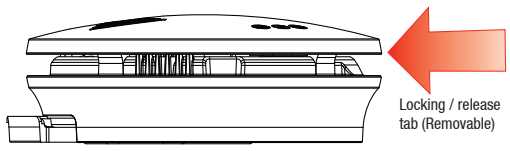
To deactivate the power light flashes, press the **TEST/HUSH** button five times during the first 30 seconds after pushing the alarm fully into its mounting. The power light will flash each time the **TEST/HUSH** button is pressed. If deactivation is successful, the green **POWER** light will flash five times in conjunction with short chirps

11. First time switch on

First read the paragraph above and decide whether or not you want the power light to flash.

To switch on the alarm:

1. Fit the alarm onto the ceiling mounting plate approximately 10 mm off centre
2. Press firmly against the mounting plate and slide the alarm sideways until the locking tab clicks
3. The unit will automatically switch on

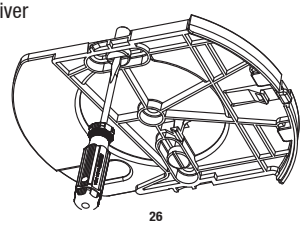


Switch on operation

12. For Tamper Proof Ceiling Mounting

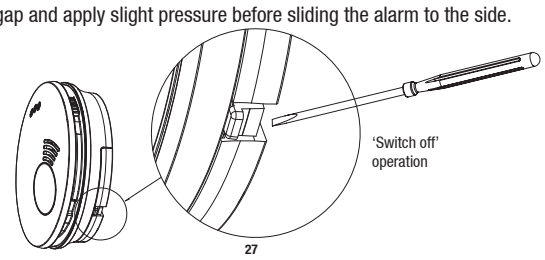
The alarm can be locked via use of a tamper-proof clip on the mounting plate. This should be removed before installation.

1. Break off the removable clip. Pliers can be used if required.
2. Fix the alarm in place on the ceiling.
3. The alarm can now only be removed (and turned off) by using a screwdriver



13. Switching off the Alarm

The alarm is switched off by removing it from the ceiling mounting plate. To remove the alarm, press on the tamper proof tab located at the edge of the alarm, and then slide the alarm to the side to remove it from the mounting plate. If the tamper proof option has been used, insert a small screwdriver carefully into the gap and apply slight pressure before sliding the alarm to the side.



14. Decorating and Building Work

You are advised to cover or remove the alarm during decoration and building work to protect the alarm from inadvertent operation, damage, or the ingress of dust or debris.

Please ensure that alternative safety arrangements are in place while the alarm is covered and inoperable, and ensure that the protection is removed when work has stopped for the day. Failure to do so could lead to loss of life.

15. Conformance

The XS100 and XS100T have been tested and approved to EN 14604 for compliance with Construction Products Regulation 305/2011.

The XW100 radio module complies with the R&TTE directive and RED directive.

The XS100T, XS100 and XH100 comply with the current EMC and ROHS directives.

The XH100 has been tested and approved to BS 5446-2, fire detection and fire alarm devices for dwellings, specification for heat alarms.

These declarations of conformity are available for download from homesafety.honeywell.com.

16. Troubleshooting and getting assistance

If you have carefully read all of these instructions and your alarm still fails to work, contact the nearest customer service centre listed in the 'Contact Us' section. Our Customer Service advisors may be able to resolve your problem quickly. Alternatively you can contact your local supplier.

To return the alarm for repair or replacement, please either use the original packaging or put it in a solid box or padded envelope with a letter describing the fault. To prevent inadvertent activation in transit, please switch off the alarm by removing it from the mounting plate.

Please notify your postal service that the package contains sealed batteries, as they might be restricted or forbidden postal items.

Proof of purchase must be provided if you want to claim repair under the warranty.

17. Recyclable packaging

The Green Dot logo signifies that we are a member of an organisation which collects and recycles packaging. Our packaging is widely recycled using local facilities.

18. End of Life

This product complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC.

Components or assemblies bearing this or similar symbols shall not be treated as household or municipal waste. Waste electrical products (end of life) shall be recovered and disposed of at specialist WEEE disposal facilities.

Please contact your local authority, your distributor, or the manufacturer if you require more information about recycling WEEE.

19. Disclaimer

Smoke and heat alarms are designed to alert you to the presence of potentially dangerous smoke or fire. They are not designed or intended to remedy a fire or to locate or record a specific source of fire. Honeywell shall therefore not be held liable to pay for any fire investigation or service call carried out or arranged in response to an alarm.

Dust and insect contamination is beyond our control, it is totally unpredictable and is considered normal wear and tear. For this reason, contamination is not covered by the warranty.

20. Warranty

Honeywell warrants your new smoke or heat alarm for ten years from the date of purchase by the end user or until the expiry date on the side of the unit, whichever occurs first, according to the specifications as set out in this instruction manual.

We will, at our discretion, repair or replace, with the same or a similar product, any part of the smoke or heat alarm which is found to be defective in either materials or workmanship within the warranty period.

We shall be under no obligation to repair or replace units which are found to be defective in any way due to unreasonable use or neglect, improper storage, if not used or maintained in accordance with its user manual, or if the product has been tampered with or found to have been dismantled (other than as specified in its user manual).

The warranty supplied with this product does not replace your statutory rights, but our liability under the warranty is limited to the price of the faulty product.

In no event are we liable for (a) any direct, indirect, incidental, consequential loss; (b) any loss arising from business interruption; (c) loss of profits; (d) loss of revenue; (e) loss of use of any property or capital; (f) loss of anticipated savings or loss of data due to the use of this product.

21. What to do in the case of a fire alarm

- Raise the alarm by shouting Fire, Fire, Fire, or by banging metal objects together.
- Get out straight away, using the nearest fire exit.
- Do not stop to investigate the fire or to collect valuables or pets.
- Use your escape route to get everyone out and meet at an agreed point.
- Close any doors which are open, and only open the doors you need to go through. This will help to stop the fire spreading so rapidly.
- Check doors and handles with the back of your hand. If they feel warm, don't open the door as the fire is on the other side.
- If there is a lot of smoke, crawl along the floor as the air and visibility will be better.
- Once you've got everyone out of the building, call the Fire Brigade from any phone. Give the operator your name and address.
- Don't go back into the building for anything. If there is still someone inside, tell firefighters when they arrive – they will be able to find the person quicker and more safely than you.
- Find somewhere safe to wait for the Fire Brigade. When they arrive, try to give them as much information as possible about the fire and building.