

User Manual

# *FireAngel* SPECIFICATION

10 Year Life Multi Sensor Smoke Alarm  
ST-632

**THERMOPTEK®  
MULTI-SENSOR**

**SMART RF READY**

**TEST YOUR ALARM MONTHLY**

Please retain this user manual for future reference

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651d/13



0832-CPR-F2598  
EN 14604:2005+AC:2008  
Smoke Alarm Devices  
FSTDOP19002  
Model No. ST-632



**Note:** This User Manual is also available in large text and other formats.  
Please call **0330 094 5830** for further information

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ST-632  
GN5490R1

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# INTRODUCTION

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Groundbreaking Thermoptek technology combines the very latest in optical sensing with thermal enhancement, providing faster response to both fire types eliminating the need for ionisation sources which can be harmful to the environment. In addition, this smoke alarm allows the low battery warning chirp to be silenced until it is convenient to replace the alarm (recommended within no more than 30 days).

To enable the unit to interlink with other alarms, this alarm can be fitted with a Smart RF Module which operates on FireAngel's Wi-Safe 2 networking protocol.

**IMPORTANT:** This user manual contains important information regarding the operation of your smoke alarm. Ensure you read this user manual fully before installing and operating the alarm. If you are installing this smoke alarm for use by others, you must leave this manual with the end user.

## AUTOMATIC POWER ENGAGE

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Your 10 year life smoke alarm is powered by an internal lithium battery. To avoid unnecessary use of the battery prior to installation, and to ease disposal when the alarm reaches the end of its life, the alarm is supplied with the battery in a deactivated state. The battery on this alarm is automatically enabled when the alarm is fully locked on to the base plate.

**WARNING:** Lithium batteries must not be exposed to excessive heat.

**IMPORTANT:** Your alarm will not work until it is correctly fitted to the base plate.

## THERMOPTEK TECHNOLOGY

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Thermoptek alarms are "toast-proof" meaning they can be positioned in areas close to kitchens that may be affected by cooking fumes. Heat alarms should be used in kitchens where required.

This combines an optical sensing chamber with thermal enhancement. The alarm is effective at detecting slow burning fires, and constant monitoring of temperature changes enables the sensitivity of the alarm to be instantly increased thereby quickening the typical response time to fast flaming fires significantly.

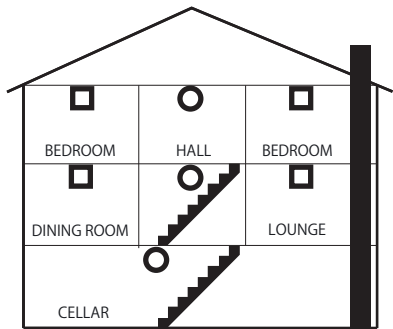
## POSITIONING

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**WARNING:** Your smoke alarm can be installed into a new build property as additional protection to an existing smoke detection system only. It cannot be used as a substitute for a hard wired system as required in new build properties. In this type of property the building regulations require alarms to be interlinked. You can obtain further information from your local fire service or building control department at your local council offices. These sources generally provide advice on new builds or projects that require planning permission.

Your smoke alarm typically meets the minimum requirements for family living units in existing buildings, as long as at least one unit is installed on each floor/level of your property.

In order to achieve the earliest fire warning, we recommend that a smoke alarm is fitted in all rooms where the temperature is normally between 4°C (40°F) and 38°C (100°F). Check the section on 'Positioning' to ensure that the smoke alarm is to be correctly positioned for the particular dwelling into which it is intended to be installed.



## EXISTING HOMES

- MINIMUM RECOMMENDATIONS
- RECOMMENDED FOR ADDITIONAL PROTECTION

**NOTE:** Kitchens should be covered by a self contained heat detector.

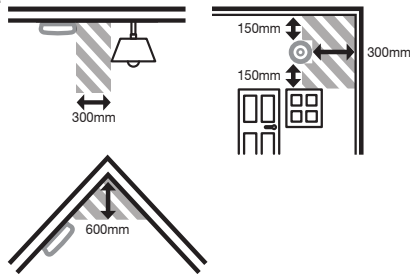
For further information on where to install your alarms refer to BS5839-6.

**WARNING:** The alarm positions shown are based on typical homes. Construction and layout of individual dwellings will vary, so this should be regarded only as a guide. Check with your local fire station for additional guidance or, for further advice, see standard BS5839-6.

Smoke alarms should be sited at least 300mm from light fittings and walls. Ideally as central as possible in the room.

If positioning your smoke alarm on the wall, the top of the detection element must be between 150mm and 300mm below the ceiling, and at least 300mm from a wall.

Smoke alarms should be positioned at no more than 600mm vertically below the highest point in the room.



## Multi-family or mixed occupant residence (Tenancy building, student accommodation)

Your smoke alarm can also be used in individual flats and bedsits, providing the same conditions are met as for a single-family residence. However, there must

already be a primary fire detection system that meets regulatory requirements for common areas such as lobbies and hallways.

### **Institutions and Hotels**

This includes motels, hospitals, day care facilities, long-term health care facilities, boarding houses and dormitories. Your smoke alarm can be used in individual sleeping/resident rooms, providing the same conditions are met as for a single-family residence. However, there must already be a primary fire detection system that meets regulatory requirements for common areas such as lobbies and hallways. Use of this smoke alarm in common areas may not provide sufficient fire warning to residents or meet regulatory requirements. This smoke alarm is designed to operate as a standalone smoke alarm.

**WARNING:** Without interlinking, this smoke alarm will not communicate with other smoke alarms. It is not intended as a substitute for a complete alarm system.

### **Mobile Homes and Caravans**

This smoke alarm is suitable for use in mobile homes and caravans.

### **Commercial and Industrial Premises**

This smoke alarm is not intended for any non-residential, commercial or industrial application, nor for any other purpose than described above.

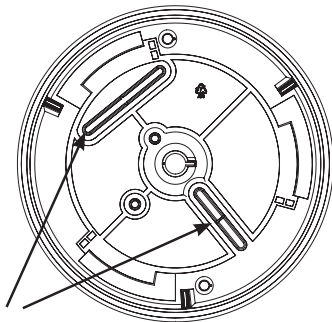
# **HOW TO INSTALL YOUR SMOKE ALARM**

**IMPORTANT:** Make sure you have read and understood this manual before installing your smoke alarm.

## **1. Preparation**

The base plate should be attached to the ceiling or wall.

Break out the tabs from the base plate. Use the fixing slots on the base plate as a guide when marking the position of the drill holes. With an appropriately sized drill, drill the holes and insert the plastic fixing anchors supplied (if needed).

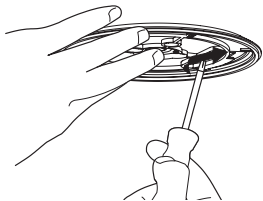


Base  
plate tabs

## **2. Install Base Plate**

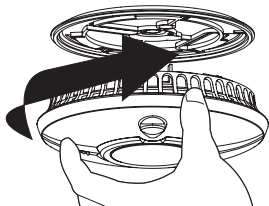
Fit the base plate to the ceiling or wall using the screws provided.

# OPERATION



### 3. Fit Your FireAngel Smoke Alarm

To fit to the smoke alarm to the base plate included in this pack, position the alarm on the base plate then twist it clockwise until the alarm is locked in position. Make sure the alarm is twisted on fully.



The battery will now activate. The red indicator LED on the front of the alarm should flash approximately once every 45 seconds to show that the alarm is active.

**WARNING:** Removing the smoke alarm from its base plate will deactivate the unit and prevent it from detecting smoke.

### 4. Test Your FireAngel smoke alarm

After fitting the alarm to the base plate, wait for 5 seconds for the alarm to settle, then test the alarm. See "Alarm Test".

### NORMAL CONDITION

The alarm will check its sounder once a month. If the alarm is interlinked with a FireAngel Wireless Gateway unit via a Smart RF network, it will report the alarm status into the Wireless Gateway.

During normal operation, the LED does not flash and the audible alarm signal does not sound.

**NOTE:** The alarm checks the sounder every 30 days. During this time the unit may emit an unobtrusive clicking noise. This does not resemble the alarm signal or fault signal and will be difficult to detect during everyday activity.

### ALARM CONDITION

If your FireAngel alarm goes into alarm, 3 loud beeps will sound, which continually repeat until the cause of the alarm being activated is found and resolved. The red LED on the alarm will flash rapidly (once per second) during these alarms.

### FAULT INDICATION

If the yellow LED flashes and an short audible beep is heard at a different time, this indicates that there is a fault; the unit may not detect smoke and may not sound an alarm in the event of a fire. If this occurs, it is strongly recommended that you replace the alarm immediately.

## **LOW BATTERY CONDITION**

**IMPORTANT:** Your smoke alarm requires that its battery has sufficient power capacity to operate correctly.

Should your FireAngel smoke alarm enter a low battery condition, the unit will emit an audible 'chirp' once every 45 seconds and the amber LED will flash at around the same time. When this occurs, we recommend you replace the alarm immediately. Your smoke alarm will continue to warn of this low battery condition for at least 30 days, however, failure to change the alarm after this time would mean your smoke alarm may have insufficient power to alert you in a real fire situation. When the alarm is removed from the base plate the battery will automatically deactivate and the low power warning chirp should stop, allowing you to dispose of the alarm.

## **REMOTE TESTING**

For additional safety and protection this alarm can be monitored remotely. To achieve this the alarm must be interlinked via a Smart RF module to a FireAngel Gateway unit or Wi-Safe 2 Mesh Monitor.

The alarm permits the Wi-Safe 2 Mesh Monitor to remotely test the alarm's sounder and to check that the alarm is connected to its base plate.

**ST-632 LED Indicators**

<b>Red LED</b>	<b>Yellow LED</b>	<b>Audible signal</b>	<b>Status</b>	<b>Action required</b>
Flashes every second		3 loud beeps repeating	Alarm	Check if there is a fire hazard and vacate property
Flashes once every 10 secs for up to 10 mins			"Smart silence" alarm has reduced sensitivity.	This will be as a result of you silencing a false alarm. Sensitivity will return to normal within 10 mins.
Flashes once every 45 seconds	Flashes at the same time as the red LED		Sounder fault	Call FireAngel technical support if within warranty. If not, replace alarm immediately
Flashes once every 45 seconds	Flashes at the same time as the red LED	Short beep emitted at the same time as the LED flash	Low Battery	Replace within 30 days
Flashes once every 45 seconds	Flashes once every 45 secs, 20-25 secs after the red LED	Short beep emitted at the same time as the red LED flash	Fault	Call FireAngel technical support if within warranty. If not, replace alarm immediately

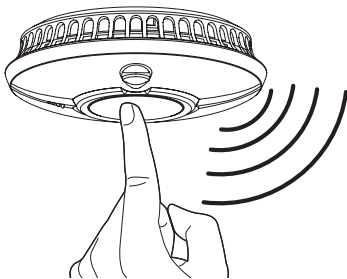


## ALARM TEST

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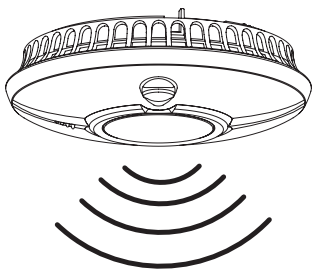
The alarm must be properly attached to the base plate before it can be tested.

- a) Press the test button in the centre and release.



- b) The unit will give an audible alarm consisting of 2 cycles of 3 loud beeps, then stop automatically.

- c) The red LED on the alarm will flash rapidly during the audible signal.



**NOTE:** The test button accurately tests the alarm's smoke sensing circuit, there is no need to test your alarm with smoke. If your smoke alarm fails to give an audible test signal, please refer immediately to the trouble shooting guide at the end of this manual.

**WARNING:** You should test your smoke alarm every month.

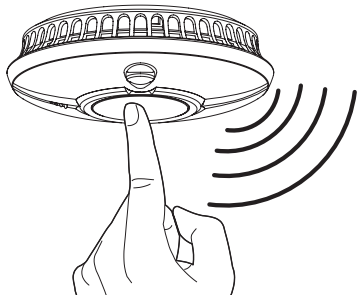
## ALARM SMART SILENCE™

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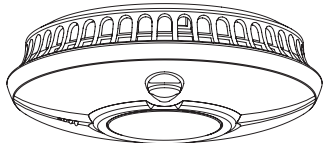
**DANGER:** If your smoke alarm emits the full alarm signal and you are not testing the unit, the smoke alarm is warning you of a potentially dangerous situation that requires your immediate attention. Only use the alarm silence function after making sure that there is no ongoing fire emergency situation. Do not block the vents on the alarm or disable the smoke alarm in any way, as this will remove your protection. Smoke alarms can sometimes react to cooking fumes or other non emergency situations. Your smoke alarm features "Smart Silence" technology. In the event of a known false alarm your smoke alarm can be temporarily silenced by pressing the central test button. Your alarm will automatically return to full sensitivity within 10 minutes.

**NOTE:** If the level of smoke reaching the alarm is very high, the alarm silence will be overridden and the alarm will continue to sound.

1. Briefly press and release the pause button, the alarm sound will shortly stop.

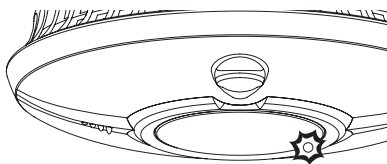


2. Your alarm will silence and enter into a reduced sensitivity reset cycle for approximately 10 minutes.

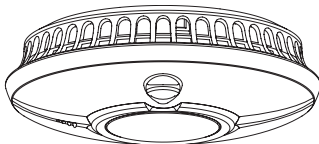


3. During the reduced sensitivity reset cycle, the red LED on your alarm will continue

to flash more rapidly than normal, approximately once every 10 seconds.



4. Once the reset cycle is complete, your alarm will automatically return to full sensitivity after a maximum of 10 minutes and the red LED will revert to flashing once every 45 seconds.



**DANGER:** Never ignore any alarm. Ignoring the alarm may result in injury or death. If your smoke alarm activates and alarms and you are not absolutely certain of the source of the smoke, get everyone out of the house immediately.

## SLEEP EASY™

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Low battery warnings often start at night or when it may be inconvenient to replace your alarm. You can silence the audible chirp for a period of 8 hours by pressing the test button. Your smoke alarm will still detect smoke during this time of low battery warning silence. However it is recommended that you replace your alarm immediately, and certainly within 30 days, as your alarm may then have insufficient power to warn you of a real fire situation after this time.

**WARNING:** Your smoke alarm cannot be silenced if the chirp is indicating a fault. In this instance, the unit should be replaced immediately to ensure protection in the event of a fire.

## MAINTENANCE

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Your smoke alarm has been designed to be as maintenance-free as possible, however there are several things you must do to keep it working properly.

**CAUTION:** Your smoke alarm is a sealed electrical device and no attempt should be made to open the case. Attempting to open the case will invalidate your Warranty.

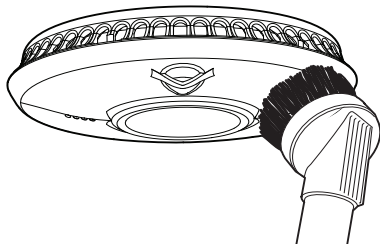
### Testing

Test your smoke alarm once every month see 'Alarm Test'. Any test failures should be reported to the Technical Support Team.

### Cleaning

As a minimum your smoke alarm should be cleaned once every 3 months using your

vacuum cleaner fitted with the soft brush attachment.



**WARNING:** Your smoke alarm may false alarm when it is being cleaned using a vacuum cleaner.

**IMPORTANT:** Do not use solvents or cleaners on your smoke alarm, as they may cause damage to the sensor or circuitry. The unit can be wiped with a slightly damp cloth.

**CAUTION:** Do not paint the smoke alarm as this may block the openings and prevent smoke from entering the sensor.

# TROUBLESHOOTING

Problem	Solution
Your FireAngel smoke alarm does not sound during testing.	<ul style="list-style-type: none"><li>• Make sure alarm has been rotated clockwise as far as it can go and is securely located on base plate (this means the battery has been activated). If testing immediately after first activating the alarm you should allow a few seconds for the alarm to settle before testing.</li><li>• Make sure you push the centre of the test button firmly.</li><li>• Check the LED flashing pattern (see the section on “LED indicators”).</li><li>• If the unit has been silenced and is in low sensitivity mode, it may not test. Wait 15 minutes then try again.</li><li>• If the alarm has been recently fitted and it still fails to self-test then contact technical support (see below).</li></ul>
Your FireAngel smoke alarm cannot be removed from its base plate.	<p>If you find that you cannot remove the smoke alarm from its base plate, the locking mechanism may have been engaged.</p> <p>Undue force may result in damage to the smoke alarm or the base plate, or both. For more information, contact your installer, or the FireAngel Technical Support Team between 9am - 5pm Monday – Friday. Telephone: <b>0330 094 5830</b>.</p>
Your FireAngel smoke alarm activates when no smoke is visible.	<ul style="list-style-type: none"><li>• Check the location of your smoke alarm (see the section on "Positioning").</li><li>• Clean the smoke alarm (see the section on "Maintenance").</li></ul>

Problem	Solution
Your FireAngel smoke alarm emits a brief beep intermittently.	<ul style="list-style-type: none"> <li>• Check the location of your smoke alarm (see "Application" and "Positioning").</li> <li>• Check that your smoke alarm is definitely the source of the beeping; ensure the noise isn't coming from another alarm (smoke/carbon monoxide/gas/ burglar alarm) by process of elimination.</li> <li>• If the brief beep is emitted once every 45 seconds, and the yellow LED is flashing around the same time, this indicates that the battery is low. The unit should be replaced within 30 days.</li> </ul>
You experience frequent unwanted alarms.	<ul style="list-style-type: none"> <li>• Check the location of your smoke alarm (see "Positioning").</li> <li>• Clean the smoke alarm (see "Maintenance").</li> </ul>
The yellow LED is flashing and the alarm is emitting a short 'chirp'.	<ul style="list-style-type: none"> <li>• If the yellow LED is flashing at around the same time as the chirp, this indicates low power status; the alarm should be replaced as soon as possible, within a maximum of 30 days.</li> <li>• If the yellow LED is flashing at a different time to the chirp, this indicates a fault; the alarm should be replaced as soon as possible.</li> </ul>
<p>If you have any questions, please contact the Technical Support Team between 9am - 5pm Monday – Friday. Telephone: <b>0330 094 5830</b> or e-mail: <b>specification@fireangeltech.com</b> You can also visit the support section of our website <b>www.fireangeltech.com</b></p>	

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# DISPOSAL

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Waste electrical products should not be disposed of with your other household waste. The alarm is ideally suited for disposal within the waste electronic and electrical equipment (WEEE) recycling scheme.

Please recycle where facilities exist. Check with your local authority, retailer or contact our technical support team for recycling/disposal advice as regional variations apply.

Once the alarm is removed from the base plate the internal battery will be deactivated and the alarm will stop emitting the low power warning chirp. The unit is now ready for disposal.

**WARNING:** Do not attempt to open.

**WARNING:** Do not burn.

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# WARRANTY

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FireAngel Safety Technology Limited warrants to the original purchaser that its enclosed smoke alarm be free from defects in materials and workmanship under normal residential use and service for a period of 5 (five) years from the date of purchase. Provided product is sent back to FireAngel Safety Technology Limited with proof and date of purchase, FireAngel Safety Technology Limited hereby warrants that during the 5 (five) year period commencing from the date of purchase FireAngel Safety Technology Limited, at its discretion, agrees to replace the unit free of charge. The warranty on any replacement ST-632 alarm, will last for the remainder of the period of the original warranty in respect of the alarm originally purchased – that is from the date of original purchase and not from the date of receipt of the replacement product. FireAngel Safety Technology Limited reserves the right to offer an alternative product similar to that being replaced if the original model is no longer available or in stock. This

warranty applies to the original retail purchaser from the date of original retail purchase and is not transferable. Proof of purchase is required.

This warranty does not cover damage resulting from accident, misuse, disassembly, abuse or lack of reasonable care of the product, or applications not in accordance with the user manual. It does not cover events and conditions outside of FireAngel Safety Technology Limited's control, such as Acts of God (fire, severe weather etc.). It does not apply to retail stores, service centres or any distributors or agents. FireAngel Safety Technology Limited will not recognise any changes to this warranty by third parties.

FireAngel Safety Technology Limited shall not be liable for any incidental or consequential damages caused by the breach of any expressed or implied warranty. Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration for 5 (five) years.

This warranty does not affect your statutory rights. Except for death or personal injury, FireAngel Safety Technology Limited shall not be liable for any loss of use, damage, cost or expense relating to this product or for any indirect, or consequential loss, damages or costs incurred by you or any other user of this product.



