User Manual

FireAngel®

Wireless Interlink
Smoke Alarm + 10 Year Life

WST-630

THERMOPTEK® **Wi-Safe 2**

TEST YOUR ALARM WEEKLY

Please retain this user manual for future reference

CONTENTS

Note: This User Manual is also available in large text and other formats.
Please call **0330 094 5830** for further information. Fire & Rescue customers
call 0800 141 2561

INTRODUCTION

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 (or a copy of it) with the end user.

Your 10 year life smoke alarm is powered by an internal lithium power pack which is supplied in a deactivated state. The power pack is automatically enabled when the alarm is fully locked on to the base plate and disabled when removed.

IMPORTANT: Your alarm will not work until it is correctly located and secured onto the base plate.

SENSOR TECHNOLOGY

Traditionally 3 types of sensor technology have been used in domestic self-contained fire alarms. Optical smoke alarms are typically more effective at detecting slow burning fires, which can smoulder for hours before bursting into flames. Ionisation smoke alarms are generally more effective at detecting fast, flaming fires which consume combustible materials rapidly and spread fire quickly. Heat alarms are triggered when room temperature reaches a set point (typically 56°C). These alarms are generally used in locations where other alarm types are not suitable, such as kitchens.

Ground breaking Thermoptek technology combines the very latest in optical sensing with thermal enhancement, providing fast respo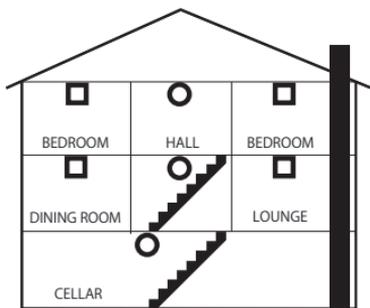nse to both fast flaming and smouldering fires, eliminating the need for ionisation sources which can be harmful to the environment.

The state of the art thermally-enhanced optical sensing chamber provides a fast reaction to both slow smouldering and fast flaming fires in a single alarm. Thermoptek technology constantly monitors temperature changes and if a rate of temperature rise is detected the sensitivity of the alarm is increased meaning it has a fast response time to fast flaming fires as well as slow smouldering fires.

APPLICATION

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.

WARNING: The alarm positions shown below 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 further guidance.

EXISTING HOMES

O MINIMUM RECOMMENDATIONS

☐ RECOMMENDED FOR ADDITIONAL PROTECTION

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

The WST-630 is designed to be wirelessly interlinked with other WST-630 smoke alarms. The WST-630 is not designed to communicate with wireless smoke alarms from other ranges or manufacturers.

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

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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 WST-630 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 the WST-630 smoke alarm in common areas may not provide sufficient fire warning to residents or meet regulatory requirements.

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.

System Categories
There are three Levels of Detection (LD). Generally the greater the fire risk the more comprehensive the system should be.

LD1 = The highest level of protection of all occupants who might occupy the dwelling over the lifetime of the fire detection and fire alarm system. A system installed throughout the premises, incorporating detectors in all circulation areas that form part of the escape routes from the premises, and in all rooms and

areas, other than those with negligible sources of ignition, such as toilets, bathrooms and shower rooms.

LD2 = A system incorporating detectors in all circulation areas that form part of the escape routes from the premises, and in all specified rooms or areas that present a high fire risk to occupants, including any kitchen and the principal habitable room.

LD3 = A system incorporating detectors in all circulation areas that form part of the escape routes from the premises.

Ensure that a Grade D system is adequate for the dwelling you are installing the alarms in.
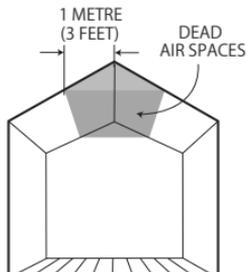
POSITIONING

Thermoptek smoke alarms are less prone to false alarms from cooking fumes, and are therefore suitable for locations near kitchens. However like other types of smoke alarms, Thermoptek smoke alarms can be susceptible to nuisance alarms from steam and should not be located too close to bathrooms and showers.

WARNING: Prolonged exposure to temperatures outside those stated above will reduce product life.
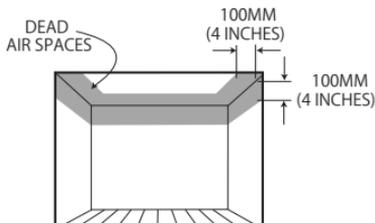
IMPORTANT: Obstructions such as steel reinforcement in concrete could block or impede the wireless signal. While the wireless range is over 200 metres in clear air / clear line of sight, the effective range may be reduced by wall and other obstructions in the building. Always ensure that after any

building work or after repositioning large items of furniture (beds, sofas, shelving units etc.), you carry out an alarm test on all networked smoke alarms to ensure they are all still working. It is recommended not to exceed 35m as the maximum distance between smoke alarms in the network.

Note: Up to 50 WST-630 smoke alarms and/ or Wi-Safe 2 accessories can be learned in to a single network.

1 METRE (3 FEET)
DEAD AIR SPACES

BEST LOCATION
(IN CENTRE OF CEILING)

DEAD AIR SPACES
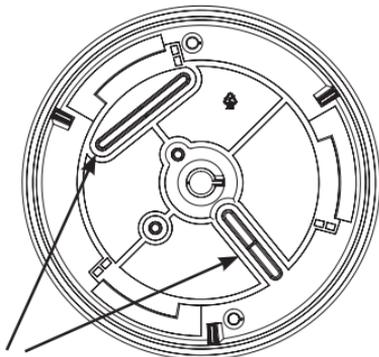100MM (4 INCHES)
100MM (4 INCHES)

HOW TO INSTALL YOUR SMOKE ALARM

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

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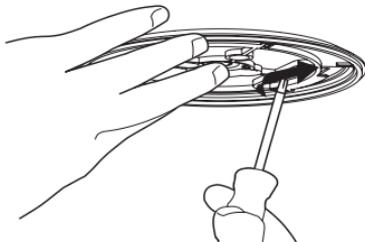The base plate should be attached to the ceiling or wall.

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 required).
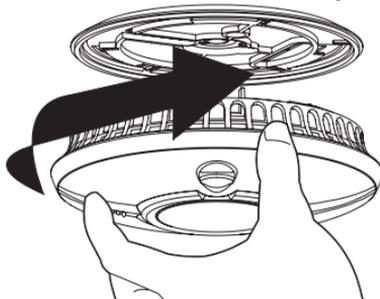

Base plate tabs

2. Install Base Plate
Fit the base plate to the ceiling or wall using the screws provided.

3. Fit Your Smoke Alarm
To fit 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 power pack will now activate. The red LED on the front of the alarm should flash approximately once every 45 seconds to show that it is active.

WARNING: Removing the smoke alarm from its base plate will de-activate the unit and prevent it from detecting smoke.

4. Test Your 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'.
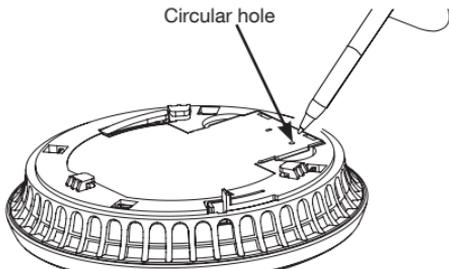
INTERLINKING YOUR WST-630 SMOKE ALARMS

This smoke alarm contains an inbuilt RF module, and enables you to wirelessly interlink two or more smoke alarms and create a network. Therefore WST-630 alarms need to be "learned in" or interlinked in order to communicate with each other. If one alarm activates, all other interlinked smoke alarms will also sound. Note that WST-630s can only be interlinked with other WST-630s and products within the Wi-Safe 2 range.
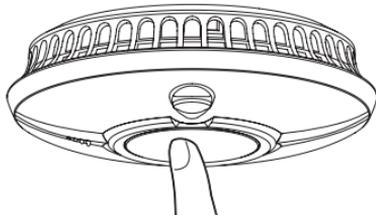
"Learning in" (interlinking) your Smoke Alarms:

The process below describes 'learning in' two alarms into a network, "Alarm 1" and "Alarm 2".

1. **Alarm 1:** Install Alarm 1 as described previously.

2. **Alarm 2:** Install the base plate for Alarm 2 in one of the recommended locations. Do not fit the second alarm to its base plate yet.

3. **Alarm 2:** Using a pen, a paper clip that has been opened out, briefly push and release the learn button located in a circular hole in the back of Alarm 2.
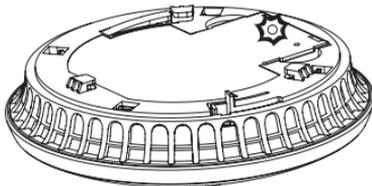

Circular hole

The red LED next to the learn button will flash briefly then light up for approximately five seconds to show that it is ready to receive the "learn in" signal. During these five seconds you will need to briefly press the test button on Alarm 1 to wirelessly interlink the two alarms.

Alarm 1 will give an audible sound consisting of 2 cycles of 3 loud beeps.

Alarm 2 The red LED on the wireless module of Alarm 2 will flash to indicate that it has been "learned-in" successfully.

Note: If the test button is not pressed quickly enough (before the red LED on the wireless module of Alarm 2 has extinguished), the learn-in process will fail. If this happens, repeat the process again, as described above.

5. Fit Alarm 2 onto its base plate to complete the installation.

6. Additional alarms should be "learned-in" the same way. When learning in additional alarms, any alarm already in the network, can be used

as 'Alarm 1'. This means that you can "learn-in" the additional alarm to any alarm already in the network. It will then become part of the whole network. You do not have to "learn it in" to each alarm in the network.

7. After completing the "learn-in" procedure, test the alarms as described in "Alarm Test".

If any interlinked alarm fails to respond to the "Alarm Test", remove it from its base plate and repeat the learning in process.

Unlearning a Wi-Safe 2 Alarm
To remove an alarm from a network, push and release, then push and hold the learn button. When the red LED goes out, release the button. Once the LED has flashed 5 times you have successfully 'Unlearned' the alarm.

When removing an alarm from any Wi-Safe 2 network it is generally good practice to "unlearn" every alarm (in the same way as mentioned above) and rebuild the network once again by following the "learn-in" process on page 7.

Please note: it is important not to rush the Wi-Safe 2 system and is also good practice to allow several minutes after un-learning the system before rebuilding the network once again.

OPERATION

Normal Condition
The red LED on the front will flash approximately every 45 seconds to show that the alarm is active.

Low Power Pack Condition
IMPORTANT: Your smoke alarm requires the power pack to have sufficient capacity of power to operate correctly. Should your smoke alarm enter a low power pack condition, the unit will emit an audible 'chirp' approximately once every 45 seconds and the amber LED will flash at around the same time. When this occurs it is strongly recommended you replace the alarm immediately and in any event within 30 days.

Your smoke alarm will continue to warn of this low power pack 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 power pack will automatically deactivate and the low power warning chirp will stop, allowing you to dispose of the alarm.

IMPORTANT: If your WST-630 smoke alarm enters a low power pack condition, it will emit an audible "chirp" approximately once every 45 seconds. All other WST-630 alarms in the network will also emit an audible low battery chirp once every 4 hours. This will continue until the smoke alarm which has the low battery condition is removed.

Fault Indication
If the amber LED flashes and an audible 'chirp' is heard at a different time, this indicates that there is a fault; the unit may not detect smoke and may not go into alarm in the event of a fire. If this occurs it is strongly recommended that you replace the alarm immediately.

Alarm Condition
If the WST-630 goes into alarm, all interlinked alarms will also sound 3 loud beeps which continually repeat until the cause of the alarm being activated is found and resolved.The red LED will only flash rapidly (once per second) on alarms that have responded directly to smoke.
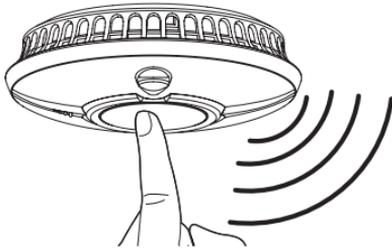
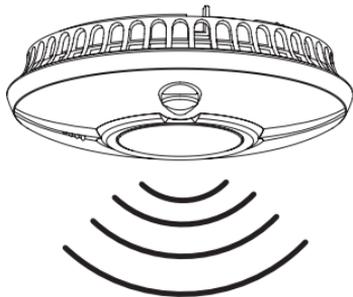| WST-630 LED Indicators				
Red LED	Amber LED	Audible signal	Status	Action required
Flashes once continuously every 45 secs			Normal operation	
Flashes every second		3 loud beeps repeating	Alarm	Check if there is a fire hazard and vacate property
Flashes once every 45 seconds		3 loud beeps repeating	Other WST-630 in network in alarm	Check if there is a fire hazard and vacate property
Flashes once every 10 seconds 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 see note	Single chirp at the same time as the LED flash	Low powerpack	Replace within 30 days
Flashes once every 45 seconds	Flashes once every 45 seconds, 20-25 seconds after the red LED	Single chirp at the same time as the red LED flash	Fault	Call Technical Support if within warranty. If not replace alarm immediately
Flashes once every 45 seconds		Single chirp every four hours	Other alarm in network has low powerpack	Locate alarm with low powerpack and replace
Flashes once every 45 seconds	Double flashes at the same time as the red LED see note	Single chirp at the same time as the LED flash	Radio module low battery	Call Technical Support if within warranty. If not replace alarm immediately
Flashes once every 45 seconds	Double flashes every 45 seconds, 20-25 seconds after the red LED	Single chirp at same time as the red LED flash	Radio module fault	Call Technical Support if within warranty. If not replace alarm immediately

Note: The amber LED may flash twice on the WST-630, indicating that the fault is with the wireless module. In this event, the complete WST-630 alarm should be replaced.

ALARM TEST

a) Briefly 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 button 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 Troubleshooting, at the end of this manual.

WARNING: As with all electronic products you should test your smoke alarm every week.

If your WST-630 is interlinked with other smoke alarms, we recommend that every individual smoke alarm is tested during the weekly test.

a) Briefly press the test button in the centre of the smoke alarm and release.

b) The unit you are testing will give an audible alarm consisting of 2 cycles of 3 loud beeps, then stop automatically. The red LED on this alarm will flash rapidly (once per second) during the audible alarm. All interlinked alarms will give an audible alarm consisting of 2 cycles of 3 loud beeps, then stop automatically, indicating the test is complete. The red LED on all interlinked alarms will not flash rapidly. If any alarm fails to self-test, see Troubleshooting.
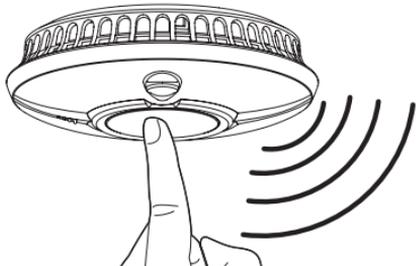
ALARM SMART SILENCE™

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 fire. 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
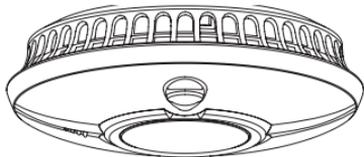
by briefly pressing the central test button. Your alarm will automatically return to full sensitivity within 10 minutes.

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.
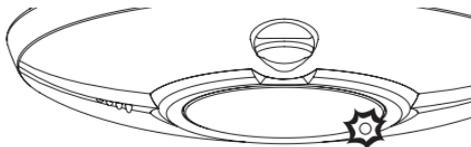
1. Briefly press and release the test button. The alarm sound will soon stop.

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

3. During the reduced sensitivity mode the red LED on your alarm will continue to flash more rapidly than normal, approximately every 10 seconds.

4. Your alarm will automatically return to full sensitivity after a maximum of 10 minutes and the red LED will revert to flashing every 45 seconds.

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

If your WST-630 is interlinked with other alarms, pressing the test button will also silence other alarms in the network. However, any alarm that has sensed smoke (an instigating alarm) cannot be remotely silenced. This means that any alarm that has sensed smoke will continue to sound allowing you to locate it.

If any instigating alarm in the network has not been silenced after a short period (2-4 minutes), all other alarms will start sounding again to alert you.

WARNING: If any alarm in the network is sounding, it is warning you of a potentially hazardous situation. Do not ignore it.

MAINTENANCE

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.

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.

WARNING: This device contains a powerful lithium battery. If tampered with, the battery may be shorted and create a fire hazard. Never attempt to open or damage the battery.
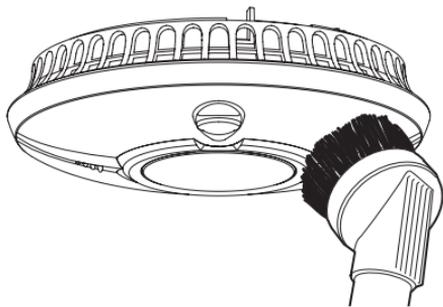
Test your smoke alarm once every week, see 'Alarm Test'. Any test failures should be reported to Technical Support (see page 14).

As a minimum your smoke alarm should be cleaned once every 3 months using your vacuum cleaner fitted with the soft brush attachment.

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 smoke alarm does not sound during testing	• Make sure the alarm has been rotated clockwise as far as it can go and is securely located on its base plate. • If testing after first activating the alarm, allow a few seconds for the alarm to settle before testing. • Make sure you push the centre of the test button firmly. • If the unit has been silenced and is in low sensitivity mode it may not test. Wait 15 minutes then try again. • Check positioning. The wireless signal might be blocked or out of range. • If you are in the process of learning in the alarm and it does not test – repeat the process. • If the alarm still fails to self test, please contact Technical Support (page 14).
Your smoke alarm cannot be removed from its base plate	If you find that you cannot remove the smoke alarm from its base plate, the locking mechanism may have been engaged. Undue force may result in damage to the smoke alarm, the base plate or both. For more information contact your installer, or Technical Support (page 14).
Your smoke alarm activates when no smoke is visible	• Check the location of your smoke alarm (see 'Positioning'). • Clean the smoke alarm (see 'Maintenance'). • If the alarm is sounding but the red LED is only flashing once every 45 seconds, this indicates that an interlinked alarm has detected smoke. Vacate the property if there is a fire hazard.
Other interlinked units fail to silence when one unit is silenced	• Interlinked units that have sensed smoke can't be silenced. If one or more unit remains in alarm, all other interlinked units will emit their audible warning again within 4 minutes. Vacatethe property if there is a fire hazard.

Problem	Solution
Your smoke alarm chirps intermittently	• Check the location of your smoke alarm (see Positioning'). • Check that your smoke alarm is definitely the source of chirping; make sure the noise isn't coming from another alarm (smoke/carbon monoxide/ burglar/gas alarm) by process of elimination. • If the alarm is chirping once every 45 seconds and the amber LED is flashing around the same time, it indicates that the power pack is low. The unit should be replaced within 30 days. • If your smoke alarm is chirping once every 4 hours, it is indicating that another alarm in the network has entered a low power pack condition. Locate the alarm with the low battery condition and replace the alarm as soon as possible and in any event within 30 days.
You experience frequent unwanted alarms	• Check the location of your smoke alarm (see 'Positioning'). • Clean the smoke alarm (see 'Maintenance'). • Any activated alarm will cause other interlinked alarms to sound. Carry out these checks on the activated alarms in particular (red LED flashing rapidly during alarm). • If the frequent unwanted alarms continue contact Technical Support for advice.
The amber LED is flashing and the alarm is making a "chirping" sound	• If the amber LED is flashing at around the same time as the chirp, this indicates a low power pack condition and the alarm should be replaced as soon as possible and certainly within 30 days. • If the amber LED is flashing at a different time to the chirp, this indicates a fault and the alarm should be replaced as soon as possible. • If the amber LED is double flashing and the alarm is making a "chirping" sound, this indicates that the wireless module has a low power pack condition, or is faulty. The alarm should be replaced as soon as possible.
If the alarm fails to operate correctly, the advice of the manufacturer should be sought	If you have any questions about the operation of your alarm, please contact Technical Support between **9am - 5pm Monday – Friday.** Telephone: **0330 094 5830** or e-mail: **technicalsupport@fireangeltech.com** You can also visit the support section of our website **www.fireangeltech.com**. Fire & Rescue customers: **0800 141 2561.**

DISPOSAL

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 power pack (battery) will be deactivated. The unit is now ready for disposal.

WARNING: Do not attempt to open. Do not burn or dispose of in fire.

WARNING: If your smoke alarm is dropped or damaged, as a precaution, it should be removed from the building and you should contact Technical Support on **0330 094 5830** or **technicalsupport@fireangeltech.com.** Fire & Rescue customers call **0800 141 2561**.

WARRANTY

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 anddate 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 WST-630 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.

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