



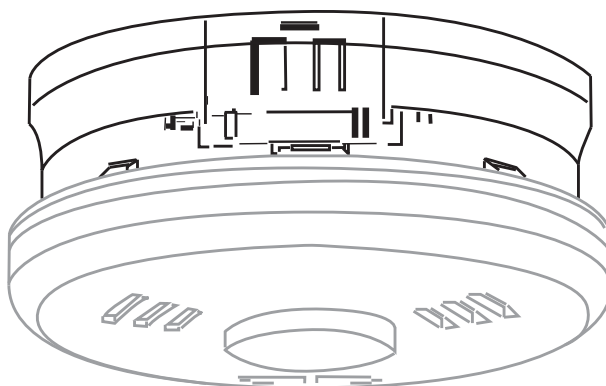
## Wireless Alarm Base

RF-SFTP 230V Mains Operated Wireless Interconnectable Alarm Base with Rechargeable Battery Backup

For use with the following models with the  designator:

1SF23/9HI-i, 1SF23/9HIR-i, 2SF23/9HI-i, 2SF23/9HIR-i

3SF23/9HI-i, 3SF23/9HIR-i



Thank you for purchasing a Kidde Fyrnetics alarm accessory. Please read through our manual in full. Important information included and the manual must be left with the householder.

Electrical rating 230V AC,  
50Hz 100mA max per (maximum 100mA for originating unit with 16 Devices interconnected).

Kidde Safety Europe, Mathisen Way, Colnbrook, SL3 0HB, UK.

[www.kiddefyrnetics.co.uk](http://www.kiddefyrnetics.co.uk)

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## Introduction

The RF-SFTP wireless base can be fitted with Kidde Heat and Smoke Alarm models that have the  $\hat{i}$  designation following the model number.

Up to 15 wireless bases can be fitted in a system (see installers guide of alarm for limits of alarms).

The wireless base uses radio signals to interconnect alarms. When installed, if one unit alarms for an event it will communicate with the other alarms using radio communication. Remote test and hush functionality can also be added wirelessly using the KN-RTH-RF accessory

### **Unit does not support carbon monoxide alarm signals**

The wireless base will not recognize a signal from an interconnected CO alarm. However, an interconnected CO alarm will not hinder the wireless base system. The wireless base will only receive and transmit smoke and heat alarm signals.

This wireless base is mains powered having a rechargeable battery system providing back up power for approximately 3 months on mains failure.

## Installation Instructions – Introduction

This wireless base is designed for installation by a competent, qualified electrician, in accordance with the latest I.E.E. Regulations and complying with relevant building regulations.

- Read these instructions thoroughly before proceeding. People's lives depend on it.
- This manual is for use by qualified electricians.
- Wireless alarm base and attached alarms must be powered by a constant 230V AC, 50Hz supply that is not controlled by any form of switch. It is not suitable to be connected being controlled / supplied by a light dimmer circuit. Failure to comply with this directive may lead to product failure / overheating of components which is outside the terms of the guarantee.

### **WARNING:**

This alarm cannot be operated from power derived from a square wave or modified sine wave inverter. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.

Kidde recommends to connect alarms and bases to a dedicated circuit that is separately electrically protected. This helps minimise interference (EMI) on alarm interconnect line from CFL's, dimmers, LV transformers etc.

- This wireless base will not detect smoke or heat and must be installed in conjunction with the specified alarms. Only connect to the specified models of smoke or heat alarm. Do not connect to any other brand of alarm/auxiliary device unless approved by Kidde.

- The earth terminal connection provided is for termination purposes only and is NOT electrically connected within the sealed alarm / base units.

### **Danger – electrical shock hazard!**



*Do NOT subject the alarm circuit to insulation resistance testing with the alarm / base units connected. Failing to do so will cause damage outside the terms of the guarantee provisions.*

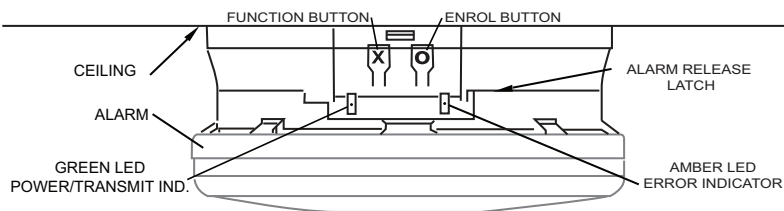
Never restore power supply until all alarms are completely installed, doing so before hand can cause serious injury.

Do not install in a dripping, water splashing, or very humid area.

## RF-SFTP Wireless Base Set – Up

1. The smoke alarms and wireless base should be positioned as recommended in the installation guides supplied with the alarms with special care to avoid possible causes of interference with the RF signal.(such other wireless products, electronic devices and large metal objects)
2. The installation method for the alarms and base is described in the smoke alarm installation manual for the alarms. All wiring connections are made via the under side; the wireless base is sealed and does not contain any user serviceable parts.
3. Mains alarms and the mains powered RF-SFTP wireless base are designed for installation by a competent, qualified electrician, in accordance with the latest I.E.E. Regulations and complying with relevant Building Regulations. Provide mains power to all units, with which the rechargeable battery is turned on for service.
  - When installing the base using trunking, do not attempt to break or knockout the sections out, use a tool to cut them and prevent damaging the base.

**Figure 1. Side of Base with Alarm Attached**

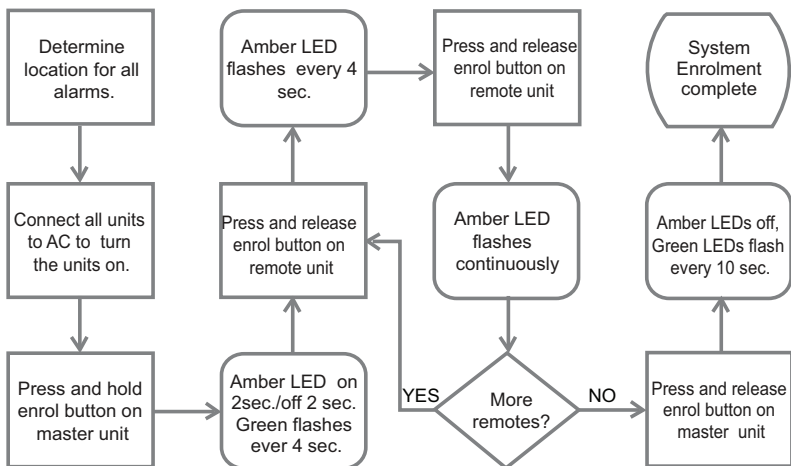


4. Verify that the power is on, the power is present when the amber and green LEDs are illuminated. Choose a unit in a central location as the master unit. This unit will enrol the other units (create a linked system) during the remaining process; the remaining units will then be remote units. Press the enrol button on the master unit until the amber LED turns off (takes approximately 5

seconds) and begins to flash on/off every 2 seconds with the green LED flashing every 4 seconds. (This indicates this unit is broadcasting as the MASTER unit). THIS UNIT IS NOW THE MASTER WIRELESS BASE

5. Go to the nearest unit (this will be a remote unit) and press and release the enrol button. The amber LED will flash - 2 seconds on and 2 seconds off (it may immediately start flashing 1-6 times if it catches a message from the master). When it has received an invitation from the master unit the amber LED will flash 1-6 times every 4 seconds to indicate the signal strength; a good signal level is indicated by 3 or more flashes. If the remote is only flashing 1 or 2 times, try rotating the wireless base or moving it away from obstructions like large metal objects and lighting fixtures.
6. Press the enrol button on this remote; the amber LED will blink rapidly showing it is enrolled, and that the system is still in enrolment mode.
7. Repeat this procedure with all other remote alarms.
8. Return to the master unit and press the enrol button. This will cause the green LED to go out for one second in ten to indicate the master is broadcasting.
  - Failure to follow this procedure will cause the master unit to time out after ten minutes automatically enrolling any other compatible systems nearby that are being set up / enrolled.
9. To visually check the system is operating –
  - The master unit is recognised by the green LED flashing 1 second every 10 seconds.
  - A remote is recognised by a quick flash of the green LED once every 10 seconds.
10. The system is now functional.
  - If the amber LED flashes every 10 seconds it indicates that the battery is low and will require 24 hours to become fully charged whilst connected to the mains supply'

Pressing the enrol button during enrolment will end the process and put the unit back into standby even if not enrolled with other units. Any unit can be reset to its factory settings; refer to the following section, "Resetting unit to factory condition" for details.



## LED Settings Chart

	Green	Amber	Comment
<b>Factory setting</b>	On	On	Not enrolled in system
<b>Enrol mode</b>	Blinking every 4 sec.	2 seconds on every 4 seconds	Master unit enrolling remotes.
	On	2 seconds on every 4 seconds	Remote waiting
	Flashes	1-6 flashes every 4 seconds	Remote communicating
	On	Blinking	Remote enrolled
<b>Normal operation</b>	Off 1 second every 10 seconds	Off	Master unit
	Off 0.5 second every 10 seconds	Off	Remote Unit
<b>Error modes – Remote unit</b>	Off 0.5 second every 10 seconds	Flashes every 5 seconds	Has poor or no communication link with master unit.
<b>Error modes – Master Unit</b>	Off 1 second every 10 seconds	Flashes every 5 seconds	Poor or no communication with at least one remote unit.
		Flashes every 2 seconds	Poor or no communication with (all) remote unit(s).

## Fault Finding Chart

Indiction	Status	Action
No LED function when connected to 230VAC Mains	Unit is not powered and will not function	Check to insure battery is connected correctly an the connector is seated completely. Check that power is present at the connection.
Amber LED is not on/Green LED blinks off quickly ever 10 seconds	Unit is a remote station, has AC mains power and operating correctly	No Action needed
Amber LED is not on/Green LED turns off for 1 second ever 10 seconds	Unit is a master unit, has AC mains power and operating correctly	No Action needed
Amber and green LEDs are not on or flashing*	Unit has no mains power	Check breaker and have an electrician check the circuit for proper AC mains power.
Amber LED flashes every 5 seconds and the green LED flash quickly once every 10 seconds	Unit is a remote station and does not have a reliable communication path with the master unit.	Determine if there is an obstruction like a large metal object that has been placed between the remote and central units causing interference. Relocate the obstruction or the RF units.
Amber LED flashes every 5 seconds and the green LED blinks for 1 second once every 10 seconds	Unit is the master unit and does not have a reliable communication path with one of the remote units.	
Amber LED every 2 seconds and the green LED blinks for 1 second once every 10 seconds or less.	Unit is the master unit and has lost communication with all remote units.	
Amber LED flashes every 10 seconds and the green LED blinks once every 10 seconds.	Unit is in Low battery	Insure green LED is on indicating 230VAC Mains power is present for at least 24 hours. After 48 hours with power, contact customer support
Amber LED is one for 1 sec. then off for 1 sec., green LED flashes ever 4 sec.	Unit is master unit and is in enrol mode.	Complete the enrolment process and press the enrol button on the central units
Amber LED is flashing on and off rapidly	Unit is a remote unit, is enrolled but system is in enrol mode.	

\*Green LED is lit to show AC mains connected and flashes as detailed to indicate condition. When AC mains is not connected, green LED will flash rapidly to indicate it is transmitting in alarm/test state but will not flash otherwise.

## Adding an additional wireless unit

This process is to enrol additional wireless bases to an existing system.

1. Install and power up the new unit. The Amber and the Green LED of the new wireless base will both be on.
2. Go to the master alarm. (See section 1 above to recognise a master and remote RF wireless base).
3. Press the enrol button for 1-2 seconds on the master RF wireless base. The amber LED will flash on for 2 seconds and off for 2 seconds. It is ready to enrol a new remote wireless base.
4. Press the enrol button for 1-2 seconds on the new remote alarm RF base. The amber LED on the wireless base will flash on for 2 seconds and off for 2 seconds. When the master unit invites it to join the amber LED on the remote wireless base will flash 1-6 times every 4 seconds.
5. Press the enrol button on the new remote to complete the process. The amber LED will blink rapidly indicating the remote has completed the enrolment process.
6. Return to the master unit and press the enrol button a second time to set the system.

## Removing a wireless unit.

**NOTE: Alarms can be replaced without replacing the wireless base.**

1. If a wireless base needs to be removed from the system, remove power from the unit to be removed and wait for 5 minutes for the master unit to recognize the error. Go to the master unit (see section 1 as to how to distinguish between the master and remote RF units) and verify that the amber LED is flashing (or on continuously if there is only two units in the system). Press the enrol button on the master RF wireless base. The amber LED will begin to flash on for two seconds and off for two seconds.
2. Press the enrol button on the master unit a second time to finalise the new system.

## Resetting unit to factory condition.

The wireless base may be reset to the factory settings at any time by pressing both buttons for ten(10) seconds. (this may be helpful if there is confusion during enrollment or if the base is being relocated).

1. Press and hold the function button before pressing the enrol button.
2. While holding the function button press the enrol button and hold both until the amber LED flashes rapidly 10 times and then remains lit.

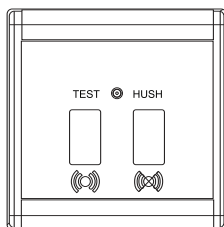
## Monitoring the Wireless link.

- The system is designed to automatically and continuously monitor the wireless link between the alarm. when powered by AC mains (230Volts)
- The master alarm broadcasts every 10 seconds; the green LED will flash to indicate this.
- The master unit will monitor the response from each remote.
- If a remote has not communicated with the master unit within 2 minutes the master unit will send 4 rapid broadcasts to try to re-establish a link.
- If the communication with the remote is still absent the master amber LED will blink.
- If the remote has missed the master for 2 minutes the remote amber LED will flash every 5 seconds (see LED table).
- Once communication between the master and remote units is re-established, both units will automatically return to normal operation and the amber LED will stop flashing. This may take a couple a minutes once the link is re-established to clear the error.
- On battery backup the units are not supervised and only listen for messages. Re-establish AC power as soon as possible.

## Connecting the Remote Test and Hush Accessory

The remote test and hush accessory (model KN-RTH-RF) is a useful portable device allowing you to test and hush the alarms within the wireless system without the requirement to physically reach the alarms' test button. It can be affixed to a wall or used placed in a suitable location I.E. on a table.

**Please see owners manual supplied with the accessory for additional details.**



Each wireless base may have only one remote test and hush accessory enrolled at a time. We recommend you enrol it with the alarm in your main living area.

- 1 Press the enrol button on the base and ensure it has enter enrol mode indicated by the amber LED flashing.
2. Press any button on the accessory.
3. Verify the amber LED on the alarm has changed from 2 seconds on 2 seconds off to rapid blinking.
4. Press the enrol button a second time on the wireless base to complete the process.

## Technical Specification

Mains power:	230VAC / 50Hz.
Backup Power:	Lithium secondary battery with up to 3 month capacity
Temperature (operating):	0 – 40°C
Humidity:	0-95% (non-condensing)
Radio Frequency:	868MHz
Wireless range:	Greater than 150m in free space.
Mechanical:	12.7cm dia x 3.5cm 150 g.

Approvals (Independently tested to comply with):

EMC Directive 89/336/EEC

R&TTE Directive 99/5/EC

ETSI EN 301 489-1 V1.8.1 (2008-04)

ETSI EN 301 489-3 V1.4.1 (2002-08)

ETSI EN 300 220-1 V2.3.1 (2009-04)

ETSI EN 300 220-2 V2.3.1 (2006-04)

EN 55022: 2006

EN 61000-3-2: 2006

EN 61000-3-3: 2005

## Disposal

### ENVIRONMENTAL PROTECTION

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with Local Authority or Installer for recycling advice.





## Guarantee

Kidde Fyrnetics guarantees to you as a purchaser that the alarm accessory will be free of defects in material, workmanship or design under normal use and service for a period of ten (10) years, from the date of purchase.

The Guarantee is not assignable. Our liability to you, under this guarantee is limited to repairing or replacing any part which we find to be defective in material, workmanship or design, free of charge to the customer, who is situated within the UK and Eire, upon sending the base with proof of date of purchase, postage prepaid, to Kidde Safety Europe, Mathisen Way, Colnbrook, SL3 0HB, UK.

The terms of this guarantee will not apply in the following circumstances: If unit has been damaged, modified, neglected, dismantled, contaminated, abused or altered after the date of purchase, or if it fails to operate due to incorrect selection, siting, installation, maintenance or inadequate AC electrical power, or damage caused by failure to abide by the instructions supplied.

The liability of Kidde Fyrnetics, arising from the sale of this wireless base or under the terms of this guarantee shall not in any case exceed the cost of replacement of the device, in no case, shall be liable for consequential loss or damaged resulting from the failure of the alarm or for the breach of this or any other guarantee, express or implied, or for damages caused by failure to abide by the instructions supplied. This guarantee does not affect your statutory rights.