INSTALLATION **INSTRUCTIONS**

Mains Operated Smoke Alarm With 10YR Sealed Battery
Product Codes: **SHC-WIR-SM-10YR**

RED ARROW

Thank you for purchasing the SHC-WIR-SM-10YR smoke alarm. Please take a few minutes to thoroughly read the user guide and familiarize yourself and your family with its operation and save for future reference.

Safety Warning

- The installation should be carried out by a competent person.
- Follow the provided installation instructions, using the fixings supplied or recommended.
- Keep out of reach of children.

CE 22
2797
EN 14604:2005/AC:2008

UKCA 22
0086
BS EN 14604:2005/AC:2008
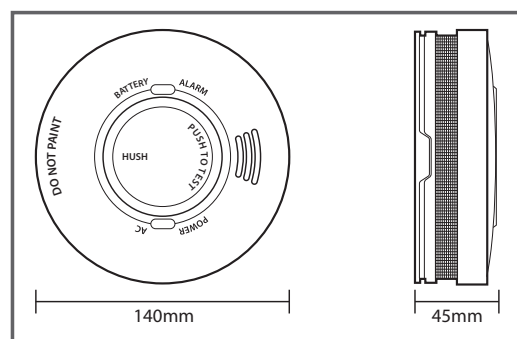
Ver: 1.0

bsi
KM 694336

Specification

DESCRIPTION:

Photoelectric smoke alarm 220-240V AC with 10 Year sealed 3V 17450 Lithium Battery. Designed with quick fit base and sensitive photoelectric sensor for detecting micro particles associated with smoldering fires and reacts faster than Ionization alarms. Keeping your household and loved ones safe with wired or built in RF Interlinking function for pairing with Red Arrow mains / battery operated heat alarms.

Box Contents -
1 x SHC-WIR-SM-10YR Mains Operated Smoke Alarm With 10YR Sealed Battery

Dimensions:	L: 140mm x W: 140mm x D: 45mm
Power:	220-240V AC 50-60Hz with 10yr sealed 3V Lithium Battery
Product Life:	10 Years after initial activation
Alarm Volume:	>85dB (A) at 3 meters
Alarm Sensitivity:	0.10-0.16dB/m
Sound Pattern:	ISO8201 (BI 0.5s - pause 0.5s - BI 0.5s - pause 0.5s - BI 0.5s - pause 1.5s, with RED LED flashing, this alarm pattern is repeated.)
Wireless Alarm Sound Pattern:	BI - BI - pause 0.5s, BI - BI - pause 0.5s, BI - BI - pause 1.5s, with the RED LED flashing, this alarm pattern is repeated.

DO NOT PAINT
BATTERY
ALARM
PUSH TO TEST
HUSH
AC
POWER

140mm
45mm

5 YRS GUARANTEE
Easy Install
RF & WIRED INTERCONNECT
PHOTO ELECTRIC

Recommended Installation Locations

The following suggestions are intended to help you to position and install your alarm.

1. The locations must comply with the applicable building regulations. BS 5839 part 6 gives guidance on the number, types and positioning of alarms. In general, smoke alarms should be installed in every circulation space such as Hallways, Landings, Bedrooms and principal living spaces (living room). Larger spaces may require the use of more than one unit. The advice here follows the guidance in British Standard BS 5839 part 6 in general (for further information see the BS standard itself).

2. Installed on each and every storey.

3. Hot smoke rises and spreads out, so a central ceiling position is the preferred location. The air is "dead" and does not move into corners, therefore smoke must be mounted away from corners. Position the unit at least 30 cm away from walls and corners and 30 cm away from any light fitting or decorative object witch may obstruct smoke entering the Alarm. (see the diagram 1).

4. When the ceiling is slanting, the alarm needs to be installed minimum 50cm away from the highest ceiling point in the room (see the diagram 2).
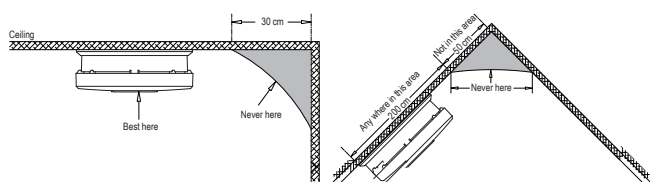
Ceiling
30 cm
Best here
Never here
Not in this area
Any where in this area
Never here

Diagram 1
Diagram 2

Locations to Avoid

1. Don't place Alarms in bathrooms, Kitchens, Garages or other rooms where the Alarm may be triggered by steam, condensation and normal smoke/heat from appliances.

2. In areas with high humidity, like bathrooms or areas near dishwashers or washing machines, install at least 3 meters away from these areas.

3. Near air returns or heating and cooling supply vents, install at least 1m away from these areas. The air could blow smoke away from the detector, interrupting its alarm.

4. In rooms where temperature may fall below 0℃ or rise above 40℃. (due to nuisance/false alarm activation).

5. In extremely dusty, dirty, or insect infested areas where particles may interfere/obstruct with Alarm operation.

6. Away from air conditioning or ventilation grilles/louvres.

Activation

Press thest button and hold it for above 3 secounds until LED lights, and release it within 2 secounds, the unit will generate a "beep" indicates that it is activated and goes into work status.

Interconnecting Smoke Alarms

- This Smoke Alarm is capable of providing wired and wireless interconnection functions.

- Interconnecting Smoke Alarms can be linked wireless/wired together so that if one alarm is activated then all alarms which are linked in the circuit are also sounded.

- The maximum wiring length is 150m between Alarms.

- The Smoke Alarm wireless module uses coded RF signals and need to be paired before use.

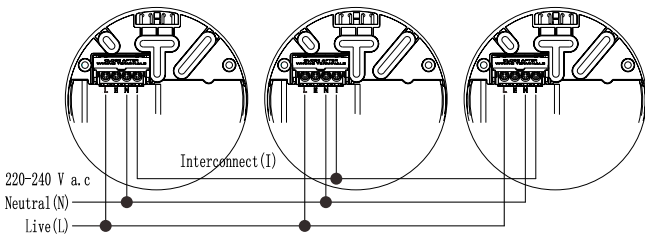## Wiring Diagram for Wired Interconnection
Terminal
L: Live
E: Earth Loop
N: Neutral
I-Connect: Interconnect

Interconnect (I)
220–240 V a.c
Neutral (N)
Live (L)

Installation - Wired Connection

1. Strip the Live, Neutral and Interconnect (if used) wires back to the strip length shown at Diagram 3. Connect the wires to the correct terminals on the base (shown at Diagram 4) and ensure the terminal screws are fully tightened. Check all wires for continuity and correct termination and ensure that the interconnect wires have not been cross connected to either live or neutral terminations.

2. Ensure that the terminal cover is closed to avoid contact with the live terminals as shown at Diagram 5.

3. Screw the mounting base onto the ceiling using the appropriate fasteners.

4. Clip the Smoke Alarm on to the base.

5. Turn on the mains power and check that the smoke alarm Green and Red LED's function:
   A) The Green LED should illuminate to show mains power present.
   B) The Red LED will pulse every 48 seconds to indicate correct operation and that the backup battery proves serviceable.

6. Press the Test/Hush button to check that the smoke alarm works. Installation is not complete until both LEDs are functioning correctly and the alarm has been checked for correct operation. Wiring must be installed in compliance with local regulations. In the UK it is recommended that the following coloured cores are used (for example with triple flat 6243Y cable).
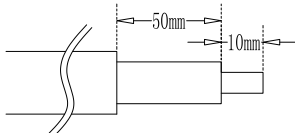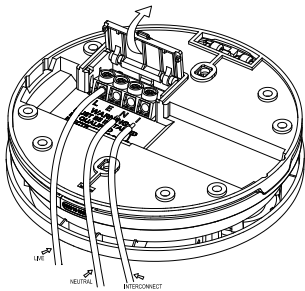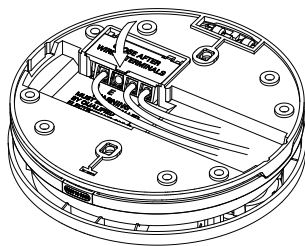
50mm
10mm

Diagram 3

Diagram 4   Diagram 5

CAUTION
Risk of Injury and equipment damage / malfunction

- All interconnected Smoke Alarms must be supplied from the same circuit.

- A common Neutral must be used for the Interconnect to operate.

- DO NOT connect the Interconnect wire to Live or Neutral.

- A maximum of 24 smoke alarms can be installed on one circuit (wired interconnection only).

- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

Failure to follow these instructions may result in injury and equipment damage / malfunction.

WARNING : Electrical shock hazard. Disconnect the AC mains at the fuse box or circuit breaker powering the Alarm before following the cleaning instructions.

WARNING: Wiring should be installed by a qualified electrician in accordance with BSb7671. We advise you follow the new harmonized cable colour coding as specified in BS 7671.

Wireless Interconnection Setup
Complete battery installation for all smoke alarms requiring wireless interconnection.

Select one of smoke alarm as the MASTER unit. Treat all other units as SLAVE units.

Press the test button on the MASTER unit three times within two seconds, the red LED will flash quickly, the unit is now in sending radio signal mode. This mode will last for 90 seconds.

While the MASTER unit is in sending radio signal mode. Press the test button on any SLAVE unit three times within two seconds, the SLAVE unit learns this signal and complete the pairing after a sound "beep" with light flash once.

Repeat the above steps on all other SLAVE units.

After all the smoke alarms are wirelessly interconnected, install it on the ceiling.

Clear radio signal mode
Press the test button on any SLAVE unit three times within two seconds, the red LED will flash quickly, then press and hold the test button again until the red light goes out the first time and release the button immediately, the red LED will flash slowly, at this time, press the test button again, the SLAVE unit will beep 3 times, which means that the SLAVE unit clears wireless connected successfully.

CAUTION:
The smoke alarm is designed to be wirelessly interlinked with up to 40 products. They are not designed to communicate with wireless alarms from other ranges or manufacturers. These alarms need to be "learning" or interlinked in order to communicate with each other. If one alarm activates, all other interlinked alarms will also sound. Only successful interconnection units can clear the radio signal. Clearing the radio signal only removes the radio signal from the slave unit. The MASTER unit can not clear the radio signal.

Installation

WARNING: To prevent injury, this unit must be securely attached to the ceiling in accordance with the installation instructions.
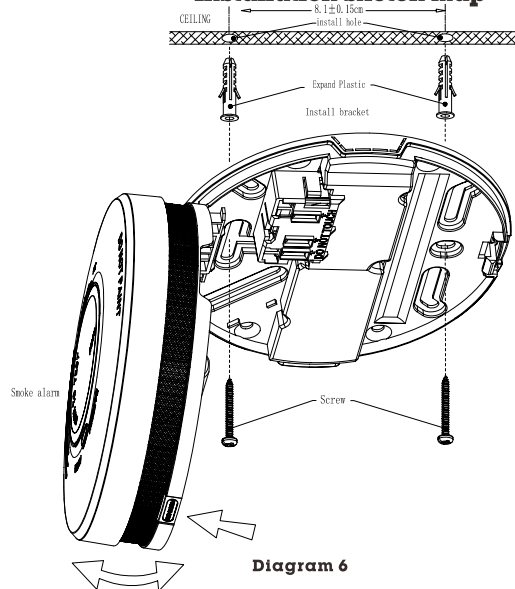
Installation sketch map
CEILING
8.1±0.15cm
install hole
Expand Plastic
Install bracket
Smoke alarm
Screw
Diagram 6

Operation & Testing

Testing:
Test by pushing the test button on the cover. This will sound the alarm if the electronic circuitry, alarm, and battery are working. If no alarm sounds, the unit has defective batteries or other failures.

DO NOT use an open flame to test your alarm, you could damage the alarm or ignite combustible materials and start a structure fire.

NOTE: WEEKLY TESTING IS REQUIRED

Normal Condition

The green LED light is always on and the red LED should flash every 48 seconds to show that the alarm is active.

Alarm Condition

When the Alarm senses products of combustion and sounds the audible alarm, the red LED will flash one flash/second. The flashing LED and pulsating alarm will continue until the air is cleared.

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 once every 48 seconds and at the same time the yellow LED will flash every 48 seconds. When this occurs, you must replace the smoke alarm immediateley. Your smoke alarm will continue to warn of this low power pack condition for approximately 30 days, however, failure to change the battery after this time would mean your smoke alarm may have insufficient power to alert you in a real fire situation.

Fault Indication

The alarm chirp occurs every 48 seconds.

Alarm 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 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. In the event of a known false alarm your smoke alarm can be temporarily silenced by pressing the test button. Your alarm will automatically return to full sensitivity within 8 minutes.

NOTE:

1. Press and release the silence button, the alarm sound will stop.

2. Your alarm will silence and enter into a reduced sensitivity reset cycle for approximately 8 minutes.

3. During the reduced sensitivity reset cycle, the red LED will flash once every 8 seconds.

4. Your alarm will automatically return to full sensitivity on completion of the reset cycle and the red LED will revert to flashing once every 48 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.

What To Do In Case Of A Fire In Your Home

Your Home

1. Do not panic, and stay calm.

2. Alert small children in the home.

3. Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.

4. In leaving, don't open any inside door without first feeling its surface. If hot, or if you see smoke seeping through crack don't open that door! Instead, use your alternate exit. If the inside of the door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.

5. If the air is smoky, stay close to the floor. Breathe shallowly through a cloth, wet if possible.

6. Once outside, go to your selected meeting place and make sure everyone is there.

7. Call the fire department from your neighbour's home -not from yours!

8. Don't return to your home until the fire officials say that it is all right to do so.

Routine Maintenance

- In addition to weekly testing, the alarm requires periodic cleaning to remove dust, dirt, and debris.

- Clean the alarm at least once a month to remove dust, dirt, or debris.

- Use a vacuum cleaner with the soft brush, vacuum all sides and covers of smoke alarm device.

- This alarm has a low battery monitor which will cause the alarm to "chirp" approx every 48 seconds and the red LED flash once at the same time for a minimum of thirty days when the battery gets low.

- If there is a defective battery or other failures, you can refer to "Trouble shooting" for solution, if there are still failures during warranty, you can return it to your retailer.

IMPORTANT: Do not attempt to remove the cover to clean inside. This will affect warranty.

Cautions:

- Photoelectric smoke detectors can reduce the likelihood of a disaster, but they cannot guarantee a 100% safety.

- To ensure your maximum security, please install all smoke detectors exactly according to this manual.

- Keep the detectors clean. Do not allow dust to accumulate and test them at least once a week.

- Replace them immediately if they are not working properly

How To Deactivate the Smoke Alarm

Press the test button six times within three secounds, then the LED light will stay on for about 4 secounds. After 4 secounds, the product will flash quickly. During the rapid flashing of the product, press the test button six times again, the product will beep with a sound indicating that the product is not longer valid. There will be no alarm functions while in this status, you must reactivate it before use, Please refer to the chapter "Installation" for activating the product.

NOTE: Deactivating this alarm should only be performed if you need to dispose of the smoke alarm or if you need to cease a nuisance alarm which is caused by a failure of the smoke alarm.

Trouble Shooting

PROBLEM	SOLUTION
Smoke alarm does not sound when tested.	1. Remove smoke alarm from bracket, then check the battery is properly connected to battery connector. 2. If there are still failures during warranty, you can return it to your retailer. 3. If the unit is out of warranty, please replace it with another new alarm.
The alarm "chirp" with red LED flashes once every 48 secounds.	The battery is under low battery status, please replace the smoke alarm device.
Smoke alarm chirp occurs every approx 48 seconds (alarm goes into fault mode).	1. Clean smoke alarm. Please refer to the Routine Maintenance section. 2. Purchase and change another smoke alarm if the problem still exists.
Smoke alarm sounds unwanted alarms intermittently or when residents are cooking, taking showers, etc.	1. Press test button to pause alarm. 2. Clean smoke alarm device. Please refer to the Routine Maintenance section. 3. Move smoke alarm device to new location and press test button.
The alarm sounds different from it is used to. It starts and stops.	1. Clean smoke alarm device. Please refer to the Routine Maintenance section. 2. If there are still failures during warranty, you can return it to your retailer. 3. If the unit is out of warranty, please replace it with another new alarm.

Guarantee

This product is guaranteed for a period of 5 years from the date of purchase. The guarantee is invalid in the case of improper use, tampering, removal of the Q.C. date label, installation in an improper working environment or installation not according to the current Regulations. Should this product fail during the guarantee period it will be replaced free of charge, subject to correct installation and return of the faulty unit. We do not accept responsibility for any installation costs associated with the replacement of this product. Your statutory rights are not affected. We reserve the right to alter specifications without prior notice.