# USER GUIDE

KIDDE™

# CAVIUS FIRE ALARM CONTROLLER

Model no.: 9101


CE UKCA

## CONTENTS

# 1. PRODUCT FEATURES AND SPECIFICATIONS

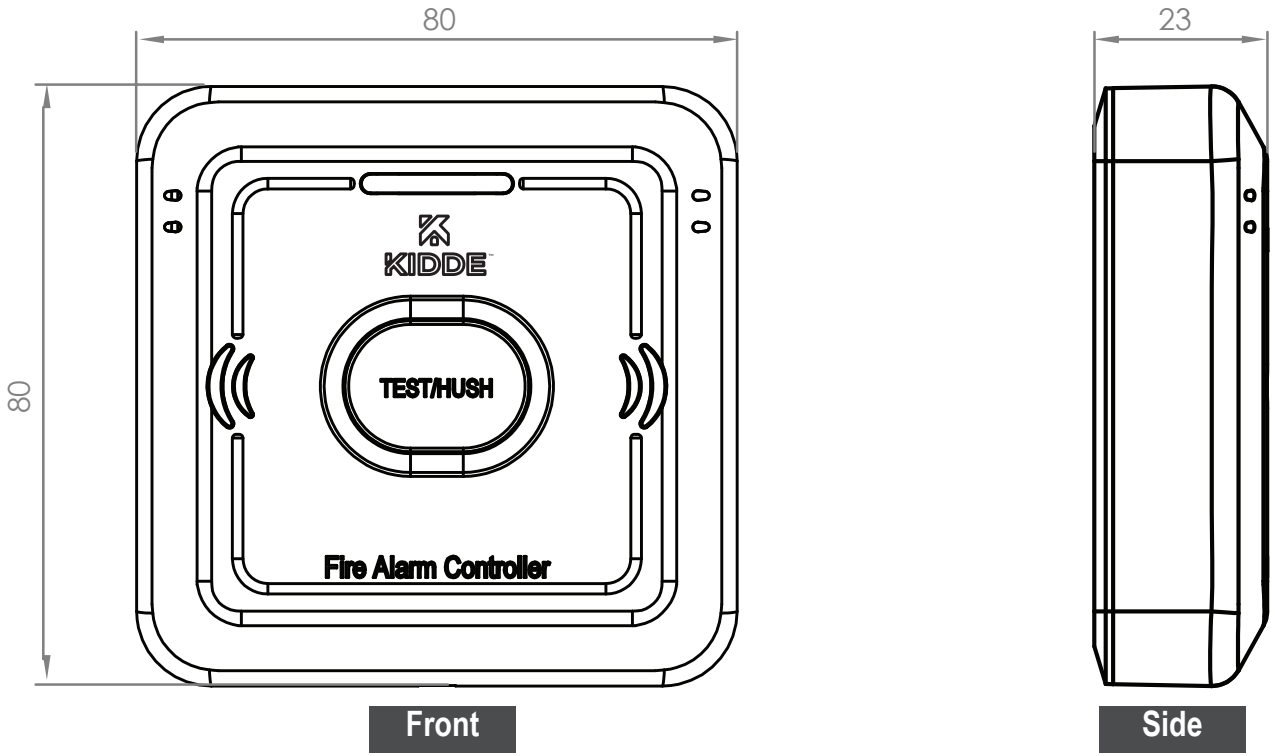
The 9101 Fire Alarm Controller allows the end user to test interconnected Cavius wireless family smoke and heat alarms from a central location that is easy to reach, and silence any nuisance alarms.

- Battery Life: 10 years of operation without the need for replacement (based on monthly test)

  **Note:** Excessive use can significantly shorten the battery life.
- The battery cannot be replaced by the end-user.
- Low Battery: A short beep will sound and the amber LED will blink every 48 seconds for 30 days.
- Red LED for RF Learn Mode / Alarm
- A single button for alarm test/hush
- Wireless Radio Frequency: 869.675 MHz
- Wireless Radio Maximum Power: 20 mW
- Wireless Interconnect: up to 32 units
- Operating Temperature Range: 0°C to 40°C
- Storage Temperature Range: -20°C to +60°C
- Humidity Range: 0% to 90% RH, non-condensing

# Features

FIGURE 1



## 2. OPERATIONAL

The Fire Alarm Controller can be RF interlinked with other Cavius Wireless Family alarms. The maximum number of alarms that can be interlinked within a house group is 32 units. The wireless distance between interlinked alarms depends on the house layout and they should always be tested after installation. It is not advisable to install alarms with a separation of more than 10 m.
**Please note:** These must be alarms from the Cavius Wireless Alarm Family.

The main functions of the Fire Alarm Controller are:

- Provide feedback about alarm with sound, LED and vibration
- HUSH - silence alarm condition
- TEST RF connection
- TEST alarms

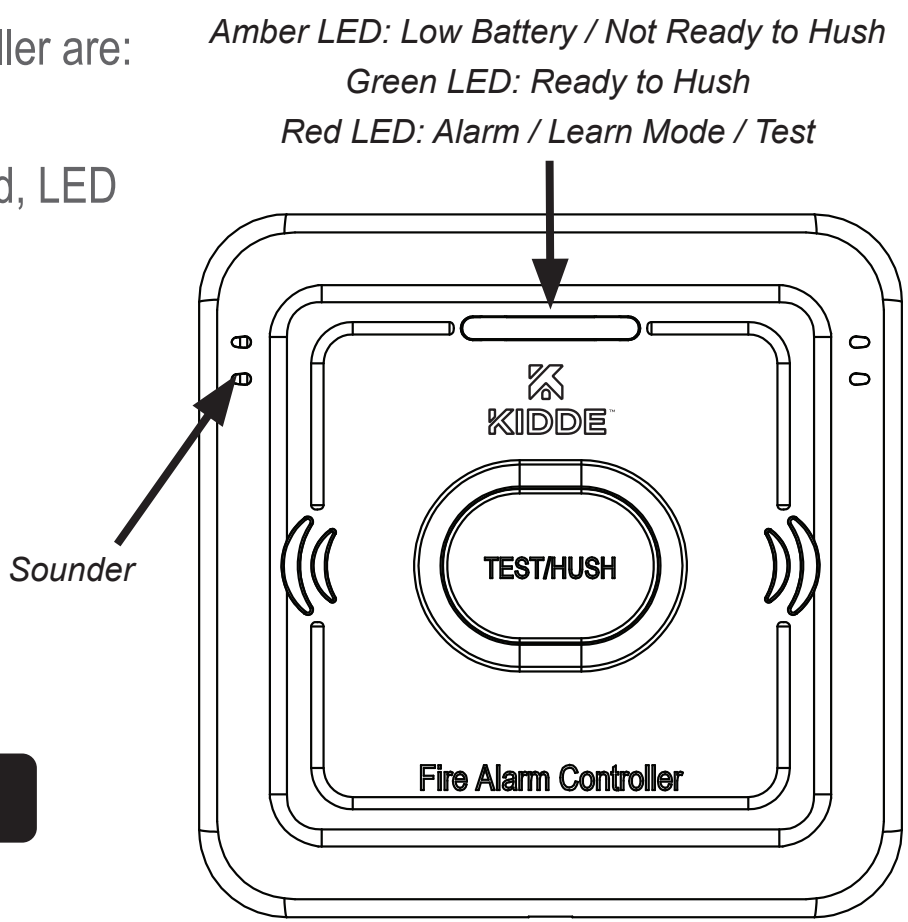



FIGURE 2

## 3. HOW TO ADD FIRE ALARM CONTROLLER TO OTHER RF ALARMS

Remove plastic strip on rear to power on device before the first use.

1. Put the Fire Alarm Controller into 'Learn Mode' by sliding the switch on the back of the controller to the LEARN position. See Figure 3.

   The red LED will illuminate with steady light to indicate that 'Learn Mode' has been selected.

2. Put all other Cavius Family devices to be connected into 'Learn Mode'. Refer to individual device instructions. Note that in order to do this, all alarms must be taken off their bases.

3. Press the Test/Hush button on one device, until it beeps and the LED flashes. Flashing indicates that the device is sending out a specific house code to the other RF devices.

4. As the other devices receive the specific house code, they will also start flashing the LED light.

5. When the red LED light flashes on the Fire Alarm Controller and all RF alarms, they are connected and **MUST BE SWITCHED OUT OF 'LEARN MODE'** and installed on their mounting plates to operate.

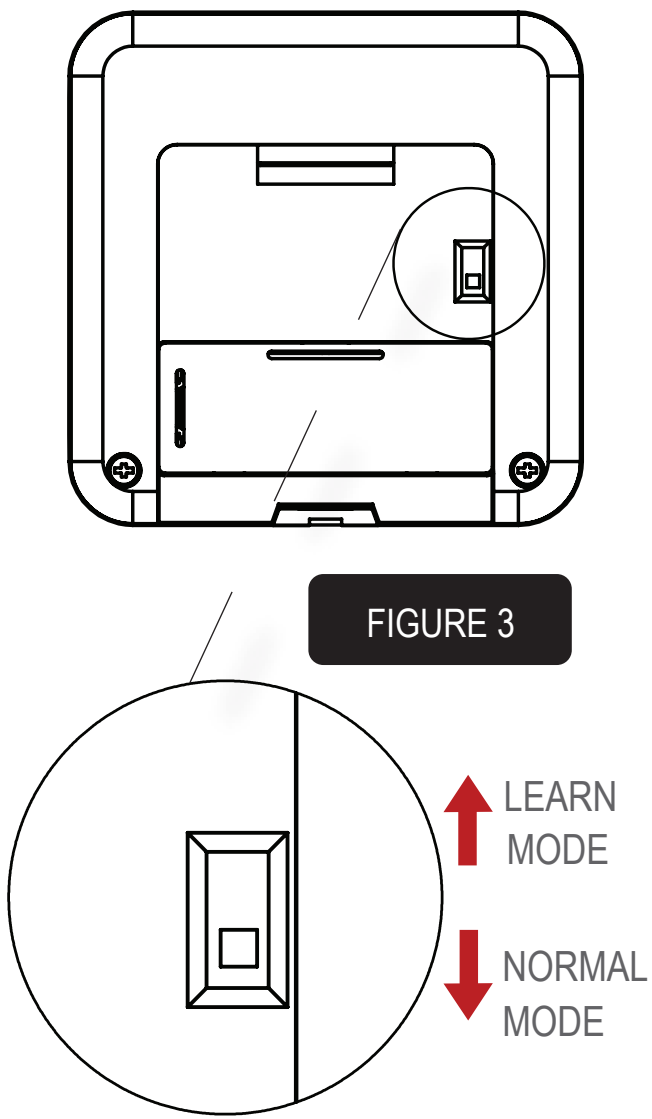



FIGURE 3

Note that leaving the Fire Alarm Controller in the learn mode for an extended time will reduce the battery life and is not covered by warranty.

## 4. INSTALLATION INSTRUCTIONS

The Fire Alarm Controller is battery operated, and does not need any additional power source. It can be installed on a wall or as freestanding.

The Fire Alarm Controller consists of two parts: the main body and a mounting bracket, which is screwed to the wall. The main body is secured into the mounting bracket by a push-in mechanism. When correctly fitted, the tamper will engage, preventing unauthorized removal.

To install it on the wall:

**1.** Fasten the mounting bracket to the wall, using the enclosed fixings. Pay attention to the 'Up' sign printed on the bracket for correct orientation.

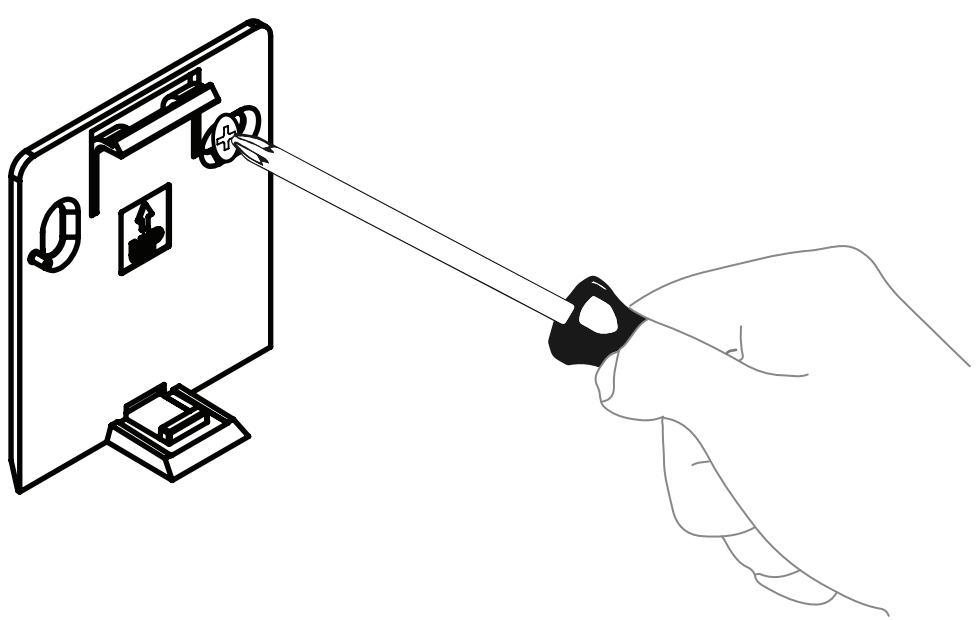


FIGURE 4

**2.** Mount the Fire Alarm Controller on the bracket, starting from the top (1), and then pushing the bottom part (2) until it securely clicks in place. See Figure 5.

FIGURE 5

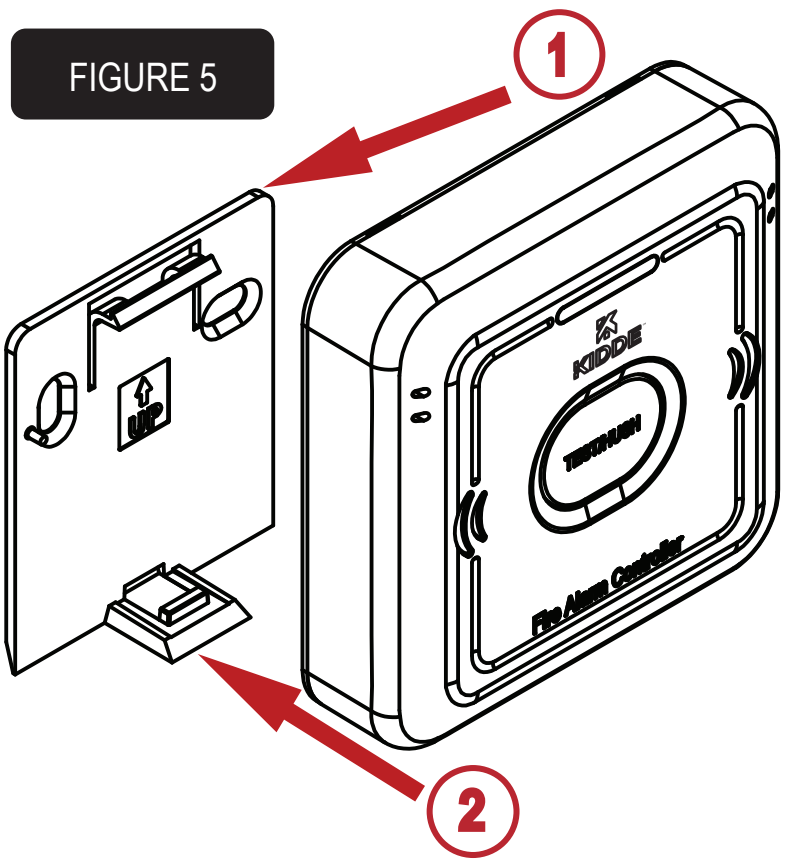
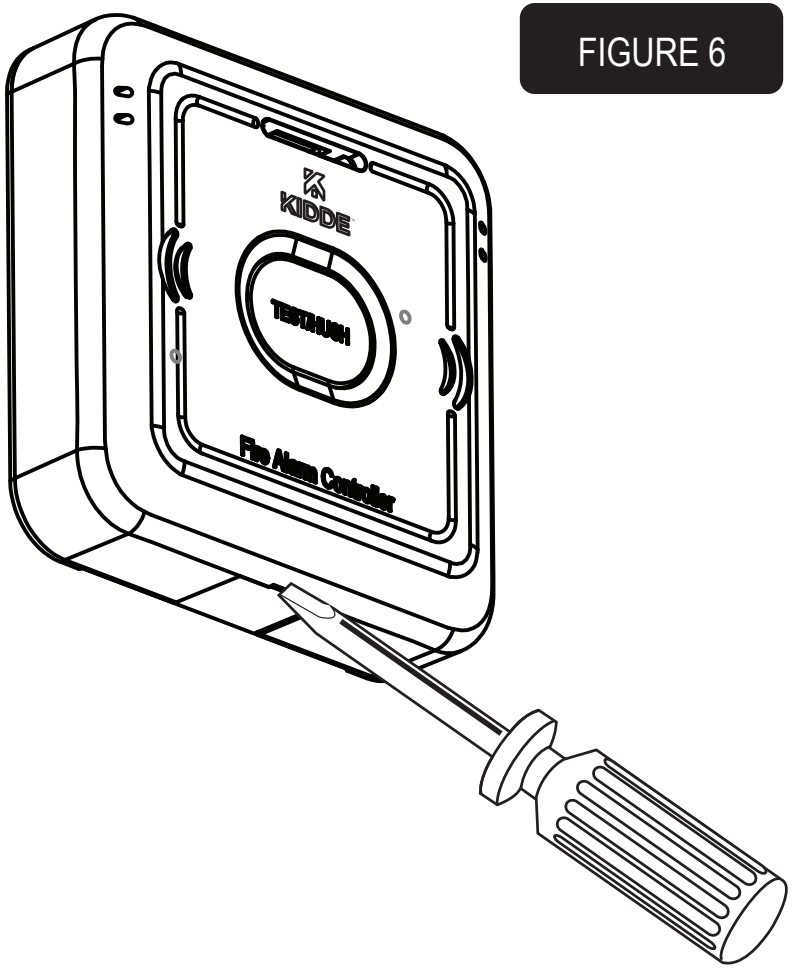



FIGURE 6




**3.** In case you need to take the Fire Alarm Controller off the wall, gently pry open the locking mechanism on the bottom with a flat-headed screwdriver, and then remove the controller from the bracket. See Figure 6.

## 5. CONNECTION TEST OF NETWORK CONNECTED ALARMS

This test confirms that all installed RF devices are connected.

**Test steps:**

**1.** Press and hold the TEST/HUSH button for over 3 seconds.
The red LED will blink 3 times, and the button will vibrate 3 times.

**2.** Release the button.
It will initiate the Alarm Controller test and start the testing mode on all connected alarms.
The remote is now transmitting a test signal to connected alarms for duration of 2 minutes.
During the test, the remote button and connected alarms will flash and sound (single beep) every 8 seconds.

**3.** Walk around the house, and confirm that all alarms sound and flash, and are therefore connected.

The alarm test may be silenced before 2 minutes by pressing the TEST/HUSH button on each device in turn.

**NOTE:** If the Fire Alarm Controller receives a test signal from another device, it will also start to flash and beep to indicate that it is a part of the group.

## 6. FULL TEST OF NETWORK CONNECTED ALARMS

This test confirms that all connected alarms sound at full volume.

**Test steps:**

**1.** Press and hold the TEST/HUSH button for over 6 seconds.
During this time, the red LED will blink 6 times, and the button will vibrate 6 times, and then the remote will stop flashing, sounding and vibrating.

**2.** Release the button.
The remote is now transmitting a test signal to all your alarms.
Connected alarms will now sound a full alarm for duration of 2 minutes.

**3.** Walk around the house, and check whether all the alarms are in the alarm state.

The test can be stopped anytime by briefly pressing (>0.1 s) the TEST/HUSH button.

**NOTE:** It is not possible to run the full alarm test in a low battery mode.

## 7. ALARM HUSH FUNCTION

The TEST/HUSH button allows silencing of nuisance alarms.

**1.** When the Fire Alarm is initiated, the Fire Alarm Controller starts to sound the alarm signal (3 x 0.5 s sweep and 1.5 s off), the red LED starts to blink (3 x 0.5 s on and 1.5 s off), and the controller starts to vibrate at the same rate.

**2.** It is impossible to silence the alarm during the first 28 seconds and the amber LED will blink (0.1 s on and 1 s off) to indicate that the system is not ready to hush. Any button press within the first 28 seconds will however be accepted and the device will stop vibrating as an acknowledgment. All connected alarms will then silence after the 28 second delay period has expired.

**3.** After 28 seconds, the green LED starts to blink rapidly 4 times the controller starts to vibrate and sound at the same rate, signalling that the system is ready to hush. If no button is pressed, all signals return to the fire alarm pattern, but the controller stays in "Ready to Hush" mode, which allows the alarm to be silenced at any time.

**4.** When the controller is in the 'Ready to Hush' mode, press the TEST/HUSH button.

The red LED will rapidly flash for 10 seconds and the alarm will stop.

The Fire Alarm Controller will stop flashing, sounding and vibrating.

## 8. ALARM SIGNALS

The Cavius Wireless Family devices compatible with the 9101 have the same alarm signal:

Alarm signal (**- - -  - - -  - - -**) is a life threatening alarm, such as a smoke/heat alarm.

**Sound:** 3 x 0.5 s sweeps and 1.5 s off

**Vibration:** 3 x 0.5 s on and 1.5 s off

**Red LED:** 3 x 0.5 s on and 1.5 s off

## 9. IMPORTANT NOTES

The maximum number of alarms that can be interlinked within a house group is 32 units. Adding more alarms can delay alarm communication and is not recommended.

If devices in the network are not responding, the wireless distance between alarms may be too large, or there are temporary or permanent obstacles between them. Always test the system after installation, and at least once a month. Adjust alarm positions if necessary.

The Fire Alarm Controller should not be disassembled or taken off the wall without proper tools, as it can damage the mounting safeguard, and impair the tamper functionality.

Make sure the Fire Alarm Controller is not activated accidentally or without a reason, otherwise, it may result that the device signaling the Low Battery status earlier than expected.

To reset the controller, slide the switch on the back of the controller to the LEARN position and then back to NORMAL.

## 10. VISUAL AND AUDIBLE STATE INDICATORS

**Power On/Standby**

| State/Feature | Sounder | LED | Vibration |
|---|---|---|---|
| Power-On | Off | None | Off |
| Standby | Off | None | Off |

## Fire Alarm

| State/Feature | Sounder | LED | Vibration |
|---|---|---|---|
| Fire Alarm | 3 x 0.5 s sweep and 1.5 s off<br><br>**Duration**: As long as there is an alarm. | **RED LED:** 3 x 0.5 s on and 1.5 s off<br><br>**Duration:** As long as there is an alarm. | 3 x 0.5 s on and 1.5 s off<br><br>**Duration:** As long as there is an alarm. |
| Hush button pressed when the system **is not ready** to hush | Off<br><br>**Duration:** Until the system is ready to hush. | **AMBER LED:** 0.1 s on and 1 s off<br><br>**Duration:** Until the system is ready to hush | Off<br><br>**Duration:** Until the system is ready to hush. |
| Hush button pressed when the system **is ready** to hush | 3 x 0.25 s on and 0.1 s off<br><br>**Duration:** After repeating 3 times it returns to the fire alarm pattern. | **GREEN LED:** 4 times<br><br>**Duration:** After repeating 3 times it returns to the fire alarm pattern. | 3 x 0.25 s on and 0.1 s off<br><br>**Duration:** After repeating 3 times it returns to the fire alarm pattern. |
| Fire Alarm Hush transmission | Off | **RED LED:** flashes rapidly<br><br>**Duration:** 10 s, then it returns to the fire alarm pattern | Off |

## Tests

| State/Feature | Sounder | LED | Vibration |
|---|---|---|---|
| Master Fire Test long button press (6 seconds) | 1 beep every 8 seconds<br><br>**Duration**: 2 minutes | **RED LED:** 1 blink every 8 seconds<br><br>**Duration**: 2 minutes | Off |
| Walk Around Test short button press (3 seconds) | 1 beep every 8 seconds<br><br>**Duration**: 2 minutes | **RED LED:** 1 blink every 8 seconds<br><br>**Duration**: 2 minutes | Off |

## Faults

| State/Feature | Sounder | LED | Vibration |
|---|---|---|---|
| Low Battery | 1 beep every 48 seconds | **RED LED:** 1 blink every 48 seconds | Off |

## RF Interlink

| State/Feature | Sounder | LED | Vibration |
|---|---|---|---|
| Learn Mode | Off | **RED LED:** constant<br><br>**Duration**: until device is enrolled | Off |
| Enrollment Active | 1 chirp | **RED LED:** 1 s on and 1 s off<br><br>**Duration**: until the learn mode switch is turned on | Off |

## Test Button press response

| Button Action Type | Description | Feedback Pattern | Result |
|---|---|---|---|
| Accidentally pressed (< 3 s) | Button was held too short to be acknowledged as a button press action. | None | Button press is ignored |
| Short Button Press (3 s to 6 s) | Button was pressed and held for a duration of 1 feedback pattern and then released. | 1 pattern, i.e., **3** x 3 sounder sweeps with 3 LED blinks | 1 beep every 8 s for 2 minutes<br><br>Walk-around test starts |
| Long Button Press (> 6 s) | Button was pressed and held for a duration of 2 feedback patterns and then released. | 2 patterns, i.e., **6** x 3 sounder sweeps with 3 LED blinks | 1 beep every 8 s for 2 minutes<br><br>Master alarm test starts |

## 11. ADD EXTRA DEVICES

All Cavius interconnected alarms within the WIRELESS ALARM FAMILY can be added to the system as they run on the same frequency and use the same data protocol.

Place all Wireless Family alarms and relay to be interconnected into 'Learn Mode' and repeat section 3. Always test connection to all devices by TEST/HUSH button.

It is not recommended to connect the Cavius WIRELESS ALARM FAMILY to Internet connected HUBs or Gateways.

## 12. WARNINGS

WARNING! Do not use an open flame to test this device or any Cavius alarm, you could damage the device or ignite combustible materials and start a structural fire.

WARNING! Do not attempt to open the device for any reason.

WARNING! Do not dispose of device in a fire or a hot oven, or mechanically crush or cut the battery as this can result in an explosion.

WARNING! Devices shall not be exposed to excessive heat such as direct sunshine, fire, or the like. Note the local country regulations regarding installation.

WARNING! All Cavius family device operate on the same RF frequency. Careful system design consideration must be given when multiple house groups are required to operate at the same time, such as a planned evacuation scheme initiated by a BS 5839-1 system as such a scheme may not be possible with Cavius device. Please contact your local Kidde representative for further assistance.

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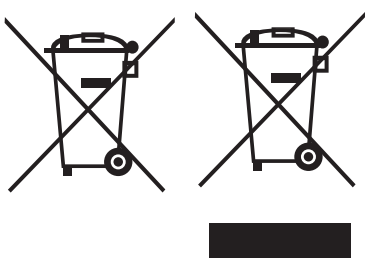
Hereby, Carrier Fire & Security Danmark A/S declares that the radio equipment type 9101 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.kiddesafetyeurope.co.uk

## SERVICE AND WARRANTY

Visit www.cavius.com for the latest warranty statement.



ENVIRONMENTAL PROTECTION

Waste electrical products should not be disposed of with household waste.

Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

Product contains sealed-in lithium batteries. Removal can be done only by qualified professionals in recycling points.



P/N: 9101-7201-00