

X-SENSE |  Link+

USER MANUAL

# Wireless Interlinked Smoke Alarm

Model SD19-W, SD20-W



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X-Sense Innovations Co., Ltd.



F.1.05.SD1902 V1.1

This user manual contains important information regarding the operation of your X-Sense 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.

### Package Contents

- 1 × Alarm Unit
- 1 × Mounting Bracket
- 2 × Screws
- 2 × Anchor Plugs
- 1 × User Manual

### Safety Information

#### IMPORTANT

1. DANGERS, WARNINGS, AND CAUTIONS ALERT YOU TO IMPORTANT OPERATING INSTRUCTIONS OR TO POTENTIALLY HAZARDOUS SITUATIONS. PAY SPECIAL ATTENTION TO THESE SITUATIONS.
2. THIS ALARM IS NOT INTENDED TO ALERT HEARING IMPAIRED INDIVIDUALS. THE USE OF ALCOHOL OR DRUGS MAY ALSO IMPAIR ONE'S ABILITY TO HEAR THE SMOKE ALARM.
3. FIRES IN CHIMNEYS, WALLS, ROOFS, DIFFERENT LEVELS OR BEHIND CLOSED DOORS MIGHT NOT BE DETECTED.
4. THIS DEVICE DOES **NOT** DETECT FLAMES, HEAT, CARBON MONOXIDE OR OTHER HAZARDOUS GASES.

## ⚠ WARNING

1. NEVER IGNORE ANY ALARM. FAILURE TO RESPOND CAN RESULT IN SERIOUS INJURY OR DEATH.
2. THE SILENCE FEATURE IS ONLY FOR YOUR CONVENIENCE AND WILL NOT CORRECT A PROBLEM. ALWAYS CHECK YOUR HOME FOR A POTENTIAL PROBLEM AFTER ANY ALARM. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH.
3. TEST THIS SMOKE ALARM ONCE A WEEK. IF THE ALARM EVER FAILS TO TEST CORRECTLY, REPLACE IT IMMEDIATELY! IF THE ALARM CANNOT WORK PROPERLY, IT WILL NOT ALERT YOU TO A PROBLEM.

## How to Set up and Interconnect Wireless Alarms

All X-Sense Link+ wireless interlinked alarms contain a built-in RF module that enables you to wirelessly connect 2 or more interlinked alarms and create an interlinked network. When one unit is triggered, all interconnected alarms will sound. The X-Sense Link+ series contain wireless interlinked smoke alarms, wireless interlinked carbon monoxide alarms, and wireless interlinked combination smoke and carbon monoxide alarms. This model is designed to be wirelessly interlinked with other X-Sense Link+ alarms, but is not designed to communicate with wireless interlinked alarms from other manufacturers.

**The X-Sense Link+ wireless interlinked alarms in one multi-pack have already been interconnected, and the alarms in each multi-pack have their own independent interlinked network. If you have more than one multi-pack, you will need to connect them all to the same network. Choose one multi-pack as your base network and connect the other multi-packs to it.**

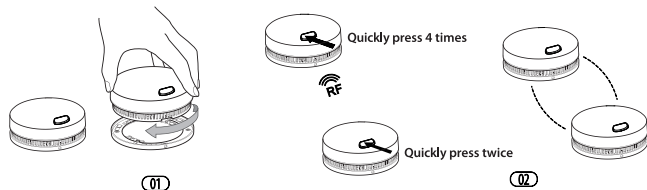
*NOTE: The following instructions regarding wireless interconnection are applicable to the X-Sense Link+ wireless interlinked alarms only.*

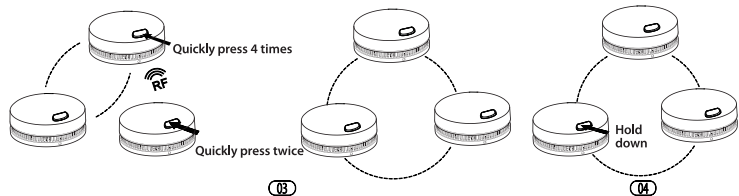
### How to Interconnect

1. Make sure you only work with 2 units at a time, and make sure that they are both turned on to ensure successful connection.

**NOTE: To turn on SD19-W/SD20-W, attach the alarm to the mounting bracket and turn clockwise to lock it. To learn how to turn on different models of wireless interlinked alarms, please refer to their specific user manual for more details.**

2. Quickly press the test/silence button on one of the 2 units 4 times; it will beep once and the red LED will flash slowly, indicating it has entered pairing mode and is waiting for a new unit to be added. Quickly press the test/silence button on the other unit twice; it will beep once and the red LED will flash rapidly, indicating it is searching for a device to connect to.
3. After the search is successful and an interconnected group is created, both units will beep once and automatically exit the interconnection mode. At this point, both units will only flash once 60 seconds, indicating they are in normal standby mode.
4. If you want to connect a third alarm to this group, first activate a new device according to its operating instructions, and then quickly press the test/silence button on either of the 2 previously interconnected units 4 times. This unit will beep once, and the red LED will flash slowly, indicating it is ready to add a new device to the network. Next, quickly press the test/silence button on the new unit twice, and the red LED will flash rapidly as it searches for a network to connect to. After the third unit successfully joins the interconnected network, both units will beep once and automatically exit the interconnection mode.
5. If you want to connect more units, simply repeat step 4. Up to 24 alarms can be interconnected this way. To ensure that all alarms enter the same interlinked network, make sure you only work with 2 units at a time—one unit enters the pairing mode and the other unit enters the searching mode.
6. Test the alarms according to the steps in the section “Alarm Test.”





## NOTES

1. The alarm will enter the searching mode or the pairing mode for 60 seconds with the red LED flashing. After 60 seconds, repeat step 2 to connect the alarms. If needed, press the test/silence button once while the alarm is in the searching mode or the pairing mode, and the red LED will stop flashing and the alarm will quit the pairing mode to enter normal status.
2. Test all wireless alarms to ensure they are interconnected before installation.
3. A maximum of 24 wireless alarms can be interconnected on the same network.
4. The model can only be interconnected with other X-Sense Link\* wireless interlinked alarms.

## How to Disconnect

Quickly press the test/silence button 4 times; the smoke alarm will beep once. Then, hold down the button until it beeps once more to disconnect. After disconnecting, it can be reconnected to the same network, or added to a new network.

**NOTE:** The X-Sense Link\* wireless interlinked alarms in one multi-pack have already been interconnected. To create a new network, you will first need to disconnect each alarm individually in this multi-pack to avoid having them all join the same network.

## Alarm Test

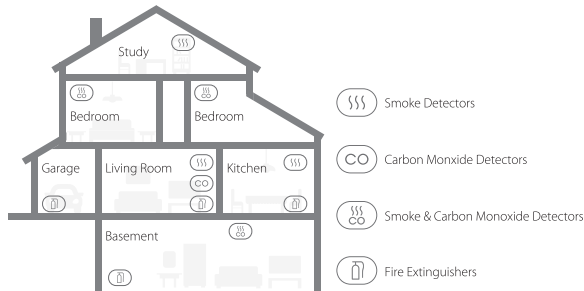
The smoke alarm must be properly attached to the mounting bracket before it can be tested; otherwise, it will not turn on. Be sure to test your smoke alarms when you turn them on for the first time, or when the group configuration has changed. In addition to the weekly tests you should perform, it is recommended to test the alarm after returning from a long trip or vacation.

If your X-Sense Link\* SD19-W/SD20-W is interconnected to other wireless smoke alarms, we recommend that every individual smoke alarm is tested during the weekly test.

	Test a single alarm	Test all interconnected smoke alarms
Action	Press the test/silence button.	Hold down the test/silence button.
Indication	<ul style="list-style-type: none"> <li>• The alarm will sound 3 short quick beeps.</li> <li>• The red LED will flash once every second during the audible signal.</li> <li>• After testing, the alarm will automatically enter standby mode.</li> </ul>	<ul style="list-style-type: none"> <li>• The initiating smoke alarm will beep continuously with the red LED flashing.</li> <li>• Other interconnected smoke alarms in the network will receive the signal after 5 seconds, and they will beep continuously with the red LED flashing. Release the test/silence button and all the smoke alarms will stop testing.</li> <li>• The alarm testing should be completed within 3 minutes.</li> <li>• After testing, the alarm will automatically enter standby mode.</li> </ul>

**NOTE:** The test function accurately tests the alarm's smoke sensing circuit without the need to test with smoke. If your smoke alarm fails to emit an audible test signal, refer to the troubleshooting guide at the end of this manual immediately. Never use an open flame to test this device.

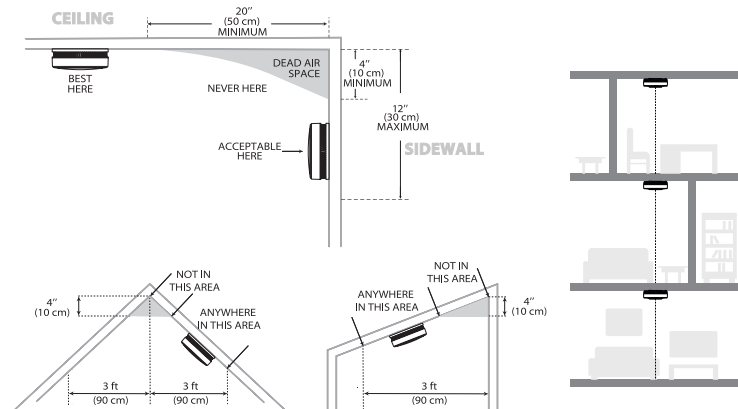
## Installation Positioning



**NOTE: If a smoke alarm is installed in a kitchen, ensure it has an accessible silence button, and install it as far away from the stove and sink as possible to avoid false alarms.**

1. Prioritize the installation of an alarm in the bedroom and walkways, and make sure you can hear the alarm from all sleeping areas. In a home with several bedrooms, install an alarm in every bedroom. If you install only one smoke alarm in your home, install the alarm near to all bedrooms where possible, and not in a basement or furnace room.
2. Install an alarm above the stairway and on every floor of the house.
3. Smoke, heat and anything burning will spread horizontally after rising to the ceiling, so install the alarm in the middle of the ceiling where possible. Ensure that the alarm is installed at the minimum distance away from corner.
4. If an alarm cannot be installed in the middle of a ceiling, install it at a distance of 20 inches (50 cm) away from the corners of the room.
5. If an alarm is installed onto a wall, a distance of 4-12 inches (10-30 cm) should be kept below the ceiling.

6. If the length of a room or hall is beyond 30 feet (900 cm), several alarms should be installed in the same room.
7. When the wall or ceiling is angled, the alarm needs to be installed within 3 feet (90 cm) of the highest wall or ceiling point (measured horizontally) in the room.
8. In multi-level houses or apartments, install at least one wireless smoke alarm on each level and keep them installed in a straight vertical line (see diagram) with as few obstacles between each of the interconnected alarms as possible to ensure optimal signal transmission.



### Locations to Avoid:

1. Near large metal surfaces and/or where there are lots of cables/wires that can cause interference.
2. Near fluorescent lamps, amateur radios, electrical equipment, or other units that may transmit an RF signal, as this electronic "noise" can cause false alarms.

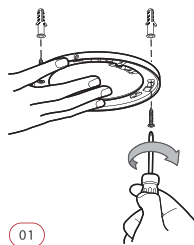
### ⚠ WARNING

1. THIS ALARM SHOULD BE INSTALLED BY A COMPETENT PERSON.
2. ALARMS SHOULD NOT BE USED AS A SUBSTITUTE FOR PROPER INSTALLATION, USE AND MAINTENANCE OF FUEL BURNING APPLIANCES INCLUDING APPROPRIATE VENTILATION AND EXHAUST SYSTEMS.

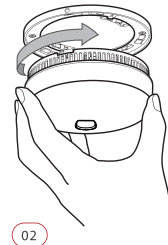
### Installation Method

*Before installation, we recommend that you test the interconnected smoke alarms in the rooms where you plan on installing them to ensure they are within range of each other and that nothing will interfere with their communication.*

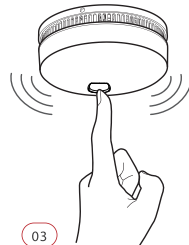
1. Use the mounting bracket to mark the screw holes on the ceiling or the wall.
2. Drill holes at the 2 marks using an appropriately-sized drill bit. Insert the anchor plugs and screw the mounting bracket using the screws provided.
3. Attach the alarm to the mounting bracket and turn clockwise to lock the alarm.
4. Test the smoke alarm according to the steps in the section "Alarm Test."



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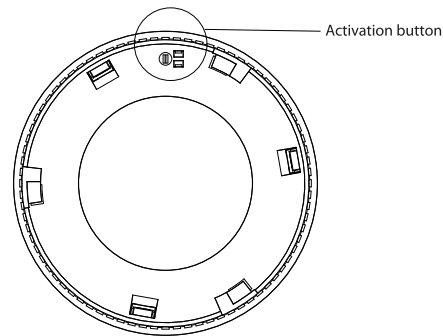


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**NOTE:** If the mounting bracket is not attached to the alarm, be sure to hold down the activation button on the back of the alarm to turn it on while testing and connecting. Otherwise, it will not turn on.



## LED Indicator and Audible Alarm

Status	LED Indicator	Audible Alarm	Note	
Normal	Red LED flashes once every 60 seconds.	None		
Alarm	Red LED flashes once every second.	Short quick beeps	All alarms in the interconnected network	
Test	Single Smoke Alarm	Red LED flashes once every second.	3 short quick beeps	Press the test/silence button once.
	All interconnected smoke alarms in the network	Red LED flashes once every second.	Continuous beeping until you release the test/silence button	Hold down the test/silence button.
Silence Mode	Red LED flashes once every 5 seconds.	None		
Low Battery	Red LED flashes once every 60 seconds.	1 beep every 60 seconds	Each alarm gives an independent warning.	
Malfunction	Red LED flashes twice every 40 seconds.	2 beeps every 40 seconds	Each alarm gives an independent warning.	

## Silence Mode

If you press the silence button during an alarm state, the unit will be in the silence mode for 9 minutes. During the silence mode, the red LED will flash once every 5 seconds. The alarm will enter the normal mode after 9 minutes.

### NOTES

- You can silence all interconnected units by pressing the test/silence button on one of the smoke alarms. If one unit is still alarming, it is the initiating smoke alarm (the unit that detected the smoke); to silence all connected units, you must also press the test/silence button on the initiating smoke alarm.***
- In the interconnected mode, the initiating smoke alarm cannot be triggered again during the 9-minute silence duration. However, all other interconnected alarms will be temporarily silenced and enter standby mode, and will alert again if they detect dangerous smoke levels.***

## Technical Specifications

<b>Power Supply</b>	10-year sealed lithium battery
<b>Sensor Type</b>	Photoelectric
<b>Coverage Area</b>	215-430 sq. ft (20-40 m <sup>2</sup> )
<b>Operating Temperature</b>	40-100°F (4.4-37.8°C)
<b>Operating Relative Humidity</b>	≤ 85% (non-condensing)
<b>Alarm Loudness</b>	≥ 85 dB at 10 ft (3 m) @ 3.2 ± 0.3 kHz pulsing alarm
<b>Silence Duration</b>	About 9 minutes
<b>Operating Frequency</b>	915 MHz
<b>Maximum Number of Interconnected Units</b>	24 wireless units (Only compatible with X-Sense wireless alarms)
<b>Transmission Range</b>	Over 820 ft (250 m) in open air

## NOTES

- Battery life is calculated on the current ratings in the standby mode with weekly testings. If its operation mode changes to an alarming condition, the battery life will be decreased accordingly.***
- The smoke alarm functions between 40 and 100°F (4.4 and 37.8°C). Prolonged exposure to temperatures outside of this range can reduce battery life and affect accuracy. We do not recommend operating the device outside of this range.***

## Maintenance

To keep your smoke alarm in good working order, follow these simple steps:

1. Verify the unit's alarm sound and indicator are working properly by testing the unit once a week.
2. As a minimum your smoke alarm should be cleaned once every 3 months: Remove the unit from the ceiling and clean the alarm cover and vents with your vacuum cleaner fitted with the soft brush attachment to remove dust and dirt.
3. Never use detergents or other solvents to clean the unit.
4. Avoid spraying air fresheners, hair spray or other aerosols near the alarm.
5. Do not paint the unit. Paint will seal the vents and interfere with the sensor's ability to detect fire.
6. Never attempt to disassemble the unit or clean inside. Doing so will void your warranty.
7. When removed, place the smoke alarm back in its proper location as soon as possible, to assure continuous protection from fire.
8. When household cleaning supplies or similar contaminants are used, the area should be ventilated.

## Troubleshooting

PROBLEM	SOLUTION
Your smoke alarm does not sound during testing.	<ul style="list-style-type: none"><li>• Please check whether the alarm is properly attached to the mounting bracket.</li><li>• Make sure you push the central test button firmly.</li><li>• Check the installation positioning. The wireless signal might be blocked or out of range.</li></ul>
False alarms triggered intermittently or when residents are cooking, taking showers, etc.	<ul style="list-style-type: none"><li>• Check the location of your smoke alarm (see "Installation Positioning").</li><li>• Clean the smoke alarm (see "Maintenance").</li></ul>
Red LED flashes and the alarm sounds one beep every 60 seconds.	The battery is low. Replace the device immediately, as the battery is sealed inside the device and can't be replaced.
Red LED flashes and the alarm sounds two beeps every 40 seconds.	The alarm is malfunctioning. Please clean your smoke alarm and see if it is working normally. If not, replace the device immediately.

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.



2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Environmental Protection

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



### Manufacturer and Service Information

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