

Smoke Detector User Manual

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Product: Smoke Detector

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Category: Smoke Detector

Connectivity: 2.4 GHz Wi-Fi

Power: Internal Battery (with real-time voltage monitoring)

What this detector does

The TechGuard Smoke Detector is a Wi-Fi photoelectric smoke alarm built for residential homes, office buildings, server rooms, and commercial warehouses in Nigeria.

The device features an optical photoelectric sensing chamber that continuously samples ambient air for airborne smoke particles. It detects both slow-smoldering fires and fast-flaming combustion events. When smoke is detected, the hardware sounds a high-output 85dB internal siren, flashes a red 360-degree LED ring, and transmits urgent cloud notifications.

In the TechGuard app you can:

- Check real-time detector status: Monitoring, Smoke Alarm, Fault, or Offline
- View remaining battery level percentage
- Mute the physical siren from your smartphone during an active alarm event
- Receive push notifications, email summaries, and mandatory SMS emergency texts
- Review historical alarm incidents and battery logs in the Activity feed

Important operation notice: The detector is dedicated to smoke and fire particulates. It does not detect gas leaks or carbon monoxide. It does not run self-tests from the app. You cannot permanently disable the hardware siren.

What you need

- The TechGuard mobile app on iOS or Android (native build)
- A 2.4 GHz home Wi-Fi network with constant internet access (5 GHz networks are not supported)
- Ceiling or high-wall installation bracket (screws and anchors included)
- Clean installation area free of heavy dust, paint mist, or excessive steam

Placement and mounting guidelines

- Ceiling center: Install in the center of the ceiling whenever possible, at least 50 cm away from lighting fixtures and corners.
- Wall mounting: If wall mounting is required, position the unit 15 cm to 30 cm below the ceiling edge.
- Recommended locations: Hallways, living rooms, corridors outside bedrooms, storage facilities, and office spaces. For multi-story buildings, install at least one smoke detector on each level.
- Avoid installing in: Kitchens directly above cookers (cooking fumes cause nuisance alarms; use a Gas Detector instead), bathrooms with heavy steam, unventilated attics, or next to air conditioner blowers.

Setup and pairing

1. Turn on the detector or remove the battery insulation pull-tab. Wait 1 to 2 minutes for initial circuit stabilization.
2. Open the TechGuard app, navigate to Add Device, and tap Smoke Detector.
3. Enter your home 2.4 GHz Wi-Fi network credentials.
4. Using a pin, press and hold the RESET button on the detector body until the red LED begins to blink slowly (once every 3 seconds). If it blinks rapidly, press and hold RESET again until the rhythm turns slow.
5. In the app, confirm the indicator is blinking slowly and tap Continue.
6. Follow the on-screen prompts to connect, return to your home network, and assign a room name (such as "Living Room Ceiling" or "Corridor Level 1").
7. Tap Save Device.

If pairing fails

| Symptom | Resolution |

|-----|-----|

| Wi-Fi password rejected | Re-type the 2.4 GHz network password. Confirm your phone is not on 5 GHz. |

| Pairing times out | Confirm the LED is in slow-blink mode. Bring the detector closer to the Wi-Fi router for initial setup. |

| Unit was paired to another phone | Press and hold RESET for 10 seconds to restore factory defaults, then re-pair. |

The detector screen in TechGuard

- Monitoring: Sensor is active, battery is healthy, and no smoke is present.
- Smoke Alarm: Active smoke particles detected. The 85dB siren is sounding, the red LED is flashing, and cloud alerts are firing.
- Fault: Internal optical chamber blockage or circuit anomaly reported.
- Offline: The unit cannot communicate with the cloud. Check Wi-Fi coverage or battery power.
- Battery: Percentage remaining. When replacement is required, a low-battery alert is dispatched.

What to do during a smoke alarm

If the detector sounds:

1. Alert all occupants in the building immediately.
2. Evacuate through designated escape routes without stopping to gather belongings.

3. Stay low to the ground if smoke is present, as clean air remains near the floor.
4. Check closed doors for heat before opening them. Do not open hot doors.
5. Once safely outside, call the state fire service or emergency helplines.
6. Do not re-enter the building until emergency personnel declare it safe.

Siren mute function

You can silence the siren from your smartphone once you have verified the situation (for example, controlled cooking smoke that drifted into the hallway):

1. Open the smoke detector screen in the TechGuard app.
2. Tap Settings.
3. Under Siren Controls, tap Mute Siren.

Mute rules:

- Mute is accessible only while an active alarm is sounding.
- Muting silences only the immediate sound burst.
- As soon as the room air clears, the mute state resets automatically. Any subsequent smoke event will trigger the siren normally.

Alert channels

- Push Notifications: Immediate high-priority notification to your smartphone.
- Email Alerts: Incident notification dispatched to your account email address.
- SMS Text Messages: Emergency SMS dispatched to your profile mobile phone number. SMS delivery is permanently enabled for all smoke alarms and cannot be disabled in settings.

What the app does not do

- Remotely trigger an audible self-test or alarm drill from the phone
- Adjust hardware siren volume or change tones
- Report continuous smoke density or ppm numbers
- Shut off electricity, gas, or ventilation systems automatically

Maintenance and physical testing

- Physical testing: Test the detector once a month by pressing the physical test button on the front face for 3 seconds. The siren will beep loudly and the red light will flash to verify horn and battery operation.
- Dust cleaning: Vacuum around the exterior smoke sensing vents every 6 months to remove dust webs and insect intrusion.
- Battery replacement: Replace the battery promptly when the unit emits periodic low-battery chirps or the app reports low voltage.