

Google Nest Protect

(Mains Connected 240 V ~ 50 Hz)

Photoelectric smoke and carbon monoxide alarm

User Guide

Google

Professional installation required

Contact a professional to install your Nest Protects. A professional should:

- remove your old smoke alarms;
- install your Nest Protects;
- connect your Nest Protects to Wi-Fi or help you connect them yourself;
- ensure all Nest Protects are wirelessly interconnected and
- give you a quick demo and answer your questions.

The installation of Nest Protect should be carried out in accordance with the latest regulations.

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Visit g.co/nest/protectbasics to learn more about installing, using and troubleshooting Nest Protect.



AS 3788:2014
EN 50291-4:2018



Meet your Nest Protect

Nest Protect is designed to detect smoke and carbon monoxide in a residential environment.

It has multiple sensors to help it understand what's happening in your home, including a Split-Spectrum Sensor to detect a wide range of slow-smouldering and fast-flaming fires.

The installation of this apparatus should be carried out by a competent person. This guide covers the installation of Nest Protect (Mains Connected 240 V) – Model number A0125.

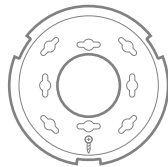
Requirements

You need Wi-Fi, an iOS or Android phone or tablet and a free account in order to use some Nest Protect features: spoken room names, wireless mobile notifications, and software updates. During setup, Wi-Fi and a free account are required for wireless interconnect and room naming. After all the Nest Protects in your home are connected, they can communicate with each other without Wi-Fi.

Inside the box you'll find:



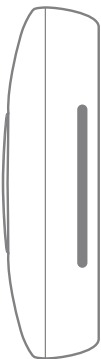
Nest Protect



Back plate

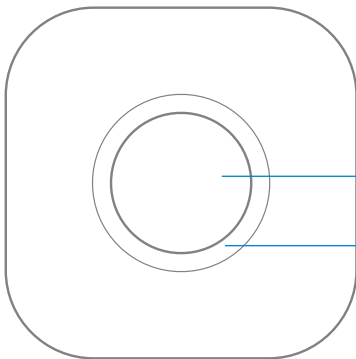


240 V AC connector



13.5 cm

3.9 cm

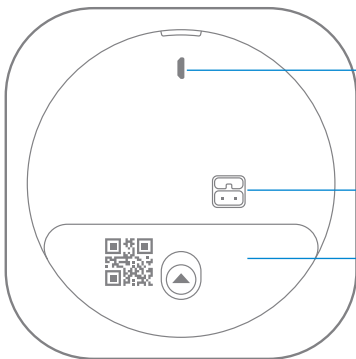


The siren enables the Nest Protect to alert you with a loud emergency sound.

The speaker allows the Nest Protect to speak with a human voice.

Press the button to silence alarms or run a test.

The light ring changes colour to alert you.



Micro-USB connector (not for normal use).

AC connector pins for the 240 V connector.

Battery compartment: Three AA Energizer® Ultimate Lithium batteries (L91).

Setup and installation (Professional installation required)

The installation of a smoke/CO alarm should be carried out by a qualified technician, and all wiring used to install this alarm should be carried out in accordance with applicable regulations. Installation should be carried out according to regulations and/or applicable codes in your local jurisdiction. Permanent connection to the fixed wiring of the building should be carried out in a suitable junction box.

Refer to the safety and warranty document included for regulatory information and additional precautions.

1. Get the Nest app

Before you install your Nest Protect on the ceiling or wall, you'll need to set it up with the Nest app. Download the app from the Apple App Store or Google Play and create a free account. You can use a phone or tablet for setup.



2. Set up Nest Protect

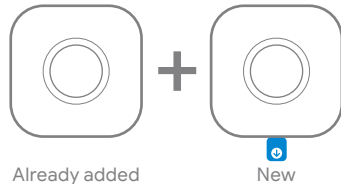
The Nest app will guide you through each step: scanning the Nest Protect QR code, connecting it to the Internet, and connecting it to other Nest Protects in your home. Go to g.co/nest/installprotect to watch the video.



Tip: Set everything out on a table for easy setup.

3. Have more Nest Protects?

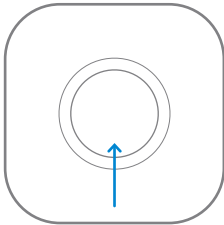
The Nest app will ask you if you have additional Nest Protects to set up. If you do, it'll take you through a faster setup. Make sure that you keep all your Nest Protects together until they're all set up and ready to be installed.



Tip: Your Nest Protect came packed in a plastic cover. Keep the cover on so that your Nest Protect stays clean until you install it.

4. Test before you install

Once you've finished setting up all your Nest Protects, make sure that they've been added to your account. To start the test, press the button on one Nest Protect and then follow the instruction. All your Nest Protects should speak up. Now you can install them on the ceiling or wall.



Tip: To double-check a Nest Protect's room name, press the button once. You'll hear the location that you assigned to it during setup. It'll say something like, "Ready in the bedroom."

5. Turn off the mains power

Protect yourself, and avoid blowing a fuse. Switch off the correct circuit breaker for the room where you are installing Nest Protect, or remove the fuse from the fuse box.



Fuse box

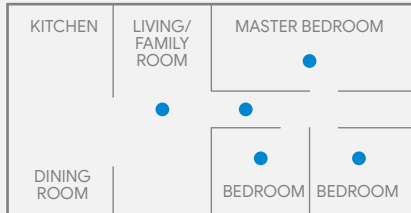
▲ WARNING
ELECTRICAL SHOCK HAZARD
Failure to turn off the power may result in serious electric shock, injury and death.

Location in your home

We recommend placing a smoke alarm on every floor and a carbon monoxide alarm in every room containing a fuel-burning appliance.

The Nest Protect smoke and carbon monoxide alarm should be installed:

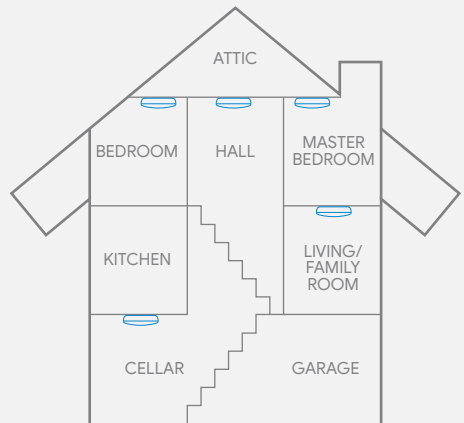
- On every floor (smoke alarms are required by law in certain residences).
- In every room containing a fuel-burning appliance (recommended for CO alarms).
- In every bedroom.
- In remote rooms that are used often but which may be too far away for anyone to hear an alarm.
- Outside unused rooms, like the boiler room.



Nest Protect should be installed at least 3 m (10 ft) away from hobs or cooking appliances.

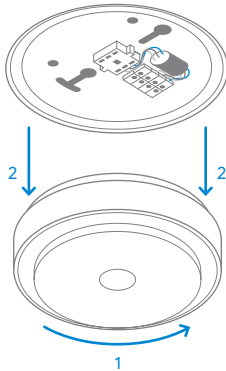
Make sure that there is a clear space around all installed Nest Protects so that they are not obstructed.

Nest Protect should NOT be installed in unfinished attics or garages.



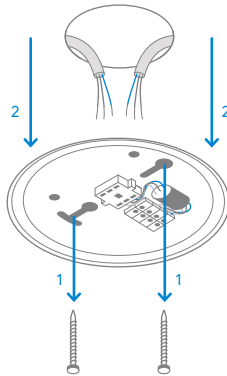
6. Remove your old smoke alarm

To prevent electric shock, make sure that the green power light is off on the alarm. You may have to twist the alarm to release it. Remove it carefully to avoid damaging your ceiling or wall. There will be two or four wires attached to the old back plate. Disconnect them all.



7. Remove the old back plate

Unscrew the back plate from the ceiling or dry lining box. Save the screws for installing the new back plate later. You'll see one or two cables coming from the ceiling.



Tip: Your old smoke alarm might make a loud noise when you disconnect it.

Placement on the ceiling or wall

Installation on the ceiling is recommended. Use the back plate as a guide to mark where the screws will go. When mounted on the ceiling, make sure that it's at least 30 cm (12 inches) away from the wall. When mounted on a wall, make sure that it's placed a minimum of 30 cm (12 inches) and a maximum of 50 cm (19.7 inches) from the ceiling.

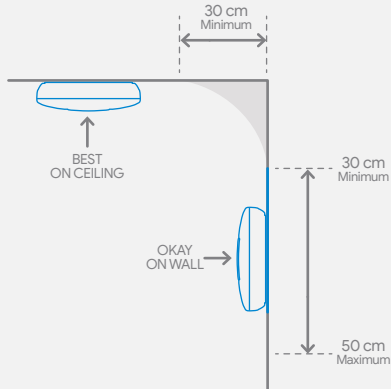


Figure 1

Placement on a sloping ceiling

If you have a sloping, pitched or cathedral ceiling, Nest Protect should be 50 cm to 150 cm from the highest point.

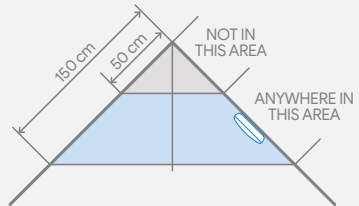


Figure 2

8. Attach the Nest connector

Each cable coming from the ceiling or wall will have three or four differently coloured wires. Their colours may vary based on their age.

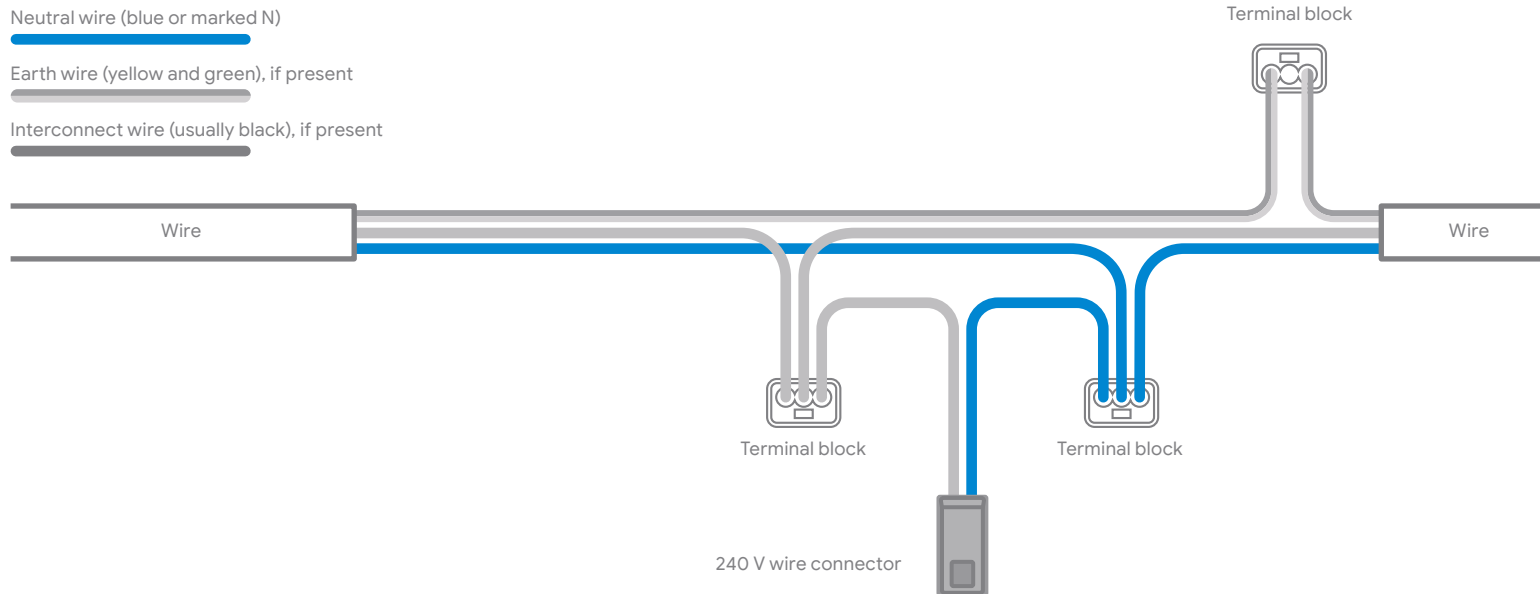
Match the live wires coming from the ceiling to the live wire in the 240 V AC connector and put them into a terminal block. All the neutral wires go into another terminal block, and the earth wires into a third terminal block. There is no need for the Interconnect wire, as Nest Protects are wirelessly interconnected. If there's an interconnect wire, insulate it.

Live wire (brown or marked L)

Neutral wire (blue or marked N)

Earth wire (yellow and green), if present

Interconnect wire (usually black), if present

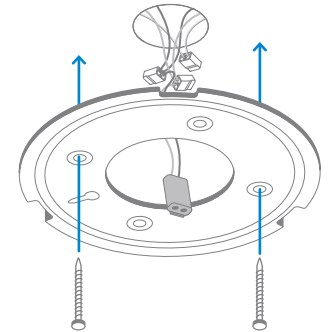


⚠ WARNING

Mixing the live and neutral connections when connecting alarms will damage all the alarms – ensure that the same colours are used throughout the premises for live, neutral and interconnect wires (if present).

9. Install the new back plate

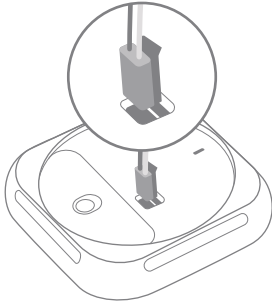
Screw the back plate directly into the ceiling or wall with the screws. The screws are self-tapping so there's no need to drill pilot holes. If you're installing on an electrical box, you can re-use the old screws. Make sure that the screws are driven all the way in and snug against the back plate.



Tip: All smoke alarms prefer to live in a dust-free area, so remove any dust before you install Nest Protect.

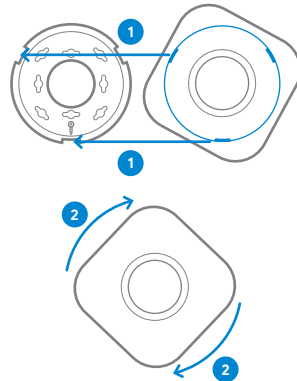
10. Connect power

Plug the AC connector into the back of your Nest Protect.



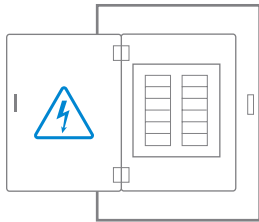
11. Install your Nest Protect

Tuck any excess wiring into the dry lining box first. Line up the three tabs on the back of your Nest Protect with the notches on the back plate. Hold Nest Protect against the back plate and turn it clockwise. Continue turning until it's square with the wall or ceiling. Install the rest of your Nest Protects if you have more.



Tip: If you ever need to remove it (for cleaning or battery replacement), turn off power to your Nest Protect at the fuse box or remove the fuse first. Then turn it anticlockwise until it disconnects from the back plate.

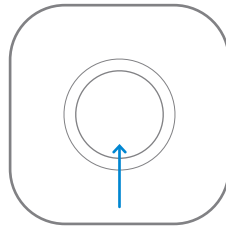
12. Switch mains power back on or replace the fuse



Fuse box

13. Press to test

Press the button on one Nest Protect. It will tell you what to do next. Every Nest Protect in the house should speak up, confirming that they're connected to each other.



Heads-Up and Emergency Alarms

Alerts

When Nest Protect has something to say, it will speak to you and light up instead of just beeping. Nest Protect has two kinds of voice alerts: Heads-Up and Emergency Alarm.

When smoke or carbon monoxide levels are heightened but haven't yet reached Emergency Alarm levels, Nest Protect can sound a Heads-Up as an early warning. Nest Protect will pulse yellow and tell you where there's smoke or carbon monoxide.

You'll get an Emergency Alarm when smoke or carbon monoxide reach critical levels. Nest Protect will pulse red, tell you what room the emergency is in and sound a loud alarm. If there's both smoke and CO present, the smoke alarm will take priority.

Silencing

Heads-Up alerts and some Emergency Alarms can be silenced by using the Nest app or pressing the button on the Nest Protect. In some cases, the CO level may be too high for the Emergency Alarm to be silenced. Only silence an alarm once you have checked conditions at the Nest Protect that first sounded the alarm. Do not silence Nest Protect by disconnecting it from mains voltage and removing the batteries. This will disable the alarm so that it cannot sense smoke or carbon monoxide, leaving you at risk.







Because there are many different types of fires, you may experience an Emergency Alarm without having first experienced a Heads-Up alert. This means that critical levels of smoke or CO occurred extremely quickly and Nest Protect had to sound the Emergency Alarm.

Have more than one Nest Protect?

After all the Nest Protects in your home are connected to each other, if there's a Heads-Up or an Emergency Alarm in one room, they'll all tell you what the danger is and which room it's in.

If multiple Nest Protects are interconnected, a Heads-Up alert or Emergency Alarm can only be completely silenced at the Nest Protect that originally sounded the alert. You'll need to go to that room to silence all the Nest Protects in your home. Always check the conditions near the Nest Protect that first detected the smoke or carbon monoxide before silencing it.

Heads-Up and Emergency Alarms

	What You Hear	What You See	What It Means	What To Do
Alerts	"PLEASE BE AWARE. THERE'S SMOKE IN THE [ROOM NAME]. THE ALARM MAY SOUND."	 YELLOW pulses.	Smoke levels are rising.	Put out the source of the smoke. Then use the Nest app or press the button to silence the alert.
	"PLEASE BE AWARE. THERE'S CARBON MONOXIDE IN THE [ROOM NAME]. THE ALARM MAY SOUND."	 YELLOW pulses.	Carbon monoxide levels have been high for a while.	Open a window or door to get fresh air. Then use the Nest app or press the button to silence the alert.
	(Alarm siren) "EMERGENCY. THERE'S SMOKE IN THE [ROOM NAME]."	 RED pulses.	The smoke in the room has reached critical levels.	Get out of the house immediately.
	(Alarm siren) "EMERGENCY. THERE'S CARBON MONOXIDE IN THE [ROOM NAME]. MOVE TO FRESH AIR."	 RED pulses.	The carbon monoxide in the room has reached critical levels.	<ol style="list-style-type: none"> 1) Keep calm and open all doors and windows. 2) Stop using all fuel-burning appliances and ensure that they are turned off. 3) Evacuate the premises if the CO alarm continues to sound. 4) Once outside, call the fire brigade, or dial 000 in Australia, or 111 in New Zealand.
	"THE ALARM IS OVER."	 GREEN pulses.	Smoke or carbon monoxide levels are decreasing.	Make sure you're safe and have put out the source of smoke or carbon monoxide.
Silencing	"SMOKE ALARM SILENCED."	 YELLOW or RED pulses.	You've silenced an alert. Nest Protect will now keep quiet, unless smoke or carbon monoxide remains at critical levels.	Make sure you're safe and have put out the source of smoke or carbon monoxide.
	"CARBON MONOXIDE ALARM SILENCED."			

Daily Use and Emergency Preparation

Daily Use

Power

Nest Protect (Wired 240 V) has a small green light located at the top of the button. It will be on as long as Nest Protect is getting AC power from the electrical wires.

If there's a wiring problem or a power outage, Nest Protect will switch to backup batteries and the green light will blink once per minute. You'll also see a yellow (instead of green) Nightly Promise light when you turn off the lights for the night.

Nightly Promise

Nest Protect continuously tests itself, so you don't have to wonder if it's working. Nightly Promise reports on every Nest Protect in your home.

When you turn off the lights for the night, Nest Protect will glow green for a moment – this means that everything is working. If it glows yellow, one of the Nest Protects in your home needs your attention. For instance, the batteries are low, Wi-Fi is down or there's a problem with the sensors. Just press the button or use the Nest app to get more information.

Pathlight

Nest Protect usually has its light turned off, but it can light your way as you walk underneath it in the dark. You can enable or disable Pathlight and set its brightness with the Nest app. For wired Nest Protect's, you can set this to always be on.

Nest Protect (Wired 240 V) also allows you to set Pathlight to "Always On" if you want a night light. It will turn on when it's dark and stay on until it's light again.

Emergency Preparation

Testing

Perform a manual test of your wired Nest Protect at least weekly. During a test, all interconnected Nest Protects in your home check their sensors, power, Wi-Fi connection, light ring, emergency siren, speaker and microphone.

When you run a test, Nest Protect will give you a countdown before sounding the alarm so that you have time to move away from the loud noise.






Test procedure:

1. Start a test by pressing the button twice.
2. Nest Protect will say: "This is only a test. The alarm will sound."
3. Ensure that the alarm sounds and the light illuminates on each Nest Protect.
4. Once the Nest Protect has made sure it's working, it'll tell you that everything's OK. If you have interconnected Nest Protects, all of them should speak.

Sound Check

Nest Protect can automatically perform a monthly test to confirm that its speaker and siren are working properly. You can choose to enable this option during initial setup with the app, but you can change it at any time. For more information, visit g.co/nest/soundcheck

Daily Use And Emergency Preparation

	What You Hear	What You See	What It Means	What To Do
Daily Use		 Solid GREEN light above the button.	Nest Protect is working. The green light means AC power is connected.	
		 Blinking GREEN light above the button.	The blinking green light means that Nest Protect has switched to backup batteries.	Check the fuse box to see if the power is out.
		 You turn off the room lights for the night, and the GREEN light pulses once.	Nest Protect has tested its sensors, power and Wi-Fi to confirm they are working correctly.	Sleep well thanks to Nightly Promise.
		 WHITE light.	Pathlight lights your way at night as you pass under it.	
Emergency Preparation	"READY. PRESS TO TEST."	 BLUE rotates.	To set up or run a manual test.	Press the button. Nest Protect will walk you through next steps.

▲ WARNING

- DO NOT stand close to the alarm when the siren is sounding. Exposure at close range may be harmful to your hearing. When testing, move away before the siren starts sounding.
- If the alarm ever fails to test correctly, have it replaced immediately! If the alarm is not working properly, it cannot alert you to a problem.
- DO NOT use a match, cigarette or any other makeshift fire to test the smoke alarm.
- NEVER use vehicle exhaust to test the CO alarm! Exhaust may cause permanent damage and will void your warranty.
- NEVER use an open flame of any kind to test this alarm. You might accidentally damage or set fire to the unit or to your home.

General Maintenance

Cleaning your Nest Protect

Nest Protect has been designed to be as maintenance free as possible, but you should keep it clean. As with any smoke alarm, dust build-up on the outside or inside of Nest Protect can stop it from working properly.

To clean Nest Protect:

1. Turn off mains power to Nest Protect or remove the fuse (see p.8).
2. Remove it from the wall or the ceiling (turn anticlockwise until it comes off the back plate and detach the power connector).
3. Wipe the outside with a clean, slightly damp cloth. Don't use any soaps or solvents.
4. Place the Nest Protect on a soft, dry cloth with the button facing down. Open the battery compartment door and remove the batteries. Remove the screws and lift off the back. Be careful not to lose the screws.
5. Gently vacuum the inside. Make sure that you clean all the way around the mesh sides of the smoke chamber (the large metal circle).

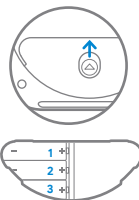
Note: Never use detergents or solvents (like glass cleaner) on your Nest Protect and do not spray air fresheners, hair spray or other aerosols near it. Do not get water inside the alarm or paint over it.

Replacing the backup batteries

If there is a power cut, Nest Protect will use three AA Energizer® Ultimate Lithium batteries (L91) for backup. These batteries can be purchased at your local retailer.

1. Turn off mains power to Nest Protect or remove the fuse (see p.8).

2. Twist Nest Protect anticlockwise until it disconnects from the back plate.
3. Detach the power connector from the back of Nest Protect and open the battery door.








4. Replace the batteries. Align the + positive and - negative ends with the markings in the battery compartment.
5. Close the battery compartment. Do not force the door closed.
6. Re-attach the power connector.
7. Push Nest Protect onto the back plate and turn it clockwise until you feel it grip.
8. Turn mains power to Nest Protect back on or replace the fuse.
9. Press the button twice to test the Nest Protect and that the batteries are OK.

▲ WARNING

- Use only batteries specified by Google. Use of a different battery model will have a detrimental effect on the operation of the smoke alarm. The alarm may not operate properly with other batteries. Never use rechargeable batteries, as they may not provide a constant charge.
- Never remove the batteries from a battery-operated alarm to stop an unwanted alarm (caused by cooking smoke, etc.). Removing batteries disables the alarm so that it cannot sense smoke or carbon monoxide, leaving you at risk.

General maintenance

	What You Hear	What You See	What It Means	What To Do
General Maintenance	"THE SENSORS HAVE FAILED IN THE [ROOM NAME]. REPLACE NEST PROTECT NOW." Single chirp every 60 seconds.	 YELLOW pulses.	Nest Protect has tested its sensors, and there is a problem.	Clean according to instructions on p.20. If the problem persists, replace Nest Protect.
	"THE BATTERY IS LOW IN THE [ROOM NAME]. REPLACE THE BATTERY SOON."	 YELLOW pulses.	Low battery.	Change the Nest Protect's batteries soon.
	"THE BATTERY IS LOW IN THE [ROOM NAME]. REPLACE THE BATTERY NOW." Single chirp every 60 seconds.	 YELLOW pulses.	Low battery.	Change the Nest Protect's batteries now.
	"NEST PROTECT CANNOT SOUND THE ALARM IN THE [ROOM NAME]." Single chirp every 60 seconds.	 YELLOW pulses.	There's a problem with the Nest Protect's siren.	Replace Nest Protect now.
	"NEST PROTECT HAS EXPIRED. REPLACE NEST PROTECT NOW." Two chirps every 60 seconds.	 YELLOW pulses.	Nest Protect has expired and reached the end of its life.	Replace Nest Protect now.

▲ WARNING

- The alarm will not operate without battery power. The alarm cannot work until you install the batteries in the correct position (Match + to +, and - to -).
- This device contains lithium batteries. If tampered with, the battery may be short circuited and create a risk of fire. Never attempt to open or damage the alarm.
- Danger of explosion if battery is incorrectly replaced. Replace only with Energizer Lithium AA (L91) batteries or Panasonic FR6SJ batteries.
- Replace all batteries at once and only use new, unused batteries as replacements.
- Do not expose batteries to excessive heat or fire.

General Maintenance

Servicing

If your Nest Protect needs servicing, contact our support team first at g.co/nest/support to get a returns number and delivery information.

Expiry

Like any smoke and CO alarm, the Nest Protect has a limited life. You will need to replace Nest Protect after 10 years from the date of manufacture with a brand new Nest Protect. You can check the replacement date written on the back of the Nest Protect to see when it will expire.

Before it expires, the Nest Protect will light up with a yellow light. Press the button and it will say, "Nest Protect has expired. Replace it now." Buy a new alarm and recycle the expired one. Make sure that you test your new Nest Protect once it's installed.

Recycling And Disposal

Google recognises its responsibility to minimise the environmental impact of its operations and products. Once the Nest Protect has expired, you will need to recycle it according to local regulations. Please visit g.co/nest/recycle to learn more about Google's commitment to environmental responsibility and to find where you can safely recycle your Nest Protect.

Resetting the Nest Protect

You can reset the Nest Protect to erase all your settings and reset the wireless interconnection with other Nest Protects. You may want to do this if this device was previously used on another account. Follow the steps below on each Nest Protect that you want to reset.

1. Press and hold the button. The Nest Protect will chime and glow blue.
2. Keep holding the button until the Nest Protect begins to say its version number. Then release the button.
3. Nest Protect will start a countdown and tell you it's erasing all settings. You can cancel the reset by pressing the button during the countdown.
4. It will restart after a few seconds.

Your Nest Protect will still detect smoke and carbon monoxide after being reset.

Go to g.co/nest/protectreset for complete reset instructions.

Technical Specifications

- Temperature range: 4.4 °C (40 °F) to 37.8 °C (100 °F).
- Humidity range: 20% RH to 80% RH (non-condensing).

Wireless interconnect

Nest Protects connect wirelessly to each other so that when one has an issue, the other Nest Protects can also let you know. For example, if you're in the bedroom and the alarm goes off in the basement, the Nest Protect in the bedroom will tell you where the smoke or CO is. To silence the alert, go to the room where the alarm was triggered. All of the Nest Protects in the house can be silenced from there. Silencing an alarm in a room other than where the alarm was triggered will result in only that alarm being silenced. Either press the button on the Nest Protect or use the Nest app to silence the alarm.

The Nest Protect does not have a wire for interconnect because it connects wirelessly. There's no need to connect any Nest Protect wire to the interconnect wire coming from the ceiling or wall.

Nest Protect – Mains Connected 240 V (model numbers A14 and A0125) and Nest Protect – Battery (model numbers A13 and A0124) are compatible and can be interconnected wirelessly. When interconnected, model numbers A13 and A14 will display a visual indicator if any Nest Protect in the structure is in Emergency Alarm mode. Model numbers A0124 and A0125 will display a visual indicator only on the device(s) detecting emergency levels of smoke or CO. Nest Protect's wireless interconnect will not work with smoke or CO alarms from other brands. You can connect up to 18 interconnected Nest Protects to your account.

Nest Protects can generally communicate with each other if they're 15 m (50 feet) or less apart inside a home. Some features of a home may reduce the Nest Protect's wireless interconnect range, including the number of floors, number and size of rooms, furniture, type of building materials, suspended ceilings, ductwork, large metal appliances and metal studs. This kind of interference can be overcome by adding more Nest Protects that can route wireless signals around obstructions.

▲ WARNING

- The range and proper operation of any wireless device will vary depending on its surroundings.
- Nest Protect alarms are not to be used outdoors or to transmit between buildings. The alarms will not communicate properly in those conditions.
- Metal objects and metallic wallpaper may interfere with signals from wireless alarms. Test your Nest Protects with metal doors opened and closed.

Note: The Nest Protect can be used as a single-station or multiple-station alarm.

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ATTENTION: Please read this user guide carefully and keep it in a safe place.
Refer to the safety and warranty document included for regulatory
information and additional precautions.