



**Nest Protect™ (Wired 120V ~ 60Hz)**  
**Detects smoke and carbon monoxide (CO)**

**User's Guide**

**ATTENTION:** Please read carefully and keep this user's guide in a safe place.

First, a word about privacy.

We’re committed to being open and honest about how we use data. We will always ask for permission before sharing personally identifiable information like your email address, and we keep your data safe with the same security tools banks use. Go to **nest.com/privacy** to learn more about our Privacy Policy.

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Want to see how it’s done? Go to **nest.com/installprotect** for installation videos and tips.



## 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-smoldering and fast-flaming fires.

This guide covers the installation of Nest Protect (Wired) - Model number 06C.

Inside the box you'll find:



Nest Protect



Backplate



4 mounting screws



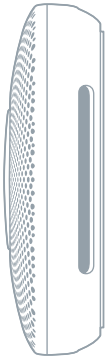
3 wire nuts



120V connector

## REQUIREMENTS

You need Wi-Fi, an iOS or Android phone or tablet, and a free Nest 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 Nest 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.



1.5 in  
(3.9 cm)

5.3 in  
(13.5 cm)

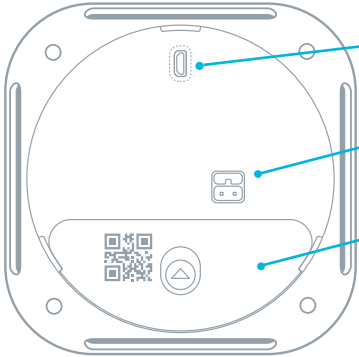


The horn enables Nest Protect to alert you with a loud emergency sound.

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

The light ring changes color to alert you.

Push the Nest button to hush alarms or run a test.



Micro-USB connector (not for normal use).

AC connector pins for the 120V connector.

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

## SETUP AND INSTALLATION

### (Professional installation recommended)

The installation of a smoke and CO alarm should be made by a qualified technician, and all wiring used to install this alarm should be made in accordance with articles 210, and 300.3B of the National Electrical Code ANSI/ NFPA 70, NFPA 72, and/or applicable codes in your local jurisdiction.

For additional installation instructions and safety warnings, refer to page 24.

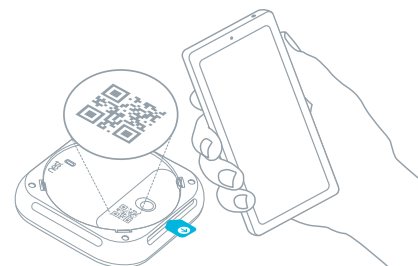
### 1. Get the Nest app

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 Nest Account. You can use a phone or tablet for setup.



### 2. Set up Nest Protect

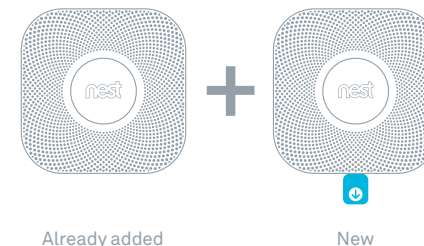
The Nest app will guide you through each step: scanning the Nest Protect QR code, connecting it to the Internet, and connecting it to other Nest Protects in your home. Go to [nest.com/installprotect](https://nest.com/installprotect) to watch the video.



**Tip:** Lay 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 so, it'll take you through a faster setup. Be sure to 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 your Nest Protect stays clean until you install it.

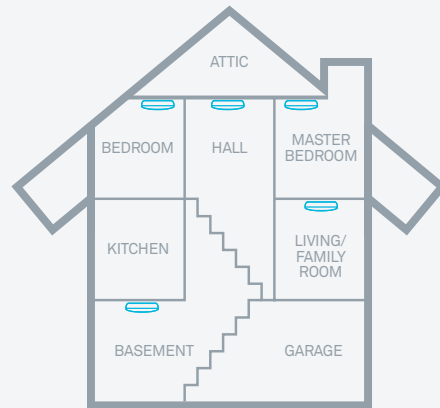
## Location in your home

The National Fire Protection Association (NFPA) recommends installing a smoke alarm in the following areas:

- On every floor, including finished attics and basements.
- Inside and outside every sleeping area.
- At the top of the first-to-second floor stairway and on the basement ceiling near the entry of the stairs.
- In homes with more than 1,000 square feet (93 m<sup>2</sup>) on one level, additional alarms may be required.

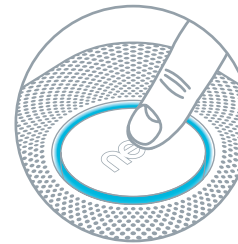
Nest Protect should be installed at least 10 feet (3 m) away from cooktops or cooking appliances.

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



## 4. Test before you install

Once you're done setting up all of your Nest Protects, make sure they've been added to your Nest Account. Push the Nest button on one Nest Protect and follow the instructions. All of your Nest Protects should speak up. Now you can install them on the ceiling or wall.



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

## 5. Turn off 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.



Breaker box



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

## Placement on the ceiling or wall

Installing on the ceiling is recommended. Mark where the screws will go using the base as a guide. Make sure it's at least 4 inches (10 cm) away from the wall.

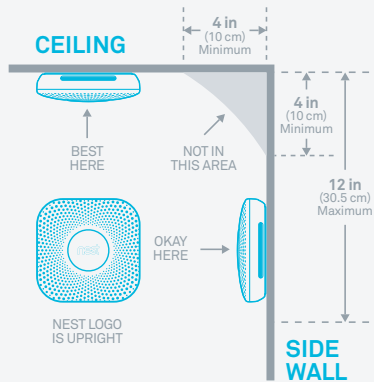


Figure 1

## Placement on a sloped ceiling

If you have a sloped, peaked or cathedral ceiling, Nest Protect should be 4 inches to 3 feet (10 cm – 1 m) from the highest point.

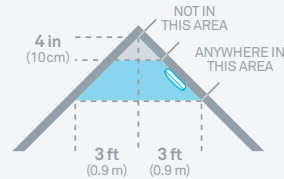


Figure 2

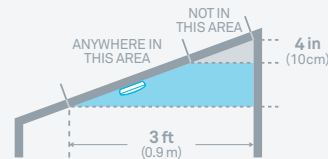


Figure 3

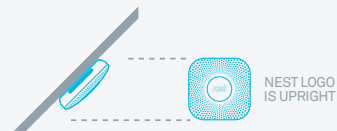
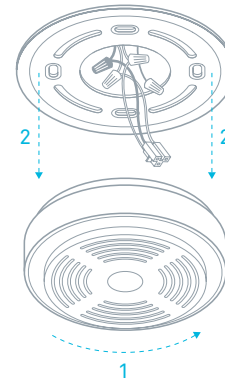


Figure 4

## 6. Remove your old smoke alarm

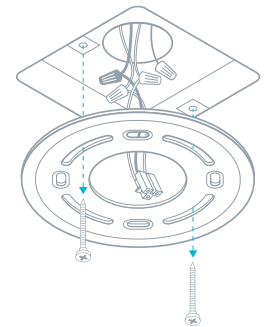
To prevent electrical shock, make sure the green power light is off on the alarm. You may have to twist the alarm to release it. Carefully remove it to keep from damaging your ceiling or wall.



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

## 7. Remove the old backplate

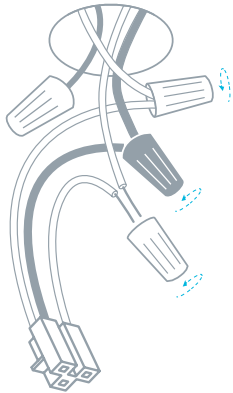
Unscrew the backplate from the electrical box. Save the screws to install the Nest backplate later.



## 8. Remove the old connector

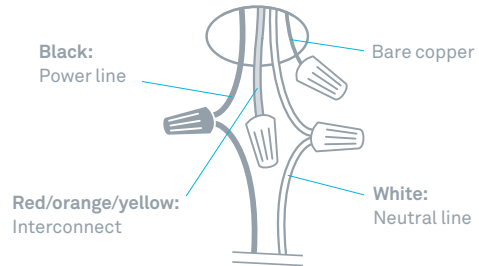
Unscrew the wire nuts to detach the 120V connector from your old smoke alarm.

The exposed wire should be straight.



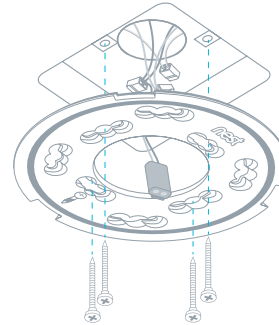
## 9. Attach the Nest connector

Hold the white wire ends together, cap them with a wire nut and twist clockwise until it's secure. Do the same with the black wires. There's no need for the red/orange/yellow wire. Simply cap it with a wire nut and twist until secure.



## 10. Install the Nest backplate

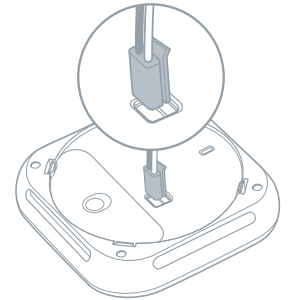
Screw the Nest backplate to the existing electrical box, reusing the existing screws. You can also screw the backplate directly into the wall or ceiling with the Nest screws.



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

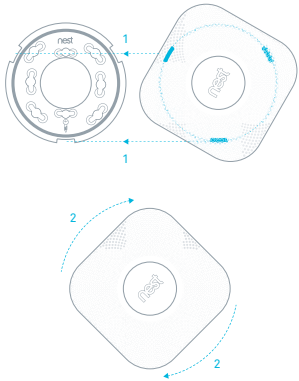
## 11. Connect power

Plug the 120V connector into the back of your Nest Protect.



## 12. Install your Nest Protect

First, tuck any excess wiring into the electrical box. Line up the three tabs on the back of your Nest Protect with the notches on the backplate. Hold Nest Protect against the backplate 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 breaker box or remove the fuse first. Then turn counterclockwise until it disconnects from the backplate.

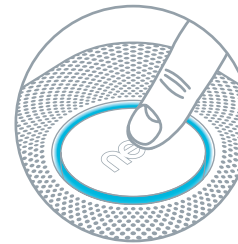
## 13. Switch power back on or replace the fuse



Breaker box

## 14. Press to test

Press the Nest 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 in words and light up instead of just beeping. Nest Protect has two kinds of voice alerts: Heads-Up and Emergency Alarms.

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, sound a loud alarm, and tell you what room the emergency is in. If there's both smoke and CO present, the smoke alarm will take priority.

### SILENCING

Heads-Up alerts and some Emergency Alarms can be hushed by using the Nest app or pressing the Nest button. In some cases, the smoke level may be too high for the Emergency Alarm to be hushed. 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 line voltage and removing the batteries. This will disable the alarm so 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 has 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 be silenced only at the Nest Protect that originally sounded the alert. You'll need to go to that room to hush 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	"HEADS-UP. 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 Nest button to hush the alert.
	"HEADS-UP. 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 Nest button to hush the alert.
	(Alarm sound) "EMERGENCY. THERE'S SMOKE IN [ROOM NAME]"	 RED pulses.	The smoke in the room has reached critical levels.	Get out of the house immediately.
	(Alarm sound) "EMERGENCY. THERE'S CARBON MONOXIDE IN [ROOM NAME]. MOVE TO FRESH AIR."	 RED pulses.	The carbon monoxide in the room has reached critical levels.	<ol style="list-style-type: none"><li>1) Operate reset/silence button (Nest button).</li><li>2) Call your fire dept. or 911.</li><li>3) Move to fresh air.</li><li>4) Do not reenter the premises until the emergency services tell you to. Refer to page 30 for complete instructions.</li></ol>
SILENCING	"SMOKE ALARM HUSHED."	 YELLOW or RED pulses.	You've hushed 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 HUSHED."			
	"THE ALARM IS OVER."	 GREEN pulses.	Smoke or carbon monoxide levels are decreasing.	Make sure you're safe and have put out the source or smoke or carbon monoxide.

DAILY USE AND EMERGENCY PREPARATION

DAILY USE

POWER

Nest Protect (Wired 120V) has a small green light located at the top of the Nest 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 power outage, the green light will turn off and Nest Protect will switch to backup batteries. 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 out the lights for the night, Nest Protect will glow green for a moment - that means 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 an issue with the sensors. Just push the Nest button or use the Nest app to see what's wrong.

PATHLIGHT

Usually Nest Protect 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. Nest Protect (Wired 120V) 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 monthly. During a test, all interconnected Nest Protects in your home check their sensors, power, Wi-Fi connection, emergency horn, speaker and microphone. When you run a test, Nest Protect will give you a countdown before sounding the alarm so you have time to move away from the loud noise. Test procedure:

1. Start a test by pressing the Nest 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 everything's okay. If you have interconnected Nest Protects, all of them should speak.

DAILY USE AND EMERGENCY PREPARATION

	WHAT YOU HEAR	WHAT YOU SEE	WHAT IT MEANS	WHAT TO DO
DAILY USE		 GREEN light above the Nest logo.	Nest Protect is working. The green light means AC power is connected.	
		 You turn off the room lights for the night, and the GREEN light pulses once.	Nest Protect has tested its sensors and batteries 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. It can also be set to stay on.	
EMERGENCY PREPARATION	"READY. PRESS TO TEST."	 BLUE rotates.	To set up or run a manual test.	Press the Nest button. Nest Protect will walk you through next steps.

**⚠ WARNING**

- DO NOT stand close to the alarm when the horn is sounding. Exposure at close range may be harmful to your hearing. When testing, step away before the horn 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.
- To test the CO alarm, NEVER use vehicle exhaust! 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 buildup on the outside or inside of Nest Protect can stop it from working properly.

To clean Nest Protect:

1. Turn off power to Nest Protect at the breaker box (see p.9)
2. Remove it from the wall or the ceiling (turn counterclockwise until it comes off the backplate and detach the power connector).
3. Wipe the outside with a clean, slightly damp cloth. Don't use any soaps or solvents.
4. Place Nest Protect on a soft, dry cloth with the Nest button facing down. Open the battery compartment door and remove the batteries. Remove the screws and lift off the back. Be careful to not lose the screws.
5. Gently vacuum the inside. Make sure to clean all the way around the mesh sides of the smoke chamber (the large metal circle).

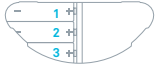
**Note:** Never use detergents or solvents (like glass cleaner) on your Nest Protect and do not spray air fresheners, hair spray or other aerosols near it. Do not get water inside the alarm or paint over it.

## REPLACING THE BACKUP BATTERIES

In case of a power outage, 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 power to Nest Protect at the breaker box (see p.9)

2. Twist Nest Protect counterclockwise until it disconnects from the backplate.
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. Reattach the power connector.
7. Push Nest Protect onto the backplate and turn it clockwise until you feel it grip.
8. Turn power to Nest Protect back on at the breaker box.
9. Press the Nest button twice.

## SERVICING

1. Before sending Nest Protect for service, visit [nest.com/support](https://nest.com/support)
2. If your Nest Protect needs servicing, first contact our support team to get a return number
3. Send your Nest Protect to:

**Nest Labs**  
(YOUR RETURN NUMBER)  
4 East Stow Road  
Marlton, NJ 08053 USA

# GENERAL MAINTENANCE

WHAT YOU HEAR	WHAT YOU SEE	WHAT IT MEANS	WHAT TO DO
"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 page 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 batteries of Nest Protect soon.
"THE BATTERY IS LOW IN THE [ROOM NAME]. REPLACE THE BATTERY NOW." Single chirp every 60 seconds.	YELLOW pulses.	Low battery.	Change the batteries of Nest Protect now.
"NEST PROTECT CAN'T SOUND THE ALARM IN THE [ROOM NAME]." Two chirps every 60 seconds.	YELLOW pulses.	There's a problem with the horn of Nest Protect.	Replace Nest Protect now.
"NEST PROTECT HAS EXPIRED. REPLACE IT NOW." Two chirps every 60 seconds.	YELLOW pulses.	Nest Protect has expired and reached the end of its life.	Replace Nest Protect now.

## ⚠ WARNING

- Use only batteries specified by Nest. Use of a different battery model will have a detrimental effect on the smoke alarm operation.
- Never disconnect a wired alarm to stop an unwanted alarm (caused by cooking smoke, etc.) Removing power disables the alarm so it cannot sense smoke or carbon monoxide (CO). Instead open a window or fan the smoke away from the unit.
- The batteries cannot work until you install the batteries in the correct position (Match + to + and - to -).
- Once Nest Protect has expired you'll no longer be protected from smoke or CO if you don't replace it.

## GENERAL MAINTENANCE

### EXPIRATION

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

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

### RECYCLING AND DISPOSAL

Once Nest Protect has expired you will need to recycle it according to local regulations. Please visit [nest.com/recycle](https://nest.com/recycle) for more information.

### RESETTING NEST PROTECT

You can reset Nest Protect to erase all your settings and reset the wireless interconnection with other Nest Protects. You may want to do this when you move to a new home. Follow the steps below on each Nest Protect you want to reset.

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

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

Go to [nest.com/protect/reset](https://nest.com/protect/reset) for complete reset instructions.

## WIRELESS INTERCONNECT

Nest Protects connect wirelessly to each other so that when one speaks, they all speak. That means when one Nest Protect raises any kind of alert, every Nest Protect in the house will tell you which room the smoke or CO is in. 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 hushed from there. Either press the button on the Nest Protect or use the Nest app to hush the alarm.

Nest Protect - Wired 120V (model numbers 05C and 06C) and Nest Protect - Battery (model numbers 05A and 06A) and are compatible and can be interconnected wirelessly. Nest Protect wireless interconnect will not work with other smoke or CO alarms from other brands.

Nest Protect's 120V connector does not have a red/orange/yellow wire for interconnect because it connects wirelessly. There's no need to connect any Nest Protect wire to the red/orange/yellow interconnect wire coming from the ceiling or wall.

Nest Protects can typically communicate with each other if they're 50 feet (15 m) or less apart inside a home. Some features of a home may reduce 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:** Nest Protect can be used as a single station or multiple station alarm.

# SAFETY

## ALARM LIMITATIONS

### LIMITATIONS OF SMOKE ALARMS

Alarms reduce deaths resulting from home fires worldwide. However smoke alarms can only work if they are properly located, installed and maintained, and if smoke reaches the alarms.

- Smoke alarms may not waken all individuals. Make sure you create an escape plan and you practice fire drills with all members of the family.
- Smoke alarms cannot work without power. If they are powered by batteries, the smoke alarms cannot work if the batteries are missing, dead or disconnected. If they are wired, the smoke alarms cannot work during a long power outage and once the backup battery is dead. Nest Protect will warn you in advance when batteries are running low so that you can replace them.
- Smoke will not be able to reach smoke sensor while the dust cover is in place. The dust cover must be removed.
- Smoke alarms cannot detect fires if the smoke does not reach the alarms. For example, if a door is closed, smoke may not reach the smoke alarm. This is why you should have a smoke alarm in each bedroom and in the hallways as bedroom doors may be closed at night.
- Smoke alarms may not be heard. Although the smoke alarm comes with a loud horn of 85 decibels, it may not be heard if: 1) people have consumed alcohol or drugs, 2) the alarm is drowned by noise from stereo, TV, traffic, air conditioner or other appliances, 3) residents are hearing impaired or have high frequency hearing loss associated with aging. Special smoke alarms should be installed for those who are hearing impaired.

- This smoke alarm is not intended to alert hearing impaired residents. Alarms specifically designed for the hearing impaired, which feature devices like flashing strobe lights or low frequency devices are available to alert the hearing impaired in case of fire.
- This smoke alarm alone is not a suitable substitute for complete fire detection systems in places housing many people—like apartment buildings, condominiums, hotels, motels, dormitories, hospitals, long-term health care facilities, nursing homes, day care facilities, or group homes of any kind—even if they were once single-family homes. It is not a suitable substitute for complete fire detection systems in warehouses, industrial facilities, commercial buildings, and special-purpose non-residential buildings which require special fire detection and alarm systems. Depending on the building codes in your area, this smoke alarm may be used to provide additional protection in these facilities.

### LIMITATIONS OF CARBON MONOXIDE (CO) ALARMS

- NEVER ignore your carbon monoxide alarm if it alarms. Refer to “What to do in case of a carbon monoxide alarm” for more information. Failure to do so can result in injury or death.
- This CO alarm is designed for use inside a single-family home or apartment. It is not meant to be used in common lobbies, hallways, or basements of multi-family buildings unless working CO alarms are also installed in each family living unit. CO alarms in common areas may not be heard from inside individual family living units.
- This CO alarm alone is not a suitable substitute for complete detection systems in places which house many people, like hotels or dormitories, unless a CO alarm is also placed in each unit.
- DO NOT use this CO alarm in warehouses, industrial or commercial buildings, special purpose non-residential buildings, or airplanes. This CO alarm is specifically designed for residential use, and may not provide adequate protection in non-residential applications.
- Some individuals are more sensitive to CO than others, including people with cardiac or respiratory problems, infants, unborn babies, pregnant mothers, or elderly people can be more quickly and severely affected by CO. Members of sensitive populations should consult their doctors for advice on taking additional precautions.
- The silence feature is for your convenience only and will not correct a CO problem. Always check your home for a potential problem after any alarm. Failure to do so can result in injury or death.

## INSTALLATION CODE

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269).

**Note:** Specific requirements for Smoke Alarm installation vary between countries, states, and regions. Check with your local safety agency or Fire Department for current requirements in your area.

### ▲ WARNING

This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA) commercial or industrial standards.

## WHERE TO INSTALL YOUR SMOKE ALARMS

For your information, the National Fire Alarm and Signaling Code, NFPA 72, reads as follows: "29.5.1 \*Required Detection."

"\*Where required by applicable laws, codes, or standards for a specific type of occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

- (1) \*In all sleeping rooms and guest rooms
- (2) \*Outside of each separate dwelling unit sleeping area, within 21 ft (6.4 m) of any door to a sleeping room, the distance measured along a path of travel
- (3) On every level of a dwelling unit, including basements
- (4) On every level of a residential board and care

occupancy (small facility), including basements and excluding crawl spaces and unfinished attics  
(5) \*In the living area(s) of a guest suite  
(6) In the living area(s) of a residential board and care occupancy"

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## SMOKE DETECTION

### Are more smoke alarms desirable?

The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, the use of additional smoke alarms for those areas for increased protection is recommended. The additional areas include the dining room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, because these locations occasionally experience conditions that can result in improper operation. As Nest Protect is also a Carbon Monoxide alarm, it is not recommended to install it in a furnace room or a utility room if it contains a water heater or a furnace. It should be 15-20 feet from these appliances to avoid transient conditions and/or perceived nuisance alarms.

## WHERE NOT TO INSTALL YOUR SMOKE ALARMS

For best performance, AVOID installing a smoke alarm in these areas:

- **Where combustion particles are produced.** Burning material creates combustion particles which could cause your smoke alarm to go off unnecessarily. Areas to avoid include poorly ventilated kitchens, garages, boats, recreational vehicles, and furnace rooms. Keep a smoke alarm at least 20 feet (6 m) from the source of combustion particles (stove, furnace, water heater, space heater) if possible. In areas where a 20-foot (6 m) distance is not possible – in mobile, or smaller homes, for example – it is recommended a smoke alarm to be placed as far from these fuel-burning sources as possible. The placement recommendations are intended to keep a smoke detector at a reasonable distance from a fuel-burning source, reducing "unwanted" alarms. Unwanted alarms can occur if a smoke alarm is placed directly next to a fuel-burning source. Ventilate these areas as much as possible.
- **In air streams near kitchens.** Air currents can draw cooking smoke into the sensor of a smoke alarm near the kitchen.
- **In very damp, humid or steamy areas, or directly near bathrooms with showers.** Keep a smoke alarm at least 10 feet (3 m) away from showers, saunas, dishwashers, etc.
- **Where temperatures are regularly below 40°F (4°C) or above 100°F (38°C)** including unheated buildings, outdoor rooms, porches, or unfinished attics or basements.
- **In very dusty, dirty, or greasy areas.** Do not install a smoke alarm directly over the stove

or range. Clean a laundry room unit frequently to keep it free of dust or lint.

- **Near fresh air vents, ceiling fans, or in very drafty areas.** Drafts can blow smoke away from a smoke alarm, preventing it from reaching the sensor.
- **In insect infested areas.** Insects can clog openings to the sensor and cause unwanted alarms.
- **Less than 12 inches (30.5 cm) away from fluorescent lights.** Electrical "noise" can interfere with the sensor.
- **In "dead air" spaces.** "Dead air" spaces may prevent smoke from reaching a smoke alarm.

## WHERE NOT TO INSTALL YOUR CO ALARMS

- Keep carbon monoxide alarm at least 10 ft (3 m) away from any cooking appliance including stovetop, oven, microwave, etc.
- This alarm should not be installed in locations where the normal ambient temperature is below 40°F (4.4°C) or exceeds 100°F (37.8°C).

## EXAMPLES OF WHEN YOUR SMOKE ALARM MAY NOT BE EFFECTIVE

Your alarm may not be effective in protecting against fire in certain cases:

- Smoking in bed
- Leaving children unsupervised
- Cleaning with flammable liquids, like gasoline.
- When someone's clothes have caught on fire
- Fires where the smoke is prevented from reaching the alarm due to a closed door or other obstruction
- Incendiary fires where the fire grows so rapidly that an occupant can't get out, even with alarms in proper locations

## AC INSTALLATION WARNINGS

### ELECTRICAL SHOCK HAZARD

- Turn off power to the area where you will install this unit at the circuit breaker or fuse box before beginning installation. Failure to turn off the power before installation may result in serious electrical shock, injury or death.
- Do not restore power until all alarms are completely installed. Restoring power before installation is complete may result in serious electrical shock, injury or death.
- Turn off the power to the area where the alarm is installed before removing it from the mounting bracket. Failure to turn off the power first may result in serious electrical shock, injury or death.
- If any unit in the series does not alarm, TURN OFF POWER and recheck connections. If it does not alarm when you restore power, replace it immediately.
- Attempting to disconnect the power connector from the unit when the power is on may result in electrical shock, serious injury or death.
- Failure to meet any of the above requirements could damage the units and cause them to malfunction, removing your protection.
- Improper wiring of the power connector or the wiring leading to the power connector will cause damage to the alarm and may lead to a non-functioning alarm.
- This unit must be powered by a 24-hour, 120V AC pure sine wave, 60Hz 0.1A circuit. Be sure the circuit cannot be turned off by a switch, dimmer, or ground fault circuit interrupter. Failure to connect this unit to a 24-hour circuit may prevent it from providing constant protection.
- The alarm cannot be operated from power derived from a square wave, modified square wave or modified sine wave, inverter. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm
- Never disconnect the power from an AC powered unit to stop an unwanted alarm. Doing so will disable the unit and remove your protection. In the case of a true unwanted alarm open a window or fan the smoke away from the unit. The alarm will reset automatically when it returns to normal operation.
- Improper wiring of the power connector or the wiring leading to the power connector will cause damage to the alarm and may lead to a non-functioning alarm. You must test to ensure proper installation.

## CARBON MONOXIDE (CO) PRECAUTIONS

### WHAT IS CARBON MONOXIDE?

Carbon Monoxide (CO) is an invisible, odorless, tasteless gas produced when fuels do not burn completely, or are exposed to heat (usually fire). These fuels include: wood, coal, charcoal, oil natural gas, gasoline, kerosene, and propane. Common appliances are often sources of CO such as oil or gas burning furnaces, gas ovens, wood-burning fireplaces, and charcoal grills. If they are not properly maintained, are improperly ventilated or malfunction, CO levels can rise quickly. CO is a real danger now that homes are more energy efficient. "Air-tight" homes with added insulation, sealed windows, and other weatherproofing can "trap" CO inside. Electrical appliances typically do not produce CO. The Nest Protect CO sensor meets the alarm response time requirements of the American National Standard ANSI/UL 2034. Standard alarm times are as follows:

- At 70ppm, the unit must alarm within 60-240 minutes.
- At 150ppm, the unit must alarm within 10-50 minutes.
- At 40ppm, the unit must alarm within 4 to 15 minutes.

### ⚠ WARNING

This carbon monoxide alarm is designed to detect carbon monoxide from any source of combustion. It is NOT designed to detect any other gas.

### ⚠ CAUTION

The alarm only indicates the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

Individuals with certain medical problems should consider using detection devices with lower COHb alarming capabilities and consider warning devices which provide audible and visual signals for carbon monoxide concentrations under 30ppm.

### SYMPTOMS OF CO POISONING

The following symptoms are related to CARBON MONOXIDE POISONING and are to be discussed with ALL members of the household:

- **Mild Exposure:** Slight headache, nausea, vomiting, fatigue (often described as 'Flu-like' symptoms).
- **Medium Exposure:** Severe throbbing headache, drowsiness, confusion, fast heart rate.
- **Extreme Exposure:** Unconsciousness, convulsions, cardiorespiratory failure, death.
- Many cases of reported CARBON MONOXIDE POISONING indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building or calling for assistance. Young children and household pets are typically the first affected.



## WHAT TO DO IN CASE OF A CARBON MONOXIDE ALARM

**▲ WARNING**

Actuation of your CO alarm indicates the presence of carbon monoxide (CO) which can KILL YOU.

- If alarm signal sounds:
- 1) Operate reset/silence button (Press Nest button);
  - 2) Call your emergency services [fire dept. or 911];

PHONE NUMBER:

- 3) Immediately move to fresh air – outdoors or by an open door/window. Do a head count to check that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders have arrived, the premises have been aired out, and your alarm remains in its normal condition.
- 4) After following steps 1 – 3, if your alarm reactivates within a 24-hour period, repeat steps 1 – 3 and call a qualified appliance technician

PHONE NUMBER:

to investigate for sources of CO from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturers' instructions, or contact the manufacturers directly, for

more information about CO safety and this equipment. Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

This information is available as a label provided in the box. Stick it in a spot where everyone can see it, like the refrigerator.

## THE FOLLOWING CONDITIONS CAN RESULT IN TRANSIENT CO SITUATIONS

1. Excessive spillage or reverse venting of fuel burning appliances caused by:
  - I) Outdoor ambient conditions such as wind direction and/or velocity, including high gusts of wind; heavy air in the vent pipes (cold/humid air with extended periods between cycles).
  - II) Negative pressure differential resulting from the use of exhaust fans.
  - III) Simultaneous operation of several fuel burning appliances competing for limited internal air.
  - IV) Vent pipe connection vibrating loose from clothes dryers, furnaces, or water heaters.
  - V) Obstructions in or unconventional vent pipe designs which amplify the above situations.
2. Extended operation of unvented fuel burning devices (range, oven, fireplace, etc.).
3. Temperature inversions which can trap exhaust gases near the ground.
4. Car idling in an open or closed attached garage, or near a home.
5. NEVER bring a charcoal grill inside and ALWAYS operate a portable generator outside, a safe distance from the house, and well away from windows.

## FIRE SAFETY PRECAUTIONS

### CREATE AN ESCAPE PLAN TO PRACTICE

Be prepared when your smoke/CO alarm sounds its alarm. Develop a family escape plan, discuss it with all household members, and practice it regularly.

- Make sure everyone is familiar with the sound of your smoke/ CO alarm and explain what the sound means.
- Determine TWO exits from each room and have an escape route to the outside from each exit.
- Teach all the members in your household to check doors for heat with the back of your hand before opening them, and to use the alternate exit if the door is hot. Make sure they do not open the door if it is hot.
- Teach household members to crawl along the floor to avoid dangerous smoke, fumes and gases.
- Determine a safe meeting place for all household members to regroup at outside the building.

### PRACTICE FIRE SAFETY

Practice your escape plan at least twice a year, making sure that everyone is involved – from kids to grandparents. Practice the escape plan with children, including holding one at night when they are sleeping. If children or others do not wake up to the sound of the smoke alarm, or if there are infants or family members with mobility limitations, make sure that someone is assigned to help them for the fire drill and in the event of an emergency. Current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of

assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

## WHAT TO DO IN CASE OF FIRE

- Get out now.
- Don't panic; stay calm.
- Operate your safety plan as previously planned.
- Alert small children in the home and those who may need extra assistance.
- Leave the building as quickly as possible. Touch doors with the back of your hand and make sure they are not hot before opening them. Use an alternate exit, if necessary. In case of smoke, crawl along the floor, and DO NOT stop to collect anything. Close the doors behind you.
- Meet at a pre-arranged meeting place outside the building.
- Once outside, do a head count, and call the fire department.
- DO NOT reenter the house, unless a fire official says it's safe to reenter.



### CALIFORNIA STATE FIRE MARSHAL

As stated by the California State Fire Marshal “Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: A smoke alarm installed in each separate sleeping area (in the vicinity of, but outside of the bedrooms), and heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages”.

### FEDERAL COMMUNICATIONS COMMISSION (FCC) COMPLIANCE

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:

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

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications that are not expressly approved by the manufacturer could void the user’s authority to operate the equipment.

### RF EXPOSURE INFORMATION:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm during normal operation.

### MOBILE NOTIFICATIONS

#### ⚠ WARNING

Nest Protect phone and tablet notifications require a functional Wi-Fi connection. They’re only as reliable as your home’s Wi-Fi network and aren’t a substitute for a third party emergency monitoring service.

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