

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

User's Guide

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

## **Table of contents**

| Meet your Nest Protect   | 3  |
|--|----|
| Location in your home  | 5  |
| Placement on the ceiling or wall   | 6  |
| Placement on a sloped ceiling  | 7  |
| Setup and installation   | 8  |
| Operating instructions   | 12 |
| Heads-up and emergency alarms  | 14 |
| Testing Nest Protect   | 16 |
| General maintenance  | 17 |
| Safety   | 19 |
| Alarm limitations  | 19 |
| Installation code  | 21 |
| AC installation warnings   | 22 |
| Carbon monoxide (CO) precautions   | 24 |
| Fire safety precautions  | 26 |
| Federal Communications Commission (FCC) compliance                         | 27 |
| Mobile notifications   | 27 |
| Nest Labs, Inc.Limited Warranty Nest Protect Smoke + Carbon Monoxide Alarm | 28 |

## **MEET YOUR NEST PROTECT**

Inside the box you'll find:



Nest Protect





Three wire nuts



Backplate Four mounting screws

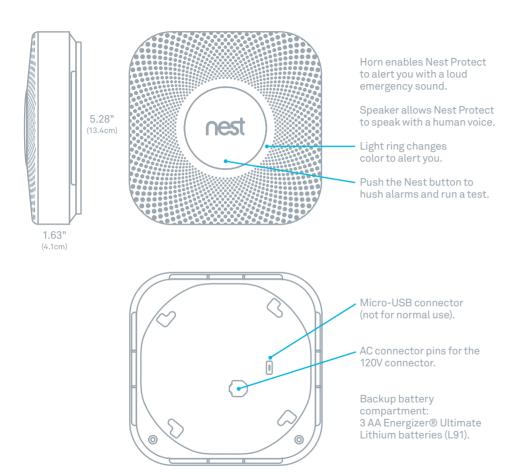
120V connector

Nest Protect is designed to detect smoke and carbon monoxide in a residential environment. Its eight sensors work together to understand what's happening in your home and its photoelectric sensor detects slow, smoldering fires. Nest Protect can be used as a single station or multiple station alarm.

This guide covers the installation of Nest Protect (Wired) - Model number O5C.

# Requirements

Wi-Fi, an iOS or Android smartphone or tablet, and a free Nest Account are required for wireless interconnect, room naming, mobile notifications and software updates. After all the Nest Protects in your home are connected, they can communicate with each other without Wi-Fi.



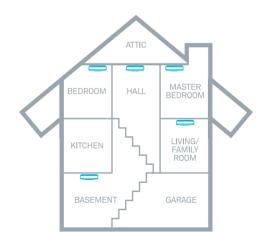
## **LOCATION IN YOUR HOME**

The National Fire Protection Association 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 on one level, additional alarms may be required.

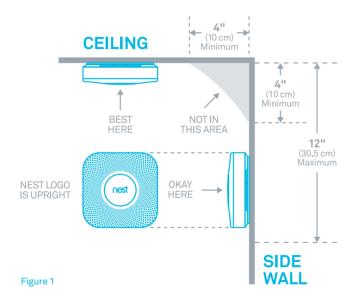
If you'd like, you can install Nest Protect closer to cooking appliances than conventional smoke alarms, but we recommend it be at least 5 feet (1.5 meters) away, preferably 10 feet (3 meters) from cooktops or cooking appliances.

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



## 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.



## 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.

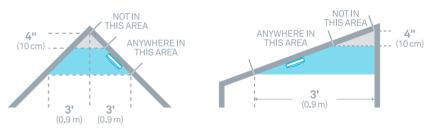


Figure 2 Figure 3



Figure 4

## SETUP AND INSTALLATION

(Professional installation recommended)

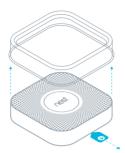
The installation of a smoke/CO alarm should be made by a qualified technician, and all wiring used to install this alarm should be made in accordance with articles 210, and 300.3B of the National Electrical Code ANSI/NFPA 70, NFPA 72, and/or applicable codes in your local jurisdiction.

For a complete set of instructions and warnings, refer to page 22.

Tip: Lay everything out on a table for an easy installation.

## 1. Wake it up

Remove the dust cover and pull out the battery tab to wake up your Nest Protect.



# 2. Press the Nest button 3. Get the Nest Mobile app

Nest Protect will glow blue when it's awake.



You'll use the Nest Mobile app to get Nest Protect connected to your Wi-Fi, to the Internet, and to additional Nest Protects in your home.







# **4. Set up Nest Protect**

The video at **nest.com/protect/installation** shows how.

The app will guide you through creating a free Nest account, pairing your Nest Protect securely, and telling Nest Protect which room it's in.



## 5. Turn off power

Protect yourself and avoid blowing a fuse. Switch off the correct circuit breaker or remove the fuse from the fuse box.





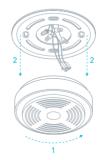
## WARNING

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

# 6. Remove your old smoke alarm

Make sure the green LED on the old alarm is off then pull your old smoke alarm off its base, and disconnect its power wires.

> Your old smoke alarm might make a really loud noise when you disconnect it.



## 7. Remove the old base

Unscrew the base plate from the electrical box. Save the screws for later.



## 8. Remove the old connector

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

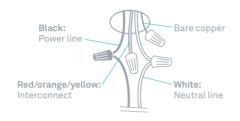
3/8"

The exposed wire should be straight.



## 9. Attach the Nest 120V connector

Just match the wires - white to white and black to black. Press the wires together, cap them with a wire nut and twist clockwise. Tighten until it is secured. There is no need for the red/orange/yellow wire. Cap it with a wire nut.



# 10. Install Nest Protect backplate

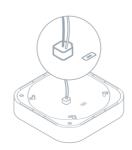
Screw the backplate to the existing electrical box, reusing the existing screws. (Alternately, you can screw the plate directly into the wall or ceiling with the Nest screws.)

Refer to the diagrams on pages 6 and 7 for proper placement of your Nest Protect.



# 11. Connect power

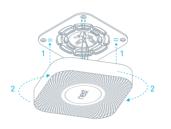
Plug the 120V connector into the back of your Nest Protect.



## 12. Mount your Nest Protect

First, tuck any excess wiring into the electrical box and line up Nest Protect with the backplate.

Second, give it a slight twist clockwise. It'll CLICK into place.

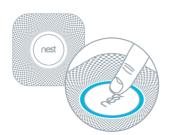


# 13. Switch power back on or replace the fuse



## 14. Press to test

Press the Nest button and follow the spoken instructions to test. Your Nest Protect will run a test and tell you when it's done.



## 15. Have more smoke alarms?

Repeat steps 1-14 to install more Nest Protects. The Nest app will help you connect them to Wi-Fi and add them to your Nest Account.

Test that all your Nest Protects are wirelessly connected by pushing the Nest button twice on one Nest Protect. If they're connected, every Nest Protect in the house will speak up. Walk to each one to make sure you hear them talking.



## **OPERATING INSTRUCTIONS**

- When the Nest Protect smoke and carbon monoxide (CO) alarm has something to say, it will speak to you in words and colors instead of just beeping. It has two kinds of alerts: Heads-Up and Emergency Alarms.

  Nest Protect can see smoke or carbon monoxide levels rising. So before it turns on an Emergency Alarm, Nest Protect gives you a friendly spoken Heads-Up to warn you in advance. It pulses yellow and speaks to you, telling you what and where the danger is.

  When smoke or carbon monoxide reach dangerous levels, Nest Protect tells you where the emergency is and pulses red, in addition to making a loud alarm sound. This is an Emergency Alarm.

|        | WHAT YOU HEAR  | WHAT YOU SEE ON<br>NEST PROTECT | WHATITMEANS   | WHAT TO DO   |
|--------|--|---------------------------------|---|--|
| SETUP  | "READY, PRESS TO TEST."  | BLUE rotates.                   | To setup or run a<br>manual test.   |  |
| ALERTS | "HEADS-UP. THERE'S<br>SMOKE IN THE (ROOM<br>NAME). THE ALARM<br>MAY SOUND."              | YELLOW pulses.                  | Smoke levels are rising.  | Stand under Nest Protect<br>and wave your arm to hush<br>the alert. Then put out the<br>source of the smoke.   |
|        | "HEADS-UP. THERE'S<br>CARBON MONOXIDE IN<br>THE (ROOM NAME). THE<br>ALARM MAY SOUND."    | YELLOW pulses.                  | Carbon monoxide levels are<br>rising. This Heads-Up will<br>occur if carbon monoxide<br>levels stay at 70ppm for<br>60-240 minutes. | Stand under Nest Protect<br>and wave your arm to hush<br>the alarm. Open a window<br>or door to get fresh air, then<br>find the CO leak and stop it. |
|        | (ALARM SOUND) "EMERGENCY. THERE'S SMOKE IN (ROOM NAME)."                                 | RED pulses.                     | The smoke in the room has reached emergency levels.   | Get out of the house immediately.  |
|        | (ALARM SOUND) "EMERGENCY. THERE'S CARBON MONOXIDE IN (ROOM NAME). MOVETO FRESH AIR NOW." | RED pulses.                     | The carbon monoxide in the room has now reached emergency levels.   | 1) Operate reset/silence<br>button (NEST button).<br>2) Call your fire dept. or 911.<br>3) Move to fresh air.<br>4) Do not reenter the               |
|        |  |                                 |   | premises until the<br>emergency services<br>tell you to. Refer to<br>page 20 for complete<br>instructions.   |

|                 | WHAT YOU HEAR   |    | AT YOU SEE ON<br>ST PROTECT  | WHAT IT MEANS   | WHAT TO DO   |
|-----------------|---|----|--|---|--|
| ۶               |   |    | GREEN light above the Nest logo.   | Nest Protect is working.<br>The green light means<br>AC power is connected.                       |  |
| EVERY DAY       |   | 0  | You turn off the room lights for the night, and the GREEN light pulses once. | Nest Protect has tested<br>its sensors and batteries<br>to confirm they are<br>working correctly. | Sleep well.  |
|                 |   | ** | WHITE light.   | Pathlight lights your way at night as you pass under it.  |  |
| SILENCING       | "SMOKE ALARM HAS<br>BEEN HUSHED."   |    | YELLOW or<br>RED pulses.   | You've hushed an alert.<br>Nest Protect will now keep<br>quiet, unless smoke or                   | Make sure you're safe and have put out the source of smoke or carbon monoxide. |
|                 | "CARBON MONOXIDE<br>ALARM HAS BEEN<br>HUSHED."  |    |  | carbon monoxide reach<br>dangerous levels.  |  |
| TROUBLE SIGNALS | "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 VERY<br>LOW IN THE (ROOM<br>NAME). REPLACE<br>THE BATTERY NOW."<br>SINGLE CHIRP EVERY<br>60 SECONDS.  |    | YELLOW pulses.   | Nest Protect batteries<br>have been depleted.<br>It will chirp.                                   | Change the batteries of Nest Protect now.                                      |
|                 | "THE SENSORS HAVE<br>FAILED IN THE (ROOM<br>NAME). REPLACE NEST<br>PROTECT NOW."<br>SINGLE CHIRP EVERY<br>60 SECONDS. |    |  | Nest Protect has tested<br>its sensors and there is<br>a problem. It will chirp.                  | Replace Nest Protect.  |
|                 | "NEST PROTECT HAS<br>EXPIRED. REPLACE IT<br>NOW." TWO CHIRPS<br>EVERY 60 SECONDS.                                     |    |  | Nest Protect has expired and reached its end of life.   | Replace Nest Protect.  |

## **HEADS-UP AND EMERGENCY ALARMS**

#### **ALERTS**

Nest Protect has two kinds of voice alerts: Heads-Up and Emergency Alarms. Both tell you what and where the danger is, but the spoken Heads-Up is designed to give you a friendly warning before conditions get dangerous.

A Heads-Up can be silenced by standing underneath Nest Protect and waving at it or by pushing the Nest button.

When smoke or carbon monoxide reach dangerous levels, Nest Protect tells you where the emergency is and pulses red, in addition to making a loud alarm sound. This is an Emergency Alarm.

The smoke alarm will take precedence when carbon monoxide is also present.

#### NEST WAVE™

You can silence Nest Protect by simply standing under it and waving at it.



Dense smoke level will override Nest Wave and sound a continuous alarm.

## **▲** WARNING

Before waving at Nest Protect to silence it, identify the source of the danger and make sure you're safe.

Your hand should be 2 ft - 6 ft (61 cm - 1.8 m) away from Nest Protect when you wave. Children or pets are not tall enough to accidentally trigger the Nest Wave.

You can also push the Nest button to quiet Nest Protect.

#### WHICH ALERTS CAN BE SILENCED

- Heads-Up alerts can be hushed by using Nest Wave or the Nest button.
- Emergency alarms cannot be hushed by using Nest Wave or the Nest button if smoke reaches a critical level.
- 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 dangerous levels of smoke or CO occurred extremely quickly and Nest Protect must sound the Emergency Alarm.
- After the Nest Protects in your home are connected to each other, whenever there's a Heads-Up or an Emergency Alarm in one room, they will all tell you what and where the danger is. So go to that room and wave at the Nest Protect there to hush every Nest Protect in the home. This will ensure that you will identify the source of the danger in that room.

## 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 alerts, every Nest Protect in the house will tell you in 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 speak up and relay that alarm so that you know where the danger is. To silence the alert, go to that room and wave at the Nest Protect there. That will hush every Nest Protect in the house.

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

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

Nest Protect - Battery (model number 05A) and Nest Protect - Wired 120V (model number 05C) are compatible and can be interconnected wirelessly.

Nest Protect wireless interconnect will not work with other products from other brands.

## **▲** 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.

#### **PATHLIGHT**

Usually Nest Protect has its light turned off, but it will light your way as you walk underneath it in the dark. You can enable or disable Pathlight from the Nest Mobile app.

## **TESTING NEST PROTECT**

#### **SELF-MONITORING**

Nest Protect continuously tests itself, so you don't have to wonder if it's working.

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, this means Nest Protect has detected something wrong that needs your attention. Just wave at it or push the Nest button to hear its warning: either the batteries are low, Wi-Fi has been down or there is an issue with its sensors.

### **TEST NEST PROTECT MANUALLY**

Regulations require a weekly manual test.

After installation, test Nest Protect by pressing the Nest button twice. Before sounding the alarm, Nest Protect will give you a countdown so that you have time to move away from the alarm.

## **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 when horn starts sounding.

## **Test procedure**

- Press the Nest button twice to start a test.
- Nest Protect will say: "This is only a test. The alarm may sound."
- Once the Nest Protect you've tested has made sure it's working, it'll tell you everything's okay.

If they are interconnected, every Nest Protect will speak up in the house. Walk to each one to make sure you hear them.

### **WARNING**

- 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 voids 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. The built-in self test accurately tests the unit's operation as required by Underwriters Laboratories, Inc. (UL).

## **GENERAL MAINTENANCE**

#### CLEANING YOUR NEST PROTECT

Use a damp cloth to clean your Nest Protect. Don't clean it with detergents or solvents (like Windex®) and do not spray air fresheners, hair spray or other aerosols near it. These chemicals will damage your smoke alarm and make it non-operational. Do not disassemble your Nest Protect or clean inside it. If a continuous alarm occurs, return for servicing. Do not get water cuide the alarm. Do not paint over Nest Protect, as paint will seal the vents and affect its ability to detect smoke and CO.

#### RESETTING NEST PROTECT

You can reset Nest Protect to erase all your settings and reset the wireless interconnection between Nest Protects. You may want to do this before you move to a new house.

To reset, use the Nest button and the ERASE ALL SETTINGS button on the back of Nest Protect. Refer to the complete instructions on nest.com/protect/reset

After resetting Nest Protect, it will still detect smoke and carbon monoxide.

#### **BACKUP BATTERY**

In case of power outage, Nest Protect will use its backup battery.

3 AA Energizer® Ultimate Lithium batteries (L91)

These backup batteries can be purchased at your local retailer.

Nest Protect will let you know its backup batteries are getting low before they need to be replaced. Instead of lighting up green during Nightly Promise, it'll glow yellow. Once you wave at it, Nest Protect will say, "The battery is low. Replace it soon."

#### A 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, and removes your protection. Instead open a window or fan the smoke away from the unit.

The backup battery cannot work until you install the battery in the correct position (Match "+" to "+" and "-" to "-").

# **SAFETY**

#### REPLACING THE BACKUP BATTERIES

- 1. Remove your Nest Protect from its backplate.
- Using a Phillips screwdriver, unscrew the two screws from the battery door on the back of Nest Protect.



- 3. Replace the batteries. Make sure to use Energizer Ultimate Lithium batteries and install them in the right order. If you install them out of order, you may not be able to close the battery compartment.
  - 1. First battery
    2. Second battery
  - 3. Third battery. This battery will push the bracket into place.





4. Reattach the battery door by sliding it into the tabs located on the opposite side from the batteries, replacing the screws and then reattaching Nest Protect back to its base.



5. Press the Nest button to run a test.

### SERVICING

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

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

#### RECYCLING AND DISPOSAL

Visit www.nest.com/recycle

#### **EXPIRATION**

Nest Protect has a limited life like any smoke/CO alarm. Nest Protect lifetime is 7 years. You will need to replace Nest Protect after 7 years with a brand new Nest Protect. Check the date of replacement written on the back of Nest Protect.

## **▲** WARNING

You'll no longer be protected from smoke or CO if you don't replace your Nest Protect.

About two weeks before it expires, Nest Protect will light up with a yellow light. Wave at Nest Protect 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.

## **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 back up 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, specialpurpose 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 from state to state and from region to region. Check with your local Fire Department for current requirements in your area.

## Δ

#### **A 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 6.4 m (21 ft) 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.

## **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 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.

## 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 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 meters) 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 (30.48 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 5 ft (1.5 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

## **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 70 PPM, the unit must alarm within 60-240 minutes.
- At 150 PPM, the unit must alarm within 10-50 minutes.
- At 400PPM, the unit must alarm within 4 to 15 minutes.

#### **A** 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.

### **▲** WARNING

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 30 ppm.

#### 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:

- 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:
  - 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.
- 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.

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

## RE 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 20cm during normal operation.

## **MOBILE NOTIFICATIONS**

## **A WARNING**

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

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Nest Labs. 900 Hansen Way. Palo Alto, CA 94304

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#### YOUR RIGHTS AND THIS LIMITED WARRANTY

This Limited Warranty gives you specific legal rights. You may also have other legal rights that vary by state, province or jurisdiction. The disclaimers, exclusions, and limitations of liability under this Limited Warranty will not apply to the extent prohibited by applicable law. For a full description of your legal rights you should refer to the laws applicable in your jurisdiction and you may wish to contact a relevant consumer advisory service.

#### 1. WHAT THIS LIMITED WARRANTY COVERS: PERIOD OF COVERAGE

Nest Labs, Inc. ("Nest Labs"), 900 Hansen Way, Palo Alto, California USA, warrants to the owner of the enclosed product that the product contained in this box ("Product") will be free from defects in materials and workmanship for a period of two (2) years (or one (1) year for Factory Refurbished Products) from the date of delivery following the original retail purchase (the "Warranty Period"). If the Product fails to conform to this Limited Warranty during the Warranty Period. Nest Labs will, at its sole discretion. either (a) repair or replace any defective Product or component: or (b) accept the return of the Product and refund the money actually paid by the original purchaser for the Product. Repair or replacement may be made with a new or refurbished product or components, at Nest Labs' sole discretion. If the Product or a component incorporated within it is no longer available. Nest Labs may replace the Product with a similar product of similar function, at Nest Labs' sole discretion. This is your sole and exclusive remedy for breach of this Limited Warranty. Any Product that has either been repaired or replaced under this Limited Warranty will be covered by the terms of this Limited Warranty for the longer of ninety (90) days from the date of delivery or the remaining Warranty Period. This Limited Warranty is transferable from the original purchaser to subsequent owners. but the Warranty Period will not be extended in duration or expanded in coverage for any such transfer.

#### 2. TOTAL SATISFACTION RETURN POLICY

If you are the original purchaser of the Product and you are not satisfied with this Product for any reason, you may return it in its original condition within thirty (30) days of the original purchase and receive a full refund.

# 3. WARRANTY CONDITIONS; HOW TO GET SERVICE IF YOU WANT TO CLAIM UNDER THIS LIMITED WARRANTY

Before being able to claim under this Limited Warranty, the owner of the Product must (a) notify Nest Labs of the intention to claim by visiting nest.com/support during the Warranty Period and providing a description of the alleged failure, and (b) comply

with Nest Labs' return shipping instructions. Nest Labs will have no warranty obligations with respect to a returned Product if it determines, in its reasonable discretion after examination of the returned Product, that the Product is an Ineligible Product (defined below). Nest Labs will bear all costs of return shipping to owner and will reimburse any shipping costs incurred by the owner, except with respect to any Ineligible Product, for which owner will bear all shipping costs.

#### 4. WHAT THIS LIMITED WARRANTY DOES NOT COVER

This warranty does not cover the following (collectively "Ineligible Products"): Products marked as "sample" or sold "AS IS": or Products that have been subject to: (a) modifications. alterations, tampering, or improper maintenance or repairs; (b) handling, storage, installation, testing, or use not in accordance with the User's Guide or other instructions provided by Nest Labs: (c) abuse or misuse of the Product: (d) breakdowns, fluctuations. or interruptions in electric power or the telecommunications network; or (e) Acts of God, including lightning, flood, tornado, earthquake, or hurricane. This warranty does not cover consumable parts, including batteries, unless damage is due to defects in materials or workmanship of the Product, or software (even if packaged or sold with the product). Nest Labs recommends that you use only authorized service providers for maintenance or repair. Unauthorized use of the Product or software can impair the Product's performance and may invalidate this Limited Warranty.

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THE NEST LABS ONLINE SERVICES ("SERVICES") PROVIDE YOU INFORMATION ("PRODUCT INFORMATION") REGARDING TO YOUR PRODUCTS ("PRODUCT PERIPHERALS"). THE TYPE TO YOUR PRODUCT MAY CHANGE FROM TIME TO TIME. WITHOUT LIMITING THE GENERALITY OF THE DISCLAIMERS. ABOVE, ALL PRODUCT INFORMATION IS PROVIDED FOR YOUR CONVENIENCE. "AS IS". AND "AS AVAILABLE". NEST LABS DOES NOT REPRESENT, WARRANT, OR GUARANTEE THAT PRODUCT INFORMATION WILL BE AVAILABLE, ACCURATE, OR RELIABLE OR THAT PRODUCT INFORMATION OR USE OF THE SERVICES OR PRODUCT WILL PROVIDE SAFETY IN YOUR HOME, YOU USE ALL PRODUCT INFORMATION, THE SERVICES, AND THE PRODUCT AT YOUR OWN DISCRETION AND RISK, YOU WILL BE SOLELY RESPONSIBLE FOR (AND NEST LABS DISCLAIMS) ANY AND ALL LOSS, LIABILITY, OR DAMAGES, INCLUDING TO YOUR WIRING, FIXTURES, ELECTRICTY, HOME, PRODUCT, PRODUCT PERIPHERALS, COMPUTER, MOBILE DEVICE, AND ALL OTHER ITEMS AND PETS IN YOUR HOME. RESULTING FROM YOUR USE OF THE PRODUCT INFORMATION, SERVICES, OR PRODUCT. PRODUCT INFORMATION PROVIDED BY THE SERVICES IS NOT INTENDED AS A SUBSTITUTE FOR DIRECT MEANS OF OBTAINING THE INFORMATION, FOR EXAMPLE, A NOTIFICATION PROVIDED THROUGH THE SERVICE IS NOT INTENDED AS A SUBSTITUTE FOR AUDIBLE AND VISIBLE INDICATIONS IN THE HOME AND ON THE PRODUCT, NOR FOR A THIRD PARTY MONITORING SERVICE

#### 8. VARIATIONS THAT MIGHT APPLY TO THIS LIMITED WARRANTY

Some jurisdictions do not allow limitations on how long an implied warranty lasts or exclusions/limitations on incidental or consequential damages, so some of the limitations set out above may not apply to you.

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