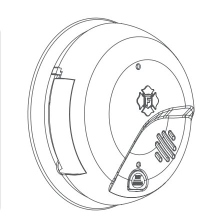
FIRST ALERT®

USER'S MANUAL

SMOKE & CARBON MONOXIDE ALARM

AC POWERED WITH BATTERY BACKUP

Model SMICO100-AC



IMPORTANT! PLEASE READ CAREFULLY AND SAVE.

The warnings/limitations card and manual contains important information about your Smoke Alarm's operation. If you are installing this Alarm for use by others, you must leave this manual—or a copy of it—with the end user.

Para el manual del usuario en español, por favor visite firstalert.com

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. Turn off the power to the area where the Smoke 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.

⚠ WARNING!
- This unit will not alert hearing impaired residents. It is recommended that you install special units which use devices like flashing strobe lights to alert hearing impaired residents.
- Installation of this unit must conform to the electrical codes in your area; Articles 210 and 300.3 (B) of NFPA 70 (NEC), NFPA 72, NFPA 101; ICC; SBC (SBCCI); UBC (ICBO); NBC (BOCA); OTFDC (CABO), and any other local or building codes that may apply. Wiring and installation must be performed by a licensed electrician. Failure to follow these guidelines may result in injury or property damage.
- This unit must be powered by a 24-hour, 120V AC pure sine wave 60 Hz 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. Unit may be connected to an arc fault circuit interrupter.
- This Smoke Alarm must have AC or battery power to operate. If the AC power fails, battery back-up will allow the Alarm to sound for at least 4 minutes. If AC power fails and the battery is weak, protection should last for up to 7 days. If AC power fails and the battery is dead or missing, the Alarm cannot operate.
- 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.
- Never remove the batteries from a battery operated unit to stop an unwanted Alarm (caused by cooking smoke, etc.). Instead open a window or fan the smoke away from the unit. The Alarm will reset automatically.

⚠ CAUTION!
- Connect this unit ONLY to other compatible units. See "How To Install This Smoke Alarm" for details. Do not connect it to any other type of Alarm or auxiliary device. Connecting anything else to this unit may damage it or prevent it from operating properly.
- The battery compartment resists closing unless a battery is installed. This warns you the unit will not operate under DC power without a battery.
- Do not paint over the unit. Paint may clog the openings to the sensing chamber and prevent the unit from operating properly.

01 INTRODUCTION

Thank you for choosing First Alert® for your Smoke and Carbon Monoxide Alarm needs. You have purchased a state-of-the-art Smoke & Carbon Monoxide Alarm designed to help provide you with early warning of a smoke and/or carbon monoxide danger. Please take the time to read this manual and make the Smoke & Carbon Monoxide Alarm an integral part of your family's safety plan.

BASIC SAFETY INFORMATION

IMPORTANT!
- Dangers, Warnings, and Cautions alert you to important operating instructions or to potentially hazardous situations. Pay special attention to these items.
- This Smoke Alarm is approved for use in single-family residences. It is **NOT** designed for marine or RV use.

⚠ CAUTION!
- The Smoke Alarm will only indicate the presence of smoke that reaches the sensor.
- The Smoke Alarm is not designed to sense gas, heat or flames.
- This carbon monoxide alarm is designed to detect carbon monoxide gas from ANY source of combustion.

⚠ WARNING!
- This Smoke Alarm cannot operate without working batteries. Removing the batteries for any reason, or failing to replace the batteries at the end of their service life, removes your protection.
- **NEVER** ignore any Alarm. See "If Your Smoke Alarm Sounds" for more information on how to respond to an Alarm. Failure to respond can result in injury or death.
- The Silence Features are for your convenience only and will not correct a problem. See "Using the Silence Features" for details. Always check your home for a potential problem after any Alarm. Failure to do so can result in injury or death.
- Test this Smoke Alarm once a week. 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.

02 ABOUT SMOKE ALARMS

TYPES OF ALARMS

All these Smoke Alarms are designed to provide early warning of fires if located, installed and cared for as described in the user's manual, and if smoke reaches the Alarm. If you are unsure which type of Smoke Alarm to install, refer the National Fire Protection Association (NFPA) Standard 72 (National Fire Alarm and Signaling Code) and NFPA 101 (Life Safety Code). National Fire Protection Association, One Batterymarch Park, Quincy, MA 02269-9101. Local building codes may also require specific units in new construction or in different areas of the home.

Battery (DC) operated Smoke Alarms: Provide protection even when electricity fails, provided the batteries are fresh and correctly installed. Units are easy to install, and do not require professional installation. They do not, however, provide interconnected functionality.

AC powered Smoke Alarms: Can be interconnected so if one unit senses smoke, all units Alarm. They do not operate if electricity fails.

AC with battery (DC) back-up: will operate if electricity fails, provided the batteries are fresh and correctly installed. AC and AC/DC units must be installed by a qualified electrician.

Wireless Interconnected Alarms: Offer the same interconnected functionality as with hardwired Alarms, without wires. Units are easy to install and do not require professional installation. They provide protection even when electricity fails, provided the batteries are fresh and correctly installed.

Smoke Alarms for solar or wind energy users and battery backup power systems: AC powered Smoke Alarms should only be operated with true or pure sine wave inverters. Operating this Smoke Alarm with most batterypowered UPS (uninterruptible power supply) products or square wave or "quasi sine wave" inverters **will damage the Alarm.** If you are not sure about your inverter or UPS type, please consult with the manufacturer to verify.

Smoke Alarms for the hearing impaired: Special purpose Smoke Alarms should be installed for the hearing impaired. They include a visual Alarm and an audible Alarm horn, and meet the requirements of the Americans With Disabilities Act. These units can be interconnected so if one unit senses smoke, all units Alarm.

Smoke Alarms are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.

All First Alert® Smoke Alarms conform to regulatory requirements, including UL217 and are designed to detect particles of combustion. Smoke particles of varying number and size are produced in all fires.

Ionization technology is generally more sensitive than photoelectric technology at detecting small particles, which tend to be produced in greater amounts by flaming fires, which consume combustible materials rapidly and spread quickly. Sources of these fires may include paper burning in a wastebasket, or a grease fire in the kitchen.

Photoelectric technology is generally more sensitive than ionization technology at detecting large particles, which tend to be produced in greater amounts by smoldering fires, which may smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning in couches or bedding.

For maximum protection, use both types of Smoke Alarms on each level and in every bedroom of your home.

03 INSTALLATION

WHERE TO INSTALL THIS ALARM

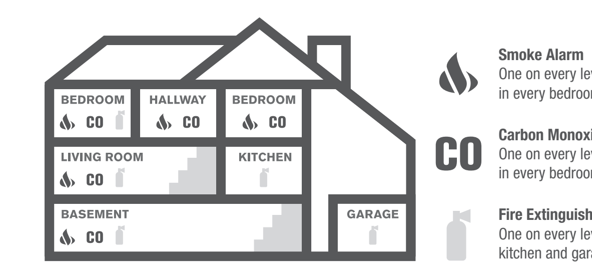
Minimum coverage for Smoke Alarms, as recommended by the National Fire Protection Association (NFPA), is one Smoke Alarm on every floor, in every sleeping area, and in every bedroom (See "Regulatory Information For Smoke Alarms" for details on the NFPA recommendations).

For CO Alarms, the National Fire Protection Association (NFPA) recommends that a CO Alarm should be centrally located outside of each separate sleeping area in the immediate vicinity of the bedrooms. For added protection, install additional CO Alarms in each separate bedroom, and on every level of your home.

NOTE: For added protection, install an additional Smoke/CO Alarm at least 15 feet (4.6 meters) away from the furnace or fuel burning heat source where possible. In smaller homes or in manufactured homes where this distance cannot be maintained, install the Alarm as far away as possible from the furnace or other fuel burning source. Installing the Alarm closer than 15 feet (4.6 meters) will not harm the Alarm, but may increase the frequency of unwanted Alarms.

IN GENERAL, INSTALL COMBINATION SMOKE AND CARBON MONOXIDE ALARMS:
- On every level of your home, including finished attics and basements.
- Inside every bedroom, especially if people sleep with the door partly or completely closed.
- In the hall near every sleeping area. If your home has multiple sleeping areas, install a unit in each. If a hall is more than 40 feet (12 meters) long, install a unit at each end.
- At the top of first-to-second floor stairs.
- At the bottom of the basement stairs.
- For additional coverage, install Alarms in all rooms, halls, and storage areas, where temperatures normally remain between 40° F and 100° F (4.4° C and 37.8° C).

RECOMMENDED PLACEMENT:



- When installing on the wall, the top edge of Smoke Alarms should be placed between 4 inches (102 mm) and 12 inches (305 mm) from the wall/ceiling line.
- When installing on the ceiling, place the Alarm as close to the center as possible.
- In either case, install at least 4 inches (102 mm) from where the wall and ceiling meet.

NOTE: For any location, make sure no door or other obstruction could keep carbon monoxide or smoke from reaching the Alarm.

WHERE NOT TO INSTALL THIS ALARM

FOR BEST PERFORMANCE, IT IS RECOMMENDED YOU AVOID INSTALLING SMOKE/CO ALARMS IN THESE AREAS:
- In garages, furnace rooms, crawl spaces and unfinished attics. Avoid extremely dusty, dirty or greasy areas.
- Where combustion particles are produced. Combustion particles form when something burns. Areas to avoid include poorly ventilated kitchens, garages, and furnace rooms. Keep units at least 20 feet (6 meters) from the sources of combustion particles (stove, furnace, water heater, space heater) if possible. In areas where a 20-foot (6 meter) distance is not possible – in modular, mobile, or smaller homes, for example – it is recommended the Smoke Alarm be placed as far from these fuel-burning sources as possible. The placement recommendations are intended to keep these Alarms at a reasonable distance from a fuel-burning source, and thus reduce "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.
- Within 5 feet (1.5 meters) of any cooking appliance. In air streams near kitchens. Air currents can draw cooking smoke into the smoke sensor and cause unwanted Alarms.
- In extremely humid areas. This Alarm should be at least 10 feet (3 meters) from a shower, sauna, humidifier, vaporizer, dishwasher, laundry room, utility room, or other source of high humidity.
- In direct sunlight.
- In turbulent air, like near ceiling fans or open windows. Blowing air may prevent CO or smoke from reaching the sensors.
- In areas where temperature is colder than 40° F (4.4° C) or hotter than 100° F (37.8° C). These areas include non-airconditioned crawl spaces, unfinished attics, uninsulated or poorly insulated ceilings, porches, and garages.
- In insect infested areas. Insects can clog the openings to the sensing chamber.
- Less than 12 inches (305 mm) away from fluorescent lights. Electrical "noise" can interfere with the sensor.
- In "dead air" spaces.

AVOIDING DEAD AIR SPACES

"Dead air" spaces may prevent smoke from reaching the Smoke/CO Alarm. To avoid dead air spaces, follow installation recommendations below.

On ceilings, install Smoke/CO Alarms as close to the center of the ceiling as possible. If this is not possible, install the Smoke/CO Alarm at least 4 inches (102 mm) from the wall or corner.

For wall mounting (if allowed by building codes), the top edge of Smoke/CO Alarms should be placed between 4 inches (102 mm) and 12 inches (305 mm) from the wall/ceiling line.

On a peaked, gabled, or cathedral ceiling, install the first Smoke/CO Alarm within 3 feet (0.9 meters) of the peak of the ceiling, measured horizontally. Additional Smoke/CO Alarms may be required depending on the length, angle, etc. of the ceiling's slope. Refer to NFPA 72 for details on requirements for sloped or peaked ceilings.

HOW TO INSTALL THIS ALARM

IMPORTANT!
This Smoke/CO Alarm is designed to be mounted on any standard wiring junction box up to a 4-inch (10 cm) size, on either the ceiling or wall (if allowed by local codes). Read "Where to Install This Alarm" and "Where This Alarm Should Not Be Installed" before you begin installation.

Find the self-adhesive labels included with this Smoke/CO Alarm.

- On each label write in the phone number of your emergency responder (like 911) and a qualified appliance technician.
- Place one label near the Smoke/CO Alarm, and the other label in the "fresh air" location you plan to go if the Alarm sounds.

NOTE: A qualified appliance technician is defined as "a person, firm, corporation, or company that either in person or through a representative, is engaged in and responsible for the installation, testing, servicing, or replacement of heating, ventilation, air conditioning (HVAC) equipment, combustion appliances and equipment, and/or gas fireplaces or other decorative combustion equipment."

Tools you will need: needle-nose pliers or utility knife, standard flathead screwdriver, wire strippers (for interconnected Alarms)

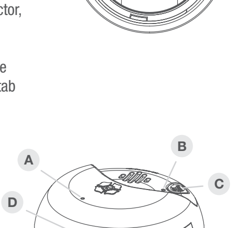
⚠ WARNING!
Make sure the Alarm is not receiving excessively noisy power. Examples of noisy power could be major appliances on the same circuit, power from a generator or solar power, light dimmer on the same circuit or mounted near fluorescent lighting. Excessively noisy power may cause damage to your Alarm.

THE PARTS OF THIS ALARM

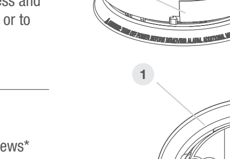
The Mounting Bracket: To remove the mounting bracket from the Smoke/CO Alarm base, hold the Smoke/CO Alarm base firmly and twist the mounting bracket counterclockwise. The mounting bracket installs onto the junction box. It has a variety of screw slots to fit most boxes.

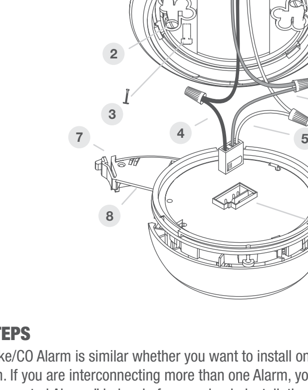
The Power Connector: The power connector plugs into a power input block on the Alarm. It supplies the unit with AC power.
- The black wire is "hot."
- The white wire is neutral.
- The orange wire is used for interconnect.

If you need to remove the power connector, turn **POWER OFF first.** Insert a flat screwdriver blade between the power connector and the security tab inside the power input block. Gently pry back the tab and pull the connector free.



THE PARTS OF THIS SMOKE ALARM





- A Smoke/CO LED (RED)
- B Power LED (GREEN)
- C Test/Silence button: Press and release to activate test, or to silence the Alarm.
- D Battery Drawer

1. Mounting Bracket
2. Mounting Slots and Screws*
3. Locking Pins (break out of bracket)
4. Hot (Black) AC Wire
5. Neutral (White) AC Wire
6. Interconnect (Orange) Wire
7. Lever to Open Battery Compartment
8. Swing-Out Battery Compartment
9. Quick-Connect Power Connector

*Not Included

FOLLOW THESE SIMPLE STEPS

The basic installation of this Smoke/CO Alarm is similar whether you want to install one Alarm, or interconnect more than one Alarm. If you are interconnecting more than one Alarm, you **MUST** read "Special Requirements for Interconnected Alarms" below before you begin installation.

⚠ DANGER!
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.

⚠ WARNING!
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. All power connections should be done using wire-nuts.

STAND-ALONE ALARM ONLY:
- Connect the white wire on the power connector to the neutral wire in the junction box.
- Connect the black wire on the power connector to the hot wire in the junction box.
- Tuck the orange wire inside the junction box. It is used for interconnect only.

INTERCONNECTED UNITS ONLY:
Strip off about 1/2" (12 mm) of the plastic coating on the orange wire on the power connector.
- Connect the white wire on the power connector to the neutral wire (usually white) in the junction box.
- Connect the black wire on the power connector to the hot wire (usually black) in the junction box.
- Connect the orange wire on the power connector to the interconnect wire in the junction box. Repeat for each unit you are interconnecting. Never connect the hot or neutral wires in the junction box to the orange interconnect wire. Never cross hot and neutral wires between Alarms.

1. Remove the mounting bracket from the base, and attach it to the junction box.
2. Using wire nuts, connect the power connector to the household wiring.
3. If there's a battery pull tab, activate the battery back-up by removing the "Pull to Activate Battery Back-Up" tab. You do no need to open the battery compartment during installation. If battery is not installed, install battery back-up. Battery back-up cannot work until you install the battery in the correct position (Match "+" to "+" and "-" to "-").
4. Plug the power connector into the back of the Alarm.
5. Position the base of the Alarm over the mounting bracket, and turn the Alarm clockwise (right) until the unit is in place. If wall mounted, adjust unit so words are level.
6. Check all connections.

STAND-ALONE ALARM ONLY:
- If you are only installing one Alarm, restore power to the junction box.

INTERCONNECTED UNITS ONLY:
- If you are interconnecting multiple Alarms, repeat steps 1-6 for each Alarm in the series. When you are finished, restore power to the junction box.

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. 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.

7. Turn AC power back on. Under normal operation, the Green power indicator light will shine continuously.
8. If the Green power indicator light does not light, **TURN OFF POWER TO THE JUNCTION BOX** and recheck all connections. If all connections are correct and the Green power indicator still does not light when you restore the power, the unit should be replaced immediately.
9. **Single Station Alarms:** Test each Alarm. Press and release the Test/Silence button. The unit will chirp and then Alarm.
   Interconnected Alarms: Press and release the Test/Silence button. The unit will chirp and then Alarm. All interconnected Alarms should sound. The other Alarms sounding only tests the interconnect signal between Alarms. **It does not test each Alarm's operation. You must test each Alarm individually to check if the Alarm is functioning properly.**

⚠ DANGER!
If any unit in the series does not Alarm during testing, TURN OFF POWER and recheck connections. If it does not Alarm when you restore power, replace it immediately.

SPECIAL REQUIREMENTS FOR INTERCONNECTED ALARMS

⚠ WARNING!
- Failure to meet any of the above requirements could damage the units and cause them to malfunction, removing your protection.
- AC and AC/DC Alarms can be interconnected. Under AC power, all units will Alarm when one senses smoke or CO. When power is interrupted, only the AC/DC units in the series will continue to send and receive signals. AC powered Alarms will not operate.

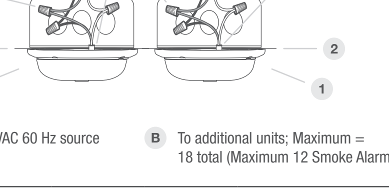
Interconnected units can provide earlier warning of a smoke/CO problem than stand-alone units, especially if the problem starts in a remote area of the dwelling. If any unit in the series senses smoke/CO, all units will Alarm. To determine which Smoke/CO Alarm initiated an Alarm, refer to the table.

During an Alarm	**On Initiating Alarm(s):** Red LED(s) flashes (flash) rapidly **On All Other Alarms:** Green LED(s) Constant Green (AC power), Off (on battery backup), Red LED(s) Off
After an Alarm (Latching)	**On Initiating Alarm(s): Smoke Alarm:** Red LED(s) On for 2 seconds/Off for 2 seconds; **CO Alarm:** Red LED(s) On for 4 seconds/Off for 4 seconds **On All Other Alarms:** Green LED(s) Normal, Red LED(s) Off

COMPATIBLE INTERCONNECTED UNITS

IMPORTANT!
Interconnect units within a single family residence only. Otherwise all households will experience unwanted Alarms when you test any unit in the series. Interconnected units will only work if they are wired to compatible units and all requirements are met. This unit is designed to be compatible with: First Alert Smoke Alarm Models 7010, 9120, 3120B, 7010B, 7010BSL, 7020B, 7020BSL, 9120B, SA520, SC7010B, SC7010BV, SC9120B, SM100V-AC, SM300-AC, SM500-AC, SMI100-AC, SMI105-AC and SM110LED-AC; First Alert Smoke & CO Alarm Models 1039102, 7030BSL, SMCO100V-AC, SMICO100-AC, SMICO105-AC, and SMCO110LED-AC; First Alert CO Alarm Models CO5120BN and CO5120PDBN; First Alert Heat Alarm Model HD6135FB; RM4 Relay and SLED177 Strobe when connected via an RM4 Relay.

INTERCONNECTED UNITS MUST MEET ALL OF THE FOLLOWING REQUIREMENTS:
- A maximum of 18 compatible units may be interconnected (Maximum of 12 Smoke Alarms) per NFPA 72.
- The same fuse or circuit breaker must power all interconnected units.
- The total length of wire interconnecting the units should be less than 1000 feet (300 meters). This type of wire is commonly available at Hardware and Electrical Supply stores.
- All wiring must conform to all local electrical codes and NFPA 70 (NEC). Refer to NFPA 72, NFPA 101, and/or your local building code for further connection requirements.



- A Unswitched 120VAC 60 Hz source
- B To additional units; Maximum = 18 total (Maximum 12 Smoke Alarms)

1. Alarm
2. Ceiling or Wall
3. Power Connector
4. Wire Nut
5. Junction Box
6. Neutral Wire (White)
7. Interconnect Wire (Orange)
8. Hot Wire (Black)

Action	What You Will See & Hear
Normal Operations	**Horn:** Silent; **Power LED:** Constant Green; **Smoke/CO LED:** Off
Alarm Operating on Battery Backup	**Horn:** Silent; **Power LED:** Flashes Green every minute; **Smoke/CO LED:** Off
When You Test the Alarm	**Horn:** 3 beeps, pause, 3 beeps, followed by, 4 beeps, pause, 4 beeps; **Power LED:** Green if AC power to Alarm is On, Off if Alarm is operating under DC power; **Smoke/CO LED:** Flashes Red in sync with horn
If Battery Becomes Low or is Missing	**If AC power to Alarm is on OR first 15 minutes after AC power is removed, Low Battery Latch is now engaged.** **Horn:** Chirps 1 time every minute; **Power LED:** Flashes Green 2 seconds on/2 seconds off; **Smoke/CO LED:** Off (see Latching Features note below) After first 15 minutes, if AC power to Alarm is Off **Horn:** Chirps 1 time every minute; **Power LED:** Flashes Green 1 time every minute; **Smoke/CO LED:** Off
If Alarm is Not Operating Properly (MALFUNCTION SIGNAL)	**Horn:** 3 chirps every minute; **Power LED:** 3 Green Flashes approximately once a minute; **Smoke/CO LED:** Off
Alarm has reached its End of Life	**Horn:** 5 chirps every minute; **Power LED:** 5 Green Flashes approximately once a minute; **Smoke/CO LED:** Off
Smoke is Detected	**Horn:** 3 beeps, pause, 3 beeps; **Power LED:** Constant Green (AC power), Off (on battery backup); **Smoke/CO LED:** During Alarm: Flashes Red in sync with the horn pattern. After Alarm: Flashes Red On for 2 seconds/Off for 2 seconds. Smoke Alarm Latch is now engaged (See Latching Features section for details)
Smoke Alarm is Silenced	**Horn:** Off (for up to 15 minutes); **Power LED:** Constant Green (AC power), Off (on battery backup); **Smoke/CO LED:** Flashes Red;
Smoke is Detected in Another Interconnected Alarm	**Horn:** 3 beeps, pause, 3 beeps; **Power LED:** Constant Green (AC power), Off (on battery backup); **Smoke LED:** Off
Alarm Levels of CO are Detected	**Horn:** 4 fast beeps, pause, 4 fast beeps; **Power LED:** Constant Green (AC power), Off (on battery backup); **Smoke/CO LED:** During Alarm: Flashes Red in sync with the horn pattern. After Alarm: Flashes Red On for 4 seconds/Off for 4 seconds. CO Alarm Latch is now engaged. (See Latching Features section for details).
CO Alarm is Silenced	**Horn:** Off (for up to 6 minutes); **Power LED:** Constant Green (AC power), Off (on battery backup) **Smoke/CO LED:** Flashes Red
CO is Detected in Another Interconnected Alarm	**Horn:** 4 fast beeps, pause, 4 fast beeps; **Power LED:** Constant Green (AC power), Off (on battery backup); **Smoke LED:** Off

NOTE: Without AC Power and running on battery only, Low Battery Latch or Alarm Latch are only engaged for about 15 minutes to conserve power.

04 ALARM FEATURES

- **Battery Backup:** For protection during power outages.
- **Alarm Indicator:** Identifies unit that initiated Alarm.
- **Easy Installation:** Add protection in minutes

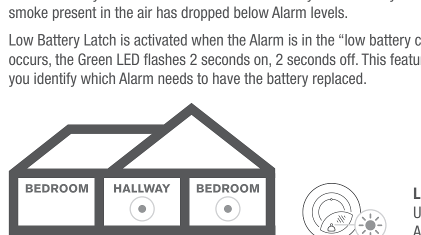
LATCHING FEATURES

Alarm Latch is activated after an Alarm is exposed to Alarm levels of smoke or carbon monoxide. This feature will only work with AC power. See "Special Requirements for Interconnected Alarms" for signaling.

This feature helps emergency responders, investigators, or service technicians identify which unit(s) in your home were exposed to Alarm levels of smoke. This can help investigators pinpoint the source of smoke.

Interconnected Alarms. Latching Alarm Indicator shows which Alarm(s) in the series were exposed to Alarm levels of smoke. The Latching Alarm Indicator stays ON until you clear it, so it can alert you to an Alarm that occurred while you were away from home, even though smoke present in the air has dropped below Alarm levels.

Low Battery Latch is activated when the Alarm is in the "low battery condition". When this occurs, the Green LED flashes 2 seconds on, 2 seconds off. This feature is designed to help you identify which Alarm needs to have the battery replaced.



Latching Alarm
Unit was exposed to Alarm levels of smoke

Latching Not Activated
Unit was not exposed to Alarm levels of smoke

"SMART INTERCONNECT" FEATURE

This Alarm includes "Smart Interconnect" which enables the Alarm to be interconnected with other First Alert® Smoke, Heat, and "Smart Interconnect" CO Alarms. When smoke is detected, all Alarms will sound the smoke horn pattern. When CO is detected, "Smart Interconnect" Alarms will sound the CO horn pattern. Alarms that do not have the "Smart Interconnect" feature will remain silent during a CO Alarm.

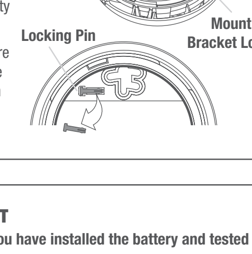
LOCKING FEATURES

The optional locking features are designed to discourage unauthorized removal of the battery or Alarm. It is not necessary to activate the locks in single-family households where unauthorized battery or Alarm removal is not a concern.

These Smoke/CO Alarms have two separate locking features: one locks the battery compartment, and the other locks the Smoke/CO Alarm to the mounting bracket. You can choose to use either feature independently, or use them both.

Tools you will need: Needle-nose pliers or utility knife, standard flathead screwdriver

Both locking features use locking pins, which are molded into the mounting bracket. Using needle nose pliers or a utility knife, remove one or both pins from the mounting bracket, depending on how many locking features you want to use.



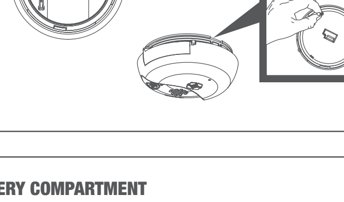
TO LOCK THE BATTERY COMPARTMENT

Do not lock the battery compartment until you have installed the battery and tested the battery back-up.

1. Push and release the Test/Silence button on the Smoke/CO Alarm until the Alarm sounds: 3 beeps, pause, 3 beeps, pause, 4 beeps, pause, 4 beeps, pause.

   IMPORTANT!
   If the unit does not Alarm during testing, DO NOT lock the battery compartment! Install a new battery and test again. If the Alarm still does not Alarm, replace it immediately.

2. Using needle-nose pliers or a utility knife, detach one locking pin from the mounting bracket.
3. Push the locking pin through the black dot on the label on the back of the Smoke/CO Alarm.



TO UNLOCK THE BATTERY COMPARTMENT

Once the Alarm is installed, you must disconnect it from the AC power before unlocking the battery compartment.

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. 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.

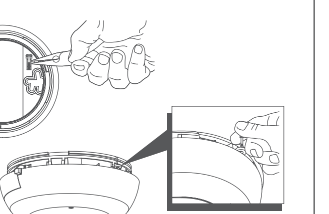
1. Remove the Alarm from the mounting bracket. If the unit is locked to the bracket, see the section "To Unlock the Mounting Bracket."
2. Disconnect the power connector by gently prying it away from the back of the Alarm.
3. Insert a flathead screwdriver under the head of the locking pin, and gently pry it out of the battery compartment lock. (If you plan to relock the battery compartment, save the locking pin.)
4. To relock the battery compartment, close the battery door and reinsert locking pin in lock.
5. Reconnect the power connector to the back of the Alarm, reattach the Smoke Alarm to the mounting bracket, and restore the power.



IMPORTANT!
When replacing the batteries, always test the Alarm before relocking the battery compartment.

TO LOCK THE MOUNTING BRACKET

1. Using needle-nose pliers, detach one locking pin from mounting bracket.
2. Insert the locking pin into the lock located opposite from the battery drawer as shown in the diagram.
3. When you attach the Alarm to the mounting bracket, the locking pin's head will fit into a notch on the bracket.

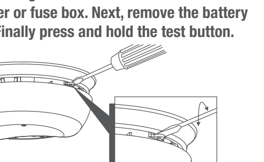


TO UNLOCK THE MOUNTING BRACKET

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. 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.

⚠ WARNING!
Always discharge the branch circuit before servicing an AC or AC/DC Smoke/CO Alarm. First, turn off the AC power at the circuit breaker or fuse box. Next, remove the battery from Smoke/CO Alarms with battery back-up. Finally press and hold the test button.

1. Insert a flathead screwdriver between the mounting bracket pin and the mounting bracket.
2. Pry the Alarm away from the bracket by turning both the screwdriver and the Alarm counterclockwise (left) at the same time.



05 TESTING & MAINTENANCE

WEEKLY TESTING

⚠ WARNING!
- **NEVER** use an open flame of any kind to test this unit. You might accidentally damage or set fire to the unit or to your home. **NEVER** use vehicle exhaust! Exhaust may cause permanent damage and voids your warranty.
- **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.

⚠ CAUTION!
It is important to test this unit every week to make sure it is working properly. Using the test button is the recommended way to test this Smoke/CO Alarm.

1. Push and release the Test/Silence button on the cover until you hear a "chirp." The "chirp" marks the start of the self-test sequence.
2. During testing, you will hear a loud, repeating horn pattern: 3 beeps, pause, 3 beeps, pause, while the red smoke LED flashes. Then you will hear a loud, repeating horn pattern: 4 beeps, pause, 4 beeps, pause, while the red CO LED flashes.
3. When testing a series of interconnected units you must test each unit individually. Make sure all units Alarm when each one is tested.

If the Smoke/CO Alarm does not test properly:

1. Make sure the AC power is applied and battery is fresh and installed correctly.
2. Be sure the Alarm is clean and dust-free.
3. Test the unit again.

If the Smoke/CO Alarm is still not working properly, replace it immediately. Refer to the "Limited Warranty" at the end of this manual.

⚠ WARNING!
If there is still a problem, do not try to fix the Alarm yourself. This will void your warranty!

REGULAR MAINTENANCE

⚠ WARNING!
Use only the replacement batteries listed below. The unit may not operate properly with other batteries. Never use rechargeable batteries since they may not provide a constant charge.

This unit has been designed to be as maintenance-free as possible, but there are a few simple things you must do to keep it working properly:

- Test it at least once a week.
- Clean the Smoke/CO Alarm at least once a month; gently vacuum the outside of the Smoke/CO Alarm using your household vacuum's soft brush attachment. Test the Smoke/CO Alarm. Never use water, cleaners or solvents since they may damage the unit.
- If the Smoke/CO Alarm becomes contaminated by excessive dirt, dust and/or grime, and cannot be cleaned to avoid unwanted Alarms, replace the unit immediately.
- If the green power LED flashes 2 times every minute (horn is silent) it means that the Alarm needs to be cleaned as indicated above. If green LED continues to flash, please call Consumer Support.
- Relocate the unit if it sounds frequent unwanted Alarms. See "Where This Alarm Should Not Be Installed" for details.

When the battery back-up becomes weak, the Alarm will "chirp" about once a minute (the low battery warning). This warning should last 7 days, but you should replace the battery immediately to continue your protection. **This Alarm must have AC or battery power to operate. If AC power fails, and the battery is dead or missing, the Alarm cannot operate.**

⚠ WARNING!
DO NOT spray cleaning chemicals or insect sprays directly on our near the Alarm. **DO NOT** paint over the Alarm. Doing so may permanently damage the Alarm.

CHOOSING A REPLACEMENT BATTERY:
This Smoke/CO Alarm requires one standard 9V alkaline battery. The following alkaline batteries are acceptable as replacements: Duracell #MN1604 or MX1604; Eveready "Energizer" 522. **These batteries are available at many local retail stores.**

⚠ WARNING!
- Always use the exact batteries specified by this User's Manual. **DO NOT** use rechargeable batteries. Clean the battery contacts and also those of the device prior to battery installation. Install batteries correctly with regard to polarity (+ and -).
- Please dispose of or recycle used batteries properly, following any local regulations. Consult your local waste management authority or recycling organization to find an electronics recycling facility in your area. **DO NOT DISPOSE OF BATTERIES IN FIRE. BATTERIES MAY EXPLODE OR LEAK.**

⚠ WARNING!
- Keep battery out of reach of children. In the event a battery is swallowed, immediately contact your poison control center, your physician, or the National Battery Ingestion hotline at 202-625-3333 as serious injury may occur.

IMPORTANT!
Actual battery service life depends on the Alarm and the environment in which it is installed. All the batteries specified above are acceptable replacement batteries for this unit. Regardless of the manufacturer's suggested battery life, you **MUST** replace the battery immediately once the unit starts "chirping" (the "low battery warning").

TROUBLESHOOTING GUIDE

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. Turn off the power to the area where the Alarm is installed BEFORE removing it from the mounting bracket or checking any electrical connections! Failure to turn off the power first may result in electrical shock, injury or death.

IF THE ALARM...	PROBLEM...	YOU SHOULD...
Green Power LED is OFF. Unit will not Alarm when you press the Test/Silence button.	Unit may not be receiving any power.	Check the AC power supply. Make sure the power connector is securely attached to the Alarm. Make sure a fresh 9V battery is installed to power the battery back-up*.
Green Power LED flashes ON, once a minute (horn is silent).	Alarm is not receiving AC power.	Unit is operating on battery back-up. Check the AC power supply.
Horn "chirps" about once per minute; Green "Power" LED flashes Green On for 2 seconds/Off for 2 seconds. (Low Battery Latch is engaged.)	Battery is low or missing.	Replace Battery*
Horn "chirps" and Green Power LED flashes once every minute.	Battery is low or missing.	Replace Battery*
Horn "chirps" and Green Power LED flashes 3 times every minute	**MALFUNCTION SIGNAL.** Device is not working properly, and needs to be replaced.	If unit is under warranty, contact Consumer Support to process a warranty replacement.
Horn "chirps" and Green Power LED flashes 5 times every minute	**END OF LIFE SIGNAL.** Alarm needs to be replaced.	Immediately replace the Alarm.
Alarm goes back into Alarm after you pressed the Test/Silence button to silence an Alarm.	Smoke and/or CO levels are still potentially dangerous.	Refer to "If Your Smoke/CO Alarm Sounds" for details on how to respond to an Alarm. If anyone is feeling ill, EVACUATE your home immediately and call 911.
Power LED flashes Green 2 times every minute.	Alarm requires cleaning.	Clean Alarm then press and release the test button. See "Regular Maintenance" section. If Green LED continues to flash, contact Consumer Support.
CARBON MONOXIDE ALARM ONLY		
CO Alarm goes back into Alarm 4 minutes after you Silence it.	CO levels indicate a potentially dangerous situation.	IF YOU ARE FEELING SYMPTOMS OF CO POISONING, EVACUATE your home and call 911 or the Fire Department. Refer to "If The CO Alarm Sounds" for details.
CO Alarm sounds frequently even though no high levels of CO are revealed in an investigation.	The CO Alarm may be improperly located. Refer to "Where to Install This Alarm" for details.	Relocate your Alarm. If frequent Alarms continue, have home rechecked for potential CO problems. You may be experiencing an intermittent CO problem.
SMOKE ALARM ONLY		
Smoke Alarm sounds when no smoke is visible.	Unwanted Alarm may be caused by nonemergency source like cooking smoke.	Silence Alarm using manual button; clean the Alarm's cover with a soft, clean cloth. If frequent unwanted Alarms continue, relocate your Alarm. Alarm may be too close to a kitchen, cooking appliance, or steamy bathroom.

*For a list of acceptable replacement batteries, see "Regular Maintenance."

If you have questions that cannot be answered by reading this manual, call the Consumer Support Team at 1-800-323-9005.

FIRE SAFETY TIPS

Follow safety rules and prevent hazardous situations: 1) Use smoking materials properly. Never smoke in bed. 2) Keep matches or lighters away from children; 3) Store flammable materials in proper containers; 4) Keep electrical appliances in good condition and don't overload electrical circuits; 5) Keep stoves, barbecue grills, fireplaces and chimneys grease- and debris-free; 6) Never leave anything cooking on the stove unattended; 7) Keep portable heaters and open flames, like candles, away from flammable materials; 8) Don't let rubbish accumulate. Keep Alarms clean, and test them weekly. Replace Alarms immediately if they are not working properly. Smoke Alarms that do not work cannot alert you to a fire. Keep at least one working fire extinguisher on every level, and an additional one in the kitchen. Have fire escape ladders or other reliable means of escape from an upper level in case stairs are blocked; 9) Have an escape plan and practice it regularly.

06 IF YOUR SMOKE/CO ALARM SOUNDS

WHAT TO DO FIRST: IDENTIFY THE TYPE OF ALARM SIGNAL

Refer to previous section "What You Will See And Hear With This Alarm".

⚠ WARNING!
Actuation of your CO Alarm indicates the presence of carbon monoxide (CO) which can kill you. In other words, when your CO Alarm sounds, you must not ignore it!

IF THE CO ALARM SIGNAL SOUNDS:

1. Press the Test/Silence button.
2. Call your emergency services, fire department or 911. Write down the number of your local emergency service here:

   ____

3. Immediately move to fresh air—outdoors or by an open door or window. Do a head count to check that all persons are accounted for. Do not re-enter the premises, or move away from the open door or window until the emergency services responder has arrived, the premises have been aired out, and your CO Alarm remains in its normal condition.
4. After following steps 1-3, if your CO Alarm reactivates within a 24-hour period, repeat steps 1-3 and call a qualified appliance technician 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. Write down the number of a qualified appliance technician here:

   ____

NOTE: A qualified appliance technician is defined as "a person, firm, corporation, or company that either in person or through a representative, is engaged in and responsible for the installation, testing, servicing, or replacement of heating, ventilation, air conditioning (HVAC) equipment, combustion appliances and equipment, and/or gas fireplaces or other decorative combustion equipment."

IF THE SMOKE/CO ALARM SOUNDS:

RESPONDING TO AN ALARM

⚠ WARNING!
- If the unit Alarms and you are not testing the unit, it is warning you of a potentially dangerous situation that requires your immediate attention. **NEVER** ignore any Alarm. Ignoring the Alarm may result in injury or death.
- Never remove the batteries from a battery operated Smoke/CO Alarm to stop an unwanted Alarm (caused by cooking smoke, etc.). Removing batteries 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 Alarm will reset automatically.
- If the unit Alarms get everyone out of the house immediately.

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. 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.

WHAT TO DO IN CASE OF FIRE

- Don't panic; stay calm. Follow your family escape plan.
- Get out of the house as quickly as possible. Don't stop to get dressed or collect anything.
- Feel doors with the back of your hand before opening them. If a door is cool, open it slowly. Don't open a hot door. Keep doors and windows closed, unless you must escape through them.
- Cover your nose and mouth with a cloth (preferably damp). Take short, shallow breaths.
- Meet at your planned meeting place outside your home, and do a head count to make sure everybody got out safely.
- Call the Fire Department as soon as possible from outside. Give your address, then your name.
- Never go back inside a burning building for any reason.
- Contact your Fire Department for ideas on making your home safer.

⚠ WARNING!
Alarms have various limitations. See "General Limitations of Smoke/CO Alarms" for details.

07 USING THE SILENCE FEATURES

⚠ WARNING!
The Silence Feature does not disable the unit—it makes it temporarily less sensitive to smoke. For your safety, if smoke around the unit is dense enough to suggest a potentially dangerous situation, the unit will stay in Alarm or may re-Alarm quickly. If you do not know the source of the smoke, do not assume it is an unwanted Alarm. Not responding to an Alarm can result in property loss, injury, or death. If the unit will not silence and no heavy smoke is present, or if it stays in silence mode continuously, it should be replaced immediately.

Never remove the batteries to quiet an unwanted Alarm. Removing the batteries disables the Alarm and removes your protection.

- The Silence Feature is intended to temporarily silence the horn while you identify and correct the problem. Do not use the Silence Feature in emergency situations. It will not correct a CO problem or extinguish a fire.
- The Silence Feature can temporarily quiet an unwanted Alarm for several minutes. You can silence this Smoke/CO Alarm by pressing the Test/Silence button on the Alarm cover.

Activate the Alarm test, reset or silence function by use of a finger or thumb. Use of any other instrument is strictly prohibited.

When the Smoke Alarm is Silenced	When the CO Alarm is Silenced
The Smoke Alarm will remain silent for up to 15 minutes, then returns to normal operation. If the smoke has not cleared–or continues to increase–the device will go back into Alarm.	The CO Alarm will remain silent for up to 6 minutes. After 6 minutes, if CO levels remain potentially dangerous the horn will start sounding again.

TO SILENCE SMOKE ALARMS IN AN INTERCONNECTED SERIES

1. To silence multiple Alarms in an interconnected series, you must press the Test/Silence button on the unit(s) that initiated the Alarm. **NOTE:** The red LED on the initiating Alarm will flash. The red LED will be Off on all other non-initiating Alarms. Once silenced, no audible sound will be heard.
2. While the unit is in "silence mode", pressing and holding the Test/Silence button for approximately 10 seconds will test the unit. After testing, the unit will re-enter "silence mode" and the timer is reset.

SILENCING THE LOW BATTERY WARNING

This Silence Feature can temporarily quiet the low battery warning "chirp" for up to 8 hours. Press the Test/Silence button on the Alarm cover until you hear the acknowledge "chirp".

Once the low battery warning "chirp" Silence Feature is activated, the Green LED will remain in normal state. After 8 hours, the low battery "chirp" will resume. The Alarm will continue to operate as long as AC power is supplied. However, **replace the batteries as soon as possible**, to maintain protection in event of a power outage.

To deactivate this feature: Press and hold the Test/Silence button again. The unit will go into Test Mode and the low battery warning will resume (LED flashes and unit sounds "chirp" once a minute).

SILENCING THE END OF LIFE SIGNAL

This Silence Feature can temporarily quiet the End of Life warning "chirp" for up to 2 days. You can silence the End of Life warning "chirp" by pressing the Test/Silence button. The horn will chirp, acknowledging that the End of Life Silence Feature has been activated.

After approximately 2 days, the End of Life "chirp" will resume. The timer shall not be able to be reset after 14 days following the initial end-of-life signal.

08 WHAT YOU NEED TO KNOW ABOUT CO

WHAT IS CO?

CO is an invisible, odorless, tasteless gas produced when fossil fuels do not burn completely, or are exposed to heat (usually fire). Electrical appliances typically do not produce CO.

These fuels include: Wood, coal, charcoal, oil, natural gas, gasoline, kerosene, and propane.

Common appliances are often sources of CO. 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.

SYMPTOMS OF CO POISONING

These symptoms are related to CO POISONING and should be discussed with ALL household members.

Mild Exposure: Slight headache, nausea, vomiting, fatigue ("flu-like" symptoms).

Medium Exposure: Throbbing headache, drowsiness, confusion, fast heart rate.

Extreme Exposure: Convulsions, unconsciousness, heart and lung failure. Exposure to carbon monoxide can cause brain damage, death.

IMPORTANT!

This CO Alarm measures exposure to CO over time. It Alarms if CO levels are extremely high in a short period of time, or if CO levels reach a certain minimum over a long period of time. The CO Alarm generally sounds an Alarm before the onset of symptoms in average, healthy adults. Why is this important? Because you need to be warned of a potential CO problem while you can still react in time. In many reported cases of CO exposure, victims may be aware that they are not feeling well, but become disoriented and can no longer react well enough to exit the building or get help. Also, young children and pets may be the first affected. The average healthy adult might not feel any symptoms when the CO Alarm sounds. However, people with cardiac or respiratory problems, infants, unborn babies, pregnant mothers, or elderly people can be more quickly and severely affected by CO. If you experience even mild symptoms of CO poisoning, consult your doctor immediately!

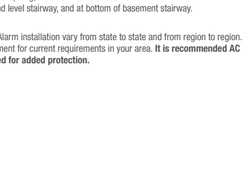
FINDING THE SOURCE OF CO AFTER AN ALARM

Carbon monoxide is an odorless, invisible gas, which often makes it difficult to locate the source of CO after an Alarm. These are a few of the factors that can make it difficult to locate sources of CO:

- House well ventilated before the investigator arrives.
- Problem caused by "backdrafting."
- Transient CO problem caused by special circumstances.

Because CO may dissipate by the time an investigator arrives, it may be difficult to locate the source of CO. First Alert shall not be obligated to pay for any carbon monoxide investigation or service call.

POTENTIAL SOURCES OF CO IN THE HOME



Fuel-burning appliances like: portable heater, gas or wood burning fireplace, gas kitchen range or cooktop, gas clothes dryer.

Damaged or insufficient venting: corroded or disconnected water heater vent pipe, leaking chimney pipe or flue, or cracked heat exchanger, blocked or clogged chimney opening.

Improper use of appliance/ device: operating a barbecue grill or vehicle in an enclosed area (like a garage or screened porch).

Transient CO problems: "transient" or on-again-off-again CO problems can be caused by outdoor conditions and other special circumstances.

The following conditions can result in transient CO situations:

1. Excessive spillage or reverse venting of fuel appliances caused by outdoor conditions such as:

Wind direction and/or velocity, including high, gusty winds. Heavy air in the vent pipes (cold/humid air with extended periods between cycles).

- Negative pressure differential resulting from the use of exhaust fans.
- Several appliances running at the same time competing for limited fresh air.
- Vent pipe connections vibrating loose from clothes dryers, furnaces, or water heaters.
- Obstructions in or unconventional vent pipe designs which can amplify the above situations.

2. Extended operation of unvented fuel burning devices (range, oven, fireplace).
3. Temperature inversions, which can trap exhaust close to the ground.
4. Car idling in an open or closed attached garage, or near a home.

These conditions are dangerous because they can trap exhaust in your home. Since these conditions can come and go, they are also hard to recreate during a CO investigation.

09 HOW CAN I PROTECT MY FAMILY FROM CO POISONING

A CO Alarm is an excellent means of protection. It monitors the air and sounds a loud Alarm before carbon monoxide levels become threatening for average, healthy adults. A CO Alarm is not a substitute for proper maintenance of home appliances.

TO HELP PREVENT CO PROBLEMS AND REDUCE THE RISK OF CO POISONING:

- Clean chimneys and flues yearly. Keep them free of debris, leaves, and nests for proper air flow. Also, have a professional check for rust and corrosion, cracks, or separations. These conditions can prevent proper air movement and cause backdrafting. Never "cap" or cover a chimney in any way that would block air flow.
- Test and maintain all fuel-burning equipment annually. Many local gas or oil companies and HVAC companies offer appliance inspections for a nominal fee.
- Make regular visual inspections of all fuel-burning appliances. Check appliances for excessive rust and scaling. Also check the flame on the burner and pilot lights. The flame should be blue. A yellow flame means fuel is not being burned completely and CO may be present. Keep the blower door on the furnace closed. Use vents or fans when they are available on all fuel-burning appliances. Make sure appliances are vented to the outside. Do not grill or barbecue indoors, or in garages or on screen porches.
- Check for exhaust backflow from CO sources. Check the draft hood on an operating furnace for a backdraft. Look for cracks on furnace heat exchangers.
- Check the house or garage on the other side of shared wall.
- Keep windows and doors open slightly. If you suspect that CO is escaping into your home, open a window or a door. Opening windows and doors can significantly decrease CO levels.

In addition, familiarize yourself with all enclosed materials. Read this manual in its entirety, and make sure you understand what to do if your CO Alarm sounds.

10 REGULATORY INFORMATION FOR SMOKE ALARMS

RECOMMENDED LOCATIONS FOR SMOKE ALARMS

INSTALLING SMOKE ALARMS IN SINGLE-FAMILY RESIDENCES

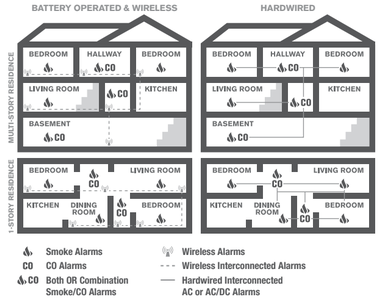
The National Fire Protection Association (NFPA), recommends one Smoke Alarm on every floor, in every sleeping area, and in every bedroom. In new construction, the Smoke Alarms must be AC powered and interconnected. See "Agency Placement Recommendations" for details. For additional coverage, it is recommended that you install a Smoke Alarm in all rooms, halls, storage areas, finished attics, and basements, where temperatures normally remain between 40˚ F (4.4˚ C) and 100˚ F (37.8˚ C). Make sure no door or other obstruction could keep smoke from reaching the Smoke Alarms.

MORE SPECIFICALLY, INSTALL SMOKE ALARMS:

- On every level of your home, including finished attics and basements.
- Inside every bedroom, especially if people sleep with doors closed.
- In the hall near every sleeping area. If your home has multiple sleeping areas, install a unit in each.
- If a hall is over 40 feet (12 meters) long, install an Alarm at each end.
- At the top of the first-to-second level stairway, and at bottom of basement stairway.

IMPORTANT!

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. **It is recommended AC or AC/DC units be interconnected for added protection.**



11 REGULATORY INFORMATION FOR CO ALARMS

WHAT LEVELS OF CO CAUSE AN ALARM?

Underwriters Laboratories Inc. Standard UL2034 requires residential CO Alarms to sound when exposed to levels of CO and exposure times as described below. They are measured in parts per million (ppm) of CO over time (in minutes).

UL2034 Required Alarm Points*:

- If the Alarm is exposed to 400 ppm of CO, IT MUST ALARM BETWEEN 4 and 15 MINUTES.
- If the Alarm is exposed to 150 ppm of CO, IT MUST ALARM BETWEEN 10 and 50 MINUTES.
- If the Alarm is exposed to 70 ppm if CO, IT MUST ALARM BETWEEN 60 and 240 MINUTES.

* Approximately 10% COHb exposure at levels of 10% to 95% Relative Humidity (RH).

The unit is designed not to Alarm when exposed to a constant level of 30 ppm for 30 days.

IMPORTANT!

CO Alarms are designed to Alarm before there is an immediate life threat. Since you cannot see or smell CO, never assume it's not present.

- An exposure to 100 ppm of CO for 20 minutes may not affect average, healthy adults, but after 4 hours the same level may cause headaches.
- An exposure to 400 ppm of CO may cause headaches in average, healthy adults after 35 minutes, but can cause death after 2 hours.

Standards: Underwriters Laboratories Inc. Single and Multiple Station Carbon Monoxide Alarms UL2034.

According to Underwriters Laboratories Inc. UL2034, Section 1-1. 2: "Carbon monoxide Alarms covered by these requirements are intended to respond to the presence of carbon monoxide from sources such as, but not limited to, exhaust from internal-combustion engines, abnormal operation of fuel-fired appliances, and fireplaces. CO Alarms are intended to Alarm at carbon monoxide levels below those that could cause a loss of ability to react to the dangers of carbon monoxide exposure. " This CO Alarm monitors the air at the Alarm, and is designed to Alarm before CO levels become life threatening. This allows you precious time to leave the house and correct the problem. This is only possible if Alarms are located, installed, and maintained as described in this manual.

Gas Detection at Typical Temperature and Humidity Ranges: The CO Alarm is not formulated to detect CO levels below 30 ppm typically UL tested for false Alarm resistance to Methane (500 ppm), Butane (300 ppm), Heptane (500 ppm), Ethyl Acetate (200 ppm), Isopropyl Alcohol (200 ppm) and Carbon Dioxide (5000 ppm). Values measure gas and vapor concentrations in parts per million.

Audible Alarm: 85 dB minimum at 10 feet (3 meters).

12 AGENCY PLACEMENT RECOMMENDATIONS

Standards: Underwriters Laboratories Inc. Single and Multiple Station Smoke Alarms 217.

NFPA 72 CHAPTER 29 "FOR YOUR INFORMATION, THE NATIONAL FIRE ALARM AND SIGNALING CODE, NFPA 72, READS AS FOLLOWS:"

29.5.1* Required Detection.

29.5.1.1* Where required by other governing 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, with 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 (small facility)

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CALIFORNIA STATE FIRE MARSHAL (CSFM)

Early warning 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, but outside bedrooms), and Heat or Smoke Alarms in the living rooms, dining rooms, bedrooms, kitchens, hallways, finished attics, furnace rooms, closets, utility and storage rooms, basements, and attached garages.

13 SPECIAL COMPLIANCE CONSIDERATIONS

This Smoke Alarm is suitable for use in apartments, condominiums, townhouses, hospitals, day care facilities, health care facilities, boarding houses, group homes and dormitories provided a primary fire detection system already exists to meet fire detection requirements in common areas like lobbies, hallways, or porches. Using this Smoke Alarm in common areas may not provide sufficient warning to all residents or meet local fire protection ordinances/regulations.

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, health care facilities, nursing homes, day care facilities, or group homes of any kind. 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.

In new construction, most building codes require the use of AC or AC/DC powered Smoke Alarms only. In existing construction, AC, AC/DC, or DC powered Smoke Alarms can be used as specified by local building codes. 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). Refer to NFPA 101 (Life Safety Code), local building codes, or consult your Fire Department for detailed fire protection requirements in buildings not defined as "households".

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 the 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 of the receiver.
- Consult the dealer or an experienced radio or TV technician for help.

⚠ WARNING!

Changes or modifications to the product, not expressly approved by First Alert, could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

14 GENERAL LIMITATIONS OF SMOKE/CO ALARMS

This Smoke/CO Alarm is intended for residential use. This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure CO levels in compliance with Occupational Safety and Health Administration (OSHA) commercial or industrial standards. Individuals with medical conditions that may make them more sensitive to carbon monoxide may consider using warning devices which provide audible and visual signals for carbon monoxide concentrations under 30 ppm. For additional information on carbon monoxide and your medical condition contact your physician.

Smoke/CO Alarms may not waken all individuals. Practice the escape plan at least twice a year, making sure that everyone is involved – from kids to grandparents. Allow children to master fire escape planning and practice before holding a fire drill at night when they are sleeping. If children or others do not readily waken to the sound of the Smoke/CO Alarm, or if there are infants or family members with mobility limitations, make sure that someone is assigned to assist them in fire drill and in the event of an emergency. It is recommended that you hold a fire drill while family members are sleeping in order to determine their response to the sound of the Smoke/CO Alarm while sleeping and to determine whether they may need assistance in the event of an emergency.

Smoke/CO Alarms cannot work without power. Battery operated units cannot work if the batteries are missing, disconnected or dead, if the wrong type of batteries are used, or if the batteries are not installed correctly. AC units cannot work if the AC power is cut off for any reason (open fuse or circuit breaker, failure along a power line or at a power station, electrical fire that burns the electrical wires, etc.). If you are concerned about the limitations of battery or AC power, install both types of units.

This Smoke/CO Alarm will not sense smoke or CO that does not reach the sensors. It will only sense smoke or CO at the sensor. Smoke or CO may be present in other areas. Doors or other obstructions may affect the rate at which CO or smoke reaches the sensors. If bedroom doors are usually closed at night, we recommend you install an Alarm device (Combination CO and Smoke Alarm, or separate CO Alarms and Smoke Alarms) in each bedroom and in the hallway between them.

This Smoke/CO Alarm may not sense smoke or CO on another level of the home. Example: This Alarm device, installed on the second floor, may not sense smoke or CO in the basement For this reason, one Alarm device may not give adequate early warning. Recommended minimum protection is one Alarm device in every sleeping area, every bedroom, and on every level of your home. Some experts recommend battery powered smoke and CO Alarms be used in conjunction with interconnected AC powered Smoke Alarms. For details, see "About Smoke Alarms" for details.

Smoke/CO Alarms may not be heard. The Alarm horn loudness meets or exceeds current UL standards of 85 dB at 10 feet (3 meters). However, if the Smoke/CO Alarm is installed outside the bedroom, it may not wake up a sound sleeper or one who has recently used drugs or has been drinking alcoholic beverages. This is especially true if the door is closed or only partly open. Even persons who are awake may not hear the Alarm horn if the sound is blocked by distance or closed doors. Noise from traffic, stereo, radio, television, air conditioner, or other appliances may also prevent alert persons from hearing the Alarm horn. This Smoke/CO Alarm is not intended for people who are hearing impaired.

The Alarm may not have time to Alarm before the fire itself causes damage, injury, or death, since smoke from some fires may not reach the unit immediately. Examples of this include persons smoking in bed, children playing with matches, when a person's clothing catches fire while cooking, fires caused by violent explosions resulting from escaping gas, or incendiary fires where the fire grows so rapidly that an occupant's egress is blocked even with properly located Smoke Alarms.

This Smoke/CO Alarm is not a substitute for life insurance. Though this Smoke/CO Alarm warns against increasing CO levels or the presence of smoke, First Alert does not warrant or imply in any way that they will protect lives. Homeowners and renters must still insure their lives.

This Smoke/CO Alarm has a limited life. Although this Smoke/CO Alarm and all of its parts have passed many stringent tests and are designed to be as reliable as possible, any of these parts could fail at any time. Therefore, you must test this device weekly. The unit should be replaced immediately if it is not operating properly.

This Smoke/CO Alarm is not foolproof. Like all other electronic devices, this Smoke/CO Alarm has limitations. It can only detect smoke or CO that reaches the sensors. It may not give early warning of the source of smoke or CO is in a remote part of the home, away from the Alarm device.

15 LIMITED WARRANTY

First Alert® warrants that for a period of ten years from the date of purchase, this product will be free from defects in material and workmanship. First Alert, at its option, will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with a new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty.

This warranty is valid for the original retail purchaser from the date of initial retail purchase and is not transferable. Keep the original sales receipt. Proof of purchase is required to obtain warranty performance. First Alert dealers, service centers, or retail stores selling First Alert products do not have the right to alter, modify or any way change the terms and conditions of this warranty.

This warranty does not cover normal wear of parts or damage resulting from any of the following: negligent use or misuse of the product, use on improper voltage or current, use contrary to the operating instructions, disassembly, repair or alteration by anyone other than First Alert or an authorized service center. Further, the warranty does not cover Acts of God, such as fire, flood, hurricanes and tornadoes or any batteries that are included with this unit.

First Alert shall not be liable for any incidental or consequential damages caused by the breach of any express or implied warranty. Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above warranty. Some states, provinces or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or province to province.

HOW TO OBTAIN WARRANTY SERVICE

Service: If service is required, do not return the product to your retailer. In order to obtain warranty service, contact the Consumer Support Team at 1-800-323-9005. To assist us in serving you, please have the model number and date of purchase available when calling.

Battery: First Alert makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose with respect to battery.

Disposal: Please follow local guidelines regarding the disposal or recycling of batteries and/or electronics.

For your records, please record:

Date Purchased: _____

Where Purchased: _____

Date Installed: _____/_____**Month/Year**

Replace Alarm 10 years after installation.

Please write the date in the space provided:_____/_____ **Month/Year**

The Alarm will also provide an audible End-of-Life Signal approximately 10 years after installation to remind you to replace the unit.

The End-of-Life Signal can be silenced for up to 2 days. Do not unplug or deactivate the Alarm until you get replacement.

Printed in Mexico I M08-170696 03/23

CONFORMS TO UL STD 217 AND UL STD 2034

120V AC ⎓ 60Hz, 0.09A

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