

User Manual of Product 1:

First Alert SCO5RVA Battery Operated Combination Carbon Monoxide and Smoke Alarm

User Manual of Product 2:

First Alert CO400A Battery Powered Carbon Monoxide Alarm

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, propane, and kerosene.

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: Confusions, unconsciousness, heart and lung failure. Exposure to Carbon Monoxide can cause brain damage, death.

IMPORTANT!

This CO Alarm measures exposure to CO over time. If 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 the alarm can still react in times of reported CARBON MONOXIDE POISONING indicate that while victims are awarethey are not well, they are more so disoriented they are unable to save themselves by either exiting the building or calling for assistance. 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, or flu, or cracked heat exchangers, or carbon monoxide poisoning, 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 lot 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. **BRK Brands, Inc.** 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 disconnected venting: corroded or disconnected water heater vent pipe, leaking chimney 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:

- 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/drafting 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 to or unconventional vent pipe designs which can amplify the above situations.
 - Extended operation of unvented fuel burning devices (range, oven, fireplace).
 - Temperature inversions, which can trap exhaust close to the ground.
 - 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.

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 to 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 flue cover 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 screened 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 look for signs of shared wall.
- Keep windows and doors open slightly. If you suspect that CO is escaping into your home, open a window or 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.

REGULATORY INFORMATION FOR SMOKE/CO ALARMS

WHAT LEVELS OF CO CAUSE AN ALARM?

Canadian Standard 6.13 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 10 minutes.

CSA 6.13 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 of CO, IT MUST ALARM BETWEEN 60 and 240 MINUTES.

* Approximately 10% COH 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.

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. Tested for 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 3 meters (10 feet).

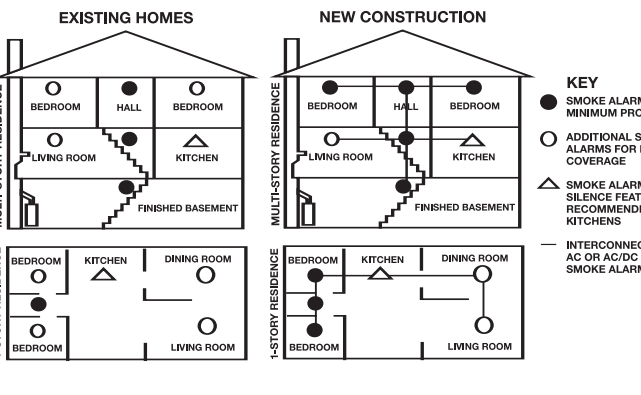
REGULATORY INFORMATION FOR SMOKE ALARMS

RECOMMENDED LOCATIONS FOR SMOKE ALARMS

Installing Smoke Alarms in Single-Family Residences

IMPORTANT!

Specific requirements for Smoke Alarm installation may vary by state, province, and 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.



AGENCY PLACEMENT RECOMMENDATIONS

IMPORTANT!

This equipment should be installed in accordance with NFPA (National Fire Protection Association) 72 and 101, and also UL Standards 5522 and 5523. National Fire Protection Association, One Batterymark Park, Quincy, MA 02269-9101. Additional local building and regulatory codes may apply in your area. Always check compliance requirements before beginning any installation.

NFPA 72 (National Fire Code)

Smoke Alarms shall be installed in each separate sleeping room, outside each sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawl spaces and unfinished attics.

In new construction, Alarms shall be so arranged that operation of any one Alarm shall detect the operation of all Alarms within the dwelling.

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, it is recommended that the householder consider the use of additional Smoke Alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility 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, as these locations occasionally experience conditions that can result in improper operation.

GENERAL LIMITATIONS OF SMOKE/CO ALARMS

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 wake to the sound of the Smoke/CO Alarm, or if there are infants or family members with mobility limitations, make sure the alarm device 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 out off for any reason (open fuse or circuit breaker, failure along a power line, loss of a power station, electrical fire that burns the electric 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 sensor. 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. Recommendation: install an 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 powered Smoke Alarms. For details, see "About Smoke Alarms" for details.

ABOUT SMOKE ALARMS

Battery CO 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.

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 interconnected by a qualified electrician.

Smoke/CO Alarms for Solar or Wind Energy users and battery backup power systems: AC powered Smoke/CO Alarms should only be operated with true or pure sine wave inverters. Operating this Alarm with most battery-powered 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. 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 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.

SPECIAL COMPLIANCE CONSIDERATIONS

WARNING!

This unit 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, hotels, 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 unit 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, AC, AC/DC, or DC powered Smoke Alarms can be used in existing construction as specified by local building codes.

In the U.S., refer to NFPA 72 (National Fire Alarm Code) and NFPA 101 (Life Safety Code), local building codes, or consult your Fire Department for detailed fire protection requirements in buildings not defined as "households".

In Canada, refer to the Canadian National Building Code of Canada, the National Fire Code of Canada, CAN/ULC S553 and local requirements.

Smoke/CO Alarms may not be heard. The alarm horn loudness meets or exceeds current standards of 85 dB at 3 meters (10 feet). 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 consumed 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, or fires caused by violent explosions resulting from escaping gas.

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, BRK Brands, Inc. 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. Any Smoke/CO Alarm that is beyond the replacement date should be replaced immediately.

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.

Constant exposure to high or low humidity may reduce battery life.

TROUBLESHOOTING GUIDE

If the Alarm...	Problem...	You should...
Horn "chirps" about once per minute.	Low battery warning.	Install two new AA batteries.*
Horn does three rapid "chirps" every minute.	Device is not working properly, and needs to be replaced.	Units under warranty should be returned to manufacturer for replacement. See "Limited Warranty" for details.
Carbon Monoxide Alarm ONLY: CO Alarm goes back into alarm 4 minutes after the Silence II.	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 non-emergency 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 Consumer Affairs at 1-800-323-9005, M-F 7:30 a.m. to 5:00 p.m. (CST)		

LIMITED WARRANTY

BRK Brands, Inc., ("BRK") the maker of First Alert® brand products warrants that for a period of seven years from the date of purchase, this product will be free from defects in material and workmanship. BRK, at its option, will repair or replace this product or the 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. BRK dealers, service centers, or retail stores selling BRK 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 of improper voltage or current, use contrary to the operating instructions, disassembly, repair or alteration by anyone other than BRK 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.

NOTE: End of Life Signal — Once the unit reaches the end of its life cycle, the malfunction signal sounds once a minute to indicate the need to immediately replace the Alarm.

The End-of-Life Signal can be silenced for up to 2 days.

Do not unplug the alarm or remove the batteries until you get replacement.

The replacement date is the date beyond which the device may no longer detect carbon monoxide and should be immediately replaced.

First Alert USER'S MANUAL

COMBINATION SMOKE & CARBON MONOXIDE ALARM

Features:

- Separate sensors to detect smoke and CO the two alarm systems work independently
- Powered by two "AA" batteries
- Side access drawer for easy battery replacement
- Complies with UL 217, ULC S531 and CSA 6.19-01.

IMPORTANT! PLEASE READ CAREFULLY AND SAVE.

This user's manual contains important information about your Combination Smoke & Carbon Monoxide Alarm. When you are installing this Alarm for use by others, you must leave this manual—or a copy of it—with the end user.

Printed in Mexico M08-0214-000 Q 03/11 Model SC05RVA

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All First Alert® Smoke Alarms conform to regulatory requirements and are designed to detect particles of smoke. 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 larger 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 a couch or bed.

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

INTRODUCTION

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, irrefractors and chimneys grease- and debris-free. 6) Never leave any fire burning 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 floor, and an additional one in the kitchen. Have fire escape ladders or other reliable means of escape from an upper floor in case stairs are blocked.

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.

CAUTION!

This combination Smoke/Carbon Monoxide Alarm has two separate alarms. This CO sensor is designed to detect carbon monoxide gas from any source. It is not designed to detect any other gases. It will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas. The Smoke Alarm will only indicate the presence of smoke that reaches the sensor. The smoke sensor is not designed to sense gas, heat or flames.

WARNING!

- This Smoke/CO 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/CO 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/CO 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.
- This device is designed to protect individuals from the acute effects of carbon monoxide exposure. It will not fully safeguard individuals with specific medical conditions. If it is used by a medical practitioner, individuals with medical conditions that may make them more sensitive to carbon monoxide may consider using a medical device which provides a continuous signal for carbon monoxide concentrations under 30 ppm.

INSTALLATION

WHERE TO INSTALL THIS ALARM

This carbon monoxide alarming device is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect smoke, fire, or any other gases.

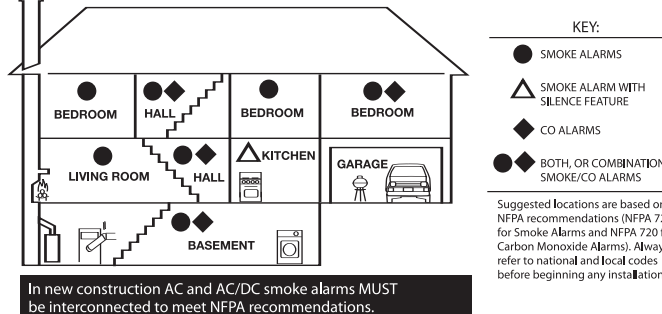
For minimum security, a combination Smoke/CO Alarm should be centrally located outside of each separate sleeping area in the immediate vicinity of the bedrooms. For more security, install additional Alarms in each separate bedroom. The Alarm should be located at least 100 mm (4 inches) from all exterior walls and at least 914 mm (36 inches) from supply or return vents.

For additional protection, install residential combination Smoke/CO 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 at each end. If a hall is more than 12 meters (40 feet) long, install a unit at each end.
- At the top of first-to-second floor stairway, and at the bottom of the basement stairway.
- For additional coverage, install Alarms in all rooms, halls, and storage areas, where temperatures normally remain between 4° C and 38° C (40° F and 100° F).

RECOMMENDED RESIDENTIAL PLACEMENT

SUGGESTED AREAS FOR INSTALLING SMOKE ALARMS, CO ALARMS, AND COMBO UNITS



- When installing on the wall, the top edge of Smoke Alarms should be placed between 102 mm (4 inches) and 305 mm (12 inches) 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 102 mm (4 inches) from where the wall and ceiling meet. See "Avoiding Dead Air Spaces" for more information.
- NOTE:** For any location, make sure no door or other obstruction could keep carbon monoxide or smoke from reaching the Alarm.

WHERE THIS ALARM SHOULD NOT BE INSTALLED

DO NOT locate this Smoke/CO Alarm:

- In very 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 6 meters (20 feet) from the sources of combustion particles (stove, furnace, water heater, space heater) if possible. In areas where a 6 meter (20-foot) distance is not possible—in modular, mobile, RVs, 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 too close to a fuel-burning source. Ventilate these areas as much as possible.
- Within 1.5 meters (5 feet) 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 3 meters (10 feet) 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 insect infested areas. Insects can clog the openings to the sensing chamber and cause unwanted alarms.
- Less than 305 mm (12 inches) away from fluorescent lights. Electrical "noise" can interfere with the sensor.
- In "dead air" spaces. See "Avoiding 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 102 mm (4 inches) from the wall or corner.

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

On a peaked, gabled, or cathedral ceiling, install first Smoke/CO Alarm within 0.9 meters (3 feet) 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.

HORN PATTERN SELECTION FOR SMOKE ALARM OPERATION

When the Alarm detects smoke, the default horn pattern is 3 beeps, pause, 3 beeps. To manually change the horn pattern to 6 beeps, pause, 6 beeps, open the battery drawer (with batteries installed), press and hold the test button down and then close the battery drawer.

To return to the default horn pattern of 3 beeps, pause, 3 beeps: open the battery drawer and then close the battery drawer.

Please Note: When power is disconnected from the Alarm (the battery drawer opened) and then power is restored back to the Alarm, the horn pattern will automatically default back to 3 beeps, pause, 3 beeps.

- In the U.S. the Smoke Alarm horn pattern is 3 beeps, pause, 3 beeps.
- In Canada the Smoke Alarm horn pattern is 6 beeps, pause, 6 beeps.

Always test the Alarm to verify the correct sounding horn pattern for your area.

OPTIONAL LOCKING FEATURES

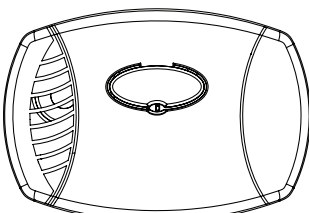
The optional locking features are designed to discourage unauthorized removal of the batteries or Alarm. It is not necessary to activate the locks in single-family households where unauthorized battery or Alarm removal is not a concern.

This Smoke/CO Alarm has two separate locking features: one to lock the battery compartment, and the other to lock 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 • Standard flathead screwdriver.

Both locking features use locking pins, which are molded into the mounting bracket. Depending on which locking features you use, remove one or both pins from the mounting bracket using needle-nose pliers

BATTERY OPERATED CARBON MONOXIDE ALARM WITH SILENCE FEATURE



CONFORMS TO UL STD 2034

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IMPORTANT! PLEASE READ CAREFULLY AND SAVE. This user's manual contains important information about your Carbon Monoxide (CO) Alarm's operation. If you are installing this CO Alarm for use by others, you must leave this manual—or a copy of it—with the end user.

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INTRODUCTION

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 IS NOT A SMOKE ALARM! This CO Alarm is designed to detect carbon monoxide from ANY source of combustion. It is NOT designed to detect smoke, fire, or any other gas.
- This CO Alarm is approved for use in single-family residences. It is NOT designed for marine use.

CAUTION!

- This CO Alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

WARNING!

- 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.
- NEVER ignore your Carbon Monoxide Alarm if it alarms. Refer to "If Your CO Alarm Sounds" for more information. Failure to do so can result in injury or death.
- Test the CO Alarm once a week. If the CO Alarm ever fails to test correctly, have it replaced immediately! If the CO Alarm is not working properly, it cannot alert you to a problem.

- 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.

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 / BRK Brands, Inc., 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.

HOW YOUR CO ALARM WORKS

GENERAL INFORMATION

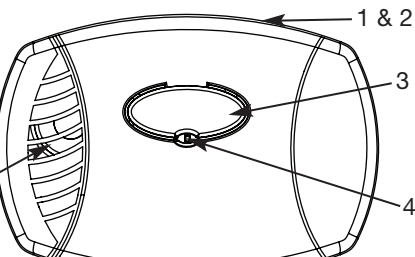
WARNING!

- This CO Alarm does not operate without working batteries. Removing the batteries, or failure to replace them at the end of their service life, removes your protection.

A CO Alarm measures the CO levels in the air. It will alarm if CO levels rise quickly (if the heat exchanger on your furnace breaks, for example), or if CO is consistently present (a slow CO leak on a fuel-burning appliance).

This Carbon Monoxide Alarm features a permanently installed sensor and an 85 dB alarm horn. It also has a silence feature to temporarily quiet the alarm horn.

THE PARTS OF YOUR CO ALARM



- Open door (in back)
- Battery Compartment (in back)
- Test/Silence Button
- POWER/ALARM Light (RED)
- Behind Cover Alarm Horn: 85dB audible alarm for test, alarm, and unit malfunction warning.

UNDERSTANDING YOUR CO ALARM

ALARM RECEIVING BATTERY POWER

Light flashes every minute. Horn is silent.

LOW BATTERY WARNING

The light continues to flash (RED) and the horn also "chirps" once every minute. This warning should last for up to 7 days, but you should replace the battery as soon as possible.

DURING TESTING

Light flashes Red in sync with the horn pattern (4 beeps, pause, 4 beeps), simulating a CO Alarm condition.

CO ALARM

Sensor has detected enough CO to trigger an alarm. Light flashes rapidly and horn sounds loudly (repeating 4 beeps, pause). See "If Your CO Alarm Sounds" for details. During an alarm, move everyone to a source of fresh air. DO NOT move the CO Alarm!

CO ALARM REQUIRES SERVICE (MALFUNCTION SIGNAL)

The light flashes (RED) and the horn sounds 3 "chirps" every minute. CO Alarm needs to be replaced.

CO ALARM HAS REACHED ITS END OF LIFE

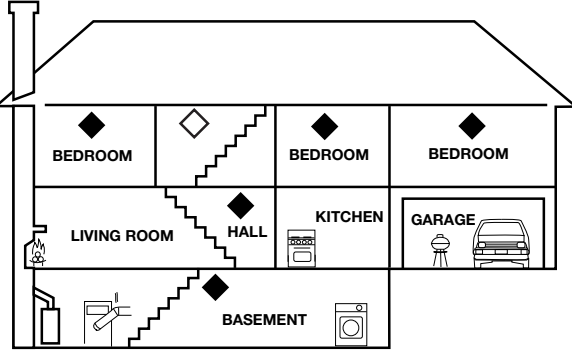
The light flashes (RED) and the horn sounds 5 "chirps" every minute. CO Alarm needs to be replaced.

INSTALLATION

WHERE TO INSTALL 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.

If your bedroom hallway is longer than 40 feet (12 meters), install a CO Alarm at BOTH ends of the hallway.



REQUIRED TO MEET NFPA RECOMMENDATIONS

SUGGESTED AREAS FOR INSTALLING ADDITIONAL CO ALARMS

In a Single-level Home:

- Install at least one CO Alarm near or within each separate sleeping area.
- For added protection, install an additional CO Alarm at least 20 feet (6 meters) away from the furnace or fuel burning heat source.

In a Multi-level Home:

- Install at least one CO Alarm near or within each separate sleeping area.
- For added protection, install at least one CO Alarm on each level of the home.
- For added protection, install an additional CO Alarm at least 20 feet (6 meters) away from the furnace or fuel burning heat source.

In Mobile Homes:

- Install CO Alarms on inside walls ONLY. Uninsulated outside walls and roofs of mobile homes often transfer heat and cold from outdoors. The Alarm should be located at least 6 inches (152 mm) from all exterior walls and at least 12 inches (305 mm) from supply or return vents.

WHERE CO ALARMS SHOULD NOT BE INSTALLED

DO NOT LOCATE THIS CO ALARM:

- In garages, kitchens, furnace rooms, or in any extremely dusty, dirty or greasy areas.
- Closer than 20 feet (6 meters) from a furnace or other fuel burning heat source, or fuel burning appliances like a water heater.
- Within 5 feet (1.5 meters) of any cooking appliance.
- In extremely humid areas. This alarm should be at least 10 feet (3 meters) from a bath or shower, sauna, humidifier, vaporizer, dishwasher, laundry room, utility room or other source of high humidity.
- In areas where temperature is colder than 40° F (4.4° C) or hotter than 100° F (37.8° C). These areas include unconditioned crawl spaces, unfinished attics, uninsulated or poorly insulated ceilings, porches, and garages.
- Turbulent air, like near ceiling fans, heat vents, air conditioners, fresh air returns, or open windows. Blowing air may prevent CO from reaching the sensors.
- Outside the Mobile Home.
- In direct sunlight.

WARNING!

- This CO Alarm is designed for use inside a single-family home or apartment. It is not meant to be used in common lobbies, hallways, or basements of multi-family buildings unless working CO Alarms are also installed in each family living unit. CO Alarms in common areas may not be heard from inside individual family living units.
- This CO Alarm alone is not a suitable substitute for complete detection systems in places which house many people, like hotels or dormitories, unless a CO Alarm is also placed in each unit.
- DO NOT use this CO Alarm in warehouses, industrial or commercial buildings, special-purpose non-residential buildings, or airplanes. This CO Alarm is specifically designed for residential use, and may not provide adequate protection in non-residential applications.

HOW TO INSTALL YOUR CO ALARM

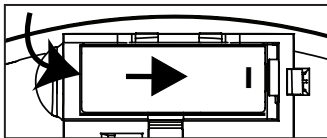
Read "Where To Install Your CO Alarm" before starting.

Before you start installation, find the pair of self-adhesive labels included with this 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 CO Alarm, and the other label in the "fresh air" location you plan to go if the alarm sounds.

INSTALLING THE 9V BATTERY

- Push and lift the battery door down to open.

- Install the 9 volt battery (included) inside the battery compartment as indicated. Make sure the "+" and "-" ends of each battery are aligned properly.



- Ensure battery is securely snapped into terminals by pushing in direction of arrow in the diagram.
- Close the battery door.
- Push and hold the Test/Silence button on the cover until you hear an acknowledge "chirp". The alarm horn will sound 4 beeps, a pause, then 4 beeps. The ALARM (RED) light will flash. The alarm sequence should last 5-6 seconds. If it does not alarm, make sure the battery is correctly installed, and test it again.

TO MOUNT ON THE WALL

Tools you will need: pencil, drill with 3/16" or 5mm drill bit, flathead screwdriver, hammer.

- Choose a location on the wall. Do not install the Alarm closer than 4" (102 mm) from where the wall meets the ceiling.
- Hold the mounting guide template against the wall, and make a mark inside each keyhole where you will drill your mounting hole as shown in the diagram below.
- Use a 3/16" (5 mm) drill bit to drill through the marks you made for the mounting holes.
- Insert the plastic screw anchors into the mounting holes until they are flush with the wall. If necessary, tap them gently with a hammer.
- Insert the screws into the anchors until the screwhead is 1/8 inch (3 mm) away from the wall.
- Slide the CO Alarm onto the screws until you feel it click into place.
- Test the CO Alarm as described in "Weekly Testing."

IF YOUR CO ALARM SOUNDS

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 ALARM SIGNAL SOUNDS:

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

"ALARM-MOVE TO FRESH AIR"

If you hear the alarm horn and the Red light is flashing, move everyone to a source of fresh air. DO NOT disconnect the batteries from the CO Alarm!

WARNING!

Alarms have various limitations. See "General Limitations of CO Alarms" for details.

USING THE SILENCE FEATURE

WARNING!

- 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.
- NEVER remove the batteries from your CO Alarm to silence the horn. Use the silence feature. Removing the batteries removes your protection! See "If Your CO Alarm Sounds" for details on responding to an alarm.

The Silence Feature is intended to temporarily silence your CO Alarm's alarm horn while you correct the problem—it will not correct a CO problem. While the alarm is silenced it will continue to monitor the air for CO.

When CO reaches alarm levels the alarm will sound—repeating horn pattern: 4 beeps, a pause, 4 beeps, etc. Press and hold the Test/Silence button until the horn is silent. The initial Silence cycle will last approximately 4 minutes.

NOTE: After initial 4-minute Silence cycle, the CO Alarm re-evaluates present CO levels and responds accordingly. If CO levels remain potentially dangerous—or start rising higher—the horn will start sounding again.

While the detector is silenced:

If the CO Alarm...	This means...
Is silent for only 4 minutes, then starts sounding loudly—4 beeps, pause, 4 beeps, pause	CO levels are still potentially dangerous.
Remains silent after you pressed the Test/Silence button	CO levels are dropping.

SILENCING THE LOW BATTERY WARNING

This silence feature can temporarily quiet the low battery warning "chirp" for up to 8 hours. You can silence the low battery warning "chirp" by pressing the Test/Silence button. Activation of low battery silence is acknowledged with a "chirp".

After 8 hours, the low battery "chirp" will resume. Replace the batteries as soon as possible; this unit will not operate without battery power!

If you cannot silence the low battery warning, replace the batteries immediately.

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.

TESTING & MAINTENANCE

WEEKLY TESTING

WARNING!

- Test the CO Alarm once a week. If the CO Alarm ever fails to test correctly, have it replaced immediately! If the CO Alarm is not working properly, it cannot alert you to a problem.
 - 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.
- Push and hold the Test/Silence button on the cover until you hear an acknowledge "chirp". The alarm horn will sound 4 beeps, a pause, then 4 beeps. The ALARM (RED) light will flash.
- The alarm sequence should last 5-6 seconds. If it does not alarm, make sure fresh batteries are correctly installed, and test it again. If the unit still does not alarm, replace it immediately.

If the alarm does not test properly:

- Make sure that fresh batteries are installed correctly.
- Be sure the Alarm is clean and dust-free.
- Install a fresh 9 volt battery* and test the Alarm again.

WARNING!

- DO NOT try fixing the Alarm yourself – this will void your warranty! If the CO Alarm is still not operating properly, and it is still under warranty, please see "How to Obtain Warranty Service" in the Limited Warranty. Install a new CO Alarm immediately.
- The Test/Silence button is the only proper way to test the CO Alarm. NEVER use vehicle exhaust! Exhaust may cause permanent damage and voids your warranty.

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

REGULAR MAINTENANCE

To keep the CO Alarm in good working order:

- Test it every week using the Test/Silence button.
- Vacuum the CO Alarm cover once a month, using the soft brush attachment. Never use water, cleaners, or solvents, since these may damage the unit. Test the CO Alarm again after vacuuming.
- Replace the battery when the CO Alarm "chirps" about every minute (the low battery warning).

The low battery warning should last for 7 days, but you should replace the battery immediately to continue your protection.

Choosing a replacement battery:

This CO Alarm requires one standard 9 volt battery. The following batteries are acceptable as replacements: Duracell MK16, Energizer 522, and Ultralife U9VL-J-P. These replacement batteries are commonly available at 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.
- DO NOT spray cleaning chemicals or insect sprays directly on or near the CO Alarm. DO NOT paint over the CO Alarm. Doing so may cause permanent damage.

IMPORTANT!

Household cleaners, aerosol chemicals, and other contaminants can affect the sensor. When using any of these materials near the CO Alarm, make sure the room is well ventilated.

WHAT YOU NEED TO KNOW ABOUT CO WHAT IS CO?

CO is an invisible, odorless, tasteless gas produced when fossil fuels are not burnt completely, or are used 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.

WARNING!

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.

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. BRK Brands, Inc. shall not be obligated to pay for any carbon monoxide investigation or service call.

HOW CAN I PROTECT MY FAMILY?

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.

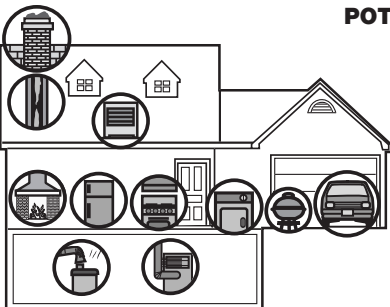
A CO Alarm is not a substitute for proper maintenance of home appliances.

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.

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.

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 of 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.

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.

GENERAL LIMITATIONS OF CO ALARMS

This CO Alarm is intended for residential use. It is not intended for use in industrial applications where Occupational Safety and Health Administration (OSHA) requirements for carbon monoxide detectors must be met.

CO Alarms may not wake all individuals. If children or others do not readily awaken to the sound of the CO alarm, or if there are infants or family members with mobility limitations, make sure that someone is assigned to assist them in the event of an emergency.

CO Alarms will not work without power. This alarm requires one standard 9 volt battery to operate.

CO Alarms for Solar or Wind Energy users and battery backup power systems: AC powered CO Alarms should only be operated with true or pure sine wave inverters. Operating this Alarm with most battery-powered 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.

This CO Alarm will not sense carbon monoxide that does not reach the sensor. This CO Alarm will only sense CO at the sensor. CO may be present in other areas. Doors or other obstructions may affect the rate at which CO reaches the CO Alarm. For this reason, if bedroom doors are usually closed at night, we recommend you install a CO Alarm in each bedroom and in the hallway between them.

CO Alarms may not sense CO on another level of the home. For example, a CO Alarm on the second level, near the bedrooms, may not sense CO in the basement. For this reason, one CO Alarm may not give adequate warning. Complete coverage is recommended. Place CO Alarms on each level of the home.

TROUBLESHOOTING GUIDE		
PROBLEM...	THIS MEANS...	YOU SHOULD...
The light continues to flash (RED) and the horn "chirps" once every minute.	Low battery warning.	Install 1 new 9 volt battery*.
The light flashes (RED) and the horn sounds 3 "chirps" every minute.	MALFUNCTION SIGNAL. CO Alarm needs to be replaced.	CO Alarms under warranty should be returned to manufacturer for replacement. See "Limited Warranty" for details.
The light flashes (RED) and the horn sounds 5 "chirps" every minute.	END OF LIFE SIGNAL. CO Alarm needs to be replaced.	Immediately replace the CO Alarm.
CO Alarm goes back into alarm 4 minutes after you press the Test/Silence button.	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. If not, press the Test/Silence button again and keep ventilating your home.
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 CO Alarms."	Relocate your alarm. If frequent alarms continue, have home rechecked for potential CO problems. You may be experiencing an intermittent CO problem.

*For a list of acceptable replacement batteries, see "Page 4: Regular Maintenance."

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

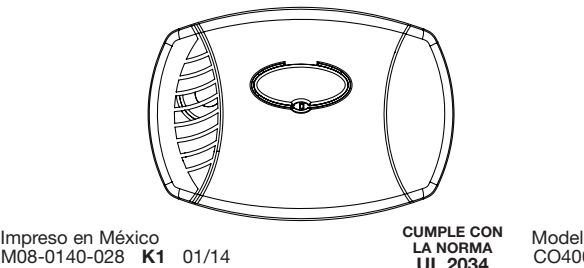
LIMITED WARRANTY

BRK Brands, Inc. ("BRK") the maker of BRK® brand and First Alert® brand products, warrants that for a period of seven years from the date of purchase, this product will be free from defects in material and workmanship. BRK, 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. BRK dealers, service centers, or retail stores selling BRK products do not have the right to alter, modify or in 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 BRK 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.

BRK 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.

DETECTOR DE MONÓXIDO DE CARBONO CON ALIMENTACIÓN POR BATERÍA Y CARACTERÍSTICA DE SILENCIO



Impreso en México M08-0140-028 K1 01/14 CUMPLE CON LA NORMA UL 2034 Modelo CO400

LEA CUIDADOSAMENTE Y CONSERVE ESTAS INSTRUCCIONES: Esta unidad viene con un manual del usuario que contiene importante información sobre su funcionamiento. Si se va a instalar esta unidad para que la usen otras personas, deje el manual o una copia de éste con los usuarios.

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INTRODUCCIÓN

INFORMACIÓN BÁSICA DE SEGURIDAD ¡IMPORTANTE!

- Los Peligros, Advertencias y Precauciones lo alertan sobre situaciones potencialmente peligrosas. Preste atención especial a estos artículos.
- ¡ESTE NO ES UN DETECTOR DE HUMO! Este detector de CO ha sido diseñado para detectar monóxido de carbono de CUALQUIER fuente de combustión. NO ha sido diseñado para detectar humo, fuego, o ningún otro gas.
- El uso de este detector de CO ha sido aprobado para viviendas de una sola familia. NO ha sido diseñado para utilizarse en embarcaciones.

¡PRECAUCIÓN!

- Este detector solamente indicará la presencia de gas de monóxido de carbono en el detector. El gas de monóxido de carbono puede estar presente en otras áreas.

¡ADVERTENCIA!

- La característica de Silencio es solamente para su conveniencia y no corregirá un problema de CO. Inspeccione siempre su casa para detectar un problema potencial después de cualquier alarma. No hacerlo podría causar lesiones o la muerte.
- NUNCA ignore su detector de monóxido de carbono si se activa la alarma. Consulte la sección "SI su detector de CO activa la alarma" para obtener más información. No hacerlo podría causar lesiones o la muerte.

- Haga una prueba del detector una vez por semana. Si el detector falla al hacer la prueba correctamente, ¡hágalo reemplazar inmediatamente! Si el detector no funciona correctamente, no puede alertarlo sobre ningún problema.

- Este producto se ha fabricado para uso en interior, en lugares comunes de viviendas familiares. No está diseñado para medir el acatamiento con las normas comerciales o industriales de la Administración de salud y seguridad ocupacional (OSHA). Individuos con condiciones de salud que pudieran hacerlos más sensibles al monóxido de carbono, podrían considerar usar un dispositivo de señal que provea señales audibles y visuales de monóxido de carbono en concentraciones por debajo de 30 ppm. Para información adicional sobre monóxido de carbono y sus condiciones de salud, consulte a su médico.

Cumplimiento con la FCC

Este equipo ha sido probado y se ha encontrado que opera dentro de los límites para un dispositivo digital Clase B, según la Parte 15 de las reglas de la FCC. Estos límites están diseñados para proporcionar una protección razonable de la interferencia perjudicial en instalaciones residenciales. Este equipo genera, usa y puede irradiar energía de radiofrecuencia y, si no se instala y se usa de acuerdo con las instrucciones, puede causar interferencia perjudicial a las comunicaciones de radio.

Sin embargo, no hay ninguna garantía de que la interferencia no ocurra en una instalación particular. Si este equipo crea una interferencia perjudicial a la recepción de radio o televisión, la cual se puede determinar encendiendo y apagando el equipo, se le alienta al usuario a intentar corregir la interferencia por medio de las siguientes medidas:

- Reorientar o reubicar la antena de recepción.
- Incrementar la distancia entre el equipo y el receptor.
- Conectar el equipo en una toma de un circuito diferente al del receptor.
- Consulte con el concesionario o un técnico de radio o televisión para ayuda.

Advertencia: Los cambios o las modificaciones al producto, no expresamente aprobados por First Alert / BRK Brands, Inc., pueden anular la autorización del usuario de operar el equipo.

Este dispositivo cumple con la Parte 15 de las Reglas de la FCC. La operación está sujeta a las siguientes dos condiciones: (1) este dispositivo no debe causar interferencia perjudicial, y (2) este dispositivo debe de aceptar cualquier interferencia recibida, incluyendo interferencia que pueda causar una operación no deseada.

CÓMO FUNCIONA SU DETECTOR DE CO INFORMACIÓN GENERAL

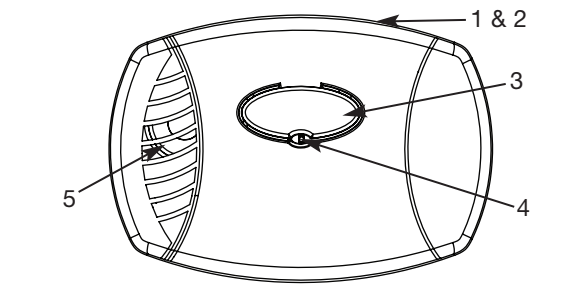
¡ADVERTENCIA!

Este detector de monóxido de carbono no funciona sin baterías. Sacar la baterías, o no reemplazarla al final de su vida útil, elimina la protección.

Los detectores de CO miden los niveles de dicho elemento en el aire. La alarma se activará si el nivel aumenta rápidamente (por ejemplo, si el inteno productor de calor presenta defectos), bien si hay una presencia constante de CO (una fuga leve de CO de un aparato de combustión).

Este detector de monóxido de carbono viene con un sensor de instalación permanente y una alarma de 85 dB. Cuenta también con una característica de silenciamiento para apagar temporalmente la alarma.

PARTES DE ESTE DETECTOR DE CO



- Abra la puerta (en trasera)
- Compartimiento de batería (en trasera)
- Botón silencio/Prueba
- Luz ALARMA/ALIMENTACIÓN (roja)
- (Atrás de la cubierta) Bocina de la alarma: Alarma audible de 85 dB para probar la alarma y advertencia de mal funcionamiento del detector.

ENTENDIENDO SU DETECTOR DE CO

ALARMA RECIBIENDO ALIMENTACIÓN DE BATERÍA

La luz parpadea una vez por minuto. La alarma está silenciosa.

ADVERTENCIA DE BAJA POTENCIA

La luz continúa parpadeando (ROJA) y la bocina también "chirría" una vez por minuto. La advertencia de descarga se prolongará durante 7 días; no obstante, la batería debe reemplazarse lo antes posible.

DURANTE LA PRUEBA

La luz roja parpadea en sincronismo con la bocina (4 pitidos, pausa, 4 pitidos), simulando una condición de alarma de CO.

LA ALARMA DEL CO ESTÁ ACTIVADA

El sensor ha detectado suficiente CO para activar la alarma. La luz parpadea rápidamente y la bocina suena con alto volumen (repetitiva 4 pitidos, pausa). Consulte "Si su detector de CO activa la alarma." Durante a una alarma, lleve a todos a un lugar con aire fresco. No mueva la alarma de CO!

EL DETECTOR NECESITA SERVICIO (AVISO DE FALLA)

La luz parpadea (ROJA) y la bocina emite 3 "chirridos" por minuto. Es necesario reemplazar la alarma de CO.

EL DETECTOR DE CO LLEGÓ AL FIN DE SU VIDA ÚTIL

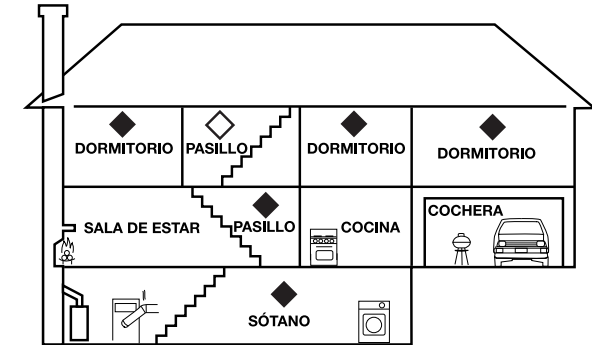
La luz parpadea (ROJA) y la bocina emite 5 "chirridos" por minuto. Es necesario reemplazar la alarma de CO.

INSTALACIÓN

DÓNDE INSTALAR EL DETECTOR DE CO

La Asociación Nacional de Protección Contra Incendios (NFPA) recomienda ubicar el detector de CO en la parte central, fuera de cada área separada de dormitorios e inmediatamente cercana a los dormitorios. Para obtener mayor protección, instale detectores adicionales en cada dormitorio, y en cada nivel de su vivienda.

Instale un detector de CO en AMBOS extremos de cualquier pasillo de los dormitorios que tenga 12 metros (40 pies) o más de longitud.



- Se requiere que cumplan con las recomendaciones
- Sugerencia para la instalación de detectores de CO

Vivienda de un solo nivel:

- Instale, al menos, un detector de CO cerca o dentro de cada dormitorio.
- Para obtener mayor protección, instale un detector adicional por lo menos a 6 metros (20 pies) de un horno o de una fuente de calor que consuma combustible.

Vivienda de varios niveles:

- Instale, al menos, un detector de CO cerca o dentro de cada dormitorio.
- Para mayor protección, instale al menos un detector en cada nivel de la vivienda.
- Para obtener mayor protección, instale un detector adicional por lo menos a 6 metros (20 pies) de un horno o de una fuente de calor que consuma combustible.

En casillas rodantes:

- Instale detectores de CO SÓLO en las paredes interiores. Las paredes exteriores y techos no aislados de los casillas rodantes muchas veces transmiten el frío y el calor desde el exterior. El detector debe colocarse a 15 cm (6 pulgadas) como mínimo de todas las paredes exteriores, y a 30 cm (12 pulgadas) como mínimo de las ventilaciones de suministro o de retorno.

DÓNDE NO DEBEN SER INSTALADOS LOS DETECTORES DE CO

NO INSTALE ESTE DETECTOR:

- En garajes, cocinas o salas de horno, o en toda área con mucho polvo, mugre o grasa.
- A menos de 6 metros (20 pies) de distancia de un horno, de otra fuente de calor, o de artefactos que consumen combustible tales como calentadores de agua.
- A 1,5 metros (5 pies) de cualquier artefacto de cocina.
- En áreas extremadamente húmedas. Este detector debe estar ubicado por los menos a 3 metros (10 pies) de la ducha, sauna, humidificador, vaporizador u otra fuente de gran cantidad de humedad.
- En áreas donde la temperatura es menor de 4,4° C (40° F) o mayor de 37,8° C (100° F). Estas áreas incluyen espacios angostos no terminados, áticos no terminados, techos con pobre aislación o sin aislación, terrazas, y garages.
- En áreas de aire turbulento como ventiladores de cielo raso cercanos, rejillas de calefacción acondicionadores de aire, retornos de aire fresco, o ventanas abiertas. Es posible que el aire disperso el CO antes de que el detector lo pueda detectar.
- Fuera del casilla rodante.
- Bajo luz solar directa.

¡ADVERTENCIA!

- Este detector de CO ha sido diseñado para ser usado dentro de una vivienda para una sola familia o apartamento. No ha sido diseñado para ser usado en espacios comunes, pasillos, o sótanos de edificios para varias familias a menos que se haya instalado un detector de CO en la unidad de cada familia. Los detectores de CO en áreas comunes pueden no ser escuchados desde el interior de las unidades individuales de cada familia.
- Este detector solo no es un sustituto de un sistema completo de detección en lugares donde viven muchas personas, como hoteles o residencias estudiantiles o pensionados, a menos que se instale un detector de CO en cada unidad.
- NO use este detector de CO en almacenes, edificios industriales o comerciales, edificios no residenciales para propósitos especiales, o aeronaves. Este detector ha sido diseñado específicamente para uso residencial, y puede no ofrecer una protección adecuada en aplicaciones que no sean residenciales.

CÓMO INSTALAR EL DETECTOR

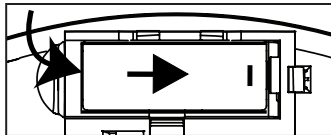
Lea "Donde instalar su detector de CO" antes de comenzar.

Antes de iniciar comienzo su instalación: Busque el par de etiquetas adhesivas incluidas con esta alarma de CO. Escriba en cada etiqueta el número de teléfono de su servicio de emergencia (como 911) y el de un técnico calificado. Ponga una etiqueta junto a la Alarma de CO y la otra en el lugar con "aire fresco" donde piensa ir en caso de que suene la alarma.



INSTALACIÓN DE LA BATERÍA 9V

- Empuje y levante la puerta del batería compartimento para abrirla.
- Instale la 1 batería 9V (incluida) dentro del compartimiento, tal como se indica. Asegúrese de que los extremos "+" y "-" de cada batería queden correctamente alineados.
- Asegure que la batería esté colocada seguramente en las terminales empujando en la dirección de la flecha en el diagrama.
- Cierre la puerta del compartimiento de baterías.
- Presione y mantenga presionado el botón de Prueba/Silencio en la tapa hasta que usted escuche un "chirrido" de reconocimiento. La bocina de la alarma hará 4 bipis, una pausa, luego 4 bipis. La luz de ALARMA (ROJO) parpadeará. La secuencia de alarma debería de durar 5 a 6 segundos. Si no alerta, asegúrese que la batería esté instalada correctamente y vuelva a probar.



MONTAJE MURAL

Herramientas que usted necesitará: lápiz, taladro con 5mm o 3/16 pulg. dígito binario de taladros, destornillador de cabeza lana, martillo.

- Busque una ubicación en la pared. No instale el detector a menos de 10 cm (4 pulg.) de dónde la pared se junta con el cielo raso.
- Mantenga la plantilla de la guía de montaje contra la pared y haga una marca dentro de cada orificio alargado donde perforará el orificio de montaje, como se muestra en el diagrama de abajo.
- Con una broca de 5mm (3/16 pulg.), taladre un orificio en cada centro marcado.
- Introduzca los tarugos de plástico (en la bolsa plástica con tornillos) en los orificios. Si es necesario, golpee suavemente con un martillo las cuñas de los tornillos hasta que éstos queden a ras del cielo a la pared.
- Inserte los tornillos en los anclajes hasta que la cabeza del tornillo quede separada 3 mm (1/8 pulg.) de la pared.
- Deslice la alarma de CO colocándola en los tornillos hasta que encaje en su sitio con un chasquido.
- Pruebe el detector del CO según lo descrito en "Prueba Semanal."

SI SU DETECTOR DE CO ACTIVA LA ALARMA

¡PRECAUCIÓN!

La actuación de su detector de CO indica la presencia de monóxido de carbono (CO), el cual puede ocasionar la muerte. En otras palabras, cuando su detector de CO suene, ¡no debe ignorarlo!

SI SUEÑA LA SEÑAL DE ALARMA:

- Presione el botón de Test/Silencio (Prueba/Silencio).
- Llame a sus servicios de emergencia, departamento de bomberos o 911. Anote aquí el número de su servicio de emergencia:
- Desplácese inmediatamente a donde haya aire fresco - saliendo al exterior o mediante una puerta o ventana abierta. Cuente a sus acompañantes para asegurarse de que no falte ninguna persona. No vuelva a entrar en las instalaciones no aleje de la puerta o ventana abierta, sino hasta que llegue la unidad de servicios de emergencia, las instalaciones hayan sido ventiladas y su detector de humo y CO retorne a su estado normal.
- Después de seguir los pasos 1 a 3, si su detector de gas y CO se vuelve a activar en menos de 24 horas, repita los pasos 1 a 3 y llame a un experto en equipos domésticos para que le ayude a cuál de sus equipos y aparatos de combustión es la fuente de CO y asegúrese de que tales equipos funcionen correctamente. Si se identificaran problemas durante esta inspección, haga que reparen de inmediato el equipo. Tome nota de cualquier equipo de combustión que no haya sido inspeccionado por el técnico y consulte los instructivos del fabricante o bien, comuníquese directamente con el fabricante para obtener mayor información sobre seguridad en cuanto al CO y dicho equipo. Cerciórese de que no existan o hayan existido vehículos automotores en la garaje o en el garaje o junto a la residencia. Anote aquí el número de teléfono de un técnico experto en equipos domésticos:

"ALARMA: ACUDA A UN LUGAR CON AIRE FRESCO" Si escucha la alarma y la luz roja se ilumina intermitentemente, lleve a todos a un lugar con aire fresco. No desconecte el detector.

¡ADVERTENCIA!

Los detectores tienen diversas limitaciones. Consulte "Limitaciones generales de los detectores de CO" para obtener detalles.

USO DE LA CARACTERÍSTICA DE SILENCIO

¡PRECAUCIÓN!

- Haga una prueba del detector una vez por semana. Si el detector falla al hacer la prueba correctamente, ¡hágalo reemplazar inmediatamente! Si el detector no funciona correctamente, no puede alertarlo sobre algún problema.
- NUNCA desconecte su detector para silenciar la alarma. Use la característica de silencio. Desconectar el detector remove su protección, e impide que se reajuste la unidad! Consulte la página anterior para obtener información detallada.

La característica de silenciamiento sirve para apagar temporalmente la alarma del detector de CO mientras se corrige el problema (pero no sirve para corregir un problema de CO). Al silenciarse la alarma, el detector continuará vigilando los niveles de CO en el aire.

Cuando el CO alcanza el nivel de la alarma, el detector activará la alarma (la bocina suena repetidamente de esta manera: 4 pitidos, pausa, 4 pitidos, pausa). Mantenga pulsado el botón Test/Silencio (Prueba/Silencio) del detector de CO hasta que la alarma se apague. El ciclo de silencio inicial debería durar entre 4 minutos.

NOTA: Después del ciclo de silencio inicial de 4 minutos, el detector evalúa los niveles presentes de CO y responde consecuentemente. Si los niveles de CO se mantienen potencialmente peligrosos o continúan aumentando, la alarma se activará nuevamente.

Mientras el detector se encuentra en el modo de silencio:

Si el detector...	Esto significa...
Está en silencio durante 4 minutos solamente y luego empieza a sonar fuertemente	Los niveles de CO siguen siendo potencialmente peligrosos.
Está en silencio durante 4 pitidos, una pausa, 4 pitidos sonoras, pausa	Los niveles de CO siguen bajando.

SILENCIAMIENTO DE LA ADVERTENCIA DE BATERÍA DESCARGADA

Esta característica de silenciamiento puede silenciar temporalmente el "chirrido" de advertencia de batería descargada durante un máximo de 8 horas. Usted puede silenciar el "chirrido" de la advertencia de batería descargada presionando el botón de Test/Silencio (Prueba/Silencio). El dispositivo reconoce la activación de la función de silencio de batería baja con el "chirrido".

Después de 8 horas, el pitido indicador de pilas bajas se reiniciará. Reemplace la baterías tan pronto como sea posible, ya que la unidad no funcionará sin potencia de la batería. Si no puede silenciar la advertencia de batería descargada, reemplace la baterías inmediatamente.

CÓMO SILENCIAR LA SEÑAL DE FIN DE VIDA ÚTIL

Esta función de silencio puede silenciar temporalmente el "chirrido" de advertencia de fin de vida útil durante 2 días. Puede silenciar el "chirrido" de advertencia de fin de vida útil pulsando el botón Test/Silencio. La bocina chirriará, indicando que se activó la función silencio de fin de vida útil. Después de aproximadamente 2 días, se reanudará el "chirrido" de fin de vida útil.

PRUEBA Y MANTENIMIENTO

PRUEBA SEMANAL

¡ADVERTENCIA!

- Haga una prueba del detector una vez por semana. Si el detector falla al hacer la prueba correctamente, ¡hágalo reemplazar inmediatamente! Si el detector no funciona correctamente, no puede alertarlo sobre algún problema.
- No se pare cerca del detector cuando suena la alarma. Este cerca puede ser peligroso para su oído. Cuando realiza la prueba, párese lejos cuando la alarma comienza a sonar.

Pulse y mantenga oprimido el botón Test/Silencio (Prueba/Silencio) de la cubierta hasta que escuche el "chirrido" de reconocimiento. El bocina del detector sonará 4 pitidos, una pausa, entonces 4 pitidos. La alarma luz roja destallará.

La secuencia del detector debe durar 5-6 segundos. Si no alarma, cerciórese de que la baterías esté instalada correctamente, y probarla otra vez. Si la unidad todavía no alarma, sustitúyala inmediatamente.

- Si el detector no completa la prueba correctamente.
- Asegúrese de que las baterías nuevas están instaladas correctamente.
- Asegúrese de que el detector está limpio y sin polvo.
- Instale batería 9V nueva y prueba la alarma nuevamente.

*Ver "Mantenimiento Regular" para la lista de baterías de repuestos.

¡ADVERTENCIA!

- ¡NO intente reparar la unidad por sí mismo, ya que ello anulará la garantía! Si el detector del CO todavía no está funcionando correctamente, y todavía está bajo garantía, vea por favor "Cómo obtener servicio de la garantía" en el capítulo limitado de la garantía. Instale un nuevo detector inmediatamente.
- El botón de prueba/silencio es la única manera correcta de hacer una prueba del detector. ¡No use NUNCA el escape de un vehículo! El escape de un vehículo puede causar daños permanentes y anula su garantía.

*Ver "Mantenimiento Regular" para la lista de baterías de repuestos.

MANTENIMIENTO REGULAR

Para mantener al detector en buenas condiciones:

- Haga una prueba cada semana usando el botón de Test/Silencio (Prueba/Silencio).
- Aspire con cuidado todo el polvo de la cubierta por lo menos una vez al mes, usando el accesorio de escobilla suave del aspirador. Pruebe el aparato prueba/silencio (Test/Silencio) después de aspirar. Nunca use agua, limpiadores o disolventes ya que pueden dañar la unidad.
- Reemplace la batería cuando el detector de CO emita un chirrido una vez por minuto (advertencia de baja potencia).

NOTA: La señal dura hasta 7 días, sin embargo, la unidad se debe reemplazar inmediatamente para asegurar una mayor protección.

Cómo elegir una batería de repuesto:

El detector de CO requiere una batería estándar de 9 voltios. Se pueden usar las siguientes baterías como repuesto: Duracell MN1604, Energizer 522, y Ultralife UV9L -J-F. Estas baterías se venden en tiendas al menudeo.

¡ADVERTENCIA!

- No use utilice las baterías exactas especificadas por este Manual de Usuario. No use baterías recargables. Antes de instalar las baterías limpie los contactos de las baterías y también los del aparato. Instale baterías correctamente en cuanto a la polaridad (+ y -).
- Por favor, desecher o reciclar adecuadamente las baterías usadas, siguiendo todas las regulaciones locales. Consulte con su autoridad local de manejo de desechos o con una organización de reciclaje para encontrar un centro de reciclaje de productos electrónicos en su área. NO DESECHE LAS BATERÍAS EN EL FUEGO. LAS BATERÍAS PUEDEN EXPLOTAR O DERRAMARSE.

¡ADVERTENCIA!

- Mantenga las baterías fuera del alcance de los niños. En el caso de que una batería sea ingerida, contacte inmediatamente a su centro de toxicología, su médico o a la línea de emergencia Nacional de Ingestión de Baterías al 202-625-3333 ya que pueden ocurrir daños graves.
- NO use productos químicos de limpieza ni insecticidas directamente en el detector de CO. NO pinte la cubierta del detector, ya que ello podría causar daños permanentes.

¡IMPORTANTE!

Los productos de aseo para el hogar y otros aerosoles químicos pueden afectar el sensor. Cerciórese de ventilar adecuadamente la habitación al limpiar con dichos productos cerca de la unidad.

LO QUE USTED DEBE SABER ACERCA DEL CO

¿QUÉ ES EL CO?

El monóxido de carbono (CO) es un gas invisible, inodoro e insipido que se genera cuando los combustibles fósiles no se queman por completo o están expuestos al calor (generalmente fuego). Por lo común, los aparatos eléctricos no generan CO.

Tales combustibles son: Madera, carbón mineral, carbón vegetal, aceite, gas natural, gasolina, querosene y propano.

Los equipos domésticos son los principales fuentes de CO. Si no se les da mantenimiento adecuado, están mal ventilados o fallan, las concentraciones de CO pueden aumentar rápidamente. El CO es un verdadero peligro ahora que las casas son más eficientes en cuanto a la conservación de la energía. Las viviendas "hermetizadas" con mayor aislamiento, ventanas selladas y otro tratamiento de impermeabilización pueden "atrapar" el CO en su interior.

SÍNTOMAS DE ENVENENAMIENTO CON CO

Estos síntomas se relacionan con el ENVENENAMIENTO CON CO y deben ser explicados a TODOS los ocupantes de la casa.

Exposición leve: Ligero dolor de cabeza, náusea, vómito, fatiga (síntomas "parecidos al catarró").

Exposición media: Dolor de cabeza punzante, somnolencia, confusión, ritmo cardíaco acelerado.

Exposición extrema: Convulsiones, pérdida del conocimiento, insuficiencia cardíaca y pulmonar. La exposición al monóxido de carbono puede ocasionar daños corporales graves o la muerte.

¡PRECAUCIÓN!

Algunos individuos son más sensibles al CO que otros. Personas que presentan problemas cardíacos o respiratorios, infantes, fetos, madres embarazadas, o adultos mayores que pueden verse afectados más rápidamente por niveles de CO que las personas saludables. Si usted o alguien de su familia es sensible a los niveles de CO, deberá consultar con sus médicos para obtener consejos sobre precauciones adicionales que deberán tomar.

CÓMO UBICAR LA FUENTE DE CO TRAS LA ALARMA

El monóxido de carbono es un gas inodoro e invisible, lo que dificulta a menudo la ubicación de su origen después de una alarma. Estos son unos cuantos de los factores que complican la identificación de las fuentes de CO:

- Casa bien ventilada antes de que llegue el investigador.
- Problemas ocasionados por "corrientes de retroceso".
- Problemas de CO momentáneos debido a circunstancias especiales.

Puesto que el CO puede haberse dispersado para cuando el investigador arrive, a veces es difícil ubicar su origen. BRK Brands, Inc. no está obligada, en modo alguno, a cubrir los gastos de cualquier investigación o solicitud de servicio motivadas por monóxido de carbono.

¿CÓMO PUEDO PROTEGER A MI FAMILIA DEL ENVENENAMIENTO CON CO?

Un detector de CO es un medio de protección excelente. Éste mide el aire y emite una fuerte alarma antes de que las concentraciones de monóxido de carbono sean peligrosas para su familia.

El detector de CO no sustituye el mantenimiento adecuado de los equipos domésticos de combustión.

Para prevenir problemas de CO y disminuir el riesgo de envenenamiento con CO:

- Limpie anualmente las chimeneas y los conductos de tiro. Manténgalos libres de basura, hojas y ridos de aves para permitir el libre flujo del aire. Además, haga que un profesional los revise en busca de indicios de oxidación y corrosión, fisuras o separaciones. Estas condiciones pueden impedir el flujo adecuado del aire y provocar corrientes de retroceso. Juntas "tapas" o cubra una chimenea de modo que se interrumpa el libre flujo del aire.
- Verifique y mantenga anualmente todos los equipos de combustión. Muchas compañías locales de gas y aire acondicionado ofrecen inspecciones de tales equipos mediante el pago de un honorario nominal.
- Inspeccione visualmente con regularidad todos sus equipos de combustión. Revíselos en busca de oxidación excesiva y formación de escamas. Revise también la llama del quemador y las llamas piloto. La llama debe ser azul. Una llama amarilla significa que el combustible no está quemándose por completo y que puede estar generando CO.
- Mantenga cerrada la compuerta del soplador de las calderas. De ser posible, use ventiladores o extractores en todos los equipos de combustión. Cerciórese de que los equipos de combustión expulsen sus gases de escape al exterior. No encienda parrillas de carbón en el interior de la casa, en un garaje o en un vestíbulo cerrado.
- Asegúrese de que no haya corrientes de retroceso en las fuentes de CO. Cerciórese de que la capucha de tiro de las calas no tenga corrientes de retroceso cuando la caldera esté encendida. Busque fisuras en los radiadores de calor de las calderas.
- Revise la casa o el garaje por el lado del muro compartido.
- Mantenga las ventanas y puertas ligeramente abiertas. Si sospecha que se está generando CO dentro de su casa, abra una ventana o una puerta. Abrir ventanas y puertas puede disminuir considerablemente las concentraciones de CO.

Además, conozca en detalle toda la información que le proporcionamos. Lea por completo este manual y cerciórese de haber comprendido lo que debe hacer en caso de que su detector de CO suene.

Equipos de combustión domésticos, como: calentadores portátiles, chimeneas de gas o madera, estufas o parrillas de gas, secadoras de gas.

Ventilación obstruida o insuficiente: tubo de ventilación de un calentador de agua corroído o desconectado, fugas en el conducto o tiro de una chimenea, o fisuras en un radiador de calor, tiro de chimenea obstruido o tapado.

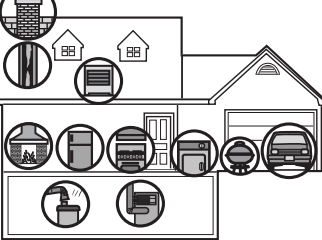
Uso incorrecto de equipos o aparatos: utilizar una parrilla de carbón o encender un vehículo en un lugar encerrado (como un garaje o un vestíbulo cerrado).

Problemas momentáneos de CO: los problemas de CO "transitorios" o intermitentes pueden deberse a condiciones externas u otras circunstancias especiales.

Las siguientes condiciones pueden ocasionar problemas de CO transitorios:

- Desborde excesivo o ventilación inversa de los equipos de combustión debido a condiciones externas como:

POSIBLES FUENTES DE CO EN EL HOGAR



- Dirección y/o velocidad del viento, incluyendo ventarrones fuertes e irregulares. Aire denso en los conductos de ventilación (aire frío y/o húmedo con períodos prolongados entre ciclos).
- Un diferencial de presión negativo como consecuencia del uso de ventiladores de escape.
- Varios equipos o sol funcionan al mismo tiempo complten por una fuente limitada de aire fresco.
- Las conexiones de los conductos de ventilación de secadoras, calderas o calentadores de agua se aflojaron debido a vibraciones.
- Obstrucciones o configuraciones tortuosas de los conductos de ventilación, lo que acrecienta las situaciones de riesgo.
- Operación prolongada de equipos de combustión no ventilados (estufas, hornos o chimeneas).
- Inversiones térmicas que pueden atrapar los gases de escape cerca del suelo.
- Vehículo en marcha al ralentí en un garaje abierto o cerrado, o cerca de la casa.

Estas condiciones son peligrosas porque pueden atrapar los gases de combustión dentro de su casa. Puesto que tales situaciones son impredecibles, también es difícil reproducirlas durante una investigación de CO.

INFORMACIÓN DE REGLAMENTACIÓN PARA DETECTORES DE CO

QUÉ NIVELES DE CO CAUSAN LA ACTIVACIÓN DE LA ALARMA

Según la Norma UL2034 de Underwriters Laboratories, Inc., los detectores de CO tipo residencial deben sonar al estar expuestos a las concentraciones de CO y los tiempos de exposición siguientes. Estos valores se miden en partes por millón (ppm) de CO respecto al tiempo (en minutos).

Puntos de alarma exigidos por la UL2034: