120VAC ~, 60Hz, 0.09A

UNDERSTANDING THE LIGHT AND HORN PATTERNS, Continued

LED flashes rapidly on the unit(s)

that triggered the alarm. LEDs on the other Alarms in the series

LED flashes approximating

LED flashing approximately

Audio Off and LED flashing

after local alarm unless rese

LED flashing 4 seconds On, 2 seconds Off.

by Test/Silence button.

NOTE: Latching features are not active during battery backup mode

synchronized with 3 chirps

synchronized with 5 chirps

**ADDITIONAL FEATURES FOR MODEL CO5120PDBN** 

battery warning

Levels of CO shown

LED flashes 5 times

4 beeps, pause,

4 beeps, pause,

repeating on all CO Alarms

Horn stays quiet

Horn is Silent for

up to 8 hours.

Horn is Silent

Horn is Silent

Horn sounds

every minute

Horn sounds

every minute

, 150, 400" briefly

During initial power

3 chirps

5 chirps

repeating

Horn pattern:

LED (Red Light)

the horn pattern

will not flash

everv minute.

Single CO Alarm

Stand alone Alarm)

ALARM CONDITION

ALARM SILENCE

LOW BATTERY

ALARM LATCH

LOW BATTERY

WITH DIGITAL DISPLAY

USING THE PEAK CO MEMORY

Automatically resets after 24 hours

SMART INTERCONNECT FEATURE

WHERE TO INSTALL CO ALARMS

P9F

on emergency

battery back-up

בחם

The CO Memory Feature lets you check the highest level of CO recorded

Press and release the Test/Silence/Scroll button until the dash scrolls

2. Press and hold Test/Silence/Scroll button to display Memory CO level.

2a. Press and release the Test/Silence/Scroll button until the dash scrolls to

NOTE: The highest CO level will be saved for 24 hours. DO NOT clear the

CO Memory reading if you plan to call someone to investigate a CO problem

Clear the CO Memory reading only after the investigator has checked your home. If the investigator will not arrive within the 24 hour time period before

This CO Alarm includes "Smart Interconnect" which enables the Alarm to be

interconnected with other BRK Smoke and CO Alarms. When interconnected to Smoke Alarms that go into alarm, this CO Alarm will sound the smoke hor

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

If your bedroom hallway is longer than 40 feet (12 meters), install a CO Alarm

KITCHEN

CO Alarms in each separate bedroom, and on every level of your home.

BASEMENT

SURGESTED AREAS FOR INSTALLING ADOPTIONAL OD ALAIBAS

• Install at least one CO Alarm near or within each separate sleeping area.

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. If you have a basement, install that CO Alarm at the top of the

• For added protection, install an additional CO Alarm at least 20 feet

(6 meters) away from the furnace or fuel burning heat source

WHERE CO ALARMS SHOULD NOT BE INSTALLED

In garages, kitchens, furnace rooms, or in any extremely dusty, dirty

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

and thus reduce "unwanted" alarms. Unwanted alarms can occur if a CO Alarm is placed directly next to a fuel-burning source. Ventilate these

rom a bath or shower, sauna, humidifier, vaporizer, dishwasher, laundry

possible — in modular, mobile, or smaller homes, for example — it is recommended the CO 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,

In extremely humid areas. This Alarm should be at least 10 feet (3 meter)

• For added protection, install an additional CO Alarm at least 20 feet

Simeters), away from the furnace or fuel burning heat source

REQUIRED TO MEET HEPA RECOMMENDATION

In a Multi-level Home\_(same as above plus):

Remove all power; unplug the Alarm and remove the battery.

the unit automatically resets, be sure to write down the peak level.

b. Press and hold the Test/Silence/Scroll button until the display shows "CLr."

End of Life -

operation.

on AC power

Malfunction -

during an alarm

To check CO Memory:

to "MEMORY"

To clear CO Memory:

"CLEAR MEMORY."

INSTALLATION

at BOTH ends of the hallway.

In a Single-level Home:

basement stairs.

DO NOT locate this CO Alarm:

areas as much as possible.

Within 5 feet (1.5 meter) of any cooking appliance.

or greasy areas.





AND DIGITAL DISPLAY

Model CO5120PDBN

UL STD 2034

IMPORTANT! PLEASE READ CAREFULLY AND SAVE. This user's manual contains important information about your

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 M08-0002-008 **Q** 04/14 Printed in Mexico

# INTRODUCTION

Thank you for choosing BRK Brands. Inc. for your Carbon Monoxide Alarm needs. You have purchased a state-of-the-art Carbon Monoxide Alarm designed to provide you with early warning of carbon monoxide. Kev features include:

Most Accurate Carbon Monoxide Sensor Advanced electrochemical CO sensor technology

Intelligent Sensing Technology is designed to help reduce unwanted or

Two Silence Features. Temporarily silence low battery chirp for up to eight hours before replacing low battery or silence an unwanted alarm for several Two Latching Features. Alarm Latch: Easily identifies initiating alarm even after alarm condition has subsided. Low Battery Latch: Identifies which unit

is in low battery condition. Smart Interconnect interconnects with most First Alert® and BRK branded smoke, CO and heat alarms. When interconnected with alarming smoke

alarms, unit will sound smoke horn pattern. Dust Cover is included to keep the alarm clean during construction. Easy Installation/Maintenance features include a large opening in the

mounting bracket for easy access to wiring. A battery pull tab keeps the battery fresh until the home is occupied. A Side Load Battery Drawer allows for easy battery replacement without removing the alarm from the ceiling or wall. End of Life Signal. Provides audible and visual confirmation alarm needs to © 2014 BRK Brands, Inc. All rights reserved.

Distributed by BRK Brands, Inc. 3901 Liberty Street Road, Aurora, IL 60504-8122 Consumer Affairs: (800) 323-9005 • www.firstalert.com

# **BASIC SAFETY INFORMATION**

- 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
- 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 or RV use.

### ACAUTION! This CO Alarm will only indicate the presence of carbon monoxide gas

IMPORTANT!

AWARNING

## This unit does not work without power. If the AC power fails, the battery back-up will power the alarm for at least 7 days provided the 9V battery is fresh and correctly installed.

- 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.
- This CO Alarm should receive continuous 120VAC, 60 Hz, pure sine up only). Do not use in an extension cord or outlet controlled by a
- NEVER ignore any alarm. See "If Your CO Alarm Sounds" for more ation on how to respond to an alarm. Failure to respond can result in injury or death.
- Test this Carbon Monoxide Alarm once a week. If it 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 or
- 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 vour 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 redict 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
- 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.

**UNDERSTANDING THE LIGHT AND HORN PATTERNS** 

LED (Red Light)

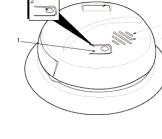
LOW OR MISSING Low battery Latch Pattern BATTERY

On continuously with AC

LED flashes approximating

WARNING: When the AC power is Off, if the battery is dead or missing,

### **HOW YOUR CO ALARM WORKS** The Cover Of Your CO Alarm



DURING TESTING

the CO Alarm cannot work.

(CO5120PDBN only) 2. POWER/ALARM Light (RED)

Test/Silence/Scroll Button

Test/Silence Button or

Air Vents 1. (Behind the Cover) Alarm Horr

Silent

Horn pattern:

Horn "chirps"

4 beeps, pause.

4 beeps, pause

Continued...

room, utility room or other source of high humidity. 85 dB audible alarm for test, alarm, 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 and unit malfunction warning. 5. Digital Display (CO5120PDBN only)

• In turbulent air, like near ceiling fans, heat vents, air conditioner esh air returns, or open windows. Blowing air may prevent CO from reaching the sensors.

In direct sunlight.

### AWARNING 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 commer-

cial buildings, special-purpose non-residential buildings, RVs,

or airplanes. This CO Alarm is specifically designed for residential use, and may not provide adequate protection in non-residentia

## INSTALLATION, continued

**BEFORE YOU BEGIN INSTALLATION** This unit 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. Read "Where to Install CO larms" and "Where Not To Install CO Alarms" before you begin installation. AWARNING

 This Alarm must have AC or battery power to operate. If the AC power fails, the battery back-up will power the Alarm for a short time if the 9V battery is fresh and correctly installed. If AC power fails, and the battery is dead or missing, the Alarm cannot operate.

same circuit or mounted near fluorescent lighting. Excessive noisy

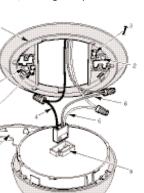
Make sure the alarm is not receiving excessive noisy power Examples of noisy power could be major appliances on the same circuit, power from a generator or solar power, light dimmer on the

ind the pair of self-adhesive labels included with this CO Alarm. • On each label write in the phone number of your emergency responder

power may cause damage to your Alarm

(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.

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."



# PARTS OF THIS CO ALARM

Mounting Bracket Mounting Slot and Screw\* Locking Pins (break out of Hot (Black) AC Wire

Neutral (White) AC Wire Interconnect Wire (Orange) Lever to Open Battery Swing-Out Battery

Quick-Connect Powe \*Not Included

# **HOW TO INSTALL YOUR CO ALARM**

Tools vou will need: Standard Flathead screwdriver ADANGER!

ELECTRICAL SHOCK HAZARD. Turn off power to the area where you will install this unit at the circuit breaker or fuse box before beginning nstallation. Failure to turn off the power before installation may resu n serious electrical shock, injury or death To install this unit:

### Remove the mounting bracket from the base. Position the screw slots on the mounting bracket over the screws in the junction box

Using wire nuts, connect the power connector to the AC power.

# AWARNING

Improper wiring of the power connector or the wiring leading to the wer connector will cause damage to the Alarm and may lead to a

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

Tuck the orange wire inside the junction box. It is used for interconnect only

### INTERCONNECTED ALARMS ONLY Strip off about 1/2" of the plastic coating on the orange interconnect

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 (usual ly 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.

The optional locking features are designed to prevent 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 CO Alarms have two separate locking features: one locks the battery

Tools you will need: • Needle-nose pliers • Standard Flathead screwdriver

Using needle nose pliers remove one or both pins, depending on which locking features you use.

Both locking features use locking pins, molded into the mounting bracket.

compartment, and the other locks the CO Alarm to the mounting bracket.

ou can choose to use either feature independently, or use them both

THE BATTERY COMPARTMENT LOCK

Do not lock the battery compartment until you have

activated the battery and tested the battery back-up.

Activate the battery back-up by removing the "Pull

to Activate Battery Back-Up" tab. Push and hold

he test button on the CO Alarm's cover until you

f the unit does not alarm during testing, DO

near an acknowledge chirp and the alarm sounds:

NOT lock the battery compartment! Install a new battery and test again. If it still does not alarm,

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

the mounting bracket. Failure to turn off the power first may result in serious electrical shock, injury or death.

Remove the CO Alarm from the mounting bracket. If the unit is locked to the bracket, see the section "To Deactivate the Locking Feature."

Disconnect the power connector by gently prying it away from the back

Reconnect the power connector to the back of the CO Alarm, reattach

When replacing the battery, always test the CO Alarm before relocking the

the CO Alarm to the mounting bracket, and restore the power.

power to the area where the CO Alarm is installed before remove

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.)

To relock the battery compartment, close the

pattery door and reinsert the locking pin in the

**ELECTRICAL SHOCK HAZARD.** Turn off the

TO LOCK THE BATTERY COMPARTMENT:

4 beeps, pause, 4 beeps, pause.

replace the CO Alarm immediately.

Using needle-nose pliers, detach one locking pin from the mounting

Push the locking pin through the

of the CO Alarm.

TO UNLOCK THE BATTERY COMPARTMENT:

IMPORTANT!

ADANGER!

black dot on the label on the back

IMPORTANT!

Plug the power connector into the back of the CO Alarm. Position the base of the Alarm over the mounting bracket and turn. The Alarm can be positioned over the bracket every 60°. Turn the unit clockwise (right) until the unit is in place.

Check all connections.

STAND ALONE ALARM ONLY: If you are only installing one unit, restore power to the junction box. INTERCONNECTED ALARMS ONLY:

If you are interconnecting multiple Alarms, repeat Step 1-5 for each Alarm in the series. When you are finished, restore power to the junction box. ADANGER!

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.

6. Make sure the CO Alarm is receiving AC power. Under normal operation, the red indicator light will shine continuously. If the red power indicator light does not light, TURN OFF POWER TO THE JUNCTION BOX and recheck still does not light when you restore the power, the unit should be

### 7. ACTIVATING THE BATTERY BACK-UP IMPORTANT!

Activate the battery back-up by removing the "Pull to Activate Battery Back-Up" tab. You do not need to open the battery compartment and reposition the battery during installation. **DO NOT remove the battery** activation tab until AC power is turned on to conserve battery power

8. Test the CO Alarm. Press and hold the test button on the cover until the alarm sounds: 4 beeps, pause, 4 beeps, pause. In a series of interconnecte Alarms, you must test each Alarm separately by pressing and holding the test button. Make sure all units alarm when each one is tested.

# 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 CO ALARMS AWARNING

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

alone units, especially if the problem starts in a remote area of the dwelling If any unit in the series senses CO, all CO and Smart Interconnect units will alarm. To determine which CO Alarm initiated an alarm, refer to the table On Initiating CO Alarm Red LED Flashes the alarm pattern

Interconnected units can provide earlier warning of a CO problem than stand-

On All Other CO Alarms Red LED Does Not Flash the alarm pattern

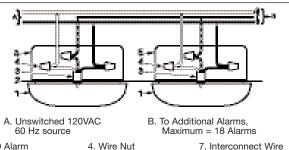
### IMPORTANT! Interconnect units within a single family residence only. Otherwise all house-

holds will experience unwanted alarms when you test any unit in the series all requirements are met. This unit is designed to be compatible with: **BRK Electronics** and **First Alert** Models 7010, 7010B, 7020B, SC7010B. 20B, 9120, 9120B, SC9120B, 100S, SL177, SC7010BV, CO5120BN CO5120PDBN, HD6135F, HD6135FB.

Interconnected units must meet ALL of the following requirements: • A maximum of 18 compatible Smoke, Heat or CO Alarms may be interconnected. No more than 12 of the 18 can be Smoke Alarms per

• The same fuse or circuit breaker must power all interconnected units. • The total length of wire interconnecting the units should be less than 000 feet. This type of wire is commonly available at Hardware and Electrical Supply stores.

 All wiring must conform to all local electrical codes and Articles 210 and 00.3 (B) of the National Electrical Code. Refer to your local building code for further connection requirements.



Neutral Wire (White)

60 Hz source CO Alarm 4. Wire Nut 2. Ceiling or Wall Junction Box

THE MOUNTING BRACKET LOCK

. Using needle-nose pliers, detach one locking

Standard Flathead screwdriver

TO ACTIVATE THE BRACKET LOCK:

pin from the mounting bracket.

Insert the locking pin into the

When you attach the CO Alarm

locking pin's head will fit into a

TO DEACTIVATE THE BRACKET LOCK:

ELECTRICAL SHOCK HAZARD. Turn off the power to the area where the

Always discharge the branch circuit before servicing an AC or AC/DC CO

Next, remove the battery from Alarms with battery back-up. Finally, press and hold the test button.

Alarm. First, turn off the AC power at the circuit breaker or fuse box.

Insert a flathead screwdriver between the mounting bracket pin and the mounting bracket.

Pry the CO Alarm away from the bracket by turning both the screwdriver and the CO Alarm

counterclockwise (left) at the same time.

TO PERMANENTLY REMOVE

Insert the flathead screwdriver

between the locking pin and the lock, and pry the pin out of the lock.

THE BRACKET LOCK:

CO Alarm is installed before removing it from the mounting bracket. Failure to turn off the power first may result in serious electrical shock,

to the mounting bracket, the

lock located on the pivoting

hinge of the battery door.

notch on the bracket

ADANGER!

AWARNING

3. Power Connector

**USING THE LOCKING FEATURES** 

(Orange) 8. Hot Wire (Black)

### which unit is chirping. **WEEKLY TESTING**

IF YOUR CO ALARM SOUNDS

Operate the Test/Silence button to silence the alarm

number of your local emergency service here:

**USING THE SILENCE FEATURES** 

The Silence cycle will last approximately 4 minutes.

start rising higher-the horn will start sounding again.

This means...CO levels are still potentially dangerous.

This means...unit has returned to normal operation

SILENCING THE END OF LIFE SIGNAL

SILENCING THE LOW BATTERY WARNING

possible, to maintain protection in the event of a power outage

After approximately 2 days, the End of Life "chirp" will resume

While the CO Alarm is silenced:

If the CO Alarm ... remains silent ...

silence feature has been activated.

**LATCHING FEATURES** 

out, and your CO Alarm remains in its normal condition

IF THE ALARM SOUNDS:

Actuation of your CO Alarm indicates the presence of carbon monoxide (CO)

which can kill you. When your CO Alarm sounds, you must not ignore it!

2. Call your emergency services, fire department or 911. Write down the

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

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

CO safety and this equipment. Make sure that motor vehicles are not, and

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

NEVER disconnect the power to your CO Alarm to silence the horn—use the silence feature. Disconnecting the CO Alarm removes your protection! See previous page 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 level, the unit will sound—repeating horn pattern: 4 beeps, a pause, 4 beeps, etc. Press and hold the Test/Silence button until the horn is silent.

Alarm is silenced, it will continue to monitor the air for CO. When CO reaches

To silence an interconnected series of Alarms, you must press the Test/

Silence button on the initiating alarm (the unit with the flashing red light).

If you press the Test/Silence on any other Alarm, it will only silence that unit, not the whole interconnected series.

NOTE: After the 4-minute silence cycle, the CO Alarm re-evaluates present CO

levels and responds accordingly. If CO levels remain potentially dangerous—or

If the CO Alarm...is silent for only 4 minutes, then starts sounding loudly -4

This silence feature can temporarily quiet the low battery warning "chirp" for up to 8 hours if AC power is present. Press the Test/Silence button on the

the unit continues to flash the red light once a minute for 8 hours. After 8 hours, the low battery "chirp" will resume. Replace the battery as soon as

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

er approximately 2-3 weeks the End of Life warning cannot be silenced.

Alarm Latch is activated after an Alarm is exposed to alarm levels of carbon

monoxide. This feature will only work with AC power. After CO levels drop below alarm levels, the Red LED will begin to flash On for 2 seconds and Off for 2 seconds. It will continue to flash or "latch" until you clear it by testing

This feature helps emergency responders, investigators, or service technicians

identify which unit(s) in your home were exposed to alarm levels of carbon

Interconnected Alarms. Latching Alarm Indicator shows which Alarm(s) in

The Latching Alarm Indicator stays ON until you clear it, so it can alert you to

a CO Alarm that occurred while you were away from home, even though CO

Off. This feature is designed to help you identify which Alarm needs to have

the battery replaced. Although, the Alarm will sound the low battery chirp approximately once every minute, sometimes during the initial stages of "low

battery", the Alarm will chirp in greater intervals than one minute, sometimes

up to several hours, until the battery reaches a steady low battery level. This innovative feature eliminates the frustration of waiting for and/or identifying

monoxide. This can help investigators pinpoint the source of CO.

Low Battery Latch is activated when the Alarm is in the "low battery

the series were exposed to alarm levels of carbon monoxide

present in the air has dropped below alarm levels.

alarm cover. Once the low battery warning "chirp" silence feature is activated

eeps, then a pause, 4 beeps, then a pause. Red light (LED) continues flashing...

Write down the number of a qualified appliance technician here:

instructions, or contact the manufacturers directly, for more information about

ave not, been operating in an attached garage or adjacent to the residence.

rgency services responder has arrived, the premises have been aired

AWARNING

AWARNING

AWARNING

Push and hold the Test/Silence button until you hear an acknowledge chirp and a loud alarm sounds — 4 beeps, pause, 4 beeps. This sequence should last for 10 seconds. If the Alarm ever fails to test properly, replace it immediately. If the Alarm is not working properly, refer to "Limited Warranty"

# AWARNING

 If the Alarm ever fails to test properly replace it immediately Products under warranty may be returned to the manufacturer for replacement. See "Limited Warranty" at the end of this manual. 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. NEVER use vehicle exhaust! Exhaust may cause permanent damage and voids your warranty.

### REGULAR MAINTENANCE To keep the CO Alarm working properly:

REPLACING THE BATTERY

- Test it every week as described in "Weekly Testing Vacuum the CO Alarm cover at least once a month, using the soft brush attachment. Never use water, cleaners, or solvents, since they may damage the unit. Test the Alarm again after vacuuming.
- Replace the battery immediately when you see/hear the "Low Battery The Low (or Missing) Battery Warning (CO5120PDBN):

### he horn will "chirp" once a minute and the word "bat" will flash on and off on the display.

Choosing a replacement battery: This unit requires one standard 9V alkaline battery. The following alkaline batteries are acceptable as replacements: Duracell MN1604, Energizer 522, Ultralife U9VL-J, and Ultralife U9VL-J-P. nese replacement batteries are commonly available at local retail stores

AWARNING 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 AWARNING

# Keep battery out of reach of children. In the event a battery is

WHAT IS CO?

- swallowed, immediately contact your poison control center, your physician, or the National Battery Ingestion hotline at 202-625-3333 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
- IMPORTANT! Household cleaners, aerosol chemicals and other contaminants car

affect the sensor. When using any of these materials near the CO Alarm,

# ake sure the room is well ventilated

 If your home is being fumigated, unplug the unit temporarily and put it where it will not be exposed to chemicals or fumes. When fumigation is complete and all traces of fumes clear, plug the unit back in and retest it.

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,

Continued...

WHAT YOU NEED TO KNOW ABOUT CO

**HOW CAN I PROTECT MY FAMILY?** WHAT IS CO? Continued 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,

### SYMPTOMS OF CO POISONING

These symptoms are related to CO POISONING and should be discussed

and other weatherproofing can "trap" CO inside

rith 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 CC 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

# 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

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### 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: orroded or disconnected water or flue, or cracked heat exchanger,

eater vent pipe, leaking chimney pipe 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"

water heaters.

a CO investigation.

ADANGER!

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/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
- Obstructions in or unconventional vent pipe designs which can amplify the above situations. Extended operation of unvented fuel burning devices (range, oven, fireplace).

Since these conditions can come and go, they are also hard to recreate during

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

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 waken all individuals. If children or others do not readily waken 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 CO Alarm requires a continuous supply of AC power, and a fresh, correctly installed 9V battery to power the ery back-up. The battery back-up is for emergency use only! 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 CO Alarm with most battery-powered UPS (uninterruptible power supply) products or square wave or "quasi sine wave overters 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

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

# **GENERAL LIMITATIONS OF CO ALARMS** 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 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 CO Alarm is not intended for people who are hearing impaired. CO Alarms are not a substitute for a smoke alarm. Although fire is a source of carbon monoxide, this CO Alarm does not sense smoke or fire. This CO Alarm senses CO that may be escaping unnoticed from malfunctioning

CO Alarms are not a substitute for life insurance. Though these CO Alarms

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 your CO **CO Alarms are not foolproof.** Like all other electronic devices. CO Alarms

The following guide can help you identify a potential problem with the installation or operation of your CO Alarm. **NOTE: It is not meant to be an** 

Problem	If the Alarm	You should
Red light 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.
Red light flashes once a minute (horn is silent). (CO5120PDBN display reads "bat").	Alarm is not receiving AC power.	Unit is operating on DC battery back-up. Check the AC power supply.
The red light flashes and the horn "chirps" once a minute. (CO5120PDBN display flashes "bat").	Low battery warning.	Replace the 9V battery in the battery back-up. Disconnect AC power before changing the battery.
Once a minute, the alarm sounds 3 "chirps", and the red light flashes three times. (CO5120PDBN display reads "Err").	MALFUNCTION SIGNAL. Based on its Self Test diagnostics, the unit has detected a malfunction. The unit needs to be replaced.	Make sure a fresh 9V battery is installed. If unit still isn't functioning– REPLACE IT. Units 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. (CO5120PDBN display reads "End").	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 are still potentially dangerous.	Refer to "If Your CO Alarm Sounds" for details on how to respond to an alarm. If anyone is feeling ill, EVACUATE your home immediately and call 911.
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.

# LIMITED WARRANTY

BRK Brands, Inc., ("BRK") the maker of First Alert® brand products warrants that for a period of ten 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 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 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

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

Battery: BRK Brands, Inc. make no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose

Where Purchased 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

• 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

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

on screen porches. an operating furnace for a backdraft. Look for cracks on furnace heat

• 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

# **UNDERWRITERS LABORATORIES INC. UL2034**

can significantly decrease CO levels.

• 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 lumidity (RH). he 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.

nealthy 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; "Carbor 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 Alarm, and is designed to alarm before CO levels become life threatening. his allows you precious time to leave the house and correct the problem

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 ppm). Values measure gas and vapor concentrations in parts per million

CO Alarms may not sense CO on another level of the home. For example,

furnaces, appliances, or other sources. Early warning of fire requires the installation of smoke alarms.

have limitations. They can only detect CO that reaches their sensors. They may not give early warning to rising CO levels if the CO is coming from a remote part of the home, away from the CO Alarm.

# TROUBLESHOOTING GUIDE

ELECTRICAL SHOCK HAZARD. Turn off the power to the area where the CO 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 serious electrical shock, injury or death

Problem	If the Alarm	You should
Red light 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.
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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, home rechecked for potential CO problems. You make a vaccing an intermittent CO problem.

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

with respect to battery.

Date Installed:

to the outside. Do not use grills or barbecue indoors, or in garages or • Check for exhaust backflow from CO sources. Check the draft hood on

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

# UL2034 Required Alarm Points\*:

a nominal fee.

• 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.

# An exposure to 100 ppm of CO for 20 minutes may not affect average

This is only possible if Alarms are located, installed, and maintained as

alarm resistance to Methane (500 ppm), Butane (300 ppm), Heptane (500 ppm) Ethyl Acetate (200 ppm), Isopropyl Alcohol (200 ppm) and Carbon Dioxide (5000 Audible Alarm: 85 dB minimum at 10 feet (3 meters).

warn against increasing CO levels, BRK Brands, Inc. does not warrant or imply in any way that they will protect lives from CO poisoning. Homeowners and CO Alarms have a limited life. Although the CO Alarm and all of its parts have

all-inclusive list of all CO Alarm conditions. If you are experiencing condition not covered in the next several pages, please contact Cons Affairs.		
	You should	
ng any power.	Check the AC power supply. Make sure the p connector is securely attached to the Alarm. I sure a fresh 9V battery is installed to power th battery back-up.	
AC power.	Unit is operating on DC battery back-up. Che AC power supply.	
	Replace the 9V battery in the battery back-up Disconnect AC power before changing the battery back-up	
AL. Based on its Self Test as detected a malfunction.	Make sure a fresh 9V battery is installed. If un isn't functioning- REPLACE IT. Units under wa should be returned to manufacturer for replace	

does not cover Acts of God, such as fire, flood, hurricanes and tornadoes or any batteries that are included with this unit.

Service: If service is required, do not return the product to your retailer. In order to obtain warranty service, contact the Consumer Affairs Division at 1-800-323-9005, 7:30 AM - 5:00 PM Central Standard Time, Monday through Friday. To assist us in serving you, please have the model number and date of purchase available when calling. For Warranty Service return to: BRK Brands, Inc., 25 Spur Drive, El Paso, TX 79906

Month/Year

a loud alarm before carbon monoxide levels become threatening for average, healthy adults.

A CO Alarm is an excellent means of protection. It monitors the air and sounds

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

Replace alarm 10 years after installation. Please write the date in the For your records, please record:

the alarm or remove the batteries until you get replacement. First Alert® is a registered trademark of the First Alert Trust. Printed in Mexico M08-0002-008 Q 04/14