



SIGNALING



Carbon Monoxide Alarm

User's Guide

Models: **KN-COB-LCB-A**



KN-COB-LCB-A

- 120V AC Plug-In
- 9V Battery Backup
- Tamper Resist Feature

ATTENTION: Please take a few minutes to thoroughly read this user's guide which should be saved for future reference and passed on to any subsequent owner.

What to do When the Alarm Sounds!

Carbon Monoxide Alarm Procedure



WARNING: Activation of the CO Alarm indicates the presence of Carbon Monoxide (CO) which can kill you.

- 1) Operate the Test/Reset button;
- 2) Call your emergency services (Fire Department or 911);

PHONE NUMBER:

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

PHONE NUMBER:

If problems are identified during this inspection, have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturer's instructions, or contact the manufacturer's directly for more information about CO safety and the equipment. Make sure that motor vehicles are not, or have not been, operating in a garage attached or adjacent to the residence.

Never restart the source of a CO problem until it has been corrected. Never ignore the sound of the alarm!

If the alarm is sounding, pressing the test/reset button will terminate the alarm. If the CO condition that caused the alert in the first place continues, the alarm will reactivate. If the unit alarms again within six minutes, it is sensing high levels of CO which can quickly become a dangerous situation.

Welcome

Note: Many times throughout this User's Guide, we will refer to Carbon Monoxide as "CO".


This Kidde carbon monoxide (CO) alarm is an important part of your family's home safety plan. This alarm has been designed and tested to detect CO buildup in a residential environment. Your alarm is for use specifically in the home. As an owner of a CO alarm, there are some basic facts you should know about for your protection.

Many people think that CO alarms operate like smoke alarms. Like smoke alarms, CO alarms monitor the air in your home and sound a loud alarm to warn you of trouble. The way you respond to a CO alarm is quite different than a smoke alarm. That's because a house fire and a CO problem are two distinctly different situations. If your smoke alarm were to alarm, you would quickly be able to judge the level of danger you were in with your senses. You can see and smell the smoke, feel the heat, see, and possibly hear the fire burning. You can also readily see if your smoke alarm is alarming in a non-emergency situation. Because your sense of sight, smell, hearing and touch give you information, you can almost instantly judge what action to take if you hear your smoke alarm.

CO is an invisible, odorless, tasteless and non-irritating gas – completely undetectable to your senses. That's why it is important to your safety that you have a CO alarm.

Important Warning Statements


IMPORTANT: This carbon monoxide alarm is designed to detect carbon monoxide from ANY source of combustion. It is NOT designed to detect smoke, fire, or any other gas.

 **WARNING:** Carbon monoxide alarms are not smoke alarms. This carbon monoxide alarm is not a substitute for installing and maintaining an appropriate number of smoke alarms in your home.


This carbon monoxide alarm will not sense smoke, fire, or any poisonous gas other than carbon monoxide even though carbon monoxide can be generated by fire. For this reason you must install smoke alarms to provide early warning of fire and to protect you and your family from fire and its related hazards.

CAUTION: This alarm will only indicate the presence of carbon monoxide at the sensor. Carbon monoxide may be present in other areas.

Important Warning Statements

 **WARNING:** This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA), commercial or industrial standards. It is not suitable for installation in hazardous locations as defined in the National Electric Code.

The installation of this device should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances, including appropriate ventilation and exhaust systems. It does not prevent CO from occurring, nor can it solve an existing CO problem.

 **WARNING:** This device is designed to protect individuals from acute effects of carbon monoxide exposure. It may not fully safeguard individuals with specific medical conditions. If in doubt, consult a medical practitioner.

Individuals with medical problems may consider using warning devices which provide audible and visual signals for carbon monoxide concentrations under 30 PPM.

This carbon monoxide alarm requires a continuous supply of electrical power – it will not work without power. Models without battery backup will not operate during power failure.

This alarm has not been independently investigated for carbon monoxide detection below 70 PPM.

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1. Information About Carbon Monoxide

General Carbon Monoxide Information

Carbon monoxide is a colorless, odorless and tasteless poison gas that can be fatal when inhaled. CO inhibits the blood's capacity to carry oxygen.

Periodically review this user's guide and discuss your CO alarm emergency procedure with all the members of your family. Never ignore a CO alarm. A true alarm is an indication of potentially dangerous levels of CO. CO alarms are designed to alert you to the presence of CO before an emergency – before most people would experience symptoms of CO poisoning, giving you time to resolve the problem calmly.

Determine if anyone in the household is experiencing symptoms of CO poisoning. Many cases of reported CO poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building or calling for assistance. Also, young children and household pets may be the first affected. You should take extra precautions to protect high-risk persons from CO exposure because they may experience ill effects from CO at levels that would not ordinarily affect a healthy adult.

Symptoms of CO Poisoning

The following common symptoms are related to CO poisoning and should be discussed with ALL members of the household.

Mild Exposure:

Slight headache, nausea, vomiting, fatigue (often described as “flu-like” symptoms).

Medium Exposure:

Severe throbbing headache, drowsiness, confusion, fast heart rate.

Extreme Exposure:

Unconsciousness, convulsions, cardio-respiratory failure, death.

If you experience even mild symptoms of CO poisoning, consult your doctor immediately!

1. Information About Carbon Monoxide

Possible Sources of Carbon Monoxide

Inside your home, appliances used for heating and cooking are the most likely sources of CO. Vehicles running in attached garages can also produce dangerous levels of CO.

CO can be produced when burning any fossil fuel, such as gasoline, propane, natural gas, oil and wood. It can be produced by any fuel-burning appliance that is malfunctioning, improperly installed, or not ventilated correctly, such as:

- Automobiles, furnaces, gas ranges/stoves, gas clothes dryers, water heaters, portable fuel burning space heaters and generators, fireplaces, wood-burning stoves and certain swimming pool heaters.
- Blocked chimneys or flues, back drafts and changes in air pressure, corroded or disconnected vent pipes, loose or cracked furnace exchangers.
- Vehicles and other combustion engines running in an open or closed garage, attached or near a home.
- Burning charcoal or fuel in grills and hibachis in an enclosed area.

Conditions That Can Produce Carbon Monoxide

The following conditions can result in transient CO situations:

- Excessive spillage or reverse venting of fuel-burning appliances caused by outdoor ambient conditions, such as, wind direction and/or velocity, including high gusts of wind, heavy air in the vent pipes (cold/humid air with extended periods between cycles).
- Negative pressure resulting from the use of exhaust fans.
- Simultaneous operation of several fuel-burning appliances competing for limited internal air.
- Vent pipe connections vibrating loose from clothes dryers, furnaces, or water heaters.
- Obstructions in, or unconventional, vent pipe designs which can amplify the above situations.
- Extended operation of unvented fuel-burning devices (range, oven, fireplace, etc.).
- Temperature inversions which can trap exhaust gases near the ground.
- Vehicle idling in an open or closed garage, or near a home.

1. Information About Carbon Monoxide

To be safe, know the possible sources of CO in your home. Keep fuel-burning appliances and their chimneys and vents in good working condition. Learn the early symptoms of exposure, and if you suspect CO poisoning, move outside to fresh air and get emergency help. Your first line of defense is an annual inspection and regular maintenance of your appliances. Contact a licensed contractor or call your local utility company for assistance.

Information About Carbon Monoxide Alarms – What They Can and Cannot Do:

CO alarms provide early warning of the presence of CO, usually before a healthy adult would experience symptoms. This early warning is possible, however, only if your CO alarm is located, installed and maintained as described in this guide.

Because carbon monoxide is a cumulative poison, long-term exposures to low levels may cause symptoms, as well as short-term exposures to high levels. This Kidde unit has a time-weighted alarm – the higher the level of CO present, the sooner the alarm will be triggered.

This CO alarm can only warn you of the presence of CO. It does not prevent CO from occurring, nor can it solve an existing CO problem. If your unit has alarmed and you've provided ventilation by leaving your windows and doors open, the CO buildup may have dissipated by the time help responds. Although your problem may appear to be temporarily solved, it's crucial that the source of the CO is determined and that the appropriate repairs are made.

This CO alarm is designed to act as a monitor; it is not designed for use as a short-term testing device to perform a quick check for the presence of CO.

CO alarms have limitations. Like any other electronic device, CO alarms are not fool-proof. CO alarms have a limited operational life. You must test your CO alarm weekly, because it could fail to operate at any time.

If your CO alarm fails to test properly, or if its self-diagnostic test reveals a malfunction, immediately have the unit replaced. This alarm will not monitor CO levels while in an error condition.

CO alarms can only sense CO that reaches the unit's sensor. It's possible that CO may be present in other areas without reaching the alarm. The rate and ability that which CO reaches the alarm may be affected by:

- Doors or other obstructions.
- Fresh air from a vent, an open window or other source.

1. Information About Carbon Monoxide

- CO being present on one level of the home and not reach a CO alarm installed on a different level. (For example, CO in the basement may not reach an alarm on the second level, near the bedrooms).

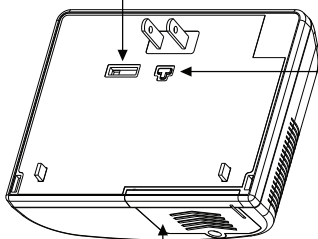
For these reasons, we recommend you provide complete coverage by placing a CO alarm on every level of the home. Please carefully read all information on properly installing this CO alarm.

CO alarms should not be used to detect the presence of natural gas (methane), propane, butane, or other combustible fuels.

2. Product Features and Specifications

Model KN-COB-LCB-A

**Tamper-Resist
Activate Slide**



**Tamper-Resist
Activation Switch**
(see Normal Operating
Characteristics)

**9 Volt
Battery Door**

Screw
(used with Tamper-Resist Feature)

2. Product Features and Specifications

Low Battery Warning

If the 9V battery is missing or battery power is low, the unit will chirp every 15 seconds to indicate the battery must be replaced. If the battery is depleted beyond the point of having the capacity to operate the unit, it will chirp every 30 to 45 seconds and will NOT respond to the test button being pressed if operating on battery power. **THE BATTERY MUST BE REPLACED IMMEDIATELY!**

Tamper-Resist Feature

This is a constant 85dB alert to notify consumers the unit has been unplugged or has come loose from the outlet. THIS FEATURE IS INITIALLY DISABLED AND MUST BE ACTIVATED UPON INSTALLATION TO WORK. To activate the tamper resist feature: Move the Tamper Resist Activate Slide away from the plug. Once enabled, there is a two minute delay when power is supplied to give you time to plug in the unit after activating the battery. This feature is disabled once the battery voltage has reached a level to cause a low battery warning chirp. Pressing the Test/Reset button will defeat the 85dB tamper alarm for two minutes to allow time for the battery to be changed without the alarm sounding. To deactivate the feature, press in the Tamper-Resist Activation switch and move the activate slide towards the switch.

2. Product Features and Specifications

Low Battery HUSH® CONTROL

When the battery needs to be replaced, the unit will produce a low battery warning. The Low Battery HUSH® feature allows you to press the button on the alarm and disable the “chirp” for a random period of up to 12 hours. This gives you a chance to replace the battery at a more convenient time without sacrificing your safety by disconnecting the alarm from power. During this Low Battery HUSH® period, your alarm is monitoring for CO.

IMPORTANT: Ten (10) years after the initial power up, this alarm will “beep” two times every 30 seconds to indicate that it is time to replace the alarm. Replace the alarm immediately! It will not detect CO in this condition.

To help identify the date to replace the alarm, a label has been affixed to the side of the alarm. Write the “replace by” date (ten years from power up) in a permanent marker on this label.

Temperature:

Operating Range: 40°F (4.4°C) to 100°F (37.8°C)

Humidity:

Operating range: 10-95% non-condensing

Audible Alarm:

85+ dB at 10' @ 3.4±0.5 KHz pulsing alarm

Sensor:

Electrochemical

Power:

120 volts AC, 60 Hz, 60 mA max, 9 volt battery back-up

Alarm Response Times:

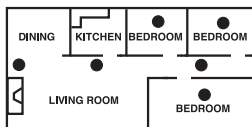
70 PPM = 60-240 min., 150 PPM = 10-50 min., 400 PPM = 4-15 min.

3. Installation Locations

Recommended Installation Locations

CO alarms should be mounted in or near bedrooms and living areas. It is recommended that you install a Kidde CO alarm on each level of your home.

When choosing your installation locations, make sure you can hear the alarm from all sleeping areas. If you install only one CO alarm in your home, install it near bedrooms, not in the basement or furnace room.



Recommended Locations

Locations To Avoid

IMPORTANT: Improper location can affect the sensitive electronic components in this alarm. To avoid causing damage to the unit, to provide optimum performance, and to prevent unnecessary nuisance alarms:

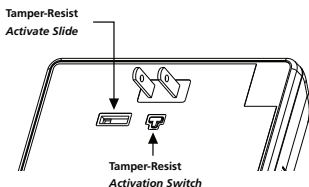
- Do not install in kitchens, garages or furnace rooms that may expose the sensor to substances that could damage or contaminate it.
- Do not install in areas where the temperature is colder than 40°F (4.4°C) or hotter than 100°F (37.8°C) such as crawl spaces, attics, porches and garages.
- Do not install within 5 ft. of heating or cooking appliances. (Kidde recommends 15 ft. to prevent nuisance alarms).
- Do not install near vents, flues, chimneys or any forced/unforced air ventilation openings.
- Do not install near ceiling fans, doors, windows or areas directly exposed to the weather.
- Do not install in dead air spaces, such as peaks of vaulted ceilings or gabled roofs, where CO may not reach the sensor in time to provide early warning.
- Do not install this unit near deep-cell large batteries. Large batteries have emissions that can cause the alarm to perform at less than optimum performance.
- Do not obstruct the vents located on the alarm. Do not place the alarm where drapes, furniture or other objects block the flow of air to the vents.
- Do not install on a switched or dimmer-controlled outlet.
- Children should not be allowed to handle the CO alarm. Make sure the tamper resist feature is activated if children are within reach of the CO alarm.

4. Installation Instructions

How to Install Your Alarm

Direct Plug Alarm To install:

1. Choose a standard 120V unswitched outlet to plug the alarm into.
2. Write the date ten years from installation on the Replace by sticker on the CO alarm.
3. If desired, activate the Tamper Resist switch by moving the Tamper Resist Disable slide away from the Tamper Resist Activation Switch. The tamper resist feature signals a loud 85dB alarm should the unit become unplugged or loose from the outlet. (See Tamper Resist Feature details in the Product Features and Specifications section.)
4. Pull the yellow tab to activate the battery backup.
5. Plug the alarm into the outlet.



Important Labels Provided

Two labels have been provided that have important information on what to do in case of an alarm. Add the phone number of your emergency service provider in the space provided. Place one label next to the alarm after it is mounted, and one label near a fresh air source such as a door or window.

5. Alarm Characteristics

Carbon Monoxide Alarm Indicator

When the alarm senses a dangerous level of CO, the unit will emit a loud alarm pattern. The alarm pattern is 4 quick beeps followed by 5 seconds of silence. This cycle repeats as long as a dangerous CO conditions exist. The red Alarm LED will flash the same pattern.

⚠ WARNING: When powered by battery backup only; after four minutes, the alarm will sound and flash only once every minute, until the alarm is reset or the CO is eliminated.

6. Operating Characteristics

When you first power up the alarm: The alarm will sound briefly, then the green Operate LED will light. This indicates that the CO alarm is receiving power and that the alarm circuit is functioning.

Within a few minutes, your carbon monoxide alarm will start monitoring for CO and will continue to do so as long as it receives power or the end of life function is activated.

When the CO alarm loses power: If you have a good 9V battery installed, the alarm will automatically switch to the battery backup mode and the green LED will flash approximately every 10 seconds. The unit will continue to operate normally and detect CO for at least 20 hours.

When AC power is restored, the alarm will automatically switch back to normal operating mode and the green LED will come on continuously.

When the CO alarm is unplugged: If the unit is unplugged it will produce a constant tone until the battery is removed or the unit is plugged back into the wall unless the Tamper-Resist feature has been deactivated or disabled.

Observe the CO alarm regularly to make sure the green Operate LED is on, indicating normal operation.

If the green Operate LED is not on, unplug the CO alarm, then plug it in again. This will clear the alarm for restart. If the green Operate LED does not light, your CO alarm may be malfunctioning.

When the CO alarm detects an error condition: If the unit detects an internal error or malfunction, it will produce one beep every 30 seconds with a red LED flash. If error condition continues, replace the CO alarm immediately. Unit will not respond to CO in this condition.

7. Maintenance

NOTE: This unit is sealed. The cover is not removable.

Due to the loudness of the alarm, we suggest that you place your fingers over the sounder opening while testing your alarm.


CAUTION: Continuous exposure to the high sound level of this alarm over an extended period of time may cause hearing loss.

Testing

To test the CO alarm, press and release the Test/Reset button, you will hear 4 quick beeps – followed by 5 seconds of silence – followed by 4 quick beeps. Notice the red Alarm LED flashes when the unit alarms. The alarm will then return to monitoring for carbon monoxide.

NOTE: You do not need to press the Test button to take a CO reading.

Battery Replacement

 **WARNING:** If at any time you test the alarm and it does not perform as described, have it replaced immediately.

NOTE: This CO alarm is not battery operated. However, this alarm is equipped with 9 volt battery backup – the 9 volt battery is to supply short term back-up during a power outage.

If installed, the screw holding the battery door in place will need to be removed. Slide the battery door in the direction of the arrows to release it. Remove the battery and replace it with one of the following approved replacement batteries:

- Energizer 522
- Duracell MN1604, MX1604
- GoldPeak 1604P
- Ultralife lithium U9VL-J

Replace the battery door and re-install the screw if desired.

Any of these batteries can be purchased where you bought the alarm or at your local hardware store.

IMPORTANT: Constant exposures to high or low humidity may reduce battery life. A good safety measure is to replace the battery at least once a year, or at the same time as you change your clocks for daylight saving time.

After installing or changing the battery, reinstall your alarm. Test your alarm by using the Test/Reset button and check that the green Operate LED is on.

7. Maintenance


Maintenance Tips

To keep your alarm in good working order, you must follow these steps:

- Test the alarm once a week by pressing the Test/Reset button.
- Vacuum the alarm cover once a month to remove accumulated dust.
- Instruct children never to touch, unplug or otherwise interfere with the unit. Warn children of the dangers of CO poisoning.
- Never use detergents or solvents to clean the alarm. Chemicals can permanently damage or temporarily contaminate the sensor.
- Avoid spraying air fresheners, hair spray, paint or other aerosols near the alarm.
- Do not paint the unit. Paint will seal the vents and interfere with proper sensor operation.

Move the CO Alarm to a remote location, to prevent possible damage or contamination of the sensor, prior to performing any of the following:

- Staining or stripping floors or furniture, painting or wall-papering
- Using aerosols or adhesives

 **WARNING:** Reinstall the CO Alarm as soon as possible to assure continuous protection.

The following is a list of substances that at high levels can damage the sensor or cause temporary readings that are not CO readings:

- Ethylene, ethanol, alcohol, iso-propanol, benzene, toluene, ethyl acetate, hydrogen, hydrogen sulfide and sulfur dioxide.
- Also most aerosol sprays, alcohol based products, paint, thinner, solvent, adhesive, hair spray, after shave, perfume, auto exhaust (cold start) and some cleaning agents.

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

TEN YEAR LIMITED WARRANTY

Warranty Coverage: The manufacturer warrants to the original consumer purchaser, that this product (except battery) will be free of defects in material and workmanship for a period of ten (10) years from date of purchase. The manufacturer's liability hereunder is limited to replacement of the product, repair of the product or replacement of the product with repaired product at the discretion of the manufacturer. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material or workmanship. This warranty extends to the original consumer purchaser of the product only.

Warranty Disclaimers: Any implied warranties arising out of this sale, including but not limited to the implied warranties of description, merchantability and fitness for a particular purpose, are limited in duration to the above warranty period. In no event shall the Manufacturer be liable for loss of use of this product or for any indirect, special, incidental or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The Manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent or consequential damage of any kind resulting from gas leakage, fire or explosion. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of consequential or incidental damages, so the above limitations or exclusions may not apply to you.

Legal Remedies: This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Warranty Performance: During the above warranty period, your product will be replaced with a comparable product if the defective product is returned in a postage paid package to the following address: Kidde, Customer Service Department, 1016 Corporate Park Drive, Mebane, NC 27302 USA, together with proof of purchase date. Please include a note describing the problem when you return the unit. The replacement product will be in warranty for the remainder of the original warranty period or for six months, whichever is longer. Other than the cost of postage, no charge will be made for replacement of the defective product. In many cases the quickest way to exchange your alarm is to return it to the original place of purchase. If you have questions, call Kidde customer service department.

IMPORTANT: Do not remove unit back cover. Back cover removal will void warranty.

Your Kidde Carbon Monoxide Alarm is not a substitute for property, disability, life or other insurance of any kind. Appropriate insurance coverage is your responsibility. Consult your insurance agent.

Also, Kidde makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the battery.

The above warranty may not be altered except in writing signed by both parties hereto.

QUESTIONS OR FOR MORE INFORMATION

Call our Product Support Line at **1-800-880-6788** or contact us at our website at **www.kidde.com**



Kidde, 1016 Corporate Park Drive, Mebane, NC 27302