

**USER'S MANUAL
SMOKE & CARBON
MONOXIDE ALARM**

First Alert

AC Powered Smoke & Carbon Monoxide Alarm

Features:

- Two Latching Features
- Smart Interconnect
- Optipath 360 Technology™
- Two Silence Features
- Alkaline Battery Backup



CONFORMS TO
UL STD 217 &
UL STD 2034
Model SC7010B

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

INTRODUCTION

Thank you for choosing First Alert® for your Smoke and Carbon Monoxide Alarm needs. You have purchased a state-of-the-art Smoke & Carbon Monoxide Alarm designed to provide you with early warning of a fire or Carbon Monoxide. **Key features include:**

- Smoke & Carbon Monoxide Combination Alarm.** One alarm protects against two deadly household threats.
- Spread Spectrum Horn Tone.** Lower and varying horn frequency makes it easier for elderly with normal age related hearing loss to hear horn. Sweeps through the 2200 – 3400 Hz range.
- Smart Interconnect** can be interconnected to BRK Smoke, CO, and Heat Alarms. One interconnect wire carries both smoke and CO alarm signals.
- Optipath 360 Technology™** provides 360 degrees of direct access to the smoke sensor.
- Single Button Test/Silence** eliminates confusion. Depending on what mode the alarm is in, pushing the button provides different functions such as testing the alarm, silencing the alarm, re-testing the alarm when in silence and clearing the Latching features.
- Two Silence Features.** Temporarily silence low battery chirp for up to eight hours before replacing low battery or silence an unwanted alarm for several minutes.
- 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.
- Perfect Mount System** includes a gasketless base for easy installation and a mounting bracket that keeps the alarm secure over a wide rotation range to allow for perfect alignment.
- 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 that 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 confirmation alarm needs to be replaced.
- Improved UV Resistance** keeps the alarm from discoloring over time.

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Consumer Affairs: (800) 323-9005 • www.firstalert.com

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

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

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

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

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

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

- ⚠ WARNING!**
- This unit will not alert hearing impaired residents. It is recommended that you install special units which use devices like flashing strobe lights to alert hearing impaired residents.
 - Installation of this unit must conform to the electrical codes in your area: Articles 210 and 300.3 (B) of NFPA 70 (NEC), NFPA 72, NFPA 101; SBC (SBC/C); UBC (UBC); NBC (BOCA); OTFDC (CABO), and any other local or building codes that may apply. Wiring and installation must be performed by a licensed electrician. Failure to follow these guidelines may result in injury or property damage.
 - This unit must be powered by a 24-hour, 120VAC pure sine wave 60Hz circuit. Be sure the circuit cannot be turned off by a switch, dimmer, or ground fault circuit interrupter. Failure to connect this unit to a 24-hour circuit may prevent it from providing constant protection.
 - This Alarm must have AC or battery power to operate. If the AC power fails, battery back-up will allow the alarm to sound for at least 4 minutes. If AC power fails and the battery is weak, protection should last for at least 7 days. If AC power fails and the battery is dead or missing, the alarm cannot operate.
 - Never disconnect the power from an AC powered unit to stop an unwanted alarm. Doing so will disable the unit and remove your protection. In the case of a true unwanted alarm open a window or fan the smoke away from the unit. The alarm will reset automatically when it returns to normal operation. Never remove the batteries from a battery operated unit to stop an unwanted alarm (caused by cooking smoke, etc.). Instead open a window or fan the smoke away from the unit. The alarm will reset automatically.

- ⚠ CAUTION!**
- Connect this unit ONLY to other compatible units. See "How To Install This Smoke Alarm" for details. Do not connect it to any other type of alarm or auxiliary device. Connecting anything else to this unit may damage it or prevent it from operating properly.
 - This Smoke/CO Alarm has a battery drawer which resists closing unless a battery is installed. This warns you the unit will not operate under DC power without a battery.
 - Do not stand too close to the unit when the alarm is sounding. It is loud to wake you in an emergency. Exposure to the horn at close range may harm your hearing.
 - Do not paint over the unit. Paint may clog the openings to the sensing chambers and prevent the unit from operating properly.

INSTALLATION

WHERE TO INSTALL THIS ALARM

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

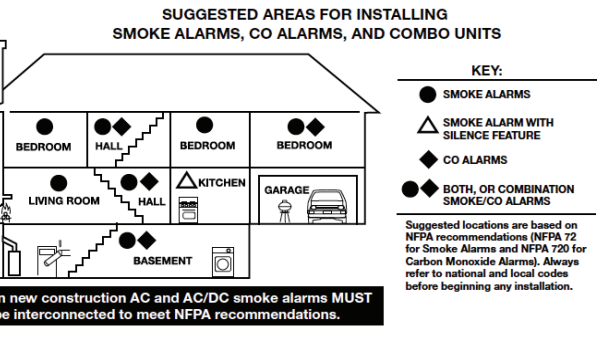
For CO Alarms, the National Fire Protection Association (NFPA) recommends that a CO Alarm should be centrally located outside of each separate sleeping area in the immediate vicinity of the bedrooms. For added protection, install additional CO Alarms in each separate bedroom, and on every level of your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

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

In general, install combination Smoke and Carbon Monoxide Alarms:

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

RECOMMENDED PLACEMENT



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

Installing Smoke/CO Alarms in Mobile Homes

For minimum security install one Smoke/CO Alarm as close to each sleeping area as possible. For more security, put one unit in each room. Many older mobile homes (especially those built before 1978) have little or no insulation. If your mobile home is not well insulated, or if you are unsure of the amount of insulation, it is important to install units on inside walls only.

WHERE THIS ALARM SHOULD NOT BE INSTALLED

Do NOT locate this Smoke/CO Alarm:

- In garages, furnace rooms, crawl spaces and unfinished attics. Avoid extremely dusty, dirty or greasy areas.
- Where combustion particles are produced. Combustion particles form when something burns. Areas to avoid include poorly ventilated kitchens, garages, and furnace rooms. Keep units at least 20 feet (6 meters) from the sources of combustion particles (stove, furnace, water heater, space heater) if possible. In areas where a 20-foot (6 meter) distance is not possible – in modular, mobile, or smaller homes, for example – it is recommended the Smoke Alarm be placed as far from these fuel-burning sources as possible. The placement recommendations are intended to keep these Alarms at a reasonable distance from a fuel-burning source, and thus reduce "unwanted" alarms. Unwanted alarms can occur if a Smoke Alarm is placed directly next to a fuel-burning source. Ventilate these areas as much as possible.
- Within 5 feet (1.5 meters) of any cooking appliance. In air streams near kitchens. Air currents can draw cooking smoke into the smoke sensor and cause unwanted alarms.
- In extremely humid areas. This Alarm should be at least 10 feet (3 meters) from a shower, sauna, humidifier, vaporizer, dishwasher, laundry room, utility room, or other source of high humidity.
- In direct sunlight.
- In turbulent air, like near ceiling fans or open windows. Blowing air may prevent CO or smoke from reaching the sensors.
- In areas where temperature is colder than 40° F (4.4° C) or hotter than 100° F (37.8° C). These areas include non-airconditioned crawl spaces, unfinished attics, uninsulated or poorly insulated ceilings, porches, and garages.
- In insect infested areas. Insects can clog the openings to the sensing chamber.
- Less than 12 inches (305 mm) away from fluorescent lights. Electrical "noise" can interfere with the sensor.
- In "dead air" spaces. 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 4 inches (102 mm) from the wall or corner.

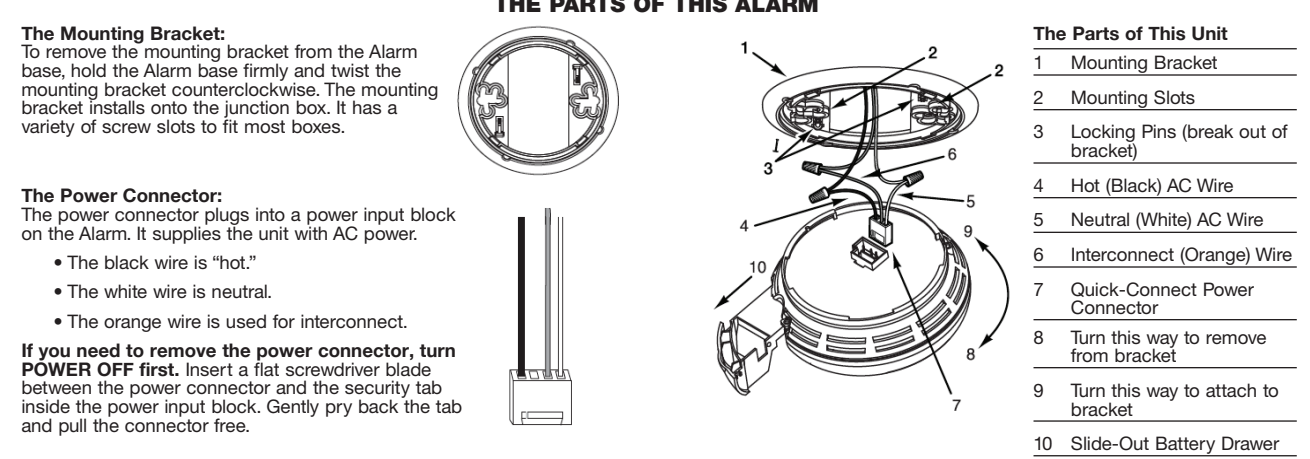
For wall mounting (if allowed by building codes), the top edge of Smoke/CO Alarms should be placed between 4 inches (102 mm) and 12 inches (305 mm) from the wall/ceiling line, below typical "dead air" spaces.

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

HOW TO INSTALL THIS SMOKE/CO ALARM

This Smoke/CO Alarm is designed to be mounted on any standard wiring junction box up to a 4-inch (10 cm) size, on either the ceiling or wall (if allowed by local codes). Read "Where to Install This Alarm" and "Where This Alarm Should Not Be Installed" before you begin installation.
Tools you will need: • Needle-nose pliers or utility knife • Standard flathead screwdriver • Wire strippers.

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



FOLLOW THESE INSTALLATION STEPS

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

⚠ DANGER!
ELECTRICAL SHOCK HAZARD. Turn off power to the area where you will install this unit at the circuit breaker or fuse box before beginning installation. Failure to turn off the power before installation may result in serious electrical shock, injury or death.

- Remove the mounting bracket from the base, and attach it to the junction box.
- Using wire nuts, connect the power connector to the household wiring.

STAND-ALONE ALARM ONLY:

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

INTERCONNECTED UNITS ONLY:

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

- Plug the power connector into the back of the Alarm.
- Activate the battery back-up by removing the "Pull to Activate Battery Back-Up" tab. Or, install battery back-up. Battery back-up cannot work until you install the battery in the correct position (Match "+" to "+" and "-" to "-").
- Position the base of the Alarm over the mounting bracket, and turn the Alarm clockwise (right) until the unit is in place. If wall mounted, adjust unit so words are level.
- Check all connections.

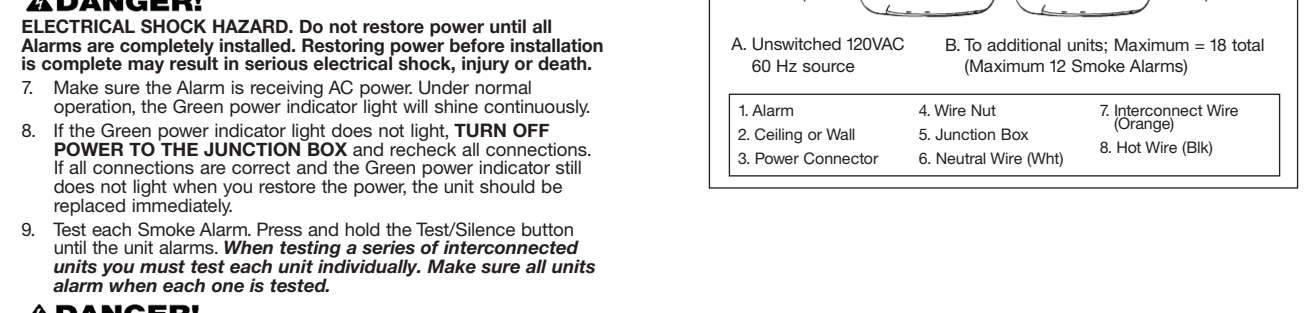
⚠ WARNING!
Improve wiring of the power connector or the wiring leading to the power connector will cause damage to the Alarm and may lead to a non-functioning Alarm.

STAND-ALONE ALARM ONLY:

- If you are only installing one Alarm, restore power to the junction box.

INTERCONNECTED UNITS ONLY:

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



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

WEEKLY TESTING

- ⚠ WARNING!**
- NEVER use an open flame of any kind to test this unit. You might accidentally damage or set fire to the unit or to your home. The built-in test switch accurately tests the unit's operation as required by Underwriters Laboratories, Inc. (UL). NEVER use vehicle exhaust! Exhaust may cause permanent damage and voids your warranty.
 - 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.

⚠ CAUTION!
It is important to test this unit every week to make sure it is working properly. Using the test button is the recommended way to test this Smoke/CO Alarm. You can test this Smoke/CO Alarm by pressing and holding the Test/Silence button on the Alarm cover.

- During testing, you will see and hear the following sequence:
- The Horn will sound 3 beeps, pause, 3 beeps. The Power/Smoke LED flashes Red and the CO LED will be Off.
 - Next the Horn will sound 4 beeps, pause, 4 beeps. The Power/Smoke LED will be Off and the CO LED flashes Red.

If the unit does not alarm, make sure the batteries are correctly inserted and test again. If the unit still does not alarm, replace it immediately.

LOCKING FEATURES

The 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. These Alarms have two separate locking features: one to lock the battery compartment, and the other to lock the 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. Using needle-nose pliers, remove one or both pins from the mounting bracket, depending on how many locking features you want to use.

IMPORTANT!
To permanently remove either lock, insert a flathead screwdriver between the locking pin and the lock, and pry the pin out of the lock.

TO LOCK THE BATTERY COMPARTMENT
Do not lock the battery compartment until you have installed the battery and tested the battery back-up.

- Push and hold Test/Silence button until the alarm sounds.

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

- Using needle-nose pliers, detach one locking pin from the mounting bracket.
- Push the locking pin through the hole near the battery drawer on the back of the Alarm.

TO UNLOCK THE BATTERY COMPARTMENT
IMPORTANT!
Once the Alarm is installed, you must disconnect it from the AC power before unlocking the battery compartment.

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

⚠ WARNING!
Always discharge the branch circuit before servicing an AC or AC/DC Alarm. First, turn off the AC power at the circuit breaker or fuse box. Next, remove the battery from Alarms with battery back-up. Finally, press and hold the Test/Silence button for 5-10 seconds to discharge the branch circuit.

- Remove the Alarm from the mounting bracket. If the unit is locked to the bracket, see the section "To Unlock the Mounting Bracket."
- Disconnect the power connector by gently prying it away from the back of the Alarm.
- 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 relocate the battery compartment, save the locking pin.)
- To unlock the battery compartment, close the battery door and reinsert locking pin in lock.
- Reconnect the power connector to the back of the Alarm, reattach the Smoke Alarm to the mounting bracket, and restore the power.

TO LOCK THE MOUNTING BRACKET

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

- Insert the locking pin into the lock located opposite from the battery drawer as shown in the diagram.
- When you attach the Alarm to the mounting bracket, the locking pins head will fit into a notch on the bracket.

WHAT YOU WILL SEE AND HEAR WITH THIS ALARM

Under Normal Operations

Horn: Silent Power/Smoke LED: Constant Green CO LED: Off

When You Test the Alarm

Horn: 3 beeps, pause, 3 beeps
Power/Smoke LED: Flashes Red in sync with the horn pattern
CO LED: Off, followed by
Horn: 4 beeps, pause, 4 beeps
Power/Smoke LED: Off
CO LED: Flashes Red in sync with the horn pattern

If Battery Becomes Low or is Missing

Horn: chirps once a minute
Power/Smoke LED: Flashes Green On for 2 seconds/Off for 2 seconds. Low Battery Latch is now engaged.
CO LED: Off

If Alarm is Not Operating Properly (MALFUNCTION SIGNAL)

Horn: 3 chirps every minute
Power/Smoke LED: 3 Flashes approximately once a minute
CO LED: Off

Alarm has reached its End of Life

Horn: 5 chirps every minute
Power/Smoke LED: 5 Flashes approximately once a minute
CO LED: Off

Alarm Levels of CO are Detected

Horn: 4 beeps, pause, 4 beeps*
Power/Smoke LED: Off
CO LED: During Alarm: Flashes Red in sync with the horn pattern. After Alarm: Flashes Red On for 2 seconds/Off for 2 seconds. CO Alarm Latch is now engaged.

*NOTE: If unit goes into CO alarm, the regular 4 beeps-brief pause cycle will repeat for fifteen minutes. After fifteen minutes, the pause will increase to one minute.

Smoke is Detected

Horn: 3 beeps, pause, 3 beeps
Power/Smoke LED: During Alarm: Flashes Red in sync with the horn pattern. After Alarm: Flashes Red On for 2 seconds/Off for 2 seconds. Smoke Alarm Latch is now engaged.
CO LED: Off

Smoke Alarm is Silenced Horn: Off Power/Smoke LED: Flashes Red CO LED: Off	CO Alarm is Silenced Horn: Off Power/Smoke LED: Off CO LED: Flashes Red
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- To replace the batteries (without removing Alarm from the ceiling or wall):**
- Open the battery compartment.
 - Press tabs A and B as shown in the diagram and remove each battery.
 - Insert the new batteries, making sure they snap completely into the battery compartment. Match the terminals on the ends of the batteries with the terminals on the unit.
 - Close the battery compartment, and then test the unit by pressing the Test/Silence button.

