

USER'S MANUAL Smoke Alarms



AC Powered Ionization Smoke Alarm with Silence and Latching Features

Model 9120
Input: 120V AC ~, 60 Hz, 0.04A

AC Powered Ionization Smoke Alarm with Battery Back-up, Silence and Latching Features

Model 9120B
Input: 120V AC ~, 60 Hz, 0.04A

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

INTRODUCTION

Thank you for choosing BRK Brands, Inc. for your Smoke Alarm needs. You have purchased a state-of-the-art Smoke Alarm designed to provide you with early warning of a fire.

Key features include:
• **Smart Technology** designed to help reduce unwanted or nuisance alarms.
• **Single Button Test/Silence** eliminates confusion. Depending on what mode the alarm is in, pushing the button performs different functions such as testing the alarm, silencing the alarm, re-testing the alarm when in silence and clearing the Latching feature.

Latching Alarm Indicator easily identifies initiating alarm even after the alarm condition has subsided.
• **Perfect Mount System** includes a gasketless base for easy installation and a new 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 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 (Model 9120B only).

Improved UV Resistance keeps the alarm from discoloring over time.
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All First Alert and BRK® Smoke Alarms conform to regulatory requirements, including UL 217 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.

FIRE SAFETY TIPS

Follow safety rules and prevent hazardous situations: 1) Use smoking materials properly. Never smoke in bed. 2) Keep matches or lighters away from children. 3) Store flammable materials in proper containers. 4) Keep electrical appliances in good condition and don't overload electrical circuits. 5) Keep stoves, barbecue grills, fireplaces and chimneys grease-and-debris-free. 6) Never leave anything cooking on the stove unattended. 7) Keep portable fire extinguisher on every floor, and in addition to one in the kitchen. Have fire escape ladders or other reliable means of escape from an upper floor in case stairs are blocked.

BEFORE YOU INSTALL THIS SMOKE ALARM

Important! Read "Recommended Locations for Smoke Alarms" and "Locations to Avoid for Smoke Alarms" before beginning. This unit monitors the air around the alarm, not the fire's sensing chamber. It alarms. It can give you more time to escape before fire spreads. This unit can ONLY give an early warning of developing fires if it is installed, maintained and located where smoke can reach it, and where all residents can hear it, as described in this manual. This unit will not sense gas, heat, or flame. It cannot prevent or extinguish fires.
Understand The Different Type of Smoke Alarms
Battery powered or electrical? Different Smoke Alarms provide different types of protection. See "About Smoke Alarms" for details.
Know Where to Install Your Smoke Alarms
Fire safety professionals recommend at least one Smoke Alarm on every level of your home, in every bedroom, and in every bedroom hallway or separate sleeping area. See "Recommended Locations for Smoke Alarms" and "Locations to Avoid for Smoke Alarms" for details.
Know What Smoke Alarms Can and Can't Do
Smoke Alarm can help alert you to fire, giving you precious time to escape. It can only sound an alarm once smoke reaches the sensor. See "Limitations of Smoke Alarms" for details.
Check Your Local Building Codes
This Smoke Alarm is designed to be used in a typical single-family home. It alone will not meet requirements for boarding houses, apartment buildings, hotels or motels. See "Special Compliance Considerations" for details.

ADANGER!

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

WARNING!

- This unit will not alert hearing impaired residents. It is recommended that you install special units which use devices like flashing strobe lights to alert hearing impaired residents.
- Installation of this unit must conform to the electrical codes in your area: Articles 210 and 300.3 (B) of NFPA 70 (NEC), NFPA 72, NFPA 101; ICC; SBC (SBC/C); UBC (IBC/B); NBC (BOCA); OTDCC (CABO), and any other local or building codes that may apply. Wiring and installation must be performed by a licensed electrician. Failure to follow these guidelines may result in injury or property damage.
- This unit must be powered by a 24-hour, 120V AC pure sine wave 60 Hz circuit. Be sure the circuit cannot be turned off by a switch, dimmer, ground fault circuit interrupter. Failure to connect this unit to a 24-hour circuit may prevent it from providing constant protection. Unit may be connected to an arc fault circuit interrupter.
- This Smoke Alarm must have AC or battery power to operate. If the AC power fails, battery back-up will allow the alarm to sound for at least 4 hours. If AC power fails and the battery is weak, protection should last for up to 7 days. If AC power fails and the battery is dead or missing, the alarm cannot operate.
- Never disconnect the power from an AC powered unit to stop an unwanted alarm. Do not disconnect the circuit breaker or turn off a switch. The alarm still does not alarm, replace it immediately.
- Using needle-nose pliers or a utility knife, detach one locking pin from the mounting bracket.

ADANGER!

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 fire detection device. Connecting anything else to this unit may damage it or prevent it from operating properly.

ADANGER!

The battery compartment resists closing unless a battery is installed. This means you will not be able to operate under DC power without a battery. Do not paint over the unit. Paint may clog the openings to the sensing chamber and prevent the unit from operating properly.

HOW TO INSTALL THIS SMOKE ALARM

This Smoke Alarm is designed to be mounted on any standard wiring junction box to a 4-inch (10 cm) size, on either the ceiling or wall. Read "Recommended Locations For Smoke Alarms" and "Locations to Avoid For Smoke Alarms" before you begin installation. Tools you will need: • Needle-nose pliers or utility knife • Standard Flathead Screwdriver.

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

THE PARTS OF THIS SMOKE ALARM



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

If you need to remove the power connector, insert a flat screwdriver blade between the power connector and the security tab inside the power input block. Gently pry back the tab and pull the connector free.

FOLLOW THESE INSTALLATION STEPS

9. For new construction, place supplied dust cover over Alarm to prevent damage until smoke Alarm, or interconnect more than one Smoke Alarm. If you are interconnecting more than one Smoke Alarm, you MUST read "Special Requirements For Interconnected Smoke Alarms" before you begin installation.

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 installation. Failure to turn off the power before installation may result in serious electrical shock, injury or death.

1. Using wire nuts, connect the power connector to the household wiring.

ADANGER!

IMPORTANT! Impaired hearing is a concern. 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:
• 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.

ADANGER!

Remove the mounting bracket from the base, and attach it to the junction box.

2. Plug the power connector into the back of the Smoke Alarm.

3. Position the base of the Smoke Alarm over the mounting bracket and turn. The Alarm will remain secure over a wide rotation range to allow for perfect alignment. When wall mounting, this will allow fine-tuning on the positioning to compensate for misaligned wall studs and to keep the working level. The Alarm can be positioned over the bracket every 120°. Rotate the Alarm until aligned properly.

4. Check all connections.

STAND-ALONE ALARM ONLY:

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

INTERCONNECTED UNITS ONLY:

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

ADANGER!

ELECTRICAL SHOCK HAZARD. Do not rest power until all Smoke Alarms are completely installed. Restoring power before installation is complete may result in serious electrical shock, injury or death.

6. Make sure the Smoke Alarm is receiving AC power. Under normal operation, the Green power indicator light will shine continuously.

7. If the Green power indicator light does not light, **TURN OFF POWER TO THE JUNCTION BOX** and recheck all connections. If all connections are correct and the Green power indicator still does not light when you restore the power, the unit should be replaced immediately.

8. Single Station Alarms: Test each Smoke Alarm. Press and hold the Test/Silence button until the unit alarms.
Interconnected Alarms: Press and hold the Test/Silence button until all units alarm. All interconnected Alarms should sound. The other Alarms sounding only tests the interconnect signal between Alarms. It does not test each Alarm's operation. You must test each Alarm individually to check if the Alarm is functioning properly.

ADANGER!

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.

OPTIONAL LOCKING FEATURES

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

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

Tools you will need: • Needle-nose pliers or utility knife • Standard Flathead screwdriver.

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

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 (Model 9120B Only)

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 test button until the alarm sounds: 3 beeps, pause, 3 beeps, pause.

IMPORTANT!

If the unit does not alarm during testing, **DO NOT lock the battery compartment** install a new battery and test the battery back-up. If the Smoke Alarm still does not alarm, replace it immediately.

Using needle-nose pliers or a utility knife, detach one locking pin from the mounting bracket.

TO UNLOCK THE BATTERY COMPARTMENT (Model 9120B Only)

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

ADANGER!

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!

Always discharge the branch circuit before servicing an AC or AC/DC Smoke Alarm.

1. Remove the Smoke Alarm from the mounting bracket. If the unit is locked to the lock located on the base as shown in the diagram.

2. Disconnect the power connector by gently prying it away from the back of the Smoke Alarm.

3. Insert a flathead screwdriver under the head of the locking pin, and gently pry it out of the battery compartment, close the battery compartment, save the locking pin.

4. To unlock the battery compartment, close the battery door and reinsert locking pin in lock.

5. Reconnect the power connector to the back of the Smoke Alarm, reattach the power connector to the mounting bracket, and restore the power.

IMPORTANT!

When replacing the battery, always test the Smoke Alarm before relocking the battery compartment.

UNDERSTANDING THE INDICATOR LIGHTS AND ALARM HORN PATTERNS

Condition	LED (Red or Green Lights)	Horn
Normal Operation (AC Power)	Green LED ON; flashing Red LED once/minute	No Audible Alarm
Normal Operation (DC Power ~ 9120B only)	Green LED OFF; Red LED flashes once/minute	No Audible Alarm
DURING TESTING	Red LED flashes once every second	Horn pattern: 3 beeps, pause, 3 beeps, pause
LOW OR MISSING BATTERY (9120B only)	Red LED flashes once/minute	Horn "chirps" once/minute
ALARM CONDITION Smoke Initiating Device	Red LED flashes rapidly on the unit that triggered the Alarm.	Horn pattern: 3 beeps, pause, 3 beeps, pause repeating on all Alarms
ALARM CONDITION Interconnect Alarm	Red LED on the other Alarms in an interconnected series will be OFF.	Horn pattern: 3 beeps, pause, 3 beeps, pause repeating on all Alarms
IN SILENCE MODE	Red LED flashes on 10 seconds	Horn remains silent for up to 10 minutes. Horn will sound if smoke levels increase.
"LATCHING" ALARM INDICATOR	Green LED ON for 2 seconds/OFF for 2 seconds (repeatedly until reset, on initiating unit(s)).	Horn remains silent

WEEKLY TESTING

ADANGER!

NEVER use an open flame of any kind to test this unit. You might accidentally damage or set fire to the unit or your home. The built-in test switch accurately tests the unit's operation as required by Underwriters Laboratories, Inc. (UL).

ADANGER!

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. 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 Alarm. Press and hold the test button on the cover of the unit until the alarm sounds (the unit may continue to alarm for a few seconds after you release the button). If it does not alarm, make sure the unit is receiving power and test it again. If it still does not alarm, replace it immediately. During testing, you will hear a loud, repeating horn pattern: 3 beeps, pause, 3 beeps, pause. When testing a series of interconnected units you must test each unit individually. Make sure all units alarm when each one is tested.

ADANGER!

Failure to meet any of the above requirements could damage the units and cause them to malfunction, removing your protection.

AC and AC/DC Smoke Alarms can be interconnected. Under AC power, all units will alarm when one senses smoke. When power is interrupted, only the AC/DC units in the series will continue to send and receive signals. AC powered Smoke Alarms will not operate.

REGULAR MAINTENANCE

ADANGER!

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

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

Test it at least once a week.

Clean the Smoke Alarm at least once a month; gently vacuum the outside of the Smoke Alarm using your household vacuum's soft brush attachment. Test the Smoke Alarm. Never use water, cleaners or solvents since they may damage the unit.

If the Smoke Alarm becomes contaminated by excessive dust, dust and/or grime, and cannot be cleaned to avoid unwanted alarms, replace the unit immediately.

Relocate the unit if it sounds frequent unwanted alarms. See "Locations To Avoid For Smoke Alarms" for details.

When the battery back-up becomes weak, the Smoke Alarm will "chirp" about once a minute (the low battery warning). This warning should last 7 days, but you should replace the battery immediately to continue your protection.

Choosing a replacement battery:

Your Smoke Alarm requires one standard 9V battery. The following batteries are acceptable as replacements: Duracell #MN1604, (Ultra #MX1604; Eveready (Energizer) #522, Eveready (Energizer) #1222. You may also use a Lithium battery like the Ultralife 19V1-J for longer service life between battery changes. These batteries are available at many local retail stores.

IMPORTANT!

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

IF THIS SMOKE ALARM SOUNDS RESPONDING TO AN ALARM

During an alarm, you will hear a loud, repeating horn pattern: 3 beeps, pause, 3 beeps, pause.

ADANGER!

If the unit alarms and you are not testing the unit, it is warning you of a potentially dangerous situation that requires your immediate attention. NEVER ignore any alarm. Ignoring the alarm may result in injury or death.

Never disconnect the AC power to quiet an unwanted alarm. Disconnecting the power disables the Alarm so it cannot sense smoke. This will remove your protection. Instead open a window or fan the smoke away from the unit. The alarm will reset automatically.

If the unit alarms get everyone out of the house immediately.

ADANGER!

ELECTRICAL SHOCK HAZARD: Attempting to disconnect the power connector from the unit when the power is on may result in electrical shock, serious injury or death.

When an interconnected system of AC powered units is in alarm, the alarm indicator light on the unit(s) that initiated the alarm will blink rapidly. It will remain OFF on any remaining units. If the unit alarms and you are certain that the source of smoke is not a fire—cooking smoke or an extremely dusty furnace, for example—open a nearby window or door and fan the smoke away from the unit. Use the Silence Feature to silence the Alarm. This will silence the alarm, and once the smoke clears the unit will reset itself automatically.

Locking Features (Continued)

TO LOCK THE MOUNTING BRACKET

1. Using needle-nose pliers or utility knife, detach one locking pin from mounting bracket.

2. Insert the locking pin into the lock located on the base as shown in the diagram.

3. When you attach the Smoke Alarm to the mounting bracket, the locking pin's head will fit into a notch on the bracket.

TO UNLOCK THE MOUNTING BRACKET

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

2. Pry the Smoke Alarm away from the bracket by turning both the screwdriver and the Smoke Alarm counterclockwise (left) at the same time.

IF THIS SMOKE ALARM SOUNDS, Continued

WHAT TO DO IN CASE OF FIRE

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

ADANGER!

Alarms have various limitations. See "Limitations of Smoke Alarms" for details.

USING THE SILENCE FEATURE

The Silence Feature on this unit can temporarily quiet an unwanted alarm for up to 10 minutes.

ADANGER!

The Silence Feature does not disable the unit—it makes it temporarily less sensitive to smoke. For your safety, if smoke around the unit is dense enough to suggest a potentially dangerous situation, the unit will stay in alarm or re-arm quickly.

If you do not know the source of the smoke, do not assume it is an unwanted alarm. Not responding to an alarm can result in property loss, injury, or death. If the unit will not silence and no heavy smoke is present, or if it stays in silence mode continuously, it should be replaced immediately.

IMPORTANT!

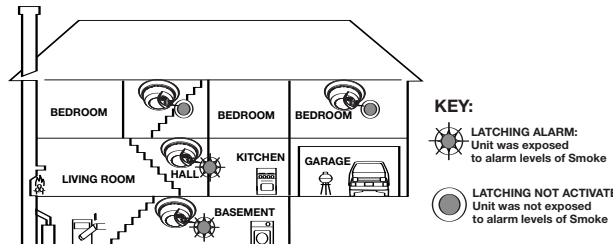
To silence Smoke Alarms in an interconnected series:

1. To silence multiple alarms in an interconnected series, you must press the Test/Silence button on the unit(s) that initiated the alarm.

NOTE: The red LED on the initiating alarm will flash rapidly. The red LED will be "Off" on all other non-initiating alarms. No audible sound will be heard. The unit will exit "silence mode" in approximately 10 minutes.

2. While the unit is in "silence mode," pressing and holding the Test/Silence button for approximately 10 seconds will test the unit. After testing, the unit will re-enter "silence mode" and the 10-minute timer is reset.

"LATCHING ALARM" INDICATOR



The Latching Alarm Indicator is automatically activated after an Alarm is exposed to alarm levels of smoke. After smoke levels drop below alarm levels, the green LED will be On for 2 seconds/Off for 2 seconds, repeatedly. This feature helps emergency responders, investigators, or service technicians identify which unit(s) in your home were exposed to alarm levels of smoke after the condition has subsided. The Latching Alarm Indicator stays ON until you reset it by pressing the Test/Silence button. The Latching Alarm Indicator is also reset when AC and DC power is removed from the Alarm.

IF YOU SUSPECT A PROBLEM

Smoke Alarms may not operate properly because of dead, missing or weak batteries, a build-up of dirt, dust or grease on the Smoke Alarm cover, or installation in an improper location. Clean the Smoke Alarm as described in "Regular Maintenance," and install a fresh battery, then test the Smoke Alarm again. If it fails to test properly when you use the Test/Silence button, or if the problem persists, replace the Smoke Alarm immediately.

If you hear a "chirp" once a minute, replace the battery.

If you experience frequent non-emergency alarms (like those caused by cooking smoke), by relocating the Smoke Alarm.

If the alarm sounds when no smoke is visible, try cleaning or relocating the Smoke Alarm. The cover may be dirty.

If the alarm does not sound during testing, make sure it is receiving AC power from the household circuit.

ADANGER!

Always discharge the branch circuit before servicing an AC or AC/DC Smoke Alarm.

First, turn off the AC power to the Smoke Alarm. For this reason, it is recommended that the Smoke Alarm be installed in a room with a dedicated branch circuit.

Do not try fixing the alarm yourself – this will void your warranty!

RECOMMENDED LOCATIONS FOR SMOKE ALARMS

Installing Smoke Alarms in Single-Family Residences

The National Fire Protection Association (NFPA), recommends one Smoke Alarm on every floor, in every sleeping area, and in every bedroom. In new construction, the Smoke Alarm must be AC powered and interconnected. See "Agency Placement Recommendations" for details. For additional coverage, it is recommended that you install a Smoke Alarm in all rooms, halls, storage areas, finished attics, and basements, where temperatures normally remain between 40° F (4° C) and 100° F (38° C). Make sure no door or other obstruction could keep smoke from reaching the Smoke Alarms.

More specifically, install Smoke Alarms:

- On every level of your home, including finished attics and basements.
- Inside every bedroom, especially if people sleep with the door partly or completely closed.
- In the hall near every sleeping area. If your home has multiple sleeping areas, install