



USER'S MANUAL

NER-111

AC POWERED
PHOTOELECTRONIC
SMOKE DETECTOR
INPUT: 120VAC 60HZ
0.40W Standby, 3W Alarm

MODELS
2839N
2839VM

AC POWERED
IONIZATION
SMOKE DETECTOR
INPUT: 120VAC 60HZ
0.12A Standby, 0.43A Alarm

MODELS
1839N
1839VM

BRK ELECTRONICS

IMPORTANT
PLEASE READ CAREFULLY AND SAVE
This manual contains important information about the operation of the smoke detector. Purchasers who install this detector for use by others must leave this manual or a copy of it with the user.

FIVE YEAR LIMITED WARRANTY

BRK Electronics warrants its enclosed Smoke Detector — but not the batteries — to be free from defects in materials and workmanship under normal use and service for a period of five years from date of purchase. BRK Electronics makes no other express warranty for this smoke detector. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the detector which is found to be defective in materials or workmanship under normal use and service during the five year period commencing with the date of purchase. During the initial one-year period commencing with the date of purchase, such repair or replacement shall be made without charge. During the latter four years of the Warranty period, such repair or replacement shall be made at a charge to the customer not to exceed the manufacturer's costs. Units in need of repair should be returned, shipping prepaid, to Customer Service Department, BRK Electronics, 780 McClure Rd., Aurora, IL 60504-2495, USA. The Company shall not be obligated to repair or replace units which are found to be in need of repair because of damage, unreasonable use, modifications, or alterations occurring after the date of purchase.

The duration of any Implied Warranty, including that of merchantability or fitness for any particular purpose, shall be limited to the period of five years commencing with the date of purchase. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. BRK Electronics makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the batteries. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

BRK ELECTRONICS

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BASIC INFORMATION ABOUT YOUR SMOKE DETECTOR

- Put detectors inside and outside of every bedroom area and on every floor of your home.
- Put the detectors close to the center of the ceiling when ceiling mounted.
- Test the detector weekly by holding the test switch button in for about 10 seconds until the alarm sounds. The alarm may not sound immediately when you press the button. This checks all detector functions.
- If the power-on Indicator light on the cover glows red, the detector is receiving power. This does not ensure that the detector is working properly.

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WARNING

GENERAL LIMITATIONS OF SMOKE DETECTORS: WHAT SMOKE DETECTORS CANNOT DO

Smoke detectors have played a key role in reducing home fire deaths in the United States. However, according to the Federal Emergency Management Agency (an agency of the U.S. Government), they may not go off or give early enough warning in as many as 35% of all fires. What are some reasons smoke detectors may not work?

Smoke detectors will not work without power. Battery operated smoke detectors will not work without batteries, if the batteries are dead, if the wrong kind of batteries are used, or if the batteries are put in wrong. AC powered smoke detectors will not work if the power supply is cut off for any reason. Some examples are a power failure at the power station, a failure along a power line, a failure of electrical switching devices in the home, an open fuse or circuit breaker, an electrical fire, or any other kind of fire that reaches the electrical system and burns the wires. If you are concerned about the limitations of either batteries or AC power for your smoke detectors, install both types or AC smoke detectors with built-in battery backup (BRK Model 88RAC) for more security.

Smoke detectors will not sense fires which start where smoke does not reach the detector. Smoke from fires in chimneys or walls, on roofs, or on the other side of closed doors may not reach your smoke detector and alarm it. If bedroom doors are usually closed at night, detectors should be put in each bedroom and the hallway between them.

Smoke detectors may not sense a fire on another floor of a home. For example, a second-floor detector may not sense a first-floor or basement fire. Therefore, place smoke detectors on every floor of your home.

Smoke detectors may not be heard. The loudness of the horn in your detector meets (or exceeds) current standards. However, if the smoke detector is placed outside a bedroom, it may not wake up a sound sleeper or one who has recently used drugs or has been drinking alcoholic beverages, especially if the door is closed or only partly open. If the detector is placed on a different floor from the bedrooms, it is even less likely to wake up persons sleeping in the bedrooms. Even persons who are awake may not hear a smoke detector if the sound is blocked by distance or closed doors. Normal noise, such as traffic, stereo, radio, television, air conditioner, or other appliances may also prevent alert persons from hearing the alarm. Smoke detectors may not be heard by persons who are hard of hearing.

BRK Electronics recommends that smoke detectors be interconnected. In this way, the detector that alarms will cause all of the others to sound their alarms. This kind of system is more likely to awaken sleepers or alert persons in remote parts of the home. There are several ways to achieve a multiple-alarm system. You can install a professional fire detection system. You can interconnect smoke detectors that are designed to be linked together. Or, you can put in detection systems that use radio frequency transmitters and receivers.

Smoke detectors are not fool-proof. Like all other electronic devices, smoke detectors have limitations. Smoke detectors may not sense every kind of fire every time. They cannot be expected to sense dangerous fires caused by carelessness or safety hazards. They may not give early warning of fast-growing fires caused by smoking in bed, violent explosions, escaping gas, poor storage of flammable liquids, overloaded electrical circuits, children playing with matches or lighters, or persons who set fires on purpose.

Smoke detectors are not a substitute for life or property insurance. Though they have been responsible for saving many lives, BRK Electronics does not warrant or imply in any way that its smoke detectors will protect lives and property in the event of a fire. Homeowners and renters should be sure to insure their lives and property.

Smoke detectors have a limited life. They contain many parts. Any of these parts could fail at any time. Therefore, you must test your smoke detector weekly. Clean and take care of it as described in this User's Manual. Be sure to have it repaired or replaced when it fails to test properly. In no case should a smoke detector be used for more than 10 years.

WHAT THIS SMOKE DETECTOR CAN DO

This is an AC powered smoke detector. It is designed to sense smoke that comes into its sensing chamber. It does not sense gas, heat, or flame.

This smoke detector is designed to give early warning of developing fires at a reasonable cost. This detector monitors the air. When it senses smoke, it sounds its built-in alarm horn. It can provide precious time for you and your family to escape before a fire spreads. Such early warning is only possible, however, if the detector is located, installed, and maintained as described in this User's Manual.

WARNING This smoke detector is designed for use in a single residential living unit only. In other words, it should be used inside a single-family home or apartment. It is not meant to be used in lobbies, hallways, basements, or another apartment in multi-family buildings, unless there are already working detectors in each family unit. Smoke detectors placed in common areas outside of the individual living unit (such as on porches or in hallways) may not provide early warning to residents. In multi-family buildings each family living unit should have its own detectors.

Detectors designed to be linked together should be interconnected within one family living unit only. If detectors are interconnected between living units, nuisance alarms will occur in other units when detectors are tested.

WARNING This detector is not meant to be used in non-residential buildings. Warehouses, industrial or commercial buildings, and special-purpose non-residential buildings requires special fire detection and alarm systems.

This detector alone is not a suitable substitute for complete fire-detection systems in places which house many people, like hotels or motels. The same is true of dormitories, hospitals, nursing homes, or group homes of any kind, even if they were once single family homes. Please see NFPA 101, The Life Safety Code, NFPA 71, 72A, 72B, 72C, 72D, and 72E for smoke detector requirements for fire protection in buildings not defined as "households".

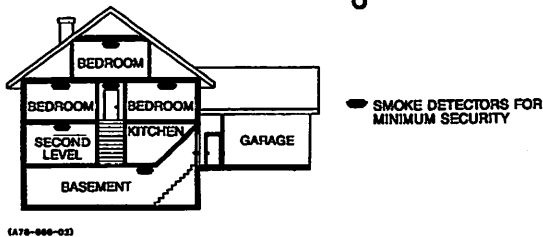
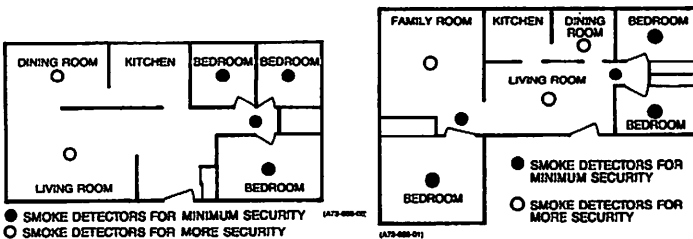
WARNING This detector will not alert people who are hard of hearing. BRK Electronics recommends that you install special-purpose smoke detectors that use lights or vibrating devices to alert occupants who are hard of hearing.

WHERE SMOKE DETECTORS SHOULD BE PUT UP

Smoke detectors should be installed in accordance with the National Fire Protection Association Standard 74 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02169). For complete coverage in residential units, smoke detectors should be installed and interconnected in all rooms, halls, storage areas, basements, and attics in each family living unit. Minimum coverage is one detector on each floor, one in each bedroom, and one in each sleeping area. However, we suggest that you install and interconnect smoke detectors in all rooms.

More specifically, we recommend that you:

- Put a smoke detector in the hallway outside of every separate bedroom area. See Figure 1. Two detectors are required in homes with two bedroom areas. See Figure 2.
- Put a smoke detector on every floor of a multi-floor home or apartment. See Figure 3.
- Put a smoke detector inside every bedroom.
- Install a minimum of 2 smoke detectors in any household.



- Put a smoke detector inside every room where someone sleeps with the door partly or completely closed. Smoke could be blocked by the closed door. Also, a hallway alarm may not wake the sleeper if the door is closed.
- Put smoke detectors at both ends of a bedroom hallway if the hallway is more than 40 feet (12 meters) long.
- Put basement detectors at the bottom of the basement stairwell.
- Put second-floor detectors at the top of the first-to-second floor stairwell. Be sure no door or other obstruction blocks the path of smoke to the detector.

- Put additional detectors in your living room, dining room, family room, attic, utility and storage rooms.
- Put detectors as close to the center of the ceiling as possible. If this is not practical, put the detector on the ceiling, no closer than 4 inches (10 cm) from any wall or corner. See Figure 4.
- If ceiling mounting is not possible and wall mounting is permitted by your local and state codes, put wall-mounted detectors between 4 and 6 inches (10 and 15 cm) from the ceiling. See Figure 4.
- Some rooms have sloped, peaked, or gabled ceilings. If yours do, mount detectors 3 feet (0.9 meter) - measured horizontally- from the highest point of the ceiling. See Figure 5.

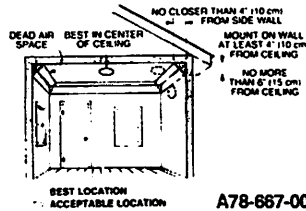


Figure 4: RECOMMENDED SMOKE DETECTOR MOUNTING LOCATIONS

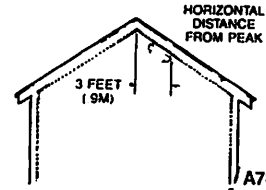


Figure 5: RECOMMENDED SMOKE DETECTOR LOCATIONS IN ROOMS WITH SLOPED, GABLED, OR PEAKED CEILINGS

(As required by the California State Fire Marshall)

"Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: A smoke detector installed in each separate sleeping area (in the vicinity, but outside of the bedrooms), and heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages."

For your information, NFPA Standard 74, Section 2-4 reads as follows:

"2-4.1.1 Smoke detectors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit including basements and excluding crawl spaces and unfinished attics." The provisions of 2-4.1.1 represent the minimum number of detectors required by this standard. It is recommended that the householder consider the use of additional smoke detectors for increased protection for those areas separated by a door from the areas protected by the required smoke detectors under 2-4.1.1 above. The recommended additional areas are living room, dining room, bedroom(s), kitchen, attic (finished or unfinished), furnace room, utility room, basement, integral or attached garage, and hallways not included in 2-4.1.1 above. However, the use of additional detectors remains the option of the householder."

We recommend complete coverage and the use of additional detectors.

WHERE SMOKE DETECTORS SHOULD BE PUT UP IN MOBILE HOMES

Mobile homes built after about 1978 were designed and insulated to be energy efficient. In mobile homes built after 1978, smoke detectors should be put up as described above.

Older mobile homes may have little or no insulation compared to today's standards. Outside walls and roofs are often made of uninsulated metal which can transfer heat and cold from outdoors. This makes the air right next to them hotter or colder than the rest of the air. These layers of hotter or colder air can keep smoke from reaching a smoke detector. Therefore, put smoke detectors in such units only on inside walls. Place them between 4 and 6 inches (10 and 15 cm) from the ceiling. If you are not sure how much insulation is in your mobile home, put the detector on an inside wall. Or, if you notice that the walls or ceiling are unusually hot or cold, put the detector on an inside wall.

For minimum security put one detector in each bedroom and one as close to the sleeping area as possible. For more security put one detector in each room. Before you put up any detectors, read the section below entitled "WHERE SMOKE DETECTORS SHOULD NOT BE PUT UP."

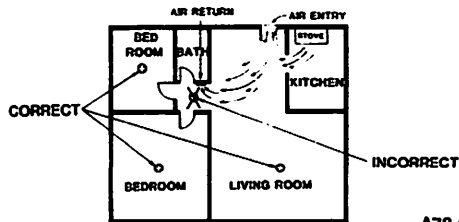
WHERE SMOKE DETECTORS SHOULD NOT BE PUT UP

Nuisance alarms occur when smoke detectors are put up where they will not work properly. To avoid nuisance alarms do not place detectors:

- In or near areas where combustion particles are present. (Combustion particles are the by-products of something that is burning.) Areas to avoid include kitchens with few windows or poor ventilation, garages where there may be vehicle exhaust, near furnaces, hot water heaters and space heaters.
- Put up smoke detectors at least 20 feet (6 meters) away from places where combustion particles are normally present, like kitchens. If a 20-foot distance is not possible, put the detector as far away from the combustion particles as possible, preferably on the wall. To prevent nuisance alarms, provide good ventilation in such places.

IMPORTANT: In mobile homes where a 20-foot distance is not possible, put smoke detectors as far away from combustion particles as possible. Provide good ventilation. Do not, for any reason, disable the detector to avoid nuisance alarms.

- In air streams passing by kitchens. Figure 6 shows how a detector can sense combustion products in normal air-flow paths. The picture shows how to correct this problem.
- If smoke detectors are to be located in halls or rooms adjacent to kitchens where there is no wall above the doorway between rooms, mount detectors on an inside wall closest to the bedroom area and furthest from the kitchen.



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Figure 6: RECOMMENDED SMOKE DETECTOR LOCATIONS TO AVOID AIR STREAMS WITH COMBUSTION PARTICLES

- In damp or very humid areas, or next to bathrooms with showers. Moisture in humid air can enter the sensing chamber. It then cools and turns into droplets which can cause nuisance alarms. Put up smoke detectors at least 10 feet (3 meters) away from bathrooms.
- In very cold or very hot areas, including unheated buildings or outdoor rooms. If the temperature goes above or below the operating range of your smoke detector, it will not work properly. The temperature range for your smoke detector is 40° to 100° F (4° to 38° C).
- In very dusty or dirty areas. Dust and dirt can build up on the detector's sensing chamber, making it overly sensitive. Or it can block openings to the sensing chamber and keep the detector from sensing smoke.
- Near fresh air vents, or very drafty areas. Air conditioners, heaters, fans, fresh air vents, and drafts can drive smoke away from smoke detectors.
- In dead air spaces. Dead air spaces are often at the top of a peaked roof, or in the corners between ceilings and walls. Dead air may prevent smoke from reaching a detector. See Figures 4 and 5 for recommended mounting locations.
- In insect-infested areas. If insects enter a detector's sensing chamber, they may cause a nuisance alarm. Where bugs are a problem, get rid of them before putting up a detector.
- Near fluorescent lights. Electrical "noise" from nearby fluorescent lights may cause nuisance alarms. Put up smoke detectors at least 5 feet (1.5 meters) from such lights.

WARNING Never disconnect an AC detector or remove batteries from a battery-operated detector to stop a nuisance alarm. Open a window or fan the air around the detector to get rid of the smoke. The alarm will turn itself off when the smoke is gone. If nuisance alarms persist, clean the detector as described in this User's Manual.

WARNING Do not stand close to the detector when the alarm is sounding. The alarm is loud in order to wake you in an emergency. Too much exposure to the horn at close range may be harmful to your hearing.

HOW THIS DETECTOR SHOULD BE PUT UP

- The 1839 series detectors are made to be mounted on any standard wiring junction box up to 4-inch octagon size. The 2839 series detectors will only fit a 4-inch octagonal junction box.
- This detector is made to be mounted on the ceiling, or on the wall if necessary.
- Model 1839N, 1839WN, 2839N and 2839WN can serve as single-station stand-alone units or be interconnected with other 1839 and 2839 series detectors.
- BRK Electronics recommends that all 1839 and 2839 series detectors be interconnected. Please read "HOW TO CONNECT DETECTORS TOGETHER" for important interconnect specifications. Interconnected units offer more security than single-station stand-alone detectors.

WARNING Detector installation must conform to the electrical codes in your area; Article 760 of the U.S. National Electrical Code; NFPA; and NEC, ICBO, BOCA, UBC, SBCCI, or any other local electrical or building codes that may apply. Wiring and installation should be performed only by a licensed electrician.

WARNING The circuit used to power the detector must be a 24-hour 120VAC 60 Hz circuit. Be sure the circuit cannot be turned off by a switch or a ground fault interrupter.

WARNING It is possible that a fire could occur on the circuit powering this detector. While not likely, if this did happen the detector might fail to activate. Some safety experts recommend that smoke detectors be wired on a separate circuit, one with no other lights or appliances. Other safety experts believe that it is better to put the detectors on the same circuit as other appliances so that it is more readily apparent if the circuit fails. BRK Electronics recommends the use of either separate or common circuits plus the installation of battery powered or AC smoke detectors with built-in battery backup (BRK 86RAC) if you are concerned about the reliability of your AC power supply.

- Before installing this detector, read "WHERE SMOKE DETECTORS SHOULD BE PUT UP" and "WHERE SMOKE DETECTORS SHOULD NOT BE PUT UP". Then decide where you want to put up this detector.

NOTE: The installation steps for Models 1839N and 2839N are different than those for Models 1839WN and 2839WN. Be sure to refer to the right section when installing your detector.

DANGER ELECTRICAL SHOCK HAZARD: TURN OFF POWER TO THE AREA WHERE YOU PLAN TO PUT THE DETECTOR AT THE FUSE BOX OR CIRCUIT BREAKER BOX.

1. Install a junction box where you plan to put up the detector if a box is not already installed there. Use standard #12 or #14 gauge copper wire.
2. Install the mounting bracket on the junction box using the screw slots that fit the junction box you are using.

IMPORTANT: The foam gasket supplied must be installed to ensure proper operation and to conform to U.L. standards.

3. Place the gasket on the back of the detector cover, being sure to line up the cut-outs with the power input blocks. THE GASKET WILL ONLY FIT ONE WAY.

To install Models 1839N and 2839N, see Figure 7 and instructions below:

- 4a. The push-in type terminals on the back of the detector are designed to capture and securely hold the stripped ends of the AC power and interconnect wires when stripped to the length of the strip guides. Use ONLY #12 or #14 gauge solid copper wire for these connections. If different wire is used in your installation, use short lengths of solid #12 or #14 copper wire to connect the detector to the other wire.

NOTE: If this detector is to be connected to other detectors, read the instructions in the next section entitled "HOW TO CONNECT DETECTORS TOGETHER" before you finish installing the detector.

- If Model 1839N or 2839N detectors WILL NOT be interconnected, do not use the INTERCONNECT terminal hole on the detector.

To install Models 1839WN and 2839WN see Figure 8 and instructions below:

- 4a. A power connector with BLACK, YELLOW, and WHITE wires is packed with each detector. Use wire nuts to connect these wires to the AC power supply. Connect the BLACK wire on the connector to the BLACK AC power wire. Connect the WHITE wire on the connector to the WHITE AC wire. (The yellow wire is used for INTERCONNECT only.)

- 4b. Strip the ends of the two AC power wires (and the interconnect wire if the detector is to be connected to other detectors) to the exact length shown on the strip guide on the back of the detector and/or the mounting bracket.

- If Model 1839WN or 2839WN WILL NOT be interconnected, do not use the INTERCONNECT wire on the connector.

- 4b. Plug the power connector into the back of the detector as shown in Figure 8. It is keyed so it can only be installed one way. The connector can be removed at any time by holding the connector body firmly and pulling out.

- 4c. Push the stripped end of each wire all the way into its terminal hole on the back of the detector. No bare wire should be exposed. The BLACK AC power wire goes into the hole marked "BLACK LINE". The WHITE AC power wire goes into the hole marked "WHITE NEUTRAL". The INTERCONNECT wire (if used) goes into the hole marked "INTERCONNECT". Tug each wire to ensure that does not pull out and it is securely plugged into the terminal hole.

WARNING Do not connect the AC power wires to the INTERCONNECT terminal or wire. This will damage the detector.

- 4d. If you need to release a wire from one of the terminals, insert a small screwdriver in the release slot next to the terminal. Press down with the screwdriver while pulling on the wire until the wire comes out. Make sure power is disconnected before touching wires with fingers or tools.

5. Align the locating nib on the detector cover with the arrow on the rim of the mounting bracket. Then, turn the detector clockwise while exerting pressure to compress the gasket until you feel a click. The detector snaps into the mounting bracket.

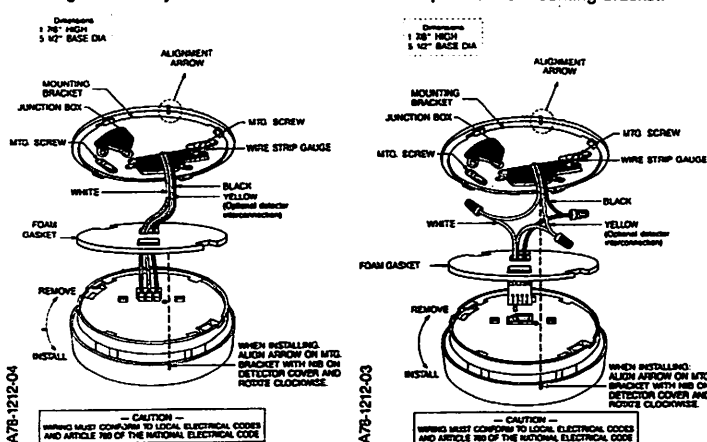


Figure 7: INSTALLING MODEL 1839N and 2839N DETECTORS

Figure 8: INSTALLING MODEL 1839WN and 2839WN DETECTORS

DANGER DO NOT RESTORE POWER IF DETECTORS ARE TO BE INTERCONNECTED.

6. Restore power to the junction box only if you are not going to interconnect detectors.
7. The red POWER ON indicator (seen through the clear test button on the cover of the detector) should light when the power is turned on. If this indicator does not light, check all wire connections. If power is on and connections are correct, but POWER ON indicator still does not light, the detector should be returned for service. Do not attempt to fix it yourself.

8. To make sure the detector is working properly, you must press the clear TEST SWITCH BUTTON marked "PUSH TO TEST" on the detector cover. Hold it in for about ten seconds until the alarm horn sounds.

WARNING Do not connect this detector to any other alarm or auxiliary device. Connecting anything else to this detector will keep it from working properly.

HOW TO CONNECT DETECTORS TOGETHER

Models 1839N, 1839WN, 2839N and 2839WN may be interconnected with other detectors. Then, if one detector senses smoke, all of them will sound their alarms. The following conditions must be met for the interconnected system of detectors to work properly:

DANGER ELECTRICAL SHOCK HAZARD: TURN OFF THE POWER TO THE AREA WHERE YOU ARE WORKING BEFORE INTERCONNECTING DETECTORS.

DANGER A potential shock hazard exists when multiple smoke detectors are connected on a single branch circuit that has been recently removed from power source. Discharge branch circuit before servicing.

- BRK Models 1839N, 1839WN, 2839N and 2839WN may be interconnected. You may also interconnect any of these models with any other BRK 1839 series and 2839 series detectors. See item 3 below.
- Up to TWELVE Model 1839N, 1839WN, 2839N and 2839WN detectors may be interconnected.
- If you wish to interconnect any of the above-named models with OTHER 1839 or 2839 models not specified above, no more than SIX detectors may be interconnected.
- All units connected together must get their power from the same circuit. That is, all of them must be controlled by the same fuse or circuit breaker.
- The total length of wire interconnecting the detectors should be less than 1000 feet. The interconnecting wires should be #18 gauge or larger and be rated at least 300V.
- The wiring should conform to the local electrical codes and to Article 760 of the National Electrical Code.
- Interconnect the detectors by connecting the interconnect wires on all the units together. See Figure 9.
- Restore power to the junction box by replacing the fuse or throwing the appropriate circuit breaker.
- To test the system, push the test button on each detector. The alarm horns on all of the detectors in the system should sound if they are connected correctly. Make sure that all the other units sound an alarm as each unit in the system is tested.

WARNING Failure to follow any of the above could result in malfunction and damage to the detectors.

IMPORTANT: Detectors should be interconnected within one family residence only. Otherwise, nuisance alarms will occur when a detector in another residence is tested.

HOW TO TELL IF THE DETECTOR IS WORKING PROPERLY

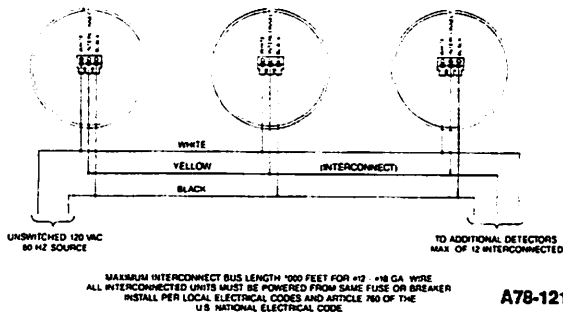


Figure 9: INTERCONNECTING 1839 AND 2839 SERIES DETECTORS

When the indicator light (seen through the clear button of the test switch) glows continuously the detector is receiving power.

Test the detector weekly by pushing firmly on the test button until the horn sounds. This should take 10 seconds. If the alarm horn makes a continuous loud sound, the detector is working properly. **THIS IS THE ONLY WAY TO BE SURE THAT THE DETECTOR IS WORKING. TEST THE DETECTOR WEEKLY. IF THE DETECTOR FAILS TO TEST PROPERLY, HAVE IT REPAIRED OR REPLACED IMMEDIATELY.**

WARNING Never use an open flame of any kind to test your detector. You may set fire to and damage the detector, as well as your home. Also, do not use "aerosol" spray smoke detector testers. Build up of chemicals used in the spray can change detector sensitivity, or in some worst cases, impair detector functioning. The built-in test switch accurately tests all detector functions, as required by Underwriters' Laboratories.

DANGER If the alarm horn sounds a loud continuous sound and you have NOT pushed the test button, the detector has sensed smoke or combustion particles in the air. **THE ALARM HORN IS A WARNING OF A POSSIBLY SERIOUS SITUATION. IT REQUIRES YOUR IMMEDIATE ATTENTION.**

The alarm could be caused by a nuisance situation. Cooking smoke or a dusty furnace, sometimes called "friendly fires," can cause the alarm to sound. If this happens, open a window or fan the air to remove the smoke or dust. The alarm will turn itself off as soon as the air is completely clear. **DO NOT DISCONNECT THE POWER. THIS WILL REMOVE YOUR PROTECTION.**

For interconnected detectors only:

- When an interconnected system of detectors is in alarm, the indicator light will be OFF on the detector(s) sensing smoke. It will be ON on all other detectors.

HOW TO TAKE CARE OF AND TEST THIS DETECTOR

Your smoke detector has been designed to be as maintenance-free as possible. To keep your detector in good working order, you must:

- Test the detector weekly. (See section "HOW TO TELL IF THE DETECTOR IS WORKING PROPERLY.") Test detectors in mobile homes after storage and before each trip.

DANGER ELECTRICAL SHOCK HAZARD: TURN OFF AC POWER AT THE FUSE BOX OR CIRCUIT BREAKER POWERING THE DETECTOR BEFORE FOLLOWING CLEANING INSTRUCTIONS BELOW.

- Vacuum the dust off the detector at least once a year, using the soft brush attachment to your vacuum cleaner.

NOTE: If you have repeated nuisance alarms, check the detector location. Refer to "WHERE SMOKE DETECTORS SHOULD NOT BE PUT". Move your detector if it is not located properly. Clean the detector as described above.

- Clean the detector's cover when it gets dirty. Hand wash the cover with a cloth dampened with clean water. Dry it with a lint-free cloth. Be sure not to get any water on the detector components.

- Test detector after restoring power.

WARNING If the detector does not work properly, make sure the power is connected correctly and the detector is clean. If there is still a problem, do not try to fix the detector yourself. This will void your warranty. Send the detector, shipping prepaid, to Customer Service Department, BRK Electronics, 780 McClure Rd., Aurora, IL 60504-2495. Enclose a note describing what is wrong with the detector. (See Warranty Information at the end of this manual.)

WHAT ELSE YOU CAN DO TO INCREASE YOUR FAMILY'S PROTECTION FROM FIRES

Putting up smoke detectors is only one step in protecting your family from fires. You must also reduce the chances that fires will start in your home. And, you must increase your chances of escaping safely if one does start. To have a good fire safety program you must:

- Put up smoke detectors properly. Carefully follow ALL the instructions in this manual. Keep your smoke detectors clean and test them every week. **DETECTORS THAT DO NOT WORK WILL NOT ALERT YOU.**
- Replace your smoke detectors immediately if they are not working properly.
- Follow fire safety rules, and prevent hazardous situations:
 - Use smoking materials properly. Never smoke in bed.
 - Keep matches and cigarette lighters away from children.
 - Store flammable materials in proper containers. Never use them near open flame or sparks.
 - Keep electrical appliances in good condition. Do not overload electrical circuits.
 - Keep stoves, fireplaces, chimneys, and barbecue grills grease-free. Make sure they are properly installed, away from combustible materials.
 - Keep portable heaters and open flames such as candles away from combustible materials.
 - Do not allow rubbish to accumulate.
- Develop a family escape plan and practice it with your entire family. Be sure to include small children in your practice.
 - Draw a floor plan of your home, and find two ways to exit from each room. There should be one way to get out of each bedroom without opening the door.
 - Explain to children what the smoke detector alarm signal means. Teach them that they must be prepared to leave the home by themselves if necessary. Show them how to check to see if doors are hot before opening them. Show them how to stay close to the floor and crawl if necessary. Show them how to use the alternate exit if the door is hot and should not be opened.
 - Decide on a meeting place a safe distance from your house. Make sure that all your children understand that they should go and wait for you there if there is a fire.
 - Hold fire drills at least every 6 months to make sure that everyone, even small children, knows what to do to escape safely.
 - Know where to go to call the Fire Department from outside your home.
 - Provide emergency equipment such as BRK fire extinguishers, and teach your family to use this equipment properly.

WHAT TO DO IF THERE IS A FIRE IN YOUR HOME

If you have made a family escape plan and practiced it with your family, you have increased their chances of escaping safely. Go over the following rules with your children each time you have fire drills. This will help everyone remember them in case of a real fire emergency:

- Don't panic. Stay calm. Your safe escape may depend on thinking clearly and remembering what you have practiced.
- Get out of the house as quickly as possible. Follow a planned escape route. Do not stop to collect anything or to get dressed.
- Feel the doors to see if they are hot. If they are not, open them carefully. Do not open a door if it is hot. Use an alternate escape route.
- Stay close to the floor. Smoke and hot gases rise.
- Cover your nose and mouth with a cloth. (Wet it if possible.) Take short, shallow breaths.
- Keep doors and windows closed. Open them only if you have to in order to escape.
- Meet at your planned meeting place after leaving the house.
- Call the Fire Department as soon as possible from outside your house. Give the address and your name.
- Never go back inside a burning building.

Contact your local Fire Department. They will give you more ideas about how to make your home safer from fires and how to plan your family's escape.