

Model SA 360 - Professional Multi-Location Model 120 Volt AC Hardwire Smoke Alarm. This model is interconnectable with up to 11 other units.

Important information about your smoke alarm

- Install alarms outside of every bedroom area and on every floor of your home. Please refer to Section 3 - Where to Locate Smoke Alarms for details.
- Test the alarm weekly by pressing and holding the test button for up to 20 seconds until the alarm sounds.
- The model described in this manual is designed for single family residences, including homes and apartments rather than commercial or industrial use.

Smoke Alarm Safety Features

- Dual-Ionization Chambers - A advanced design responds to visible or invisible particles of combustion (smoke) to sense fires in their earliest stages. Compensates for changes in humidity and temperature to virtually eliminate nuisance alarms caused by normal atmospheric changes in the home.
- Operating Light (LED) - A continuous green light located behind the slotted case indicates the smoke alarm is receiving AC power.
- Interconnection - Interconnection facilities for up to 11 other units, using only three wires, including AC power. When one alarm sounds, all properly interconnected smoke alarms follow. NOTE: Interconnect only with the models specified in Section 6.
- Alarm Source Indicator - The red operating light in the unit originating the alarm will flash rapidly in the event of an alarm. With interconnected units, this feature allows for an easy check to determine the originator.
- Locking Key - The auxiliary locking key provided can be used to lock the smoke alarm to the mounting plate. This helps to reduce the risk of unauthorized removal.
- Sensitivity Test Button - Test sensitivity, as well as circuitry and horn. With interconnected units, activating test button on one unit will cause all properly interconnected units to sound. An important and convenient check of system integrity.
- Quick Disconnect Power Connector - For easy installation, connect the wires separately from the unit and then plug into the back of the unit.
- Detachable Mounting Plate - For easily securing the alarm to the junction box.

CONTENTS OF THIS MANUAL

- CAPABILITIES AND LIMITATIONS OF SMOKE ALARMS
- SAFETY TIPS
- WHERE TO LOCATE SMOKE ALARMS
- NFPA RECOMMENDATIONS
- LOCATIONS TO AVOID
- INSTALLATION AND TESTING
- MAINTENANCE AND TROUBLESHOOTING
- LIMITED WARRANTY
- OTHER AMERICAN SENSORS PRODUCTS

1. CAPABILITIES AND LIMITATIONS OF SMOKE ALARMS

American Sensors smoke alarms are designed to provide early warning of fire and smoke at reasonable cost. Early warning can mean the difference between a safe escape and no escape at all. While smoke alarms can provide invaluable protection for you and your family, they do have limitations.

Smoke alarms cannot work without power. Battery operated alarms will not work without proper batteries, with dead batteries or if batteries are not properly installed. AC powered alarms will not work if their AC power supply is cut off by an electrical fire, an open fuse, a circuit breaker or any other reason. If you are concerned about the reliability of either batteries or your AC power supply for any of the above reasons, you should install in your home both AC and battery powered smoke alarms for added security. American Sensors also offers the SA 379 model which is AC powered with battery back-up.

Smoke alarms are incapable of sounding the alarm until smoke reaches the sensing chamber. A anything preventing smoke from reaching the alarm may delay or prevent an alarm. A smoke alarm cannot detect fire in the walls, chimney or roof unless and until a significant amount of smoke reaches the alarm. A closed door may prevent smoke from reaching an alarm on the other side of the door. A smoke alarm may not sense a fire on another floor of a home. For example, a basement smoke alarm may not detect a fire which started on the first or second floor.

Smoke alarms may not be heard. The loudness of the horn in your alarm meets current standards. However, the sound may be blocked by distance, closed doors, or ambient noise such as traffic or a stereo. Smoke alarms may not be heard by persons who are hard of hearing.

For these reasons, a smoke alarm should be installed in every room or at least on every level of your home. American Sensors recommends that hardwire AC Powered smoke alarms be interconnected, so that one alarm will trigger all other alarms to sound their alarms.

Smoke alarms are not foot-proof. Smoke alarms may not always sense every kind of fire. They cannot be expected to sense fires caused by carelessness or by safety hazards. They may not give early warning of fast growing fires caused by smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, natural causes such as lightning children playing with matches, or arson.

Smoke alarms are not substitutes for property, disability, life or other insurance of any kind. Home owners and renters should continue to insure their lives and property. Consult your insurance agent.

Smoke alarms have limited lives. One or more of the many components could fail at any time. Therefore, test your smoke alarm weekly. Clean and take care of it as described in this manual. Repair or replace the smoke alarm when it fails to test properly. Your smoke alarm should be replaced if it is ten years old.

Ionization Technology vs. Photoelectronic Technology Smoke Alarms

There are two different types of smoke alarm technology currently in general use: ionization and photoelectronic. While both types of technology are suitable for general residential use, an ionization alarm will normally respond faster to fast flaming fires, while a photoelectronic alarm may be more sensitive to detecting slow smoldering fires. Because home fires develop in different ways and are often unpredictable in their growth, it is impossible to predict which type of alarm will provide the earliest warning. For best home protection install at least one photoelectronic and one ionization smoke alarm on each level of your home. Model SA 360 is an ionization type smoke alarm.

A photoelectronic smoke alarm senses smoke using an electronic photo receptor to sense the scattering of light by smoke particles.

2. SAFETY TIPS

Properly installed and maintained smoke alarms are an essential part of a good home fire safety program. Your fire safety program should also include a review of fire hazards and the elimination of dangerous conditions whenever possible. Consider the following tips:

- 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 an 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 and away from any combustible materials.
- Keep portable heaters and open flames such as candles away from combustible material.
- Do not allow rubbish to accumulate.
- Keep a supply of extra batteries on hand for your battery powered smoke alarms.
- Do not stand too close to the alarm when the unit is in alarm as the loud horn could damage your hearing.

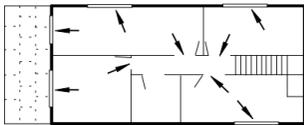
Never disconnect the battery or the AC power on any type of smoke alarm to silence a nuisance alarm. Clear the area of smoke by opening doors and windows or fanning the smoke away.

▲ WARNING Most important, when fire strikes, a prepared and practiced escape plan can make the difference between life and death. Develop an escape plan and practice it with the entire family, including small children.

- Ensure all family members are familiarized with the alarm signal.
- Prepare an escape plan. Draw a Floor Plan of Your Home and determine two exits from each room. There should be a way to get out of each bedroom without opening the door.
- Have Fire Drills Often. Practice your Escape and BE PREPARED.
- Decide on a meeting place at a safe distance from your home.

IN CASE OF FIRE

- Don't waste time collecting possessions after a fire starts.
- Arouse all occupants and leave the building. Your most valuable possession is your life.
- Doors can mean escape or death. Never open doors without first checking for heat. Test them with your hands, if they feel warm, fire may be walled up behind them - leave closed and find another escape route.
- Call the fire department from OUTSIDE the building.
- If trapped inside, stay close to the floor, cover mouth with cloth, conserve breath as you crawl to safety.
- Keep all doors and windows closed except for escape purposes.
- NEVER re-enter a burning building.
- Keep your family in a pre-arranged meeting place after your escape. Your local fire department may be able to offer you additional ideas for safety and escape plans in the home.

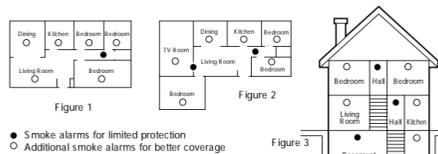


3a. WHERE TO LOCATE SMOKE ALARMS

As a minimum, smoke alarms should be located between sleeping areas and potential sources of fire such as a kitchen, heated garage or basement. In single storey homes with one sleeping area, an alarm should be installed in the hallway outside the bedrooms (see Figure 1). In single storey homes with two separate sleeping areas, a minimum of two alarms are required, one outside each sleeping area (see Figure 2). In multi-level or split-level homes, as a minimum, an alarm should be installed outside each sleeping area, in the basement and at every level of the home (see Figure 3).

- In every room of your home (except the bathroom): Research indicates that substantial increases in warning time can be obtained with each properly installed, additional alarm.
- In bedrooms: In anticipation of fires originating within these rooms, caused by faulty wiring, lamps, appliances, smoking or other hazards.
- In hallways: At a distance no greater than 13 feet (4 meters) from the farthest wall and no greater than 26 feet (8 meters) from the next alarm.
- In the center of a room or hallway: As it is impossible to predict the source of a fire. If it is necessary to place the alarm on a wall, always locate the top of the smoke alarm 4-6 inches (10-15 cm) from the ceiling.
- As needed: To compensate for closed doors and other obstacles that may interfere with the path of smoke to an alarm. They may also prevent occupants on one side of a closed door from hearing an alarm on the other side of the door.
- Model SA 360 - Professional Multi-Location model can be located in any area of the home.

READ CAPABILITIES AND LIMITATIONS OF SMOKE ALARMS in Section 1 of this manual. Your local fire department or insurance company may be able to give you further advice on the best smoke alarm locations in your home. Call them and ask.



- Smoke alarms for limited protection
- Additional smoke alarms for better coverage

These diagrams show smoke alarm locations as recommended.

3b. WHERE TO LOCATE SMOKE ALARMS IN MOBILE HOMES

NOTE: Power supply must be 120 Volts AC for model SA 360. In mobile homes built after 1978 locate the smoke alarm as described above. Older mobile homes may have little or no insulation compared to the ones built post 1978. These uninsulated exteriors can disrupt airflow around the smoke alarm in hotter or colder weather. Locate the alarm only on interior walls 42 to 62 (10 to 15 cm) from ceiling 1. if you own an older mobile home or 2. if you notice the exterior walls and/or ceiling are noticeably cold or warm or 3. if you are uncertain about the quality of insulation.

Regardless of the age of the mobile home, locate alarms throughout to ensure maximum protection. Follow the location instructions in this manual.

4. NFPA RECOMMENDATIONS

For your information, the National Fire Protection Associations Standard 72 reads as follows:

- 2-2.1.1.1 Smoke alarms shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional storey of the family living unit, including basements and excluding crawl spaces and unfinished attics. In new construction a smoke alarm also shall be installed in each sleeping room.
- A-2.5.2.1 Smoke Detection- Are More Smoke Alarms Desirable? The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, it is recommended that the household consider the use of additional smoke alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation.

5. LOCATIONS TO AVOID

Avoid locations where smoke may not reach the alarm in time to provide early warning, or where the alarm may not be effective. DO NOT PLACE SMOKE ALARMS:

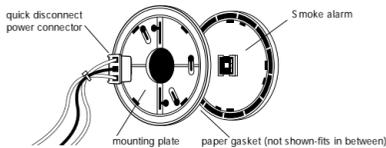
- In turbulent air from fans, doors, windows, etc. The rapid air movement may prevent combustion particles from entering the alarm.
- In dead air spaces such as at the peak of an A-Z frame ceiling - Dead air at the top may prevent smoke from reaching the alarm in time to provide early warning. In rooms with simple sloped, peaked or gabled ceilings, install smoke alarms on the ceiling 3 feet (90 cm) from the highest point of the ceiling. Note: For complex ceiling structures, consult a safety expert for the number of alarms required and the best locations.
- In very hot or cold areas where the temperature exceeds 100°F (38°C) or falls below 40°F (5°C).
- Less than 6 inches (15 cm) from the wall when mounted on the ceiling
- Nuisance alarms could result when smoke alarms are located where interference may occur with the sensing chamber. To avoid nuisance alarms, DO NOT place smoke alarms:
 - In high humidity areas such as bathrooms and attics. Place smoke alarms at least 10 feet (3 meters) away from bathrooms.
 - In insect-infested areas.
 - In poorly ventilated kitchens or garages.
 - In very dusty and dirty areas.
 - Near fluorescent lights. Place smoke alarms at least 5 feet (1.5 meters) from fluorescent lights.

▲ WARNING This smoke alarm is suitable for residential use. It is not to be connected to a commercial or industrial fire alarm panel.

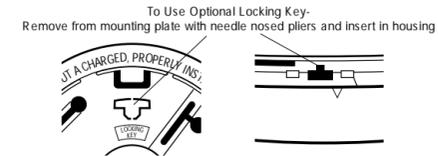
6. INSTALLATION AND TESTING

This model has an optional Locking Key to better secure the alarm to inhibit unauthorized removal. If securing the alarm is a concern, remove and save the Locking Key from the back plate with needle nosed pliers before installing the alarm. See point 12 in this section for more details on this feature.

- Installation
Mount to any standard or rectangular junction box with a minimum depth of 1 inch (2.5 cm). 120V AC, 55mA operation.
WARNING: Wiring should only be installed by a licensed electrician in accordance with the National Electrical Code and local codes.
WARNING: The circuit used to power the smoke alarm must be a 24 hour voltage circuit that cannot be turned off by a switch or a ground fault interrupter. It is highly recommended that smoke alarms be wired on a separate circuit (one with no other lights or appliances) to ensure maximum reliability of AC power supply. For installation of smoke alarms in Dwelling Units, it is important to follow the National Electrical Code and local codes.
 - Electricity must be turned off at service entrance before beginning installation to prevent electrical shock or equipment damage.
 - Location must comply with applicable building codes.
 - Install a junction box where you plan to install the alarm. Use standard 14 gauge wire.
 - Connect black and white wires color to color from power connector to AC power leads.
 - For multiple station application use the orange wire to interconnect. If unit is not to be interconnected, cap unused wire. NOTE: The SA 360 is interconnectable with up to 11 other units.
 - Loosen or remove screws from junction box.
 - At a flat thack side of mounting plate and tighten screws to fit snugly against the junction box and ceiling or wall.

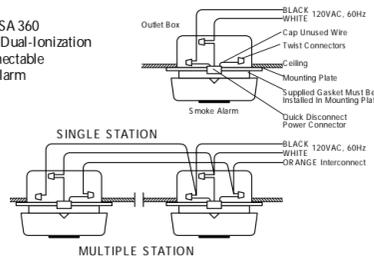


- Bring power connector through center opening.
- Slip the paper gasket supplied with the alarm over the power connector and then onto the mounting plate so that the four plastic tabs on the mounting plate will hold the gasket in place. The gasket will prevent downward air currents from entering the smoke alarm through holes in the back of the alarm, unless blocked off, downward air currents could prevent smoke from entering the alarm. WARNING: IT IS IMPERATIVE THAT YOU INSERT THE GASKET WHEN INSTALLING YOUR SMOKE ALARM.
- Align the plug area on the smoke alarm with the cutout in the gasket and place the smoke alarm on the mounting plate, turn clockwise to fasten it to the mounting plate.
- Plug wire connector into the back of the alarm.
- If auxiliary lock is desired, insert the Locking Key into the slot in the base of the alarm. Locking Key should click into position and be flush with the alarm housing. CAUTION: Do not attempt to remove alarm without first removing the Locking Key. If the key is not first removed, damage may result. To remove, use a screwdriver and gently pry the Locking Key loose.



- Test alarm operation after installation in accordance with Operation: How to Test Instructions.

MODEL SA 360 120VAC Dual-Ionization Interconnectable Smoke Alarm



Note: Maximum interconnect wiring length is 150 feet (50 meters). IMPORTANT: The SA 360 is not interconnectable with any other model produced by another manufacturer. The SA 360 may be interconnected only with the following Underwriters' Laboratories Inc. listed smoke alarm models:

American Sensors	SA 379
American Sensors	SA 360
ASI Electronics (A American Sensors)	ESA 5010/ESA 5011
Dicon Safety Products Inc.	670L/R
Dicon Safety Products Inc.	370L/BX

Note: This equipment should be installed in accordance with the National Fire Protection Association Standard 72. (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269).

- Testing After Installation
 - Check to see that the green POWER ON light is on. The POWER ON light is visible behind the slotted case and confirms that the smoke alarm is receiving AC power.
 - Press and hold the test button until the alarm sounds. NOTE: It may be necessary to press the test button for up to 20 seconds for an alarm to sound. An alarm is indicated by 3 loud beeps repeating every 5 seconds. Alarm may continue to sound for up to 10 seconds after button is released.
 - At least once a week, press the test button and hold until the alarm sounds, then release.
- NOTE: Multiple Station Only:
 - Test each alarm separately in the system.
 - Determine that the initiating alarm triggers other alarms in the system.

7. MAINTENANCE & TROUBLESHOOTING
TEST THE ALARM WEEKLY. VACUUM EVERY SIX MONTHS. Your smoke alarm should be cleaned every six months to help keep the unit working efficiently. REMOVE POWER TO ALARM. Gently vacuum through the vents of the alarm with a soft brush attachment. Keep vacuum nozzle from touching the unit. RE-ESTABLISH POWER TO ALARM.

- Problems may be indicated by the following:
- The alarm does not sound upon pressing the test button.
 - The green operating light does not remain steadily on when unit is AC powered.
 - The red operating light remains steadily on or off. (i.e. does not flash once every 45 seconds, when the unit is not in alarm).

- Try the following:
- Inspect breaker or fuse in power circuit to alarm.
 - Gently vacuum as recommended above.
 - Call an electrician to inspect house wiring and connection to alarms.

If these procedures do not correct the problem, do NOT attempt repairs. If the smoke alarm is within warranty period and terms indicate the nature of the problem and return the unit with proof of purchase to the point of purchase, distributor or manufacturer. See below for instructions. Units beyond warranty cannot be economically repaired.

FALSE ALARMS:
A normal air conditions may cause the highly sensitive smoke alarm to give a false alarm. If no fire is apparent, ventilate the room and/or blow fresh air into the unit until the alarm stops. Once cleared, the smoke alarm will automatically reset.
DO NOT DISCONNECT THE AC POWER SUPPLY. Dust can lead to excess sensitivity. Vacuum as recommended above. DO NOT PAINT THE UNIT.

8. LIMITED WARRANTY
Your American Sensors SA 360 smoke alarm is warranted for ten years from the date of purchase against defect in material and workmanship. Units returned to Dicon Global Inc. with proof of purchase date during this period as a result of such defects will be repaired, or replaced at Dicon Global Inc.'s option, without charge. This warranty only covers defects in material or workmanship in normal residential use. This warranty does not cover damage resulting from negligent handling, misuse, or lack of reasonable care. This warranty is in lieu of any other warranty either expressed or implied.
DICON GLOBAL INC. SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE, OR ANY SPECIAL, INCIDENTAL, CONTINGENT OR CONSEQUENTIAL DAMAGE OF ANY KIND RESULTING FROM A FIRE. THE EXCLUSIVE REMEDY FOR BREACH OF THE LIMITED WARRANTY CONTAINED HEREIN IS THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT AT DICON GLOBAL INC.'S OPTION IN NO CASE SHALL DICON GLOBAL INC.'S LIABILITY UNDER ANY OTHER REMEDY PRESCRIBED BY

LAWS EXCEED THE PURCHASE PRICE. YOUR SMOKE ALARM IS NOT A SUBSTITUTE FOR PROPERTY, DISABILITY, LIFE OR OTHER INSURANCE OF ANY KIND. APPROPRIATE COVERAGE IS YOUR RESPONSIBILITY. CONSULT YOUR INSURANCE AGENT.

This warranty gives you specific legal rights and you may have other rights which may vary from state to state.

Units may be returned to point of purchase according to retailers exchange / return policy. Or call 1-800-387-4219, for shipping instructions and a returned goods authorization number -RGA Z number, to return to Dicon Global Inc. Returned goods must be shipped prepaid. A cheque for \$5.00 is also required for return postage. Please mark the RGA Z number on the exterior of your package. Date code located on back of smoke alarm.

Dicon Global Inc.
20 Steelcase Road, Unit 3
Markham, Ontario,
Canada L3R 1B2

9. AMERICAN SENSORS PRODUCTS

American Sensors offers a complete line of smoke alarms. Select from this group of quality products to ensure your home is fully protected in case of fire.

AMERICAN SENSORS SMOKE ALARMS

Model	Description	Power Source	Smoke Alarm Technology
SA 310	Basic Model	9V Battery	Ionization
SA 320	General Purpose Model with Alarm-Pause Feature	9V Battery	Ionization
SA 358	Hall and Stairways Model with Emergency Light	2-9V Batteries	Ionization
SA 500	Extended Life Multi-Location with Alarm-Pause Model	Extended Life Battery with 3 Year Warranty	Ionization
SA 900	Long Life Multi-Location with Alarm-Pause Model	Long Life Lithium battery with 10 year warranty	Ionization
SA 360	Professional Hardwire Multi-Location Model	120 Volt AC	Ionization
SA 379	Professional Hardwire with Battery Back-Up and Alarm-Pause Model	120 Volt AC with 9 Volt Back-Up Battery	Ionization

AMERICAN SENSORS CARBON MONOXIDE ALARMS

American Sensors also offers a complete line of Carbon Monoxide Alarms including:

- CO800 - Plug-In Carbon Monoxide Alarm
- CO810 - 120 Volt AC Hardwire Carbon Monoxide Alarm
- CO900 - Plug-In Carbon Monoxide Alarm with Battery Back-Up
- CO910 - Plug-In Carbon Monoxide Alarm with Digital LED Display
- CO920 - Plug-In Carbon Monoxide Alarm with Digital LED and Back-Up Power Source
- CO1100 - Battery Powered Carbon Monoxide Alarm for Table Top, Travel or Wall Mount

READ CAREFULLY AND SAVE. This manual contains important information. A copy of this manual must be left with the end user.