

FIREX[®]

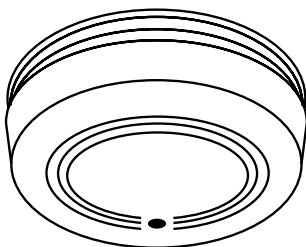
Smoke Alarm

USER'S MANUAL

Models A, B, C, E
Ionization Type

Model PB
Photoelectric type

BATTERY-POWERED
SINGLE STATION
SMOKE ALARM



Printed in U.S.A.

PLEASE READ AND SAVE

INSTALLER: Please leave this manual with the product.

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110-524C

Ionization alarms are generally more effective at detecting fast, flaming fires that consume combustible materials rapidly and spread quickly. Sources of these fires may include flammable liquids or paper burning in a waste container. Photoelectric alarms are generally more effective at detecting slow, smoldering fires that smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning in couches or bedding. **However, both types of alarms provide adequate detection of both types of fires.**

If you desire the earliest detection of both smoldering fires and fast flaming fires, you should install smoke alarms that combine both photoelectric and ionization sensing technologies in one unit.

SMOKE ALARM FEATURES

- Models A, B, C and E are ionization-type smoke alarms. Ionization smoke alarms respond faster to small, invisible particles of smoke due to fast-burning flames.
- Model PB is a photoelectric-type smoke alarm. Photoelectric smoke alarms respond faster to large particles of smoke due to slow-burning, smoldering combustion.
- All models powered by a 9-volt battery.
- Unique "battery missing" signal. The smoke alarm will not attach to the mounting bracket if a battery is not in the battery pocket.
- Low battery signal. The smoke alarm will sound a short beep about once a minute if the battery needs replacement.
- Optional tamper-resist feature can serve as a safeguard against tampering.
- Clear LED on Models B, C, E and PB flashes about once a minute. This indicates the smoke alarm is receiving power.
- Loud alarm horn-85 decibels at 10 feet-sounds to alert you to a fire emergency.
- Test button checks smoke alarm operation. Model C also features a False Alarm Control. When activated, this quiets unwanted alarms for up to 10 minutes.
- Model E features the SAFETY LIGHT. This is a small light which will turn on when the smoke alarm sounds its alarm horn.

IMPORTANT SAFETY INFORMATION PLEASE READ AND SAVE THESE INSTRUCTIONS

⚠️ WARNING

- **This smoke alarm requires a working 9-volt battery to operate.** It will not work if the battery is removed, dead, or improperly connected. DO NOT remove or disconnect battery to quiet false alarms. Test weekly and replace the battery at least once a year or when the low battery signal sounds. We recommend you install smoke alarms that operate from both battery and AC power. Having smoke alarms that work from two different power sources can give extra protection in case of a dead battery or an AC power failure. If you have repeated false alarms, move the smoke alarm to a different location, or install specialized smoke alarms such as Model C with False Alarm Control or Model PB with photoelectric sensor.
- **This smoke alarm is designed to be used inside a single-family household.** In multi-family buildings, each individual living unit should have its own alarms. It is not a substitute for a complete commercial alarm system. It should be used only as supplemental protection in hotels, motels, dormitories, hospitals, nursing homes, or group homes.
- **This smoke alarm is not designed for buildings which require complete fire alarm systems.** Buildings of this type include hotels, motels, dormitories, hospitals, nursing homes, and group homes. This is true even if they were once single family homes.
- **DO NOT connect this smoke alarm to any other smoke alarm or devices. DO NOT use external bug screens or alarm guards.** This may cause improper operation.

- **Smoke alarms sound their alarm horns when they detect smoke.** They do not detect heat, flame, or gas. They will not operate if smoke does not reach the smoke alarm.
- **Install a smoke alarm in every room and on every level of the home.** Smoke may not reach the smoke alarm for many reasons. For example, if a fire starts in a remote part of the home, on another level, in a chimney, wall, roof, or on the other side of a closed door, smoke may not reach the smoke alarm in time to alert household members. A smoke alarm will not promptly detect a fire except in the area or room in which it is installed.
- **This smoke alarm meets all NFPA requirements for existing homes and can be used as additional protection in locations not required, but recommended for new construction.** Per the National Fire Protection Association (NFPA) Standard 72, Chapter 2, this type of smoke alarm can be used to meet the minimum requirements for existing residential dwellings. The standard requires that smoke alarms for new residential dwellings be AC powered and interconnected. Therefore, this smoke alarm cannot be used to meet the minimum requirements for new construction residential dwellings. This type of smoke alarm can, however, be used in new construction as additional protection in recommended areas not required by NFPA 72. See page 3 for specific NFPA requirements.
- **Smoke alarms may not alert every household member every time.** The alarm horn is loud in order to alert persons to a potential danger. However, there may be limiting circumstances where a household member may not hear the alarm (e.g., outdoor or indoor noise, sound sleepers, drug or alcohol usage, the hard of hearing, etc.). If you suspect this smoke alarm may not alert a household member, install and maintain specialty smoke alarms. Household members must hear the alarm's warning sound and quickly respond to it to reduce the risk of damage, injury, or death which may result from fire. If a household member is hard of hearing, install special smoke alarms with lights or vibrating devices to alert occupants.
- **This smoke alarm will not provide adequate escape or rescue time in extremely fast moving fires.** Fast fires include gas fires, flammable liquid fires, or fires set on purpose. The smoke alarm will not give adequate escape time to people very close to the fire. Such examples might be children playing with matches or smokers who fall asleep and drop a cigarette into their bed.
- **Smoke alarms have limitations.** This smoke alarm is not foolproof and is not warranted to protect lives or property from fire. Smoke alarms are not a substitute for insurance. Homeowners and renters should insure their lives and property. In addition, it is possible for the smoke alarm to fail at any time. For this reason, you must test the smoke alarm weekly and replace it every 10 years.
- **Smoke alarms must not be used with detector guards** unless the combination of alarm and guard has been evaluated and found suitable for that purpose.

SMOKE ALARM LOCATIONS

Invensys Controls Americas recommends complete coverage protection achieved by installing a smoke alarm in every room of your home. The National Fire Protection Association's (NFPA) MINIMUM requirement for locating smoke alarms in family living units is detailed in NFPA Standard 72, Chapter 2. It reads as follows:

"2-2.1.1.1 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. In new construction a smoke detector also shall be installed in each sleeping room."

Further, section 2-2.2.1 states that:

"In new construction, where more than one smoke detector is required by 2-2.1, they shall be so arranged that operation of any smoke detector shall cause the alarm in all smoke detectors within the dwelling to sound."

The NFPA, 1993 Edition, Appendix A, however, clearly points out that: "The required number of smoke detectors (as defined in the paragraphs above) may not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke detectors. For this reason, it is recommended that the householder consider the use of additional smoke detectors for those areas for increased protection. The additional areas include: basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke detectors."

Further, the California State Fire Marshal states that the minimum number of required smoke alarms is not enough to give the earliest warning under all conditions. The California State Marshal states that: "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 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."

It is clear from the above abstracts that the earliest warning of a developing fire is best achieved by the installation of smoke alarms in all rooms and areas of the residence. Accordingly, Invensys Controls Americas recommends that you install smoke alarms in every room of your residence, even though this is not required by the typical code or standard.

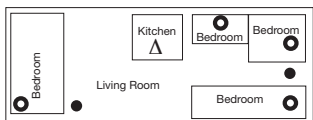
SMOKE ALARM LOCATIONS (CONT.)

FOR MAXIMUM COVERAGE, WE RECOMMEND THAT YOU INSTALL A SMOKE ALARM IN EVERY ROOM OF THE HOME, INCLUDING BASEMENTS AND ATTICS. In addition, we recommend interconnecting all smoke alarms capable of being interconnected. (These smoke alarms CANNOT be interconnected.)

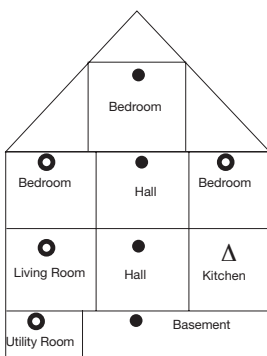
Invensys Controls Americas recommends a minimum of two smoke alarms in every home, no matter how small the home (including efficiency apartments). Invensys Controls Americas also recommends maximum coverage by installing smoke alarms in both required and recommended locations as illustrated and described below.

Existing Homes:

- The NFPA requires a smoke alarm on every level and outside each sleeping area in existing construction. An existing household with one level and one sleeping area is required to have one smoke alarm.



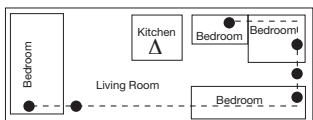
SINGLE STORY RESIDENCE/APARTMENT
MOBILE HOME



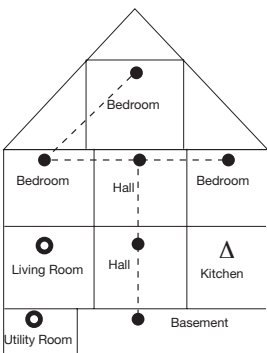
TWO STORY RESIDENCE

New Construction Homes:

- The NFPA requires AC-powered interconnected smoke alarms to be installed inside each bedroom, outside each bedroom area, and on every level of the home. They also require a minimum of two AC-powered, interconnected smoke alarms in any new construction home.



SINGLE STORY RESIDENCE/APARTMENT
MOBILE HOME



TWO STORY RESIDENCE

Warning: Models A, B, C, E and PB smoke alarms DO NOT meet NFPA minimum requirements for new construction. Use these models only in recommended smoke alarm locations.

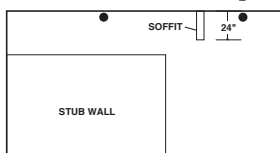
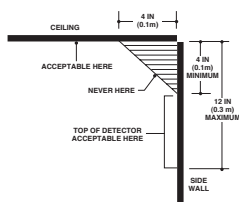
Key	
●	NFPA minimum REQUIRED smoke alarm locations
○	Smoke Alarm RECOMMENDED by Invensys Controls Americas, NFPA, and California State Fire Marshal
△	RECOMMENDED type with False Alarm Control or Photoelectric type
----	Denotes interconnection

Mobile Home Installation:

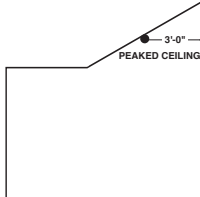
- For minimum protection, smoke alarms should be installed in compliance with H.U.D. Manufactured Home Construction Safety Standards Title 24 CFR, Section 3280.208 and Section 3282.
- For additional protection, see single-story residence smoke alarm requirements/recommendations for existing homes and new construction above.

ADDITIONAL SMOKE ALARM LOCATION INFORMATION:

- Install a smoke alarm as close to the center of the ceiling as possible. If this is not practical, mount no closer than 4 inches from a wall or corner. Also, if local codes allow wall mounting, install smoke alarms on walls between 4 and 12 inches from ceiling/wall intersections.
- Install a smoke alarm in each room that is divided by a partial wall (either coming down from the ceiling at least 24 inches, or coming up from the floor).



- Install smoke alarms on peaked, cathedral, or gabled ceilings 3 feet from the highest point (measured horizontally).
- Install a smoke alarm in lived-in attics or attics which house electrical equipment like furnaces, air conditioners, or heaters.



DO NOT install smoke alarms:



In areas where combustion particles are present. (Combustion particles are the by-products of something that is burning.) Areas to avoid include poorly ventilated kitchens, garages, and near furnaces and hot water heaters. Place smoke alarms as far away from the source of combustion particles as possible to prevent nuisance alarms.



In damp or very humid areas—such as bathrooms with showers—where the normal humidity may rise above 93% relative humidity. Areas above this humidity level can cause a false alarm.



Near air returns or heating and cooling supply vents. Install at least 3 feet (0.9 meters) away from these areas. The air could blow smoke away from the smoke alarm, interrupting its alarm.



In rooms where temperatures may fall below 40°F (4°C) or rise above 100°F (38°C).



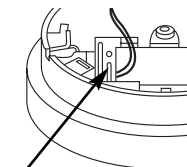
In extremely dusty, dirty, or insect-infested areas. Loose particles interfere with smoke alarm operation.

HOW TO INSTALL THIS SMOKE ALARM

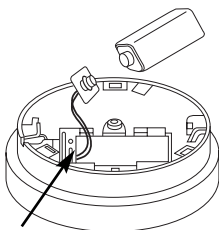
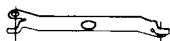
WARNING: This smoke alarm is shipped with the battery disconnected. You **MUST** properly connect the battery before mounting the smoke alarm to the wall or ceiling. The smoke alarm will not operate without the battery first being properly connected.

Read **SMOKE ALARM LOCATIONS** information on pages 2-4. After you have selected the locations for the installation of smoke alarms:

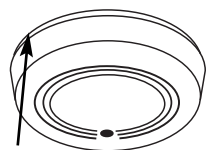
1. Unlock and remove mounting bracket by turning it counter-clockwise. (For tamper-resist option, twist out and set aside the locking pin molded into the plastic in the battery pocket on the back of the smoke alarm.)
2. Place mounting bracket against ceiling or wall where you wish to mount the smoke alarm. Use a pencil to trace the inside of the two mounting hole locations.
3. Drill two holes, using a 3/16 in. (5 mm) drill bit in the centers of the hole locations and insert anchors into holes.
4. Use mounting screws to secure mounting bracket to ceiling or wall.
5. Connect new 9-volt battery to battery connector inside battery pocket. **BE SURE BATTERY IS SECURELY CONNECTED.** Smoke alarm may beep briefly when battery is installed. Firmly depress the test button for five (5) seconds. The smoke alarm should sound its alarm horn, indicating the battery is connected properly.
6. Insert battery into battery pocket.
7. Position smoke alarm to mounting bracket and turn clockwise. The smoke alarm will lock into place. (To engage tamper resist feature, insert pin into notch on edge of smoke alarm.)



Locking Pin



Tamper resist notch



Insert pin here

NOTE: Smoke alarm will not mount to bracket if battery is not installed.

8. Test smoke alarm. See **TESTING THE SMOKE ALARM** procedure on page 5.

WARNING: **DO NOT** connect this smoke alarm to any other alarm or electrical device. Doing so will cause the smoke alarm to operate improperly or fail to operate.

TESTING THE SMOKE ALARM

W A R N I N G



DANGER: If alarm horn sounds, and smoke alarm is not being tested, the smoke alarm is sensing smoke. **THE SOUND OF THE ALARM HORN REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION.**

- **Test each smoke alarm weekly** to be sure it is installed correctly and operating properly.
- **Test smoke alarms upon returning from vacation.** Also test when no one has been in the household for several days.
- **Stand at arm's length from the smoke alarm when testing.** The alarm horn is loud to alert you to an emergency. The alarm horn may be harmful to your hearing.
- The Push-to-Test button accurately tests all functions. **Never use an open flame** from a match or lighter to test this smoke alarm. You may ignite and set fire to the smoke alarm and your home.

Test all smoke alarms weekly as follows:

1. Look at Push-to-Test button. For models B, C, E and PB, a visual light flashing about once a minute indicates the smoke alarm is receiving battery power. (Model A does not have a visual LED indicator.) See LED INDICATORS chart below.
2. Firmly depress the Push-to-Test button for at least five (5) seconds. The smoke alarm will sound its alarm horn loudly. The alarm may sound for up to 10 seconds after releasing the Push-to-Test button.

REPLACE OR RETURN THE ALARM IF THE PUSH-TO-TEST FUNCTION DOES NOT OPERATE PROPERLY AFTER FOLLOWING THE PROCEDURES OUTLINED ABOVE (see REPAIRS on page 6).

LED INDICATORS

Models B, C, E, and PB smoke alarms feature a visual LED indicator which can be seen through the Push-to-Test button. The visual LED indicates the following:

- | | |
|---|--|
| Blinks once a minute | — indicating normal operation. |
| Blinks once a second | — smoke alarm senses smoke and simultaneously sounds an audible alarm. |
| Model C only:
Blinks once every 10 seconds | — smoke alarm is in False Alarm Control and is quieting an unwanted alarm. |

SPECIAL FEATURES OF MODELS C, D, AND E

FALSE ALARM CONTROL (MODEL C ONLY)

Model C features a False Alarm Control. When activated, this quiets unwanted alarms for up to 10 minutes. Always check that the smoke alarm was activated in a false alarm situation. Be sure a real fire emergency does not exist.

To use the False Alarm Control on Model C only:

Press and release the test button during the unwanted alarm. The alarm should stop within ten seconds. The LED will flash about once every 10 seconds. This means the smoke alarm is in False Alarm Control. Just before returning to normal operation, the smoke alarm will sound two short beeps. This signals the end of False Alarm Control.

If the smoke alarm does not go into False Alarm Control and continues to sound its loud alarm horn, the smoke is very heavy. This could be a dangerous situation—take emergency action immediately.

SAFETY LIGHT (MODEL E ONLY)

Model E features a safety light. This light turns on when the smoke alarm sounds. The safety light is a miniature lamp which will last up to 15 hours of continuous operation. Its purpose is to assist in providing light in the escape route during a fire.

If the safety light does not turn on when the smoke alarm is tested, check the batteries. Replace the batteries, if necessary. If the safety light does not turn on with new batteries, then replace the lamp. Replacement lamps are available directly from Invensys Controls Americas. Send \$1.50 (do not send cash) requesting part number C01-406 to Invensys Controls Americas, 3505 Laird Road Unit #14, Mississauga, Ontario L5L 5Y7.

MAINTENANCE AND CLEANING

In addition to weekly testing, this smoke alarm requires yearly battery replacement and periodic cleaning. Periodic cleaning will remove dust, dirt, and debris.

BATTERY REPLACEMENT

Replace battery at least once a year or immediately when the low battery signal (a chirp) sounds once a minute. Use only the following batteries as replacements in this smoke alarm:

Eveready 522 or 1222, or Duracell MN 1604

NOTE: For Model E, replace safety light batteries with two AA size batteries. Replace all batteries at the same time.

⚠ WARNING: DO NOT USE ANY OTHER TYPE OF BATTERY, EXCEPT AS SPECIFIED IN THIS MANUAL. DO NOT USE RECHARGEABLE BATTERIES.

1. Turn smoke alarm counter-clockwise to detach from mounting plate.
2. From back of smoke alarm, remove battery from pocket. Disconnect and discharge drained battery from battery connector.
3. Connect a fresh, 9-volt battery to connector. The battery will fit only one way. Be sure battery connector is securely attached to battery terminals.
4. Push test button for at least five (5) seconds. The alarm horn should sound. This means the battery is connected properly.
5. Place battery into battery pocket.
6. Reattach smoke alarm to mounting plate. To do so, turn smoke alarm clockwise until it snaps into plate.
7. Test smoke alarm using Push-to-Test button as described on page 5, TESTING THE SMOKE ALARM.

CLEANING

Clean the smoke alarm at least once a month to remove dust, dirt, or debris as follows:

- Using the wand attachment of a working vacuum cleaner, vacuum all sides and the cover of smoke alarm. Be sure all the vents are free of debris.
- If necessary, remove battery(ies) and use a damp cloth to clean smoke alarm cover.

IMPORTANT: Do not attempt to remove the cover or clean inside the smoke alarm. THIS WILL VOID YOUR WARRANTY.

REPAIR

⚠ CAUTION: Do not attempt to repair this smoke alarm. Doing so will void your warranty.

If smoke alarm is not operating properly, see TROUBLESHOOTING on page 8. If you cannot solve the problem, and if the alarm is still under warranty, return smoke alarm to Invensys Controls Americas. Pack it in a well-padded carton, shipping prepaid to:

Invensys Controls Americas
Warranty Returns Department
3505 Laird Road Unit #14
Mississauga, Ontario L5L 5Y7

If the smoke alarm is no longer under warranty, replace the smoke alarm immediately with a comparable Firex brand smoke alarm.

PRACTICE FIRE SAFETY

Develop family escape plans, discuss them with ALL household members, and practice them regularly.

- Expose everyone to the sound of a smoke alarm and explain what the sound means.
- Determine TWO exits from each room and an escape route to the outside from each exit.
- Teach all household members to touch the door. **INSTRUCT THEM NOT TO OPEN THE DOOR IF THE DOOR IS HOT.** Tell them to use an alternative exit if the door is hot.
- Teach household members to crawl along the floor to stay below dangerous smoke, fumes, and gases.
- Determine a safe meeting place for all members outside the building.
- Know how to call the nearest fire department in case of emergency.

Besides practicing and understanding fire safety rules, you should:

1. Install smoke alarms in every room of your residence.
2. Test smoke alarms weekly.
3. Maintain smoke alarms properly.
4. Keep a supply of replacement batteries on hand.
5. Replace non-working smoke alarms immediately.
6. Prevent hazardous conditions and follow fire safety rules:
 - Keep matches and cigarette lighters out of the hands of children.
 - Never smoke in bed.
 - Store flammables in proper, closed containers and do not use them near flame or sparks.
 - Keep electrical appliances in good condition.
 - Make sure stoves, fireplaces, chimneys, barbeque grills, and other appliances are clean and free of grease. Be sure they are properly installed and operating as designed.
 - Keep operating portable heaters and burning candles away from combustible materials. Watch them carefully.
 - Do not overload electrical circuits.

WHAT TO DO IN CASE OF A FIRE

1. **Don't panic; stay calm. Notify every member in the residence of the fire.**
2. **Have all residents leave the building as quickly as possible. Touch doors to feel if they are hot before opening them. Use an alternative exit if necessary. Crawl along the floor and cover your mouth and nose with a wet cloth, if possible. DO NOT stop to collect anything. Follow predefined escape plans, if possible.**
3. **Meet at a pre-arranged meeting place outside the building.**
4. **Call the fire department from OUTSIDE the building.**
5. **DO NOT GO BACK INSIDE A BURNING BUILDING. Wait for the fire department to arrive.**

These guidelines will assist you in the event of a fire. However, to reduce the chance that fires will start, practice fire safety rules and prevent hazardous situations.

TROUBLESHOOTING

⚠ WARNING: DO NOT disconnect battery to quiet an unwanted false alarm. This will remove your protection. Fan the air around the smoke alarm or open a window to remove the smoke, dust, or water vapor causing the false alarm.

PROBLEM	SOLUTION
Smoke alarm does not sound when tested. Note: Push and hold test button for at least five (5) seconds when testing.	1. Check that battery is fresh and is connected properly.
Smoke alarm beeps about once a minute.	1. Replace battery. See “Battery Replacement” in the MAINTENANCE AND CLEANING section.
Smoke alarm sounds unwanted alarms when residents are cooking or taking showers.	1. Clean smoke alarm. 2. Move smoke alarm to a new location. See SMOKE ALARM LOCATIONS.
Safety light does not turn on when smoke alarm is tested. (Model E only).	1. Check batteries and replace bulb for safety light, if necessary. See SAFETY LIGHT.

**IF YOU CANNOT SOLVE THE PROBLEM,
CALL TECHNICAL SUPPORT
1-800-445-8299**

REPLACE OR RETURN THE ALARM IF THE PUSH-TO-TEST FUNCTION DOES NOT OPERATE PROPERLY AFTER FOLLOWING THE PROCEDURES OUTLINED ABOVE (see REPAIRS on page 6).

WARRANTY

Invensys Controls Americas warrants to the original consumer purchaser each new smoke alarm to be free from defects in material and workmanship under normal use and service for a period of five (5) years from date of purchase. Invensys Controls Americas agrees to repair or replace, at its option, any defective smoke alarm, provided that it is returned with postage prepaid and with proof of purchase date to Invensys Controls Americas. This warranty does not cover damage resulting from accident, misuse or abuse or lack of reasonable care of product. This warranty is in lieu of all other express warranties, obligations or liabilities. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO A PERIOD OF FIVE (5) YEARS FROM PURCHASE DATE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. IN NO CASE SHALL INVENSYS CONTROLS AMERICAS COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY ITS 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. This warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

Invensys®

Controls Americas

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