2002 INVENSYS CLIMATE CONTROLS AMERICAS



Smoke/C0 Alarm

110-1050

SMOKE/CARBON MONOXIDE ALARM MODEL FADCQ

PLEASE READ AND SAVE THIS MANUAL

Installer: Please leave this manual with the product



The ionization type alarms are generally more effective at detecting fast, flaming fires that consume combustible materials rapidly and spread quickly. Sources of these fires may include paper burning in a waste container or a grease fire in the kitchen. The photoelectric type 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.

CONGRATULATIONS on your purchase of this Firex Combination Smoke/Carbon Monoxide Alarm. It is an important investment in your family's safety and a key component of your home protection/security system. Please read this booklet thoroughly. The more familiar you are with the information it contains, the easier you will find it to install, operate, and maintain your smoke and carbon monoxide alarm properly. This ultimately means greater security and peace of mind for you and your family.

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The following symbols identify the most important safety messages in this manual.

When you see this symbol, be aware that if the message is ignored, the hazard WILL result in SEVERE bodily injury or death.

A WARNING

When you see this symbol, be aware that if the message is ignored, the hazard CAN cause SEVERE bodily injury or death.

When you see this symbol, be aware that if the message is ignored, the hazard CAN or WILL cause MINOR bodily injury.

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I. QUICK REFERENCE GUIDES

IMPORTANT: ALL Quick Reference Guides in this manual are designed to *introduce* you to the basic features, operations, and safety considerations of the 7000 Combination Smoke/CO Alarm. You MUST read this entire manual before installing and using the alarm.

General Information and Features

About this Alarm

This combination alarm has separate sensors to detect smoke and carbon monoxide (CO). The smoke alarm has priority over the CO alarm.

This alarm can be powered two ways: Battery (DC) only, or 120V AC with a 9-volt battery back-up source.

This alarm can be interconnected in a series of up to 18 compatible devices (maximum of 12 can be Firex smoke alarms and 6 CO alarms or heat detectors).

Features/Benefits:

- Quick Quiet[™] False Alarm Control[™] Helps you evaluate and respond more calmly to alarm situations by quieting the alarm horn(s) without disrupting protection.
- Smart Quiet [™] One feature, two functions.
 - 1) Smart Quiet [™] Trigger Alarm Locator: Improves safety by identifying areas of immediate danger, and helps residents calmly evacuate without the distraction of all alarm horn(s) sounding. All but the trigger alarm(s) will be silenced for up to 10 minutes.

2) Smart Quiet [™] Low Battery Alert: Residents can silence alarm and sleep without losing protection for up to 8

hours, and replace the battery in the mornina.

- Ramp-up Horn: Protects your hearing when testing the alarm. Ramp-up horn gives you time to move away from the horn before the full alarm horn sequence begins.
- Alarm Horn: Separate and distinct horn patterns for smoke and CO alarms. Sounds a minimum of 85dB at 10 feet. Meets or exceeds UL and ULC standards for audible horn. Listed for use in US or Canada.
- Three Indicator Lights With Five Communication Colors: Improves safety.

BLUE/CO: Blue light flashes rapidly when sensor detects elevated CO levels. Horn alarms 4 times, pauses, repeats.

RED-YELLOW-ORANGE/SMOKE:

Patented Red-Yellow-Orange light flashes rapidly when sensor detects elevated smoke levels. Horn alarms three times. pauses, repeats.

GREEN/AC POWER: Improves safety by giving visual indication that 120V AC is powering the alarm. Meets UL/ULC agency compliance regulations for visual AC power notification.

 Low Battery Warning: (Audible and Visual) Increases protection with visual and audible alert of low battery before protection is lost. In an interconnected series, helps you quickly identify the unit with low battery.

- Latching LED: After the alarm condition is over, helps identify which unit in a linked series triggered an alarm. The Latching LED continues to identify the trigger alarm until it is manually reset by pressing the Smart Button. Can also help you identify a malfunctioning alarm in a series.
- Dual Ionization Smoke Chamber: Meets or exceeds UL/ULC standards. Generally faster at detecting fast-burning fires.
- Firex CO Sensor System: Improves safety. Sensor system reacts to CO most like the human body. Effectively simulates the gradual poisoning (accumulation) and detoxification of COHb in the blood stream.
- Smart Button: This one button is all you need to test the unit and operate features like Quick Quiet[™], Smart Quiet[™], and reset the Latching LED. It automatically activates the proper response to the alarm condition at the time you press it.
- **Replacement:** This combination Smoke/CO Alarm can be used as a replacement for all Firex Smoke and CO* alarms without additional wiring. Lets you easily upgrade from individual smoke or CO alarm to a combination unit. *(Existing CO alarms may need to be replaced in interconnected systems.)
- **Product Family Styling:** All Firex alarms have a clean, consistent look in the home.

Installation Features/Benefits:

• Front Load Battery Compartment: Fast, safe and convenient! Change the battery without removing the alarm from the mounting bracket. Saves installation time, too.

- 9V Alkaline Battery: Included with the alarm. UL/ULC Listed to provide a minimum of one year battery back-up and battery operation. With AC power applied, battery can be expected to last up to five years.
- **Powerlink Tab:** Keeps battery power from draining between alarm installation and homeowner move-in.
- **Dust Cover:** Protects the sensors from dust, dirt, fumes, or other common construction contaminants—which can contribute to false alarms—until the job is complete.
- Shared Bracket and Wire Leads: Lets you replace or move alarms around quickly and easily using the standard Firex smoke connector and mounting bracket.

Interconnect Features/Benefits:

- Interconnect: Linking units in a series broadens the coverage in a home, and can give residents extra time to respond to the alert.
- Smart Interconnect: Saves cost of additional wiring by allowing smoke and CO alarms to share a single, smart interconnect wire. Installations can be done using just three wires: hot, neutral, and interconnect.
- **DC Interconnect:** Where allowed by code, lets you interconnect units which operate on battery power only in a cost-effective way. Interconnected units can provide earlier warning of a dangerous situation.

Important Safety Information

Required Power Supply

• This combination smoke-CO alarm requires constant 120V AC power AND/OR a working 9-volt battery to operate properly.

Recommended Coverage

- Because smoke in one area may not reach a smoke alarm in another, smoke alarms are recommended in every room and on every level of the home. Interconnected alarms can provide better whole-home protection than stand-alone alarms.
- CO alarms are recommended near bedrooms and sleeping areas where they can wake sleeping residents. Additional CO alarms are recommended 5-20 feet from sources of CO like a furnace, water heater, or fireplace.

Installation/Interconnect

- This combination alarm should be installed only by a licensed qualified electrician.
 Observe and follow all local and national electrical and building codes for installation.
- Connect this combination alarm ONLY to compatible devices listed in this manual.

Compliance

- This combination alarm is designed to be used in ordinary indoor locations of single-family households only.
- The sensitivity of both the smoke and CO sensors, and the horn patterns for both warnings, comply with UL/ULC standards.

General Limitations

- This alarm cannot alert every household member every time if it cannot be heard because of location, obstructions, ambient noise, condition of residents, etc. It is not intended to alert residents who are hard of hearing.
- ALL alarms have limitations. This combination smoke-CO alarm is not foolproof and is not warranted to protect lives or property. It is not a substitute for insurance.
- Because it is possible for the alarm to fail at any time, you must test the alarm weekly and replace it every 5 years.
- **Smoke alarms** can sound an alarm only when smoke reaches their sensors. Smoke may not reach the smoke alarm QUICKLY ENOUGH to ensure safe escape. They do not sense heat, flame, or gas.
- **CO Alarms** are designed to detect carbon monoxide gas from any source of combustion that reach their sensor. They are NOT designed to detect smoke, fire, or any other type of gas.

IMPORTANT: Please see Chapter VII "Important Safety Information" for detailed safety considerations and alarm limitations before installing or using this alarm.

The Dangers of Fire

Fire is Unpredictable

- Fire can burn a two-story home to the ground in minutes.
- Fire can elevate air temperatures at eye-level to over 1200°F (650°C)!
- In a typical home fire you have just minutes to escape, which is why it is so important to have at least one smoke alarm on every level of your home and in every bedroom or sleeping area.

Depending on the source, materials involved, and environment, fire can spread rapidly or smolder slowly for hours.

Different Types of Smoke Alarms

lonization smoke alarms are generally more effective at detecting fast, flaming fires which consume combustible materials rapidly and spread quickly. Sources of these fires include paper burning in a waste container or a grease fire in the kitchen. Photoelectric smoke alarms are generally more effective at detecting slow, smoldering fires which smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning in couches or bedding.

NOTE - This FADCQ alarm uses only an ionization type detector for sensing smoke. You may wish to consider installing other photoelectric alarms or combination ionization/photoelectric dual sensor alarms in your home for increased protection.

The Dangers of CO

Carbon Monoxide (CO) is a Toxic Gas

Carbon monoxide poisoning is a serious issue. Many families suffer daily, and over one thousand lives are lost each year because of this deadly household gas.

- You cannot see, smell, or taste CO.
- The effects of CO poisoning can cause household members to become extremely ill or even cause death.
- CO poisoning can happen almost anywhere. Many appliances like furnaces, ovens, fireplaces, kerosene heaters, and grills may silently emit CO because of damage, poor maintenance, or defects.

Understanding How CO Forms

Appliance Malfunction: CO forms when fuel burns without sufficient oxygen (incomplete combustion). This type of malfunction can happen to any fuel-burning appliance at any time.

Environmental Conditions: Example: Fireplace chimneys can fill with leaves during the fall season. If enough leaves, dirt, and soot are accumulated in the chimney, proper ventilation will be interrupted. This can cause a backdraft of CO into the home. The result can be fatal. With proper maintenance and cleaning, however, the potential for CO build up can be reduced.

A WARNING

BE AWARE OF COMMON SOURCES OF CARBON MONOXIDE. See Chapter VII for details.

Where to Install This Alarm

Before installing your combination Smoke/CO Alarm, it is important to choose the best locations in your home. Placement can affect how well the alarm performs and how well residents hear the alarm if it sounds.

IMPORTANT!

The following are general guidelines for choosing where to install your alarms. For more details and Agency Placement information, please read "Chapter 8: Agency Recommendations for Alarm Placement" before installing this alarm.

Install the Recommended Number of Alarms

- Fire safety professionals recommend at least one smoke alarm on every level of your home, in each bedroom hallway, and inside each bedroom or sleeping area.
- At least one CO alarm should be placed where it will wake all sleeping residents. For additional protection, place additional CO alarms between 5 and 20 feet from potential sources of CO, like a furnace, water heater or fireplace.

This combination Smoke/CO Alarm makes it easy to provide both types of protection throughout the home.

Choose Appropriate Locations

- Alarms can alert you to a problem only after smoke or CO reach their sensors. Choose locations free of obstructions, where the alarm will stay clean and protected from adverse environmental conditions.
- Make sure the alarms can be easily heard from multiple locations throughout the home.

Check Your Local Building Codes

- This combination Smoke/CO Alarm is designed to be used in single-family homes. It alone may not meet requirements for multiple-resident dwellings (apartment buildings, boarding houses, hotels or motels).
- Some codes may require that smoke alarms be interconnected in new construction.



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II. HOW TO INSTALL THIS SMOKE/CO ALARM

One of the features of this combination smoke and CO alarm is that it can be mounted and operated as follows:

- 1. Battery (DC) Only Stand Alone
- 2. Battery (DC) Only Interconnect to another battery operated Firex alarm.
- 3. AC w/Battery Back-up, Single Station Stand-alone
- AC w/Battery Back-up Interconnected with other Firex AC and AC w/Battery Back-up Alarms.

Installation for Battery (DC) Operation Only

- 1. Remove the mounting plate. Hold the alarm and turn the mounting plate clockwise to separate it from the back of the alarm.
- 2. Hold the mounting plate against the ceiling or wall in the desired position and use a pencil to trace the inside of the mounting slots.

IMPORTANT!

To interconnect two Battery Operated (DC) alarms, trace a third point 1-3/8" to 2" (3.5cm to 5cm) where the interconnect wire will come through mounting surface to connect to the alarm, then proceed to "INTERCONNECTING TWO BATTERY (DC) ONLY ALARMS".

3. Use a 3/16" (5mm) drill bit to drill through the center of the outlines you made in Step 2. (For DC Interconnect–use an appropriately sized hole saw for interconnect hole.)

- Insert screw anchors into the drilled holes. If necessary, gently tap anchors with a hammer until they are flush with the mounting surface.
- 5. Attach the mounting plate to the mounting surface with the mounting screws provided.
- 6. Position the combination smoke and CO alarm on the mounting plate and turn clockwise to lock the unit into place.
- 7. Activate the battery.

Remove the arrow tab and close the battery door. The combination alarm will beep briefly and the RED light will flash as the battery door is closed.



8. Test the combination alarm. See "TESTING THE COMBINATION ALARM".

Interconnecting Two Battery (DC) Only Alarms

When interconnecting compatible DC alarms, location is important. Do not locate alarms on ceiling joists or other obstructions.

- **NOTE:** Use #18 AWG minimum solid or stranded wire. When interconnecting, maximum wire length between any two is 1,500 feet for #18 AWG or 4,000 feet for #14 AWG (20 OHMS loop resistance).
- 1. Follow Steps 1 to 3 in "INSTALLATION FOR BATTERY (DC) ONLY OPERATION" for alarms being interconnected.
- 2. Thread the low voltage wire through the interconnect hole drilled in the mounting surface. Strip off 1/2" of insulation and attach to the alarm connector with a wire nut.
- 3. Connect yellow and white wires to the connector using a wire nut. Connect yellow to yellow and white to white for proper operation. Do not connect black wire.
- 4. Insert the screw anchors into the holes drilled for the mounting slots. If necessary, gently tap the anchors with a hammer until they are flush with the mounting surface. Repeat Steps 2 and 3 with the other Firex alarm.
- 5. Attach the mounting plate to the mounting surface with the mounting screws provided.
- 6. Plug alarm connector into alarm. Feed wire through hole in mounting surface. Position the combination smoke and CO alarm on the mounting plate and turn clockwise to lock the unit into place.
- 7. Activate the battery. Remove the arrow tab and close the battery door. The combination alarm will beep briefly and the RED light will flash as the battery door is closed.
- 8. Test the alarm with both local and interconnect tests (See TESTING AND MAINTENANCE.)

Installation For AC With Battery Back-up

ELECTRICAL SHOCK HAZARD. Turn off power at the main fuse box or circuit breaker by removing the fuse or switching the circuit breaker to the OFF position.

This combination alarm should be installed only by a qualified electrician. Smoke and Carbon Monoxide alarm installation must be in accordance with the requirements of Article 760 of the National Electrical Code and any local codes that may apply (AC/DC models only).

THIS COMBINATION ALARM SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATION-AL FIRE PROTECTION ASSOCIATION'S STAN-DARD 72 (National Fire Protection Association, One Batterymarch Park, Quincy, MA 02269).

- Install combination alarm on any 4-inch or single gang junction box only.
- 1. Remove mounting plate from combination alarm box.
- Align recessed slots on plate with mounting holes of any 4-inch or single gang junction box.



3. Gently pull household wires through center hole of plate.

- 4. Secure plate to junction box using mounting screws.
- 5. With a small wire connector, connect white wire from connector plug to white household wire.
- 6. Connect black wire from connector plug to black household wire.
- 7. To interconnect alarms, connect yellow wire from connector to interconnect wire between other combination or smoke alarms. Before starting, see "INTERCONNECTING COMBI-NATION AND OR SMOKE ALARMS."





- **NOTE:** For a single-station combination alarm, cover yellow wire with electrical tape and tuck into junction box.
- Attach connector plug to pins on back of combination alarm. Plug will fit only one way and will snap into place. Gently tug connector to be sure it is attached securely.
- 9. Position the combination alarm to mounting plate and turn clockwise to lock into place.
- 10. Turn on power at main fuse box or circuit breaker.
- 11. Test combination alarm. See "TESTING THE COMBINATION ALARM."
- 12. Activate the battery. Remove arrow tab and close battery door. The combination alarm will beep briefly and the RED light will flash as door is closed.



Interconnecting AC Only and AC/DC (With Battery Back-up) Alarms

- Use #18 AWG minimum solid or stranded wire. When interconnecting, maximum wire length between any two is 1,500 feet for #18 AWG or 4,000 feet for #14 AWG (20 OHMS loop resistance).
- This combination alarm may be interconnected with as many as 11 other Firex model FADCQ, FADC, TPCI, AD, ADC, PAD, G, GC, PG40, or FX1218 smoke alarms, and as many as 6 Firex model ADH heat alarms or COQ-8 CO alarms for a total of not more than 18 interconnected devices. DO NOT connect to any other type or model combination smoke, or CO alarm.

While AC and AC/DC smoke alarms can be interconnected, ONLY when AC power is ACTIVE will ALL units ALARM when one unit senses smoke. WHEN AC power is DISCONNECTED, INTERRUPT-ED OR NOT PRESENT FOR ANY REASON, ONLY AC/DC UNITS WILL CONTINUE TO SEND AND RECEIVE SIGNALS AND SOUND AN ALARM IN RESPONSE TO THE PRESENCE OF SMOKE. WHEN power is DISCONNECTED, INTERRUPTED OR NOT PRESENT FOR ANY REASON, AC powered smoke alarms WILL NOT OPERATE. The Model G is an AC-only smoke alarm!

• Connect combination and smoke alarms to a single dedicated AC branch circuit. If local codes do not permit such a wiring configuration or connection, be sure the neutral wire is common to both circuits or phases.

Installing AC/DC Combination Alarms as Replacements with Existing Interconnected Firex Alarms

Model FADCQ combination alarms are designed to be used as replacement units for all Firex AC and AC/DC smoke alarms with a low voltage interconnect line. These models include G, GC, H, AD, ADC, and FADC. All models listed use a 3-wire interconnect system. To interconnect with other models, please call our free technical support line at (800) 445-8299.

IMPORTANT! READ BEFORE INSTALLING THIS SMOKE AND CO ALARM WITH EXISTING INTERCONNECTED FIREX ALARMS

In residential homes, there are two ways smoke and CO alarms are hardwire installed and interconnected. One uses 4 wires, the other uses 3 wires.

The Model FADCQ smoke and CO alarm can be used with both 4 and 3 wire systems.

- 1. Identify whether the installed system uses 3 or 4 wires to interconnect.
- If a 4-wire system is installed, change the system to a 3-wire by connecting the independant interconnect wires (yellow and blue) at any point in the system.
- 3. Smoke alarms generally don't require any changes (other than replacement every ten years).
- 4. Replace older CO alarms on the new 3-wire system with COQ-8 CO alarms or FADCQ combination alarms. These alarms can discriminate between signals coming from a smoke alarm and signals coming from a CO alarm. Older model CO models converted to 3-wire cannot. So when any alarm is triggered, all the older

CO alarms will sound, creating confusion about which danger is actually present.

To Install Combination Unit as a Replacement:

- 1. Turn off AC power at circuit breaker or main fuse box.
- 2. Remove old alarm from mounting bracket.
- 3. Disconnect wire connector from back of unit.
- 4. Remove wire nuts and connect new wire connector to household wiring. Be certain not to cross the wiring.
- 5. Connect wire connector to back of combination alarm.
- 6. If mounting bracket is the same, reattach combo alarm to mounting bracket. Feed wiring back through hole in mounting surface.
- 7. Turn on power at main fuse box or circuit breaker.
- 8. Test combination alarm. See "TESTING THE COMBINATION ALARM."
- 9. Activate the battery. Remove arrow tab and close battery door. The combination alarm will beep briefly and the RED light will flash as door is closed.

III. IF THE ALARM SOUNDS

If Your Smoke Alarm Sounds

WARNING

IF THE ALARM LIGHT IS FLASHING RED-YELLOW-ORANGE AND THE ALARM IS SOUNDING, IT INDICATES THE PRESENCE OF SMOKE WHICH CAN INDICATE THE PRESENCE OF FIRE.

- USA: HORN SOUNDS 3 ALARMS APPROXIMATELY EVERY FOUR SECONDS.
- CANADA: HORN SOUNDS 4 QUICK ALARMS APPROXIMATELY EVERY SECOND.

YOU MUST QUICKLY DO THE FOLLOWING:

If the smoke alarm sounds and you have not pushed the test button, it is warning of a dangerous situation.

Your immediate response is necessary. To prepare for such occurrences, develop family escape plans, discuss them with ALL household members, and practice them regularly.

What to Do in Case of a Fire

- 1. Don't panic; stay calm.
- Leave the building as quickly as possible. Touch doors with the back of your hand to feel if they are hot before opening them. IF DOOR IS HOT USE AN ALTERNATE EXIT. Crawl along the floor, and DO NOT stop to collect anything.
- 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.

If Your CO Alarm Sounds

Carbon Monoxide has no taste, feel or smell – but it can be FATAL.

IF THE BLUE CO ALARM LIGHT IS FLASHING AND THE HORN SOUNDS 4 RAPID ALARMS APPROXIMATELY EVERY FIVE SECONDS, IT INDICATES THE PRESENCE OF CO WHICH CAN BE FATAL. YOU MUST QUICKLY DO THE FOLLOWING:

- 1. Operate Test/Reset button;
- 2. Call your emergency services [fire department or 911].
- Immediately move to fresh air outdoors or by an open door/window. Make certain that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders have arrived, the premises have been aired out, and your alarm remains in its normal condition.
- 4. After following steps 1 3, if your alarm reactivates within a 24 hour period, repeat steps

1 - 3 and call a qualified appliance technician (______) to investigate sources of CO from fuel burning equipment and appliances, and to inspect for proper operation of this equipment. If problems are identified during this inspection, have the equipment serviced immediately. Note any combustion equipment not inspected by the technicians and consult the manufacturers' instructions, or contact the manufacturers directly, for more information about CO safety and this equipment.

If Your CO Alarm Sounds (cont'd)

Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

If the CO alarm sounds its alarm horn again, it has sensed CO. This is not a false alarm.

POTENTIAL SOURCES OF CO IN YOUR HOME

It is important to be familiar with the potential sources of CO in your home. In the event of an alarm, it will make it easier to pinpoint and correct the problem.

Be aware of the proper uses for each device. Have these devices serviced and cleaned regularly. Use common sense, and follow safety and hazard instructions carefully whenever using any of these devices.

BE AWARE OF COMMON SOURCES OF CARBON MONOXIDE. Common sources of carbon monoxide are furnaces, heating devices, water heaters, gas stoves, kerosene heaters, fireplaces, barbecues used indoors, running motors or engines in attached garages, and gasoline powered devices, such as generators or pumps used in emergency situations.

A WARNING

Individuals with medical problems may consider using warning devices which provide audible and visual signals for carbon monoxide concentrations under 30ppm.

If alarm horn sounds, and the combination alarm is not being tested, the unit is sensing either smoke or CO. THE SOUND OF THE ALARM HORN REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION. Please read and understand the following features to determine what you can do if the alarm sounds unexpectedly.

Quick Quiet[™] False Alarm Control[™] and Smart Quiet[™]

When the alarm(s) sound, pushing the Smart Button on the nearest alarm activates either a Quick Quiet[™] False Alarm Control[™] or Smart Quiet[™] response **depending on the situation.**

NOTE: These features **temporarily quiet alarms**, but do not disable the sensor. They are designed to give you time to evacuate the building without the added noise of the alarm.

If you push the Smart Button on the alarm sounding nearest to you...

- And all alarms including the one you touched silence, Quick Quiet[™] has been activated. This also means the unit nearest you is the triggering unit. Assess the situation around you and take appropriate action.
- And all alarms silence except one located elsewhere in the building, the Smart Quiet[™] has been activated and has identified the triggering alarm. This helps you identify the trigger alarm(s) and areas of immediate danger to avoid under alarm conditions.

Continued...

A WARNING

If at any time smoke or CO is heavy enough to indicate a dangerous situation, the alarm may not silence, or may start sounding again quickly. DO NOT ignore the alarm!

TAKE EMERGENCY ACTION IMMEDIATELY!

QUICK QUIET™ FALSE ALARM CONTROL™

Smoke Alarm

- Alarm(s) stop sounding within 10 seconds.
- RED light blinks once every 10 seconds on all trigger alarms.
- Quiets the smoke alarm for up to 15 minutes (unless smoke present indicates an emergency condition).

CO Alarm (CO Reset)

- Alarm(s) stop sounding within 10 seconds.
- BLUE light blinks once every 10 seconds on all trigger alarms.
- Quiets the CO alarm for up to 6 minutes (unless the CO levels present indicate an emergency condition).

In an interconnected series, the RED-YELLOW-ORANGE or BLUE light will flash only on the trigger alarm(s).

SMART QUIET™

Smoke or CO Alarm

- The alarm(s) on any non-triggering units (those not actually sensing smoke or CO) stop sounding within 10 seconds. Trigger alarms will continue to sound.
- Non-triggering alarms remain silent for approximately one minute to allow you time to listen for and identify the location of the triggering alarm(s) that actually detected the dangerous condition. **MOVE AWAY from areas where you hear trigger alarms sounding if at all possible.**

• After one minute, if a dangerous condition persists, all units will go back into alarm.

DO NOT IGNORE the trigger alarm(s), and be aware that an extremely dangerous situation exists at that location(s) in your home.

In an interconnected series, the RED-YELLOW-ORANGE or BLUE light will only flash on the trigger alarm(s).

LATCHING LED ALARM INDICATOR

The Latching LED Alarm Indicator activates automatically. It helps you identify the original trigger alarm(s) in an interconnected series after a smoke or CO event.

NOTE: If the unit is operating on battery power only (GREEN light is OFF), the latching lights will blink approximately once per minute.

Smoke Alarm - after a smoke alarm condition, the triggering alarm's RED light blinks 3 times every 10 seconds until manually reset.

CO Alarm - after a CO alarm condition, the triggering alarm's BLUE light blinks 4 times every 10 seconds until manually reset.

SMART QUIET™ FOR LOW BATTERY ALERT

You can silence the Low Battery Alert for up to 8 hours by pressing and releasing the Smart Button. The sensor remains active.

This allows family members to go back to sleep or gives you time to purchase a replacement battery. It is important that you replace the battery as soon as possible to continue your protection!

IV: UNDERSTANDING THE INDICATOR LIGHTS

The Model FADCQ features 3 lights with 5 distinct colors. Use the chart below to determine what the different indicator light colors and flashes mean:

| Constant GREEN on | - AC power is present. | |
|--|---|--|
| GREEN is off | AC power is NOT present. Unit may be operating on battery back-up or battery only power. | |
| RED and BLUE blink once a minute | Unit is functioning properly and is checking for hazardous smoke and CO levels, periodically checking the battery, and monitoring the interconnect for signals from other smoke, heat, and CO alarms. | |
| BLUE flashes four times immediately after four horn alarms | -CO alarm senses dangerous levels of CO and sounds the alarm. | |
| RED-YELLOW-ORANGE blink between horn alarms | - Smoke alarm senses smoke and sounds an alarm. | |
| RED blinks once every ten seconds | - Smoke alarm is in Quick Quiet™ False Alarm Control™ mode and is quieting an unwanted alarm. | |
| BLUE blinks once every ten seconds | The CO alarm has been reset. After approximately six minutes of silence the CO alarm will check for the presence of CO gas. If it is above 70 ppm, the unit will begin to sound the CO alarm again; if the level is below 70 ppm the unit remain quiet. | |
| RED-YELLOW-ORANGE AND BLUE are off and detector horn is sounding | (Interconnected alarms only) another smoke or CO alarm has sensed smoke or CO and is signaling an alarm. | |
| RED blinks 3 times every ten seconds | Latching indicator. This unit initiated and memorized a smoke alarm condition. NOTE – if GREEN is not illuminated, there is no AC power for the alarm. The RED will blink 3 times and repeat once per minute. Press Test Button to reset. | |
| BLUE blinks 4 times every ten seconds | Latching indicator. This unit initiated and memorized a CO alarm condition. NOTE – if GREEN is not illuminated, there is no AC power for the alarm. The BLUE will blink 4 times and repeat once per minute. Press Test Button to reset. | |
| YELLOW blinks 5 times every minute | Battery Warning. Indicates weak or improperly connected battery, preceded by an audible beep. Press the Test Button to silence the beeping for approximately 8 hours. Replace battery as soon as possible. | |
| YELLOW blinks 7 times every minute | Low Battery Warning. Indicates very weak or improperly connected battery, preceded by an audible beep. The battery must be replaced immediately for your protection. Smart Quiet (quiets low battery warning) is inoperable. | |

Understanding the Alarm LEDs and Horn Patterns

| CONDITION | HORN | LEDs | SMART BUTTON KEY |
|--|--|--|---|
| AC power is present | | Green light ON | |
| Standby condition | | Red and Blue blink once per minute | Quick push activates False Alarm Control™ and a longer press also activates a local Push-to-Test sequence. |
| Standby condition | | Red and Blue blink once per minute | Press and hold until the double chirp to activate a local Push-to-Test sequence and send a signal to other interconnected alarms. |
| Low-battery #1 | Horn beeps once per minute | Yellow light flashes 5 times per minute after horn beeps | Quick press will eliminate the low-battery signal for about 8 hours. |
| Low-battery #2 | Horn beeps once per minute | Yellow light flashes 7 times per minute after horn beeps | Smart button inoperable. Replace battery immediately. |
| Fault condition | Horn beeps 2 times per minute | Yellow light flashes 2 times per minute after horn beeps | Press and hold to check the alarm again. Replace alarm if it remains in fault condition. |
| Local smoke is detected | Horn sounds 3 long tones, then pauses, every 4 seconds | Red-Yellow-Orange lights flash with horn | Quick press activates False Alarm Control™. |
| Local smoke condition is latched | | Red light flashes 3 times every 10 seconds | Quick press releases the latched LED. |
| Quick Quiet [™] False Alarm Control [™] is activated | | Red light flashes 1 time every 10 seconds | |
| Local CO is detected | Horn sounds 4 short tone pattern every 5 seconds | Blue light flashes 4 times right after horn | Quick press activates CO Reset. |
| Local CO condition is memorized | | Blue light flashes 4 times every 10 seconds | Quick press erases the CO memory signal. |
| CO Reset is activated | | Blue light flashes 1 time every 10 seconds | |
| Remote signal is received from another smoke or heat alarm | Horn sounds 3 long tones, then pauses, every 4 seconds | | Quick press activates Smart Quiet™ Trigger Alarm Locator for smoke and heat alarms. |
| Remote signal is received from another CO alarm | Horn sounds 4 short tone pattern every 5 seconds | | Quick press activates Smart Quiet™ Trigger Alarm Locator for other Model FADCQ combination smoke-CO alarms. |

V. TESTING AND MAINTENANCE

Testing

- Local Test. Test each combination alarm to be sure it is installed correctly and operating properly.
- Interconnect Test. Test all combination alarms in an interconnected system after installation.
- The Smart Button accurately tests all functions. DO NOT use an open flame to test this smoke alarm. You may ignite and damage the smoke alarm or your home.
- Test alarms weekly and upon returning from vacation or when no one has been in the household for several days.
- Use testing to learn to distinguish the difference between the smoke and CO alarm patterns.

Test all combination alarms weekly by doing the following:

- Make sure the BLUE and RED lights are blinking once per minute. This indicates the unit is functioning properly and is checking for hazardous smoke and CO levels.
- Check that the GREEN light is lit. A constant green light indicates the smoke and CO alarm is receiving 120V AC power. No GREEN light indicates no AC power or unit is operating on battery power.
- Test one specific smoke and CO alarm (local test), or test unit and all interconnected smoke, CO, or combination smoke-CO alarms (interconnect test). We recommend a full interconnected test weekly on each and every smoke, heat, CO, and combination smoke-CO unit in your residence.

To test an individual smoke and CO alarm (local test):

1. Press the Smart Button firmly until the YEL-LOW light flashes briefly. Release the Smart Button or,

To run a full local test and a test of the interconnect signaling capability of all interconnected remote units:

 Push the Smart Button firmly until the YELLOW light flashes briefly, sounds one beep and then sounds a double (two in series) beep. (The two beeps mean you will hear an alarm from two or more interconnected units.) Release the Smart Button and move away from the alarm.

The combination alarm will test each of its smoke and CO sensors and provide a series of audible and visual signals to let you know your unit is functioning correctly.

- 2. Horn Ramp-up. Alarm sounds a series of short beeps in the first four seconds, starting with one beep, then two beeps, then three beeps. This allows you to move away from the alarm before the full alarm horn sounds.
- 3. Smoke Alarm Test. Eight second test. USA Horn sounds: 3 alarms, pause, 3 alarms, pause. Canada Horn sounds: 4 alarms, pause, 4 alarms, pause. RED-YELLOW-ORANGE lights flash rapidly. During the smoke alarm test, other interconnected smoke alarms in your house also will sound their alarms to verify the interconnect is working.

4. CO Alarm Test. Ten second test. Horn sounds: 4 alarms, 5-second pause, 4 alarms, 5-second pause. BLUE light flashes rapidly. During the CO alarm test, other interconnected CO alarms or combination smoke-CO alarms also will sound their alarms to verify the interconnect is working.

As long as you press the Smart Button the smoke and CO alarm will alternately test the smoke and CO sensors and cause a remote alarm condition on all interconnected smoke, heat, CO, and smoke-CO alarm units. Use a broomstick or similar long object to press the Smart Button to keep a distance between you and the 85 db alarm.

- 5. **Fault Warning.** If alarm sounds two short beeps followed by YELLOW light flashing twice, the unit is detecting a fault. Push the Smart Button to reset and start a self test. If the Fault Warning persists, the alarm must be replaced immediately.
- 6. **If no alarm sounds,** turn off power at main fuse box or circuit breaker and check wiring and connection. Turn on power and retest the unit(s).

Maintenance and Care

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

A DANGER

ELECTRICAL SHOCK HAZARD. Turn off power at main service panel by removing fuse or switching appropriate circuit breaker to OFF position before replacing battery or cleaning smoke and CO alarm.

Battery Replacement

Always turn off power to the alarm circuit before replacing the battery. Replace the battery at least once a year or immediately when the low battery chirp sounds once a minute, even though the smoke alarm is receiving AC power. If the Low Battery Warning sounds and a replacement battery is not immediately available, pushing the Smart Button silences the Low Battery Warning for approximately 8 hours. This allows you to return to sleep, for example, and purchase a new battery the next day. If you push the Smart Button and the Low Battery Warning does not silence, replace the battery immediately.

Use only the following batteries as replacements in this smoke and CO alarm: Eveready 522, Duracell MN 1604 or Ultralife U9VL-J.

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

TO REPLACE THE BATTERY:

- 1. Turn off power to smoke and CO alarm at main service panel.
- 2. Slide battery door open. See "HOW TO INSTALL THIS COMBINATION ALARM."
- 3. Remove drained battery from compartment and discard.
- 4. Install a fresh 9-volt battery from the list of correct batteries listed on the previous page.
- 5. Slide battery door closed.
- 6. Turn on power and test smoke and CO alarm using Smart Button.
- **NOTE:** If the battery door is open, even if a good battery is correctly installed, the battery is electrically disconnected from the alarm and the low-battery circuit is disabled.

When battery door is open, the battery will not power the alarm even if the battery is properly installed. If AC power for the alarm is disconnected, interrupted or not present for any reason, the the battery back-up will not power the alarm, and your protection will be removed.

Never leave the battery door open to silence a Low Battery Warning. When the Low Battery Warning sounds, use Smart Quiet[™] by pushing the Smart Button. Replace the battery and close the battery door after the battery is replaced.

Cleaning

Clean the alarm at least once a month to remove dust, dirt, or debris. Always turn off power to the alarm before cleaning.

- Using the soft brush or wand attachment to a vacuum cleaner, vacuum all sides and cover of alarm. Be sure all the vents are free of debris.
- If necessary, turn off power and use a damp cloth to clean alarm cover.

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

Do not use abrasive cleansers or spray the alarm with cleaning agents or waxes, especially cleaners containing ammonia. These liquids may impair the performance of sensors. Do not submerge the alarm in water.

Repair

A CAUTION

Not attempt to repair this combination alarm. Doing so will void your warranty.

If the alarm is not operating properly, see "Troubleshooting." If necessary and if still under warranty, return the alarm to Climate Controls Americas. Pack it in a well-padded carton, shipping prepaid, to:

Climate Controls Americas

Product Service Department 28C Leigh Fisher Blvd El Paso, TX 79906

If the combination alarm is no longer under warranty, have a licensed electrician replace the combination alarm immediately with a comparable Firex brand alarm.

VI. TROUBLESHOOTING THE SMOKE/CO ALARM

Always turn off power at main fuse box or circuit breaker before taking troubleshooting action.

A WARNING

DO NOT disconnect battery or AC power to quiet an unwanted alarm. This will remove your protection. Use Quick Quiet™ False Alarm Control™ by pushing the Smart Button.

| PROBLEM | SOLUTION | |
|--|--|--|
| Green light is not on. | Alarm may be functioning properly on DC (battery) power if RED and BLUE lights flash once per minute. | |
| | 2. Check AC power supply at fuse box or breaker panel. | |
| | Alarm wiring is improperly connected. Have wiring checked by a licensed electrician. Retest the alarm. | |
| Alarm does not sound and lights do not flash when unit(s) is tested. NOTE: Push and hold Smart Button for at least five (5) to ten (10) sec- onds if unit does not sound! | Check that AC power is turned on (GREEN light ON); check that a good battery is inserted correctly in the battery compartment; check that the battery door is tightly closed. Turn off power. Remove alarm from mounting plate and check that connector plug is securely attached. Clean alarm (see "Cleaning" on previous page). | |
| Interconnected smoke, heat, or CO alarms do not sound when Smart Button is pushed to test units. | Press and hold the Smart Button longer until the second set of two quick beeps sounds to initiate the remote test. Check that remote alarms are receiving power and functioning properly. Combination alarm interconnect circuit problem. Replace and retest. On DC (battery powered) interconnected alarms, remove alarm from mounting bracket and check that the connector plug is securely attached. On an interconnected series with both AC and AC/DC powered units, wiring may have been improperly connected. Have wiring checked by a licensed electrician. Retest all alarms in the series. | |
| Interconnected CO alarms sound with smoke alarms when Smart Button is pushed to test units. | Indicates older CO alarms, without Smart Interconnect, are sharing the same interconnect line and cannot distinguish between alarm signals for smoke or CO. Replace with models COQ-8 or FADCQ alarms. | |

Continued...

Troubleshooting the Smoke/CO Alarm (Continued)

| PROBLEM | SOLUTION |
|---|--|
| The horn beeps once, then two beeps, then three beeps, pauses, and then sounds the full alarm when testing using the Smart Button. | The alarm is operating properly. The Firex patented Horn Ramp-Up feature lets you start the test sequence and move away from the unit before the full alarm horn sounds. |
| Alarm sounds; no hazard present. | Take Emergency Safety Actions in all alarm situations! If no hazard proves to be present, test the alarm to check for proper functioning. Clean the alarm. (See MAINTENANCE AND CLEANING.) Check that the alarm is placed properly. (See WHERE TO INSTALL THIS ALARM.) |
| The alarm beeps once a minute and YELLOW light flashes. | The battery needs to be replaced. Turn off power and replace the battery. (See "BATTERY REPLACEMENT" in "MAINTENANCE AND CLEANING".) Push the Smart Button to temporarily quiet the low battery signal for 8 hours. |
| Horn beeps and YELLOW light flashes twice, repeating about once each minute. | Push the Smart Button to allow alarm to reset and self test. If fault signal con- tinues, alarm is no longer providing protection and must be replaced. |

VII: IMPORTANT SAFETY INFORMATION

Fire Safety Tips

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.

- Familiarize everyone with the sound of a smoke alarm and explain what it 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.
- 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.

CO Home Safety Tips

CO poisoning is often caused by equipment failures due to poor maintenance, product defects, and damaged parts. The following is a list of safety tips to help prevent CO within your home:

- Have all fuel-burning appliances inspected and cleaned yearly by a qualified service technician. The furnace, water heater, and stove are some of the leading sources of CO.
- 2. Clean fireplace vents and chimney regularly. A blocked chimney could cause a backdraft of CO into the home. Do not cap chimney. This will cause a backdraft of CO into the home.
- 3. Do not cap or cover a draft hood or exhaust vent to any appliance. This will trap dangerous CO inside the house.

What to Do in Case of a Fire

- 1. Don't panic; stay calm.
- Leave the building as quickly as possible. Touch doors with the back of your hand to feel if they are hot before opening them. IF DOOR IS HOT USE AN ALTERNATE EXIT. Crawl along the floor, and DO NOT stop to collect anything.
- 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.
- 4. Do not close off or confine your fuel-burning appliances in a closed area. They need plenty of ventilation to operate properly.
- 5. Do not use liquid propane (LP) or charcoal grills indoors.
- 6. Do not operate any gasoline-powered equipment indoors.
- 7. Allow for plenty of ventilation when using a kerosene heater. Do not use in small areas.

Preventive maintenance, common sense, and a CO detection device are some of the best methods of preventing CO poisoning. However, a dangerous situation can happen to anyone at any time.

Continued...

The following list illustrates some danger signs of CO presence.

- 1. Soot and dirt build-up seeping out of chimney or other exhaust vents.
- 2. A mostly yellow (rather than clear blue) burner flame or pilot flame in gas appliances.

Symptoms of Carbon Monoxide Poisoning

CO poisoning has many symptoms. Some symptoms are very similar to the flu, the effects of intoxication, or drug usage. In many CO cases, people feel ill and stay home to rest. This only compounds the CO poisoning because they stay in the home where CO is present.

As CO levels rise, the symptoms become more extreme. At low levels people will suffer headaches and mild nausea. At higher levels unconsciousness, heart failure, and even death can occur.

The following symptoms are related to CARBON MONOXIDE POISONING and should be discussed with ALL members of the household:

Mild Exposure: Slight headache, nausea, vomiting, fatigue (often described as flu-like symptoms).

Medium Exposure: Severe throbbing headache, drowsiness, confusion, fast heart rate.

Extreme Exposure: Unconsciousness, convulsions, cardio-respiratory failure, death.

Many cases of reported carbon monoxide poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building or calling for assistance. Also, young children, the elderly, and household pets may be the first affected by CO poisoning. 3. A draft of air coming from an appliance, chimney, or vents.

If you have flu-like symptoms or suspect CO poisoning, seek medical assistance immediately!

The important factor with any CO poisoning, however, is time. At high levels, CO can cause death in just minutes. At lower levels, it could take from hours to days of constant CO exposure to have the same life-threatening effect.

The chart below illustrates the symptoms of CO poisoning by concentration of CO and its effect over time.



Conditions That Can Cause CO Levels to Change

The following conditions can result in transient CO situations in the home.

- 1. Excessive spillage or reverse venting of fuel burning appliances caused by outdoor ambient conditions, such as:
 - a. Wind direction and/or velocity, including high gusts of wind. Heavy air in the vent pipes (cold/humid air with extended periods between cycles).
 - b. Negative pressure differential resulting from the use of exhaust fans.
 - c. Simultaneous operation of several fuel burning appliances competing for limited internal air.
- Limitations of This Smoke/CO Alarm
- Smoke and CO alarms may not alert every household member every time. The alarm horn is loud in order to alert individuals 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 that this alarm may not alert a household member, install and maintain specialty smoke alarms. Household members must hear the alarm's warning sound and guickly respond to it to reduce the risk of damage, injury, or death that may result from fire. If a household member is hard of hearing, install special alarms with lights or vibrating devices to alert occupants.
- Smoke alarms can sound their alarms only when they detect smoke. Smoke alarms detect combustion particles in the air. They do not sense heat, flame, or gas. This alarm is designed to give audible warning of a developing fire.

- d. Vent pipe connections vibrating loose from clothes dryers, furnaces, or water heaters.
- e. Obstruction in the vent pipe or unconventional vent pipe designs which can amplify the above situations.
- 2. Extended operation of unvented fuel burning devices (range, oven, fireplace, etc.).
- 3. Temperature inversions which can trap exhaust gasses near the ground.
- 4. Car idling in an open or closed attached garage, or near a home.

However, many fires are fast-burning, explosive, or intentional. Others are caused by carelessness or safety hazards. Smoke may not reach the smoke alarm QUICKLY ENOUGH to ensure safe escape.

- CO alarms can sound their alarms only when they detect CO gas. They do not sense heat, flame, or any gas other than carbon monoxide (CO). This alarm is designed to give audible warning that a dangerously high level of CO is present. You must respond immediately to the CO alarm horn.
- Smoke and CO alarms have limitations. This alarm is not foolproof and is not warranted to protect lives or property from fire. Smoke and CO alarms are not a substitute for insurance. Homeowners and renters should insure their lives and property. In addition, it is possible for the alarm to fail at any time. For this reason, you must test the alarm weekly and replace every 5 years.

Important Information About This Smoke/CO Alarm

Required Power Supply

 This combination smoke-CO alarm requires constant 120-volt, AC power AND/OR a working 9-volt battery to operate properly. This combination alarm WILL NOT work if AC power is not connected or has failed or been interrupted for any reason AND the battery is removed, drained or improperly connected. DO NOT use any other kind of battery except as specified in this manual.

NOTE: AC/DC combination alarms offer added protection in the event of a power failure or a drained battery.

- You may operate this combination smoke-CO alarm on battery power only. Having only one source of power is less reliable than having two different power sources. If the battery is too weak to power the alarm, or is removed from the alarm, the alarm will not protect you from hazardous conditions within your home. Make sure a battery-only installation complies with your local codes and regulations. Check with your local fire department or building code enforcement department if you are unsure of the rules.
- DO NOT remove or disconnect battery or turn off AC power to quiet unwanted alarms. This will remove your protection. This combination alarm features a Quick Quiet[™] False Alarm Control[™] button which, when activated, will quiet unwanted smoke alarms for approximately 10 minutes and quiet CO alarms for up to 6 minutes.

Coverage

 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.

Installation/Interconnect

- This combination alarm should be installed only by a licensed qualified electrician.
 Observe and follow all local and national electrical and building codes for installation.
- Interconnected smoke alarms installed in every room and on every level of the household offer maximum protection. The National Fire Protection Agency (NFPA) recommends interconnecting smoke alarms so that when one smoke alarm senses smoke and sounds its alarm, all others will sound as well. Do not interconnect smoke alarms from one individual family living unit to another.
- Unique power connector prevents interconnection with incompatible smoke and combination alarms or security systems.

Continued...

- This combination alarm may be interconnected with as many as 11 other Firex model FADCQ FADC, TPCI, AD, ADC, PAD, G, GC, PG40, or FX1218 smoke alarms, and as many as 6 Firex model ADH heat alarms or COQ-8 CO alarms for a total of not more than 18 interconnected devices.
- Do not connect this combination smoke-CO alarm to any other type of alarm or auxiliary device other than Firex models FADCQ FADC, TPCI, AD, ADC, PAD, G, GC, PG40, or FX1218 smoke alarms, ADH heat alarms or COQ-8 CO alarms.
- You may use the multiple station interconnected features of your FADCQ, even if powered only by a battery. We recommend that you check with your local code enforcement bureau before mixing interconnected alarm devices that may be normally operating both with and without AC power.
- This alarm can share the interconnect wire of smoke and heat alarms. The alarm will automatically sound a smoke alarm signal if smoke is detected by this unit or any other interconnected smoke alarm, even if the unit is already detecting carbon monoxide and sounding the carbon monoxide alarm signal.

WARNING

- DO NOT connect this combination alarm to any other type of smoke or combination alarm or auxiliary device, except those listed in this manual.
- While AC and AC/DC smoke alarms can be interconnected, ONLY when AC power is ACTIVE will ALL units ALARM when one unit senses smoke. WHEN AC power is DISCON-NECTED, INTERRUPTED OR NOT PRESENT

FOR ANY REASON, ONLY AC/DC UNITS WILL CONTINUE TO SEND AND RECEIVE SIGNALS AND SOUND AN ALARM IN RESPONSE TO THE PRESENCE OF SMOKE. WHEN power is DISCONNECTED, INTERRUPTED OR NOT PRESENT FOR ANY REASON, AC powered smoke alarms WILL NOT OPERATE. Models G, GC, and PG40 are AC-only smoke alarms!

Compliance/Proper Applications

- This combination alarm is designed to be used inside a single-family household. In multi-family buildings, each individual living unit should have its own smoke 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 product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA) commercial or industrial standards.

Proper Use/Operation

- The Smart Button accurately tests all smoke and CO alarm functions. DO NOT use any other test method. Test smoke alarm weekly to ensure proper operation.
- This combination smoke-CO alarm is designed to detect smoke and carbon monoxide gas. It is NOT designed to detect any other type of gas. If this combination smoke-CO alarm sounds its alarm horn, DO NOT assume that it is a false alarm. The alarm horn requires your immediate action.

VIII: AGENCY RECOMMENDATIONS FOR ALARM PLACEMENT

Invensys Climate 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, as stated in Standard 72, Chapter 2, 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."



Chapter 2 also reads as follows:

"2-2.2.1 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."

"2.5.2.1 The required number of smoke detectors might 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 the basement, bedrooms, dining room, furnace room, utility room and hallways not protected by the required smoke detectors. The installation of smoke detectors in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation."

This equipment should be installed in accordance with the National Fire Protection Association's Standard 72, NFPA, Batterymarch Park, Quincy, MA 02269.

THIS STANDARD MEANS YOU SHOULD INSTALL AND USE A SMOKE ALARM IN EVERY ROOM AND AREA OF YOUR HOUSEHOLD OR BUILDING FOR BEST PROTECTION.

The NFPA, 1993 Edition, Appendix A further states:

"The required number of smoke detectors 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 house holder 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."

Also, as required by the California State Fire Marshal:

"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."

For best protection, install a smoke alarm in EVERY room. In addition, we recommend that all smoke alarms be interconnected.

Typical Efficiency Home (Apartment)

• Install a combination alarm on the ceiling or wall closest to the sleeping area.



EFFICIENCY APARTMENT

Typical Mobile Home

NOTE: For mobile homes built before 1978, install alarms on an inside wall between 4 and 12 inches from the ceiling. (Older mobile homes have little or no insulation in the ceiling.) This is especially important if the ceiling is unusually hot or cold.

• Install a combination alarm inside each bedroom and in the hallway outside each separate sleeping area.



MOBILE HOME



Typical Single-Story Home

 Install a combination alarm on the ceiling or wall inside each bedroom and in the hallway outside each separate sleeping area. If a bedroom area hallway is more than 30 feet long, install a smoke alarm at each end.



If there is a basement:

• Install a smoke or combination alarm on the basement ceiling at the bottom of the stairwell.

Typical Two-Story or Split Level Home

 Install a combination alarm on the ceiling or wall inside each bedroom and in the hallway outside each separate sleeping area. If a bedroom area hallway is more than 30 feet long, install a smoke alarm at each end.



• Install a smoke alarm at the top of a first-tosecond floor stairwell.

If there is a basement:

- Install a smoke or combination alarm on the basement ceiling at the bottom of the stairwell.
- Install a CO or combination alarm between 5 and 20 feet from possible sources of CO.

Important Smoke Alarm Placement and Exception 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. install smoke



alarms on walls, between 4 and 12 inches from ceiling/wall intersections.

- Install a minimum of two smoke alarms in every home, no matter how small the home. New construction codes require a minimum of two interconnected smoke alarms in newly built homes.
- 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.

For Optimal Performance, Avoid Installing Smoke Alarms in the Following Locations:



Near appliances or areas where normal combustion regularly occurs (kitchens, near furnaces, hot water heaters). Use specialized smoke alarms with Quick Quiet[™]False Alarm Control[™] alarm control for these areas.



In areas with high humidity, (bathrooms or areas near dishwashers or washing machines) install at least 10 feet (3 meters) away from these areas, if possible.



Near air returns or within 3 feet (1 meter) of heating and cooling supply vents. The air could blow smoke away from the detector, 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 insectinfested areas. Loose particles interfere with smoke alarm operation.



Within 3 feet (1 meter) of fluorescent lighting. Electrical noise may cause nuisance alarms.

About Locating CO Alarms

Carbon monoxide gas can be anywhere and everywhere. CO gas is equal to or slightly lighter than air, and disperses evenly with the air in a room. Therefore, install this CO alarm where air circulation is best. Since most CO fatalities occur while families are sleeping, we recommend that you install at least one CO alarm in the hallway outside each separate sleeping area and one inside each bedroom or sleeping area.

We also recommend that you install a CO alarm on every separate living level of the home where household members frequently spend time, as well as in the basement.

IMPORTANT!

This alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

IX: WARRANTY INFORMATION 5-YEAR LIMITED COMBINATION SMOKE AND CO ALARM WARRANTY

Climate Controls Americas warrants to the original consumer purchaser each new combination smoke and CO alarm to be free from defects in material and workmanship under normal use and service for a period of five (5) years from the date of purchase. Climate Controls Americas agrees to repair or replace, at its option, any defective combination smoke and CO alarm provided it is returned with postage prepaid and with proof of purchase date to Climate Controls Americas. This warranty does not cover damage resulting from accident, misuse or abuse or lack of reasonable care of the 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 THE DATE OF PURCHASE FOR THE COMBINATION SMOKE and CO ALARM. 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 CLIMATE CONTROLS AMERICAS 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 or incidental or consequential damages, so the above limitation rexclusion 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.

This combination smoke and CO alarm's manufacture and distribution are licensed by the U.S. Nuclear Regulatory Commission. This product meets all the requirements of U.L. Standard 217 and U.L. Standard 2034.

WHERE TO SEND YOUR ALARM FOR SERVICE

To return alarms under warranty, send the alarm with postage prepaid, a note describing the nature of the difficulty, and proof of date of purchase to:

Climate Controls Americas

28C Leigh Fisher Blvd. El Paso Texas 79906 United States of America



Climate Controls Americas

191 E. North Avenue Carol Stream Illinois 60188 ©2002 Climate Controls Americas

110-1050