



GE Security

ITI/North American Sensor Carbon Monoxide Alarm

Installation Instructions

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Product Summary

Part No. 60-652-95

The Learn Mode™ Carbon Monoxide (CO) alarm detects hazardous levels of CO gas. If a dangerous concentration of gas is detected, a red indicator light turns on and an internal siren is activated. The CO alarm also transmits an alarm signal to the control panel within 15 seconds of detecting CO gas (see Figure 1). The control panel activates its own sirens and reports the alarm to the central monitoring station (if the system is monitored).

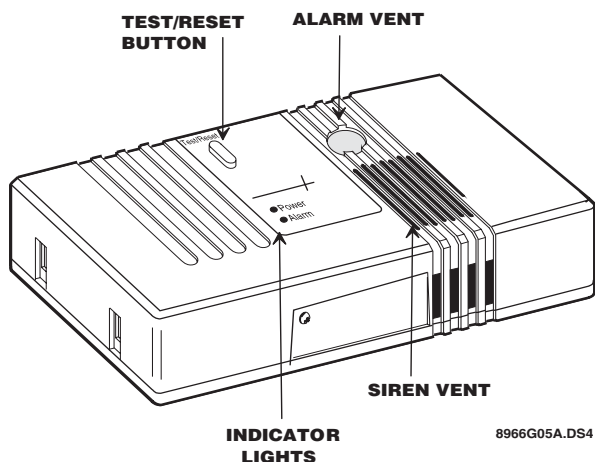


Figure 1. CO Alarm Features

The indicator lights on the CO alarm react to the status of their environment.

A green light indicates an ON or normal condition. The CO alarm has power and is sampling air for CO gas.

A red light indicates an ALARM condition and that the CO alarm is currently sensing hazardous CO levels. ***All persons and animals must evacuate immediately and the area should be ventilated.***

The internal siren activates when hazardous CO levels are present. The siren may be silenced for seven to nine minutes by pressing the RESET button.



Caution

If the reset button is pressed within 15 seconds of the initial alarm, the CO detector will not transmit an alarm signal to the control panel.

Note

Be sure to leave the last page of this document with the customer after installation. The page contains important information on testing and maintaining the sensor.

Installation Guidelines

Use the following guidelines for installing the CO alarm:



Warning

Install the CO alarm only in outlets that *are not* controlled by a switch. The CO alarm can fail to warn occupants of dangerous CO levels if the outlet switch is turned off.

Do...

- follow the “Programming” procedures before installing the CO alarm.
- install CO alarms on each level of a building, including near bedrooms and in a basement.
- perform a sensor test to confirm signal reception.

Do not install...

- above or below heating vents.
- above cooking surfaces or within five feet of an open flame appliance.
- next to windows, exterior doors, or in locations where furniture or draperies may block the unit.
- near automobile exhaust pipes (doing so will damage the sensor).



Caution

This alarm indicates the presence of CO at the alarm sensor only. Dangerous levels of CO may be present in other areas of the home.



Warning

The CO alarm is not suitable for smoke or fire detection and should not be installed near hazardous locations as defined in the national electrical code.

Programming

The following steps provide a general guideline for programming (learning) the CO alarm into control panel memory. Refer to the specific panel *installation instructions* for complete programming details.

To add the CO alarm to panel memory:

- 1) Make sure the CO alarm is *unplugged*.

Note

The CO alarm must remain unplugged until step 6 of this procedure. Only within the first 67 seconds of power-up does the CO alarm transmit a signal that the panel can learn.

- 2) Set the panel to PROGRAM mode.
- 3) Proceed to the LEARN/ADD SENSORS menu.
- 4) When the panel prompts you for a sensor group number, enter the appropriate group number based on the system panel. For Concord™ panels, enter Group 34 (GAS); for all other GE Security panels, enter Group 29 (AUXILIARY).
- 5) Select the desired sensor number.
- 6) When the control panel prompts you for sensor activation, plug in the CO alarm and wait five seconds for the unit to stabilize. Next, press and hold the test button for five to seven seconds; the unit beeps, a red alarm light flashes, and a transmitter inside the CO alarm transmits a Tamper/Alarm signal that the panel learns into memory.

Note

Hold one hand over the siren vent (see Figure 1) while pressing the test button to muffle the siren.

Note

If the panel does not acknowledge learning or receiving the signal within 67 seconds, unplug the CO alarm for 10 seconds and repeat step 6.

Refer to the "Troubleshooting" section if the control panel does not acknowledge receiving a signal.

- 7) At the panel, exit the PROGRAM mode.

Installing the CO Alarm

After successful programming, install the CO alarm at the intended location.

To install the CO alarm:

- Using the installation guidelines on Page 2, plug the CO alarm into the lower socket of an electrical outlet at the desired location. The green power light appears.

For maximum protection, allow the unit to initialize for one hour after installation.

Note

If the green power light does not turn on, unplug the unit and refer to the "Troubleshooting" section.

Testing the CO Alarm with the Control Panel

Before testing the CO alarm, ensure that your control panel is set to SENSOR TEST mode. Setting your panel to sensor test mode prevents an alarm signal from being reported to the central monitoring station. If you elect **not** to set your panel to sensor test mode, contact the central monitoring station prior to testing and inform operators not to dispatch emergency services.

The following steps provide a general guideline for testing the CO alarm. Refer to the specific panel *installation instructions* for complete testing details.

**Warning**

Use the TEST/RESET button to test the CO alarm. Do not attempt to produce carbon monoxide.

- 1) Wait at least 10 minutes after installation to test the CO alarm.
- 2) Make sure the green power light is on.
- 3) Set the control panel to SENSOR TEST mode.

Note

If you do not set your panel to sensor test mode, an alarm signal will be reported to the central monitoring station. Contact the central monitoring station prior to testing and inform operators not to dispatch emergency services.

- 4) Unplug the CO alarm for 10 seconds.
- 5) Plug in the CO alarm and wait five seconds. Next, press and hold the TEST/RESET button for five to seven seconds; the unit beeps, a red alarm light flashes, and a transmitter inside the CO alarm transmits a Tamper/Alarm signal that the panel can receive.

Note

Intermittent beeps with flashing green and red lights indicate the CO alarm is malfunctioning. Refer to the "Troubleshooting" section.

- 6) Listen for the appropriate beeps (varies by panel) from interior sirens before releasing the test button.
- 7) At the panel, exit the SENSOR TEST mode by entering the disarm command.

Training the User

After installing the CO alarm, leave the last page of this document with the system user and instruct them to perform the following procedures in the event of an alarm.

- 1) Evacuate the premises immediately.
- 2) Account for all occupants.
- 3) Call the fire department from another location.



Do not re-enter the building until the source of carbon monoxide has been located and the problem corrected by a qualified technician.

Trouble-shooting

This section describes what action to take if you experience difficulty programming, installing, or testing the CO alarm.

If the green power indicator light does not turn on when the unit is plugged in...

- 1) Make sure the outlet the unit is plugged into is not controlled by a switch. Move the unit to a different (unswitched) outlet.
- 2) Check the outlet for the correct AC voltage using a voltmeter. If the meter reads 0 volts, replace any blown fuse or reset the breaker switch at the main electrical panel.
- 3) Contact GE Security Technical Support at 1-800-777-2624 if steps 1 and 2 above do not resolve the problem.

If the panel does not learn the unit...

- 1) Make sure the unit has not been plugged in for more than 67 seconds before pressing and holding the test button prior to the learning attempt. Unplug the unit for 10 seconds and retry learning.
- 2) Make sure the outlet the unit is plugged into is providing AC voltage.

Note

If the unit sounds intermittent beeps and the green and red lights flash, the CO alarm is malfunctioning. Contact GE Security Technical Support at 1-800-777-2624.



Do not attempt to repair the CO alarm unit.

Specifications

Panel Compatibility: CareTaker *Plus*, Commander 2000, Concord™, Simon®, CareGard

Power Supply: 120 V AC @ 60 Hz, 7W

Operating Voltage: 102-132 V AC

Operating Temperature: 40°F to +100°F (4.4 to +37.8°C)

Average Standby Power: 2.5 W

CO Alarm Levels:

00 PPM. Activates in less than:
15 minutes @ 400 PPM
35 minutes @ 200 PPM
90 minutes @ 100 PPM

Dimensions: 6.5 x 3.5 x 1.5 inches (16.5 x 8.9 x 3.8 cm)

Alarm Sound Level: Continuous 85 dBA @ 10 ft. for a minimum of 4 minutes

Gases NOT Detected: Methane; Butane; Heptane; Ethyl Alcohol; Isopropyl Alcohol; Carbon Dioxide; Propane

Notices

This device complies with FCC Rules Parts 15 and 68. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.*
- 2. This device must accept any interference that may be received, including interference that may cause undesired operation.*

Changes or modifications not expressly approved by GE Security can void the user's authority to operate the equipment.

Introducing the GE Security CO Alarm

Your GE Security Carbon Monoxide Alarm is an effective product for detecting the presence of carbon monoxide (CO) by continuously monitoring for CO in your home.

What is CO?

Carbon monoxide is a dangerous and poisonous gas produced by the incomplete combustion of fuels such as natural gas, propane, heating oil, kerosene, coal, gasoline, or wood. The incomplete combustion of fuel can occur in a device such as a furnace, boiler, room or water heater, stove, grill, or any gas-powered vehicle or engine. Although many combustion products can cause discomfort and adverse health effects, it is CO that presents the greatest threat.

Correct operation of fuel burning equipment requires two key conditions. There must be,

1. an adequate air supply to promote complete combustion.
2. proper venting of combustion products from the furnace through a chimney, vent, or duct.

CO has no odor or taste and cannot be seen. Exposure to CO prohibits the blood from transporting oxygen throughout the body; in any enclosed space (home or office), even brief exposure can lead to brain damage or death.

Sources of CO

CO can be produced by any of the following sources: wood stove; wood or gas fireplace; automobile exhaust; gas water heater; gas or kerosene heater; gas or oil furnace; gas appliances; clogged chimney; cigarette smoke.

Causes of CO

- Equipment problems due to defect or poor maintenance.
- Collapsed or blocked chimneys and flues; also dislodged, disconnected, or damaged vents.
- Downdrafts in chimney or flue; long, indirect flue runs; also improper location of flue exhaust.
- Improper installation or operation of fuel burning equipment, chimneys, or vents.
- Inadequate exhaust for space heaters and appliances.

Symptoms of CO Poisoning

CO is odorless, colorless, tasteless, and extremely toxic. When inhaled, CO produces an effect known as chemical asphyxiation. When exposed to CO, the body is quickly affected by oxygen starvation. The following symptoms are related to CO poisoning and should be discussed with each member of the home.

Symptoms of Extreme Exposure Include:

Unconsciousness, convulsions, cardiorespiratory failure, or death.

Symptoms of Medium Exposure Include:

Severe throbbing headache, drowsiness, confusion, vomiting, or increased heart rate.

Symptoms of Mild Exposure Include:

Slight headache, nausea, fatigue, or flu-like symptoms.

What if the Alarm Sounds?

Your CO alarm emits a loud, continuous tone when hazardous levels of CO are detected in the home. If the alarm sounds, respond with the following actions:

If Symptoms of CO Poisoning Exist

1. If family members experience symptoms of CO poisoning — headache, nausea, drowsiness — evacuate the home immediately and call 911 or other emergency services from an alternate location.
 2. Ensure that all family members are present and accounted for. **Do not** re-enter until the home has been properly ventilated and the source of CO corrected by the fire department or a qualified technician.
- After the source of CO has been determined and the problem corrected, reset your CO alarm by pressing the TEST/RESET button (see *Maintaining the Alarm and Using the Test/Reset Function* section).

If No Symptoms of CO Poisoning Exist

1. If no symptoms of CO poisoning exist, press the TEST/RESET button on the alarm and ventilate the home immediately by opening outside leading doors and windows. Turn off all fuel-burning appliances and contact a utility company representative to inspect your home prior to restarting such appliances.



This device will only sound an alarm if CO is detected at the alarm sensor only. If not responded to, CO may be present in other areas of the home.

Maintaining the Alarm and Using the Test/Reset Function

Maintaining Your CO Alarm

- Ensure the Alarm Vent is free of dust and debris by vacuuming the vent periodically (see Figure 1).

Using the Test/Reset Function

1. Set your control panel to SENSOR TEST mode.

Note

If you do not set your panel to sensor test mode while using the Test/Reset function, an alarm signal will be reported to the central monitoring station. Contact the central monitoring station prior to testing and inform operators not to dispatch emergency services.

2. Unplug the CO alarm for 10 seconds.
3. Plug in the CO alarm and wait five seconds. Next, press and hold the TEST/RESET button (see Figure 1) for five to seven seconds; the unit beeps, a red alarm light flashes, and a transmitter inside the CO alarm transmits a Tamper/Alarm signal that the panel can receive.
4. Listen for the appropriate beeps (varies by panel) from interior sirens before releasing the TEST/RESET button.
5. At the panel, exit the SENSOR TEST mode by entering the disarm command.

If the CO Alarm Continues to Sound After Pressing Test/Reset

If your CO alarm activates within six minutes after pressing the TEST/RESET button, a hazardous level of CO is being monitored. Refer to the *What if the Alarm Sounds?* section for further instruction.

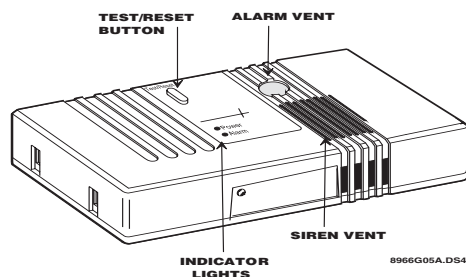


Figure 1. CO Alarm Features

What do the Lights on the CO Alarm Indicate?

- **Green** — The green light indicates your CO alarm is powered (see Figure 1). It is normal for this light to remain on while the alarm is connected to an electrical source.
- **Red** — The red light indicates your CO alarm is sounding a full alarm (see Figure 1). It is normal for this light to remain on while pressing the TEST/RESET button.

Homeowner Safety Tips

Homeowners can take several steps to avoid exposure to harmful CO levels and ensure their home is safe. By following sensible maintenance and safety procedures in the home, you can stay safe and save on fuel costs:

- Make sure all fuel-burning equipment vent hoods and exhaust pipes are free and clear of debris.
- Have your fuel-burning equipment periodically inspected for safety and efficiency by a qualified technician.
- Inspect the clean-out on your chimney for dirt and debris.
- Never operate a gas powered engine, kerosene stove, or charcoal grill in a confined space.
- Never attempt to add a 'heat reclaimer' or 'automatic flue damper' to your gas furnace or water heater. Because of risks from installation and/or mechanical failure, gas installation safety codes prohibit the use of such devices as add-ons to existing furnaces.
- Vent all gas dryer exhaust ducts to the outside and place a hood at the end of the duct. Inspect the exhaust system for lint or debris and make sure the hood flap moves freely.
- Keep all furnace panels and grills in place and close all fan compartment doors while the furnace is operating.

Technical Information

Your CO alarm uses a sensing technology to vary exposure times prior to alarm activation. Exposure times are based on monitored CO levels; a full alarm is activated when CO levels reach the following units in parts per million (ppm):

- Less than 90 minutes at exposures of 100 ppm.
- Less than 35 minutes at exposures of 200 ppm.
- Less than 15 minutes at exposures of 400 ppm.



Warning

This device may not sound an alarm at low CO levels. The Occupational Safety and Health Administration has established that continuous exposure to levels of 50 ppm should not be exceeded in an 8-hour period. This device has not been tested for CO at levels below 100 ppm. Upon detecting CO levels of 50 ppm for 30 minutes, the CO alarm sounds a low-level warning -- three continuous beeps sounded once each minute with a flashing red LED. Individuals with a medical condition and the elderly may consider a more sensitive CO alarm.