



RESOLUTION

RE613 CryptiX™-Compatible CO Alarm

Features

- UL2034 Listed
- Sleek design
- Wall tamper
- Strong, reliable RF signal
- Low Battery indication.

Key Instructions

1. Read the “INSTALLING YOUR CO ALARM” section:
 - Install your CO Alarm.
2. Enroll the CO Alarm in panel:
 - Place panel in enrollment mode
 - Press & hold TEST button until you hear the sounder beep.
 - Panel will learn the CO Alarm.
3. Test the CO Alarm is enrolled in the panel:
 - Press & hold TEST button until you hear the sounder beep.
 - Panel will indicate a CO Test.
4. Read the “WEEKLY TESTING OF YOUR CO ALARM” section:
 - Test the functionality of the CO Alarm.

Operation

Situation	Sounder	LED	Wireless Signal to Panel	Recovery
Actual CO	Temporal 4 Beeps (Loud) Every 5 seconds	RED (pulsing)	Wireless CO Alarm signal sent to panel	When CO is no longer present. TEST button will silence sensor for 4 minutes.
Press & hold Test Button	2 x Temporal 4 Beeps (Loud), 5 second separation	RED, Green, & Yellow(pulsing)	Wireless CO Test signal sent to panel	Sensor: Restore by releasing the test button.
Removing Sensor from Mount	1 Chirp Every minute	Yellow (steady)	Tamper/Trouble signal to be sent to panel.	Sensor: Restore by remounting.
Low Battery	1 Chirp Every minute	Yellow flashes 1 time in a minute		
Hourly Check			Supervisories, every hour	
Low Sensitivity	1 Chirp Every minute	Yellow flashes 2 times a minute	Supervisories Not Sent	Replace Unit
Malfunction	1 Chirp Every minute	Yellow flashes 3 times a minute	Supervisories Not Sent	Replace Unit
End Of Life	1 Chirp Every minute	Yellow flashes 4 times a minute	Supervisories Not Sent	Replace Unit

Attention

This manual should be read prior to use and retained for further information.

Specifications

Agency Approvals:	UL2034	Single Station Carbon Monoxide Alarm
CO Sensitivity:	70ppm	60-120 minutes
	150ppm	10-50 minutes
	400ppm	4-15 minutes
CO Sensing Technology:	Electrochemical	
Alarm Sound:	Temporal Three	
Replacement Battery:	3 Energizer Alkaline AA (#E91)	
	3 Energizer Lithium AA (#L91)	
Temperature Range:	32 to 120 F (Long Term)	
Humidity:	0 – 95% Relative Humidity	
Housing dimensions:	4.9 inch diameter, 1.4 inch high	
Frequency:	433.92 MHz	
System Compatibility:	RE6100 series panels with capacity of up to 96 zones	
User's Manual:	47-0002-08 RevX01	
Design & Manufacture:	Resolution Products, Inc.	
	1402 Heggen Street	
	Hudson, WI 54016	

INSTALLING YOUR CO ALARM

RE613 CO Alarm is made to be mounted on the ceiling or on the wall.

Read "LOCATIONS TO INSTALL YOUR CO ALARM" AND "LOCATIONS NOT TO INSTALL YOUR CO ALARM" sections in the Manual first, then decide where to install a CO Alarm.

Please follow these steps to install your CO alarm:

1. At the place where you are going to install your CO Alarm, draw a horizontal line six (6) inches long.
2. Remove the mounting bracket from your unit by rotating it counter-clockwise.
3. Place the bracket so that the two longest hold slots are aligned on the line. In each of the keyhole slots, draw a mark to locate a mounting plug and screw.
4. Remove the bracket.
5. Using 3/16-inch (5 mm) drill bit, drill two holes at the marks and insert plastic wall plugs. Place the CO Alarm in a location where it cannot get any dust on it when you drill holes for mounting.
6. Using the two screws and plastic wall plugs (all supplied), attach the bracket to the wall.
7. Line up the slot of the bracket and the CO Alarm. Push the CO alarm onto the mounting bracket and turn it clockwise to fix it into place. Pull outward on the CO Alarm to make sure it is securely attached to the mounting bracket.

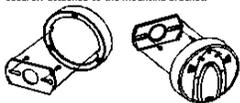


Figure: Removable mounting bracket

CAUTION: This CO Alarm comes with battery cover latches that will prevent the CO Alarm battery door from closing if the batteries are not installed. This tells you that the CO alarm will not work until the batteries are properly installed.

REGULAR MAINTENANCE

Your CO Alarm is designed to be as maintenance-free as possible. To keep your CO Alarm in good working condition, you must test the unit weekly, as described in section "WEEKLY TESTING OF YOUR SMOKE ALARM"

Vacuum the dust off the CO alarm at least once a month.

To clean the CO alarm, use the soft brush attachment to your vacuum. Carefully remove any dust on the CO alarm.

WEEKLY TESTING OF YOUR CO ALARM

The test/mute button is used to test if the CO alarm is working properly and to silence the unit during alarm.

Test the unit:

1. Press the test button and you should hear 4 short beeps along with three corresponding LED flashes in 5 seconds, this cycle will repeat one more time.
2. Familiarize yourself and your family members with this alarm pattern as this testing simulates an actual CO alarm condition.

SILENCING YOUR CO ALARM

The test/mute button is used to test if the CO alarm is working properly and to silence the unit during alarm.

Silence the unit:

1. If the CO alarm is sounding, pressing the test/mute button silences the alarm while at the same time the red LED keeps flashing.
2. After 4 minutes if the CO concentration that caused the alarm still remains at an alarm level, the CO alarm will reactivate.

INSTALLING AND REPLACING BATTERIES

To install or replace the batteries in your RE613 CO alarm, please perform the following steps.

1. Gently press the transparent locker.



2. Slide the battery door open to expose the battery compartment.



3. Remove the old batteries and properly dispose of them as recommended by the battery manufacturer.
4. When installing new batteries, note the polarity illustration in the bottom of the battery compartment.
5. Install the new batteries, make sure to carefully seat the red battery warning flags in the recess of the battery well.
6. Gently close the battery cover. The battery cover of your CO alarm will not close if all three AA batteries are not properly installed.
7. The unit will chirp for approximately 0.5 seconds and all the LEDs will flash for 0.5 seconds, after the batteries are properly installed.

RECOMMENDED BATTERY

When replacing the batteries use the below recommended battery types only.

1. 3 Energizer Alkaline AA (R691)
2. 3 Energizer Lithium AA (R691)

WARNING!! Use only the batteries specified in this manual. Use of a different battery may have a detrimental effect on alarm operation.

CAUTION!! Constant exposures to high or low temperatures or high humidity may reduce battery life.

LOCATIONS TO INSTALL YOUR CO ALARM

Since CO gas moves freely in the air, the suggested location is in or as near as possible to sleeping areas of the home. The human body is most vulnerable to the effects of CO gas during sleeping hours. For maximum protection, as CO alarm should be located outside primary sleeping areas or on each level of your home. In the figure below are suggested locations in the home. The electronic sensor detects carbon monoxide, measures the concentration and sounds a loud alarm before a potentially harmful level is reached.

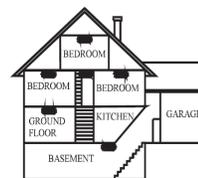


Figure: Locations for placing CO alarms for a multi-floor building

LOCATIONS NOT TO INSTALL YOUR CO ALARM

Do not place the CO alarm in the following areas:

- (a) Where the normal ambient temperature may drop below 32° F (0° C) or exceed 120° F (49° C)
- (b) Near paint thinner fumes
- (c) Within 5 feet (1.5 meter) of open flame appliances such as furnaces, stoves and fireplaces
- (d) In exhaust streams from gas engines, vents, flues or chimneys
- (e) Do not place in close proximity to an automobile exhaust pipe; this will damage the Alarm
- (f) Keep the CO alarm away from excessively dirty, dusty or greasy areas such as kitchens and garages. Ensure adequate ventilation when using household cleaners and chemicals as these can affect the sensor.

OWNERS INSTRUCTIONS

YOU SHOULD KNOW ABOUT CARBON MONOXIDE

Carbon monoxide, also known as "CO" by the chemical form, is considered to be a highly dangerous poisonous gas, because it is colorless, odorless or tasteless and very toxic. In general, biochemistry phenomena have shown that the presence of CO gas inhibits the blood's capacity to transport oxygen throughout the body, which can eventually lead to brain damage. In any enclosed space (home, office) even a small accumulation of CO gas can be quite dangerous.

Although many products of combustion can cause discomfort and adverse health effects, it is CO gas which presents the greatest threat to life.

Carbon monoxide is produced by the incomplete combustion of fuels such as natural gas, propane, heating oil, kerosene, coal, charcoal, gasoline, or wood. The incomplete combustion of fuel can occur in any device which depends on burning for energy or heat such as furnaces, boilers, room heaters, hot water heaters, stoves, grills, and in any gasoline powered vehicle or engine (e.g. generator set, lawnmower). Tobacco smoke also adds CO to the air you breathe.

When properly installed and maintained, your natural gas furnace and hot water heater do not pollute your air space with CO. Natural gas is known as a "clean burning" fuel because under correct operating conditions, the combustion products are water vapor and carbon dioxide (CO₂), which is not toxic. The products of combustion are exhausted from furnaces and water heaters to the outside by means of a fuel duct or chimney.

Correct operation of any burning equipment requires two key conditions:

- (a) An adequate supply of air for complete combustion.
- (b) Proper venting of the products of combustion from the furnace through the chimney, vent or duct to the outside.

Typical carbon monoxide gas problems are summarized here:

- (a) Equipment problems, due to defects, poor maintenance, damaged and cracked heat exchangers.
- (b) Collapsed or blocked chimneys or flues, dislodged, disconnected or damaged vents
- (c) Downdraft in chimneys or flues. This can be caused by very long or circuitous flue runs, improper location of flue exhaust or wind conditions
- (d) Improper installation or operation of equipment, chimney or vents
- (e) Air tightness of house envelop/inadequate combustion of air
- (f) Inadequate exhaust of space heaters or appliances
- (g) Exhaust ventilation/fireplace competing for air supply.

Potential sources of carbon monoxide in your home or office include clogged chimney, wood stove, wood or gas fireplace, automobile and garage, gas water heater, gas appliance, gas or kerosene heater, gas or oil furnace, and cigarette smoke.

MORE INFORMATION ABOUT CONDITIONS WHICH RESULT IN TRANSIENT CO SITUATIONS

1. Excessive spillage or reverse venting of fuel burning appliances caused by
 - (a) Outdoor ambient conditions such as 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.
 - (d) Vent pipe connection vibrating loose from clothes dryers, furnaces, or water heaters.
 - (e) Obstructions in or unconventional vent pipe designs which amplify the above situation.
2. Extended operation of unvented fuel burning devices (range, oven, fireplace, etc)
3. Temperature inversions which can trap exhaust gases near the ground.
4. Car idling in an open or closed attached garage, or near a home

POSSIBLE SYMPTOMS OF CARBON MONOXIDE POISONING

Carbon monoxide is colorless, odorless, tasteless, and very toxic. When inhaled, it produces an effect known as chemical asphyxiation. Injury is due to the combining of CO with the available hemoglobin in the blood, lowering the oxygen-carrying capacity of the blood. In the presence of CO gas, the body is quickly affected by oxygen starvation.

The following symptoms are related to CO poisoning and should be discussed with all members of the household:

- 1) Mild exposure: slight headache, nausea, vomiting, fatigue (often described as "Flu-like" symptoms).
- 2) Medium exposure: severe throbbing headache, drowsiness, confusion, fast heart rate
- 3) Extreme exposure: unconsciousness, convulsions, cardiorespiratory failure, death.
- 4) 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. Young children and household pets are typically the first affected.

ACTIONS TO TAKE WHEN CO ALARM SOUNDING

⚠️ WARNING!! Actuation of your CO alarm indicates the presence of carbon monoxide (CO) which can kill you. If alarm sounds:

1. Operate test/mute button
2. Call your emergency services(_____) or fire department or 911
3. Immediately move to fresh air -outdoors or by an open door or window. Do a head count to check 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 for sources of CO from fuel burning equipment and appliances, and 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 technician and consult the manufacturers' instructions, or contact the manufacturers directly, for more information about CO safety and this equipment. Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

Two labels with the above information on "ACTIONS TO TAKE WHEN CO ALARM SOUNDING" have been included with the CO Alarm. Telephone numbers of your emergency service provider and a qualified technician should be added to the labels. One label should be placed next to the alarm, the other label near a source of fresh air where you plan to gather after the alarm indicates the presence of carbon monoxide.

Normally an activation of the CO alarm indicates the presence of CO gas. The source of the CO gas may come from several possible situations, please refer to the list of possible sources of carbon monoxide in the "YOU SHOULD KNOW ABOUT CARBON MONOXIDE" section of this manual.

⚠️ CAUTION This CO alarm will only indicate the presence of CO gas at the sensor. However, you have to be aware that the CO gas may be present in other areas in the premises.

CARBON MONOXIDE DETECTION

The RE613 Carbon Monoxide Alarm has been designed to provide an alarm based on various exposure times at different levels of carbon monoxide concentrations as per UL 2034 standard.

- At 70ppm, the unit must alarm within 60-240 minutes
- At 150ppm, the unit must alarm within 10-50 minutes
- At 400ppm, the unit must alarm within 4-15 minutes

ACTIONS TO TAKE AFTER THE PROBLEM IS CORRECTED

Once the source of CO gas in the premises has been eliminated, the alarm of the CO alarm unit should be off. After waiting for 10 minutes, push the Test button to test the CO alarm unit so that you can make sure that it is working properly again.

WARNING AND LIMITATION

⚠️ WARNING!! 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.

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

This CO alarm is not suitable as a smoke or fire alarm /detector.

This CO alarm is not suitable to install in a hazardous location, as defined in the National Electrical Code.

This CO alarm will not work without power. RE613 Carbon Monoxide Alarm will not work if the battery power is disconnected or cut off for any reason. Additionally, carbon monoxide must reach the CO alarm unit for the proper performance of CO gas detection.

Carbon monoxide alarms may wear out because they contain electronic parts that fail at any time. Test your CO alarm at least every week (see the section "WEEKLY TESTING OF YOUR CO ALARM").

This carbon monoxide alarming device is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect smoke, fire, or any other gases

Radio signals transmitted by this CO alarm may be blocked or reflected by metal objects. Adjacent devices or systems using radio signals may interfere with the operation of this alarm. Test the system weekly to ensure signals are transmitted and received properly

NOTICES

Service Information

For service or send to:
Resolution Products
1402 Heggen Street
Hudson, Wisconsin 54016

Warranty

Resolution Products, Inc. will replace products that are defective in their first five (5) years.

FCC Notice

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference that may be received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the Resolution Products, Inc. could void the user's authority to operate this equipment.

FCC ID: USX-RE313

IC Notice

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC: 8310A-RE313

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