

# NEUCOSMOS

## New Cosmos USA, Inc.

### Natural Gas Alarm

#### ML-310CE Series

#### User's Manual

This manual has been prepared for the ML-310CE Series Gas Alarm ("Gas Alarm"), which is designed for use only in areas serviced by Consolidated Edison Co. of New York, Inc. ("Con Edison"). Within these areas, Con Edison is handling installation, troubleshooting, replacement and disposal of Gas Alarms. If you have a Gas Alarm installed in your house or building, you should read and understand the important instructions and warnings contained in this manual and retain a copy for future reference.

When natural gas, which consists primarily of methane, is present at concentrations of 10% or greater of the lower explosive limit (LEL) for methane, the Gas Alarm is designed to activate a gas leak alarm. The gas leak alarm consists of a flashing red LED light, an audible warning sound (a loud beep), and a recorded message.

The Gas Alarm is equipped with an Itron Network Solutions (INS) communications module designed to automatically send information directly to Con Edison including information associated with gas leak alarm activation, Gas Alarm error, low battery, and end-of-service-life.

#### **⚠ DANGER: EXPLOSION, FIRE AND ASPHYXIATION**

**Natural gas leak alarm indicates an emergency situation and risk of explosion.**

- **EVACUATE IMMEDIATELY and take others with you.**
- **Do NOT use a phone, light a match, or turn on or off any light switches, flashlights, or appliances. Doing so could IGNITE a FIRE or EXPLOSION.**
- **CALL 911 once you are safely outside the premises.**
- **Do NOT re-enter until told to do so by authorities.**

#### **⚠ DANGER: ELECTROCUTION**

**Do not subject the Gas Alarm to water or liquid by submerging it, spraying liquid on it or otherwise. Do not disassemble.**

#### **⚠ DANGER: EXPLOSION**

**This Gas Alarm is designed to act as a continuous monitor of natural gas that reaches the sensor. This Gas Alarm should not be used as a short-term testing device to perform a onetime check for the presence of natural gas, as plugging the battery into the device in the presence of natural gas may cause an explosion.**

#### **⚠ DANGER: FIRE AND EXPLOSION**

**Improper disposal may result in fire or explosion. Contact Con Edison to arrange for disposal.**

#### **⚠ DANGER: HAZARDOUS CONDITIONS**

**Follow these instructions completely. Failure to do so may result in an undetected natural gas leak or other hazardous conditions that may cause serious injury or death.**

#### **⚠ DANGER: HEARING DAMAGE**

**Do not place your ear directly against or in close proximity to the Gas Alarm when it is alarming. Such exposure to the audible gas leak alarm may damage your hearing.**

#### **⚠ WARNING**

- Do not change the Gas Alarm's installation position, relocate it from where it is installed, or tamper with the Gas Alarm or its battery.
- Do not block, cover, obstruct or paint over the Gas Alarm or its sensor. The Gas Alarm can only detect natural gas that reaches its sensor.
- Network or power outages may prevent Con Edison from receiving or processing automated notifications from your Gas Alarm, including notifications related to gas leak alarms. Always follow these instructions, without relying on such automated notifications.
- This Gas Alarm will reach its end-of-service-life in approximately 6 years from the date of installation. Contact Con Edison for replacement if you observe the end-of-service-life alarm indicator LED.
- Do not modify, disassemble, submerge, strike, crush, or expose the Gas Alarm to high levels of volatile organic compounds. Doing so may cause the Gas Alarm to malfunction.

- Commercially available batteries will not work with the Gas Alarm. Contact Con Edison to arrange for replacement.
- Keep out of reach of children.
- For indoor use only.

#### **⚠ NOTICE**

- The Gas Alarm must only be installed by Con Edison or an authorized Con Edison contractor.
- The Gas Alarm only detects natural gas. It does not detect carbon monoxide, fire, heat, smoke, flames, propane or any other gas.
- The Gas Alarm is not a substitute for proper installation, use, and maintenance of natural gas appliances and piping systems. The Gas Alarm does not prevent natural gas leaks from occurring, nor can it eliminate any existing natural gas leaks or problems.

### General Description and Intended Use

#### **⚠ DANGER**

**If you smell natural gas, evacuate the area immediately, then call 911. Do not wait for the gas leak alarm to sound or for Con Edison to receive an automated notification.**

This Gas Alarm is designed to detect natural gas. Natural gas is a fossil fuel that is primarily made up of methane. It is commonly used for cooking, home heating and water heating. Natural gas is typically supplied through a gas main and utility service line connected to your home. Natural gas is odorless and colorless, but has a chemical odorant (mercaptan) added to it to give it a distinct "rotten eggs" smell. Even odorized natural gas may not be detected by smell in an unoccupied space, by an individual with reduced sensitivity to smell, or in other situations.

Natural gas is a highly flammable chemical compound. Although it happens rarely, a natural gas leak can occur inside a house or building. This can be dangerous because it increases risk of explosion and fire. The Gas Alarm is designed to activate a gas leak alarm when it detects 10% or greater of the LEL for methane, which is 0.5% or greater of methane in air. When the gas leak alarm activates, the Gas Alarm will beep 4 times and state "Danger – gas leak explosion risk – evacuate, then call 911."

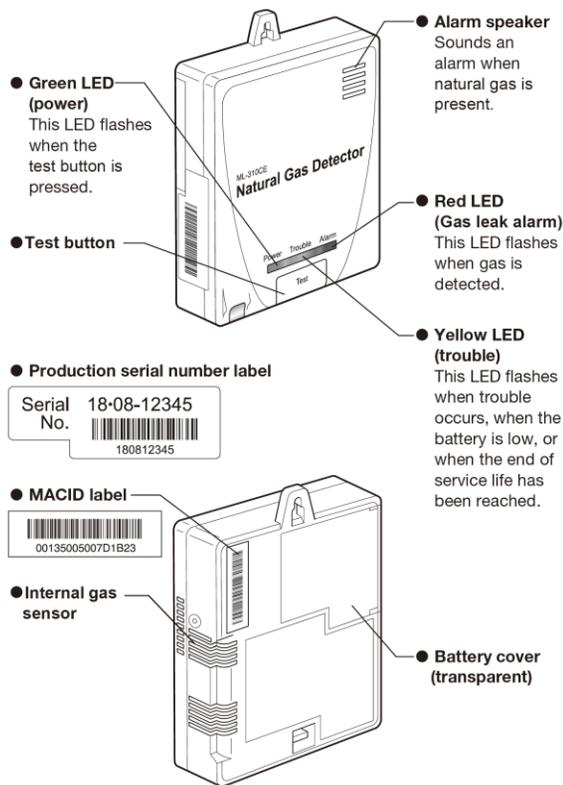
In the event of a gas leak, you may smell natural gas before the gas leak alarm is activated. If you smell natural gas at any time, do not wait for the gas leak alarm to sound or check for Gas Alarm malfunction. Evacuate immediately,

then call 911.

Using the INS communications module, the Gas Alarm is designed to automatically send Gas Alarm-related information to Con Edison. When natural gas is detected at or above the gas leak alarm threshold, the Gas Alarm is designed to transmit a gas leak alarm notification to Con Edison. The Gas Alarm is also designed to send information about device health to Con Edison during automated health checks performed every 8 hours.

The Gas Alarm is not guaranteed to prevent personal injuries or property damage associated with a gas leak. For example, an error may occur that prevents detection of natural gas, including gas leaks. Network or power outages may prevent Con Edison from receiving or processing automated notifications from your Gas Alarm, including notifications related to gas leak alarms. Some people may sleep through and not hear the audible gas leak alarm. You should ensure that your natural gas appliances and piping systems are properly installed, used, and maintained to reduce the likelihood of a natural gas leak.

## Gas Alarm parts



## Gas Alarm functions

The Gas Alarm is designed to activate an audible gas leak alarm in the event of a natural gas leak, and a silent alarm with visual LED indicators in the event of a Gas Alarm error, a low-battery condition, and when the Gas Alarm reaches its end-of-service-life. The INS communications module is also designed to send an automated notification to Con Edison when any of these alarms activate.

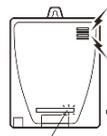
### Natural gas leak alarm activation

The Gas Alarm is designed to activate a gas leak alarm when it detects natural gas at a concentration that reaches or exceeds 10% of the LEL for methane. When activated, the gas leak alarm is designed to:

**Beep 4 times and state “Danger – gas leak explosion risk – evacuate, then call 911.” This notification will repeat every 6 seconds for 4 minutes, and then every 1 minute thereafter.**

**Send a gas leak alarm notification to Con Edison via the INS communications module every 30 seconds.**

**Flash the Red LED light once every 2 seconds.**



Red LED (gas leak alarm)  
Flashes once every 2 seconds

An alarm sounds every 6 seconds stating “Beep Beep Beep Beep Danger – gas leak explosion risk – evacuate, then call 911.”

Transmits gas leak alarm signals every 30 seconds.

## **⚠ DANGER: EXPLOSION, FIRE AND ASPHYXIATION**

**Follow these instructions carefully in the event that the natural gas leak alarm activates. Never ignore any natural gas leak alarms. EVACUATE IMMEDIATELY and take others with you.**

**Do NOT use a phone, light a match, or turn on or off any light switches, flashlights, or appliances. Doing so could IGNITE a FIRE or EXPLOSION.**

**CALL 911 once you are safely outside the premises.**

**Do NOT re-enter until told to do so by authorities.**

## Error alarm activation

A silent alarm indicates a Gas Alarm error or network connection error by flashing the Yellow LED light (trouble) three times every 10 seconds. When this alarm activates, a Gas Alarm error notification is transmitted to Con Edison during the every-8-hour device health check.



Yellow LED (trouble)  
Flashes 3 times every 10 seconds

Transmits Gas Alarm error notifications during the health checks performed every 8 hours.

## Low-battery alarm activation

### **⚠ NOTICE**

The Gas Alarm uses a specialized battery not available at retail. Contact Con Edison to arrange for replacement.

A silent alarm indicates low-battery by flashing the Yellow LED light (trouble) once every ten seconds. If you observe the low-battery alarm indicator LED, contact Con Edison to arrange for replacement. When this alarm activates, a low-battery notification is transmitted to Con Edison during the every-8-hour device health check.



Yellow LED (trouble)  
Flashes once every 10 seconds

Transmits a low battery notification during the health checks performed every 8 hours. The battery in this device is not available in retail. Contact Con Edison to arrange for replacement.

## End-of-service-life alarm activation

A silent alarm indicates the end of the Gas Alarm's service life by flashing the Yellow LED light (trouble) twice every ten seconds. If you observe the end-of-service-life alarm indicator LED, contact Con Edison to arrange for replacement.

When this alarm activates, an end-of-service-life notification is transmitted to Con Edison during the every-8-hour device health check.



Transmits an end-of-service-life notification during the health checks performed every 8 hours.

Yellow LED (trouble)  
Flashes twice every 10 seconds

## Cleaning

### ⚠ WARNING

Dirt and dust can cause the Gas Alarm to malfunction. Follow these instructions to maintain proper operation.

If you observe dirt or dust accumulating on the Gas Alarm, contact Con Edison at the phone number below to arrange for the Gas Alarm to be cleaned. As an alternative, you can clean the Gas Alarm, as needed, by gently vacuuming the exterior of the unit including all slotted openings using a household vacuum's soft brush attachment.

Never use water, cleaners or solvents since they may damage the unit.

Do not use spray cleaning chemicals or insect sprays directly on or near the Gas Alarm. Do not use any household cleaning agents, ammonia-based cleaners, paints, varnishes, aerosol sprays (including compressed gas dusters), or any other chemical on or near this Gas Alarm.

## Specifications

Conforming standards	UL standard (UL1484), FCC Certified
Detection principle	MEMS hot wire semiconductor sensor
Target gas	Methane gas
Sensor immunity	Acetone, ethanol, bleach solution
Operating temperature range	32°F (0°C) to 122°F (50°C)
Operating humidity range	5% to 95%, no condensation
Power supply	3V Lithium Battery
Alarm level	10%LEL
Sound Output	85dB at 10 feet
Initial power-up timer	Approx. 30 seconds (green LED flashes once every second)
Weight and dimensions	Approx. 140g, W 85 x H 100 x D 22mm (excluding protrusions)
FCC Compliance	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Contact Details

**Manufacturer: New Cosmos Electric Company, Ltd.**  
**Manufactured for: Consolidated Edison Company of New York, Inc., 4 Irving Place, New York, NY 10003**  
 For additional information or assistance, call 1-800-75-CONED (1-800-752-6633), visit [www.coned.com/naturalgasdetector](http://www.coned.com/naturalgasdetector) or scan the following QR code:

