



then call 911.

Using the LoRa communications module, the Gas Alarm is designed to automatically send Gas Alarm-related information to your gas utility. 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 your gas utility. The Gas Alarm is also designed to send information about device health to your gas utility during automated health checks performed every 24 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 your gas utility 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

- **Green LED (Power)**

This LED flashes when the test button is pressed.

- **Alarm speaker**

Sounds an alarm when natural gas is present.

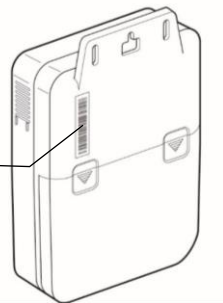
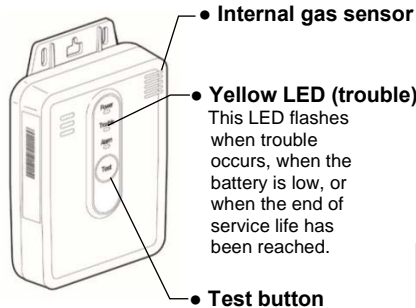
- **Red LED (Gas leak alarm)**

This LED flashes when gas is detected.

- **Production serial number label**



- **MACID label**



## 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 LoRa communications module is also designed to send an automated notification to your gas utility 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 your gas utility via the LoRa 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.**

## **⚠ DANGER: EXPLOSION RISK**

**Do not reset the Gas Alarm after the gas leak alarm goes off, unless instructed to do so by emergency personnel. Resetting process can cause an explosion if conducted in an area with high concentrations of natural gas.**

Emergency responders or trained personnel may reset or instruct you to reset the Gas Alarm by removing and reinstalling the battery. After removing the battery, hold the test button for at least 10 seconds and leave the battery unplugged for at least 2 minutes. This will reset the device by turning off auditory and visual notifications.

### Error alarm activation

A silent alarm indicates a Gas Alarm 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 your gas utility during the every-24-hour device health check.



Yellow LED (trouble)  
Flashes 3 times every 10 seconds

Transmits Gas Alarm error notifications during the health checks performed every 24 hours.

### Low-battery alarm activation

## **⚠ NOTICE**

The Gas Alarm uses a specialized battery not available at retail. Contact your gas utility 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 your gas utility to arrange for replacement.

When this alarm activates, a low-battery notification is transmitted to your gas utility during the every-24-hour device health check.



Yellow LED (trouble)  
Flashes once every 10 seconds

Transmits a low battery notification during the health checks performed every 24 hours. The battery in this device is not available in retail. Contact your gas utility 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 your gas utility to arrange for replacement.

When this alarm activates, an end-of-service-life notification is transmitted to your gas utility during the every-24-hour device health check.



Transmits an end-of-service-life notification during the health checks performed every 24 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 your gas utility 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, pesticides, 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	End-product compliant with UL 1484, MEMS sensor is listed with UL 2075
Detection principle	MEMS hot wire semiconductor sensor
Target gas	Methane gas (natural gas)
Sensor immunity	Acetone, ethanol, bleach solution, among others
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. 170g, W 85 x H 115 x D 28mm (excluding protrusions)

## Contact Details

New Cosmos USA, Inc.  
650 Warrenville Rd, Suite 101  
Lisle, IL 60532  
Tel: (847)-749-3064

# NEWCOSMOS

New Cosmos USA, Inc.  
Natural Gas Alarm  
806NLR

## Troubleshooting Guide

This Gas Alarm is designed to be **troubleshooted exclusively by authorized professionals**. This guide is intended for professional use only.

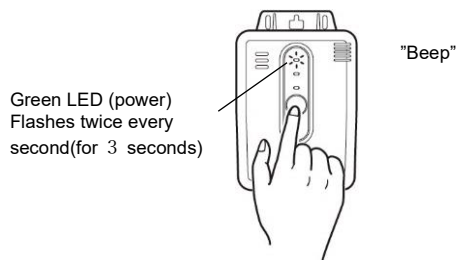
### Testing the detector

#### • CAUTION

If the Gas Alarm does not operate properly, it cannot alert the presence of natural gas. Take immediate action if the Gas Alarm fails a test.

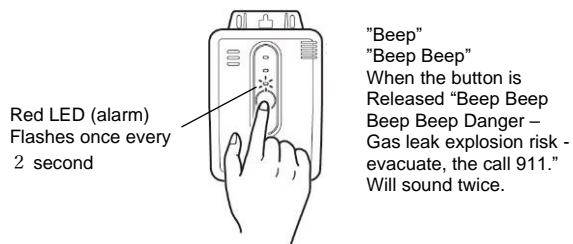
#### Testing power

Press test button until you hear a "Beep" sound, then quickly release (within 3 seconds after pressing the test button). If the device is properly powered, the green LED will flash twice every second (for 3 seconds) to indicate that the power is on.



### Testing gas leak alarm notifications

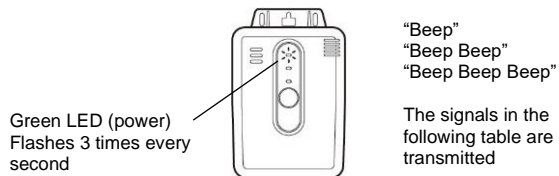
Press test button until you hear a "Beep" sound, then continue to hold until you hear a "Beep Beep" sound approximately 5 seconds later. Release within 10 seconds of pressing the test button.



If the Gas Alarm is operating properly, the red LED will flash once every 2 seconds for a 12 second period, and the following alarm message will sound twice: "Beep Beep Beep Beep Danger – gas leak explosion risk – evacuate, then call 911."

### Testing automated communications

Press and hold test button for at least 10 seconds, until you have heard a single "Beep" followed by a double beep ("Beep Beep") followed by a triple beep ("Beep Beep Beep"). This will enable communications test mode, and the green LED will flash 3 times per second for as long as you are in communications test mode.



Once in communications test mode, press the test button additional times to test whether the detector is communicating normally with your gas utility's systems, able to properly transmit detector error signals, and able to properly transmit a low battery signal. Success will be indicated as follows:

	Green LED	Yellow LED
Communications test mode activated	Flashes 3x per second	Off
1 <sup>st</sup> press: normal communication	Flashes 2x per second	Off
2 <sup>nd</sup> press: proper transmission of device error signal	Flashes 2x per second	Flashes 3x per second
3 <sup>rd</sup> press: proper transmission of low battery signal	Flashes 2x per second	Flashes 2x per second

If the red LED light activates or the alarm sounds during any of these tests, the detector's communication functions are not working properly.

Additional presses will cycle you back through these three tests for as long as you are in communications test mode. Communications test mode will automatically end after 5 minutes.

### Troubleshooting

Symptom	Cause	Action
The green LED does not flash even when the switch is pressed	Battery connector not plugged in completely	Plug in the battery connector completely
	Battery is low	Replace the battery
The yellow LED is flashing.	Flashes twice every 10 seconds: End of service life	Replace the detector
	Flashes once every 10 seconds: Low battery	Replace the battery
	Flashes 3 times every 10 seconds: Gas Alarm trouble	Replace the detector

# NEUCOSMOS

New Cosmos USA, Inc.  
Natural Gas Alarm  
806NLR

## Professional Installation Guide

This Gas Alarm is designed to be installed and cleaned exclusively by authorized professionals. Users should not install or clean the gas alarm themselves. This guide is intended for professional use only.

### Selecting location for installation

#### ⚠ NOTICE

- Installation in an improper location can affect the sensitive electronic components in this Gas Alarm.
- Improper placement can prevent detection of methane.
- Place out of reach of children.

Gas Alarm should be installed by attaching it to a pipe or, if a suitable pipe is unavailable, to a location on a wall that is:

- Between 4 to 12 inches (0.1 to 0.3 meters) from the ceiling.
- In an area where it will not be impeded by items hanging from or near the ceiling such as curtains, drapes, ceiling fans.
- At least 5 feet (1.5 meters) from cooking appliance or cooktop hood.
- At least 10 feet (3 meters) from gas appliances.

Gas Alarm should **NOT** be installed:

- In the peak of a cathedral ceiling.
- Directly above or near sources of water

or humidity such as a sink, cooktop, dishwasher or a shower.

- Next to a door or window.
- Next to a ventilation fan.
- Near a room return or HVAC duct.
- In an area where the temperature will drop below 32°F (0°C) or exceed 122°F (50°C).
- In an area that is dusty or dirty.
- In an area where organic solvents exist or silicone vapors.
- In a damp or very humid location, such as a bathroom.
- Outside.

### Installing the battery

#### ⚠ DANGER – SHOCK

Do NOT remove the plastic wrap surrounding the battery pack. Doing so may cause electrical short or shock.

#### ⚠ NOTICE

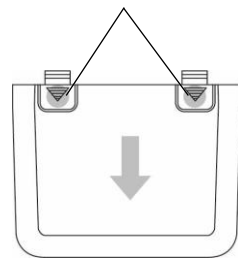
Gas Alarm uses type of battery that is not available in retail. Contact your gas utility if replacement battery needed.

After installing battery, test the Gas Alarm following instructions in Troubleshooting Guide.

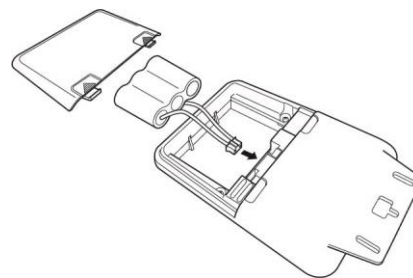
To reinstall the included battery or install a new battery you received from your gas utility:

- Open the battery cover on the back of the detector. This cover slides out of place. To open, place both thumbs on the back of the battery cover where the battery cover hooks snap into place.
- Push down where the battery cover snaps into place with your thumbs and slide the cover out. Some force is required.

To remove the battery cover, push down at the indicated points with your thumbs and slide the cover in the direction of the arrow.



- Connect the included lithium battery by inserting the battery harness connector into the product as shown in the diagram below. Do NOT remove the plastic wrap surrounding the battery pack.



- The battery connector has a large notch on it that faces up when installed correctly. There is only one way in which the connector can be installed. A small portion of the connector will be exposed when connected properly.

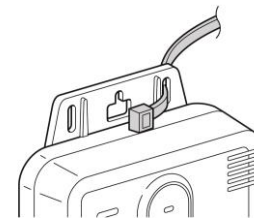
### Mounting the Gas Alarm

#### ⚠ NOTICE

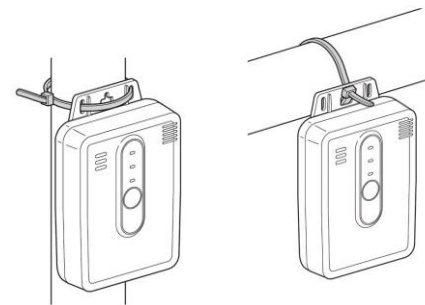
After mounting the Gas Alarm, test it following instructions in Troubleshooting Guide.

If possible, mount the Gas Alarm to a pipe meeting the criteria discussed in the "Selecting location for installation" section. To mount to a pipe:

- (1) Pass a cable tie through the hole at the top of the Gas Alarm.

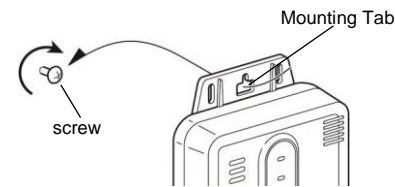


- (2) Wrap the cable tie around the pipe and tie off.



If mounting to a pipe is not feasible, mount the detector to a wall.

- (1) Choose a location on the wall between 4 inches (0.1 meters) to 12 inches (0.3 meters) from the ceiling. Make a mark in the Mounting Tab of the Gas Alarm where you will drill the mounting hole.
- (2) Use a 3/16" (5 mm) drill bit to drill the mounting hole and insert included anchor.
- (3) Tighten the screw into the anchor until the screwhead is about 3/16 inch (5 mm) away from the wall, leaving enough space for the Mounting Tab.
- (4) Hang the Mounting Tab on the screw.



- (5) Lightly tighten the screw to secure the Gas Alarm.