

# NGL

No Gas Leak user  
installation guide &

**Triple+**

Detect. Connect. Protect.

## Welcome

Thank you for choosing nleak's no gas leak - ngl - wireless system for the detection of gases, carbon monoxide (CO), fires and earthquakes and the prevention of the damages resulting from them. ngl gives you peace of mind while in your home or away.

## For Your Attention

Please read the instructions carefully and follow the steps for proper installation and activation of the system. Please keep this document in a safe place for future needs.

In the event of any doubt please call your retailer or your installer.

**Warning!** The shut off uses a powerful spring, do not activate the shut off actuator without it being connected to a gas ball valve, this may result in product failure.

**Warning!** The product includes moving parts, keep your fingers or other objects clear of moving parts.

## Conformance To Standards

This product is only for LPG/NG gas detection.

Do not use for other gases or fire detection.

Compliant With UL/FCC | CE-EN50194 | ISO9001

## System Description

ngl wireless detection and prevention system is designed to detect gas leaks, and optionally CO, Fire and earthquakes, and shut off the gas supply by wireless communication.

Each installation may include up to 6 different detectors, one of which will be defined as master at installation, and one shut off unit that is assembled on the existing gas valve. The system can operate with additional nleak provided detectors for CO, Fire and Earthquake (please call for more information). The system has a synchronization procedure to uniquely match the detectors with a specific shut off. The matching procedure is used during activation and when a detector or shut off is replaced or when the shut off battery is replaced.

**Caution:**The detector must be tested regularly. Ensure that the user is able to access the TEST button.

Regulations require that in case of a gas detection event, or sensor malfunction or power loss, for safety reasons, the gas shall be closed until the reason for the event is identified and isolated. The system has a manual override to accommodate such situations. Carefully read how the system operates in case of power failure.

**In the event of an alarm sounding or the smell of gas even without an alarm, keep calm, and carry out the following actions, not necessarily in the order given.**

- 1.** Extinguish all naked flames, including all smoking material;
- 2.** Turn off all gas appliances;
- 3.** Do not switch on or off any electrical equipment, including the gas detection apparatus;
- 4.** Turn off the gas supply at the gas main control and/or (with a LPG supply) the storage tank;
- 5.** Open doors and windows to increase ventilation;
- 6.** Do not use a telephone in the building where the presence of gas is suspected.

If the alarm continues to operate, even after an alarm resetting action where appropriate, and the cause of the leak is not apparent and/or cannot be corrected, vacate the premises and IMMEDIATELY NOTIFY the gas supplier and/or the gas emergency 24 h-service in order that the installation may be tested and made safe, and any necessary repair carried out.

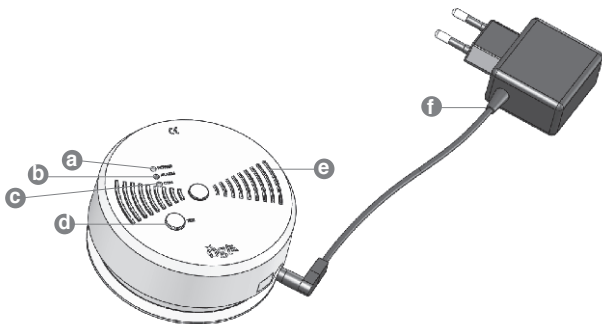
If the alarm stops and the reason for the alarm having operated is identified, (for example a gas tap switched on with the burner unlit), after stopping the gas release and ensuring that all appliances are turned off, the main gas supply may be reinstated.

## Contents Of The Kit

- A.** Shut off Actuator.
- B.** Gas ball valve adaptor.
- C.** LPG gas detector (carbon monoxide and Natural Gas optional).
- D.** CR123 battery.
- E.** Installation hardware.

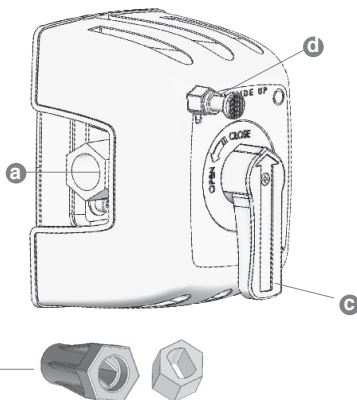
## Detector Description

- a.** Green power light means the sensor is properly powered and functioning. Indicates low battery conditions.
- b.** Red warning light indicates detection of gas leak, presence of CO or smoke depending on the type of sensor purchased.  
Note: light will blink for a few seconds when the device is initially powered.
- c.** Green communication light indicates presence of proper communication between detector and the shut off unit.
- d.** Test button.
- e.** Voice Alarm.
- f.** Power supply - Use dedicated AC/DC adaptor
- g.** External communication plug (optional, not shown).



## Shut Off Description

- a. Main gas unit.
- b. Adaptor (will be installed on the main gas unit).
- c. Manual on-off button.
- d. Push button for manual release to "Off" position.
- e. Earthquake sensor (optional, not shown).
- F. Battery cover (not shown).



## Detector Specifications

Detection GAS	LPG- Cat. No. NGLSM00LEU01 NG - Cat. No. NGLSM00NEU01
Calibration GAS	LPG- Butane NG- Methan
Dimensions [mm]	Ø 101x 40
Weight	175gr
Operating Voltage	5V
IP Code	53
External Adaptor (included)	Input 110 -240 V AC
Nominal operating current	500mA
Operating temperature	0C - 50C, 32F – 122F
RH humidity	20%-80%
Self Test	Yes

## Shut Off Specification

Unit lifetime	3 years
Battery lifetime	3 years
Dimensions [mm]	110(H)X145(L)X100W Clearance for handle add 10
Weight	375gr
IP Code	13
Power	3V battery (CR123)
Power loss management	See below for further details
Operating temperature	0C - 50C, 32F – 122F
RH humidity	20%-80%
Primary Radio Frequency	433Mhz
Closing Profile (NM)	Linear, Open – 4; Closed - 2

## System Installation

Installation and battery replacement should be done only by an authorized person. The installation is for one shut off valve and at least one gas detector. Installing the shut off does not require cutting or replacing the gas piping (provided that it is in order and approved by the relevant gas company). It is recommended to check the proper operation of the existing valve before installation and replace it if it is hard to operate or old. If pipe cutting or valve replacements are necessary, this may only be done by a qualified person.

## Necessary Equipment

A drill, hammer, and screwdriver. For each installed component: 2x5mm screws, 2 masonry anchors.

## Installing The Detector/s

The installation location of gas detectors depends on the type of gas used. Best communication is reached with open line of sight between components. Before installing please note the recommended Detector's installation requirements.

**Natural Gas** is lighter than air; the detector should be placed above the highest window or door opening' not more than 30 cm below the ceiling.

**Liquid Petroleum Gas** is heavier than air; the detector should be placed below the level of a possible gas escape and not more than 30 cm from the floor.

**NG/LPG detectors should be located between 1m to 4 m from the gas appliance.**

### Where Not To Put The Detector

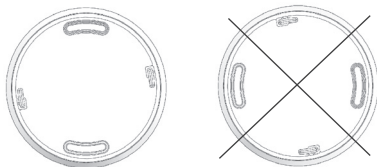
- In or below a cupboard, or in any enclosed space.
- Where the air flow to the unit would be obstructed by curtains or furniture.
- Where dirt or dust could collect and blok the sensor and stop it working.
- In a damp or humid area.
- Directly above cooking appliances.
- Directly above a sink.
- Next to a door or window or nywhere that would be affected by draughts e.g. extractor fan or air vent.
- In any outside location.
- In an area where the temperature may drop below  $-10^{\circ}\text{C}$  or exceed  $55^{\circ}\text{C}$ .
- Where it is likely to be knocked or damaged.
- When the sensor is installed in area with harsh working conditions such as very wet kitchens and laundry rooms, it needs to be protected by a transparent plastic enclosure with holes in the bottom.

### Detector Installation Steps:

1. Find a power outlet that conforms to the requirements for detec tor placement. Make sure the adaptor's power chord can connect freely at the detectors desired location.
2. Remove power adaptor and detector from box.
3. Remove the detector mount.



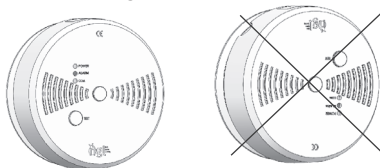
4. Place the detector mount on the wall.
5. Mark positions of two holes on the wall.



6. Drill 2 holes using a masonry or wood drill or use drywall anchors.
7. Attach the detector's mount to the wall by means of 2XM5 screws.



8. Affix the detector on the mount and turn it slightly to the right until it locks.
9. The result is the following.



10. Connect the power and make sure all 3 led briefly light up and an audible beep is heard.
11. Disconnect power for now until shut off actuator is installed.



## Installing The Shut off Actuator

The efficacy of the shut off depends on the quality of communication. Best communication is reached with open line of sight between components. shut off should not be installed in closed metal enclosures, as range will be affected. If installation requires a closed metal enclosure, please call your provider for an external antenna.

### Before Installation Make Sure

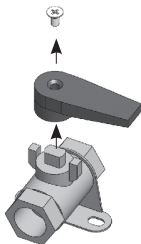
No metal cabins around the shut off as it affects radio range.

No risk of flooding/Water splashing.

Access to handle and pin should be easy for grown ups, but hard to reach for young children.

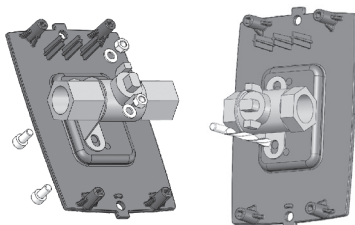
### Shut off Installation Steps

1. Make sure the shut off actuator is in closed position during installation.
2. Verify that the gas ball unit is closed and there is no flow of gas.
3. Connection of valve to base.
  - a.If valve is screwed to the wall, detach valve-wall connections from the wall.
  - b.Remove the valve's original handle.



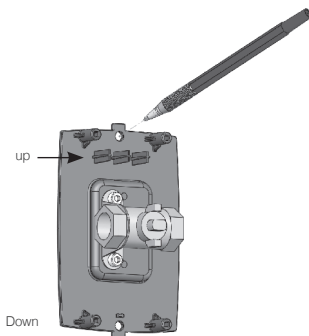
- c.Position the base behind the valve and mark the valve connection holes.

- d.** Drill 2 holes in the shut off base according to the valve type.
- e.** Connect valve to the base using the 2XM5 screws and nuts.

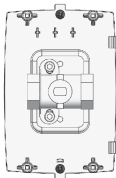


**4.** Connection of base to wall.

- a.** Position the base on the wall and mark the two holes position on the wall.



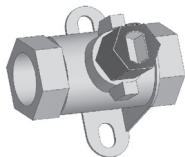
- b.** Mark the base-wall connection holes.
- c.** Drill 2 holes using a masonry or wood drill or use drywall anchors.
- d.** Place anchors.
- e.** Connect the assembled base to the wall.



**5. Installing the nleak actuator.**

**a.** Handle should be in the off position.

**b.** Replace with the relevant adaptor 3/8" or 1/2".

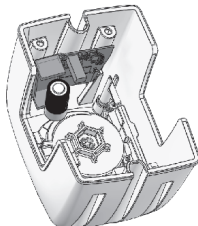


**c.** Insert Battery in right direction in shut off and watch for the following.

I. Verify : Green Led light – power on

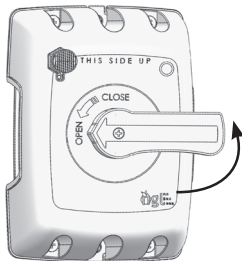
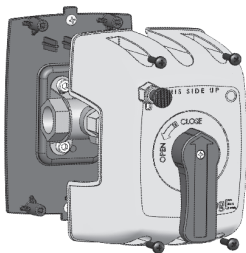
II. Verify: Motor moves 180 degree and makes an audible sound – baseline setting

III. Note : the battery installation initiates the process of synchronizing detectors to shut off valve.



**d.** Cover the battery with the plastic battery cover.

- e. Assemble shut off on base, ensuring adaptor sits in place.
- f. Tighten cover with 4XM5 screws.
- g. Turn handle to On position and check that it is locking.



- h. Test the manual release button – Warning! Keep fingers and objects away from moving parts.

**Warning! The shut off must be installed free of contortions or pressures on the valve that warp the unit and may result in malfunctions.**

## **Synchronizing The System Components And Activation**

The process of synchronizing the shut off to its network with its related detectors is critical to the proper operation of the system and prevents accidental activation by neighboring systems. Read and follow the instructions carefully:

This process starts with a synchronization process that will match the Communication ID of the shut off with the detectors.

The system has a built in period of 10 minutes to allow for completion of the synchronization process.

The first detector installed is the master detector. We recommend closest one to the shut off, and most visible.

The process starts when you install the battery in the shut off unit.

	<b>Action</b>	<b>Indication</b>	<b>Troubleshooting</b>
1	Shut off battery insertion	Shut off green led, Motor 180 degree movement	Fresh battery? Battery inserted correctly?
2	Connect master detector to power	Three leds turn on for 2 seconds with a beep sound. Power led remains green when done	
3	Master detector creates COM ID	All leds blink once. Power and Comm leds remain green when done (It can take up to 1 minute for the sensor to communicate with the shutoff)	COM problem?
4	Connect all other detectors (Slaves) one at a time in sequence until done	For each slave all leds blink the number of times that corresponds with its position in the sequence ( 2..6). Power and Comm leds remain green when done	COM problem Master power
5	The system will self-change from Synchronization mode to normal mode within 10 minutes, or if 6 smellers were defined Or, you can transfer it manually by pressing the TEST button on any sensor for 1 second	Long beep. all Leds light for 1 sec and afterwards Power led and comm led are steadily green in all sensors	

**HARD RESET:** if the synchronization process failed to configure all detectors, you must press the TEST button of each detector for 15 sec, remove the battery from the shut off, wait 30 seconds, install the battery and start the process again.

## **Testing After Installation And Periodical Tests It Is Recommended To Test The System Manually Every 3 Months.**

1. Verify all detectors are powered and Power and Comm leds are lit.
2. Make sure shut off is in the ON position, and that no gas is used
3. For each detector repeat phases 2-6 below sequentially
  - a. Press TEST button.
  - b. Verify: buzzer makes audible sound, red alarm led on detector is lit. Red alarm led on Master detector is On.
  - c. Press TEST button 2nd time to stop alarm.
4. After you tested all detectors check that the valve has closed
5. Turn the valve open.
6. Press the manual release pin on the shut off valve and make sure the valve closes.
7. Turn the valve open.

## **Maintenance Operations**

### **Power Loss During Outage**

In case of loss of communication for any reason including loss of power to the detector, the system will shut off according to safety standards and requirements, as follows:

1. Master detector - loss of power or communication with shut off:
  - a. The shut off is programmed to close the gas valve after: 2 min, 2 hours and 4 hours in case of frequent power outages.
  - b. You can manually open the valve in case of a power outage.  
CAUTION: you must check for presence of gas or electrical hazards before you reopen the gas valve!
  - c. The Power led and/or the Comm led will be off. This means there is no communication with the master detector.
2. Slave detector - loss of communication:
  - a. After 2 min of communication loss the system will shut the gas off.
  - b. Verify all sensors
  - c. Identify the faulty sensor by checking if the power Led and/or the Comm led are off.
  - d. If Master detector is in good order and a faulty detector is found, verify that there outlet is powered. If it is and the sensor is not restored to two green leds, replace detector.

## **Shut off Replacement**

1. Manually close valve using the manual release button.
2. Dismount existing shut off; you can keep the base installed unless you are replacing the valve.
3. HARD RESET - for each sensor press the TEST button for 15 seconds, and then unplug the power.
4. Install the new shutoff in its place and insert a new battery.
5. Proceed to Synchronizing the system components and activation section above.

## **Battery In Shut off**

1. Check if master detector indicates low battery; the power led will flash to indicate low battery level.
2. Manually close valve using the manual release button.
3. Remove cover, remove old battery, check that Comm led in master detector is off.
4. Install fresh CR123 type battery only and note green led, motor movement and sound in the shut off.
5. Place the battery cover, back on the battery.
6. Check that Comm led in master detector turns on again. Synchronization is not needed and system continues operation without further steps required.
7. turn shut off ON.

## **Replacing A Detector**

1. Remove existing detector.
2. HARD RESET - for each sensor press the TEST button for 15 seconds, and then unplug the power.
3. Reset the shut off by removing battery for 3 seconds and inserting it again.
4. Wait for 30 seconds.
5. Proceed to Synchronizing the system components and activation section above.

**Caution:** If the system does not operate as described call your service provider.

**Detector led Indication Table:**

Mode	Action/status	Description	PWR led	Alarm led	Comm led	buzzer
Power up	Detector power up	The detector sensor has a response time of 2 sec.	Flash	Flash	Flash	Flash
Synchronization	Synching ID	The detector got the ID (master=1, rest 2-6)	On	Off	Flash Xdetector index	
Synchronization	Detector Synch complete	Each detector is synched	On		On	
Transfer to operation	System from Synch mode to Normal mode	After 10 minutes, or pressing TEST on one detector	On for 1 sec	On for 1 sec	On for 1 sec	Long Beep
Operation	Normal	Detector monitors gas levelsCOM according to system response time, shut off Bat condition every 1 hour	On	Off	On	Off
Operation	No communication	No communication for 30 sec System shuts off- after 120 sec	On	Off	Off	
Operation	Gas event	The detector detects gas over the allowed limit (long button press exits this mode).	Flash	Flash	Flash	On continuously
Operation	Shut off low battery	Only the master detector indicates low bat of the shut off.	Flash	Off	On	Beep every 30 min.