

# Alecto COA1910 Carbon Monoxide Alarm with 10 Years **Sensor Runtime User Manual**

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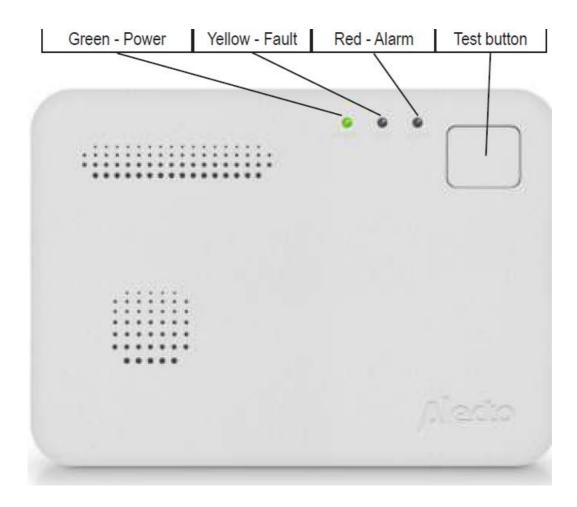
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## Alecto COA1910 Carbon Monoxide Alarm with 10 Years Sensor Runtime



## **PRODUCT OVERVIEW**



The COA1910 is a CO detector, developed especially to detect carbon monoxide in your living area.

## **GENERAL:**

What is carbon monoxide?

Carbon monoxide, designated CO, is also called carbon monoxide. It is a colorless, tasteless, odorless and poisonous gas. ATTENTION this is CO (carbon monoxide) and not CO2 (carbon dioxide).

#### YOU CANNOT SEE, SMELL OR TASTE CARBON MONOXIDE AND IT CAN BE FATAL.

CO is emitted as part of a hot gas mix and therefore it tends to rise until it cools down. This is in contrast to CO2, which is heavier than air and drops.

All fuel types can produce carbon monoxide.

Most common CO sources:

The most common carbon monoxide sources are (faulty) gas devices used for:

- Heating (Central heating boiler, Geyser, gas heater, portable fuel stoves)
- Cooking
- · Vehicles running in an adjacent garage
- Clogged chimneys, smoke ducts or fireplaces
- · Fuel-powered tools
- · The use of open fire in an enclosed space

The COA1910 does not detect any gases other than CO gas.

Symptoms of carbon monoxide poisoning:

Symptoms of carbon monoxide poisoning are dizziness, fatigue, weakness, headaches, nausea, vomiting, sleepiness and confusion.

Everybody is sensitive to the dangers of carbon monoxide, experts agree however that small children, pregnant women and their unborn babies, elderly people and persons with heart or breathing problems have the highest risk of serious or even fatal injuries. Every year an authorized installer must inspect and clean your heating system, vents, chimney and smoke ducts.

## Important:

- This CO detector is not a replacement for smoke, fire or other detectors.
- The detector must be installed by a competent person.
- This detector cannot protect people with special medical conditions
- This detector might not prevent any chronic health effects of carbon monoxide on the body.
- This CO detector is not a replacement for the correct installation, use and periodic maintenance of combustion equipment, nor adequate ventilation of spaces in which these devices are being used.
- We recommend you to weekly test the CO detector using the "TEST/RESET" button on the CO detector.
- This CO detector only sounds the alarm when carbon monoxide is present at its sensor. Therefore, it's possible
  for carbon monoxide to be present elsewhere and the alarm doesn't sound.
- When the alarm sounds, possible harmful carbon monoxide levels are present!
   Carbon monoxide can be deadly!

CO	Period of inhaling and symptoms	
50PPM	The maximum concentration a healthy adult can withstand in 8 hours.	
200PPM	After 2-3 hours, mild headache, sensations of weakness, dizziness, nausea.	
400PPM	Within 1-2 hours, ache in forehead; after 3 hours, life-threatening.	
800PPM	Within 45 mins, dizziness, nausea, convulsions; Loss of consciousness within 2 hours; Fatal within 2-3 hours.	
1600PPM	Within 20 mins, headache, dizziness, nausea; Fatal within 1 hour.	
3200PPM	Within 5-10 mins, headache, dizziness, nausea; Fatal within 25-30 mins.	
6400PPM	Within 1-2 min, headache, dizziness, nausea; Fatal within 10-15 mins.	
12800PPM	Fatal within 1-3 min.	

#### **Alarm**

When the CO detector sounds the alarm, carbon monoxide (CO) might be present which can be fatal. Therefore, never ignore this alarm.

When alarmed, the red ALARM LED will blink rapidly 5 times and emit 5 short audible beeps. The alarm cycle will repeat 3 times every 10 seconds. Once the carbon monoxide concentration falls below 40PPM the alarm will stop. If the CO concentration exceeds 30PPM for 60 minutes or 40PPM for 40 minutes the low CO concentration alert will sound. Once every 5 minutes, the red alarm LED will simultaneously flash 4 times and 4 short sounds will sound.

### What to do when the alarm sounds:

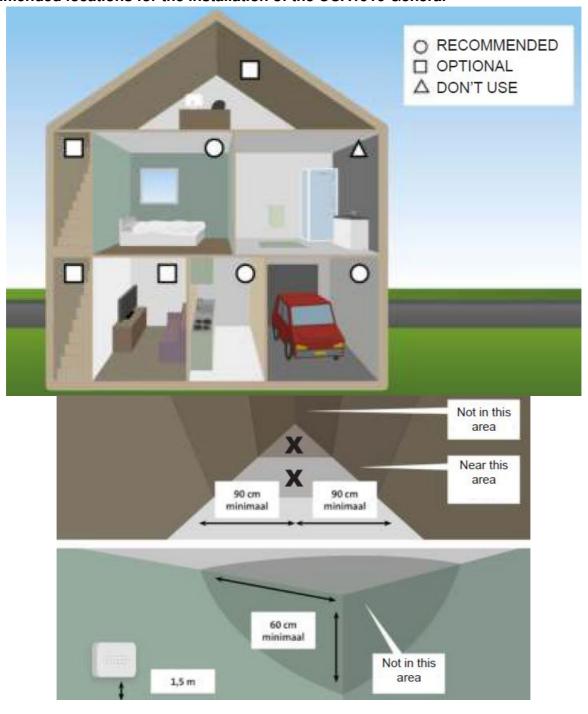
- 1. Open doors and windows and immediately do outside into the fresh air. Check whether everybody has left the building.
- 2. Call an official installer to inspect the correct functioning and state of maintenance of the combustion source (gas or oil powered equipment) that could be the cause for the CO alarm.
- 3. Only enter the building again after the cause has been resolved and the building has been well ventilated.

The alarm sound can be turned off for up to 10 minutes (Hush function) by pressing and holding the TEST key for 3 seconds (<200PPM).

The time the hush function is active depends on the measured CO concentration. The hush time decreases as the CO concentration increases. Above 200PPM the hush function is not possible.

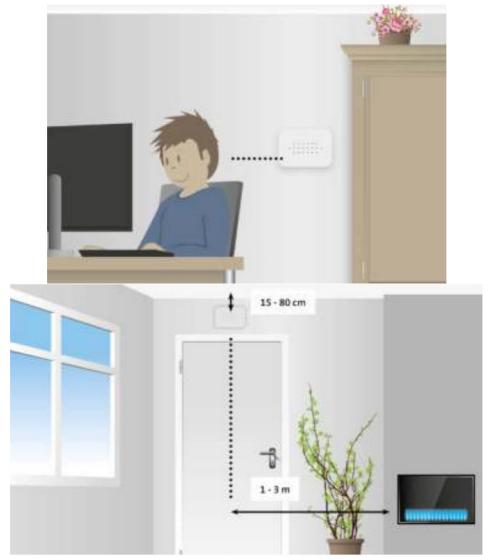
When the CO concentration drops, the alarm will eventually stop automatically. During the hush function, press the test button to immediately disable the hush function and make the alarm audible.

## Recommended locations for the installation of the COA1910 General



- Install the CO detector in a location where the alarm can be heard inside bedrooms.
- In houses with multiple floors, it's recommended to install a CO detector on each floor.
- Install the detector on a spot where the weekly check can be performed easily.
- We recommend that a CO detector be installed in every room with a combustion appliance at the air outlet of the appliance.

## In spaces without combustion devices



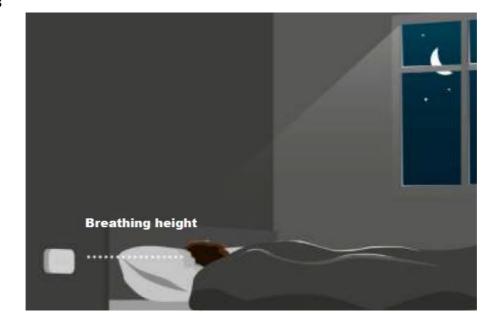
- Install the CO detector in spaces without combustion devices, preferably at breathing height.
- Install the CO detector way from of roof ridges, corners. arched ceilings or front roofs.
- Install the CO detector 60 centimeters from surrounding walls and ceilings.

## In spaces with combustion devices



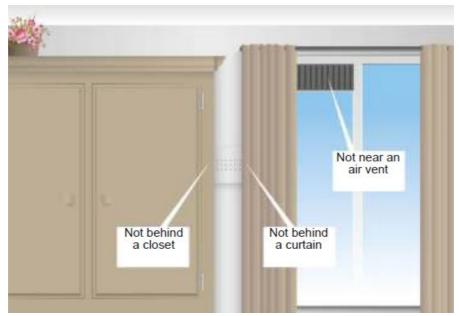
- Install the CO detector at 1 to 3 meters away from combustion devices, within the air flow from the combustion device.
- Install the CO detector way from of roof ridges, corners. arched ceilings or front roofs.
- In the case of smaller spaces (<4m³), the detector should be installed outside these spaces.
- Install the CO detector 60 centimeters from surrounding walls and ceilings.
- Installation on both walls and ceiling is possible in rooms with a combustion device.

#### In bedrooms



- Install the CO alarm in bedrooms at breathing height while sleeping.
- Install the CO detector way from of roof ridges, corners. arched ceilings or front roofs.

## **AVOID THE FOLLOWING PLACES FOR INSTALLATION:**

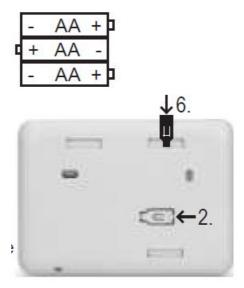


- Do not install the CO-detector in the turbulent air created by ceiling fans.
- Do not install the CO-detector near vents with fresh air.
- Do not install the CO-detector near doors and windows leading outdoors.
- Do not install the CO-detector near extremely dusty, dirty or greasy spaces such as heating spaces <4m³ or pantries. Dust, grease and household chemicals can affect the sensor.
- Install the CO detector at least 0.5 meters away from gas discharge lamps (halogen) because of electronic interferences that can lead to false alarms.
- Do not install the CO detector in humid and wet spaces, such as the bathroom.
- Do not install the CO detector in a location where the temperature is lower than -10°C or warmer than +45°C.
- Do not install the CO detector in a place where the humidity is higher than 93%RH.
- Never install the CO detector behind curtains or furniture. Carbon monoxide must be able to reach the sensor

to ensure the sensor can properly detect carbon monoxide levels.

- Never install the CO detector flat on a table or similar surface.
- · Never install the CO detector in spaces where spray cans may be used (hair spray, deodorant)

## **INSTALLATION:**



- 1. Insert the included batteries into the detector.
  - · Turn the securing pins inward
  - Insert the 3 AA batteries, observing polarity. (High Energy Alkaline batteries 1.5V AA LR6)
  - The power, fault and alarm LEDs will light up for 0.5 seconds and the detector will emit a short audible signal.
- 2. Push the latch out of the mounting plate.
- 3. Install the mounting plate on a suitable spot
- 4. Use the included plugs and screws.
- 5. You can perform the first test by briefly pressing the test button, see also paragraph "Testing".
- 6. Now interlock the mounting plate with the CO detector by inserting the latch on top into the hole until you hear a click.
- 7. The CO detector is now functional.

## **USE:**

- 1. Every 45 seconds, the power LED lights briefly to indicate that the detector is operating.
- 2. When the detector gives a short bleep every 60 seconds and the yellow "Fault" LED flashes, the batteries should be replaced as soon as possible. At the start of these warnings, the detector will operate for 30 days standby or 4 minutes in alarm mode.
- 3. The table below shows when the detector will sound the alarm.

	NO ALARM	ALARM
CO concentration	for	for
30PPM	120 min.	_
50PPM	60 min.	90 min.
100PPM	10 min.	40 min.
300PPM	_	3 min.

In accordance to the EN50291 standard.

- 4. When the alarm sounds, it will turn off within 6 seconds after moving the detector to a space with a CO concentration below 40PPM.
- 5. The alarm sound can be turned off for up to 10 minutes by pressing and holding the TEST button for 3 seconds (<200PPM).
- 6. The detector will automatically perform a fault inspection every 180 seconds.

## **TESTING:**

When the CO detector is operating under normal conditions, the sensor and siren should be tested at least every month. Press the "TEST" key. "POWER", "FAULT" and "ALARM" LED light up. Then the detector gives 5 beeps within 10 seconds and also the red "ALARM" LED lights up. Everything is now ok.

If the detector gives an error message, the yellow "FAULT" LED will light 2 times and give 2 beeps per minute.

## **SILENCING ALARM (HUSH FUNCTION):**

Sometimes the alarm may go off due to influence of environmental factors. For example, smoke containing certain concentrations of carbon monoxide or other chemical gases. When the CO level is lower than 200PPM, you can press the "TEST" button. The alarm will stop and the detector will immediately check the CO value again. When the concentration is higher than 200PPM it is impossible to stop the alarm.

The red LED will blink 8 times per second- and the s nd signal will stop for max 10 minutes. If after max 10 minutes the concentration is still above 200PPM the alarm will be activated again. During the hush function, press the test button to immediately disable the hush function and make the alarm audible.

#### LED INDICATION:

- Red LED Alarm, carbon monoxide present
- Yellow LEDSensor problem
- Green LEDNormal functioning, the LED flashes every 45 seconds

#### **BATTERY INFORMATION INDICATION:**

- 1. Every 45 seconds the battery is automatically checked.
- 2. Every 45 seconds the green LED will light up briefly as long as the total battery voltage is above 3,6 Volt. This means that the battery capacity is okay. If the battery voltage drops below 3.6 Volts, the yellow "Fault" 1x LED

will briefly light up once a minute and a one-time beep will sound. Now the batteries should be replaced as soon as possible.

Use High Energy Alkaline batteries (3 x LR6 / 1,5V AA). Rechargeable batteries are not suitable. The supplied batteries will last approximately 24 months before they run out

#### **REASON FOR SENSOR FAULT:**

Faults can be caused by broken circuitry, a faulty sensor or faulty electronic parts.

## **SENSOR FAULT CAUSED BY CHEMICAL GASES:**

When volatile chemical gases such as alcohol are the cause for error detection, this may be corrected by switching the detector off and leave it in fresh air for 24 hours. This will restore the sensor. If the error is not cleared after these 24 hours, the detector is faulty and should be replaced. Don't repair the detector yourself, but have it repaired by the importer.

When the alarm is contaminated and damaged by high concentrations of chemical gases, the sensor could be affected. This will lead to a temporary error or permanent damage. When the alarm sounds and you can smell a chemical gas, this could be the reason. Carbon monoxide is a colourless and odourless gas. Chemical gases do have an odour.

The following substances and gases can cause false alarms or permanently damage the detector: Methane, propane, iso-butane, ethylene, ethanol, alcohol, iso-propanol, benzene, toluene, acid, ether, hydrogen, hepatic gas, sulphur dioxide, aerosol, propellant, alcohol preparation, paint, thinner, dissolvent, bonding agents, shampoo, aftershave balm, perfume, car exhaust (cold start) and certain cleaning agents.

## **MAINTENACE:**

To keep your CO detector in proper working order, please follow these easy steps:

- Once a month, check that the alarm is working properly by pressing the test button.
- Clean the CO detector with a vacuum cleaner or with a soft cloth or brush once every month to remove excess
  dust.
- Check whether the batteries are damaged, exhausted or corroded.
- Explain to children that they should not play with the CO detector.
- Ensure children are aware of the dangers of carbon monoxide poisoning.
- Never use cleaning agents or other solutions to clean the CO detector.
- Never use air fresheners, hair spray or other aerosols near the CO detector.
- Don't paint the CO detector. Paint covers the vents preventing the sensor from detecting CO.
- Never disassemble, repair or modify the product yourself; there's a high risk that it will no longer function correctly or reliably.

## **BATTERY REPLACEMENT**

Remove the battery cover on the back of the unit by sliding the cover off the product, you will now have access to the batteries.

Remove the batteries from the unit and replace them with 3x new High Energy Alkaline batteries 1,5V AA – LR6, making sure that the battery polarity matches the instructions in the battery compartment.

## **SENSOR REPLACEMENT:**

The sensor has a lifetime of 10 years. After 10 years you need to replace the complete product, the sensor itself is not exchangeable.

If the yellow LED illuminates within these 10 years, even though you've reconnected or replaced the batteries, please refer to the paragraphs Reason for sensor fault and Sensor fault caused by chemical gases. If the yellow "FAULT" LED lights up 3x and 3 beeps per minute are heard, the entire product should be replaced. This is the End of life warning.

#### **SPECIFICATIONS:**

- Power supply: 3 x LR6, 1,5V AA high energy Alkaline batteries
- Sensitivity and time: 30ppm, alarm is not activated within 120 minutes
- 50ppm, alarm is activated within 60~90 minutes
- 100ppm, alarm is activated within 10~40 minutes
- 300ppm, alarm is activated within 3 minutes
- standby consumption: <15μA
- consumption at alarm: <65mA
- Sound pressure at alarm: >85dB (3m distance)
- · Environmental conditions
- during use: -10~+45°C, 0~93% humidity.
- Type: Type B (unchecked output)

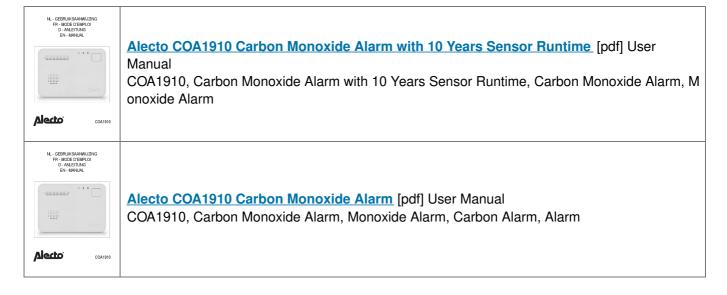
#### **ENVIRONMENT:**

Do not throw away used batteries, but recycle them using your local chemical depot. Product may not be thrown out as normal waste, but must be recycled as electrical waste.

## **DECLARATION OF PERFORMANCE**

The declaration of performance is available on the website <a href="http://DOC.hesdo.com/COA1910-DOC">http://DOC.hesdo.com/COA1910-DOC</a>.

### **Documents / Resources**



#### References

## ▲ Alecto.nl | alectonl

Manuals+,