

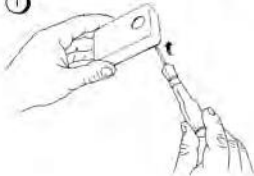
# **CARBEST**

INNOVATIONS FOR MOBILE LIFE

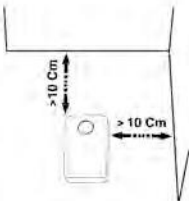
## GasCube Gaswarner/Gas Detector



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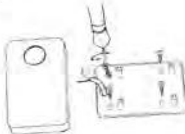
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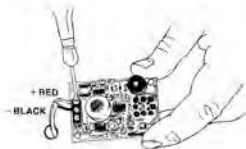
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**GENERAL**

GasCube is warning against leaking propane / butane gas (LPG) and gases with narcotic effect. GasCube is produced to warn people in a motorhome or caravan about the risks of emerging gases. GasCube will be permanently installed in the vehicle. GasCubeTwin offers the possibility to connect up to 2 additional sensors for even more safety.

GasCube is able

- to detect gases at very low concentrations and to warn against harmful gases, long time before it will have an impact to people and animals.
- to wake up the sleeping people in a motorhome or caravan by an alarm signal and to draw their attention to the emerging gas.
- with a special sensor technology GasCube responds very sensitive to gases with numbing and narcotic effect.

**For the faultless operation of GasCube it is important:**

- that the ambient air contains preferably no polluting gases.
- that GasCube will be installed approx. 100 cm above the floor.
- that the sensor will be controlled regularly of its function.

## **OPERATION**

With a slight pressure on the button of the GasCube's housing it will be turned on. After switching the GasCube a car test starts and the proper function of the electronics and sensor technology will be checked. This is indicated by a short flash of the LED's and a long beep. Directly afterwards, the GasCube performs a calibration of the sensor technology. This is shown by the flashing blue LED. This phase lasts two to four minutes. If the calibration is ready, the blue LED lights permanently.

## **ALARM**

If the GasCube perceives a gas concentration in the ambient air, the device generates a pre-alarm. During the pre-alarm an intermittent sound can be heard and the red LED starts flashing. The pre-alarm takes 40 seconds. During this time the GasCube checks how the gas concentration is changing. If the gas concentration remains equal or higher after the pre-alarm, an alert is triggered. The red LED lights steadily and a continuous alert signal will be heard. In the event that the gas concentration has disappeared after the pre-alarm, the GasCube goes back into the standby mode and the blue LED lights.

## FUNCTIONAL TESTING

1. Turn on the GasCube, await the self-test until the blue LED lights up constantly and the GasCube is ready to use.
2. Then hold a gas lighter at the GasCube's side openings, press the button of the lighter so that gas exhausts, but no flame will be produced.
3. After a few seconds, the pre-alarm is triggered. If you now continue to let the gas flow into the housing, after the pre-alarm an alarm is triggered.

## TECHNICAL DETAILS

<b>Central button</b>	ON/OFF
<b>Supply voltage</b>	12 to 30 Volt DC
<b>Acoustic signal</b>	approx. 80 dB
<b>Dimensions in mm</b>	55x87x24
<b>Power consumption standby mode</b>	100 mA
<b>Power consumption alarm</b>	180 mA
<b>Power consumption extra sensor</b>	95 mA

Optional sensors available only for GasCubeTwin (802483)

## SENSITIVITY

- Optional wide range LPG gas sensor (802485):  
Propane/butane (LPG), narcotic gas = approx 95 PPM
- Optional specific CO gas sensor\* (802484):  
Carbon monoxide (CO) = 90 PPM  
(40 PPM after a view hours of operation).

## COMPLIANCE:

2014/30/EU: EN 50270: 2015/AC 2016 (Electromagnetic compatibility)

2014/35/EU (Low voltage directive)

EN 50194 - 2: 2006 + A1: 2016 + 2017 - 05

(Combustible gas detectors directive)

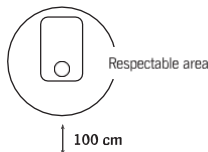
2011/65/EU - 2015/863

98/34/CE

## INSTALLATION GasCube

The choice of the installation point is important for the correct operation

- The main sensor is located inside the GasCube.  
For a correct operation leave a respectable area of at least 20 cm around the device.  
This is necessary to ensure the passage of the gases to be detected inside the sensor.
- **Install GasCube at a height of 1 m from the floor.**
- Do not install above the gas cooker, cooking vapors may damage the gas sensor.



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**FLOOR**

## OPTIONAL EXTERNAL SENSORS FOR GASCUBE TWIN

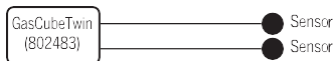
**GasCubeTwin offers the possibility to connect up to 2 additional sensors for even more safety.**

**Possible sensor combinations:**

1: 2x CO gas sensor

2: 2x LPG gas sensor

3: 1x CO gas sensor + 1x LPG gas sensor



### **802485: LPG GAS SENSOR (external wide spectrum sensor, propane/butane (LPG), narcotic gas)**

The unit has the same sensitivity and detects the same types of gas as the main sensor incorporated in the device, offers additional protection and can be installed in a different position to extend the range of action. It must be installed at a height of about one meter for the detection of all types of flammable and soporific gases. If the second sensor is to detect mainly liquefied petroleum gas (LPG) it is preferable to install it 30 cm from the floor. Do not install near heat sources or directly above the gas stove as cooking vapors can damage the gas sensor.

During operation the sensor can reach a temperature of about 60°C, this is absolutely normal.

Sensitivity:

Propane/butane (LPG), narcotic gas = approximately 95 PPM

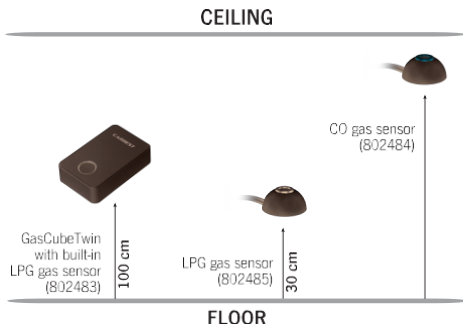
## 802484: CO GAS SENSOR

**(specific external sensor for CO gas, carbon monoxide)**

Additional detector with specific sensor for Carbon Monoxide (CO) Gas, for proper operation it must be installed high up (near the ceiling) since the CO gas is lighter than air. Do not install near heat sources or directly above the gas stove as cooking vapors can damage the gas sensor. During operation the sensor can reach a temperature of about 60°C, this is absolutely normal.

Sensitivity: Carbon monoxide (CO) =

90 PPM (40 PPM after a few hours of operation).



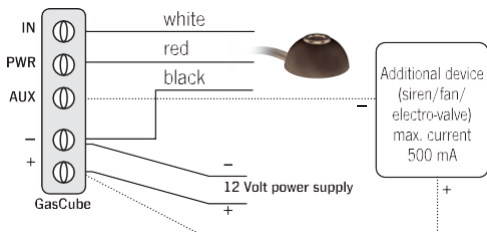
## AUX OUTPUT

The GasCube is equipped with an output to connect an evacuation fan or a gas stop electro-valve.

The output is active during the alarm, it is not active during the pre-alarm.

AUX output provides a negative signal ( $-12\text{ V}$ ) with a maximum current of  $500\text{ mA}$ .

If you need to connect a device with higher absorption, an additional relay must be installed.



**WARRANTY**

The warranty period is 36 months. Reimo reserves the right to rectify eventual defaults. The guarantee is excluded for all damages caused by faulty use or improper handling.

**Liability limitations:**

In no case Reimo will be reliable for collateral-, secondary- or indirect damages, costs, expenditure, missed benefits or missed earnings. The indicated sales price of the product is representing the equivalent value of Reimo's liability limitations.

