

Yearly function and installation check of the LogiCO2 Mk9 and Mk90* CO2 Safety System

Store Name (Store Number)	
Address	
City	
State / Region	
Zip Code	
Country	
Date of inspection	
Service Provider's Company Name	
Repair Company Name (if different)	

*If you are performing a function check on a Mk90 CO2 Stand-Alone System without a Central Unit connected, the checklist regarding the Central Unit is not applicable.

Power supply control

If a plug-in power supply is used, make sure that the plug-lock is mounted in a way to eliminate the risk for the power supply to be un-plugged.



Checklist Power supply	YES	NO
Is it a hardwired power-supply (directly connected to the power network without any plug, OBSERVE not for the US)?		
If it is a hardwired power supply, is the connection properly fixed?		
Is it a plug-in power supply?		
If it is a plug-in power supply, is the plug-lock securely mounted (or any other mechanical system that eliminates the risk for the power supply to be un-plugged)?		

Checklist Collar seal	YES	NO
Are all the 1-1 and 1-2 splitters equipped with collar seals?		

Central Unit check

The central unit must be mounted at a height and where it is easily reachable (to control/reset the system and to read the values/messages).

The sign "What to do" must be mounted in a permanent manner (NOT TAPE) next to the central unit so that the personnel can easily read it. Phone number of the service provider responsible if there is a CO2 leak, should be registered on the "What to do" sign.

When the central unit is running properly, the green diode (ON) is ON, and the screen should display the CO2 levels of the CO2 sensor or sensors that are connected.



Checklist Central Unit	YES	NO
Function control of the alarm mode. Did all the units (central unit, sensors and alarm devices) in the system go into alarm mode when the button on the central unit was pressed for 10 seconds?		
Is the central unit mounted in a way that makes it easy to read?		
Is the "What to do" sign mounted next to the central unit and is it easily readable?		
Is the "What to do" sign mounted in a permanent way?		
Is the phone number of the service provider which is responsible if there is a CO2 leak written on the "What to do" sign?		
Is the green diode ON?		
Is the yellow diode (Error) ON?		
Is the red diode (Alarm/Alert) ON?		
Is any error message displayed? if yes, what is it:		

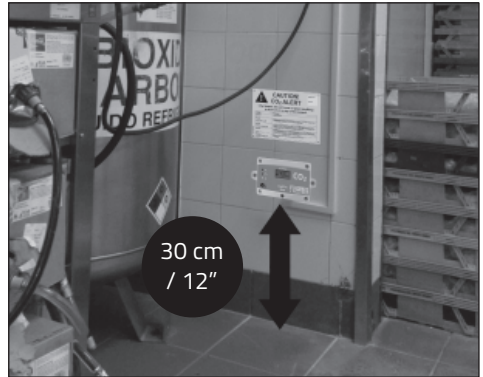
CO2 Values displayed on the Central Unit

When the system is running properly, the CO2 level measured by each sensor is displayed in % (actual value) and in ppm (Time Weighted Average over 8 hours). The values are displayed sequentially on the second line of the display. The first character displayed is the sensor ID, the value is displayed after.

Checklist CO2 Values	Value in %	Value in ppm
Sensor 1		
Sensor 2		
Sensor 3		
Sensor 4		
Sensor 5		
Sensor 6		
Sensor 7		
Sensor 8		

CO2 Sensor check

Each sensor should be mounted not higher than 30cm/12 inches from the floor in the lowest part of the room. The sensor should be mounted within 5 m/15 feet from the potential CO2 leak source. The sensors cover an area of 78 m²/840 ft² (in a confined space, for example a beer cellar). The warning lamp should be mounted so that it can easily be seen by the restaurant personnel without entering the zone at risk. If there is a door leading to a lower area, for example, a basement, then a sensor is also needed in this area, to insure CO2 safety in that area. Under normal conditions the CO2 value displayed, should read between 0.03% and 0.2%.



Checking the sensor with gas

The sensor has an automatic self calibration function. Since we have a factory calibrated preset curve, you only need to check one point of the calibration curve to determine if the sensor is measuring correctly. The only point on the calibration curve that is not influenced by pressure and external situations is 0 (zero). Therefore you should use 0-gas which is 100% nitrogen to test the sensor.

Use LogiCO2's gas injection tool to perform this procedure in a simple way. Connect it to the gas line and slide the tool in behind the sensor. Then slowly apply the nitrogen. Apply the gas until the value on the display stabilizes. The reading of CO2 level in the display should be between 0,00 – 0,03%. If the reading is outside the tolerance, a 0-point calibration should be done. For more information see page 6, "0-Point calibration".



Checklist Mk9 and Mk90 Sensor 1, Specifications

Sensor serial number (normally written on a sticker on the side of the sensor housing).

CO2 Value on sensor	%
CO2 TWA on sensor	ppm

Checklist Mk9 and Mk90 Sensor 1	YES	NO
Is the correct altitude setting used?		
Is the sensor mounted 30cm / 12" from the floor?		
Is the green diode ON?		
Is the yellow diode ON?		
Is the red diode ON?		
Is there a CO2 information sign mounted next to the CO2 sensor?		
Is the CO2 information sign next to the CO2 sensor mounted in a permanent way?		
What altitude compensation setting is used for the CO2 sensor?	H-	
Is the altitude compensation setting written on the CO2 information sign?		
Was the sensor tested with 0-gas (100%) nitrogen?		
When the 0-gas was applied and the value in the display stabilized, what was the value?		%
Is the horn/strobe or warning lamp mounted at a height of 2-2.4 m/80-96 in (as per NFPA 72) so that the staff can see it without any obstructions in the way?		
Is there a CO2 warning sign mounted next to the horn/strobe or warning lamp, with a telephone number to the service provider?		
Is the CO2 warning sign next to the horn/strobe or warning lamp mounted in a permanent way?		



Horn/strobe with sign

Checklist Mk9 and Mk90 Sensor 2, Specifications	
Sensor serial number (normally written on a sticker on the side of the sensor housing).	
CO2 Value on sensor	%
CO2 TWA on sensor	ppm

Checklist Mk9 and Mk90 Sensor 2	YES	NO
Is the correct altitude setting used?		
Is the sensor mounted 30cm / 12" from the floor?		
Is the green diode ON?		
Is the yellow diode ON?		
Is the red diode ON?		
Is there a CO2 information sign mounted next to the CO2 sensor?		
Is the CO2 information sign next to the CO2 sensor mounted in a permanent way?		
What altitude compensation setting is used for the CO2 sensor?	H-	
Is the altitude compensation setting written on the CO2 information sign?		
Was the sensor tested with 0-gas (100%) nitrogen?		
When the 0-gas was applied and the value in the display stabilized, what was the value?		%
Is the horn/strobe or warning lamp mounted at a height of 2-2.4 m/80-96 in (as per NFPA 72) so that the staff can see it without any obstructions in the way?		
Is there a CO2 warning sign mounted next to the horn/strobe or warning lamp, with a telephone number to the service provider?		
Is the CO2 warning sign next to the horn/strobe or warning lamp mounted in a permanent way?		

0-Point calibration (0.00% CO₂)

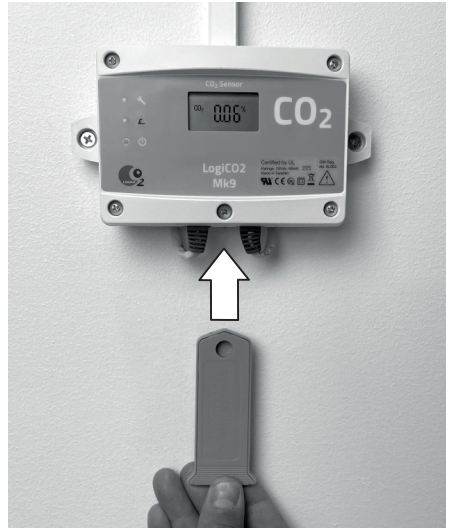
A 0-point calibration should only be performed if the reading is outside the tolerance 0,00 – 0,03% when performing the function check with 0-gas (100% nitrogen), and should only be performed by a qualified professional service agent.

1. CO₂ Sensor with small offset when testing 0-point.

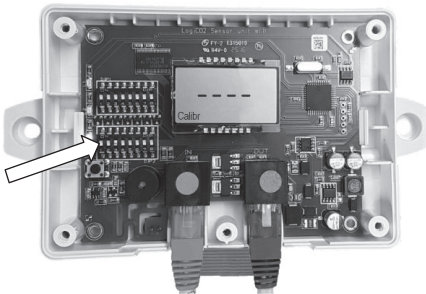
Remove the five screws, but let the cover stay on to keep the gas inside the housing.



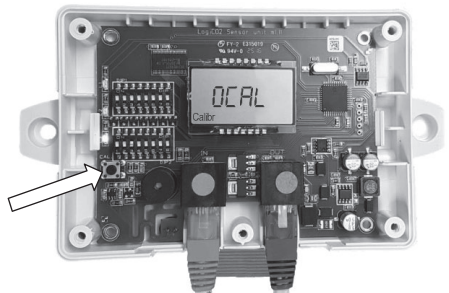
2. Apply the 0-gas with the Gas Injection Tool until the value in the display has stabilized, which normally takes 1-2 minutes. Please observe that you should use a low flow of gas. Keep applying the gas throughout the whole calibration procedure.



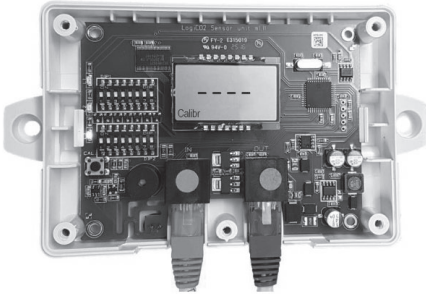
3. Remove the cover. Then set the sensor in calibration mode by setting DIP switch 2:1 in the ON position. The Display shows: Calbr and four dashes.



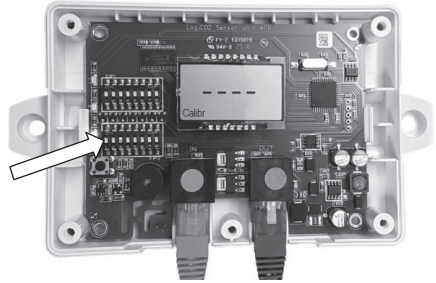
4. Press the calibration button for approx. 10 seconds until the display shows: Calbr and 0CAL. The 0-gas should be continuously applied for this process.



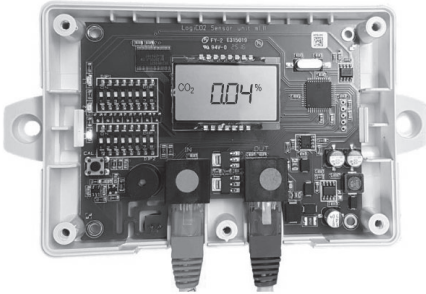
5. When the display shows Calibr and four dashes again, the calibration process is finished. You can now stop applying the 0-gas.



6. Set the Mk9 sensor to normal mode again by switching the DIP switch 2:1 to position OFF.



7. The display shows now the normal views again.



8. Mount the cover again and reassemble the screws in the following order.



Function Control Record

The Five year warranty as of the date of installation is only valid when this form has been completed.

Installing company:	
Name of installer:	
The LogiCO2 CO2 Safety System has been properly installed and tested by an authorized person. Operation instructions have been provided by:	
Date:	
Signature/installation company:	
Signature/user:	



Manufactured by:

LogiCO2 International AB
Made in Sweden

E-mail: info@logico2.com
Web: www.logico2.com