

AA01



NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

PRODUCT IDENTIFICATION

AA01

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CO₂ Calibration Accessory

INTRODUCTION

The AA01 CO₂ calibration accessory is designed for field calibration of any CO₂ sensor produced by Veris Industries, regardless of age. It comes complete with calibration gas, a gas regulator, tubing, and fittings, which can be configured to easily calibrate your CO₂ device.

The calibration process normally takes about 5 minutes.

In general, Veris CO₂ sensors use a time-weighting factor, which saves the lowest concentration of CO₂ measured in a selectable time period, and then use that information to calculate the ambient or base level CO₂ concentration. This calculation allows your Veris CO₂ sensor to improve its accuracy over time.

To use this instruction guide, first identify the shape of CO₂ sensor inside of your Veris device (rectangular or pear), and then turn to the appropriate section of this instruction manual for the specific instructions on how to calibrate your particular device.

When connecting the gas regulator assembly to the gas bottle, verify there is at least 10 lbs of pressure remaining in the bottle.

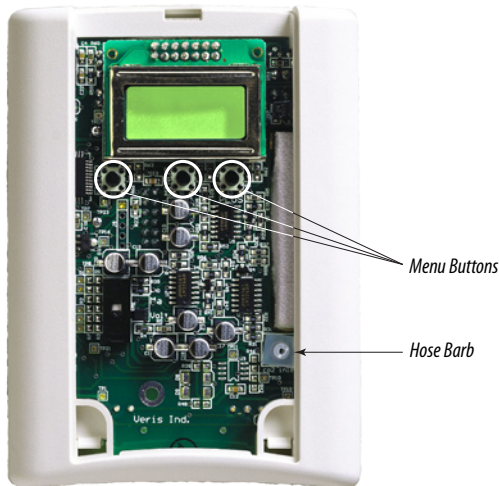
FOR ANY CO₂ DEVICE WITH RECTANGULAR SENSOR

PREPARATION

1. Ensure unit to be calibrated is properly installed and has been operating for at least one hour.
2. Use only Veris Industries calibration kit model AA01. Perform zero calibration with nitrogen gas. Use a flow regulator to limit gas flow to <0.25 lpm. Exceeding this flow rate may cause calibration errors.

SETUP

1. Install tubing to regulator and screw regulator on gas bottle.
2. Remove front cover from unit and locate plastic barb fitting and menu push-button. A label indicating push-button functions is located inside front cover plate.



3. Attach tubing firmly to barb fitting.

CX/CWL/CDL CALIBRATION

1. Press ENTER button to enter configuration mode.
2. Press ENTER repeatedly until CO₂ CAL menu option appears on the display:

C	O	2		C	A	L	?
*	Y	E	S			N	O

3. Press "+" to select YES option.
4. Using "+/-" buttons, select ZERO calibration option. Press ENTER to continue.
NOTE: AA01 kit includes nitrogen gas for zero calibration ONLY.

*	Z	E	R	O			
	S	P	A	N			

5. Verify display indicates 0 PPM gas concentration. Press ENTER to continue.

Z	E	R	O		G	A	S
			0		P	P	M

6. Display should prompt to flow gas:

F	L	O	W		G	A	S
*		S	T	A	R	T	

- Open regulator valve and adjust pressure to 7 psi to generate the appropriate flow rate. Press ENTER to begin countdown timer.

C	A	L		T	I	M	E
*	4	2	0		S	E	C

7. Wait for countdown timer to reach zero and for display to indicate calibration is complete:

		D	O	N	E		
S	T	O	P		G	A	S

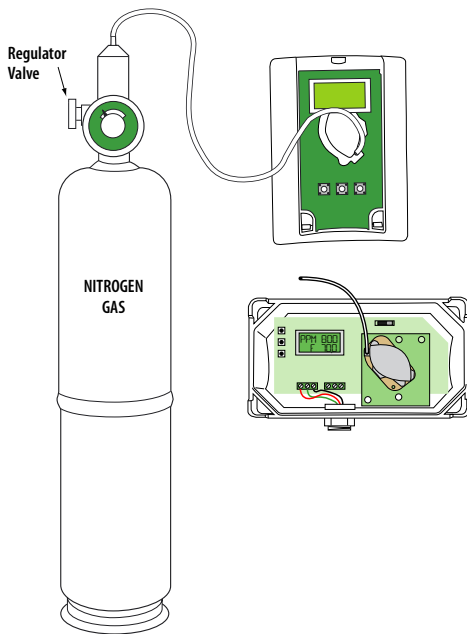
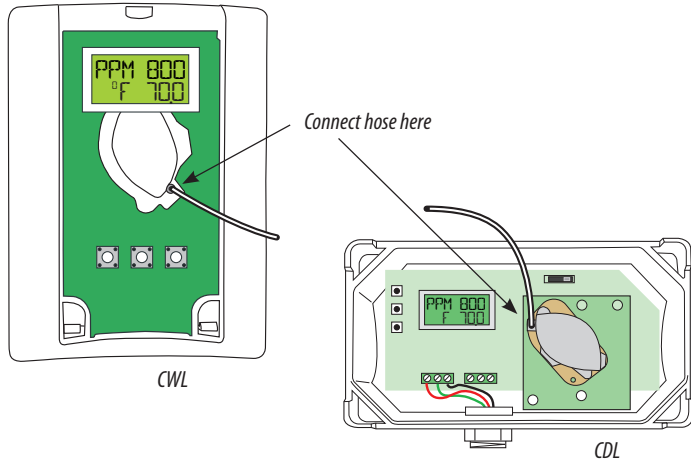
8. Close regulator valve and disconnect tubing from unit. Press ENTER to return to normal operation.
9. Replace sensor cover.

CDE/CWE CALIBRATION

1. Follow setup directions above.
2. Start flowing (nitrogen) 0 ppm CO₂ gas.
3. Push and hold down calibration button until the red LED illuminates.
4. Continue flowing gas through the sensor until the red LED turns off.
5. Follow steps 8 & 9 of the calibration directions above.

FOR CDL/CWL DEVICE WITH PEAR-SHAPED SENSOR

1. Remove cover to the device.
2. Connect hose to plastic port located on sensing module and flow gas (Nitrogen) 0 ppm CO₂ gas through the sensor.



3. Push and hold plus and minus buttons for 5 seconds to enter Calibration mode. At each menu option, use the arrow to change values. Push enter for next option.

	S	E	R	I	A	L		
X	X	X	X	X	X	X	X	X

Displays serial number

		X	X	X			
	X	X	X	X	X		

Displays model number

O	F	F	S	E	T		
°	C			X	.	X	

Range is -5 to 5°C,
0.1°C increment

O	F	F	S	E	T		
%	R	H		X	X	.	X

Range is -10 to 10%,
0.1% increment

CWL ONLY

C	O	2		C	A	L	?
-			X	X	X		+

Options are Yes/No

C	A	L		G	A	S	?
-			X	X	X	X	+

Options are None, 0, 400

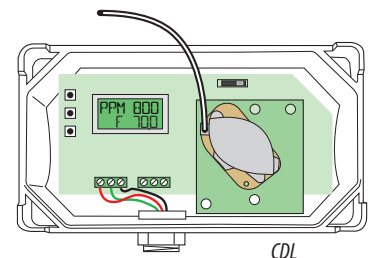
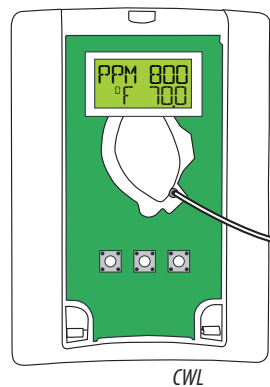
W	O	R	K	I	N	G	
	*		5	:	0	0	

Unit will automatically return to run mode when calibration is complete.

NOTE: This product is factory calibrated. The typical CO₂ sensor calibration interval is 5 years, depending on specific site installation factors. As of the date of this document, compliance with ANSI/ASHRAE 62-2001 requires minimum on-site accuracy verification intervals of 6 months or per the building operation and maintenance manual. Accuracy verification should be performed using either a comparison to a known reference or the CO₂ gas calibration kit available from Veris Industries as model AA01.

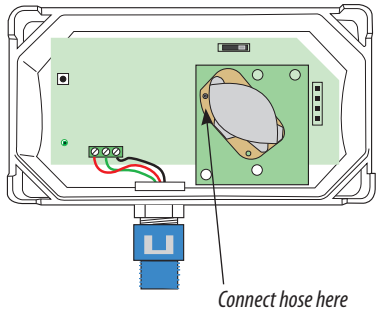
WARNING: CO₂ sensor calibration requires a gas calibration kit. Performing calibration without a gas kit will cause erroneous readings. Consult factory for calibration kit.

4. Select 0 ppm Cal Gas option.
5. Continue flowing gas through the sensor. Estimated calibration time is 5 minutes. Unit returns to run mode when calibration is complete.

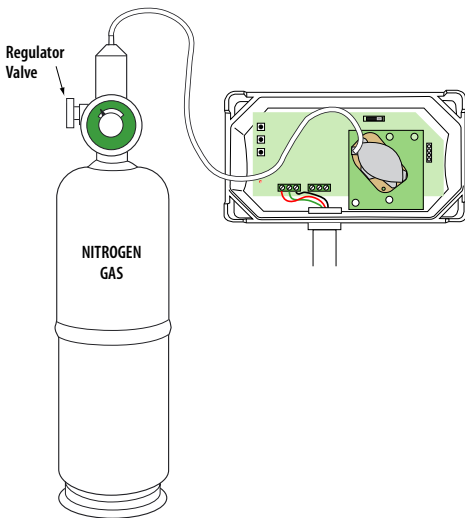


FOR CDE DEVICE WITH PEAR-SHAPED SENSOR

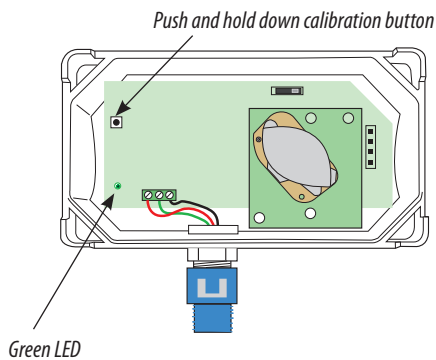
1. Connect hose to plastic port located on sensing module.



2. Start flowing (Nitrogen) 0 ppm Gas (0 ppm only).



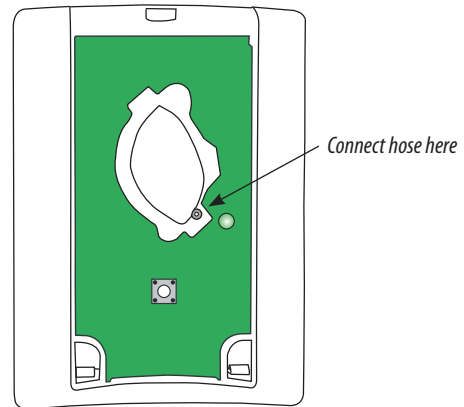
3. Push and hold down calibration button until the LED illuminates.



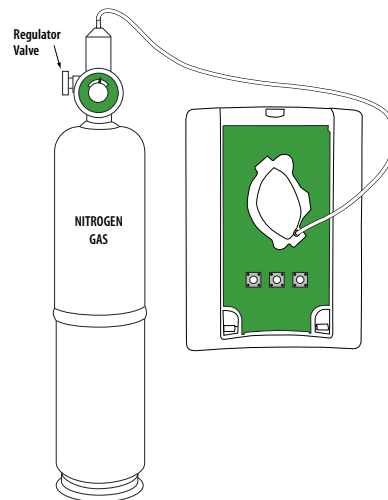
4. Continue flowing gas through the sensor until the LED is off - estimated Calibration time is 5 minutes.

FOR CWE DEVICE WITH PEAR-SHAPED SENSOR

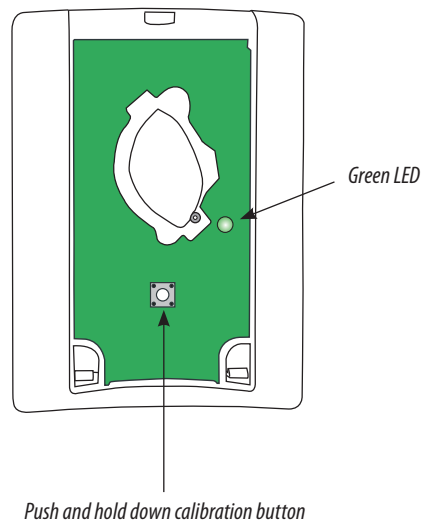
1. Connect hose to plastic port located on sensing module.



2. Start flowing (Nitrogen) 0 ppm Gas (0 ppm only).



3. Push and hold down calibration button until the LED illuminates.



4. Continue flowing gas through the sensor until the LED is off - estimated Calibration time is 5 minutes.