piCO & piCO-Lo

CALIBRATION INSTRUCTIONS

(Calibration equipment: CO-Calib-34-50)

For continued accurate use of your carbon monoxide monitor, calibration on a six-month basis is recommended. Please follow steps 1-8 below. Do not use the calibration instructions listed in the piCO-Lo Instruction Manual if you are using the *CO-Calib-34-50*. Those instructions reference slightly different equipment. The steps below provide instructions for calibrating the piCO-Lo Monitor, using the calibration equipment you received (*CO-Calib-34-50*). Customers may find it helpful to read through these directions once, prior to calibrating.

If you would like a detailed visual explanation of your calibration equipment, please, visit the following website: www.covita.net, click the "resources" tab and then click your monitor type under "Calibration Help". Here you can download the Calibration Parts Description document for the kit that you purchased.

If you are using different calibration equipment or a different monitor, you will not use the instructions listed below.

If you require assistance with calibration, please contact: **coVita** - (800) 707-5751 Mon-Fri, 9-5:00 PM EST, or email your questions to <u>service@covita.net</u>

Step 1

Begin by setting up your calibration equipment. You should be using the calibration equipment that is specific to these instructions.

Calibration Kit Set-up Procedure:

Remove the regulator from the kit and ensure that the valve is in the OFF position. Screw the regulator onto the can of gas. This is best done by screwing the can into the regulator. Then, connect the tubing from the top of the regulator to the white-tipped end of the calibration adapter. (Warming the end of the tubing with your fingers will assist connection). Next, place the calibration adapter into or onto (depending on whether you are using the blue or black or clear T-piece) the T-piece sampling system the same way you would place a cardboard disposable mouthpiece. (Do not use a cardboard mouthpiece for calibration.) You can now connect the T-piece to the monitor. DO NOT TURN THE GAS ON UNTIL THE INSTRUCTIONS TELL YOU TO DO SO. Proceed to Step 2.

Step 2

Ensure the batteries are located in the battery compartment of your monitor. Switch your piCO Monitor on by pressing and holding the ON/OFF switch until the red **80ppm** LED begins flashing. Once your piCO Monitor is warmed-up (green **1ppm** LED will begin flashing), proceed to Step 3. Please note that if the warm up time takes longer than a few minutes, this may be a sign that your monitor requires new batteries.

Step 3

When your monitor has warmed-up and the green *1ppm* LED is flashing, PRESS and HOLD the ON/OFF switch and the RECALL button (the left button and the right button) simultaneously for more than 5 seconds to enter calibration mode (using your thumbs to press both buttons is the easiest). You will know you are in calibration mode because the *50ppm* LED will be illuminated as a solid light. Once you see the *50ppm* LED, you can now RELEASE the buttons and immediately proceed to Step 4.



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Step 4

Immediately turn on the gas by opening the fine control valve. Allow the gas to flow into the unit (gas flow will be 1.0 liters/minute). The regulator is set for 1.0 liter/minute regardless of how far or little you open the valve, so no fine adjustments are needed on the control valve. Allow gas to flow through the instrument for 1 ½ minutes to ensure accurate calibration. As the gas flows into the monitor, you will notice a flashing LED move across the display while at the same time, the *50ppm* LED is remaining solid. Calibration is complete (even if it takes longer than 1 ½ minutes) when the display shows only one LED illuminated as a solid light. When you see this solid light, proceed to Step 5.

Step 5

When the display shows only one solid LED illuminated, immediately shut off your gas and remove the black or clear T-piece from the monitor and immediately proceed to Step 6.

Step 6

To determine if calibration was successful, PRESS and RELEASE the GO button (middle button on the piCO Monitor) and you will see either a "Check Mark" or an "X" mark displayed. To see an example of how the "Check Mark" and the "X Mark" are displayed on the screen, please see the piCO Calibration Graphic document that was included with your monitor (Both the "Check Mark" and the "X" are created on the monitor display using all three of the light columns). A "Check Mark" indicates that calibration was a success. An "X Mark" indicates that calibration failed and you should start the process over at Step 7.

Step 7

If you receive an "X" mark, please start the calibration process over and recalibrate your monitor. If you are having trouble with calibration or you continually receive an "X" mark, please contact Bedfont Scientific, USA for assistance. If you have obtained the "Check Mark", you can switch your monitor off by PRESSING and HOLDING the ON/OFF button for more than 5 seconds or you can conduct a test on the monitor. You will need to log this calibration date and forecast ahead 6 months on a calendar for your next calibration date. You must calibrate on a 6 month basis to ensure that your monitor is operating properly. Proceed to Step 8.

Step 8

Unscrew the regulator from the can of gas (you can leave the tubing attached to the top of the regulator) and place it along with the can of gas back into the kit. As you remove the regulator you will hear and feel a slight pop. This is normal. Removing the valve from the can prevents gas from leeching out over time. Store your calibration equipment (specifically the can of gas) in a temperature controlled environment (See MSDS Document).

