MICRO 4 CALIBRATION INSTRUCTIONS

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

For continued accurate use of your breath carbon monoxide monitor, calibration on a six-month basis is recommended. Please follow steps 1-7 below. Do not use the calibration instructions listed in the Micro 4 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 Micro 4 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 *service@covita.net*

Step 1

Begin by setting up your calibration equipment. You should be using the calibration equipment that is specific to these instructions. Be sure you have the screwdriver that came with your monitor (located in your monitor's black carrying case) before you begin calibration.

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 battery is located in the battery compartment of your monitor. Switch the ON/OFF button to the ON position. The LCD screen will display ***"Zeroing"***. Wait for the screen to display ***"OK Micro 4"*** and then proceed to Step 3. If low battery symbol is displayed on the LCD, ***switch the monitor off*** and replace 9-volt alkaline battery, which is located in the battery compartment. Once the battery is replaced, begin again by switching the monitor ON.

Step 3

Now that the screen is displaying ***"OK Micro 4"***, press and release the blue ***GO*** button to initiate the 15 second countdown timer and as soon as the 15 second countdown timer begins, press the red ***ZERO*** button and release it to enter calibration mode. The screen will display ***"CAL"*** as well as the ppm and %COHb levels. Immediately proceed to Step 4.

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Step 4

Immediately open the regulator control valve and allow the gas to flow into the monitor (gas flow will flow at a rate of 1.0 liters/minute). The regulator is set to allow the gas to flow at 1.0 liter/minute regardless of how far or little you open the valve, so no fine tuning adjustments are needed to control the flow of gas. As the gas is flowing, the reading will climb and will eventually stabilize at a number and will not continue to climb any further (this will take approximately 1½ minutes or less to occur). When this occurs, keep the gas running and proceed to Step 5.

Step 5

If after 1 ½ minutes, the ppm reading has stabilized between **48 and *52 ppm***, you can immediately proceed to Step 6. If the screen does not display between **48 and *52 ppm***, keep your gas running and using the screwdriver that came in the black monitor case, adjust the SPAN control on the underside of the monitor until the LCD screen displays between **48 and *52 ppm***. The span control is a copper screw head located inside the opening on the underside of the monitor. TURNING THE SPAN CONTROL COUNTER-CLOCKWISE WILL DECREASE THE READING AND TURNING THE SPAN CONTROL CLOCKWISE WILL INCREASE THE READING. As you turn the span control and get closer to ***50 ppm***, very fine turns will allow you to more easily adjust the reading. Once the screen displays a reading that is between **48 and *52 ppm***, proceed to Step 6.

Step 6

After you have reached the desired reading of between **48 and *52ppm***, you should first exit calibration mode by pressing the blue ***GO*** button on the monitor and then turn off the gas flow and disconnect the T-piece from the monitor. Once you have disconnected the calibration adapter and tubing from the T-piece, you are ready to conduct a test.. To begin a test, simply press the ***GO*** button to initiate the 15 second countdown timer (be sure you've reconnected the T-piece and a new cardboard mouthpiece prior to starting the countdown). If you do not wish to conduct a test, simply switch the monitor off. When calibration is complete, proceed to Step 7.

Step 7

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).

END INSTRUCTIONS

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