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 Micro III 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 III 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. 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 display will show **888**, followed by a ppm value. 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 and proceeding to step 3.

Step 3

Now that the monitor is switched on, press and hold the red ZERO button and the LCD display will show *SET*, followed by *CAL* and finally *GO*. Once you see the *GO* message on the LCD, you can release red ZERO button. (Whenever "zeroing" the monitor, it is important that you keep the red ZERO button depressed **UNTIL** you see the *GO* message appear. You can now proceed to step 4.



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Step 4

With the *GO* message on the LCD screen, the next step is to press and release the blue button on the Monitor to initiate the 15 countdown which will be visible on the LCD. At the end of the countdown, *0 ppm* should appear on the LCD. If it does not, press the blue button again to release the reading (LCD will begin to blink), and re-zero the monitor by pressing and holding the red ZERO button. With the *GO* message on the LCD screen again, initiate the 15 second countdown again by pressing the blue button. When *0 ppm* shows on the LCD, proceed to step 5.

Step 5

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 on the control valve. 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 6.

Step 6

After the reading has stabilized and isn't climbing any further (don't worry about what ppm number is being displayed on the LCD just yet, what is important at this point is that the reading is not climbing any further), immediately press
the blue button to release the reading and the LCD will begin to blink — the gas should still be running! Now that you've released the reading, if the LCD shows 50 ppm, you can proceed to step 7. If the LCD does not show 50 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 shows 50 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 INCREASE THE READING AND TURNING THE SPAN CONTROL CLOCKWISE WILL DECREASE 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 to 50 ppm. Once the LCD shows 50 ppm, proceed to step 7.

Step 7

After you have reached **50ppm**, turn off the gas flow and remove T-piece sampling system from the monitor. The ppm level will begin to fall quickly on the LCD. **DO NOT EVER SWITCH THE MONITOR OFF AT HIGH READINGS** (above 10 ppm) OR IN THE MIDDLE OF A TEST OR CALIBRATION. YOU SHOULD ALLOW THE ppm LEVEL ON THE LCD TO FALL BELOW 2 ppm PRIOR TO SWITCHING YOUR MONITOR OFF. Once the reading is below 2 ppm, you can switch your monitor off or you can press the red ZERO button if you are ready to conduct a test. When calibration is complete, 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).

END INSTRUCTIONS

