

CALIBRATION PROCEDURE : piCO+ (Calibration equipment: CO-Calib-34-20)

For continued accurate use of your breath carbon monoxide monitor, calibration on a six-month basis is recommended . Please follow steps 1-9 below. Do not use the calibration instructions listed in the piCO+ Instruction Manual, if you are using the **CO-Calib-34-20**. Those instructions reference slightly different equipment. The steps below provide instructions for calibrating the piCO+ monitors, using the calibration equipment you received (**CO-Calib-34-20**). If you would like a detailed visual explanation of your calibration equipment, please, visit the following website: www.immva.com and select “calibration help” under the resources tab. There 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 IMMVA at (757) 645-9369 Mon-Fri, 9-5 PM EST, or email your questions to service@immva.com.

Step 1

Begin by setting up your calibration equipment. You should be using the calibration equipment that is specific to these instructions. You can find a detailed visual explanation of your calibration equipment on the CD that came with your monitor or at www.immva.com.

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. Next, place the calibration adapter onto the D-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 D-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. Turn the monitor on in the normal way; when the main menu appears, scroll the pointer down to the symbol of the gas cylinder by a single click of the button, then double-click to select that symbol. This will take you to the next screen.

Step 3

Ensure that the monitor is surrounded by fresh air. With the pointer now opposite the “zeroing” symbol, double-click the button to begin the zeroing. If the zeroing has been successful, a “√” will be displayed. If the zeroing fails, an “X” will be displayed (See the Troubleshooting section on page 14 of the instruction manual if this happens). Double-click the button to return to the calibration menu.

Step 4

Single-click the button to scroll the pointer down to the 20 ppm gas cylinder symbol, and double click to select that symbol.

Step 5

Immediately open the fine control valve and allow the gas to flow (it doesn't matter how much you open the valve, the gas will only flow at 1 liter per minute).

Step 6

As the 20 ppm CO calibration gas is applied, the displayed ppm reading will climb. After 1.5 minutes, or until no further increase in the reading is obtained, the final measured value will be shown and sampling will cease.

Step 7

If the displayed reading is between 15 and 25 ppm, the calibration value will be automatically set in the monitor as 20 ppm and a "✓" will be displayed to show a successful calibration. If the displayed reading is outside these limites, the calibration fails, and an "X" will be displayed (See the Troubleshooting section on page 14 of the instruction manual if this happens). You can now turn off the flow of gas and remove the D-piece from the monitor to help allow the gas to clear from the monitor faster. The piCO+ is now calibrated and ready to use!

Step 8

The pointer and "return" symbol re-appear at the bottom of the display to indicate that the process is complete and to allow the user to double-click the button to return to the previous menu.

Step 9

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