Micro+™ pro Smokerlyzer®
Quick Start Guide

A. Contents
1. Micro+™ pro CO Monitor
2. D-Piece Valve (replaced every 30 days)
3. SteriBreath™ Mouthpiece (single use)
4. USB Cable
5. (3) AA Alkaline Batteries – USE ONLY ALKALINE
6. Monitor Microfiber Sleeve – can be used to protect and clean your monitor
7. Carrying bag for monitor and accessory storage
8. Mini Quick Start Guide
9. Smokerlyzer® CO conversion charts:
   MaternityCO Chart - COppm to %FCO-Hb & %CO-Hb
10. Smokerlyzer® Poster
11. Infection Control Guide

Note: Full Manual & COdata+ patient database software can be downloaded at www.covita.net

B. Monitor Overview
1. LCD Display
2. Power Button
3. SteriTouch™- patented additive integrated into the monitor housing, engineered to kill 99.99% bacteria on contact
4. D-Piece Valve Opening
5. Exhaust Port - DO NOT COVER
6. USB Connector
7. Vent Hole – DO NOT COVER WITH LABELS ETC.
8. Battery Compartment
9. Battery compartment clip
10. Reset Button & Programming Interface – DO NOT USE UNLESS INSTRUCTED BY COVITA

Please Remember
1. Never use or store alcohol based products or other cleaners or solvents around your monitor.
2. Change your D-piece every 30 days.
3. Calibrate every 6 months to correct for sensor drift using 20 ppm calibration gas.
4. Never block the air/vent hole on the Micro+™ baby with labels etc.
C. Operating Instructions | Taking a Simple Breath Test

1. Attach a D-piece valve and open and insert a new unwrapped SteriBreath™ mouthpiece into the D-piece.
2. Turn on the monitor by pressing & releasing the power button.
3. Press either “Breath Test” icon male 🧦 or female 🧦 on the screen.
   a. Instruct patient to inhale deeply and hold breath for the pre-set 15 second countdown.
   b. 3 beeps will sound during the last 3 seconds of the countdown.
   c. Instruct patient to blow slowly into mouthpiece, aiming to empty lungs completely. Coach them through this process.
   d. The ppm and equivalent %COHb levels will rise and hold on-screen. Press the fetus icon 🩸 to convert to %FetalCOHb. Record the reading before proceeding.
      i. **TIPS:**
         - The monitor auto records the last 150 readings. The log can be located by pressing the 📒 icon and then pressing 📎 icon.
         - If a high reading has been reached, you can mute the sounder by pressing 🎵 & to unmute press 🎵 again.
         - Remove the D-piece between tests to purge sensor with fresh air.
4. On the Micro+™ pro when the test is finished the icons will appear at the bottom of the screen.
5. To repeat breath test, press 🏠 to return to the home screen and repeat step 3 – 4.
6. To switch off, press and hold the power button ✅ for 3 seconds, unit will also power off after 2 minutes of inactivity to save power.

D. Typical Smoking Ranges

- **0 - 6 PPM | Non-Smoker Range**
- **7-19 PPM | Light Smoking Range**
  o Typically observed when smoking under a pack of cigarettes a day.
- **20+ PPM | Heavy Smoking Range**
  o Typically observed when smoking over a pack of cigarettes a day.

E. Infection Control

NEVER USE cleansing products containing alcohol or other cleaning agents or solvents around your monitor. coviTa engineered alcohol-free cleansing wipes which are specifically engineered for use on our monitors and accessories. Effective against 99.999% of Germs, Spores, Bacteria, and Fungi. Tested against H5N1 Avian Flu and H1N1 Swine Flu. Additionally, coviTa offers a hand sanitizer which was designed to safely and gently cleanse your hands. Because it's engineered to be alcohol-free, it won't interfere with your monitor's sensor or accessories. Kills 99.99% of germs, bacteria, & fungi without drying your skin.
A. Calibration Tips

1. coVita calibration instructional videos can be found under the support section of www.covita.net.
2. You must calibrate every 6 months to correct for sensor drift using 20 ppm Carbon Monoxide (CO) calibration gas. On occasion your Micro™ may prompt you for an intermittent calibration.
3. Your Micro™ has built in calibration reminders to prompt you to calibrate every 6 months.
4. Be sure to identify your flow meter-regulator for correct instructions.
5. Remove flow meter-regulator from can for proper storage and replace dust cap. (You may hear a pop and this is normal.)
6. Ensure that the cali-adaptor tubing has no kinks while the gas is flowing.
7. Be sure you are using the compatible cali-adaptor tubing and D-piece to avoid issues with calibrating.
8. Be sure you are inserting the D-piece into the monitor correctly. The circle opening must be facing you. (Figure A & B)
9. Never block the air/vent hole on the Micro™ with labels etc.

B. Required Parts

A. 20 ppm Carbon Monoxide (CO) Calibration Can
B. Fixed Flow 1 lpm meter-regulator
C. Cali-adaptor Tubing
D. D-Piece
E. Micro™ Smokerlyzer®

C. Calibration Kit Set Up

1. Remove white or black dust cap from can of gas
2. Ensure the control valve on the flow meter-regulator is in the off position.
3. Screw the regulator-flow meter onto the gas can (some slight pressure may be required). This can be done by screwing the gas can into the valve.
4. Attach the small end of the tubing onto the regulator-flow meter.
5. Insert the larger end of the cali-adaptor tubing into the D-piece. Ensure a tight fit.
6. Verify the gauge on the regulator-flow meter is registering gas (arrow is not on zero)
D. Calibration

**IMPORTANT:** Do not connect the cali-adaptor or D-piece to the monitor until after the monitor zeros (Step 5)

1. Press Gear Icon
2. Press Calibration Icon to begin auto-zero process
3. Monitor will display hour glass while zeroing
4. Assemble calibration kit (already done) then press the arrow

5. Insert D-piece with the cali-adaptor | attached into monitor, then press the arrow
6. Turn the gas on, then press the arrow
7. Hour glass will display as the monitor is calibrating
8. Calibration is successful when a check mark is received. **IMPORTANT** Must press the check mark to lock in the calibration.

E. Additional Screens & Tips

Failed Calibration Screen
You must perform a reset on the monitor. Please see section F.

Monitor temperature is too hot. You must turn off the monitor for a minimum of 5 minutes before calibrating

Monitor temperature is too cold. You must move your monitor to a room temperature environment before calibrating

Calibration reminder to prompt you to calibrate every 6 months. Press the arrow to start calibrating.
F. Reset & Calibration

**IMPORTANT:** Do not connect the cali-adaptor or D-piece to the monitor until after the monitor zeros (Step 5)

1. Turn on your monitor. Be sure the D-piece is removed from monitor until step 5.

2. Using an opened paper clip, press/hold the reset button located in the battery compartment in for **30 seconds** until the monitor beeps & turns off and then release.

3. Turn on your monitor and the hour glass will appear while automatically zeroing.

4. Assemble calibration kit (already done) then press the arrow

5. Insert D-piece with the cali-adaptor attached into monitor, then press the arrow

6. Turn the gas on, then press the arrow

7. An hour glass & numbers will display as the monitor is calibrating.

8. Calibration is successful when a check mark is received. **IMPORTANT** Must press the check mark to lock in the calibration.

G. Additional Screens & Tips

- **Failed Calibration Screen**
  - Allow 5 minutes with D-piece removed from monitor and then try calibrating again.

- **Monitor temperature is too hot.** You must turn off the monitor for a minimum of 5 minutes before calibrating

- **Monitor temperature is too cold.** You must move your monitor to a room temperature environment before calibrating.

- Calibration reminder to prompt you to calibrate every 6 months. Press the arrow to start calibrating.
Bedsoft Installation & Monitor Firmware Update
Quick Start Guide
For Latest Generation

Smokerlyzer® COdata+
ToxCO•data
GastroChart

covita recommends checking for monitor software updates at least every two months. Similar to your smart phone your monitor can be upgraded to the latest software which includes performance enhancements, updates, and bug fixes.
Part 1: Bedsoft Software Installation

**TIPS:** You will need to have admin rights on your computer to install this program. Any questions please contact your IT department. As an alternative some clients have chosen to use a non-work computer to avoid the delays in getting permissions from IT department.

1. **Download** the Bedsoft Program:
   a. [Click Here](#)

2. **Install** the software following the onscreen prompts.

3. After installing the Bedsoft software.
   a. **Click** the Bedsoft icon on your desktop

   b. The Bedsoft software may or may not need to perform updates.
      i. You will know the Bedsoft software is attempting an update if you see the swirling circle and Checking for updates pictured below in yellow. The time it takes to complete this process depends on your internet connection.

4. Next, **Click** on the *folder icon* next to the software application you would like to install. See arrows above.
5. The software will be installed and the software icon will now appear in the area below in yellow:

![Software Icon]

6. The software has successfully been installed! **DONE**!

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Part 2: Monitor Firmware Update

1. **Connect** your monitor to the **USB cable** and the other end to your computer.
   a. Turn on the monitor.
   b. Look for the software to display for example “Micro+ CM##### Connected” in the top right-hand corner. (see below)
   c. If a new firmware is available a pop-up window will display. (see below)

2. **Click “yes”** to upgrade your firmware.
3. The Bedfont Multilyzer Firmware Update Tool will appear. (see below)
   a. **Follow the onscreen instructions carefully.**
      Be sure status says “Connected”

4. Click **Start Firmware Update** and allow time for resource version to be uploaded to device.

5. Click **Next** once the “**Next Button**” appears
6. The screen will display the following “Updating resources file, please wait...:

<table>
<thead>
<tr>
<th>Device Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type:</td>
<td>Micro+</td>
</tr>
<tr>
<td>Status:</td>
<td>Updating Firmware</td>
</tr>
<tr>
<td>FW Version:</td>
<td>V2.22</td>
</tr>
<tr>
<td>Resource Version:</td>
<td>V2.11</td>
</tr>
</tbody>
</table>

Current Stage:
1) Please turn on the device. 2) Set the switch to 1.
When you are ready click next to continue.

<table>
<thead>
<tr>
<th>Firmware File</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C:Users\dib\Documents\Bedoff\Down</td>
<td></td>
</tr>
<tr>
<td>FW Version:</td>
<td>V2.31</td>
</tr>
<tr>
<td>Resource Version:</td>
<td>V2.12</td>
</tr>
</tbody>
</table>

Start Firmware Update

7. Turn off device and Set the switch to “0”

<table>
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</tbody>
</table>

Current Stage:
1) Please turn off the device. 2) Set the switch to 0.
The screen on the device will be blank and will not power on.

<table>
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</thead>
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</table>

Waiting For DFU Device

Start Firmware Update
8. Click next

9. You will see a message at the bottom of the window that says “updating firmware”. (see below)
10. A final message will appear stating “firmware updated”.
   a. **Unplug** your monitor from the USB cable.
   b. **Switch** your device back to 1.
   c. **Power on** the device and the new firmware will be displayed and enabled.
   d. **Click close**. Your monitor is now updated to the most recent version of firmware/software. **DONE!**

**To check for future updates simply connect your monitor to your PC via the USB cable and launch Bedsoft. (Starting with step 3 above)**

For questions please contact us:

**coVita**

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