Instructions for Using the SMOKALYZER

# Measuring

To measure simply run the Smokalzyer iPhone app, which should have come preinstalled. It will immediately start displaying readings from the unit. Upon start up the readings might take a few seconds to settle on a value around 0. Once they have done so, reset the max and perform a breath measurement.

You should try to discover a procedure that works best for you, however Bedfont’s Pico Smokeralyzer’s procedure is a good starting point. This procedure requires the subject take a deep breath in, hold it for 20 seconds, and then slowly exhale into the unit.

Breathing excessively fast (blowing) into the unit can cause the measurements to be skewed.

# Calibrating

The unit should periodically be calibrated and checked for accuracy. The sensors should show very little drift, however since this is prototype hardware we recommend frequent calibration and verification. Calibration occurs in two stages.

## Zero Calibration

Simply take the unit somewhere with fresh air and let it settle to a stable value. Press the 0 calibration button.

## 20ppm Calibration

You will need 20ppm CO calibration gas. Apply the gas to the instrument using the calibration adapter. Turn the gas on and allow the unit to reach a stable value. Press the 20ppm calibration button.

# Supplies

The units use a replaceable breathing tube which is compatible with Bedfont’s D-Piece. The tube is good for hundreds of tests, and it is suggested that it should be replaced every 30 days. Additionally a periodic calibration should be performed. The sensor inside the device is designed to last 2-3 years, at which time it should be replaced.

## D-Piece

The D-Piece should be replaced every 30 days.

http://www.covita.net/shop/index.php/accessories/d-piece.html

## Calibration Kit

The unit should be calibrated every 30 days and periodically checked for accuracy.

http://www.covita.net/shop/index.php/accessories/20-ppm-carbon-monoxide-calibration-kit.html