



## BreathTracker H2+

BREATH HYDROGEN ANALYSIS  
WITH SAMPLE CORRECTION FEATURE

Same great features as the BreathTracker H2 with the added sample correction feature to ensure that patients samples are “true alveolar” samples and corrected within reason if contamination occurs.

Also allows for physicians to send patients home with kits †

The BreathTracker H2+ is a basic hydrogen (H<sub>2</sub>) trace-gas analyzer with the added feature of carbon dioxide (CO<sub>2</sub>) detection which is used to help detect and correct for any patient sample contaminations which may result in improper H<sub>2</sub> values.

As with all breath-tests, you may encounter sample contamination from various sources such as: unsupervised or improper collection, patients that are unable to follow directions, variations in ventilation (ie: patients taking a large inspiration in the early samples of a test and more normal breaths later in the test). The ability to detect and correct for these factors helps smooth out the sample inconsistencies resulting in more realistic patterns of gas production.

Therefore, the CO<sub>2</sub> correction factor is based on the concept that CO<sub>2</sub> is present in the alveolar (lung) air at a virtually constant concentration; while CO<sub>2</sub> in room air is virtually zero (in fact it is present, but in extremely trace concentrations). If an alveolar air sample is accidentally contaminated (mixed) with room air, the CO<sub>2</sub> concentration in the sample will be reduced, as will other gases in the sample.

Detecting this dilution, and by knowing the degree to which the CO<sub>2</sub> is diluted, is indicative of improper sample collection or sample handling and makes it possible to apply a correction to the analysis of each trace gas, allowing the instrument to estimate the “true alveolar” concentration of these trace gases, unless the sample is completely invalid.

Since the BreathTracker H2+ utilizes CO<sub>2</sub> as a factor for sample dilution and contamination detection, physicians have the ability to send patients home to collect their samples unsupervised which allows the physician and technicians to see more patients and analyze the breath samples on another day.†

### **Specifications:**

Resolution: 1 ppm H<sub>2</sub>/CH<sub>4</sub>; 2% CO<sub>2</sub>

Accuracy: ± 2-3 ppm or 5% of full scale for H<sub>2</sub>/CH<sub>4</sub>; ± 1% CO<sub>2</sub>

Linear Range: 2-150 ppm H<sub>2</sub>; 2-75ppm CH<sub>4</sub>; 0.1-7% CO<sub>2</sub>

### **Catalog Numbers:**

QT05004-M - BreathTracker Digital H2+, 120V/60Hz

QT05005-M - BreathTracker Digital H2+, 230-240V/50Hz

†Requires purchase of SamplXtractor System and EasySampler Kits.