Vacu • Med

Data Sheet
17585
17585.vp - 8/06

Research Quality Resting Energy Expenditure Measurements

Automatic Calculation of VO_2, VCO_2, RQ, Kcals, CHO, Lipids Using either Mask or Canopy (Hood) with unequaled accuracy

Vista-MX/REE System is a modular system for Resting Energy Expenditure measurements (REE, BMR, RMR) as well as Cardio-Pulmonary Exercise Stress (VO2) testing. It consists of our model 17590 Vista-MX, model 17585 Canopy Module and model 17597 Canopy Calibrator.

It may be used as a desktop system with your own computer or with our mobile cart, including IBM-compatible computer, as shown on the right.

Vista-MX/REE uses a new calibration method that achieves unequaled accuracy for resting measurements:

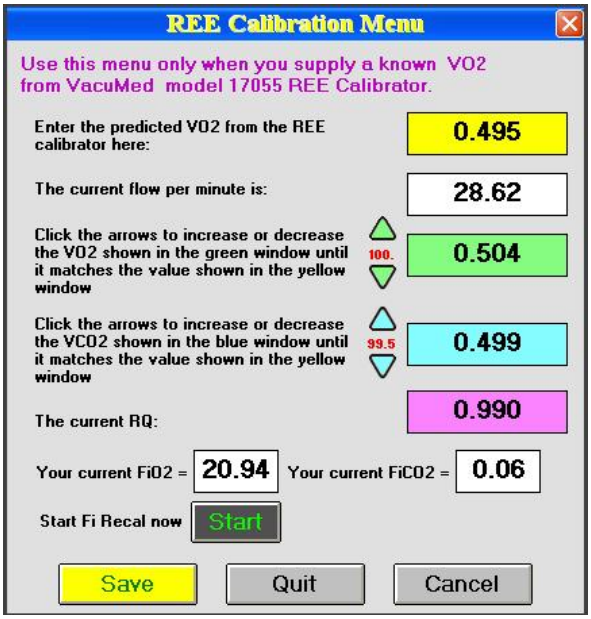
Calibration with the Model 17597 Canopy Calibrator Module guarantees VO_2 and VCO_2 accuracy of ±2%

We achieve this accuracy in two ways:

1. We actually measure the canopy flow rate, rather then depend on a fixed orifice maintaining a fixed flow forever.

2. We provide a metabolic flow mixture of known VO_2 from the 17055 Canopy Metabolic Calibrator, then fine-tune the VO2 calculation so that it matches the input, as shown in the REE Calibration Menu.

The Canopy Metabolic Calibration Module



Included is our proven Windows-based TurboFit software which offers unparalleled ease of operation and virtually unlimited user definable graphic and text display options, workload protocols, parameter selection and reports; a USB computer interface, a permanently calibrated turbine flowmeter, on-line temperature and barometric pressure sensors, and either canopy (hood), mask or mouthpiece patient interface.

Specifications on back

www.VacuMed.com 4538 Westinghouse Street Ventura CA 93003

Phone (805) 644-7461 · (800) 235-3333 · FAX (805)654-8759 · info@vacumed.com

Specifications

Oxygen Analyzer

Range:0-100%

Repeatability± 0.1% O_2

Resolution± 0.03% O_2

Zero Stability ±0.3% O_2/week

Type:Fuel Cell

Carbon Dioxide Analyzer

Range:0-10%

Repeatability± 0.1% CO_2

Resolution0.03%

Zero Drift ± 0.3% CO_2/week

TypeInfrared

Flow Sensor

Permanently calibrated - essentially free of dependence on physical properties of gases.

Accuracy± 1.5%

Size & Weight (MX module only)

3.5" (89 mm) HeightWeight: 12 pounds

13.5" (343 mm) Width(5.5 kg)

13.5" (343 mm) Depth

Computer (Min Specs)

IBM-compatible computer, 1+GHz, 512 MB RAM, USB ports.

External Inputs

Eight-channel A:D interface for easy integration of external devices, such as ECG/Heart rate. Inputs for digital, analog and Polar heart rate watch (with optional interface). RS232 ports for treadmill and/or ergometer control.

Options

17612 Workstation type cart, SaO2, 12-lead ECG

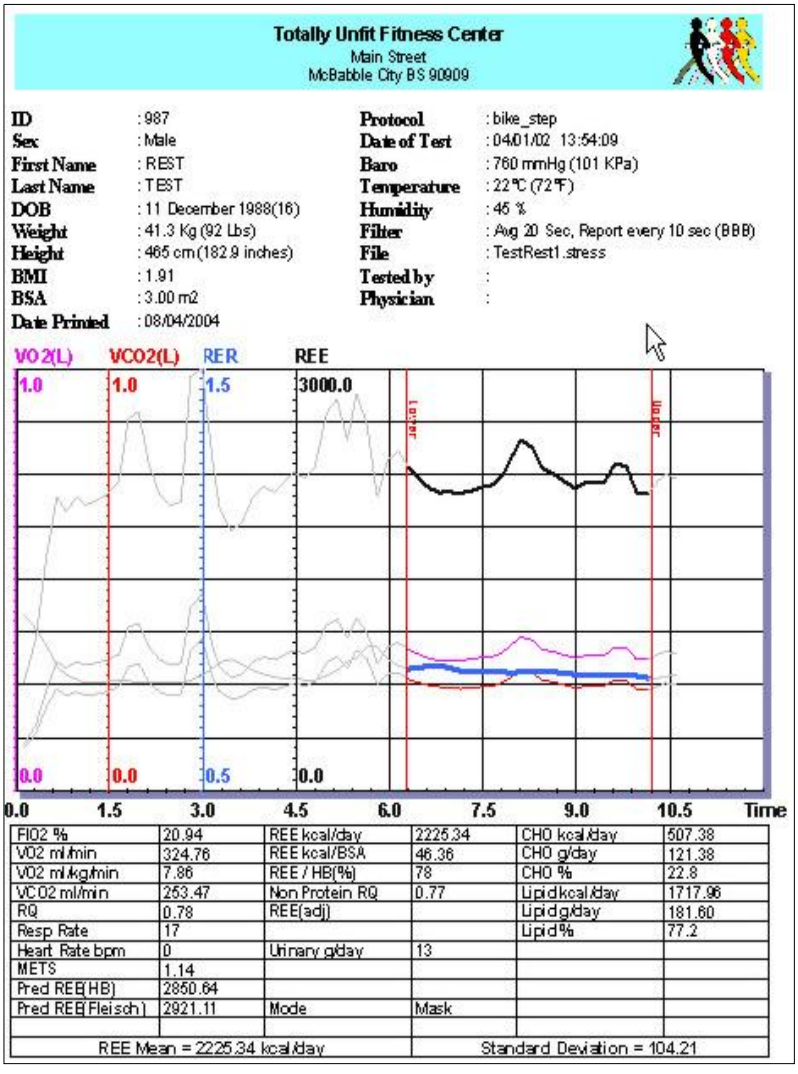
PC controlled ergometer & treadmill

The 17055 Metabolic Calibrator is also available as a stand-alone device to calibrate other metabolic measurement systems.

TurboFit™ Software Specifications

- Precision measurements from REE (BMR) to VO_{2max}.
- Breath-by-breath or timed interval VO_2 calculation.
- Automatic anaerobic threshold (AT/LT) determination (with manual override).
- **Auto-calibration** feature for fast, error resistant calibration.
- Heart rate interface for Polar and other devices, also "Live" on-screen ECG display (with external or optional electrocardiograph).
- Plot up to 8 variables or parameters on-screen simultaneously against time any other variable, including VO_2, VCO_2, N_2, RER (RQ), VE, RR, HR, AT and all derived or manually entered variables (60+).
- Create and save several custom reports, including new Fitness Analysis. On-screen preview of all print options.
- Most common workload protocols included, including linear ergometer ramps and new weight-adjusted treadmill ramp. Unlimited user definable protocols may be added for automatic computer-control of treadmill or ergometer.
- On-screen predicted values.
- Blood pressure, Heart Rate and Perceived Exertion(RPE) may be entered manually and graphed against other selected variables.
- Emergency Data Recovery in case of power loss or software crash
- Dynamic flow-based delay time corrections.
- Create publication quality graphs via built-in interactive graphics package.
- Software corrections for *NAFION* moisture absorber eliminates gas drying columns.
- Windows environment supports most known printers and graphics displays.
- Includes Microsoft ACCESS database.
- Optional inputs from NIBP & ECG.*

Specifications subject to change (and improve) without notice 17585.vp



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