Ultima CardiO$_2$®

Cardiorespiratory Exercise and 12-Lead ECG

Pairing two superior technologies is sure to produce one singularly powerful solution. Take the Ultima CardiO$_2$ system, for example. It combines our leading gas-exchange technology with the premier Mortara® ECG. The result is an all-in-one, easy-to-use, “gold standard” metabolic stress-testing system.

MGC DIAGNOSTICS’ PROPRIETARY BREATH-BY-BREATH TESTING METHOD offers superior breath measurement during both rest and exercise. Our fast-responding oxygen and carbon dioxide sensors acquire data on a discreet breath-by-breath basis, providing continuous analysis and display of data. Our preVent® flow sensor offers numerous advantages over other flow devices.[1] The preVent is small, lightweight and comfortable. It can be either cleaned or discarded between patients.

THE 12-LEAD ECG OF ULTIMA CARDIO$_2$ IS POWERED BY MORTARA, the world leader in ECG technology. The Mortara system provides automated options, such as automatic arrhythmia detection and event marking to simplify test interpretation. An optional wireless ECG provides freedom for the patient and eliminates interference caused by traditional cable movement—producing cleaner, higher-quality tracings.

www.mgcdiagnostics.com

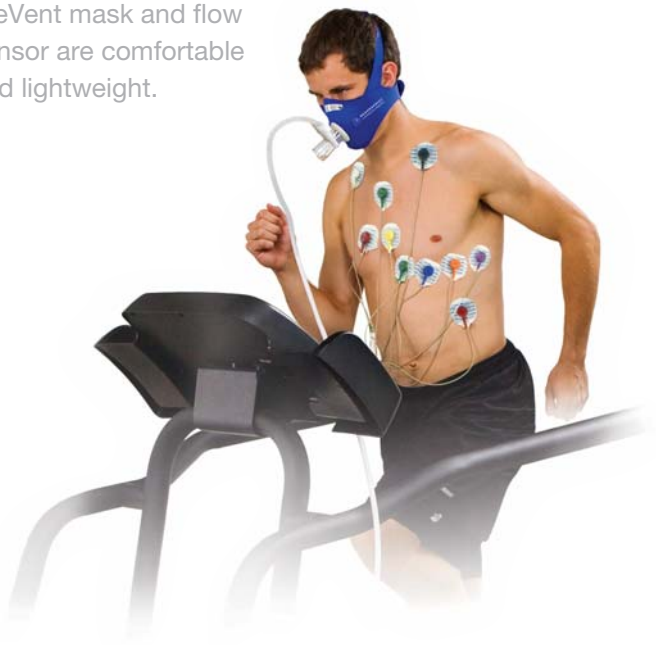
MGC DIAGNOSTICS®

SIMPLIFIED TESTING AND DATA INTERPRETATION

- A single software platform seamlessly controls both the gas-exchange and ECG components.
- Our intuitive BreezeSuite™ software includes customizable options to simplify testing that integrates all data for more efficient physician reviews, and versatile (preset or custom) review statements to streamline interpretation.
- Easy calibration process requires only one flow calibration per day and one automated gas calibration before each test.
- Electronic medical records (EMR) interface capability allows for seamless data integration.

EASE ON THE PATIENT

- The CardiO$_2$ requires no extension arms or large, constricting head gear—so the patient can exercise easier.
- preVent mask and flow sensor are comfortable and lightweight.



SPECIFICATIONS

SIZE
- Height (with monitors): 66.5 in (168.9 cm)
- Width (with monitors): 32.5 in (82.5 cm)
- Depth: 29.5 in (74.9 cm)

POWER REQUIREMENTS
- 100-240 V/50-60 Hz

FLOW DEVICE
- Bidirectional Pitot tube flow sensor
- Range: ±18 L/s
- Accuracy: ±3% or 50 mL, whichever is greater
- Resolution: 8.64 mL/s
- Deadspace: 39 mL

O_2 ANALYSIS
- Type: Galvanic
- Range: 0-100%
- Accuracy: <1%
- Application Range: 5-85%
- Response: (10-90%) <130 ms
- Resolution: ±0.1%

CO_2 ANALYSIS
- Type: Non-dispersive Infrared (NDIR)
- Sensor Range: 0-15%
- Response: < 130 ms
- Resolution: ±0.1%

GAS SAMPLING
- Proprietary gas-drying sample circuit
- Sidestream sampling flow rate: 80-130 mL/min
- Warm-up time: 30 minutes from cold start

ECG RECORDING TECHNIQUE
- 12 leads (3, 6 or 12 leads display)
- Different lead set combinations (standard, pediatric)
- Chart speeds: 25, 50 mm/s
- Sensitivity: 5, 10, 20 mm/mV

DISPLAY
- Leads: 3, 6 or 12 leads simultaneously
- Sensitivity: 5, 10, 20 mm/mV
- Recording speeds: 5, 10, 12.5, 25, 50, 100 mm/s
- Filtering: 50-60 Hz notch, muscle noise and baseline
- Information: heart rate, blood pressure, workload, exercise protocol, ST measurements, arrhythmias
- Standard or Cabrera

ECG PRINTING
- Printer type: inkjet, laser or thermal
- Format: averages, full disclosure, 2 x 6, trends, summary, heart rate, recovery, tabular report
- When: user-defined, (1) during the test, (2) automatic after recording, or (3) automatic after interpretation confirmation

SOFTWARE OPTIONS
- ExFVL (exercise flow volume loops)
- ExerScript™ exercise prescriptions
- User-defined predicted formulas
- Bronchial provocation
- Pulmonary Consult™ interpretive package
- Exercise Consult™ interpretive package
- NICO
- Nutrition option

[1] Porszasz J, Barstow TJ, Wasserman K. Evaluation of a symmetrically disposed Pitot tube flow meter for measuring gas flow during exercise. Journal of Applied Physiology 1994;77(6):2659-65.

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