

Ultima[™] Cardio₂

Cardiorespiratory Exercise and 12-Lead ECG



MEDGRAPHICS[™]
Cardiorespiratory Diagnostics

The Ultima™ CardiO₂

Integrated Cardiopulmonary Exercise and 12-Lead ECG

The Ultima CardiO₂ combines the leading MEDGRAPHICS gas exchange technology with the premier Mortara® ECG into one easy to use metabolic stress testing system.

Ultima CardiO₂ Delivers:

Superior technology for optimal results

- Breath-by-breath testing during both rest and exercise
- MEDGRAPHICS patented the breath-by-breath testing method that is proven to provide superior results
- Accurate breath measurement: Ultima CardiO₂ breath-by-breath testing samples at a rate of 100 times per channel, per second, providing continuous analysis and display of patient data
- preVent® flow sensor used for testing provides accurate measurements and has multiple advantages over other flow meters,
- Mortara 12-lead ECG enhances testing capabilities
 - Ultima CardiO₂ ECG testing is powered by Mortara, the world leader in ECG technology
 - Wireless ECG option eliminates artifact due to traditional cable movement, resulting in cleaner, higher quality tracings



Mortara 12-Lead Wireless ECG

Simplified Testing & Result Interpretation

- ECG / Gas exchange integration - Single software platform seamlessly controls both gas exchange and ECG
- Intuitive BreezeSuite™ software:
 - Versatile, customizable options simplify the testing process
 - Integrated physician review saves time
 - Use of pre-set or custom review statements streamlines interpretation
- Mortara system provides automated options to simplify interpretation
 - Automatic arrhythmia detection
 - Event marking - automatic and manual
- Easy calibration process requires only one flow calibration per day, and one automated gas calibration prior to each test
- Electronic Medical Records (EMR) capability - patient files available in HL7 message



MEDGRAPHICS & Mortara: Industry Leaders

Combining Technologies to Deliver One Best In Class System



Ease for the patient

- Flexibility in movement
- No extension arms or large, constricting head gear are required to interface the patient
- Comfortable options for the patient interface
 - preVent mask
 - Small, lightweight, easy to clean preVent flow sensor
- Wireless ECG (optional) - this compact, lightweight Mortara feature provides freedom of movement and comfort for the patient

Specifications

Size

- Height: 52" (66.5" with monitors)
- Width: 22.5" (32.5" with monitors)
- Depth: 29.5"

Power Requirements

- 100 - 240V / 50 - 60Hz

Flow Device

- Bi-directional Pitot Tube Flow Sensor
- Range: ± 18 L/sec
- Accuracy: $\pm 3\%$ or 50 ml, whichever is greater (meets or exceeds ATS/ERS clinical performance standards)
- Resolution: 8.64 ml/sec
- Deadspace: 39 ml

O₂ Analysis

- Type: Galvanic
- Range: 0 - 100%
- Response: (10-90%) < 130 msec
- Accuracy: $\pm 0.03\%$

CO₂ Analysis

- Type: NDIR
- Range: 0 - 15%
- Response: < 130 msec
- Accuracy: $\pm 0.1\%$

Gas Sampling

- Patented drying sample circuit
- Side stream sampling flow rate: 80 - 100ml / 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, Cabrera, pediatric, user-defined)
- Chart speeds: 25, 50 mm/sec
- Sensitivity: 5, 10, 20 μ V or mm

Display

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

ECG Printing

- Printer type: ink jet, laser jet or thermal
- Format: averages, full disclosure, 2 x 6, trends, summary, heart rate, recovery, tabular report
- When: user-defined, during the test or automatic after recording or automatic after interpretation confirmation

Software Options

- ExFVL (Exercise Flow Volume Loops)
- ExerScript™ Exercise Prescriptions
- User Defined Predicteds
- Bronchial Provocation
- Pulmonary Consult™ Interpretive Package
- Exercise Consult™ Interpretive Package
- NICO
- Nutrition Option



All specifications subject to change without notice. Products may vary from those illustrated. Please contact your Medical Graphics representative for latest information, pricing and product availability.



© 2010 Medical Graphics Corporation. MEDGRAPHICS is a registered trademark of and BREEZESUITE, Ultima, ExerScript, Pulmonary Consult and Exercise Consult are trademarks of Medical Graphics Corporation. Other trademarks as listed here are the property of their respective owners.

MEDGRAPHICS
Via Simone d'Orsenigo n.21
20135 Milano, Italy
Phone: +39 346-857-5928
Fax: +39 025-412-0233

Medical Graphics Corporation
350 Oak Grove Parkway
St. Paul, MN 55127-8599
Toll Free: 800.950.5597
International: +1.651.484.4874
Fax: +1.651.484.8941
www.medgraphics.com
info@medgraphics.com

Part #060105-001 Rev A

For more information, visit
www.medgraphics.com