Universal ECG

Portable PC-based 12-lead ECG

The Universal ECG is the smallest, lightest and most accurate[1] PC-based ECG on the market

Saves you money and improves efficiency:
- Less expensive than stand-alone EKG machines
- No calibration required
- No annual maintenance fees
- Never buy thermal paper again

Includes a free 3-year hardware warranty

Universal ECG
☒ CE0086 ↻

Available from DRE

The Universal ECG is the smallest and lightest 12-lead EKG on the market.

Perform resting ECG anytime, anywhere with unparalleled ease-of-use. Simply connect to your PC, laptop or handheld and you are ready to begin. Results are displayed on-screen for quick assessment.

- **Automatic narrative interpretation and measurement analysis** using the advanced Louvaine Algorithm, which has **the best total accuracy**[1] when compared to leading competitors
- **Print clear, full page reports on standard plain paper** in portrait, landscape or A4
- **Review and zoom into data** with electronic calipers, enter comments and modify the interpretation before confirming the results
- **Instantly create PDFs or JPEGs** of the final report
- **Seamlessly integrate ECG data into your EMR** via XML, HL7 and other formats
- Also available in a 6-channel non-interpretive version

Includes a Free 3-year Hardware Warranty

Saves you money and increases efficiency

Save as much as $700/year by printing to your Windows® based printer **(never buy thermal paper again)**

No batteries needed: All power is drawn from the PC

Reduce storage and courier costs by creating PDFs and JPEGs that you can save on your hard-drive and email instantly

Doesn't require calibration or annual maintenance

Less expensive than traditional stand-alone EKG machines

The Universal ECG comes standard with everything you need to begin testing:

- Office Medic™ workstation software with interpretation. Manage patients and tests without an EMR (available in English, French, German, Italian, Spanish, Portuguese and Japanese)
- Pocket Medic™ software for acquiring, analyzing, storing and reviewing 12-channel ECGs on a Pocket PC
- Office Medic™ IDMS software for networking multiple workstations to one central database
- MedicSync™ software for transferring/synchronizing data between multiple databases

Connect the Universal ECG to your laptop or PC via the serial, USB or card slot

1 Willems, J.L., et al., "The Diagnostic Performance of Computer Programs for the Interpretation of Electrocardiograms", New England Journal of Medicine (1991); 325: 1767-1773. Li, G.P., et al., "The New Cardionics ECG Program and Its Comparison with Other Programs", Japanese Heart Journal (1994); 35 (Supplement):257-258.

The Universal ECG is CE Marked in accordance with MDD 93/42/EEC.

ISO 13485
FM 72006

Universal ECG
PC-based 12-Lead ECG

Equipment for the way *you* operate.

Praise for the Universal ECG™

"Simplicity of use was an impressive plus for the system. The fact that paper ECG use/storage could be eliminated fit well with my need for an electronic medical record. The very reasonable price was a pleasant surprise."
– Sam Sugar, MD (Evanston, IL)

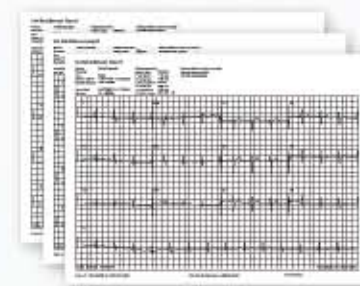"It is a tremendous system, convenient and easy to use."
– Brian R. McMurray, MD, FACP, FACEP (Brentwood, TN)

"The Universal ECG has expanded our services for patient convenience and also for detection of cardiac problems on-site. [We] are impressed with the simplicity of the operation yet it delivers a comprehensive report with the click of a button. The very first day we were offering EKGs a patient complained of chest pain and shortness of breath. We were able to diagnose his condition, which was very serious and required admission to the intensive care unit. Time in this particular case was essential and the EKG assisted us in providing excellent care and saving his life."
– Staff from Medi Quick Clinic (Grenada, MS)
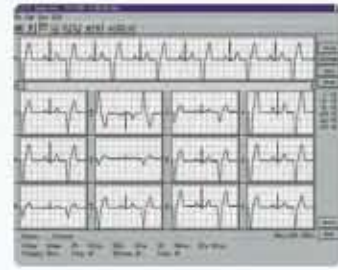
Up to 12 channels of high-resolution ECG data on your PC screen

Print reports on plain paper

Technical Specifications

Hub Weight	280 - 300 grams depending on cable options
Hub Dimensions	85 x 91 x 20 mm
Patient Leads Length	1 meter
PC Connection Length	1-3 meter, DB9 female connector
Patient Leads	6 Lead Cable (4 patient leads) 12 Lead Cable (10 patient leads)
Case Material	ABS Plastic
Electrode Connections	4 mm Banana plug with "tab" or "snap" connectors
Electrode Labeling	Abbreviations and colors to comply with either IEC or AAMI standards
Display and Operating Console	Dependent on PC (supplied by user)
Gain/Sensitivity	5, 10, 20 mm/mV
Input Range	±6 mV
Acquisition sample rate	1000 samples per second (compressed to 500Hz with peak picking and averaging algorithm)
Heart Rate Range	20 bpm - 170 bpm
Frequency Response	0.05 to 175 Hz ±3 dB
Defibrillator Protection	Patient leads are isolated from system and operator, with 4 kV protection
Common Mode Rejection	-60 dB (minimum)
Safety Standards	Complies with AAMI EC11, EN60601-1, EN60601-1-2, and EN60601-2-25
Leads Off Indicators	Connection status for each lead is shown on Acquisition screen
Power Source	Can be powered by the PC Serial port control lines in most cases, depending on the PC being used. Can draw extra power if necessary from a PC PS/2 port
Supply Voltage	4 – 16V DC
Permanent Filters	High Pass: 0.05 Hz 1st order Low Pass: 170 Hz 1st order Baseline Wander: Baseline reset by adaptive zeroing algorithm
Notch filter (Mains Noise Rejection)	50 Hz 4th order Butterworth, 49.1 Hz - 50.9 Hz, 60 Hz 4th order Butterworth, 59.1Hz - 60.9 Hz
Low pass (Muscle Artifact Filter)	35 Hz 4th order
Report Capabilities	User selectable Report formats
Environmental Conditions	Operating Temperature 0° C - 40° C Storage Temperature -20° C - 70° C Humidity 5% - 85% (non-condensing)

1 Willems, J.L., et al., "The Diagnostic Performance of Computer Programs for the Interpretation of Electrocardiograms", New England Journal of Medicine (1991); 325: 1767-1773. Li, G.P., et al., "The New Cardionics ECG Program and Its Comparison with Other Programs", Japanese Heart Journal (1994); 35 (Supplement):257-258.