GE Healthcare

Simpler on the outside.
Smarter on the inside.

The MAC 1600 electrocardiograph

Imagine a scalable ECG device that
evolves with the demanding needs
of your practice; one that is simple
to use, yet smart enough to provide
you with diagnostic insight.

The MAC® 1600 continues GE's legacy of innovation in ECG acquisition and analysis with a modern system designed with input from users around the world.

Experience:

- **Diagnostic confidence** through the proven and outstanding Marquette® 12SL™ ECG analysis program that assists physicians in making appropriate diagnoses and treatment decisions for their patients.

- **Simplified workflow** through connectivity with GE's MUSE® or CardioSoft™ information systems. The MAC 1600's usability and configuration modes include resting ECG, rhythm and arrhythmia.

- **Scalability** through a system that adapts to your needs and allows you to add exercise testing, with options for communication and ECG analysis, at any time.

The MAC 1600 is particularly suited for physicians in offices, medium-sized clinics and community hospitals.

Evolution on display.

Designed with input from users across the globe, the MAC 1600 features an intuitive, easy-to-learn interface, clear color display and an adaptable configuration.

- **Intuitive** – The soft key menu makes patient data entry easy and fast.

- **Clear** – The 7" color WVGA gives crystal clear review of the ECG waveform.

- **Digital** – Onscreen review of your ECG saves paper and costly repeat ECGs.

- **Portable** – The MAC 1600 can be easily transported. Its advanced Lithium Ion battery permits three hours of continuous use.

- **Disinfection** – Hospital-grade keypad allows for easy cleaning and maintenance.

- **Secure** – The MAC 1600 offers user ID and password protection for patient data privacy, helping you to meet HIPAA requirements.

Full-color WVGA display of all 12 ECG leads.

Dedicated lead keys permit scrolling between 6- and 12-lead review.

F1-6 keys directly correspond to detail in boxes above.

Advanced Lithium Ion battery technology permits three hours of continuous use.

Integrated handle makes transportation easier.

Slide-out paper drawer can be easily loaded and quickly adjusted for US letter and A4 paper sizes.

Smart.

The MAC 1600's resting ECG function can be easily configured to meet the needs of nearly every practice. With instant assessment of the ECG signal quality, the availability of GE's Marquette 12SL ECG analysis program, and an easy connection to your ECG cardiology management system, the new MAC 1600 couldn't be smarter.

- **Diagnostic confidence** – Recognized across the globe as one of the most validated programs in the industry, the optional GE Marquette 12SL ECG analysis program provides true, computer-interpreted analysis of adult and pediatric populations.

- **Signal quality** – The Marquette 12SL Hookup Advisor™ ensures ECG signal quality from the start. This exclusive GE algorithm goes beyond simple electrical checks to advise clinicians of poor waveform quality during the recording of ECGs.

- **Easy configuration** – The MAC 1600 automatically captures 10-second ECGs with one-touch operation. Additionally, you can select the rhythm ECG mode to continuously review all 12 leads, or the arrhythmia mode for an extended review of arrhythmias or events.

- **Comprehensive** – The MAC 1600 offers more than just acquisition. Its online editing and re-analysis of ECG waveform capabilities enhance the accuracy of patients' records.
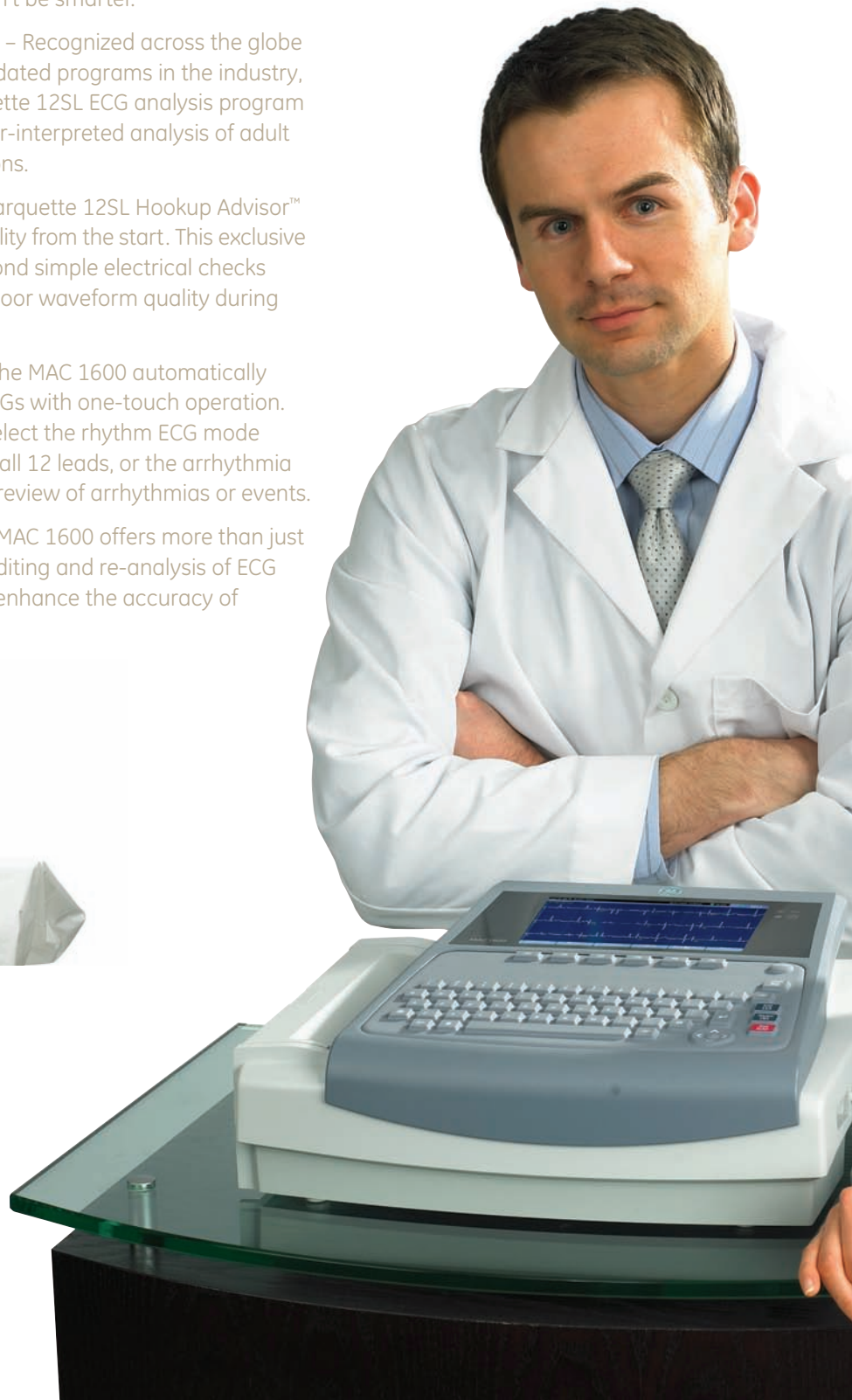
Connected and scalable.

Not only is the MAC 1600 capable of seamlessly connecting to the MUSE and CardioSoft information systems, it also adapts to your specific needs and can be expanded as those needs grow. Full connectivity enables you to streamline your ECG workflow and improve efficiencies.

- **EMR ready** – The MAC 1600 connects easily to your EMR system through GE's CardioSoft software.

- **Seamless** – Connectivity with MUSE and CardioSoft can help clinicians increase departmental productivity and reduce errors. The MAC 1600 instantly sends and receives complete patient ECG data for immediate remote review or overread. Optional communication packages include LAN, internal modem and direct serial line.

- **XML** – ECG records are exported in XML format, from internal memory to a secure digital (SD) card.

- **Expandable memory** – Save up to 100 ECG records locally or transfer records to a SD card for offline ECG storage or transmission.

- **Simplification** – Automatic storage, transmission and deletion of data.

- **Barcode scanning** – The barcode reader option helps reduce errors by automating the input of patient data.

Stress testing.

The MAC 1600 can be turned into a cost-effective and multi-functional cardiac workstation by adding the exercise test option whenever you need it.

- **Versatile** – Select from over 20 pre-defined stress testing protocols, including Bruce, modified Bruce and Naughton, or your own pre-defined protocols.

- **Multi-purpose**

  – Supports treadmill, bicycle and master step stress devices.

  – 6- or 12-lead display.

  – VGA output to maximize waveform review by connecting directly to an external CRT.

Everything you need to

GE's electrocardiographs are not only known for standing the test of time, but are designed with features to maximize department uptime so you can spend more time focusing on your patients.

Supplies & Accessories

- The MAC 1600 comes with a range of tested, high-performance accessories that are specifically designed for optimum connection with your patients.

- Multi-link patient cable with replaceable leadwires, available with both AHA and IEC labeling

- Disposable electrodes

- Re-usable electrodes

- Paper options and sizes

Service

- Uncompromising service with GE's team of experienced technicians

Comprehensive training

- Easy-to-learn – The computer-based training DVD includes a complete suite of MAC 1600 clinical education tools that make it easy to learn more about the MAC 1600.

- CEU credits support your professional career.

Acquisition & analysis

- Analog acquisition module

- Marquette 12SL measurements & interpretation (option)

- Marquette 12SL Hookup Advisor

- 4.88 μV resolution

Display

- Type: 7" TFT LCD module, widescreen

- Display resolution: 800 x 480 pixels

- WVGA resolution – same as 800 x 480

- Color

- VGA port for external CRT monitor

Writer

- Resolution: Vertically 8 dots/mm, horizontally 40 dots/mm @25 mm/sec

- Paper type: thermal A4 & US letter, Z-fold

- Writer speed: 5, 12.5, 25, 50 mm/sec

Processing

- 12 lead simultaneous analysis

- 500 or 1000 samples/sec

Memory

- Internal/ external 100 ECGs (option)

Connectivity, communication, input devices

- LAN transmission to MUSE or CardioSoft (options), GE's ECG management systems

- Internal modem (option)

- Secure digital card

- GE supported USB barcode with advanced symbologies: Code 39 (extended), PDF-417, Code 128, Data Matrix, Interleaved 2 of 5 (option).

Keyboard

- Type: Elastomer - with soft function keys, alphanumeric keys, writer controls and Trim Pad cursor controls

stay productive.

Application options

- Stress testing application (ergometer and treadmill sold separately)

- Ergometers supported include: eBike, Ergoline 900, Variobike, Excalibur

- Treadmills supported include: T2100, T2000, Trackmaster TMX425

Specifications

Height / width / depth: Approximately
400 mm x 350 mm x 150 mm

Weight: Approximately 6.0 kg with battery installed

Power supply

- AC operation

  - Voltage: 100 to 240 VAC, +10, -15%

  - Current: 0.5A at 115 VAC

  - Current: 0.3A at 240 VAC

  - Frequency: 50 to 60 Hz +/- 10%

- Battery operation

  - Type: User replaceable, 16.4V@ 2300 AH, Lithium Ion

  - Capacity: 50 single page reports, (typical) 3 hours continuous display (without printing)

  - Charge time: Approximately 2.5 hours from total discharge

Temperature

- Operating: 50° to 104° F (10° to 40° C)

- Transport/storage: -40° to 158° F (-40° to 70° C)

Humidity

- Operating: 20% to 95% RH non-condensing

- Transport/storage: 15% to 95% RH non-condensing

Pressure

- Operating: 700 to 1060 hPa

- Transport/storage: 500 to 1060 hPa

Warranty:

3 years for ECG device, 90 days for patient cable and battery.

Certifications:

- EN 60601-1: 1990, A1: 1993, A2: 1995, A13: 1996 (IEC 60601-1: 1998, +A1: 1991, +A2: 1995) Medical electrical equipment – Part 1: General Requirements for Safety

- IEC 60601-1-1: 2000 Medical Electrical Equipment: General Requirements for Safety

- IEC 60601-1-2: 2007 General Requirements for Safety Electromagnetic Compatibility

- IEC 60601-1-4:2000 Requirements for Collateral Standard Programmable Electrical Medical Systems

- IEC 60601-2-25: 1993 +A1: 1999 Safety of Electrocardiographs

- IEC 60601-2-51: 2003 Safety and performance of ECG recorders

- ANSI/AAMI EC11: 1991 Diagnostic Electrocardiograph Devices

- JIS T 0601-2-25:2006 Japanese Industrial Standard for Electrocardiographs

- UL 60601-1: 2006 UL Standard for Safety Medical Electrical Equipment, Part 1: General Requirements for Safety

- CAN/CSA C22.2 No. 601.1

- ANSI/AAMI EC57: 1998: Testing and reporting performance results of cardiac rhythm and ST segment measurement algorithms.

For more information on the GE Diagnostic Cardiology portfolio and the suite of algorithms, please go to: www.gehealthcare.com/usen/diagnostic_ ecg/index.html

Healthcare Re-imagined

GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world to discover new ways to predict, diagnose and treat disease earlier. We call this model of care "Early Health." The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest.
Re-think, Re-discover, Re-invent, Re-imagine.

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imagination at work