The M3R is a simultaneous realtime 3-channel (7 lead wires) ECG Holter Recorder. The M3R continuously acquires, stores and wirelessly transmits full 3-channel ECG data using industry standard 7 electrode configurations. The data is stored and transmitted in full fidelity. The M3R does not require data compression and does not use any data compromising lead derivation techniques. The data is stored and transmitted at a data sample rate of up to 1000 samples per second with the ultra-high resolution of 0.5 microvolt.

The M3R uses low cost standard SD data storage cards (no need to purchase “custom memory cards”). Use of a removable SD Card enables immediate recorder reuse. The unit can be configured to simultaneously transmit realtime ECG data over a Bluetooth wireless data link to remote personal computers. This provides the ability to perform realtime viewing and processing of the data on the personal computer. This capability enables access to the data over the internet, providing users with the capability to view and process the data from remote applications around the world. The M3R provides the clinician with the ability to wirelessly obtain realtime ECG data during the Holter procedure, eliminating the need to use separate devices to obtain Holter and realtime ECG data.

The M3R can be configured to record 2 channel (5-Lead wires) or 3 channel (7-Lead wires) data. The sample rates are configurable from 200 samples per second to 1000 samples per second and supports multiple day recording periods on a single set of “AA” batteries.

The built-in graphic LCD display provides display realtime of ECG traces, operating modes, and time of day. The M3R has configurable interface buttons to enable users to review and/or input Patient / Subject demographics and test procedure related data. Includes two large buttons for patient event activation. The M3R uses state-of-the-art signal processing and provides full support of pacemaker pulse detection.
Specification Summary

Standards:

Data Acquisition Types (types of data recorded and transmitted):
ECG Data:
3-Channel ECG from 200 samples/second to 1000 samples/second
Pacemaker detection:
Samples for pacemaker pulses at greater than 10,000 samples/second
Patient Movement/Position:
Uses internal proprietary inertial measurement unit to monitor and record Patient movement and position/orientation
Recorder status:
Recorder operational status is internally monitored, stored and transmitted
Patient Events
Provisions for additional digital or analog data inputs

User Interface:
Language independent
Graphic Liquid Crystal Display (LCD)
Programmable user interface
Bluetooth Wireless
SD card interface
Dual event buttons

Usability Enhancements:
Battery tests
Hookup quality displayed on LCD and via Bluetooth Wireless
Encoded unique id’s embedded within stored and transmitted data

External Data Interfaces:
Bluetooth Wireless interface
SD Memory Card interface
Compatible with M12A Analysis System Software

Recording duration:
Up to 5-Days

Recording bandwidth:
0.05 - 100 Hz 0.05 - 150 Hz

Digital Resolution:
16-bit, 0.5 µV/LSB

Physical:
Size: 4.4 in x 3.1 in x 1.4 in
Weight: 14 oz, including batteries, memory card, and leadwires
Power: 2 AA batteries: alkaline, or rechargeable

Storage capacity:
256 MByte, 1 GByte Secure Digital memory card (uses standard FAT16 format)

Sample Rates:
200, 500, 1000 samples/second

Lead Configurations (cables and operating modes):
7-lead
Input Channels Simultaneous acquisition of all leads
Standard Leads Acquired Channel 1, Channel 2 and Channel 3

Modes:
Recording – continuous or periodic
Wireless data transmission – continuous or periodic

Accessories:
Host SD card reader
Host Bluetooth Interface
Patient cable (7 lead)
Recorder Carry Case
User Manual
Quick Step Instruction Sheet
Holter Hook-up Kit

Warranty and Service:
GI is dedicated to the highest quality of customer support
The M3R has a 1 year warranty

Approvals/Certifications:
ISO 13485, CMDCAS, FDA 510K, GMP-QSR, CE Mark, FCC, ICC

NOTICE: In the U.S.A., Federal Law restricts devices to sale by or on the order of a physician.
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