



**BPL** Medical  
Technologies



**Experience the  
Trace Quality**

TWELVE CHANNEL ECG RECORDER  
**CARDIART 9108 D**

[www.bplmedicaltechnologies.com](http://www.bplmedicaltechnologies.com)



*Happier Living Everyday*



## Enhanced ECG diagnosis made possible with superior trace quality



### Twelve Channel ECG Recording

Simultaneous 12 channel ECG recording with 12 lead simultaneous acquisition



### High Resolution Display

7 inch high resolution display enables the easy viewing of patient demographics and real time ECG data (optional touch screen)



### ECG Analysis and Interpretation

Gender, age & race specific advanced ECG analysis & interpretation - The Glasgow ECG Interpretation Algorithm



### QWERTY Alphanumeric Keyboard

Ensures the freedom of easy use



### Ease of Operation

The user-friendly design of the machine ensures easy operation



### External Archiving

Supports external archiving devices such as USB drive, SD card for virtually unlimited ECG data storage



### File Formats

Standard PDF and Optional SCP, XML DICOM Formats



### Thermal Recorder

Built-in high resolution thermal recorder



### Internal Memory

Has an Internal Memory, which can store up to 800 ECG recordings



### Built-in Rechargeable Battery

High performance Li-ion rechargeable battery enables mains independent operations



### PC Interface

Interfaces with PC using optional Smart-View software



### Pace maker detection

This feature ensures recognition of pacing signal artifacts



### Trolley

Custom trolley available as an option

### \* Variant

Variant available with Touchscreen, Wi-Fi and DICOM functionalities

## Product Specifications

### GENERAL SPECIFICATIONS

|              |                                  |
|--------------|----------------------------------|
| Display      | 7 inches, 800x480 TFT LCD Screen |
| Touch Screen | 7 inches, optional               |

### PHYSICAL SPECIFICATIONS

|                        |                                                        |
|------------------------|--------------------------------------------------------|
| Dimensions (Main Unit) | 361mmx262mmx135mm<br>(14.2inx10.3inx5.3in); ±2mm       |
| Weight (Main Unit)     | 4.2kg (9.3 lbs) (Excluding recorder paper and battery) |

### PERFORMANCE SPECIFICATIONS

#### Recording

|                  |                                                                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorder         | Thermal dot-matrix recorder                                                                                                                     |
| Printing Density | 8 dots per mm / 200 dots per inch (amplitude axes)<br>40 dots per mm / 1000 dots per inch (time axes @ 25mm/s)                                  |
| Recorder Paper   | <b>Folded Thermal Paper:</b><br>210 mm x 140 mm x 144 pages<br>210 mm x 295 mm x 100 pages (optional)<br>215 mm x 280 mm x 100 pages (optional) |
| Effective Width  | 210mm                                                                                                                                           |
| Paper Speed      | 5mm/s, 6.25mm/s, 10mm/s, 12.5mm/s, 25mm/s, 50mm/s (±3%)                                                                                         |

#### HR Recognition

|          |                  |
|----------|------------------|
| HR Range | 30 BPM – 300 BPM |
| Accuracy | ±3 BPM           |

#### ECG Unit

|                    |                                         |
|--------------------|-----------------------------------------|
| HR Range           | 30 BPM – 300 BPM                        |
| Accuracy           | ±3 BPM                                  |
| Leads              | 12 standard leads                       |
| Acquisition Mode   | Simultaneously 12 leads                 |
| A/D                | 24Bits                                  |
| Frequency Response | 0.01Hz – 300Hz                          |
| Gain               | 1.25, 2.5, 5, 10, 20, 10/5, AGC (mm/mV) |

|                     |                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Impedance     | ≥100MQ (10Hz)                                                                                                                                                                                  |
| Filter              | <b>AC Filter:</b> 50Hz/60Hz/Off<br><b>DFT Filter:</b> 0.01Hz/0.05Hz/ 0.15Hz/ 0.25Hz/ 0.32Hz/ 0.5Hz/0.67Hz<br><b>EMG Filter:</b> 25Hz/35Hz/45Hz/Off<br><b>LOWPASS Filter:</b> 150Hz/100Hz/75Hz\ |
| CMRR                | ≥140dB (AC Filter is On)<br>≥123dB (AC Filter is Off)                                                                                                                                          |
| Sampling Frequency  | 16,000 Hz                                                                                                                                                                                      |
| Pacemaker Detection | Available                                                                                                                                                                                      |

### SAFETY SPECIFICATIONS

|                                                       |                                                                                                   |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Comply with                                           | IEC 60601-1:2005<br>IEC 60601-1:2007<br>EN 60601-1:2006<br>IEC/EN 60601-2-25<br>EN 60601-1-2:2007 |
| Anti-electric-shock type                              | Class I with internal power supply                                                                |
| Anti-electric-shock degree                            | CE type with defibrillator-proof                                                                  |
| Degree of protection against harmful Ingress of water | Ordinary equipment (sealed equipment without liquid proof)                                        |
| Working Mode                                          | Continuous Operation                                                                              |

### ENVIRONMENT SPECIFICATIONS

|                      | Transport & Storage                                                  | Working                     |
|----------------------|----------------------------------------------------------------------|-----------------------------|
| Temperature          | -20°C (-4°F) ~ +55°C (+131°F)                                        | ±5°C (+41 F) ±40°C (+104 F) |
| Relative Humidity    | 25%-93% Non-Condensing                                               | 25%-80% Non-Condensing      |
| Atmospheric Pressure | 70 kPa ~106kpa under Transport &Storage and Working: 86 KPa ~106 KPa |                             |

### POWER SUPPLY SPECIFICATIONS

|                        |                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recorder               | Thermal dot-matrix recorder                                                                                                                                         |
| Mains Supply           | <b>Operating Voltage:</b> 100V-240V AC<br><b>Operating Frequency:</b> 50Hz/60Hz<br><b>Input Current:</b> 0.9-0.4A                                                   |
| Battery Specifications | <b>Battery Type:</b> Rechargeable Lithium Ion<br>Rated Voltage: 14.8V<br>Rated Capacity: 2500mAh<br>4 hours with fully charged battery or 300 continuous ECGs print |