

# Exceptional performance

## in a compact package

The PageWriter Trim III cardiograph represents the ultimate, compact, cost-effective cardiography solution from Philips. More than simply an easily transportable ECG system, the PageWriter Trim III combines ease-of-use features with a high-resolution full-color display and exceptional flexibility to meet the needs of fast-paced clinical environments.

### **Comprehensive interface and distribution options**

To optimize clinical efficiency, patient information can be quickly entered on a real alphanumeric keyboard or optional bar code scanner.

The new digital Patient Interface Module (PIM) incorporates a color-coded lead diagram on the module, with leads intuitively arranged for quick, easy identification. In addition, each lead wire can be individually removed and replaced to help minimize maintenance costs.

And streamline information sharing with options which include a magnetic card scanner, SMART card scanner, ECG storage card and modem card. The PageWriter Trim III's native XML implementation also establishes an open ECG standard to facilitate information sharing throughout the enterprise ... and beyond.

### **Quality gains, breakthrough interpretation**

To ensure consistently accurate ECGs, advanced signal quality indicators provide immediate feedback

on loose or inoperative electrodes, noise and other signal integrity factors.

What's more, the PageWriter Trim III offers the leading-edge interpretive capabilities of the Philips 12-Lead Algorithm, providing such breakthroughs in pediatric and adult assessment as improved pacemaker pulse classification and fast, accurate detection of ST Elevation Acute Myocardial Infarction (STEAMI).

This unique combination of features helps the PageWriter Trim III set a new standard for flexibility in a compact cardiograph.



ECG records can be previewed prior to printing and storage to ensure quality.

# PHILIPS

## Features

### **ECG Acquisition**

- ECG signal acquisition of up to 12 leads for both adult and pediatric patients
- Real-time display, with patient name and ID
- Automatic and configurable pacemaker detection

### **Metronome**

- Metronome feature with configurable options to be used with the Master's Two-Step Stress Test

### **ECG Quality Monitor**

- Real-time ECG signal quality indicators provide instant user feedback on the location of loose or inoperable electrodes
- Color-coded waveforms indicate signal quality of each lead
- Artifact, AC, and low and high pass frequency filters

### **ECG Memory and Transfer**

- The PageWriter Trim III cardiograph provides storage memory for 150 ECGs, with easy transfer by optional modem, optional CF card, optional LAN connection, or optional USB storage device

### **Print Preview Capability**

- Full-screen preview of ECG reports exactly as they appear when printed allows for quality assessment checks prior to printing

### **ECG Interpretation**

- The PageWriter III cardiograph includes the Philips 12-Lead Algorithm for interpretive analysis of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for adult and pediatric patients
- This clinically proven interpretation program provides configurable levels of interpretive, reason and severity statements that are printed on the ECG report

### **Mobile Cart Integral Part of Cardiograph**

- The mobile cart provides convenient transport for the PageWriter Trim cardiographs and accessories from bedside to bedside



The Philips PageWriter Trim III Cardiograph/Cart System.

## Technical Specifications

### **ECG Acquisition**

- R/T (real-time) ECG (12 leads)
- AUTO (12 leads)
- RHYTHM (up to 12 leads)
- DISCLOSE (1 lead)

### **Keyboard**

- Full alphanumeric keyboard

### **Display**

- 640 x 480 pixel resolution
- Color TFT display

### **Signal Processing/Acquisition**

#### **Sampling Rate**

- 2000 samples per second per electrode/lead.  
24-bit A/D conversion provides 5 $\mu$ V resolution.

#### **Auto Frequency Response**

- 0.05-150 Hz, 0.15-150 Hz, 0.5-150 Hz,  
0.05-100 Hz, 0.15-100 Hz, 0.5-100 Hz,  
0.05-40 Hz, 0.15-40 Hz, 0.5-40 Hz

#### **Rhythm Frequency Response**

- 0.05-150 Hz, 0.15-150 Hz,  
0.05-100 Hz, 0.15-100 Hz,  
0.05-40 Hz, 0.15-40 Hz

**Filters**

- AC noise
- Artifact
- High and low pass

**Printer Resolution**

- High-resolution, digital-array printer using thermal-sensitive paper
- 200 dpi (voltage axis) by 500 dpi (time axis) at 25 mm/sec

**Report Formats**

- 3x4 (1R, 3R)
- 6x2 (Standard, Cabrera)
- Rhythm (up to 12 selected leads plus Cabrera)
- 12-Lead Extended Measurements
- Disclose (1 minute of continuous waveform data for 1 selected lead)
- Pan-12 (Cabrera)
- 12x1 (Standard, Cabrera)

**Battery Capacity**

- Typically 40 ECGs on a single charge or 30 minutes of continuous rhythm recording
- No fail operation during ECG printing

**Battery Recharge**

- Internal: Eight hours to full capacity
- External: Four hours to full capacity (optional)

**Network Connection (optional)**

- 10 Base-T IEEE 802.3 Ethernet LAN card
- Generic 802.11b wireless LAN capability through the use of the Cisco Systems AIRONET 350 series wireless LAN Adapter

**FAX Capability**

- Group 3, Class 1 or 2 fax modem protocol
- Support for PCMCIA fax modem

**Modem (optional)**

- V.90, K56flex, enhanced V.34, V.32bis, V.32, V.22bis and below

**Barcode Reader (optional)**

- Reads Code 39 Symbology
- Flexible data entry

**Magnetic Barcode Reader (optional)**

- ISO-7810, 7811-1,-2,-3,-4,-5
- Four configurable patient ID fields

**ECG Storage**

- Internal: 150 ECGs

- External: 150 ECGs
  - Optional PCMCIA card
  - Optional USB Storage Device

**ECG File Formats**

- XML and XML SVG
- Stored at 500Hz

**Power and Environment****Line Power**

- 100-240 Vac, 50/60Hz, 65 VA max

**Environmental Operating Conditions**

- 10° to 40°C (50° to 104°F)
- 15% to 80% relative humidity (non-condensing)
- Up to 4,550 m (15,000 ft.) altitude

**Environmental Storage Conditions**

- 0° to 50°C (0° to 122°F)
- 15% to 90% relative humidity (non-condensing)
- Up to 4,550 m (15,000 ft.) altitude

**Cardiograph Dimensions**

- 388 x 310 x 176 mm (15.3 x 12.2 x 6.9 in)

**Cardiograph Weight**

- 7.38 kg (16.3 lb): Includes battery, patient module, lead wires, alligator clips, electrode pack and paper pack.

**Patient Interface Module**

- Remote, microprocessor-controlled, high-resolution module

**Safety & Performance**

Meets the following requirements for Safety and Performance:

- IEC 60601-1: 1988 +A1:1991 +A2:1995 General Requirement for Safety
- IEC 60601-1-2: 2001 General Requirements for Safety for Electromagnetic Compatibility
- IEC 60601-2-25: 1993 + A1:1999 Safety of Electrocardiograms
- UL 2601-1: 1997 US General Requirements for Safety
- CAN/CSA-C22.2 No. 601.1-M90 S1:1994 B:1996
- AAMI EC11 1991: Diagnostic Electrocardiographic Devices
- CISPR11: 1997 + A1:1999 + A2:2002 Radio Frequency Disturbance, Limits and Methods of Test Group 1 Class B
- JIS T 1202: 1998 Japanese Industrial Standard for Electrocardiographs

**Philips Medical Systems is part  
of Royal Philips Electronics**

**Interested?**

Would you like to know more about our imaginative products? Please do not hesitate to contact us. We would be glad to hear from you.

*On the web*

**www.medical.philips.com**

*Via e-mail*

**medical@philips.com**

*By fax*

**+31 40 27 64 887**

*By postal service*

**Philips Medical Systems**

**Global Information Center**

**I.B.R.S./C.C.R.I. Numéro 11088**

**5600 VC Eindhoven**

**Pays-Bas/The Netherlands**

(no stamp required)

*Asia*

Tel: +852 2821 5888

*Europe, Middle East, Africa*

Tel: +31 40 27 63005

*Latin America*

Tel: +55 11 2125 0764

*North America*

Tel: +1 800 934 7372

© Koninklijke Philips Electronics N.V. 2006

All rights are reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright holder.

Philips Medical Systems Nederland B.V. reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Printed in The Netherlands.

4522 962 09991/860 \* JAN 2006

