The right touch

Philips PageWriter TC70 Cardiograph

PHILIPS

Make it easy.
Make it fast.
Make it right.

Now there's a state-of-the-art cardiograph that simplifies diagnostic ECG testing and streamlines workflow—by delivering high quality clinical reports when and where you need them. No matter how hectic your clinical environment, the Philips PageWriter TC70 can help you simplify cardiac patient care.

Ensure quality

Color-coded waveforms on all 16 leads integrate with lead maps to enable high quality test results.

- **Easy to use.** With a 15-inch touch screen, illuminated buttons, and color-coded signal quality indicators, it's simple to get it right the first time.

- **Automated workflow.** Acquire, print, save, transfer, and retrieve diagnostic ECGs to and from Philips TraceMasterVue—all automatically.

- **Clinical excellence.** Get complete clinical information with the Philips DXL ECG Algorithm including integrated 16-lead interpretation and advanced STEMI diagnostic aids.

Avoid tangles

The Trident lead system unites three lead wires to reduce tangling and reversals.

Follow the leads

An anatomical Patient Information Module mirrors the body, so clinicians can quickly find the right lead wires without looking.

Just touch it

Take ECGs from the large touch screen, the keyboard, or the Patient Interface Module with one tap of the green button.

It's as easy as 1-2-3

User-friendly illuminated buttons speed workflow

Connect Leads

Check for loose leads.

Enter ID

Barcode ID to find record from worklist.

Take ECG

Print, save, transfer and retrieve previous ECG.

Streamline workflow from start to finish

PageWriter TC70 is designed from the ground up to speed the flow of diagnostic ECGs throughout your hospital enterprise. It streamlines everything from downloading work orders and marking cardiac events to acquiring, printing, and transferring ECG reports to your TraceMasterVue ECG management system. And it gives you one-button access to previous ECGs to help speed decision making.

Pinpoint concerns

Quickly mark up to 15 different cardiac events for later review with a single touch of the screen.

Never miss a beat

Capture and store 20 minutes of uninterrupted 16-lead data to document intermittent arrhythmias. Select any 10 seconds for a fully interpreted report.

Save it

After 20 minutes, cardiac event data is automatically saved in a time capsule, so you never lose sight of an important clinical episode.

TraceMasterVue
ECG Management System
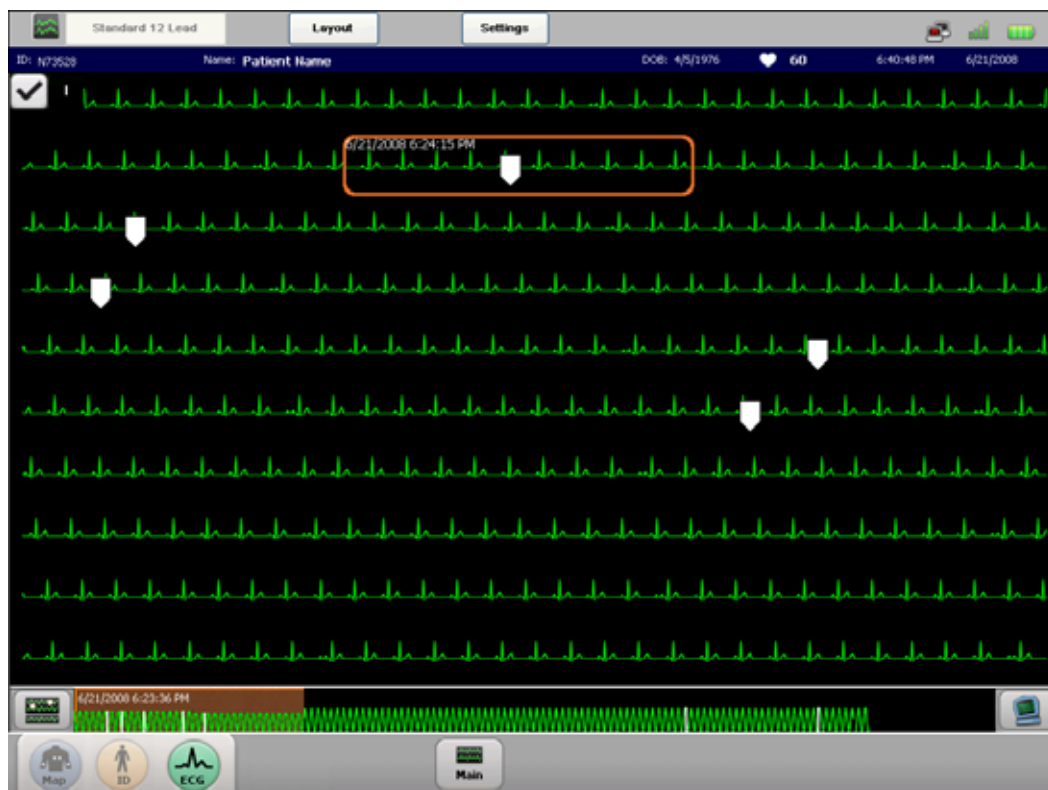
PageWriter TC70
Cardiograph

Synchronize time

Auto set the PageWriter time with your hospital time master to obtain accurate documentation of your patient's clinical history.

Download orders

Import ECG orders with complete patient information from Philips TraceMasterVue.

One-touch workflow

PageWriter TC70 can be configured to automatically print, save, transfer, and retrieve a previous ECG—with one touch of a button.
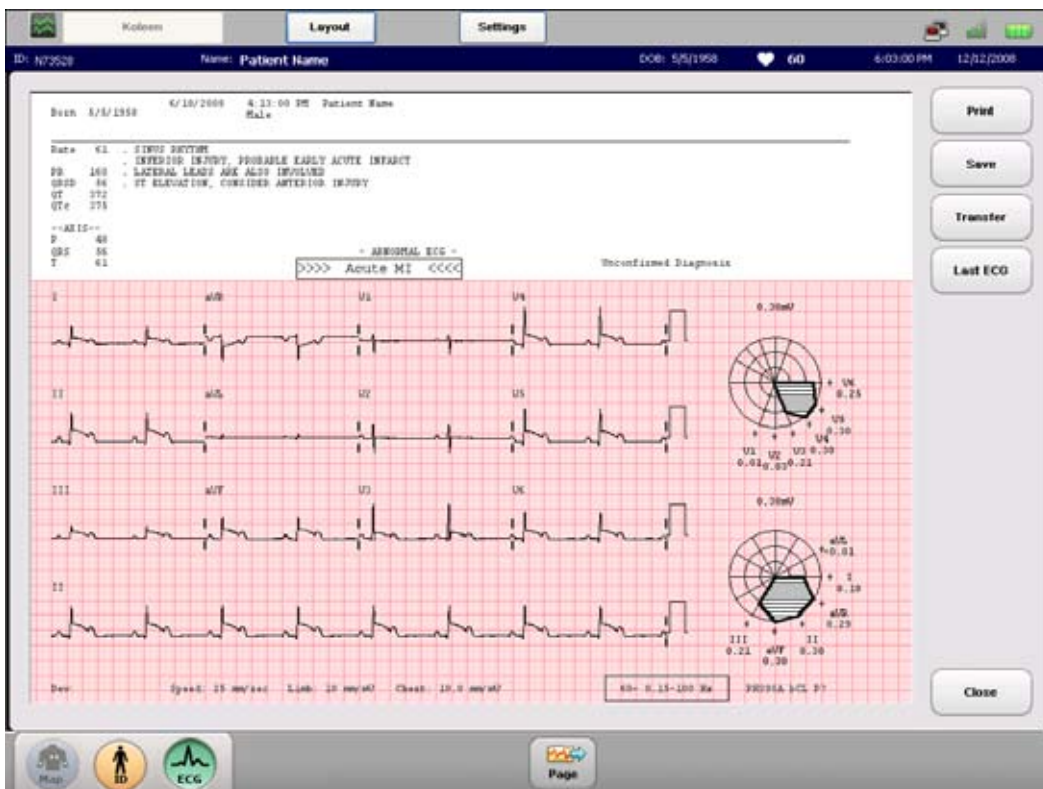
Last ECG

Ever need a previous ECG to do a thorough clinical assessment? With PageWriter TC70, you have it. Previous ECGs are available with a single click.

ECGs that meet your high standards

PageWriter TC70 is designed to meet your high clinical standards for quality, accuracy, and consistent performance. The Philips DXL ECG Algorithm uses advanced methods to analyze 16 simultaneously acquired leads. It delivers an up-to-date interpretation of ECG data—particularly with expanded ST Elevated Myocardial Infarction (STEMI) diagnostic aids, as well as leading pediatric analysis, pacemaker pulse detection, and QT measurements.

Reveal more

Our DXL 16-Lead Algorithm incorporates right heart and posterior wall information across a broad range of adult and pediatric conditions.

ST Map

At a glance get a clear indication of ST elevation for quick triage.

Critical Values

Quickly identify patients that need urgent care in support of Joint Commission Patient Safety goals.

STEMI-CA

Statements suggest which coronary artery may be occluded.

Up-to-date

The nomenclature embedded into PageWriter TC70 is consistent with AHA/ACC recommendations.

Ensure quality

Preview ECG waveforms and interpretation on the 15-inch touch screen to check for signal quality before printing.
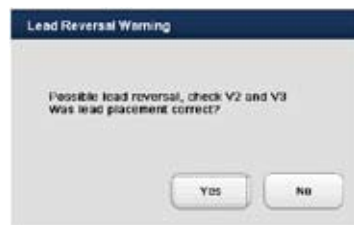
Be sure

Unique LeadCheck software tests for 19 different lead reversals to help you get it right the first time.

Stay connected

Because it's built on a standard platform, PageWriter TC70 fits seamlessly into your existing IT infrastructure. So you're always connected—without being locked in.

Maintain security

The PageWriter TC70 delivers secure, wireless connectivity via standard LAN protocols like 802.11(i) and WPA2 to protect the privacy of patient, staff, and financial information.

PageWriter TC70 benefits

Clinicians
- Simple 1-2-3 process
- 3-in-1 Trident lead wires minimize tangling
- Mark events within 20 minutes of patient's ECG
- Anatomic PIM design supports correct lead placement

Department Managers
- Automated sequence speeds workflow
- Critical Values identify patients who need urgent attention
- LeadCheck reveals lead reversals at the bedside

IT Administrators
- Strong wireless security toolset 802.11(i), WPA2
- Connectivity using industry standards
- Built on a native XML format

Cardiologists
- Integrated interpretation on 16 leads
- Advanced STEMI diagnostic tools
- Previous ECGs aid clinical diagnosis

Good To Go

A compact user-friendly mobile cart lets you speed PageWriter TC70 wherever you need to go.

Technical Specifications

ECG Functions
Simultaneous Lead Acquisition	• Up to 16 leads
ECG Reports: 12-Lead	• 3×4, 3×4 1R, 3×4 3R, 3×4 ST, 3×4 1R ST, 6×2, 12×1. Standard and Cabrera formats, plus Pan 12 Cabrera
ECG Reports: Extended Leads	• 3×5, 3×5 1R, 3×5 3R, 4×4, 4×4 1R. Standard and Cabrera formats
Rhythm Strips	• Up to 16 configurable leads
Event Marking	• 15 independent events can be marked for later review and analysis
Full Disclosure	• Twenty minute history of all 16 leads • Complete ECG report of any 10 seconds
Timed ECG	• Support for pharma stress protocols
Report Storage/Transfer	• Full fidelity at 500 Hz of all 10 sec for up to 16 leads • XML format (schema published)

Philips DXL 16-Lead ECG Algorithm
Interpretive Statements	• >600 interpretive statements • Integrated pediatric analysis
Leads Used in Diagnosis	• Standard 12 leads plus V3R, V4R, V5R, V7, V8, and V9
LeadCheck	• Lead placement software detects 19 different lead reversals
Borderline Statement Suppression	• Three configurable settings
Standard Measurements	• Ten interval, duration, and axis measurements • Configurable QT correction method
Extended Measurements	• 46 measurements of Morphology analysis in each of 16 leads; 21 parameters of Rhythm analysis
Reasons	• Selectable explanations of all interpretive statements
Nomenclature	• Conforms to 2007 AHA/ACC recommendations

STEMI Diagnostic Aids
Graphical ST Vector	• Two polar ST Maps; frontal and transverse planes
Unique Right Heart Statements	• 9 statements called by right-chest leads
Unique Posterior MI Statements	• 16 statements called by posterior leads
STEMI-CA	• Criteria that suggest the probable site of the occlusion
Critical Values	• Highlights 4 conditions requiring immediate clinical attention

Networked Features (requires TraceMasterVue)
Central Time Management	• Time can be synchronized to a networked time master
Last ECG	• Automated retrieval of previous ECG
Orders	• Configurable rules to retrieve cardiograph-specific Worklists

Signal Quality Indicators
Leads Off Advisory	• Anatomical lead map displays the location and label of any loose or disconnected leads/electrodes
Lead Color	• Four colors to indicate levels of waveform quality
LeadCheck	• Lead placement software detects 19 different lead reversals
Heart Rate	• Continuous display of patient heart rate
Print Preview	• Full screen preview of complete 16 lead report prior to printing

Training
Application Help	• Integrated graphical HELP screens for primary functions
Self Paced	• Computerized, interactive, dynamic animation covering all major clinical functionalities

User Interface
Touch Screen	• 1-2-3 operation • Context-sensitive application • 5-wire, resistive touchscreen
Keyboard	• 65 button, standard full alphanumeric keyboard • Special characters supported

Display
Size	• 15 inch TFT
Resolution	• Active matrix 1024 × 768 XGA
Colors	• 64K colors

Signal Processing
Sampling Rate	• 8,000 samples per second per lead wire
Patient Interface Module	• Remote, microprocessor-controlled digital module provides 5µV resolution

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

Connectivity
Modem *(option H11)*	• V.90, K56flex, enhanced V.34, V.32bis, V.32, V.22bis and below
Fax *(included in H11)*	• Group 3, Class 1 or 2 fax modem protocol
LAN Connectivity	• 10/100 Base-T IEEE 802.3 ethernet via on-board RJ45
Wireless Connectivity *(option D21)*	• 802.11(b), 802.11(g)
Wireless Security *(option D21)*	• 802.11(i), WPA, WPA2
Internal Storage	• 200 ECGs
External Storage	• 200 ECGs with optional USB Device

Automated Data Input
Bar Code Reader *(option H12)*	• Reads Code 39 Symbology • Flexible field data entry
Magnetic Card Reader *(option H13)*	• Four configurable Patient ID fields • ISO 7810, 7811-1,-2,-3,-4,-5
Smart "IC" Card Reader *(option H14)*	• ISO 7816 and EMV 3.1.1; Supports SLE 4418/28 and SLE 4443/42

Pre-Processing Filters
AC Noise	• 50 or 60 Hz
Signal Processing	• Artifact Rejection and Baseline Wander

Presentation Filters - 10 sec Reports
High Pass	• 0.05, 0.15, and 0.5 Hz
Low Pass	• 40, 100, and 150 Hz

Presentation Filters - Rhythm
High Pass	• 0.05 and 0.15 Hz
Low Pass	• 40, 100, and 150 Hz

Electrical
Battery	• 2 modules; hot swappable
Battery Capacity	• Typically 50 ECGs on a single charge or 60 minutes of continuous rhythm recording; • No fail operation during ECG printing
Battery Recharge	• 5 hours to full capacity
External Battery Charger/ Calibrator *(9898 0316 2021)*	• 4 hours to full capacity
AC power	• 100-240 VAC, 50/60 Hz
Power Consumption	• 75 W max

Mechanical
Dimensions	• 40 × 33 × 16 cm (15.7 × 13 × 6.3 in)
Weight	• 13 kg (28 lb) • Includes battery, patient module, lead wires, alligator clips, electrode pack and paper pack

Environmental
Operating Conditions	• 10° to 40°C (50°F to 104°F); • 15% to 80% relative humidity (non-condensing); • Up to 4,550 m (15,000 ft.) altitude
Storage Conditions	• (-20°C to 50°C) (-4°F to 122°F); • 10% to 90% relative humidity (non-condensing); • Up to 4,550 m (15,000 ft.) altitude

Safety and Performance
International Standards and Regulations	• IEC 60601-1: 1988 +A1:1991 +A2:1995 General Requirement for Safety • IEC 60601-2-25: 1993 + A1:1999 Safety of Electrocardiographs • IEC 60601-2-51: 2003: Particular Requirements for Safety • UL 2601-1: 2003 1997 US General Requirements for Safety • CAN/CSA-C22.2 No. 601.1-M90 S1:1994 B:1996 • AAMI EC11 1991 (R: 2001): Diagnostic Electrocardiographic Devices

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