



In touch with you

Philips PageWriter TC30 cardiograph

Advanced yet easy to use, the PageWriter TC30 is an affordable and compact solution that can grow with you as your workflow needs evolve. Native DICOM modality worklists can be downloaded or ADT information retrieved, providing patient demographics at the bedside. ECG reports can be wirelessly exported to an electronic medical record and with advanced system communications, the previous ECG can be automatically retrieved at the bedside. PageWriter's native DICOM interoperability provides direct access to ECG orders from your current DICOM MWL provider and storage of resulting DICOM format ECGs to your existing PACS. The result – a fast, efficient clinical workflow with reliable operation for you and your patients.



Key advantages

- Fast 1-2-3 operation with touchscreen and light-guided buttons
- Streamlined workflow with wired and wireless connectivity via HL7, XML, and native industry-standard DICOM
- Exceptional clinical decision support with DXL Algorithm

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Features

PageWriter TC30 Cardiograph (860306)

ECG functions	
Simultaneous lead acquisition	12 leads
ECG reports	3x4, 3x4 1R, 3x4 3R, 3x4 1R plus ST maps, 6x2, 12x1 Standard and Cabrera formats, plus Pan 12 Cabrera
Standard measurements	<ul style="list-style-type: none"> Ten interval, duration, and axis measurements Configurable QT correction method
Rhythm strips	Up to 12 configurable leads
Disclosure (D05)	<ul style="list-style-type: none"> Five-minute history of all 12 leads Complete ECG report of any selected 10 seconds
Event marking (D05)	<ul style="list-style-type: none"> Six independent events can be marked for later review and analysis Event markers appear on ECG reports
Timed ECG	Support for pharma stress protocols
Report storage and transfer	Full fidelity at 500Hz of 10 seconds for all 12 leads
Data format	PDF, XML DICOM 12-lead ECG, and DICOM General EG formats
DXL ECG Algorithm (D03)	
Interpretive statements	<ul style="list-style-type: none"> >600 interpretive statements Integrated pediatric analysis
Borderline statement suppression	Three configurable settings
Extended measurements	<ul style="list-style-type: none"> 46 measurements of morphology analysis in each of the 12 leads 21 parameters of rhythm analysis
Reasons	Selectable explanations of all interpretive statements
Nomenclature	Aligned with 2007 AHA/ACCF/HRS Recommendations, Part II ¹
STEMI diagnostic aids	
Graphical ST presentation	<ul style="list-style-type: none"> Two ECG reports with polar ST Maps Frontal and transverse planes
Age and gender criteria (D03)	Based upon 2009 AHA/ACCF/HRS Recommendations, Part VI: Acute Ischemia/Infarction ²
STEMI-CA (Culprit Artery) (D03)	<ul style="list-style-type: none"> Criteria that suggest any of four probable sites of the occluded coronary artery Based upon 2009 AHA/ACCF/HRS Recommendations, Part VI²
Critical values (D03)	Highlights four conditions requiring immediate clinical attention

Advanced bi-directional network communications ³	
Central time management (D01)	Time can be manually or automatically synchronized to a Network Time Server via IntelliSpace ECG or IntelliBridge Enterprise
Orders worklist (D01)	<ul style="list-style-type: none"> Download of orders worklist from networked server User-configurable drop down lists (e.g., by location, user, or shift) Ad-hoc query for specific orders based upon multiple user-entered or scanned search criteria (e.g., patient ID, last/first name) Supported by Open Worklist with IntelliSpace ECG and select departmental systems Supported by standard HL7 and DICOM interfaces via IntelliBridge Enterprise for departmental and hospital systems Supported by DICOM modality worklist with DICOM MWL system
ADT (D02)	<ul style="list-style-type: none"> Query and retrieval of patient demographic information Based upon user-entered or scanned search criteria (e.g., patient ID, last/first name) Supported by standard HL7 interface via IntelliBridge Enterprise for hospital systems
Last ECG (D06)	<ul style="list-style-type: none"> Automatic retrieval of previous ECG or list of available ECGs for current patient Supported by IntelliSpace ECG
Interactive query (D06)	<ul style="list-style-type: none"> Retrieval of selected ECGs based upon user-entered search criteria Supported by IntelliSpace ECG
Manual orders (D07)	Create patient worklists with complete demographic information for later retrieval
DICOM ECG result output (D08)	<ul style="list-style-type: none"> Create DICOM 12-lead ECG Create DICOM General ECG
Signal quality indicators	
Leads-off advisory	Anatomical lead map displays the location and label of loose or disconnected leads/electrodes
Lead color	Four colors to indicate quality of individual leads
LeadCheck	Lead-placement software detects 20 different lead reversals
Heart rate	Continuous display of patient heart rate
Print preview	Full-screen preview of ECG waveforms prior to printing

Technical specifications

User training and self help

Application help	Integrated graphical help for primary functions
Self-paced training	PC-based interactive, dynamic animation covering all major clinical functions
Training mode	Integrated waveform simulation

1 AHA/ACCF/HRS Recommendations for the Standardization and Interpretation of the Electrocardiogram, Part II: Electrocardiography Diagnostic Statement List. J Am Coll Cardiol. 2007; 49:1128-135.

2 AHA/ACCF/HRS Recommendations for the Standardization and Interpretation of the Electrocardiogram, Part VI: Acute Ischemia/Infarction. Circulation. 2009; 119:e262-e270.

3 When networked with select hospital and departmental solutions; refer to supplier specifications

User interface

Touchscreen	<ul style="list-style-type: none"> • 1-2-3 operation • Context-sensitive application • Five-wire, resistive touchscreen
Keyboard	<ul style="list-style-type: none"> • Backlit 1-2-3 buttons • 65-button, standard full alphanumeric keyboard • Special characters supported
Membrane keyboard cover	Silicone-based flexible cover protects keyboard from particulate and liquid ingress

Display

Size	6.5in TFT active matrix
Resolution	640 x 480 VGA
Colors	64K colors

Patient connections

Patient Interface Module (PIM)	<ul style="list-style-type: none"> • Remote, microprocessor-controlled digital module provides 5µV resolution • Acquire data at 8,000 samples per second, per lead wire
Long lead set (H23)	Extended-length lead wires enable greater distances between the PIM and the patient connections

End connectors (adaptors)

Alligator clips (E01)	Alligator clips for tab electrodes
Wide tab (E02)	Flat adaptor for tab electrodes reduces twisting (AAMI only)
Welsh bulbs (E04)	Six Welsh bulbs and four limb clamps
Snap/Tab adaptor (E06)	Fits both snap and tab electrodes with metal on both sides

Printer

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

LAN (H10)	10/100 Base-TX IEEE 802.3 ethernet via on-board RJ45
Modem (H11)	V.90, K56flex, enhanced V.34, V.32bis, V.32, V.22bis, and below
Fax (H11)	Group 3, Class 1 or 2 fax modem protocol
Wireless (D21)	802.11(b/g), 802.11(i), WPA, WPA2
Wireless (D22)	802.11(a/b/g), 802.11(i), WPA, WPA2
Wireless credential (D21, D22)	Cisco compatible CCX v4
FIPS certificate	FIPS 140-2 validated
Internal storage (D06)	200 ECGs
External storage (D06)	200 ECGs with optional USB device



Technical specifications

Automated data input

Bar code reader (H12)	<ul style="list-style-type: none"> • Reads Code 39 Symbology • Flexible field data entry
Smart "IC" card reader (H14)	<ul style="list-style-type: none"> • ISO 7816 and EMV 3.1.1 • Supports SLE 4418/28 and SLE 4443/42

Pre-processing filters

AC noise	50 or 60Hz
Signal processing	Artifact Rejection and Baseline Wander

Presentation filters – 10 sec reports

High pass	0.05, 0.15, and 0.5Hz
Low pass	40, 100, and 150Hz

Presentation filters – rhythm

High pass	0.05 and 0.15Hz
Low pass	40, 100, and 150Hz

Electrical

Battery	Lithium ion
Second Battery (H15)	Long-life operation
Battery capacity (per battery)	<ul style="list-style-type: none"> • Typically 30 ECGs on a single charge or 30 minutes of continuous rhythm recording • No fail operation during ECG printing
Battery recharge	Four hours per battery to full capacity
Main power	100-240VAC, 50/60Hz
Power consumption	60W max

Mechanical

Dimensions	31 x 40 x 21cm (12 x 16 x 8in)
Weight	8.6kg (19lb) includes battery, patient module, lead wires, clips, electrode pack, and paper pack

Environmental

Operating conditions	<ul style="list-style-type: none"> • 10° to 40°C (50°F to 104°F) • 10% to 90% relative humidity (non-condensing) • Up to 4,200m (14,000ft) altitude
Storage conditions	<ul style="list-style-type: none"> • -20°C to 50°C (-4°F to 122°F) • 10% to 90% relative humidity (non-condensing) • Up to 4,274m (14,000ft) altitude

Safety and performance

International standards and regulations	<ul style="list-style-type: none"> • General Requirement for Safety IEC 60601-1: 1988 +A1:1991 +A2:1995 • Particular Requirement for Safety of Electrocardiographs IEC 60601-2-25: 1993 + A1:1999 • Particular Requirements for Safety IEC 60601-2-51: 2003 • US General Requirements for Safety UL 2601-1: 2003 1997 • Diagnostic Electrocardiographic Devices AAMI EC11 1991 (R: 2001) • CAN/CSA-C22.2 No. 601.1-M90 S1:1994 B:1996 • Electromagnetic compatibility IEC 60601-1-2 second edition 2001
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Please visit www.philips.com/cardiograph



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www.philips.com/healthcare
healthcare@philips.com

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