PageWriter
Технические характеристики

Intuitive and efficient

As a world leader in cardiology, we make it our goal to simplify cardiac care so that you can deliver the best treatment for your patients. That is why we created the PageWriter TC35.

Advanced, yet easy to use, the PageWriter TC35 offers speed of operation in an attractive and affordable solution that can grow with you as your needs evolve.

Expect fast, efficient clinical workflow, combined with reliable operation for you and your patients.

Advanced, yet easy to use
The PageWriter TC35 cardiograph is designed for use in the demanding hospital environment as well as clinic practice settings. The easy 1-2-3 operation, touchscreen display, and additional tools facilitate quality ECG reports.

- Easy-to-use 1-2-3 touchscreen operation is fast and intuitive
- Clinical Decision Support with the world-class Philips DXL ECG Algorithm
- Scalability to meet your needs now and in the future
- Integrated into a rugged, compact trolley for easy mobility and storage

- WLAN WiFi 5 speed (802.11 b/a/g/n/ac)
- WLAN security: WPA3 (Personal)/WPA2 (Enterprise)
- Detect pace pulse as small as 0.02 mVms
- Runs on battery for 13.9 hours
- 300 Hz low-pass filter for pediatrics
- Native DICOM for download for DICOM Modality Worklists support
- Retrieve previous ECG automatically at bedside
- Export DICOM ECGs to existing PACs, EMR and VNA systems

The result — a fast, efficient and advanced clinical workflow with reliable operation for you and your patients.
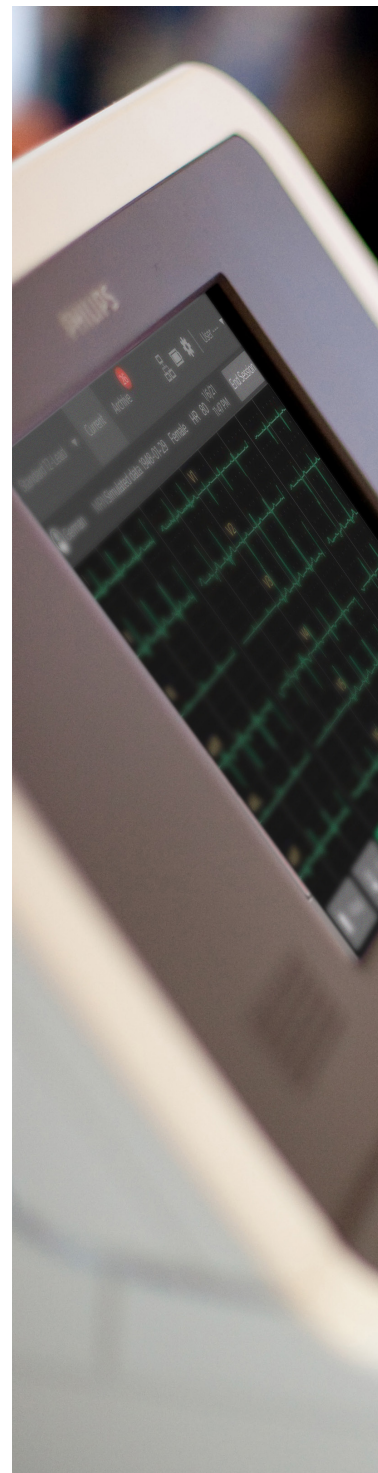
Simple Placement
The compact leadset's simple, streamlined design enables ECG quality to be maintained even in the face of staff turnover.

Rugged and Economic
Seamless design of the compact leadset means fewer equipment connections for staff to check and manage. Streamlined design enables economic replacement in high-volume environments.
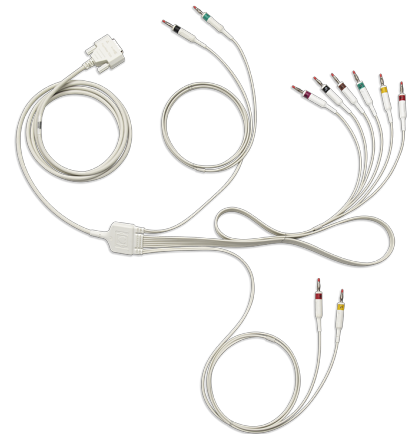
It is as easy as 1-2-3
User-friendly illuminated buttons speed workflow

Connect Leads
Waveforms are color-coded to indicate signal quality.

Enter ID
The ID button enables entry of demographic information. Reduce the risk of errors by automating entry with the barcode scanner, or with Intellispace ECG, EMR, or PACS interfaces.

Take ECG
Acquire, analyze, print and export data with a single button. This standardizes your workflow, so that each ECG is captured and screened, and delivers critical, time-sensitive results to clinicians.

Advanced tools at your fingertips

The PageWriter TC35 provides advanced tools to enhance workflow and support clinical decisions. All PageWriter TC cardiographs include the clinical excellence of the DXL ECG Algorithm which is built upon over 55 years of research and experience, and provides continuity and consistency in ECG reading and diagnosis through all PageWriter cardiographs, the IntelliSpace ECG management system, and other Philips solutions throughout the healthcare enterprise.

Never miss a beat

With Disclosure, review up to five minutes of 12-lead ECG data. Mark events, select pre- and post-event ECGs for analysis, or choose the best traces for use in the ECG report. All at a touch.

Extended View

Previous events, captured more than 5 minutes in the past, are saved and can be reviewed and printed as 12-lead ECGs.

IntelliSpace ECG Management System

Get Orders

PageWriter TC35 Cardiograph

Synchronize time

Auto set the PageWriter time with your institution's time master to help ensure accurate documentation of your patient's clinical history.
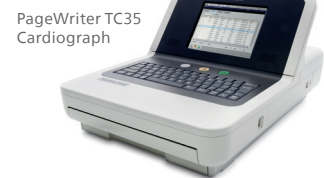
Download orders

Import ECG orders with comprehensive patient information from IntelliSpace ECG, PACS, or EMR, via HL7 or DICOM.

WiFi 5 speed and WPA3 security

Support for open communication protocols 802.11 (b/a/g/n/ac).

Access ECGs anytime

Ever need a physician to read an ECG 10 minutes after they have left the hospital, or when they are 50 miles away? With the PageWriter TC35 and IntelliSpace ECG, your clinicians can access ECGs from virtually anywhere via the web-based ECG Anywhere app. Viewing, confirming, consulting - on your schedule.

Instant access

Easily acquire or enter patient demographic information by barcode scanning, keyboard entry, worklist download or patient search.
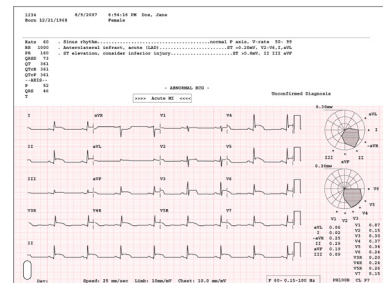
One-touch workflow

The PageWriter TC35 can be configured to automatically save, export, or print ECG reports – with a touch of a button.

Clarity when it matters most

Clinical decision support means the right information at the right time presented with clarity to help guide the most productive course of action. The Philips DXL ECG Algorithm provides industry-leading ECG interpretations, particularly with respect to advanced STEMI decision support tools, pediatric analysis, QT measurements, and pacemaker pulse detection to help guide the treatment of patients with chest pain.

```
1234            8/9/2007    6:54:16 PM  Doe, Jane
Born 12/21/1968             Female

Rate   60   . Sinus rhythm.......................................normal P axis, V-rate  50- 99
RR   1000   . Anterolateral infract, acute (LAD)......................ST >0.20mV, V2-V6,I,aVL
PR    160   . ST elevation, consider inferior injury......................ST >0.8mV, II III aVF
QRSD   73
QT    361
QTcB  361
QTcF  361
--AXIS--
P      52                        - ABNORMAL ECG -
QRS    46                                                        Unconfirmed Diagnosis
T              >>>>  Acute MI  <<<<
```
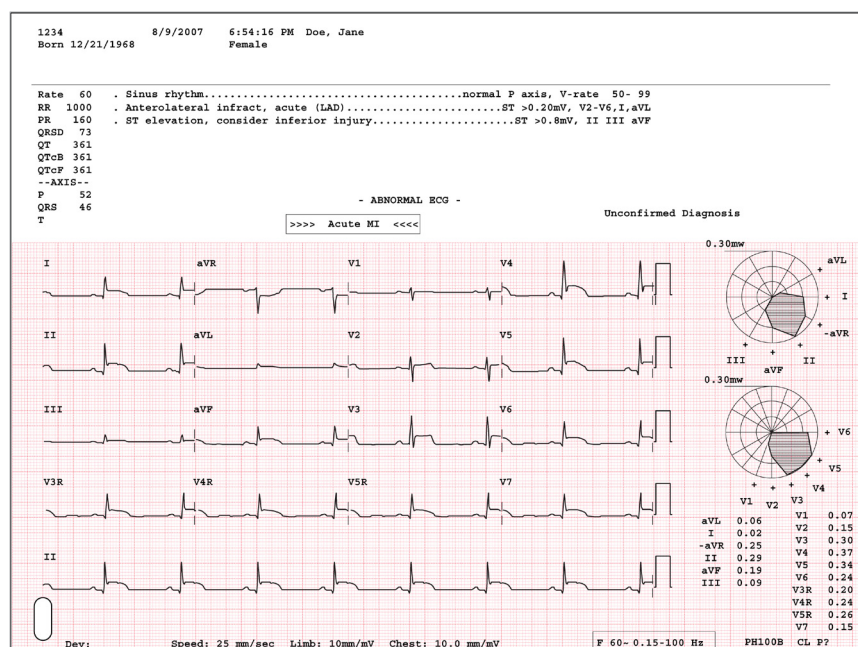
Reveal more
The world-class Philips DXL ECG Algorithm goes beyond traditional 12-lead interpretations to provide STEMI decision support tools and other incremental diagnostic capabilities.

Gender and age criteria
Criteria differentiated based upon gender and age, helping interpret symptoms for specific patients.

Critical Values
Quickly identify patients that need urgent care in support of Joint Commission patient safety goals.

STEMI-CA
Culprit artery criteria provide an indication of which artery may be occluded to help you manage your clinical treatment.

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

Check and confirm quality
Preview ECG waveforms and interpretation on the touchscreen to check for signal quality before printing.

Be sure
Patented LeadCheck software tests for 20 different lead reversals to help you be sure of capturing a diagnostic-quality ECG.

Up-to-date statements
Enhance consistency of care with terminology that conforms to ACC/AHA recommendations.

Possible lead reversal, check V2 and V3.
Was lead placement correct?

No   Yes

Stay connected
The PageWriter TC35 fits seamlessly into your existing IT infrastructure, and supports WiFi 5 802.11 b/a/g/n/ac. So you are always connected – without being locked in.

Lock it down
Built into the PageWriter TC35 is a comprehensive set of security tools, including secure and encrypted wireless WPA3 (Personal) communication, data encryption at rest, and support for user identification via Active Directory.

PageWriter TC35 benefits

Cardiology Department Manager
• 1-2-3 buttons light in sequence to guide the user
• User aids support high-quality ECG reports
• High-performance that is cost-effective

Emergency Department Manager
• Quickly and easily see ST elevation
• ECGs needing immediate attention highlighted
• Robust member of the proven PageWriter TC series
• 13.9 hours of normal operational cycles on a single charge

Cardiologist
• Industry-leading Philips DXL ECG Algorithm
• Provides a trusted second opinion
• Advanced STEMI and NSTEMI diagnostic aids
• Pace pulse detection as small as 0.02 mVms
• 300 Hz low-pass filter for pediatrics is standard

Technician and Nurse
• Touchscreen operation is fast and intuitive
• Five minutes of patient ECG history are available for review and creation of ECG reports

IT Administrator
• ECG report export in XML, PDF, or DICOM format
• Advanced WiFi 5 wireless capabilities – 802.11 (b/a/g/n/ac), WPA3 (Personal), WPA2 (Enterprise)
• Advanced security provisions
• Extensive interoperability options

PageWriter TC35 Cardiograph (860437)

Features

ECG functions

Simultaneous lead acquisition	12 leads
ECG reports	3×4, 3×4 1R, 3×4 3R, 3×4 1R plus ST maps, 6×2, 12×1 Standard and Cabrera formats, plus Pan 12 Cabrera
Standard measurements	• Ten interval, duration, and axis measurements • Configurable QT correction method
Rhythm strips	Up to 12 configurable leads
Disclosure (D05)	• Five-minute history of all 12 leads • Complete ECG report of any selected 10 seconds
Event marking (D05)	• Six independent events can be marked for later review and analysis • Event markers appear on ECG reports • Note can be added for each event
Timed ECG	Support for pharma stress protocols
Report storage and transfer	Full fidelity at 1000Hz of 10 seconds for all 12 leads
Data format	PDF, Philips XML, DICOM General ECG/DICOM 12-Lead ECG/DICOM Encapsulated PDF formats
Pace Pulse Detection	0.02 mVms (e.g., 0.2 mV*0.1ms pulse or 0.1mV*0.2ms pulse)

DXL ECG Algorithm (D03)

Interpretive statements	• >600 interpretive statements • Integrated pediatric analysis
Borderline statement suppression	Three configurable settings
Extended measurements	• 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	• Two ECG reports with polar ST Maps • Frontal and transverse planes
Age and gender criteria (D03)	Based upon Fourth Universal Definition of Myocardial Infarction, 2018[1]
STEMI-CA (Culprit Artery) (D03)	• Criteria that suggest any of four probable sites of the occluded coronary artery • Based upon 2009 AHA/ACCF/HRS Recommendations, Part VI[2]
Critical Values (D03)	Highlights four conditions requiring immediate clinical attention

QRS Correction

QTc Measurements	Bazett Fridericia Hodges Framingham
Wide QRS Correction	Rauthaharju

Advanced bi-directional network communications[3]

Central time management	Time can be manually or automatically synchronized to a Network Time Server
Orders worklist (D01)	• Download of orders worklist from networked server • User-configurable drop down lists (e.g., by location) • 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 IntelliBridge Enterprise and select departmental systems • Supported by HL7 interface via IntelliBridge Enterprise • Supported by DICOM Modality Worklist
ADT (D02)	• 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
DICOM ECG result output (D08)	• Create DICOM 12-lead ECG • Create DICOM General ECG • DICOM Encapsulated PDF

Privacy and Security

User authentication	via AD/LDAP
Data encryption at rest	SHA-256 and AES-128
Network access initiated only by PageWriter	
Network communications	TLS 1.2 or greater
Security configuration capabilities behind customer-defined password	• USB port access (on/off) • HTTP vs. HTTPS • Encryption at rest (on/off) • Delete archived ECG after transfer (on/off) • User Authentication (on/off) • Consistent security approach across PageWriter TC series – TC70, TC50, TC35, TC30, TC20, TC10 • Device Management Dashboard available to manage configurations and software revisions centrally

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 and export

User training and self help

Training mode	Integrated waveform simulation

User interface

Touchscreen	• 1-2-3 operation • Context-sensitive application • Five-wire, resistive touchscreen
Keyboard	• 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

Technical Specifications

Display

Size	6.5in TFT active matrix
Resolution	640 × 480 VGA
Colors	64K colors
Screen adjustability	18 degrees tilt

Patient connections

Integrated lead set	• Defib-protected ECG acquisition provides 1µV 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 cardiograph and the patient connections

End connectors (adaptors)

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

Connectivity

LAN	10/100 Base-TX IEEE 802.3 ethernet via on-board RJ45
Wireless (D24)	802.11 b/a/g/n/ac (WiFi 5)
Wireless credential (D24)	WPA3 (Personal) WPA2 (Enterprise)
FIPS	Communication supported by FIPS 140-2 certified encryption algorithm
Archive / Internal storage (D06)	200 ECGs
External storage (D06)	200 ECGs with optional USB device

Automated data input

1D Bar code reader (H12)	• Reads Code 39 Symbology • Flexible field data entry
2D Barcode reader (H17)	• High scan speed • Motion tolerance • Curved surfaces

Configurable filters

AC noise	50 or 60Hz
Signal processing	Artifact rejection and baseline wander

Presentation filters – 10 sec reports

High pass	0.02, 0.05, and 0.15Hz
Low pass	40, 100, 150 and 300Hz

Presentation filters – rhythm

High pass	0.02, 0.05 and 0.15Hz
Low pass	40, 100, 150 and 300Hz

Electrical

Battery	Lithium ion
Battery capacity[4]	• 10 hours of continuous operation without printing, or • 13.9 hours of normal operational cycles (7 minutes run, 1-page print, 8 minutes standby), or • 55 ECGs produced during normal operational cycles, or • 3 hours of continuous rhythm printing
Battery recharge	Four hours to full capacity
Main power	100-240VAC, 50/60Hz
Power consumption	60W max

Technical Specifications

Battery Management Statistics

Statistics	
• Current status • Voltage • Expected max error (%) of charge calculation • Predicted capacity when fully charged • Remaining capacity in mAh • Current charge and state of health %	• Charge current: value while charging • Discharge current: value while discharging • Cycle count: number of full charge and discharge cycles • Temperature • Battery unique ID, supplier information, device name, DOM, and SN

Mechanical

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

Cleaning and disinfecting

Approved solutions	
• Mild soap and water • Isopropyl alcohol (consisting of 70% solution) • Chlorine bleach (5.25% solution hypochlorite content) mixed as 3% solution in water • Quaternary ammonium compounds such as Steris Coverage Plus NPD, 0.5 fluid oz/1 gallon water	• Diethylene glycol butyl ether (5-10% by weight) • Ethanol (ethyl alcohol) 70% (v/v) • Metrex CaviWipes® Disinfectant • Phenol 2% (v/v) • Gama Healthcare Clinell® Universal Range Disinfectant

Environmental

Operating conditions	• 10° to 40°C (50°F to 104°F) • 10% to 90% relative humidity (non-condensing) • Up to 3,048 m (10,000 ft) altitude
Storage conditions	-20°C to 50°C (-4°F to 122°F) 10% to 90% relative humidity (non-condensing) Up to 4,572 m (15,000 ft) altitude

Safety and performance

International standards and regulations	• General Requirement for Safety IEC 60601-1: 2005+A1:2012 • Particular Requirement for Safety of Electrocardiographs IEC 60601-2-25 2011 Edition 2.0 • Electromagnetic Compatibility IEC60601-1-2 2014

See the big picture and stay ahead of the game

Easy access to your whole cardiograph fleet

Hospital biomedical and IT professionals have a lot to manage – the Philips Device Management Dashboard can help. By providing visibility into your Philips Pagewriter TC cardiographs from a single location, you can troubleshoot issues and verify operating status quickly and efficiently.

The Device Management Dashboard allows you to centralize software updates and save configurations, run routine maintenance, assess current network connectivity and verify state-of-health. The Device Management Dashboard's web-based status overview allows devices to be sorted by location or care area to easily access a subset of connected devices. What's more, the data can be reviewed from your office or a properly configured PC, laptop, tablet or smartphone.

See your clinical devices in a new light with the customer-installable Device Management Dashboard.

Key advantages

- Centralized cardiograph management that enables remote software upgrades and configuration backup
- Web-based application provides overview of multiple device state-of-health conditions
- E-mail notifications when device errors occur allow for targeted response to support your institutions' uptime goals
- Remote diagnosis of technical issues for targeted resource deployment

Knowledge is power

The Device Management Dashboard allows the technical team to receive real-time notifications of error conditions, confirm latest device network access points, and prioritize device intervention for maximum cardiograph uptime. Additionally, you and your team can diagnose cardiograph state-of-health, verify and save device configurations, and push out software upgrades – all from a central location.

Remote management and diagnostics
- Easily keep your cardiographs on the latest software revision; the Device Management Dashboard supports centralized software upgrades to all applicable devices. You can even set up software updates on a schedule to reduce clinical interruptions.
- Consistent clinical workflows support patient care. Back up the cardiograph configurations for your key clinical areas to quickly respond when a device needs to be brought back online.
- Remote visibility into battery and AC status helps schedule service for maximum efficiency with minimal interruptions.

Remote maintenance
- Your team's time is valuable. Get right to the important issues with cardiograph service representatives via error log visibility and data download.
- Keep your cardiograph security up to date with the latest software upgrades; these can be delivered individually or in a batch, within a care unit or across a distributed enterprise.
- Individual or multi-device view provides customized access when you need to identify and resolve issues and minimize interruptions during clinical use.

Network consistency
- On-site hosting of the web-based Dashboard application offers convenient diagnostics.
- Local hosting supports near-real-time device information.
- Device Management Dashboard supports multiple users simultaneously, helping to speed problem diagnosis and resolution.

Not all products are available in all geographies, please check with your Philips representative for complete portfolio availability.

TC20

TC30

TC50

TC70

Optional Philips Monitor support
• In addition to Philips PageWriter TC Cardiographs, Device Management Dashboard also supports Philips SureSigns, Efficia and EarlyVue monitors (refer to specifications for specific cardiograph and monitor models).

SureSigns VS4

EarlyVue VS30

Supported devices and associated software versions

Device	Compatible software version
PageWriter TC20/TC30/TC50/TC70	A.07.07 or higher
SureSigns VS3/VS4	5.0 or higher
Efficia CM10/CM12 Efficia CM100/CM120/CM150	All versions
EarlyVue VS30	All versions

Please note, in addition to the correct software version, devices need to have the appropriate wired or wireless LAN hardware options.

Recommended hardware specification

The following tables list minimum requirements for the server hardware. Application and database servers can be located on the same or different hardware/virtual machine. Database server uses SQL server.

Dashboard application and database server requirements

Component	Requirement
Processor	Intel processor-based desktop or server PC, CPU at least 3.1 GHz or faster, 6M cache, 4 cores/4 threads (x64 processor)
Memory	4 GB DRAM or greater
Available hard disk space	72 GB or greater

Reommended available disk space for database

863381 Option	A05	A10	A20	A50	B10	B20	B50
License #	50	100	200	500	1000	2000	5000
Disk space	5GB	10GB	20GB	50GB	100GB	200GB	500GB

Display and peripherals	• LCD (1280x1024) or higher resolution monitor • USB port	• NIC card • Keyboard • Mouse or compatible pointing device

Software requirements

Operating system	Microsoft Windows Server 2019 / 2016 / 2014 / 2012 R2, Standard Edition and higher
SQL Server	SQL Server 2019 / 2016 / 2014 / 2012 R2, Standard Edition and higher

Product configurations

863381	Device Management Dashboard for Cardiographs and Vital Signs Monitors
A05	Dashboard for cardiographs and monitors; 50 licenses
A10	Dashboard for cardiographs and monitors; 100 licenses
A20	Dashboard for cardiographs and monitors; 200 licenses
A50	Dashboard for cardiographs and monitors; 500 licenses
B10	Dashboard for cardiographs and monitors; 1000 licenses
B20	Dashboard for cardiographs and monitors; 2000 licenses
B50	Dashboard for cardiographs and monitors; 5000 licenses

Product configurations

863315	Device Management Dashboard for Vital Signs Monitors only
A05	Dashboard for Vital Signs monitors; 50 licenses
A20	Dashboard for Vital Signs monitors; 200 licenses
A50	Dashboard for Vital Signs monitors; 500 licenses
A40	Dashboard for Vital Signs monitors; 5000 licenses

A single Dashboard server can import a maximum of 1000 licenses.

You can set up multiple Dashboard servers at your site.

Stress testing solutions that continue to advance

Fueled by the workflow needs of clinicians, the Philips ST80i Stress Test System keeps pace with your growing productivity and patient care needs.

The ST80i Stress Test System features a wireless patient experience for comfort and improved mobility. The advanced decision-support tools create a comprehensive picture of patient data with customizable views and an intuitive user interface to enhance workflow efficiency. Multiple interoperability options, including DICOM and HL7, enhance data review flexibility. The result is a powerful clinical tool designed to present stress-testing data that can support clinical decision-making and productivity across the enterprise.

Complete CPET in a single workstation

The ST80i Stress Test System now includes integration with the Ultima Series cardiorespiratory diagnostic systems from MGC Diagnostics. This integration puts control of the stress test and cardiopulmonary exercise test (CPET) in a single workstation for simplified control that keeps the focus on the patient. Expand the value of the ST80i beyond stress exercise testing to more comprehensive CPET protocols.

Untether the
patient experience

Wireless Patient Interface Module (PIM) eliminates unwieldy cables and facilitates patient transition between locations when exercise stress is combined with imaging modalities.

The ST80i has a compact wireless patient module that sets it apart from traditional stress-testing systems. The wireless module reduces the hazard of tripping over wires and enhances patient comfort and movement.

Wireless design can decrease the likelihood of motion interference, while still transmitting a clear, high-quality signal.

Wireless PIM
with a lead set

A smart solution

Large touchscreen monitor with clear data view

Optional work surface light

Philips thermal printer and recorder, integrated into workstation

Sleek wire and cable management

Intuitive user interface is easy to use and learn

Large writing surface for clinical documentation

Wireless keyboard, wireless mouse*

Accessory drawer and optional hooks keep work area organized

Integrated isolation transformer

Key clinical and workflow advantages

- **Facilitates** clinical workflow with wireless PIM
- **Provides** advanced clinical decision support tools to assist with clinical evaluation
- **Offers** full disclosure review of ECG for entire exam with option to add events
- **Supports** electronic signature and remote access for review and test confirmation outside the stress lab
- **Combines** 12-lead resting ECG module with stress exam in a single device to provide flexible adaptation to varying clinical and workflow needs

- **Integrates** stress and metabolic testing in a single workstation for a streamlined CPET workflow
- **Allows** HIS connectivity to import orders and ADT information to speed workflow
- **Provides** native bidirectional DICOM connectivity to expand interoperability with hospital information system
- **Offers** an enterprise solution that interfaces with IntelliSpace ECG management system to support workflow of cardiographs, stress and Holter monitor
- **Exports** final reports to PACS, CVIS or EMR

* PC, keyboard and mouse are customer-supplied in countries outside of North America.

Analytical tools
to support your patient care decisions

The ST80i features tools to help clinicians analyze stress ECG information.

Proprietary analysis algorithms
- CAlg–Str algorithm is designed specifically for stress testing. It delivers waveform analysis across multiple leads to uncover and classify potential arrhythmias and analyze for ST segment deviations and slope changes.
- DXL Algorithm* uses sophisticated analytical methods for interpreting the resting ECG, the same algorithm used in Philips PageWriter TC cardiographs.

Comprehensive ST segment and morphology analysis displayed in an anatomically intelligent format
- ST maps provide visual anatomical representation of ST deviations in frontal and horizontal planes.
- Multiple tools help you quickly identify ST changes: auto-comparison of current and reference beats, 12-lead average complexes and dynamic zoomed ST display.
- Clearly see arrhythmias with dominant rhythm change notifications.
- Access comprehensive and customizable reports with prognostic indicators (such as Duke Score and FAI).
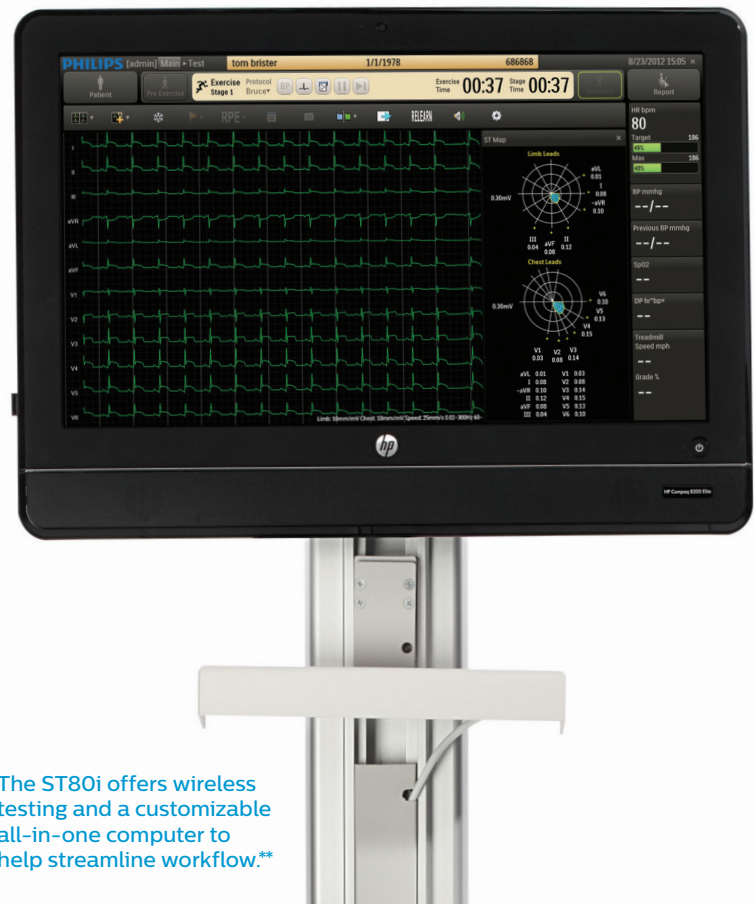
The ST80i offers wireless testing and a customizable all-in-one computer to help streamline workflow.**

Resting ECG workflow

The option to include a dedicated resting ECG capability within the ST80i can help improve workflow efficiency when a resting ECG is ordered in addition to the stress test by minimizing patient transfer time and supporting coordination of final reports.

The familiar resting ECG workflow is similar to that of other Philips ECG solutions and uses the same clinical decision support tool backed by the proven DXL Algorithm for confident diagnoses.
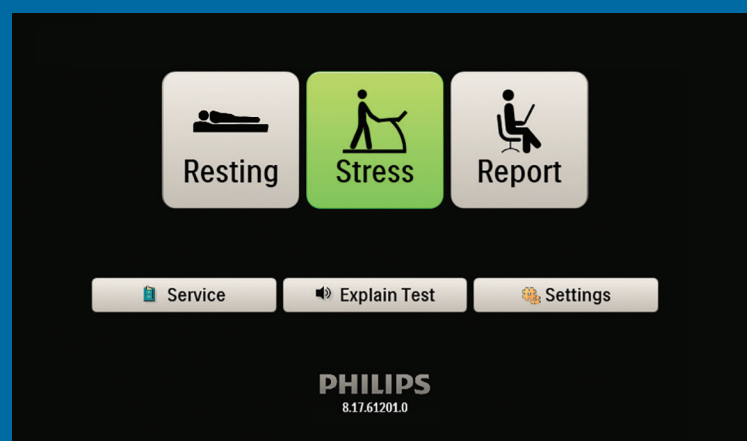
The ST80i combines 12-lead resting ECG and stress-testing modules in a single device to support productivity and efficiency.

* DXL Algorithm can provide ECG analysis for a standard resting ECG using standard chest and limb leads. Other configurations are not supported.

Flexible interoperability

Managing patient information from start to finish, the ST80i turns stress ECG data into actionable insights, using bidirectional network connectivity to collect and distribute data throughout the enterprise.

Import options
- Download ATD and orders via HL7 from your EMR, CVIS or PACS (with IntelliBridge option)
- Download patient demographics from DMWL

Export options
- Final patient reports in PDF format to ECG information systems
- Encapsulated PDF or DICOM-enhanced structured report to PACS
- XML export of full stress study along with patient data and test procedure results

Additional DICOM support
- Native DICOM data set
- DICOM MPPS (Modality Performed Procedure Step) and DICOM Storage commitment transaction to DICOM PACS and RIS

Integration
- Philips IntelliSpace ECG (ISECG) and IntelliSpace Cardiovascular (ISCV)
- Philips IntelliBridge Enterprise
- MGC Ultima CPET system

Stress enterprise solution

Leverage the convenience of IntelliSpace ECG to centrally store stress report and study data, edit the stress report and manage custom workflow with the fully integrated stress enterprise solution.

Quickly access a patient's stress study and procedure history for efficient clinical decision support. This powerful architecture is designed to support workflow flexibility and to enhance patient care decisions because all of the patient's studies and procedure data are accessible from a single place. Edit and confirm the stress report by invoking the full functional stress report editor from within ISECG, enterprise-wide.

Configurable enterprise network

ST80i

Manual entry
- Local patient setup
- Worklist patient setup

Network share drive
- Stress study
- Stress study
- Stress report PDF

Review workstations or Stress Enterprise Solution
- Stress study
- Stress report PDF

Stress report (PDF/XML or DICOM)
MPPS or storage
MWL

DICOM RIS and PACS

- Previous stress report PDF
- Stress report PDF
- Stress study

IntelliSpace ECG management system
- Previous stress report PDF
- Stress report PDF

- Stress report PDF
- ADT or orders worklist
- Stress report PDF
- ADT or orders worklist

HIS
- HL7 ORM or ADT messages (orders, patient demographics)
- DMWL (DICOM modality worklist)
- HL7 DFT messages (financial or billing)

IntelliBridge Enterprise

- HL7 ORU messages (results)

EMR or EHR

This diagram represents a possible configuration of the network. Our flexible solutions allow you to configure your network to meet your needs.

ST80i Stress Test System specifications

Display (not available in all markets)

All-in-one computer with 24 in. HD (1920 x 1080) touchscreen or customer-provided display and Windows PC

Accepts 19 in to 24 in display with 1920 x 1080 resolution

Wireless Patient Interface Module (PIM)

Dimensions: 9.0 cm x 8.6 cm x 2.2 cm

Wireless data transmission to AIM: 2.4 GHz, O-QPSK, 6 dBm max transmission power (802.15.4 ISM band)

On-device display of:
• Lead map with lead connection status LEDs
• Battery level indicator with power status
• Signal strength indicator (only during an exam)

Run time: Up to 900 min on single AA battery
(30 min/test x 6 tests/day x 5 days)

Power-save mode (after 3-15 min inactivity - configurable)

On-off button for power-down when not in use

Advanced Interface Module (AIM)

Wireless receiver for PIMs

Can support multiple PIMs to support workflow

Output for echo and NBP sync: 2x analog, 1x TTL

Applications

Navigation bar with elapsed time, test phase and protocol to support workflow

Philips CAIg Stress Algorithm
• HR calculation
• Beat detection, representative beat, beat classification
• Real-time comparison of ST segment changes
• Arrhythmia notifications

DXL Algorithm
• Used with 12-lead resting ECG option
• Same as PageWriter TC cardiographs

User configurable parameters
• Pre-programmed standard exercise protocols
• Create, store and edit up to 100 protocols
• Three default user profiles (with different functions); administrator, clinician, technician
• Create up to 100 user profiles with specific user names and passwords
• Default event labels with ability to add new event labels
• User name and password (including Windows and/or domain user name and password)

Direct control of connected exercise devices (treadmill, ergometer)

Monitor patient during recovery phase

Store and review up to one hour of full disclosure waveform data

Replay exam

Review, edit and electronically sign on stress system, Remote Review station or IntelliSpace ECG with Stress Enterprise Solution

Export reports in PDF, XML, PDR, DICOM

Security

Configurable security mode; boot system directly into ST80i application

De-identify feature supports confidentiality by eliminating PHI from study report

Supports user's Windows and/or domain user name and password if desired to leverage institution's internal security structure

Supports external authentication via MS Active Directory

Supports SSL

Interoperability

Flexibility to integrate data and reports into EMR, PACS and CVIS systems

File export: PDF, XML, PDR (HL7 when used with IntelliBridge Enterprise)

DICOM (native)
• DICOM Modality Worklist
• Enhanced Structured Report
• DICOM Encapsulated PDF
• DICOM Conformance Statement available

Integrated workflow with Philips Diagnostic Cardiology Workspace

IntelliBridge Enterprise Interoperability
• Patient demographics acquisition and updates from ADT and orders via HL7 from HIS

IntelliSpace ECG
• View, edit, update, electronically sign, export and store ST80i stress exam at enterprise level
With IntelliBridge Enterprise
• Patient demographic integration with HIS
• Study level results export with optional encapsulated PDF (ORU) to HIS

IntelliSpace Cardiovascular
• Review full stress report via PDF and ECG Anywhere application
• IntelliBridge Enterprise solution
  - Patient demographic integration with HIS
  - Study level results export with optional encapsulated PDF (ORU) to HIS

Supported peripherals

Treadmills
• Trackmaster TMX428 series treadmills
  - 110 V (0.1 to 12 mph; 0.16 to 19 km/h) or 220 V (0.1 to 12 mph; 0.16 to 19 km/h)
  - Elevation: 0 to 25%
  - Footprint: 200 cm (78.5 in) x 84 cm (33 in)
  - Maximum patient capacity: 227 kg (500 lb)
  - Available from Philips (North American market only)
• Lode Katana, Valiant 2, and Lode OEM treadmills; verify model number and date code with Lode
• Other supported treadmills
  - Cardiac Science TM55
  - GE T2100
  - H/P/Cosmos treadmill
  - Trackmaster TMX425

Supported peripherals (continued)

Ergometers
• Ergoline Ergoselect
• Lode Corival

Virtual device support for non-interfaced treadmills and ergometers

MGC Diagnostics Ultima™ Series metabolic testing system

SunTech Tango+ and Tango M2 NBP/SpO$_2$ monitors

Trolley

Features
• Mounting for all-in-one PC or customer-supplied wall-mountable display using VESA adapter
• Integrated isolation transformer
• Wire storage tray
• Wire accessory basket
• Cable hook
• Paper tray
• Large writing surface
• Storage drawer
• Cabling with covered cable management
• 4 x locking casters

Options
• LED surface light
• Mounting arm for NIBP device
• Shelf for laser printer or customer-supplied PC
• Cable hooks
• Wire accessory basket

Specifications
• 76 cm (30 in) x 66 cm (26 in) x 183 cm (72 in)
• 67 kg (148 lb)
• 10 kg (22 lb) capacity

Technical requirements

Workstation operating system
• Windows 10 (standard, recommended) 32-bit and 64-bit

Workstation hardware
• RAM: 8GB
• Hard drive: 160 GB
• LAN for in-hospital networking
• 2 x RS232 ports (RS232-to-USB adapters available)
• Minimum 5 x USB ports

Keyboard and mouse

Display
• 19 in to 24 in display with 1920 x 1080 resolution

Printers and recorders
• Optional thermal printer
• Customer-supplied laser or network printer

Leads
• 10-lead wire, single connector lead set
• AAMI or IEC color coding
• Snap or grabber connector
• Length: 1050 mm (41 in)

Filters
• AC: 50 or 60 Hz
• High pass: 0.02, 0.05, 0.15 Hz
• Low pass: 40, 100, 150, 300 Hz
• Baseline wander and artifact filters
• ECG data stored unfiltered: 0.02 - 300 Hz

Power supply
• Isolation transformer input voltage per local requirements, included with trolley
• 120 V or 240 V
• Output power ratings of 600 VA
• Minimum four output receptacles

Available product configurations

860343 Option A01 ST80i Stress Test System, including AIO PC, thermal printer, trolley, wireless PIM, AIM, software, leadset, IFU

860343 Option A02 ST80i Stress Test System, including trolley, wireless PIM, AIM, software, leadset, IFU

860343 Option A03 ST80i Stress Test System, including wireless PIM, AIM, software, leadset, IFU

860344	ST80i Stress Test System trolley
860351	ST80i Stress Test System upgrade

Optional accessories

Part number	Description
989803196121*	Trackmaster treadmill TMX428 220 V
989803195861*	Trackmaster treadmill TMX428 110 V
989803197451	Tango M2 BP monitor
989803197221	Tango M2 SpO$_2$ adult finger kit with cable
H02	Additional wireless PIM, includes PIM holder and patient belt
989803180121	12-lead Complete Lead Set (AAMI), standard length, grabber, 1.05 m
989803180131	12-lead Complete Lead Set (IEC), standard length, grabber, 1.05 m
989803180141	12-lead Complete Lead Set (AAMI), standard length, snaps, 1.05 m
989803180151	12-lead complete lead set (IEC), standard length, snaps, 1.05 m
40420A	High-tack foam wet gel ECG electrode
40493D/E	Foam wet gel ECG electrode
M2202A	Adult radio translucent foam electrode
M1708A	Paper - English no header
M1710A	Paper - Metric no header
M2481A	Thermal paper with header, 8.5 x 11 in
M2483A	Thermal paper with header, A4
M2485A	Anti-fade paper with header, 8.5 x 11 in

Not available in all markets

По вопросам продаж и поддержки обращайтесь:

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Ангарск (3955)60-70-56
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Россия +7(495)268-04-70   Киргизия +996(312)-96-26-47   Казахстан +7(7172)727-132

pih@nt-rt.ru || https://philipsmed.nt-rt.ru/