The **QUINTON**® Q-STRESS®

The gold standard in cardiac stress testing systems

Primary Users

Hospitals, cardiology clinics, and physician practices

Primary Benefits

Ease of use. The system's Microsoft® platforms (Vista® or XP®), left-to-right flow, and intuitive controls guide users through the procedure.

Connectivity. Q-Stress connects with virtually everything needed for enhanced workflow. It's compatible with XML protocols, your HIS/EMR, email, printer, network storage, nuclear camera, and echo system.

Customizable. You decide how you want your patient data presented. Create custom reports based on physician's preference.

Accuracy. Tracings are accurate and clear, with clean waveforms even at high speeds and steep grades.

Instant replay. The Freeze Frame option allows you to "rewind" and view any section of any lead during the test.

Full disclosure. With the full disclosure option, you can save the entire test as a PDF and store it to your electronic records repository.

Easy analysis. Built-in analysis tools allow modifications for new patient data or for physiologic changes – resting data remains constant for comparison.

Easy reporting. QuikLists enable fast, efficient preparation of your reports.

CARDIAC science™

From the inventors of the modern cardiac stress test

Q-Stress, now in its ninth generation, is designed to provide superior clinical data while meeting your procedural needs.

+ Start by importing your patients' demographics. It will streamline your work, eliminate unnecessary keying, and minimize documentation errors and mishandled billing.
+ Run our proprietary algorithm, baseline wander, and motion artifact filters for better ECG tracings with less noise.
+ Display 3-, 6-, or 12-leads of data and easily view, print, save, or email in-tests or final reports.
+ Be confident knowing the system indicates you to significant ECG changes – it updates analyses and displays anomalies, including ST anomalies and ectopic beats.
+ Append significant data to the final report or export the complete full disclosure to your hospital information (HIS) or electronic medical record (EMR) systems.

Configured with our TM55 or TM65 treadmill, you'll be fully equipped for top performance. Our medical treadmills have been the industry's gold standard for more than three decades and are among the best selling in the world.

Q-Stress connects and streamlines your workflow

Robust network connectivity improves your workflow by using XML protocols and PDF formats – that saves time!

+ Using the Q-Exchange™ option, download patients' demographics from the HIS/EMR.
+ Combine stress data with other systems that use non-proprietary formats, including your nuclear camera and echo system.
+ Share final reports, access shared printers, and archive information to your HIS/EMR.
+ Electronically capture and transmit charges to facilitate billing.

The **QUINTON**® Q-STRESS®

TECHNICAL SPECIFICATIONS	
OPERATING SYSTEM	Windows XP / Vista Ultimate
POWER REQUIREMENTS	100/120 VAC 50/60 Hz 2.5 A nominal; 200/240 VAC 50/60 Hz 1.3 A nominal
PROTOCOLS	
Standard	Bruce, Modified Bruce, Modified Balke, Naughton, USAF/SAM 2.0, USAF/SAM 3.3, Ramped-low, Ramped-medium, Ramped high, Åstrand (ergometer), Persantine (pharmacological)
Custom	Unlimited custom protocols can be created
PATIENT MODULE	AHA 10-electrode with pinch or snap connectors IEC 10-electrode with pinch or snap connectors (available for International only)
ECG	
Capability	True 12-lead
Gain	5 mm/mV, 10 mm/mV, 20 mm/mV
Lead Groups	Standard (Mason-Likar), Cabrera 12-lead, Frank, Canadian Bipolar
Display	3, 6, 12 channels
Performance Standard	AAMI-EC II: gain accuracy, frequency response, CMRR, system noise, dynamic range, and input impedance
DISPLAY AND ANALYSIS FILTERS	Muscle artifact filter, baseline wander filter, 40 Hz low pass, line frequency. All filters can be turned on or off by the user
ECG COMPUTATIONS	
Heart Rate	Computation 6 second average updated every 2 seconds
ST Parameters	Level and slope
Reference Point	J Junction (QRS offset), user-selectable
QRS Detection	ASVV (Absolute Spatial Vector Velocity), user can select any three leads
Beat Detection	Enhanced Quinton Stress algorithm for improved beat detection
REPORTS	
In-Test	12-lead, average beat, 1-page write screen, continuous write screen, ectopic detail
Final	Summary, tabular, worst case, average beats, in-test reports, trend graphs and peak exercise. Full Disclosure page addendum available with Full Disclosure option Reports can be viewed, printed, saved in PDF format, e-mailed or faxed. XML format for data export to other systems
Custom	Unlimited custom report available
OUTPUTS	TTL pulse for QRS detection (lead is user- selectable); 3 user-selectable analog outputs using any ECG lead
EXTERNAL DEVICE INTERFACES	
Treadmills	TM 55/65, ST 55/65 (upgrade kit required)
Ergometers	Corival, Ergoselect, Rehcor
Blood Pressure Monitors	Colin BP412, Colin STBP-780 (Japan only), SunTech Tango+
AVAILABLE PRINTERS	
Thermal	High-resolution with automatic feed and continuous printing capability
Laser	Optional Laser printer: compact HP laser printer with high quality print
Paper	8.5 in x 11 in (US letter) or 210mm x 300 mm (A4)
NETWORK INTERFACE	Optional Microsoft compatible networking for file storage, distribution and email.
EXPORT/COMMUNICATION PROTOCOL/FORMAT	XML, PDF, TCP/IP
REMOTE TECHNICAL SERVICE INTERFACE	Remote service increases system uptime availability and decreases the user's requirement to assist the troubleshooting process. Available via network or desktop connections (available only in the US)
DISPLAY	483 mm (19 in) LCD flat panel
ENVIRONMENTAL	
Operating conditions	Temperature: 50°F to 77°F (10°C to 25°C); Relative humidity: 20% to 80% non-condensing
Storage conditions	Temperature: -14.8°F to 104°F (-26°C to 40°C); Relative humidity: 10% to 95% with condensation
Thermal paper storage	at or below 77°F (25°C)
Electrodes storage	at or below 86°F (30°C)
SAFETY AND STANDARDS	EN 60601-1, Type CF defibrillation proof applied part IEC 61000-4-2 · IEC 61000-4-4 · IEC 61000-4-6 · IEC 61000-3-2 IEC 61000-4-3 · IEC 61000-4-5 · IEC 61000-4-8 · IEC 61000-3-3 IEC 61000-4-11 · RF emissions CISPR 11
CART DIMENSIONS AND WEIGHT	30 in x 20 in x 36 in (762 mm x 508 mm x 914 mm); 120 lb (54 kg)
WARRANTY	13 months parts and labor
OPTIONS	Networking, Q-Exchange, Full Disclosure, Freeze Frame, Re-Analysis

Cardiac Science Corporation • 3303 Monte Villa Parkway, Bothell, WA 98021 USA • 425.402.2000 • US toll-free 800.426.0337 • Fax: 425.402.2001 • info@cardiacscience.com
Orders and Customer Care (US and International) • 425.402.2000 • US toll-free 800.426.0337 • Fax: 425.402.2001 • care@cardiacscience.com
Technical Support • (US) Fax: 425.402.2022 • technicalsupport@cardiacscience.com • http://websupport.cardiacscience.com/webchat/ • (International) internationalservice@cardiacscience.com
Cardiac Science International A/S • Kirke Vaerloesevej 14, DK-3500 Vaerloese, Denmark • +45.4438.0500 • Fax: +45.4438.0501 • international@cardiacscience.com
United Kingdom • The Manse, 39 Northenden Road, Sale, Manchester, M33 2DH, United Kingdom • +44.161.926.0000 • uk@cardiacscience.com
France • Parc de la Duranne, 565, Rue René Descartes, F-13857 Aix-en-Provence Cedex 3, France • +33.4.88.19.92.92 • france@cardiacscience.com
Central Europe (D, A, CH) • Oskar-Schindler-Strasse 3, D-50769 Köln, Germany • +49.221.33734.300 • centraleurope@cardiacscience.com
China • 6/F South Building, 829, Yi Shan Road, Shanghai 200233, China • +86.21.6495.9121 • china@cardiacscience.com

CARDIAC science™