

Fully Integrated Digital Radiography Systems

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MEDICAL IMAGING

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#### **QUANTUM: LEADING THE WAY IN DIGITAL IMAGING**

The Quantum *Q-Rad-DIGITAL* DRX-Series is a fully integrated Digital Radiographic System, featuring Carestream DRX Technology. Smart System innovations, such as TechVision,<sup>™</sup> Operator Touch-Control Center, and the flexibility of Wireless or Wired DR solutions are available in either Ceiling- or Floor-mounted configurations. All systems provide advanced operational and ergonomic features, with virtually unlimited positioning capabilities.

#### FLEXIBLE, DIGITAL PANEL COMBINATIONS

Choose the DRX Detector option best suited to your needs. These include:

- DRX Wireless Detector –14 in. x 17 in. (35 x 43 cm) with gadolinium oxysulfide (GOS) scintillator for general radiographic imaging, or cesium iodide (Csl) scintillator with increased DQE and MTF for dose-sensitive applications.
- DRX Fixed Detector –17 in. x 17 in. (43 x 43 cm) with gadolinium oxysulfide (GOS) or a low-dose cesium iodide (CsI) flat-panel option for facilities that prefer a larger field of view in a non-portable detector.
- DRX 2530C Wireless Detector –11 in. x 16 in. (28 x 41 cm) with cesium iodide (Csl), designed for dose-sensitive pediatric applications and orthopaedic imaging.

DRX Wireless Cassettes may also be used within other areas of the hospital, such as in a mobile X-ray system during morning rounds. It can then be moved to a Q-Rad system room to maximize the utilization of this advanced technology by sharing resources.

#### INCREASED WORKFLOW WITH WIRELESS CASSETTE

Wireless transmission and instant image availability reduces exam time.Wireless Cassette offers positioning freedom of conventional cassettes.

#### SHARED PANEL SOLUTION

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The **DRX SERIES** systems provide positioning flexibility by using a wireless, cassette-size detector in either the table or wallstand. The lightweight design, large imaging area and fast display times make it easy to capture high-quality diagnostic images for routine diagnoses, as well as for challenging trauma positioning.

WIRELESS CASSETTE







CARESTREAM DRX-1

Fully Integrated Digital Radiography Systems

#### DRX ACQUISITION CONSOLE

- Wide-screen touch-panel monitor
- X-ray Generator integration
- · Preview image display within seconds
- Consistent grey scale presentation
- DICOM Modality Worklist
- Multi-Modality Acquisition
- Procedure Mapping
- Advanced Trauma Capability
- Patient CDs
- Auto-Correct for Image Display
- EVP Plus Software
- Grid Detection and Suppression
- Black Surround
- Local QC and administrative functions: zoom, window/level, Gamma, edge enhancement, cropping, digital markers and annotation
- DICOM print and store to multiple destinations

#### **SOFTWARE OPTIONS:**

- Long-length Imaging/Scoliosis seamless stitching
- IHE Dose Reporting
- Remote Operations Panel
- Remote Patient-data Entry
- Prior Image Review
- Administrative Analysis and Reporting Option
- Total Quality Tool
- Tube and Line Visualization
- Bone Suppression







#### SERVING A WIDE RANGE OF CLINICAL ENVIRONMENTS

The Q-Rad-DIGITAL System configurations are designed for high patient volumes to satisfy a wide variety of clinical environments, from in-patient and out-patient radiology departments, emergency/ trauma, imaging centers, orthopedic facilities, and urgent care clinics. From the routine chest or detailed extremities to the non-ambulatory trauma patients, the range of applications with Q-Rad-DIGITAL Systems is virtually endless.

#### SYSTEM INTEGRATION FOR ENHANCED WORKFLOW AND PRODUCTIVITY

Advanced system integration enhances your DR workflow from patient registration to exam configuration, patient positioning, image acquisition and image archive. In addition to an inherent productivity gain with network connectivity to the Modality Worklist and PACS, the fully integrated Q-Rad-DIGITAL DR Console optimizes the entire patient examination process with fully integrated and Worklist-driven single-accession and multi-accession exam configuration, generator integration, fast image processing and automated exam sequencing. Now you get maximum productivity with the patient throughput of DR combined with the positioning ease of a single, wireless cassette, all with high-quality imaging and low patient dose.



Quantum



# **CEILING-MOUNTED SYSTEMS**

The Quantum *Q-Rad-DIGITAL* Ceiling System enhances your DR workflow and ability to position patients. It is available with a range of system configuration options that allow for adaptability into any hospital, imaging center, orthopaedic, clinic and/or private office. Overhead horizontal and transverse tracks provide maximum flexibility and virtually unlimited radiographic projections. *(System shown with Quantum exclusive TechVision with digital image preview)* 

#### **CEILING-MOUNTED TUBE SUPPORT (RS-590)**

Ergonomic hand grips with multifunction locks provide smooth, responsive motion. Positioning of the X-ray tube is directed through a series of color-coded fingertip switches on the operator hand control, which coincide with the colors on the various rails for vertical, horizontal and transverse movements.

A convenient All-Locks release switch is also built into each of the soft-grip controls. Lighted display windows indicate system navigation for SID, tube angle and lock functions, to assist the operator with easy and precise positioning.



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Float-top motion and Elevating Hand-Control Switch



#### **POSITIONING FLEXIBILITY**

The system's flexibility makes patient positioning and system adjustments quick and easy.

#### **EXCEPTIONAL USE FOR CHALLENGING VIEWS**

Even the most challenging views, such as weight-bearing, cross-table and off-table projections are simplified through the system's generous range of motion and flexibility.

#### QUIET-LIFT ELEVATING/FLOAT-TOP TABLE (QT-750-D)

The Quantum QUIET-LIFT elevating, float-top table eases patient transfer and positioning. With a 650 lb. (295 kg) patient capacity and a rugged lifting mechanism, the table elevates smoothly and quietly. The extra-wide (35") and completely flat table-top surface simplifies patient transfer and positioning, while providing more comfort for larger patients.

Float-top motion and elevating capability are controlled through both recessed foot controls, as well as multifunction hand-control switch. Adjustable patient handgrips are included, and can be positioned along the concealed accessory rails to help stabilize the patient during exam positioning.







# **INNOVATION FOR THE TECHNOLOGIST**

Quantum TechVision offers a wide variety of innovative features that simplify the job for each user. Technologists can use the color touch display to easily view and edit technique parameters at tube-side.



#### **TechVision Features:**

- Large Color Display with Rich Graphics and Fast performance
- Touchscreen technology
- Full APR, AEC and Manual Technique Selection, including mA, kVp and mAs control
- No need to go back and forth from the patient's side to the generator control panel
- Complete control for the operator to adjust exposure parameters at tube-side
- Improved patient care, as technologist remains close to the patient during exams
- Fewer steps taken by technologist for faster patient throughput





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## **POSITIONING GUIDE**

Technologists receive detailed instructions for routine study positioning. This includes patient/ body part positioning, breathing instructions and central ray placement/angle, with photo and illustration guidance.

# **Tech**<sup>T</sup> THREE VALUES TO ENHANCE PATIENT CARE **Vision** AND THROUGHPUT

#### **DIGITAL IMAGE PREVIEW**

Review your preview image seconds after exposure with accept/reject function at tube-side.





#### **STUDY MANAGEMENT**

Control the examination workflow and image acquisition at tube-side among multi-accession exams.



#### **DRX with TechVision (INTEGRATION)**

TechVision minimizes going back and forth from the patient's side to the generator's Operator Control Panel in order to customize patient exams. The operator has complete control to adjust exposure parameters at the tube-side, just as if they were at the generator's Operator Control Panel.

The fully integrated *Q-Rad-Digital* DR Console optimizes the entire advanced, 2-way, generator integration to optimize your DR workflow from patient registration to exam configuration, patient positioning, image acquisition and procedure mapping, to image archive.



TechVision offers in-room DR Image Preview at the patient's side. The technologist no longer has to wait for the DR image Preview on the DR console and can quickly rejoin the injured or frightened patient and position for the next view.



# WIRELESS ON DEMAND ONLY WIRELESS WHEN YOU WANT IT

#### **TETHER-CONNECT:**

**Wired-Ethernet Connectivity + Detector Battery Charger, All in One Step** The DRX-Tray utilizes Tether-Connect technology that enables the DRX detector to connect via hard wire to the system for all data communication. It also constantly charges the detector battery, so it remains fully charged and ready when you remove the detector for wireless exams. This feature minimizes the need to manually charge up the detector battery on a regular basis



#### **QUICK-CONNECT ADVANTAGE:**

When switching from hard-wired (in table or wallstand) to wireless for tabletop extremity work, the detector transitions from wired to wireless (or vice-versa) in 2 seconds.

#### **DROP-N-GO EASE OF USE**

By simply inserting the detector into the DRX-Tray, the detector connects automatically via magnetic plug.

#### **INDUSTRY-LEADING PERFORMANCE: MEET OUR FAMILY OF DRX DETECTORS.**

Our portfolio of DR detectors includes wireless, shareable and xed models to meet your demands based on exam type, detector size, dosage, level and budget. Discover the right detector for your needs at carestream.com/detectors.

- Wireless transmission and fast image preview reduces exam time.
- Wireless Cassette offers the positioning freedom of conventional cassettes.

# **DR-Tray Specifications**

\*Standard on all system packages for table and wall Digital Tray with ROTATING Feature

- Quick and controlled manual rotation of the digital receptor within tray
- One-handed manual rotation Portrait/Landscape in swivel-based tray design
- Tray locks for safe placement/removal of receptor
- Locking tab to secure the receptor within the tray





#### DRX-Tray Specifications \*Available as an option on all system packages for table or wall WIRELESS ON DEMAND

ONLY WIRELESS WHEN YOU WANT IT

#### Designed Specifically for the DRX Detector

#### **Includes Tether-Connect Technology**

- Enables DRX detector to connect via hard wire to the system for all data communication.
- · Constantly charges the DRX battery, so it remains fully charged and ready when you remove the DRX detector for specialty exams. (This feature virtually eliminates the need to manually charge the detector battery on a regular basis)



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A Quantum *Q-Rad-DIGITAL* Floor-mounted system is the ideal choice for busy imaging centers, orthopaedic facilities, clinics and private offices. The advanced features and unique design aspects of the system allow the technologist to fully concentrate on the patient during the examination.

#### **DELUXE FLOOR-MOUNTED TUBE STAND (QS-550)**

The versatility of the QS-550 Deluxe Tube Stand's assembly provides extended freedom of movement, allowing for a wide array of examinations. Tube-stand positioning is controlled through a series of accessible fingertip switches on the operator hand control.

A single switch releases all tube-stand locks for multi-directional motions. An easy-to-read indicator displays system position. Expansive transverse and longitudinal travel, column rotation (+/- 90°), tube angulation (+/- 135°) and trunnion rotation (+45°/-20°) assure complete radiographic coverage even for the most challenging views, such as weight-bearing, cross-table and unique tabletop exams. Studies are simplified through the system's generous range of motion and flexibility.



#### **CROSS-TABLE EXAMS MADE EASY**

A wide range of system flexibility makes patient positioning quick and easy to accommodate for cross-table lateral, wheelchair and other specialty views.

#### FLEXIBILITY FOR EVERY PATIENT STUDY

#### VERTI-Q DIGITAL VERTICAL WALLSTAND (QW-420-D)

Features the exclusive EZ-Glide Hand control for easy and precise movement. A custom enclosed frame for attractive appearance includes a patient chin rest and a low-absorption front-cover material with cassette and AEC indicators. A vertical travel of 60.0 ( $\pm$ 1.0)" (1524.0 mm) with a 14.0 ( $\pm$ 0.5)" (355.6.0 mm) minimum Focal Spot-to-Floor Distance and FAIL-SAFE electromagnetic braking with integral counterbalancing ensure safe and easy use.

#### **OPTIONAL:**

Patient-overhead and side-mounted arm rests are available to stabilize patients during standing and weight-bearing exams.

#### **EZ-GLIDE HAND CONTROL**

All VERTI-Q Wallstands integrate our exclusive EZ-Glide hand control, which is ergonomically designed to allow operator adjustment from a comfortable standing position, with minimal effort. It maximizes technologist efficiency during vertical adjustment of the image receptor.



#### SYSTEM FLEXIBILITY

*Q-Rad-DIGITAL* Floor-mounted Systems are available as a single-detector, wireless 14"x17" cassette shared among table, wall and tabletop, a dual-detector, 17"x17" stationary wallstand configuration, or as a 14"x17" wireless cassette for table or tabletop.

#### SHARED PANEL SOLUTION











### **EXCEPTIONAL** SUPPORT FEATURES

# Quantum HELP SERVICES

With just the touch of the HELP button on the screen, you can easily access a wide variety of easy-touse support services and information. From basic quick-start info, to documentation of operators and service manuals, the information is right at your fingertips. Powerful tools guide each user through basic operation. Support phone numbers, text messaging and email contacts are also just a touch away.



#### **COLOR REFERENCE CHART**

- **QUICK START:** Provides a quick overview of system workflow and operation in 4 easy steps.
- **DOCUMENTATION:** Quick reference to operator and technical manuals.
- **Positioning Guide:** Detailed instructions for routine study positioning, including patient/bodypart positioning, breathing instructions and central ray placement/angle, with photo and illustration guidance.
- **CONTACT:** Full contact information to your regional dealer and service provider.
- REMOTE SERVICE: Web-based Remote Support and Service worldwide via the built-in web browser (internet access required), plus video camera and audio mic.
- ●SERVICE: Access for key operators via password for complete reporting logs history, the APR Editor, language changes and a host of other useful information.



# **QUANTUM CASSETTE HOLDERS** ENHANCING DIGITAL IMAGING PROCEDURES



#### Tabletop Cassette Holder (QT-TCH)

- Provides quick and easy positioning on the X-ray tabletop
- Accommodates portable DR, CR or Film Cassettes up to 14"x17"
- Assists in acquiring cross-table lateral exams, as well as many other specialty views
- Delivers effortless maneuverability with tabletop scratch protection



#### Lateral Cassette Holder (QT-LCH-P)

- Mounts to Quantum Table Rails
- Accommodates portable DR, CR or Film Cassettes up to 14"x17"
- Swivels (+/-90°) via articulating arm for a variety of angled tabletop positions
- Provides positioning of image receptor either at or below tabletop to eliminate image cut-off during cross-table examinations
- Delivers angulation with complete receptor control (+/-35°) for easy patient positioning

#### Rolling Lateral Cassette Holder (QR-LCH)

- Quick and secure maneuverability around the X-ray exam room
- Portable DR, CR or Film Cassettes up to 14"x17"
- Helpful for acquiring cross-table lateral exams, as well as many other specialty views
- Image receptor either at or below table top to eliminate image cut-off during cross table examinations
- Height-adjustable positioning with vertical travel of up to 45.9" (116.6 cm)
- Single-handed vertical-adjustment locking mechanism
- Receptor Rotation: +/- 90° for more angle flexibility
- Receptor Tilt: 0° through 90°
- Quick-locking 5" Caster Wheels



#### Two-step Weight-bearing Rolling Stand (QC-WBS)

- Patient positioning help for lower-extremity studies
- Two-step design for use with tilting wallstands
- Clear-view design for patient foot location and easy visualization of image-receptor positioning
- Auto-locking front wheels with individual rear-wheel locking control to ensure safety and quick positioning
- Patient handrails for safe and easy positioning
- Non-slip steps
- Easy-rolling wheels
- Patient-weight capacity of 450 lbs. (204 kg)
- Optional track for portable DR panel
- Length 43" (109.2 cm), Height 48.5" (123.5 cm), Width 24.7" (62.8 cm)

#### **DESIGNED WITH TECHNOLOGISTS IN MIND**

Designed by a team of engineers with extensive input from technologists, Q-Rad systems are highly refined for logical and efficient operation. This unique approach to system development simplifies radiographic examinations and assures that Quantum products meet the growing needs of radiology.

Quantum's technology is proven in thousands of clinical installations worldwide. From the design stage through final product testing, Quantum Q-Rad Series systems integrate high-quality, durable materials for robust construction and advanced electronics for optimal performance. Rigorous manufacturing standards and a commitment to evolving technologies assure long-term system value and customer satisfaction.

The company's radiographic system solutions are backed by our Gold Star network of factory-authorized dealers for sales and service.

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