

# CR 85-SP+

Computed Radiography (CR) Multi-Plate System



# CR85-SP+ Package

## An Agfa Healthcare Solution for Quantum Medical Imaging

The CR85-SP+ Package is a highly efficient multi-plate CR unit, that includes Agfa HealthCare's user friendly CR85-X™ digitizer. This multi-plate, multi-user digitizer featuring a unique drop-and-go buffer that eliminates waiting times and maximizes productivity. The CR85-X cassette buffer allows for a continuous workflow within the department. Zero-button operation with automated cassette handling provides a throughput up to 115 plates an hour, depending on size and applications. When using the CR85-X as a central reader in the radiology department, multiple examination rooms can be supported.

### The Most Frequent Tasks are the Easiest to Do

NX is the technologist's image identification and quality control tool. NX was designed by technologists and has an intuitive user interface that offers streamlined patient workflow. Thanks to this interface, the system provides improved flexibility and efficiency. With the intuitive user interface, only minimal training is needed to work effectively on NX, increasing overall staff productivity.

NX's Worklist and Examination windows cover the technologist's daily tasks. In the Worklist window, the technologist can enter patient data or select it from a RIS-based worklist (optional), while in the Examination window, he or she can identify a cassette, define the examinations to perform and take the necessary steps to prepare an image for diagnosis. The Examination window's Fast Preview allows correct positioning and exposure to be determined even while the final image is in the process of being completed.

### Agfa MUSICA<sup>2</sup>

- MUSICA<sup>2</sup>, intelligent image processing algorithm automatically optimizes bone and soft tissue visualization with outstanding sharpness and contrast in the finest details to minimize the need for post-processing and to increase workflow efficiency.



Shown with Integrated CR User Station (CRUS) for time-saving identification and optimized workflow, as well as cassette storage.

MUSICA<sup>1</sup> Image



MUSICA<sup>2</sup> Image



## The CR85-SP+ Package Includes Software Loaded With Functionality:

### CR NX On-line Processing and MUSICA<sup>2</sup> Software

- On-line processing software performs multiple tasks :
  - Automatic Image processing (utilizing MUSICA<sup>2</sup>) of incoming raw data from the CR unit
  - Automatic window/level setting
  - Manual "black-border" shuttering collimation
  - Sensitometry mapping
  - HIPPA security log and IHE workflow compatibility
  - Supplies user with a fundamental QC-Viewer for basic image correction

### NX Optview Software

- Square Marker
  - Indicator for a manually flipped or rotated image
  - Displayed on softcopy/hardcopy for a safety view
- Grid Line Suppression
  - Detection & removal of grid patterns caused by stationary grids
  - Removal of Moiré effect on monitor
- Black Border Software
  - Provides computerized "automatic" Black Border (use for PACS users)

### Add an Option, Brighten Your Digital Future

- NX Precision Tools:
  - Advanced Programmable Annotations, Advanced Digital Imaging Measurement tools
- NX Integrated Workflow:
  - Emergency, MPPS and Viewing Prior licenses
- NX Quality Assurance:
  - Dose Consistency Reporting and Repeat/Reject program licenses
- NX RIS Connectivity:
  - Link to DICOM RIS-HIS, DICOM query and Procedure Code Mapping software

### Scoliosis and Long Leg Imaging Option

- CR NX Full Leg/Full Spine Stitching Software
- Cassette Holder with Planfeld Positioning Grid Pattern
- CR EZ-Lift, FLFS Cassettes and Anti-Scatter Grid

### CR User Station (CRUS)

Its modular and ergonomic design includes:

- Cassette identification functions
- Space for:
  - Workstation for image handling, processing and dispatching
  - Monitor, network switches and UPS (optional)
  - Cassette storage

*\*For a complete list of available options please contact your local distributor.*



19" BARCO Color Touchscreen Monitor



CR 85-X can easily be placed at any location.

# MUSICA<sup>2</sup>

## Advanced Image Processing (Optimizes Image Quality and Workflow)

Agfa HealthCare's unique and patented Multi-scale Image Contrast Amplification algorithm, "MUSICA", automatically processes the radiographic image at multiple frequency ranges (detail sizes) and optimizes the contrast within each of these ranges.

MUSICA<sup>2</sup> is second generation MUSICA which intelligently renders exceptional bone and soft tissue detail simultaneously. MUSICA<sup>2</sup> analyzes the image data before applying optimal contrast and density to all details within the image.

MUSICA<sup>1</sup> Images

MUSICA<sup>2</sup> Images

This results in maximum radiographic detail throughout the image, greatly reducing the need for manual activities such as window and level. The improved image quality, productivity and workflow result in a process that is more efficient from start to finish.

### Higher Image Quality

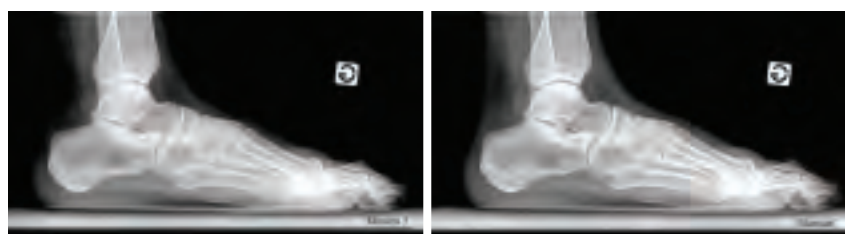
- Image processing optimized to the response of human visual system, results in higher image quality, autonomy and robustness. Enhance bone and soft tissue detail, displayed in a single image, eliminating contrast or density compromise.

### Increased Workflow Capability

- Processes the image automatically, virtually eliminating the need for routine window and leveling, allowing the technologist to stay close to the patient.

### Improved Care and Throughput

- Greater image detail and quality helps radiologists to make diagnoses more quality and with a higher level of confidence, ultimately providing an efficient patient care experience.





# Specifications

## CR85-SP+ General Technical Specifications

### Digitizer Type

- CR 85-X Multi-user digitizer with 10 cassette input/output buffer
- Throughput: up to 115 plates/hr (depending on size and application)

### LCD Display

- Machine status and error conditions

### Grayscale Resolution

- Data acquisition: 12 bits/pixel
- Output to processor: 12 bits/pixel

### Reader Dimensions and Weight

- (W x D x H): 84 x 115 x 142 cm (33 x 45 x 56 in)
- At foot: 84 cm (33in)
- At buffer: 142 cm (56 in)
- Weight: Approx. 397 kg (875 lbs)

### Power

- 50/60 Hz single phase
- 208V +/- 10%, max. fuse 15A

### Miscellaneous

- 19" Medical-Grade Touchscreen Color Monitor
- CR NX Server: Dell Precision Workstation (min) 3.6 GHz, 2x73GB HD, CD-RW, Windows XP OS

### Environmental Conditions

- Temperature: 15 to 30°C (59 to 86°F)
- Humidity: 15 to 80% RH
- Magnetic fields: max. 12.60 µT
- Rate of change of temperature: 0.5°C/minute (0.9°F)

### Environmental Effects

- Noise level: max. 65 dB (A)
- Heat dissipation: standby 350 W, max. 2000 W

### Approvals

- TÜV, UL, cUL, CE

### Transport Details

- Temperature: -25 to +55°C (-4 to 131°F), -25°C for max. 72 hours, +55°C for max. 96 hours
- Humidity: 5 to 95% RH

## Cassette Sizes: CR MD4.0 General Cassettes

\*\* Included in Quantum/Agfa CR85-SP+ Series Package.

### CASSETTE SIZES

#### High Resolution

35 x 43 cm (14 x 17 in)\*\*

35 x 35 cm (14 x 14 in)

35 x 43 cm

(automatic collimation to 21 x 43 cm)

24 x 30 cm\*\*

18 x 24 cm

15 x 30 cm

8 x 10 in

10 x 12 in

#### Standard Resolution

35 x 43 cm (14 x 17 in)

35 x 35 cm (14 x 14 in)

### SPATIAL RESOLUTION

10 pixels/mm (option)

10 pixels/mm (option)

10 pixels/mm

10 pixels/mm

10 pixels/mm

10 pixels/mm

10 pixels/mm

10 pixels/mm

6 pixels/mm

6 pixels/mm

### PIXEL MATRIX SIZE

3480 x 4240

3480 x 3480

2020 x 4240

2320 x 2920

1720 x 2320

1420 x 2920

1950 x 2460

2460 x 2970

2320 x 2826

2320 x 2320

### The Quantum/Agfa CR85-SP+ Package Includes:

- CR85-X Single Plate Reader With Automatic Cassette/Plate Handling
- CR NX Workstation
- Dell Optiplex™ Workstation, with Dual Core Processing, CD -RW Drive, Keyboard, Mouse, Microsoft Windows XP Pro SP2 OS, (minimum specification)
- 19" BARCO Color Touchscreen Monitor with DICOM Optimizing Calibration Software
- CR NX SP "Enterprise" Software
- Patented MUSICA<sup>2</sup> Image Processing Software
- CR NX Optiview Software
- CR NX ID and Examination Software
- DICOM Store/Send and DICOM Print
- "P-Value" Display Output For Compatible PACS
- DICOM CD Export For DICOM CD Burning With a Viewer
- CR ID Tablet; Type II
- 4 each 35x43 Cassettes With MD 4.0 Imaging Plates
- 4 each 24x30 Cassettes With MD 4.0 Imaging Plates



Innovations in Digital Imaging

© 2008 Quantum Medical Imaging, LLC  
p/n: QMI-CR85SP (02/08)



Quantum Medical Imaging, LLC  
2002 Orville Drive North  
Ronkonkoma, NY 11779 USA  
Tel (631) 567-5800  
Fax (631) 567-5074  
www.quantummedical.net