FUJIFILM
Value from Innovation

NEW

FDR Visionary Suite

Maximizing clinical outcomes

Digital Tomosynthesis

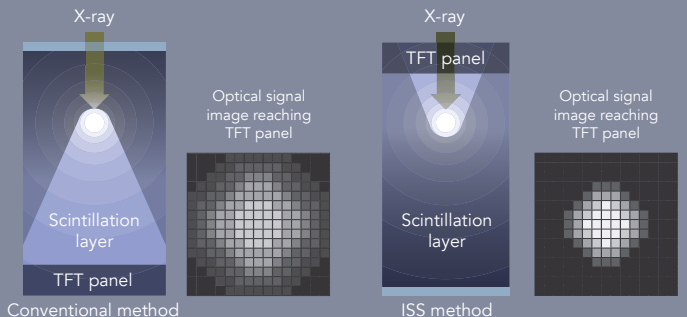
Dual Energy Subtraction

Automated Long Length Imaging

Improved image quality at a low dose

Patented ISS capture technology promotes high sensitivity

Fujifilm's proprietary Irradiated Side Sampling (ISS) positions its capture electronics (TFTs) at the irradiation side, in contrast to traditional detectors. This design significantly suppresses scattering and attenuation of X-ray signals, improving efficiency to produce sharper images at lower doses compared to traditional designs.*



* Based on higher MTF and DQE demonstrated in "Effect of X-ray incident direction and scintillator layer design on image quality of indirect-conversion flat-panel detector with GOS phosphor" by K. Sato, et al.

Versatile, simplified digital imaging

The FDR Visionary Suite is the next generation in fully integrated and automated digital x-ray systems. It is ergonomically designed and easy to operate, with minimal physical effort required, so technologists can focus on patient comfort and safety. This flexible high-performance system streamlines technologists' workflow and improves productivity while providing a faster, less-stressful experience for patients and staff alike.

Compatible with FDR D-EVO detectors for maximum flexibility

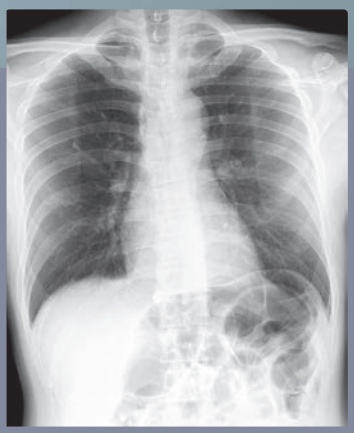
Wide range of applications for improved diagnostics

Automated Long Length | Digital Tomosynthesis | Dual Energy Subtraction

Simplified, optimized image workflow

Virtual Grid™

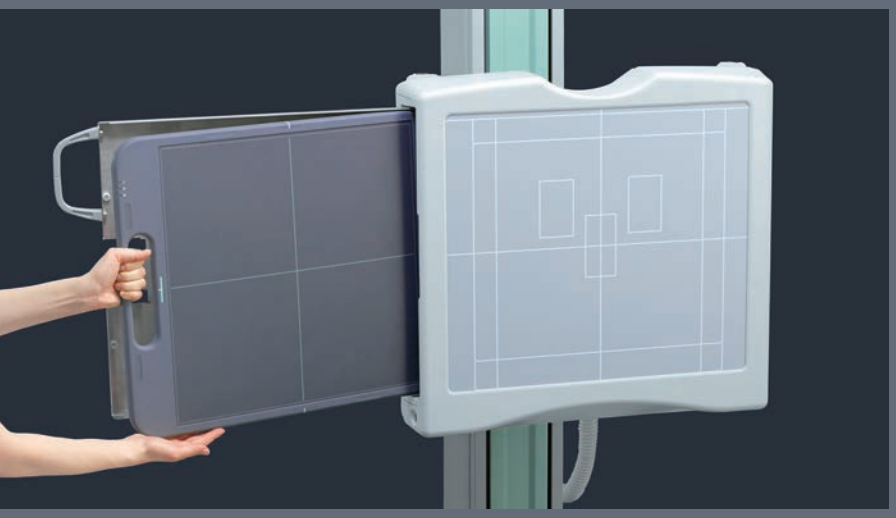
Virtual Grid intelligent image processing simulates grid use, reducing the effects of scatter radiation and noise in images acquired without an anti-scatter grid. Features include customizable grid properties (grid ratio, grid density, interspace material) and the ability to toggle Virtual Grid on and off for quality assurance.



VIRTUAL GRID

REAL GRID

Multiple panel combinations and variations

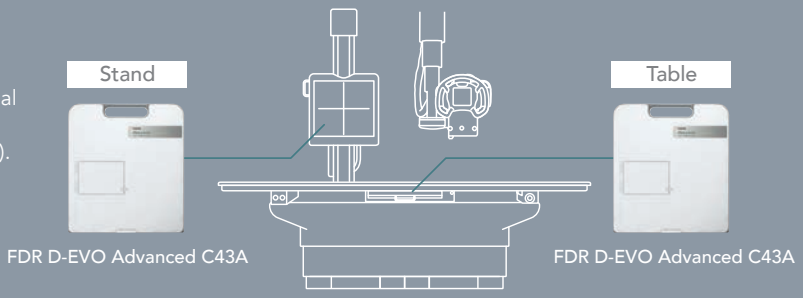


Choose the FDR D-EVO detector to match your advanced clinical imaging and budgetary needs.

Full Advanced Applications System

Optional cutting-edge technologies such as digital tomosynthesis and dual energy subtraction provide additional imaging information for advanced diagnostic capabilities. These features require the FDR D-EVO Advanced detector(s).

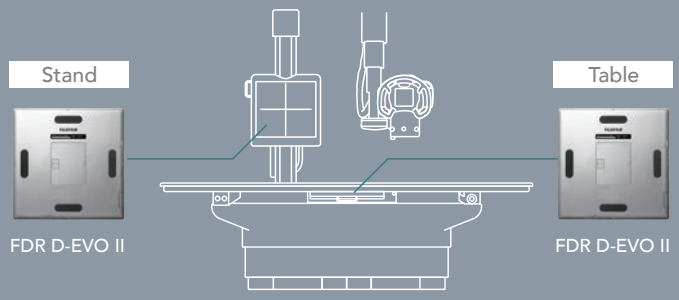
CsI Scintillator | Tomosynthesis | Energy Subtraction | Image Stitching



Automated Long Length Imaging

Fully automated long length imaging is possible at both the upright and table with FDR D-EVO or FDR D-EVO Advanced detector(s).

CsI Scintillator | GOS Scintillator | Image Stitching



							
Panel Name/Panel Type		FDR D-EVO Advanced C43A	FDR D-EVO II C43	FDR D-EVO II C35	FDR D-EVO II G43	FDR D-EVO II G35	FDR D-EVO II C24
Scintillator		CsI	CsI	CsI	GOS	GOS	CsI
Size		17x17″	17x17″	14x17″	17x17″	14x17″	24×30 cm
Applications	Digital Tomosynthesis	●	-	-	-	-	-
	Energy Subtraction	●	-	-	-	-	-
	Long Length Imaging	●	●	●	●	●	-
Cassette Tray		●	●	●	●	●	(Free exposure position)

Wide range of advanced imaging applications contributes to improved patient outcomes

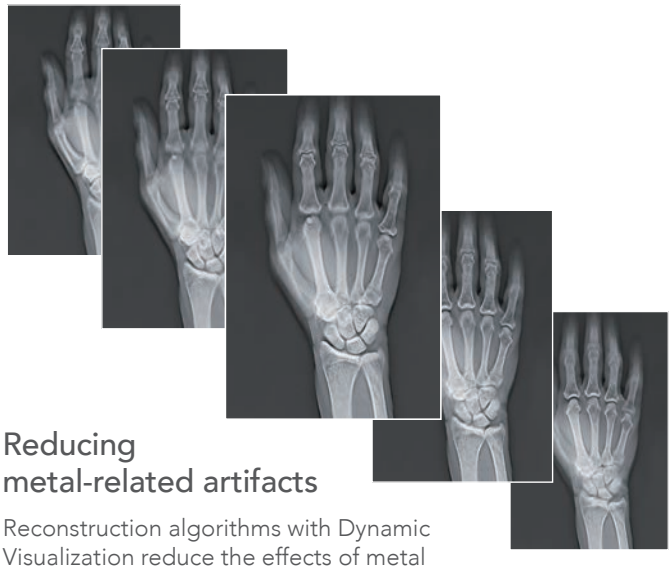
Digital Tomosynthesis

Reconstruct and display image slices

With this technology, the x-ray tube acquires a series of images in a single sweep that are then reconstructed to create coronal cross-sectional image slices.

Automatic x-ray dose control and background reconstruction

The exposure conditions for tomosynthesis can be automatically determined from a single reference image or set manually.



Reducing metal-related artifacts

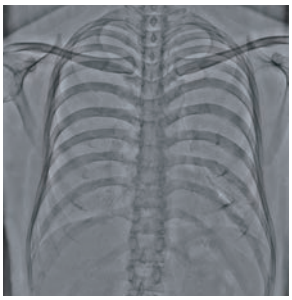
Reconstruction algorithms with Dynamic Visualization reduce the effects of metal objects in the tomosynthesis image.

Dual Energy Subtraction

Separate images of soft tissue and bone

Fujifilm's Dual Energy Subtraction (DES) is an advanced radiographic application designed to facilitate radiologist interpretation of an exam by eliminating anatomical structures that might otherwise obscure pathology. This technology, using the difference in x-ray energy absorption, creates separate images of soft tissue and bone. These images are then processed to create a single chest x-ray image.

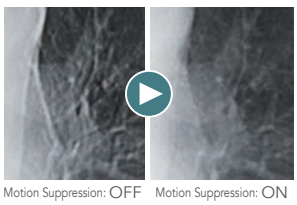
Soft Tissue Image



Bone Image

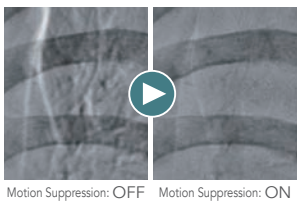
Controlling motion artifacts

Motion artifacts that may occur between exposures are suppressed by multi-stage registration allowing for sharper images of soft tissue and bone.



Motion Suppression: OFF Motion Suppression: ON

Soft Tissue Image



Motion Suppression: OFF Motion Suppression: ON

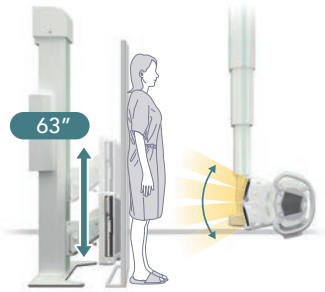
Bone Image

Long Length Imaging

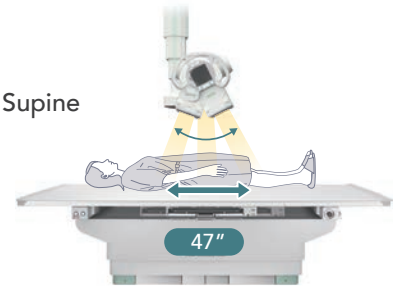
Full-length images of spine or lower limb

This technology takes multiple images in one sweep and automatically stitches them to create images of up to 63″ upright and 47″ supine. Misaligned images caused by patient body movements can be automatically corrected through automatic motion correction software.*

Upright



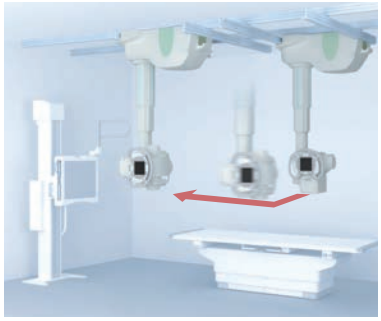
Supine



*Depending on the degree of misalignment between images it may not be possible to implement automatic motion correction.

Simple handheld remote controls keep the technologist focused on the patient, not the equipment.

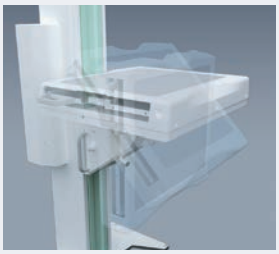
① Preparation



- **Prepare the room without touching the system**

  The system features an auto-positioning function that moves the x-ray tube into position automatically.

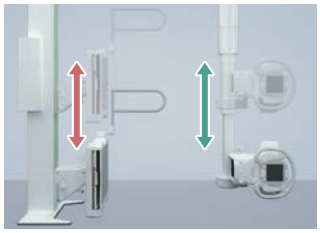
X-ray stand
A movable range of 16 to 75" from the center of the exposure allows you to take images of the lower limbs from the cervical vertebrae down. The exposure platform can be adjusted from -20 to 90° so you can take images of the head and upper limbs.

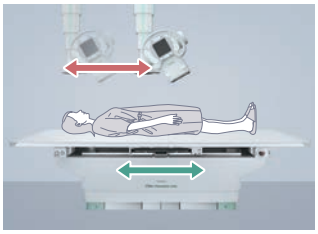


X-ray table
Using the foot or grip switch* it is possible to adjust the height quickly and easily between 21 and 34".

*Option

② Patient Guidance and Positioning





Manual Operation　Automatic Tracking

- **Easily define the imaging position for each patient**

  The auto-tracking function automatically aligns the panel and x-ray tube so you can easily focus on patient positioning and care. You can switch between automatic and manual to simplify and maintain full control of positioning.

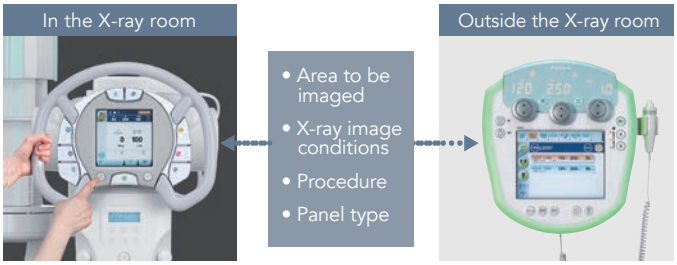
- **Automatically set radiation field size and alignment**

  The system automatically sets the preselected radiation field size for the area to be imaged and aligns the field to the upper or lower portion of the detector.

- **Change settings easily with the LCD touch panel**

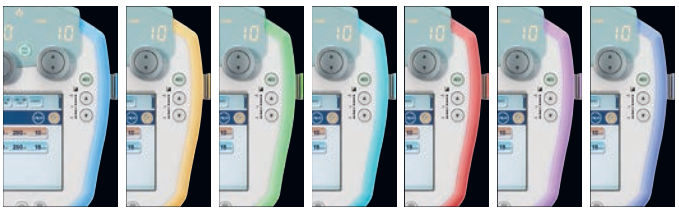
  The touchscreen on the tube displays imaging information and simple adjustment controls. The display screen even rotates 90 degrees to match the direction of the x-ray tube for easy viewing.

③ Taking Images



- **Adjust exposure conditions without leaving the patient's side**

  Easy touchscreen controls on the graphic tube display are synchronized with the generator control panel in the control area.



- **Sound and light indicators signal when an x-ray is being taken**

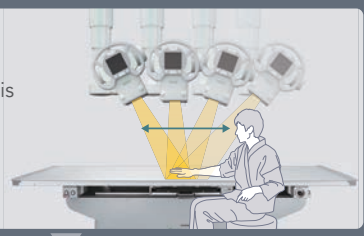
  "Ready up" and "x-ray in progress" notifications are clearly signaled by sounds and lights on the frame and hand switch. You can choose from seven colors for the notification lights.

Easy-to-use Advanced Applications

Workflow ① Tomosynthesis

1 Imaging

The image position is determined and an exposure is taken.



2 Collection of images

Imaging conditions are automatically calculated from the pre-shot and up to 60 images are collected.

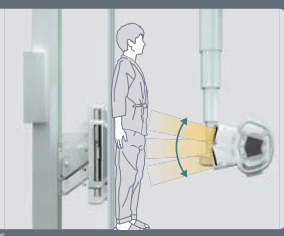
3 Image reconstruction

Metal artifacts are suppressed to create a high-precision series of images.

Workflow ② Image Stitching

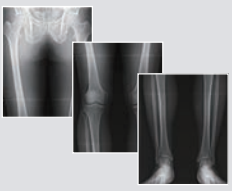
1 One exam set up

The upper and lower most parameters for the long length image are set.



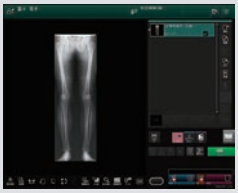
2 Collection of images

With a single press of the exposure button, multiple images are automatically acquired within the preset parameters.



3 Automatic stitching

Multiple images are automatically stitched. Minor misalignments from patient movement are automatically corrected.



FDR Visionary Suite Specifications

■ X-ray Generator
- Rated output: 80 kW
- Tube voltage: 40 to 150 kV
- Tube current: 10 to 1000 mA (80 kW model)
- AEC: Xe detector-type phototimer receiver combination up to three receivers

■ X-ray Tube Support
- Ceiling fixture:
  - Fixed rail of 4 / 5.5 m
  - Moving rail of 2 / 2.6 /3.3 m
- Movement range:
  - Longitudinal 2.95 m (4 m fixed rail)
  - Longitudinal 4.45 m (5.5 m fixed rail)
  - Transversal 1.4 m (2 m moving rail)
  - Transversal 2.0 m (2.6 m moving rail)
  - Transversal 2.7 m (3.3 m moving rail)
  - Vertical 1.6 m
- Rotation: Vertical axis ±180°
  - Horizontal axis -180° to +120°

■ X-ray Tube Unit
- Maximum anode heat content: 400 kHU
- Maximum anode heat dissipation rate: 2200 HU/s
- Focal spot : 0.6 / 1.2 mm

■ Collimator
- Filtration: Inherent filtration 1.1 mmAl eq.
  - Added filter of Cu 0.1 / 0.2 / 0.3 mm
- Standard accessories:
  - Auto-filter
  - Line marker
  - Detent (fitted at the home position)
- Area dosimeter adapter (Option):
  - An adapter for dosimeter manufactured by VACUTEC

■ Table
- Tabletop size: 32 x 92.5"
- Table height: 21 to 36.6"
- Longitudinal range: ±15"
- Transversal range: ±5"
- Bucky moving range: 31.5"
- Max. load: 649 lbs
- Standard accessories:
  - SID Tracking
  - Motorized Bucky Tracking
- Options: Compression belt
  - Side cassette holder
  - Grip switch
  - Hand grip
  - Drip hanger
  - Rear foot switch

■ Stand
- Distance between Bucky top edge and floor surface:
  - Motorized: 26 to 83"
- Tilting angle: -20° to 90°
- Standard accessories:
  - Auto Tube Tracking
  - Stop switch
  - Foot switch
- Options: Hand grip (mounted on top edge of the Bucky)
  - Hand grip (mounted on back side of the Bucky)
  - Cassette holder
  - Front handle
  - Both side operation
  - Compression belt
  - Patient stand (for Long Length Imaging)
  - Wall mounting option (for BR-120)

FDR D-EVO detectors, please see respective brochures for details.

FDR D-EVO Advanced C43A Specifications

- Scintillator: CsI
- Detector external size: 18.25w x 20.3d x 0.7h" *excluding convex part of the cable
- Weight: Approx. 9.9 lbs (including battery)
- Pixel size: 150 µm
- Maximum detecting area: 2816x2816 pixels
- Image preview: less than 2 sec
- Cycle time: less than 8 sec

FUJIFILM Value from Innovation
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