

# RADspeed Pro style edition CXDI featuring GLIDE Technology

# High-Performance General Radiographic System Improves Workflow and Achieves Dose Reduction

# RADspeed Pro style edition CXDI featuring GLIDE Technology

This general radiographic system is based on the extensive
experience and expertise Shimadzu cultivated as a pioneer in medical diagnostic
imaging systems. It minimizes X-ray dose and improves examination workflow.

Available only from Shimadzu, this system utilizes the technologies
that are gentler to humans and provide a more comfortable
examination environment for both the patient and the operator.



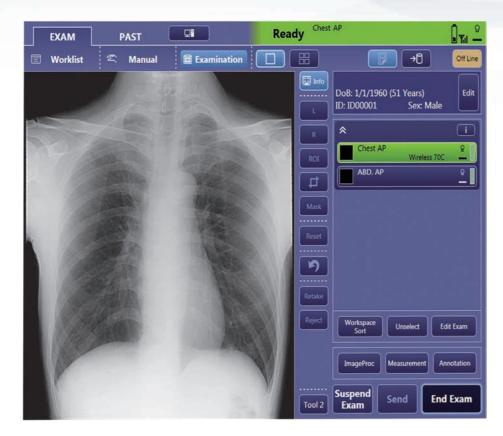


Recommended DR system



\*) The TM and ® symbols are omitted in this document.

# Experience New Clinical Value with DR System

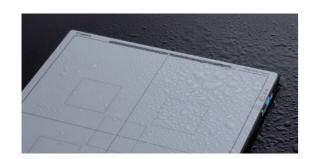


#### **Quick Preview After Exposures**

Reference images can be displayed a mere two seconds after exposure. The wireless FPD has no cables connected to it, so it can be kept clean even in infectious disease wards.

## **Excellent waterproofing**

The FPDs conform to the IP57 waterproofing standard, providing excellent dust and fluid ingress protection\*.



# Robust design with a 310 kg load bearing capacity

The proprietary design is lightweight, but has a full load bearing capacity of  $310\,\mathrm{kg}$ .

# Automatically Linked Radiography X-Ray Exposure Field PTION

The collimator X-ray exposure field is automatically linked to the exposure area size selected in the DR system.

# Verify the Patient Name in the Examination Room (PTON)

The patient name and ID number registered in the DR system are displayed on the X-ray tube support, which makes it easy to verify patient information.



#### Light, easy-to-handle wireless FPD

Significant weight reductions have been achieved, with the 14  $\times$  17 inch model now weighing just 2.3 kg. (CXDI-720C/710C Wireless) The FPD can be positioned quickly with no concerns about its weight.

) Waterproof property depends on the FPD models

## Speed Stitch (Auto stitching of long view images) OPTION

The X-ray tube swings and the FPD moves automatically to capture image data. The captured image data is then automatically stitched together in the DR system. This makes it easy to create long images that extend across larger areas of the body in the anteroposterior and lateral direction.





\*) When Bucky Table is long stroke type

#### Built-in AEC Assistance \*) \*\*) OPTION

The FPD is equipped with Automatic Exposure Control (AEC) assistance to support dose reduction in examinations with free positioning, such as patients who are brought in bed.



<sup>\*)</sup> Only available for systems configured with CXDI-Elite. Please contact your sales representative regarding the availability.

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<sup>\*\*)</sup> The option is supported only for use outside Bucky table and Bucky stand.

# Our Caring Subtle Improvements Make Your Operation Even Easier



#### Five axis (max.)Auto-Positioning Feature Allows the Operator to Focus On Patient Care OPTION

The auto-positioning feature is interlocked with the APRs. This function moves the ceiling-mounted X-ray tube support to any desired position at the press of a single button and can automatically set the X-ray tube angle. Effortless tube positioning allows the operator to focus on patient care.

(30 horizontal / 30 upright / 30 others, 90 positions max.)

Naturally, manual operation is also possible to make fine positioning corrections



#### Synchronized Vertical Movements of X-Ray Tube Unit and Bucky Unit OPTION

The focal point of the X-ray tube unit moves up and down in conjunction with the vertical positioning of the X-ray Bucky stand and X-ray Bucky table. This allows the operator to attend the patient in a standing position while positioning the equipment.

For a table study, the X-ray tube automatically moves to a pre-set SID, enabling accurate and fast positioning.



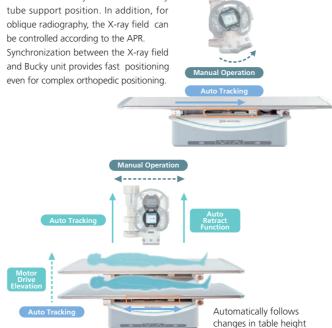
## Ceiling-Mounted X-Ray Tube Support for Versatile Positioning

X-ray tube support vertical range of 1,600 mm ensures sufficient SID when examining supine patients and low focal point radiography of standing patients. This support also rotates on the vertical and horizontal axis in addition to fixed positioning at any desired angle, enabling fast positioning at complex angles for orthopedic applications.



#### **Bucky Unit Automatically** Follows Irradiation OPTION

Easily synchronize the longitudinal travel of the table's Bucky unit with the X-ray tube support position. In addition, for oblique radiography, the X-ray field can be controlled according to the APR. Synchronization between the X-ray field and Bucky unit provides fast positioning even for complex orthopedic positioning.



### Orderly Cable Management OPTION

Shimadzu provides a tractable cable management system along the ceiling rails that supports smooth positioning.



#### Confirm The Irradiation Field Clearly with LED Light

Newly accommodated LED light indicates the irradiation field more clearly. The long-life LED reduces replacement frequency.

#### Easily Attach Line Marker to Collimator OPTION

Red laser mark clearly indicates center of the radiation field.

#### Click-Stop Collimator Rotation OPTION

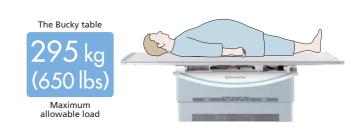
When rotating the collimator relative to the X-ray tube, the collimator can be click-stopped in 3 positions, 0 degrees and ±45 degrees, allowing quick adjustment of collimation. (The collimator can also be guickly returned to the original (0°) position.)

## **Design Concept Pursues Durability**

The Bucky table can support 295 kg (650 lbs).

The ceiling mounted X-ray tube support coupled with the Bucky device ensures easy operation and features a highly rigid construction and a durable shock-absorption mechanism.

RADspeed Pro is a high-reliability radiography system that offers extreme carefree longevity for the X-ray department.



# Easy-to-Operate, Fully Featured, Intelligent X-Ray High Voltage Generator

Color LCD and Touch Panel Allow Intuitive Operation

#### **Patient Care Concept**

Color-Coded Status Indicator

The console panel indicates the status of the X-ray generator using color perimeter display with audible sound.

The hand switch also lights up to indicate 'Ready Status'.

This advanced feature allows the operator to concentrate on patient care:

- Infant and frail elderly patients who need constant attention.
- Split-second timing is required for patients who have difficulty holding their breath.
- Quick positioning and image capture when required



#### Illumination Color and Alarm Sound When Preparation for Exposure Is Complete

The LCD screen and illumination color can change according to the Bucky table or X-ray tube settings selected. Different alarm sounds can also be specified for various events, such as when preparation for exposure is complete





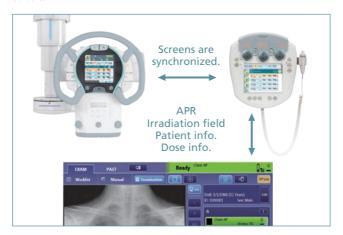
Using Bucky stand

Using Bucky table

#### APRs Synchronized with the DR system OPTION

The selected APR controls the radiography parameters, which can also be selected and changed beside the patient as well as on the wall-mounted console in the control room. The operator can prepare for radiography without

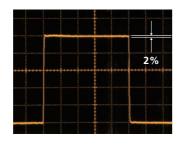
This sophisticated synchronization of the DR system, X-ray tube support and X-ray high voltage generator effectively exploits the convenience of multiple



## Generator Equipped with High-Frequency Inverter Technology

The 'High-frequency Inverter' with maximum frequency of 50kHz is used as the X-ray generation source, which generates low-ripple output with a high X-ray

This dramatically reduces X-rays that do not contribute to high-quality imaging.



High-frequency



High efficiency low-ripple output High-quality images

#### 600 kHU High capacity X-Ray Tube OPTION



It is possible to combine a large capacity X-ray tubes with an anode heat content of 600 kHU. Furthermore, this achieves a fast startup time of 0.8 seconds, reducing the risk of subject movement during imaging and improving workflow.

Nominal focal spot:

•Target angle:

0.6/1.2 mm 12° or 16°

•Nominal X-ray tube voltage: 150 kV (Short time)



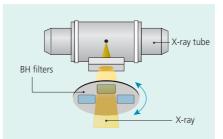
# New Ways to Improve Patient Care

Extensive Functionality Matched to the Needs of Various Clinical Applications

#### **Auto-Filtering Feature Automatically** Switches to the Optimal Filter for Each Selected Protocol

Select a protocol to suit the type of examination, and the filter in the collimator will change in accordance with the protocol. This ensures the correct filter is always automatically selected





#### Removable Grid

Remove the grid during pediatric radiography to reduce patient exposure. The type of grid inserted is displayed on the integrated console and on the LCD on the ceiling-mounted X-ray tube support.



## **Cushioning Gently Protects Patients**

If a patient suddenly sits up after an examination, they could potentially hit their head on the instrument

Therefore, the bottom of the X-ray tube support is covered with rubber cushioning material to carefully protect patient.



#### **Dose Display**

For dose monitoring, a Calculated Dose Area Product can be displayed on the console after exposure, which is based on the measured exposure parameters. Optional physical DAP meter is also available instead of the Calculated Dose Area Product display function.

In addition, Estimated entrance Dose based on the radiography parameters and the measured distance to the patient, is displayed prior to exposure as an

The measured exposure parameters and calculated or measured dose are displayed and can be sent to the RIS / PACS system.

\*) The optional Estimated entrance Dose display is not available if the optional DAP meter is combined



Radiography Can Also Be Performed Using a Foot Switch OPTION

Operators can perform radiography using a foot switch even when they are standing next to a child or elderly patient



# **Configuration and Options**

# X-Ray Tube Support

#### CH-200

- $\bullet \mbox{Color LCD}$  Touch screen rotates automatically with tube rotation
- •Individual programmable switches for locks
- Quick positioning with new-style operation handle
- Easy to clean surface
- All free button for full-way motion release
- •One-hand operation for vertical tube movement
- •Lock release buttons on rear of tube suspension
- Spring balanced for easy movement
- •Reliable locking system allows any angulations to be held in



## **Bucky Table**

#### BK-200

- Elevating horizontal radiographic table
- Maximum allowable load is 295 kg (650 lbs)
- 4-way floating top and electromagnetic locks
- Size sensing cassette tray
- Tabletop collision protection sensor
- Convenient and safe foot controls by kick switch
- Selectable extensive options
- •Flat CFRP-tabletop (option)
- Grid is removable



(Bucky unit, Long stroke type)

## X-Ray High-Voltage Generator

#### 80 kW/65 kW/50 kW

- •Newly designed large capacity and high frequency inverter
- •Large readout LED
- Touch screen display
- •Communication with CH-200 display
- •Quick setup with jog dials and Up/Down buttons
- •Micro processor controlled
- Automatic exposure control
- •Self diagnostic function with display of error codes
- •80, 65 and 50 kW output selection



## **Bucky Stand**

#### BR-120/BR-120T

- •Vertical travel to accommodate all patient ranges and studies
- Size sensing cassette tray
- Remote collimation control (option)
- •Compact design Bucky unit for easily examined sitting patients
- Selectable extensive options
- Equipped with a tilting Bucky unit (BR-120T)
- Grid is removable



## DR system (CXDI series : recommended FPD)







CXDI-420C



CXDI-403C CXDI-703C Wireless

**Options** 





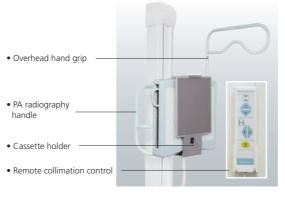
Lateral cassette holder

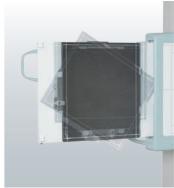


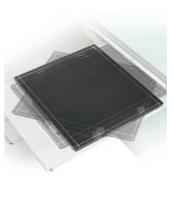


Bucky table handle

Bucky table compression belt







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FPD Rotation Tray

- Phototimer SPT-XD-A1A (1 field)
- •Phototimer SPT-XD-A3B (3 fields) •Phototimer SPT-XD-A4A (4 fields)
- •Foot switch
- •Line Marker for Collimator
- •Detent unit for Collimator
- Area Dosimeter

- Vertical tracking unit
- Bucky synchronization unit\*
- •Auto positioning function\*
- Auto stitching function\*
- •Orderly cable Management •Power assist function
- •Bucky table dual-side kick switch option
- •Bucky table drip holder
- •Bucky stand compression belt

\*Power assist function, Auto positioning function, Auto stitching function and Bucky synchronization unit are not available with the CH-200 rear-mounting type.

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Label Description: RADspeed Pro

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Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2015 Quality Management Systems and ISO13485:2016 Medical Devices Quality Management Systems.

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