

## RADspeed Pro style edition EDGE package



### High-Performance General Radiographic System Providing New Clinical Value

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High-Performance General Radiographic System Providing New Clinical Value

RADspeed Pro style edition EDGE package is top-of-one the line General Radiography System in Shimadzu RADspeed family, which is featuring a variety of the latest cutting-edge applications like Tomosynthesis, Speed Stitch or Dual Energy Subtraction.



#### DR SYSTEM





DR-ID911SE (17×17 inch, CsI)



DR-ID1202SE/1212SE (17×17 inch, GOS/CsI)



DR-ID1201SE/1211SE (17×14 inch, GOS/CsI)



DR-ID1213SE (24×30 cm, CsI)





### Tomosynthesis (Digital Multislice Tomography) OPTION

Tomosynthesis is a new digital imaging technology that combines cone-beam CT reconstruction with digital image processing. It allows images of any cross section to be obtained easily from volume data acquired from a single tomographic scan. (Only with DR-ID911SE)





### Flexible Examinations with Freedom in Choosing Body Positions

This allows images to be obtained with loads applied in the standing position, or in the supine position on a table. Consequently, it can be used to obtain images of the elbow or knee in the bent position, which is difficult using CT.

#### Low Exposure Imaging

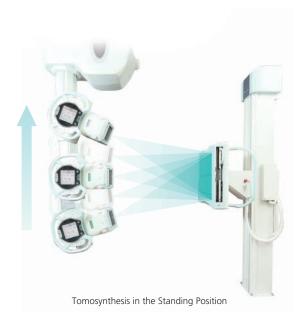
Tomosynthesis enables the imaging of multi-frame volume data with low dose exposures. Thanks to irradiation field size selection and collimation, X-ray exposure beyond the desired area can be suppressed even in imaging of the femur, so there is no excessive exposure.

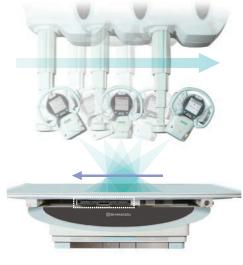
### Tomosynthesis Radiography is Especially Useful for Orthopedic Areas

Tomosynthesis reconstruction method works to reduce artifact caused by metal object. This is useful for examinations when the patient has metal implant like post-surgery follow-up in orthopedic area.

#### Display of Oblique Cross Sections

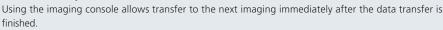
Tilting the tomosynthesis cross section slightly from horizontal improves the visibility of spines, hip joints, and other areas that are not parallel to the tabletop.





Tomosynthesis in the Supine Position

Captured volume data is sent to a dedicated workstation (Side Station RAD), where it is automatically reconstructed. The workstation allows reconstruction to be repeated with different parameters as many times as necessary.



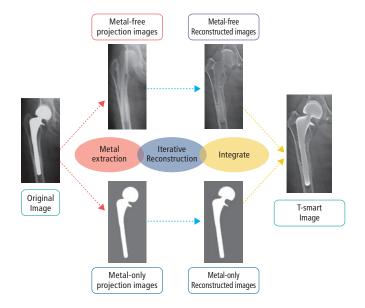


#### T-smart \*)



"T-smart" is our latest and highest grade tomosynthesis technology evolved further with iterative reconstruction method. T-smart automatically divides the original projection images into two projection image sets metal-free projection images and metal-only projection images by using advanced metal extraction algorithm. Then, it performs iterative reconstruction to each of them, and finally integrates the two data in one. That is how "T-smart" image is provided.

\*) Tomosynthesis-Shimadzu Metal Artifact Reduction Technology





#### Metal Artifact Reduced Further

T-smart provides even clearer Tomosynthesis images suppressing the artifacts around metal objects even further. This application will be a great help in the orthopedics especially for the patients with metal implants or fixators, as it enables you to diagnose the status of the boundary between bone and implant very exactly.

#### High Image Quality with Low Noise

Since the reconstruction process is performed without filtering, it improves visibility of trabeculae, hairline fractures, and other details, even around metal objects, without accentuating noise. Consequently, this allows images to be viewed with even higher image quality.

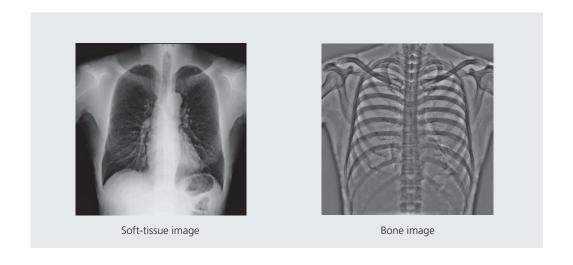
### Speed Stitch (Auto stitching of long view images) OPTION

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 direction.



### Dual Energy Subtraction OPTION

By taking successive high and low voltage images and applying a calculation process, soft-tissue images and bone images can be viewed separately. Shadows of nodes obscured by ribs can be rendered in soft-tissue images, or calcification can be rendered in bone images. (Only with DR-ID911SE)





#### Check Reference Images About One Second After Exposures

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

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

Significant weight reductions have been achieved, with the 14  $\times$  17 inch model now weighing just 2.6 kg. (DR-ID1201SE/1211SE only) The FPD can be positioned quickly with no concerns about its weight.

### Robust design with a 310 kg load bearing capacity

The proprietary design is lightweight, but has a full load bearing capacity of 310 kg.

### Highly antibacterial and excellent waterproofing

The FPDs are highly antibacterial and feature clean, dirt-resistant designs.  $^{*1)}$ 

The FPDs conform to the IPX6 waterproofing standard, to prevent ingress by liquids. \*1)

### Automatically Linked Radiography X-Ray Exposure Field OPTION

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 OPTION

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.

### Dynamic Visualization II OPTION

Dynamic Visualization II is a new image processing technique that inhibits blocked-up shadows and flared highlights to achieve images with a natural and three-dimensional appearance.\*2)

#### Virtual Grid OPTION

Virtual Grid is a software process that reduces scattered X-ray components from images captured without using a grid. (It is used when imaging patients on a gurney or table.)

- \*1) DR-ID1202SE/1212SE/1201SE/1211SE/1213SE only
- \*2) This option may be not available in your country.

  Please contact us to check the availability in your country.

### Sophisticated Functionality Makes It Even Easier to Operate

## Revolutionary 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.

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



Optional automatic rotation around the X-ray tube support axis is also available

Pressing a single button on the remote control smoothly moves the ceiling-mounted X-ray tube support to preregistered positions. Movement stops immediately after the remote control button is released. Up to two remote control units can be used.



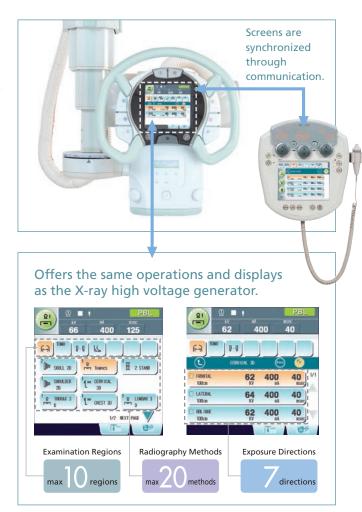
### Radiography Can Also Be Performed Using a Foot Switch OPTION

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

### APRs Synchronized with the X-Ray High Voltage Generator

Radiography parameters can be changed beside the patient as well as on the wall-mounted console in the control room. The operator can prepare for radiography without leaving the patient.

This sophisticated synchronization of the X-ray tube support and X-ray high voltage generator effectively exploits the convenience of dual consoles.



### New energy saving collimator with a bright irradiation field

LEDs have been adopted as the light source to indicate the irradiation field. This reduces power consumption while improving brightness levels and durability.

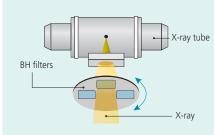
### New Ways to Reduce Patient Exposure

### Realizing Our Commitment to Reducing Patient Exposure

#### 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.





### Dose Display

For dose monitoring, a Calculated Dose is available. After the exposure, the calculated dose, based on the actual exposure parameters, is displayed.

The optional Calculated Dose displays the expected dose, in advance of the exposure, based on the radiography parameters and the distance to the patient.

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

\*) The optional calculated dose is not available if the DAP meter is optioned.

### Configuration and Options

### X-Ray Tube Support

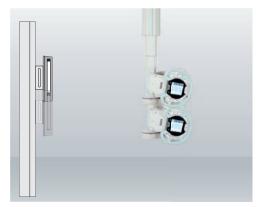
#### CH-200



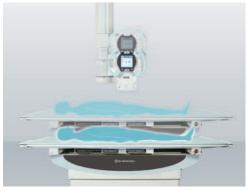
### Synchronized Vertical Movements of X-Ray Tube Unit and Bucky Unit OPTION

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 preset SID, enabling accurate and fast positioning.



Automatic synchronization even at oblique positions



Automatically follows changes in table height

#### Orderly Cable Management OPTION

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



### BK-200 Bucky Unit Automatically Follows Irradiation OPTION

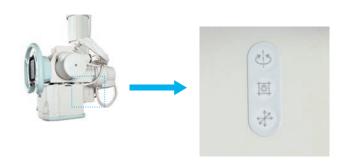
Easily synchronize the longitudinal travel of the table's Bucky unit with the X-ray tube support position. In addition, for oblique radiography, the X-ray field can be controlled according to the APR.

Synchronization between the X-ray field and Bucky unit provides fast positioning even for complex orthopedic positioning.



#### Additional Operation Switch

"Lock release buttons" on rear of tube suspension.



### **Bucky Table**

#### BK-200



### **Bucky Stand**

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



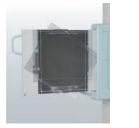
### X-Ray High-Voltage Generator

#### UD150B-40/V-40/L-40



### FPD Rotation Tray OPTION

The FPD tray can be rotated 90 degree to change the orientation of FPD.





\*) This option is dedicate for DR-ID1201/1211SE.

### 1417 FPD adaptor OPTION

It can enable to mount DR-ID1201/1211 into 911SE tray.



\*) This option is dedicate for BK-200 and DR-ID1201/1211SE.

### DR System



DR-ID911SE \*1) (17×17 inch, Csl)



DR-ID1202SE/1212SE (17×17 inch, GOS/CsI)



DR-ID1201SE/1211SE (17×14 inch, GOS/CsI)



DR-ID1213SE \*2) (24×30 cm, CsI)

<sup>\*1)</sup> If the DR-ID911SE is used in combination with a Bucky stand, then the FPD unit cannot be replaced with 1202SE/1212SE/1201SE and 1211SE.

 $<sup>^{\</sup>star}2)$  Of the recommended DR systems, the 1213SE cannot be installed in the Bucky stand or the Bucky table.

Founded in 1875, Shimadzu Corporation, a leader in the development of advanced technologies, has a distinguished history of innovation built on the foundation of contributing to society through science and technology. We maintain a global network of sales, service, technical support and applications centers on six continents, and have established long-term relationships with a host of highly trained distributors located in over 100 countries. For information about Shimadzu, and to contact your local office, please visit our website at www.shimadzu.com



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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.

#### Remarks:

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- Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction