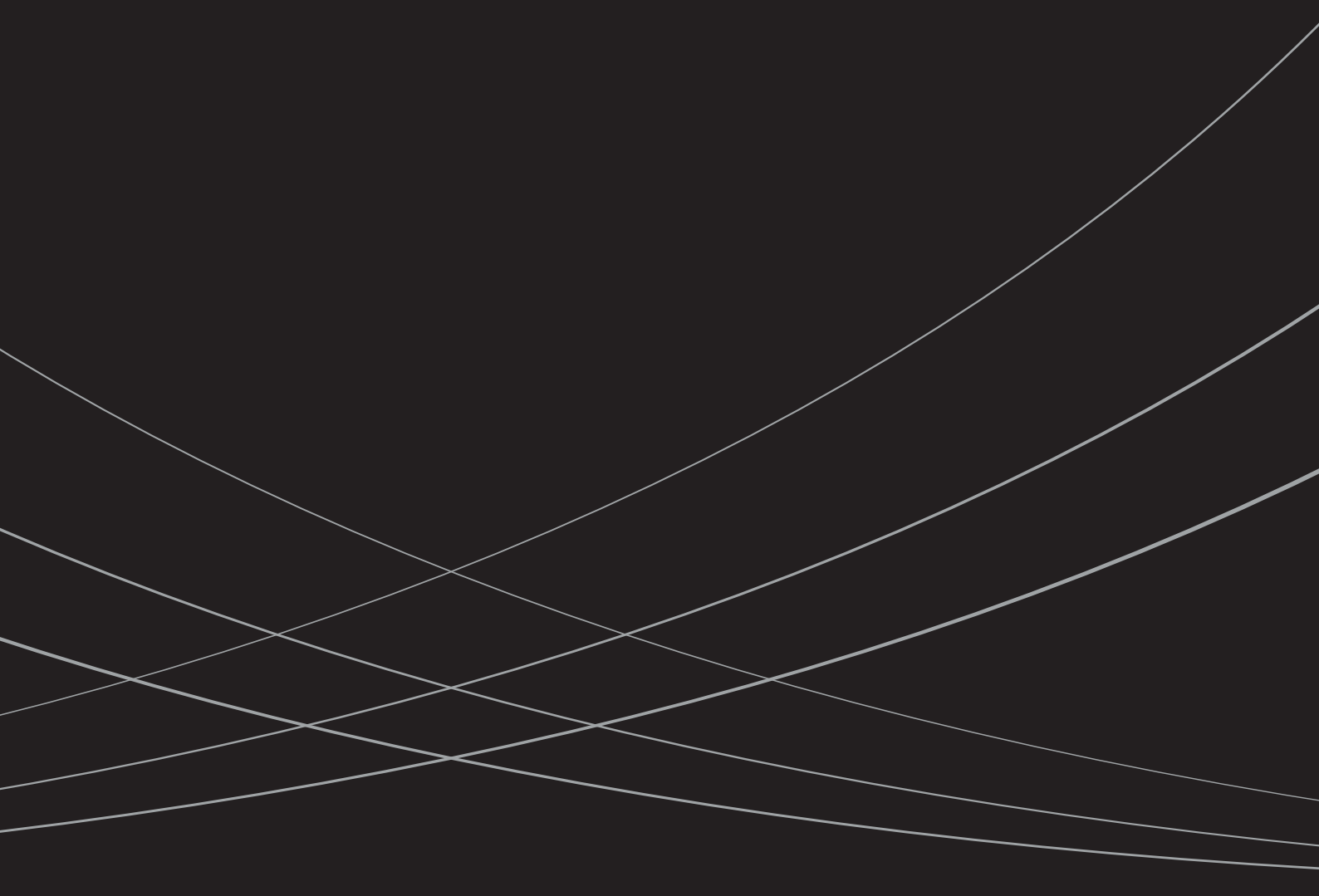


# RADspeed Pro style edition

EDGE package featuring GLIDE Technology



# High-Performance General Radiographic System Providing New Clinical Value

## RADspeed Pro **style edition** EDGE package featuring GLIDE Technology

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 applicatons like Tomosynthesis, Speed Stitch or Dual Energy Subtraction.



### DR SYSTEM



DR-ID911SE  
(17×17 inch, Csl)



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



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



DR-ID1213SE  
(24×30 cm, Csl)

Some of the FPDs may not be available in your country. Please contact us to check the availability in your country. The TM and \* symbols are omitted in this document.

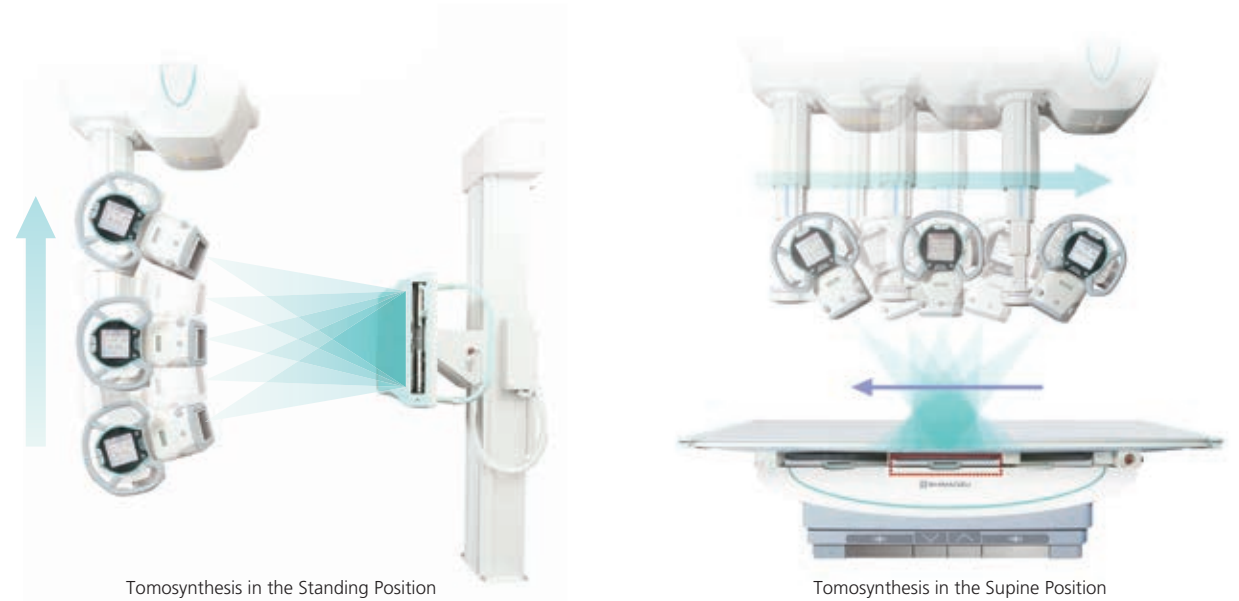


# Providing New Clinical Value

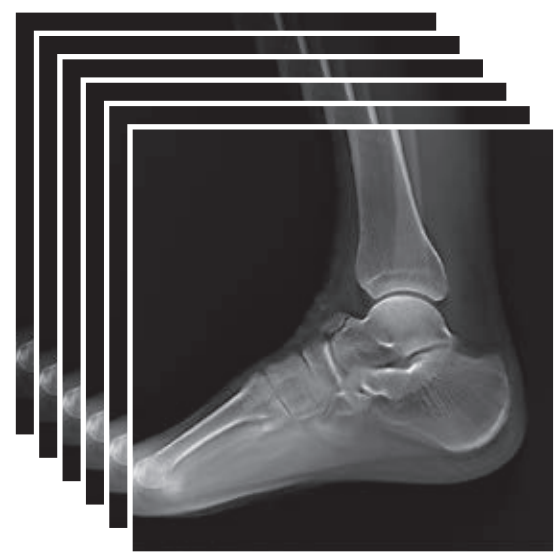


## Tomosynthesis (Digital Multislice Tomography) OPTION

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)



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. Using the imaging console allows transfer to the next imaging immediately after the data transfer is finished.



### 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.

### 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.

### 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.

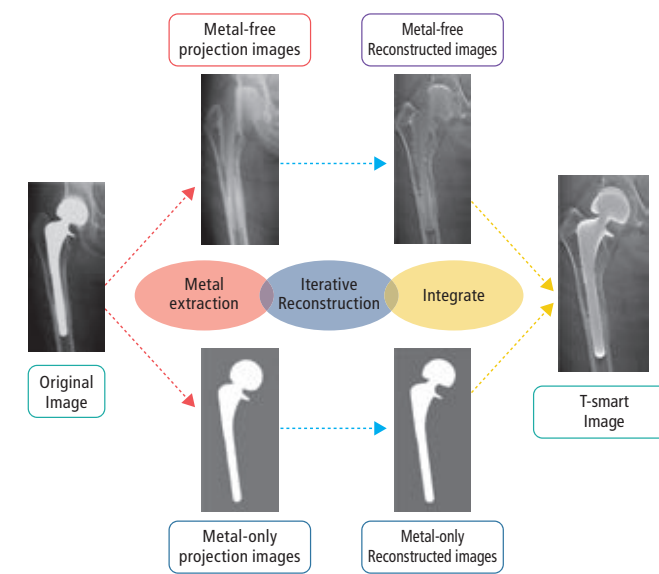
### Display of Oblique Cross Sections

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.

## T-smart OPTION

"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.

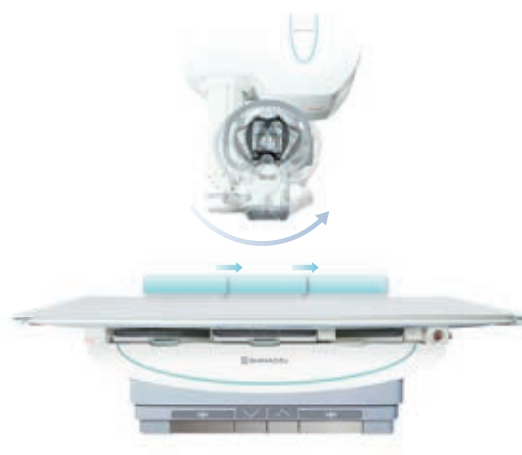


## Speed Stitch (Auto stitching of long view images) OPTION

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.

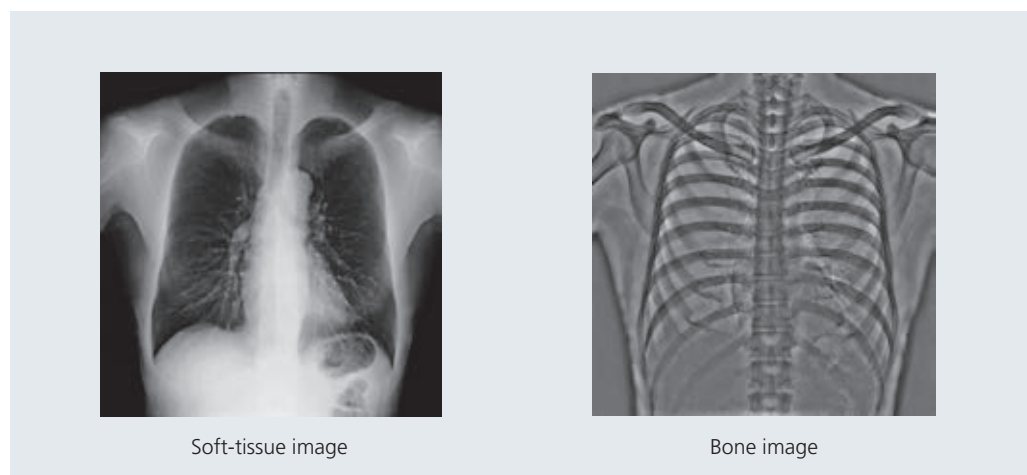
Max 4-steps, 160cm length available

Max 3-steps, 120cm length available



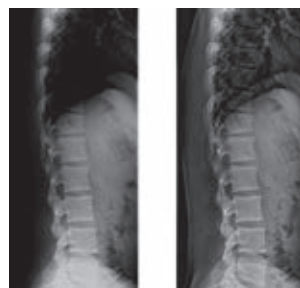
## Dual Energy Subtraction OPTION

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)



## 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.\*1)

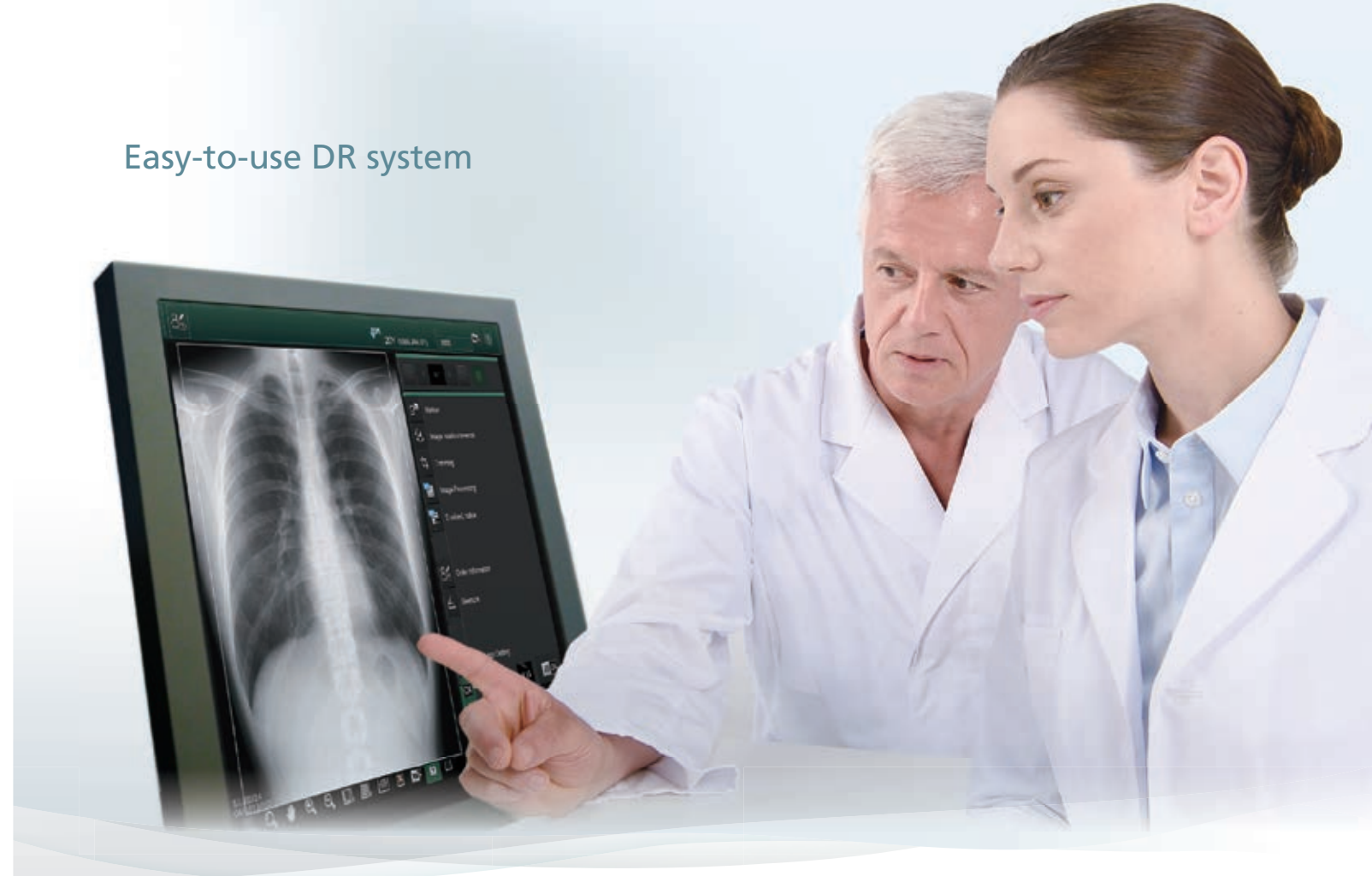


## Virtual Grid OPTION

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) This option may be not available in your country. Please contact us to check the availability in your country.

## Easy-to-use DR system



## Quick Preview 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.

## Highly antibacterial and excellent waterproofing

The FPDs are highly antibacterial and feature clean, dirt-resistant designs.\*2) The FPDs conform to the IPX6 waterproofing standard, to prevent ingress by liquids.\*2)



## Robust design with a 310 kg load bearing capacity

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

## 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.



## Light, easy-to-handle wireless FPD

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

\*2) DR-ID1202SE/1212SE/1201SE/1211SE/1213SE only

# Sophisticated Functionality Makes It Even Easier to Operate

Extensive Functionality Matched to the Needs of Various Clinical Applications

**Superb operability Power Assist Function** OPTION

## POWER GLIDE

The POWER GLIDE assists your manual positioning of X-ray tube by motors and makes it extremely light, just like "Gliding in Air". It reduces technologists' burdens and increase patient throughput.

**GLIDE ASSIST** **GLIDE VIEW**

**GLIDE Technologies**

**6-axis force sensor**

Fz+ Mz+ Fy+ My+ Fx+ Mx+

Motor drive

Full power Mid Low

A balance between Fast & Accurate Positioning

## Revolutionary 5-axis (max.) Auto-Positioning Feature Allows the Operator to Focus On Patient Care

OPTION

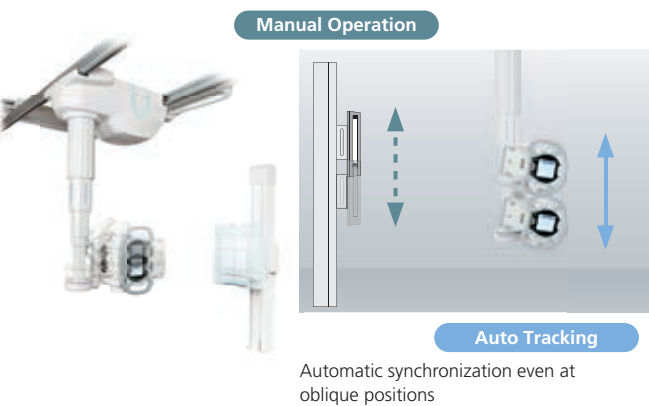
The auto-positioning feature is interlocked with the APRs. This function moves the ceiling-mounted X-ray tube support to any desired position at the press of a single button and can automatically set the X-ray tube angle. Effortless tube positioning allows the operator to focus on patient care. (30 horizontal / 30 upright / 30 others, 90 positions max.) Naturally, manual operation is also possible to make fine positioning corrections easy.



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

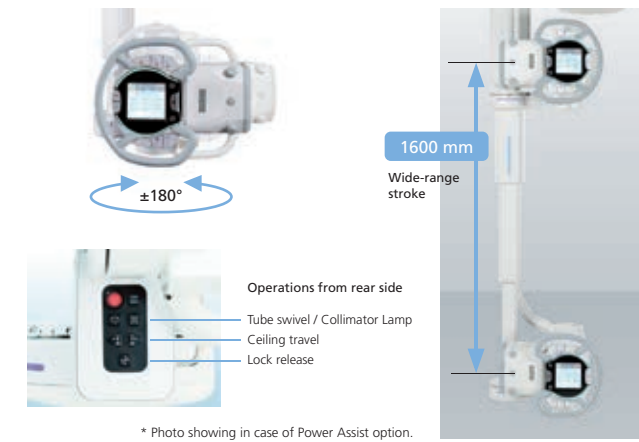
OPTION

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

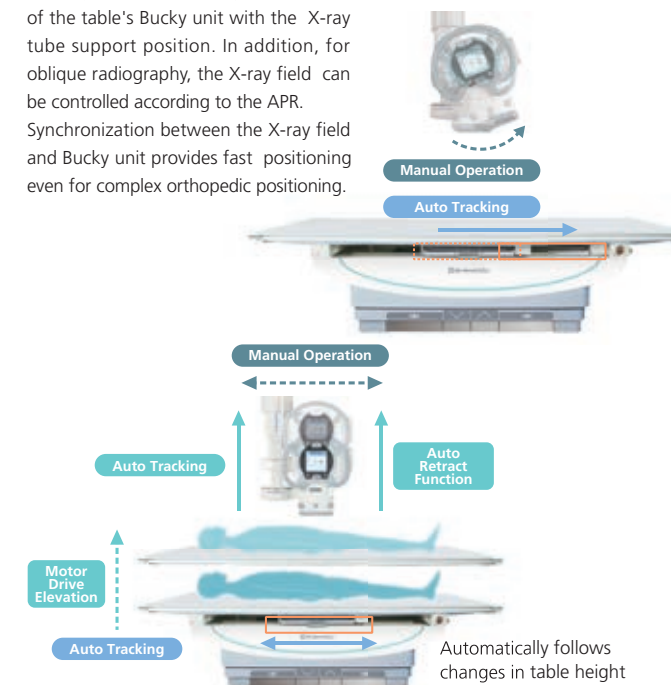
X-ray tube support vertical range of 1,600 mm ensures sufficient SID when examining supine patients and low focal point radiography of standing patients. This support also rotates on the vertical and horizontal axis in addition to fixed positioning at any desired angle, enabling fast positioning at complex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

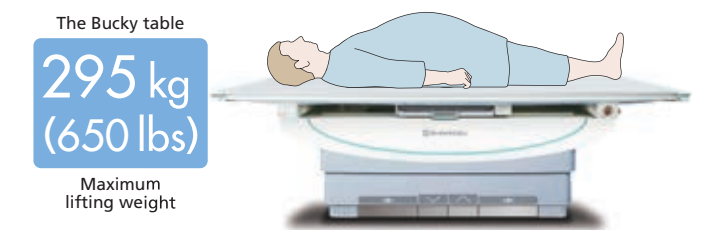
## Click-Stop Collimator Rotation

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 quickly 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.





# New Ways to Reduce Patient Exposure

Realizing Our Commitment to Reducing Patient Exposure

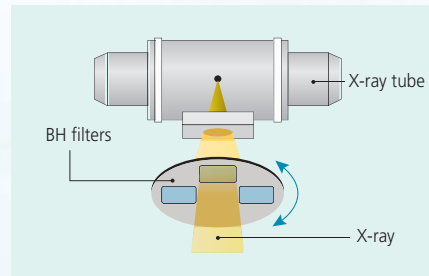
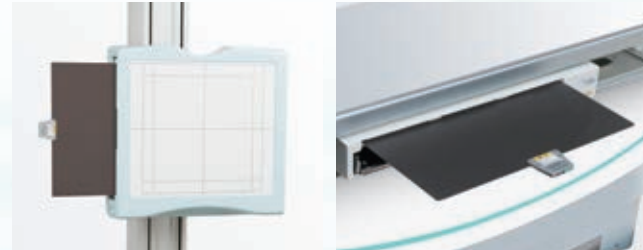
## Auto-Filtering Feature Automatically Switches to the Optimal Filter for Each Selected Protocol

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.



# Patient Friendly Design

A well designed equipment gently protects the patient

## Rubber-Cushioned Collimator

The perimeter of the collimator emission port is covered with rubber to cushion the impact if a patient bumps into the collimator.



## 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.



## 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.



# 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 switch

### 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

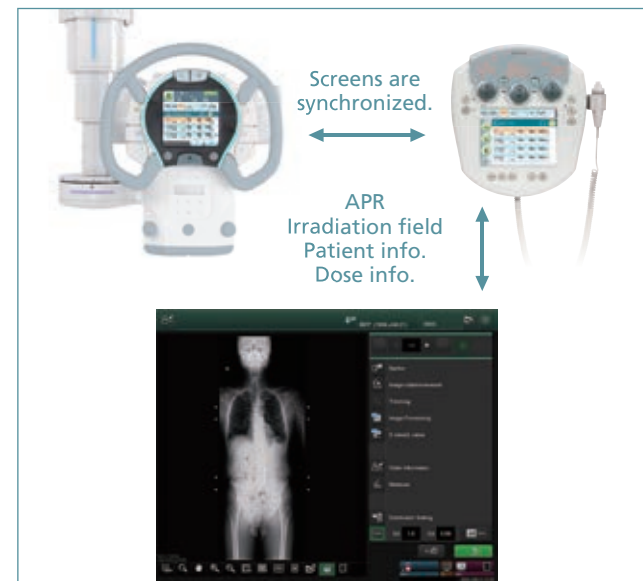


Using Bucky table


## 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 leaving the patient.


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



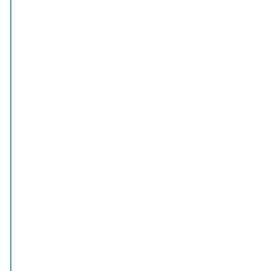
## Advanced APR Allows 800 Different Radiography Parameter Configurations



Anatomical Regions  
max 10 regions



Radiography Technique  
max 20 methods

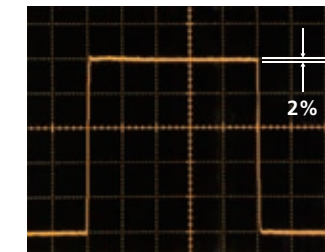


Exposure Projections  
7 directions

## 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 quantum efficiency.

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



High-frequency conversion

50 kHz

High efficiency. low-ripple output  
High-quality images

## 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.

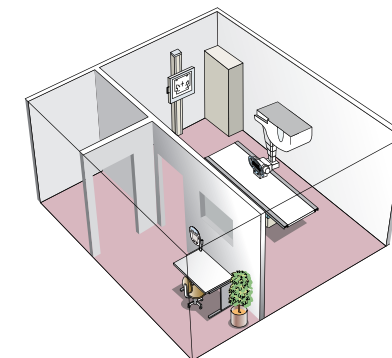
In addition, Estimated entrance Dose based on the radiography parameters and the measured distance to the patient, is displayed prior to exposure as an option.

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.

## System Layout

The compact, space-saving high voltage generator provides more working space as well as a flexible layout. A ceiling-mounted X-ray tube further increases the spatial area around the patient on a Bucky table or trolley.

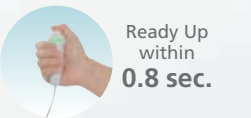


## 600 kHU High capacity X-Ray Tube OPTION

### Speed Shot

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: 0.6/1.2 mm
- Target angle: 12° or 16°
- Nominal X-ray tube voltage: 150 kV (Short time)





# Configuration and Options

## X-Ray Tube Support

### CH-200

- 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 position



## Bucky Table

### BK-200

- Elevating horizontal radiographic table
- Maximum lifting weight 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
- Long Bucky Stroke suitable for Speed Stitch



## 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



BR-120

BR-120T

## DR System

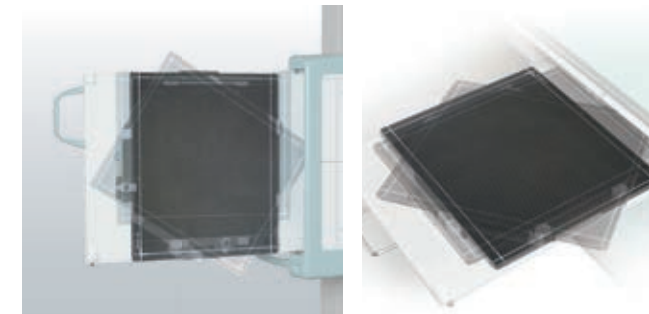


DR-ID1202SE/1212SE (17x17 inch, GOS/CsI)  
 DR-ID1201SE/1211SE (17x14 inch, GOS/CsI)  
 DR-ID1213SE <sup>\*)</sup> (24x30 cm, CsI)

- \*1) The DR-ID911SE and DR-ID12xx series are used exclusively for the Bucky tray, except when using the optional 1417 FPD adaptor on the Bucky table.
- \*2) Off-the-tray use only.

## FPD Rotation Tray

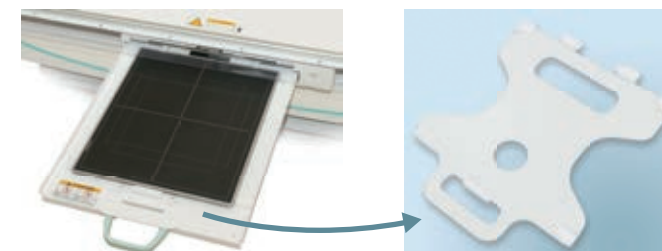
The FPD tray can be rotated 90 degree to change the orientation of FPD.



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

## 1417 FPD adaptor

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



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

- Phototimer SPT-XD-A1A (1 field)
- Phototimer SPT-XD-A3B (3 fields)
- Phototimer SPT-XD-A4B (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 Operation
- Bucky table dual-side kick switch option
- Bucky table drip holder
- Bucky stand compression belt

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

## Options

### Accessories

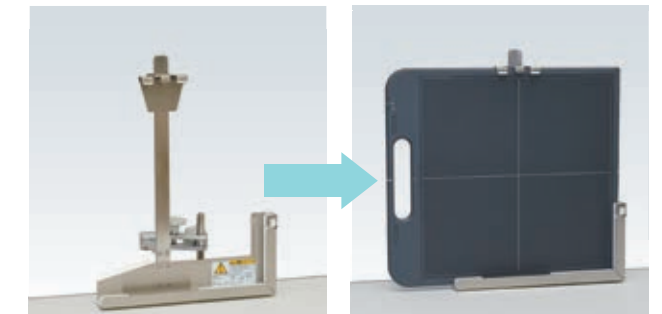


Grip switch

Bucky table compression belt

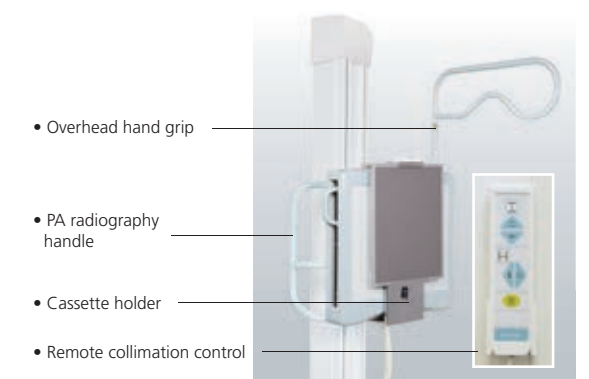


Bucky table handle



Lateral cassette holder (HC)

\*) FPD not included.



- Overhead hand grip
- PA radiography handle
- Cassette holder
- Remote collimation control



Label Description: RADspeed Pro

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](http://www.shimadzu.com)



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<https://www.shimadzu.com/med/>



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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- Every value in this catalogue is a standard value, and it may vary a little from the actual at each site.
- The appearances and specifications are subject to change for reasons of improvement without notice.
- Items and components in the photos may include optional items. Please confirm with your sales representative for details.
- 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 Manual.