



CRANEX[®] D



**Digital imaging
made easy.**



Digital imaging made easy.



With SOREDEX's twenty-seven years of expertise in the manufacture of state-of-the-art dental panoramic systems, SOREDEX turns another page in its history with the introduction of the **CRANEX D, a direct digital panoramic and cephalometric system.**





Explore the possibilities of Digi



tal Imaging with the CRANEX D

Digital Radiography – more o more tools, more possibilities

Digital dental radiographic imaging offers fast and accurate diagnostic tools, it takes dental imaging to a totally new level. Digital images from the **CRANEX D** are available for immediate examination and diagnosis through advanced dental imaging softwares that also offer wide range of tools and features.



Quality, more value

S



Image handling

Images can be enhanced, zoomed and filtered in many different ways, negative-positive images and 3D-embossing are also possible.

Digital Imaging software

The CRANEX D concept is a combination of the CRANEX D digital panoramic / cephalometric unit and Digital Imaging software. CRANEX D has been designed to meet your needs for ease of use, superb image quality and functionality.

Seeing is believing

Visualizing a patient's case improves communication between you and your patient.



Manage Patient data and images

Managing patient data using Digital Imaging software is fast and easy. CRANEX D can be integrated with Windows based patient management and clinical application software.



Cranex D provides flexibility with a choice of several software applications. DIGORA for Windows, CV XV (US only), SorCom or SOREDEX TWAIN are ready to take you into the digital world with Cranex D.

DIGORA for Windows and CV XV offer a comprehensive set of imaging tools to assist you with your daily imaging tasks. Total flexibility is yours with either single-user or network versions. Optional DICOM services are also available.

SorCom provides a simple-to-use direct "DICOM bridge" for acquiring images into a DICOM system, where DICOM imaging software is already in use.

SOREDEX TWAIN takes advantage of the industry standard TWAIN interface to enable images acquisition into a 3rd party imaging application.
* 3rd party imaging application must comply with Medical Device Directive 93/42/EEC and / or FDA if applicable.*



What makes CRANEX D so easy to use?

1

Wide anterior layer thickness.

A wide anterior layer thickness assures good visualization of both the crown and apex, even in patients with malocclusion.



2

Easy positioning for all patients

The CRANEX D's ergonomic design makes positioning easy for every patient. The open construction of the lower pan column allows easy access for wheelchair patients. The direct patient entry of the CRANEX D assures easy entry for virtually all patients.



3

PC user interface

Imaging programs are selected through the user interface on the PC. The kV is set automatically by **Automatic Exposure Setting** (AES) based on the width of the patient's head.



4

Software compatibility

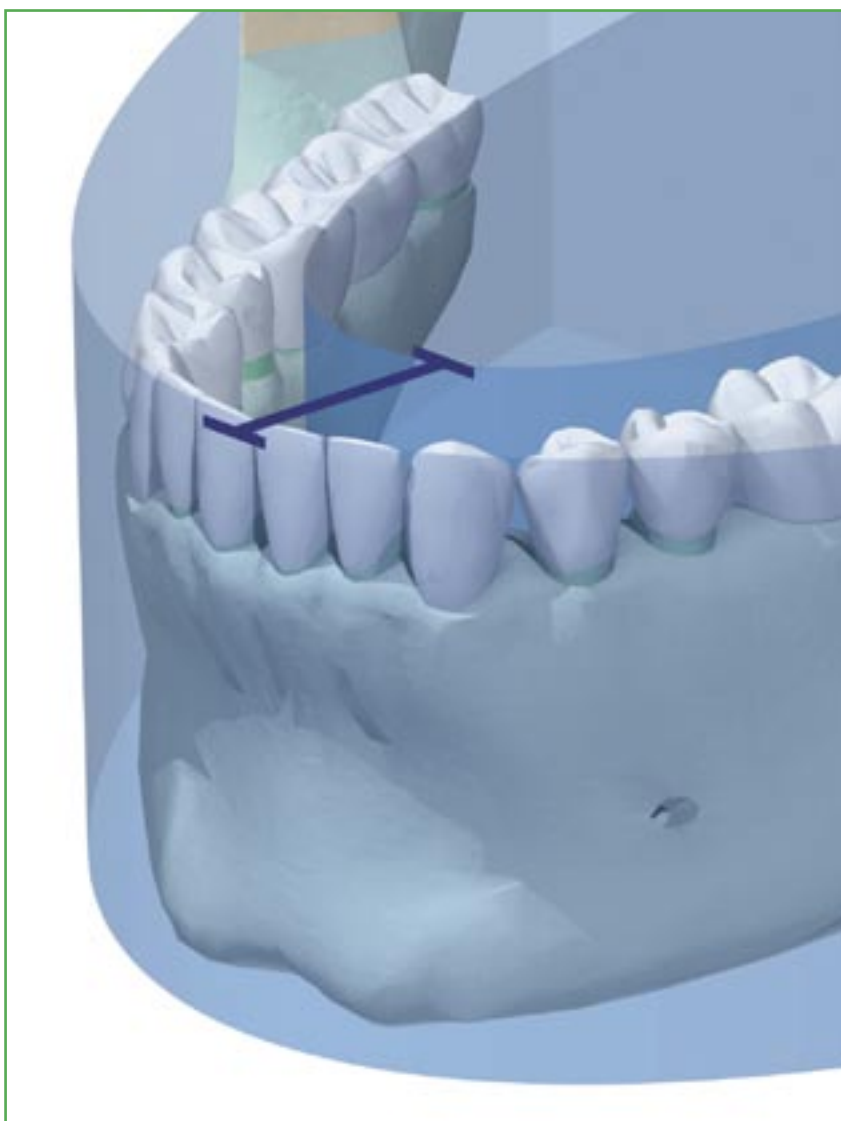
CRANEX D works fluently with commonly used dental imaging and Patient Management Software's like Digora for Windows and CVXV.



Extra wide anterior layer thickness

Layer thickness 50% wider

The new SOREDEX CRANEX D unit incorporates a sophisticated way (Variable Panoramic Collimator, VPC^{Pat. Pending}) of producing panoramic images that have an exceptionally wide anterior layer thickness with no increase in overlapping. The advantage of this is that image quality is superb regardless of the patient's dentition.

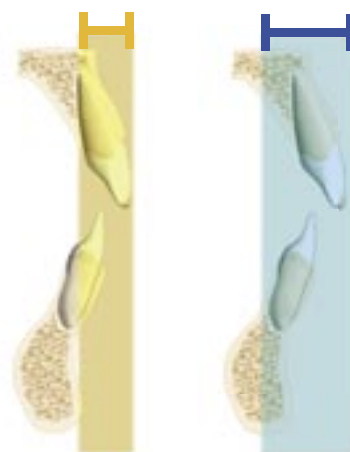


Wider anterior layer thickness.

These illustrations show a malocclusion.

■ The first picture illustrates the narrow anterior layer thickness of most panoramic systems and the resultant difficulty in positioning all of the dentition within this narrow area of focus.

■ The second illustration shows **the 50% wider anterior layer thickness** of the **CRANEX D** which makes it easy to position all of the anterior dentition within the area of focus.



Patient positioning made easy



Stable patient positioning

Good image quality can only be achieved if the patient is held accurately and firmly in position. The CRANEX D's four point patient positioning system ensures patient stability.



■ Patient positioning

The red positioning light makes it easy to see the center of anterior layer.

The motorized movements are operated from the unit's control panel.

A hinged mirror allows the operator to verify the correct patient position prior to taking the image.

■ Patient support

Once correctly positioned, rigid support of the patient's head is essential to avoid patient movement and image blurring. The CRANEX D utilizes a four-point patient holding system that firmly yet gently holds the patient's head in place. The patient's head is supported at three points, and the chin with the chin support and a bite block or lip holder.

■ Open design

The open design of the CRANEX D assures that patient entry and exit is easy and comfortable. The operator has an open access to patient and clear visibility during the patient positioning.

Automatic Collimator Selector (ACS)

Motorized and automatic collimators - simply by choosing the imaging mode from the user interface.

Imaging programs

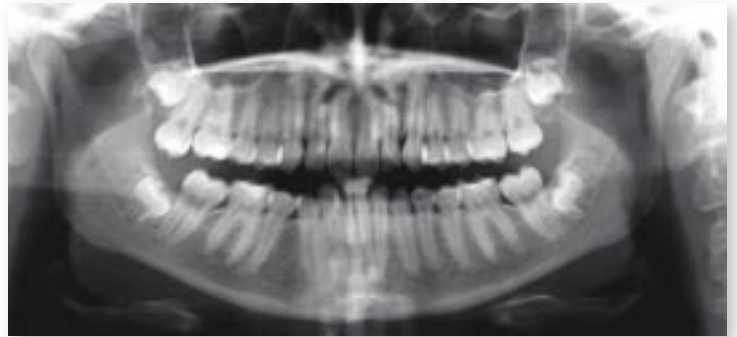


Imaging modes

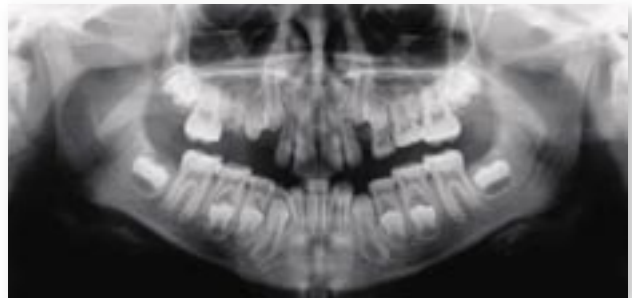
With the CRANEX D you can perform standard panoramic, pediatric panoramic, sectional panoramic, TMJ and sinus examinations and optional cephalometric examinations.



Adult panoramic
 All panoramic programs include automatic spinal compensation for an excellent view of the anterior teeth without distracting spinal shadow.



Child panoramic
 A shorter exposure time and reduced exposure field lowers patient dose.



Cephalometric
 Lateral and PA images.



Sectional Imaging

Any combination of 1 to 5 panoramic image sections can be selected. This reduces the patient radiation dose as only the region of interest needs to be exposed.

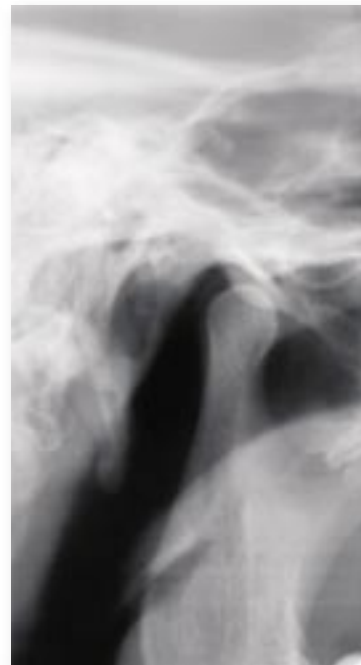
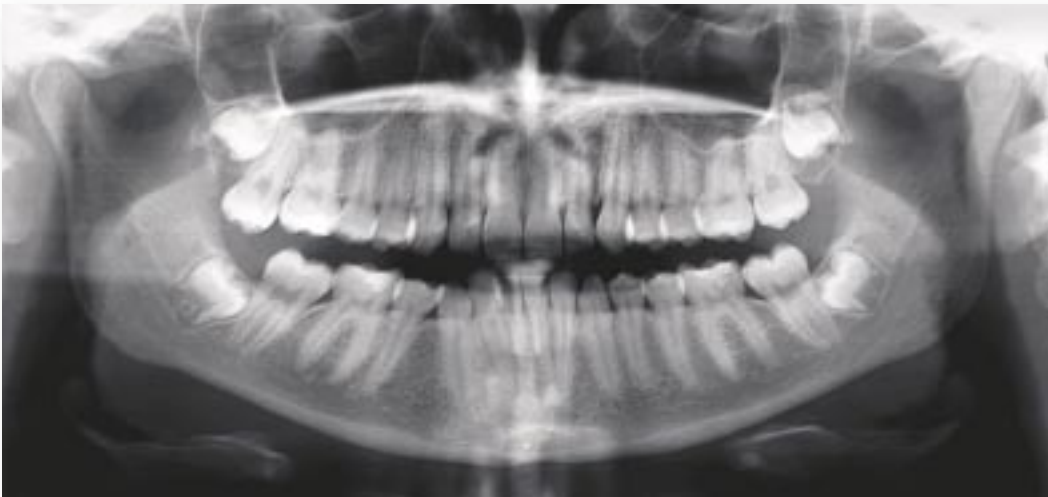
TMJ

TMJ images are taken mouth open and/or closed for functional evaluation and condyle anatomy.

True diagnostic value through image quality

High image quality

Excellent signal-to-noise ratio, high resolution and a wide dynamic range result in superb quality images with a high level of diagnostic information.



Smart image processing

Contrast and brightness levels of CRANEX D images are optimized for direct examination and diagnosis. In addition, DIGORA for Windows software offers a wide selection of image handling possibilities that can be used to view images and areas of interest in different ways.



Shadow Filter

Displays the image with an embossed grayscale. This gives the image an appearance of depth based on the relative densities or grayscale values. The Shadow filter is useful for enhancing the edges of objects within the image.



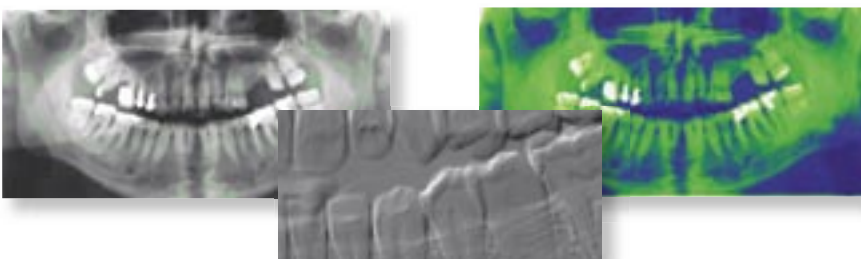
Negative

Displays the image with an inverted grayscale. Viewing images in negative mode is useful for evaluating hard tissue (bone).



Magnification Tool

The area of interest can be enlarged for better examination.



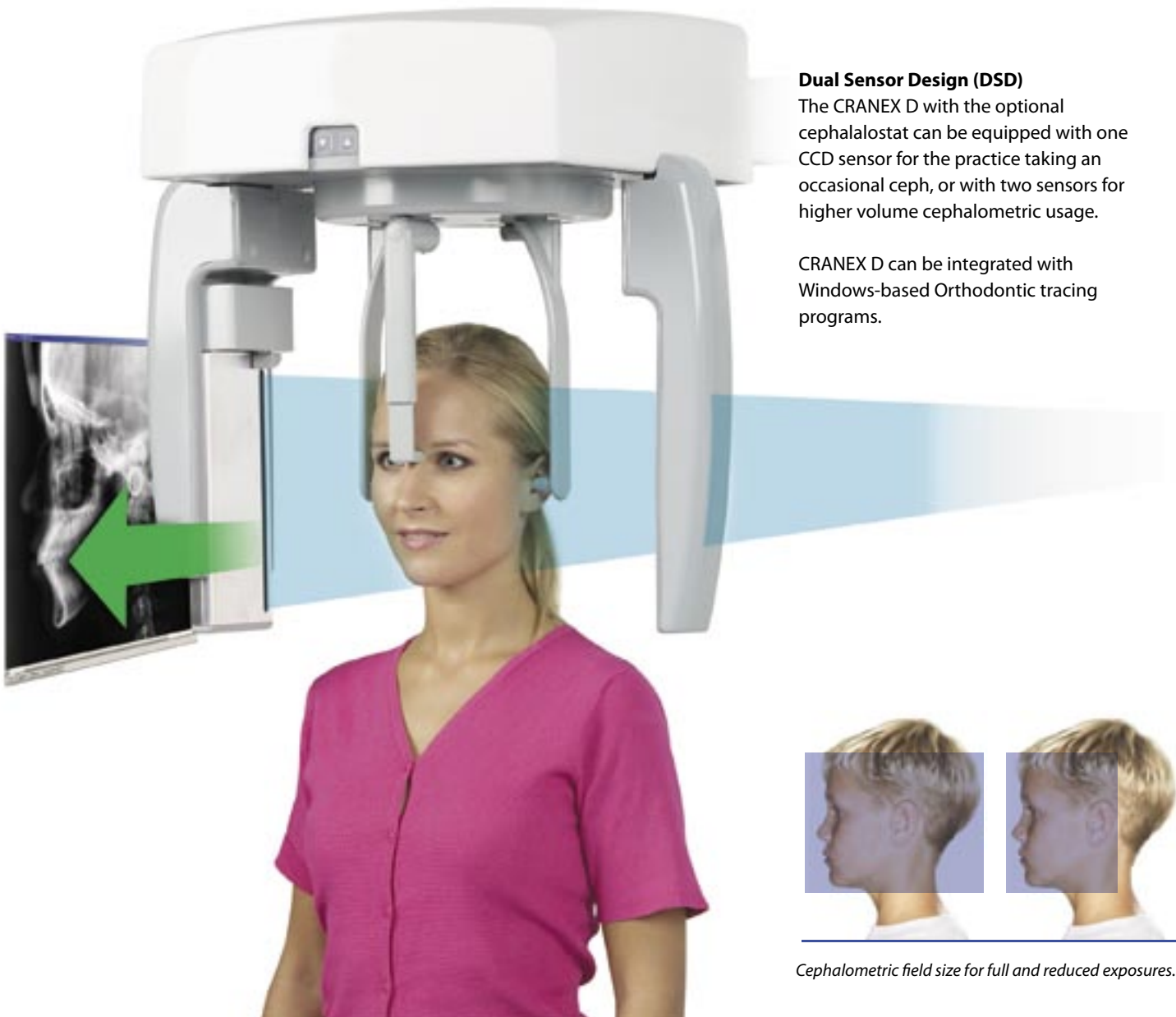
Color Highlight- and Embossing Filters

Different densities can be replaced with colors. The embossing filter gives a 3D-like image. These features make it easier to examine the patient's dentition.

Cephalometric unit

Anatomically correct Imaging Geometry

CRANEX D utilizes the central cephalometric projection technique, the very same technique that film based systems use. The image readout is accomplished using a narrow beam technique. Soft tissue filtration is done automatically, based on the position of the nasion support.



Dual Sensor Design (DSD)

The CRANEX D with the optional cephalostat can be equipped with one CCD sensor for the practice taking an occasional ceph, or with two sensors for higher volume cephalometric usage.

CRANEX D can be integrated with Windows-based Orthodontic tracing programs.

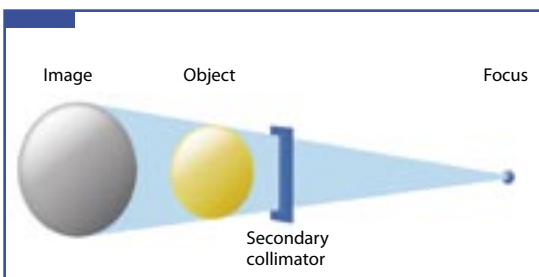
Cephalometric field size for full and reduced exposures.



Cephalometric unit

The height of the digital cephalostat is controlled directly from the cephalostat. The head support can be rotated at 45° intervals and the nasion support can be adjusted vertically to correctly support the head regardless of patient size.

- Ceph head support in the lateral position.
- Ceph head support in the PA projection. The nasion support is rotated out of the way during PA projection.



■ **Cephalometric imaging geometry**

True central projection is achieved by combining the rotation and linear movement of the rotating unit. Radiation output is uniform around the exposed area. This result in equal horizontal and vertical magnification. The CRANEX D's central projection technique produces images displaying traditional cephalometric imaging geometry. Lateral images are asymmetrical, while PA images are symmetrical, the same as in film cephalometry.



- Optional support for Carpus imaging

The Design, It's in the details



■ All controls and accessories are close to the operator.



■ Robust stainless steel CCD sensor is designed to last.



■ *CCD sensor can be easily removed from panoramic unit for cephalometric use.*



■ *Unit shown here with optional base cover.*

Technical data

General

Generator	X-ray tube	Focal spot size	Minimum total filtration	Line voltage
High frequency DC generator, operating frequency 40 kHz	OPX 105 or equivalent	0.5 mm	2.7 mm Al	230/240 Vac \pm 10% / 115 Vac (50/60 HZ)
Anode voltage	Anode current	Exposure time	SID	Fusing
57 - 85 kV	10 mA	17.6 s panoramic 8 - 20 s cephalometric	520 mm (20.47") panoramic 1721 mm (67.75") cephalometric	8 A / 16 A slow (230/115 Vac)
Weight	Electrical safety classification	Colour		
Pan 120 kg (264 lbs) Ceph 165 kg (363 lbs)	EN 60601-1 class 1/B	RAL 7040 RAL 9003		

Digital Unit

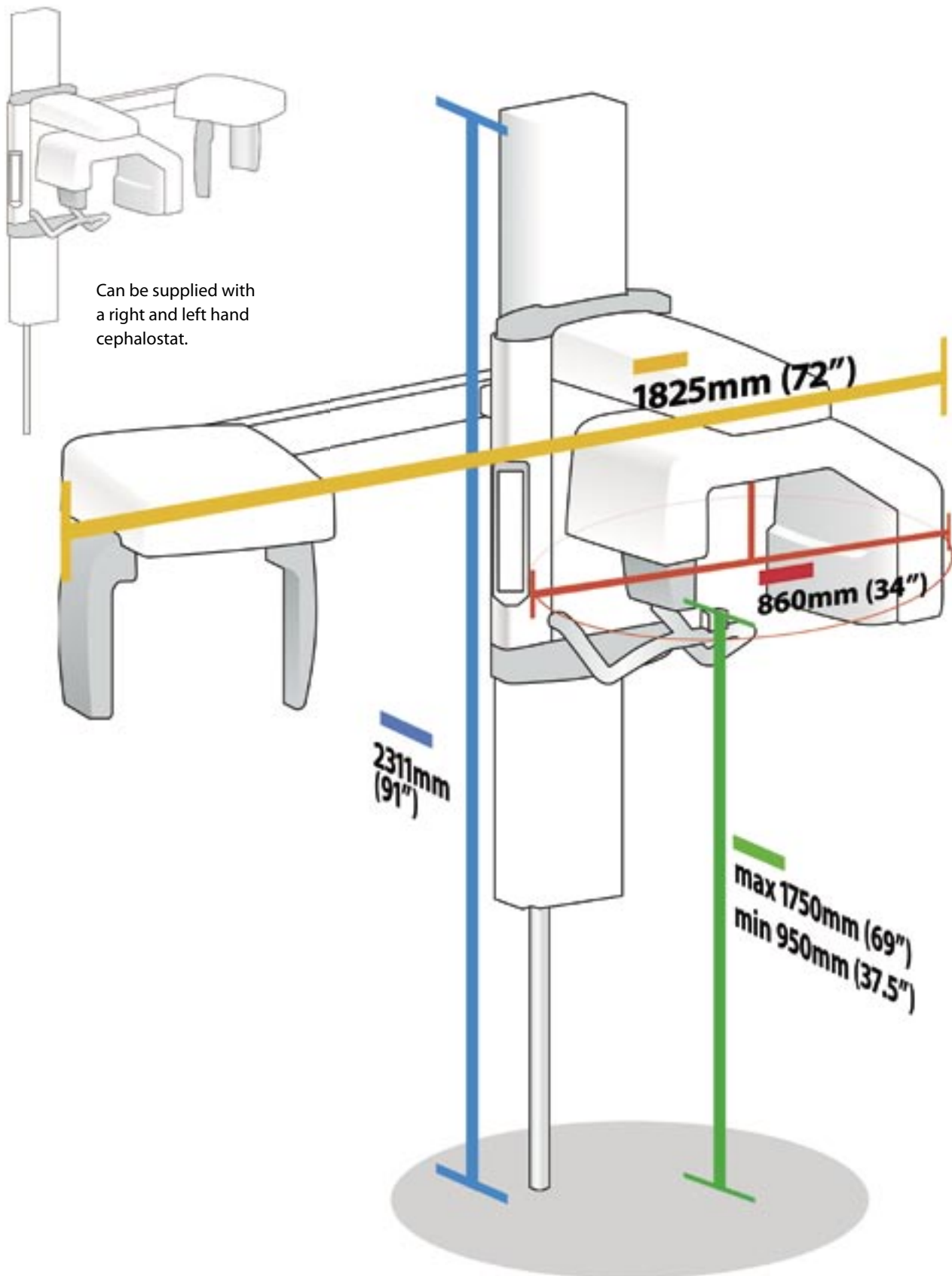
Sensor	Active sensor surface	Pixel size	File size
CCD-detector	PAN: 147.5 x 6.1 mm CEPH: 221.2 x 6.1 mm	0.096 mm	PAN max: 9.5 MB CEPH max: 11.5 MB

Workstation computer recommendations

Operating system

Windows XP Professional / Home / SP1 or SP2
Windows 2000 Professional / SP4 / SP6a

Small, compact design



CRANEX® D

SOREDEX designs, develops, manufactures and markets dental imaging systems, with an emphasis on innovative digital solutions. Operating worldwide, SOREDEX offers quality imaging systems of true diagnostic value, based on an in-depth understanding of the dental practice. Applying three decades of experience of imaging excellence, we offer reliable and easy-to-use solutions that help you focus on patient care.

SOREDEX digital imaging systems are innovative and accurate diagnostic tools that integrate seamlessly and easily into a dental practice, enhancing the imaging process and improving workflow. Our systems are designed to be simple and easy to use. They will make your dental practice more efficient and ultimately give you more time for your patients.

SOREDEX stands for innovation and value in dental x-ray technology.

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