



Veraviewepocs® 2D HD Pan/Ceph  
Low Dose, High Definition Images

 J.MORITA MFG.CORP.

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Focused on life.



## High Speed, Digital Panoramic/Cephalometric 7.4 Second Panoramic, 4.9 Second Cephalometric

**The Veraviewepocs 2D HD features new, cutting edge technology that delivers extremely high quality images with low X-ray exposure.**

**This unit also offers a variety of specialized programs, such as the Orthoradial Panoramic projection, which reduces the overlapping of neighboring teeth, and the Shadow Reduction Panoramic projection, which reduces obstructing shadows. In addition, the AF function offers easy and accurate patient positioning.**

**A new High Definition (HD) update further enhances cephalometric image clarity with improved soft tissue display.**

**Veraviewepocs 2D is also completely upgradeable to the Veraviewepocs 3D model.**

### Highlights at a Glance

#### Digital Panoramic

- Fine High Speed Mode features 7.4 second exposure time, 1/4 X-ray exposure\*
- High quality images using both Digital Direct Automatic Exposure (DDAE) and Automatic Image Enhancer (AIE)
- High resolution images even in Fine High Speed Mode
- Easy patient positioning with AF automatic positioning, triple laser beams, and power assisted movement
- No film or film development necessary

#### Digital Cephalometric

- High speed, 4.9 second exposure time, 1/10 X-ray exposure\*
- New High Definition (HD) update improves clarity and soft tissue display
- More diagnostic information – greater dynamic range
- Image processing can be completed within 20 seconds
- Fully automatic settings for easy operation
- No film or film development necessary

\* This comparison is made with the Veraviewepocs film-based system



High Quality Images with Less X-ray Dosage  
Upgradeable to Veraviewepocs 3D



3D image available only with  
Veraviewepocs 3D.

## Super High Quality Digital Panoramic Images

**Super High Quality Image –**  
The Veraviewepocs offers high resolution even in Fine High Speed Mode. With superb density and contrast, Digital Direct Automatic Exposure (DDAE), and Automatic Image Enhancer, Veraviewepocs always obtains an optimal image.



*Fine High Speed Mode: pixel size 144  $\mu\text{m}$   
Super Fine Mode: pixel size 96  $\mu\text{m}$*

### High Resolution

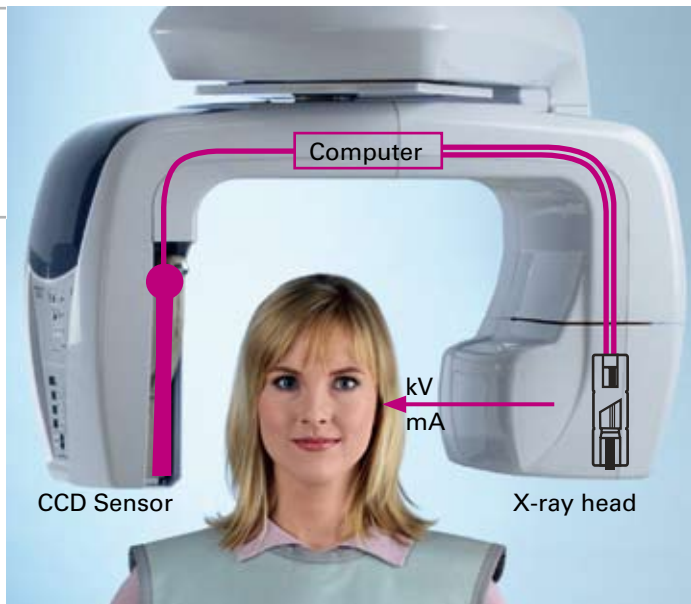
**Fine High Speed Mode:**  
Pixel size is reduced by 25% compared to the previous model, so it produces superior images of a higher resolution.

**Super Fine Mode:**  
Produces an even better image with increased resolution.



### Panoramic Cassette

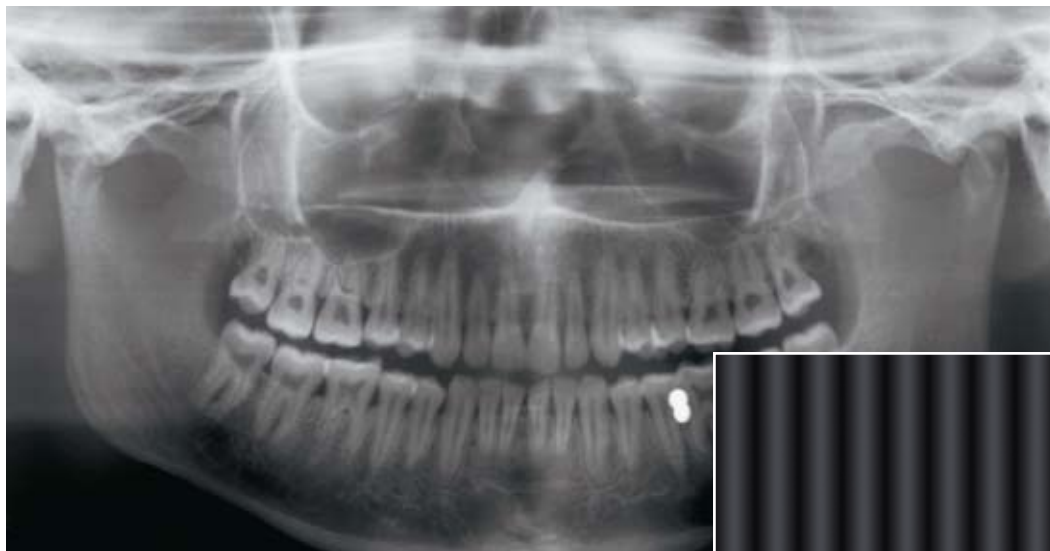
The high resolution CCD sensor (32-bit microprocessor) produces high quality, digital, panoramic images.



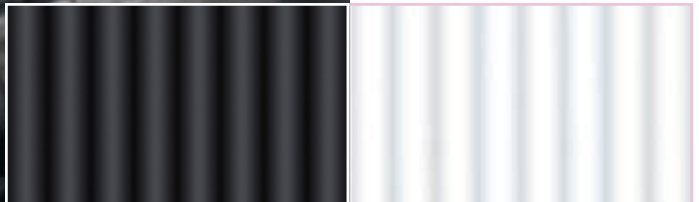
### Digital Direct Automatic Exposure (DDAE)

DDAE controls the X-ray tube voltage (kV) and current (mA) simultaneously by detecting X-rays passing through the patient. This improves the dynamic range, and along with Automatic Exposure (AE), results in exceptionally clear images with the best possible contrast and even density. The Automatic Exposure level can be adjusted to meet individual requirements.

*There is no need to set the tube voltage and current. DDAE guarantees the optimum tube voltage (60 to 80 kV) and current (1 to 10 mA). (Voltage and current may also be set manually.)*



**Conventional Image**

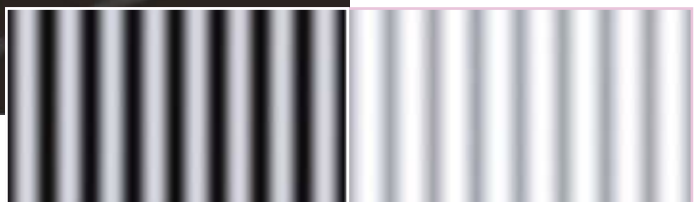


*Automatic Image Enhancer comparison*



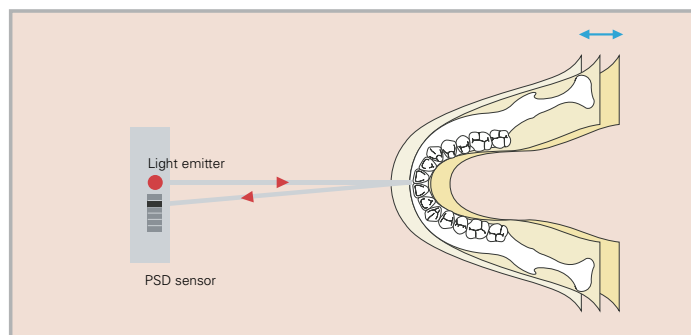
### Automatic Image Enhancer (AIE)

Automatic Image Enhancer enhances the details that can be observed in areas which are either extremely white or extremely black. DDAE and AIE perform a logarithmic conversion to produce the highest quality image possible.



# Easy Positioning for Panoramic Images AF, Power-Assisted Movement, and 3 Laser Beams

**Easy, optimal patient positioning made possible with innovative technology.**



## **AF Automatic Positioning**

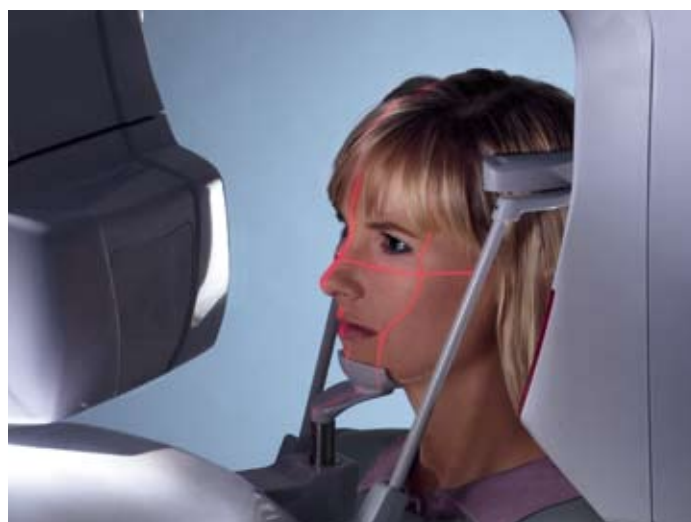
The light beam sensor automatically positions the C-arm without requiring the patient to move. It measures the distance to the patient's anterior teeth and automatically moves the C-arm into the optimum position. This creates images with a high degree of reproducibility.

*The semiconductor position device (PSD sensor) measures distance with an extreme accuracy of 0.2 mm for high reproducibility. AF makes positioning easy and precise.*



## **Power-Assisted Movement with Easy Patient Positioning**

The electric motor of Veraviewepocs 2D enables convenient lift movement for smooth slow-starts and slow-stops. It is equipped with an automatic overload stop function for safety. In addition, the C-arm is lined up to the patient for easier patient positioning. Since the arm moves back and forth to line up with the patient, the patient does not have to move and can maintain a comfortable posture.



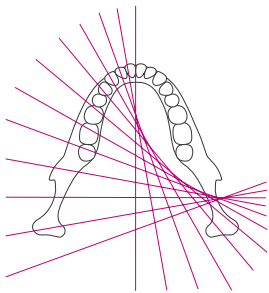
## **3 Laser Beams for Accurate Positioning**

The patient's position is checked with the triple laser beams: the Frankfurt plane beam, the sagittal plane beam, and the image layer beam for accurate positioning. The carbon temple stabilizing rods absorb almost no radiation and reduce the shadow of the rods in the image. The chinrest can be set at 3 different heights.

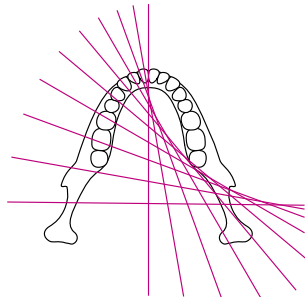
# Consistent Magnification with Versatile Projections and Wheelchair Support

**Multiple projections fit a variety of purposes.**

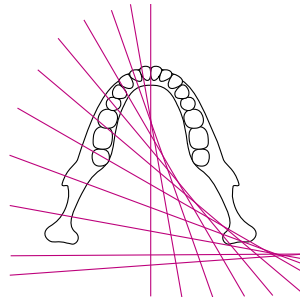
**Consistent magnification is maintained throughout the image.**



*Standard Panoramic*



*Orthoradial Panoramic*



*Shadow Reduction Panoramic*

## **The Veraviewepocs 2D Has Various Projections**

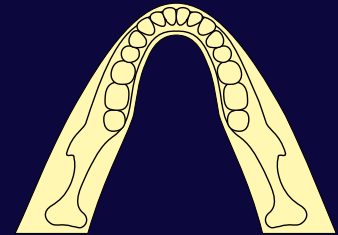
The distance from the X-ray tube to the patient is consistent, providing uniform magnification. The overlapping of neighboring teeth or the shadow of the opposing mandibular ramus is reduced, providing optimal results for jaw exposures.



## **Wheelchair Support**

The Veraviewepocs 2D offers a width of up to 18.9" (480 mm) to accommodate patients in wheelchairs. For patients with a wheelchair span greater than 18.9", there is an optional wall-mounted version available.

## Multi-Mode, Versatile Design

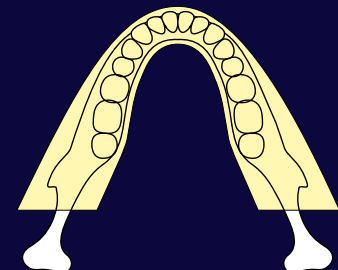


1.3 Standard Panoramic

Clear, sharp images with a wide image layer

**Standard Panoramic**, Mag.: 1.3 x constant

The thick, specially designed image layer accommodates all the possible variations of dental arch shapes and sizes to produce extremely clear and sharp images.



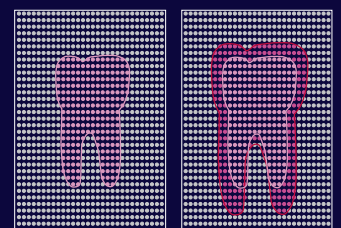
1.6 Standard Panoramic

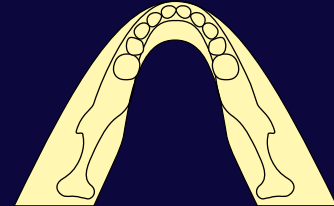
Images with greater detail

**Standard Panoramic**, Mag.: 1.6 x constant

The X-ray image is enlarged by a factor of 1.6 – the best prerequisite for an even better diagnosis.

The enlarged exposure does not simply magnify the standard exposure; it actually provides greater detail because the distance between the patient and the X-ray tube is reduced.



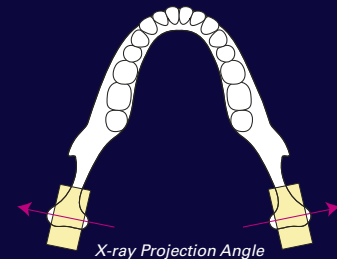


1.3 Pedodontic Panoramic

Reduced radiation

**Pedodontic Panoramic**, Mag.: 1.3 x constant (Mag.: 1.6 x is also available)

For children or people with small jaws. The arm's rotation range is reduced, and thus lessens the X-ray exposure.

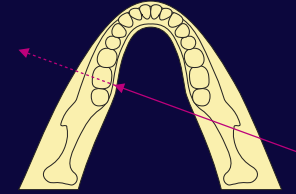
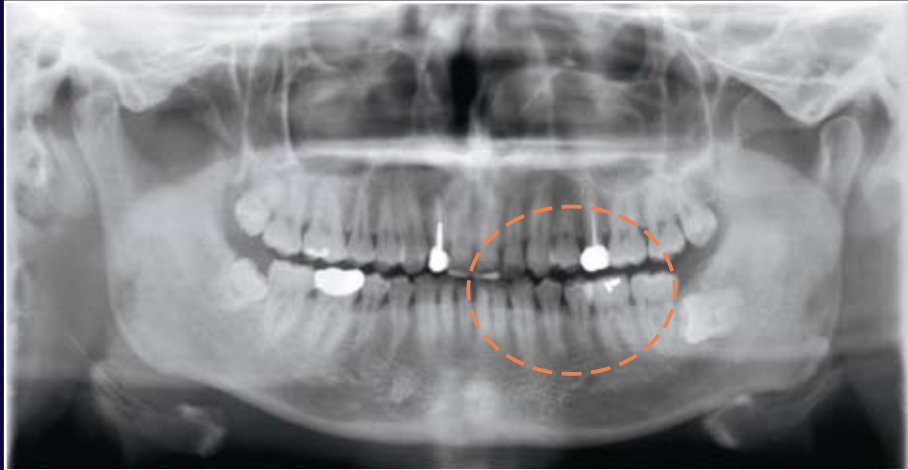


X-ray penetration angle aligned with longitudinal axis of the TMJ condyle

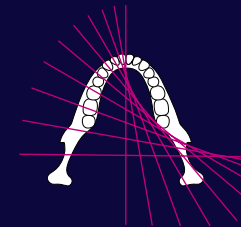
**TMJ 4 Views**, Mag.: 1.3 x constant

Sharp, clear images of the TMJ are produced by aligning the angle of X-ray penetration with the longitudinal axis of the mandibular condyle head.

## Multiple X-ray Projection Angles Use the Same Image Layer to Suit Any Diagnostic Purpose



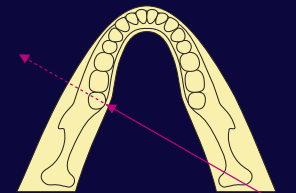
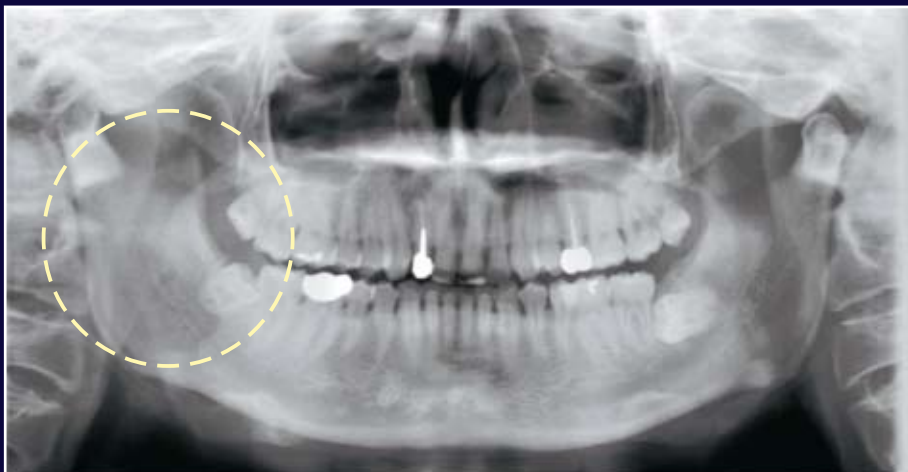
X-ray Projection Angle



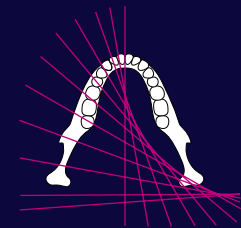
Images with less overlapping of teeth

**Orthoradial Panoramic**, Mag.:1.3 x constant (Mag.: 1.6 x is also available)

The perpendicular projection of the X-ray reduces the amount of overlapping with emphasis on the maxillary bicuspid region.



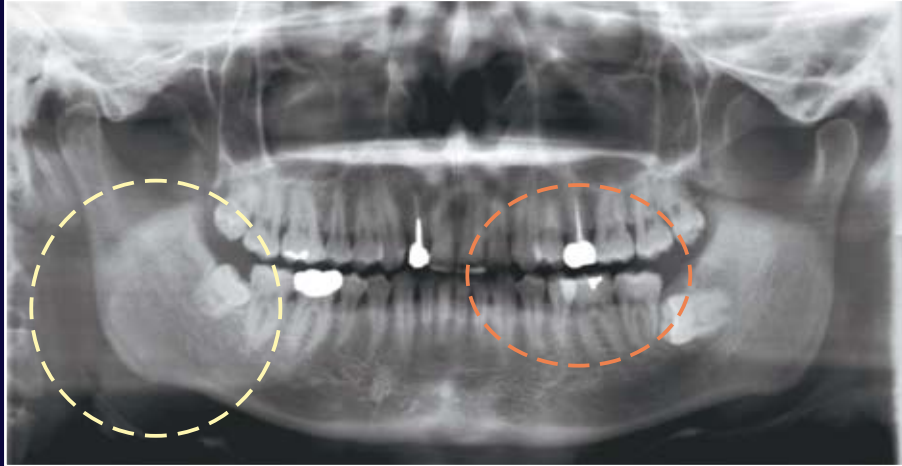
X-ray Projection Angle



**Shadow Reduction Panoramic**, Mag.:1.3 x constant (Mag.: 1.6 x is also available)

Produces images with less mandibular ramus shadow.

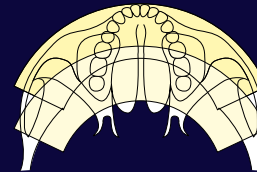
**Special panoramic images are created by changing the X-ray projection angle, instead of changing the image layer orbit. The overlapping of neighboring teeth or the shadow on the mandibular ramus is reduced. These images are excellent for diagnosis of dento-maxillofacial areas.**



Orthoradial Panoramic, Shadow reduction panoramic, and standard panoramic are taken for the same patient. Please compare with previous page.

**Standard Panoramic**, Mag.: 1.3 x constant

- Orthoradial panoramic for better observation of interproximal spaces
- Shadow reduction panoramic for better observation of the jaw




*1.5 Maxillary Sinus Panoramic*

Clear Images of the Maxillary Sinus Region

**Maxillary Sinus Panoramic, Anterior (posterior is also available)** Mag.: 1.5 x constant

Produces panoramic images of either the anterior or posterior maxillary sinus region.





## Quick Cephalometric Scan with Low Dose and High Definition (HD) Update

**The Veraviewepocs system offers high speed performance requiring only 4.9 seconds for a cephalometric lateral scan. The speed helps ensure high quality images each and every time. For pediatric patients, the reduced scan time is especially helpful as it virtually eliminates the need for repeat images due to patient movement.**

### **Only 1/10\* X-ray Exposure Level**

With only a tenth of the radiation, Veraviewepocs offers a significant reduction in exposure to patients compared to a conventional X-ray.

### **High Quality Image With Wide Dynamic Range**

Far more information about hard and soft tissue is obtained with just a single acquisition.

### **Fine High Speed CCD Digital Cephalometric**

Fast scanning time: 4.9 seconds (lateral).

### **Fast Image Processing**

The imaging process can be completed within 20 seconds.



### **High Definition (HD) Cephalometric Update**

Cephalometric image quality has recently been enhanced with Morita's HD update. Advancements in image acquisition have resulted in X-rays with greater penetrating power. This new feature produces high definition, cephalometric images with amazing clarity and soft tissue display. It is now easier than ever before to plot key points for cephalometric measurements.

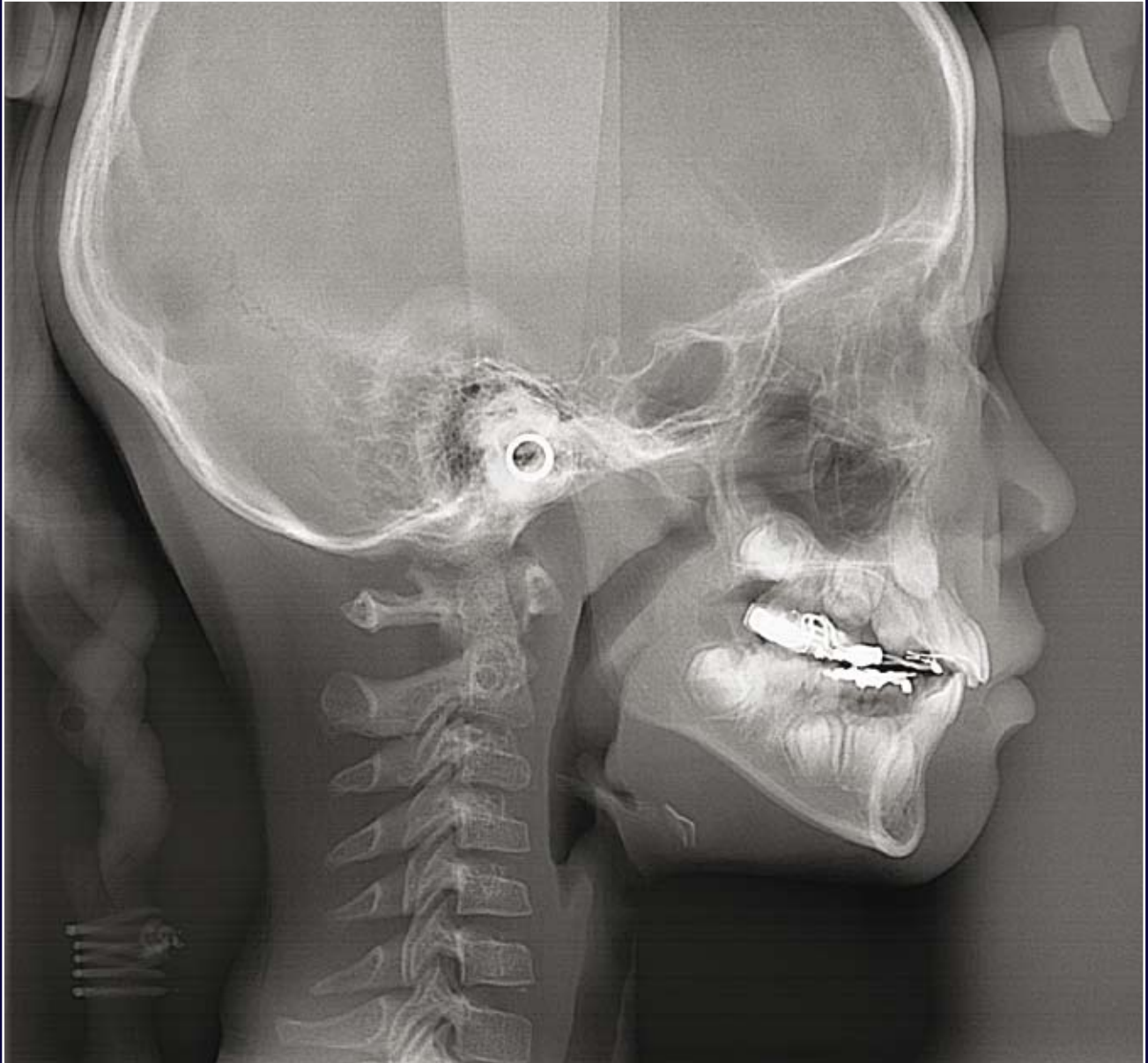


### **A Single Digital Cassette for Panoramic and Cephalometric Images**

A brand new development: the special high resolution CCD sensor (with a height of 225 mm) now makes digital cephalometric imaging possible. Simply insert the new digital cassette. One cassette can be used for both digital panoramic and digital cephalometric imaging.

*\* This comparison is made with the Veraviewepocs film-based system*

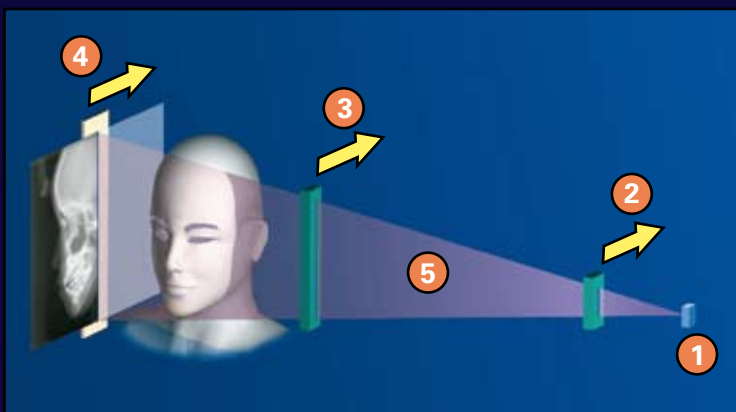
## Variable Image Processing Technique Generates Optimum Grayscale Values



*High definition cephalometric image.*

### Variable Image Processing Capabilities

The variable image processing technique generates optimum grayscale values by varying scanning speeds for hard and soft tissue. With this technique, the entire exposure time is only 4.1 seconds. Without this feature, the processing time is 5.0 seconds.



- 1 Focal spot of X-ray tube
- 2 Primary slit
- 3 Secondary slit
- 4 CCD cassette
- 5 X-ray beam

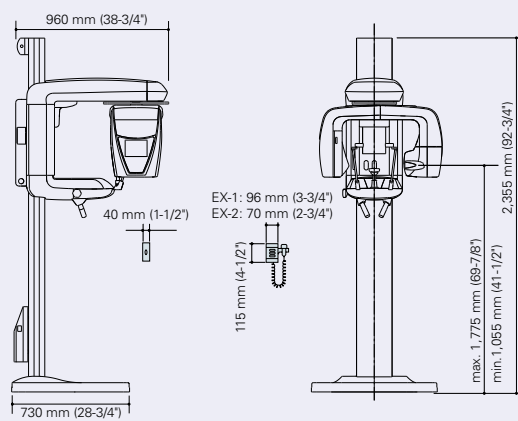
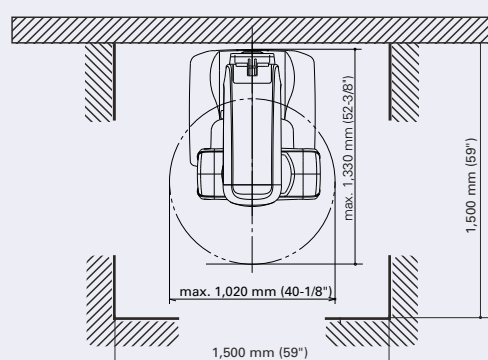


Veraviewepocs  
2D

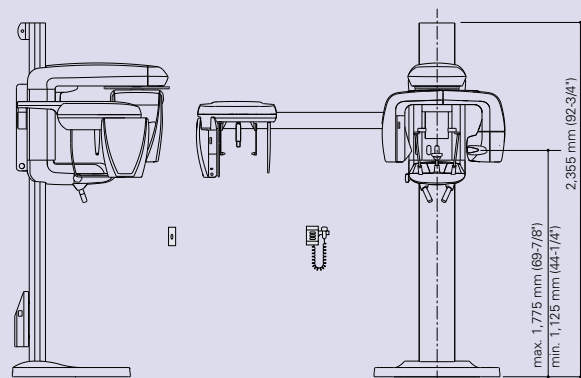
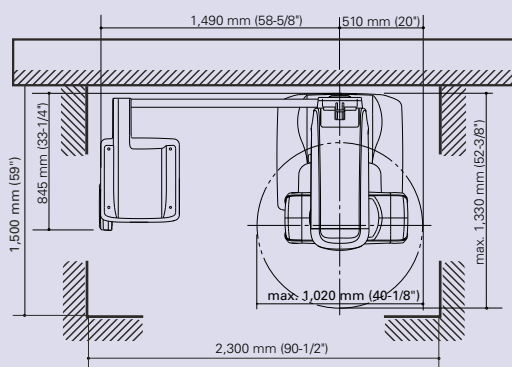
## Specifications/Dimensions

### Machine Dimensions & Suggested Operating Space Requirements

Veraviewepocs 2D HD  
Panoramic





Veraviewepocs 2D HD  
Panoramic/Cephalometric



\* The Veraviewepocs 2D should be anchored to a concrete floor and/or wall. The upgraded Veraviewepocs 3D should be anchored to a concrete wall and floor. Contact J. Morita USA or your dealer for more details.

## Veraviewepocs 2D HD – Technical Specifications

	Panoramic	Panoramic/Cephalometric
		
Trade name	Veraviewepocs 2D	
Model	X550	
Type	2DA Veraviewepocs 2D Pan	2DB Veraviewepocs 2D Pan/Ceph
Cassette	Pan	Pan/Ceph
Input voltage	EX-1: AC 120V 60 Hz, EX-2: 220/230/240 V 50/60 Hz	
Power consumption	2.0 kVA	
X-ray generator		
Tube voltage	60–90 kV	
Tube current	1–10 mA	
Effective focal spot	0.5 mm	
Panoramic		
Exposure time	Fine high-speed mode approx. 7.4 seconds, Super fine mode approx. 15 seconds	
Magnification ratio	1.3, 1.5, 1.6	
Positioning	Electric motor and AF optical distance sensor	
Cephalometric		
Exposure time	—	4.9 seconds LA, 4.1 seconds PA
Imaging area	—	LA 225 x 254 mm, PA 225 x 203 mm
Magnification ratio	—	1.1
Dimensions		
Main unit	W 1,020 x D 1,330 x H 2,355 mm (W 40-1/8" x D 52-3/8" x H 92-3/4")	W 2,000 x D 1,330 x H 2,355 mm (W 78-3/4" x D 52-3/8" x H 92-3/4")
Control box	EX-1: W 96 x D 40 x H 115 mm (W 3-3/4" x D 1-1/2" x H 4-1/2") EX-2: W 70 x D 40 x H 115 mm (W 2-3/4" x D 1-1/2" x H 4-1/2")	
Installation area	1.35 m <sup>2</sup> ( 14.53 sq. ft.)	2.60 m <sup>2</sup> (27.99 sq. ft.)
Weight	Approx. 190 kg (418 lb.)	Approx. 258 kg (568 lb.)


## Imaging Program

Magnification ratio		
Standard Panoramic	Standard, orthoradial, and shadow reduction	1.3 constant & 1.6 constant
Pedodontic Panoramic	Standard, orthoradial, and shadow reduction	1.3 constant & 1.6 constant
Maxillary Sinus Panoramic	Posterior	1.5 constant
TMJ 4 views	Left and right sides	1.3 constant

• Clinical images are provided by Kitasenju Radist Dental Clinic, i-View Imaging Center, Japan, and the Department of Dentomaxillofacial Radiology at University of Leipzig, Germany.

- X-ray protection should be provided for the patient whenever X-rays are emitted.
- Design and specifications are subject to change without notification.

## Upgrade to Veraviewepocs 3D

2D series			3D series				
Type	Image		Cassette	Image			
	Pan.	Ceph.		Ø40 x H40	Ø40 x H80	Ø80 x H80	Panoramic
2DA (Pan)	X		Multi-function 	X	X		X
2DB (Pan/Ceph)	X	X		X		X	

- Veraviewepocs 2D is fully upgradeable to the Veraviewepocs 3D.
- Cassettes for the 3D upgrade are available in either multifunction and/or 80x80.
- Additional cassette, component replacement, calibration, etc. are necessary for the 3D upgrade.
- Please refer to the Veraviewepocs 3D brochure for more details.

### Thinking ahead. Focused on life.

In 1916, Junichi Morita started to import products of the leading dental equipment manufacturers into Japan, where demands for modern dentistry were growing. His venturesome attempts of supplying selected products for oral healthcare has grown steadily by receiving valuable support and guidance from the dental profession. His enterprising spirit lives through the decades, and all Morita Group Companies join in continuing to pursue marketing, distribution and services, as well as R&D and manufacturing, in collaboration with world leaders in healthcare products and research organizations.

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