

XR RF, VAMC SEATTLE, WA  
PO# 663-B60040

**Sold To:**

VA - Puget Sound Seattle

**Ship To:**

VA - Puget Sound Seattle - Room 2D-146

Obligation 663-B60040

Room 2D-146 (Old GE Room)

**OBLIGATION# 663-B60040**

**Shimadzu SonialVision™ G4 Universal System**

**Sonial G4 17"x17" Flat Panel Detector, UD150BC-40S 80kW Generator**

**CXDI-70C Wireless Portable Flat Panel Detector**

**ZS-200 Universal Elevating Radiographic/Fluoroscopic table, 500 lbs limit, 700 lbs static,**

**Drip Stand/VI Holder and Storage Rack for table accessories, Compact Local Console**

**CH-200M RadSpeed Ceiling Tube Mount (Front Mount), Tri Flat Monitor Suspension**

**R-20J (for CH-200 Series) Manual Collimator and Laser Marker**

**DICOM Radiation Dose Structure Report (RDSR)**

**Kenex Height Adjustable Over-Table X-ray Shield**

**TIMS 2000 SP Shimadzu w/ Cart (w/audio capture) (Include 1 TDRS), 24" LCD Display with Speakers**

**DICOM Worklist, Canon Stitching**

**Applications Included**

Qty	Item #	Description	List Price	Disc. Price
1		<p><b>Sonialvision G4 Package with w/Single Panel DR 70C Wireless</b></p> <p>SHIMADZU SONIALVISION™ G4 UNIVERSAL SYSTEM A new premium R/F system that offers completely superior ergonomic design and highest user confidence. 17x17 inch Large FOV and 139 micron pixel size FPD mean leading-edge digital imaging and fine image quality. Various features of dose reduction and dose management provide an important aspect of radiology imaging. The SONIALVISION G4 will make your x-ray room the most productive and efficient by covering a wide range of x-ray examinations both R/F as well as, digital radiography.</p> <p>Features include: Ultra high image quality and large field FPD</p> <ul style="list-style-type: none"><li>• 17x17 inch 139 micron pixel pitch FPD.</li></ul> <p>Large Patient Coverage</p> <ul style="list-style-type: none"><li>• 79.7 inch (202.5 cm) of longitudinal movement. This is accomplished by imaging chain, not table movement at any table angle</li><li>• Completely flat Tabletop with no side frames adds to comfort and imaging</li></ul> <p>Multi-functionality to perform many procedures</p> <ul style="list-style-type: none"><li>• This system has been thoughtfully designed to be ideal for a wide range and variety of examinations, such as orthopedics, general radiography. Barium studies, endoscopy, urology, angiography, pediatrics, and bariatrics.</li><li>• Urology mode realizes the unique table tilting with fixing the height of ROI and asymmetric collimation feature to keep the imaging field at the very end of tabletop.</li></ul> <p>Comprehensive Dose Care</p> <ul style="list-style-type: none"><li>• Grid controlled Pulsed fluoroscopy reduces doses.</li><li>• Three beam hardening filters are provided as standard to efficiently remove unnecessary soft X-rays that do not contribute to image quality. The optimal BHF is selected to suit the examination automatically to ensure the lowest dose</li></ul>		

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		<ul style="list-style-type: none"> <li>• A new auto filtering collimator R-300 has three kinds of beam hardening filters which cut unnecessary soft x-ray.</li> <li>• G4 has "Dose Eye" collimation which allows the user to collimate even further to the minimum field by Iris collimation and asymmetric collimation.</li> <li>• On the LIH (Last Image Hold) you can set the collimation for the next fluoroscopy "virtual collimation".</li> <li>• Grid can be removed to lessen dose in pediatrics or exposure to thin body parts.</li> </ul> <p>Totally Redesigned Digital Imaging Console</p> <ul style="list-style-type: none"> <li>• New DR-300 has state-of-the-art digital image processing technology and acquires radiography images while keeping original high resolution matrix.</li> <li>• The digital unit has integrated system for examination and image processing</li> <li>• Touch panel console offers essential information which is clearly visible to users making exam execution and completion easier.</li> </ul> <p>SURE Engine Advance</p> <ul style="list-style-type: none"> <li>• SONIALVISION G4 has an advanced digital imaging filter which contributes to noise reduction by using recursive filters and software driven image outputs to minimize halation and optimize imaging parameters.</li> </ul> <p>Universal Tilting/Elevating Radiographic / Fluoroscopic table ZS-200 with the following features:</p> <ul style="list-style-type: none"> <li>• 90 Degree Vertical to 90 Degree Trendelenburg with continuously variable speed tilt</li> <li>• Soft start and stop inverter drive motors</li> <li>• Maximum tilt speed 90 degrees in 17 seconds</li> <li>• Flat 235 X 76.5 table top</li> <li>• Carbon fiber reinforced plastic (CFRP) table top for low attenuation <ul style="list-style-type: none"> <li>o 0.8 mm of AL eq.</li> </ul> </li> <li>• Longitudinal Imaging chain movement: <ul style="list-style-type: none"> <li>o Longitudinal range of imaging chain: 63.2 inches (160.5 cm)</li> <li>o Tube Arm speed: 5.9inches/sec (15 cm/sec) continuously variable</li> </ul> </li> <li>• Lateral Table to movement: <ul style="list-style-type: none"> <li>o 9.8 inches (25 cm) for peripheral studies</li> <li>o Variable speed,; 2.0 inches/sec (5.0 cm/sec) (max)</li> </ul> </li> <li>• Table top elevation range: <ul style="list-style-type: none"> <li>o 18.5 to 43.3 inches (47 to 110 cm) from floor</li> <li>o Allows maximum flexibility to load patients on and off of table</li> <li>o With 18.5inches (47cm) of table height being the lowest position patients can easily reach the floor for stability and safety</li> </ul> </li> <li>• All Digital Carriage, without SPOTFILMER. Enables the following: <ul style="list-style-type: none"> <li>o Improved image quality</li> <li>o X-Ray dose reduction</li> <li>o Enhanced field of view (closer to patient)</li> </ul> </li> <li>• Table Weight: 3,440 lbs. (1,560 kg)</li> <li>• Compact and ergonomic design allows mounting only 4 inches from back wall</li> </ul> <p>Imaging Unit</p> <ul style="list-style-type: none"> <li>• Imaging coverage max 79.7 inches (202.5 cm)</li> <li>• Oblique angle of X-ray tube rotation +40/-40 degrees cranial-caudal and caudal-cranial to table FPD</li> <li>• X-ray tube rotation angle Vertical: Counter clockwise 90 degrees to Off table Gurney, or Trendelenburg: Clockwise 90 degrees</li> <li>• Dedicated inch mover for minor adjustments of imaging unit</li> <li>• The edge of the imaging range can be positioned as close as 3.7 inches (9.5 cm) from the head end of the table.</li> </ul> <p>Collimation</p> <ul style="list-style-type: none"> <li>• Virtual Collimation; Enables to collimation of irradiation field by displaying the collimator position onto fluoroscopic LIH (Last Image Hold) image.</li> <li>• Left and right asymmetrical collimator</li> <li>• Octagonal (Iris) collimator</li> </ul> <p>Additional Beam Hardening</p> <ul style="list-style-type: none"> <li>• 0.1mm Cu</li> <li>• 0.2mm Cu</li> <li>• 0.3mm Cu</li> </ul> <p>Dose Area Product (DAP)</p> <ul style="list-style-type: none"> <li>• DAP Mounting Kit</li> <li>• VacuDAP Dose Area Meter</li> </ul> <p>Grid</p>		

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		<ul style="list-style-type: none"> <li>• Ratio 10:1, Density: N 50 line/cm</li> <li>• Focusing Distance 47.2 inches(120 cm)</li> <li>• Interspace material: AL</li> <li>• Removable Grid</li> </ul> <p>Standard Accessories</p> <ul style="list-style-type: none"> <li>• Footrest</li> <li>• Shoulder rest</li> <li>• Side hand grip, 1 pair</li> <li>• Overhead hand grip</li> <li>• Table Mattress</li> <li>• Footswitch for fluoroscopy and radiography</li> <li>• Intercom</li> <li>• Grid Storage Rack</li> <li>• SMILE Mat with Shimadzu "Global Strings" Design</li> <li>• 9BCu Phantom</li> </ul> <p>Swallowing Examinations</p> <ul style="list-style-type: none"> <li>• Wheelchair or swallow patients can be examined by extending the imaging chain up to 150cm of SID</li> </ul> <p>Stretcher Applications</p> <p>The tube head can rotate 90 degrees at vertical position to image patients on the stretcher</p> <p>500 lbs weight feature</p> <ul style="list-style-type: none"> <li>• Table Fully Functional with Patient Load up to 500 pounds and 700 pounds in case that the patient is lying horizontally and stationary</li> </ul> <p>Hygienic Smart Column</p> <p>Integrated Tube Arm Features:</p> <ul style="list-style-type: none"> <li>• Design allows for installation in a 107 square foot room with a 9 foot 6 inch recommended ceiling <ul style="list-style-type: none"> <li>o 8 ft 6 in Minimum Height (Some movement restrictions)</li> </ul> </li> <li>• With Table Vertical: X-ray tube Focus is 59.4 to 220 cm from floor.</li> <li>• Tube Rotates +90 degree – 90 degree (motorized for stretcher work)</li> <li>• Easy patient access from either side of the table</li> <li>• Linear Tomography capability <ul style="list-style-type: none"> <li>o Exposure range FFD: 110cm, Horizontal, Vertical or at any table tilt angle from +90 to -90 degree</li> <li>o Exposure angle 8, 20 30, 40 degree</li> <li>o Speed maximum 2.5 second for 40 degree</li> <li>o Layer height: 0 to 250 mm from the tabletop</li> </ul> </li> <li>• X-Ray Tube</li> <li>• Fluoroscopic X-Ray Tube: 750kHU, 0.7 X 1.2 Focal, Grid Controlled Pulse Fluoroscopy</li> </ul> <p>17x17" Flat Panel Imaging Detector</p> <p>Shimadzu Flat Panel Detector Technology System</p> <ul style="list-style-type: none"> <li>• Dynamic Flat Panel Detector</li> <li>• Cesium Iodide (CsI) Scintillator</li> <li>• 139 micrometer pixel technology for sharp diagnostic visualization</li> <li>• DQE 70% +/- 5%</li> <li>• Spatial resolution: 3.6 line/mm (Nyquist)</li> <li>• 17 x 17 inch Full imaging field of view</li> <li>• Acquisition frame rate: Max. 30 fps</li> <li>• High resolution image acquisition with dose reduction</li> <li>• Max 3032x3032 (17"x17") Spot Image Acquisition</li> <li>• Max 3032x3032 (17"x17") Serial image Acquisition at 15 fps</li> <li>• Images obtained as 16 bit data 65,530 graduations</li> <li>• Stored with a digital processing device as 16 bit data without losing any image information</li> <li>• FOV: 17x17" FPD provides the largest imaging area, and 5 selectable FOV (17x17, 15x15, 12x12, 9x9, and 6x6 inch) best in the market</li> </ul> <p>UD150BC-40S Radiographic/Fluoroscopic High Frequency Inverter X-Ray Generator with the following features:</p> <ul style="list-style-type: none"> <li>• High Frequency, 50 kHz inverter</li> <li>• 80kW Radiographic Rating</li> <li>• LCD Touch Panel</li> <li>• Advanced Anatomical Programming with 800 programs</li> <li>• Two-Point (kV / mAs) and three point (kV / mA / t) manual techniques and AEC / APR override capabilities</li> <li>• Radiographic tube voltage 40-150 kV Continuous</li> <li>• Radiographic Tube Current 10-1000 mA</li> <li>• Time selection 0.001-10 seconds</li> </ul>		

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		<ul style="list-style-type: none"> <li>• Radiographic; 0.5 to 800 mAs</li> <li>• Fluoroscopic tube voltage 50 – 125 kV continuous</li> <li>• Fluoroscopic Tube Current mA 0.3 – 20 mA</li> <li>• Automatic Brightness Stabilizer</li> <li>• Fluoroscopic Timer</li> <li>• Exposure counter</li> <li>• Anode heat calculator</li> <li>• Two X-Ray tube compatibility</li> <li>• Requires 480 VAC, Three Phase power or others available</li> <li>• Automatic Exposure Control (AEC)</li> <li>• High Speed Starter</li> </ul> <p>DR-300 Shimadzu Digital System Includes:</p> <ul style="list-style-type: none"> <li>• Anti-Virus Software</li> <li>• Fluoroscopy 1024 x 1024 matrix</li> <li>• Auto-Calibration, and image quality analysis/measurement software</li> <li>• High speed CPU</li> <li>• Disk drive stores 10,000 images at 1024x1024</li> <li>• Windows 7 operating system with intuitive graphic user interface</li> <li>• PC keyboard and Mouse</li> <li>• DVD-R drive; upto 2,000 images in DICOM Media Storage 1024 x 1024 matrix</li> </ul> <p>Radiography</p> <ul style="list-style-type: none"> <li>• SPOT Acquisition</li> <li>• Serial Acquisition</li> <li>• Multi-frame imaging: 2 or 4 split horizontally/vertically</li> <li>• SUREngine Advance for Radiography <ul style="list-style-type: none"> <li>o The digital filters suppress the halation and loss of shadow details for SPOT Acquisition images</li> </ul> </li> </ul> <p>Fluoroscopy</p> <ul style="list-style-type: none"> <li>• Pulsed Fluoroscopy at 30/15/7.5/3.75 fps</li> <li>• Fluoroscopy Image Storage: Direct store/LIH (Last Image Hold) store/Loop Store, Up to 1,000 frames per run.</li> <li>• Virtual Collimation</li> <li>• SUREngine Advance for Fluoroscopy <ul style="list-style-type: none"> <li>o Real-time multi frequency processing</li> <li>o Real-time flexible noise reduction</li> </ul> </li> </ul> <p>Processing</p> <ul style="list-style-type: none"> <li>• Customizable fields allow exam settings to be pre-programmed to individual doctor's specifications making for one-click exam setup</li> <li>• Auto-image optimization</li> <li>• Extensive group of post-processing features for optimal image quality <ul style="list-style-type: none"> <li>o Gamma Selection from 10 kinds of nonlinear contrast curve</li> <li>o Recursive Filter Noise Reduction</li> <li>o 13 x 13 Template filter processing Edge Enhancement</li> </ul> </li> <li>• Horizontal / Vertical Inversion</li> <li>• Zoom up to x 4</li> <li>• Multiple Image Display (2x2, 4x4)</li> <li>• Annotation for overlay display text and figure</li> <li>• Distance &amp; Angle Measurement on the image</li> </ul> <p>DICOM Communication</p> <ul style="list-style-type: none"> <li>• DICOM 3.0 network includes <ul style="list-style-type: none"> <li>o DICOM storage class</li> <li>o DICOM MWM (Modality Worklist class.)</li> <li>o DICOM media DVD-R in DICOM format</li> <li>o DICOM print class</li> </ul> </li> </ul> <p>Monitors</p> <ul style="list-style-type: none"> <li>• Two 19 inch LCD Monitor for Procedure Room</li> <li>• Two 19 inch LCD Monitor for Control Room</li> </ul> <p>Standard Remote Control Console, Desktop Type: ZS-200 RC-U, Built-in Kit</p> <ul style="list-style-type: none"> <li>• All controls necessary for a given examination are gathered at the central touchscreen.</li> <li>• Controls are customizable for each examination type and facility.</li> <li>• Equipped with a 10.4 inch LCD touch panel</li> <li>• Operator can view patient information or change fluoroscopic and radiographic conditions</li> </ul>		

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		<ul style="list-style-type: none"> <li>• Mounts in customer's provided counter</li> </ul> <p>Standard Remote Control Console, Desktop Type: ZS-200 RC-S, outer frame for mounting</p> <ul style="list-style-type: none"> <li>• All controls necessary for a given examination are gathered at the central touchscreen.</li> <li>• Controls are customizable for each examination type and facility.</li> <li>• Equipped with a 10.4 inch LCD touch panel</li> <li>• Operator can view patient information or change fluoroscopic and radiographic conditions</li> <li>• It sets on top of counter</li> </ul> <p>Standard Remote Control console, cart type ZS-200 RC-C, cart for console:</p> <ul style="list-style-type: none"> <li>• All controls necessary for a given examination are gathered at the central touchscreen.</li> <li>• Controls are customizable for each examination type and facility.</li> <li>• Equipped with a 10.4 inch LCD touch panel</li> <li>• Operator can view patient information or change fluoroscopic and radiographic conditions</li> <li>• It built into a roll around cart</li> </ul> <p>CXDI-70C Wireless Digital Radiography Detector for table, stretcher and tabletop work</p> <ul style="list-style-type: none"> <li>• Wireless portable digital detector</li> <li>• 14" x 17" full imaging field</li> <li>• Sensor weight: 7.5 lbs</li> <li>• Sensor size(WxLxT): 384 x 460 x 15 mm ISO4090 cassette compatible</li> <li>• Amorphous Silicon Sensor (a-Si)</li> <li>• CSi scintillator</li> <li>• 125 micron pixel pitch</li> <li>• 9.5 million pixels (2800 x 3408)</li> <li>• 12 bit / 4096 gray scale (14 bits A/D)</li> <li>• IEEE 802.11n Wireless Access point</li> <li>• Equipped 2 batteries, 1 battery charger and power box as standard</li> </ul> <p>CXDI-NE Control Software (Graphical User Interface)</p> <ul style="list-style-type: none"> <li>• Canon CXDI-NE software, for panel operation, image processing enhancement, and image output</li> <li>• Preview image in 3-5 seconds, refresh cycle up to 15 seconds</li> <li>• 19" Touchscreen color LCD with mouse and keyboard</li> <li>• DICOM 3.0 compatible, including Print Management Service Class and Storage Service Class</li> <li>o Ethernet 10/100 Base T</li> </ul> <p>Additional Values from Shimadzu</p> <ul style="list-style-type: none"> <li>• Grid Cap 70C ; 130 cm, 6:1, 52lpc, AL spacer, Vertical Lines</li> </ul> <p>CDXI-GCOM software</p> <p>Transformer, ZS-200 CAB (step down from 480V to 200V) Transformer, D150BVC-40S (step up from 200V to 400V)</p> <p><b>Compact Local Console</b></p> <p><b>Tri Monitor Suspension w/o Ceiling Rails</b></p> <p><b>4'0" Cable Carrier Kit</b></p> <p><b>Monitor EXT-Box Assy</b></p> <p><b>X-Y 8' 10" adapter for Shimadzu CH-200 with 2.1 meter fixed rail spacing</b></p> <p><b>CH-200M RadSpeed Ceiling Tube Mount (Front Mount)</b></p> <p><b>R-20J (for CH-200 Series) Manual Collimator</b></p> <p><b>High tension cable pair - 22 meter</b></p> <p><b>0.6/1.2P324DK-85, 400kHU tube, 0.6 &amp; 1.2mm spot, 12 degree angle</b></p>		

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1		Accessory pack, 28RF		
1		GSC-2002L Radiographic Console		
1		CH-G4 Connection Kit		
1		BR/BK-GEN Cable		
1		Laser Line Marker Option (R-20J)		
1		DICOM Radiation Dose Structure Report (RDSR)		
1		Drip Stand (IV Holder)		
1		Lateral cassette holder used with Grid Cap (NEW ITEM)		
1		Storage Rack for table accessories		
1		Fixed rail 5.5m for CTM		
1		Traveling Rail 3.3m for CTM		
1		Kenex Height Adjustable Over Table X-Ray Shield		
1		TIMS 2000 SP Shimadzu W/ Cart (w/audio capture) (Include TDRS)		
1		Shimadzu DVI Kit Cart		
1		24" LCD Display with Speakers		
1		PurePower - Power Control and Distribution Unit		
1		Inside Delivery (2 men - 6 hours Each) with crate removal and disposal		
1		Installation Dollies Rental		
		<b>SUBTOTAL VA CONTRACT PRICE (57% Base &amp; 50% Options off list)</b>		
1		<b>Applications - 7 Days (4 days at initial, 3 days follow-up to include Advanced after 6 weeks) - INCLUDED</b>		
1		<b>Freight FOB Building Site</b> FOB VA - Portland, OR or Seattle, WA		
1		<b>Wall Holder for CXDI-701 and CXDI801 Series Detector and Grid Cap</b>		
1		<b>14 x 17 inch or 35 x 43 cm CR Cassette and DR Panel Protector - 750lb Capacity</b>		
1		<b>Architectural Room Drawings - Site specific. With full AutoCad</b>  including AutoCad and Isometric		

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**Service Training - Sonialvision G4 Service Training Class**

- Tuition for one (1) biomedical engineer for 4-5 days service training class at Shimadzu Medical Systems
- Does not include Travel and Living expenses.

**Service Training - Canon DR, CXDI NE Control Software & New Generation Sensors Service Training Class**

- Tuition for one (1) biomedical engineer for 4-5 days service training class at Shimadzu Medical Systems
- Does not include Travel and Living expenses.

**GRAND TOTAL**

**Can not be shared with any other purchasing group**

1                    **The following items are not included in the total price listed above. If you wish to purchase these items, indicate "Accept" next to the item, followed by your initials. The amount for each option below will be added to the total above if accepted. These items may replace other items in the quotation above, and will be indicated per item.**

1                    **Tomosynthesis Option (Optional)**

Tomosynthesis is an automated acquisition process that acquires several images while the tube is moving in an arc, from 8-40 degrees, across a region of interest.

The series of images are then processed in a "Cone Beam" or CT-type back projector resulting in a volume of data. The volume of data is then available for investigation by scrolling through the volume in a series of slices.

Slice thickness can be post processed in a similar manor to that used in CT imaging. Slices of interest can be extracted as required for further investigation, printing and DICOM storage.

Tomosynthesis provides numerous key advantages including:

- Low dose
- Weight bearing
- Low metal artifacts
- High spatial resolution
- High quality imaging in plaster fixation
- Easy positioning
- Fast acquisition
- Large FOV
- Erect and Supine AP/PA and Lateral Projections

1                    **Battery Pack (single) - Extra (Optional)**

Battery Pack (Single). Used for Charging the CXDI-70C Portable Digital Radiography Detector w/ 2 batteries.

Qty	Item #	Description	List Price	Disc. Price
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**OPTIONAL TRADE-IN:**

1

**Trade-In Allowance (Optional)**

Customer represents and warrants that Customer has, and shall have when title passes, good and marketable title to the equipment being traded in and has the authority to effect such trade in.

Product: GE Precision  
 Serial Number: Generator - Model TBD, Serial TBD, MFG TBD.

Customer will be trading-in equipment that is described on the attached detailed equipment disclosure form (the "Trade-In"), which Trade-In the parties agree will be removed on the De-install Date and is currently in the condition as represented on the detailed equipment disclosure form. In addition, the parties agree as follows:

- Customer represents and warrants that Customer has good and marketable title to the Trade-In as of the date of this Quotation and will have good and marketable title when Core removes the Trade-In from Customer's site on mutually agreed upon date.
- Title to the Trade-In shall pass from Customer to Core on the Removal Date.
- Notwithstanding anything to the contrary in any Business Associate Addendum, Customer represents and warrants that as of the Removal Date all Protected Health Information will have been removed from the Trade-In.
- Core may test and inspect the Trade-In prior to de-installation. If the condition of the Trade-In is not substantially the same on the Removal Date (ordinary wear and tear excepted) as it is identified on the System Disclosure Form, then Core may reduce the price quoted for the Trade-In.
- Core is responsible to remove the equipment at its own expense.