SHIP TO:
RECEIVING DOCK AB
V.A. Medical Center
V.A. MEDICAL CENTER
1670 CLAIRMONT ROAD
DECATUR, GA 30033

P.O.# 508-B92021

Item No.	Qty	.	Description
2	1		Discovery RT - EX

The Discovery RT EX is a CT simulator designed specifically for the needs of radiation oncology. The system provides image quality needed for precise radiation therapy treatments and a TG-66 compliant table for accurate patient positioning. The system also delivers optimized workflow needed for efficient throughput and integration with treatment planning systems.

The Discovery RT EX comes with MaxFOV technology. MaxFOV is an iterative reconstruction algorithm that provides fully specified image quality across the entire diameter of the bore.

The Discovery RT has numerous upgrade options to expand your oncology practice for the future, including 4D retrospective imaging, smart deviceless 4D, prospective gating, smart metal artifact reduction, and advanced iterative recon for dose management.

GE's exclusive Advantage Sim MD radiation therapy simulation application can be added on a workstation or server platform to provide a complete simulation solution including:

• Isocenter placement

• Contouring

• Advanced auto-segmentation

• Multi-modality support

• 4D support for motion management

System Components:

• Gantry: Advanced slip ring design continuously rotates the generator, Performix(TM) Pro VCT 100 tube, Matrix II detector and Volara digital data acquisition system around the patient.

o Aperture: 80 cm

o Maximum scan field of view (SFOV): 50 cm

o Maximum display field of view DFOV: 80 cm

o Rotational Speeds: 360 degrees in 0.5, 0.6, 0.7, 0.8, 1.0, 2.0, 3.0 and 4.0 seconds.

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o Integrated breathing lights and countdown timer

o Integrated start scan button with countdown timer to indicate when x-ray will turn on

• X-ray Tube: Performix(TM) Pro VCT 100 metal-ceramic tube unit offers an optimized design for exams requiring a large number of scans without tube cooling such as 4D studies. Performix(TM) Pro VCT 100 tube allows 8.0 MHU of storage and capability of 100kW at 140kV operation.

• High Voltage Generator: High Frequency on-board generator allows for continuous operation during scan.

o Output Power: 100 kW

o kV Range: 80, 100, 120, 140 kV

o mA Range: 10 to 800 mA, 5 mA increments

• Table: VT 1700 standard, 500 lb maximum load. High Capacity Table, 650 lb maximum load (optional). Both table options are TG-66 compliant

• Internal Laser Lights: - Defined internal and external scan planes to +/- 1mm accuracy - Operate over full range of gantry tilt - Coronal light remains perpendicular to axial light as gantry tilts making visual readout easy from tableside or the operator console

• HiLight Matrix II Detector: The HiLight Matrix II detector was designed to deliver consistent image quality with its 21,888 individual elements:

o Outer rows: 1.25mm effective cell size in the z-axis at isocenter

o Inner 16 rows: 0.625mm effective cell size in the z-axis at isocenter

• Volara Digital DAS (Data Acquisition System): The Volara digital DAS dramatically reduces noise and improves image quality, especially in low dose exams, large patient, or areas of the anatomy that are difficult to image such as shoulder and hips. - 12,288 available input channels - 1968Hz maximum sample rate - Effective analog to digital conversion range greater than 8,000,000:1

• Operator Console: Compact and integrated industrial design console

o Split tabletop allows unrestricted patient viewing while supporting two 19-inch color LCD monitors. Each work surface can be adjusted to accommodate operator preferences and a wide variety of site requirements.

o Xtream(TM) FX, the next evolution of GE's workflow platform is built on the LINUX operating system and can deliver the fast network transfer rates of 10fps.

o GE's CrossBeam cone beam reconstruction algorithm delivers up to sixteen frames per second reconstruction at full resolution for any slice thickness.

o The 19-inch monitors support scan and recon, as well as image display, processing, analysis and management.

o Size: 48in wide X 40.5in deep X 49.5in high

• Maximum Field of View (MaxFOV): A full view, edge-to-edge, with specified accuracy to help increase your confidence The unique needs of radiation oncology make it important to have image data across the entire bore of the CT simulator. Patients are often positioned off-center to accommodate positioning accessories and dose calculations require data from the entire physical anatomy. Until now, the architecture of the CT tube and detector had limited simulation technology, creating a compromise between efficiency and precision. MaxFOV uses GE Healthcare's proprietary algorithms to leverage collected data that traditional algorithms ignore to essentially build a complete view of everything within the CT's entire bore, edge-to-edge. With MaxFOV technology the user won't have to make any compromises to visualize the patients full anatomy.

• Image Networking: Exams can be selected and moved between the Discovery RT System and any imaging system supporting the DICOM 3.0 protocol for network send, receive and pull/inquiry.

o Standard Auto-configuring Ethernet

o Direct Network Connection

o Supports 1GB or 10/100 BaseT

o Supported Protocols: DICOM 3, GE Advantage Net, InSite Point-to-Point, and TCP/IP (for System Administration)

• DICOM Conformance Standards: DICOM 3.0 Storage Service Class, Service Class User (SCU) for image send, Service Class Provider (SCP) for receive, DICOM 3.0 Query/Retrieve Service Class, DICOM 3.0 MOD Media Service Class, DICOM 3.0 Storage Commitment Class Push, DICOM 3.0 Modality Worklist (incl: Performed Procedure Step) (through ConnectPro), and DICOM 3.0 Print

• Scan Modes: The Discovery RT system can perform virtually any clinical application due to its wide variety of scan modes

• Helical scan mode offers continuous 360-degrees scanning with table incrementation and no interscan delay.

• Axial scan mode allows for up to 16 contiguous axial planes to be acquired simultaneously.

• Helical Scans: Reference helical protocols allow for fast and efficient patient set up.

• Helical Multi-slice Modes: The net result is that in some cases, helical scans on the Discovery RT are up to 7 times faster than conventional 4-slice CT systems. With the Discovery RT users can routinely use a 0.5 sec scan speed and 0.5625:1, 0.9375:1, 1.375:1, 1.75:1 helical pitches. This added performance, with equivalent image quality may allow you to: perform better thin-slice CT angiography exams, use thinner slices for most exams, and perform longer helical exams without tube cooling delays; The 16-slice helical acquisition modes provide table speeds from 5.625 mm/rotation up to

35 mm per rotation, enabling scan speeds that are up to 2.2 times faster than conventional 4-slice helical scanners.

• Prospective Multiple Thickness Reconstruction: For any helical scan modes, the operator can choose to reconstruct images prospectively in any of 7 nominal image thicknesses 0.625, 1.25, 2.5, 3.75, 5, 7.5, and 10 mm. The operator may also prospectively specify additional image sets to be reconstructed. The images can be reconstructed at any of the defined nominal image thicknesses available for a given table speed and scan mode. Direct MPR may also be prospectively specified which quickly enables the move from 2D review to prospective 3D image review of axial, sagittal, coronal and oblique planes automatically.

• Helical scan parameters: - Scan Speed: Full 360-degrees rotational scans in 0.5, 0.6, 0.7, 0.8, and 1.0 second

• Axial Scans: Multi-slice axial acquisitions and short interscan delays significantly reduce potential mis-registration between scans by increasing the number of scans in a single breath hold. Reference axial protocols allow for fast and efficient patient set up.

• Axial Multi-slice Modes: The Discovery RT system acquires axial scans in sets of up to 16 contiguous images in one 360-degrees rotation. For each rotation of the gantry the system collects 16 rows of scan data. There are five reconstruction modes available for creating images from the multi-slice axial scan data.

• Axial Scan Parameters: - Scan Speed: Full 360-degrees rotational scans in 0.5, 0.6, 0.7, 0.8, 1.0, 2.0, 3.0 and 4.0 seconds.

• Scan Plane Geometry: - +/- 30 Degrees Angulation in .5 mm increments - Longitudinal Positioning in 0.01 mm per slice Increment

• Interscan Delay (ISD): Minimum ISD:Table Moves of 0-10mm:1.0 sec, Minimum ISD:Table Moves of > 10mm:1.3 sec

• Intergroup Delay (IGD): - Minimum IGD is the same as Minimum ISD

• Scan-to-Scan Cycle: Minimum scan-to-scan cycle of 1 sec possible with minimum ISD's. Scan with zero table increment, contiguous image location, or skipped image location, overlapped axial scans are not possible.

• Dose Check provides the user with tools to help them manage CT dose in clinical practice and is based on the standard XR-25-2010 published by The Association of Electrical and Medical Imaging Equipment Manufacturers (NEMA), XR-29 Compliant. Dose Check provides the following:

o Checking against a Notification Value if the estimated dose for the scan is above your site established value

o Checking against an Alert Value where the user needs specific authority to continue the scan at the current estimated dose without changing the scan parameters if the estimated dose exceeds the alert value

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			o The ability to define Alert Values for Adult and Pediatric with age threshold
			o Audit logging and review capabilities
			o Protocol Change Control capabilities
			For US and Canadian Customers, this quotation includes access to the DoseWatch Explore application for a period of time concurrent with the system warranty. DoseWatch Explore is an introductory dose management software application that provides you secure access, via any PC with internet access, to dose and protocol data from this system. An InSite connection to the system and completion of the registration process is required to use the DoseWatch Explore application.
3	1		English keyboard kit
			English keyboard kit
4	1		RT Standard Cable Set
			Standard Cable Set
5	1		High Capacity Table
			The High Capacity Table for WideBore systems
			Key features of the High Capacity table include: 650 lb weight capacity, 1600 mm scannable range, 125 mm/sec travel time, real-time Z-axis position feedback between gantry and table. Vertical movement: 52.5 - 99.1 cm
6	1		GE Oncology Workstation with AdvantageSIM MD9 Full
			GE Oncology Workstation with AdvantageSIM MD9 Full
			The GE Healthcare Oncology Workstation is a Complete Volumetric Virtual Simulation System. The System includes an Advantage Workstation, AdvantageSim MD Simulation software, and Integrated Registration software for CT, MR, PET, SPECT and X-Ray Angiography (XA)*. The following components are included:
			This package includes the following products:
			AW VS7 with 2 Flat Panel Monitors Integrated Registration Full Fusion AdvantageSIM MD9 Full

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AW VolumeShare7 with Two Flat Panel Monitors and 32GB of RAM

AW VolumeShare7 is a multi-modality image review, comparison and post processing workstation built with simplicity and power at its core. Powerful software is optimized to take advantage of state of the art 64 bit technology to ensure leading edge performance.

AdvantageSIM MD9 Full

Package includes each of the following options:

o AdvantageSIM MD with Multi-Modality Multi-Phase Planning
o CT Atlas-based Segmentation and Automated Replanning
o MR Pelvis Organ Segmentation

Key functionality in the AdvantageSIM MD Full offering includes:

o Isocenter placement with laser marking interface (LAP and Gammex)
o 3D visualization with correlated axial, sagittal, and coronal views
o Manual contouring tools including freehand, point-to-point and paintbrush
o Image guided tools to speed manual contouring including live-wire and adaptive paintbrush
o Beam setup and placement with target conformation via blocks or MLC
o DRR display with Mixing and Blending
o Support for multiple simultaneous datasets including CT, MR and PET
o Diagnostic quality PET display

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o 4D CT and PET display including fused
4D view

o 4D movie contouring

o SUV based PET tumor auto segmentation

o CT-atlas based contouring and re-planning

o MR-based organ segmentation in the pelvis

AdvantageSIM MD with Multi-Modality/
Multi-Phase Planning

Integrated Registration (Fusion) is designed to provide
easy comparison of three-dimensional (3D)
anatomical images from Computed Tomography (CT)
MRI (Magnetic Resonance Imaging), PET (Positron
Emission Tomography), Single Photon Emission
Computede Tomography (SPECT) amd X-Ray
Angiography (XA)*.

Fusion - It allows registration between
two volumetric acquisitions, which come from
either the same or from different acquisition
modalities.

7   1   Deviceless 4D Option

Smart Deviceless 4D, a breakthrough innovation in 4D CT simulation for RT planning, improves productivity and delivers suberb efficiency, as it:

- is an alternative and efficient solution for 4D imaging and virtual simulation - without an external device.

- Eliminates the need for the sometimes complex & time-consuming exam specific setup using an external respiratory monitoring device

- Uses internal anatomical metrics from image data to determine breathing signal in real-time

- Combines amplitude & phase binning for optimal 4D CT image quality

- Provides streamlined, protocol-driven 4D simulation workflow, enhancing productivity and enabling shorter 4D CT examination times

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Smart Deviceless 4D enables outstanding 4D CT image quality and optimized workflow, without the connection & maintenance of an external device:

- Precise measurement offers real-time data and internal anatomical metrics for visualization of tumor and organ motion

- Protocol-driven workflow...uses the same simple, efficient 4D workflow for all patients; enables clinicians to setup and scan with just a few clicks of the mouse

- Fewer parts, no additional device...no connection or parts issues, no time-consuming setup and no added hassles; built-in functionality offers inherent high reliability

8   1   Advantage 4D on Scanner

Advantage(TM) 4D on the console captures the full range of motion of critical internal structures and lesions during respiration. This application on the operator's console, aids users in selecting the proper phase(s) of the respiratory cycle in order to plan for a more targeted standard or gated rediation treatment, eliminating the need to apply general- or guessing margins. It provides the ability to perform respiratory motion assessment on the console prior releasing the patient from the CT simulator.

-Auto4D is the mode of Advantage(TM) 4D on the console, which offers a faster, even more efficient automated 4D process workflow including binning and intensity image creation.

- Auto 4D reduces the 4D binning time by 45%

- Auto 4D enables 4D images to be automatically binned, networked and available in AdvantageSim(TM) MD or Treatment Planning System within 1.5 minute or less.

9   1   MAR Option for Z840

MAR helps reduce photon starvation, beam hardening and streak artifacts caused by high Z material in the body, such as hip implants. The clarity of MAR images is addressing the challenges posed by metal artifacts, helping clinicians accurately contour targets and critical organs.
MAR offers:
o Exceptional image quality: Mar is based on

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			the latest in GE HEalthcare smart technology, which uses a novel three-step, sinogram-based iterative algorithm.
			o Stream-lined workflow: MAR requires only one scan, making the process of obtaining a corrected image fast and efficient.
			o Dose conscious: MAR requires only one acquisition.
			o Patient comfort: The efficient, single-scan process helps to reduce patient time inside the scanner.
			o Versatility: MAR is designed to enhance clarity across a range of images including scans of hip implants, dental fillings, screws and other metal objects.
			Not CE marked
10	1		Gating Cable
			RPM CABLE: cable for connecting CT and RPM
11	1		Chair
			Chair for CT scanner
12	1		CT Service Cabinet
			Service cabinet for system accessories storage
13	1		DIACOR RTP Flat Tabletop for CT and PET/CT Systems - RT16, DVCT, Disc 600/690, HD750 and VCT
			DIACOR RTP Flat Tabletop for CT and PET/CT Systems- RT16, DVCT, Discovery PET/CT 600, 610, 690, 710, HD750, and VCT
			Diacor Radiation Therapy Planning Overlay For GE Healthcare Global Tables, Model 1700, 2000 and PET/CT
			The Radiation Therapy Planning Overlay, or "CT Overlay", provides a secure flat surface for CT Simulation applications, consistent with the treatment couch, for accurate and reproducible patient positioning.

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FEATURES/BENEFITS

o Carbon fiber construction with foam core provides durable, light-weight device with outstanding imaging properties o Varian Exact Technology and Indexing Immobilization Patient Positioning system along entire length of the overlay o Designed specifically for GE Healthcare's Global Table o Easily locks and unlocks from the CT Table, providing easy transition between therapy and diagnostic procedures

INCLUDED:

o Carbon Fiber CT Overlay with locking accessories o Two Varian Exact Couch Indexing Bars o One Varian Respiratory Gating Interface Plate and associated mounting hardware

SPECIFICATIONS:

Weight: 30 lbs. (13.61 kg) Length: 85.25 in. (217.17 cm) Width: 20.87 in. (53.0 cm) Height: 1.62 in. (4.12 cm)

14   1

Docking Station for CARINAnav system only. Not for use with CARINAsim.

Docking Station for CARINAnav system only. Not for use with CARINAsim.

15   1

LAP DORADOnova 3 Green wall system With CARINAnav (Remote capability)

LAP DORADOnova 3 Green wall system With CARINAnav (Remote capability)

16   1

Onsite CT 4D Training

1.5 Days Oncology Applications Training

17   1

Onsite Oncology (Advantage SIM) Training

CT Advantage Sim Training

- (1) 2.5 Day On Site Visit for Training Advantage Sim and Advantage CT/MR Fusion

18   1

CT TiP Training Package, 3 consecutive Days Onsite training

CT TiP Training Package, 3 consecutive Days Onsite training

CT TiP Training Package, Non Discountable 3 consecutive days onsite training. Training is provided from 8AM to 5PM, Monday through Friday. Includes T&L expenses. This training program must be scheduled and completed within 12 months after the date of product delivery.

Quote Summary:

Item No.	Qty	.	Description
			Lightspeet RT 16 Trade in **404321RT16**