

REQUESTING SERVICE: RADIOLOGY  
SHIP TO: WAREHOUSE  
V.A. Medical Center  
1011 HONOR HEIGHTS DR  
MUSKOGEE, OK 74401

REQUISITION: 623-B86005

Item No.	Qty	Description
	<b>1</b>	<b>SIGNA Architect 3.0T</b>
1	1	<p>SIGNA™ Architect 3.0T 96-channel MR System</p> <p>SIGNA™ Architect 3.0T 96-channel MR System</p> <p>SIGNA™ Architect 3.0T is the most advanced and intuitive engineering in MR technology from GE Healthcare. Fueled by our new SIGNA™Works productivity platform, the SIGNA™ Architect is a harmonious design of form and function. Everything in its blueprint is crafted to significantly energize your productivity, enhance security, improve diagnostics and boost your bottom line.</p> <p>The Architect configuration includes the system electronics, operating software, imaging software, post-processing software and RF coil suite:</p> <ul style="list-style-type: none"><li>• eXtreme Gradient Technology</li><li>• Acoustic Reduction Technology</li><li>• TDI Receive Technology</li><li>• Multi-Drive Transmit &amp; PERFORM 2.0</li><li>• reFINE 3.0T Uniformity</li><li>• Volume Reconstruction Engine /Computing Platform and DICOM</li><li>• eXpress Docking Table</li><li>• Architect coil suite</li><li>• SIGNA™Flow workflow simplicity</li><li>• SIGNA™Works productivity platform</li></ul> <p>Total Digital Imaging: The SIGNA™ Architect Total Digital Imaging RF architecture delivers with 96 channel RF system. This technology delivers images with greater clarity and high SNR performance. The features of TDI include:</p> <ul style="list-style-type: none"><li>• Direct Digital Interface (DDI) employs an independent analog-to-digital converter to digitize inputs from each of the 96 RF channels. Every input is captured and every signal digitized to deliver high quality 3.0T images</li><li>• The Architect system is prepared for Digital Surround Technology (DST) which delivers the capability to simultaneously acquire MR signal from the integrated body coil and the surface coil. By combining the digital signal from surface coil elements with the signal from the integrated RF body coil, the superior SNR and sensitivity of the high-density surface coils are combined with the superior homogeneity and deeper signal penetration of the integrated RF Body Coil. This results in richer, higher quality spine and body images.</li></ul>

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		<p>eXtreme Gradient Technology: The Architect delivers high temporal resolution through 3-axis gradient amplifier power supply and efficient gradient coil design as well as high spatial integrity through excellent magnet homogeneity and gradient linearity over a large FOV. In addition, the XRM gradients are non-resonant and actively shielded to minimize eddy currents, and use an innovative digital control architecture design to deliver high fidelity, accuracy and reproducibility.</p> <ul style="list-style-type: none"> <li>• Peak amplitude per axis: 44 mT/m</li> <li>• Up to 200 T/m/s instantaneous peak slew rate per axis</li> <li>• Peak current &amp; voltage: 830 Amps, 1650 Volts</li> <li>• Digital PI feedback loop control</li> <li>• Maximum FOV: 50cm</li> <li>• Duty Cycle: 100%</li> </ul> <p>Quiet Technology: The SIGNA™ Architect system features Acoustic Reduction Technology (ART) that delivers an enhanced patient experience by significantly reducing noise levels (up to 99% reduction in sound volume). Acoustic reduction is achieved through:</p> <ul style="list-style-type: none"> <li>• Gradient &amp; RF coil isolation</li> <li>• Acoustic dampening material</li> <li>• Vibro-acoustic isolation</li> <li>• Gradient waveform optimization</li> </ul> <p>MultiDrive RF architecture adjusts/optimizes the phase and amplitude of each RF amplifier output channel that is applied to the 4-port drive whole-body RF transmit coil to enhance RF uniformity and signal homogeneity regardless of patient size and body habitus.</p> <p>PERFORM 2.0 combines RF body coil design, optimized pulse sequences, detailed predictive SAR modeling during prescription, and real-time SAR feedback and correction during scanning to help ensure high performance across all applications, tailored for each patient.</p> <p>reFINE designed to address the challenge of 3.0T high-field uniformity. Just like a home theater surround system can be optimized, with reFINE, you increase your control over improved RF pulse efficiency, so you get clearer, crisper signals no matter your patient composition or position. reFINE makes consistent 3.0T imaging the rule, not the exception.</p>

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		<p>Computing Platform: The latest computing platform comes standard and utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving, and networking. The keyboard assembly integrates an intercom speaker, microphone, volume controls, and emergency stop switch. Start scan, pause scan, stop scan and table advanced to center hot keys are also included.</p> <p>Orchestra reconstruction platform delivers a new software toolbox for advanced reconstruction approaches allowing the most demanding applications to be run seamlessly delivering enhanced productivity without reconstruction lag between scans and exams.</p> <p>DICOM: The SIGNA™ Architect system generates MR Image, Secondary Capture, Structured Report, and Gray Scale Softcopy Presentation State DICOM objects. The DICOM networking supports both send and query retrieve as well as send with storage commit to integrate with PACS archive. Please refer to the DICOM Compliance Statement for SIGNA™ Architect for further details.</p> <p>Architect Coil Suite: The Suite of coils is designed to enhance patient comfort and image quality while simplifying workflow by ensuring that the geometry of the surface coil matches the geometry of the patient. The Coil Package includes:</p> <ul style="list-style-type: none"> <li>• T/R Body Coil &amp; T/R Head Coil</li> <li>• PA and HNU Arrays</li> </ul> <p>The Posterior Array is designed to provide optimal element geometry for each targeted anatomy by using different element geometries for the cervical-to-thoracic spine transition, thoracic and lumbar spine, and the body.</p> <ul style="list-style-type: none"> <li>• Elements: 40</li> <li>• Length: 100 cm; Width: 40cm</li> <li>• S/I coverage: 100cm head-first or feet-first</li> <li>• Parallel imaging in all three scan planes</li> <li>• Head-first or feet-first positioning</li> </ul> <p>The PA coil is designed to be used in conjunction with the HNU, 1 or 2 AA coils combined (sold separately) or GEM Small AA (sold separately), and the GEM PV Array (sold separately). The PA coil is invisible to additional surface coils when they are placed directly on top of the surface.</p> <p>The Head and Neck Unit include the head base-plate and three anatomically</p>

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		<p>optimized anterior arrays: the anterior Neuro-vascular array, the anterior cervical spine array, the anterior open-face array.</p> <p>The HNU may be positioned at either end of the eXpress table to support head-first or feet-first imaging and may remain in place for all body, vascular, spine, and the majority of MSK exams. The HNU base plate supports the patient's head, and the Comfort Tilt variable-degree ramp can be positioned under the HNU base plate to elevate the coil to match the patient's head and neck position.</p> <ul style="list-style-type: none"> <li>• Elements: up to 28 combined with PA and AA</li> <li>• Length: 49.5 cm; Width: 38.8 cm</li> <li>• Height with NV Array: 35.4 cm</li> <li>• Height with Cervical Array: 32.6 cm</li> <li>• Height with Open Array: 25.9 cm</li> <li>• S/I coverage: up to 50 cm with PA and AA</li> <li>• Parallel imaging in all three scan planes</li> <li>• Head-first or feet-first positioning</li> </ul> <p>SIGNA™Flow is designed to standardize and accelerate workflows for patient set-up, exam prescription, scanning and post-processing. SIGNA™Flow can begin before the patient enters the magnet room and exams can be completed within a few mouse clicks – delivering quality and consistency for all patients and from all technologists. At the same time, SIGNA™Flow maintains the flexibility needed to rapidly adapt and optimize exams for patient specific situations.</p> <ul style="list-style-type: none"> <li>• In-Room Operator Console and controls</li> <li>• IntelliTouch land-marking</li> <li>• Protocol Libraries &amp; Management Tools</li> <li>• Workflow Manager &amp; Auto Functions</li> <li>• Inline Processing, Networking &amp; Viewing</li> <li>• Start Scan, Stop Scan, Pause/Resume Scan</li> <li>• ReadyView post processing on console</li> </ul> <p>deFINE takes the results of SIGNA™ Architect to the next level by enhancing the image appearance with integrated, in-line, optimizable settings. These settings can be generated for each individual sequence or for the entire exam. With deFINE, you meet your high quality image needs and go beyond the normal.</p> <p>eXpress Docking Table: The eXpress table is a mobile patient transport device with an</p>

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		<p>embedded high-density, Posterior RF Array and touch sensitive IntelliTouch land-marking. The fully detachable eXpress table is easily docked and undocked by a single operator and simple to move in and out of the exam room for patient transport and preparation. These features can be vital in instances where multiple patient transfers can negatively impact patient care or when emergency extraction is required.</p> <p>The eXpress table and embedded PA coil are designed to accommodate head-first or feet-first imaging for all supported exams. The table features three high-density coil connection ports: one at each end and one embedded for the PA.</p> <ul style="list-style-type: none"> <li>• Maximum patient weight for scanning: 500 lbs</li> <li>• Maximum patient weight mobile: 500 lbs</li> <li>• Maximum patient weight for lift: 500 lbs</li> <li>• 205 cm symmetrical scan range</li> <li>• Automated vertical and longitudinal power drive</li> <li>• Fast longitudinal speed: 30 cm/sec</li> <li>• Slow longitudinal speed: 0.5 cm/sec</li> <li>• Integrated arm boards &amp; non-ferrous IV pole</li> <li>• IntelliTouch &amp; laser land-marking</li> <li>• Laser alignment land-marking</li> </ul> <p>SIGNA™Works is the latest software platform provided by GE, it includes the base pulse sequences, workflow enhancements and visualization tools to enable high productivity with exceptional quality and outcomes. SIGNA™Works, starting with the acquisitions, provides the tools needed to enable superb results in the various clinical fields. With 6 optimized Works categories, GE delivers preset protocols for the most demanding Neuro, Musculoskeletal, Cardiovascular, Body, Oncology and Paediatric areas. In addition to enabling the routine imaging, SIGNA™Works provides the user with a streamlined and efficient operating environment with in-line processing through single-click outcomes for even the most demanding processes.</p> <p>NeuroWorks includes the basic imaging acquisitions and processing along with the latest in motion correction, functional and volumetrics. Supporting both simple reconstruction and real-time perfusion results with BrainStat AIF. Including:</p> <ul style="list-style-type: none"> <li>• PROPELLER MB motion robust radial FSE now including T1 and Fat suppression (STIR and ASPIR)</li> <li>• 3D Cube FSE-based 3D imaging including Dual Inversion Recovery</li> <li>• BrainStat AIF parametric maps</li> </ul>

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		<ul style="list-style-type: none"> <li>• eDWI</li> <li>• ReadyBrain automated brain exam prescription</li> <li>• 3D COSMIC modified steady state imaging</li> <li>• 3D BRAVO IR prepared fast SPGR imaging</li> <li>• PROBE PRESS single voxel spectroscopy</li> </ul> <p>OrthoWorks delivers routine imaging that is not always a given. From motion correction to advanced volumetric imaging, GE's latest MSK techniques provide you with the contrasts you need for the basic imaging to enhanced cartilage imaging. And with multiple tissue suppression methods available, OrthoWorks enables the best of what can be achieved in a standard configuration. Including:</p> <ul style="list-style-type: none"> <li>• MARS High Bandwidth for FSE</li> <li>• PROPELLER MB motion robust radial FSE now with T1 and Fat Suppression (STIR and ASPIR)</li> <li>• 3D Cube FSE</li> <li>• 3D COSMIC</li> </ul> <p>BodyWorks: The latest in Torso imaging is delivered with volumetric imaging supporting advanced Parallel imaging standard. Including, Snapshot imaging with optimized Single Shot FSE, 3D isotropic imaging for MRCP, Dynamic Imaging and Routine Volumetric imaging enabled with Motion Free navigation for post-contrast uses with high temporal resolution results. Motion correction is further enhanced with both the PB navigators as well as PROPELLER including T1 weighted results. Turbo class of acquisitions streamlines the speed and enables higher quality results. Advanced processing is made one-touch with the new READYView on Console capabilities. Including:</p> <ul style="list-style-type: none"> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• PROPELLER MB for motion robust radial FSE including PB Navigator and fat suppression (STIR/ASPIR)</li> <li>• TurboLAVA with Turbo ARC</li> <li>• Enhanced SSFSE</li> <li>• Multiphase DynaPlan</li> <li>• SmartPrep</li> </ul> <p>OncoWorks delivers a complete platform for your needs in Prostate, Breast and Radiation Therapy planning. From the basic routine acquisitions to whole body imaging including volumetric and enhanced diffusion capabilities, GE enables superb linearity from the gradient platform and hardware performance. GE provides the</p>

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		<p>necessary preset protocols to supply you with optimal imaging for your oncology needs that is further enhanced visualization capabilities so that your results can be a single click away. Including:</p> <ul style="list-style-type: none"> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• PROPELLER MB for motion robust radial FSE including PB Navigator and fat suppression (STIR/ASPIR)</li> <li>• Spin Echo &amp; Fast Spin Echo Suites</li> <li>• TurboLAVA with Turbo Arc</li> <li>• eDWI</li> <li>• Whole Body Scanning tools including eDWI</li> </ul> <p>CVWorks provides GE's extensive coverage for the latest techniques enabling high performance Cardiovascular imaging outcomes. Single Breath-Hold imaging for whole heart coverage are available from Morphology to Delayed enhancement. Enabling simplified generation of superb results including head-to-toe MRA support to single acquisition Time of Flight and additional non-contrast imaging for flow. With SmartPrep and Fluoro triggering enabled for first time right contrast injections.</p> <p>Vascular specific including:</p> <ul style="list-style-type: none"> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• 2D/3D Time-Of-Flight &amp; 2D Gated Time-of-Flight</li> <li>• 2D/3D Phase Contrast &amp; Phase Contrast Cine</li> <li>• SmartPrep automated bolus detection</li> <li>• Fluoro Trigger real-time bolus monitoring</li> <li>• 3D QuickStep automated multi-station imaging</li> </ul> <p>Cardiac specific including:</p> <ul style="list-style-type: none"> <li>• 2D/PS MDE phase sensitive tissue characterization</li> <li>• MDE Plus tissue characterization with optimized Fat Sat</li> <li>• CINE IR fast cine gradient echo with IR-prep pulse</li> <li>• StarMap T2 iron assessment</li> <li>• 2D FIESTA Cine steady-state, gated multi-phase imaging</li> <li>• 3D FS FIESTA steady-state coronary imaging</li> <li>• Cine Paging (128 images/4 windows @ 30fps)</li> </ul> <p>PaedWorks is the GE solution to address your specific needs in Paediatric imaging, from standard sequences supported with the latest in motion control for brain to toes.</p>

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		<p>GE delivers standard acoustic reduction technologies and further addresses clinical needs for volumetric imaging, whole body imaging and enhanced diffusion results. The streamlined processing enables simplified one-click processing and visualization of complex results. PaedWorks covers your needs for all anatomies and provides optimized protocols and preset procedures. Including:</p> <ul style="list-style-type: none"> <li>• PROPELLER MB motion robust radial FSE now including T1 and Fat suppression (STIR and ASPIR)</li> <li>• PROPELLER 3.0 FSE-based diffusion imaging</li> <li>• 3D Cube FSE-based 3D imaging including Dual Inversion Recovery</li> <li>• BrainSTAT AIF parametric maps</li> <li>• Body Navigators pencil-beam diaphragm tracker</li> <li>• eDWI</li> </ul>
2	1	<p>SIGNA Architect 3.0T Magnet Collector</p> <p>SIGNA Architect 3.0T Magnet Collector</p> <p>The Architect is equipped with GE's most-advanced 3.0T magnet design, high-performance 44 mT/m and 200 T/m/s slew rate gradients, a spacious 70cm patient bore with bright inner-bore lighting, and MultiDrive RF transmit technology delivering performance, productivity and exceptional image quality.</p> <p>GE's Wide-Bore Magnet Design:</p> <p>With GE's active shielding technology and space-age composite design, the lightweight 3.0T magnet minimizes weight while preserving homogeneity and minimizing fringe fields. The result is a 3.0T magnet that does not compromise performance yet can be installed almost anywhere. The magnet's high-homogeneity delivers excellent fat-saturation away from iso-center and ensures image quality over a full 50 cm field-of-view. Coupled with its zero-boil off technology and remote magnet monitoring technology, the Architect 3.0T magnet is designed to provide years of worry-free, reliable, low-cost operation.</p> <p>In-Room Console (iROC):</p> <p>By consolidating all controls into one place, the In-Room Console (iROC) provides real-time feedback to the operator to improve exam room efficiency. With a high-resolution, color LCD display located just above the Architect gantry, coil-connection, patient set-up, cardiac and respiratory waveforms make exam preparation a breeze. The iROC provides feedback on:</p> <ul style="list-style-type: none"> <li>• Display of patient name, ID, and study description.</li> <li>• Display and entry of patient weight.</li> </ul>



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		<ul style="list-style-type: none"> <li>• Display and entry of patient orientation / position.</li> <li>• AutoStart - initiates automatic scan start.</li> <li>• Cardiac &amp; Respiratory waveform display.</li> <li>• IntelliTouch landmarking information, table position, and scan time.</li> <li>• Coil connection status.</li> </ul> <p>High Performance Whole-Body Gradients:</p> <p>The Architect incorporates the latest in MR gradient technology with the wide eXtreme Resonance Module (XRMw). XRMw gradients deliver 44 mT/m peak amplitude, up to 200 T/m/s instantaneous peak slew-rate on each axis, and deliver unmatched fidelity, accuracy, and reproducibility (please refer to system datasheet for additional information). They are water-cooled and equipped with integrated thermo-electric cooling panels to provide excellent stability and duty-cycle for gradient intensive applications. The XRMw gradients have been designed with excellent linearity across the 50cm FOV. Utilizing a unique acoustic barrier material, acoustic noise levels are reduced for enhanced patient comfort without compromising imaging performance.</p> <p>Architect MultiDrive RF Whole-Body RF Coil:</p> <p>The SIGNA Architect system comes with GE's MultiDrive RF transmit technology as a standard system feature. This system features a high efficiency 4-port drive RF body coil and independent RF amplitude and phase control to improve RF signal homogeneity across the field of view. The system features a fully automated optimization to adjust the RF settings for each patient to deliver optimal image quality regardless of patient size or shape.</p>
3	1	<p>Preinstallation Collector and Cable Concealment Kit</p> <p>Preinstallation Collector and Cable Concealment Kit</p> <p>The Preinstallation Collector delivers to the site in advance of the magnet and main electronic components. This facilitates the later delivery and installation of supporting electronics. The following are the main components in the Preinstallation collector:</p> <ul style="list-style-type: none"> <li>• Heat exchange cabinet for distribution of chilled water.</li> <li>• Primary Penetration wall panel for support of the penetration cabinet.</li> <li>• Secondary Penetration wall panel for support of gradient filters, helium cables, and chilled air and water.</li> <li>• Helium cryocooler hose kit.</li> </ul> <p>The Cable Concealment Kit accommodates a wide-range of scan room ceiling heights and is designed to provide a clean-look installation by concealing the overhead cabling from view.</p>

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4	1	<p>3.0T Calibration Phantom Kit</p> <p>3.0T Calibration Phantom Kit</p> <p>This 3.0T calibration kit contains a large volume shim phantom, a daily quality assurance phantom, an echo-planar calibration phantom, and associated loader shells.</p>
5	1	<p>Vibroacoustic Dampening Kit</p> <p>Vibroacoustic Dampening Kit</p> <p>Material in the Vibroacoustic Dampening Kit can significantly attenuate the transmission of gradient-generated acoustic noise through the building structure to nearby areas, including adjacent rooms and floors above or below the MR suite. If this kit is applied during the installation of a new magnet, no additional service charges are necessary. However, installation of the Vibroacoustic Dampening kit under an existing magnet requires special steps. The steps to prepare the site and steps to install, such as modifications to the RF screen room, and other magnet rigging, modifications to the RF screen room, and other finishing work, are not covered in the pricing.</p>
6	1	<p>Architect 3.0T Cable Collector-A (Short SR/ Short ER)</p> <p>Architect 3.0T Cable Collector-A (Short SR/ Short ER)</p> <p>To accommodate various electronic and scan room configurations and sizes, the system has preset lengths of cables and connector kits to speed system installation. This configuration is for sites with a relatively short distance of 7 meters between the penetration wall and the rear of the MR scanner room (SR), and approximately 9 meters between the penetration wall and cabinets in the electronics room (ER). Refer to the pre-installation manual for exact cable lengths and configurations. This cable collector is compatible with fixed and modular or relocatable building configurations.</p>
7	1	<p>Gradient Cable Collector - A</p> <p>Gradient Cable Collector - A</p>
8	1	<p>Main Disconnect Panel</p> <p>Main Disconnect Panel</p> <p>The Main Disconnect Panel safeguards the MR system's critical electrical components, by providing complete power distribution and emergency-off control.</p>
9	1	<p>Calibration Kit Phantom Holder Cart</p>

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		Calibration Kit Phantom Holder Cart
10	1	Operator's Console Table Operator's Console Table Wide table designed specifically for the color LCD monitor and keyboard.
11	1	English Keyboard English Keyboard Required for our operator console. This keyboard is ergonomically designed to keep your staff comfortable even through the longest shifts. The scan control keyboard assembly has an intercom speaker, microphone, volume controls and emergency stop switch.
12	1	Standard Service License Standard Service License  GE Healthcare has reclassified its service tools, diagnostics and documentation into various classes (please refer to the Service Licensing Notification statement at the beginning of this Quotation). The Standard License provides access to service tools used to perform basic level service on the Equipment and is included at no charge for the warranty period.
13	1	HyperWorks HyperWorks <ul style="list-style-type: none"> <li>• HyperCube</li> <li>• HyperBand</li> <li>• HyperSense</li> </ul> <p>HyperCube delivers reduced field of view imaging for 3D Cube acquisitions by selectively acquiring/reconstructing fewer k-space lines which leads to scan time reduction and artifact control through a selective excitation approach.</p> <p>HyperBand reduces scan time by delivering multiple slices for single shot EPI/Diffusion in one go up to reduction factors of 6x.</p> <p>HyperSense provides a scan time reduction technique while maintaining SNR through an innovative data compression algorithm for 3D based Cube and ToF sequences.</p>

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14	1	<p>MAGiCWorks 3.0T</p> <p>MAGiCWorks 3.0T</p> <ul style="list-style-type: none"> <li>• MAGiC 3.0T</li> <li>• MAGiC DWI</li> </ul> <p>MAGiC enables one-and-done imaging capability by delivering six different contrasts in a single scan. MAGiC utilizes a multi-delay multi-echo acquisition. The data acquired is processed using a novel technique to generate T1, T2, T1FLAIR, T2FLAIR, PD, and STIR weighted images, all at once in as little as one-third the time taken to acquire all six contrasts using separate sequences. MAGiC generates all the different contrasts from the same scan, and the images have perfect registration due to no change in the anatomy being imaged from patient movement between scans. MAGiC expands the potential to acquire more advanced sequences such as spectroscopy, susceptibility weighted imaging (each sold separately) etc., in the time it took to perform just the routine exam.</p> <p>MAGiC gives the user the ability to change the contrast of images after the acquisition. This is performed by adjusting the TR, TE, and/or TI parameters post-acquisition to generate the specific contrast desired. The range of contrasts that can be generated include IR REAL, PSIR in addition to the aforementioned six contrasts. MAGiC also enables users to generate quantitative T1, T2, R1, R2, and PD maps for further analysis of MRI scan data.</p> <p>MAGiC Diffusion provides the ability to acquire lower b-value diffusion data and extrapolate to higher b-value results leading to inherent high signal to noise gains in addition to scan time reduction through the computed b-value principle.</p>
15	1	<p>NeuroWorks XT Package</p> <p>NeuroWorks XT Package</p> <ul style="list-style-type: none"> <li>• DTI</li> <li>• FiberTrak</li> <li>• SWAN 2.0</li> <li>• IDEAL &amp; Flex</li> <li>• Flex for FSE Cube</li> <li>• FOCUS</li> </ul> <p>Diffusion Tensor imaging (DTI) creates contrast based on the degree of diffusion anisotropy in cerebral tissues such as white matter. The DTI method expands Echo</p>

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		<p>planar imaging capability to include diffusion imaging sequence using motion sensing gradient pulses along 6 to 155 orientations in order to generate tensor component images. With the Express Workflow, fractional anisotropy (FA) and Volume Ratio Anisotropy (VRA) maps may be automatically created after image acquisition without any user intervention.</p> <p>FiberTrak: White matter tracts and tissues with high fractional anisotropy are easily displayed and visualized in the 3D Volume Viewer with FiberTrak. This host computer post processing tool expands the capability of Diffusion Tensor imaging by generation of 2D color orientation maps, 2D eigenvector maps, and 3D tractography maps from the diffusion tensor image data. The resulting datasets may be easily saved and archived for later use.</p> <p>SWAN (also known as SWAN 2.0 for DV platforms) is a high-resolution 3D multi-echo gradient echo sequence that produces weighted averaging across images with different TEs to achieve higher susceptibility weighting. It provides minimum intensity projections over neighboring slices, enhancing contrast for certain tissues containing iron, venous blood, and other substances with susceptibilities that are different than the background tissues. SWAN 2.0 (DV platforms only), outputs an unwrapped phase image leading to increased delineation between calcium products and paramagnetic products (such as blood or iron) to further increase the clinical value of susceptibility imaging. Due to the nature of the weighted averaging of the multi-echo sequence, the SNR of SWAN is higher than that of a single-echo acquisition. SWAN 2.0 helps visualize and delineate small vessels, as well as large vascular structures and iron or calcium deposits in the brain.</p> <p>IDEAL and Flex: Generate consistent tissue contrast and reduce the number of series in an exam with DEAL. The IDEAL acquisition and reconstruction methods can generate a water-only, fat-only, in-phase and out-of-phase data sets for clear tissue differentiation in a single series. In addition, susceptibility artifacts common to MR imaging such as incomplete or inaccurate fat saturation, and chemical shift can be eliminated as well. The IDEAL application acquires multiple echoes and uses unique reconstruction routines to generate the four image contrasts and correct for errors due to tissue susceptibility.</p> <p>IDEAL is ideally suited for imaging anatomical regions such as the brachial plexus, neck, spine, chest, foot, ankle, and axilla where inhomogeneous magnetic fields may yield failures with traditional fat saturation techniques. IDEAL is compatible with Fast Spin Echo, 3D Gradient Echo and parallel imaging.</p>

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		<p>For fast T1w multi-phase imaging of the abdomen and pelvis, LAVA Flex acquisition uses 2D ARC parallel imaging to reduce artifacts from breath hold misregistration and incorrect FOV placement while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. LAVA Flex requires LAVA which is included in.</p> <p>For fast T1w multi-phase imaging of the breast, VIBRANT Flex acquisition uses 2D ARC parallel imaging to enable higher acceleration factors over ASSET parallel imaging, and reduce artifacts from breath hold misregistration and eliminates artifacts due to incorrect FOV placement, while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. VIBRANT Flex requires VIBRANT, which must be purchased separately.</p> <p>The IDEAL method is compatible with ASSET and ARC parallel imaging and is optimized based on the anatomy of interest.</p> <p>FSE and Cube Flex delivers enhanced fat nulled imaging with an efficient two echo flex approach to separate water and fat signals. Outputting 4 images/slice: Fat, Water, In and Opposed phase.</p> <p>FOCUS delivers a highly efficient method for increasing the resolution in Single Shot DW EPI sequences. The outcome delivers robust high resolution results while removing artifacts typically induced from motion, image backfolding or unsuppressed tissue. In addition, with the higher efficiency of the application, the reduced field of view imaging leads to a reduction in blurring that translates into an overall improvement to the image quality result. The sequence utilizes 2D selective excitation pulses in DW-EPI acquisitions to limit the prescribed phase encoded field of view at both 1.5T and 3.0T field strengths.</p>
16	1	<p>VascularWorks XT Package</p> <p>VascularWorks XT Package</p> <ul style="list-style-type: none"> <li>• TRICKS</li> <li>• Inhance Suite</li> </ul> <p>TRICKS (Time Resolved Imaging of Contrast KineticS) provides high resolution multi-phase 3D volumes of any anatomy for fast accurate visualization of the vasculature. With segmented complex data recombination, TRICKS can accelerate 3D dynamic vascular imaging without compromising spatial detail.</p> <p>TRICKS also uses elliptic centric data collection for optimized contrast resolution and</p>

Item No.	Qty	Description
		<p>auto-subtraction for optimized background suppression. The result is time course imaging that does not require timing or triggering, provides high temporal and high spatial resolution, and enables the extraction of optimum phases of data. As a result, TRICKS enables reliable, high quality vascular imaging. TRICKS is compatible with surface coils and supports parallel imaging for even higher temporal resolution.</p> <p>The Inhance Suite application consists of several sequences designed to provide high-resolution images of the vasculature with short-acquisition times and excellent vessel detail. These sequences include: Inhance Inflow IR: Inhance Inflow IR is an angiographic method, which has been developed to image renal arteries with ability to suppress static background tissue and venous flow. This sequence is based on 3D FIESTA, which improves SNR, as well as produce bright blood images.</p> <p>Inhance 3D Velocity: Inhance 3D Velocity is designed to acquire angiography images in brain and renal arteries with excellent background suppression in a short scan time. By combining a volumetric 3D phase contrast acquisition with parallel imaging, efficient k-space traversal, and pulse sequence optimization, Inhance 3D Velocity is capable of obtaining complete Neurovascular imaging in 5-6 minutes.</p> <p>Inhance 3D Deltaflow is a 3D non-contrast enhanced MRA application for peripheral arterial imaging. Inhance 3D Deltaflow is based on the 3D Fast Spin Echo technique and it utilizes the systolic and diastolic flow differences to help generate arterial signal contrast. A subtraction of the systolic phase from the diastolic phase images results in arterial only images, with venous and background suppression.</p> <p>Inhance 2D Inflow: The Inhance 2D Inflow pulse sequence is designed to acquire angiography images of arteries, which follow almost a straight path, i.e. femoral, popliteal, carotid arteries, etc.</p>
17	1	<p>MAVRIC SL</p> <p>MAVRIC SL</p> <p>MAVRIC SL is an advanced magnetic resonance imaging technique for imaging soft tissue and bone near MR conditional metallic devices. MAVRIC SL is designed to greatly reduce susceptibility artifacts, compared to conventional fast spin echo techniques, and is suitable for use on all patients cleared for MR exams.</p>
18	1	<p>3.0T Anterior Array</p> <p>3.0T Anterior Array</p>

Item No.	Qty	Description
		<p>The Anterior Array facilitates chest, abdomen, pelvis, and cardiac imaging. The AA is lightweight, thin and flexible, and pre-formed to conform to the patient's size and shape. With 54 cm of S/I coverage, the AA permits upper abdomen and pelvis imaging without repositioning the coil.</p> <ul style="list-style-type: none"> <li>• Elements: up to 36 combined with PA</li> <li>• Length: 55.6 cm; Width: 67.4 cm</li> <li>• S/I coverage: 54 cm</li> <li>• R/L coverage: up to the full 50 cm FOV</li> <li>• Parallel imaging in all three scan planes</li> <li>• Head-first or feet-first positioning</li> </ul>
19	1	<p>3.0T TDI 48ch Head Coil</p> <p>3.0T TDI 48ch Head Coil</p> <p>The TDI 48 channel Head Coil, with adaptable design ensuring 99.9% fit, includes advanced capabilities to support fMRI and MR compatible EEG.</p>
20	1	<p>3.0T 16ch T/R Hand Wrist Array</p> <p>3.0T 16ch T/R Hand Wrist Array</p> <p>The T/R Hand Wrist Array is a rigid shell 16 channel transmit/receive hand wrist coil designed for high resolution imaging with multi-planar parallel imaging capabilities allowing imaging with arm down approach.</p>
21	1	<p>3.0T 16ch Shoulder Array by Invivo</p> <p>3.0T 16ch Shoulder Array by Invivo</p> <p>The Shoulder Array is a rigid shell with anterior adaptable paddle which delivers 16 channel performance optimized for high resolution shoulder imaging with lateral coverage to ensure large field of view imaging.</p>
22	1	<p>3.0T 18-ch TDI T/R Knee Array</p> <p>3.0T 18-ch TDI T/R Knee Array</p> <p>The 18-channel Knee Array is a transmit/receive coil that produces high resolution images of the knee and is optimized for parallel imaging in all three directions to reduce acquisition times.</p>
23	1	<p>3.0T TDI 8-ch Foot/Ankle Array</p>



Item No.	Qty	Description
		<p>3.0T TDI 8-ch Foot/Ankle Array</p> <p>The Foot/Ankle Array produces high-resolution images of the foot and ankle by incorporating an 8-channel phased array design in a unique "ski" boot design. The unique coil design has excellent distal coverage and supports multiple foot positions for optimizing studies. Parallel imaging is supported to reduce acquisition times.</p>
24	1	<p>3.0T Flex Suite, Premium (SM, MD, LG)</p> <p>3.0T Flex Suite, Premium (SM, MD, LG)</p> <p>The Flex Suite is a versatile set of high density 16-channel receive coils designed to give high quality images in a wide range of applications. The high degree of flexibility was achieved by removing all non-essential electronics to an external interface assembly, ensuring reduced weight on the patient and better conformance to the anatomy. The high degree of flexibility is particularly advantageous when imaging patients that do not fit the constraints of rigid coils, improving patient and technologist experience, and enabling most exams to be completed with the same level of image quality expected from dedicated coils.</p> <p>This extended set includes all three sizes of coils, Small, Medium, and Large, and a knee stabilization fixture that is designed for compatibility with the flat table. They cover a broad range of muscular skeletal applications, including hand, wrist, elbow, shoulder, hip (unilateral and bilateral), knee, ankle, and foot. In addition, the coils' versatility has been shown in a range of general purpose applications that include head, neck, and spine exams.</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>• 3.0T Flex Coils - Small, Medium, and Large Arrays.</li> <li>• 3.0T Flex Interface Module 16-channel Fixed, P-Connector.</li> <li>• Flex Knee Stabilization fixture for flat table.</li> <li>• Flex GP Strap and Interface Module Cover.</li> <li>• Flex Cable Take-up Pad and General Purpose Stabilization Pad.</li> </ul>
25	1	<p>Flex Array Positioner</p> <p>Flex Array Positioner</p> <p>The Flex Array Positioner is a multipurpose support for a broad range of exams including foot, ankle, forefoot, knee, and head. A dedicated forefoot attachment allows the flex array elements to be wrapped tightly around the foot, yielding improved</p>

Item No.	Qty	Description
26	1	<p data-bbox="524 369 1471 506">image quality. A repositionable support pad in the foot and ankle attachment allows for selection of a 90 degree position, or a relaxed position of the ankle. The pads and straps included with the stabilizer facilitate rapid setup and allow for flexibility in how the anatomy is secured.</p> <p data-bbox="524 541 1479 604">Dimplex MR Heat Exchanger for MR450, MR750, MR750w, PET/MR - Standard Ambient Temp</p> <p data-bbox="524 630 1393 657">GE Discovery MR450 and Discovery MR750 Heat Exchangers - 70kW (30 Tons)</p> <p data-bbox="524 682 1487 819">Cooling for your GE Healthcare MR system has never been so easy. GE Healthcare has partnered with the Glen Dimplex Group, a world leader in cooling systems, to offer heat exchangers designed to meet the needs of your Discovery MR System. Now you can look to GE Healthcare for your entire MR purchase and support.</p> <p data-bbox="524 844 1474 1085">This heat exchanger is highly reliable and the only unit verified to perform with the new platform of GE Healthcare MR systems. As part of your integrated GE Healthcare solution, you'll work with a single contact throughout the whole installation. A Project Manager of Installation will help with building layout, room designs, delivery and installation - every step until your system is ready to scan. Our team will work seamlessly with architects, contractors and your internal team to help ensure timely, cost-effective completion.</p> <p data-bbox="524 1110 1433 1211">Once your cooling system is running, you'll get fast, highly-skilled service support managed through GE Healthcare - with the same quality and response time you expect from your MR system.</p> <p data-bbox="524 1236 805 1264">FEATURES AND BENEFITS</p> <ul data-bbox="545 1289 1487 1818" style="list-style-type: none"> <li>• Designed to provide stable fully dedicated cooling for your MR system's needs</li> <li>• Water/glycol outdoor-air-cooled heat exchangers to support your highest exam volumes and your full range of diagnostic procedures</li> <li>• Redundant fluid pumps with automatic switchover let you keep operating with no loss of cooling even if one pump goes down</li> <li>• Quad compressor, dual tandem refrigeration circuit design saves on energy while your system smoothly transitions through the 10% to 100% heat load capacity cycles of patient scanning and idling</li> <li>• Quiet operation between patient exams and overnight - ideal for facilities in residential areas</li> <li>• Comes with installation support, installation visits, preventative maintenance visit and 1 full year of parts and labor warranty</li> <li>• Installation support includes: support through GE's Project Manager of Install, GE's Design Center, technical support from the Glen Dimplex company, two (2)</li> </ul>

Item No.	Qty	Description
		<p>installation visits</p> <ul style="list-style-type: none"> <li>• Comprehensive and quality service rapidly delivered through our CARES service solution</li> <li>• 65 gallons of 100% glycol concentrate for complete system filling and diluting</li> <li>• Wall mounted remote display panel provides the ability to monitor the system's operation and indicates possible system errors</li> <li>• Filter kit with flow meter helps to ensure purity of water prior to entry to the MR system</li> <li>• Highly recommended that Vibration Isolation Spring Kit (E8911CJ) be added for systems that will be rooftop mounted</li> </ul> <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>• Net Cooling Capacity: 70 kW / 30 Ton</li> <li>• Maximum Coolant Flow: 35 gpm (132 l/m)</li> <li>• Coolant Outlet Temperature: 48 OF (8.9 OC)</li> <li>• Coolant Temp Stability: 1 1.80F ( 11.00C)</li> <li>• Max Coolant Pressure : 70 Psi (4.8 Bar)</li> <li>• Refrigerant: R407C</li> <li>• Ambient Temp Range: -20 to 1200F (-30 to 500C)</li> <li>• Condenser Air Flow (Approx): 18,000 Cfm</li> <li>• Tank Capacity: 100 gal (378 l)</li> <li>• Flow Meter Range: 4-40 gpm</li> <li>• Filters: 50 micron cartridge filters</li> <li>• Supply Voltage: 460v / 3 phase / 60 Hz</li> <li>• Coolant Connections: 2" NPTF</li> <li>• Overall Size (L x W x H) 44" x 136" x 84.5"</li> </ul> <p>COMPATIBILITY:</p> <ul style="list-style-type: none"> <li>• GE Discovery MR450 1.5T MR system</li> <li>• GE Discovery MR750 3.0T MR system</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>• Item is NON-RETURNABLE and NON-REFUNDABLE</li> </ul>
27	1	<p>Manual Cryogen Compressor Water Bypass</p> <p>GE MR Heat Exchanger Manual Cryogen Compressor Water Bypass Option</p> <p>Add a level of magnet protection with a Manual Cryogen Compressor Bypass. In case</p>

Item No.	Qty	Description
		<p>of a power failure, you can cycle municipal or facility water through the cryogen compressor and reduce cryogen loss and reduce the likelihood of quenching.</p> <p>FEATURES AND BENEFITS</p> <ul style="list-style-type: none"> <li>• Easy to install and simple to use</li> <li>• Helps switch over water supply to your cryogen compressor in the event of loss of power to reduce cryogen loss</li> <li>• Includes fluid supply pressure gauge, temperature gauge and flow rate meter for easy verification of operation</li> <li>• Manual operation reduces unintentional switch-overs and coolant dumping during brown-outs and supply power glitches</li> </ul> <p>COMPATIBILITY</p> <p>Must be used with a GE MR Heat Exchanger:</p> <ul style="list-style-type: none"> <li>• E8911CA</li> <li>• E8911CB</li> <li>• E8911CC</li> <li>• E8911CD</li> <li>• E8912CA</li> <li>• E8912CB</li> <li>• E8912CC</li> <li>• E8912CD</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>• Item is NON-RETURNABLE and NON-REFUNDABLE</li> </ul>
28	1	<p>MR 3T &amp; 1.5T Advanced Training Package (New to MR or Advanced)</p> <p>MR 3T &amp; 1.5T Advanced Training Package (New to MR or Advanced)</p> <p>Advanced training package includes HQ, onsite, and remote training options</p> <p>Training package includes Phase 1 &amp; 2 onsite training, plus 8 follow-up days for a total of 16 onsite days. 2 HQ classes, 32 TVA hours, 10 consecutive weeks of VOT training up to 40 hours, online and remote training is also included. Program concludes one year after the initial start date. Instruction is provided from 8 AM to 5 PM, Monday through Friday and includes T&amp;L expenses.</p>
	1	<b>MR Accessories - SIGNA Architect 3.0T</b>
29	1	<p>MRI Audio 1505 Complete music system for Premium MRI systems</p> <p>MRI Audio 1505 Complete music system for Premium MRI systems.</p>

Item No.	Qty	Description
		<p>The MRI Audio premium sound system is designed for comfort and allows the patient to listen to music while being scanned in an MRI. The technologist is in full control of the system headphones, microphone, sound source and volume controls. Standard 3.5 mm plug for music source allows any compatible music player, tablet or phone. In-ear headphones work with any head coil.</p> <p>Package includes:</p> <ul style="list-style-type: none"> <li>• Digital amplifier</li> <li>• iPad Mini</li> <li>• iPad Mini mount with lock</li> <li>• 3G transducer</li> <li>• In-ear headphones, 29dB noise reduction</li> <li>• Over-ear headphones, 29dB noise reduction</li> <li>• Disposable ear tips (300 pairs)</li> <li>• Technologist's speakers</li> <li>• 6 ft RCA 3.5 mm cable</li> <li>• Auto-voice/MIC adapter</li> </ul>
30	1	<p>MEDRAD MRXperion injector on pedestal mount</p> <p>The Medrad® MRXperion™ MR Injection System is a smart performer in the MR suite, delivering contrast fluid and data management.</p> <p>Streamlined Injection Workflow</p> <ul style="list-style-type: none"> <li>• Less time preparing for the injection and more</li> <li>• time to focus on the patient and optimize</li> <li>• procedure management.</li> </ul> <p>Convenience at Point of Care</p> <ul style="list-style-type: none"> <li>• On-board eGFR and Weight Based Dosing</li> <li>• Calculators, an Injection Pressure Graph,</li> <li>• Independent Test Inject and KVO functions.</li> </ul> <p>Real-time Support</p> <ul style="list-style-type: none"> <li>• Connect to VirtualCare® Remote Support* for</li> <li>• advanced injector system diagnostics, seamless</li> </ul> <p>Improved Efficiencies</p> <ul style="list-style-type: none"> <li>• Snap-on/Twist-off Syringe Design</li> <li>• Auto plunger advance and retract when attaching and detaching syringes</li> <li>• Automatic filling and priming</li> </ul>

Item No.	Qty	Description
		<ul style="list-style-type: none"> <li>• Injection/post-injection reminders</li> <li>• Injection pressure graph</li> </ul> <p>Reproducible Quality</p> <ul style="list-style-type: none"> <li>• Proven track record of design and performance</li> <li>• On-site field service and VirtualCare® Remote Support* for advanced injection system diagnostics and real-time support</li> </ul> <p>Personalized Care</p> <ul style="list-style-type: none"> <li>• Patient-Centric workflow design</li> <li>• Protocol storage/retrieval</li> <li>• On-board eGFR and Weight Based Dosing Calculators</li> <li>• Injection enabled when head is tilted down</li> </ul> <p>The MRXperion™ Injector package includes:</p> <ul style="list-style-type: none"> <li>• Dual injector head on pedestal with integral double hook IV pole</li> <li>• Scan room unit power supply with 40 ft. (12 m) DC cable</li> <li>• Scan room fiber optic cable – 40 ft. (12 m)</li> <li>• Control room fiber optic cable - 150 ft. (45 m)</li> <li>• Fiber optic quick disconnect panel</li> <li>• Fiber optic penetration panel kit</li> <li>• Control room unit (display and pod) with hand-switch</li> <li>• Display and pod power supplies</li> <li>• CAT5 cable (display to pod) - 1 ft. (0.3m)</li> <li>• CAT5 cable (pod to hospital network) - 25 ft. (7.6m)</li> <li>• Power cords - North America and Japan (3 each), 10 ft. (3 m)</li> <li>• Power cords – International (3 each), 10 ft. (3 m)</li> <li>• Operators manual (English)</li> <li>• Multi-lingual Operators manual CD</li> <li>• Quick guides (English) for injector and hanger</li> <li>• Installation manual (English)</li> <li>• Service manual and schematics manual CDs (English)</li> <li>• Warranty packet</li> <li>• Installation, customer's operational training at time of installation, and one year full on-site warranty in Bayer service countries</li> <li>• LAN port for VirtualCare Remote Service</li> </ul> <p>An optional penetration panel filter kit E88221XC is intended to be used for an</p>

Item No.	Qty	Description
		<p>alternate installation of the power supply of the MEDRAD® MRXperion™ Injection System outside of a MR scan room.</p> <p>System Specifications</p> <p>System Capabilities</p> <ul style="list-style-type: none"> <li>o Syringe Capacities: <ul style="list-style-type: none"> <li>• Syringe A: 65ml</li> <li>• Syringe B: 115ml</li> </ul> </li> <li>o Programmable volume range (ml): <ul style="list-style-type: none"> <li>• Syringe A: 0.5 ml to max syringe volume in 0.1 ml increments from 0.5 ml to 31 ml, 1ml increments above 31 ml</li> <li>• Syringe B: 1 ml to max syringe volume in 1 ml increments</li> </ul> </li> <li>o Programmable flow rate range (ml/sec) <ul style="list-style-type: none"> <li>• 0.01 to 10 ml/s in 0.01 ml/s increments between 0.01 and 3.1 ml/s</li> <li>• 0.1 ml/s increments between 3.1 and 10 ml/s</li> </ul> </li> <li>o KVO (Keep Vein Open): 6 factory presets of 0.25 ml every 15, 20, 30, 45, 60 or 75 sec</li> <li>o Test Inject: configurable from 0.5 ml to 20 ml in 0.1 ml increments</li> <li>o Pressure range (psi): 6 factory presets from 100 to 325 PSI (690 to 2240 kPa)</li> <li>o Injection / Post Injection Reminders: up to 5 settings of 1 sec to 20 minutes in 1 sec increments</li> <li>o Injection protocol storage: 60 protocols up to 6 phases each</li> <li>o Injection Hold / Pause: up to 20 minutes in 1 sec increments</li> <li>o eGFR Calculator <ul style="list-style-type: none"> <li>• For adults: MDRD, Cockcroft-Gault, Modified Cockcroft-Gault and CKD-EPI methods</li> <li>• For children: Bedside Schwartz method</li> </ul> </li> <li>o Weight Based Dosing Calculator: user Configurable</li> <li>o Remote Service Capability: with optional VirtualCare Remote Support</li> </ul> <p>Dimensions and Weight</p> <ul style="list-style-type: none"> <li>o Control Room Unit <ul style="list-style-type: none"> <li>• 15.58" (39.58 cm) W</li> <li>• 12.71" (32.28 cm) H</li> <li>• 10.23" (25.98 cm) D</li> <li>• 17.6 lbs (8.0 kg)</li> </ul> </li> <li>o Scan Room Unit <ul style="list-style-type: none"> <li>• 23.30" (59.0 cm) W</li> </ul> </li> </ul>

Item No.	Qty	Description
		<ul style="list-style-type: none"> <li>• 71.40" (181.0 cm) H</li> <li>• 23.30" (59.0 cm) D</li> <li>• 95.7 lbs (43.4 kg)</li> <li>o Power Supply</li> <li>• 7.60" (19.0 cm) W</li> <li>• 3.40" (9.0 cm) H</li> <li>• 15.40" (39.0 cm) D</li> <li>• 5 lbs (2.3 kg)</li> </ul> Electrical <ul style="list-style-type: none"> <li>o Voltage Requirements</li> <li>• 100-240 VAC</li> <li>• 50/60 Hz</li> <li>• 120VA - 210VA</li> </ul>



## Options

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Item No.	Qty	Description
31	1	<p data-bbox="495 533 1019 596">3.0T Express Table with IntelliTouch Technology (with Flat Top)</p> <p data-bbox="495 621 1019 684">3.0T Express Table with IntelliTouch Technology (with Flat Top)</p> <p data-bbox="495 730 1070 867">GE's fully detachable 3.0T Express patient table with IntelliTouch Technology incorporates the Liberty 2.0 Docking System to improve safety, exam efficiency, and patient comfort.</p> <p data-bbox="495 913 1073 1444">Express Patient Table Safety: Easily docked and undocked by a single operator, the patient table is simple to move in and out of the exam room for patient transport and preparation. These become vital features in those instances where multiple patient transfers can negatively impact patient care or when emergency evacuation is required; the table can be undocked and removed from the scan room with just one technologist. In time sensitive situations there is no need to remove or disconnect surface coils as the system can automatically disconnect the coils for you. The mobility of the patient table allows the technologist to rapidly detach and move patients in emergency situations to improve patient safety.</p> <p data-bbox="495 1491 1073 1808">Express Patient Table and Patient Comfort: The Express detachable table can reduce patients' anxiety and provide personal patient discretion by preparing them for the exam outside the scan room. Reduced patient table transfers for inpatients or trauma patients can improve overall patient care. The Express patient table offers optional head- or feet first imaging. Additionally, feet-first positioning facilitates run-off studies and set-up for</p>

Item Qty No.	Description	Ext Sell Price
	<p>claustrophobic patients.</p> <p>To further improve patient comfort and safety, the Express table includes an innovative set of Patient Comfort pads. The pads are designed with variable density foam that uniquely compresses based on patient geometry and weight. Certain sections of the coil Suite pads are designed to compress more easily than others and this optimal design may minimize pressure points and improve patient comfort. The pads have been designed to support a wide range of patient sizes and weights.</p> <p>In addition, the pads are made with UltraFresh protective coating, are strong, fluid-proof, air tight, and easily cleanable. An anti-skid undersurface reduces pad movement on the table and thus may simplify patient setup and egress.</p> <p>Symmetric Scan: To help reduce patient anxiety, the Express Patient Table is designed to accommodate head first or feet-first imaging for all neurologic, cardiac, abdominal, spinal, and peripheral vascular exams, as well as the majority of musculoskeletal imaging. Whole body imaging may also be completed in either patient orientation. All breast imaging is completed feet first.</p> <p>Symmetrically positioned within the patient supporting cradle are three high density coil connection ports. One at each end of the patient cradle, and another one embedded under the covers to connect the Posterior Array. This design enables all components of the Suite to support either patient orientation and helps ensure the most comfortable patient position. Two additional coil connection ports are included on the scanner docking mechanism.</p>	

Item Qty No.	Description	Ext Sell Price
	<p>Express Patient Table Exam efficiency: In addition to being fully detachable, the 3.0T Express patient table incorporates a dedicated posterior array that never needs to be removed, for fast patient setup and high quality spine and abdominal arrays. Thus, the patient can be fully prepared for an exam outside of the scan room prior to an exam. With an additional second table option, the next patient can be positioned and set up while the current patient is undergoing an examination, thus minimizing exam room time between scans.</p> <p>Ergonomics: With one hand and with one simple motion, the integrated arm boards and IV pole can be optimally positioned to support the patient for injections or transportation. This unique capability of the 3.0T Express Table also makes it ideally suited for multi-station exams with no scan room intervention, such as peripheral vascular (run-off) imaging.</p> <ul style="list-style-type: none"> <li>• Patient table drive: Automated, power driven vertical and longitudinal.</li> <li>• Longitudinal speed: 30 cm/sec (fast) and 0.5 cm/sec (slow).</li> <li>• Total cradle length: 211 cm.</li> <li>• Positioning accuracy: +/- 0.5 cm.</li> <li>• Maximum patient weight for scanning: 227 kg (500 lbs).</li> <li>• Maximum patient weight for lift: 227 kg (500 lbs).</li> <li>• Maximum patient weight when mobile: 227 kg (500 lbs).</li> </ul> <p>IntelliTouch patient positioning: The system has automated many routine tasks to both simplify patient preparation and reduce errors with IntelliTouch Technology. With a simple touch of the table, the following tasks can be completed:</p> <ul style="list-style-type: none"> <li>• Landmark the patient.</li> </ul>	

Item Qty No.	Description
	<ul style="list-style-type: none"> <li>• Center the patient in the bore.</li> <li>• Identify the Anterior Array.</li> <li>• Start scanning.</li> <li>• Acquire, process and network images.</li> </ul> <p>For those patients where pinpoint alignment is desired, laser alignment lights may be used for either the selection or confirmation of landmark positioning.</p> <p>Additional tables may be purchased for use with the scanner. With a second table, the next patient can be fully prepared for the exam outside the magnet room while the current patient is being scanned, thus maximizing system utilization and productivity.</p> <p>Multiple Express Patient Tables may be used with a single system to enhance scanner productivity and workflow. All surface coil components (Posterior Array, Head/Neck Unit, Anterior Array, Peripheral Vascular Arrays) and other optional surface coils are sold as separate items with separate catalog numbers.</p>
32 1	<p>Breast Package 3.0T</p> <p>Breast Package 3.0T</p> <ul style="list-style-type: none"> <li>• VIBRANT</li> <li>• IDEAL &amp; Flex</li> <li>• 3.0T 8-ch Breast Array</li> </ul> <p>VIBRANT (Volume Imaged BReast AssessmeNT) is a fast, high resolution T1 weighted imaging sequence and application optimized for evaluation of breast tissue. VIBRANT uses GE exclusive technology and parallel imaging acceleration to quickly acquire multi-phase data without compromising spatial resolution. This 3D gradient echo technique, optimized for sagittal or axial acquisitions, uses an</p>

Item Qty No.	Description
	<p>optimized inversion pulse and dual-shimming technology that yields enhanced image contrast and robust, uniform, bilateral fat suppression. Auto subtraction of the first dataset is also available to further background suppression. For enhanced speed, VIBRANT is compatible with both ASSET and ARC parallel imaging with acceleration factors up to four. As a result, VIBRANT enables reliable, high quality breast imaging.</p> <p>For improved tissue contrast, VIBRANT is compatible with Flex imaging. VIBRANT Flex acquisition will provide a water-only, fat-only, in-phase and out of phase data sets in a single acquisition and produce images with significantly reduced chemical shift and susceptibility artifacts. This is critical for evaluation of the axilla and chest wall.</p> <p>IDEAL and Flex: Generate consistent tissue contrast and reduce the number of series in an exam with DEAL. The IDEAL acquisition and reconstruction methods can generate a water-only, fat-only, in-phase and out-of-phase data sets for clear tissue differentiation in a single series. In addition, susceptibility artifacts common to MR imaging such as incomplete or inaccurate fat saturation, and chemical shift can be eliminated as well. The IDEAL application acquires multiple echoes and uses unique reconstruction routines to generate the four image contrasts and correct for errors due to tissue susceptibility.</p> <p>IDEAL is ideally suited for imaging anatomical regions such as the brachial plexus, neck, spine, chest, foot, ankle, and axilla where inhomogeneous magnetic fields may yield failures with traditional fat saturation techniques. IDEAL is compatible with Fast Spin Echo, 3D Gradient Echo and parallel imaging.</p>

Item Qty No.	Description
	<p>For fast T1w multi-phase imaging of the abdomen and pelvis, LAVA Flex acquisition uses 2D ARC parallel imaging to reduce artifacts from breath hold misregistration and incorrect FOV placement while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. LAVA Flex requires LAVA which is included in.</p> <p>For fast T1w multi-phase imaging of the breast, VIBRANT Flex acquisition uses 2D ARC parallel imaging to enable higher acceleration factors over ASSET parallel imaging, and reduce artifacts from breath hold misregistration and eliminates artifacts due to incorrect FOV placement, while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. VIBRANT Flex requires VIBRANT, which must be purchased separately.</p> <p>The IDEAL method is compatible with ASSET and ARC parallel imaging and is optimized based on the anatomy of interest.</p> <p>The Breast Array generates high-definition MR breast images on 3.0T MR systems. Optimized for use with ASSET and VIBRANT for up to 3X acceleration, this 8-element phased-array coil helps ensure excellent temporal and spatial resolution, patient after patient. The array is also compatible with Fast Spin Echo, Fast Gradient Echo, and Diffusion Imaging sequences. It provides uncompromised lateral and medial access. This collector contains a set of MR compatible biopsy grids that are compatible with this coil.</p>
33 1	<p>3.0T 16ch Shoulder Array by Invivo</p> <p>3.0T 16ch Shoulder Array by Invivo</p>

Item Qty No.	Description
34 1	<p>The Shoulder Array is a rigid shell with anterior adaptable paddle which delivers 16 channel performance optimized for high resolution shoulder imaging with lateral coverage to ensure large field of view imaging.</p> <p>3.0T 18-ch TDI T/R Knee Array</p> <p>3.0T 18-ch TDI T/R Knee Array</p>
35 1	<p>The 18-channel Knee Array is a transmit/receive coil that produces high resolution images of the knee and is optimized for parallel imaging in all three directions to reduce acquisition times.</p> <p>CardioWorks XT Package</p> <p>CardioWorks XT Package</p> <ul style="list-style-type: none"> <li>• 3D Heart</li> <li>• Time Course</li> <li>• Tagging</li> <li>• FOCUS</li> </ul> <p>3D Heart is a 3D Fat Sat FIESTA sequence (Optimized for 1.5T) or 3D IRPrep FGRE sequence (Optimized for 3T) that provides whole-heart coverage for coronary artery imaging or cardiac chamber imaging. It employs a T2 preparation pulse at 1.5T to provide myocardial suppression for better coronary visualization. A multi-slab localizer allows easy whole-heart prescription, and increase inflow effect for high vessel conspicuity. A navigator echo pulse that detects motion of the diaphragm is utilized to enable free breathing acquisition. The navigator has been optimized to improve robustness, and employs prospective real-time motion correction to improve motion suppression and increase scan efficiency. The multi-slab acquisition minimizes the effect of respiratory drift and heart rate variability on image quality. An optimized phase ordering and steady</p>

Item Qty No.	Description
	<p>state preparation has also been used to improve CNR and SNR.</p> <p>As this sequence supports 3D IRPrep FGRE acquisition mode on both 1.5T &amp; 3T, it can also be used for 3D MDE acquisition. With the purchase of 3D Heart, 3 additional options (3D MDE, Cine IR and Cardiac Navigator) would be included.</p> <p>Cine IR is a conventional ECG-gated, gradient recalled echo FASTCARD or FASTCINE acquisition sequence with an inversion recovery (IR) preparation. A single adiabatic inversion pulse is generated upon detection of the cardiac R-wave to trigger the multi-phase readout. Each image (i.e., cardiac phase) is at a progressively longer TI time; up to 30 TI times can be captured. Cine IR can be used to approximate the myocardial null point for a subsequent delayed enhancement (MDE) study for myocardial viability.</p> <p>FGRE Time Course: Fast Gradient Recalled Echo Time Course is a Fast Gradient-echo time-course imaging sequence that utilize single-echo acquisition to reduce sensitivity to echo mis-alignment or system calibration variations, resulting in robust image quality with ghosting and artifact reduction. ASSET parallel imaging and shortened RF pulse design are incorporated to improve temporal resolution and reduce motion related artifacts. In addition to selective notch pulse, it also supports non-selective saturation pulse for excellent background suppression and multi-plane imaging capability.</p> <p>With Cardiac Tagging, an even distribution of spatial saturation lines are applied across the myocardium in the FastCINE Gradient Echo pulse sequence to enable cardiac wall motion assessment. Cardiac Tagging allows the application</p>



Item Qty No.	Description
	<p data-bbox="495 405 1052 541">of 1D diagonal stripes or 2D grid saturation pulses once per R-R interval immediately following the R-wave trigger. Resulting images demonstrate motion (or lack of motion) effects.</p> <p data-bbox="495 585 1073 1050">FOCUS delivers a highly efficient method for increasing the resolution in Single Shot DW EPI sequences. The outcome delivers robust high resolution results while removing artifacts typically induced from motion, image backfolding or unsuppressed tissue. In addition, with the higher efficiency of the application, the reduced field of view imaging leads to a reduction in blurring that translates into an overall improvement to the image quality result. The sequence utilizes 2D selective excitation pulses in DW-EPI acquisitions to limit the prescribed phase encoded field of view at both 1.5T and 3.0T field strengths.</p>

# DESCRIPTIVE STATEMENT OF WORK 2<sup>nd</sup> MRI

## **Background Information**

An additional MRI unit will allow the Radiology department the ability to double the amount of MRI exams done daily, as well as, accommodate urgent/stat inpatient orders more expediently. This will result in a greatly improved clinical access cutting down on the number of patients being sent through choice and reducing the current 3-month backlog of patients who do not want to go through the Choice program and have their exams performed at this facility. A 2<sup>nd</sup> unit will also decrease turnaround times for getting results and images allowing patients to receive additional care including those patients that need to be sent out for advanced care. With a newer generation scanner and particularly a 3.0T, we will have the potential to increase the breadth of studies and to do so in a more comfortable fashion for the Veterans (example would be obtaining exquisite prostate studies without a rectal coil. MRI is becoming more frequently cited as the preferred modality for certain clinical scenarios (such as confirmation of hepatic hemangiomas) which had previously been reflexively addressed with CT... the increased capacity of a second scanner will allow us to service the Veterans in a more state of the art fashion and, in some cases, help mitigate radiation exposure.

### **A. Scope:**

Allow more timely return visits for providers to manage their patients care by providing quicker diagnosis of patient's condition. Procedures would be performed in-house and allow providers easier access to patients for follow up treatment.

### **B. Applicable Documents:**

#### **1. REQUIREMENTS OF AGREEMENT:**

- \* Vendor shall offer contract terms for a base year and the option of four additional years.
- \* Corrective maintenance for all equipment listed in Section 1.
- \* Semi-annual preventive maintenance inspections as outlined in Section 2.1 in accordance with Original Equipment Manufacturer (OEM) service literature.
- \* 24-hour telephonic support.
- \* Replacement parts and travel included.

**2.1** Preventive maintenance shall be conducted in the months specifically listed for each item listed in section 1. Maintenance shall consist of semi-annual checks of the equipment according to OEM service literature. Service provider will itemize the date of action, adjustments, test instruments with serial numbers, replacement parts, electrical safety tests, as stated in the applicable Agfa Healthcare equipment service manual in a written report specifically identifying the system by serial number and model. Report will be electronically submitted to [Lyndell.handley@va.gov](mailto:Lyndell.handley@va.gov)

## DESCRIPTIVE STATEMENT OF WORK 2<sup>nd</sup> MRI

**1.2** Software support shall include any bug fixes, patches or modifications.

- a. Documentation for all relevant field notifications and remedy will be sent to Lyndell.handley@va.gov or to the following mailing address: EOVAHCS Att: Radiology 1011Honor Heights Dr, Muskogee Ok 74401

**1.3** Corrective Maintenance performed on the equipment listed herein will restore operation in accordance with the applicable OEM publications and to full operational capability. Service provider will itemize the date of action, adjustments, test instruments with serial numbers. If applicable Agfa Healthcare equipment service manual in a written report specifically identifying the system by serial number and model. Report will be electronically submitted to Brian.Tindill2@va.gov.

**ANY MEDICAL SYSTEM HARD DRIVES ARE PROPERTY OF THE VA AND WILL BE GIVEN TO HEALTHCARE TECHNOLOGY MANAGEMENT (BIOMED) FOR FINAL DISPOSITION. NO HARD DRIVES OR STORAGE DEVICES WILL BE REMOVED FROM THIS FACILITY.**

### **3. SPECIAL WORK REQUIREMENTS:**

**3.1 Hours:** The regular work hours for this facility are Monday through Friday, from 8:00 am to 4:30 pm (CST), excluding Federal Holidays. Service will be provided during regular business hours.

**3.2 Service Quality:** All services, testing or inspections provided under this contract must meet the manufacturer's performance and technical specifications, the Joint Commission, Management of the Environment of Care (EC), applicable Department of Veteran's Affairs standards and directives and the National Fire Protection Association (NFPA).

**3.3 Noncontract Charges:** The contractor shall not perform any service that will result in additional charges without prior approval from the Contracting Officer.

**3.4 Training:** Any contracted or subcontracted service personnel will present OEM training certificates verifying competency in system before work on equipment commences. Training certificates will be filed in contract folder. Requirements may change or be added per new VA directives; however, training completion certificates currently required by contractor are as follows: