589-B60021
VA KANSAS CITY, MO

Symbia Evo Excel

/ Product	Description
Symbia Evo Excel	The Symbia Evo Excel has the following features: - Gantry - Patient Bed - Acquisition Workplace - SPECT Acquisition Features **Gantry** The gantry has two Variable Angle SPECT detectors and an, open design with 101.1 x 78.2 cm (39.8 x 30.8 in) patient opening. The two High Definition Digital SPECT detectors can be configured at 76° or 90° for cardiac applications and at 180° or numerous other configurations for all other whole body and general protocols. The unobstructed gantry base permits planar imaging of seated and standing patients and patients on wheelchairs, or on standard imaging tables, gurneys and hospital beds.Optional caudal tilt of one detector allows for optimum detector positioning of static and dynamic acquisitions. The contemporary design of the gantry incorporates Siemens-typical design elements. The gantry supports circular orbits and non-circular orbits using autocontour. Autocontour, with infrared real-time body contouring, is a standard component which minimizes patient to collimator distance to 1.2 cm (0.45 inches) in Whole Body and SPECT noncircular orbit acquisition modes. All motorized motions of the patient bed, gantry and detectors are controlled from the hand controller which can be plugged into either side of the gantry. The Patient Positioning Monitor (PPM) is a touch screen flat panel display monitor which can be rotated for a wide range user access and visibility. It is used for the following functions: - Patient Positioning with window and persistence adjustment - Acquisition Parameter display (elapsed time, time remaining, view number, count rate, etc.) - Detector and bed position information - Gantry Control (reconfiguration, collimator change, offset - Zoom **Patient Bed** The patient-oriented design of the imaging bed consists of 40 cm (15.8 inch) wide and 2.6 mm (0.102 inch) aluminum pallet, supporting patient weights up to 227 kg (500 lbs). Minimum bed height is 53.9 cm (21.2 inches) for easy patient access. Programmable table positions for wheelchairs and gurneys minimize the transport efforts of patients and staff. The patient bed can easily pivoted for rail-free access of sitting/standing patients, wheelchairs, imaging tables, gurneys and hospital beds. A fully integrated source holder is provided for quick and convenient quality control. Since patient comfort plays an important role in high quality medical imaging, the Symbia Evo Excel comes equipped with the following comfort accessories: - Head holder to support and stabilize the head during brain SPECT examinations - SPECT armrest to support upper arms and hands during SPECT examinations - Whole body armrest to support the arms and keep them within the detector field of view during whole body examinations - Set of patient support straps to help patient lie still on bed **Acquisition Workplace**

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(Continued) **Symbia Evo Excel**	The syngo-based high performance acquisition workstation provides a wide range of clinical acquisition protocols utilizing a graphical user interface, keyboard and mouse. **<u>SPECT Acquisition Features</u>** **SPECT Acquisition Modes:** - Planar static and dynamic - Whole Body - SPECT - Gated SPECT - Dynamic SPECT - Whole Body SPECT **Workflow Features:** The system combines acquisition, post-processing (optional), and display into user customizable workflows that automate many clinical routines, remembering parameters for each clinical protocol, the workflow will automatically print, archive, and distribute your results to other devices on your network. **Quality Control:** Automatic and manual motion correction features aids in the improvement of the quality of the acquired images. Besides correcting for motion, gated studies can be beat normalized and quality control images such as sinograms and linograms created to document the results. **3D Orientation:** Reorient acquired SPECT volumes interactively to achieve the desired image orientation. Cardiac and general orientations are supported. If desired, the orientation applied to one volume can be automatically applied to up to 3 additional volumes. **Image Registration:** Multiple techniques provide accurate registration of acquired images including translation and rotation in three primary planes, optional automatic registration and landmark registration. The choice of output matrix size is a standard feature. **Reconstruction:** The reconstruction engine can resconstruct up to 5 volumes concurrently. Standard SPECT as well as wholebody, dynamic and gated cardiac volumes can be created.
Low Profile 3/8"" Detectors	Symbia utilizes energy independent low profile digital Foresight detectors. Detector assembly technical specifications: – True rectangular FOV of 38.7 x 53.3 cm (15.25 x 21 in.) – 59 photomultiplier tubes – 53, 7.6 cm (3 in.) and 6, 5.1 cm (2 in.) diameter tubes – .95 x 59.1 x 44.5 cm (3/8 x 23 x 17.4 in.) NaI (Tl) crystal material The Low Profile Digital Foresight Detector features: – Balanced performance between energy resolution and spatial resolution – One, 10-bit high-speed flash ADC per PMT – Variable PMT selection ensures high resolution for all multi-energy and multi-peak applications – Optimized dynamic digital integration time to improve high count rate capability – Individual PMT pile-up correction for improved performance at high count rates – Energy independence maintains clinical performance at all energies including multi-peak and dual isotope studies – Location independence maintains consistent spatial resolution across the field of view – Crystal variation correction for optimal uniformity and linearity across all energies Single source (Co-57 or Tc-99m) tunes the detector for all energies

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Low_Energy_Hi_Res Collimator Symbia	The low energy high resolution collimator has the following technical specifications: - 148,000 hexagonal holes - Sensitivity: 202 cpm/microCurie - Resolution: 7.5mm at 10 cm - Weight: 22 kg (49 lbs)
Collimator Cart	The collimator cart is automatically clamped to the patient bed once positioned by the user. The clamping mechanism allows precise collimator exchange to occur. The collimator cart is designed to hold 2 sets of collimators, or 1 set in combination with a pinhole collimator. Due to the weight of the high energy collimators, it is recommended that an individual collimator cart containing only the 2 high energy collimators be utilized.
Monitor, 19" LCD DICOM	Additional features include: - 19" TFT panel - minimum of 170 degree horizontal and vertical viewing angle - Optimal picture resolution of 1280 x 1024 - Contrast ratio 450:1 - Maximum luminance 280 cd/m2 - Anti-glare panel surface
Extra Hand Controller	The Symbia scanner comes standard with a single hand controller that can be plugged into either side of the gantry. This option adds an additional hand controller for added efficiency in accessing the motorized motions for the patient bed, gantry, and detectors.
Organ Processing for Symbia	Organ processing provides generic tools for the manipulation of NM images. In addition, it provides dedicated processing protocols for the many different types of exams performed in nuclear medicine departments. Features provided are: - Cardiac: Planar Gated Blood Pool, First Pass, Shunt - Lung: Perfusion, Ventilation, V/Q - Thyroid - Renal: GFR, ERPF, MAG3, Transplant, TER, Ace Inhibitor - Gastric - Hepatobiliary - Brain: Patlok, Lassen, IMP, IMP-ARG, NIMS - GSA Liver - Parathyroid: Scaled subtraction - Image manipulation tools: Series Filter, Series Arithmetic, - Series Reformat, and Series ROI and Curve - Manual Fusion
Cardiology Engine 4DM	The Cardiology Engine provides the Corridor4DM Cardiac Suite, a comprehensive set of quantitation programs for the evaluation of SPECT Myocardial Perfusion Imaging The Corridor4DM application includes comprehensive interactive processing and display, generation of 2D, 3D, and polar maps images, calculation of ventricular volumes, myocardial mass and ejection fraction for gated SPECT studies and utilizes gated bloodpool data to calculate left ventricular Ejection Fraction. Compare perfusion and functional polar maps to gender matched normal files, which includes additional support for attenuation correction. Also included are a normal database generator and the ability to create reports within the Corridor4DM application. The Corridor4DM application is an OEM product developed and supported by INVIA. Outputs include DICOM secondary capture files, result files, reports as well as the ability to generate an AVI or

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(Continued) **Cardiology Engine 4DM**	TIFF file. Supported software for Profile Reconstruction cardiac data Applications include: Corridor4DM Cardiac Suite
Remote Diagnostic Services	A broadband connection is required for full remote service functionality and optimal system uptime. The Siemens Remote Service option allows for remote access to your networked workstations. Hardware may need to be purchased. Features include: - Image Transfer - Remote updates including Virus Protection - Error log retrieval - Remote Workflow revisions - Remote configuration - License management - Remote workstation control via netmeeting
SPECT US Installation	Installation includes: - Complete system assembly - Alignment - System startup - Calibrations - Performance verification to factory specifications
UPS for e.soft/c.cam (60 Hz)	Specifications: 1.4 KVA Input configuration: 120 VAC, 5-15P Output configuration: 120 VAC, (6) 5-15R
One complimentary biomedical tuition is included with the purchase of this system. This training must be completed before the end of the warranty period.	This educational offering must be completed by the later of (12) months from purchase of training or if applicable, completion of installation. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.
Under Floor PHS Cable (Alternate)	This option does not include the cost of any room modifications for sub-floor installation of the cable.
Reconstruction Engine (Optional)	The Reconstruction Engine includes a three dimensional iterative reconstruction method with resolution recovery and scatter correction. It also includes statistics-based adaptive de-noising and de-blurring of planar images and longitudinal whole body bone scans. It can be used to shorten the acquisition time of planar images, bone scans or SPECT studies without loss in image quality. This reconstruction method can also improve overall image quality with better contrast, higher resolution, and decreased image noise when used to reconstruct full-time studies. This packages provides syngo MI Workflows with half-time acquisition parameters and optimized reconstruction

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(Continued) **Reconstruction Engine (Optional)**	settings and filters, specifically designed to acquire whole body SPECT scans in the time of a conventional whole body bone scans and to increase the scan speed of whole body bone scans to shorten scan time. Applications include: Flash3D and Scatter Correction for general and cardiac exams as well as Planar ½ Time Imaging.