

WAREHOUSE

V.A. Medical Center

DEPT OF VETERANS AFFAIRS

MEDICAL CENTER

423 EAST 23RD STREET

Qty	Product	
1	Ingenia 1.5T. Omega HP R5 Q3	NEW YORK, NY 10010
1	Ingenia 1.5T Premium IQ Value Pack	PO#: 630-B60006
1	dS Torso 1.5T	
1	dS Wrist 8ch1.5T	
1	dS FootAnkle 8ch 1.5T	
1	dS Shoulder 8ch 1.5T	
1	Expansion to Premium	
1	ASL Neuro Specialist	
1	FiberTrak Specialist	
1	HA FlexTrak	
1	FlexCaddy	
1	Vascular positioning pack	
1	RF Coils Cabinet	
1	Patient Observation Camera Color and Zoom	
1	Patient observation monitor	
1	FlexTilt	
1	Anterior Coil Frame	
2	Full Travel Package for OffSite Education	
1	MR Stereo - HiFi system	
1	Spectris Solaris EP Injector	
1	Chiller for 1.0 or 1.5 or 3.0T Systems	
1	Chiller Interface Panel	
1	Enhanced Warranty Terms	
1	MR Conversion to Philips Program	
1	Rigging Charges	

Options

1	dS Knee 16ch 1.5T
1	Spectroscopy Specialist
1	Coronary Acquisition
1	Cardiac Expert Spec
1	MR Cardiac Imaging 24 Hrs OnSite

Options

Qty Product

1	MR Spectroscopy Imaging 24 Hours OnSite
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Line #	Part #	Description	Qty
1		Ingenia 1.5T. Omega HP R5 Q3	1

Ingenia Omega HP R5

Ingenia with dStream architecture provides flexible and intelligent tools for faster exams and more consistent scanning, as well as excellent clinical performance for a variety of applications – all while increasing patient comfort. Designed for today and tomorrow, it is a safe investment that will serve your needs well into the future.

The R5 system software supports a new generation of clinical options for head, neck, spine, MSK and body imaging. In addition, R5 brings important improvements to the scanner GUI for better control and usability throughout the MR exam, including:

- Smart conflict management for improved workflow
- Selective archiving for better control of archiving & export
- Combined accession numbers for improved scan efficiency during procedure based billing
- AutoSPAIR, software controlled SPAIR delay time for consistent fat suppression
- Increased patient database image bulk storage capacity to $\geq 250\text{GB}$
- Patient specific safety protocols with SAR/PNS management

At the heart of the Ingenia is the new dStream architecture. dStream comprises:

- DirectDigital RF receive technology, which samples the MR signal directly in the RF coil on the patient.
- FlexStream workflow, which increases system versatility and throughput
- EasyExpand, which enables plug and play expansion of clinical capabilities without major upgrades

Philips Ingenia significantly improves MR image clarity, speed and expandability.

- Clarity: By digitizing the signal directly on the patient, dStream captures image data where the signal is at its purest.
- Speed: Patient and coil handling have never been easier: flexible exam setup to meet each patient's unique situation, simplified coil changeover and optimal quality for any exam.
- Expandability: The number of channels is determined by the coil, rather than limited by the system. This makes the MRI system forward-compatible to easily access emerging applications like body and cardiac and new enhancements for established applications like neuro and musculoskeletal imaging.

dStream architecture

Unique digital broadband MR architecture capturing the purest MR signal combined with enhanced workflow and ease of use to provide increased SNR and greater efficiency in your daily operations. In addition the number of channels is no longer determined by the MR system.

- Up to 40% greater signal-to-noise ratio (DirectDigital)
- As much as 30% improvement in throughput (FlexStream)
- Easy expandability of clinical capabilities without the need for major system upgrades (EasyExpand)

Xtend design

System design optimized not only to provide a 70cm wide bore, but also to provide optimum quality and performance for imaging even the largest patients. Industry-leading magnet, gradient and system body coil designs provide the largest field-of-view for a 70cm system. Xtend offers the best combination of magnet homogeneity and gradient performance over a 55 cm FOV.

- Image eyes-to-thighs in as few as 2 stations
- Excellent large FOV and off-center imaging, ideal even for large patients
- Increased image accuracy for large FOV and multi-station exams

Magnet system

- Xtend ultra-large up to 55 cm field-of-view combined with a 70cm bore system, enabling uncompromised coverage and imaging of large patients.
- Actively-shielded, lightweight design (<3300 kg) and compact fringe field (2.4 x 3.8 m) footprint for easy siting.
- Ultra compact patient-friendly magnet design - only 1.5m in length
- Best-in-class magnet homogeneity (1.8 ppm / 50 x 50 x 45 cm V-RMS) for excellent image quality, off-center imaging and fat suppression.
- Superconducting screening coils to reduce magnetic field susceptibility caused by moving external ferrous objects.
- HeliumSave zero boil-off technology for zero helium consumption (0 l/hr) under regular scanning conditions.
- Side turret design for easy installations even with low ceiling and difficult access

Gradient system

Omega HP Gradients

High-performance gradients specifically designed for a wide bore magnet. Omega HP provides a high linearity and maximum peak and slew rate over the entire imaging field of view.

- Peak amplitude up to 45 mT/m (78 mT/m effective), peak slew rate up to 200 mT/m/ms (346 mT/m/ms effective). All specifications are on axis (x, y and z).
- Superb linearity (< 1.4% over 50 cm FOV) to improve geometric and diffusion accuracy, and to maximize resolution, even at the edges of the field-of-view.
- State-of-the-art water-cooled gradient coil and solid-state amplifier for high fidelity and 100% duty cycle.
- Non-resonant gradient design allows flexible generation of any type of gradient waveform.
- The integrated force-balanced design of the gradient coil and magnet reduces vibrations and ensures acoustic noise is minimized.
- Extremely low eddy currents for short echo times
- AutoSofTone further reduces gradient acoustic noise by up to 30 dB (an 86 % reduction in patient-perceived acoustic noise).

RF receive: DirectDigital and EasyExpand

DirectDigital: Unique Philips technology that samples the MR signal directly in the RF coil on the patient. The fiber-optic transmission of digital broadband data from the coil to the image reconstructor removes potential noise influences typical with analog pathways.

- Capturing the purest MR signal with up to 40% greater signal-to-noise, enabling higher speed/resolution
- Increased dynamic range (max 187 dB)

DirectDigital technology additionally includes:

- Sub-millisecond TRs and ultra-short TEs
- Real-time imaging control for clinical motion correction:
 - navigator-corrections required for free-breathing cardiac techniques
 - high-resolution diffusion (i.e., PhaseTrak) with profile updates within 1 ms.
- Real-time control of RF transmission, gradient switching, data acquisition and triggering.

EasyExpand: Inherent design of the dStream architecture, where channels are determined by the coils rather than the system. The MR system becomes channel independent, which means a removal of the number of channels as a system specification. This enables plug-and-play expansion of clinical capabilities.

- Expansion does not require major system upgrades, resulting in lower life cycle costs.

dS-SENSE

Next generation parallel imaging for the dStream (dS) architecture, which simplifies and speeds up scan setup and enables higher parallel imaging factors for more speed or resolution.

- Includes quick, fully integrated reference scans which are planned automatically.

RF transmit

- 18 kW Solid-state RF power amplifier that provides ample energy to image large patients.
- RF-SMART technology enables SAR to be effectively managed through balanced system design, and maximizes scanner performance in combination with the application of Philips-unique imaging capabilities such as SENSE, SPAIR, Flip Angle Sweep and RF amplitude control.

Standard RF receive coils

dS T/R System Body coil 1.5T

The integrated dS T/R System Body coil is a transmit/receive system coil which is typically used for RF excitation, but can also be used for imaging various (large) body parts.

- Solid-state quadrature Transmit/Receive technology for improved SAR control and a high signal-to-noise ratio
- DirectDigital sampling in the coil where the MR signal is at its purest
- Excellent homogeneity
- 70 cm aperture

dS coil solutions

dStream (dS) coil solutions provide a full range of clinical solutions with two types of coils:

- Integrated coils combine to provide solutions for multiple applications
- Dedicated coils optimize imaging for a single application

dS coil solutions have been optimized for 3 important characteristics:

- Intrinsic signal-to-noise ratio (DirectDigital)
- Imaging coverage
- Parallel imaging performance

dStream Interface

Allows the connection and digitization of the signal from traditional RF coils* at the table. The digital signal from the interface is transferred via an optical connection to the reconstructor.

- Connector interface designed for easy connection and automatic release of coil
- Connects traditional coils up to 16 channels

*Note: Achieva coils are not compatible with dStream interface

Workflow / throughput: FlexStream

FlexStream is hinged upon the unique FlexCoverage Posterior coil that provides neck-to-toe coverage without the need for any manual coil removal or patient repositioning. The FlexCoverage Posterior coil simply combines with other unique dS coils to enable imaging with fewer coils and reduce concerns for coil positioning and patient setup. The optional FlexTrak patient transport system enables easy patient preparation and more efficient use of the MR scanner. FlexTrak solutions can instantly convert your MR system from general purpose use to dedicated advanced clinical use, such as breast imaging, intervention or therapy applications, while ensuring high throughput.

- As much as 30% improvement in throughput
- Easy coil handling through lightweight patient conforming coil design
- Large coverage coils for easier positioning
- Flexible combinations of coils
- Efficient coil usage – more applications with fewer coils
- Unique design allows up to 70% of routine applications without additional coil connections.
- FlexConnect easy to use, single-handed coil connections.

FlexCoverage Posterior coil

Posterior coil, used routinely in 60% of all applications, is an integrated coil below the thin table top providing neck-to- toe coverage. This coil does not need to be carried, positioned, connected nor exchanged, thereby enhancing workflow. It is always there when you need it.

- Head-to-toe coverage up to 200 cm* in combination with the base coil

* *WholeBody Specialist required*

FlexConnect coil connection / connectors:

Single-handed coil connection for fast and easy plugging and unplugging of coils, and for auto-eject with FlexTrak undocking in emergency cases.

The small FlexConnect connectors use advanced fiber-optic connections for carrying digital broadband MR signals.

- Enhanced reliability by eliminating delicate RF pin connections.

FlexTrak table top

Ultra-thin table top that maximizes bore space. Includes coil connections directly on the table top for fast and easy setup.

- Ultra-thin design ensures minimal distance between patient and FlexCoverage Posterior coil for optimal SNR
- Ultra-strong design supports patients up to 250 kg (550 lbs)
- Wide table for enhanced patient space and comfort
- Easily removed for patient transport using the optional FlexTrak patient transport system

Workflow / throughput: SmartAssist

Next generation, easy-to-use SmartExam and ExamCards software that helps the user reduce the number of manual tasks.

- Simplifies workflow by making ExamCards more efficient
- Can reduce repetitive tasks by half
- Increases efficiency, reproducibility and consistency

ExamCards

A grouping of individual sequences and operations that define a clinical protocol. An ExamCard can include both the imaging sequences and any of the SmartAssist functionalities. ExamCards makes even the most complex exams simple.

- A set of Philips defined ExamCards is standard
- User-defined ExamCards can be created and stored
- Can be exported to memory stick or portable device
- Can be locked with a password to prevent unintended changes
- Can be shared among any of your scanners
- Philips Netforum provides an online community that allows ExamCards to be shared and downloaded
- Supports user-editable tips and processing/viewing/networking steps
- Supports single mouse-click scanner operation

SmartStart

One button action that automatically moves the table to isocenter and starts the ExamCard while the operator walks back to the console reducing the setup time.

SmartSelect coil and element selection

Automatically detects and selects the right coil and coil elements to maximize the SNR matching the area to be scanned.

- Simplifies patient positioning and coil placement
- No need for manual coil or element selection
- Optimal SNR
- Facilitates higher throughput

SmartExam planning (optional)

Assists the operator in planning the MR exam. SmartExam uses sophisticated algorithms to recognize the anatomy. Then, using previously run exams as input, SmartExam automatically positions slices on the target anatomy, and uses ExamCards to conduct the study, reducing operator input to as little as a single mouse click.

- Targeted for 100% reproducibility and consistency in outcome

SmartExam optional packages include:

- SmartExam Brain
- SmartExam Spine
- SmartExam Shoulder
- SmartExam Knee
- SmartExam Breast

SmartLink geometry linking

SmartLink (geolink) is a tool for simplifying the planning, viewing and processing of multi-sequence multi-station exams, treating multi-station exams as one volume.

- Allows a single table sweep for multi-sequence (e.g. T1, T2, STIR) multi-station exams. All sequences are run at each station before the table is moved to the next station minimizing the number of table movements for increased patient comfort.
- Provides the flexibility to perform one sequence at all stations before starting the next sequence.
- Labels and sorts images regardless of the order in which they are acquired for subsequent viewing and processing as a single volume.
- BolusTrak (fluoroscopic scans) can be interleaved at any point during a multi-station exam.

SmartLine processing

Smart, automated and intelligent processing of image data. SmartLine processing steps can be run simultaneously and in parallel with image acquisition. Defined in the ExamCard, the same processing settings are used every time for consistent results.

- Progress of each processing step is clearly displayed to the user alongside the scanning progress.

The following packages are included:

- **SmartLine** VolumeView Real-time MIP, MPR and 3D surface rendering (standard or user defined volumes of interest enable elimination of unwanted signals regions)
- **SmartLine** ImageAlgebra (including addition, subtraction, relative subtraction, cumulation, ratios, MTC, ASL calculation)
- **SmartLine** PicturePlus for user-defined image filtering (smoothing and/or edge enhancement)
- **SmartLine** T1 / T2 / rho map calculation
- **SmartLine** Delayed Reconstruction enables various retrospective image reconstructions from raw data (e.g. r econstruction of various flow directions from a 3D phase-contrast MRA dataset)

Scantools dependent options:

- **SmartLine** Diffusion registration
- **SmartLine** Diffusion (ADC, eADC, etc.)
- **SmartLine** IViewBold real-time fMRI analysis

Viewing, filming and export

The MR viewing environment supports fast and flexible viewing, processing and film generation

- Window width/level, zoom, pan, rotate, mirror
- Image annotation (text, arrows and lines)
- Simultaneous visualization of up to four independent series for comparison.
- Cine movie display in various formats
- Drag & drop functionality to enable the creation of films containing random image selections
- Single mouse click film generation of image series using a range of predefined formats
- Images and movies can be exported to Windows PC formats as visible on screen

Patient environment and patient handling

The Ingenia was designed with the patient in mind, no matter the age, size or physical condition. The Ingenia's patient environment and patient handling features enhance patient comfort and facilitate exams.

Important features:

- Lightweight, patient-conforming coils
- 70 cm bore and extra large FOV imaging space
- Digital coil management workflow
- DirectDigital RF technology digitizes the signal in the RF coil on the patient
- SmartAssist efficiency enhancing software

Benefits include:

- More comfortable exams
- Decreased need for coil positioning
- Fewer retakes
- Faster exams

Patient Comfort

- 70 cm aperture for enhanced patient comfort, patient fit and reduced anxiety
- Choice of feet-first or head-first imaging for most applications
- FlexCoverage Posterior coil: Never worry about the position of the patient to this coil. No cables, no connections. This invisible, patient-friendly coil is always there when you need it.
- Lightweight, conforming coils for enhanced patient comfort and operator handling
- Ambient Ring circular light to enhance the visual openness of the system.
- Adjustable fresh air supply in 6 increments
- Adjustable variable in-bore lighting in 3 increments
- In-bore microphone and ceiling-mounted loudspeakers support two-way patient-operator communication and music.
- Hand-held technologist call button.
- Patient headset with built-in two-way communication reduces acoustic noise by up to 25 dB.
- Look-out mirror with adjustable angulation

Patient support

- Patient support enables patients weighing up to 250 kg (550 lbs) to be comfortably positioned and lifted.
- Wide table top for improved patient comfort and accommodation of larger patients
- Patient table height can be quickly lowered, providing access for compromised or non-ambulatory patients.
- Detachable tabletop can be combined with one or more FlexTrak patient transport systems for efficient patient management and rapid egress. Supported by manual mode table release.
- Up to 200 cm* scan range
- Horizontal travel of 275 cm (9 ft 1 in.) with +/- 0.5 mm (0.02 inch) accuracy
- Horizontal table speeds of up to 325 mm/s to enable fast, easy patient positioning and rapid multi-station examinations
- Ergonomically designed control units on both sides of the bore to increase operating flexibility.

** WholeBody Specialist required*

Physiology measurement and gating

Wireless physiological hardware to provide synchronization for sequence triggering and gating. Wireless physiological signals can be observed on the operator's console monitor or on the optional Interventional Monitor.

- Wireless Physiology consisting of wireless Basic Triggering Unit (wBTU) and respiratory module hardware
- Physiological synchronization for sequence triggering and gating through
 - Wireless VCG
 - Wireless Respiratory
 - Wireless PPU (requires optional PPU Sensors)

Patient accessories

Comprehensive set of patient accessories, including

- Table mattress set

- Head/leg support
- Knee support
- Positioning wedges
- Small foam wedges
- Set of sandbags
- Set of patient fixation straps

Computer specifications (may be supplied on one or two computers)

Host

- ≥ 32 GB host memory
- ≥ 100 GB system disk
- ≥ 250 GB main image database disk (Approx. $\geq 300,000$ images – 256 x 256 image resolution)
- ≥ 23 -inch LCD wide-screen format monitor enabling large overview
- LCD wide screen resolution: 1920 x 1200
- MicroSoft Windows ® OS 64 bits
- External storage via USB port
- 10BaseT, 100BaseT or 1000BaseT connections.

Recon

- Fast reconstruction of demanding imaging techniques (interactive real-time, dS-SENSE, high resolution and high coil receiver count).
- ≥ 6000 images per second (256 x 256 reconstructions)
- ≥ 13000 recons/sec (256 FFT, 100% FOV)
- ≥ 32 GB reconstruction memory (RAM)

Connectivity / interoperability

The MR environment fits seamlessly into local network environments. Communication is performed via DICOM protocols. The system can be configured for safe storage of MR images and other patient data in departmental information systems and PACS. The MR workspace conforms to the new Enhanced (multi-frame) MR DICOM standard, which improves the performance of data transfer of large data sets and fully supports information associated with diffusion and spectroscopy.

The system can be configured (per node) to support standard DICOM MR image transfer or DICOM Enhanced MR Image Transfer. If a receiving node does not support DICOM Enhanced MR, standard DICOM MR Images will be transferred.

- DICOM Workflow Management:
 - DICOM Modality Worklist
 - DICOM Modality Performed Procedure Steps
 - DICOM Storage Commitment
- DICOM Send/Receive:
 - DICOM Enhanced MR:
 - Export / Import of DICOM Enhanced MR Images
 - Export / Import of DICOM MR Spectroscopy
 - Export / Import of DICOM Raw

- DICOM MR:
 - Export / Import of DICOM MR Images
 - Export / Import of Philips Private MR Series Data
 - Export / Import of Philips Private MR Spectrum Data
 - Export / Import of Philips Private MR ExamCards Data
- DICOM SC:
 - Export / Import of SC (color) Image Data
- DICOM Grayscale Softcopy Presentation State:
 - Export / Import of Grayscale Softcopy Presentation State
- DICOM Query / Retrieve of Philips MR data, all the exported image types
- DICOM Print
 - Grayscale Softcopy Presentation State with preset window settings as on the console
 - Basic Grayscale Print
- DICOM Media
 - MR Studies on DVD (Read / Write)
- IHE Integration Profiles
 - Scheduled Workflow
 - Patient Information Reconciliation
 - Consistent Presentation of Images
 - Basic Security
 - Consistent Time

Full information on compliance with DICOM standards and available functionality is contained in Philips' DICOM Conformance Statement.

Installation: EasySite and PowerSave

EasySite

System design for rapid installation times, compact siting footprint and low ceiling heights.

- Installation times as short as 7 days, based on prepared site conditions.
- Industry's lightest wide-bore magnet enables siting on upper floors.
- Siting (exam/technical/control room) as little as 27 m²
- Low ceiling height
- Low transport height for easy facility access
- System / building vibration transfer is minimized by special vibration pads that require no facility adaptations.

PowerSave

Unique, efficient design combined with smart power management of the high power sub-systems (gradient amplifiers, RF amplifiers, etc.) enable reduction in power consumption by up to 50% without affecting overall performance

ScanTools Pro

Scantools Pro provides the following generic workflow features for all clinical anatomies:

- ExamCards, for automated scanning and processing of patient studies. Examcards can be edited during scanning.
- SENSE parallel imaging methods for fast scan times, high resolution or to reduce susceptibility artifacts.
- CLEAR for signal uniformity correction based on coil-sensitivity and on patient loading.
- PicturePlus to enhance appearance of images through edge enhancement and smoothing. Provides full control over all enhancement parameters, which can be applied automatically post-acquisition or as a post-processing option.
- High-resolution acquisitions and reconstruction (1024 matrix) with slice-order selection function to adapt to various slice order conventions.
- In addition, ScanTools Pro contains fast, high resolution imaging methods for the assessment of morphology of various anatomical areas including brain and spine, MSK, body and breast, cardiac, and various blood vessels with or without contrast agents. Specific features per clinical area are listed below.

Neuro Pro

- Sequences include SE, FFE and EPI based methods, with fat suppression methods including STIR, SPIR, ProSet and SPAIR.
- FLAIR for CSF suppression.
- Snapshot imaging, intended for uncooperative patients, designed to reduce the effects of patient and physiological motion through the combination of rapid TSE sequences and SENSE. Individual Snapshot images can be acquired in any orientation in approximately 250ms to 300ms. Asymmetric TSE makes Snapshot compatible with T1-, T2- and diffusion-weighted imaging.
- Single, Dual and Triple IR sequences for evaluation of gray and white matter differentiation.
- 2D TSE with Flip Angle Sweep technology for SAR and Magnetization Transfer reduction, improving gray/white matter contrast in both T2 and FLAIR acquisitions.
- 3D based anatomical sequences including:
 1. VISTA, isotropic 3D TSE for volumetric acquisitions with reconstruction in any plane.
 2. 3D T1-TFE sequences for volumetric acquisition and reconstruction of the original dataset in any orientation.
 3. 3D TFE for isotropic coverage of the entire head in short scantimes using SENSE. A single data set can be reformatted into alternate planes both pre- and post-contrast.
- DRIVE for T2-weighted 2D and 3D TSE acquisitions enabling short TRs while maintaining contrast-to-noise and SNR. Used to improve fluid visualization (IAC), for short scan times and to increase resolution.
- Balanced FFE/TFE for high-resolution high contrast (IAC and Spine applications).
- ProSet water and fat excitation for spinal nerve root imaging. Combines the characteristics of the high-resolution volume acquisitions with ProSet water or fat only selection.
- Multiple radial projection myelography both with 2D and 3D sequences.
- MultiVane to correct motion for multi-shot TSE examinations with radial encoding. delivers high resolution diagnostic images even in case of patient motion for T2, IR-real & FLAIR TSE imaging as well as gradient-echo examinations.
- Dynamic multi-slice T2*-weighted sequences based on single- or multi-shot FFE-EPI methods for perfusion and fMRI sequences.
- Single-shot EPI diffusion-weighted imaging (DWI) with three diffusion directions and up to 16 b-values, robust against motion and generating isotropic DWI images.

- BolusTrak is designed to synchronize high-resolution CE-MRA acquisitions. BolusTrak uses a real-time fluoroscopic display of bolus arrival in the area of interest and manual start of the target acquisition. BolusTrak in combination with CENTRA minimizes venous contamination and produces optimal arterial vessel contrast and resolution.
- TRACS enables accelerated time-resolved contrast-enhanced vascular imaging. TRACS uses SENSE for image acceleration and CENTRA phase-encode ordering for optimized contrast.
- m-FFE provides unique image contrast - ranging from 2D or 3D gradient-echo sequences to the combination of echoes.
- Venous BOLD provides T2*-weighted 3D sequences compatible with SENSE. These sequences are useful for evaluating various brain anomalies associated with venous blood.
- Phase contrast (PC) sensitive imaging for the visualization of moving fluids.
- MobiFlex and MobiView, compatible with all sequences, for easy Total Spine imaging.
- T2* perfusion analysis.
- Diffusion imaging processing with automatic generation of the ADC maps.
- 3D Brain VIEW and 3D Spine VIEW deliver high resolution isotropic 3D TSE acquisitions in short scan times by employing high 3D dS SENSE factors. Isotropic acquisition allows reformats in arbitrary planes.
- Dynamic multi-slice T2*-weighted sequences based on single- or multi-shot FFE or FFE EPI methods, including the PRESTO technique.
- Processing and calculation of T1 and T2* hemodynamic maps including Mean Transit Time (MTT), Time to Peak (TTP), Time of Arrival (T0), Negative Integral (NI), Index or upslope. All post-processing can be included as an in-line step within Examcard
- Prospective motion correction: accounts for subject motion by real time monitoring of motion during acquisition and adjustment of acquisition parameters accordingly.

Additional information on 3D PRESTO:

- Whole brain coverage and high temporal-resolution T2*-weighted imaging for perfusion-weighted and BOLD imaging studies.
- High temporal resolution and coverage compared to traditional multi-slice techniques.
- Reduce sensitivity to susceptibility and flow artifacts associated with EPI techniques, enabling imaging throughout the brain and into the skull base.

MSK Pro

- SE, TSE, and FFE sequences, with fat suppression provided by STIR, ProSet, SPIR and adjustable fat suppression with the SPAIR method.
- Balanced acquisitions (bFFE) for high-resolution morphology scans.
- DRIVE combined with TSE to increase sensitivity to fluids (with good T2 weighting), even with short TRs.
- Turbo-STIR for fat-suppressed evaluation of bone bruises.
- TSE with asymmetric profile ordering for proton density weighted imaging of joints with high spatial resolution or short scan times.
- Mixed Mode (interleaved IR/SE for combined T1 & T2 map calculation).
- Multi-Echo T2 measurements (up to 32 echoes) for T2 mapping.
- 3D FFE with ProSet for water-only (selective excitation) sequences. Optimizes cartilage and/or fluid imaging with high-resolution in all directions.
- e-THRIVE for 3D high-resolution fat-suppressed imaging.
- MobiFlex for simple visualization of total spine imaging and multiple-station long bone studies.

- Dynamic imaging sequences for TMJ or other joint studies.
- Includes protocols for imaging in the presence of prostheses, with improved susceptibility using SE NSE, modifications of water-fat shift and user-specified bandwidth.
- Up to 1024 acquisition resolution and flexible reconstruction resolution via interpolation.
- 3D MSK VIEW delivers high resolution isotropic 3D TSE acquisitions in short scan times by employing high 3D dS SENSE factors. Isotropic acquisition allows reformats in arbitrary planes. Available in various joints in all common contrasts.

Body Pro

- TSE sequences with respiratory triggering (in combination with breath hold or free breathing).
- MultiVane motion correction for T2w TSE diagnostic images, even in case of severe patient motion.
- In and out of phase FFE/TFE sequences .
- SPAIR for high uniformity fat saturation.
- e-THRIVE volumetric imaging with fat suppression, in short breath-hold times Keyhole for high temporal dynamic imaging.
- Diffusion-weighted sequences with automated creation of Apparent Diffusion Coefficient (ADC) maps.
- MRCP sequences, (radial) single shot and 3D acquisitions.
- High-resolution pelvic imaging.
- VISTA: isotropic 3D TSE pelvic imaging allowing volumetric acquisitions to be reconstructed in any plane.
- MobiView and MobiFlex for automatic composition of data sets from multi-station acquisitions into full FOV images.
- Dynamic scan techniques for monitoring and evaluation of contrast uptake viewing.
- High Resolution Diffusion / DWIBS package enables single or multi-station high resolution diffusion weighted imaging with background suppression. Patient and physiological motion is controlled by navigator-based motion correction.
- MotionTrak Body includes a real-time respiratory navigator to synchronize data acquisition to the respiratory cycle of the patient. Options include: gating, tracking, gating & tracking, triggering, triggering & tracking. Tracking can improve slice accuracy position over multiple breath hold sequences. Designed for all Body applications, including diffusion and DWIBS.
- 3D Pelvis VIEW delivers high resolution isotropic 3D TSE acquisitions in short scan times by employing high 3D dS SENSE factors. Isotropic acquisition allows reformats in arbitrary planes

Breast Pro

- SPAIR for high uniformity fat saturation.
- e-THRIVE for volumetric coverage with uniform fat suppression.
- BLISS, two bilateral sagittal volumes within a single acquisition.
- Diffusion-weighted sequences with automated creation of Apparent Diffusion Coefficient (ADC) maps.
- Silicone-Only sequences optimized for breast implants.
- 3D Breast VIEW delivers high resolution isotropic 3D TSE acquisitions in short scan times by employing high 3D dS SENSE factors. Isotropic acquisition allows reformats in arbitrary planes.

Cardiac Pro

- Black blood prepulses to suppress blood signal for optimized myocardial and lumen visualization.
- Single Slice / Multi Phase for function studies.
- Retrospective triggering with real-time prospective updating for full R-to-R coverage of function studies.
- Temporal profile sharing for playback frame rates higher than acquisition frame rates.
- VCG gating for robust ECG gating and triggering (includes a four-lead cable set).
- Multi-slice capability to multi-phase cine acquisitions.
- ECG-triggered STIR (inversion recovery TSE) including black blood imaging (triple IR).
- ECG-triggered Inversion Recovery (including PSIR) for myocardial tissue characterization.

MRA Pro

- 3D FFE sequences for assessment of carotids, peripherals and renal arteries, and for contrast enhanced MRA.
- Quantitative flow with variable VENC values for non-invasive measurements of blood flow in three directions.
- 2D/3D Balanced TFE/FFE for fast, high-resolution non-contrast enhanced vascular imaging.
- Phase-Contrast Angio for imaging of brain vasculature.
- TRANCE for 3D high contrast TSE acquisitions without vascular contrast agents.
- Time-of-flight (inflow) sequences with TONE to improve contrast and MTC to reduce the peri-orbital fat signal.
- CENTRA for 3D high-resolution contrast enhanced imaging to allow increased spatial resolution without venous contamination.
- Keyhole imaging to improve temporal resolution in dynamic studies.
- BolusTrak for synchronization of high-resolution CE-MRA acquisitions with a real-time fluoroscopic display of bolus arrival in the area of interest.
- MobiView for automated composition of multi-station acquisitions (e.g. MRA runoffs) into single images.
- MobiFlex for setup and acquisition of complex multi-station exams, combining different FOVs, resolution, geometries and SENSE acceleration factors.
- Non-invasive quantitative flow measurements of blood, including overlaid color-encoded flow maps on the console.
- b-TRANCE (balanced TRANCE), a 3D TFE technique with ECG triggering, particularly powerful as a non-contrast enhanced MRA method for renal artery patients.

Whole Body Specialist

Whole Body Specialist enables automated multi-station head-to-toe coverage. Extended table stroke for Ingenia and table-top extender for Achieva to increase total table travel, allowing whole-body multi-station feet-first imaging studies. Single table motion by combining all imaging sequences per station. Scanalign guarantees user defined overlap between stations. Whole Body Specialist extends DWIBS to whole body coverage.

ComforTone

ComforTone provides up to 80% noise reduction within the same time and virtually the same IQ and contrast*.

ComforTone ExamCards will be available for routine exams (Brain, Spine, MSK) where the reduced noise is guaranteed over the whole ExamCard, including the reference scans.

** Compared to scanning without ComforTone*

AutoVoice

With AutoVoice the patient is guided through the MR examination with voice audio information to the patient on length of scan, breath hold and table movement. Multiple languages can be selected. Includes a recording option for specific commands or languages.

dS HeadNeckSpine Pack 1.5T

dS TotalSpine 1.5T

An integrated coil solution for total spine related imaging. It includes the FlexCoverage Posterior and the Base coil with 90 cm coverage, using 44 channels maximum.

Posterior coil, used routinely in 60% of all applications, is an integrated coil below the thin table top providing neck-to- toe coverage. This coil does not need to be carried, positioned, connected nor exchanged, thereby enhancing workflow. It is always there when you need it.

- Coverage: 90 cm
- Maximum nr. of channels: 44
- Main applications: Total spine, C-Spine, T-Spine, L-Spine
- Coil type: Integrated
- DirectDigital sampling in the coil where the MR signal is at its purest, without loss in the RF chain, enabling:
 - Enhanced SNR
 - dS-SENSE enhanced parallel imaging performance
- Single FlexConnect coil connection and cable for fast and easy setup
- The Base coil can stay on the table for most examinations without exchanging coils

dS HeadSpine 1.5T

An integrated coil solution for head and total neuro related imaging. It includes the Head coil. Combined with the FlexCoverage Posterior coil and Base it enables:

- 30 cm coverage, using 15 channels maximum (Head)
- 90 cm coverage, using 51 channels maximum (Total Neuro)

When used with an Ingenia, the head section can be tilted to provide optimal positioning and comfort for challenging patients such as Kyphosis patients. Note: this feature is only available with an Ingenia Omega or Ingenia Omega HP.

- Coverage: 30 cm (Head) and 90 cm (Total Neuro)

- Maximum nr. of channels: 15 (Head) and 51 (Total Neuro)
- Main application: Head, Brain, Total Neuro, Total spine, C-Spine, T-Spine, L-Spine
- Coil type: Integrated
- Lightweight coil(s)
- DirectDigital sampling in the coil where the MR signal is at its purest, without loss in the RF chain, enabling:
 - Enhanced SNR
 - dS-SENSE enhanced parallel imaging performance
 - dS-SENSE capable in AP, LR and FH directions
- Cable-less connection of top coil

dS HeadNeckSpine 1.5T

An integrated coil solution for head, neck and total neuro related imaging. It includes the HeadNeck coil. Combined with the FlexCoverage Posterior coil and Base it enables:

- 45 cm coverage, using 20 channels maximum (Head-Neck)
- 90 cm coverage, using 52 channels maximum (Total Neuro)
- Coverage: 45 cm (HeadNeck) and 90 cm (Total Neuro)
- Maximum nr. of channels: 20 (HeadNeck) and 52 (Total Neuro)
- Main applications: NeuroVascular, Head, Brain, Pediatric, Total Neuro, Total spine, C-Spine, T-Spine, L-Spine
- Coil type: Integrated
- Lightweight coil(s)
- DirectDigital sampling in the coil for the purest MR signal without loss in the RF chain, enabling:
 - Enhanced SNR
 - dS-SENSE enhanced parallel imaging performance
 - dS-SENSE capable in AP, LR and FH directions
- Cable-less connection of top coil

dS Flex M 1.5T

An integrated coil solution for general-purpose imaging. It includes two medium-sized flexible general-purpose coils. Combined with the FlexCoverage Posterior coil they enable 15 cm coverage, with a maximum of 6 channels.

The shape and size of the flexible coil elements enable a wide variety of applications, including imaging of medium sized anatomies. The coil can be used to locally enhance resolution of images acquired over a larger FOV, for example in pediatric applications.

- Coverage: 15 cm
- Maximum nr. of channels: 6
- Main applications: Shoulder, Foot, Ankle, Knee, Pediatric
- Coil type: Integrated
- dS-SENSE enhanced parallel imaging performance

dS SmallExtr 8ch 1.5T

Semi-flexible coil designed for imaging of elbows, hands and small knees. The coil has an inner diameter of 20 cm to match the size of the small extremities. It has a flexible wrap-around design for easy positioning and good fit. A mattress that supports both patient and coil is provided to increase patient comfort and avoid motion.

- Coverage: 20 cm
- Maximum nr. of channels: 8
- Main applications: Elbow, Arm, Extremities
- Coil type: Dedicated
- dS-SENSE enhanced parallel imaging performance

PPU for wireless physiology

The PPU for wireless physiology package contains a peripheral pulse sensor with the following 4 different sizes: neonate, infant, pediatric and adult. This option is required to use the peripheral pulse as a means to do physiological synchronization for sequence triggering and gating. The sensor can be positioned on finger, toe or foot, and is compatible with the Ingenia, Multiva, HFO and Achieva platforms. This package is **ONLY** compatible with Ingenia, Achieva, Multiva, and/or Panorama systems with wireless physiology.

Arm support

The arm support is designed to work in conjunction with the existing MR tabletop to provide additional support for a patient's arm when injections are required. The support easily slides under the patient.

Features:

- Transparent arm support contoured to match the MR table-top
- Positioning on either side of table

HA console table

Standard office table for MR-operator

- Table surface 160x100 cm
- Adjustable Height

DVD-PC

Local media storage option intended for burning and reading DICOM data on medical grade DVD's. This option enables the operator to burn DVD's directly or prepare multiple DVD's for burning later.

- Includes DICOM viewer on every DVD created
- Create multiple DVD's for exchange with off-line stations
- Burn DVD's independently of other scanner functions.
- Dimensions (hwxwd): 10x34x38cm

Clinical Education Package for Ingenia Release 5:

Customer Applications Training _Introduction to Philips MR Release 5 - Learning Path 1:

This online pre-learning material will introduce the User Interface and clinical handling of the MR scanner to prepare the technologist for on-site training. Learning Path 1 will guide the technologist through specific workflow steps, this self-paced learning module is highly recommended for all Ingenia users and should be completed prior to Essentials OffSite or Handover Onsite Education. CEU credits may be available for each participant that meets the guidelines provided by Philips.

Release 5 Essentials OffSite Education: The MR Release 5 Essential course is a prerequisite to attending the MR Release 5 Advanced Concepts course. Philips will provide up to two (2) technologists, as selected by customer, with in-depth didactic, tutorial, and hands-on training covering basic functionality and work-flow of the magnetic resonance imaging system. This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on your equipment configuration and availability. Due to program updates, the number of class hours is subject to change without notice. Customer will be notified of current, total class hours at the time of registration. In order to provide trainees with the ability to apply all fundamental functioning on their system, and to achieve maximum effectiveness, this class should be attended no earlier than two weeks prior to system installation, and trainee should have prior knowledge of basic MR theory. CEU credits may be available for each participant that meets the guidelines provided by Philips.

Handover OnSite Education: Philips Education Specialists will provide twenty-eight (28) hours of education for up to four (4) students, as selected by customer. Students should attend all 28 hours, and must include the two OffSite education attendees. This course does not cover Cardiac or Spectroscopy. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to guidelines for more information. Note: Site must be patient-ready, including all inspections approved, all accessory equipment installed and functioning (injectors, hard copy units, film processors and physiologic monitors), and all supplies stocked.

Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

FollowUp OnSite Education: Philips Education Specialists will provide twenty-eight (28) hours of Follow-Up Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Customer must have operated the system for at least 30 days. CEU credits may be available for each participant that meets the guidelines provided by Philips. **Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.**

PLEASE NOTE for all OnSite Education: It is recommended to purchase additional training, 16 or 24 hours, for customers purchasing specialist packages and requiring dedicated training for Breast Imaging, BOLD fMRI, Cardiac or Spectroscopy.

Project and Workflow Evaluation: Philips Education representative(s) conduct an eight (8) hour onsite customer MR Site/Clinical assessment; to include site demographics, workflow, identifying key contact personnel and decision makers. This process includes direct observation of customer's MR department workflow. Additionally, a copy of the Customer's MR protocol list is requested to be made available to Philips Education representative. Customer information provided during this process is the first building block for planning educational support and Clinical Exam Card configuration.

Implementation Support: Philips Clinical Education Representative supports the overall implementation of all customer training phases of the MR system handover and continued educational support. A Philips Education Representative works with the customer to design a customized MR education program and coordinate the customer training/education implementation. Implementation support includes all onsite and offsite customer training events.

Clinical Exam Card Configuration: Exam Card (MR scan protocol) Configuration process is to ensure the Philips MR system is producing acceptable image quality according to customer preferences. Philips Clinical Education Specialist will provide sixteen (16) hours offline customized MR exam card configuration prior to onsite exam card IQ confirmation. Philips Clinical Education Specialist also conducts sixteen (16) hours onsite MR exam card configuration and image quality confirmation. This process includes Image quality acceptance made by the Customer's designated physician representative. Philips Clinical Education Specialist, working with the Customer Lead Technologist will make requisite adjustments to the exam card database in order to meet the customer's initial image quality expectations. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

PLEASE NOTE: For all OffSite Education listed above: CEU credits may be available for each participant that meets the Guidelines provided by Philips. Travel and lodging are not included, but may be purchased through Philips. It is highly recommended that 989801292093 (MR Full Travel Pkg OffSite) is purchased with all OffSite courses. Due to program updates, the number of class hours is subject to change without notice. Customer will be notified of current, total class hours at the time of registration. OffSite training is scheduled based on your equipment configuration and availability.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 62616026614615622762286229-20150615

2

**Ingenia 1.5T Premium IQ Value
Pack**

1

Ingenia 1.5T Premium IQ Value Pack

mDIXON XD FFE Specialist brings the next generation mDIXON algorithms for enhanced fat-free performance with a 2-point mDIXON method with flexible echo times and a 7-peak fat spectrum algorithm. mDIXON XD FFE Specialist provides fat-free FFE imaging with large FOV and sub-millimeter resolution, extending its use to challenging anatomies, including head, neck and spine, with access to new imaging methods such as subtractionless MRA.

mDIXON XD TSE Specialist brings the next generation mDIXON algorithms for enhanced fat-free performance. Our fast, 2-point mDIXON method brings flexible echo times and high sharpness,

while a new 7-peak fat spectrum algorithm enhances accuracy. mDIXON XD TSE Specialist can be combined with Multivane XD in the head for simultaneous fat- and motion free imaging.

The SWI Specialist package enables a SWIp sequence offering:

- 3D high resolution and high contrast susceptibility weighted imaging of the brain
- High SNR thanks to a multi-echo technology
- Enhanced contrast between tissues presenting susceptibility differences such as venous blood products or mineral deposits (e.g. iron or calcium) thanks to the utilization of MR phase information
- Visualization of phase maps to further help diagnosis.

MultiVane XD is an enhanced Multivane technique for Multi-slice TSE and for Multi-slice FFE techniques, suitable for all anatomies. It provides an enhanced Multivane motion control algorithm especially suited for gross motion. Combinable with SENSE parallel imaging in any direction allowing for short scantimes

3

dS Torso 1.5T

1

An integrated coil solution for body and peripheral vascular related imaging. It includes the FlexCoverage Anterior coil. Combined with the FlexCoverage Posterior coil it enables 60 cm coverage, with a maximum of 32 channels.

The flexible, lightweight easy-to-position FlexCoverage Anterior coil is designed to conform both in right-left and foot-head directions for almost any patient. This enables large coverage and comfortable strap-free operation.

- Coverage: 60 cm
- Maximum nr. of channels: 32
- Main applications: Torso, Chest, Pelvis, Heart, Peripheral-vascular
- Coil type: Integrated
- Lightweight coil(s)
- DirectDigital sampling in the coil where the MR signal is at its purest, without loss in the RF chain, enabling:
 - Enhanced SNR
 - dS-SENSE enhanced parallel imaging performance
 - dS-SENSE capable in AP, LR and FH directions
- Single FlexConnect coil connection and cable for fast and easy setup

4

dS Wrist 8ch1.5T

1

Coil that closely fits the left or right wrist for high SNR. This design provides the high SNR needed to acquire images with a small FOV. It has a one piece, ovoid, hinged design for easy patient set up. Good quality imaging can be obtained with the coil at the patient's side. The coil attaches to a rigid base plate for fixation to reduce patient motion artifacts.

- Coverage: 8 cm
- Maximum nr. of channels: 8
- Main application: Wrist
- Coil type: Dedicated
- dS-SENSE enhanced parallel imaging performance

5

dS FootAnkle 8ch 1.5T

1

Ski-boot shaped coil for optimum coverage of the ankle and entire foot up to the toes. The coil design and element layout allow for either large FOV imaging of the whole foot or small FOV high resolution imaging for ankle joints. The coil is easy to set up and can be used with the patient's foot vertical or up to 15 degrees plantar flexed.

- Coverage: 30 cm
- Maximum nr. of channels: 8
- Main applications: Foot, Ankle, Toes
- Coil type: Dedicated
- dS-SENSE enhanced parallel imaging performance

6

dS Shoulder 8ch 1.5T

1

Coil designed for high uniformity throughout the shoulder joint, with excellent penetration into the labrum. The coil consists of a base plate and an adjustable shoulder cup which can be raised and pivoted for comfortable positioning. Adjustable design for a comfortable fit for either left or right shoulder.

- Coverage: 12 cm LR
- Maximum nr. of channels: 8
- Main application: Shoulder
- Coil type: Dedicated
- DirectDigital sampling in the coil where the MR signal is at its purest, without loss in the RF chain, enabling:
 - Enhanced SNR
 - dS-SENSE enhanced parallel imaging performance
- Single FlexConnect coil connection for fast and easy setup

7

Expansion to Premium

1

Expansion to Premium adds the following functionality to your ScanTools Pro solutions:

4D TRAK

4D-TRAK is a scan method for fast, dynamic CE-MRA combining CENTRA, Keyhole and SENSE. Provides high spatial and temporal resolution simultaneously for a variety of CE-MRA applications. Can be combined with MobiFlex for direct visualization of dynamic peripheral vascular studies.

k-t BLAST

Provides up to five fold acceleration using an alternative parallel imaging technique employing undersampling in time and space. Suited for dynamic and real-time cardiac studies as well as single breath hold, multi-slice cine studies. Can be combined with most other imaging methods.

4D THRIVE / BLISS

4D-THRIVE/BLISS is a time-resolved 3D technique to drastically accelerate dynamic body and breast imaging through the combination of a keyhole method with CENTRA and SENSE. Combines high spatial resolution with high temporal resolution to facilitate acquisition of multiple dynamic volumetric data sets per breath-hold.

2k IMAGING

2k Imaging offers a scan matrix of 2048 x 2048, providing high resolution even with large FOVs, or lower than 2048 resolution scans with a 2048 matrix reconstruction. Compatible with all imaging methods.

- 8** **ASL Neuro Specialist** **1**
- ASL Neuro Specialist enables:
- Non-contrast brain perfusion imaging
 - A sensitive pseudo-continuous labeling technique (pCASL) providing high SNR and contrast
 - Whole brain coverage with isotropic resolution
 - Multi-phase ASL for dynamic perfusion assessment and selection of optimal labeling delays.
 - In-line post-processing within Examcard
 - Color coded ASL maps with relative quantification bar
- 9** **FiberTrak Specialist** **1**
- The FiberTrak Specialist package provides advanced imaging and processing methods for assessment of white matter fiber tracts in the brain. Functionalities include:
- Diffusion Tensor Imaging (DTI) (up to 32 directions and 16 b-values).
 - Automatic calculation of Fractional Anisotropy (FA) maps.
 - Visualization of the white matter tracts using fiber tracking.
- Fibertracking key features:
- Advanced 3D visualization of (multiple) white matter fiber tracts.
 - Overlays of anatomical and Bold Analysis datasets.
 - 3D display movies of the entire white matter fiber structures.
 - 2D cross sections of anatomical and Bold Analysis datasets.
 - 2D color cross sections with fiber tracts.
 - Multiple ROI fiber tracking.
 - Statistics on voxels fibers and ROIs.
- 10** **HA FlexTrak** **1**
- Dockable patient transport system for simplified patient preparation, handling and transportation from preparation room to the MR scanner, without repositioning the patient.
- HA: Height-adjustable (49cm min. support height) to facilitate easy patient transfer
 - Lightweight, easy to maneuver FlexTrak dockable patient transport system docks and undocks quickly and easily with patient support and table top. Docking is possible from both sides.
 - Patient and coils can be prepared outside the MR room. No need to remove coils or to reposition patients.
 - Integrated coil connections on table and FlexConnect connectors for efficient patient management and rapid evacuation.
 - Easy to use foot pedal locks wheel direction during transport or brakes the FlexTrak while standing still.

- IV pole included
- When the FlexTrak is positioned and locked against a wall, an adjustable side-rail can be used to prevent a patient from falling.
- Optional second FlexTrak offers economical solution to allow improved throughput.
- 250 kg / 550 lb capacity

11 FlexCaddy 1

Coil storage cart which stores dStream coils and accessories to enhance workflow for a large range of clinical applications. Includes:

- IV pole
- Storage for
 - 2x Anterior coils
 - 1x Head Top / other coil
 - 1x HeadNeck Top / other coil
 - 1x Base coil
 - Accessories

12 Vascular positioning pack 1

Comprehensive set of Vascular accessories, including:

- Arm Support to provide additional support for a patients arm when injections are required. The support easily slides under the patient and can be positioned on either side of table.
- Anterior Coil Frame to create a distance between the coil and the patient thereby avoiding direct contact (e.g. for peripheral vascular disease, pediatric patients).
- Feet Immobilizer to fixate the feet and lower legs in a comfortable and reproducible fashion. It is designed to reduce patient motion in peripheral vascular and whole body imaging.
- A Knee Support that allows for comfortable positioning of the patient to reduce patient motion

13 RF Coils Cabinet 1

Cabinet for storing RF coils and accessories. Compatible with all Ingenia, Multiva, Achieva, Intera and HFO systems.

14 Patient Observation Camera Color and Zoom 1

The Patient Observation Camera is a color camera including a varifocal zoom lens that can be mounted at any convenient position within the examination room to visually monitor the patient, or outside the examination room, e.g. as a surveillance camera for the prep room or the waiting area. The images are displayed on the Patient Observation Monitor (ordered separately) in the scanner control area.

Features:

- MR compatible camera
- High image quality
- Easy mounting to walls

15 Patient observation monitor 1

Images from the Patient Observation Cameras can be displayed on a Patient Observation Monitor positioned at a convenient location in the scanner control area. The monitor provides full visibility of the patient in all situations that require continuous visual monitoring, e.g. pediatric examinations and cardiac stress tests, as well as monitoring of patient setup and waiting areas.

Features:

- High brightness color LCD monitor
- Tilt, swivel and height-adjust for an ideal viewing position

16 FlexTilt 1

The FlexTilt is an easy to use device which allows the dS Base in combination with the dS Head and dS HeadNeck coils to be tilted. The coils can be tilted up to 18 degrees in incremental steps of 2 degrees.

17 Anterior Coil Frame 1

The Anterior coil frame creates a distance between the coil and the patient thereby avoiding direct contact (e.g. for peripheral vascular disease, pediatric patients).

18 Full Travel Package for OffSite Education 2

Includes one (1) participant's airfare from North American customer location to Cleveland, Ohio, with lodging, ground transportation, and meal expenses. Breakfast/dinner provided by the hotel, and lunch/breaks are catered by Philips. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced.

Education expires one (1) year from equipment installation date (or purchase date if sold separately).

19 MR Stereo - HiFi system 1

Premium Audio Technology Meets Compact Design

Stream tracks from online music services, relax to an internet radio program or air your digital music collection with the clarity and assurance of a high-end audio component. With wireless-capable ethernet and optional Blue tooth USB adapter you can source music from a preloaded selection of online channels- including Pandora and Last.fm. Front loading CD player, FM/AM tuner with 40 station preset memory. USB port for iPod/iPhone. Solid 2 way bookshelf speakers.

Plays Audio CD, CD-R, and CD-RW
Model # CS-N755

20 Spectris Solaris EP Injector 1

The MEDRAD Spectris Solaris EP MR injection system offers Enhanced Performance capabilities designed for use with scanners up to and including 3T with uncompromised ease of use and more flexibility than ever before. The injector delivers precisely timed injections for performing contrast enhanced MR exams to include, MRA, Dynamic and functional procedures with consistent and reproducible results.

Key features include:

- 3T compatibility
- Enhance performance battery with increased injections per fully charge battery
- Optional integrated Continuous Battery Charger (iCBC) increases operator efficiency by not having to change out the battery

- Fiber optic cable enables direct, reliable communication.
- Six user- programmable phases for added programming flexibility
- Hold or Pause phases for programming delay type and time.
- Keep- Vein- Open (KVO)- Function maintains line patency. KVO function operates independently from the injection profile.
- Large 115 ml syringe holds sufficient saline for longer KVO and multiple injections.
- Continuous status display on optimized color touch screen.
- Disposable syringe set SSQK 65/115vs.
- One- year warranty.
- Installation included in purchase of injection system.
- Applications Training included with purchase of injections system.

Control room unit

- Dimensions (H x W x D):
- 279 mm x 305 mm x 267 mm •
- (screen in up position)

Integrated Continues Battery Charger (iCBC)

- iCBC provides maximize operator flexibility by not having to change battery
- Flexible installation, in-room or out-of-room

Battery charger

- Dimensions (H x W x D):
- 40 mm x 77 mm x 129 mm

Scan room unit

- Dimensions (H x W): 1327 mm x 489 mm x 546 mm
- Volume Syringe A: 0.5 ml to max. syringe volume in 0.1 ml increments between 0.5 and 31 ml, 1 ml increments for 31 ml and above
- Volume Syringe B: 1 ml to max. syringe volume in 1 ml increments
- Flow rates: 0.01 to 10 ml/s in 0.01 ml/s increments between 0.01 and 3.1 ml/s, 0.1 ml/s increments for 3.1 ml/s and above
- Pressure limitation: 325 psi

21	Chiller for 1.0 or 1.5 or 3.0T Systems	1
	Chiller hardware with specification in accordance with cooling requirements necessary for selected MR scanner. Installation cost is not included.	
22	Chiller Interface Panel	1
	Chiller interface panel, specification in accordance with requirements necessary for selected chiller.	
23	Enhanced Warranty Terms	1

Enhanced Warranty

The Philips Ingenia MR System will receive the following service coverage for a period of twelve (12) months after completion of installation or availability for patient use, whichever occurs first.

- Extended service coverage hours from Monday to Friday, 8am to 9pm
- Flexible Planned Maintenance scheduling from Monday to Friday, 7am to 12am and Saturday 8am to 5pm
- Onsite labor response of 2 hours
- Expedited parts delivery on same day

24	MR Conversion to Philips Program	1
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Clinical Education Program for MR Conversion to Philips Systems:

Conversion Remote/Online Education:

Philips will provide access to a two (2) hour Webinar session with an online proficiency assessment and in years one (1) through three (3) Philips will provide customer access to a web-based training, in which a maximum of 50 CEU's may be awarded.

Conversion FollowUp Onsite Education:

Philips Education Specialists will provide twenty four (24) hours of additional Follow-Up Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEU credits may be available for each participant that meets the guidelines provided by Philips. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Education expires three (3) years from equipment installation date (or purchase date if sold separately). Ref #609601727-20141215

25	Rigging Charges	1
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"Special Rigging: A window or wall has to be removed and/or a crane is required to get the purchased equipment into the facility."

OPTIONS

Line #	Part #	Description	Qty
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1		dS Knee 16ch 1.5T	1
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Coil designed for ultra-high SNR imaging over an extended field of view of the knee and other extremities. Two overlapping rings of eight elements extend the coverage area and minimize the need for precise positioning. dS-SENSE enhanced parallel imaging can be selected in all directions. The dS Knee 16 ch has a split design for easy patient setup and an ergonomically ramped insert for patient comfort.

- Coverage: 20 cm
- Maximum nr. of channels: 16
- Main applications: Knee, extremities
- Coil type: Dedicated
- dS-SENSE enhanced parallel imaging performance

2		Spectroscopy Specialist	1
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The 1H Spectroscopy Specialist package includes a complete set of single voxel, multi-voxel and multi-slice proton spectroscopy acquisition methods executed by ExamCards.
Key features are:

- Fully integrated into the acquisition user interface
- Planning on survey images including free angulations of spectroscopic volumes
- Easy scanning, planning and reconstruction
- Short TE spectroscopy with STEAM volume selection (minimum TE < 10 ms)
- PRESS volume selection
- 2D, Multiple 2D and 3D spectroscopic imaging
- SENSE 2D and SENSE 3D Spectroscopic imaging
- 2D and 3D Turbo Spectroscopic Imaging
- Combination of Turbo Spectroscopic Imaging and SENSE to even further reduce acquisition time
- Anisotropic matrix to reduce scan time
- Automated water suppression and MOIST, a unique (adiabatic) water suppression technique which is insensitive to B1 and T1.
- Dynamic single voxel spectroscopy
- Multiple REST slabs suppression, including circular REST
- Can be used for any anatomy and with any coil

Includes the SpectroView Analysis package for visualization and processing of all spectroscopic data. Enables presentation of spectro data after processing in the form of:

- Graphs
- Tables
- Ratio and metabolite images in color overlay

Line #	Part #	Description	Qty
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- Grids on reference images including corresponding spectra
- Processed and fitted spectra
- Metabolic peak levels

All data created can be transferred via DICOM to PACS or other workstations and all results can be converted to Windows-compatible formats.

3		Coronary Acquisition	1
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Enables non-invasive imaging of coronary arteries. Deploys 3D sequences combined with MotionTrak respiratory navigators for real-time motion correction and T2-preparation for good contrast between myocardium and vessels.

4		Cardiac Expert Spec	1
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Cardiac Expert Specialist adds the following cardiac MR functionality:

- Acquisition of multi-slice, dynamic tissue studies with saturation prepulse (for T1 weighting).
- WET saturation pulses (B1 insensitive) for uniform tissue suppression on 3.0T
- Look Locker methods for determination of optimal inversion delay time.
- Myocardial tagging with REST grids for regional wall motion studies.
- Real-time interactive imaging.

5		MR Cardiac Imaging 24 Hrs OnSite	1
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Philips Education Specialists will provide twenty-four (24) hours of Cardiac Education for up to four (4) students, as selected by customer. This training is recommended to be scheduled after the user is proficient on the basic MR system, and covers all Cardiac options on your system. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to guidelines for more information. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Education expires one (1) year from equipment installation date (or purchase date if sold separately).

6		MR Spectroscopy Imaging 24 Hours OnSite	1
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A Clinical Education Specialist will provide twenty-four (24) hours of MR Spectroscopy OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. The spectroscopy applications are intended to teach technologists how to fully utilize and customize spectroscopy functions on your new system. For an optimal experience, it is recommended that this course be scheduled after primary system users are comfortable with the basic functioning of the system. CEU credits may be available for each participant that meets the guidelines provided by Philips. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Education expires one (1) year from equipment installation date (or purchase date if sold separately).