XR CT, VAMC PITTSBURGH, PA PO 646-B52017 TRADE IN

**1 ** Ingenuity Elite Configuration 1**

**Ingenuity Elite Configuration**

Welcome to the benefits of 128-slice scanning, improved spatial resolution and excellent advanced clinical capabilities. The kind of scanning that offers low dose while maintaining high image quality. Fast, any way you look at it, with speed of reconstruction, as well as speed of collaboration with the IntelliSpace Portal option. It also offers in-room upgradability to Ingenuity Elite with IMR so its capabilities can grow as your needs grow.

Philips Ingenuity Elite offers 4 cm coverage for excellent image quality and includes the iDose4 Premium Package, our iterative reconstruction technique, as well as iPatient: an advanced platform that delivers focused innovations to facilitate patient-centered imaging, now and in the future. With a focus on clinical integration and collaboration, patient focus, and improved economic value, the scanner provides high image quality at low dose with up to 57% improvement in spatial resolution. Now you can personalize image quality based on your patients' needs at low dose. And with Ingenuity Elite with iDose4, reconstruction is achieved in 60 seconds or less.

One of the innovations of the Ingenuity family is Ingenuity Data Acquisition and Sampling (DAS), which provides high-resolution, thin reconstructions. DAS is excellent for neuro, cardiac, spine, and abdominal CTA scanning, and has a 33% improvement in z-axis spatial visualization.

**Ingenuity Elite Key Features**

- iDose4 Premium Package
- NanoPanel Elite Detector
- iPatient
- 4 cm of coverage for better patient compliance
- kV stations of 80, 100, 120, 140 kVp
- MRC Ice X-Ray Tube
- 80kW Generator
- Ingenuity DAS
- Upgradability

**Intelligent Technologies**

The Ingenuity family is built on the best in Philips class intelligent technologies for the speed, accuracy, and reliability to enhance your workflow on a daily basis.

*iPatient*

Philips' iPatient is an advanced platform that delivers focused innovations to facilitate patient-centered imaging, now and in the future. This powerful Windows® 7-based platform will put our customers in control of innovative solutions that drive confidence and consistency through personalized patient centric workflow, increase the ability to do complex and advance procedures with ease and efficiency. iPatient removes unnecessary complexity and allows our customers to

get the job done while driving confidence and consistency 24/7, and prepares for future innovations that will help improve the care being delivered to the patient.

*ExamCards*
ExamCards are the evolution of the scanning protocol. With ExamCards, the results are planned, not the acquisition as traditionally done in CT; this reduces decision points and clicks, saves time and improves operator-to-operator consistency. ExamCards can include axials, coronals, sagittals, MPRs, MIPS, and other results, all of which will be automatically reconstructed and can be sent off to where they will be read with no additional work required by the operator.

*MRC Ice X-ray Tube*
Liquid coolant carries heat away from the MRC Ice X-ray tube, so Ingenuity Elite is ready for the most demanding scans, one right after the other. The Philips MRC Ice X-ray tube is designed to be one of the most reliable in the industry. Built for high volume and 24-hour consistency, there is no waiting for the tube to warm up before the scan and no waiting for it to cool down.

*NanoPanel Elite Detector*
The NanoPanel Elite, the second generation of tile detector technology from Philips, was engineered for low-dose, low-energy and low-noise imaging. The detector provides marked image noise improvement, direct integration technology, and linearity improvements at low energy and low current. Philips was first to bring the NanoPanel tile detector design in 2007.

*Generator*
The Ingenuity generator uses low-voltage slip ring technology to provide a constant high voltage to the CT x-ray tube assembly.

*Scan Times*
0.5, 0.75, 1, 1.5, 2 seconds for full 360° scans

**Reconstruction**

*iDose4 Premium Package*
The iDose4 Premium Package includes two leading technologies that can improve image quality – the iDose4 iterative reconstruction technique and metal artifact reduction for large orthopedic implants (O-MAR). iDose4 is a 4th-generation advanced iterative reconstruction technique that improves image quality* through artifact prevention and increased spatial resolution at low dose. O-MAR reduces artifacts caused by large orthopedic implants. Together they produce high image quality with reduced artifacts.

With the iDose4 Premium Package, reconstruction is achieved in seconds rather than minutes. This is due to the innovative RapidView IR reconstruction engine. Designed to support iDose4, this proprietary technology allows for this iterative reconstruction technique to be used routinely in inpatient, outpatient, and emergency-care settings. The design seamlessly integrates into your CT department, and provides you the look and feel of conventional, higher-dose images without long processing times.

*ClearRay Reconstruction*
A revolutionary solution to beam hardening and scatter artifact, modeling and simulation technology pre-computes and stores beam hardening and scatter corrections in a database that is later referenced to create a correction that is personalized to each individual patient. As a fully three-dimensional technique, contrast scale stability is preserved across different patient sizes, image uniformity is improved, and organ boundaries are better visualized.

*Evolving Reconstruction*
Provides real-time 256 x 256 matrix image reconstruction and display in step with spiral acquisition. Images can be modified for window width and level, zoom and pan prior to

reconstruction. At the end of the acquisition, all images are updated with the desired viewing settings.

*Adaptive filtering*

Adaptive filters reduce pattern noise (streaks) in nonhomogenous bodies, improving overall image quality.

*HyperSight IR Reconstruction*

HyperSight IR reconstruction is the result of years of advanced research, and was designed specifically to satisfy the performance requirements and processing power needed to seamlessly integrate the iDose4 Premium Package and iPatient into your department. HyperSight IR provides dramatic improvements in workflow by displaying images at breakthrough rates, regardless of acquisition speed or reconstruction parameter. The majority of factory protocols with iDose4 are reconstructed in less than a minute, with reconstruction speeds up to 18 images per second with iDose4 and up to 25 image per second with standard reconstruction.

*ConeBeam Reconstruction Algorithm - COBRA*

Philips patented Cone Beam Reconstruction Algorithm (COBRA) enables true three-dimensional data acquisition and reconstruction in spiral scanning.

*Ultra High Resolution Matrix Sizes*

Exclusive to Philips, 768 × 768 and 1024 × 1024 image reconstruction matrix sizes display all of the high-resolution data acquired in applications, such as inner ear, spine and high-resolution lung imaging. As scan resolution increases, larger reconstruction matrix sizes are required maintain the full scan resolution for the reconstructed field of view.

**Dose Management**

Philips' DoseWise philosophy is a set of principles and practices that ensures the best possible outcomes with minimal risk to patients and staff. The Ingenuity platform employs a number of features that help provide high dose efficiency.

*NEMA XR-29 Compliance*

This system complies with the NEMA XR-29-2013 Standard Attributes on CT Equipment Related to Dose Optimization and Management. The standard includes a group of CT attributes that contribute to or help perform optimization/management of doses of ionizing radiation while still enabling the system to deliver the diagnostic image quality needed by the physician. It encompasses: DICOM Radiation Dose Structured Reporting, Dose Check Feature (Dose Notification and Dose Alerts), Automatic Exposure Control (Dose Modulation) and Reference Adult & Pediatric Protocols.

*NEMA XR-25 (DoseCheck)*

DoseCheck enables the ability to set dose thresholds and provides alerts and notifications to the scan operator when radiation dose levels will be exceeded.

There are two threshold level values: Notification Values, Alert Values

Notification values apply to a single image series, and Alert values apply to an overall exam. Both CTDIvol and Dose Length Product (DLP) values can be set.

For Alert values that will be exceeded, the system requires the user provide name and password information before proceeding to scan. Also, an additional indication will appear in the Dose Info Page Series when the Notification or Alert values have been exceeded during a scan.

*DICOM Structured Report for Dose (DICOM SR)*

Dose SR complies with the IEC, DICOM PS and IHE standards for dose reporting. The report includes CTDIvol and DLP dose values.

*Dedicated Pediatric Protocols*
Developed in collaboration with top children's hospitals, age and weight-based infant and pediatric protocols enhance image quality at low dose.

*DoseRight ACS (Automatic Current Selection)*
Personalizes the dose for each patient based on the planned scan by suggesting the lowest mAs settings to maintain consistent image quality at low dose throughout the scan.

*DoseRight Angular Dose Modulation*
Automatically controls the tube current angularly, increasing the signal over areas of higher attenuation (e.g., lateral) and decreasing signal over areas of less attenuation (e.g., anteroposterior).

*DoseRight Z-DOM (Longitudinal Dose Modulation**)***
Automatically controls the tube current, adjusting the signal along the length of the scan, increasing the signal over regions of higher attenuation (e.g., shoulders, pelvis), and decreasing the signal over regions of less attenuation (e.g., neck, legs).

*Dose Displays*
- Volume Computed Tomography Dose Index (CTDIvol)
- Dose-Length Product (DLP)
- Dose Efficiency

**Scan and Image Acquisition**

*Scan Ruler*
Provides a visual, highly interactive view of the entire procedure that allows 1-click updates to important study events.

*Spiral Scanning*
Multiple contiguous slices acquired simultaneously with continuous table movement during scans allowing for multiple, bidirectional acquisitions

*Axial Scanning*
Multiple-slice scan with incremental table movement between scans.

*Ingenuity DAS*
One of the innovations of the Ingenuity family is Ingenuity Data Acquisition and Sampling (DAS), which provides high-resolution, thin reconstructions.

*Test Injection Bolus Timing*
Establishes the optimum contrast injection delay time using a test injection. A real-time graph of the enhancement in a selected region of interest is displayed. The delay time is then selected to provide optimal peak contrast enhancement and reduced contrast usage.

*Bolus Tracking*
An automated injection planning technique that permits a user to monitor actual contrast enhancement and to initiate scanning at a pre-determined enhancement level. Combine with SAS for full automation.

*Spiral Auto Start*
Spiral Auto Start allows the injector to communicate with the scanner. This allows the technologist to monitor the contrast injection and to start the scan (with a predetermined delay) while in the scan room.

*NOTE:*
- Costs to upgrade an approved injector and any cabling is the responsibility of the user.
- Compatible with following Injectors:

Medrad Envision/Stellant, Medrad Vistron, Liebel-Flarsheim, Tyco CT 9000, Medtron CT 2, Nemoto Dual Shot, Mallinckrodt OptiVantage DH, E-Z-EM Empower, Swiss Medicare, Ulrich Injectors

**Image Management, Storage, and Filming**

DICOM 3.0-compliant image format. Lossless image compression/decompression is used during image storage/retrieval to/from all local storage areas. Images can be auto-stored to selected archive media

- 500 GB Hard Disk
- Image Storage Capacity: 512 X 512 Image Matrix = 900,000 typical number of uncompressed images

*DVD-RAM Storage*

Provides a solution for data storage. DVD-RAM disks are written in a proprietary Philips format and are able to be read only on Philips EBW (v3.0.1 or higher), and CT scanner units (v2.3 or higher) with a DVD-RAM drive.

- 4.7 GB DVD-RAM
- Image Storage Capacity: 512 X 512 Image Matrix = 15,000 typical number of compressed images

*Filming*

Allows the user to set up and store filming parameters. Pre-stored protocols can be set to include auto-filming. The operator can film immediately after each image, at the end of a series, or after the end of a study, and review images before printing. The operator can also automatically film the study at three different windows and incorporate Combine Images functionality to manage large datasets. Basic monochrome and color DICOM print capability are supported.

*Networking*

Network connections should be located within 10 feet of the console. Supports 10/100/1000 Mbps (10/100/1000 BaseT) networks. For optimal performance, Philips recommends a minimum 100 Mbps network (1 Gbps preferred) and for the CT network to be segmented from the rest of the hospital network.

*DICOM Connectivity*

Full implementation of the DICOM 3.0 communications protocol allows connectivity to DICOM 3.0 compliant scanners, workstations, and printers; supports IHE requirements for DICOM Connectivity. Further details on connectivity and interoperability are provided within the DICOM Conformance statement.

**Operator Console, Patient Handling, and Setup**

Philips provides an operator work environment that is both flexible and easy to use. The operators' console includes the necessary hardware to use the scanner including host computer, cabinets, dual monitor configuration, and control box. The system provides applications that assist clinicians to improve workflow and planning as well as post processing analysis and review to help you quickly gain the desired view. All of these combine in a graphical interface that allows you to easily execute scans and analyze images.

*Manual Scan*
Places slice-by-slice scans under operator control with on-line or off-line reconstruction, background image archiving to local or remote storage devices. At any time, the operator is able to switch from automatic to manual scan and back.

*Automatic Scan*
Enables automatic execution of pre-planned studies, with concurrent, on-line or off-line reconstruction, background image archiving to local or remote storage devices, without operator intervention

*Gantry Control Panels*
Gantry Control Panels for gantry tilt, patient couch elevation and stroke are located at the operator's console as well as on front and back and left and r ight sides of the gantry. Additional functions at the operator's console include emergency stop, intercom and scan enable/pause buttons.
*Gantry Aperture:* 700 mm diameter
*Gantry Tilt:* -30° to +30°; 0.5° increments.

*Infant Calibration Phantom*
The Infant Calibration Phantom is a Philips-exclusive tool used to calibrate system parameters to optimize the system for scanning infants.

*Patient Centering on Surview*
Centering the patient properly is one of the most important factors in getting good image quality. Traditionally, patients are centered using the gantry laser lights; with this feature it is possible to improve patient centering using the lateral surview with real time feedback.

*Intercom System and Multilingual Autovoice*
The intercom system provides two-way communication between the scan room and the operator console. Additionally, a standard set of commands for patient communication before, during and after scanning is available in several pre-selected languages. Customized messages can also be created. Pre-selected languages available include:
-English, Hebrew, German, French, Arabic, Danish, Spanish, Russian, Swedish, Italian, Georgian, Chinese, Japanese, Turkish and Portuguese.

*Dual Surview Planning*
Provides flexibility in exam planning with both anteroposterior and lateral surviews.

*Automatic Procedure Selection*
Maps the procedure selection from the HIS-RIS with individual scan protocol(s) simplifying the scanning process. Only the most relevant scan protocol(s) for any requested procedure are shown to the user, ensuring that only the desired scanning procedures are performed. This is especially useful for infrequent users of the CT scanner.

*Table Accessories*
Prevent fatigue and discomfort and give both patients and technologists a sense of security: patient restraint kit, table extension, standard head holder, table pad, IV Pole, arm rests, cushions, and pads.

Also Includes

- *Expert Protocol Planning*
- *Preset Post-Processing*
- *DICOM Modality Worklist*
- *Prefetch Study*

- *Split Study*

**Applications**

*Organ ID*
Automatically isolates lung images for better viewing, including lung limit detection, zoom and pan setting, lung windowing, image enhancement, and image filming.

*Volume Rendering*
Provides simultaneous visualization of vasculature, soft tissue, and bone. Offers real–time, interactive control of opacity and transparency to permit viewing through and beyond surrounding structures, such as metallic stents and arterial calcifications, and virtually eliminates the need for organ segmentation prior to visualization.

*Q-CTA - Quantitative CT Measurement Tool Package*
Q-CTA is a tool kit for quantitative measurements of anatomic structures, such as vasculature pathology from 2-D, 3-D or volume-rendered images.
Also includes:

- *Surview Plan*
- *Guided Flow*

**ScanTools and ScanTools Pro**
The ScanTools package of advanced components and productivity features streamlines routine imaging studies, and comes standard with your scanner. ScanTools Pro is a supplemental set of tools standard on your scanner that enhances productivity, workflow, and diagnostic confidence. The components of ScanTools and ScanTools Pro are located throughout the quote under the appropriate headings.

**Siting information**

*Power Requirements*
- 200/208/240/380/400/460/415/480/500 VAC at 112.5 kVA (150 kVa preferred) and 50/60Hz
- Three-phase distribution source

*Note: Windows is a registered trademark of Microsoft Corporation in the United States and other countries.*

**Enhanced System Warranty Coverage:**

The Philips Ingenuity CT System will get the following enhanced 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, Monday - Friday, 8am to 9pm

• Flexible Planned Maintenance scheduling from Monday - Friday, 7am to 12am and Saturday, 8am to 5pm

• Onsite labor response of 2 hours*

• Expedited parts delivery on same day*

* Please note that response and delivery times are dependent on local factors and conditions

**Clinical Education Program for Ingenuity Systems:**

**Essentials OffSite Education:** Philips will provide up to two (2) lead technologists, as selected by customer, with in-depth lectures covering basic clinical applications, Philips-specific imaging techniques, protocol optimization and scan parameters. A CT "system emulator" is used during the lab sessions to simulate all basic scanning operations without x-ray exposure. Students will graduate from this class with an 80% understanding of the base system functionality. The remaining 20% is covered during the Handover OnSite experience. This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on your equipment configuration, geography, 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. This class is a prerequisite to your equipment handover OnSite Education, and should be attended no earlier than two weeks prior to system installation. ASRT CEU credits may be available for each participant that meets the Guidelines provided by Philips during the scheduling process. Travel and lodging are not included, but may be purchased through Philips. It is highly recommended that 989801292078 (CT Full Travel Pkg OffSite) is purchased with all OffSite courses.

**Handover OnSite Education:** This twenty-eight (28) hour training event will fine tune and expand upon knowledge learned during the Essentials OffSite with focus on maximizing scanning techniques and protocols. This session is to be attended by the same two (2) technologists from Essentials OffSite, and up to two (2) more of your dedicated CT Technologists, preferably from night or weekend shifts if necessary. ASRT CEU credits may be available for each participant that meets Philips Guidelines. Note: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

**Follow-Up On-Site Education:** Clinical Education Specialists will provide twenty-eight (28) hours of follow-up CT On-Site Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases.

**Follow-Up OnSite Education:** Clinical Education Specialists will provide twenty-four (24) hours of follow-up CT OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. 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).

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**2** ****** **Standard Table** **1**

Table Specifications:

*Longitudinal motion:*

Manual Stroke: 1890 mm
Scannable range: 1750 mm
Acquisition Speed: 0.5 to 185 mm/sec (iCT)

0.5 to 143 mm/sec (64)
0.5 to 100 mm/sec (Brilliance 16, Big Bore)

Load/Unload Speed: 0.5 to 185 mm/sec (iCT, Brilliance 64)
Position accuracy: ±0.25 mm

*Vertical motion:*
Range: 578 to 1028 mm; 1.0 mm inc.
645 to 1065mm; 1.0 mm inc. (iCT)

*Table load capacity:* 204 kg (450 lbs)
*Floating tabletop:* Carbon-fiber table top with foot pedal and handrail control for easy positioning and quick release.

**3** ****** **Bariatric Table** **1**

The Bariatric Patient Support is designed to meet the CT imaging needs of the growing bariatric population. Allowing for patient loads of up to 295kg (650 lbs.), the Bariatric Patient Support provides CT imaging access to a larger patient population than current offerings.

Table Specifications:

*Longitudinal motion:*
Scannable range:
1750mm (iCT, Brilliance CT 16-slice, Brilliance CT Big Bore)
1860mm (Ingenuity Family)
Acquisition Speed: 0.5 to 185 mm/sec (iCT, Ingenuity Elite, Ingenuity Core, Ingenuity Core128)
0.5 to 100 mm/sec (Brilliance CT 16 - slice, Brilliance CT Big Bore)
Load/Unload Speed: 0.5 to 185 mm/sec (iCT, Ingenuity Elite, Ingenuity Core, Ingenuity Core 128)
Position accuracy: ±0.25 mm
*Vertical motion:*
Range: 578 to 1028 mm; 1.0 mm inc. (Brilliance CT 16-slice)
579 to 1022 mm; 1.0 mm inc (Ingenuity Core, Ingenuity Core 128, Ingenuity Elite)
579 to 1012 mm: 1.0mm increment (Brilliance CT Big Bore)
645 to 1065mm; 1.0 mm inc. (iCT)
T*able load capacity:* 295 kg (650 lbs)
*Floating tabletop:* Carbon-fiber table top with foot pedal and handrail control for easy positioning and quick release.

The Bariatric Patient Support includes the Radiology Flat Top Kit. This kit, comprised of a wide accessory flat top, wide mattress pad and extra long patient restraint straps, provides additional comfort and security for patients. A quality assurance phantom holder fitted for the flat top is also included. Note: This flat top is not qualified for oncology radiation therapy usage and cannot be used to support the iCT calibration phantom.

**4** ****** **Operator's Manual - English** **1**

**5** ****** **Keyboard Language - English** **1**

**6** ****** **Jog Scan** **1**

This Philips-exclusive feature provides up to 160 mm (iCT TVI or iCT), 80 mm (iCT SP, Ingenuity CT, Ingenuity Core, Ingenuity Core128, Brilliance CT 64-channel, or Brilliance CT 40-channel), or 48mm (Ingenuity Flex32, Ingenuity Flex, Brilliance CT 16-, 10- or 6-slice ) of imaging area for perfusion studies. An axial scan is taken in one location, the couch translates to another location within a few seconds, and another axial scan is taken. These multiple datasets are registered automatically to provide the extended coverage. Combined with Philips advanced Brain Perfusion with summary maps, the Jog Scan application can position CT as the modality of choice for acute stroke evaluation, providing unprecedented functional information over the functionally significant area of the brain.

**7** ****** **SyncRight W/ Installed Inj** **1**

Philips SyncRight provides seamless integration between Philips CT systems and compatible injectors*, facilitating the workflow of contrast-enhanced scans, including advanced applications such as CT of the vascular system. SyncRight simplifies operations and enhances overall consistency by streamlining workflow, allowing more time to focus on patients. With SyncRight, the scanner and injector are in communication to display real-time injection status and allow clinicians to view injection progress, timings, and planned scan real-time on the scanner console.

SyncRight also includes the Bayer Medrad® Personalized Patient Protocol Technology platform, called P3T®, which puts automated personalized patient-dosing capability in clinicians' hands. When P3T® is activated at the CT console, the injected volume and injection rate are automatically adapted to the patient weight.

**SyncRight Key Features:**

- SyncRight for Philips CT scanner with iPatient
- Bayer Medrad® P3T® Pulmonary Angiography Software
- Bayer Medrad® P3T® Cardiac Software-Ready (optional)
- Bayer Medrad® P3T® Abdomen Software-Ready (optional)

*SyncRight*

A single click:

- Automatically load injection protocol from the ExamCard to the injector
- Modify the injection protocol through scanner or injector console
- Create automatic protocol based on scan and patient parameters (using the P3T® protocols)
- View injection timings and planned scan timings on scanner console
- View injection progress and PSI in real time on scanner console
- Start injection and timed scans from scanner or injector console
- Produce injection report as part of the exam summary series

*Bayer Medrad® P3T® Pulmonary Angiography (Bayer Catalog # 3028465)*

The P3T® Pulmonary Angiography (PA) enables increased diagnostic studies by fitting into the established CTPA workflow and makes consistent administration of personalized dosing practical. P3T® PA tailors each patient's contrast protocol based on four primary components:

- Patient and procedure data gathered by healthcare personnel
- P3T® algorithm for protocol generation
- DualFlow technology (the simultaneous injection of contrast and saline).
- An optional transit bolus that refines the protocol (P3T® PA also works with bolus detection software)

*Currently available with appropriate Bayer equipment, which includes the Bayer Medrad® Stellant D Dual Syringe CT Injection System.

*Notes:*

- *Philips representatives are responsible for the unpacking, assembly and installation of the CT Injector equipment. Bayer will be available for technical assistance, by phone at +1 (412) 767-2400. Bayer will also provide an operational checkout, final calibration, in-service of the equipment and initial applications training. Please contact the local Bayer sales office at least two weeks in*

*advance to schedule installation. A complete listing of offices and contact information can be obtained at www.ri.bayer.com by selecting "Contact Us."*

- *Philips does not warranty the Bayer Medrad® Stellant D Dual Syringe CT Injection System but will pass on the system warranty from Bayer. Bayer warrants each new injector system; including control unit, display control, remote panel and injector head sold in North America and Europe against defects in material and workmanship, under proper, normal use and service for a period of one year (12 months) from the date of installation. There will be no charge for any action deemed necessary by Bayer, including parts, travel, or labor to fulfill the terms of the warranty, during normal business hours (8:30 am to 5:00 pm, local time, Monday through Friday, except holidays).*

*Prerequisites:*

- *iPatient, and*
- *Installed Bayer Medrad® Stellant D Dual Syringe CT Injection System with the DualFlow option enabled and with software version 105.2 or greater. Contact local Bayer sales or service to confirm that the installed injector configuration of the injector meets these prerequisites.*

**8** ****** **Coronal Head Holder** **1**

Coronal head holder with tab design quickly attaches to the end of the tabletop. Positions patient in a submento-vertex position, allowing more direct coronals for clearer diagnosis. Contributes to decreased anatomical distortion through reduced gantry angulation and reduces patient motion.

**9** ****** **Load and Unload Foot Pedals** **1**

Load and Unload foot pedals allow the operator to move the patient couch to the load or unload position using a foot pedal thus improving patient handling efficiency by the freeing the operator's hands to prepare, restrain, or release the patient.

*Prerequisite: Rear Gantry Panel for Field Upgrades*

**10** ****** **Head-Arm Rest Pad** **1**

The Head & Arms Rest is a patient positioning pad that provides patient support during examinations when the patient's arms are raised above his/her head. The pad provides an ergonomic rest for the patient's head and arms and straps to secure the patient. The pad is intended to be used outside of the scan length and should not be scanned.

**11** ****** **30 Min Console UPS** **1**

Uninterruptible Power Supply (UPS) provides up to 30 minutes of battery backup for computer/reconstruction system.

**12** ****** **P3T Cardiac** **1**

**Bayer Medrad® Stellant P3T® Cardiac** (*Bayer Catalog #3014849*)

The P3T® Cardiac protocol optimization software significantly enhances vascular attenuation especially in the distal segments of the coronary tree. P3T® Cardiac software computes custom injection protocols as well as scan timing for each patient, enabling personalized care and patient safety while maintaining efficient workflow.

*Prerequisite: SyncRight*

*Notes:*

- *Philips representatives are responsible for the unpacking, assembly and installation of the CT Injector equipment. Bayer will be available for technical assistance, by phone at +1 (412) 767-2400. Bayer will also provide an operational checkout, final calibration, in-service of the equipment and initial applications training. Please contact the local Bayer sales office at least two weeks in*

*advance to schedule installation. A complete listing of offices and contact information can be obtained at www.ri.bayer.com by selecting "Contact Us."*

*- Philips does not warranty the Bayer Medrad® Stellant D Dual Syringe CT Injection System but will pass on the system warranty from Bayer. Bayer warrants each new injector system; including control unit, display control, remote panel and injector head sold in North America and Europe against defects in material and workmanship, under proper, normal use and service for a period of one year (12 months) from the date of installation. There will be no charge for any action deemed necessary by Bayer, including parts, travel, or labor to fulfill the terms of the warranty, during normal business hours (8:30 am to 5:00 pm, local time, Monday through Friday, except holidays).*

**13** ****** **Teal 100kVA Isotran Plus** **1**

Teal 100 kVA isolation voltage adapting transformer:

Input voltage: 200/208/240/380/400/416/480/500, 3-phase, delta plus protective earth. 50/60 Hz

Output voltage: 480 VAC (277 VAC wye).

Includes: Programmable input circuit breaker.

Includes: TVSS (Transient Voltage Surge Suppression), load side filtration for noise attenuation and remote control contactor.

Weight: 598 lbs. (271 kg)

Dimensions: 27.8" (70.7 cm) wide, 20.5" (52.1 cm) deep, 44.0" (111.8 cm) high.

**14** ****** **Add. Manual - English** **1**

Additional Operator Manuals may be ordered.One set is included with the base system.

**15** ****** **24 Hours of Additional OnSite Clinical Training** **1**

Clinical Education Specialist will provide twenty-four (24) hours of tailored CT OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. 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 the earlier of equipment delivery date or purchase date.

**16** ****** **Full Travel Package for OffSite Training** **2**

Includes one (1) participant's airfare from North American customer location to Cleveland, Ohio, with modest 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.

Expires one (1) year from the earlier of equipment delivery date or purchase date.

**17** ****** **CT Dose Reduction Strategies Onsite 16h** **1**

A Clinical Education Specialist will provide sixteen (16) hours of CT OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. This training will provide a deeper understanding of dose reduction strategies.

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).

**18** ****** **Airfare to Cleveland for Biomed Training** **1**

Includes one (1) participant's airfare from North American customer location to the Cleveland Training Center (CTC) in Cleveland, Ohio. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Expires one (1) year from the earlier of equipment delivery date or purchase date.

**19** ****** **CT3001 Ingenuity CT Virtual 3** **1**

Course Number: *CT3001*

Course Title: *Ingenuity CT 3.5*

Course Length: *3 DAYS* (excludes Saturdays, Sundays, and Philips holidays)

Delivery Method(s): *Virtual Classroom*

Modality: *CT*

Location: *Adobe Connect*

Target Audience: *Service Engineers*

**DESCRIPTION: T**his course provides the engineer with comprehensive knowledge and skills required for troubleshooting the Ingenuity CT system. This course is a blended learning course, with prerequisites of topics in eLearning which do not require the physical presence of the learner in the Training Academy, and Virtual Classroom instruction.

**PREREQUISITES:** Brilliance Air Family course

**COURSE OBJECTIVES:**

Upon successful completion of the Ingenuity CT course the learner will be able to:

- Explain prescribed safety procedures and avoid known equipment hazards
- Describe the general theory of operation for the Ingenuity CT scanner.
- Describe the general theory of operation of iDose.

- Identify proper use of troubleshooting / diagnostic tools and techniques for troubleshooting iDose related problems.
- Describe the theory of operation of the Ingenuity CT Reconstruction subsystem.
- Describe the theory of operation of the Ingenuity CT Data Acquisition and Sampling (DAS) System.
- Describe the theory of operation of the Ingenuity CT High Voltage subsystem.
- Describe the theory of operation of the Ingenuity CT Extended Range Couch.
- Identify and describe proper use of troubleshooting / diagnostic tools and techniques.
- Describe the Ingenuity CT system installation process.

**20** ****** **CS3420 IntelliSpace Portal 4.0** **1**
**CTC5**

Course Number: *CS3420*

Course Title: *IntelliSpace Portal 4.0*

Course Length: *4 days* (excludes Saturdays, Sundays, and Philips holidays)

Delivery Method(s): *Instructor-Led*

Modality: *HI*

**DESCRIPTION:** *The IntelliSpace Portal is a multimodality thin-client applications server that turns virtually any PC into an advanced multimodality imaging system workspace that can support radiology, cardiology, oncology and other specialties' imaging needs. This course will allow the student to experience the pre-installation, installation, local and remote service activities in an Instructor-Led environment.*

**PREREQUISITES:** *None*

**COURSE OBJECTIVES:**

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*Given the PRD information, the student will complete the pre-installation and site planning activities required for a successful implementation of the IntelliSpace Portal product. Given the system installation manual, the student will successfully complete an installation of the IntelliSpace Portal hardware in the hospital setting. Given the server software installation manual, the student will successful complete a software installation of the IntelliSpace Portal software. Given the system documentation, the student will be familiar with the various system configurations and the responsibilities of both the customer and Philips. Given the Safety Guideline document, the student will recognize the proper safety issues and hazards. Given a functional Portal, the student will demonstrate using the application on a technical level and to the extent to properly show the customer basic functionality. Given a set of prescribed issues on an IntelliSpace Portal, the student will recognize and solve the problem with each issue. Given the Repair and Replacement manual, the student will detect the field replaceable units (FRUs) that are pertinent for the IntelliSpace Portal 4.0. Given the Service Tools Users Guide for IntelliSpace Portal, the student will set up the LAN Configuration utility with the required DICOM nodes for a complete system installation. Given a functional IntelliSpace Portal system, the student will complete the System Customization tasks including setting the preferences and recognizing the auto-delete procedure. Given a functional IntelliSpace Portal system, the student will simulate all the System Administration tasks including Network Settings, Remote Portal Management, Disk Defragmentation and Disk Check, and Automatic Security Updates. Given the Remote Service User Guide, the student will simulate the remote service activities including SFTP, Secure Telnet, and Remote Desktop, PSA Configuration and M2M components – among other tasks. Given the Service Tools User Guide, the student will demonstrate use of the BugRep Tool, Log Viewer and Configuration tools and LAN Configuration via the Service Tools Framework. Given a Philips Service laptop, the student will demonstrate use of the PMS Processes and Tools including InCenter, Knova, e-SPF, RSN and communicating with the Business Unit.*

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

Product: 728231 Brilliance CT 64 Channel
Serial Number: 9592
Manufacturer: PHILIPS HEALTHCARE

Trade-In authorization number: 37434

**1** ****** **Adv. Brain Perfusion License** **1**

Philips' Brain Perfusion package differentiates areas of increased blood volume and decreased blood flow and presents this information in a summary map. The summary maps may help clinicians distinguish between still-viable and non-viable infarcted tissue. Philips Advanced Brain Perfusion provides motion correction, noise reduction and improved ease-of-use to maximize efficiency.

Using serial CT scans obtained with intravenous injection of contrast, the Brain Perfusion package derives perfusion information from the time-density curves based on the uptake of injected contrast material and subsequent tissue enhancement (or lack of). The package generates quantitative color maps of cerebral blood flow (CBF), cerebral blood volume (CBV), mean transit time (MTT) and time-to-peak (TTP), in addition to the summary maps.

**2** ****** **Pulmonary Toolkit** **1**

Philips' Pulmonary Toolkit for radiology enables the user to trigger a scan at a particular breath level (axial and/or spiral prospective gating), minimizing artifacts caused by respiratory motion. This allows better chest imaging of patients who cannot hold their breath.

Philips' Pulmonary Toolkit for radiology includes two different modes of operation, a viewer, and supports one respiratory sensor device.

Prospective Axial enables the user to trigger an axial scan at a particular breath level (threshold). The clinical usefulness in diagnostic radiology is that it minimizes artifacts due to respiratory motion for those patients who are not able to hold their breath during the scan.

Prospective Spiral enables the user to visualize the breathing waveform and begin a spiral scan at a desired breath level. This mode is used in conjunction with breath-hold imaging (typically followed by breath-hold gated treatments).

The Philips Bellows device is a pneumatic mechanism placed around the patient's chest, dynamically observing changes in pressure caused by motion of the chest with a transducer linked to the Brilliance CT scanner.

Pulmonary Viewer software package provides the ability to review the patient's respiratory waveform afterwards if needed

*Availability: With Brilliance 2.0 or Mx8000 IDT v4.0*

**3** ****** **Rate Responsive CV Toolkit** **1**

The "Rate Responsive CV toolkit" package is a set of features designed to allow basic cardiovascular imaging of the heart. This package is a prerequisite to the cardiac packages and to the "Stand Alone" applications, it includes:

*Acquisition Features*

**0.4 Second Rotation**

0.4 second 360° rotation provides better temporal resolution in advanced clinical applications such as coronary artery imaging, cardiac perfusion and other high-speed, motion-free imaging. The higher speed especially benefits prospective gating, with up to a 20% improvement in temporal resolution.

**DoseRight Cardiac**

ECG Dose Modulation reduces the mA of the X-ray beam up to 80% during acquisition of non-desired phases (estimated overall dose reduction to the patient of ~45% for single-phase, end-diastolic imaging). For example, only one phase may be required for coronary CTA, and the system will reduce the mA during the other portions of the acquisition, saving considerable dose.

**Retrospective Tagging**

Spiral Retrospective Tagging allows the Brilliance CT system to acquire a volume of data while the patient's ECG is recorded. The acquired data is "tagged" using AccuTag and reconstructed retrospectively at any desired phase of the cardiac cycle. This phase selection is accomplished using the Philips' patented Beat-to-Beat Variable Delay Algorithm, which automatically finds the best phase for cardiac CT imaging.

**Prospective Gating**

Prospective Gating automatically triggers axial multislice scan acquisitions using patient information from the ECG monitor. This feature uses Philips patented Beat-to-Beat variable delay algorithm for accurate and reproducible calcification scoring studies.

**Integrated ECG Monitor**

Philips' advanced ECG monitor with accompanying stand is used to collect the patient's ECG signal and then transfer the signal to the scanner for gated cardiac CT imaging. The ECG signal is stored on the system for later recall and display in the Brilliance Workspace. This can be used to interactively complete raw data reconstructions at different portions of the ECG cycle. Also can be used to correct reconstruction artifacts caused by irregular heartbeats.
Note: Gemini systems will ship with the GEMINI PET/CT ECG Gate.

*Reconstruction Features*

**COBRA Reconstruction (COBRA Cardiac)**
This reconstruction algorithm along with the adaptive multi-cycle reconstruction algorithm (MaxCycle) delivers the clearest images with the best temporal resolution possible at all times, as low as 53mseconds, in full 3-D conebeam resolution.

*Review Features*

**Cardiac Viewer**
Provides a comprehensive set of user tools that allows quick visualization of one or multiple cardiac phases, synchronization of multiple cardiac phases with interactive slab-MIP tools for review purposes, cine mode for cardiac axes views and a simple "Area-Length" calculation of End Systolic Volume (ESV), End Diastolic Volume (EDV), Cardiac Output (CO) and Ejection Fraction (EF) for basic ventricular functional assessment.

**Calcium Scoring**
Cardiac scoring program which provides Agatston, Volume and Mass scores. Incorporates a database of > 5,000 asymptomatic multislice cardiac scoring patients.

*Reporting Features*

**CT Reporting**
Provides reporting capabilities for paper print of clinical results from the Philips Brilliance Workspace including display of key images and results frames. The report is available for paper or electronic distribution to referring physicians, patients, or for medical records. Each report is editable and new default templates can be easily created and included in the system configuration. The report can be saved as a PDF file for digital transfer or printed.

**4 ** Step & Shoot Cardiac 1**

Step & Shoot Cardiac enables low-dose, prospectively ECG-triggered, axial cardiac imaging. Step & Shoot Cardiac allows gated, submillimeter, isotropic imaging of the cardiac anatomy (up to 25 cm transaxial field of view), including the coronary arteries.

Step & Shoot Cardiac is ideal for patients with heart rates below 75 bpm (iCT family with Speed & Power Enhancement) or 65 bpm (other scanner configurations). Arrhythmias are managed in real-time using proprietary, prospective-detection algorithms to pause acquisition during unstable heart rhythms.