

VAMC SAN ANTONIO, TX  
PO# 671-B30127

Line #	Description	Qty
1	<b>Ingenuity Elite Configuration</b> <b>Ingenuity CT Elite Configuration</b>	1

Until now, CT scanning has too often been about trade-offs. Well, no longer. Welcome to the benefits of 128-slice scanning, improved spatial resolution and excellent advanced clinical capabilities. It's scanning that offers low dose and high image quality. And it's fast, any way you look at it, with speed of reconstruction, as well as speed of collaboration with the IntelliSpace Portal option. The Ingenuity CT Elite features the iDose4 Premium Package and iPatient; an advanced platform that delivers focused innovations to facilitate patient-centered imaging, now and in the future. Meet the Ingenuity CT Elite.

With a focus on clinical integration and collaboration, patient focus, and improved economic value, the Philips Ingenuity CT Elite offers you high performance with virtually no tradeoffs. High image quality at low dose is a scanner staple, providing up to 57% improvement in spatial resolution. This system is built to help personalize image quality depending on your clinical needs at low dose. Fast reconstruction with the majority of factory protocols in less than one minute with iDose4, and up to 15% less injected contrast with SyncRight. These essential fundamentals allow for enhanced imaging and patient care.

One of the innovations of the Ingenuity CT Elite is Ingenuity Data Acquisition and Sampling (DAS), which provides high-resolution 128-slice, thin reconstructions that are clinically equivalent to those resulting from ZFS standard resolution acquisition and exceed those resulting from ZFS high-resolution and ultra-high-resolution acquisitions. DAS is excellent for neuro, cardiac, spine, and abdominal CTA scanning, and has a 33% improvement in z-axis spatial visualization.

#### **Ingenuity CT Elite Key Features**

- iDose4 Premium Package
- iPatient
- Rate Responsive Toolkit for Cardiac capabilities
- Step and Shoot Complete
- Brain Perfusion and Jog Mode for 8cm of coverage
- kV stations of 80, 100, 120, 140 kVp
- 80 kW (105 KW equivalent)
- Ingenuity DAS
- MRC Ice X-Ray Tube designed for long life
- 4 cm of coverage for better patient compliance

#### **Features**

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 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 with less stress and greater confidence, 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 CT 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.

### *Detector*

Detector design is fundamental to the objective of acquiring high quality images while managing patient dose. Unlike single matrix detectors that simply sum elements, Philips designs configuration-specific detectors that minimize the separation between elements to always provide the highest geometric detector efficiency. Direct-to-digital signal conversion with TACH2 technology reduces dose and improves image quality.

### *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*

0.4, 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.

### ***Fast Preview***

Display real-time 512x512 matrix image reconstruction and 5mm x 5mm contiguous slice display with helical acquisition or off-line reconstruction. Images can be modified for window width and level, zoom, and pan prior to larger matrix reconstruction at the end of the acquisition.

### ***Adaptive filtering***

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

### ***RapidView IR Reconstruction***

RapidView 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 into your department. RapidView 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 helical scanning.

### ***Ultra High Resolution Matrix Sizes***

Exclusive to Philips, 768 x 768 and 1024 x 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.

### ***Cardiac***

#### ***Step & Shoot Complete***

Step & Shoot Complete enables low dose, axial CT imaging of either the heart or the entire chest. This axial prospective ECG-gated acquisition technique uses a large collimation to achieve full heart coverage with sub-millimeter, isotropic resolution within a short breath-hold. Arrhythmias are

---

detected by proprietary algorithms; scanner acquisitions are adjusted accordingly. Post-processing may be performed on existing coronary CT software. This axial prospective ECG-gated acquisition technique uses large collimations to acquire and reconstruct datasets of the entire chest expanding visualization from the coronary arteries to central and peripheral vascular within the thorax.

#### *RateResponsive CV Toolkit*

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:

#### *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-triggered dose modulation reduces tube current up to 80% during acquisition of non-desired phases (estimated overall dose reduction 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 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*

Prospectively triggers axial scans using Philips' patented Beat-to-Beat Variable Delay Algorithm for accurate and reproducible calcification scoring studies.

#### *Integrated ECG Monitor*

Philips' advanced ECG monitor is used for gated cardiac scans. Integrated design eliminates the need for an additional ECG monitor and stand in the scan room.

#### *COBRA Reconstruction (COBRA Cardiac)*

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

#### *Cardiac Viewer*

A comprehensive cardiac review application that allows quick visualization of one or more cardiac phases, synchronization of multiple cardiac phases with interactive slab-MIP tools for review purposes, cine mode for cardiac axes views and a calculation of End Systolic Volume (ESV), End

---

Diastolic Volume (EDV), Cardiac Output (CO), and Ejection Fraction (EF) for ventricular functional assessment.

#### *Calcium Scoring*

Provides Agatston, Volume, and Mass scores. Incorporates a database of greater than 5,000 asymptomatic multislice calcium scoring scans.

#### *CT Reporting*

Provides capabilities for editable paper, print, and electronic clinical reports; including display of key images and results. Reports are available for paper or electronic distribution to referring physicians, patients, or for medical records.

#### **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 iCT platform employs a number of features that help provide high dose efficiency.

#### *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 CT DIvol 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 CT DIvol 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.

#### *Jog Scan*

Provides up to 80 mm of organ coverage 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.

#### *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.

#### ***Dynamic Focal Spot***

Dynamic Focal Spot (DFS) doubles the data sampling density from the detectors effectively doubling the number of detectors and providing ultra-high spatial resolution in axial and spiral scanning.

#### *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 right 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 survivals.

#### *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**

#### *Vessel Analysis*

Ingenuity CT Elite offers a set of tools for general vascular analysis. It allows the user to easily remove bone, and extract and segment the vessels to quickly perform typical measurements such as intra-luminal diameter, cross sectional lumen area, and length of vessel's segments, and angle of the vessels. The package allows the user to display the dataset using volume rendering, Average, or MIP with cross sections images that can be used to delineate aneurysm, presence of mural calcification and lining mural thrombus, branch vessel (celiac, mesenteric, renal) and the ilio-femoral arterial runoff circulation.

#### *Brain Perfusion (for Console)*

Philips' Brain Perfusion application differentiates areas of increased blood volume and decreased blood flow and presents this information in a Summary Map that may help to distinguish between still-viable and non-viable infarcted tissue. Brain Perfusion provides motion correction, noise reduction, and ease-of-use to maximize efficiency.

Using serial CT scans obtained with intravenous injection of contrast, Brain Perfusion derives perfusion information from the time-density curves based on the uptake of injected contrast material and subsequent tissue enhancement. The application 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 Summary Maps.

Includes Functional CT (for Console), which is useful for organ (e.g., liver, kidney, prostate) perfusion. Functional CT provides both arterial and portal perfusion measurements for studying the liver.

#### *Curved MPR*

With the Curved MPR feature, MPR (Multiplanar Reformatting) curved cuts along vascular structures can be defined on Maximum Intensity Projection (MIP) or volume rendered images to display panoramic and cross-sectional views that accurately visualize the vasculature.

#### *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:

- *Survival Plan*

### **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.

### **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

### **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).

Ref# 618619620621-20110921

<b>2</b>	<b>Bariatric Table</b>	<b>1</b>
The Brilliance 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.		

Patient Support 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 (Ingenuity CT, Brilliance 40 and 64)  
                                     0.5 to 100 mm/sec (Brilliance 6, 10, 16, Big Bore)  
 Load/Unload Speed: 0.5 to 185 mm/sec (iCT, Ingenuity CT, 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:* 295 kg (650 lbs)

*Floating tabletop:* Carbon-fiber table top with foot pedal and handrail control for easy positioning and quick release.

The Bariatric Table 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

<b>3</b>	<b>Operator's Manual - English</b>	<b>1</b>
<b>4</b>	<b>Keyboard Language - English</b>	<b>1</b>
<b>5</b>	<b>Computer Table</b>	<b>1</b>

6	<b>SyncRight (WO Injector)</b>	<b>1</b>
	<p>SyncRight enables bi-directional communication between the scanner and SyncRight Injector. This communication allows for improved workflow.</p>	

**Medrad Stellant P3T PA:**  
Medrad Catalog # 3028465  
P3T PA (Pulmonary Angiography) tailors each patient's contrast protocol based on four primary components:

- P3T PA software enables increased diagnostic studies by fitting into the established CTPA workflow and making consistent administration of personalized dosing practical.

7	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	<b>Head-Arm Rest Pad</b>	<b>1</b>
<p>The Head &amp; 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.</p>		

10	30 Min Console UPS	1
----	--------------------	---

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

- 11 **P3T Cardiac** 1
- Medrad Stellant P3T Cardiac:**  
Medrad Catalog # 3014849  
The Medrad P3T Cardiac Protocol Optimization Software significantly enhances vascular attenuation especially in the distal segments of the coronary tree. P3T Cardiac SW, computes custom injection protocols as well as scan timing for each patient, enabling personalized care and patient safety while maintaining efficient workflow.

Target Availability: With Results Driven Scanning  
Prerequisite: SyncRight

Philips does not warranty the Medrad Stellant CT Injector System or its options but will pass on the Medrad warranty. Medrad 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 Medrad, including parts, travel, or labor to fulfill the terms of the warranty, during normal business hours (8:30am to 5:00pm, local time, Monday through Friday, except holidays).

- 12 **P3T Abdomen** 1
- Medrad Stellant P3T Abdomen:**  
Medrad Catalog # 3018741  
P3T Abdomen enables clinicians to automatically calculate and deliver personalized contrast injection protocols. It is indicated for use with CT imaging of abdominal organs (i.e. liver, pancreas, and kidneys). The P3T Abdomen automatically adjusts contrast volume based on scientific methods, according to patient, procedure, and prescribed physician parameters. P3T Abdomen facilitates consistency amongst clinicians in delivering a personalized contrast injection protocol. P3T Abdomen aids in patient safety by tailoring contrast volume according to unique patient-imaging needs. Added safety constraints on Maximum Iodine Load and Maximum Flow Rate will help ensure individualized protocols are compliant with a clinician's practice.

Target Availability: With Results Driven Scanning  
Prerequisite: SyncRight

Philips does not warranty the Medrad Stellant CT Injector System or its options but will pass on the Medrad warranty provided in countries where MEDRAD operates. In these countries Medrad or a MEDRAD authorized Distributor warrants each new injector system; including control unit, display control, remote panel and injector head 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 Medrad, including parts, travel, or labor to fulfill the terms of the warranty, during normal business hours (8:30am to 5:00pm, local time, Monday through Friday, except MEDRAD recognized holidays).

- 13 **SyncRight Injector - OCS** 1  
**Medium**

This injector comes with an Overhead Counterpoise system with a ceiling column length of 850 mm (33.5").

The Stellant CT Injection System is comprised of the injector head located in the screening room and a touch screen Display Control Unit (DCU) and Base unit, which is typically located in the control room. The three components are connected by a communication link.

Stellant D with DualFlow option is more than a saline flush after a contrast bolus. Now you can inject both contrast and saline at the same time. The key is the simultaneous injection capability of the DualFlow option. DualFlow enables variable ratios of plunger motion from the contrast and saline syringes simultaneously. With the proper ratio, left and right heart ventricles can be illuminated uniformly for improved image quality.

Philips does not warranty the Medrad Stellant CT Injector System but will pass on the Medrad warranty. Medrad 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 Medrad, including parts, travel, or labor to fulfill the terms of the warranty, during normal business hours (8:30am to 5:00pm, local time, Monday through Friday, except holidays).

15	INTL OnSite Travel - DOD Only	2
----	-------------------------------	---

This package covers travel expenses for International education required by the United States Department of Defense. Based on the destination country, additional quantities of this item may be purchased as required. Specific travel details will be communicated during the scheduling process. Note: Due to the nature of these arrangements, Philips cancellation/rescheduling policy strictly enforced. Education expires one (1) year from equipment installation date (or purchase date if sold separately).

16	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.

17	Food Transpt Lodging for Cleveland Biomed Training	22
----	---	----

Includes one (1) day of modest lodging, ground transportation, and meal expenses in Cleveland, Ohio for one (1) attendee. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Although this part is only for one day, it is sold in multiple quantities to account for entire length of course. Expires one (1) year from the earlier of equipment delivery date or purchase date.

18	CT3021 Brilliance Air Family	1
----	------------------------------	---

## Brilliance Air Family

Course Number: CT3021

System Codes:

Course Title: Brilliance Air Family

Course Length: 10 days

Delivery Method(s): Lab-based training

Modality: CT

Location: CTC, PHC, SLC

Target Audience: Service Engineers, (BioMeds in NA only)

DESCRIPTION:

The customer service engineer who completes this course will be able to troubleshoot, repair and maintain any of the seven systems in the Brilliance Air Family:

Brilliance Air 6/10/16  
Brilliance Air 16Power  
Brilliance Big Bore  
Brilliance Air 40-slice  
Brilliance Air 64-slice (U or TDMS configurations)

**PREREQUISITES:**

CT3020 – Brilliance/Ingenuity/iCT Gateway

Following are required if not completed as a pre-req for a previous course:

FC9002 Safety

FC9003 Imaging Systems Safety

FC9004 Regulatory

E-Learning Located AT:

<https://www.theonlinelearningcenter.com/default.aspx?ReturnUrl=%2fMain.aspx>

## COURSE OBJECTIVES:

At the end of this course, the student will be able to:

### System Overview

follow the procedures in the Installation Manual to install the Brilliance system

demonstrate safe practices when working with, in or around a Brilliance scanner

physically identify system covers and follow the procedures to remove, replace and align them

### Operator Interface

Identify a Gantry Controls-related failure to the lowest Field Replaceable Unit using a time effective method

Follow the instructions provided to calibrate or adjust the components related to the Operator Interface

Follow the instructions to perform key system operations related to the Operator Interface

Physically identify Field Replaceable Unit components of the gantry controls and follow the procedures to remove, replace and align them

### Power Distribution

Identify a power distribution-related failure to the lowest Field Replaceable Unit using a time effective method

Follow Installation instructions to connect the power distribution components of the system

Follow the prescribed safety methods to avoid electrical and ESD hazards pertaining to power distribution

Physically identify Field Replaceable Unit components of the power distribution and follow the procedures to remove and replace them

### Communications

Identify a communications-related failure to the lowest Field Replaceable Unit using a time effective method

Identify and use the procedures to remove, replace and align the Field Replaceable Units related to communications

### Service Tools

Identify and use key service tool diagnostic to diagnose failures in the system in a time effective method.

### DMS (Data Measurement System)

Identify a DMS/TDMS-related failure to the lowest Field Replaceable Unit using a time effective method

Physically identify Field Replaceable Unit components related to the Data Measurement System and follow the procedures to replace them

### High Voltage

Identify a high voltage system-related failure to the lowest Field Replaceable Unit using a time effective method

Physically identify Field Replaceable Unit components related to the high voltage system and follow the procedures to remove and replace them

### Rotor Motion

Physically identify Field Replaceable Unit components related to rotor motion and follow the



procedures to remove, replace and align them  
 Identify a rotor motion-related failure to the lowest Field Replaceable Unit using a time effective method  
 Beam Path  
 Identify a collimator-related failure to the lowest Field Replaceable Unit using a time effective method  
 Physically identify Field Replaceable Unit components of the beam path and follow the procedures to remove, replace and align them  
 Perform calibrations related to the collimator to ensure accurate CT image quality  
 Image Quality  
 Perform the constancy tests  
 Perform acceptance testing  
 Calibrate the Brilliance Air scanner

\* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF A PHILIPS RIGHTFIT SERVICE AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

Revision: 20090707

19

**CT3020**  
**Brilliance/Ingenuity/iCT**  
**Gateway**

1

Brilliance/Ingenuity/iCT Gateway

Course Number: CT3020

System Codes: NA.

Course Title: Brilliance/Ingenuity/iCT Gateway

Course Length: 5 days

Delivery Method(s): Lecture/Lab

Modality: CT

Location: Training Centers

Target Audience: Philips Service Engineers, Customer Engineers

DESCRIPTION:

This course contains the material required for a FSE not trained on the Brilliance (air) CT system to prepare to attend the Brilliance Air system course or the Brilliance iCT differences course. The course provides the engineer with the knowledge and the skills required to safely install, calibrate and repair the Couch, CIRS and Host subsystems. In addition, the FSE learns the System operation, Software installation and Remote Services Network configuration processes.

PREREQUISITES:

CT1020 CT Basics Skills Virtual Class

FC9002 Safety

FC9003 Imaging Systems Safety

FC9004 Regulatory

E-Learning Located AT:

<https://www.theonlinelearningcenter.com/default.aspx?ReturnUrl=%2fMain.aspx>

COURSE OBJECTIVES:

At the end of this course, the student will be able to:

- Operate a Brilliance System
  - Identify failures pertaining to the operator interface
  - Use Gantry State information to troubleshoot system problems
  - Troubleshoot problems related to Gantry communications
  - Follow prescribed Safety procedures
  - Use available Service Tools for troubleshooting
  - Calibrate Gantry angulation and couch
  - Perform Planned Maintenance tasks following the recommended schedule
  - Identify and perform the procedures to Remove and Replace key FRUs
  - Perform corrective maintenance for the Couch, CIRS, Host and Gantry Angulation and Communication subsystems
  - Perform documented software installation procedures
-

- Enable Philips service level diagnostics with IST/ICE

\* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF A PHILIPS RIGHTFIT SERVICE AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

Revision: 20090707

20

#### **CT3003INGENUITYCT4.0**

1

Course Number: CT3003

Course Title: Ingenuity CT v4.0 software

Course Length: 3 days

Delivery Method(s): Virtual Classroom/Simulators

Modality: CT

Location: CTC/Best/SLC Virtual Training classrooms using Adobe Connect

Target Audience: Service Engineers/BioMeds

#### **DESCRIPTION:**

This course provides the engineer with the comprehensive knowledge and skills required to use the v4.0 software to operate and calibrate the Ingenuity CT system. This course is a blended learning course, using virtual machine simulators and Virtual Classroom instruction.

#### **PREREQUISITES:**

Ingenuity CT v3.5 CT3001

#### **COURSE OBJECTIVES:**

---

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

- Discuss the Ingenuity CT software installation process
- Demonstrate ability to plan and perform basic scans including Surview, axial and helical studies
- Demonstrate image manipulation by performing MPR and 3D reformations
- Demonstrate window adjust and center values to obtain desired image
- Demonstrate their ability to perform a functional scan
- Use the Image Directory menus
- Demonstrate image archiving and restore
- Identify selectable options in the Preferences button on the scan directory
- Perform software-only calibrations on the Ingenuity scanner
- Execute system performance validation tests
- Use of the Philips Support Connect (PSC) tools to troubleshoot and diagnose system problems

21

### **Rigging Charges**

1

Removal of existing CT

---