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BrightView X -

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BrightView X Camera - 9.5 mm (3/8") crystal

BrightView X is a general-purpose variable angle gamma camera that is field-upgradeable to BrightView XCT for localization and attenuation correction. BrightView X provides exceptional flexibility, enhanced nuclear medicine-centric workflow, and a platform for emerging molecular imaging agents. Integrated CloseUp technologies provide excellent ability to maintain close proximity to the patient for optimized resolution.

PinPoint Digital Detectors

PET-based PinPoint technologies include digital detectors and electronics with advanced iterative positioning algorithms.

- 59 Photo-multiplier tubes interfaced to 59 A/D Converters
- Dual NaI, 54 cm x 40.6 cm (21.25" x 16") FOV detectors, 9.5 mm (3/8") thick crystal
- Enhanced resolution and uniformity detector specifications
- Energy independent performance up to 300 keV
- Useful detector energy range: 56 to 662 keV
- Digital real-time energy, linearity, and uniformity correction

Highly stable open gantry design

BrightView X has an open gantry with 10-axis design to provide exceptional mechanical stability and precise center of rotation. Advanced robotics feature automatic set-up of gantry, detectors, collimators, and patient table for improved workflow; automatic, single button touch for bed imaging, quality control, upright imaging, and other positions.

- CardioTrac: Automated cardiac setup and with tracking zoom electronics to avoid patient truncation
- CloseUp imaging for highest resolution with minimized patient-to-detector distance
- Generous gantry aperture of 91.4 cm (36 inches) for imaging large patients and for unobstructed patient monitoring
- LCD touch screen camera interface on the gantry
- Ergonomically designed, wireless (RF) hand controller
- Caudal-cephalic tilt- +/- 15 degrees perpendicular to the axis of rotation

Auto Body Contouring

BodyGuard automatic body contouring for SPECT and TB applications uses a conductive method (electrical impedance) to "see" the patient and other conductive material, such as the imaging pallet and wet IV lines. User programmable scan distance.

Patient Table

BrightView X comes with a general-purpose imaging table with vertical and translation control. It is permanently mounted at the far end of the table from the gantry. The table may be easily pivoted to either side of the room. The table has an open design for easy patient loading, patient restraining, and positioning. The table supports a 227 kg (500 lbs) patient weight limit.

JETStream Acquisition System

The JETStream is a user and site configurable acquisition system with an easy to use graphical

user interface. Patients may be pre-scheduled in the JETStream, linked to the desired acquisition protocol with the click of a single button. Other key features include:

- Smart Step: Provides tremendous workflow efficiency with customizable and automatic acquisition setup
- Up to 16 energy windows: Important for multi-radionuclide imaging, advanced scatter corrections, and molecular imaging agents
- Basic Concurrent Imaging: Ability to save a single acquisition step into up to 3 simultaneous datasets (each with independent matrix, zoom, energy windows, gating parameters, stop criteria, and data type) that provide the benefit of improved throughput, optimized image quality, and additional diagnostic data
- 48.3 cm (19") Flat LCD monitor (wall mounted or cart-based)
- Includes keyboard and trackball, or mouse
- Linux server (x86-64, 3.4 GHz Intel Pentium 4, 1 GB DDR2 memory minimum)
- Windows-based user console client. (X86-64 3.2 GHz Intel Celeron D, 1 GB DDR2 memory minimum)
- Minimum of 160 GB hard drive for server (60 GB for image data, 80 GB for list mode data)
- Minimum of 80 GB hard drive for client
- Recordable DVD drive

DICOM Export and Storage Commit are standard.
Compatibility tested with EBW-Nuclear Medicine Applications Suite.
Includes one (1) camera interface cabling and system installation.

NM EBW OffSite Education: Philips will provide one (1) technologist, as selected by customer, with in-depth didactic, tutorial, and hands-on training covering basic applications of workstation functionality. This class is a prerequisite to Handover OnSite Education. In order to provide trainees with the ability to apply their new knowledge most effectively, this class should be attended no earlier than two weeks prior to system installation. This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on equipment configuration, geography, and availability. Due to program updates, the number of class hours are subject to change without notice. Customers will be notified of current, total class hours at the time of registration. 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 989801292164 (NM Full Travel Package Offsite) is purchased with all Offsite courses.**

Handover OnSite Education: Philips Education Specialists will provide twenty-eight (28) hours of OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. The first four (4) hours onsite will be spent configuring new equipment for specific clinical needs, as well as reviewing important safety features and quality procedures. Course content is intended to provide the framework for operational workflow and clinical applications as they pertain to your site specifically. Students should attend all 28 hours, and must include all OffSite education attendees. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. 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.

FollowUp OnSite Education: Philips Education Specialists will provide twenty-four (24) hours of Follow-Up Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Customer must have used the system for at least 30 days. 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.

Recommendations:

To enhance customer satisfaction with the camera and workstation over the first year of use, **989801292162 (NM FollowUp OnSite 16h)** should also be purchased. To maximize customer satisfaction with workstation software options, **989801292153 (NM Add OnSite Clin Educ 08h)** should be purchased for options 4DMSPECT, Syntegra, AQMD, AQ Xcelera, and JetPack. To assist customers in maximizing the potential of their workstation, **989801292277 (NM Adv JETStream Offsite 20h)** should also be purchased with corresponding **989801292164 (NM Full Travel Package Offsite).**

The above education entitlements expire one (1) year from equipment delivery date.
Ref#351344353-091023

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| 3 | ** | BrightView X Local Kit-ENG | 1 |
| | | BrightView X localization kit includes keyboard, system labels, GUI software, Quick Reference Guide, Release Documents, and electronic copy of User Manual in English | |
| 4 | ** | Wall Mounted Acquisition | 1 |
| | | BrightView XCT wall mounted flat LCD monitor for the acquisition station | |
| 5 | ** | DICOM Modality Worklist | 1 |
| | | DICOM Modality Worklist software for the BrightView camera provides access to patient information using DICOM standard specifications. It enables receiving data from an Information System (i.e., Patient Name, Patient ID, Study Type, Accession Number and Sex) to avoid typing errors, time to type information and gives an update on the patients scheduled for the day. | |

With DICOM Modality Worklist Management only patient demographics and study identification parameters will be received from a RIS. This functionality does NOT transfer any image data. Current System tested: Mitra PACS Broker, which acts as an interface with most of the RIS systems of the market. For more precise information, an evaluation can be done by the Philips Healthcare Custom Network Department.

NOTE: This is a software-only package; it does not include hardware or remote node software. A TCP/IP network environment must be established and functional including assignment of IP addresses

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| 6 | ** | DICOM Modality Perform Procedure Step | 1 |
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DICOM Modality Performed Procedure Step (MPPS) software for the BrightView camera provides acquisition status updates to the RIS using DICOM standard specifications. It enables sending context data to an Information System (i.e., Series Instance UID, image Instance UIDs) to enhance department workflow.

With DICOM MPPS only acquisition status information will be sent to a RIS. This functionality does NOT transfer any image data. Conforms to IHE profiles- passed conformance to Scheduled Workflow profile and NM Image profile as a modality at the IHE Connectathon. For more precise information, an evaluation can be done by the Philips Healthcare Custom Network Department.

NOTE: This is a software-only package; it does not include hardware or remote node software. A TCP/IP network environment must be established and functional including assignment of IP addresses.

NOTE: This software requires DICOM Modality Workflow

7	**	5.0 KVA UPS Power Conditioner	1
		5.0 KVA, 200~240 VAC (50/60 Hz) Auto Switch System provides backup power for Nuclear Medicine procedures only. System does not provide backup power for the x-ray generator.	
		<ul style="list-style-type: none"> • APC Smart UPS RT 5.0 KVA , 208V • Input voltage range of 160-280 V • Input Frequency 50/60 Hz +/- 5 Hz (auto sensing) and single phase • Input power is connected to the unit via 30-amp twist-lock plug (L6-30P) • Two output receptacle (L6-30R) and two (L6-20R) provide 200, 208, 220, 230 and 240VAC (selectable) power • Self-diagnostics and front-panel status display • Modular design enables easy usage • Manufacturer's standard two-year limited warranty 	
8	**	UPS Cable Kit for XCT	1
		Cables required for the installation of a UPS with a BrightView XCT system.	
9	**	BV XCT Premium Comfort Kit	1
		Premium patient comfort kit includes:	
		<ul style="list-style-type: none"> • Memory foam pallet pad • Wide Velcro body wrap • Premium IV pole • SPECT shoulder support • Knee support wedge • Total Body arm boards • Slicker to improve large patient comfort during pallet indexing 	
10	**	Brain Head Holder and Pads	1

Head holder for Brain SPECT. Mounts to the standard carbon fiber XCT pallet and compatible with both SPECT and SPECT/CT protocols.

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| 11 | ** | Rigid Shoulder Support & Pad | 1 |
| | | Rigid SPECT shoulder support and pads for BrightView family. | |
| 12 | ** | Adjustable Knee Wedge | 1 |
| | | Velcro adjustable knee wedge for BrightView family. | |
| 13 | ** | IVY BIOMEDICAL CARDIAC GATE | 1 |
| | | IVY Biomedical Cardiac Gate | |
| | | ECG gating system for Medical Imaging workstation. | |
| | | System provides 7" CRT display of ECG and trigger indicator with variable gain control that automatically adjusts to individual ECG amplitude. | |
| | | System includes 6-foot 3 ECG cable. | |
| 14 | ** | XCT LEHR Collimator Pair | 1 |
| | | Low-energy (140 keV) high-resolution collimator pair with exchange cart for semi-automatic and simultaneous exchange of both collimators. | |
| 15 | ** | XCT HEGP Collimator Pair | 1 |
| | | High-energy (364 keV) general-purpose collimator pair with exchange cart for semi-automatic and simultaneous exchange of both collimators. | |
| 16 | ** | XCT HEPH Collimator | 1 |
| | | High-energy (364 keV) pinhole collimator for BrightView, used for thyroid, pediatrics, and small organ imaging. Includes semi-automatic exchange cart. | |
| 17 | ** | 5MM Insert Aperture for HEPH | 1 |
| | | 5mm collimator aperture designed for the high-energy pinhole (HEPH) Collimator | |
| 18 | ** | Intrinsic 4-Bar Phantom | 1 |
| | | Intrinsic and extrinsic 4-Bar quadrant phantom: each model contains four sets of lead bars measuring resolution at 0.4, 0.3, 0.25, and 0.2 cm (1/6, 1/8, 1/10, 1/12 inch) | |
| 19 | ** | SPECT Phantom Holder | 1 |
| | | Carbon fiber pediatric pallet for the BrightView XCT patient table that may also be used as a SPECT phantom holder to allow for close imaging without pallet interference. | |
| | | <ul style="list-style-type: none">• Patient weight capability of 27.3 kg (60 lbs) distributed over 50.8 cm (20 inches)• 20.3cm and 27.9 (8-inch and 11-inch) wide imaging sections for SPECT imaging | |

20	**	Holder for Flood Sources	1	
		Source holder to support sheet sources while suspended between the detectors		
21	**	Under Floor Table Cable Kit	1	
		Under Floor Table Cable Install Kit		
		Brackets and installation kit to allow the BrightView table cable to be installed under the customer's floor. Customer is responsible for all floor trenching to Philips specifications and any retiling of the floor.		
22	**	BrightView X User Manual-ENG	1	
		Printed English language fully illustrated Instructions for Use manual for BrightView X		
23	**	24 Hours of Additional OnSite Clinical Education	1	
		Clinical Education Specialists will provide twenty-four (24) hours of tailored Nuclear Medicine 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.		
24	**	Full Travel Package for OffSite Education	1	\$
		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.		
25	**	NM Addl ISP Essential OffSite Education 20h	1	
		Philips will provide one (1) technologist, as selected by customer, with in-depth didactic, tutorial, and hands-on training covering basic applications of workstation functionality. This class is a prerequisite to Handover OnSite Education. In order to provide trainees with the ability to apply their new knowledge most effectively, this class should be attended no earlier than two weeks prior to system installation. This twenty (20) hour class is located in Cleveland, Ohio, and is scheduled based on equipment configuration, geography, and availability. Due to program updates, the number of class hours is subject to change without notice. Customers will be notified of current, total class hours at the time of registration. 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 989801292164 (NM Full Travel Package Offsite) is purchased with all Offsite courses. Education expires one (1) year from equipment installation date (or purchase date if sold separately).		
26	**	Airfare to Cleveland for Biomed Training	2	
		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.		

- Install and configure the additional software for the X-Ray system
- During this course the engineer will be provided with knowledge of:
- System diagrams of the BrightView XCT
 - BrightView XCT Operating and Diagnostics tools
 - Image processing and data flow of the SPECT and X-Ray side of the system
 - Basics in Nuclear Medicine and radiation safety
 - Power distribution of the BrightView XCT
 - The system network and motion control architecture
 - The functional theory of the X-Ray components

KEY TOPICS:

Labs and Lectures

Lectures

Overview of BrightView XCT

Overview of BrightView XCT power distribution

Overview of BrightView XCT network motion control architecture

Additions and changes to the Gantry Software

BrightView XCT exposure control

High Voltage Generator components and theory

Lab session

System Overview, Component Identification & Familiarization Lab

System Interfacing and Software Familiarization

The GenWare Utility

High Voltage Generator Troubleshooting

Additional Gantry Calibrations and Offsets

X-Ray Component Calibrations

DESCRIPTION:

This course provides the student with the necessary information to be able to configure, operate, calibrate and troubleshoot the BrightView systems. You will be guided through the different features and options of the system and will be able to operate the system at a basic level. The course provides theory and labs covering the BrightView gantry, table, detector and electronics. The labs will provide opportunities to perform all calibrations, tests, quality checks, basic troubleshooting and corrective maintenance on the BrightView system.

PREREQUISITES:

Knowledge of:

Basic X-Ray fundamentals along with completion of the following courses:

NM9111 Nuclear Fundamentals CBT, or Nuclear Experience

XD9115 X-Ray Basics, Part 1 CBT, or X-Ray Experience

CS9043 EBW CBT

FC9002 Safety

FC9003 Imaging Systems Safety

FC9004 Regulatory

FC9005 Service Tools

FC9009 Clinical Terminology

FC9010 Operating Systems

FC9011 Hardware

FC9012 System Performance

1	**	SPECT	1
		SPECT	
2	**	Number of Concurrent Users	1

The Resource Based License (RBL) is a new flexible licensing offering, in which the customer can choose a granular number of concurrent advanced visualization users based on the specific needs of the customer

3		IntelliSpace IX Workstation	1
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The IntelliSpace IX Workstation is a single-user advanced multimodality imaging system workspace that can support radiology, cardiology, oncology, neurology, orthopedics, and other specialties' imaging needs, to support your imaging workflow. Clinicians can review the results of multiple imaging modalities – including studies acquired from multiple vendors' imaging equipment – from one workstation.

The IntelliSpace IX Workstation offers powerful capabilities, both standard and optional. Standard capabilities include:

- Multivendor compatibility that makes image data and applications available for all CT, MR, Nuclear Medicine images
- Guided Task workflow walks users through each processing stage from start to finish
- Use of bookmarks, interactive snapshots and other convenient tools to increase efficiencies and minimize training needs
- Multimodality Viewer for display of CT, MR and Nuclear Medicine datasets
- Smart MR Viewing, smart linking, cine movie loop for MR datasets
- Multimodality Fusion: PET-CT, SPECT-CT, NM-CT, CT-CT, CT-MR, and MR-MR
- Automatic Registration: PET-CT, SPECT-CT, CT-CT and MR-MR
- PET/CT Alpha blending and 2D/3D SUV calculations
- Display of multi-frame secondary captures
- 3D Volume rendering, MIP, VIP, minIP, SurfaceMIP
- Slab Review capabilities including regional investigation and curved MPR
- Volume Explorer: for instant and interactive seed-growing 3D segmentation
- “Glass View” to display bony structures in relation to 3D volumes
- Comprehensive DICOM Printing (“Filming”)
- DICOM 3.0 & IHE compliance

[IntelliSpace IX Workstation specifications](#)

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**NM Proces App Suite IX
Add_On**

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Provides a comprehensive analysis, and processing environment for Planar and SPECT studies on the IntelliSpace workstation IX .

NM Processing App Suite includes Renal, Lung, Bone /Whole Body, Cardiac (First Pass, Shunt and MUGA), Gastric, Liver, Gallbladder, Esophageal, and Thyroid/Parathyroid, applications. These applications are fully integrated with Viewing, Image and Curve Manipulation tools. The users can invoke these tools "when needed where needed". All applications support "state-of-the-art" protocol and preference management that allows the users to configure their workflow and usability "on the fly".

NM Processing App Suite includes also JETPack, a complementary suite of organ-specific applications for general nuclear medicine developed within IDL(TM) programming environment.

AutoSPECT Pro provides for SPECT and SPECT/CT reconstruction workflows with a goal of reducing the number of user interactions through protocols. It integrates into one user interface, the following:

- Fast and fully automated reconstruction and reorientation software with motion correction
- SPECT/CT registration and fusion display with alpha-blending and triangulation to facilitate CT AC
- Image review with fusion display

AutoSPECT supports CT-based attenuation and scatter correction for the following radionuclides: Tc-99m, Tl-201, In-111, Ga-67, I-123, Lu-177 and I-131.

The QA Suite provides a comprehensive set of tools to perform daily and periodic QA.

Notes:

- 1) One JETPack license is included with the NM Processing App Suite option on IntelliSpace IX Workstation.
- 2) For cardiac quantification/review, optional AutoQUANT, ECTb or Corridor4DM software is recommended

Add_On applications for existing / expanding customers

Prerequisite: IntelliSpace workstation IX and NM Review IX

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NM Astnsh Recon WS Add_On

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Astonish is a family of advanced reconstruction algorithms to improve image quality in SPECT by modeling the characteristics of the imaging system and removing the resolution losses due to distance-dependent blurring.

- SPECT Astonish includes 3-D OSEM reconstruction and resolution recovery with usercontrolled noise dampening SPECT reconstruction is provided for SPECT, gated SPECT and CT based attenuation correction protocols.

- SPECT Astonish supports CT-based attenuation and scatter correction for the following radionuclides: Tc-99m, Tl-201, In-111, Ga-67, I-123, Lu-177 and I-131

- Astonish Provides Enhanced image contrast and enhanced signal to noise ratio with sub-5mm resolution for SPECT reconstructed data.

Note: NM Astonish Recon Suite is compatible with the following Philips cameras only: CardioMD, Forte, BrightView, BrightView X, BrightView XCT, and Precedence.

Add_On applications for existing / expanding customers

Prerequisites: IntelliSpace Portal v5, NM Processing App Suite, or SPECT Review/Processing LX.

9	**	NM Review IX Add_On	1
		<p>NM Review application that provides a comprehensive review and analysis environment for Planar, SPECT, SPECT/CT, and PET/CT studies</p> <ul style="list-style-type: none"> • Image display modes for PET, PET/CT, PET/MR, CT, MR, Planar, SPECT and SPECT/CT data in all orthogonal planes and registered image displays • Viewer for oblique slices (Slab View) and ability to change slice thickness on the fly • Fused 3D volume rendering • Advanced visualization tools supporting 4D TOF data • Automated and Interactive multimodality 3D co-registration • Quantitative 2D and 3D measurement tools (SUV) • 3D ROI generation for tumor segmentation • Layout editor for user customizable review layouts • Image and curve manipulation tools • Saving ROIs as DICOM RT for export to radiation treatment planning systems <p>NM Review application provides multimodality co-registration tools for automated 3D registration of multimodality studies (PET, SPECT, CT and MR). The following automatic co-registration methods are supported: Mutual information, cross correlation, and local correlation. It also supports an interactive registration method based on fiducial points selected by the user</p> <p>Add_On applications for existing / expanding customers</p> <p>Pre-requisite: IntelliSpace Workstation IX</p>	

10	**	Pre-Fetch	1
		<p>The IntelliSpace Portal Prefetch option automatically retrieves the previous studies of new exams that are planned or arrived to the Portal system. The IntelliSpace Portal queries 1 or more predefined remote devices (typically PACS) for the previous studies. In this case Prefetch will transfer the previous studies into the local folder to which the new study arrived, saving the technologist and clinical time waiting for studies to arrive using strictly manual DICOM query/retrieve.</p> <p>The decision which studies to Prefetch are based on predefined rules, that are configurable by user.</p> <p>The following types of pre-fetch are supported with IntelliSpace Portal v5:</p>	

- Auto-Prefetch via the Scheduled Worklists on the RIS (i.e. DMWL)
- Prefetch based on the New Study Arrival (i.e.: When a new Study of a Patient arrives at a Portal, his priors would automatically be retrieved from PACS).
- Manual Prefetch: User can do a manually by clicking on a Study to fetch the priors.

Prerequisite: Intellispace Portal V5 (or higher) or IX workstation

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ICAP IX Portal Entitlement

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Clinical Education Program for IntelliSpace Portal IX Workstation:

Intellispace IX Handover Education: Clinical Education Specialists will provide twenty-four (24) hours of Multi-Modality 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.

Intellispace IX Followup Education: Clinical Education Specialists will provide twenty-four (24) hours of Follow Up Multi-Modality 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 #718719-120208**