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- 15.0 inch high resolution display with wide viewing angle
- Quick Keys and Active Mode
- Laptop style Alphanumeric QWERTY keyboard
- 8 TGCs and 2 LGCs
- Ergonomic carrying handle
- Includes AC adapter , power cord and system battery pack
- 2 USB flash drives on system
- 80 GB hard drive
- Internal DVD RW drive

Architecture:

All-digital compact broadband beamformer, Microfine 2D focusing with Dynamic Focal Tuning that includes Advanced X-Res signal processing, 170 dB full time input dynamic range 18,432 digitally-processed channels, Continuously variable steering in 2D, color and Doppler modes 2D Opt signal processing with 4X multi-line parallel processing and frequency compounding.

Intelligent Controls:

The CX50 has been designed to make portable exams easy and efficient. With a single button, iSCAN technology automatically samples data for a new level of 2D and Doppler optimization iSCAN one-touch Intelligent Optimization, iSCAN one-touch Intelligent Color Optimization, iSCAN Doppler one-touch optimization.

Transducers:

Supports Compact family of transducers featuring PureWave imaging technology in the S5-1, CX7-2t, C5-1, D5CWC. Also supports the high resolution S12-4, S8-3, C8-5 and L12-3 transducers. All transducers provide breakthrough frequency bandwidths and array configurations. These transducers also have ergonomically designed lightweight flexible cables and compact connectors.

Modes:

- 2D
- M-mode
- Anatomical M-mode
- Color M-mode
- Pulsed Wave Doppler
- Color Power Angio (CPA)
- Continuous Wave Doppler
- Invert and Color Invert

- Color compare mode
- Dual mode
- Duplex for simultaneous 2D and Doppler
- 2D Optimization Signal Processing
- Live Compare
- Tissue Harmonic Imaging (THI)
- Reconstructed zoom with pan (read zoom)
- Write zoom
- Pulse Inversion Harmonic imaging
- Adaptive Doppler
- Adaptive Color Doppler
- Color Tissue Doppler imaging
- Pulsed Wave Tissue Doppler imaging
- Active Native Data - manipulation of image data
- DICOM Networking
 - Ethernet @100Mb/second Includes DICOM wired and wireless "G" and "N".
 - Provides DICOM 3.0 network print and store and storage commitment
 - Performed Procedure Step (pps)
 - Modality Worklist
- DICOM Structured Reporting

Cineloop review

- On-board workstation-class data management with thumbnail previews and storage of images, loops, and reports. Retrospective and prospective clip capture to internal drive or removable media
Integrated DVD/CD burning capability for storage of images or export in DICOM, JPEG and .avi for PC compatibility. Philips DICOM viewer option to imbed in media transfer for easy viewing of study on most PCs.
- Maintenance and Serviceability
- Remote Access for Expedient Clinical and Technical Support
- Flexible Service Agreements
- Clinical Application and Educational Support

Interventional Live 3D

Next-generation capability providing true volume rendered Live 3D, Live xPlane and multiplane 2D imaging using Compact X7-2t xMATRIX TEE transducer. Includes 3D ISCAN to enhance 3D imaging. Contains new enhancements for added workflow and clinical utility – Live Full Volume, Live 3D Zoom, Live 3D and Live 3D Color. These features work in conjunction with a new and easy to use all Live 3D Target Volume Rate control that offers complete flexibility to trade off volume, frame rate and resolution. Long loop capture allows continuous volume acquisition for retrospective selection of preferred beat(s). Includes a new 3D Orientation ICON, ability to measure basic 2D measurements while in 3D imaging, Dynamic face crop and a DVI-I output for external monitors.

Clinical Education

***2 days of Implementation Onsite Training (expires 90 days after install, provided Mon-Fri during normal business hours), a 2 Day offsite TEE University (expires 365 days after install) and one

****TRAVEL Disclaimer:** Travel & Accommodations for registered attendees. Each tuition includes one (1) participant's airfare from a North American customer location to a Philips North America Ultrasound Clinical Education training location with modest lodging, ground transportation and meal expenses for the course duration. Breakfast/dinner are provided by the hotel and lunch/breaks are catered by Philips Healthcare. All other expenses will be the responsibility of the attendee (ie. Baggage fees, meals while traveling, transportation to and from customer's home airport). Details are provided during the scheduling process. Note: 21 day Cancellation/Rescheduling policy is strictly enforced.

All Tuitions must be registered prior to the expiration date. The course chosen must be taken within 90 days of expiration.

CX50 : This clinical option includes Tissue Specific Imaging software and SonoCT for Cerebrovascular, Peripheral Vascular, Abdominal Vascular and Transcranial applications. The clinical option includes in-depth analysis and reporting packages for vascular applications including Transcranial Doppler analysis . Freehand 3D is also provided within this clinical option. This clinical option enables the C5-1, S5-1, L12-3, L15-7io and D5cwc transducers for vascular applications. This clinical option also includes Needle Visualization which utilizes advanced electronic beam steering technology to enhance viewing of the needle to assist the user in guiding the needle to the targeted anatomy – needle visualization requires the L12-3 transducer.

CX50 POC: This clinical option includes Tissue Specific Imaging software and SonoCT for Cerebrovascular, Peripheral Vascular, Abdominal Vascular and Transcranial applications. The clinical option includes in-depth analysis and reporting packages for vascular applications including Transcranial Doppler analysis. Freehand 3D is also provided within this clinical option. This clinical option enables the C5-1, S5-1, L12-3, L15-7io and D5cwc transducers for vascular applications. This clinical option also includes Needle Visualization which utilizes advanced electronic beam steering technology to enhance viewing of the needle to assist the user in guiding the needle to the targeted anatomy – needle visualization requires the L12-3 transducer.

Tissue Specific Imaging software for adult cardiac ultrasound applications. Display optimization software with Tissue Specific presets for adult cardiac imaging and Doppler applications. Analysis software package includes cardiac imaging protocol measurements and configurable reports and finding codes. Active native data for post-process optimization and advanced XRES adaptive image processing for improved tissue conspicuity. iSCAN intelligent one-button optimization for adaptive gain compensation in 2D, Doppler, Tissue Doppler Imaging and LVO contrast functions. Includes Live compare mode, cardiac High-Q Automatic Doppler Analysis and respiration waveform from chest impedance. Allows operation of S5-1, CX X7-2t and D2cwc transducers.

4	**FUS5048	Cart with Multi-port Adapter	1
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Highly mobile cart that features hardware module to support transducer switching among up to three imaging transducers at the touch of a button. Includes: 4 swivel wheels with 2 locking casters, rear handle, micro-positioning grips, quick-connect tray, storage shelf, footrest, internal isolation transformer, B&W printer brackets, integrated transducer connector holder, gel holders and cable management. Includes USB hub for additional connectivity.

5 **USA Power Cord** 1

6 ** **X7-2t Transducer** 2

Features compact connector designed for reliability and improved ergonomics. Compatible with both EPIQ and CX50 systems. Manufactured in accordance with the European Union's Restriction of Hazardous Substances (RoHS) directive.

X7-2t PureWave matrix array TEE Transducer for superior 2D quality. 7 to 2 MHz extended operating frequency range. Includes M-Mode, PW doppler, CW doppler, harmonics, true electrocautery suppression, and adaptive autocool.

Clinical Education

X7-2T Clinical Education; ***1 day of Implementation Onsite Training (expires 90 days after install, provided Mon-Fri during normal business hours), a 2 Day offsite TEE University (expires 365 days after install) and one subscription to E-Echocardiography.com (must be activated within 90 days of code notification). All offsite training includes travel, see travel disclaimer**

**TRAVEL Disclaimer: Travel & Accommodations for registered attendees. Each tuition includes one (1) participant's airfare from a North American customer location to a Philips North America Ultrasound Clinical Education training location with modest lodging, ground transportation and meal expenses for the course duration. Breakfast/dinner are provided by the hotel and lunch/breaks are catered by Philips Healthcare. All other expenses will be the responsibility of the attendee (ie. Baggage fees, meals while traveling, transportation to and from customer's home airport). Details are provided during the scheduling process. Note: 21 day Cancellation/Rescheduling policy is strictly enforced.

***Note: Philips Healthcare personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. The training sessions should be attended by the appropriate healthcare professional as identified by the department director. Repeat training for staff non-attendance will not be accepted. Site must be patient-ready to meet training expectations.

All Tuitions must be registered prior to the expiration date. The course chosen must be taken within 90 days of expiration.

7 ** **L12-3 Transducer** 1

Features compact connector designed for reliability and improved ergonomics. Compatible with both EPIQ and CX50 systems. Manufactured in accordance with the European Union's Restriction of Hazardous Substances (RoHS) directive.

L12-3 fine pitched, high resolution linear array with 12 to 3 Mhz extended operating frequency range for vascular, small parts, breast, musculoskeletal, contrast regional anesthesia and acute care applications

8 ** **English Manual** 1

This course provides technical instruction for biomedical engineers (hospital engineers) on the CX50 Ultrasound System. Students receive instruction on system components, theory of operation, disassembly, reassembly, preventative maintenance and safety checks. Hands-on labs train the students to verify proper equipment operation and diagnostic troubleshooting techniques. Philips support philosophy is explained to facilitate working successfully with our support professionals.

Upon completion of this course, the student will be able to:

- Operate the system to determine basic functionality
- Collect and deliver system status and failure information (logs and settings) to Philips support organization
- Disassemble and reassemble the major parts of the system
- Perform Preventative Maintenance and Mechanical adjustments
- Back-up and restore user presets
- Install and upgrade system software
- Set-up the system for DICOM communication
- Configure/enable remote connections

Key topics:

- Features
- Theory of Operation
- Disassembly and Reassembly
- System Administration

Prerequisites: Basic computer knowledge, Basic Ultrasound and Transducer knowledge, Networking and DICOM familiarity, ESD training, Electrical Safety Testing.

Accreditation: None.

Location: CTC; Cleveland, OH, USA.

Class Length: 3 days (excludes Saturdays, Sundays, and Philips holidays)

Materials:

- Instructor-presented power point presentations and demonstration videos
- Field Service Manual
- Test is on Philips Learning Center

1	**	3D Quantification - 3DQ Advanced	1
		<p>Cardiac 3DQ Advanced Plug In</p> <p>Provides display & manipulation of dynamic three-dimensional rendering and left ventricular (LV) volumes from the Philips Live 3D systems; Displays 3D Full volume renderings in grayscale or advanced colorization (map H); MultiPlanar Reconstruction (MPR) views provides unlimited anatomical planes from 3D volume; New iSlice generation run in the 3D viewer and is compatible with all Philips Live 3D dataset including color data, provides highly flexible short and long axis slicing tool and display up to 4x4 equally spaced MPR views to facilitate LV function visualization assessment; Measurements of LV endocardial Volumes, Stroke Volume (SV) and true 3D ejection fraction (EF) using a semi-automated border detection in 3D space; iCrop is also available allowing easy to use controls to access the structural information within the dataset; Computes global and regional LV volumes based on ACC 17-segment model; Displays global LV volume waveform and provides selective display of 17 regional volume waveforms;</p> <p>Offers timing assessment for each 17 minimal regional volumes and determine a synchronicity index for all volume segments or a user-selectable group of volume segments; Provides comprehensive report with summary of synchronicity indexes and displays regional Timing and Radial Excursion Parametric Images in Bull's eye representation.</p>	
2	**	Mitral Valve Quantification - MVQ	1
		<p>The Mitral Valve Quantification plug-in (MVQ) adds precise 2D and 3D quantification of the mitral valve anatomy and associated structures based on data acquired with Interventional Live 3D Echo Clinical option and the X7-2t transesophageal transducer; While Live 3D TEE provides views never seen before, MVQ provides quantification data available for the first time for cardiologists, cardiac surgeons, anesthesiologists and interventionalists; Based on the precise Live 3D TEE information, the MVQ plug-in provides a clinical decision support tool to improve diagnostic confidence, surgical planning, communication between clinicians and for the patient, and follow-up care; MVQ offers three use-models/protocols to assist clinicians in defining 3D landmarks on MPR views and build a 3D model, step by step, of the mitral valve annulus, anterior and posterior leaflet segmentation, improved coaptation line and leaflet trace, as well as mitral valve spatial relationship with the papillary muscles and aortic valve; The MVQ 3D model can be manipulated in the 3D space and be overlaid on the anatomical 3D view of the mitral valve; A user-defined measurement set is generated and displayed as well as a comprehensive report; In order to facilitate communication and definition of the selected results, clinicians can intuitively display each measurement on the 3D model.</p>	