

VAMC WHITE RIVER JCT, VT  
PO# 405-B30660

Line #	Description	Qty	e
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1	<b>Sparq Ultrasound System</b>	1	
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The Philips Sparq Ultrasound system is a mobile ultrasound system equipped with a simple user interface that is designed for non-traditional ultrasound users. The control panel has a 100% sealed, easy-to-clean tempered glass surface. To reduce unnecessary interaction with the system, the system controls dynamically change, showing only those keys and automation features that are compatible with the exam being performed. Sparq is simply a revolutionary solution with an intuitive design built around our customers' workflow needs.

**Interface:**

17 inch high resolution color monitor mounted on fully articulating arm with tilt and swivel.  
Easy-to-learn graphical user interface  
Quick Keys  
Alphanumeric QWERTY keyboard  
3 TGCs  
5 USB flash drives on system  
Internal DVD RW drive

**System Architecture:**

- Next generation all-digital compact broadband beamformer with pulse shaping capability
- High resolution A/D conversion with 170 dB full-time system dynamic range
- 20,000 digitally-processed channels
- Supports PureWave technology
- Multi-variate harmonic imaging including pulse inversion processing
- One-touch 2D optimization with broadband frequency compounding
- SonoCT real-time beam-steered compound imaging
- Advanced XRES adaptive image processing
- Continuously variable steering in 2D, color Doppler, and Doppler modes
- iSCAN one-touch intelligent optimization for 2D and Doppler
- AutoSCAN-No touch continuous intelligent optimization for 2D
- Active native data manipulation
- Tissue specific imaging presets
- Gray shades: 256 levels (8 bit) in 2D, M-mode, and Doppler
- Simplicity Mode-one-touch simplified control panel
- Advanced Imaging Control-allows the flexibility to turn on advanced controls for imaging
- Built-in Philips Remote Services connectivity\* allows for rapid response to clinical questions and technical issues

**Imaging modes:**

- 2D
- M-mode (real-time M-mode)
- Anatomical M-mode

- Color M-mode
- Color Power Angio (CPA) imaging
- Directional CPA
- Pulsed wave (PW) Doppler
- HPRF PW Doppler
- Continuous wave (CW) Doppler
- Invert and color invert
- Color compare mode
- Dual mode
- Duplex for simultaneous 2D and Doppler
- Triplex for simultaneous 2D, Doppler, and color or Color Power Angio
- 2D and flow optimization signal processing
- Intelligent Doppler – automatically maintains pre-selected 0/60 degree flow angle
- Live compare
- Tissue harmonic imaging (THI)
- High definition write zoom
- Trapezoidal imaging
- Pulse inversion harmonic imaging
- Adaptive Doppler
- Adaptive color Doppler
- Color tissue Doppler imaging
- Pulsed wave tissue Doppler imaging
- Active native data (allows manipulation of raw image data)
- SmartExam system-guided protocol capability
- Needle visualization – enhances viewing of the needle to assist the user in guiding the needle to the target anatomy

#### **Control Panel and user interface:**

Easy-to-learn graphical user interface

- Ergocentric design of primary controls readily accessible and logically grouped
  - Intuitive Dynamic Display – active and available controls adjust as the user interacts with the control panel
  - Automatic ambient lighting sensing for superb image viewing in both light and dark environments
  - 3-slide pot control adjustment of TGC curve
  - iSCAN control for 2D/Doppler/color Doppler automatic optimization
  - AutoSCAN control for 2D continuous and automatic optimization
  - High definition/pan zoom control
  - Freeze control
  - Programmable print control
  - Transducer selection and tissue specific imaging control
  - Long Reports, Quick Reports and review controls
  - Protocol selection control
  - 100% sealed, easy to clean, tempered glass surface
  - Ability to lock the control panel
  - Barcode scanner allows easy entry of patient data
  - Exam Dashboard is an easy and intuitive tool to manage the exam from beginning to end
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- Simplicity mode, a one-touch solution that allows the user to turn off pre-determined controls that are not needed for that exam
- Optional On-Line Support Request feature\* provides rapid response to clinical questions and technical issues
- Optional Proactive Monitoring\* helps prevent unscheduled downtime
- Sleep Mode allows the user to save battery power when not in use

#### **Available Transducers:**

The Sparq ultrasound system offers a wide complement of transducers, designed and optimized for an extensive range of exams in emergency medicine, critical care, regional anesthesia, and pain medicine environments

- L12-4 broadband linear array
- S4-2 broadband sector array
- C6-2 broadband curved array
- C9-4v broadband curved array
- X7-2t xMATRIX array with PureWave technology Automatic parameter optimization of each transducer for exam type through Tissue Specific Imaging (TSI) software
- User-customizable imaging presets for each transducer
- Continuous dynamic receive focusing on all imaging transducers

#### **PureWave transducer technology for TEE imaging**

##### **Procedure guides:**

- Transducer centerline and onscreen centerline provides visual guidance for out of plane needle guidance procedures
- Onscreen gridline provides a visual target size and distance estimation for needle guidance procedures
- Depth markers allows a visual measure of the depth of the image and anatomy (.5 to 5 cm increments dependent on depth)

#### **SonoCT real-time compound imaging**

- Available on all curved transducers and linear array
- Eliminates virtually all clutter and artifact
- Automatic selection of the number of steering angles (up to 7) based on the user-selected resolution/frame rate (Res/Speed) condition
- Operates in conjunction with tissue harmonic imaging, volume modes, imaging, and duplex Doppler
- Operates in conjunction with XRES imaging

#### **Advanced XRES adaptive image processing**

- Available on all imaging transducers
- Eliminates virtually all speckle noise and enhances border definition

#### **AutoSCAN image optimization**

- No-Touch Continuous intelligent optimization
- In 2D mode (no interaction by user) automatic and continual adjustment of TGC and receiver gain to achieve enhanced uniformity and brightness of tissues

### **Active native data**

- 2D image controls that can be changed in review include: gain (overall gain, TGC), compress, gray map, Chroma map, orientation (L/R, U/D), display zoom/pan, XRES
- PW and CW Doppler controls that can be changed include: gain, baseline, invert, angle correct, angle 60/0/60, sweep speed, grayscale and Chroma maps (compress and reject), PW trace (High Q controls), display format
- Color image controls that can be changed in review include: gain, baseline, color map, invert, write priority, smoothing, suppress, variance, directional Color Power Angio
- Physio controls that can be changed: sweep speed, position, gain
- Can be acquired in prospective and retrospective direction
- Images are acquired at acoustic data frame rate
- Available in cineloop and quick review

### **Live compare**

- Allows recall of current or previous exam image data for direct side-by-side comparison with current image data

### **Cineloop review**

- Acquisition, storage, and display in real time and duplex modes of up to three minutes in quick review of 2D and color images
- Dual imaging available

### **Utilization Reports**

- Optional Utilization Reports\* provide data to help manage ultrasound assets

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### **POC Comprehensive Pkg.**

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The POC Comprehensive Package includes the following clinical options: Abdominal, Trauma, Adult Echo, Superficial, Access, Peripheral Vascular, Pelvic, Lung, Ocular, Musculoskeletal (which provides Spine and Musculoskeletal Superficial), Nerve and Physio.

### **Pulse Wave Doppler (PW)**

Available on all imaging transducers:

- Adjustable sample volume size: 0.8-24.6 mm (transducer dependent)
  - Simultaneous or duplex mode of operation
  - Simultaneous 2D, color Doppler or CPA, pulsed Doppler
  - iSCAN optimization automatically adjusts scale, baseline and Doppler gain (in select transducers and presets).
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**ContinuousWaveDoppler(CW)**

Available on cardiac sector array transducers:

- Steerable through 90° sector
- Maximum velocity range: +/-20 m/sec (transducer dependent).

**3 Needle Visualization 1**

Allows a view of the needle during procedures

- Enhances viewing of the needle to assist the user in guiding the needle to the target anatomy

Available on L12-4 only.

**4 DICOM Networking 1**

Networking capability to support DICOM Media Store and DICOM Print. Also provides Ethernet connectivity to an enterprise data management system or PACS with advanced DICOM features: DICOM Store, Modality Worklist and Performed Procedure Step. DICOM Structured reporting for Cardiac, OB, and Vascular.

**5 L12-4 Compact 1**

L12-4 broadband linear array

- Vascular, vasc access, musculoskeletal, nerve, lung, ocular, and superficial imaging applications
- 12 to 4 MHz extended operating frequency range
- Linear array with 128 elements
- Array length is 38 mm
- Steerable pulsed Doppler, high PRF Doppler, color Doppler, and Color Power Angio, SonoCT, advanced XRES, and harmonic imaging
- 4.0-6.7 MHz color Doppler
- Biopsy kit available.

**6 X7-2t (MTEE) Compact 1**

X7-2t PureWave sector array TEE

- Transesophageal phased array with 2500 elements
- Electronically rotatable array
- Scanplane aperture 9.25 mm
- Adult cardiology applications
- 7 to 2 MHz extended operating frequency range
- 2D, steerable PW Doppler, CW Doppler, tissue Doppler, advanced XRES, and harmonic imaging
- Optional adapter for use on iE33 systems.

**7 English Manual 1**

Operation Manual

**8 2 Day ENT TEE U w/Travel 1**

**2 Day Entitlement TEE University with Travel** - A variety of Live 3D TEE University course offerings are available to meet your educational needs. Live 3D TEE provides cardiologists, anesthesiologists, and cardiac surgeons novel and exiting realistic views to aid in patient care. The 2 Day ENT TEE University Tuition includes both the tuition and the corresponding travel package.

Entitlement University Tuitions expire within 365 days from system or upgrade installment date. Due to travel and scheduling requirements, a twenty-one (21) day notification of cancellation is required or training / education entitlements will be forfeited. Curriculum is subject to change without notice.

Travel & Accommodations for one (1) registered attendee. 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 up to 2 days. 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.

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**1 Day PAS Onsite**

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**1 Day PAS Onsite** - Ultrasound system or upgrade onsite training provided by a PAS (Product Applications Specialist) for specific system applications or upgrades; not per modality. *Education is provided Monday - Friday during normal business hours.* 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 onsite training day expires within 90 days from system or upgrade installation date. Exceptions are for 3D Stress onsite training (which expires 9 months from system or upgrade installation date) and Fusion & Needle Navigation onsite training (which expires 180 days from system or upgrade installation date).

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**1st SVC Manual for Gov**

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