

## 100678 Sparq Ultrasound System

**System Type:** New  
**Freight Terms:** FOB Destination  
**Warranty Terms:** Part numbers beginning with two (2) asterisks (\*\*) are covered by a Per Contract. All other part numbers are third (3rd) party items.  
**Special Notations:** Contingencies must be removed 120 days before scheduled shipment to assure delivery on specified date. Any rigging costs are the responsibility of the Purchaser.  
**Additional Terms:**

| Line # | Part # | Description | Qty |
|--------|--------|-------------|-----|
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|---|--|--------------------------|---|
| 1 |  | <b>Ultrasound System</b> | 1 |
|---|--|--------------------------|---|

With the purchase of a Ultrasound system, the (12) month system warranty will be enhanced to cover all standard transducers purchased with the system for a period of sixty (60) months. See Ultrasound systems product warranty documentation for details.

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 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. is simply a revolutionary solution with an intuitive design built around our customers' workflow needs.

### Control Panel and user interface:

- Easy-to-learn graphical user interface
- Simplicity mode, a one-touch solution that presents only the controls that are used most often
- Transducer centerline and onscreen centerline provides visual guidance for out of plane needle guidance procedures
- Sealed, easy to clean, tempered glass surface
- 17 inch high resolution color monitor mounted on fully articulating arm with tilt and swivel
- Alphanumeric QWERTY keyboard
- 3 TGCs
- 5 USB flash drives on system
- Internal DVD RW drive
- iSCAN control for 2D/Doppler/color Doppler automatic optimization
- AutoSCAN control for 2D continuous and automatic optimization
- Quick Keys
- Transducer selection and tissue specific imaging control
- Sleep Mode allows the user to save battery power when not in use
- Exam Protocols

### 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.

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|        |        | <ul style="list-style-type: none"><li>• Advanced XRES adaptive image processing.</li><li>• iSCAN one-touch intelligent optimization for 2D and Doppler (if Doppler is purchased).</li><li>• AutoSCAN-No touch continuous intelligent optimization for 2D.</li><li>• Active native data manipulation.</li><li>• Simplicity Mode-one-touch simplified control panel.</li><li>• Advanced Imaging Control-allows the flexibility to turn on advanced controls for imaging.</li><li>• Windows Embedded Standard 7 Operating System</li></ul> |     |

### Imaging modes:

- 2D
- M-mode (real-time M-mode)
- Anatomical M-mode
- Color M-mode
- Color Power Angio (CPA) imaging
- Color compare mode
- Dual mode
- 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
- Active native data (allows manipulation of raw image data)
- Optional - Pulsed wave (PW) Doppler
- Optional - Continuous wave (CW) Doppler
- Optional - Pulsed wave tissue/color Doppler imaging
- Optional - Needle visualization – enhances viewing of the needle to assist the user in guiding the needle to the target anatomy

### Optional Transducers:

The ultrasound system offers a wide complement of transducers, designed and optimized for an extensive range of exams and automatic parameter optimization of each transducer for exam type through Tissue Specific Imaging (TSI) software

- L12-4 broadband linear array
- S4-2 broadband sector array
- C6-2 broadband curved array
- C5-1 broadband curved array with PureWave technology
- C9-4v broadband curved array
- L15-7io high frequency linear array transducer
- X7-2t xMATRIX array with PureWave technology

### Optional Maintenance and Serviceability

- Remote Access for Expedient Clinical and Technical Support
  - Flexible Service Agreements
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- Clinical Application and Educational Support
- Scheduled Preventative Maintenance and System Optimization
- Utilization Reports provide data to help manage ultrasound assets

### Security-related features

#### **Firewall policy blocks all unnecessary ports**

#### **Operating System hardening**

- OS settings utilizing the DISA STIGS
- Disable unnecessary services
- Disable auto-run for removable media

#### **Media export security**

- Provides the ability to disable export of patient data to removable media

#### **System Access Control**

- No restrictions – users may perform exams and access all previously completed exams or MWL data
- Only patient data is locked – users may perform exams without requiring a login, but must successfully log in prior to accessing previously completed exams or MWL data
- Complete system is lockable – users and administrators must successfully log in prior to any system access

#### **User management policy**

- User management local
  - Local user management
  - Support for multiple unique user accounts
  - Support for multiple unique administrator accounts
- User management remote
  - Supports active directory authentication utilizing LDAP (system may not be joined to the domain)
  - Support for individual accounts or AD groups for users and administrators
  - May utilize LDAP or secure LDAP
  - Customer may configure the system to perform authenticated binding

#### **Password policies**

- Provides the ability to specify password policies for local accounts
    - Minimum password length (6-14 characters)
    - Maximum password length (6-63 characters)
    - Minimum password age (0-998 days)
    - Maximum password age (1-999 days)
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- Password complexity

### Account lockout policies

- Lockout threshold (1-999 minutes)
- Lockout duration (1-999 minutes)
- Lockout counter reset (minutes)

### Auto logoff

- Automatically logs off a user after the specified period of inactivity, user selectable

### Hard drive encryption

- Encryption policies
  - 128 bit
  - 128 bit with diffuser
  - 256 bit
  - 256 bit with diffuser

### Audit log export

- Audit logs may be exported
- Available protocols are UDP or TLS

### Safeguard

This is a standard computer administration tool used to prevent unauthorized programs (malware) from running on the ultrasound system.

### Clinical Education

Implementation Onsite Training - One day of basic system training is provided at your site after installation. 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.

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

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|        |        | months from system or upgrade installation date) and Fusion & Needle Navigation onsite training (which expires 180 days from system or upgrade installation date).  |     |
|        |        | <i>All Tuitions must be registered prior to the expiration date. The course chosen must be taken within 90 days of expiration</i>   |     |
| 2      |        | <b>POC Comprehensive Pkg.</b>   | 1   |
|        |        | 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.   |     |
|        |        | <b>Pulse Wave Doppler (PW)</b>  |     |
|        |        | Available on all imaging transducers:   |     |
|        |        | <ul style="list-style-type: none"><li>Adjustable sample volume size: 0.8-24.6 mm (transducer dependent)</li><li>Simultaneous or duplex mode of operation</li><li>Simultaneous 2D, color Doppler or CPA, pulsed Doppler</li><li>iSCAN optimization automatically adjusts scale, baseline and Doppler gain (in select transducers and presets).</li></ul>           |     |
|        |        | <b>ContinuousWaveDoppler(CW)</b>  |     |
|        |        | Available on cardiac sector array transducers:  |     |
|        |        | <ul style="list-style-type: none"><li>Steerable through 90° sector</li><li>Maximum velocity range: +/-20 m/sec (transducer dependent).</li></ul>  |     |
|        |        | <b>Tissue Doppler Imaging</b>   |     |
|        |        | Available on S4-2-Cardiac:  |     |
|        |        | <ul style="list-style-type: none"><li>Allows high frame rate acquisition of tissue motion</li><li>Color gain and TGC</li><li>2 color maps</li><li>Velocity (cm/s and m/sec supported).</li><li></li></ul>   |     |
|        |        | Color tissue Doppler imaging  |     |
| 3      |        | <b>Government Security</b>  | 1   |
|        |        | Required by all DoD customers. This option disables VNC capabilities (which if enabled would provide remote desktop support) for increased security of data.  |     |
| 4      |        | <b>DICOM Networking</b>   | 1   |
|        |        | Networking capability to support DICOM Media Store and DICOM Print. Also provides Ethernet (wired and wireless) 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. Supports secure DICOM transfer. |     |
| 5      |        | <b>C6-2 Compact</b>   | 1   |

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|           |        | General purpose abdominal, Pelvic which includes obstetrical and gynecological applications, nerve, FAST, Spine <ul style="list-style-type: none"> <li>• 6 to 2 MHz extended operating frequency range</li> <li>• Curved array with 128 elements</li> <li>• Array has a 50 mm radius of curvature</li> <li>• Optional steerable pulsed Doppler, high PRF Doppler</li> <li>• SonoCT, advanced XRES, harmonic imaging, color Doppler and color power angio</li> </ul>   |          |
| <b>6</b>  |        | <b>L12-4 Compact</b><br>L12-4 broadband linear array <ul style="list-style-type: none"> <li>• Vascular, vasc access, musculoskeletal, nerve, lung, ocular, and superficial imaging applications</li> <li>• 12 to 4 MHz extended operating frequency range</li> <li>• Linear array with 128 elements</li> <li>• Array length is 38 mm</li> <li>• Optional steerable pulsed Doppler, high PRF Doppler</li> <li>• SonoCT, advanced XRES, harmonic imaging, color Doppler, and color power angio</li> <li>• 4.0-6.7 MHz color Doppler</li> <li>• Biopsy kit available.</li> </ul> | <b>1</b> |
| <b>7</b>  |        | <b>C9-4v Compact</b> <ul style="list-style-type: none"> <li>• Curved array transducer with 9 to 4 MHz extended operating frequency range and 150-degree field of view.</li> <li>• Supports 2D, color, PW Doppler (optional), and color power angio imaging for endovaginal applications.</li> <li>• Biopsy kit available.</li> </ul>  | <b>1</b> |
| <b>8</b>  |        | <b>English Manual</b><br>Operation Manual   | <b>1</b> |
| <b>9</b>  |        | <b>Cart B/W Printer</b><br>Support a small format digital B/W printer.  | <b>1</b> |
| <b>10</b> |        | <b>System Admin</b><br>As an enhancement to this quote, _____ is pleased to offer 5 years of complete coverage on your Ultrasound system (parts, labor and PM's) at no additional charge. Combined with the 5 year warranty on transducers purchased with the system, this plan will offer comprehensive coverage on your _____ system for 5 years.   | <b>1</b> |