

# THE M-TURBO – FOR HIGH RESOLUTION IMAGING ACROSS THE POINT OF CARE

Engineered for striking image quality, durability and ease of use, our flagship product, the M-Turbo® ultrasound system, has earned customer satisfaction ratings of 99%\*. Proprietary algorithms optimise multiple imaging parameters so you get essential information quickly and easily. The M-Turbo ultrasound system offers an advanced set of features with a wide array of connectivity options that seamlessly connects you to hospital information networks and your own PC.

\*Verispan surveys 2008

#### TURBO TECHNOLOGY FROM SONOSITE

The M-Turbo system's 16-fold increase in processing power generates dramatic improvements in image quality by simultaneously running multiple advanced algorithms:

**SonoADAPT**<sup>™</sup> **Tissue Optimisation** – eliminating complicated manipulation of multiple controls.

**SonoHD™ Imaging Technology –** reducing speckle noise and other image artifacts while preserving and sharpening tissue information.

**SonoMB® Multi-beam Imaging –** increasing resolution of small structures and enhancing border delineation.

**Advanced Needle Visualisation –** aiding needle visualisation while maintaining striking image quality of the target and surrounding anatomy.

**ColorHD**<sup>™</sup> **Technology** – increasing colour performance, sensitivity and frame rates for more diagnostic information.

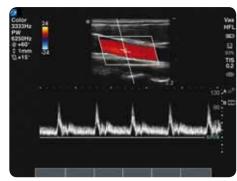
#### **POINT-OF-CARE APPLICATIONS INCLUDE:**

Anaesthesia, Critical Care, Cardiology, Cardiovascular Disease Management, Emergency Medicine, Musculoskeletal, Ob/Gyn, Radiology, Vascular, Surgery, Shared Service, Women's Health

To learn more about our products, contact us at **01462 444800** or visit **www.sonosite.com/products/m-turbo** 



Advanced Needle Visualisation – Saphenous Nerve Block, using the HFL50x/15-6 MHz transducer



Carotid Artery, using the HFL38x/13-6 MHz transducer



# **M-TURBO**

#### DESIGNED FOR THE POINT OF CARE



Capture quality video clips up to 60 seconds long

Battery powered and wireless capability for true mobility

PC- and Mac-friendly for effortless data management with 2 high-speed USB 2.0 ports

Weighs 3.4 kg/7.5 lbs. with battery

Backlit keyboard is easier on the eyes

Magnesium case for lightweight strength

Increased application flexibility with optional **Triple Transducer Connect** 







- Premium image quality
- Drop tested at 91.4 cm/3 feet
- · Splash resistant user interface
- · Quick boot-up time
- · Easy to operate
- Wireless connectivity
- No annual service contract



### SonoSite Ltd

SonoSite

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#### www.sonosite.com/products/m-turbo

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#### **SYSTEM SPECIFICATIONS:**

System weight 3.04 kg/6.7 lbs.

**Dimensions** 30.2 cm x 27.4 cm x 7.9 cm

/11.9" x 10.8" x 3.1"

(L x W x H)

**Display** 26.4 cm/10.4" diagonal LCD

(NTSC or PAL)

**Architecture** All-digital broadband

**Dynamic range** Up to 165 dB **Grav scale** 256 shades

HIPAA compliance Comprehensive tool set

#### **IMAGING MODES AND PROCESSING:**

#### **Broadband, Multifrequency Imaging:**

- 2D / Tissue Harmonic Imaging / M-Mode
- Velocity Colour Doppler / Colour Power Doppler
- PW, PW Tissue Doppler and CW
- Doppler angle, correct after freeze

#### Image processing:

- SonoADAPT™ Tissue Optimisation
- SonoHD™ Imaging Technology
- Advanced Needle Visualisation (SonoMBe<sup>™</sup> Imaging)
- Dual Imaging, Duplex Imaging, 2x pan/zoom capability, Dynamic range and gain

### USER INTERFACE AND REMAPPABLE CONTROLS:

- Softkeys to drive advanced features
- Programmable A and B keys: each can be assigned by the user for increased ease of use
- Alphanumeric elastomeric QWERTY keyboard
- Track pad with select key for easy operation and navigation
- Doppler controls: angle, steer, scale, baseline, gain and volume
- Image acquisition keys: review, report, Clip Store. DVD, save
- Dedicated AutoGain and exam keys to allow quick activation

#### TRANSDUCERS:

#### **Broadband and Multifrequency:**

- Linear Array, Curved Array, Phased Array, Multiplane TEE and Micro-Convex

#### Single Frequency:

- Cardiac Static Pencil

### **APPLICATION SPECIFIC CALCULATIONS:**

**OB/GYN/Fertility:** Diameter/ellipse measurements, volume, ten follicle measurements, estimated foetal weight, established due date, gestational age, last menstrual period, growth charts, user-defined tables, multiple user-selectable authors, ratios, amniotic fluid index, patient report, humerus and tibia measurement and charts

**Vascular:** Diameter/ellipse/trace measurements, volume, volume flow, percent diameter and area reduction, Lt/Rt CCA, ICA, ECA, ICA/CCA ratio, time average mean (TAM), peak trace, ICA/CCA ratio, angle correction, patient report

#### CIMT (Carotid Intima Media Thickness):

Embedded SonoCalc® IMT software (optional) – automatic edge detection with mean and maximum thickness reporting

Cardiac: Automated Cardiac Output package and patient report including: ventricular, aortic and atrial measurements; ejection fraction, volume measurements, Simpson's rule, continuity equation, pressure half-time and cardiac output; PA AT, TV E, A, PHT, TVI, MV time. Pulm Veins

**Transcranial Doppler (TCD):** Complete TCD package including Time Average Peak (TAP)









### ONBOARD IMAGE AND CLIP STORAGE/REVIEW:

- 8 GB internal Flash memory storage capability Potential to store 30,000 images or 960
  2-second clips
- Clip Store capability (maximum single clip length: 60 seconds)
- Clip Store capability via either number of heart cycles (using the ECG) or time base Maximum storage in ECG beats mode is 10 heart cycles. Maximum storage in time base mode is 60 seconds
- Cine review up to 255 frame-by-frame images

#### **POWER SUPPLY:**

- System operates via battery or AC power
- Rechargeable lithium-ion battery
- AC: universal power adapter, 100-240 VAC, 50/60 Hz input, 15 VDC output

### MEASUREMENT TOOLS, PICTOGRAMS AND ANNOTATIONS:

**2D:** Distance calipers, ellipse and manual trace **Doppler:** Velocity measurements, pressure half time, auto and manual trace

**M-Mode:** Distance and time measurements, heart rate calculation

User-selectable text and pictograms User-defined, application-specific annotations Biopsy guidelines

### EXTERNAL DATA MANAGEMENT AND WIRELESS:

#### DICOM® Image Management (TCP/IP):

- Print and Store, Modality Work List

#### Storage Commit:

- Modality, Perform, Procedure Step

## PC Workstation Image Management (TCP/IP, USB):

- SiteLink<sup>™</sup> Image Manager allows transfer, archiving, viewing and printing of high resolution bitmap images/clips, and batch compression to JPEG on PCs
- Direct writing capability to USB 2.0 mass storage removable media (PC and MAC compatible)
- Supported export formats are: MPEG-4 (H.264), JPEG, BMP, and HTML
- SonoSite® Education Key™ training video compatible

#### SonoSite Workflow Solutions (SWS™):

 A suite of specialised tools to streamline exam management for billing, credentialing, EMR and image archiving

#### **EXTERNAL VIDEO AND AUDIO:**

- S-video (in/out) to VCR or DVD for record and
- RGB or DVI output to external LCD display
- Composite video output (NTSC/PAL) to VCR or DVD, video printer or external LCD display
- Audio output
- Integrated speakers

#### H-UNIVERSAL™ STAND AND PERIPHERALS:

- Transducer and gel holders
- Optional Triple Transducer Connect (TTC) to quickly activate transducers electronically
- Optional foot switch

#### **OPTIONAL PERIPHERALS:**

Printers: Medical-grade black and white or colour External storage devices: Medical-grade DVD External data input devices: Bar code reader ECG module: 3-lead ECG – works with standard ECG leads and electrodes

External analog ECG input also available **USB bar code reader** 

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# **M-TURBO**°







SonoSite designs, manufactures and tests transducers in-house with real-world customer needs in mind. Our transducers exceed stringent military specifications for drop testing and splash resistance, so you can use them with confidence in the most demanding of environments. Maybe that's why SonoSite is the only ultrasound company to offer an industry leading five-year warranty on the transducers it manufactures.



# M-TURBO

#### **TRANSDUCERS**













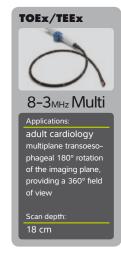
















Needle guide kits available with the following transducers – L38xi, HFL38x, HFL50x, C60x, ICTx, P10x and P21x. A transverse needle quide is available with the L25x transducer.

For detailed information, please visit www.sonosite.com/products/m-turbo or speak with your SonoSite customer representative.

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