M-TURBO®

DESIGNED FOR THE POINT OF CARE

SonoSite
a subsidiary of FUJIFILM

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

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

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™ 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™ Technology – increasing colour performance, sensitivity and frame rates for more diagnostic information.

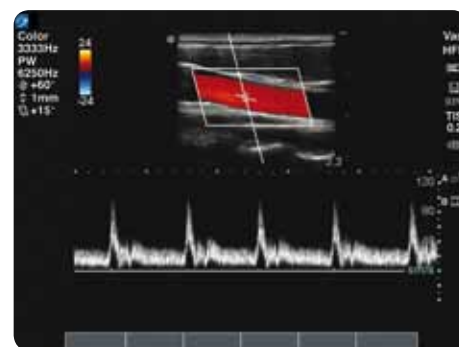Carotid Artery, using the HFL38x/13–6 MHz transducer

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**

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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

5 YEAR

TECHNOLOGY DRIVEN
5-YEAR STANDARD WARRANTY
MADE IN THE USA

MAIN FEATURES AT A GLANCE

• 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

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M-TURBO®

SYSTEM SPECIFICATIONS

THE M-TURBO® ULTRASOUND SYSTEM FROM SONOSITE

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
Gray 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™ 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)

5 YEAR
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M-TURBO®

SYSTEM SPECIFICATIONS

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™ 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 playback
- 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®

TRANSDUCERS

READY FOR A COMPLETE RANGE OF APPLICATIONS

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.

5 YEAR

TECHNOLOGY DRIVEN
5-YEAR STANDARD WARRANTY
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M-TURBO®

TRANSDUCERS

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L38xi

10–5MHz Linear

Applications:
breast
CIMT
musculoskeletal
nerve
small parts
vascular
venous

Scan depth:
9 cm

HFL38x

13–6MHz Linear

Applications:
breast
CIMT
musculoskeletal
nerve
small parts
vascular
venous

Scan depth:
6 cm

HFL50x

15–6MHz Linear

Applications:
breast
musculoskeletal
nerve
small parts

Scan depth:
6 cm

L25x

13–6MHz Linear

Applications:
musculoskeletal
nerve
superficial
vascular
venous
ophthalmic

Scan depth:
6 cm

C11x

8–5MHz Curved

Applications:
abdominal
neonatal
nerve
vascular
cardiology (Vet)

Scan depth:
10 cm

C60x

5–2MHz Curved

Applications:
abdominal
musculoskeletal
nerve
ob
gyn

Scan depth:
30 cm

ICTx

8–5MHz Curved

Applications:
ob
gyn

Scan depth:
13 cm

P21x

5–1MHz Phased

Applications:
abdominal
cardiology
ob
orbital
TCD

Scan depth:
35 cm

P10x

8–4MHz Phased

Applications:
paed. abdominal
paed. cardiology
neonatal head

Scan depth:
14 cm

SLAx

13–6MHz Linear

Applications:
musculoskeletal
nerve
superficial
vascular
venous

Scan depth:
6 cm

TOEx/TEEx

8–3MHz Multi

Applications:
adult cardiology
multiplane transoeso-
phageal 180° rotation
of the imaging plane,
providing a 360° field
of view

Scan depth:
18 cm

D2x

2MHz Pencil

Applications:
cardiology (CW)

Scan depth:
N/A

L52x (Vet)

10–5MHz Linear

Applications:
musculoskeletal
ob
vascular

Scan depth:
15 cm

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