MyLabOne™ VET

MyLabSat™ VET

Performance Data Sheet

System software Release C:6.3

> Rev J

Prepared by: Manuel Heiligers

Approved by: Joop Geijsen

esaote

Index

Note

This document includes technical data and specifications for MyLabOneVet and MyLabSatVet.

Data valid for both product models is referred to MyLab.
Specific references to MyLabOneVet and MyLabSatVet are provided for data related to one of the two models.

The information enclosed can vary according to upgrades or modifications of the configurations.

Introduction

Esaote has always been recognized as an **innovator in medical technologies and a leader in veterinary imaging**.

Esaote accomplishes innovation by relying on significant research activities, constructive relationships with important scientific societies and strong support from advanced laboratories.

These are the basic elements on which the new **MyLab** has been developed, raising the standard in high-level ultrasound and offering this experience to more users worldwide.

Esaote's expertise and the important contribution of opinion leaders and system users have made the outcomes very clear:

• **Quality**: providing impressive image quality in all the modalities and applications by using most updated technologies to always ensure the highest level of diagnosis. Also the **MyLab** product is based on this concept giving superb image quality for the targeted applications.

• **Flexibility**: The **MyLab** offers extreme flexibility for different kinds of use and environments such as arm-held, desk use, roll stand and wall mount. With the **MyLabSatVet** there is the combination and integration with **MyLabTwice Vet**. Giving dedicated solutions and satisfying the needs of every unique operator and working evironment.

• **Workflow**: thinking of the operator as the most important component of the project, ergonomics and ease-of-use are the keys to deliver technology developed around the user and increase clinical efficiency of every practice or clinic. **MyLab** is based on touch screen technology and offers an intuitive user interface, always focused and optimized for each situation and application. The system is fully preset driven allowing fast and dedicated selection of clinical exams. Extended and user friendly protocol possibilies offer the use and standardization of preferred workflows.

• **Value**: flexibility and ease of use contribute to the value proposition, offering exactly what the customer needs and broadening the number of users. By enhancing the investment with exclusive technologies, the system will increase the diagnostic capability of every user.

Product Description

MyLab is designed using the most modern and advanced technologies in order to deliver its high performance within the class of arm held and portable devices.

Dedicated Technologies

High quality imaging for reliable diagnosis

- Superb black and white image quality on linear, convex and phased array probes (work in progress).
- Dedicated steering mode.
- Sensitive and detailed color flow presentation for fast and reliable detection of blood flow.

XHF™ eXtreme High Frequency Imaging

- Up to 22 MHz bandwidth on linear transducers to provide very detailed and precise imaging, especially in very superficial investigations.
- Multiple transmission frequencies to scan deeper structures without the need to change the probe.

XView™ eXtreme View

- To elaborate the pattern of every single frame at the pixel level, eliminating speckle and noise artifacts, dynamically enhancing tissue margins, improving tissue conspicuity and increasing diagnostic confidence.

M-View™

- Combined contributions of standard and steered ultrasound beams allow optimized image quality for comfortable detection of every anatomical structure and help to eliminate doubts in the final diagnosis.

Tp-View™

- Enlarged field of view on all linear probes, to scan extended structures without losing resolution.
- Specially studied for veterinarian applications.

MyLab ultrasound imaging system has been designed and developed fully dedicated for Veterinary:

Veterinary fields of application:
- *Large Animals*
- *Small Animals*
- *Farm Animals*
- *Exotic Animals*

User Interface

- Full touch screen operation, can be operated with gloves using finger, knuckle or (sterile) stylus
- Application dedicated factory presets, fully customizable
- Reference scale
- Extra large cm characters on scale for easy interpretation of operating depth
- Biopsy line[1]
- Dedicated scan orientation symbol in line with the led in the probe housing
- Onscreen programmable keys.
- Flat front, easy to clean and disinfect
- Three user programmable keys on the linear probe
- Automatic User Interface Orientation (according to the orientation of the system)
- Focus Touch Technology (for intuitive and quick focus positioning)
- Two user programmable keys on the footswitch

MyLibrary Equine Tendon
- Presentation of equine tendon scanning positions
  - Location on the body
  - Example ultrasound image
  - Legend on ultrasound image
  - Explanatory text
- Fore and hind leg
- Saggital and transversal positions
- Overlay View (for highlighting anatomical structures on reference ultrasound images)
- Live Preview[2]

MyLibrary Equine Reproduction-Mare-

- Presentation of equine reproductive organs scanning positions
  - Location on the body
  - Example ultrasound image
  - Legend on ultrasound image
  - Explanatory text
- Anoestrus, transitional phase, oestrus, dioestrus, pregnancy, twin pregnancy, common abnormalities
- Overlay View (for highlighting anatomical structures on reference ultrasound images)
- Live Preview[2]

Arm-held Configuration

- Highly ergonomic and portable unit
- 12" LCD with integrated touch screen
- Touch screen control by finger and stylus
- Kensington lock to secure the unit
- Ergonomic handle with integrated battery
- 4 programmable keys integrated on the handle
- 1 fast ZIF electronic probe connector
- Integrated microphone and speakers
- Integrated intelligent cooling system with very silent fans
- Automatic User Interface Orientation (according to the orientation of the system)

Basic Stand Configuration

- For environments where a more robust solution is needed.
- Provide a stable work environment to use the **MyLab** on a flat surface
- Tilting mechanism for an optimal viewing angle
- The **MyLab** is secured in the Basic Stand with the lock that is located on top of the Basic Stand
- Carry the stand together with the system in an easy way.

---

[1] Probe dependent
[2] The Live Preview in the MyLibrary is not available for USA.

Desk Stand Configuration Pro & Basic

- Provide a stable work environment to use the **MyLabOne** on a desk
- Tilting mechanism for an optimal viewing angle
- When transported on a trolley the **MyLabOne** can be secured in the Desk Stand with the lock that is located on top of the Desk Stand
- Provide additional connectivity by means of a LAN connector and extra USB ports (only on Pro version)
- DVI-I connector for an additional monitor (only on Pro version)
- Dedicated audio connectors for line-out and microphone (only on Pro version)
- Dedicated footswitch connector (only on Pro version)

Trolley Configuration Pro & Basic

Main features of the system:

- Ergonomic and compact cart designed for easy maneuverability
- Innovative height adjustment system (only on Pro version)
- Four Omni directional swivel wheels with breaks
- Peripherals tray (only on Pro version)
- Attachment for probe holders and a gel holder
- Transducer cable holder
- Cable holder allow the probe to hang free in sterile conditions (only on Pro version)
- Probe holder for procedures in sterile conditions: special probe holder for safe and easy placement of probe sheets/covers without touching the holder or any other non-sterile parts

Veterinary

Dedicated features and settings

- Species and Applications:
  - Equine: Abdominal, Reproductive, Cardio (basic), Ovary, MSK/Tendon
  - Canine: Abdominal, Reproductive, Cardio (basic)
  - Feline: Abdominal, Reproductive, Cardio (basic)
  - Bovine: Ovary, Reproductive, Animal Science
  - Porcine: Reproductive, Animal Science
  - Ovine: Reproductive, Animal Science
  - Llamas: Reproductive
- Presets: 4 user modifiable presets for each species/application
- STEER function for improved visibility
- Dedicated scan orientation symbol in line with led of probe housing

Monitor

- 12" TFT LCD touch screen
- The User Interface is organized by selectable by tabs: User, Settings, Patient & Archive (optional), Report and MyLibrary.
- Default information on screen:
  - Selected Preset
  - Probe Orientation
  - Acoustic Output Display
  - Hard Disk Icon
  - Printing Icon (if printer is configured)
  - Dicom 3.0 Icon (if Dicom is enabled)
  - Wireless Status Icons (if activated)
  - Patient Data (if entered)
  - Hospital Data (if entered)
  - Operating Frequency
  - Depth
  - Gain 2D, M-Mode, CFM, PWR D, PW Doppler
  - Focus
- Additional information on screen (if enabled):
  - Date & Hour
  - Transducer Type
  - Operating Frequency
  - Doppler Angle
  - Sample Volume Size
  - Body Markers (if activated and selected)
  - Grey Map
  - Ambient Light
  - Dynamic Range
  - Persistence
  - Enhancement

- o X-View
- o M-View
- o CFM Filter
- o PRF

System Overview

Operative Modes

- B-Mode (2D)
- Colorized 2D, M-Mode and PW
- B+B
- M-Mode
- PW Doppler
- CFM-Mode
- PWR Doppler
- B+PW, B+CFM+PW, B+PWR D, B+PWR D+PW
- TEI™ (Tissue Enhancement Imaging)
- Tp-View™ (Extended Linear Imaging)
- M-View™ (Real time Multi-view Imaging)

Image Display Modes

- Portrait / Landscape
- 256 Grey levels or B-color levels
- 256 Color levels
- Orientation: Left / Right, Up / Down
- Real Time Triplex mode
- 2D+2D (w or w/o CFM or PWR D)
- 2D+M-Mode (update or Real time Duplex)
- 2D+Doppler (update or Real time Duplex)
- 2D+ CFM+Doppler (update or Real time Triplex)
- 2D+PWR D
- 2D+PWR D + Doppler (update or Real time Triplex)
- Colorize on all combinations

Formats

- Full 2D Imaging
  - o Left – Right / Up – Down

- Split / Dual

System Modularity

- Doppler license
- CFM/ Angio license
- Clips license
- Patient Database license
- DICOM license
- Reproduction Porcine Ovine Llama license
- Equine MSK/Tendon license
- M-View license
- PA license
- MyLibrary Equine Tendon Mattoon license
- MyLibrary Equine Reproduction-Mare- Stout license
- Animal Science license
- Animal Science IMF license

Transducer Types

MyLab can work with the following transducers:
- Multifrequency Electronic Linear Array
- From 6 up to 22 MHz
- SL3323 and SL3235 integrates buttons for activating functions on the scanner remotely
- Dedicated endorectal vet transducer
- Dedicated Animal Science transducer
- Multifrequency Electronic Convex Array
- Multifrequency Electronic Phased Array

General system characteristics

- Fully digital signal processing
- System Dynamic Range: up to 90dB
- Factory presets (4 programmable) for every probe and application

esaote

Front End

Transmission

- Ultrasound beam generation pulses with:
    - Delay: up to 50 µs (step $\geq$ 5 ns)
    - Focal points: up to 4 for every probe
    - Bipolar wave
    - Frequencies: from 1.0 MHz up to 22 MHz
    - Programmable number of cycles
    - Programmable aperture

Reception

- Full digital beam former for imaging, Doppler PW and CFM / PWR D, each with:
    - Aperture: dynamically controlled
    - Focal points: dynamically controlled
    - Delay: up to 50 µs (step $\geq$ 5 ns)

RF Signal processing

- Digital beam-former
- Imaging filters: up to 64 taps digital dynamic filter
- Multifocus
- TEI™

Back End

2D

- Probe depending formats:
    - Linear Array (with steering)
    - Convex Array
- Depth: 5÷340 mm depending on probe
- Digital scan converter with bilinear interpolation process (720x540x8)
- Acoustic Lines: up to 256
- Dynamic range: 8 bit grey values, 15 bit processing
- Acoustic frame rate: > 200 Hz (probe and FOV dependent)
- Maps:
    - up to 12 post processing grey maps
    - up to 7 color CFM scales
- Zoom:
    - variable magnification up to 3x (Real time and on frozen images)
- X-View processing (Speckle reduction algorithm)
- Gain and TGC adjustment

M-Mode

- Sweep time: 2 ÷ 10 sec (step 1s)

CFM – PWR D

- Frequencies: 2.5 ÷ 14.3 MHz
- PRF: 250 Hz ÷ 12 KHz
- Wall filters: 3 levels, depending on PRF
- Dynamic range: 15 bit processing
- Maps: up to 10
- Frame interpolation
- Interleave: up to 16 lines
- Samples: up to 6553 / line
- Packet size: 7,9,11
- Format: ROI w/ wo wider b/ w
- Size: 15 ÷ 85 % of max b/ w size
- Steering (linear probes): 5 steps (-20/-10/0 /10 /20°)

Doppler PW

- Frequencies: 2.5 ÷ 14.3 MHz
- PRF: 500 Hz ÷ 20.0 KHz
- Wall filters: 50 ÷ 600 Hz (6 steps)
- Dynamic range: 8 bit grey values, 16 bit processing
- Stereo audio
- Sweep Time: 2 ÷ 10 sec (step 1s)
- Spectrum: FFT with 64/ 128 frequencies, interpolated up to 512 points (analysis time: $\leq$1 ms)
- Sample Size: 1 ÷ 20 mm
- Angle correction : $\pm$75°
- Steering (linear probes): 5 steps (-20/ -10/ 0/ 10 / 20°)
- Doppler gain and scale
- Real Time Automatic Doppler Measurements
- Real Time Traces
- Max flow in PW Doppler: 3.08 m/s (0° angle correction), 11.9 m/s (75° angle correction)

Archiving Capabilities

- Frozen images (Full resolution)
- Clips (Full resolution) (optional)
- Patient data, Annotations, Bodymarks and Measurement from the graphic overlay
- Compressed images and clips
- Cine Memory: 128 MByte (500 frames, on average 25 seconds) Continuous loop with single modes
- PC: $\geq$ 2 GByte

esaote

- Hard disk: ≥ 250 GByte
- Optional external DVD reader/writer
- Internal Patient Database (optional)
- User selectable filter for the database search
- Frozen images and storage of sequences in DICOM 3.0 formats
- Real Time Archive capability
- Annotation capability on previously stored images
- Calculated values from exams can be exported into a structured format (.CSV)

Connectivity

Portable configuration
- I/Os connectors
  - 2 USB 2.0[3] (for e.g image transfer)
- Dedicated connectors
  - ZIF probe connector
  - Docking station connector
  - Power connector for DC adapter
- Wireless
- VESA mount for articulated arm

Multicon
- Three-transducer module allowing to connect up to three transducers simultaneously to the MyLab system and switch the active transducer via software
  - 3 ZIF probe connectors

Desk stand configuration
- I/Os connectors
  - LAN RJ45
  - DVI-I (with analog VGA) connector
  - Additional 3 USB 2.0 (for e.g. image transfer)
- Dedicated connectors
  - Docking connector for scanner
  - Audio line-out
  - Microphone input
  - Double-foot switch input
  - Power connector for DC adapter
- VESA mount for articulated arm

[3] The maximum current supplied by USB of MyLab for external USB devices is 500mA.

Trolley configuration (with deskstand/ docking station option)
- I/Os connectors
  - LAN RJ45
  - DVI-I (with analog VGA) connector
  - Additional 3 USB 2.0 (for e.g. image transfer)
- Dedicated connectors
  - Docking connector for scanner
  - Audio line-out
  - Microphone input
  - Double foot switch input
  - Power connector for DC adapter

Image Files

- Image formats
  - Standard output file formats (BMP, JPEG, PNG, AVI)
  - Native and DICOM formats
- Clips formats
  - AVI Codec: Microsoft® MPEG4-V2 and MS-Video1
  - Frozen frames: lossy compressed (about 70% of quality) and uncompressed : Bitmap, JPEG, PNG
- Patient data, Annotations, Bodymarks and Measurement from the graphic overlay
- Reports

Video I/O

Desk stand configuration
- DVI-I (with analog VGA) I/O connector

Printing Capability

- Ink jet color or Laser B/W & Color USB Printer (1,2,4 and 6 images printed out on A4 format)
- Thermal Digital B/W and Color Printers with USB interface
- Wireless compatible

DICOM classes (optional)

- DICOM Media Storage
- DICOM Store SCU
- DICOM Print SCU
- DICOM Worklist

Software

- User Interface Design fully dedicated to Application
- Operating system: WIN XP Embedded
- Multilanguage User Interface and Operation Menus (English, Italian French, German, Spanish, Chinese and Russian)
- Multilanguage keyboard layout selection (English, Italian, French, German, Spanish, Chinese, Danish and Russian)
- Basic measurements and calculations
- Reports, calculations and measurements (application dependent)
- Dedicated veterinary annotations and bodymarks
- Protocols
- User programmable step wise workflow
- Automatic activating functions per protocol step
- Supporting images per protocol step
- Explanatory text per protocol step
- Import and export of protocols
- DVD upgrading capability

Safety requirements

- EN 60601-1
- EN 60601-1-1
- EN 60601-1-2
- EN 60601-1-4
- EN 60601-2-37
- EN ISO 10993-1
- EN 61157
- AIUM / NEMA UD-2 / UD-3 – FDA 510(k) Track 3

Dimensions & weights
System Dimensions

- Approx. 315 (L) x 340 (W) x 115 (H) mm

System Weight

- Approx. 6.0 kg for full configuration

Basic Stand Dimensions

- 85 (H) x 310 (W) x 420 (D) mm
- Scanner support plate in upright position: 200 (H) x 310 (W) x 420 (D) mm

Basic Stand Weight

- Approx. 1,1 kg

Desk Stand Dimensions

Pro
- Approx. 230 (L) x 200 (W) x 290 mm (H)

Basic
- Approx. 230 (L) x 200 (W) x 290 mm (H)

Desk Stand Weight

Pro
- Approx. 3.8 kg

Basic
- Approx. 3.6 kg

Trolley Dimensions

Pro
- Height **with MyLabOne** installed: Approx. Min. 1130 – Max. 1370 mm

(measured from ground to top of MyLabOne system, without cable hook)

esaote

- Height **without MyLabOne** installed: Approx. Min. 1060 – Max. 1300 mm *(measured from ground to top of scanner support, without cable hook)*
- **Work surface** height: Approx. min. 780 – Max. 1020 mm *(measured from ground to table)*
- Work surface: Approx. 300 (L) x 410 mm (W)
- Printer tray surface: Approx. 390 (L) x 280 mm (W)
- Base dimensions: Approx. 570 (L) x 470 mm (W)

Basic

- Height **with MyLabOne** installed: Approx. 1280 mm *(measured from ground to top of MyLabOne system)*
- Height **without MyLabOne**: Approx. 1210 mm *(measured from ground to top of scanner support)*
- **Worksurface** Height: Approx. 930 mm *(measured from ground to table)*
- Work surface: approx. 300 (L) x 410 mm (W)
- Base dimensions: Approx. 570 (L) x 470 mm (W)

Trolley Weight

Pro Approx. 26 kg

Basic Approx: 18

Power supply
Power Supply MyLab

- Voltage operating range: $100 \div 240$ V
- Absolute maximum operating range: $90 \div 264$ V
- Mains frequency range: $47 \div 63$ Hz
- Power consumption: ≤ 120 VA

Batteries

- Li-Ion battery
- Operating time: 1 hour and 30' per battery pack
- Recharging time for 100% charge: 2 hours and 30' per battery pack
- After 300 cycles 80% of maximum charge remains
- The battery nominal operating voltage is 14,4V

- Capacity: 6,6A
- Power: 95W

Power Cables

- Power cable Europe
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: CEE 7/7
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm^2
  - Length: 3 m
- Power cable Italy
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: CEI 23-16/ VII
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable United Kingdom
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: BS1363
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable Australia
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: WS-015 (AS 3112)
  - Connector type: WS-002 (IEC320 C13)
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable China
  - Current rating: 10 A
  - Voltage rating: 250 VAC
  - Plug type: GB2099-1
  - Connector type: IEC60320 C13
  - Conductors: 3
  - Size: 1 mm2
  - Length: 2,5 m
- Power cable US

- o Current rating: 10 A
- o Voltage rating: 125 VAC
- o Plug type: NEMA 5-15P
- o Connector type: IEC60320 C13
- o Conductors: 3
- o Size: 1 mm2
- o Length: 3 m

Distance	Distance	Distance
D-Ratio	Distance ratio	Two distances
% Diam	Diameter reduction	Two distances
Vx-Length	Length (rectilinear approximation)	More distances
Tr-Length	Length (Profile)	Distance
A-Ellipse	Area (Ellipse)	Distance, Area
Vx--Area	Area (rectilinear approximation)	More distances
Tr-Area	Area (Profile)	Profile
A-Ratio	Areas ratio	Two areas (on a profile)
% Area	Reduction area	Two areas (on a profile)
El-Volume	Volume (Ellipse)	Distance, Area
Tr-Volume	Volume (Profile)	Profile, Distance
Bi-Volume	Volume(Axes)	Three distances
Angle	Angle	Angle between 2 lines

Environmental requirements
Operating requirements

- Temperature: 15÷35°C
- Humidity: 15÷95 % (not condensing)
- Pressure: 700÷1060 hPa

M-Mode

Parameter	Calculation	Measure
Distance	Distance	Distance
D-Ratio	Distance ratio	Two distances
Time	Time	Time
% Time	Time ratio	Two Times
HR	Heart rate	Distance
Velocity	Velocity	Velocity
% Veloc	Velocity ratio	Two velocities
Slope	Velocity slope	Velocity slope

Storage requirements

- Temperature: -20 ÷ +60°C
- Humidity: 5÷95 % (not condensing)
- Pressure: 700÷1060 hPa

Doppler

Parameter	Calculation	Measure
Time	Time	Time
% Time	Time ratio	Two times
HR	Heart rate	Time
Velocity	Velocity	Velocity
% Veloc	Velocity ratio	Two velocities
S/D	Systolic/ Diastolic ratio	Two velocities
FVI	Vascular FVI	Spectral envelope
RI	Resistive index	Two velocities
Slope	Velocity slope, Time	Velocity slope, time difference

Calculations & Reports

- Generic measurements
- Standard Calculation Packages for:
  - o Abdominal Canine, Feline, Equine
  - o Repro Canine, Feline, Equine, Bovine
  - o Equine Tendon
- Optional Calculation Packages for:
  - o Repro Ovine, Porcine, LLamas
- All the reports are automatically stored in the patient file
- Refer to Operation Manual

Advanced Measurements

Please refer to the Operation Manual

Generic Measurements

Veterinary
B-Mode

Parameter	Calculation	Measure

13

System Features

TEI™ (Tissue Enhancement Imaging)

- Dedicated Hardware and Software is processing the 2nd Harmonic frequencies in order to improve the B-Mode image quality. This makes it possible to diagnosis patients that are difficult to scan.
- Available on all transducers
- 3 Selectable frequencies
  - o General
  - o Resolution
  - o Penetration

X-View™

- To elaborate the pattern of every single frame at the pixel level, eliminating speckle and noise artifacts, dynamically enhancing tissue margins, improving tissue conspicuity and increasing diagnostic confidence. Custom User Preset are available (X-Smoothing, X-Enhancement, X-Details) to optimize the image processing algorithm.

M-View™

- Combined contributions of standard and steered ultrasound beams allow optimized image quality for comfortable detection of every anatomical structure and help to eliminate doubts in the final diagnosis.

TP-View™

- Enlarged field of view to scan extended structure without losing resolution.
- Specially studied for veterinarian applications.

XHF eXtreme HF Imaging

- Up to 22 MHz bandwidth on linear transducers to provide very detailed and precise imaging, especially in very superficial investigations.
- Multiple transmission frequencies to scan deeper structures without the need to change the probe.

MyLab™ Desk Workstation

- Dedicated software for review, post-process and printing of exams performed with a MyLab™ ultrasound system on a PC Workstation working with Windows™ XP, Vista and Windows 7.
- User interface equivalent to the MyLab™ ultrasound series keyboard for convenience.
- To import native Esaote file formats (raw data UAF & EAF).

- To perform generic measurements.
- For reviewing, modifying and printing the examinations (images).
- To export the data by using the standard features of the PC (burn on a CD/DVD, archiving on the local HDD or store on a USB key in standard PC formats, transfer to e-mail, etc.).

Transducers
Probes and applications

MyLab intended clinical use is veterinary:
  - o Equine: Abdominal, Reproductive, Cardio (basic), Ovary, Tendon
  - o Canine: Abdominal, Reproductive, Cardio (basic)
  - o Feline: Abdominal, Reproductive, Cardio (basic)
  - o Bovine: Ovary, Reproductive
  - o Swine: Reproductive
  - o Ovine: Reproductive
  - o Llamas: Reproductive
  - o Other: Abdominal, Reproductive, Cardio (basic)

Probes Technical Specifications:

Phased Array Probes

SP3630 Phased array Probe 4 - 1

- Technology: Wideband Electronic Phased Array
- Depth: 40 - 340 mm
- Field Of View: 20° - 90°
- Operating Bandwidth: 4 - 1
- B-M Modes Frequencies: 3 (2.0 - 2.5 - 3.5 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (2.0 - 2.5 MHz)
- Steer angle: 5 steps

Linear Array Probes

SL3116 Linear Probe 22 - 15 L20mm

- Technology: Wideband Electronic Linear Array L20mm
- Image Depth: 5 – 40 mm
- Operating Bandwidth: 22 - 15 MHz

- B-M Modes Frequencies : 3 (15.0 – 18.0 – 22.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (12.5 – 14.3 MHz)
- Steer angle: 5 steps

SL3323 Linear probe 13 - 6 L40mm

- Technology: Wideband Electronic Linear Array – apple probe shape L40mm
- Image Depth: 20 – 90 mm
- Operating Bandwidth: 13-6 MHz
- B Mode Frequencies : 3 (6.0-10.0-13.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM Frequencies: 2 (5.6-6.7 MHz)
- Steer angle: 5 steps

SL3235 Linear probe 18 - 6 L25mm

- Technology: Wideband Electronic Linear Array – apple probe shape L25mm
- Image Depth: 10 – 70 mm
- Operating Bandwidth: 18 – 6.0 MHz
- B-M Modes Frequencies: 3 (12.0 – 15.0 – 18.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (6.6 – 8.0 MHz)
- Steer angle: 5 steps

SL3413 Linear probe 10 - 5 L45mm

- Technology: Wideband Electronic Linear Array L45mm
- Image Depth: 30 – 90 mm
- Operating Bandwidth: 10 – 5 MHz
- B-M Modes Frequencies: 3 (5.0 – 7.5 – 10.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (5.0 – 6.6 MHz)
- Steer angle: 5 steps

SL3332 Linear probe 11 - 3 L32mm

- Technology: Wideband Electronic Linear Array L32mm
- Image Depth: 30 - 120 mm
- Operating Bandwidth: 10 - 5 MHz
- B-M Modes Frequencies: 3 (5.0 - 6.6 - 10.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (3.3 – 5.0 MHz)
- Steer angle: 5 steps

SV3L11 Animal Science probe 3.5 MHz L180mm

- Technology: Wideband Electronic Linear Array L180mm
- Image Depth: 5 - 340mm
- Operating Bandwidth: 2 - 6 MHz

- B-M Modes Frequencies: 3 (2.8 – 3.6 – 5.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (2.6 – 3.9 MHz)
- Steer angle: 5 steps

Convex Array Probes

SC3123 Convex probe 10 - 6 Radius 14 mm

- Technology: Wideband Electronic Convex Array – apple probe shape R14mm
- Image Depth: 20 – 150 mm
- Field of view: 20° - 90°
- Operating Bandwidth: 10-6 MHz
- B Mode Frequencies: 3 (6.6-8.0-10.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM Frequencies: 2 (5.0-6.6 MHz)

SC3421 Convex probe 7 - 3 Radius 40 mm

- Technology: Wideband Electronic Convex Array – apple probe shape R40mm
- Image Depth: 40 – 340 mm
- Field of view: 20° - 90°
- Operating Bandwidth: 7-3 MHz
- B Mode Frequency: 3 (2.5-4.3-6.6 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM-PW Frequencies: 2 (2.5-3.1 MHz)

SC3121 Convex probe 5 - 2 Radius 13mm

- Technology: Wideband Electronic Convex Array – apple probe shape R13mm
- Image Depth: 20 – 230 mm
- Field of view: 30° – 145°
- Operating Bandwidth: 5 – 2 MHz
- B-M Modes Frequencies: 3 (2.5 – 3.3 – 5.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM–PW Frequencies: 2 (2.5 – 3.3 MHz)

SV3513 (endorectal vet)

- Technology: Wideband Electronic Linear Array
- Image Depth: 0 - 150 mm
- Operating Bandwidth: 10 – 5 MHz
- B Mode Frequencies: 3 (6.0-8.0-10.0 MHz)
- TEI Frequencies: 3 (Pen-Gen-Res)
- CFM Frequencies: 2 (5-6.6 MHz)
- Steer angle: 5 steps

esaote

Biopsy Kits

For **MyLab** there are a series of optional adaptors for the biopsy needle guide available. These are fitted with special couplings for connection to the probe. The following tables list the available kits.

Reusable Needle guide kits with biopsy line

Biopsy adaptor	Manufacturer's kit code	Probe	Kit contents
WBSL33X	-	SL3332	35° coupling

The WBSL33X kit is composed of stainless steel. 12, 14, 18, 19, 20, 21 and 22 gauge needle guides are available for the WBSL33X.

In addition to the above mentioned biopsy adaptor, Esaote probes can be equipped with sterilized single-use Needle guides[4]. The following table lists the available kits:

Disposable Needle guide kits with biopsy line

Biopsy adaptor	Manufacturer's kit code	Probe	Kit contents
CBSL33X	639-015	SL3332	1 Non-sterile mounting bracket, disposable sterile needle guide and sterile probe cover. (25°, 40° or 50° angle)

---

[4] Manufactured Civco Medical Instruments, Kalona Iowa; www.civco.com

CBSC23X	639-045	SC3123	1 Non-sterile mounting bracket, disposable sterile needle guide and sterile probe cover (20° or 35° angle)

The CBSL33X needle guide will accept a range of sizes including: 8.5FR, 14-23 gauge (19 GA not available.).

The CBSC23X needle guide accepts 8.5FR, 14-23 gauge (19 GA not available.) instruments.

Disposable Needle guide kits without biopsy line

Biopsy adaptor	Manufacturer's kit code	Probe	Kit contents
IKL3323	639-025	SL3323	Non-sterile bracket with infiniti needle guide and 14x147cm probe cover, (42° to 81° angles)
IKC3421	639-027	SC3421	Non-sterile bracket with infiniti needle guide and 14x147cm probe cover, (42° to 57° angles)

The IKL3323 & IKC3421 needle guides accept instruments through 20, 21/22, 25, 14, 18 gauge. **The IKL3323 and IKC3421 are Needle guides with infinite angle capabilities, no needle guideline is available throughout the ultrasound image for these Needle Guides.**