

Specification

Rev: 1.0
2012.09

Z5 Vet

Diagnostic Ultrasound System

System Description

The Z5 Vet is an ergonomically designed portable and ease-of-use machine for multi-specialty use like adults, pregnant women, pediatric patients and neonates.

General Specification

Dimensions and Weight

- Unfolded:
 - Depth: 476mm (18.74 inch)
 - Width: 415mm (16.34 inch)
 - Height: 396mm (15.59 inch)
- Folded:
 - Depth: 190mm (7.48 inch)
 - Width: 415mm (16.34 inch)
 - Height: 378mm (14.88 inch)
- Net Weight: 8.8kg (including battery)

Electrical Power

Input power

- Voltage: 100-240V~
- Frequency: 50/60Hz
- Input current: 1.5- 0.8A

Battery

- Lithium-ion Battery Pack: 14.8 V \equiv , 6600 mAh
- Charge time: < 3 hours (connected on AC power supply, with the system powered off)
- Endurance time: > 100 min

Boot time

- Boot time: \leq 30 s
- Wake up time (from standby): \leq 5 s

Operating Environment

Ambient temperature: 0°C ~ 40°C
Relative humidity: 30% ~ 85% (no condensation)
Atmospheric pressure: 700 hPa ~ 1060 hPa

Storage & Transportation Environment

Ambient temperature: -20°C ~ 55°C
Relative humidity: 30% ~ 95% (no condensation)
Atmospheric pressure: 700 hPa ~ 1060 hPa

Probe

Probe Types

- Convex array
- Linear array

Scanning Methods

- Electronic convex with extend FOV
- Electronic linear with slant scanning and trapezoid

Probe Model

> 35C50EA	Convex
> 65C15EA	Micro-Convex
> 75L38EA	Linear
> 10L24EA	Linear
> 35C20EA	Micro-Convex
> 75L50EAV	Linear
> 50L60EAV	Linear

Available Needle-guided Bracket for Probe:

> 35C50EA	NGB-001
> 35C20EA	NGB-003
> 65C15EA	NGB-005
> 75L38EA	NGB-002
> 10L24EA	NGB-016

System Configuration

Standard Configuration

- Display
 - > 15-inch LCD, High-Resolution 1024 x 768
 - > Contrast & Brightness adjustable
 - > Screen Saver: Time and picture presettable
 - > Angle adjustable: 30°
- Control Panel
 - > Alphanumeric Keys
 - > Function Keys
 - > Knobs

- User-defined Keys: function presettable
- 8 segment TGC
- Trackball: Color & Speed presettable
- Key Backlight Brightness & Volume presettable
- Integrated Speakers
- Indicators: Power/Battery/Standby/HDD status
- Handle
- Phase Shift harmonic imaging
- Steer scanning for linear probes (2D Steer)
- iBeam™
- iTouch™
- ExFOV Imaging
- Color
- Power
- PW
- HPRF
- iStation™
- 320G integrated hard disk
- I/O Interfaces
 - Transducer port: 2
 - Power input port: 1 (Connect to the AC power supply)
 - USB port: 4
 - VGA OUT port: 1
 - Video OUT: 1
 - S-Video OUT: 1 (Separate video output)
 - Ethernet port: 1 (Connect to network)
 - Remote control port: 1
 - Equipotential terminal: 1
- Multi-language screen display and control panel overlay
- Application categories
 - Abdomen
 - Obstetrics (Dog/Cat/Equine/Bovine/Ovine)
 - Gynecology
 - Cardiology
 - Small Parts
 - Urology
 - Vascular
 - Orthopedics
 - Nerve

Accessories

- Operator's manual
 - Basic Volume.
 - Advanced Volume
 - Operation Note

- Power cord
- Probe holder
- Dust-proof cover
- Grounded Cable
- Video Printer Remote Cable

System Language

- Software display and keyboard input available: Chinese/English/German/Spanish/French/Italian/Portuguese/Russian/Czech/Polish
- Keyboard input available only: Icelandic/Norwegian/Swedish/Finnish/Turkish/Danish
- Control panel overlay available: Chinese/German/Spanish/French/Italian/Portuguese/Russian/Czech/Polish

Options

- iScape™
- DICOM basic
- Keys for optical functions
- Battery Pack
- External USB DVD-RW: SE-S224
- Footswitch:
 - 971-SWNOM (2-pedal)
 - SP-997-350 (3-pedal)
 - FS-81-SP (1-pedal)
- Mobile trolley: UMT-150
 - Weight: 21 kg
 - Width: 445 mm
 - Depth: 535 mm
 - Height: selective (not available after installed): 810 mm, 870 mm, 2 levels
- Mobile trolley: UMT-160
 - Weight: 20 kg
 - Width: 616 mm
 - Depth: 702 mm
 - Height: selective (not available after installed): 1247 mm, 1147 mm, 2 levels
- Carrying Case
- Print paper
- Probes
- Needle-guided brackets

Peripherals Supported

- Black and White Video Printer
 - SONY UPD-897MD Digital
 - SONY UP-897MD Analog
 - MITSUBISHI P93W-Z Analog
- Color Video Printer
 - SONY UP-20 Analog
 - MITSUBISHI CP910E Analog
- Graph / text printer
 - HP Color LaserJet
 - HP LaserJet p1007
 - HP LaserJet 1020 plus

Exam Mode

- ABD
- SMP
- OB
- Cardiac
- Vascular

Imaging Mode

- B-Mode
 - Tissue Harmonic Imaging
 - Phase Shift Harmonic Imaging
- Slant scanning for linear probes (B, color/power, PW independent)
- ExFOV Imaging for Convex Probe (trapezoid imaging for linear probe)
- M Mode
- Color
- Power
- PW (Pulse Wave Doppler)
- HPRF (High Pulse Repeat Frequency)
- Display Mode:
 - Single window
 - B/C/D triplex mode
 - Dual live: B/C,
 - Adjustable time line display format (1:1, 1:2, Full)
 - Dual-split: B/C, B/M, B/PW
 - Quad-split

Imaging Features

- iBeam™ (Spatial Compounding Imaging for Linear and Convex Probe)

- iScape™
- Multi-frequency probes for 2D imaging modes
- iClear™ (adaptive speckle suppression imaging for all probes)
- iTouch™ (B/PW): Auto Optimization
- TSI (Tissue Specific Imaging)
- iZoom™
- Spot Zoom and Pan Zoom

Safety & Conformance

Quality Standards

- ISO 9001:2008
- ISO 13485:2003

Design Standards

- EN 60601-1 and IEC 60601-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-2-37 and IEC60601-2-37
- EN ISO 14971 and ISO 14971
- EN ISO10993-1 and ISO10993-1
- EN 62366 and IEC 62366
- EN 62304 and IEC 62304
- EN ISO 17664
- EN 1041
- EN 980
- IEC 60878

CE Declaration

Z5 Vet system is fully in conformance with the EC Low Voltage Directive (2006/95/EC) and EC Directive of Electromagnetic Compatibility (2004/108/EC).

Not all features or specifications described in this document may be available in all probes and/or modes.

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The contents of this manual are subject to change without prior notice and without our legal obligation.

Note: the contents in this datasheet are applied to Version 1.0 of system software for Z5 Vet diagnostic ultrasound system.