

Datasheet

Software version:
05.00.00
2019.09

DP-50Vet

Digital Ultrasonic Diagnostic Imaging System

System Description

The DP-50Vet is intended for veterinary use in ultrasound examination and diagnosis.

General Specification

Dimensions and Weight

- Size: 147±5mm×361±5mm×358±5mm (Depth×Width×Height)
- Net Weight: 8.1±0.5kg (without battery, two probe ports)

Electrical Power

Input power

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

Battery

- Lithium-ion Battery Pack: 14.8V $\equiv$, 6600mAh
- Charge time: < 3 hours (connected on AC power supply, with the system powered off)
- Endurance time: > 120 min

Boot time

- Boot time: >38 s
- Wake up time (from standby): >7 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	Convex
➢ 65EB10EA	Bi-Plane (Convex&Convex)
➢ 75L38EA	Linear array
➢ 75L53EA	Linear array
➢ 10L24EA	Linear array
➢ 35C20EA	Convex
➢ 65EC10ED	Convex
➢ 75LT38EA	Linear
➢ 65EL60EA	Linear
➢ 50L60EAV	Linear array
➢ 75L50EAV	Linear array

Available Needle-guided Bracket for Probe:

➢ 35C50EA	NGB-001
➢ 75L38EA	NGB-002
➢ 35C20EA	NGB-003
➢ 65EB10EA	NGB-004
➢ 65EC10ED	NGB-004
➢ 65C15EA	NGB-005
➢ 75L53EA	NGB-007
➢ 65EL60EA	NGB-009
➢ 75LT38EA	NGB-010
➢ 10L24EA	NGB-016

System Configuration

Standard Configuration

- Display
 - 15-inch LCD, High-Resolution 1024 x 768
 - Contrast & Brightness adjustable
 - Screen Saver: Time presettable

- Angle adjustable: 60°
- 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
- Trapezoid imaging
- Slant scanning for linear probes (2D Steer)
- iBeam™
- iClear™ (Speckle Suppression Imaging)
- iTouch™
- ExFOV Imaging for Convex Probe
- iStation™
- 500GB 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
- Medsight
- Application categories
 - Abdomen
 - Cardiology
 - Small Parts
 - Vascular
 - Reproduction

Accessories

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

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

System Language

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

Options

- IMT (Auto Calculation of Intima-Media Thickness)
- Free Xros M
- iScape View
- Color
- Power
- DICOM basic
 - Task management
 - DICOM storage
 - DICOM print
 - DICOM storage commitment
 - DICOM media storage (including DICOM DIR)
- DICOM Worklist
- DICOM MPPS
- DICOM Query/Retrieve
- Keys for option functions
- PW
- Smart 3D
- Battery Pack
- External DVD-RW
- Footswitch:
 - 971-SWNOM (2-pedal or 3-pedal)
 - FS-81-SP-2 (1-pedal)
- Mobile trolley: UMT-150
 - Weight: 22kg
 - Width: 445mm
 - Depth: 535mm
 - Height: selective (not available after installed): 810mm, 870mm, 2 levels
- Mobile trolley: UMT-160

- Weight: 21 kg
- Width: 616 mm
- Depth: 702 mm
- Height: selective (not available after installed):
1247 mm, 1147 mm, 2 levels
- Carrying bag
- Probes
- Needle-guided brackets
- Network accessory package

Peripherals Supported

- Black and White Video Printer
 - MITSUBISHI P93W-Z Analog
 - SONY UP-X898MD Analog
- Color Video Printer
 - SONY UP-D25MD Digital
- Graph / text printer
 - HP OFFICEJET PRO 8100
- LAN Accessory
 - LPA11

Exam Mode

- Canine Abdomen
- Canine Cardiology
- Canine Reproduction
- Canine Vascular
- Canine Small Part
- Canine Musculoskeletal
- Puppy Abdomen
- Puppy Cardiology
- Puppy Reproduction
- Puppy Vascular
- Puppy Small Part
- Puppy Musculoskeletal
- Cat Abdomen
- Cat Cardiology
- Cat Reproduction
- Cat Vascular
- Cat Small Part
- Cat Musculoskeletal
- Horse Abdomen
- Horse Cardiology
- Horse Reproduction
- Horse Vascular
- Horse Small Part
- Horse Musculoskeletal

- Bovine Abdomen
- Bovine Cardiology
- Bovine Reproduction
- Bovine Vascular
- Bovine Small Part
- Bovine Musculoskeletal
- Ovine Abdomen
- Ovine Cardiology
- Ovine Reproduction
- Ovine Vascular
- Ovine Small Part
- Ovine Musculoskeletal
- Other Animal Abdomen
- Other Animal Cardiology
- Other Animal Reproduction
- Other Animal Vascular
- Other Animal Small Part
- Other Musculoskeletal

Imaging Mode

- B-Mode
 - Tissue Harmonic Imaging
 - Phase Shift Harmonic Imaging
- Slant scanning for linear probes (2D Steer)
- Trapezoid Imaging for Linear Probe
- ExFOV Imaging for Convex Probe
- M –Mode
- Color Mode
- Power Mode
- PW mode
- Free Xros M Mode
- iScape™ (iScape View)
- Smart 3D
- Display Mode:
 - B/C/D triplex mode
 - Dual live: B/C
 - Adjustable time line display format (V1:1, V1:2, V2:1, Full)
 - Single window
 - 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/M): Auto Optimization
- TSI (Tissue Specific Imaging)
- iZoom™
- Spot Zoom and Pan Zoom

B Mode

- Display Depth
 - Minimum: 0.9cm
 - Maximum: 37cm
- Frame rate (Max.):
 - B mode: 400 fps
- Adjustable focus number: 4
- Adjustable focus positions (Max.): 16
- Digital processing channels: up to 13,824
- Magnification factor:
 - Pan Zoom: 80%-1000%
 - Spot Zoom: continuously adjustable
- iZoom: instant full screen view, two level.
- System dynamic range: 30~220dB, 5/step
- Gain: 0~100dB, 51steps
- TGC: 8
- Colorize: on, off
- Colorize map: off, 1~25
- Gray Map: 1-25, 1/step
- FOV size: continuously adjustable, convex transducer only
- IP: 1~8
- Persistence: 0~7
- R/L, U/D Flip
- Rotation: 0°, 90°, 180°, 270°
- Line Density: L, M, H, UH
- iTouch Bright: -12~12dB, 3db/step
- A.power: 32steps
- Smooth: 1~4
- TSI: General, Fat, Fluid, Muscle
- B Steer: 3 levels, linear transducer only
- Trapezoid: on, off, linear transducer only
- FOV Position: continuously adjustable, convex transducer only
- HScale: on, off
- Middle Line: on, off

- Gray Rejection: 0~5
- γ: 0~3
- Curve: adjustable
- Gray Invert: on, off
- iClear: on/off, 1-4, 1/step
- iBeam: on/off
- High FR: on, off (35C50EA/35C20EA THI)
- Auto Merge: on, off, linear probe, Dual display mode

M Mode

- Speed: 1~6
- IP: 1~8
- Edge Enhance: 0~14
- M Soften: 0~14
- Time Mark: on, off

Color Mode

- Frame rate (Max.): 260 fps (35C50EA)
- PRF (kHz): 0.3 (35C50EA)~ 15.5 (10L24EA)
- Flow velocities (cm/s, probe dependent): 5.0 (35C50EA)~ 100.0 (10L24EA)
- Gain: 0~100, 2/step
- Baseline: -8~8
- Scale: 30 levels
- Persistence: 0~4
- Smooth: 0~4
- ROI adjustment: continuously
- Priority: 0%~100%, 11 levels
- WF: 0~7
- Line Density: L, M, H, UH
- Dual Live: on/ off
- Invert: on/ off
- B/C Align: on/ off
- Packet Size: 0~3

Power Mode

- Dynamic Range: 10~70, 5/step
- Power Map: P0~P3; dP0~dP3

PW Mode

- PRF: 0.7kHz – 24kHz
- Baseline: -4~4
- Audio: 0~100%, 2%/step
- Angle: -89°~89°
- Quick Angle: -60, 0, 60
- SVD: continuously
- Speed: 1~6
- iTouch (PW): on/off

- SV:
 - 0.5~3 mm, 0.5 mm/step
 - 3~5 mm, 1 mm/step
 - 5~10 mm, 2.5 mm/step
 - 10~20 mm, 5 mm/step
- Dynamic range: 24~72, 2/step
- WF: 0~6
- Duplex/Triplex: on/ off
- T/F Res: 0~4
- Auto Calc: on/ off
- Auto Calc Cycle: 1~5
- Auto Calc Param: setting auto spectrum calculation results
- Trace Area: Above/ Below/ All

Smart 3D

- Reset: reset all, reset curve, reset orientation
- Accept VOI: on/off
- Render modes: Surface, Max, Min, X-ray
- Direction: D/U, U/D, L/R, R/L, F/B, B/F (D: down, U: up, L: left, R: right, F: front, B: back)
- Threshold: 0%-100%, 1%/step
- Opacity: 0%-100%, 5%/step
- Smooth: 0-10
- Brightness: 0%-100%, 2%/step
- Contrast: 0%-100%, 2%/step
- Tint: 0-25
- iClear: Off, 1-4
- Rotation control: X, Y, Z axis

Free Xros M Mode

- Tint map: Off; 1-25
- Gray map: 1-25
- Display format: V1:2,V2:1,V1:1

Display Annotations

- Manufacturer logo
- Hospital name: up to 64 characters can be displayed
- Exam date: 3 types selectable, YY/MM/DD, MM/DD/YY, DD/MM/YY
- Exam time: 2 formats
- Acoustic output indices: MI, TIC, TIS, TIB
- Freeze icon
- Gender
- Age
- Animal: Dog/ Cat/ Equine/ Bovine/ Ovine /Other
- Animal ID: up to 64 characters can be displayed

- Name: up to 64 characters can be displayed
- No.
- Host
- Probe model
- Current exam mode
- Accession#
- Operator: up to 64 characters can be displayed
- Menu
- Image
- Probe orientation mark
- Time line
- Coordinate axis, including depth, time, frequency
- TGC curve
- Focus
- Comment
- Body Mark
- Measure caliper
- Gray scale bar
- Thumbnail
- Help information
- Status icons
- Biopsy guideline
- Measure result window (up to 8 results can be displayed)
- Image parameters

Comments and Body Mark

Comment

Text comment

- Comment text for all exam modes
- Custom: add/delete/edit comment units in current menu.

Arrow

- Arrow Size
- Arrow position
- Arrow orientation

Body Mark

Application package

- Body marks for all exam modes:
- Custom: import/delete body marks

Storage/ Connection

- 500GB integrated hard disk
- External DVD-R/W (Optional)
- 4 USB ports
- Image archive on hard disk, DVD, Medsight and

iStorage, temporary saving in cine memory

- Clipboard
- Thumbnail
- Single-frame image formats: BMP, JPG, TIFF, DCM, FRM (supports off-line analysis)
- Multi-frame images formats: AVI, DCM, CIN, (supports off-line analysis)
- Storage area:
 - Image area: 640*522
 - Standard area: 800*600
 - Full-screen: 1024*768
- iVision: Demo player
- Cine review: Auto, Manual (auto review segment can be set), supports linked cine review for 2D, M images.
- Cine memory capacity (Max.)
 - Clip length presettable: 1-60s
 - B mode: 8632 frames
 - M mode: 90.5 s
 - PW: 84.8 s
 - Color: 1894 frames
- Max. frames in HDD (B mode)
 - BMP: 197887
 - FRM: 57855
- iStorage
- DICOM:
 - DICOM Basic
 - Task management
 - DICOM storage
 - DICOM print
 - DICOM storage commitment
 - DICOM media storage (including DICOM DIR)
 - DICOM Worklist
 - DICOM MPPS
 - DICOM Query/Retrieve
- MedSight
 - An interactive app that lets you transfer clinical images straight from Mindray Ultrasound system to a smart device, such as mobile phone or tablet PC.
 - Needs to be installed on mobile terminal
 - Transfer images or clips from system to mobile terminal through WiFi
 - Support Android/iOS powered system.

iStation™

Intelligent animal data management system

- Integrated search engine for animal data
- Detailed animal information view
- Intelligent data backup/ restore
- Animal data/ image sending
- Animal data deleting
- Exam managing: create new exam, activate exam and continue exam
- Recycle Bin
- Task manager

Measure/Calc/Study

General

B-Mode

Distance

Ellipse

Trace

Spline

Cross

Angle

Double Dist

Trace Len

Trace Len(Spline)

Parallel

B-Profile

B-Hist(Ellipse)

B-Hist(Trace)

B-Hist(Spline)

B-Hist(Rectangle)

Depth

Color Vel

Color Vel Profile

IMT

Volume

Volume(Ellipse)

Volume(E+Dist.)

Ratio(D)

Ratio(Ellipse)

Ratio(Spline)

Ratio(Cross)

Volume

Volume

Volume(Ellipse)

Volume(E+Dist.)

Ratio(A)	Panc duct
Ratio(Trace)	Panc head
Ratio(Ellipse)	Panc body
Ratio(Spline)	Panc tail
Ratio(Cross)	Spleen
Volume Flow	Aorta Diam
Vas Area	Aorta Bif
TAMEAN	Iliac Diam
TAMAX	Pre-BL L
	Pre-BL H
M-Mode	Pre-BL W
HR	Post-BL L
Slope	Post-BL H
Distance	Post-BL W
Time	Ureter
Velocity	-----
	Renal Vol
D-Mode	Pre-BL Vol
PS/ED	Post-BL Vol
Vel	Mictur.Vol
HR	-----
Time	Kidney
Acceleration	Renal L
D Trace	Renal H
-----	Renal W
Volume Flow	Cortex
Vas Area	Bladder
TAMEAN	Pre-BL L
TAMAX	Pre-BL W
Application	Pre-BL H
Abdomen	Post-BL L
B-Mode	Post-BL W
Liver	Post-BL H
Renal L	Adrenal
Renal H	Adrenal L
Renal W	Adrenal W
Cortex	Adrenal H
Adrenal L	Smart Bladder
Adrenal H	XS Bladder
Adrenal W	Sag Bladder
CBD	D-Mode
Portal V Diam	Ren A Org
CHD	Arcuate A
GB L	Segment A
GB H	Interlobar A
GB wall th	Renal A

M Renal A
 Renal V
 Aorta
 Celiac Axis
 SMA
 C Hepatic A
 Hepatic A
 Splenic A
 IVC
 Portal V
 M Portal V
 Hepatic V
 Lt Hepatic V
 Rt Hepatic V
 M Hepatic V
 Splenic V
 SMV

Bovine OB

- B-Mode Measurement
 - Bovine CRL
 - Bovine TD
 - Bovine HD

Dog OB

- B-Mode Measurement
 - Dog CRL
 - Dog GS
 - Dog HD
 - Dog BD

Equine OB

- B-Mode Measurement
 - Equine GS-H
 - Equine GS-V

Feline OB

- B-Mode Measurement
 - Feline BD
 - Feline HD

Ovine OB

- B-Mode Measurement
 - Ovine CRL
 - Ovine BPD

Cardiology

B-Mode
 LA Diam(2D)
 LA Major
 LA Minor
 RA Major

RA Minor
 LV Major
 LV Minor
 RV Major
 RV Minor
 LA Area
 RA Area
 LV Area(d)
 LV Area(s)
 RV Area(d)
 RV Area(s)
 LVIDd(2D)
 LVIDs(2D)
 LVIDd(Teich-2D)
 LVIDs(Teich-2D)
 LVIDd(Cube-2D)
 LVIDs(Cube-2D)
 LVIDd(Gibson-2D)
 LVIDs(Gibson-2D)
 RVDd(2D)
 RVDs(2D)
 LVPWd(2D)
 LVPWs(2D)
 RVAWd(2D)
 RVAWs(2D)
 IVSd(2D)
 IVSs(2D)
 Ao Diam(2D)
 Ao Arch Diam(2D)
 Ao Asc Diam(2D)
 Ao Desc Diam(2D)
 Ao Isthmus(2D)
 Ao st junct(2D)
 Ao Sinus Diam(2D)
 Duct Art Diam
 Pre Ductal
 Post Ductal
 ACS(2D)
 LVOT Diam(2D)
 AV Diam
 AVA
 PV Diam
 LPA Diam(2D)
 RPA Diam(2D)
 MPA Diam(2D)
 RVOT Diam(2D)

MV Diam	LVLd apical(Bullet)
MVA	LVLs apical(Bullet)
MCS(2D)	LVAd sax MV(Bullet)
MV EPSS(2D)	LVAs sax MV(Bullet)
TV Diam	HR(Bullet)
TVA	Mod.Simpson
IVC Diam(Insp)	LVLd apical(Simp)
IVC Diam(Expir)	LVLs apical(Simp)
SVC Diam(Insp)	LVAd sax MV(Simp)
SVC Diam(Expir)	LVAs sax MV(Simp)
LCA Diam	LVAd sax PM(Simp)
RCA Diam	LVAs sax PM(Simp)
VSD Diam	HR(Mod Simpson)
ASD Diam	Simp SP(A2C)
PDA Diam	EDV(Simp SP-A2C)
PFO Diam	ESV(Simp SP-A2C)
PEd(2D)	HR(Simp SP A2C)
PEs(2D)	Simp SP(A4C)
Diastole(Teich-2D)	EDV(Simp SP-A4C)
Systole(Teich-2D)	ESV(Simp SP-A4C)
Diastole(Cube-2D)	HR(Simp SP A4C)
Systole(Cube-2D)	Simpson BP
Diastole(Gibson-2D)	EDV(Simp BP-A2C)
Systole(Gibson-2D)	ESV(Simp BP-A2C)
HR(Teich 2D)	EDV(Simp BP-A4C)
HR(Cube 2D)	ESV(Simp BP-A4C)
HR(Gibson 2D)	HR(Simp BP)
-----	Cube(2D)
LA/Ao(2D)	LVIDd(Cube-2D)
Ao/LA(2D)	LVIDs(Cube-2D)
-----	HR(Cube 2D)
S-P Ellipse	Teichholz(2D)
LVLd apical(SP Ellipse)	LVIDd(Teich-2D)
LVAd apical(SP Ellipse)	LVIDs(Teich-2D)
LVLs apical(SP Ellipse)	HR(Teich 2D)
LVAs apical(SP Ellipse)	Gibson(2D)
HR(SP Ellipse)	LVIDd(Gibson-2D)
B-P Ellipse	LVIDs(Gibson-2D)
LVIDd(BP Ellipse)	HR(Gibson 2D)
LVIDs(BP Ellipse)	LA Vol(A-L)
LVAd sax MV(BP Ellipse)	LA Diam(LA Vol A-L)
LVAs sax MV(BP Ellipse)	LAA(A2C)
LVAd apical(BP Ellipse)	LAA(A4C)
LVAs apical(BP Ellipse)	LA Vol(Simp)
HR(BP Ellipse)	LA Vol(A2C)
Bullet	LA Vol(A4C)

RA Vol(Simp)

RA Vol(A4C)

LV Mass(Cube-2D)

IVSd(LV Mass Cube-2D)

LVIDd(LV Mass Cube-2D)

LVPWd(LV Mass Cube-2D)

LV Mass(T-E)

LVAd sax Epi(LV Mass T-E)

LVAd sax Endo(LV Mass T-E)

a

d

LV Mass(A-L)

LVAd sax Epi(LV Mass A-L)

LVAd sax Endo(LV Mass A-L)

LVLd apical(LV Mass A-L)

MVA(VTI)

LVOT Diam(MVA VTI)

LVOT VTI(MVA VTI)

MV VTI(MVA VTI)

AVA(VTI)

LVOT Diam(AVA VTI)

LVOT VTI(AVA VTI)

AV VTI(AVA VTI)

Qp/Qs

AV Diam(Qp/Qs)

AV VTI(Qp/Qs)

AV HR(Qp/Qs)

PV Diam(Qp/Qs)

PV VTI(Qp/Qs)

PV HR(Qp/Qs)

PISA MR

MR Rad

MR Als Vel

MR VTI(PISA MR)

PISA AR

AR Rad

AR Als Vel

AR VTI(PISA AR)

PISA TR

TR Rad

TR Als Vel

TR VTI(PISA TR)

PISA PR

PR Rad

PR Als Vel

PR VTI(PISA PR)

M-Mode

LA Diam(M)

LVIDd(M)

LVIDs(M)

LVIDd(Teich-M)

LVIDs(Teich-M)

LVIDd(Cube-M)

LVIDs(Cube-M)

LVIDd(Gibson-M)

LVIDs(Gibson-M)

RVDd(M)

RVDs(M)

LVPWd(M)

LVPWs(M)

RVAWd(M)

RVAWs(M)

IVSd(M)

IVSs(M)

Ao Diam(M)

Ao Arch Diam(M)

Ao Asc Diam(M)

Ao Desc Diam(M)

Ao Isthmus(M)

Ao st junct(M)

Ao Sinus Diam(M)

LVOT Diam(M)

ACS(M)

LPA Diam(M)

RPA Diam(M)

MPA Diam(M)

RVOT Diam(M)

MV E Amp

MV A Amp

MV E-F Slope

MV D-E Slope

MV DE

MCS(M)

MV EPSS(M)

PEd(M)

PEs(M)

LVPEP(M)

LVET(M)

RVPEP(M)

RVET(M)

Diastole(Teich-M)

Systole(Teich-M)	LVOT Vmax
Diastole(Cube-M)	LVOT VTI
Systole(Cube-M)	LVOT AccT
Diastole(Gibson-M)	AAo Vmax
Systole(Gibson-M)	DAo Vmax
HR(Teich M)	AV Vmax
HR(Cube M)	AV VTI
HR(Gibson M)	LVPEP(Doppler)
HR	LVET(Doppler)
-----	AV AccT
LA/Ao(M)	AV DecT
Ao/LA(M)	RVET(Doppler)
-----	RVPEP(Doppler)
LV Tei Index(M)	TV Vmax
MV C-O dur(M)	TV E Vel
LVET(LV Tei Index-M)	TV A Vel
Cube(M)	TV VTI
LVIDd(Cube-M)	TV AccT
LVIDs(Cube-M)	TV DecT
HR(Cube M)	TV A Dur
Teichholz(M)	RVOT Vmax
LVIDd(Teich-M)	RVOT VTI
LVIDs(Teich-M)	PV Vmax
HR(Teich M)	PV VTI
Gibson(M)	PV AccT
LVIDd(Gibson-M)	MPA Vmax
LVIDs(Gibson-M)	RPA Vmax
HR(Gibson M)	LPA Vmax
LV Mass(Cube-M)	PVein S Vel
IVSd(LV Mass Cube-M)	PVein D Vel
LVIDd(LV Mass Cube-M)	PVein A Vel
LVPWd(LV Mass Cube-M)	PVein A Dur
	PVein S VTI
	PVein D VTI
	PVein DecT
D-Mode	IVC Vel(Insp)
MV Vmax	IVC Vel(Expir)
MV E Vel	SVC Vel(Insp)
MV A Vel	SVC Vel(Expir)
MV E VTI	MR Vmax
MV A VTI	MR VTI
MV VTI	MS Vmax
MV AccT	dP/dt
MV DecT	AR Vmax
IVRT	AR VTI
IVCT	AR DecT
MV E Dur	
MV A Dur	

AR PHT
 AR Ved
 TR Vmax
 TR Vmax(RVSP)
 TR VTI
 PR Vmax
 PR VTI
 PR PHT
 PR Ved
 RAP
 VSD Vmax
 ASD Vmax
 PDA Vel(d)
 PDA Vel(s)
 Coarc Pre-Duct
 Coarc Post-Duct
 Ea(medial)
 Aa(medial)
 ARa(medial)
 DRa(medial)
 Sa(medial)
 Ea(lateral)
 Aa(lateral)
 ARa(lateral)
 DRa(lateral)
 Sa(lateral)
 HR
 AV HR
 MV HR
 TV HR
 PV HR
 LVOT HR
 RVOT HR

MV E/A
 MVA(PHT)
 TV E/A
 TVA(PHT)

MVA(VTI)
 LVOT Diam(MVA VTI)
 LVOT VTI(MVA VTI)
 MV VTI(MVA VTI)
 AVA(VTI)
 LVOT Diam(AVA VTI)
 LVOT VTI(AVA VTI)

AV VTI(AVA VTI)
 LV Tei Index(Doppler)
 MV C-O dur(Doppler)
 LVET(LV Tei Index-Doppler)
 RVSP
 TR Vmax(RVSP)
 RAP
 PAEDP
 PR Ved(PAEDP)
 RAP
 RV Tei Index
 TV C-O dur
 RVET(RV Tei Index)
 Qp/Qs
 AV Diam(Qp/Qs)
 AV VTI(Qp/Qs)
 AV HR(Qp/Qs)
 PV Diam(Qp/Qs)
 PV VTI(Qp/Qs)
 PV HR(Qp/Qs)
 PISA MR
 MR Rad
 MR Als Vel
 MR VTI(PISA MR)
 PISA AR
 AR Rad
 AR Als Vel
 AR VTI(PISA AR)
 PISA TR
 TR Rad
 TR Als Vel
 TR VTI(PISA TR)
 PISA PR
 PR Rad
 PR Als Vel
 PR VTI(PISA PR)

Vascular

B-Mode

CCA IMT
 Bulb IMT
 ICA IMT
 ECA IMT

 Stenosis D
 Stenosis A

IMT	Brachial V
CCA IMT	IIV
Bulb IMT	CFV
ICA IMT	SFV
ECA IMT	DFV
D-Mode	SSV
CCA	ASP
Bulb	BSP
ICA	-----
ECA	ICA/CCA
Vert A	-----
Innom A	ABI
Subclav A	ASP
Axill A	BSP
Brachial A	Gynecology
Ulnar A	B-Mode
Radial A	UT L
Subclav V	UT H
Axill V	UT W
Cephalic V	Cervix L
Basilic V	Cervix H
Ulnar V	Cervix W
Radial V	Endo
C.Iliac A	Ovary L
Ex.Iliac A	Ovary H
CFA	Ovary W
SFA	Follicle1 L
Pop A	Follicle1 W
TP Trunk A	Follicle1 H
Peroneal A	Follicle2 L
P.Tib A	Follicle2 W
A.Tib A	Follicle2 H
Dors.Ped A	Follicle3 L
C.Iliac V	Follicle3 W
Ex.Iliac V	Follicle3 H
Femoral V	Follicle4 L
Saph V	Follicle4 W
Pop V	Follicle4 H
TP Trunk V	Follicle5 L
Sural V	Follicle5 W
Soleal V	Follicle5 H
Peroneal V	Follicle6 L
P.Tib V	Follicle6 W
A.Tib V	Follicle6 H
IIA	Follicle7 L
DFA	Follicle7 W

Follicle7 H
 Follicle8 L
 Follicle8 W
 Follicle8 H
 Follicle9 L
 Follicle9 W
 Follicle9 H
 Follicle10 L
 Follicle10 W
 Follicle10 H
 Follicle11 L
 Follicle11 W
 Follicle11 H
 Follicle12 L
 Follicle12 W
 Follicle12 H
 Follicle13 L
 Follicle13 W
 Follicle13 H
 Follicle14 L
 Follicle14 W
 Follicle14 H
 Follicle15 L
 Follicle15 W
 Follicle15 H
 Follicle16 L
 Follicle16 W
 Follicle16 H

 Ovary Vol
 UT Vol
 UT SUM
 UT-L/CX-L
 Follicle1
 Follicle2
 Follicle3
 Follicle4
 Follicle5
 Follicle6
 Follicle7
 Follicle8
 Follicle9
 Follicle10
 Follicle11
 Follicle12
 Follicle13

Follicle14
 Follicle15
 Follicle16

 Uterus
 UT L
 UT H
 UT W
 Endo
 Uterine Cervix
 Cervix L
 Cervix H
 Cervix W
 Ovary
 Ovary L
 Ovary W
 Ovary H
 Follicle1
 Follicle1 L
 Follicle1 W
 Follicle1 H
 Follicle2
 Follicle2 L
 Follicle2 W
 Follicle2 H
 Follicle3
 Follicle3 L
 Follicle3 W
 Follicle3 H
 Follicle4
 Follicle4 L
 Follicle4 W
 Follicle4 H
 Follicle5
 Follicle5 L
 Follicle5 W
 Follicle5 H
 Follicle6
 Follicle6 L
 Follicle6 W
 Follicle6 H
 Follicle7
 Follicle7 L
 Follicle7 W
 Follicle7 H
 Follicle8

- Follicle8 L
- Follicle8 W
- Follicle8 H
- Follicle9
 - Follicle9 L
 - Follicle9 W
 - Follicle9 H
- Follicle10
 - Follicle10 L
 - Follicle10 W
 - Follicle10 H
- Follicle11
 - Follicle11 L
 - Follicle11 W
 - Follicle11 H
- Follicle12
 - Follicle12 L
 - Follicle12 W
 - Follicle12 H
- Follicle13
 - Follicle13 L
 - Follicle13 W
 - Follicle13 H
- Follicle14
 - Follicle14 L
 - Follicle14 W
 - Follicle14 H
- Follicle15
 - Follicle15 L
 - Follicle15 W
 - Follicle15 H
- Follicle16
 - Follicle16 L
 - Follicle16 W
 - Follicle16 H

Urology

B-Mode

- Renal L
- Renal H
- Renal W
- Cortex
- Adrenal L
- Adrenal H
- Adrenal W
- Prostate L
- Prostate H

- Prostate W
- Seminal L
- Seminal H
- Seminal W
- Testicular L
- Testicular H
- Testicular W
- Ureter
- Pre-BL L
- Pre-BL H
- Pre-BL W
- Post-BL L
- Post-BL H
- Post-BL W
- Prostate Mass1 d1
- Prostate Mass1 d2
- Prostate Mass1 d3
- Prostate Mass2 d1
- Prostate Mass2 d2
- Prostate Mass2 d3
- Prostate Mass3 d1
- Prostate Mass3 d2
- Prostate Mass3 d3
- Testicular Mass1 d1
- Testicular Mass1 d2
- Testicular Mass1 d3
- Testicular Mass2 d1
- Testicular Mass2 d2
- Testicular Mass2 d3
- Testicular Mass3 d1
- Testicular Mass3 d2
- Testicular Mass3 d3
-
- Renal Vol
- Prostate Vol
- Testicular Vol
- Pre-BL Vol
- Post-BL Vol
- Mictur.Vol
-
- Kidney
 - Renal L
 - Renal H
 - Renal W
 - Cortex
- Adrenal

Adrenal L
 Adrenal W
 Adrenal H
 Prostate
 Prostate W
 Prostate H
 Prostate L
 Seminal Vesicle
 Seminal L
 Seminal W
 Seminal H
 Testis
 Testicular L
 Testicular W
 Testicular H
 Bladder
 Pre-BL L
 Pre-BL W
 Pre-BL H
 Post-BL L
 Post-BL W
 Post-BL H
 Prostate Mass1
 Prostate Mass1 d1
 Prostate Mass1 d2
 Prostate Mass1 d3
 Prostate Mass2
 Prostate Mass2 d1
 Prostate Mass2 d2
 Prostate Mass2 d3
 Prostate Mass3
 Prostate Mass3 d1
 Prostate Mass3 d2
 Prostate Mass3 d3
 Testicular Mass1
 Testicular Mass1 d1
 Testicular Mass1 d2
 Testicular Mass1 d3
 Testicular Mass2
 Testicular Mass2 d1
 Testicular Mass2 d2
 Testicular Mass2 d3
 Testicular Mass3
 Testicular Mass3 d1
 Testicular Mass3 d2
 Testicular Mass3 d3

Smart Bladder
 XS Bladder
 Sag Bladder
Small Parts
 B-Mode
 Thyroid L
 Thyroid H
 Thyroid W
 Isthmus H
 Testicular L
 Testicular H
 Testicular W
 Breast Mass1 d1
 Breast Mass1 d2
 Breast Mass1 d3
 Breast Mass2 d1
 Breast Mass2 d2
 Breast Mass2 d3
 Breast Mass3 d1
 Breast Mass3 d2
 Breast Mass3 d3
 Thyroid Mass1 d1
 Thyroid Mass1 d2
 Thyroid Mass1 d3
 Thyroid Mass2 d1
 Thyroid Mass2 d2
 Thyroid Mass2 d3
 Thyroid Mass3 d1
 Thyroid Mass3 d2
 Thyroid Mass3 d3

 Thyroid Vol

 Thyroid
 Thyroid L
 Thyroid W
 Thyroid H
 Testis
 Testicular L
 Testicular W
 Testicular H
 Breast Mass1
 Breast Mass1 d1
 Breast Mass1 d2
 Breast Mass1 d3
 Breast Mass2

Breast Mass2 d1
Breast Mass2 d2
Breast Mass2 d3

Breast Mass3

Breast Mass3 d1
Breast Mass3 d2
Breast Mass3 d3

Thyroid Mass1

Thyroid Mass1 d1
Thyroid Mass1 d2
Thyroid Mass1 d3

Thyroid Mass2

Thyroid Mass2 d1
Thyroid Mass2 d2
Thyroid Mass2 d3

Thyroid Mass3

Thyroid Mass3 d1
Thyroid Mass3 d2
Thyroid Mass3 d3

D-Mode

STA

ITA

Orthopedics

- B-Mode Measurement
 - HIP
 - HIP-Graf
 - HIP(α)
 - HIP(β)
 - d/D

Auto Calculation

PS
ED
MD
PPG
TAMAX
Vol Flow(TAMAX)
TAMEAN
Vol Flow(TAMEAN)
DT
MPG
MMPG
VTI
AT
S/D
D/S

PI
RI
PV
HR

Diagnostic Report

- View/add images
- Data edit
- Print
- Import
- export (to PDF/RTF file)
- View history report
- Obstetric analysis
- Fetal growth curve

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 IEC 60601-2-37
- 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

DP-50 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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