mindray

Datasheet **DP-10/DP-10T/DP-11/DP-15/DP-18**

2013.03 **Digital Ultrasonic Diagnostic Imaging System**

System Description

The DP-10/DP-10T/DP-11/DP-15/DP-18 is an ergonomically designed portable and ease-of-use machine for multi-specialty use like adults, pregnant women, pediatric patients and neonates.

Intended Use

- CE Region: It is intended for use in gynecology, obstetrics, abdominal, pediatric, small organ, cephalic, transcranial, musculo-skeletal, cardiac, vascular, urology, orthopedics and nerve exams.

General Specification

Dimensions and Weight

- Depth: 161mm (6.34 inch)
- Width: 290mm (11.42 inch)
- Height: 354mm (13.94 inch)
- Net Weight: 5.1kg (single-probe socket, without battery or hard disk)

Electrical Power

Input power

- Voltage: 100-240V～
- Frequency: 50/60Hz
- Input current: 1.0- 0.5A

Battery

- Lithium-ion Battery Pack: 11.1V ⎓ , 4800mAh
- Charge time: < 3 hours (connected on AC power supply, with the system powered off)
- Endurance time: > 120 min (Normal scanning, convex probe, single B mode, frequency 3.5M, AP15, depth 18.3cm, brightness 50%, contrast 50%, backlit brightness low, without hard disk).

Boot time

- Boot time: ≤60s

Operating Environment

Ambient temperature: 0℃ ~ 40℃

Relative humidity: 30% ~ 85% (no condensation)

Atmospheric pressure: 700 hPa ~ 1060 hPa

Storage & Transportation Environment

Ambient temperature: -20℃ ~ 55℃

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 trapezoid

Probe Model

35C20EA	Convex
35C50EB	Convex
65C15EA	Micro-Convex
65EC10EB	Endocavity Micro-Convex
75L53EA	Linear
75L38EB	Linear

Available Needle-guided Bracket for Probe:

35C50EB	NGB-001
75L38EB	NGB-002
35C20EA	NGB-003
65EC10EB	NGB-004
65C15EA	NGB-005
75L53EA	NGB-007

System Configuration

Standard Configuration

- Display
  - 12.1-inch LCD, High-Resolution 1024 x 768
  - Contrast & Brightness adjustable
  - Screen Saver: Time 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/HDD status
- Handle
- Phase Shift harmonic imaging
- Trapezoid imaging
- ExFOV Imaging (Extended FOV for Convex Probe)
- iStation™
- 320G integrated hard disk
- I/O Interfaces
  - Transducer port: 2 (1 optional)
  - Power input port: 1 (Connect to the AC power supply)
  - USB port: 2
  - VGA OUT port: 1
  - Video OUT: 1
  - S-Video OUT: 1 (Separate video output)
  - Ethernet port: 1 (Connect to network)
  - Remote control port: 1
- Multi-language screen display and control panel overlay
- Application categories
  - Abdomen
  - Obstetrics
  - Gynecology
  - Cardiology
  - Small Parts
  - Urology
  - Vascular
  - Orthopedics
  - Nerve

Accessories

- Operator's manual
  - Basic Volume.
  - Advanced Volume.
  - Operation Note.
- Gel
- Power cord
  - 3-Flat-Pin Power Cord
  - EU Power Cord
  - US Power Cord
  - UK Power Cord
- Probe holder
- Gel holder
- 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
- Operation manual available: Chinese/English/German/Spanish/French/Italian /Portuguese/Russian

Options

- DICOM Basic
  - Task management
  - DICOM storage
  - DICOM print
  - DICOM storage commitment
  - DICOM media storage (including DICOM DIR)
- DICOM Worklist (DICOM Basic be configured)
- Keys for option functions
- Battery Pack: Li-ion LI23I002A (configured in factory)
- Hard disk (configured in factory)
- External USB DVD-RW: SE-S224
- Footswitch:
  - 971-SWNOM (2-pedal or 3-pedal)
  - FS-81-SP (1-pedal)
- Mobile trolley: UMT-110
  - Weight: 21kg
  - Width: 445mm
  - Depth: 535mm
  - Height: selective (not available after installed): 810mm, 870mm, 2 levels
- Dual-probe socket
- Carrying bag

- Dust-proof cover
- Probes
- Needle-guided brackets

Peripherals Supported

Graph / text printer		HP Color Laserjet CM1015 MFP HP LaserJet p1007 HP deskjet 1280 HP officejet 6000 HP OfficeJet J3600 HP LaserJet 1020 plus
Analog Color Video Printer		SONY UP-20 MITSUBISHI CP910E
Black and White Video Printer	Analog	SONY UP-897MD MITSUBISHI P93W-Z
	Digital	SONY UP-D897

Exam Mode

- Adult ABD
- ABD-Difficult
- Ped-ABD
- GYN
- OB1
- OB2/3
- Urology
- Prostate
- Vascular
- Thyroid
- Breast
- Testicle
- MSK
- General Nerve
- Superficial
- Orthopediac
- Cardiac

Imaging Mode

- B-Mode
  - Tissue Harmonic Imaging
  - Phase Shift Harmonic Imaging
- Trapezoid Imaging for Linear Probe
- ExFOV Imaging (Extended FOV for Convex Probe)
- M -Mode
- Display Mode:
  - Dual live: B/M
  - Time line display: top/bottom (1:1, 2：1, 1:2, Full)
  - Single window
  - Dual-split: B/M, B/B
  - Quad-split: 4B

Imaging Features

- Multi-frequency probes for 2D imaging modes
- TSI (Tissue Specific Imaging)
- Spot Zoom and Pan Zoom

B Mode

- Display Depth
  - Minimum: 0.9 cm
  - Maximum: 37.8 cm
- Frame rate (Max.):
  - B mode: 400 fps
- Adjustable focus number: 4
- Adjustable focus positions (Max.): 16
- Magnification factor：
  - Pan Zoom: 0.8~10, 29steps
  - Spot Zoom: continuously adjustable
- System dynamic range: 30~220dB, 39steps
- Frequency: 2.0~10.0MHz (transducer dependant), 6 steps
- Gain: 0~100dB, 51steps
- TGC: 8
- Gray map: 1~8
- Colorize map: off, 1~16
- ExFOV: on/off (Trapezoid imaging for linear probe)
- FOV: on/off, continuously adjustable
- IP: 1~8
- Persistence: 0~7
- R/L, U/D Flip
- Rotation: 0°, 90°, 180°, 270°
- Line Density: L, M, H, UH
- A.power: 7%~100%, 32steps
- Smooth: 1~4
- TSI: General, Fat, Fluid, Muscle
- H Scale: on/off
- Gray Rejection: 0~5
- γ: 0~3
- Curve: adjustable
- Gray Invert: on/off
- Auto Merge: on/off, linear probe, Dual display mode

M Mode

- Gain: 0~100
- Speed: 1~6
- Edge Enhance: 0~14
- M Soften: 0~14

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
- ID: up to 64 characters can be displayed
- Other ID: up to 64 characters can be displayed
- Name: up to 64 characters can be displayed
- 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
- 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

- 320G integrated hard disk
- External DVD-R/W (Optional)
- 2 USB ports
- Image archive on hard disk, DVD, iStorage (Advanced Network Storage) and temporary saving in cine memory
- Clipboard
- Thumbnail
- Single-frame image formats: BMP, JPG, DCM, FRM(supports off-line analysis)
- Multi-frame images formats: AVI, DCM, CIN, (supports off-line analysis)
- Storage area:
  - Image area: 640×480
  - 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: 11959 frames
  - M mode: 110.0 s
- Max. frames in HDD
  - BMP: >130000
  - FRM: >98000
- iStorage (Advanced Network Storage)
- DICOM:
  - DICOM Basic

Task management
DICOM storage
DICOM print
DICOM storage commitment
DICOM media storage (including DICOM DIR)
- DICOM Worklist

iStation™

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

Measure/Calc/Study

Caliper

2D-mode
- Depth
- Distance
- Angle
- Area&Circ (Trace/ Ellipse/ Spline/ Cross)
- Volume
- Cross
- Parallel
- T Length
- Ration (D)
- Ratio (A)
- B-Hist
- B-Profile

M-mode
- HR
- Slope
- Distance
- Time
- Velocity

Application

Abdomen
- 2D-mode Measure
  - Liver
  - Renal L (Renal Length)
  - Renal H (Renal Height)
  - Renal W (Renal Width)
  - Cortex (Renal Cortical Thickness)
  - Adrenal L (Adrenal Length)
  - Adrenal H (Adrenal Height)
  - Adrenal W (Adrenal Width)
  - CBD (Common bile duct)
  - Portal V Diam (Portal Vein Diameter)
  - CHD (Common hepatic duct)
  - GB L (Gallbladder Length)
  - GB H (Gallbladder Height)
  - GB wall th (Gallbladder wall thickness)
  - Panc duct (Pancreatic duct)
  - Panc head (Pancreatic head)
  - Panc body (Pancreatic body)
  - Panc tail (Pancreatic tail)
  - Spleen
  - Aorta Diam (Aorta Diameter)
  - Aorta Bif
  - Iliac Diam (Iliac Diameter)
  - Pre-BL L (Previous-Bladder Length)
  - Pre-BL H (Previous-Bladder Height)
  - Pre-BL W (Previous-Bladder Width)
  - Post-BL L (Posterior-Bladder Length)
  - Post-BL H (Posterior-Bladder Height)
  - Post-BL W (Posterior-Bladder Width)
  - Ureter
- 2D-mode Calculation
  - Renal Vol (Renal Volume)
  - Pre-BL Vol (Previous-Bladder Volume)
  - Post-BL Vol (Posterior-Bladder Volume)
  - Mictur.Vol (Micturated Volume)
- 2D-mode study
  - Kidney
  - Adrenal
  - Bladder

Obstetrics
- 2D-mode Measure
  - GS (Gestational Sac Diameter)
  - YS (Yolk Sac)
  - CRL (Crown Rump Length)
  - NT (Nuchal Translucency)

- BPD (Biparietal Diameter)
- OFD (Occipital Frontal Diameter)
- HC (Head Circumference)
- AC (Abdominal Circumference)
- FL (Femur Length)
- TAD (Abdominal Transversal Diameter)
- APAD (Anteroposterior Abdominal Diameter)
- TCD (Cerebellum Diameter)
- Cist Magna (Cist Magna)
- LVW (Lateral Ventricle Width)
- HW (Hemisphere Width)
- OOD (Outer Orbital Diameter)
- IOD (Inter Orbital Diameter)
- HUM (Humerus Length)
- Ulna (Ulna Length)
- RAD (Radius Length)
- Tibia (Tibia Length)
- FIB (Fibula Length)
- CLAV (Clavicle Length)
- Vertebrae (Length of Vertebrae)
- MP (Middle Phalanx Length)
- Foot (Foot Length)
- Ear (Ear Length)
- APTD (Anteroposterior trunk diameter)
- TTD (Transverse trunk diameter)
- FTA (Fetal Trunk Cross-sectional Area)
- THD (Thoracic Diameter)
- HrtC (Heart Circumference)
- TC (Thoracic circumference)
- Umb VD (Umbilical Vein Diameter)
- F-kidney (Fetal kidney Length)
- Mat Kidney (Matrix Kidney Length)
- Cervix L (Cervical Length)
- AF (Amniotic Fluid)
- NF (Nuchal Fold)
- Orbit (Orbit)
- PL Thickness (Placental Thickness)
- Sac Diam1 (Gestational Sac Diameter 1)
- Sac Diam2 (Gestational Sac Diameter 2)
- Sac Diam3 (Gestational Sac Diameter 3)
- AF1 (Amniotic Fluid 1)
- AF2 (Amniotic Fluid 2)
- AF3 (Amniotic Fluid 3)
- AF4 (Amniotic Fluid 4)
- LVIDd (Left Ventricular Internal Diameter at End-diastole)
- LVIDs (Left Ventricular Internal Diameter at End-systole)
- LV Diam (Left Ventricular Diameter)
- LA Diam (Left Atrium Diameter)
- RVIDd (Right Ventricular Internal Diameter at End-diastole)
- RVIDs (Right Ventricular Internal Diameter at End-systole)
- RV Diam (Right Ventricular Diameter)
- RA Diam (Right Atrium Diameter)
- IVSd (Interventricular Septal Thickness at End-diastole)
- IVSs (Interventricular Septal Thickness at End-systole)
- IVS (Interventricular Septal Thickness)
- LV Area (Left Ventricular Area)
- LA Area (Left Atrium Area)
- RV Area (Right Ventricular Area)
- RA Area (Right Atrium Area)
- Ao Diam (Aorta Diameter)
- MPA Diam (Main Pulmonary Artery Diameter)
- LVOT Diam (Right Ventricular Outflow Tract Diameter)
- RVOT Diam (Right Ventricular Outflow Tract Diameter)
- HrtA (Heart area)
- Facial Angle

- 2D-mode Calculation
  - Mean Sac Diam (Mean Gestational Sac Diameter)
  - AFI
  - EFW (Estimated Fetal Weight)
  - EFW2 (Estimated Fetal Weight 2)
  - HC/AC
  - FL/AC
  - FL/BPD
  - AXT
  - CI
  - FL/HC
  - HC(c)
  - HrtC/TC
  - TCD/AC
  - LVW/HW
  - LVD/RVD
  - LAD/RAD
  - AoD/MPAD

- LAD/AoD
- 2D-mode Study
  - AFI
- M-mode Measure
  - FHR (Fetal Heart Rate)
  - LVIDd (Left ventricular diameter at end diastole)
  - LVIDs (Left ventricular diameter at end systole)
  - RVIDd (Right ventricular diameter at end diastole)
  - RVIDs (Right ventricular diameter at end systole)
  - IVSd (interventricular septal thickness at en diastole)
  - IVSs (interventricular septal thickness at en systole)

Available Obstetrics Formulae

- GA (gestational age) and FG (fetal growth) Formulae

Items	GA	FG
EFW:	2	5
EFW2:	2	5
GS:	4	4
CRL:	10	6
BPD:	12	12
HC:	7	7
AC:	8	9
FL:	12	10
OFD:	3	4
APAD:	/	1
TAD:	/	1
FTA:	1	1
THD:	1	1
HUM:	2	2
Ulna:	/	1
Tibia:	/	1
RAD:	/	2
FIB:	/	2
CLAV:	1	1
TCD:	2	3
OOD:	1	/
Cist Magna:	/	1
Mean Sac Diam:	1	/
AFI:	/	1
Umb A RI:	/	JUM
Umb A PI:	/	JSUM
MCA RI:	/	JSUM
MCA PI:	/	JSUM

- Fetal Weight Formulae: 11

Cardiology

- 2D-mode Measure
  - LA Diam (Left Atrium Diameter)
  - LA Major (Left Atrium major Diameter)
  - LA Minor (Left Atrium minor Diameter)
  - RA Major (Right Atrium major Diameter)
  - RA Minor (Right Atrium minor Diameter)
  - LV Major (Left Ventricular major Diameter)
  - LV Minor (Left Ventricular minor Diameter)
  - RV Major (Right Ventricular major Diameter)
  - RV Minor (Right Ventricular minor Diameter)
  - LA Area (Left Atrium area)
  - RA Area (Right Atrium area)
  - LV Area(d) (Left Ventricular area at end-diastole)
  - LV Area(s) (Left Ventricular area at end-systole)
  - RV Area(d) (Right Ventricular area at end-diastole)
  - RV Area(s) (Right Ventricular area at end-systole)
  - LVIDd (Left Ventricular Internal Diameter at end-diastole)
  - LVIDs (Left Ventricular Internal Diameter at end-systole)
  - RVDd (Right Ventricular Diameter at end-diastole)
  - RVDs (Right Ventricular Diameter at end-systole)
  - LVPWd (Left Ventricular Posterior wall thickness at end-diastole)
  - LVPWs (Left Ventricular Posterior wall thickness at end-systole)
  - RVAWd (Right Ventricular Anterior wall thickness at end-diastole)
  - RVAWs (Right Ventricular Anterior wall thickness at end-systole)
  - IVSd (Interventricular Septal thickness at end-diastole)
  - IVSs (Interventricular Septal thickness at end-systole)
  - Ao Diam (Aorta Diameter)
  - Ao Arch Diam (Aorta arch Diameter)
  - Ao Asc Diam (Ascending Aorta Diameter)
  - Ao Desc Diam (Descending Aorta Diameter)
  - Ao Isthmus (Aorta Isthmus Diameter)
  - Ao st junct (Aorta ST junct Diameter)

- Ao Sinus Diam (Aorta Sinus Diameter)
- Duct Art Diam (Ductus Arteriosus Diameter)
- Pre Ductal (Previous ductal Diameter)
- Post Ductal (Posterior ductal Diameter)
- ACS (Aortic Valve Cusp Separation)
- LVOT Diam (Left Ventricular Outflow Tract Diameter)
- AV Diam (Aorta Valve Diameter)
- AVA (Aortic Valve Area)
- PV Diam (Pulmonary valve Diameter)
- LPA Diam (Left pulmonary Artery Diameter)
- RPA Diam (Right pulmonary Artery Diameter)
- MPA Diam (Main pulmonary Artery Diameter)
- RVOT Diam (Right Ventricular Outflow Tract Diameter)
- MV Diam (Mitral Valve diameter)
- MVA (Mitral Valve area)
- MCS (Mitral Valve Cusp Separation)
- EPSS (Distance between point E and Interventricular Septum when mitral valve is fully open)
- TV Diam (Tricuspid valve Diameter)
- TVA (Tricuspid Valve Area)
- IVC Diam(Insp) (Inferior vena cava inspiration Diameter)
- IVC Diam(Expir) (Inferior vena cava expiration Diameter)
- SVC Diam(Insp) (Superior vena cava inspiration Diameter)
- SVC Diam(Expir) (Superior vena cava expiration Diameter)
- LCA (Left Coronary Artery)
- RCA (Right Coronary Artery)
- VSD Diam (Ventricular Septal defect Diameter)
- ASD Diam (Atrial Septal defect Diameter)
- PDA Diam (Patent ductus Arteriosus Diameter)
- PFO Diam (Patent Oval Foramen Diameter)
- PEd (Pericardial Effusion at diastole)
- PEs (Pericardial Effusion at systole)
- HR (Heart Rate)
- Diastole
- Systole

- 2D-mode Calculation
  - LA/Ao (Left Atrium Diameter/Aorta Diameter)
  - Ao/LA (Aorta Diameter/Left Atrium Diameter)
- M-mode Measure
  - LA Diam (Left Atrium Diameter)
  - LVIDd (Left Ventricular Internal Diameter at end-diastole)
  - LVIDs (Left Ventricular Internal Diameter at end-systole)
  - RVDd (Right Ventricular Diameter at end-diastole)
  - RVDs (Right Ventricular Diameter at end-systole)
  - LVPWd (Left Ventricular Posterior wall thickness at end-diastole)
  - LVPWs (Left Ventricular Posterior wall thickness at end-systole)
  - RVAWd (Right Ventricular Anterior wall thickness at end-diastole)
  - RVAWs (Right Ventricular Anterior wall thickness at end-systole)
  - IVSd (Interventricular Septal thickness at end-diastole)
  - IVSs (Interventricular Septal thickness at end-systole)
  - Ao Diam (Aorta Diameter)
  - Ao Arch Diam (Aorta arch Diameter)
  - Ao Asc Diam (Ascending Aorta Diameter)
  - Ao Desc Diam (Descending Aorta Diameter)
  - Ao Isthmus (Aorta Isthmus Diameter)
  - Ao st junct (Aorta ST junct Diameter)
  - Ao Sinus Diam (Aorta Sinus Diameter)
  - LVOT Diam (Left Ventricular outflow tract Diameter)
  - ACS (Aortic valve Cusp Separation)
  - LPA Diam (Left pulmonary Artery Diameter)
  - RPA Diam (Right pulmonary Artery Diameter)
  - MPA Diam (Main pulmonary Artery Diameter)
  - RVOT Diam (Right Ventricular outflow tract Diameter)
  - MV E Amp (Amplitude of the Mitral Valve E wave)
  - MV A Amp (Amplitude of the Mitral Valve A wave)
  - MV E-F Slope (Mitral Valve E-F slope)
  - MV D-E Slope (Mitral Valve D-E slope)
  - MV DE (Amplitude of the Mitral Valve DE wave)
  - MCS (Mitral Valve Cusp Separation)
  - EPSS (Distance between point E and the interventricular septum)
  - PEd (Pericardial effusion at diastole)
  - PEs (Pericardial effusion at systole)
  - LVPEP (Left Ventricular pre-ejection period)

- LVET (Left Ventricular ejection time)
- RVPEP (Right Ventricular pre-ejection period)
- RVET (Right Ventricular ejection time)
- HR (Heart Rate)
- Diastole
- Systole

- M-mode Calculation
  - LA/Ao (Left Atrium diameter/Aorta diameter)
  - Ao/LA (Aorta Diameter/Left Atrium Diameter)
- Cardiac Study Items

  2D-mode:
  - S-P Ellipse
  - B-P Ellipse
  - Bullet
  - Mod.Simpson
  - Simpson SP (A2C)
  - Simpson SP (A4C)
  - Simpson BP
  - Cube
  - Teichholz
  - Gibson
  - LA Vol(A-L)
  - LA Vol (Simp)
  - RA Vol (Simp)
  - LV Mass (Cube)
  - LV Mass (A-L)
  - LV Mass (T-E)

  M-mode:
  - LVIMP
  - Cube
  - Teichholz
  - Gibson
  - LV Mass (Cube)

Vascular

- 2D-mode Calculation
  - Stenosis D (Stenosis Diameter)
  - Stenosis A (Stenosis Area)

Gynecology

- 2D-mode Measure
  - UT L
  - UT H
  - UT W
  - Cervix L
  - Cervix H
  - Cervix W
  - Endo
  - Ovary L
  - Ovary H
  - Ovary W
  - Follicle1-16 L
  - Follicle1-16 W
  - Follicle1-16 H
- 2D-mode Calculation
  - Ovary Vol
  - UT Vol
  - Uterus Body
  - UT-L/ CX-L
  - Follicle 1~16
- 2D-mode Study
  - Uterus (Length, height and width of uterus, endometrium thickness)
  - Uterine Cervix (Length, height and width of uterine cervix)
  - Ovary (Length, height and width of ovary)
  - Follicle 1-16 (Length and width of follicle 1-16)

Urology

- 2D-mode Measure
  - 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
  - Testis L
  - Testis H
  - Testis W
  - Ureter
  - Pre-BL L
  - Pre-BL H
  - Pre-BL W
  - Post-BL L
  - Post-BL H
  - Post-BL W
  - Prostate Mass1 d1~d3
  - Prostate Mass2 d1~d3

- Prostate Mass3 d1~d3
- Testis Mass1 d1~d3
- Testis Mass2 d1~d3
- Testis Mass3 d1~d3

- 2D-mode Calculation
  - Renal Vol
  - Prostate Vol
  - Testis Vol
  - Pre-BL Vol
  - Post-BL Vol
  - Mictur.Vol
- 2D-mode Study
  - Kidney
  - Adrenal
  - Prostate
  - Seminal Vesicle
  - Testis
  - Bladder
  - Prostate Mass1~3
  - Testis Mass1~3

Small Parts

- 2D-mode Measure
  - Thyroid L
  - Thyroid H
  - Thyroid W
  - Isthmus H
  - Testis L (Testicular Length)
  - Testis H (Testicular Height)
  - Testis W (Testicular Width)
  - Breast Mass1 d1-d3
  - Breast Mass2 d1-d3
  - Breast Mass3 d1-d3
  - Thyroid Mass1 d1-d3
  - Thyroid Mass2 d1-d3
  - Thyroid Mass3 d1-d3
- 2D-mode Calculation
  - Thyroid Vol
- 2D-mode Study
  - Thyroid
  - Testis
  - Breast Mass1-3
  - Thyroid Mass1-3

Orthopedics

- 2D-mode Measure
  - HIP
  - HIP-Graf
  - d/D

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 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

DP-10/DP-10T/DP-11/DP-15/DP-18 system is fully in conformance with the Council Directive 93/42/EEC Concerning Medical Devices, as amended by 2007/47/EC. The number adjacent to the CE marking (0123) is the number of the EU-notified body that certified meeting the requirements of Annex II of the Directive.

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 DP-10/DP-10T/DP-11/DP-15/DP-18 Digital Ultrasonic Diagnostic Imaging System.

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