



dopplex®

## Vascular assessment range

# The Dopplex Bi-directional digital Doppler

## A new dimension in sound and vision

### Visual confirmation of sound enhances clinical assessment

With over 30 years' experience in vascular assessment, our latest technological innovations have enabled us to develop a new digital platform for our latest range of Dopplers. Designed to improve efficiency and effectiveness in clinical diagnosis, the DMX offers unrivalled value and quality.

Our bi-directional waveform is uniquely generated from the digital Doppler spectrum. This gives the clinician objective evidence to assist in the diagnosis of vascular disease that other Dopplers may find difficult or impossible to achieve.

Our algorithms optimize the presentation of waveforms and enhance the quality of sound using our unique Dynamic Digital Noise Reduction (DDNR) system and gel filter. Doppler sound recording and playback is just one of the many new features in this state-of-the-art digital Doppler unit.



#### HIGH-RESOLUTION COLOR DISPLAY

- Waveforms displayed in high definition.
- Wide viewing angle.



#### BI-DIRECTIONAL WAVEFORM GENERATED FROM THE DIGITAL DOPPLER SPECTRUM WITH AUTO SCALING FEATURE

- Maximizes accuracy and clarity of waveforms; essential for patients with poor blood flow.
- Scroll facility to review your test and choose the ideal waveforms.
- Arterial and venous modes.



#### DATA STORAGE ON MICRO SD CARD

- Store waveforms and sounds for review or transfer to optional Dopplex®DR5 software package for printing reports and archiving.



#### INTEGRATED CHARGING AND CONNECTIVITY

- USB port for convenient charging and communication with our software.
- Stereo headphone connection socket.

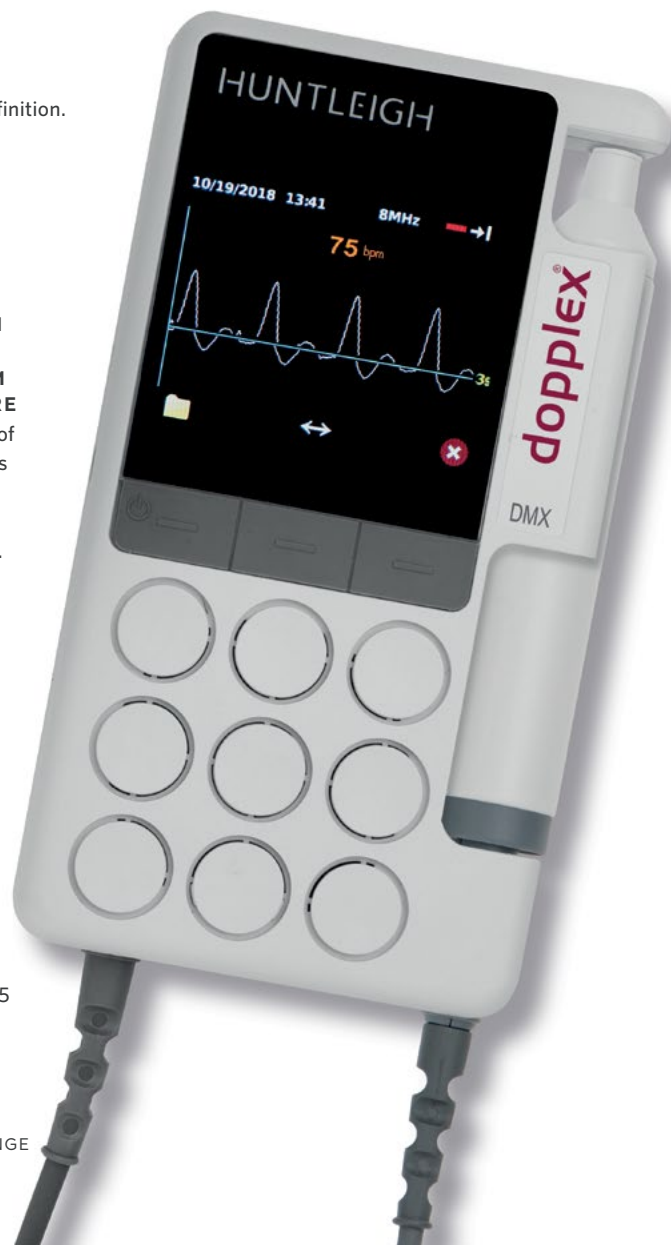
#### HIGH-SENSITIVITY INTERCHANGEABLE PROBES

- All new XS probes have been calibrated and fine-tuned for optimum use.
- An optional PPG probe provides easy and accurate measurement of toe pressures.

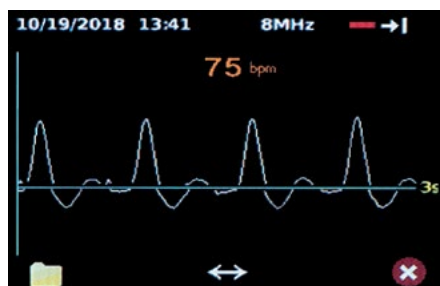


#### HEAR THE DIFFERENCE

- Digital sound processing enables our new DDNR system to reduce the background hiss and the gel filter reduces the loud crackle when gel is applied.



Designed to improve efficiency and effectiveness in delivering quality care



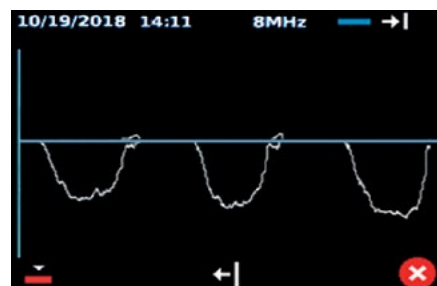
#### Diagnose with confidence

Doppler sounds can be misleading. Now with the accompanying waveform you can visually confirm that you are interpreting the sound correctly.



#### Visually confirm PAD

An early indication of PAD can be seen by the loss of the reverse flow in the Doppler waveform from the lower limb.



#### Venous testing

A dedicated venous mode allows any reflux to be clearly visualized by the flow pattern above the baseline.



#### Instantly visualize waveforms for pictorial evidence

See the difference — the value of visual representation.



#### Improved sound quality

Audio purity is enhanced by using our DDNR, which significantly reduces background hiss. This clarity aids the clinician in detecting small vessels or calcified arteries that other Dopplers may find difficult or impossible to locate.



#### Rechargeable

Charged via the USB socket, providing low running costs and negates the need to change batteries.



#### Real time clock

Allows the user to store data with a time and date stamp, providing evidence when the test was undertaken.



#### Educational resource tool

Pre-stored files on the SD card can be used to demonstrate the relationship between Doppler waveforms and sounds for teaching and training purposes.



Toe pressures  
and TBI  
made easy



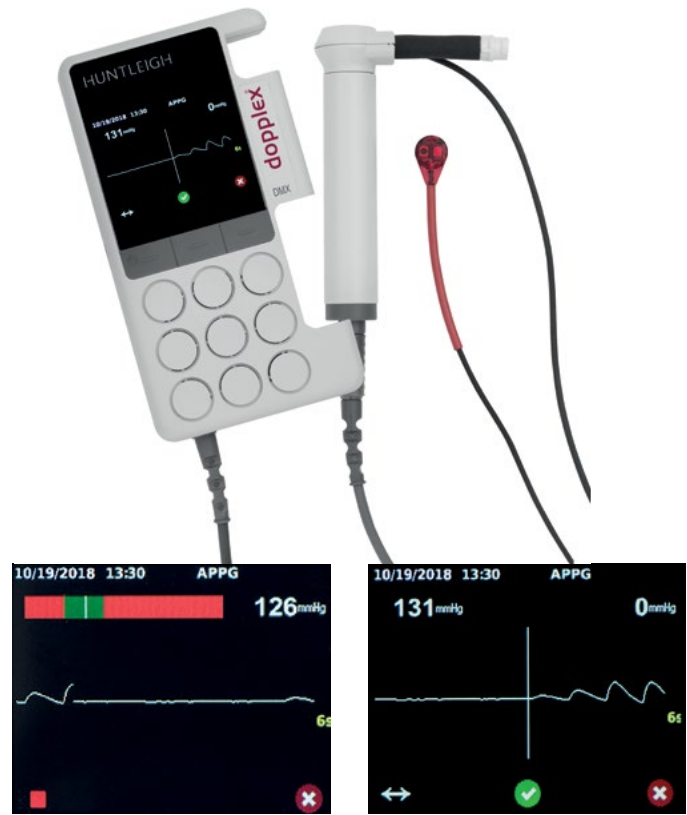
# Simple and rapid measurement of toe pressures

A comprehensive kit for vascular assessment of the diabetic foot and lymphatic limb

## Advanced ankle and toe brachial index system

The ankle and toe pressure (ATP) kit is a unique combination of the *DMX* Doppler, probes and accessories providing the vascular, diabetic or lymphatic specialist with a system to aid the assessment of arterial disease and neuropathy. Our arterial plethysmography (APPG) probe easily attaches to the *DMX* Doppler unit by simply swapping your Doppler probe with its adaptor.

Toe systolic pressure can be rapidly measured in patients with incompressible ankle arteries and can be repeated on the arms to determine the TBI. The internal pressure sensor in the adaptor provides a direct pressure reading on the Doppler display. PPG waveforms and pressures can be stored on the internal memory and reviewed at any time. In addition, the waveforms and pressures can be transferred to the *Dopplex DR5* software package.



Visual aid for optimum deflation rate

Easy determination of systolic pressures

## Ankle and toe pressure kit

### ATP Kit includes:

- *DMX* digital Doppler
- Medical grade recharging kit
- EZ8XS widebeam 8 MHz Doppler probe
- APPG probe and adaptor
- Toe cuffs and inflator
- Arm/ankle cuffs (standard and large: latex-free)
- Trigger-operated sphyg
- Neuropen and box of tips (includes 10 g monofilament)
- Educational CD
- Large carry bag







## Ankle-brachial index kit

The ankle-brachial index (ABI) kit combines a *DMX* Doppler, Doppler probes and cuffs to provide the wound care or vascular specialist with a system to help in the assessment of arterial disease prior to bandaging.

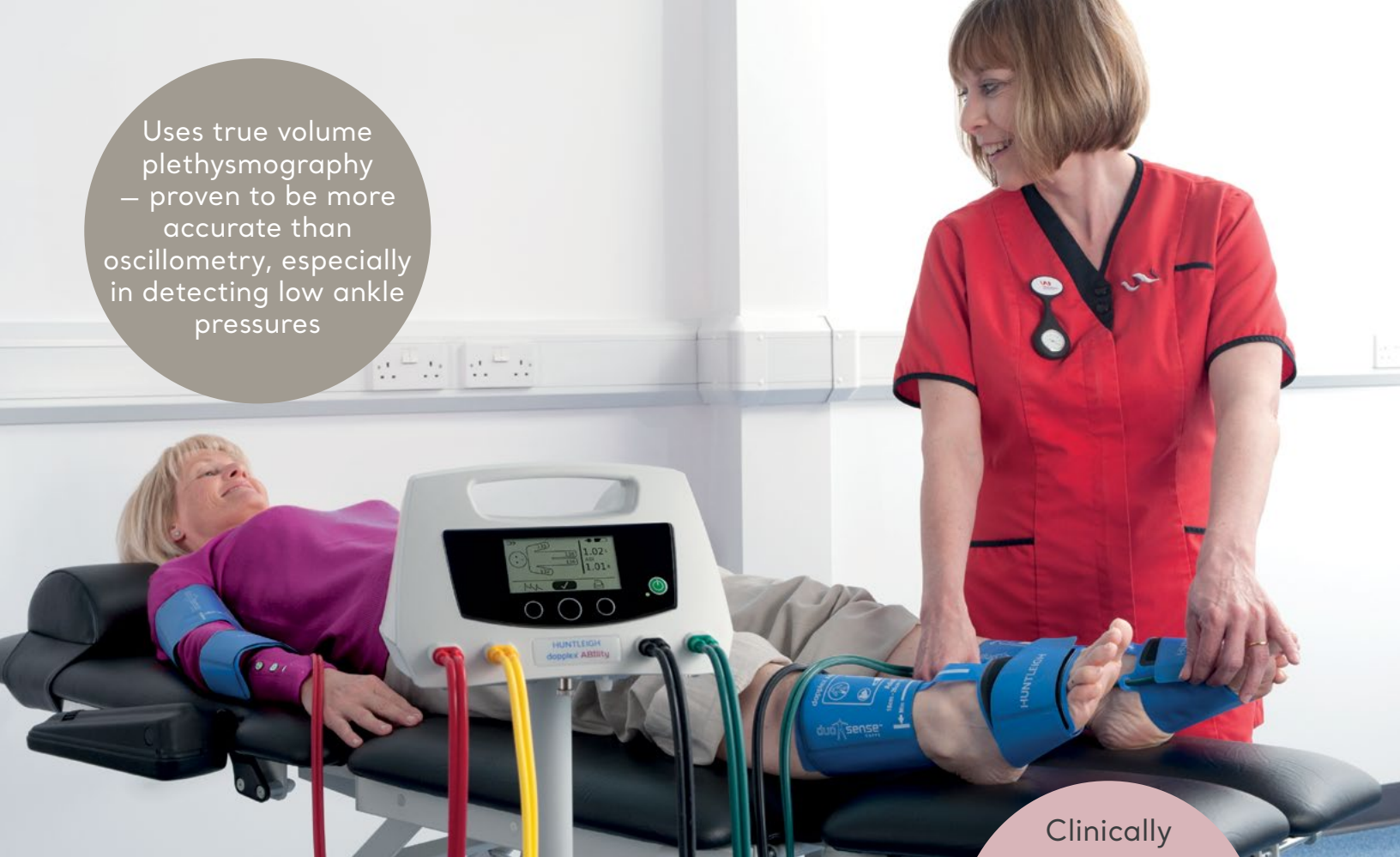
Doppler waveforms can be stored on the internal memory and reviewed at any time. Alternatively the waveforms can be transferred to the *Dopplex DR5* software package for archiving, reviewing and printing of reports.

### The ABI kit includes:

- *DMX* digital Doppler
- Medical grade recharging kit
- *EZ8XS* widebeam 8 MHz Doppler probe
- *VP5XS* Doppler probe
- Trigger-operated sphygmomanometer
- Arm/ankle cuffs (standard and large: latex-free)
- Educational CD
- Large carry bag



Uses true volume plethysmography – proven to be more accurate than oscillometry, especially in detecting low ankle pressures



Clinically proven – measures both arm pressures, essential to comply with guidelines for ABI

## A comprehensive suite of ankle brachial index solutions

Dopplex® Ability – automatic ankle-brachial index (ABI) system

The *Dopplex Ability* has revolutionized the ABI process and provides automatic, easy, fast and accurate measurements with an immediate printout of results from the integral printer or optional Dopplex® DR4 software package.

Requires minimal training and provides rapid bilateral ABI measurements in just 3 minutes. Its portability enables efficient measurements in the primary care clinic, hospital or patient's home. This helps prioritize clinical services and improves clinical pathways.

*Dopplex Ability* also records the ankle pulse volume waveforms, which provide pictorial evidence to aid a clinician's diagnosis; this is of particular value in patients who have diabetes and who are prone to arterial calcification.

### Cost-saving, time-saving and improved efficiencies

The *Dopplex Ability* offers a cost-effective solution for ABI measurement:

- Rapid measurements in 3 minutes
- No need to rest the patient
- Can be used by health care support staff
- Reduces inappropriate referrals
- Immediate printouts
- Printouts and archiving of results with *Dopplex DR4* software package

For further details, please refer to our *Dopplex Ability* brochure





## Dopplex intraoperative probe — Reusable surgical 8 MHz probe

The reusable **Dopplex intraoperative probe** can be used to immediately confirm blood flow prior to closing, saving time and costs of a potential re-operation.

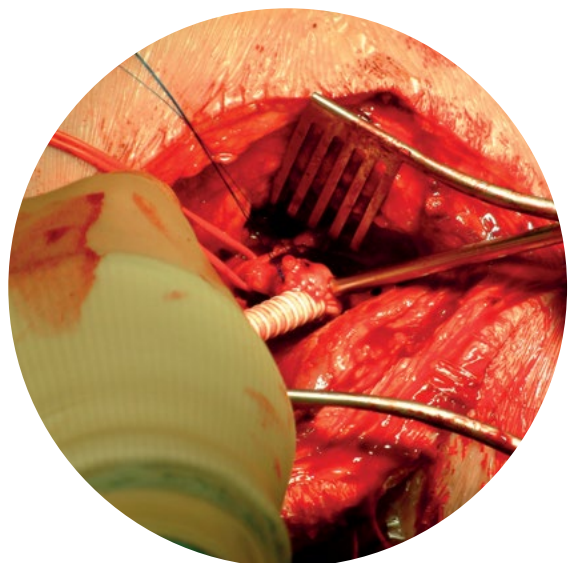
The high-sensitivity probes are available in packs of three and can be resterilized by autoclave or ethylene oxide. This allows spares to be available in case of contamination.

The probes are specially designed to be lightweight, easy to hold, and should be used instead of a standard probe placed in a sterile glove.

Probes are compatible with the entire *Dopplex* range of handheld Dopplers. When used with the new DMX digital Doppler unit, immediate visualization of Doppler waveforms can confirm blood flow.

The Dopplers can be mounted onto an IV pole using the specially designed pole clamp or the pole stand.

For further details, please refer to our *Dopplex intraoperative probe* brochure





# Audio and bi-directional Dopplers

**The Dopplex® D900** is an entry-level, audio-only, non directional Doppler, principally used for ABI measurements by community nurses and doctors in managing leg ulcers.

- Clear audio sounds of blood flow
- Compatible with all XS high-sensitivity vascular probes
- Audio output socket
- Large carry bag

**The Dopplex® SD2** provides bi-directional blood flow information to the vascular professional including the display of flow direction. It is ideal for clinical specialists wishing to conduct lower limb Doppler studies.

- Provides bi-directional blood flow information
- Compatible with all XS high-sensitivity vascular probes
- Stereo audio output socket
- Large carry bag

Use any of our handheld Dopplers with our EZ8 widebeam probe for easy location of brachial and pedal arteries





## Documentation and archiving

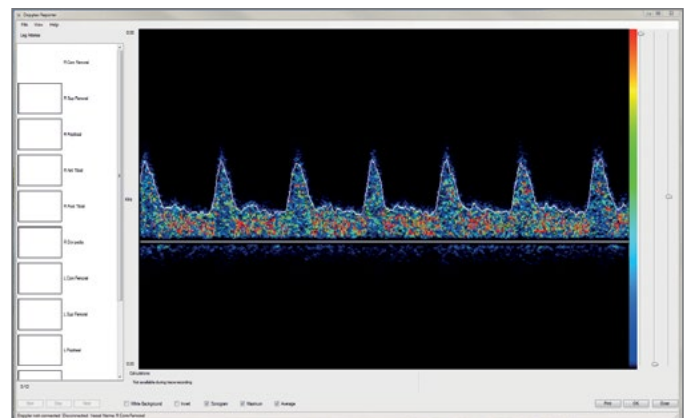
**Dopplex DR5** is a unique vascular reporting software package for use in conjunction with the *Dopplex DMX*.

It allows real time visualization of waveforms on a PC. An unlimited number of traces can be transferred and stored for reviewing, archiving and printing.

### Key *Dopplex DR5* features:

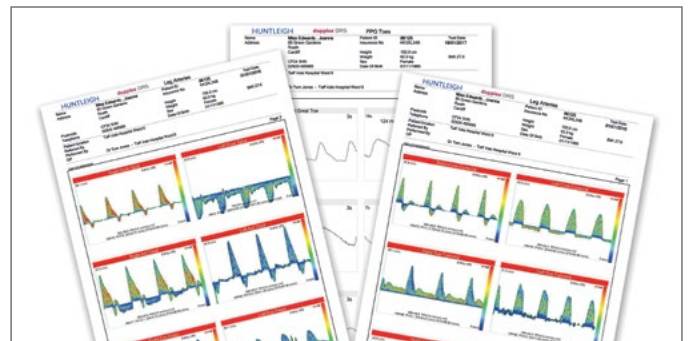
- Displays Doppler color spectral waveforms in real time
- Replay of Doppler waveforms and sounds
- An integral database for patient data storage and Doppler sound files
- Save final reports as PDFs and transfer to an external EPR system

*Dopplex DR4* is also available for display of waveforms and data from the *Dopplex Ability*.



### Doppler spectral display

Doppler color spectral waveforms can be visualized in real time



### Report-style printouts

Multiple traces can be stored, archived and printed for reports



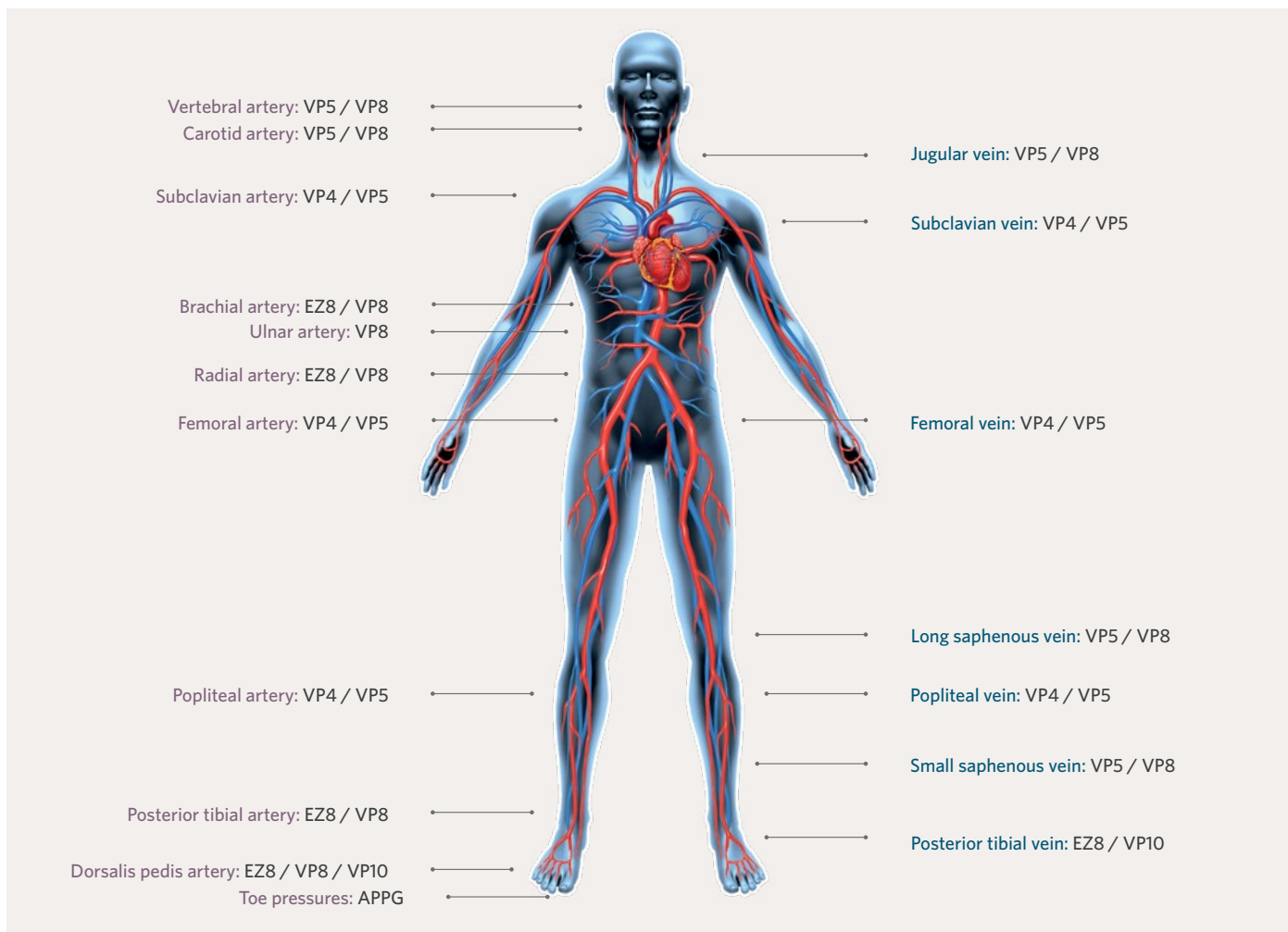
# Dopplex probes fine-tuned for optimum performance in all applications

Huntleigh's precision engineering and fine-tuning of every component produces a sound and sensitivity that gives clinicians clarity and accuracy like no other Doppler.

The new range of high-sensitivity XS probes have been designed to maximize performance of the DMX Doppler for use in a wide variety of clinical applications and procedures. These include the 4, 5, 8 and 10 MHz options and the unique

widebeam EZ8 8 MHz probe. The 2 MHz and 3 MHz probes can also be used for obstetric applications.

Only the new XS range of probes used with the DMX digital Doppler will allow the full sound and waveform features of the unit to be enabled.\*\*



APPG probe



Intraoperative probe

# Technical specification

Product Features	DMXR	DMX	ATP Kit	ABI Kit	SD2	D900	Dopplex Ability
Product order code	DMXR-USA	DMX-USA	ATP-USA	ABI-USA	SD2-P-USA	D900-P-USA	DA100PB
High-resolution color display	▪	▪	▪	▪			
Bi-directional Doppler waveform display	▪	▪	▪	▪			
Appg capability	◻	◻	▪	◻			
Noise reduction	DDNR	DDNR	DDNR	DDNR	Active	Active	
Removable micro SD card storage	▪	▪	▪	▪			
Scroll memory (seconds)	20 secs	20 secs	20 secs	20 secs			
Timebase (seconds)	3, 6 and 12 secs	3, 6 and 12 secs	3, 6 and 12 secs	3, 6 and 12 secs			
Compatible with interchangeable XS probes	▪	▪	▪	▪	▪	▪	
Integrated loudspeaker	▪	▪	▪	▪	▪	▪	
Flow separated stereo headphone output	▪	▪	▪	▪	▪		
Gain control	Auto	Auto	Auto	Auto	Manual		
Obstetric capability with XS probes	▪	▪	▪	▪	Audio	Audio	
Dopplex software compatible	DR5	DR5	DR5	DR5			DR4
USB capability	Micro	Micro	Micro	Micro			Mini
Battery type	2 x AA Rechargeable batteries	2 x AA Alkaline batteries	2 x AA Rechargeable batteries	2 x AA Rechargeable batteries	9 volt alkaline — 6LR61, 6LF22 or equivalent recommended (e.g., MN1604)		NiMH integral
110-240 V medical-grade recharging kit (supplied with country adaptors)	▪	◻	▪	▪			
Battery life (number of 1 min exams)	500	500	500	500	250	500	Mains/battery
Warranty*	3-year	3-year	3-year	3-year	5-year	5-year	2-year
Accessories	All handheld models supplied with: gel, soft carry bag, user manual. All kits supplied with large carry case. <i>Dopplex Ability</i> : Supplied with one set of standard cuffs, two rolls of paper, pack of sleeves, mains cable and instructions for use.						
Safety standard compliance***	<b>DMX/D900</b> : ANSI/AAMI ES60601-1: A1:2012, C1:2009/(R)2012 AND A2:2010/(R)2012, CSA CAN/CSA-C22.2 NO. 60601-1:14, IEC 60601-1 Edition 3.1 (2012) <b>ABILITY</b> : IEC 60601-1: 2005 +CORR. 1 (2006) + CORR. 2 (2007); EN 60601-1: 2006 + CORR: 2010; CAN/CSA-C22.2 No. 60601-1 (2008); ANSI/AAMI ES60601-1 (2005+C1:09 + A2:10).						
Weight	11 oz (310 g)	11 oz (310 g)	Kit: 53 oz (1.5 kg)		10 oz (295 g)	10 oz (295 g)	106 oz (3 kg)
Dimensions	Main unit: Height 5.5" (140 mm) Width 3.0" (75 mm) Depth 1.2" (30 mm)		Kit: Height 13.8" (350 mm) Width 15.8" (400 mm) Depth 3.9" (100 mm)		Height 5.5" (140 mm) Width 2.9" (74 mm) Depth 1.1" (27 mm)		Height 6.3" (160 mm) Width 10.25" (260 mm) Depth 9.5" (240 mm)

▪ Standard ■ Option \*Refer to separate warranty statements \*\* Using *Dopplex HS* series of probes will only give audio without waveforms, DDNR or gel filter. \*\*\* Depending upon model

As a proud member of the Arjo family, we have been committed to supporting healthcare professionals in improving outcomes and enhancing patient wellbeing since 1979. We do this through our proven solutions for Vascular Assessment & Treatment and Fetal & Patient Monitoring. With innovation and customer satisfaction as our guiding principles, we strive for clinical excellence and improved performance, for life.



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