

dopplex[®] Vascular Dopplers



Hand held Dopplers and PPG systems
for vascular assessment and intraoperative use

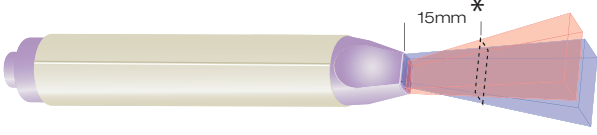

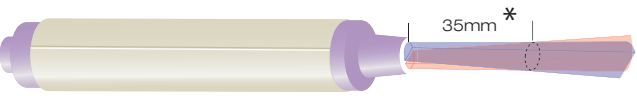



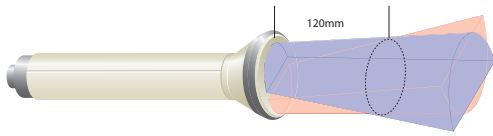
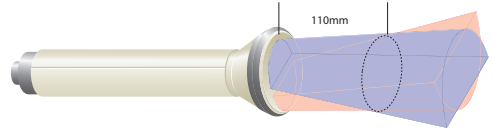
dopplex® Vascular Dopplers

Based on over 20 years experience in this field, the latest generation of the world renowned Dopplex handheld Doppler range offers even greater performance, quality and value for money.

The range now has significantly enhanced features including:

- Improved probe design with 50% greater efficiency to give increased sensitivity for easier detection of smaller vessels and calcified arteries
- An Easy8 wide beam probe for easy vessel location

- A reusable Intraoperative Probe for cost effective reassurance during surgery
- Improved:
 - audio performance
 - battery power management
 - carry bag design which includes space for a sphyg and cuff
- Increased warranty to 3 years
- Optional accessories include a new battery charger kit and pole stand

High Sensitivity Doppler Probes	Order code	Freq.	Use
	EZ8	Wide Beam 8MHz	WIDEBEAM TECHNOLOGY Allows easy location of vessels. Easier to maintain vessel contact during inflation and deflation.
	VP4HS	4MHz	Detection of deep lying vessels.
	VP5HS	5MHz	For oedematous limbs and deep lying vessels. Ideal adjunct to Easy8 for ABPI measurements.
	VP8HS	8MHz	Detection of peripheral vessels and calcified arteries.
	VP10HS	10MHz	Detection of smaller vessels in specialist superficial applications.
	IPP3	8MHz	Re-sterilisable Intraoperative probe. Ideal for most surgical applications.
	OP2HS	2MHz	Obstetric for fetal heart detection
	OP3HS	3MHz	Obstetric for fetal heart detection in early gestation

* Approximate distances of peak sensitivity

ABPI Assessment It is recommended that the user purchase a VP5HS and an EZ8 probe if regular and oedematous limbs are assessed for ABPI



dopplex® D900
Non-directional Doppler

The Dopplex® D900 is a low cost audio only, non-directional Doppler, principally used for ABPI measurements by community nurses and doctors in their role of leg ulcer management.

- Clear audio sounds of blood flow or fetal heart
- Enhanced battery management
- Compatible with the complete range of vascular probes
- When used with Easy 8 probe it is excellent for the infrequent user in locating brachial and pedal arteries
- Large carry bag
- Headphones included



dopplex® SD2
Bi-directional Doppler

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

- Compatible with all high sensitivity vascular probes (audio only with OP2 and OP3)
- Ideal for ABPI assessment
- Provides bi-directional blood flow information
- Enhanced stereo audio output
- Large carry bag
- Stereo headphones included



dopplex® MD2
Bi-directional Doppler

The Dopplex® MD2 is one of the most advanced pocket Dopplers on the market. It provides the ability for high level vascular assessment, and is ideal for the detection of peripheral arterial disease. When used with the high sensitivity vascular probes it provides quality bi-directional blood flow information. It can be linked to the Dopplex Reporter software package for high quality waveform reports or the Dopplex Printa for single waveform recordings.

- Connects with all High Sensitivity probes (2, 3, 4, 5, 8, 10 MHz)
- Provides bi-directional blood flow information and documentation
- Integral battery management
- Enhanced audio output
- Large carry bag will hold sphyg and cuffs

dopplex® DFK

Diabetic Foot Assessment Kit

The Diabetic Foot Assessment Kit provides the professional vascular or diabetes specialist with a system to help in the assessment of neuropathy, ankle brachial pressure index (ABPI) and toe brachial pressure index (TBPI). Product includes:

- Bi-directional Doppler (MD2) and probe (VP8HS)
- Neuropen (includes 10g monofilament)
- Trigger operated sphyg with a range of latex free cuffs (arm/ankle, large and small toe)
- Educational DVD
- Hard carry case
- Set of guides (ABPI/TBPI)
- Headphones
- Box of Neuropen tips



dopplex® ABPI

Ankle Brachial Pressure Index Kit

The ABPI Kit contains all the items required to undertake a full ABPI assessment on regular or oedematous limbs and includes two Doppler probes and cuffs. The Easy8 probe helps to locate vessels and also maintain vessel contact during inflation and deflation procedures, and the VP5 is ideal for oedematous limbs. Pack includes:

- Dopplex® MD2 bi-directional Doppler
- High sensitivity widebeam EZ8 8MHz probe
- High sensitivity VP5HS 5MHz probe
- Large arm/ankle cuff
- Standard arm/ankle cuff
- Sphygmomanometer (quick release)
- ABPI Guide
- Educational CD
- Large carry bag



dopplex® PAD

Peripheral Arterial Disease Assessment Kit

The PAD kit includes all the items required to undertake a basic assessment on patients at risk of arterial disease.

Pack includes:

- Dopplex D900 non-directional Doppler
- High sensitivity widebeam EZ8 probe
- Standard arm / ankle cuff
- Sphygmomanometer
- ABPI guide
- Educational CD
- Large carry bag



dopplex® RD2 Bi-directional Doppler and PPG System



Four application areas in one unit:

- DVT Screening
- CVI Screening
- ABPI measurements
- Fetal heart detection

Dopplex RD2 handheld unit combines Digital Photoplethysmography (PPG) with Bi-directional Doppler to make a complete arterial and venous assessment system. It can provide printouts of venous refill curves and blood flow waveforms using Dopplex DR3 software or the Dopplex Printa II package.

- Screening for the absence of DVT using simple dorsiflexion test
- Easy location of probe using the blue guide

DVT Screening with the Dopplex RD2

The Dopplex RD2 unit has been clinically proven to be effective in screening patients for the absence of a Deep Vein Thrombosis (DVT) in the lower limb.

Clinical studies have shown that Dopplex RD2 is a reliable screening tool in patients with suspected lower limb DVT and is suitable for bedside and community based practice. (*Tan et al, 1999;* *Hennings et al, 2000*)

Recent studies have shown that when the Dopplex RD2 is used in conjunction with D-Dimer, 100% NPV for DVT is obtained. This has also resulted in significant cost savings for the hospital by reducing the number of Duplex scans. (*Tovey et al, 2000;* *Williams et al, 2002*)

The RD2 unit is ideal for A&E departments, Medical Assessment Units, GP and Leg Ulcer Clinics.



CVI Screening with the Dopplex RD2

The Dopplex RD2 unit can also be used for assessing Chronic Venous Insufficiency (CVI).

Applications include:

- Rapid assessment of overall venous function. (*McEnroe et al, 1988*)
- Differentiation between deep and superficial venous insufficiency (*Neumann et al, 1992*)
- Measurement of ABPI
- Detecting Fetal heart beat (with optional OP2)

dopplex® MD200

The 'NEW' MD200 is an innovative desktop solution for clinicians requiring a robust, versatile and rechargeable Doppler unit. Using up to eight interchangeable probes, it provides bi-directional measurement of vascular blood flow and high quality reports when linked to the Dopplex Reporter software.

- Mains/battery operation
- Robust design
- Probes are conveniently stored within the unit
- Enhanced battery power management
- Advanced bi-directional unit with printout capability
- LCD showing bi-directional flow, probe frequency and battery status
- Serial port for connection to the Dopplex® Printa or Dopplex® Reporter software package
- Two speakers providing flow separated high quality stereo sound



- Ideal for measurement of ABPI and venous assessment in a clinic environment
- Now available with a locking pole stand

dopplex® Intraoperative 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.

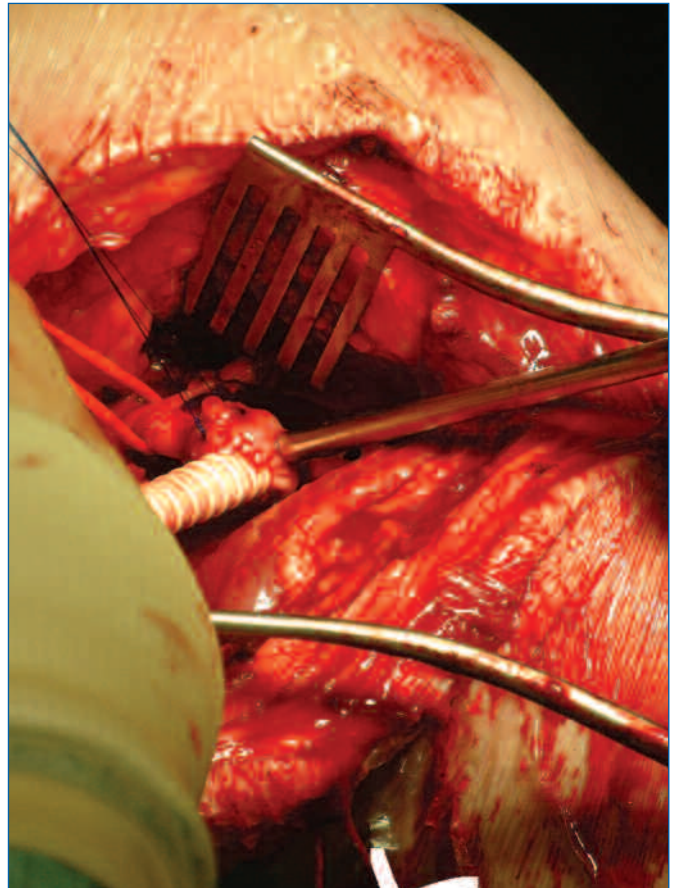
The High Sensitivity probes are available in packs of 3 and can be re-sterilised by Autoclave, Ethylene Oxide or Steris System 1. This allows spares to be available in case of contamination.

The probes have been specially designed to be lightweight, easy to hold, and will replace the use of a standard probe placed in a sterile glove.

A special electronic adaptor that resists diathermy interference allows connection to any Vascular Dopplex Advanced Pocket Doppler. The Dopplers can be mounted onto an IV pole using the specially designed pole clamp or the pole stand, which also supports the Dopplex Printa.

Available as:

- A starter pack, which includes adaptor, pole clamp and 3 probes – Order code ISP3
- A starter pack with Doppler, which includes MD2 bi-directional Doppler, adaptor, pole clamp and 3 probes – Order code ISP3-MD2
- A starter pack with Doppler, which includes D900 non-directional Doppler, adaptor, pole clamp and 3 probes – Order code ISP3-D900
- A probe pack containing 3 probes – Order code IPP3

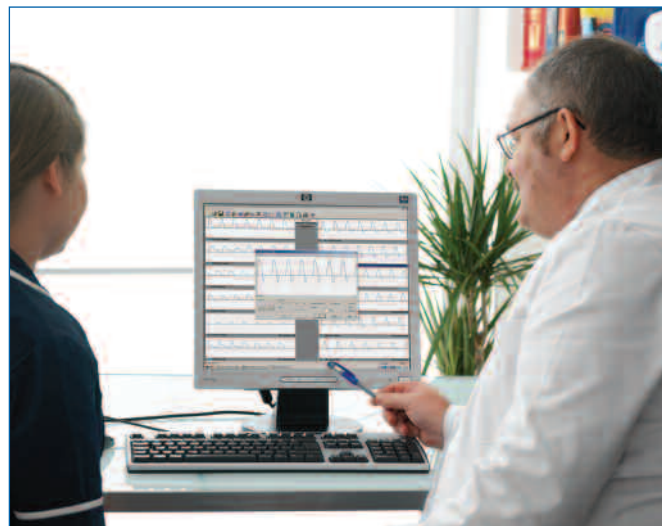


dopplex® DR3 Software Package

Dopplex Reporter Package is a unique vascular reporting software package for use in conjunction with the Dopplex RD2, MD2 and MD200 units. It enables complete vascular studies to be undertaken and saved in a patient database, and provides full page documented hard-copy printouts. It is easily installed and does not require any modification to your computer.

Applications available in version 3 include:

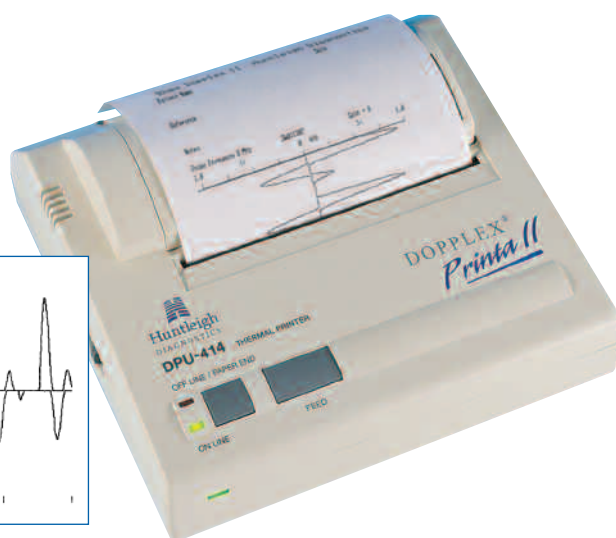
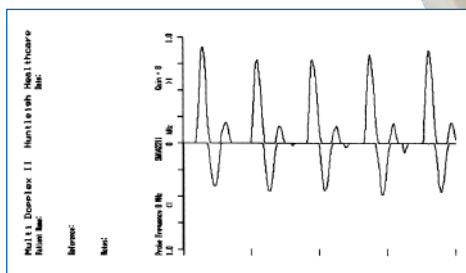
- Upper and lower limb arterial pressure and flow studies
- Lower limb venous studies
- Extracranial blood flow studies
- Penile pressure and flow studies
- Podiatry and chiropody studies
- Pre/post operative studies
- PPG venous studies (Rheo only)
- Doppler waveform parameter calculations
- Compatible with Windows 98, 2000 and XP
- USB and serial cables included



dopplex® Printa II

Dopplex Printa II package is a portable, mains/battery thermal printer, which provides documentation of bi-directional Doppler waveforms when used with Dopplex MD2, RD2 and MD200.

PPG curves can also be documented when used with the Dopplex RD2 unit. It is ideal for a clinic where portability is required.



Pole Stand Accessory

A convenient way of holding your hand held Doppler and preventing it from disappearing into other departments.

- Options for both hand held and desktop Dopplers
- Provides convenient and height adjustable secure mount on mobile 5 wheel base
- Includes basket for storing gel, probes, cuffs, etc
- Option to mount Dopplex Printa II on pole below Doppler



Pole stand for Dopplex D900, SD2, MD2, RD2 & MD200

dopplex® Product Range Selection Chart

Product Features	DOPPLEX RD2	DOPPLEX MD200	DOPPLEX MD2	DOPPLEX SD2	DOPPLEX D900
Product Order Code	RD2	MD200	MD2	SD2	D900
PPG capability	●				
Range of eight probe options with probe coding	●	●	●	●	●
Built in loudspeaker and output for headphones	●	●	●	●	●
True separated stereo audio output	●	●	●	●	
Non directional waveform output					●
Enhanced Bi-directional LCD display	●	●	●	●	
Waveform calibration function	5 level	5 level	5 level		3 level
Gain control	●	●	●	●	
Auto shut off † and active noise reduction	●	●	●	●	●
Obstetric capability (audio only)	●	●*	●*	●	●
Digital interface for Dopplex DR3 & Printa 2 package	●	●	●		
Battery Life**	250	Mains/Battery	250	250	500
Accessories	All handheld models supplied complete with: stereo headphones, gel, soft carry bag, user manual				
Safety standards compliance	All models comply with EN60601-1:1990, IEC 60601 – 1:1988, EN60601-1-2:1993				
Weight	All handheld models (including battery and one probe); 295gms (10oz) Desktop model; 1450gms (46oz)				
Dimensions	All handheld models (main unit): Height 140mm (5.5") Width 74mm (2.9") Depth 27 (1.1"). Desktop model; Height 240mm (9.5") Width 227mm (8.9") Depth 79mm (3.1")				
Battery Type	All handheld models-9 volt alkaline-6LR61, 6LF22 or equivalent recommended (eg. MN1604)				

For obstetric applications refer to the obstetric brochure available from your supplier

* The DOPPLEX MD2 and DOPPLEX MD200 also calculates and prints FHR

** These are typical figures based on the number of one minute examinations – will vary depending on use and battery type

† Refer to user manual

References available on request

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