Huntleigh
HEALTHCARE

VASCULAR DOPPLEX®

Handheld Dopplers and PPG systems
for vascular assessment and intraoperative use

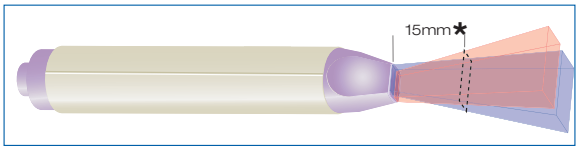
VASCULAR DOPPLEX®

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.

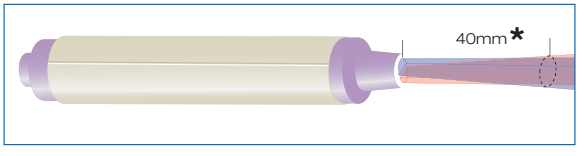
Improvements include:

- New probe design with 50% greater sensitivity
- New EZ8 wide beam probe for easy vessel detection
- Increased audio performance
- Efficient battery management
- New three year warranty
- Optional accessories include a new battery charger kit and Doppler stand

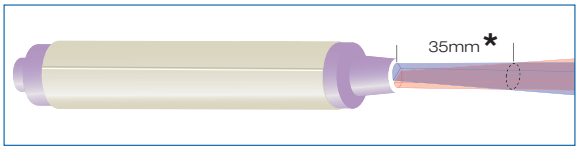
WIDEBEAM TECHNOLOGY



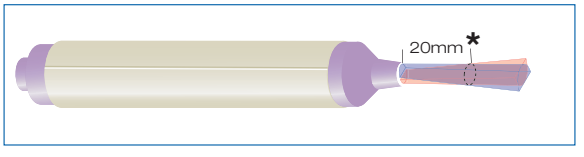
EZ8 Probe: The new 8MHz High Sensitivity EZ8 Doppler probe incorporates Wide Beam technology to allow easy location of the vessel and maintenance of vessel contact during blood pressure cuff inflation and deflation.



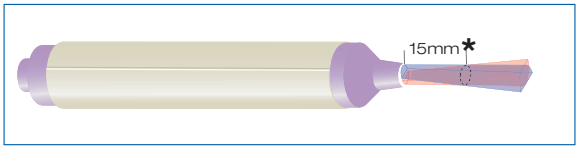
VP4HS: A 4MHz High Sensitivity Doppler probe for detection of deep lying vessels.



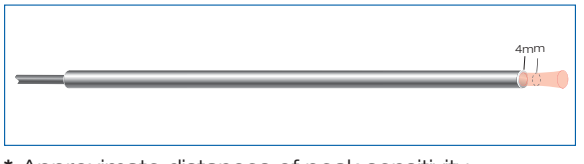
VP5HS: A 5MHz High Sensitivity Doppler probe for edematous limbs and deep lying vessels.
The ideal probe as an adjunct to the EZ8 for ABI measurements.



VP8HS: An 8MHz High Sensitivity Doppler probe for easier detection of peripheral vessels.



VP10HS: A 10MHz High Sensitivity Doppler probe for detecting smaller vessels in superficial applications.



IOP8: The new High Sensitivity Intraoperative, re-sterilizable probe. Ideal for vascular, reconstructive and cosmetic surgery applications.

* Approximate distances of peak sensitivity

ABI Assessment

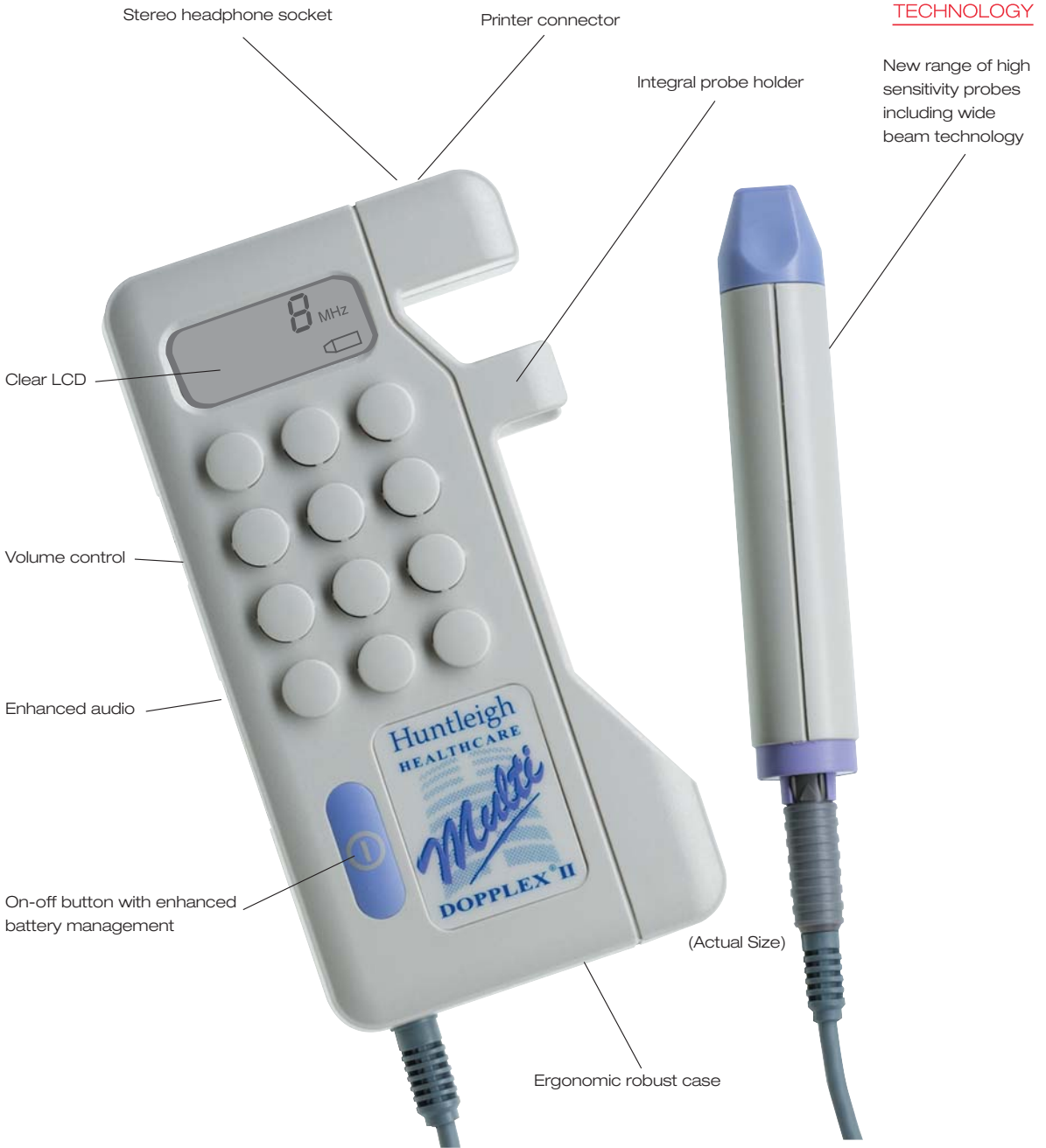
It is recommended that the user purchase a VP5HS and an EZ8 probe if normal and edematous limbs are to be assessed for Anke Brachial Index (ABI) testing.

Multi Dopplex® II Bi-directional Doppler

The Multi Dopplex® II bi-directional Doppler is one of the most advanced handheld units in the world. Its display provides information on flow direction and unit status. Combined with one of the new High Sensitivity (HS) probes, it is ideal for assessment of Peripheral Vascular Disease, the diabetic foot and venous applications. It can be linked to the Dopplex Printa II or Dopplex Reporter Software for documentation and reimbursement.

The Multi Dopplex II unit can be used by healthcare professionals interested in bi-directional flow and waveforms.
It can also display Fetal Heart Rate when using an OP2HS or OP3HS probe.
Order Code: MUL-MD2-P-USA

WIDEBEAM TECHNOLOGY



Mini Dopplex® Non-directional Doppler

The Mini Dopplex® pocket audio Doppler with standard features. When combined with the EZ8 probe, it is ideal for vascular assessments and ABI measurements.
Order Code: MUL-D900-P-USA

Audio Doppler

Super Dopplex® II Bi-directional Doppler

The Super Dopplex® II Doppler is a bi-directional unit which displays flow direction.
It is ideal for clinical specialists wishing to conduct advanced Doppler studies.
Order Code: MUL-SD2-P-USA

Bi-directional Doppler

Dopplex® Printa II package

Dopplex® Printa II package is a portable, AC/battery thermal printer, for use with the Multi Dopplex® II or Rheo Dopplex® II units, providing documentation of bi-directional waveforms and PPG curves for reimbursement and waveform documentation.
Order Code: MUL-PRINTA2/ACC76

Intraoperative Probe

The new bi-directional Intraoperative probe is used to confirm blood flow prior to closing, saving time and the cost of a potential re-operation. The High Sensitivity probes are available in packs of 3 and can be re-sterilized by Autoclave or ETO.

A special electronic adaptor that resists diathermy interference allows connection to any Vascular Dopplex® Advanced Doppler.
The specially designed clamp attaches the Doppler to an IV pole.

A starter pack includes adaptor, pole clamp and 3 probes.
Order Code: MUL-ISP3

The probe pack contains 3 probes.
Order Code: MUL-IPP3

A starter pack with the MDII. Includes all components of the Starter Pack along with the Multi Dopplex II, High Sensitivity Doppler.
Order Code: MUL-ISP3-MD2

Accessories

Doppler Stand

A convenient way of securing your handheld Doppler and preventing it from disappearing into other departments. Height-adjustable secure mount on mobile five-wheel base.
Includes basket for storing gel, probes, cuffs, etc.
Order Code: MUL-DP100

Doplock for Handheld Dopplers

Diabetic Foot Assessment Kit

The kit comes with a choice of the Multi Dopplex® II Bi-directional Doppler or the Mini Dopplex® audio Doppler. Each kit includes the following: sphyg, toe and arm cuffs, 10 G monofilament and high sensitivity VP8 probe.

Applications include:

- Ankle Brachial Index (ABI)
- Toe Brachial Index (TBI)
- Neuropathy detection
- Record Doppler waveforms with the MD II using the optional Dopplex® Printa II or Dopplex® Reporter Software.

Dopplex® Reporter Software Package

Dopplex® Reporter software package provides a solution to today's patient documentation needs. Complete vascular studies can be undertaken and saved in a patient database. Full page documented printouts can be obtained or results can be networked to other locations.
The software is easily installed and does not require modification to your computer.
Requires Windows® 95, 98, NT4®, ME, 2000 or XP.

MUL-DFK1/MD2 MUL-DFK2/D900

MUL-DR3

RHEO DOPPLEX® II BI-DIRECTIONAL DOPPLER AND PPG SYSTEM

Four application areas in one unit:

• DVT Screening • CVI Screening • ABI Measurements • Fetal Heart Detection

Rheo Dopplex® II 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® Reporter software or the Dopplex® Printa II package.

DVT Screening with the Rheo Dopplex® II

The Rheo Dopplex® II 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 "Rheo Dopplex® II 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 Rheo Dopplex® II is used in conjunction with D-Dimer, 100% Negative Predictive Value (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 Rheo Dopplex® II unit is ideal for emergency departments and outpatient clinics.

CVI Screening with the Rheo Dopplex® II

The Rheo Dopplex® II 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 Anke Brachial Index (ABI) pressure
- Detecting fetal heart beat (with optional OP2HS or OP3HS)

The Rheo Dopplex® II unit is ideal for General practitioners and leg ulcer clinics.

• Screening for the absence of DVT using simple dorsiflexion test

Venous Refilling Time, RT > 45 seconds
Venous Pump, VP = 45

MUL-RD2DP/2 (PRINTA)
MUL-RD2DS (Software)

Technical Information

PRODUCT FEATURES	MINI DOPPLEX® DOPPLER	SUPER DOPPLEX® II DOPPLER	MULTI DOPPLEX® II DOPPLER	RHEO DOPPLEX® II DOPPLER
Product Order Code	D900	SD2	MD2	RD2
PPG capability				•
Range of eight probe options with probe coding	•	•	•	•
Built in loudspeaker and output for headphones	•	•	•	•
True separated stereo audio output		•	•	•
Separated bi-directional waveform outputs			•	•
Enhanced bi-directional LCD display		•	•	•
Waveform calibration function	3 level		5 level	5 level
Gain control			•	•
Auto shut off † and active noise reduction	•	•	•	•
Obstetric capability (audio only)	•	•	•*	•
RS232 digital interface			•	•
Interface to DOPPLEX® Printa™ II Package			•	•
Interface to DOPPLEX® Reporter™ Package			•	•
Battery Life**	500	250	250	250
Accessories	All models supplied complete with: stereo headphones, gel, soft carry pouch, battery and user manual			
Safety standards compliance	All models comply with EN60601-1:1990, IEC 60601 - 1:1988, EN60601-1-2:1993			
Weight	All models (including battery and one probe); 295gms (10oz)			
Dimensions	All models (main unit): Height 140mm (5.5'') Width 74mm (2.9'') Depth 27 (1.1'')			
Battery Type	All models-9 volt alkaline-6LR61, 6LF22 or equivalent recommended (e.g. MN1604)			

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

The Mini, Super, Fetal and Multi DOPPLEX II Dopplers are supplied with one probe of your choice as standard-please specify with order - additional probes are available separately from your supplier

* The Multi DOPPLEX II 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

1. Tan Y, Da Silva AF, Digital photoplethysmography in the diagnosis of suspected lower limb DVT. Euro Journ of Vasc and Endovasc Surg. 1999 18:1. p71-79

2. McEnroe. CS, O'Donnell ThF, Mackey WC. Correlation of clinical findings with venous hemodynamics in 386 patients with chronic venous insufficiency. AmJ. Surg 1985; 156:148-52

3. Neumann H.A.M., Boersma IDS. Light Reflection Rheography - A non-invasive Diagnostic Tool for Screening for Venous Disease. J. Dermatol Surg Oncol. 1992; 18: 425-430

4. Hennings S, Jaeger H, Giffler M, Mathias K.D. Digital photoplethysmography as screening for acute DVT. European Congress of Radiology, 2000.

5. Tovey C, Haughton J.B, Yates D.W, Sammy I.A, Driscoll P.A, Chisholm R, Goodhall O. The diagnosis and management of Deep Vein Thrombosis (DVT), Nice conference 2000.

6. Williams G, Sen A, Watson D.K, patient investigation and management of patients with suspected lower limb DVT, a description and audit of the service developed by Wrexham Maelor hospital 9th Int. Conf on Emerg Med, Edinburgh 2002.

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