# ML3500 & Spiro USB

Portable spirometers

The ultimate portable spirometer, the ML3500 spirometer has been specifically developed for the occupational health/primary health care professional. The **Spiro USB** is a PC based spirometer that connects directly into the USB port of a PC. Supplied with spirometry PC software, the Spiro USB provides a very mobile yet comprehensive spirometric facility.

#### Ease of use

Employing a high resolution colour touch screen with icon based functions and an integral printer the ML3500 is a very intuitive spirometer to use.

### **Quality control**

All performed tests are presented with both the selected tests highlighted as well as the % variation from best. This combined with on screen prompts for slow start, low volume and short blow during the test allows a very high level of guality control.

### Interpretation

Forty one parameters with actual, predicted and percent predicted values, as well as normal range with the option of interpretation and equivalent lung age can be reported. A full internal database allows complete patient recall on both data and measured loops.

### Reporting

ML3500 test results may be shown on the colour screen, saved in memory, printed on an internal printer, and/or exported to the optional spirometry PC spirometry database.

The **Spiro USB** is supplied with spirometry PC software which has comprehensive data, analysis, trending display and transfer capabilities.



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# ML3500 AND SPIRO USB

- Equivalent 'lung age' assessment
- **Real time colour display** of either flow/volume or volume/time curve
- On screen predicted value and results interpretation
- Totally portable with supplied carrying case
- **Customised printout format**

# ML3500

- Lightweight portable spirometer with icon based colour touch screen
- Integral high resolution printer and internal database (2000 tests)

MI 3500

- PC interface and optional software
- USB connectivity

# ML3500 and Spiro USB

Portable spirometers

# **Technical specifications (ML3500)**

#### General

Storage:	2000 patients with tests including Flow/ Volume loops and Volume/Time graphs
Printer output (internal printer):	13mm/s (avg)
Power supply:	Input: 100-240V AC 50-60Hz Output: 12V 2.5A
Battery pack:	Rechargeable NiMH 8.4V 1Ah
Dimensions (mm):	255 x 120 x 35
Transducer	50 x 60 x 90
Weight:	Excluding any transducers: 630g
Temperature:	The instrument will operate in a uniform environment of 0°C-40°C, out of direct sunlight.
Operating humidity:	30-90% non-condensing
Storage temperature:	: -20°C to +70°C
Storage humidity:	10% to 90% RH
Connectivity:	RS232 serial and USB 1.1

# **Spirometry**

#### Measurements and accuracy

Measurements (forced):	VC, FEV.75, FEV1, FEV3, FEV6, FVC, PEF, FEV.75/VC, FEV.75/FVC, FEV1/VC, FEV1/ FVC (FER), FEV3/VC, FEV3/FVC, FEV.75/ FEV6, FEV1/FEV6, FEF25 (MEF75), FEF50 (MEF50), FEF75 (MEF25), FEF25-75 (MMEF), FEF50/VC, FEF50/FVC, MMEF/ FVC (FEF25-75/FVC), FIV1, FIVC, PIF, FIV1/FIVC (FIR), FIF25 (MIF75), FIF50 (MIF50), FIF75 (MIF25), R50 (FEF50/ FIF50), MET25-75, FET, MVV (ind)
Measurements (relaxed):	EVC, IVC, IC,VT (TV), ,Ti,Te,Ti/Ttot.,VT/Ti (TV/Ti), IRV, ERV, FR
Tests per subject:	5 relaxed VC manoeuvres and 8 forced manoeuvres for each baseline and two post examinations
Predicted values:	Various – depends upon national preference
Transducer:	Micro Medical Gold Standard Bi-Directional Digital Volume
Resolution:	10ml volume 0.03l/s flow
Accuracy:	+/-3%.To ATS/ERS 2005 Standardisation of spirometry for flows and volumes

# Technical specifications (Spiro USB)

#### General

Dimensions (mm):	Transducer 50 x 60 x 90
Weight:	130g
Temperature:	0 to +40 C
Operating humidity:	30% to 90% RH
Storage temperature:	0 to +70 C
Storage humidity:	10% to 90% RH

#### PC system requirements

PC with Microsoft <sup>®</sup> windows 2000 or later
32 MB of RAM
50 MB of free hard drive space
Free serial port or USB port
Microsoft <sup>®</sup> internet Explorer version 4.0 or above
Video SVGA 800x600, 256 colour

# **Complete specification**

For a complete specification of either product please contact Amplivox Ltd.



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