

Micro

MicroLoop

Medical

a subsidiary of
VIASYS Healthcare

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NEW

The world's most
advanced hand
held Spirometer



With research grade gold standard transducer

Focus on the Future



Medical

Ease of use is key!

Highly portable and beautifully designed, the new generation MicroLoop has been developed for the professional. Employing Micro Medical's acclaimed precision GOLD STANDARD Digital Volume Transducer (especially suited to measuring very low flow rates in patients with COPD and Asthma) the instrument has a wide angle, high-resolution colour touch-screen. All the unit's features can be easily accessed by simply touching the chosen function's corresponding icon. This, together with fast textual data entry using a stylus makes the MicroLoop highly intuitive to use.

The MicroLoop has a desk-top docking station that makes battery charging, connection to a PC, the uploading of data and the printing of results to external printer(s)* quick and simple. With its USB connectivity MicroLoop will also link directly, to a PC or printer(s)*.

Equipped with many advanced functions the MicroLoop is fully compatible with Spida 5 and SpidaXpert the world's most comprehensive Spirometry PC software packages and meets all International Standards for accuracy (ERS-ATS 2005¹² compliant)

With over 20,000 MicroLoop Spirometers in use around the world; this new generation instrument is truly the world's most advanced hand held Spirometer.

(* Please contact Micro Medical for a list of compatible Hewlett Packard printers)

MicroLoop Cat. No. ML3535

Features

- *High definition colour touch-screen*
- *Fast on-screen textual entry enabling comments and report writing*
- *Fully customisable printout format*
- *Desktop docking station for battery charging and PC / Printer connection*
- *Direct connection to external Hewlett Packard printers* with fully customisable printout format*
- *Unique contextual Help Screens (language selectable) with dedicated Help Button*
- *41 inspiratory and expiratory indices measurable*
- *On-screen graphical child incentive devices*
- *Large 2000+ patient test memory*
- *Optional Spida 5 or SpidaXpert PC software*
- *Internationally recognised on-screen test quality assurance prompts (e.g. slow start, abrupt end etc.) ensuring quality test results*
- *Unique 'today's testing feature' - creating a list of patients tested or to be tested*
- *Numerous predicted values and languages selectable*
- *'Lung Age' assessment and textual result interpretation by ATS⁹, BTS-NICE¹⁰ or Enright¹¹*
- *Body Mass Index and Dyspnoea Score*
- *Bronchodilator and/or Steroid assessment*
- *Complete with all accessories in a sturdy carrying case*

USB port
(Mini AB)

Battery charge
status light

Simple icon
driven functions

Help button

GOLD STANDARD



The original MicroLoop was selected ahead of all other Spirometers for use in the START study, the largest Asthma investigation into the early intervention of inhaled steroid therapy.

DTI / BRITISH COAL RESPIRATORY DISEASE LITIGATION

The original MicroLoop was the chosen spirometer by the DTI for screening and subsequent compensation claims of over 60,000 UK Coal Miners.



Setting new stand

The Gold Standard tran Asthma and COPD pati Especially effective at lo standards for accuracy. benchmark for precise Digital Volume Trans

Product s



Flow head / transducer ports

High definition colour touch-screen

On/Off button

Product shown actual size

Standards in spirometry

The flow head and transducer from Micro Medical gives the most precise volume and flow measurements for patients.

At low flows, it complies with 2005 ATS/ERS12 and other recognised international accuracy. This means that Micro Medical's world beating Spirometers are the definitive accurate respiratory measurement.

Flow head and transducer Spirometers are **NOT ALL THE SAME**.



Touch icon main menu



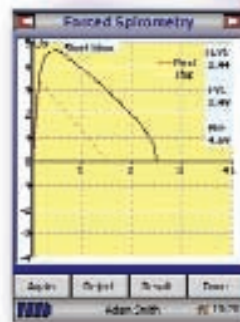
Comprehensive printing menu



Touch-screen keyboard



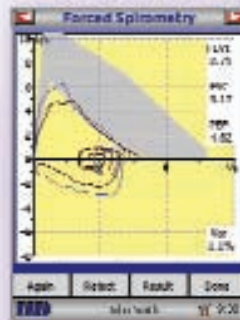
Simple system customisation



Open loop spirometry



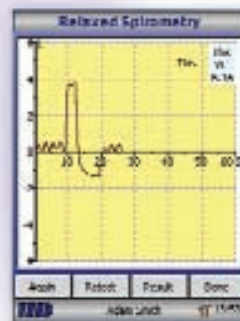
Comprehensive results screen



Closed loop spirometry



Child Incentive device



Relaxed tidal breathing



Screen specific help

Specifications

Spirometry

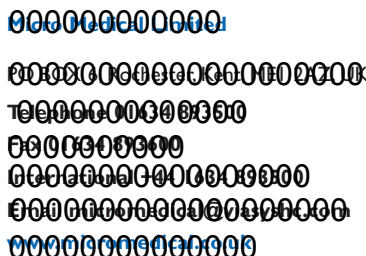
Measurements (forced):	VC, FEV ₇₅ , FEV ₁ , FEV ₃ , FEV ₆ , FVC, PEF, FEV ₇₅ /VC, FEV ₇₅ /FVC, FEV ₁ /VC, FEV ₁ /FVC (FER), FEV ₃ /VC, FEV ₃ /FVC, FEV ₇₅ /FEV ₆ , FEV ₁ /FEV ₆ , FEF ₂₅ (MEF ₇₅), FEF ₅₀ (MEF ₅₀), FEF ₇₅ (MEF ₂₅), FEF ₂₅₋₇₅ (MMEF), FEF ₅₀ /VC, FEF ₅₀ /FVC, MMEF/FVC (FEF ₂₅₋₇₅ /FVC), FV ₁ , FIVC, PIF, FV ₁ /FIVC (FIR), FIF ₂₅ (MIF ₇₅), FIF ₅₀ (MIF ₅₀), FIF ₇₅ (MIF ₂₅), R ₅₀ (FEF ₅₀ /FIF ₅₀), MET ₂₅₋₇₅ , 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 (including NHANESIII)
Transducer:	Micro Medical Gold Standard Bi-Directional Digital Volume
Resolution:	10ml volume 0.03l/s flow
Accuracy:	+/- 3% to ATS recommendations - Standardisation of Spirometry ATS/ERS 2005 update ¹²
General	
Storage :	2000+ patient tests including Flow/Volume loops and Volume/Time graphs
Printer Output:	For the listing of compatible Hewlett Packard printers visit the Micro Medical website at www.micromedical.co.uk
Power Supply:	Input: 100-240V AC 50-60Hz Output: 5V 2.0A
Battery Pack:	Rechargeable Lithium Polymer 3.7V 1600mAh
Dimensions:	123mm x 81mm x 23mm Transducer 50 x 60 x 90mm
Weight:	Excluding transducer : Micro Loop unit 191g, Docking Station 124g
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:	USB 1.1

The MicroLoop (Cat. No. ML3535) is part of an extensive range of respiratory monitoring equipment manufactured by Micro Medical Ltd.

Micro Medical Ltd pursues a policy of continuing improvement in design, production and performance of its products. The right is therefore reserved to vary details at any time and without notice.

Bibliography

- Dirksen A, Madsen F, Pedersen OF, Vedel AM, Jenson AK. Long term performance of a hand held Spirometer: Thorax 1996;51:973-976.
- Otulana BA, Higenbottam T, Ferrari L. The use of home Spirometry in detecting acute lung rejection and infection following heart-lung transplantation. Chest 1990;97:953-7.
- Pollard AJ, Mason NP, Barry PW, Pollard RC, Collier DJ, Fraser RS, Miller MR, Milledge JS. Effect of altitude on spirometric parameters and the performance of peak flow meters. Thorax 1996;51:175-178.
- Godschalk, L, Brackel HJL, Peters JCK, Bogaard JM. Assessment of accuracy and applicability of a portable electronic diary card Spirometer for Asthma treatment. Respiratory Medicine, 1996;90:619-622.
- Morris JF, Temple W. Spirometric 'Lung Age' estimation for motivating smoking cessation. Preventative Medicine, 1995;14:655-662.
- BTS Guidelines for the management of Chronic Obstructive Pulmonary Disease (The COPD Guidelines Group of the Standards of Care Committee of the BTS) Thorax 1997;53 (Suppl 5):S4-6.
- Wilson CM, Bakewell SE, Mr Miller et al. Increased resting bronchial tone in normal subjects acclimatised to altitude. Thorax 2002, 57: 400-404.
- Bent Klug and Hans Bisgaard. Measurement of Lung Function in Awake 2-4 Year-Old Asthmatic Children During Methacholine Challenge and Acute Asthma. Paediatric Pulmonology 21:290-300 (1996).
- American Thoracic Society. Standardization of spirometry: 1994 update. Am J Respir Crit Care Med 1995; 152: 1107-1136.
- National clinical guideline on management of chronic obstructive pulmonary disease in primary and secondary care (National Institute of Clinical Excellence (NICE) /British Thoracic Society (BTS) Thorax 2004;59(Suppl 1): 1-232 doi: 10.1136/thx.2004.022707
- Office spirometry, a practical guide of the selection and use off spirometers. Paul Enright
- ATS/ERS Task Force "Standardisation of Lung Function Testing", Standardisation of Spirometry, European Respiratory Journal 2005; 26: 319-338.



Local Representative:

