

# MD SPIR

## MicroLoop

### The World's Most Advanced Hand Held Spirometer

Developed specifically for the professional, the next generation **MicroLoop** employs Micro Medical's acclaimed precision Gold Standard Digital Volume Transducer which is especially suited to measuring the very low flow rates seen in patients with COPD.

The **MicroLoop** features a high definition color touch screen that can display either a Volume/Time curve, a complete Flow/Volume loop or a child incentive graphical display.

The **MicroLoop** can measure up to 41 spirometry parameters and has a database storage capacity for over 2,000 patients.

The **MicroLoop** has a desktop docking station that makes battery charging, connection to a PC for data upload and printing the results to an external printer quick and simple.

Spirometry PC Software is included and provides expanded data storage capabilities and trend analysis.

The versatile **MicroLoop** spirometer offers a comprehensive range of advanced features normally only seen on expensive pulmonary labs and is shipped complete with all necessary accessories in a sturdy carrying case.



### Features

- Gold Standard Transducer
- Touch Screen Color Display
- Fast On-Screen Text Entry Enabling Comments
- Child Incentive (3 available)
- Desktop Docking Station For Battery Charging and PC/Printer Connection
- Direct Connect to External Hewlett Packard Printers
- 41 Test Parameters
- 2000 Patient Test Memory
- Pre/Post Bronchodilator Comparison
- Choice of Predicted Values and Languages
- Diagnostic Interpretation and Estimated Lung Age
- On-screen Test Quality Prompts
- Spirometry PC Software Included
- 2-Year Parts and Labor Warranty
- Order Catalog #ML3535-S

## Technical Specifications:

**Product:**  
MicroLoop Mk8

**Model Number:**  
ML3535-S

**Parameters Measured:**

**Forced**

VC, FEV<sub>0.75</sub>, FEV<sub>1</sub>, FEV<sub>3</sub>, FEV<sub>6</sub>, FVC,  
PEF, FEV<sub>0.75</sub>/VC, FEV<sub>0.75</sub>/FVC,  
FEV<sub>1</sub>/VC, FEV<sub>1</sub>/FVC, FEV<sub>3</sub>/VC,  
FEV<sub>3</sub>/FVC, FEV<sub>0.75</sub>/FEV<sub>6</sub>, FEV<sub>1</sub>/FEV<sub>6</sub>,  
FEF<sub>75</sub>, FEF<sub>50</sub>, FEF<sub>25</sub>, FEF<sub>25-75</sub>,  
FEF<sub>50</sub>/VC, FEF<sub>25-75</sub>/FVC, FIV<sub>1</sub>, FIVC,  
PIF, FIV<sub>1</sub>/FIVC, FIF<sub>25</sub>, FIF<sub>50</sub>, FIF<sub>75</sub>,  
FEF<sub>50</sub>/FIF<sub>50</sub>, FEF<sub>50</sub>/FVC, MET<sub>25-75</sub>,  
FET, MVV (ind)

**Relaxed**

EVC, IVC, IC, VT (TV), Ti, Te, Ti/T<sub>tot</sub>,  
VT/Ti (TV/Ti), IRV, ERV, FR

**Tests per subject:**

5 relaxed VC maneuvers and 8 forced  
maneuvers for each baseline and two  
post examinations

**Predicted Normals:**

Selectable: Knudson, Crapo/Hsu,  
NHANES III, Polgar, Pereira, ECCS,  
Berglund, Austrian, Crockett,  
Gutierrez, Hedenstrom, Roca, Taiwan

**Transducer:**

Micro Medical Gold Standard  
Bi-Directional Digital Volume

**Resolution:**

10 ml volume 0.03 l/s flow

**Accuracy:**

+/- 3% to ATS recommendations -  
Standardization of Spirometry  
ATS/ERS 2005 Update

**Storage:**

2000 patients with tests including Flow  
Volume loops and Volume Time  
graphs.

**Printer Output:**

PCL Level 3 compatible Hewlett  
Packard printers

(Contact customer service for a list of  
compatible printers)

**Power Supply:**

Input: 100-24V AC 50-60 Hz  
Output: 12V 2.5A

**Battery Pack:**

Rechargeable Lithium Polymer  
3.7v 1600mAh

**Dimensions:**

Unit: 4.5" x 3" x 1"  
Transducer: 2" x 2.25" x 3.5"

**Weight:**

Unit: 6.74 ounces  
Docking Station: 4.37 ounces

**Temperature:**

The instrument will operate in a  
uniform environment of 32 to 104  
degrees Fahrenheit, out of direct  
sunlight

**Operating Humidity:**

30% to 90% non-condensing

**Storage Temperature:**

-4 to 158 degrees Fahrenheit

**Storage Humidity:**

10% to 90% Relative Humidity

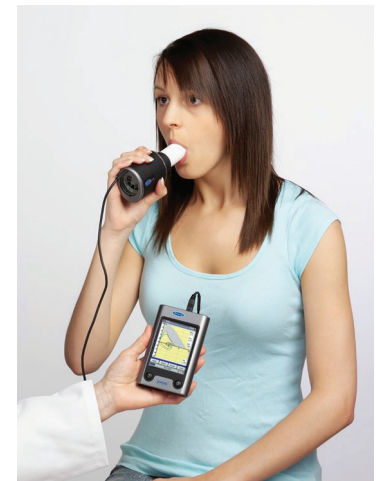
**Connectivity:**

RS232 serial and USB 1.1

## Ordering Info:

**Catalog #:**

ML3535-S	MicroLoop w/SPCS Software
3385	SpiroSafe Filters (Bag of 100)
3395	MicroCheck Mouthpieces (Box of 200)
3314SB	Cardboard Mouthpieces (Box of 200)
3314B5	Cardboard Mouthpieces (Box of 500)
3397	Plastic MicroCheck Mouthpieces (Box of 200)
PSA1100	Pediatric Mouthpiece Adapter
3301	Pediatric Mouthpieces (Bag of 100)
3304	Nose Clips (Bag of 20)
3325	3L Calibration Syringe



Tenby Medical

A DIVISION OF PEKISKO HOLDINGS INC.

443 Village Square  
Sherwood Park, AB  
Canada T8A 4K2

Tel/Fax: 780-570-5755

[tenby-medical.com](http://tenby-medical.com)

The MicroLoop (Cat. No. ML3535-S) is part of an extensive range of respiratory monitoring equipment offer by MD Spiro.

MD Spiro pursues a policy of continuing improvement in design, production and performance of its products. The right is there reserved to vary details at any time and without notice.

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