

Discovery-2™ Diagnostic Spirometer

FVC, MVV and VC/SVC
Pre/Post Comparison
Challenge Testing
Color Display with Real-time Graphs
Internal & External Printing
Alphanumeric Keyboard
Memory
Pediatric Incentive
Data Management Software
Software for Direct Testing on PC
Optional Oximetry and Airway Resistance



Discovery-2 is a compact diagnostic spirometer with capabilities common to larger instruments. Over 25 years of experience in serving the needs of the medical community have resulted in Futuremed's most complete spirometer, incorporating the latest technology, most current industry standards, and recommendations made by thousands of existing customers.

Dependable

Discovery-2 meets or exceeds current ATS, ERS, OSHA and Social Security Disability standards for spirometry, and has been independently tested and validated by the Pulmonary Lab at LDS Hospital for accuracy and precision. A unique sensor design that is unaffected by environmental changes, along with a built-in temperature sensor and the ability to make BTPS corrections, ensure that measurements are exact for a wide range of flows, with low resistance.

Intuitive

Pull-down menus and input fields, similar to the Windows® or Palm™ environment, make operation of Discovery-2 familiar and simple. An alphanumeric keyboard allows personalization of patient reports. Maneuvers include FVC, SVC, MVV, Pre/Post medication comparison and challenge testing. The



"best test" is identified but a different patient effort may be selected.

Patient-friendly

Adults and children alike will find the smooth and lightweight Discovery-2 handset easy to hold. The "Bubbles" pediatric incentive, available at the operator's discretion, gives patients a visual goal and motivates them to perform better, yielding optimal results.

Real-time Color Display

Flow-volume and volume-time graphs are displayed in real time. This ability to study both graphs side-by-side lets the technician inspect the quality of each maneuver before proceeding to the next. Multiple efforts are displayed in different colors for easy identification. Quality control messages let the operator know if a test meets accepted testing criteria and are helpful in coaching patients. MVV and SVC maneuvers are also displayed in real time.

Memory

Over 200 tests can be stored on Discovery-2 for future reference. Patient files may also be permanently archived on a computer.

Three Ways to Print

Discovery-2 provides three printing options. Complete reports can be generated on the internal printer in less than 15 seconds. Al-

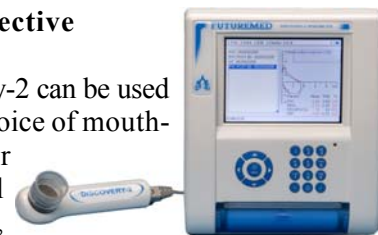
ternatively, Discovery-2 can be connected to a standard printer for plain paper, full page reports. A third option is to transfer tests to a PC, through which color printouts are produced.

Data Management Software

Discovery-2's Software for Windows serves two functions. The first is to store patient files on your computer, with the ability to print color reports, interface with other programs, create trend graphs, and compare tests, for a more complete picture of the patient's pulmonary function over time. The second, more unique, aspect of the software is to perform tests directly on the computer, with larger real time graphs, a colorful pediatric incentive and immediate archiving of patient records.

Cost-effective

Discovery-2 can be used with a choice of mouthpieces or bacterial filters, giving the operator control over the cost and quality of disposables.



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DISCOVERY-2™ DIAGNOSTIC SPIROMETER

SPECIFICATIONS

Flow sensor	Bidirectional digital turbine
Range	0.03-20 l/s
Flow accuracy	+/- 3% or +/- 50 ml
Airflow resistance	Less than .7 cm H ₂ O/l/s at 12 l/s
Volume range	0-12 liters
Temperature sensor	32-122°F (0-50°C)
Operating temperature	41-104°F (5-40°C)
Size	7.8" x 9.4" x 3" (19.8 x 23.8 x 7.6 cm)
Weight	2.6 lbs (1.2 kg)
Power	AC/DC power supply, 110/220 VAC 50/60Hz
Battery	Rechargeable Ni-Mh batteries
Memory	200 - 300 tests
Internal printer	Thermal, 4.5" wide
External printer interface	Standard USB interface to commercial external printers
Graphic display	Graphic, color display with pediatric "Bubbles" incentive
PC interface	One USB and one RS 232 port
Calibration	Automatic, using a 3.0L syringe
Safety class	☑ Conforms to existing guidelines EN60601-1 (safety) / EN60601-1-2 (EMC)
Languages available	English, Spanish, French, Italian, Portuguese, German, Turkish, Chinese, Korean

PARAMETERS

FVC, FEV1, PEF, FEV1/FVC, FEV6, FEV6/FVC, FEV1/FEV6, FEF25-75, FET100%, VEXT, FIVC, PIF, VC (SVC), IVC, MVV, FEV1/VC%, ERV, IRV, VE, Rf, ti, te, ti/t.tot, Vt/Ti, IC, MEF75, MEF50, MEF25, Best FVC, Best FEV1, Lung Age, SpO2*, HR*, R_occ*, P_occ*, Flow_occ*

PREDICTED STANDARDS

NHANESIII, Knudson83, ITS, ERS 1993 (ECCS 1983), ECCS 1971, Zapletal, LAM, Pneumobil, Gutierrez (Chile), Multicèntrico Barcelona, User defined predicted calculations.

STANDARD ACCESSORIES

D235000 Discovery-2 Spirometer
Flowmeter sensor & reader
AC\DC adapter
Communication cable
Pediatric mouthpiece adapter
Bacterial filter adapter
Bacterial filter starter kit
Sample noseclips
40 mouthpieces
Roll of paper
Carrying case
Operating manual
Discovery-2 Software for Windows



OPTIONAL ACCESSORIES

39250 3 liter calibration syringe
39295 Viral/Bacterial filters - box of 50
39298 Viral/Bacterial filters - box of 250
35075 One-way mouthpieces - box of 100
35070 Adult mouthpieces - box of 100
35080 Adult mouthpieces - box of 1000
35090 Pediatric mouthpieces - box of 100
35100 Pediatric mouthpieces - box of 1000
39290 Disposable noseclips - box of 100
39255 External printer
323900105 Pulse Oximetry kit
326500111 Airway Resistance kit