Discovery 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 Spirometer 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, the most current industry standards, and "wish lists" and suggestions offered by thousands of current customers.

Accurate

Discovery Spirometer meets or exceeds the latest ATS, ERS, OSHA and Social Security Disability standards for spirometry. Its precision has been verified by LDS Hos- pital, which tested it against the stringent 1994 standards established by the ATS. The unique Discovery Spirometer sensor is immune to environmental conditions, making it reliable for testing patients in most settings. Exact measurements are provided through a wide range of flows, with very low resistance. An internal temperature sensor makes automatic BTPS correction possible.

Intuitive

Pull-down menus and input fields similar to the Windows® or Palm™ environment make operation of Discovery Spirometer familiar and simple. An alphanumeric keyboard allows personalization of patient reports. Maneuvers include FVC, SVC, MVV, Pre/Post medication comparison and bronchodilator/exercise challenge testing. Discovery Spirometer identifies the best test, though the operator can override the computer's choice and select another effort.

Real-time Color Display

Discovery Spirometer displays the FVC test (Flow/ Volume loop and ime/Volume graph) in real time, so the operator can monitor the maneuver and ensure its quality instantly. The display is large and in color, making it easy to read. The MVV and SVC maneuvers are also displayed in real time.

Patient-friendly

A lightweight handset with smooth, rounded edges, makes Discovery Spirometer easy for all patients, young and old, to handle. The "Bubbles" pediatric incentive, avail- able at the operator's discretion, gives patients a visual goal and motivates them to perform better, yielding optimal results. Quality control messages let the opera- tor know if a test meets accepted perfor- mance standards.

Internal & External Printing

Discovery Spirometer has an internal printer for fast reports in any setting. It can also be connected to a standard printer for full page, plain paper printouts.

Cost-effective

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

Memory

Hundreds of test results can be stored in memory for future reference, or for down-loading to Discovery Spirometer 's database on PC.

PC Software

Discovery Spirometer 's Software for Windows has two functions. The first is to store patient records on a PC, with the ability to share data with other programs, compare tests from different sessions and create trend graphs, for a more complete picture of the patient's pulmonary function over time. The software can also be used for online testing from the spirometer directly to the PC.

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DISCOVERY 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_2O/1/s at 12 1/s
Volume range	0-12 liters
Temperature sensor	32-122°F (0-50°C) 41-
Operating temperature	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	CE 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 DiscoverySpirometer
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 Spirometer Software for Windows

OPTIONALACCESSORIES

39250	3 liter calibration syringe
39295	Viral/Bacterial filters - box of 50
39298	Viral/Bacterial filters - box of 250
39270	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
23900105	*Pulse Oximetry kit
24000111	*Airway Resistance kit

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