

# Vitalograph®

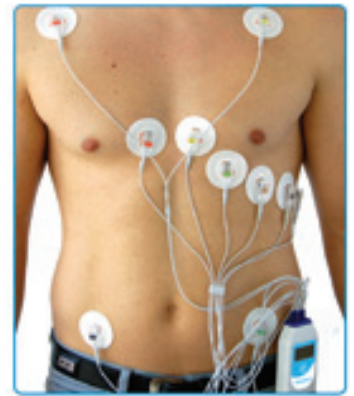
Your cardio-respiratory partner

Data you can rely on.  
People you can trust.



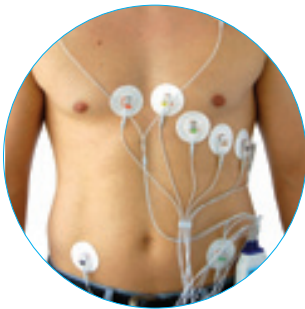
## The networkable Vitalograph COMPACT Expert medical workstation integrates:

- Spirometry
- Challenge testing
- 12-lead ECG
- Pulse oximetry
- COPD assessment
- Blood pressure measurement
- Weight data



## Vitalograph COMPACT

Vitalograph COMPACT™ is a medical workstation that integrates spirometry, 12-lead bluetooth® ECG, pulse oximetry, COPD assessment, blood pressure measurement, challenge testing and more in a networkable, flexible solution.\*



### Vitalograph COMPACT features:

- Customization capability for clinical trials and other large projects
- The capability to network multiple COMPACT devices to an internal database or to an external Spirotrac® database
- Large colour touch screen
- Secure logon or optional biometric scanner for logon and subject ID
- Intuitive user interface with workflow orientated presentation in four primary information panels: subjects, visits, information and session test
- Automatic storage and traceability of all test data and events, including calibration logs and audit trails
- Designed for secure encrypted data transmission to Vitalograph hosted central servers for reporting, archiving, analysis, review over-reading etc.
- Manual data entry and data export in PDF or CSV format
- Automated, secure data management compliant with FDA 21 CFR 11, 95/46/EC and HIPAA

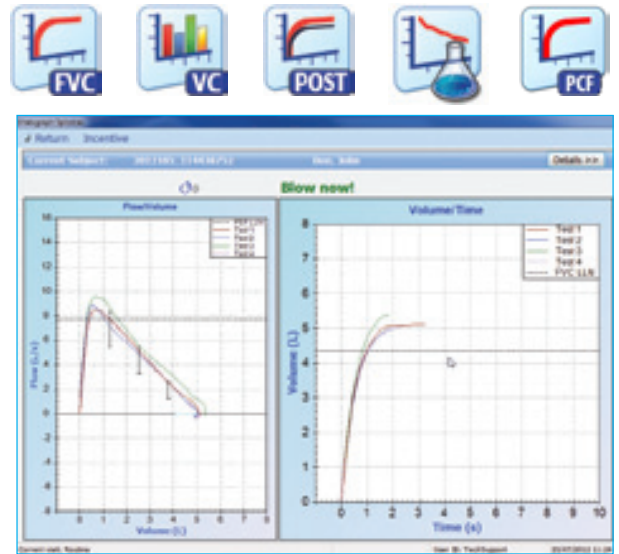
Visit	Time
16/01/2013	09:22
16/01/2013	12:01
VC	12:01
FVC	12:12
POST	12:19
SpO2	12:22
6MWT	12:26
BP	12:31
ECG	12:37
16/01/2013	13:22
16/01/2013	13:26
16/01/2013	16:22
16/01/2013	16:26
16/01/2013	19:22

\* 12 lead bluetooth ECG, pulse oximeter, weighing scale and other accessory devices must be purchased separately. The software to support these devices is included in the COMPACT

# Vitalograph COMPACT spirometry module

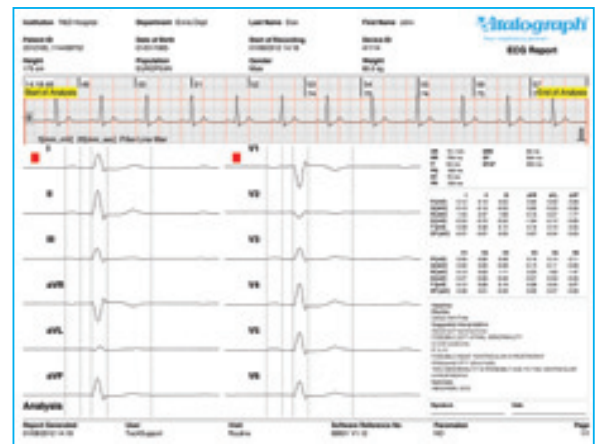
## Spirometry module features:

- Scalable volume/time & flow/volume curves using single-breath or multi-breath spirometry
- Automatic, configurable FEV<sub>1</sub> trend reports, FEV<sub>1</sub> trend displayed on subject selection
- Optional choice of incentives with sound effects and transparency so that real-time curves are simultaneously viewable
- Pre-post spirometry comparison for bronchodilator or longer acting treatments
- Over 50 selectable test parameters available
- User preference for comparison with a 'normal' population in % predicted or Z-score (SDS)



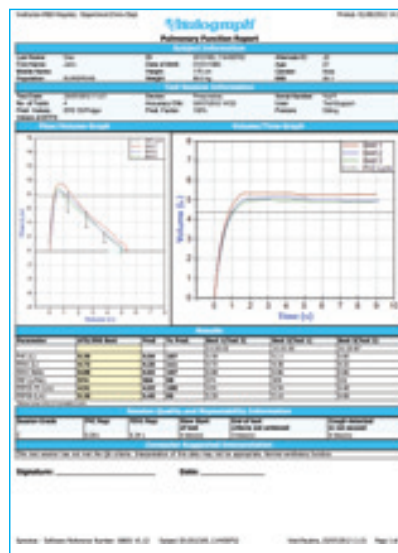
## Vitalograph COMPACT for communication and training

- USB 2.0 x 6, Serial RS232 x 2, Ethernet x 2
- Bluetooth dongle for device connectivity
- WiFi dongle for wireless networking
- Audio out (stereo) and microphone input



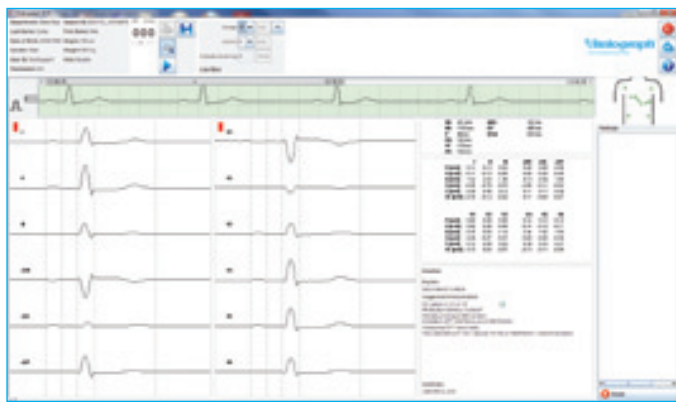
## Vitalograph COMPACT high quality reports

- Customisable reports
- Save as PDF
- Send to printer



## ECG (EKG)

The COMPACT with ECG offers full 12-lead electrocardiography. Analysis and interpretation come as standard using the world class University of Glasgow interpretation algorithm which provides detailed diagnostic suggestions and evaluation of results. ECG measurements are captured and transmitted via bluetooth for display in real-time and data is automatically saved for recall, reporting or printing. Wireless transmission is fast, safe and convenient. The built-in display provides information on electrode contact problems, heart rate, battery status, communication status and digital pacemaker detection.



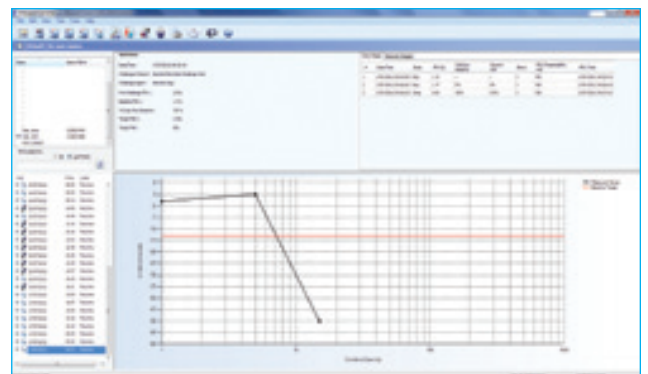
### COMPACT with ECG features:

- Operator controlled selection of a 10-s sample trace. Can capture and store several minutes of 12-lead bluetooth ECG recording
- Visual electrode contact indication to assist operator
- Wireless data transmission via bluetooth (range: approx. 10m)
- High quality multi-channel and 12-lead overview for viewing and printing
- Print configurable 1 or 2 page reports
- View traces as 1 x 12, 2 x 6 or 3 x 4 plus rhythm strip
- Calculation of the heart rate with acoustic and visual signal
- Full range of parameters are available (e.g. P duration, PQ interval, QRS period)
- Automatic pacemaker detection
- Rhythm analysis

## Bronchial challenge (ATS and Mannitol)

The causes of asthma and allergy can be difficult to diagnose, but bronchial provocation with specific sensitisers, methacholine or mannitol is of value to identify the extent and cause of bronchial hyper-responsiveness.

- ATS five breath
- ATS 2 min tidal
- ATS exercise
- Mannitol





## Pulse oximetry

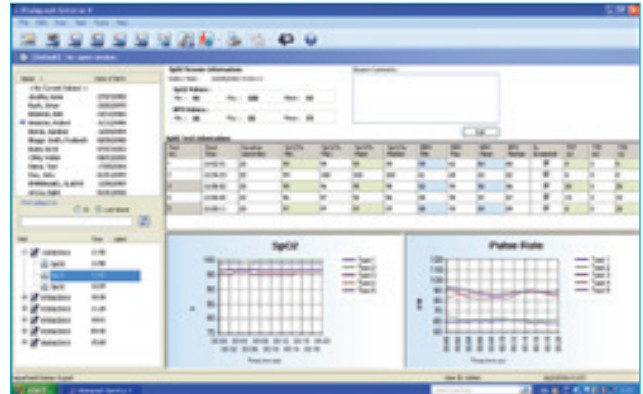
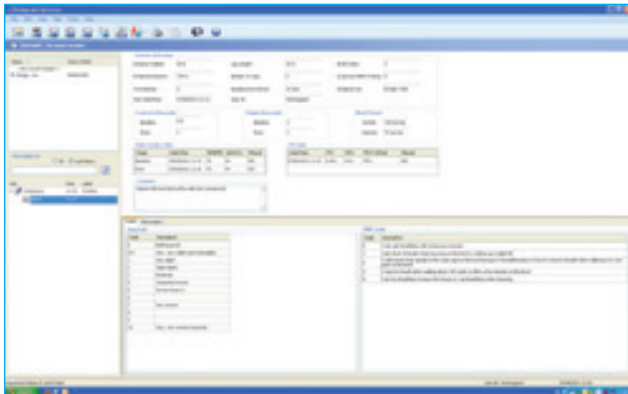
The Spirotrac Pulse Oximetry Software feature allows you to plug an SpO2 sensor directly into the USB port on your COMPACT to deliver accurate and high quality oximetry alongside spirometry.

The software calculates, trends and reports all primary parameters including minimum, maximum and median SpO2/pulse rate. Capable of recording quick assessments or longer term recordings and setting oxygen saturation zones.



## COPD assessment

- Spirometry and pulse oximetry data is automatically or manually integrated using the ATS/ERS 6-minute walk test protocol
- 6-Minute Walk Test Wizard runs in 10 logical stages
- The BODE\* Index (\*Body Mass Index, Obstructive Index, Dyspnoea Score, Exercise Tolerance) predicts COPD mortality based on FEV<sub>1</sub>, 6MWT, BMI, MMRC and BORG Scale



## Blood pressure

Subject BP data can be transferred to the database via a USB connection or entered manually.



## Weighing scales

Subject weight data can be transferred to the database from bluetooth medical weighing scales or entered manually.

## Technical specification:

**Product:** COMPACT

**Model No:** 6600

**Net Size:** 375mm x 235mm x 110mm

**Gross Size:** 461mm x 297mm x 226mm

**Weight:** Net: 2.5kg; Gross: 4.3kg

**Recommended Operating Temperature**

**Range:** 17– 37°C (ISO26782 limits),  
Design limits 10– 40°C

**Data Storage:** Stores up to 10,000 subjects

**Input Voltage/Frequency:** 110-250VAC  
50/60Hz

**PowerSAFE Output Voltage:** 19V DC

**Storage Humidity:** 10% - 95%

**Storage Temperature:** 0 - 50°C

**Class:** IIa MDD

**Communications:** USB 2.0 x 6,  
Serial RS232 x 2, Ethernet x2

**DVI Video Display Interface**

**Electrical Safety Standards:** EN 60601 (IEC  
60601) (applicable to electrical devices)

**Medical Safety Standard:** Medical Devices  
Directive 2007/47/EC

**Designed and Manufactured Under:** ISO  
13485:2003, FDA 21 CFR 820, CMDR SOR  
98/282 and JPAL

**Spirometry:**

**Flow Detection Principle:** Fleisch type  
pneumotachograph

**Spirometry Parameters:** Selectable, in  
excess of 50

**Spirometry Predicted Values:** Selectable

**Spirometry Test Types:** Single breath tests,  
flow/volume loops, multi-breath testing,  
tidal breathing

**Volume Accuracy:** Better than +/- 3%

**ECG:**

**BT12:** 12-channel, 3 leads acc. to Einthoven,  
3 acc. to Goldberger, 6 Wilson leads

**Power Supply:** 2 x AA batteries (1.5 V)  
or rechargeable batteries (1.2 V)

**Runtime when Used Constantly Approx.** 14h

**Electrodes:** Standard ECG electrodes

Vitalograph is a world leading provider of outstanding quality cardio-respiratory diagnostic devices, clinical trial services and medical equipment servicing. With a pioneering heritage of excellence spanning half a century Vitalograph continues to make valuable contributions to effective medical care and enhanced quality of life.

## Ordering info:

67800 6600 COMPACT

**COMPACT Compatible Devices:**

70400 Pulse Oximetry Finger Probe USB

70401 Biometric Scanner USB

70402 Blood Pressure Monitor USB

70404 Medical Weighing Scales Bluetooth

41300 12-Lead Bluetooth ECG

**Other Vitalograph medical devices that communicate with COMPACT:**

79400 2120 Hand Held  
In2itive™ Spirometer

65500 6000 ALPHA Touch™

40400 4000 Respiratory Monitor  
asma-1™ USB

**Consumables and Accessories**

41301 Disposable ECG Electrodes (30)

28350 2820 BVF™ Bacterial/Viral Filters (50)

20242 2024 SafeTway® Mouthpieces (200)

20980 2024 SafeTway Mini  
Mouthpieces (50)

20303 2030 Noseclip Disposable (200)

36020 2040 Precision Syringe 3-L

41302 ECG Simulator

67201 USB to Bluetooth Dongle

67179 COMPACT WiFi Adaptor

 Vitalograph®

Your cardio-respiratory partner

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