Vitalograph® alpha

Frequently Asked Questions

Flowhead connections

My test is not recorded

Flowhead white twin-tubing may be connected in reverse. Pull off tubing at both ends and re-connect. Ensure that the ribbed side of the tube is connected to the serrated/blue connector at both ends.

Performing Tests

How is test grade calculated?

Quality Grade Criteria
GradeA
At least 2 acceptable blows
With the largest 2 FEV1 and largest 2 FVC/FEV6 values within 100mL
OR At least 3 acceptable blows with the largest 2 FEV1 and largest 2 FVC/FEV6 values within 150mL
GradeB
At least 2 acceptable blows
With highest two of the FEV1 values matching between 101mL and 150mL
GradeC
At least 2 acceptable blows
With the highest two FEV1 values matching between 151mL and 200mL
GradeD
Only one acceptable blow, or more than one, but the FEV1 values match > 200mL
GradeF
No acceptable manoeuvres

Acceptable blow
An acceptable blow is one that has a good start and end of test and is free of artefact. See stadards for more details.

How is interpretation calculated ?

Interpretation of test results are based on algorithms specified in the NIOSH Manual of Spirometry in Occupational Medicine, Division of Training & Manpower Development, Cincinnati, US Dept of Health & Human Services/PHS/CDC/NIOSH 1981.

How is repeatability calculated ?

Between test variability, or repeatability, is calculated as follows :-

[(the sum of FVC + FEV1 from the best test) - (the sum of FVC + FEV1 from the second best test)/ (the sum of FVC + FEV1 from the best test)]*100.

What are the test save criteria ?

The best test saves the highest measured values for PEF and lung volumes, e.g. FVC and FEV1.
The best test results for all other parameters are taken from the defined 'best test'. The 'best test' is defined as the blow with the highest combined sum of FVC+FEV1.

General Questions

What is the slot in the side of the device for?

The slot in the side of the device is for a CF [Compact flash] memory card.

The primary purpose of this is to 'future proof' the device. If standards or predicted values or language or any other change is required to the device, this can be done by a certified service technician via the USB port. However such changes can also be made remotely by sending the user a pre-formatted and programmed CF card to update the firmware in the device.

An optional accessory is a CF memory card formatted to store every test in a standard format defined by the joint ATS/ERS committee. This is also future proofing because this standardised format is not yet in general use, but may be in the future.

What is the specification for the battery pack?

When charged using the PowerSAFE supplied with the device, the NiMH battery pack takes 12 hours to charge up to full capacity, giving a minimum of 2.5 hours testing (assuming 5 prints and normal testing).
The device may also be charged through the USB port either from a PC or a car cigar lighter socket. (Adaptor not supplied)

The spirometer may be used as normal whilst charging.

Can tests be stored for subsequent download?

No, the beauty of the Vitalograph ALPHA is simplicity of use. Database management would negate this primary feature.

The nine memory locations are for storing pre BD tests, allowing other subjects to be tested whilst waiting for the bronchodilator to take effect. Similarly, the 'Pre Store' can be used as a temporary store for the longer-term steroid trial.

How do I print a stored pre test?

The manual details how to store the pre test session by selecting the post screen options menu. It is therefore possible to recall the subject data with graph and readings taken from memory location....It is not possible to print this recalled pre test on its own ....you must first perform a post test and then obtain a pre plus post test report.

Where can I find information on parameter definitions?

For information on test parameters.....Select Help [Option 9] from main menu then choose "getting started" [option 9] and then select test parameter definition [option 3]

Creating spirometry reports

Can I create large format, permanent reports?

Provided with every device is a CD containing PC software to connect to your device via the USB cable supplied. This software is called 'Vitalograph Reports' and allows you to create reports on your PC in PDF format.

You will need to install the is software on your PC and also select from the Menu: Configuration; Preferences; Report 'Send to PC' (from 'Internal Printer')

When you have the spirometry report in PDF format, you can re-name the file, print on you PC or network printer, organise, archive, transmit or save the file in your management software.

Why is my printout blank?

Printing is only possible on the coated side of the printer paper. Please ensure that the paper roll is inserted correctly. The Vitalograph logo is printed at regular intervals at the edge of the roll on the coated side where printing is possible.

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