



SERIES 1120 FLOW/VOLUME SIMULATOR

<u>Part Number</u>	<u>Description</u>
113266	<i>Series 1120 Flow/Volume Simulator (FVS)</i>

The **Flow/Volume Simulator** produces the standard waveforms defined by the American Thoracic Society (ATS) for testing Spirometers. All standard 24 Volume Waveforms and 26 Flow Waveforms are programmed and ready for use. Also included are the new waveforms for peak flow meters and the new ISO waveforms for spirometry. You can also create your own waveforms using the supplied Waveform Editor Software. The simulator produces the waveforms at room conditions unless the Heat and Humidity options are ordered. Conversion factors can be selected to convert the data to BTPS or other standard conditions. Included in this package is the complete mechanical syringe mechanism and motion control system. Standard instrumentation in the device includes a pressure sensor for measuring the barometric pressure, a sensor for measurement of the cylinder pressure, a sensor for the optional pneumotach flow meter and an auxiliary pressure sensor. The auxiliary pressure sensor can be used to measure pressure across a device under test or to measure the pressure of a flow meter that is being calibrated by the FVS. The FVS package includes the control, data collection, graphing software and Waveform Editor Software and manuals. The Software allows the capability to control the Simulator program from a remote computer over a serial connection. Commands and Data can be passed between computers so that the testing process can be automated.



A computer with a USB port operating Windows 7/10 is required to complete the device. If necessary and shipped Ground ONLY in the USA we can supply a new current technology lap top computer and install the software. The FVS will operate on either 120 or 240 VAC 50/60 Hz.

Options & Accessories:

- DR1168A** *Heater Modification to the FVS* – regulates the heat of the delivered air from the FVS cylinder. Temperature and Humidity sensors are integrated with this option.
- DR1168B** *Humidity Modification to the FVS* – consists of a rotary valve assembly with moisture trap and a high through-put ultrasonic nebulizer. The humidity is drawn into the FVS cylinder during a slow inhalation maneuver defined by the selected waveform, when the desired RH level is indicated the expiratory waveform can be generated. The Humidity optional feature requires the Heater modification as well.

201450 ***Heated Pneumotach (800 L/min)*** with Heater printed circuit board & connectors installed, an adapter and calibration of the system. ***Not required for operation.***

201424 ***Non-Heated Pneumotach (800 L/min)***, adapter and calibration of the system. ***Not required for operation.***

Please Note: *The optional Pneumotach can be used with the Flow / Volume Simulator as a second measure of the flow that is generated however it is **not required for any operation of the device.** If the Pneumotach is used then the interaction of the Pneumotach with the Flow / Volume Simulator and the device under test must be well understood. There are many factors that will affect the accuracy of the Pneumotach flow measurement that can cause confusion or misinterpretation of the results. The system can be calibrated for only one Pneumotach. If more than one Pneumotach is desired then the user will need to manage multiple calibration files and make sure that the proper calibration file is being used.*

CCxxx ***Custom Outlet Adapter*** to fit customer's unit under test (Spirometer/flow meter).

201488 ***Transit Case (Plastic) with Foam*** interior includes wheels and handles. For safe repeated shipping and handling of the FVS.