

The following spring combinations result in the recommended Compliance settings.

Springs Engaged	Compliance ml/cmH <sub>2</sub> O
All disengaged	50
Both outer springs engaged	20
All 3 springs engaged	10

#### Technical Data

**Compliance:** Note: Static compliance (measured as the change in Volume/ the change in Pressure in steady-state, isothermal condition of a ventilation cycle, including compliance resulting from gas compressibility)

C50	0.5 L/kPa +/- 10% at 500 mL tidal volume
C20	0.2 L/kPa +/- 10% at 500 mL tidal volume
C10	0.1 L/kPa +/- 10% at 300 mL tidal volume

**Resistance:** Note: Parabolic (orifice) resistor pressure drops selected from ASTM F1100 (K values), for inspiratory flows at 2, 1, and 0.5 L/s, respectively.

Rp5	K 2.70 +/- 20% (equivalent orifice size = 8.48mm) pressure drop 10.80 cmH <sub>2</sub> O at 2 L/s
Rp20	K 17.61 +/-20% (equivalent orifice size = 5.31mm) pressure drop 17.61 cmH <sub>2</sub> O at 1 L/s
Rp50	K 108.70 +/-20% (equivalent orifice size = 3.37mm) pressure drop 27.20 cmH <sub>2</sub> O at 0.5 L/s

\* pursuant definitions of ASTM F1100 and IEC 60601-2-12

Weight: 3 lbs 8 oz (1.6 kg)

Dimensions 11 x 7.3 x 2 inches (280 x 185 x 52 mm)

#### Contact Information

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## ACCU LUNG™ Precision Test Lung Brief Operating Instructions

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## Legal Information

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International: service.international@fluke.com

**Intended Use:** The ACCU LUNG test lung may be used for ventilator performance verification. The user has to bear in mind, however, that the design of modern ventilators is complex and these devices incorporate a great variety of features and performance parameters.

#### WARNING!

**It is mandatory to always follow ventilator manufacturers' instructions and recommendations regarding performance verification procedures. Fluke Biomedical does not recommend any specific ventilator test or calibration**

The purpose of the lung simulator within the context of ventilator performance verification is solely to assist in implementing test procedures mandated or recommended by the ventilator manufacturer.

**Principle of Operation:** ACCU LUNG is a precision lung simulator that operates with a combination of springs and orifices to represent a number of different settings for the respiratory parameters Resistance and Compliance. The maximum volume is limited by a mechanical limit to the opening angle of the bellow panels. Resistances are parabolic, by virtue of their design as simple orifices. Compliance is linear since extension springs and a torsion bar are used to create recoil forces.

**Operation:** Always ensure that the elbow connector is fully inserted into the connector port on top of the ACCU LUNG. You will feel a snap action when it is properly engaged. To remove the elbow, pull straight out (vertically) while holding down the ACCU LUNG with your other hand.

To change the setting of Resistance, turn the elbow connector so that its black triangle is aligned with the arrows on the ACCU LUNG panel. It is the responsibility of the user to use only 90° positions; in-between positions will yield undefined results.

#### CAUTION!

**When exposing the ACCU LUNG to large pressure fluctuations (air travel), always keep resistor selector in one of the Rp settings, and not on OFF.**