

Training/Test Lung - TTL[®]

Dual Adult Lung Simulator



*Quality and Versatility
Built Into Every Unit*

Provides accurate simulation of wide ranges of normal and diseased lung conditions for ventilator testing/calibration and respiratory therapy instruction.



Call 1-800-530-9939 or visit www.michiganinstruments.com to learn more about the TTL[®]/PneuView[®] test systems from Michigan Instruments.

Dual Adult TTL[®]

What is the Dual Adult TTL[®]?

- A portable analog dual lung system which accurately simulates human pulmonary function for training or testing ventilators under simulated load conditions.
- Visually demonstrates a variety of normal and pathological pulmonary conditions.
- Provides an accurate measure of volumes, pressures and flow rates of medical equipment and replaces several measuring instruments at a fraction of their combined costs.
- Can accommodate several types of oxygen measuring sensors and other pressure sensing equipment.

How does the TTL[®] work?

- Uses two lungs, each with its own range of compliance settings to simulate the pulmonary system.
- The Pneuflo[®] resistors offer accurate simulation at both upper and lower airway resistance in exact accordance with ASTM standards. The resistors represent the parabolic flow characteristics of the human airway.
- The pressure corrected volume measurements match spirometer volumes measured on an actual patient with the same pulmonary compliance and airway resistance.

Combining lung simulation with the versatility of a personal computer.

To enhance the demonstration of ventilation phenomena and allow the capture and review of data from the TTL[®], we've developed the PneuView[®] Dual Adult System. This system incorporates an interface that communicates with software on a personal computer. The PneuView[®] system combines the very finest in lung simulation with advanced data acquisition, presentation and storage.

PneuView[®] Software

- Visually demonstrates, in real-time, the relationship between pressure, volume, and flow waveforms.
- Provides acquisition, storage, and review of data.
- Tracks ventilator performance trends for up to 72 hours.
- Measures pressure, volume, flow and timing parameters.
- Includes flow/volume and pressure/volume loops.
- Generates concise, yet comprehensive printed reports.

PneuView[®] Software CALCULATIONS:

- Breath Rate
- Inspiratory Time
- Expiratory Time
- I:E Ratio
- Tidal Volume
- Minute Volume
- Mean Airway Pressure
- Baseline Pressure



Specifications:

Tidal Volume Capacity:

2.0 L - each lung
4.0 L total

Residual Lung Volume:

1.02 L - each lung
2.04 L total

Size: Approximately 20" x 25" x 8"

Weight: 37 lbs. (16.8 kg)

Lung Compliance (adjustable):

.01 to .10 L/cmH₂O - each lung
Accuracy: +/- 3% (at calibration volumes)

Airway Resistance (adjustable):

Rp5, 20 or 50 cmH₂O/L/sec
Accuracy: +/- 5% (at calibration flows)