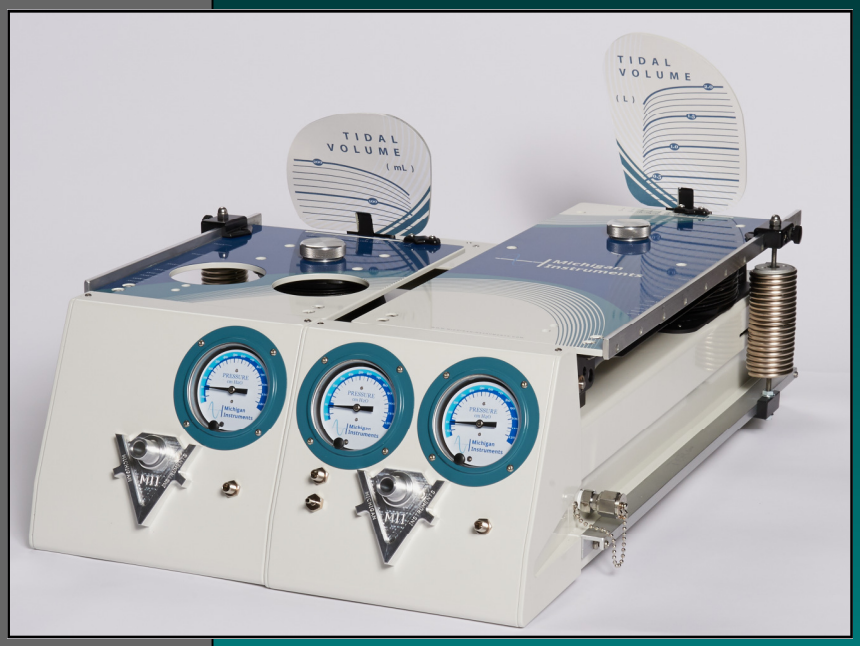
Training/Test Lung - TTL®



Adult Infant Lung Simulator

Innovations like this don't come out of thin air.

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

Michigan Instruments

Email sales@michinst.com or visit www.michiganinstruments.com /pv3 to learn more about the TTL/PneuView® systems from Michigan Instruments.

Adult Infant TTL®

What is the Adult Infant TTL®?

- A portable analog dual lung (one adult and one infant) system which accurately simulates human pulmonary function for testing ventilators or training under simulated load conditions.
- The adult lung holds a residual capacity typical of an adult human. The infant lung's residual capacity is typical of an infant, 6 to 12 months of age.
- The lungs visually demonstrate a variety of normal and pathological pulmonary conditions.
- The system 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.
- It can accommodate several types of oxygen measuring sensors and other pressure sensing equipment.

How does the TTL® work?

- The TTL® 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. These 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.

PneuView®3 combines 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 have developed the PneuView®3 Adult Infant System. This system incorporates an interface that communicates with software on a personal computer. The PneuView®3 system combines the very finest in lung simulation with advanced data acquisition, presentation, and storage.

PneuView®3 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 1,000 hours.
- Measures pressure, volume, flow and timing parameters.
- Is compatible with High Frequency Ventilation.
- Provides FiO_2 and ambient temperature measurements

PneuView®3 Software

CALCULATIONS:

- Breath Rate
- Inspiratory Time
- Expiratory Time
- I:E Ratio
- Tidal Volume
- Minute Volume
- Baseline Pressure
- And many more

Specifications:

Tidal Volume Capacity:

Adult Lung	2.0 L
Infant Lung	200 mL

Residual Lung Volume:

Adult Lung	986 mL
Infant Lung	200 mL

Size:	Approximately 20" x 25" x 8"
Weight:	37 lbs. (16.8 kg)

Lung Compliance (adjustable):

Adult Lung	.01 to .10 L/cmH_2O
Infant Lung	.001 to .01 L/cmH_2O

Accuracy: +/- 3% (at calibration volumes)

Airway Resistance (adjustable):

Adult Lung	Rp5, 20 or 50 cmH_2O/L/sec
Infant Lung	Rp50, 200 or 500 cmH_2O/L/sec

Accuracy: +/- 5% (at calibration flows)