

## APPLICATION NOTE – DUAL QUICKLUNG

**Purpose:** This Application Note describes the setup and settings for working with two QuickLung test lungs assembled in parallel to represent a two-compartment passive lung assembly.

### 1. GENERAL NOTES ON SETUP AND PERFORMANCE

Placing two QuickLung test lungs side-by-side provides a more realistic representation of human lung mechanics. Each QuickLung can be configured with three Resistance and three Compliance settings. When the two lungs are in parallel, the total lung resistances and compliances are shown in the table below.

#### 1.1 Setup of the Dual QuickLung

Place the two QuickLungs side-by-side and insert the green end of the swivel adapter into each leg of the wye. Insert the ends with the hole and leak into each QuickLung port. Adjust the Resistance by twisting the swivel adapter to the appropriate Resistance value. Adjust the Compliance by attaching the outer and/or inner springs.



## 1.2 Resistance and Compliance Table

The table below shows the total lung Resistance and Compliance based on position of the swivel connector and springs

	Resistance Settings (cmH2O/L/s)								
<b>Lung 1</b>	Off*	Off*	Off*	5	20	50	20	20	50
<b>Lung 2</b>	5	20	50	5	5	5	20	50	50
<b>Total Lung Resistance</b>	5	20	50	2.5	4	4.5	10	14.3	25
<b>Max Tidal Volume (L)</b>	1.2	1.2	1.2	2.4	2.4	2.4	2.4	2.4	2.4
	Compliance Settings (mL/cmH2O)								
<b>Lung 1</b>	Off*	Off*	Off*	50	20	10	20	20	10
<b>Lung 2</b>	50	20	10	50	50	50	20	10	10
<b>Total Lung Compliance</b>	50	20	10	100	70	60	40	30	20
<b>Max Tidal Volume (L)</b>	1.2	1.2	1.2	2.4	2.4	2.4	2.4	2.4	2.4

\* Lung 1 and Lung 2 are interchangeable in this table.

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