**Intended Use**

The QT is designed as a retrofit add-on module for the IngMar Medical QuickLung® and for the Fluke Biomedical ACCULUNG® precision test lung.

The QT does not interfere with any of the functionality of the QuickLung or ACCULUNG.

It is designed to simulate a patient trigger as well as to provide lower and upper inflection points in the context of ventilator performance testing and ventilator management training.

**Principle of Operation**

The trigger signal is produced by a negative pressure in the test lung which starts when the QT bellow lifts the top panel of the test lung.

Different lower inflection points can be simulated by closing the black hose to the manual inflation bulb with the enclosed clamp at different bellow positions. High inflection points can be simulated with the enclosed Velcro strap attached to the test lung. Keeping the lower and upper bellow panels of the test lung from separating further, generates the “beak” characteristic for the upper inflection point.
Installation/Application

The QT can be attached easily to the test lungs by pushing its block onto the edge of the test lung’s bottom panel. The designated position of the QT is between the center and the right Compliance springs of the test lung (see image). If the QT is properly attached, the bellow now faces the top panel and the springs will not interfere with the movement of the bellow. Squeezing the manual bulb will inflate the QT bellow, lifting the top panel of the test lung. When closing the pinch clamp, the inflated shape of the QT bellow can be maintained for creating an elevated pressure for the lower inflection point. Opening the pressure balancing valve at the bulb then allows an additional amount of air to enter the activation system, after which the valve should be closed and the clamp released. The trigger now works starting at the elevated pressure. Keeping the test lung bellow somewhat opened in this way will be visible in a PV loop as a shift in the lower inflection point. The Velcro strap can be attached between the left and center Compliance springs of the test lung. Place the complimentary (adhesive) part of the supplied Velcro on the outsides (bottom and top) of the test lung panels. With different length settings of the strap, different High Inflection points can be simulated. CAUTION: Excessive pressures (above 60cmH₂O) might damage the test lung!

With the additional straight ET-tube connector the QT may be attached to a driver ventilator for automating the trigger delivery (replace bulb with connector). For this purpose, the ventilator should operate in a pressure controlled mode and provide pressure between 5 and 20 cmH₂O.

Ordering Information

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<td>QT QuickTrigger Module</td>
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