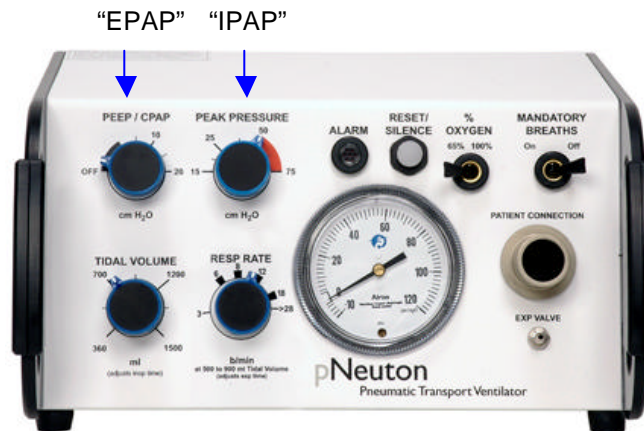


# pNeuton

## Pneumatic Transport Ventilation

### Bi-Level Pressure Ventilation

pNeuton ventilators provide several modes of ventilation including volume targeted, pressure limited and CPAP for pediatric through adult patients. pNeuton can also provide Bi-Level Pressure Ventilation, a mode of ventilation similar to BiPAP (a registered trademark of Respironics). BiPAP, a non-invasive pressure ventilation technique, is being increasingly used to avoid endo-tracheal intubation in patients with acute respiratory insufficiency. Currently there are no BiPAP devices available for transport or compatible with MRI scanners.



pNeuton set up for Bi-Level Pressure Ventilation:

1. Set the Peak Pressure control to the "IPAP", or inspiratory pressure desired.
2. Set the PEEP / CPAP control to the "EPAP", or expiratory pressure desired.
3. Set the Resp Rate control to match the total patient rate.
4. Set the Tidal Volume control to meet the inspiratory time demand of the patient. Setting the Tidal Volume control for 700 ml is a 1.2 second inspiratory time which should support most adult patients. Increasing the tidal volume will increase inspiratory time, decreasing tidal volume will decrease inspiratory time.
5. Use a tight fitting "anesthesia or BVM" style mask with the standard pNeuton patient circuit. Please note – traditional BiPAP / CPAP masks will not work as they have a large expiratory port / hole at the mask.

There are two important differences in functionality between BiPAP devices and pNeuton.

- A BiPAP breath is similar to a Pressure Support breath. Flow during a BiPAP breath changes to meet patient demand while providing the IPAP pressure. Flow from pNeuton for pressure limited breaths is fixed at 36 L/min. If the patient demands more flow on pNeuton, there is up to 140 L/min available, which is delivered at the CPAP pressure level.
- BiPAP breaths can be patient triggered, as well as time triggered. All pNeuton Bi-Level Pressure breaths are time triggered at a rate set with the Resp Rate control.

While pNeuton's Bi-Level Pressure Ventilation mode is not identical to BiPAP devices, with proper setup and monitoring pNeuton can be used to non-invasively transport BiPAP patients. Patient sedation may aid in patient / ventilator synchronization. With pNeuton's MRI compatibility you can now safely provide ventilatory support for your BiPAP patients in the MRI.



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