

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 and / or compatible with MRI scanners.



pNeuton set up for Bi-Level Pressure Ventilation (Mandatory Breaths "ON"):

- Set the Peak Pressure control to the "IPAP", or inspiratory pressure desired.
 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 an Airon pNeuton CPAP patient circuit (# 58011 or 58021). This circuit has an excellent lip seal mask and head strap specifically designed for use with non-invasive ventilation. Please note - traditional BiPAP / CPAP masks will not work as they have a large expiratory port / hole at the mask.

There is important difference in functionality between BiPAP and pNeuton Bi-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. Always set the rate high enough to overcome the patient's own respiratory rate. This will ensure all breaths are pressure supported.

While pNeuton's Bi-Level Pressure Ventilation mode is not identical to BiPAP devices, with proper setup and monitoring pNeuton can be used to provide short term transport of BiPAP patients. Patient sedation may aid in patient / ventilator synchronization. Also, with pNeuton's MRI compatibility, you can now safely provide ventilatory support for your BiPAP patients in the MRI with remote monitoring (PN 21031 Remote Alarm).



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