pNeuton mini NEO
Pneumatic Neonatal Ventilation

Operational Verification Procedure
pNeuton mini NEO Ventilator

This procedure outlines a validation testing method used to verify proper operation of the **pNeuton mini NEO** Ventilator. The Operational Verification should be performed prior to using the ventilator with each patient application.

Ventilator Setup

The following equipment is needed:
1. **pNeuton mini neo** Ventilator with breathing circuit (Airon # 58031 or 58201)
2. Oxygen analyzer
3. Watch, a timer or stop watch

When ready:
1. Attach breathing circuit to ventilator following instructions in the Operators Manual.
2. Set the controls as follows:
   a. **Mode** control to IMV + CPAP
   b. **PEEP / CPAP** to off
   c. **Peak Pressure (P_{INSP})** to 20 cm H_2O
   d. **Continuous Flow (V_{INSP})** to 8 L/min
   e. **Inspiratory Time (T_I)** to 0.4 sec
   f. **Expiratory Time (T_E)** to 2.0 sec
   g. **Oxygen (F_IO_2)** to 60%
   h. **High Pressure Alarm (P_{ALARM})** to 30 cm H_2O
3. Occlude the patient connection or place a cap over the patient connection to seal the circuit.
4. Attach Oxygen and Air Input on side panel of the ventilator to high-pressure gas sources (55 psi $\pm$ 15 psi each gas) and turn on both gases.

NOTE: The ventilator will begin operation at the above settings when the oxygen and air are turned on. The alarm will sound. You may press the "Reset / Silence" button to silence the alarm.

Operational Verification

Verification Step	Acceptable Range	Result
Observe the pressure gauge. It should rise to 20 cm H_2O and drop to 0 cm H_2O.	20 ± 3 cm H_2O	Pass / Fail
Count the respiratory rate with a stopwatch. Measure the number of breaths in one minute.	25 ± 5 breaths per minute	Pass / Fail
Attach an oxygen analyzer to the output of the expiratory valve. Using a calibrated oxygen analyzer measure the oxygen percentage.	60% ± 3%	Pass / Fail
Set the High Pressure Alarm to 20 cm H_2O. The alarm should activate with each breath. Turn High Pressure Alarm back to 30 cm H_2O post test.	Visual and audible alarm	Pass / Fail
Remove the patient connection cap and allow the breathing circuit to remain open. Using a stopwatch, measure the time until the alarm sounds.	10 ± 2 seconds	Pass / Fail
Disconnect one gas input with the remaining gas source connected to Air or Oxygen gas source. Verify the Low Gas Supply alarm activates.	Visual and audible alarm	Pass / Fail

If the ventilator has passed all the above steps, it is ready for clinical use.

Tested by: _____ Date: _____

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