



# Use of SNS Ventilators in the Pediatric Patient



## UNI-VENT™ Eagle™ Ventilation System “Quick Set-Up”

- Mode** ▶ SIMV, Assist Control (A/C), CPAP  
**Volume** ▶ 10 ml/kg (displayed on LCD above control)  
**Breath rate** ▶ Set age appropriate (dial is sensitive, 1-150 bpm)

- Inspiratory Time** ▶ (0.7-1.0 Combination of Inspiratory time and I:E ratio is displayed on LCD (I:E ratio default 1:1 preset))
- FIO2** ▶ Dial desired FIO2 (21% to 100%) value displayed on LCD
- PEEP** ▶ Pushbutton switch: each push = 1 cwp
- Alarms** ▶ Set based on average Peak Inspiratory Pressure
- Low Alarm Limit** ▶ 5 cwp below spontaneous Peak Inspiratory Pressure
- High Alarm Limit** ▶ 10 cwp above Mechanical Breaths Peak Inspiratory Pressure
- Battery Life** ▶ 3 hours maximum using internal compressor; 12 hours using external gas source

## Concepts of Rapid or Volume Based Pediatric Ventilation

- If volume ventilating, start at 10 ml/kg (unless protective lung strategy ventilation required)
- Volume lost to circuit must be replaced unless measurements taken at “wye”
- Set I-time generally between 0.7 – 1.0 sec.

### NORMAL RESPIRATORY RATES

- |                    |       |
|--------------------|-------|
| ▪ Infant           | 30-60 |
| ▪ Toddler          | 24-40 |
| ▪ Preschooler      | 22-34 |
| ▪ School-age child | 18-30 |
| ▪ Adolescent       | 12-16 |

### ASSESSMENT

- Chest rise
- Breath sounds
- Respiratory Rate
- Work of Breathing
- Pressures required to deliver volume
- ABG/TCM/SaO<sub>2</sub>



# Use of SNS Ventilators in the Pediatric Patient



## LP- 10 Ventilator “Quick Set Up”

- Mode** ▶ SIMV or Assist Control
- Volume** ▶ 10ml/kg (measured by spirometer)
- Breath rate** ▶ Set age appropriate
- Inspiratory Time** ▶ (0.7-1.0 second)

- FIO2** ▶ Capable of delivering 100%
- Back of machine- O2 enrichment kit** ▶ Set liter flow (not > 10 lpm)  
▶ Analyze FIO2
- Front of machine- Bleed O2 into circuit** ▶ Highest FIO2 approximately 40%  
▶ Adjust liter flow and analyze
- PEEP** ▶ External PEEP valve located on circuit exhalation valve; dial in desired PEEP pressure
- Alarms** ▶ Set based on average Peak Inspiratory Pressure
- Low Alarm Limit** ▶ 5 cwp below Peak Inspiratory Pressure
- High Alarm Limit** ▶ 10 cwp above Mechanical Breaths Peak Inspiratory Pressure
- Battery Life** ▶ Internal Battery 30 minutes to 1 hour; External battery 10 hours

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