

## **Rule of 5s**

### **(Keep it Simple Vent Settings for Adults)**

There are 5 numbered dials on the front of the Eagle/Impact Vent. Most of the settings can be initially set by remembering multiples of 5.

Do not hook up your casualty to the breathing circuit until after the PEEP is set.

**Dial 1** – Turn on to calibrate. You must calibrate the vent every time you turn it on. Turn the knob to the right.

The LED display will show "Cal-Mode" and then "Cal-OK"

Then turn the knob to the left past CPAP and to **SIMV** or **AC**.

AC – Assist Control

SIMV – Synchronized Intermittent Mandatory Ventilation

**Dial 2** – Ventilatory Rate – set at **10**

**Dial 3** – I:E ratio of **1:2**. Turn the knob all of the way to the left. This setting is generally satisfactory for all adults and pediatrics with trauma related requirements for mechanical ventilation. Medical problems like COPD and asthma may require longer ratios, and this should be assessed after the initial settings have been set.

**Dial 4** – Tidal Volume of **500** ml and adjust as needed. Tidal volume calculation is 6-8 ml/kg and studies have shown the lower tidal volume is more beneficial than the higher, so going with 6 ml/kg is recommended after the initial setting of 500.

**Dial 5** – Air/oxygen mixer – for room air the knob will be all of the way to the left and for 100% O<sub>2</sub> will be all of the way to the right.

**PEEP** – positive end expiratory pressure. There are four white push buttons on the top and all should say "off" underneath them except the PEEP which will show "0". Push the PEEP button 5 times for a PEEP of 5. Normal PEEP is 5-10.

You may now hook the breathing circuit up to your casualty.

**PIP** – peak inspiratory pressure alarms. These are set with the two red knobs at the top. The casualty needs to breathe 4-6 cycles to get a good **peak number** which is normally between 20 and 30. This number can be seen in the LED display to the right of "peak". Disregard the "mean" number. Once you get your peak number **add 10** to it on the left red knob to set the high pressure alarm and **subtract 5** from it on the right red knob to set the low pressure alarm.

**Pressure alarms** – when the alarm goes off look in the LED window and see whether it is a low or high pressure problem. You work from the casualty back to the equipment to determine and fix the problem. If a minute goes by and you can't figure it out disconnect the breathing circuit and start bagging with BVM, then return to your casualty assessment.

**High pressure** – tension pneumothorax, right main-stem intubation, kink in hose, mucous plug or blood in ET tube, biting on tube

**Low pressure** – circuit disconnection, extubated, ET cuff deflated, unsealed open chest wound, hole in breathing circuit, King LT airway

**DOPE**- **Dislodged or disconnected, obstruction, pneumothorax, equipment failure**