

CV-4+ Quick Reference

1. Connect gas source, patient circuit, test lung and turn vent on.

For Pediatric/Adult Volume or Pressure Limited Ventilation

2. Turn MAX PRESS knob to it's max position.
3. Set tidal volume by pressing TVML and adjusting volume with arrow keys.
4. Turn FLOW knob to adjust flow to desired position while observing "I" (Inspiratory Time).

Note: Measuring Exhaled tidal volume: Actual exhaled tidal volume may be observed by installing the peds/adult pneumotach (#4410) and placing it in line with the circuit. Then turn the measurement "ON" on the ALARM 1 screen by pressing the EXHTV low limit and then the up arrow key.

ASSIST CONTROL

5. Choose Assist Control mode by pressing ASSIST CNTRL (MAIN screen).
6. Set respiratory rate by pressing RATE and adjusting with arrow keys.
7. Adjust sensitivity (MAIN screen) to ensure that patient is able to trigger the vent (.2-10; the lower the number, the more sensitive). Note: Make sure vent is not auto-cycling.
8. Set desired PEEP level by turning PEEP knob and observing PEEP level (lower left corner).
9. Set alarms by manually setting each alarm in the ALARM screen.
10. **For Pressure Limited Ventilation:** Decrease MAX PRESS knob until desired peak pressure is observed. **Note: Once a breath is being limited by the MAX PRESS knob you must disregard the set TV displayed on the MAIN screen.**
11. Make sure peak pressure alarm (ALARM screen) is not limiting the tidal volume delivery (or limiting the pressure limited breath).

SIMV

5. Choose SIMV mode by pressing SIMV (MAIN screen).
6. Set SIMV RATE (MAIN screen) by pressing SIMV RATE and adjusting with arrow keys.
7. Adjust SENSITIVITY (MAIN screen) to ensure that patient is able to trigger the vent (.2-10; the lower the number, the more sensitive). Note: Make sure vent is not auto-cycling.
8. Set desired PEEP level by turning PEEP knob and observing PEEP level (lower left corner).
9. Set pressure support if desired by pressing PRES SUPPORT (MAIN screen) and adjusting with arrow keys.
10. Set alarms by manually setting each alarm in the ALARM screen.
11. **For Pressure Limited Ventilation:** Decrease MAX PRESS knob until desired peak pressure is observed. **Note: Once a breath is being limited by the MAX PRESS knob you must disregard the set TV displayed on the MAIN screen.**
12. Make sure peak pressure alarm (ALARM 1 screen) is not limiting the tidal volume delivery (or limiting the pressure limited breath).

CPAP **Note: this is CPAP that is generally provided through an endotracheal or trach tube.**

- 5) It's important to set appropriate rate, tidal volume and Flow settings (Inspiratory Time) as above, since in the event of an apneic patient, backup SIMV ventilation will be provided.
- 6) Choose CPAP mode by pressing CPAP (MAIN screen).
- 7) Adjust Sensitivity (MAIN screen) to ensure that vent can recognize patient's spontaneous effort and delivers flow with each patient's effort (Evidenced by SPONT appearing in the lower left corner of the screen with each patient's Inspiratory effort).
- 8) Adjust CPAP level with the PEEP knob and observing CPAP value on the manometer and lower left hand value on screen.
- 9) Turn off Pressure Support by pressing PRES SUPPORT (MAIN screen) and decreasing value to OFF with arrow keys (unless of course Pressure Support is desired).
- 10) Set low CPAP alarm in ALARL 2 screen (Press alarm key twice), by setting low alarm limit to an appropriate value below set CPAP level.

For Infant Ventilation using CONSTANT FLOW (Pressure limited CMV ventilation) **Note: Pressure triggering is not available in CONSTANT FLOW.**

2. Turn on constant flow by pressing CONSTANT FLOW on the MAIN screen
3. Set desired respiratory rate by pressing RATE and adjusting with arrow keys.
4. Set desired inspiratory time by pressing INSP and adjusting with arrow keys.
5. Set desired flow rate by turning FLOW knob and observing value.
6. Set Peak pressure by turning MAX PRESS knob and observing Peak pressure (upper left corner).
7. Set desired PEEP level by turning PEEP knob and observing PEEP level (lower left corner).
8. Set alarms by pressing AUTO SET twice within 5 seconds, or by manually setting each alarm in the ALARM menus.

For Infant Nasal Prong CPAP it is probably best to use the vent with Constant Flow On (the CPAP available when Flow or Pressure Triggering is used is designed for CPAP with a trach or an ET tube as it provides backup ventilation in the even of apnea. (Also: If nasal prongs are used that require the patient wye to be removed you may want to order circuit # 20011N)

Note: These guidelines are only meant as a guide and do not take the place of a thorough understanding of the operators manual and/or interactive CD-ROM training.