

**To: Newport HT50 Ventilator Users**

**SUBJECT: Heated Wire Breathing Circuit Choices for Setting up the Newport HT50 with a Fisher & Paykel Humidifier**

**There are four disposable tubing choices available. They are listed in order of recommendation.**

#1 Recommendation for any size patient including small pediatrics - fully disposable

- ✓ Order two items:
  - Newport abbreviated J circuit p/n 51006700
  - One of the following:
    - Allegiance/Airlife™ 6 foot (183 cm) heated inspiratory limb p/n 1006-H05 (used for MR730 humidifier)
    - Allegiance/Airlife™ 8 foot (244 cm) heated inspiratory limb p/n 4681-504 (used for MR730 humidifier)
    - Fisher & Paykel™ 5 foot (152 cm) heated inspiratory limb p/n RT114 (used for MR850 and HC500 humidifiers).
- ✓ This is the very best choice for any size of patient and it is also the very simplest and the easiest to set up. You will need to order both parts of the circuit but then you won't need anything else but the ventilator, humidifier, water and patient. The circuit even comes with the appropriate fittings to move the proximal pressure line to the dry side of the humidifier. This circuit uses the Newport disposable exhalation valve which performs significantly better than any Allegiance exhalation valve on the HT50. This set up will provide you with less autotriggering, fewer alarms and happier caregivers. NO JURY RIGGING REQUIRED.

#2 Recommendation for any size patient including small pediatrics - disposable tubing, reusable exhalation valve - most economical

- ✓ Order four items:
  - Newport HT50 exhalation valve p/n HT600039
  - Newport proximal pressure tee adapter with cap p/n NP130-22
  - One of the following:
    - Allegiance/Airlife™ 6 foot (183 cm) heated inspiratory limb p/n 1006-H05 (used for MR730 humidifier)
    - Allegiance/Airlife™ 8 foot (244 cm) heated inspiratory limb p/n 4681-504 (used for MR730 humidifier)
    - Fisher & Paykel™ 5 foot (152 cm) heated inspiratory limb p/n RT114 (used for MR850 and HC500 humidifiers).
  - Generic oxygen tubing or length of tygon tubing of similar internal diameter
- ✓ You will use the proximal pressure tee adapter to connect the proximal sensing line to the dry side of the humidifier and use the plug from the tee to plug off the proximal sensing line port on the exhalation valve. You will need to add your own oxygen tubing to use as a proximal pressure sensing line. This requires a little more thinking for set up but is the most economical. Make sure to have extra HT50 exhalation valves so one can be washed while the other is in use.

#3a Recommendation for larger patients - fully disposable

- ✓ Order one item:
  - Allegiance/Airlife™ "J" Circuit p/n 10856-H08
- ✓ This circuit includes a tee piece for teeing the proximal sensing line onto the dry side of the humidifier.
- ✓ This circuit can be used on any size patient because it is a J circuit and there is no problem with deadspace rebreathing but performance may not be as good as you will see
- ✓ Since this J circuit uses the Allegiance, orange diaphragm, exhalation valve there may be a higher incidence of autotriggering and alarms than you would see with the Newport disposable or Newport reusable exhalation valve (listed above). This problem may be significantly worse on pediatric patients.

#3b Recommendation for adults only - fully disposable

- ✓ Order one item:
  - Allegiance/Airlife™ Universal Single Heated Limb p/n 10653-H08
- ✓ This circuit is simple and easy to set up for adults. You just need to move the pressure tee from where it is in the circuit the dry side of the humidifier.
- ✓ Never use this circuit on pediatric patients because it has too much deadspace and a pediatric patient will suffer elevated carbon dioxide levels from re-breathing their own exhaled gas.
- ✓ Since this circuit uses the Allegiance, orange diaphragm, exhalation valve there may be a higher incidence of autotriggering and alarms than you would see with the Newport disposable or Newport reusable exhalation valve (listed above).

If you have any questions about this information please contact Newport Clinical Education:  
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