

	Department: Respiratory Services	Date Originated: June 2009 Date Reviewed/Revised: February 2013
PROCEDURE	Topic: <u>Neonatal</u> – Babylog VN500 Ventilator Device Check, Breathing Circuit Check and Flow Sensor Calibration (Respiratory Therapy) Number: B-00-12-12094	Related Links:

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APPLICABLE SITES:

St. Paul's Hospital

GENERAL INFORMATION:

The Babylog VN500 **Device Check** must be completed after cleaning and re-circuiting the ventilator. The **Breathing Circuit Check** must be done following the Device Check and also before using the ventilator on a new patient. Calibration of the neonatal flow sensor should be done after it is replaced as well as before placing a patient on the ventilator.

EQUIPMENT:

- Babylog VN500 ventilator with circuit assembled
- Infant test lung
- Clean flow sensor and exhalation assembly

PROCEDURE:

1. Gas Supply:

- a) Connect the high pressure air and oxygen hoses into the wall outlets and check that the connections are tight.

2. Patient System:

- a) Ensure the following:
 - i. Expiratory valve system is firmly attached
 - ii. Patient circuit is assembled and complete
 - iii. Water trap is vertically positioned and at the lowest point of the circuit
 - iv. Flow sensor is connected and inline

- v. Test lung is attached to the patient wye of the circuit

3. Device Check:

The Babylog VN500 **Device Check** must be completed after cleaning and re-circuiting the ventilator.

- a) Touch **System Check** tab
- b) Touch **Device Check** tab
- c) Touch **Start** button and press the rotary knob to confirm
- d) Follow the instructions and/or answer the questions
- e) Ensure all the circles are green - if not then troubleshoot and repeat failed test
- f) Once the Device Check is complete, proceed to **Breathing Circuit Check**

4. Breathing Circuit Check:

The **Breathing Circuit Check** must be done following a Device Check (after circuit change) and also before placing the ventilator on a new patient.

- a) Touch the **System Check** tab to access the **Breathing Circuit Check**
- b) Touch the **Breathing Circ. Check** tab
- c) Remove the test lung from the circuit and press **Start**
- d) Press the rotary dial to confirm and initiate the **Breathing Circuit Check**
- e) Follow the instructions and/or answer the questions
- f) **Breathing Circuit Test** completed will appear in the instruction box when done

5. Neonatal Flow Sensor Calibration:

Calibration of the neonatal flow sensor should be performed after it is replaced and before placing a patient on the ventilator.

- a) Touch **Sensors/Parameters** button
- b) Select flow sensor type **ISO-15**
- c) Touch the **Start** button and press the rotary dial to confirm
- d) Check to ensure the calibration was successful in the message box

NOTE: To calibrate the flow sensor, remove the flow sensor from the circuit and occlude both ends.

6. Documentation:

- a) Initial and date the daily checklist indicating that the **Breathing Circuit Check** and **Flow Sensor Calibration** have been successfully completed.
- b) Initial and date on a piece of paper tape whenever the circuit has been changed and after the **Device Check** and **Breathing Circuit Check** have been completed.