

This Skills Checklist is provided for information purposes only, focuses on the Draeger Medical product referenced and related concepts, and is not a substitute for reading the applicable Instructions for Use. The skills checklist assists in training how to use or operate this product. It does not address issues of medical practice or clinical judgement related to the use of this product.

The checklist is intended only as a suggestion for your consideration; it may or may not be consistent with your institutional expectations for staff competency. It is the responsibility of each institution or provider to make their own determinations regarding matters of training and clinical protocol for their employees and the products that they use.

Skill	Answers
Mount exhalation valve.	<ol style="list-style-type: none"> <li>1. Hold the valve with the blue end to your left.</li> <li>2. Insert into machine until you hear the valve click.</li> </ol>
Install flow sensor.	<ol style="list-style-type: none"> <li>1. Place the flow sensor into the connection horizontally, it does not matter which way it is turned.</li> <li>2. Slide sensor to the right until it fits into the blue end of the exhalation valve.</li> </ol>
Connect the circuit and humidifier to ventilator.	<ol style="list-style-type: none"> <li>1. Connect your patient circuit per policy, inspiratory side is on the right.</li> </ol>
Turn ventilator on and select ADULT patient configuration.	<ol style="list-style-type: none"> <li>1. Press the ON button on the upper back left of the machine. The plastic cover will come down to cover the button. After the machine does a quick self check the standby screen will appear.</li> <li>2. Press standby and confirm. The <b>standby activated</b> alarm will appear,</li> <li>3. Touch alarm reset and confirm to acknowledge the alarm.</li> <li>4. Select <b>New Patient</b> and confirm.</li> <li>5. Select <b>Adult</b> and confirm</li> </ol>
Perform device check.	<ol style="list-style-type: none"> <li>1. On the Standby screen there are four <b>TABS</b> to the right.</li> <li>2. Touch the <b>Check</b> tab to get to the device check screen.</li> <li>3. Touch device check and follow prompts in upper left corner. After the Device Check is completed, an Airtight Check is recommended.</li> <li>4. Again the tabs are to the right, touch <b>airtight check</b> and follow the prompts in the upper left hand corner.</li> </ol>
Set MODE to CMV.	<ol style="list-style-type: none"> <li>1. Touch the settings keys at the bottom of the screen, or press the ventilator settings key on the right hand side of the monitor, modes will appear across the top.</li> <li>2. Touch <b>CMV</b> mode (it will turn yellow)</li> <li>3. Confirm by pressing the rotary knob.</li> </ol>
Set FIO <sub>2</sub> to 80%.	<ol style="list-style-type: none"> <li>1. Touch the <b>Tinsp button</b> on the screen, it will turn yellow.</li> <li>2. Adjust up or down with the rotary knob.</li> <li>3. When 1.2 sec is displayed, press in the rotary knob to confirm.</li> </ol>
Set TIDAL VOLUME to 500ml.	<ol style="list-style-type: none"> <li>1. Touch the <b>VT button</b> on the screen, it will turn yellow.</li> <li>2. Adjust up or down with the rotary knob.</li> <li>3. When 500 is displayed, press in the rotary knob to confirm.</li> </ol>
Set PEEP to 5cm H <sub>2</sub> O.	<ol style="list-style-type: none"> <li>1. Touch the <b>PEEP button</b> on the screen, it will turn yellow.</li> <li>2. Adjust up or down with the rotary knob.</li> <li>3. When 5cm is displayed, press in the rotary knob to confirm.</li> </ol>
Set Respiratory Rate to 14.	<ol style="list-style-type: none"> <li>1. Touch the <b>f button</b> on the screen, it will turn yellow.</li> <li>2. Adjust up or down with the rotary knob.</li> <li>3. When 14 is displayed, press in the rotary knob to confirm.</li> </ol>
Set Flow Trigger to 2.0LPM.	<ol style="list-style-type: none"> <li>1. Touch <b>Add Settings Tab</b> on the right of the screen, this will bring up other functions.</li> <li>2. Touch the <b>Flow Trigger tab</b>.</li> <li>3. Touch <b>flow trigger setting</b>, it will turn yellow and adjust to 2 lpm.</li> <li>4. Confirm with the rotary knob.</li> </ol>

**Skill****Answers**

Turn AUTOFLOW and ATC Off.

1. Touch **Add Settings Tab** on the right of the screen, this will bring up other functions.
2. Touch the **AutoFlow** tab.
3. Touch off, again it will turn yellow, then confirm with the rotary knob.
4. Do the same for the **ATC tab**.

Set FLOW to 50LPM.

1. Go back to basic settings by touching the tab to the right.
2. Touch the **Flow** button on the screen, it will turn yellow,
3. Adjust to 50 lpm then confirm with the rotary knob.

Set MINUTE VOLUME alarms – High alarm - 10.0L and Low alarm - 2.0L.

1. Press the **alarm key** on the upper right side of the monitor. The alarm screen will appear.
2. Touch the **MV high limit**, adjust to 20.0 L and confirm with the rotary knob.
3. Touch the **MV low limit**, adjust to 2.0 L and confirm with the rotary knob.

Set High Pressure alarm at 15cm H<sub>2</sub>O above Peak Pressure.

1. Press **Alarm Limits** key opening alarm limits menu.
  2. Touch the **High Pressure alarm**, it will turn yellow.
  3. Set the alarm to 15cm H<sub>2</sub>O above the **Peak Pressure** with the rotary knob.
  4. Confirm with the rotary knob.
  5. Note the new location of the dotted alarm line will change.
- Note: Alarm will activate when pressure reaches 5cm H<sub>2</sub>O below the set High Pressure alarm value.

Set High TIDAL VOLUME alarm at 1500ml .

1. Press **Alarm Limits** key opening alarm limits menu.
  2. Touch **VTi alarm**, it will turn yellow.
  3. Set the alarm to 1500ml with the rotary knob
  4. Confirm with the rotary knob.
- Note: If tidal volume reaches 1500ml the ventilator will terminate inspiration and start expiration to protect from over inflation.

Set High Spontaneous Rate alarm at 30 bpm.

1. Press the **Alarm Limits** screen key opening alarm limits menu.
2. Touch the **fspon alarm**, it will turn yellow.
3. Set the fspon to 30 bpm with the rotary knob.
4. Confirm with the rotary knob.

Describe set-up Apnea Ventilation.

1. Change mode to SIMV
  2. Touch the **Ventilator Settings** screen key to open mode and parameters menu.
  3. Touch **Add Settings** to open menu.
  4. Touch the **Apnea** ventilation key.
  5. Touch **On** and confirm with knob.
  6. Touch **Vt** and dial in 500ml with rotary knob and confirm.
  7. Touch **f** and dial in 14 with rotary knob and confirm.
- Note: Apnea ventilation is activated to volume controlled mandatory breathing if the patient stops breathing.

Demonstrate AUTOFLOW activation.

1. Press the **Ventilator Settings** screen key to open mode and parameters menu.
  2. Touch **Add Settings** to open menu.
  3. Touch **AutoFlow** key.
  4. Select On and confirm with rotary knob
  5. Check for AutoFlow in mode window in upper right hand corner in volume modes and removal of flow key from parameters' menu.
- Note: AutoFlow adjusts inspiratory flow to the patient's needs, minimizes airway pressure to deliver set tidal volume, and allows free breathing. AutoFlow can be turned on/off in Volume Modes and is always on in PCV Mode.

Skill	Answers
Set-up to deliver P <sub>supp</sub> with CPAP @ 5cm H <sub>2</sub> O & P <sub>supp</sub> . 0	<ol style="list-style-type: none"> <li>1. Press the <b>Ventilator Settings</b> screen key to open mode and parameters menu.</li> <li>2. Touch the <b>CPAP/P<sub>supp</sub> mode</b> key and confirm.</li> <li>3. Touch the <b>PEEP</b> key and dial in 5cm H<sub>2</sub>O with the rotary knob and confirm.</li> <li>4. Touch the <b>P<sub>supp</sub></b> key and dial in 0cm H<sub>2</sub>O with the rotary knob and confirm.</li> </ol>
Activate AUTOMATIC TUBE COMPENSATION (ATC) with Size 6.0 ET tube and 100% compensation.	<ol style="list-style-type: none"> <li>1. Press the <b>Ventilator Settings</b> screen key.</li> <li>2. Touch <b>Add Settings</b>.</li> <li>3. Touch <b>ATC</b>.</li> <li>4. Touch <b>Trach</b> for tube type of patient airway and confirm with rotary knob.</li> <li>5. Touch <b>ID</b> and dial in 6.0 for inside tube diameter in mm and confirm with rotary knob.</li> <li>6. Touch <b>Comp</b> and dial in 100% for degree of tube compensation and confirm with rotary knob</li> <li>7. Touch <b>ON</b> and confirm with rotary knob.</li> </ol> <p>Note: There will now be a tube symbol and diameter in the status line. The tracheal pressure is calculated by the Evita XL and displayed as a green line in the pressure waveform together with the pressure at the Y-piece.</p>
Turn ATC Off.	<ol style="list-style-type: none"> <li>1. Press the <b>Ventilator Settings</b> screen key.</li> <li>2. Touch <b>Add Settings</b></li> <li>3. Touch <b>ATC</b>.</li> <li>4. Touch <b>OFF</b> and confirm with rotary knob.</li> </ol>
Calibrate flow sensor.	<ol style="list-style-type: none"> <li>1. Press the <b>Sensor Parameters</b> soft key.</li> <li>2. Touch <b>Flow</b> key.</li> <li>3. Press start key beside <b>Calibration</b>.</li> <li>4. Status of test is in top left hand corner information window.</li> </ol> <p>Note: Everyday at 11:00 AM the ventilator automatically calibrates the flow sensor and notes the calibration in the Logbook. Flow sensor can be calibrated at any time, even during ventilation.</p>
Calibrate O <sub>2</sub> sensor.	<ol style="list-style-type: none"> <li>1. Press the <b>Sensor Parameters</b> soft key.</li> <li>2. Touch <b>O<sub>2</sub></b> key.</li> <li>3. Press start beside calibration and confirm with knob. Status of test is in top left hand corner information window.</li> </ol> <p>Note: Everyday at 11:00 AM the ventilator automatically calibrates the O<sub>2</sub> sensor once a day and notes the calibration in the Logbook. O<sub>2</sub> sensor can be calibrated at any time with no change to patient's set FIO<sub>2</sub>.</p>
Activate and explain function - PEEPi.	<ol style="list-style-type: none"> <li>1. Touch <b>Special Procedures</b> screen key</li> <li>2. Touch <b>Diagnostics</b>.</li> <li>3. Touch <b>PEEPi</b>.</li> <li>4. Touch <b>Start</b> and confirm with rotary knob.</li> </ol> <p>Note: The function of PEEPi is to measure intrinsic PEEP. The difference between PEEPi and the set PEEP is Auto PEEP and the V<sub>trap</sub> is the amount of volume trapped with this Auto PEEP. Both values are displayed and can show 2 measurements..</p>

## Skill

Activate and explain function - P.01.

## Answers

1. Touch **Special Procedures** in the function key menu.
2. Touch **Diagnostics**.
3. Touch **P.01**.
4. Touch **Start**

Note: The function of P.01 is to measure the neuromuscular breathing drive to estimate the likelihood of successful weaning from the ventilator. Normal pressure is 2 to 6 cm H<sub>2</sub>O.

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Access Data Screen; explain function of each option

1. Touch the **Data** screen key.
2. Go into the Data menu you wish to view. (Values, Logbook, Trends)

Note: **Values** contains a Custom Table which can be configured for hospital specific values and settings. Tables 1 and 2 displays all measured values and settings for facilitating documentation.

**Logbook** records settings, changes, events and alarms and lists them in chronological order with time of occurrence. Turn rotary knob to get to specific entry.

**Trends** display three trends with a common scale. Touching the wave icon will open the screen up to give a choice of 8 trends to change the display. Touch the trend to be exchanged. The displays will show 1, 3, 6, 12, 24 hr increments.

Turning the knob will place the cross hair cursor over a desired time and give numerical data from that point on the waveform.

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