

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
Power on.	<ol style="list-style-type: none"> 1. Plug power cord into outlet. 2. Press in power button below rotary knob. 3. Locate power icon. 4. Press standby pad and confirm with rotary knob.
Demonstrate how to change modes, parameters, menus, and alarms.	<ol style="list-style-type: none"> 1. Choose mode IMV and confirm. Set tidal volume to 500 by dialing in with rotary knob and confirm. Select Alarm limits and confirm. Alarm menu appears. Using rotary knob dial to highlight box to set MV low by dialing to 3 and confirm. Set high pressure limit to 45 cm. 2. Return to standby.
Assemble circuit, gas and suction pressure lines.	<ol style="list-style-type: none"> 1. Connect all gas outlets, scavenger, and suction wall connections. 2. Attach circuit with optional filters, patient bag, and sampling line is connected between sampling water trap and patient Y-piece. 3. Place patient Y on bag mount. 4. Turn APL valve to 30cm by turning clockwise.
Perform daily device checkout.	<ol style="list-style-type: none"> 1. Open cylinders on back and check pressure gauges. Close cylinder. 2. Check pipeline and cylinder pressures on front display of pressures. 3. Using black knob on scavenger set red ball between black lines. 4. Press O₂ flush and watch patient bag inflate with additional flow. 5. Turn fresh gas flow controls to left to check flow meters. Note virtual flow meters. 6. Check sight glass on front of vaporizers to see amount of agent and turn flow controls to "O". 7. Turn machine off and then power button on again 8. Review Checklist-Manual and then select Start Self Test and confirm. 9. Explain the stop light colors and timer on the test. Red- Yellow- Green for success and moving timer hands on item being checked. 10. Locate the results after the 4-minute test of leak and compliance. Note the information window at the bottom of the screen with instructions for continuing.
Set up prior to patient arrival: agent and patient data.	<ol style="list-style-type: none"> 1. Select agent to be used. Place wheel on agent to be replaced to "T". Move lever to face center and remove to parking station. Leave wheel in "T" and push lever back to side to secure on parking station. Go to parking station to get other agent and place dial to "T". Move lever to front, lift off, and place in open station on front mount. Move lever back to side position and turn wheel to "O". 2. Place in age (45) and weight (75kg or 150 lbs) to set machine parameters and algorithms if available. 3. Discuss the need for Leak test to be performed between circuit changes and patient type change. (Pediatric and Neonatal) 4. Set age to (5) and weight (20 kg or 44 lbs) in standby to reset parameters and algorithms. Return to age 45 and wt 75 kg.

Skill	Answers
Pre – oxygenation of patient.	<ol style="list-style-type: none"> 1. Remove the patient connection and attach test lung. 2. Press Man/ Spont hard key and confirm with rotary knob. 3. Turn Oxygen fresh gas to 6 liters and bag at rate of 10. 4. Set the APL valve to 20cm. 5. Note the end tidal CO₂ low alarm will activate on test lung and be displayed in alarm window at center top area of screen. Press Alarm silence and monitor 2-minute countdown in upper corner. 6. Fill patient bag with O₂ flush and demonstrate relieving excess volume by lifting up on APL valve.
Induction with agent.	<ol style="list-style-type: none"> 1. Explain exclusion system by turning from “O” to set percentage of agent and blocking the ability to turn on the other agents. 2. Press in button to desired concentration. 3. Adjust fresh gas flows to 2 liters and discuss impact on gas circuit response time.
Set-up ventilator and switch modes.	<ol style="list-style-type: none"> 1. Select IMV but do not confirm and note menu for available parameters in IMV. Press soft key below parameter and parameter is highlighted. Use rotary knob to adjust to set number and confirm. <ul style="list-style-type: none"> Set tidal volume to 500ml Set pressure limit to 40cm Set insp time to 1.5 sec Set rate to 8 Set PEEP to 3cm Set slope to 0.2 sec (rise time) When all parameters are set- press confirm to change to IMV mode from Man/Spont. 2. Explain effect of inspiratory time on I:E ratio and rate on I:E ratio. Check window above inspiratory time and rate and note how data changes when rate is changed to 10. 3. Monitor tidal volume and pressure limit alarms. 4. Monitor ventilation. <ul style="list-style-type: none"> Check waveforms and numerical data displayed with ventilation. Explain 3 custom screens and access. Discuss pressure and apnea alarms. Set the Auto-set limits using soft key on current settings. 5. Switch to PCV and explain how the plateau pressure in volume is used to set the peak pressure. Explain how new parameter of inspiratory flow can change how soon peak pressure is reached. 6. Return to IMV and see how rate and minute ventilation in pressure are used to set the new tidal volume. 7. For synchronized IMV and Pressure Control choose Extra Settings and turn on trigger to set synchronization. 8. Show how to switch to Man/Spont due to pneumatics safe guard if power failure with manual bagging with continuance of agent delivery. 9. Explain battery backup, alarm message, and battery time available.
Adjust alarms and explain color and priority categories.	<ol style="list-style-type: none"> 1. Choose Alarm limits. Menu appears. Scroll to highlight limit, change limit with knob, and confirm. 2. Three categories – Warning (Red) immediate action, Caution (Yellow) prompt action, and Advisory (White) note and take action if necessary. 3. Set the alarm tone and volume in standby configuration screen. Choose system settings for access.

Skill**Answers**

Maintaining anesthesia.

1. Review the displays of agent and gas mixtures on inspiration and expiration in upper left hand corner. View the virtual flow meters below agent identification.
2. MAC displayed at bottom of agent display.
3. Discuss troubleshooting alarms on end tidal CO₂.
Automatic calibration of analyzer every 2 hours.
Blocked tubing and moisture.
Removing water from water trap with syringe.
Check for leak or disconnection.
4. Activate the low flow wizard. Explain prompts and color changes to use low flow anesthesia. Too little - Efficient -Too much.
5. Display trends by pushing the middle key pad on far right side of screen. Press the key one or two times in succession until trend screen is displayed. It displays measurements up to a maximum of 8 hours. It displays up to 4 graphical trends on the screen at one time.
6. Change the FiO₂ limit to clear alarms from alarm box.
7. Select Datalog for chronological record of measured values and events during the case.
8. Choose **Cardiac Bypass mode** and disarming of alarms
9. Change from **Cardiac Bypass** and place into **Pressure Support**
Set rate of 5
Set PS at 10
Set PEEP at 5
10. Explain **Pressure Support** for the spontaneous breathing patient on LMA and decreasing work of breathing through artificial airway and decreasing atelectasis.

Emergence.

1. Go to menu and choose **extra settings** and confirm.
2. Select **trigger**, set at 2 liters, and confirm.
3. Choose **rate** and dial down to 3 for assisting with spontaneous ventilation.
4. Set up in **Pressure Support** mode with 8cm.

End of case/ Between cases.

1. Put the ventilator in standby by pressing the **standby** soft key and confirm.
2. Turn off the fresh gas flows and wheel to "O" on agent.
3. Change the circuit and perform the leak and compliance test using the side menu selection for starting test.

Last case of day.

1. Check absorbent level of color change from bottom up on canister.
 2. To change out clic push button to release and slide canister off by sliding toward you. Dispose of used canister. Slide on new canister and push canister toward machine till "click" is heard. Clic can be changed out during case as it seals during process so no gases enter room.
 3. Turn off the machine or place in standby.
-