# Multipurpose Patient and Emergency Care Pediatric Simulator

S157





The Multipurpose Patient Care and CPR Pediatric Simulator is an interactive educational system developed to assist a certified instructor. It is not a substitute for a comprehensive understanding of the subject matter and not intended for clinical decision making. User Guide 14.6.1 © Gaumard Scientific Company, 2014 All Rights Reserved www.Gaumard.com

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# **Care and Cautions**

### **Overall Warnings**

Remember that damage caused by misuse is not covered by your warranty. It is critical to understand and comply with the following guidelines:

#### GENERAL

- This simulator is constructed of material that approximates skin texture. Therefore, in handling the model, use the same gentle techniques as you would in working with a patient.
- Ball point pens, ink and markers permanently stain the skin.
- Do not wrap this or any other Gaumard product in newsprint.
- Do not use alcohol, acetone, Betadine<sup>®</sup> or any other antiseptic which contains iodine in this or any Gaumard<sup>®</sup> simulator. These products could damage or stain the skin of the simulator.
- Replacement parts are available from Gaumard Scientific or your Distributor.

#### **OPERATING CONDITIONS**

Operating the simulator outside these ranges may affect performance:

- Operating temperature: 50°-95° F (10°-35° C).
- · Humidity: 5%-95% (non-condensing).

#### **STORAGE CONDITIONS**

- · Improper storage may damage the simulator.
- Keep it stored in the box and/or bag provided.
- Do not stack or store heavy materials on top of the carton.
- Storage temperature: 32°- 85° F (0°- 29° C).
- Humidity: 40%-60% (non-condensing).

#### IV ARM

- Treat the simulator with the same precautions that would be used with a real patient. Only use Gaumard's provided simulated blood. Any other simulated blood containing sugar or any additive may cause blockage and/or interruption of the vascular system.
- The use of needles larger than 22 gauge will reduce the lifetime of the lower arms' skin and veins.
- After cleaning and drying the arm, lightly dust it with talcum powder. This will keep the training arm supple and easy to use.

#### WARNING

Vein tubing contains latex which may cause allergic reactions. Users allergic or sensitive to latex should avoid contact. Discontinue use of this product and seek medical attention if an allergic reaction occurs.

#### CLEANING

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- Clean the skin of the simulator after every training session. The skin should be cleaned with a cloth dampened with diluted liquid dish washing soap and dry thoroughly.
- Remove all traces of any lubricant.
- · Do not clean with harsh abrasives.
- · Do not use povidone iodine on the simulator.
- The simulator is "splash-proof" but not waterproof. Do not submerge or allow water to enter the interior of the simulator.

#### Stoma Guidelines, Warnings, and Maintenance

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#### USER GUIDELINES

· Always handle the stomas with clean hands.

#### WARNINGS

- Do not palpate using fingernails.
- Do not clean with alcohol or aggressive solvents.
- Do not pack any sharp objects with the stomas.
- Do not press the stomas against soiled surfaces, ink, or newsprint. The stoma material is absorbent.

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#### MAINTENANCE

- Prevent items from resting or pressing against the stomas as indentations will form on the pressure points. The stomas may return to the normal shape after the pressure is relieved.
- Place talcum powder on the stoma surface to reduce tackiness. This can be reapplied as needed.
- Clean the stomas using a mild solution of soap and water.
- Apply talcum powder to return the surface to a skin-like feel and appearance.

## Equipment Set Up (Optional)

### **Power Supply**

- 1. Place the simulator on a flat clean surface. Access to electrical power is required.
- 2. Connect the power supply to the power input located on simulator's left side, and then connect the power supply to the wall outlet.



### Omni<sup>®</sup> Setup

Omni controls the simulator with the touch of button.

1. Connect the communication cable to the left side of the simulator.



2. Connect the other end of the communication cable to Omni.



A startup screen is shown while Omni is detecting the simulator features.

After the start up screen, Omni will automatically proceed to the main screen.

#### WARNING

Do not connect Omni to a computer, LAN network or unauthorized diagnostic equipment using the communication cable (Ethernet cable). Doing so will cause serious damage to the equipment.

# Working with the Simulator

### **Overview**

Disclaimer: The section below describes all possible features in the Multipurpose Patient and Emergency Care Pediatric Simulator. Please use the list below to identify which features are standard in your model. The content of this table is subject to change without prior notice. Please contact Gaumard<sup>®</sup> Scientific for the most current information.

The simulator is an advanced multipurpose simulator equipped with the following features:

#### AIRWAY

- Chest compressions and airway ventilations are measured and logged
- · Oral and nasal intubation plus suctioning

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- · Tracheostomy care
- · Use and ET tube or LMA

#### APPEARANCE

- · Eyes open and close
- · Dilated left pupil
- Medium skin tone is the standard simulator color; light or dark skin is available at no extra cost

#### BREATHING

- Accommodates assisted ventilation
- · Realistic chest rise

#### CIRCULATION

 Intramuscular (IM) Injection Sites on the deltoids and quadriceps

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- · Intraosseous infusion site
- Simulated carotid, brachial, and femoral pulses

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#### **OPTIONAL CONTROLLER**

 Powerful yet intuitive user controller and interface software

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#### SIMULATOR

- · Articulated neck and jaw
- Easily accessible chest cavity with ribcage and lungs for realism and practice of CPR techniques
- · Female/male genitalia
- · Gastric feeding tube site
- · Interchangeable genitalia
- · Ostomy care
- · Palpable and visual landmarks for CPR

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- Physical size is 50th percentile of 5 year old
- Realistic mouth, tongue, trachea and esophagus
- · Urinary catheterization

#### VENOUS ACCESS

- Advanced Intravenous Training Arm and Hand
- · Femoral venous access

### Airway

### **Breathing**

### INTUBATION

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The simulators's airway can be intubated through the left nasal opening, trachea, and mouth using LMA or endotracheal tubes.

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| Procedure               | Recommended<br>Device Size                           |
|-------------------------|--|
| Intubation (Blade size) | Miller 2 or MAC 3                                    |
| LMA                     | Size 2/2.5   |
| Nasal Intubation        | 12 Fr catheter                                       |
| Oral Intubation         | 5.0 or 5.5 ETT no<br>cuff; 10 Fr suction<br>catheter |
| Nasogastric Tube        | 12 Fr catheter                                       |

#### PULMONARY VENTILATION

Ventilate using a BVM and obtain realistic, dual chest rise.

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To open the airway of the simulator, its jaw and neck can be manipulated to perform the jaw-trust or head-tilt chin-lift maneuver.





Train CPR with the simulator and obtain feedback information via the Omni controller on the cadence and depth of chest compressions and airway ventilations.

#### TRACHEOSTOMY CARE

The simulator is supplied with a tracheostomy opening. Pierce the replaceable trachea and insert a tracheostomy tube with an attached positive pressure device to observe chest rise. Reseal the trachea, with the tape provided, after each exercise.

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#### TRACHEA REPAIR

1. Unscrew the silver knob located on each side of the simulator and gently disengage the chest skin from the recessive screw.



2. Lift the chest skin of the simulator to reveal the chest cavity and remove the ribcage.



3. Locate the trachea and detach one side of the white strap located above the trachea.





- 4. Remove the tape enclosing the trachea.
- 5. Use the provided tape to replace the pierced tape and re-seal the trachea.
- 6. Fasten the white strap above trachea and lay the ribcage and chest skin over the torso.
- 7. Attach the chest skin with Velcro and secure with the silver knobs.

### Circulation

#### PALPABLE PULSES

The simulator is equipped with bilateral carotid, right brachial, and right femoral pulses. The pulses can be generated manually using the squeeze bulb located on the left side of the simulator.





#### IV TRAINING ARM

The right arm is a training tool for infusion, blood collection, intravenous injection, intramuscular injection, TB screening and subcutaneous injection exercises.

The arm and hand contain venous grooves, fitted with soft latex tubes to simulate the consistency of veins. Covering the venous structure is a translucent, pliable vinyl skin that is removable and washable.

The training arm features:

- An intramuscular injection site in the deltoid area
- Simulated cephalic, basilic, antecubital, radial and ulnar veins
- Subcutaneous injection areas on the volar side of the forearm and the lateral side of the upper arm

 Two veins in the dorsum of the hand for additional intravenous training techniques

The arm is supplied with:

- · Synthetic blood concentrate
- · Spare arm skin
- · Blood dispensing bag
- Metal stand
- Silicone oil
- Talcum powder

Use the training arm and hand connected to the blood-dispensing bag. Place the dispensing bag onto the provided metal stand or a conventional IV pole.

To simulate a clenched fist or tourniquet, apply pressure to the system using the squeeze bulb connected to the dispensing bag. Release the pressure to simulate collapsed veins. Use the squeeze bulb to change the palpability of the veins.

#### FILLING THE TRAINING ARM VASCULATURE USING A SYRINGE

1. Place the end of the drainage tube, located near the right arm, into a container and open the adjustable clamp.



- **1** Filling Tube
- 2 Adjustable Clamp
- 3 Drainage Tube
- 2. Fill the dispensing syringe with fluid.

3. Connect the syringe to the filling tube near the right arm and release the fluid.



- 4. Allow fluid to flow through the system and into the drainage container.
- 5. Close the adjustable clamp of the drainage tube.
- 6. Remove the syringe from the filling tube.

### FILLING TRAINING ARM VASCULATURE USING THE BLOOD-DISPENSING BAG

- 1. Place the simulator and provided IV stand on a flat surface.
- 2. Lift the hinged metal stand and support it on the acrylic base.



3. Hang the blood-dispensing bag on the stand.



4. Attach the filling tube to the bottom port of the blood-dispensing bag.



5. Close the adjustable clamp of the draining tube.



6. Add water or artificial blood to the blooddispensing bag using the provided funnel or large syringe.



- 7. Place the drainage tube inside a container.
- Open the adjustable clamp to allow fluid to flow through the system and into the drainage container.
- 9. Close the adjustable clamp of the drainage tube.
- 10. Perform intravenous, subcutaneous, and intramuscular procedures.

 To vary the blood pressure in the vasculature of the arm, attach the tube with squeeze bulb to the upper port of the blood-dispensing bag and depress the squeeze bulb.



- 12. Once the training session is complete, place the drainage tube in a container and open the adjustable clamp. Drain the fluid by raising the blood-dispensing bag above the simulator. Alternatively, fill a syringe with air and connect it to the upper port of the blood-dispensing bag. Depress the syringe to move the remaining fluid from the system.
- 13. Flush the system with water if artificial blood was used to fill the veins.

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#### INSTRUCTIONS FOR USE

Use cannulas/needles smaller than 22 gauge to extend the life of the venous structure.

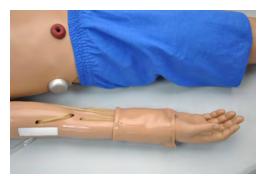
The skin and veins are designed to show even minute leakage when an eccentric puncture is performed. A "perfect" stick will show little or no leakage.

For IV simulations, place the end of the drainage tube into a container, and open the adjustable clamp.

REPLACING THE SKIN OF THE PATIENT TRAINING ARM AND HAND

#### WARNING

Vein tubing contains latex which may cause allergic reactions. Users allergic or sensitive to latex should avoid contact. 1. Gently roll down the outer skin from the top of the arm. Use silicone or powder to ease the movement.





- 2. Use a heat gun to evenly warm the new replacement skin until the material is pliable.
- 3. Apply a small amount of talcum powder or silicone oil to the arm.
- 4. Insert the new skin onto the arm at the fist and pull up into place.

### CLEANING AND REPAIR OF THE PATIENT TRAINING ARM AND HAND

- The skin of the training arm can be cleaned with a mild detergent, or soap and water. After drying the arm, lightly dust it with talcum powder. This will keep the training arm supple and easy to use.
- If blockage persists, flush the veins with water and use the squeeze bulb connected to the dispensing bag to add pressure to the system.

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#### PREPARING THE ARTIFICIAL BLOOD CONCENTRATE

- 1. Mix all the contents, of supplied bottle with one gallon (3400 cc) of water, to make one gallon of artificial blood concentrate.
- 2. Shake vigorously until mixture is fully dissolved.

#### INTRAOSSEOUS ACCESS

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Setting up an intraosseous access line is an invasive procedure that can be simulated with the simulator.

The intraosseous access features the following:

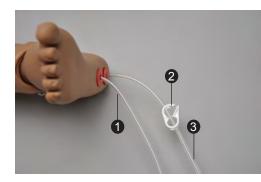
- Venous access
- Tibial bone in right leg with palpable landmarks; tibial tuberosity, tibia and patella
- Sudden increase in pressure when the needle enters bone marrow cavity
- Pull fluid through needle, verifying correct position

The intraosseous access kit includes:

- Sixteen interchangeable tibia bones with anatomic landmarks
- · Fluid dispensing syringe
- Synthetic blood concentrate

### FILLING THE RIGHT LEG VASCULATURE

1. Place the end of the drainage tube, located near the right foot, into a container and open the adjustable clamp.



- **1** Filling Tube
- 2 Adjustable Clamp
- 3 Drainage Tube
- 2. Fill the dispensing syringe with fluid.

3. Connect the syringe to the filling tube and release the fluid.



- Allow fluid to flow through the system and into the drainage container.
- 5. Once fluid is seen draining, close the adjustable clamp.

### Use 17-16 gauge bone aspiration needle to perform IO exercises.

- 6. Perform IO exercises.
- After 10-20 sticks follow steps 1 5 to dispense more fluid into the system.
- 8. Continue your IO exercises.
- 9. When the training session is completed, open the adjustable clamp and drain the fluid. If needed, use the dispensing syringe full with air to push any remaining fluid out the system. If blood mix is used, flush the system with 2-3 syringes full of clean water.

-----

#### REPLACING THE TIBIA BONE

Items needed:

- · Replacement tibia bone
- · Tibia bone skin cover
- · Drainage container
- 1. To replace the tibia bone, place the end of the drainage tube into a container and open the adjustable clamp.
- 2. Drain all the fluids from the system.

#### 3. Remove the tibia cover.



4. Pull the tibia bone.



- 5. Insert new tibia.
- 6. Re-attach tibia cover.

#### FEMORAL VENOUS ACCESS

Supply simulated blood into the right femoral vein and practice cannulation exercises.

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#### DIRECTIONS FOR USE

1. Follow the instructions listed in the previous section "Filling the Right Leg Vasculature".

2. Perform cannulation exercises.

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### **Systemic**

#### **TEETH AND TONGUE**

The simulator is supplied with normal size teeth and tongue.

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#### RANGE OF SIMULATED MOVEMENT

- The arms and legs are soft and rotate within the torso body.
- The joints are strong and their movements are lifelike and realistic.
- The simulator bends 30 degrees at the waist.

### Hospital Care Capabilities

#### WARNING

Always apply lubricant to any invasive device prior to usage.

#### INJECTION SITES

Administer intramuscular and subcutaneous injections on the deltoids and quadriceps. All injection pads are easily removed and replaced.

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#### BANDAGING

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The fingers and toes of the simulator are separated to permit bandaging exercises. The surface of the simulator is smooth and resistant to water, oil, and liniments.

#### NOSE AND THROAT

The nasal and the oral openings are connected to the stomach reservoir.

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### EYES/OPHTHALMOLOGIC EXERCISES

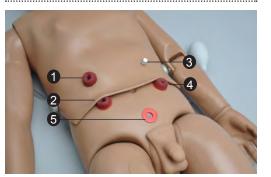
The head has eyes that open and close, permitting the following exercises:

- Administration of orbital medicines into the conjunctival sac
- Removal of foreign bodies
- · Eye irrigation

#### **OSTOMY CARE**

The simulator is equipped with four ostomies for care of the small intestines, stomach, bladder, and rectum. Practice stoma care techniques, add fluids in the ostomy, and perform catheterization procedures.

#### **OSTOMY CONNECTIONS**



Ostomy 1

**2** Ostomy 2

**3** Gastrostomy

**4** Colostomy

**5** Suprapubic

#### OSTOMY 1 AND 2

The ostomies on the right side of the torso connect to an internal reservoir simulating a portion of the intestine. The stoma on Ostomy 1 is fixed to the chest skin of the simulator. Gently remove the stoma on Ostomy 2 to add or drain fluids.

#### GASTROSTOMY

Insert the provided stopper to the gastrostomy prior to adding fluids through the nose or mouth. The gastrostomy connects directly to the stomach reservoir.

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#### COLOSTOMY

Add fluids directly to the colostomy opening and practice enema procedures.

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#### SUPRAPUBIC STOMA

Use this stoma to fill the bladder for catheterization procedures.

### FILLING THE INTERNAL RESERVOIRS

- If connected, gently remove the stoma insert. Note that the upper right stoma is fixed to the skin of the simulator and cannot be detached. Follow the instructions listed in the Care and Cautions section on how to handle the stomas inserts.
- 2. Use the provided funnel or large syringe to dispense fluid.





3. Distill the fluid into the reservoir. Check the internal reservoir capacity table for the maximum volume of each reservoir.

#### DRAINING THE INTERNAL RESERVOIRS

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1. Locate the internal reservoirs drainage tube and connect to the dispensing syringe.



- If connected, gently remove the stoma insert from ostomy. Note that the upper right stoma is fixed to the skin of the simulator and cannot be detach. Follow the instructions listed in the Care and Cautions section on how to handle the stomas.
- 3. Insert the drainage tube in the opening.
- 4. Extract fluids using the syringe.

#### INTERNAL RESERVOIRS MAXIMUM CAPACITY

| Tank                          | Capacity |
|-------------------------------|----------|
| Stomach                       | 200 ml   |
| Bladder (Suprapubic<br>Stoma) | 350 ml   |
| Rectum (Colostomy)            | 500 ml   |
| Ostomy 1 and 2                | 100 ml   |

#### NASOGASTRIC AND OROGASTRIC EXERCISES

Nasal and oral openings are connected to the stomach reservoir. Insert an appropriately sized catheter to demonstrate tube feeding and gastric suction.

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Clean the reservoir by introducing a solution of soap and water, or a mild detergent with a large syringe.

The stomach is provided with an opening for gastrostomy.

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#### **ENEMA ADMINISTRATION**

Add fluids to the internal reservoir through the colostomy port. Practice enema administration with the simulator facing to the side. Use an anal nozzle of small diameter to perform the procedure.

#### **URINARY SYSTEM**

Add fluids to the internal reservoir through the suprapubic port. Withdraw fluids from the bladder after inserting a catheter through the urethra.

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#### MALE AND FEMALE GENITALIA

The female and male genitalia are molded of soft vinyl. The male organ attachment simulates the external genitalia with scrotum. The vaginal passage is closed at the introitus.

Male and female catheterization may be practiced.

### REMOVING THE MALE GENITALIA

Gently remove the male genitalia insert by detaching the inferior and superior Velcro fastener.



Subclavian Access and Chest Decompression (Optional)

### S150.7 Subclavian Access (Optional)

The subclavian access feature includes a special ribcage with two tubes attached, and a drain tube located on the right side of the simulator.

This feature simulates Port-a-Cath® and Hickman/Broviac catheter sites, which provide a central venous access leading directly into the heart. These sites allow for the infusion of fluids, simulated medication and blood

The central venous access is placed on upper right quadrant of the chest and the internal port is located on the upper left quadrant.

WARNING:

Do not attempt to perform compressions while using the Subclavian Access ribcage

#### INSTRUCTIONS FOR USE

 Lift the chest skin of the simulator to reveal the chest cavity and remove the regular ribcage



2. Locate the two white connectors beneath the lungs.

 Connect the two tubes attached to the subclavian access ribcage to these connectors inside the chest cavity as shown below.



#### Notice that the tubes should be crossed.





The left patch located on this ribcage simulates a Port-a-Cath $\mbox{\ensuremath{\mathbb{R}}}$  site, and the right hollow a Hickman/Broviac catheter site



4. Attach the chest skin with the Velcro

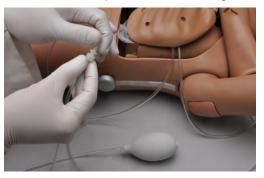
- 5. Use an appropriate needle to infuse fluids to the catheters through the chest skin openings
- 6. Drain fluids using the tube with the clamp connected the ribcage
- Open the clamp of the drain tube and place the end of the tube into a suitable outlet or container



### S150.11 Chest Decompression and Drainage (Optional)



3. Connect the squeeze bulb to the filling tube



4. Close the clamp of the drain tube

#### OVERVIEW

The simulator has an optional ribcage with bilateral chest decompression and drain sites located at the  $2^{nd}$  and  $5^{th}$  intercostal spaces.

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This feature includes a special ribcage with a decompression and drain bag with two tubes attached to it: a filling tube and a drain tube with the clamp.

#### WARNING:

Do not attempt to perform compressions while using the Decompression and Drainage ribcage.

#### INSTRUCTIONS FOR USE

 Lift the chest skin of the simulator to reveal the chest cavity and remove the regular ribcage

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2. Place the decompression and drain ribcage into position



5. Inflate the bag beneath the ribcage using the squeeze bulb. This will simulate a tension pneumothorax.



6. Attach the chest skin with the Velcro

- 7. Insert an appropriate needle through one of the four sites to release the trapped air
- 8. To practice chest drainage follow the instructions below:
- 9. Fill the syringe with the desired fluid
- 10. Open the clamp of the drain tube and place the end of the tube into a suitable outlet or container



11. Connect the fill syringe to the filling tube



- 12. Allow fluid to flow through the system and into the drainage container.
- 13. Close the clamp



14. Proceed with the drainage simulation



After the simulation is done, open the clamp and flush the system.

# **Omni<sup>®</sup> Code Blue<sup>®</sup>**

### (Optional)

### Using Omni® Code Blue

Code Blue<sup>®</sup> is a CPR training tool incorporated in the Omni controller. It was designed to help teach CPR by monitoring cadence and depth of cardiac compressions and airway ventilations in real time.

#### WARNING

Do not perform mouth to mouth ventilation since the simulator can be difficult to clean afterwards.

#### MAIN SCREEN

.....

The Omni main screen is divided into three sections which are, listed from left to right, the Feedback Graphics, Current Settings, and Navigation Menus. Pressing each button will display the menu item in detail.

| C | V | TEST<br>30: 20<br>100 CPM | MODE<br>C:V RATIO<br>CMP RATE<br>CALIB. |
|---|---|---------------------------|---|
|   |   |                           | HELP                                    |

#### FEEDBACK GRAPHICS

Monitor and evaluate depth and cadence of compressions and ventilations in real time.

.....

#### **CURRENT SETTINGS**

The current settings are listed on the middle of the screen. The settings will reflect the information saved during a previous session.

### CODE BLUE NAVIGATION MENUS

Edit the simulator settings using the navigation menus. Select a menu item by pressing the soft key buttons located on the right side of the controller. Each menu has additional submenus or toggle selection. Use the submenus to decrease, increase, accept, or cancel values. Use the toggle selection to switch between available options in the menu.

The Code Blue menus are:

- CPR operational mode: TEST or COACH mode
- C:V Ratio: customize the compression to ventilation ratio to match correct guidelines
- Compression/Ventilation Rate: adjust the number of compressions and ventilations per minute
- Calib: calibrate the pressure sensor in the simulator

.....

• Help: universal help menu

#### MODE MENU

Toggle between COACH and TEST modes. The COACH mode generates audible tones to coach CPR ratio. A high-pitched beep signals the care provider to perform a compression and a low pitched-beep signals a ventilation. Toggle to the TEST mode to perform CPR without the audible cues.

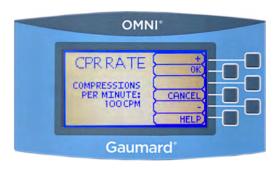
### C:V RATIO MENU (COMPRESSION TO VENTILATION RATIO)

Adjust the compression to ventilation ratio using the + and - buttons. Press OK to save the changes and return to previous screen. The default value for the C:V Ratio is 30 compressions to 2 ventilations.



### COMPRESSION / VENTILATION RATE

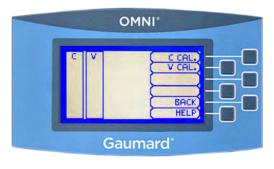
The default value for the compression rate is 100 compressions per minute. Adjust rate using the '+' and '-' buttons. Press OK to save the changes and return to previous screen. The Compression rate range is 50 - 150 CPM. The Ventilation rate limits are 2- 60 VPM.



#### CALIBRATION MENU

Press CALIB. to access additional menu selections.

.....



#### CALIBRATING CHEST COMPRESSIONS

The simulator is pre-calibrated to current CPR guidelines at time of manufacture. If the CPR guidelines change, calibrate the sensors inside the simulator using this option.

Calibrating chest compressions:

- 1. Select C CAL.
- 2. Press START to begin the calibration procedure.



- 3. Omni will ask you to perform several correct chest compressions. The facilitator should follow the text cue on the screen to perform just one compression at a time until finished. When Omni is ready to proceed it will display COMPRESS.
- 4. Perform a correct compression.
- 5. Follow the text cue on the screen to perform the remaining four compressions. When the calibration is complete Omni will display DONE.
- 6. Press SAVE.

#### CALIBRATING AIRWAY VENTILATIONS

Set the standard against which ventilation will be evaluated during training.

Calibrating airway ventilations:

- 1. Select V CAL.
- 2. Press START to begin the calibration procedure.
- Omni will ask you to perform a number of correct airway ventilations. The facilitator should follow the text cue on the screen to perform just one ventilation at a time, until finished.
- 4. When Omni is ready to calibrate it will display VENTILATE.
- 5. Perform a ventilation.
- 6. Follow the text cue on the screen to perform the remaining four ventilations. When the calibration is complete Omni will display DONE.
- 7. Press SAVE.

#### RESETTING OMNI'S PRESSURE SENSOR

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It is recommended that the Omni's pressure sensor is reset at altitudes greater than 1000 ft. to avoid inaccurate compressions and ventilations readings. Perform the sensor reset procedure only as part of the initial calibration process.

1. Select RESET within the compression or ventilation calibration menu.



After resetting the sensor, Omni will display DONE.

#### 2. Select SAVE to finish.



### HELP

The help window provides access to global settings such as backlight time and Omni/ Simulator serial number.



#### BACK

Return to previous screen.

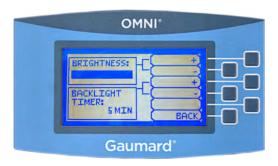
### BACKLIGHT

The default value for Omni's backlight timer is 10 minutes. After 10 minutes the backlight will turn off.

.....

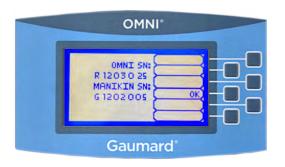
.....

To increase the backlight duration, adjust the backlight timer with the plus or minus sign. Press OK to accept the changes.



#### SERIAL NUMBER

View Omni and Simulator serial number. Press OK to return to the HELP menu.



### eCPR™

eCPR is an application that enables monitoring and logging of compressions and ventilations, performed in real time by the user, on a PC.

This software aims to provide additional testing and teaching tools for CPR using an interface to display a waveform graph of the compressions and ventilations.

For Instructions on how to use eCPR, please refer to OMNI User Guide.

# Appendix

### Troubleshooting

#### **GENERAL TROUBLESHOOTING GUIDE**

Use the following table to find causes and solutions to a number of possible problems.

.....

| Symptom  | Possible Cause   | Solution  |
|--|--|---|
| Omni is not turning on                                   | Power supply not connected to simulator                          | Connect the power supply<br>cable to the simulator and the<br>other end to a power source   |
| Omni is not turning on                                   | Communication cable not<br>connected to Omni or the<br>simulator | Connect the communication cable to the simulator and to Omni.   |
| I lost communication with the simulator                  | Corrupted connection   | Reboot Omni by unplugging<br>the communication cable<br>and reconnecting after a few<br>seconds   |
| Communication never gets established or is lost          | Data cable is not connected                                      | Ensure the Ethernet cable is<br>plugged into Omni and the<br>simulator  |
|  |  | Verify the power cable is connected to the simulator  |
| Omni is not detecting any<br>compression or ventilations | System is not calibrated   | Calibrate compressions and ventilations using Omni  |
| Omni detects compressions but no ventilations            | Module in the simulator is disconnected                          | Contact technical support to troubleshoot problem   |
| Omni takes too long to boot up                           | A system restore is required                                     | <ol> <li>Unplug the communication<br/>cable from Omni.</li> <li>Press and hold down the<br/>two outer keys, located on the<br/>right side of the controller, while<br/>reconnecting the communication<br/>cable.</li> <li>Once a "Please Wait" message<br/>appears on the screen, release the<br/>two outer keys.</li> <li>Wait for the main screen to load<br/>and continue with simulations.</li> </ol> |

### Warranty

#### **EXCLUSIVE ONE-YEAR LIMITED WARRANTY**

Gaumard warrants that if the accompanying Gaumard product proves to be defective in material or workmanship within one year from the date on which the product is shipped from Gaumard to the customer, Gaumard will, at Gaumard's option, repair or replace the Gaumard product.

This limited warranty covers all defects in material and workmanship in the Gaumard product, except:

Damage resulting from accident, misuse, abuse, neglect, or unintended use of the Gaumard product;

Damage resulting from failure to properly maintain the Gaumard product in accordance with Gaumard product instructions, including failure to property clean the Gaumard product; and

Damage resulting from a repair or attempted repair of the Gaumard product by anyone other than Gaumard or a Gaumard representative.

This one-year limited warranty is the sole and exclusive warranty provided by Gaumard for the accompanying Gaumard product, and Gaumard hereby explicitly disclaims the implied warranties of merchantability, satisfactory quality, and fitness for a particular purpose. Except for the limited obligations specifically set forth in this one-year limited warranty, Gaumard will not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory regardless of whether Gaumard has been advised of the possibilities of such damages. Some jurisdictions do not allow disclaimers of implied warranties or the exclusion or limitation of consequential damages, so the above disclaimers and exclusions may not apply and the first purchaser may have other legal rights.

This limited warranty applies only to the first purchaser of the product and is not transferable. Any subsequent purchasers or users of the product acquire the product "as is" and this limited warranty does not apply.

This limited warranty applies only to the products manufactured and produced by Gaumard. This limited warranty does <u>not</u> apply to any products provided along with the Gaumard product that are manufactured by third parties. For example, third-party products such as computers (desktop, laptop, tablet, or handheld) and monitors (standard or touch-screen) are <u>not</u> covered by this limited warranty. Gaumard does not provide any warranty, express or implied, with respect to any third-party products. Defects in third-party products are covered exclusively by the warranty, if any, provided by the third-party.

Any waiver or amendment of this warranty must be in writing and signed by an officer of Gaumard.

In the event of a perceived defect in material or workmanship of the Gaumard product, the first purchaser must:

Contact Gaumard and request authorization to return the Gaumard product. Do <u>NOT</u> return the Gaumard product to Gaumard without prior authorization.

Upon receiving authorization from Gaumard, send the Gaumard product along with copies of (1) the original bill of sale or receipt and (2) this limited warranty document to Gaumard at 14700 SW 136 Street, Miami, FL, 33196-5691 USA.

If the necessary repairs to the Gaumard product are covered by this limited warranty, then the first purchaser will pay only the incidental expenses associated with the repair, including any shipping, handling, and related costs for sending the product to Gaumard and for sending the product back to the first purchaser. However, if the repairs are <u>not</u> covered by this limited warranty, then the first purchaser will be liable for all repair costs in addition to costs of shipping and handling.

Extended Warranty In addition to the standard one year of coverage, the following support plans are available: Two-Year Extension (covers second and third years)

Call for pricing (USA only)



### **Contact Us**

#### E-mail Technical Support: support@gaumard.com

Before contacting Tech Support you must:

- 1. Have the simulator's Serial Number
- 2. Be next to the simulator if troubleshooting is needed.

E-mail Sales and Customer Service: sales@gaumard.com

Phone: Toll-free in the USA: (800) 882-6655 Worldwide: 01 (305) 971-3790

Fax: (305) 667-6085

Post: Gaumard Scientific 14700 SW 136 Street Miami, FL 33196-5691 USA

Office hours: Monday-Friday, 8:30am - 4:30pm EST (GMT-5, -4 Summer Time)

#### **General Information**

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