



Prehospital and Nursing Care

S2000



Susie 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.

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# Introduction

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# General Care, Maintenance, and Warnings

The Gaumard warranty does not cover damage caused by misuse. It is critical to understand and comply with the following guidelines to prevent injury to the user and damage to the simulator.

Do not use universal AC adapters. Use the AC adapter specific to the simulator model supplied by Gaumard only.

If the simulator will not be in use for an extended period, re-charge the battery at least once every 30 days to prevent damage to the battery.

Do not disassemble or attempt to repair the simulator. Doing so will void the warranty. Please contact Gaumard technical support for repair information.

Store the simulator in a cool, dry place. Extended storage above 85 degrees Fahrenheit (29 Celsius) will cause the simulator to soften and slowly warp. It is acceptable to operate the simulator at an ambient temperature of 95 degrees Fahrenheit (35 Celsius).

There are inherent dangers in the use of some medical devices. For simulations that incorporate the use of real medical devices, always know your equipment and follow the device safety guidelines.

The simulator's operating limits are consistent with that of a real human. Treating the simulator in a manner that would seriously harm a real person is likely to result in damage to the simulator. Always treat the simulator as a real person.

The simulator should never be used to test the performance or accuracy of a real medical device.

Do not intubate without lubricating the airway adjunct with silicone oil lubricant (provided). Failure to do so will make intubation very difficult and is likely to result in damage.

Providers must use an empty syringe when simulating drug administration via endotracheal tube. Passing liquids into the trachea or esophagus may cause internal damage. Mouth to mouth resuscitation without a barrier device is not recommended, as it will contaminate the airway. Treat the simulator with the same precautions that would be used with a real patient.

Do not introduce liquids, humidified gases or administer aerosol medications into the airway. Moisture in the airway will damage the simulator's internal mechanics.

### LATEX WARNING

Vein tubes contain 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.

Only use the simulated blood solution provided by Gaumard. Any other simulated blood containing sugar or additives may cause blockage and/or interruption of the vasculature system.

The use of needles larger than 22 gauge will reduce the lifetime of the lower arms' skin and veins.

The simulator must be powered on when working with the Drug Recognition arm. This includes calibration, purging, draining, IV infusion, Set Med Id, and injecting fluids. Failure to do so will permanently damage the simulator and void the warranty.

Avoid injecting fluids into the intramuscular sites.

While the simulator is on, purge the IV system with clean water at the end of every simulation session. If the drug recognition arm is not going to be used for a week or more, purge the system with 70% isopropyl alcohol solution. Failure to do so may damage the IV vasculature and permanently damage the system.

Do not store the simulator with fluid in the internal reservoirs. Always purge, clean, and dry the interval fluid reservoirs at the end of simulation to prevent clogs and molding.

When the arm veins require replacement, contact Gaumard to arrange for a lower arm exchange. For a small fee, Gaumard will deliver reconditioned and warrantied lower arm assemblies to your facility. After receiving the replacement arms, use the same box and the enclosed shipping label to return the old arms to Gaumard. Refer to the Consumables and Replacement Parts section of this guide, and contact customer service for more information. Clean the simulator using a damp cloth with diluted liquid dishwashing soap. If medical adhesives remain on the skin, clean with alcohol wipes.

Do not use citric-based cleaners, as the citric acid in the formula will cause pitting of the various materials comprising your simulator.

The simulator is "splash-proof" but not waterproof. Do not submerge or allow a large volume of fluid to enter the interior of the simulator.

# Additional Care Maintenance, and Warnings

## STOMA AND BREAST INSERT GUIDELINES, WARNINGS, AND MAINTENANCE

The breast examination inserts and stomas are constructed from materials that approximate tissue texture; therefore, use the same gentle techniques as you would when working with a patient.

### WARNINGS

Always palpate using the fatty pads of the fingers. 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. Always handle the stomas and breast inserts with clean hands.

When removing the stomas, gently separate the stoma flange from the torso, and do not apply force directly to the stoma tissue itself.

Prevent items from resting or pressing against the stomas and breast inserts as indentations will form on the pressure points.

Do not pack any sharp objects with the breast inserts

### MAINTENANCE

Apply talcum powder on the stomas and breasts inserts surface to reduce tackiness and restore the surface to a skin-like feel and appearance.

Clean the stomas and breasts inserts using a mild solution of soap and water.

Always remove the stomas and breast inserts before transporting SUSIE.

Store the breast examination inserts facing down inside the protective case when not in use.

# **Electrical Therapy**

Only deliver electrical therapy when the simulator is fully assembled, dry, and undamaged.

Make sure the defibrillation patches on the simulator are in good condition, including removing any and all gel residue on the defibrillation patches from previous use(s). It is a good practice to remove gel residues after every use. Failure to do so will leave behind a film of electrode gel that hardens causing arcing and pitting.

Do not re-use the gel-adhesive pads. Do not leave them on for next day use.

Use hard paddles or wet-gel pads preferably. Avoid using solid-gel pads since they present higher risk of burning the simulator's skin.

Gel pads have a shelf life. Make sure they are not expired to avoid arcing.

Make sure the simulator is not in contact with any electrically conductive surfaces.

Use the simulator only in a well-ventilated area, free of all flammable gases.

NEVER attempt to service or modify any of the electrical connections, especially those between conductive skin sites and the internal electronics. Discontinue use if any wires are found exposed with damaged insulation.

Real medical products, especially electrodes, sometimes use powerful adhesives that can be difficult to remove. A gentle, degreasing cleanser may be needed. Refer to Care and Cautions for more information.

Electrode gel on the skin between any two electrode targets can become a pathway for electrical current, just as in real life. If this occurs, Susie's skin can be burned.

Do not allow defibrillation pads to overlap ECG sites. Doing so will may damage the simulator and cause arcing.

Should dark traces appear on the conductive patches due to gel residue or previous arcing, use a pencil eraser to remove the traces and then clean with alcohol.

DO NOT SCRATCH the conductive patches with abrasive objects; doing so will cause irreversible damage to the conductive sites and subsequently cause arcing.

# **Getting started**

# **Simulator Setup**

## LEG ASSEMBLY

- Remove the fixed bolts from the knee joints using the hexagonal wrench included.
- 2. Connect the pedal pulse cable.
- 3. Position the lower legs and insert the knee joint bolt. Tuck in any extra wire and the connector into the lower leg.
- Replace the bolt and use the two provided hexagonal wrenches to secure the knee bolt without over tightening.

### BREAST INSTALLATION

SUSIE's breast examination inserts are shipped in a protective case. There are two right breasts labeled (R1, R2) and five left breasts (L3, L4, L5, L6, L7). For detailed information on pathology of each breast, refer to the "Working with the Simulator" section.

WARNING: Always store the breast inserts inside the protective case after simulation and during transport.



To install or replace SUSIE's breast inserts:

1. Extend SUSIE's arms on a flat surface.



2. Unfasten the skin from the hook-andloop fastener located on both shoulders.



3. Unfasten the skin from the hook-andloop fastener located laterally. The skin will remain attached to the metal bolts located on either side. Do not remove the hip bolts.



4. Lift the skin slightly to expose the chest cavity



WARNING: Only lift the skin to the point shown on the figure below. Lifting the skin higher can cause damage to the skin at bolt connection.



WARNING: Do not pull the skin's ECG lead connection located on the left side of the chest cavity. Damage to this connection will require repair not covered under warranty.



 Carefully place the breast inserts beneath the chest skin. The breast inserts must be installed in right/left pairs (e.g. R1/L3, R2/L6).



 After the breast insert's placement is adjusted, tightly secure the chest skin by first adhering the hook-and-loop fastener located on both shoulders.



7. Adjust the opening reserved for the AC adapter



8. Tightly fasten the skin's lateral Hookand-loop fastener.



Use the protective case to store the inserts when the simulator is transported or not in use. Prevent items from resting or pressing against the breast as indentations will form at the pressure points. The breast may return to the normal shape after the pressure is relieved.

## BATTERY

SUSIE is shipped with the internal battery disconnected.

Connect the battery clip connector located on the simulator's right side and then tuck the connector underneath the skin.

Connect the AC power adapter to the power input port located on the simulator's right side.



## **BATTERY LIFE**

The AC adapter's status indicator light displays red when the battery is charging and green when the process is complete.

| Feature          | Run Time |
|------------------|----------|
| Internal Battery | 4 hours  |

To display the battery level, the Gaumard control software must first establish a connection with the simulator. For more information about the battery level indicator, go to the "Working with UNI" section.

WARNING: Do not store the simulator with a discharged battery. It is good practice to re-charge the battery at the end of every simulation session. In addition, make sure the battery is recharged at least every 30 days even if the simulator is not being used; otherwise, permanent loss of capacity might occur because of self-discharge.

# **Control Tablet PC**

The tablet PC is preloaded with the UNI control software used by the facilitator to initialize the simulator and control the vital signs.

Before turning on the computer for the first time, please review the documentation included with the product for important care and warning information.

# USING THE STYLUS

The tablet's stylus is a pen-shaped input used to interact with files and programs.

- Left click tap the screen with the pointer. Tap twice rapidly to doubleclick.
- Right click tap and hold a highlighted item or hold the button near the pointer and tap the item or text.

# CALIBRATING THE STYLUS

As part of the initial setup process, calibrate the stylus using the Tablet and Pen calibration tool in the Windows<sup>®</sup> control panel. Complete the calibration process while holding the pen in a natural writing position for greater accuracy during normal use.

# WIRELESS COMMUNICATION USB MODULE

The controlling computer transmits the startup and control commands to simulator through the USB RF communication module.

Connect the RF communication module to an available USB port on the tablet.



Secure the RF communication module to the tablet or PRO+ computer using the hookand-loop patch. The tablet is now ready to communicate with the simulator wirelessly. For information about the signal strength indicator, go to the "Working with UNI" section.

# STREAMING AUDIO HEADSET

The computer system includes a headset that allows the facilitator to speak as the simulator's voice and listen to the participants reply.

Connect the headset MIC and Speaker connectors to the designated ports on the side of the tablet PC. Go to the "Working with the Simulator" section for more information about the streaming voice feature.



Always connect the streaming audio headset before starting the UNI software.

# **Virtual Monitor**

The Gaumard Monitors software displays Susie's simulated vital signs in real time. The interactive monitoring software is preloaded in to the virtual monitors PC.

The virtual monitor PC also allows the facilitator to play back the session recordings stored in the PRO+ PC for debriefing.



# VIRTUAL MONITOR PC SETUP

Refer to the manufacturer's documentation included with the virtual monitor system components for important safety, installation, and start-up information before turning on the PC for the first time.

To setup the virtual monitor PC:

- 1. Place the all-in-one PC within line of sight of the controlling computer
- 2. Connect the power supply to the PC and to the wall outlet
- 3. Connect the USB keyboard and mouse receiver to the PC
- 4. Turn on the computer

## VIRTUAL MONITOR WIRELESS CONNECTIVITY

The control PC and the all-in-one virtual monitor PC establish a wireless link at startup automatically. The wireless connection allows the Gaumard control software to transmit the vital signs information to the Gaumard Monitors software. To verify the wireless link between the two computers, click the wireless icon located on the task tray. The wireless network name is configured at the factory and may differ from the one seen below. To troubleshoot connection issues between the virtual monitor computer and the controlling tablet, please go to the Appendix.



# GAUMARD MONITORS

After the wireless connection is established, double click or tap the Gaumard Monitors icon to start the vital signs software.



The Gaumard Monitors software is now ready to receive the vital signs information generated by the UNI control software.



For more information about the Gaumard Monitors software, please refer to the Gaumard Monitors user guide.

# **Working with UNI**

# Initializing the Simulator

After reading the manufacturer's care and caution information, press the power button to turn on the Tablet PC.



The UNI software initializes the simulator. Double click the UNI icon on the tablet's home screen to start.



The simulator selection menu is shown. Select Susie and click "Start".

| 💡 UNI™ - 2.20.18.0 🔹   |  |
|--|--|
| Gaumard <sup>®</sup><br>Simulators for Health Care Education |  |
| Please select one simulator                                  |  |
| 6 HAL® \$1000  |  |
| SUSIE⊗   |  |
| SUSIE® S1001   |  |
| SURGICAL CHLOE®  |  |
| PEDIATRIC HAL® FIVE YEAR                                     |  |
| PEDIATRIC HAL® ONE YEAR                                      |  |
| NEWBORN HAL®   |  |
| NFWRORN HAI @ 554 555  |  |
| START  |  |

The wireless link between UNI and the simulator is established within 1 minute.

# PROFILES AND OPERATING MODES

After the startup screen, the profile and operating mode selection menu is displayed.

| C               | OPERATING MODE                      |
|-----------------|-------------------------------------|
| Manual          | Automatic                           |
| PROFILES        | DESCRIPTION                         |
| Default Profile | factory preset scenarios            |
|                 |                                     |
|                 |                                     |
|                 | MANAGE                              |
|                 | MANAGE<br>New Profile Rename Delete |

The UNI control software has two modes of operation: Manual and Automatic. Each mode includes a Quick Start profile with preprogrammed scenarios exercises created in conjunction with experienced healthcare instructors and working medical professionals. Continue to the next section to learn more about the each operating mode and the profiles included.

After selecting an operating mode and profile, click "Load" to continue.

# MANUAL MODE

In the "Manual" operating mode, the facilitator fully controls the vital signs and physiologic responses.

| Susie® - Profiles |                  |
|-------------------|------------------|
| OPER/             | ATING MODE       |
| Manual            | A                |
| PROFILES          | DES              |
| Default Profile   | factory preset s |
| Quick Start Susie |                  |
|                   | N                |

The Manual mode includes the following profiles:

**Default Profile** – includes one palette with healthy vital signs.

**Quick Start SUSIE** – contains eleven scenarios

## AUTOMATIC MODE

The Automatic mode assists the facilitator by automatically adjusting vital signs in response to caregiver participation, pharmacologic intervention, and manual input. For example, when facilitator increases the heart rate, the Auto mode will calculate the response and adjust the blood pressure automatically. To activate the operating mode as an upgrade option, go to digital UNI user guide

| Noelle® 57X.100 - Profiles  |   |  |
|---|---|--|
| OP  | ERATING MODE  |  |
| Manual  | Automatic   |  |
| PROFILES<br>Default Modeling<br>Meds Profile<br>Quick Start Noelle Modeling | DESCRIPTION<br>Noelle Modeling Scenarios  |  |
| Noelle© 57X.100 All Profiles  | MANAGE           New Profile         Rename         Delete           C:\Program Files         (x86)\Gaumad         Image: Compare the second se |  |
| LOAD  | Cancel  |  |

The Automatic mode includes the following built-in profiles:

**Default Modeling**– includes one palette with healthy vital signs.

**Meds Profile** – This profile contains fifty-two pre-programmed drugs to be used on simulations.

**Quick Start SUSIE Modeling** – includes scenarios configured for the Automatic operating mode

### MANAGING PROFILES

Use the Manage Profile Menu to create a new profile and edit this profile.

Also the profile folder location will be shown below the "New Profile" icon.



Use the "Map Profiles folder" icon to select the location of the new profile to be created on the server.



Select the server location and click "Make New Folder" to create the profile folder.



Assign a name to the folder and click "OK"

The new profile folder location will show up. Then proceed to create a new profile, see instructions detailed below.

|             | MANAGE | 1      |
|-------------|--------|--------|
| New Profile | Rename | Delete |
| C:\Noelle\  |        |        |

Use the "Home" icon to reset to default profiles folder.

# CREATING A NEW PROFILE

Profiles store palette, scenario, and option settings independently; changes made to one profile have no effect on the others. Below are some examples on how profiles are used.

- Assign one profile to each user of your Gaumard simulator system
- Use profiles to organize and protect palettes and scenarios
- Create a profile dedicated to a specific academic course taught by multiple instructors
- Devote an entire profile to one particular subject area, or even one particular scenario

To create a new profile, click "New Profile".

|              |  | MANAGE        |        |
|--------------|--|---------------|--------|
|              | New Profile  | Rename        | Delete |
| All Profiles | C:\Program File<br>(x86)\Gaumard<br>Scientific\UNI\p | s<br>profiles |        |

Enter a name for the new profile followed by a description.

| Profile Name:  |                        |
|--|------------------------|
| Noelle   | PIN                    |
| Profile Description:                                       | Enable PIN<br>security |
| OB Simulation  | Enter PIN :            |
|  | Re-Enter PIN :         |
| Include contents<br>of Default Profile                     | Convergen              |
| Include contents - OR<br>of Quick Start<br>Noelle® 57X.100 | profile                |
|  |                        |

Enable the PIN protection to prevent unauthorized users from accessing or making changes to this profile.

Lastly, click "Create" to save the new profile

Click "Rename" or "Delete" to change the name of delete this new profile.

| 0                           | PERATING MODE                                    |
|-----------------------------|--|
| Manuai                      | Automatic  |
| PROFILES                    | DESCRIPTION OB Simulation                        |
| Notico 577 109 All Desilies | MANAGE<br>New Profile Rename Delete<br>C:\Noele\ |

For more information of the UNI software, refer to the digital User Guide under Menu/Help/Instruction Manual.

# **UNI Interface**

The UNI software is used control the simulator, monitor the vital signs, and evaluate the provider's performance. The simulation technician or instructor carrying out the simulation operates the UNI software

The UNI control elements and scenario programming procedures are consistent throughout the Gaumard family of high fidelity simulators. Some software controls and features covered in this guide may be hidden depending on the simulator's hardware configuration and optional upgrades



# CONNECTION STATUS

The communication indicator displays the status of the radio link between the tablet's USB RF module and the simulator. Full bars indicate excellent communication (i.e., normal operation).



## BATTERY INDICATOR

The battery indicator displays the battery charge information. An exclamation sign is shown when there is no communication with the simulator and battery information cannot be retrieved.



When the battery icon is depleted, the simulator is set to STAND-BY mode automatically to protect some of the simulator's internal components.

Simulator will not initialize until connected to the charger or the battery is replaced with a fully charged spare.

### WARNING

Turn Simulator OFF before replacing the battery. Failure to do so could result in serious damage to the system.

| Feature          | Runtime         |
|------------------|-----------------|
| Internal Battery | Approx. 4 hours |

# SESSION CLOCK

The session timer displays the duration of the current session. Click the timer to reset the clock or to start a new session. Event entries in the text log are synchronized with the session timer.



# POWER/STAND BY

The power button is located at the bottom right corner of the UNI software. Toggle the power button to set the simulator to stand-by mode and then again to resume.



For more information about the UNI software, refer to the digital User Guide under Menu/Help/Instruction Manual.

# Status / Details Controls

The Status/Details panel is used to monitor and control the simulator's vital signs. The individual parameter controls displayed on the details tab provide the simplest method for controlling the simulator's vital signs, sounds, and features.

The Status/Details tab displays the vital signs controls in a list format.

# SYSTEMS LIST VIEW

| STATU    | S/DETAILS                         | x                        |
|----------|-----------------------------------|--------------------------|
| 1/2      | CEPHALIC                          | +                        |
|          | Cyanosis                          | 0% ×                     |
|          | AIRWAY                            | +                        |
|          | Throat Sound(Vol)                 | normal(3) ×              |
|          | BREATHING                         | +                        |
| 0        | Resp Pattern                      | normal×                  |
|          | RR                                | 13 bpm ×                 |
|          | Inspire                           | 33% ×                    |
|          | O2 sat                            | 98% ×                    |
| <b>M</b> | EtCO2                             | 40 mmHg ×                |
| ala      | Lung Sounds(Vol)<br>Right<br>Left | normal(2)<br>normal(2) × |
| n        | CARDIAC                           | +                        |
|          | EKG                               | Sinus ×                  |
|          | HR                                | 75 bpm ×                 |
|          | Heart Sound(Vol)                  | normal(2) ×              |
|          | CIRCULATION                       | •                        |
|          | BP                                | 120/80 mmHg ×            |
| ~        | K Sounds                          | L: 2 ×                   |
| -        | Temp                              | 37.5 °C ×                |
|          |                                   |                          |

The Status/Details panel is used to monitor and control the simulator's vital signs. The individual parameter controls displayed on the details tab provide the simplest method for controlling the simulator's vital signs, sounds, and features.

| STAT     | US/DETAILS                        | ×                      |
|----------|-----------------------------------|------------------------|
| ii:      | BREATHING                         |                        |
|          | Resp Pattern                      | normal                 |
| 4        | RR                                | 13 bpm                 |
|          | Inspire                           | 33%                    |
|          | O2 sat                            | 98%                    |
| 0        | EtCO2                             | 40 mmHg                |
| <b>S</b> | Lung Sounds(Vol)<br>Right<br>Left | normal(2)<br>normal(2) |
| ġ        |                                   |                        |

# CHANGING VITAL SIGNS

To adjust numerical values click the slider control. (e.g. heart rate, blood pressure, respiratory rate, etc.).



Alternatively, use the keyboard for manual entry and click the green checkmark to confirm the change.



To change patterns, sounds, and rhythms, click on the specific control to display the library (e.g. EKG rhythms, heart and lung sounds, respiratory patterns, etc.)

|     | CARD         | IAC +  |                                |
|-----|--------------|--|--------------------------------|
|     | HP           | Default MI Designer                          | Options                        |
| A   | EKG<br>Heart |  | w/ sinus pause                 |
| -1- | 010.0        | Sinus<br>Multifocal atrial tachycardia (MAT) | W/ PAC                         |
|     |              | Atrial flutter                               | w/ PVC (uni.)                  |
|     | K Sour       | Junctional                                   | w/ PVC (multi.)<br>w/ couplets |
|     | Temp         | Supraventricular tachycardia                 | w/ west scane hests            |
|     |              | 2nd deg. AVB (Type I)                        | -                              |
|     |              | and dog AV/0 /Turne TA                       |                                |
|     |              |  |                                |
|     | 199421       |  | 100000000                      |
|     | Lur          | ng Sounds(Vol)                               |                                |
|     | Ri           | 9h+  | marmal(                        |
| -   | Le           | f  | rmal(                          |
|     | C            | normal                                       |                                |
|     |              | none   |                                |
|     | EK           | wheezing                                     | Sint                           |
|     |              | wheeling                                     |                                |
|     | HR           | crackies                                     | /5 bp                          |
|     | 110          | crackles 2                                   |                                |
| 1   | пе           | squeaks, insp.                               | <b>T</b>                       |
|     |              |  | mail                           |

Click the slider control below the sound library to adjust the volume of the sounds.

| REATH             | normal                                |    | +  |
|-------------------|---------------------------------------|----|----|
| sp Patte          | none<br>stridor, inspiratory          | đ  | ×  |
| ξ.                | stridor, expiratory                   | n  | Х  |
| spire             | Throat Sound Vol = 2                  | 6  | х  |
| 2 sat             |                                       | 6  | х  |
| CO2               | S 13                                  | 9  | х  |
| BP                | 120/8                                 | 30 | m  |
| K Soun            | left                                  |    | 1  |
| <sup>⊤</sup> Left | K Sounds Vol = 2                      | 3  | 7. |
|                   | i i i i i i i i i i i i i i i i i i i |    |    |

## APPLYING CHANGES

No changes will be made to the simulator's condition until the new settings are submitted using the "Apply" panel.

After the list of changes is created, click "NOW" to update the vital signs instantly. Alternatively, click a trending timer to update numerical vital sign parameters (e.g. heart rate, blood pressure) gradually.

| <mark>Cle</mark> ar                                    |                                  | Save                |           | Loa | d |   |
|--|----------------------------------|---------------------|-----------|-----|---|---|
| Breathing<br>Respiration R<br>Inspiration Pe<br>02 sat | tate<br>ercentage                | 50 bp<br>46%<br>30% | m         |     | 3 | 8 |
| Cardiac<br>EKG<br>Heart Sound                          | Atrial fi<br>skip R's<br>distant | brillati<br>:: 10/n | on<br>tin | l   | 3 | 8 |
| Circulatio   | n                                | <u></u>             |           |     | 0 | 8 |
|  |                                  |                     |           |     |   |   |
|  |                                  |                     |           |     |   |   |

Vital sign parameters can be edited or removed using the edit and remove parameter tabs



Enable the "instant apply" option and click the control to change the vital sign to a new value without the need to use "Apply" panel. Vital signs undergoing change blink yellow.



### CREATING PALETTE ITEMS

A palette item stores one or more vital sign settings into a single loadable object. Use a palette item to update a set of vital signs quickly. For example, one palette item can be created to update all the cardiac parameters to a healthy state.

To create a new palette item, set the values for the desired vital signs parameters using the details controls and click "Save".

| 🚥 Details         |        |              |     |
|-------------------|--------|--------------|-----|
| Clear             | Save   |              | ad  |
| Cardiac<br>EKG    | Sinus  | Save Palette | 0 🖓 |
| Heart Rate        | 74 bpn | n (          |     |
| Heart Sound       | norma  | i i          |     |
| Heart Sound Volum | ne 3   |              |     |

Enter a name for the palette, a description, and choose color code. Click "Save" to create the new palette Item. Palette items are stored in the active profile.

|                                   | Sav   | e as Palette Item | ı |          |   |
|-----------------------------------|-------|-------------------|---|----------|---|
| р                                 | alet  | te Item Name:     |   |          |   |
| Н                                 | ealth | y Heart           |   |          |   |
| Palette Item Description:         |       |                   |   |          |   |
| Sinus, 74 bpm, Heart Sound Normal |       |                   |   |          |   |
| C                                 | Color |                   |   |          |   |
|                                   | ۲     | Healthy           | 0 | Critical |   |
|                                   | 0     | Care Required     | 0 | Other    |   |
|                                   |       |                   |   |          |   |
|                                   |       | Save              |   | Cancel   |   |
|                                   |       | FH0 41 - 1 0      |   |          | _ |

When the palette is needed, click the Load button to select the palette from the library.



Select the palette item from the "Load Palette Item" menu and click "Load"

|   | Palette Speech   |     |          | Item Description |
|---|------------------|-----|----------|------------------|
|   | Healthy Heart    | M   | lultiple | normal           |
|   | Gerard           |     | ^        |                  |
|   | Healthy Heart    |     |          |                  |
| 1 | Healthy Resting  |     | Ξ        |                  |
|   | HR drop          |     |          |                  |
|   | HR spike         |     |          |                  |
|   | OEst incresses 1 |     |          |                  |
| 2 | MINUTE           | 0 0 | SECOND   | 0 ‡              |
| 3 | Load             |     |          | Cancel           |

Click the apply option to submit the changes.



# Working with SUSIE

# **Features**

Disclaimer: The section below describes all possible features in the Susie simulator. The content of this table is subject to change without prior notice. Please contact Gaumard Scientific for the most current information.

Y = Yes included

### O = Optional

| Category    | Feature  |   |
|-------------|--|---|
| Airway      | Nasal intubation   | Y |
|             | Airway intubation  | Y |
|             | Airway complications: Pharyngeal swelling, laryngospasm and tongue edema | Y |
|             | Intubation Sensor  | Y |
|             | Surgical Trachea: Tracheostomy   | Y |
|             | Airway sounds  | Y |
| Breathing   | Respiratory patterns   | Y |
|             | Lung sounds  | Y |
|             | Bilateral chest rise   | Y |
|             | Pulmonary ventilation: BVM, mechanical                                   | Y |
| Cardiac     | Heart Sounds   | Y |
|             | ECG monitoring   | Y |
|             | Electrical therapy   | Y |
| Circulation | Bilateral pulses - Carotid, Brachial, Radial, Femoral, Popliteal, Pedal  | Y |
|             | Bilateral IV arms  | Y |
|             | Automatic blood pressure   | Y |
|             | Finger stick   | Y |
|             | Drug Recognition   | 0 |
| Cephalic    | Reactive eyes  | Y |
|             | Central cyanosis   | Y |
|             | Seizures   | Y |
| Other       | Intramuscular injection sites  | Y |
|             | Interchangeable breasts  | Y |
|             | Gynecology package   | Y |
|             | Urinary catheterization  | Y |
|             | Oxygen saturation  | Y |
|             | Bowel sounds   | Y |
|             | Nasogastric feeding  | Y |
|             | Colostomy  | Y |
|             | lleostomy  | Y |
|             | Enema  | Y |
|             | Streaming audio  | Y |
|             | Virtual vital signs monitor  | 0 |

# Airway

### NASAL AND ORAL INTUBATION

Intubate SUSIE's airway via the nasal or oral route using an endotracheal tube or an LMA.

WARNING: Always lubricate the endotracheal tube and the medical device using silicone oil before intubating. Do not introduce liquids into the airway. Doing so can permanently damage the system.

| Procedure               | Recommended Device<br>Size |
|-------------------------|----------------------------|
| Intubation (Blade size) | Miller 4 or MAC 3.5        |
| LMA                     | Size 4                     |
| Nasal Intubation        | 8 mm outer diameter<br>max |
| Oral Intubation         | ETT 7 or 7.5               |

## AIRWAY COMPLICATION

Use the software controls to enable the airway complications and make intubation more difficult. SUSIE can display pharyngeal swelling, tongue edema, and laryngospasm.

## INTUBATION SENSOR

Sensors in the airway detect the placement of the endotracheal tube. If the endotracheal tube is inserted too deep, the left lung is disabled automatically demonstrating right mainstem intubation. Correcting the tube position enables the left lung chest rise.

## **AIRWAY SOUNDS**

The simulator can produce audible airway sounds. Use the software controls to change the sound type and adjust the volume. Auscultate using a standard stethoscope.

# SURGICAL AIRWAY

Susie allows for tracheostomy exercises. Please ensure the tracheostomy tube is lubricated prior to insertion.



To replace the cricoid membrane tape on the surgical airway:

- 1. Gently lift the neck skin
- 2. Remove the punctured tape
- 3. Wrap a new piece of tape around the trachea opening ensuring an airtight seal

Air leaks in the airway will result in poor chest rise during ventilation and false intubation readings.

# Breathing

### **BILATERAL CHEST RISE**

Bilateral chest rise and fall is automatic. Use the software controls to enable or disable the lungs independently and to adjust the breathing rate and the inspiratory percentage.

## **BREATHING PATTERNS**

Control the respiratory rate, pattern, and inspiration percentage using the software controls. The breathing patterns are synchronized with the lung sounds and chest rise.

### **RESPIRATORY SOUNDS**

The simulator is generates audible upper, lower, anterior, and posterior lung sounds. Use the software controls to select between the available respiratory sounds and to adjust the volume of each lung independently. The respiratory sounds include normal, wheezing, inspiratory squeaks, crackles, and rales.

## VENTILATION

Set the respiratory rate to 0 and ventilate the simulator using a standard bag valve mask. Open the CPR window to monitor the provider's ventilation performance in real time. Complete the ventilation calibration process before using the ventilation feature for the first time.

## VENTILATION CALIBRATION

The ventilation calibration wizard records the performance average of five ventilations as the benchmark for correct ventilation. Perform the actions requested by the calibration wizard following the most current CPR guidelines. The CPR window evaluates provider performance based on the benchmark recorded during the calibration process.

To calibrate the ventilation performance benchmark:

1. Click Setup > Calibration > Ventilations, and click "Next"

The wizard prompts to perform ventilation "#1"

2. Perform the first ventilation. A green filled oval indicates that the ventilation was recorded successfully

- Perform ventilation # 2 as prompted by the wizard. A green filled oval indicates that the ventilation was recorded successfully
- 4. Continue through the calibration wizard to record a total of five ventilations

At the end of the calibration process, the wizard reports the average peak, pressure, and duration values for the procedure. Click "Save" to store the calibration settings.

# Cardiac

### HEART SOUNDS

SUSIE generates audible heart sounds (normal, distant, systolic murmur, S3 and S4) which are tied to a user defined heart rate and selectable rhythms. Use the software controls to change the heart sound type and volume level.

# ECG MONITORING AND ELECTRICAL THERAPY

The simulator is equipped with conductive skin sites that allow the attachment of real electrodes and defibrillator pads. This feature allows the provider to track cardiac rhythms using real medical equipment just like with a human patient.

The simulator's ECG and defibrillation sites generate waveforms detectable using real medical equipment and standard electrodes. Real automated external defibrillators can detect the simulator's heart rhythm and treat shockable rhythms.

Defibrillation is only supported on the large sternum and apex sites circled RED below. Do not deliver a shock to ECG electrode sites on the shoulders or waist marked GREEN. The warranty does not cover damaged to the simulator caused by applying electrical therapy to the ECG sites.

For exercises that incorporate real electrical therapy of any kind, always follow the safety guidelines and operating procedures outlined in the medical device manufacturer documentation.

# 4 LEAD CHEST SKIN



### ECG AND ELECTRICAL THERAPY CHECKLIST AND WARNINGS

- Always follow the standard medical guidelines and precautions for handling electrical therapy devices. Improper use of a real electrical therapy device may result in personal injury.
- Operate simulator in a well-ventilated area free of flammable gases.
- Ensure the simulator is fully assembled, fully operational, dry, and undamaged before administering electrical therapy. Never apply electrical therapy if the simulator is in contact with a conductive surface or substance.
- Do not leave electrodes or pads attached to the conductive sites when the simulator is not in use.
- Use hard paddles or wet-gel pads preferably. Avoid using solid-gel pads as they increase the risk of burning the simulator's skin if arcing occurs. When using gel patches, make sure not to leave air gaps or bubbles between the pads and the conductive area on the simulator's skin to avoid arcing.
- Clean the conductive sites at the end of the simulation. Refer to the care section for more information on approved cleaning products. Gel residue, adhesive residue, or dirt can increase the risk of arcing during defibrillation.
- Do not reused gel-adhesive or use expired pads.

• Do not attempt to repair or modify any electrical connections or conductive sites. Discontinue use if wires are exposed, wire insulation is damaged, or if any conductive sites are damaged.

 Electrode gel can become a pathway for electrical current. Do not allow defibrillation pads to overlap ECG sites or gel to carry a current to the ECG sites. Applying an electrical current to the ECG sites will result in damage to the simulator's internal components.

• Some electrical therapy devices may be sensitive enough to detect the simulator's electrical current for operation. If the interference is displayed on the ECG reading, please disconnect simulator's charger and operate the simulator on battery power only.

### CHEST COMPRESSIONS

Set the heart rhythm to asystole and instruct the provider to perform chest compressions. Monitor the depth and frequency of chest compressions from the CPR trainer window. Before using the chest compression feature for the first time, please calibrate the chest compression feature.

### COMPRESSION CALIBRATION

The compression calibration wizard records the performance average of five compressions as the benchmark for a correct compression. Perform the actions requested by the calibration wizard following the most current CPR guidelines. The CPR window evaluates provider performance based on the benchmark recorded during the calibration process.

To calibrate the compression performance benchmark:

1. Click Setup > Calibration > Compressions, and click "Next"

The wizard prompts to perform compression "#1"

- 2. Perform the first compression. A green filled oval indicates that the compression was recorded successfully
- Perform compression # 2 as prompted by the wizard. A green filled oval indicates that the compression was recorded successfully
- 4. Continue through the calibration wizard to record a total of five compressions

At the end of the calibration process, the wizard reports the average peak, pressure, and duration values for the procedure. Click "Save" to store the calibration settings.

# Circulation

### **CENTRAL CYANOSIS**

Use the software controls to adjust the cyanosis intensity.



## **BILATERAL PULSES**

The simulator's palpable pulses are blood pressure dependent. Use the software controls to disable the distal pulses to simulate severe hypotension.

# DRUG RECOGNITION (OPTION)

The drug recognition feature enhances the realism of intravenous drug administration exercises by using tagged syringes programmed with virtual medications. During an IV push administration exercise, the drug recognition system can detect the virtual medication injected, the dosage infused, and the administration rate in real time. This allows UNI to adjust the patient's vital signs in response to the virtual medication infused automatically. For more information on monitoring medications infused into the drug recognition arm, go to the Digital UNI User Guide under Menu/Help/Instruction Manual.

The drug recognition arm can be identified by the black drain port located on the right forearm.

WARNING: The simulator must be on when introducing fluids into the drug recognition arm. This includes calibration, purging, draining, IV infusion, and injecting fluids into the veins or the filling ports. Introducing fluids into the drug recognition arm while the simulator is off will damage the arm and the simulator. Damage caused by improper use is not covered under warranty. The drug recognition arm is equipped with a black drain port and a white filling port. Do not reverse the ports while introducing fluids into the system; doing so will damage the system. Do not attempt to fill the IV system without the black drain connector in place. Always leave the black drain port connected during high volume infusions.

# PRIMING THE DRUG RECOGNITION ARM

The drug recognition sensors are active only when fluid is present in the vasculature. Prime the drug recognition arm by filling the forearm vasculature with fluid. This process should be completed before simulation begins.

The drug recognition arm is equipped with a black port for draining and a white port for filling. Do not reverse the ports while introducing fluids into the arm; doing so will damage the system.

Locate the IV Filling kit, which includes the drainage tube (black tip) and filling tube (white tip) and filling syringe.

WARNING: Use only Gaumard's artificial blood concentrate or clean water to fill the vasculature. Any other simulated blood brand containing sugar or any additive may cause blockage and/or interruption of the vasculature system.

To prime the drug recognition arm for an IV push exercise:

- 1. Power on the simulator
- 2. Attach the drain tube to the black output port and place the end of the drain hose inside a container.



Place the collection container below the arm level to siphon the fluids in the next step.

3. Fill the filling syringe with water and connect it to the white port.



- Insert water in the system until fluids exit through the drainage tube and all air bubbles are purged.
- 5. Disconnect the drain tube and the fill syringe.

## PROGRAMMING THE SYRINGES

The tagged syringes supplied with the Drug Recognition arm must be associated with a virtual medication and a concentration before they are used for the first time. The syringes remain programmed unless the medication properties are deleted manually using the "Set Med ID" menu.

To program a tagged syringe with a virtual medication for use with the drug recognition arm:

- 1. Power on the simulator
- From the Setup menu, click "Set Med ID". The Set Med Id option is only available on simulators equipped with the Drug Recognition Arm.

The Set Medication Identifier dialog box is displayed.

| 🐵 Set Medic  | cation Identifier  |  |  |
|--|--|--|--|
| Instruction:<br>1. Place the<br>2. Select a<br>3. Designal<br>4. Click the | s:<br>e Syringe perpendicular to the forea<br>drug from the drop down menu.<br>te a volume concentration specific f<br>Add button, then wait a couple of | irm.<br>or this syringe.<br>seconds while the syring | je is being programmed.  |
| Medication:  | ,  | Concentration ug                                     | • / ml   |
|  |  |  | Syringe Identifier<br>Pace syringe<br>perpendicular<br>to the forearm. |
|  | Delete Selected Media  | cation   |  |

 Rotate the lower right arm so the palm of the hand is facing up, and place the syringe holder on the simulator's right wrist.



 Place the tagged syringe in the holder. The syringe must be perpendicular to the surface of the forearm.



5. Select a drug from the drop-down menu and enter the concentration.



The Syringe Identifier displays "Ready!" when the syringe is in range.

 Click the "Add" button associate the virtual medication to the syringe. Please wait while process is completed.



The syringe is now associated with the medication type and concentration. The medication association is listed in the "Set Medication Identifier" dialog box. Use the labels provided to identify the syringe with the medication name and concentration.

Repeat the "Set Med ID" process to program additional syringes with other medications.

Reuse tagged syringes by reprogramming the associations. To delete a medication associated with a particular syringe, highlight the desired medication from the "Set Med ID" list and click "Delete Selected Medication" button.

The medication detection feature can trigger auto responses. Drug auto responses move the scenario to the next stage when the drug type and dosage threshold are detected. To learn more about programming drug auto responses in a scenario, go to the Digital UNI User Guide under Menu/Help/Instruction Manual.

## INSTRUCTIONS FOR USE

To inject fluids into the drug recognition (right) arm using a tagged syringe:

- 1. Power on the simulator and select the Automatic operating mode
- 2. Fill the preprogrammed syringe with fluid.
- 3. Inject a vein on the anterior or posterior right forearm while maintaining the syringe near the arm.

The tagged syringe must be close to the arm for the drug recognition module to detect the medication type.

### WARNING

Maximum amount of fluid injected without draining should not exceed 40 mL and the maximum injection rate is 9999 mL/hr.

## IV ARM

The simulator is equipped with an IV arm that allows for bolus or intravenous infusions as well as for drawing fluids.

#### WARNING

The drug recognition arm is equipped with a black drainage port. Reversing the fill and drain connections on a drug recognition arm will damage the system and void the warranty. Please refer to the Drug Recognition section to prime the drug recognition arm for an exercise.

Do not attempt to fill IV system without the drain connector in place.

Always leave the drain port connected when injecting fluids into the system.

Use only Gaumard's artificial blood concentrate or clean water to fill the vasculature. Any other simulated blood brand containing sugar or any additive may cause blockage and/or interruption of the vasculature system.

Always flush the IV system with distilled water at the end of every simulation.

## INSTRUCTIONS FOR USE

To prime the IV arm for an infusion exercise or to draw fluids:

1. Locate the fill syringe with tubing and the drain tube with pinch-clamp. Fill the syringe with the desired fluid -- water or simulated blood.



2. Connect the syringe with tubing to one port and the drain tube with clamp to the other port as shown.



 Insert water in the system until fluids exits through the drainage tube into the container and all air bubbles are purged.



The IV arm is now ready for use.

To simulate a patient with no accessible peripheral IV sites, connect only the syringe. Pull the plunger to create suction, which will collapse the veins. Disconnect the syringe tube from the arm port while maintaining suction. The port will seal, and the veins will remain collapsed.

# FINGER STICK

The left middle finger can bleed real fluid through a precut opening on the fingertip. The feature allows participants to practice finger stick technique and collect simulated blood samples.



WARNING: Use only Gaumard's provided simulated blood to fill the internal reservoirs. Any other simulated blood brand containing sugar or any additive may cause blockage and/or interruption of the vasculature system.

Always flush internal fluids with clean water then air to prevent mold.

Avoid overfilling the fluid reservoir. Doing so may result in a leak at the bleeding site.

| Feature      | Reservoir capacity |
|--------------|--------------------|
| Finger stick | 2 cc               |

# FINGER STICK RESERVOIR

To fill the finger stick reservoir with fluid:

- 1. Power the simulator on
- 2. Fill the modified syringe with 2 cc of water or simulated blood.
- Connect the fill syringe to the black port located closest to the left elbow and slowly fill the internal reservoir with simulated blood.
- Enable the "finger bleed" software control to produce a drop of blood from the finger tip

# **BLOOD PRESSURE (MANUAL)**

Measure the blood pressure using a standard sphygmomanometer. Korotkoff sounds are heard between systolic and diastolic pressure readings. Before using the blood pressure feature for the first time, place the blood pressure cuff on the arm and calibrate the blood pressure feature using the blood pressure calibration wizard.

# INSTRUCTIONS FOR USE

 Place the cuff around the simulator's upper left arm with the cuff mark at the medial site of the bicep brachii, about an inch (two cm) above the anterior elbow.

Place the cuff in the same position used during the calibration process for accurate readings.
2. Inflate the BP cuff, and auscultate Korotkoff sounds just as with normal patient.



#### **OXYGEN SATURATION**

Use a real oxygen saturation monitor to get an oxygen saturation reading from the left index finger. Before using the oxygen saturation feature for the first time, calibrate the simulator to work with the oxygen saturation monitor to be used during the exercise.



#### OXYGEN SATURATION CALIBRATION

UNI stores the calibration settings for one device at a time. If the oxygen saturation monitor or the sensor is changed, the simulator must be recalibrated to work with the new device.

Disclaimer: Oxygen saturation monitors that detect carbon monoxide and/or methemoglobin are not supported.

To calibrate the oxygen saturation finger:

 Turn OFF the oxygen saturation monitor and place the oximeter sensor on the left index finger. Verify that the left index finger is centered inside the finger sensor.

- Go to Setup>Calibration and select "Oxygen Saturation". Click "Next" to continue.
- 3. Turn ON the oximeter and click "OK" on the dialog box.
- Adjust the reading on the oximeter monitor screen to match the value displayed on the GaumardUI calibration screen using the arrows on the left column of the calibration window. The first calibration point is 98%.

Use the triple arrows to increase or decrease the reading on the oximeter in large intervals, double arrows for moderate changes, and the single arrows for small changes of one or two percent readings. Wait 10-15 seconds after making an adjustment to allow the oximeter reading to stabilize. Doing so ensures proper calibration.

- 5. After the reading on the OSAT monitor is stable and it matches the value on the GaumardUI calibration window, click "OK", and then "Next" to continue.
- 6. Repeat the process to calibrate the following intervals.
- 7. Click "Finish" at the end of the calibration and remove the OSAT monitor from the finger.

#### INSTRUCTIONS FOR USE

- 1. Start UNI and establish communication with the simulator.
- 2. Connect the oximeter probe to the left index finger of the simulator.
- 3. Turn on the monitor.
- 4. Adjust the oxygen saturation using the UNI software controls.

### Neurologic

#### REACTIVE EYES

The simulator is equipped with programmable blinking eyes and pupils that dilate. Use the software controls to change the blinking rate and to enable or disable pupil reaction.

#### PUPIL CALIBRATION

The eye reaction is factory calibrated. Use the "Pupil Sensitivity" controls to recalibrate the pupil reaction for the current room lighting only if needed.

To calibrate the pupil dilation:

- 1. From the File menu, go to Setup>Options>Tolerances
- 2. Click "Set ambient light" to recalibrate the pupil diameter to the current ambient light.
- 3. Cover both eyes from most incoming light and click "Set Dilation Light" to set the low light pupil diameter.
- 4. Click increase or decrease to adjust the pupil's sensitivity to light

#### SEIZURES

The simulator is capable of convulsing to simulate mild or severe seizures. Use the software controls to enable the seizure behavior.

#### **RESUSCITATION (CPR)**

The simulator features ventilation and compression sensors for monitoring CPR performance. The CPR window detects ventilations when the respiratory rate is set to zero or apneic and compressions when the heart rhythm is in an unhealthy state.

Complete the ventilation and compression calibration process before using the CPR window for the first time. To learn more about the CPR window, go to the Digital UNI User Guide under Menu/Help/Instruction Manual.

#### NASOGASTRIC FEEDING

SUSIE (S1004055 and above) supports the introduction of fluids through the esophagus using an NG tube.

WARNING: Do not introduce liquids when performing nasal and oral intubation on simulators with serial numbers S1004053 or below. Doing so will result in damage to the simulator and void the warranty.

To administer fluids using an NG tube, the simulator's serial number must be S1004055 or above.

- Maintain the simulator with a 30° inclination angle or higher.
- Wait until the software logs the tube placement (shown in the picture below)

WARNING: Inserting fluids before the software logs the tube placement will void the warranty and can permanently damage the simulator.

Feeding tube rate must not exceed 1 mL/second.

#### INTESTINAL ACCESS

The rectal opening is connected to the intestinal fluid reservoir. The rectal opening can be used for administering enemas and removing intestinal fluids introduced using an NG tube (S1004055 or above only).

#### COLOSTOMY AND ILEOSTOMY

Participants can perform colostomy and ileostomy exercises using the ports on SUSIE's abdomen.



#### STOMA AND BREAST INSERT GUIDELINES, WARNINGS, AND MAINTENANCE

The breast examination inserts and stomas are constructed from materials that approximate tissue texture; therefore, use the same gentle techniques as you would when working with a patient.

#### WARNINGS

Always palpate using the fatty pads of the fingers. 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. Always handle the stomas and breast inserts with clean hands.

When removing the stomas, gently separate the stoma flange from the torso, and do not apply force directly to the stoma tissue itself.

Prevent items from resting or pressing against the stomas and breast inserts as indentations will form on the pressure points.

Do not pack any sharp objects with the breast inserts

#### MAINTENANCE

Apply talcum powder on the stomas and breasts inserts surface to reduce tackiness and restore the surface to a skin-like feel and appearance.

Clean the stomas and breasts inserts using a mild solution of soap and water.

Always remove the stomas and breast inserts before transporting SUSIE.

Store the breast examination inserts facing down inside the protective case when not in use.

#### INTERCHANGEABLE BREAST EXAMINATION PACKAGE

The SUSIE includes proprietary silicone breast inserts that can be used to teach breast examination techniques. Seven interchangeable breasts demonstrate numerous abnormalities, including chronic mastitis, benign growth, carcinoma, giant sarcoma, scirrhus carcinoma, and retracted nipple.

This training tool was developed to assist health professionals in teaching the processes and skills required to perform both breast selfexaminations and clinical identification of pathologic conditions.

#### S2000 BREAST PACKAGE FEATURES

Five interchangeable left breasts, which include fibrocystic disease (chronic mastitis), a benign tumor with stalk, a giant sarcoma, scirrhus carcinoma, and a retracted nipple

Two interchangeable right breasts, which include a normal breast, and a breast containing lumps of size 8, 10, 16, and 20 mm for training of breast self-examination (BSE) techniques.

Can be used to teach the spiral or grid pattern to improve detection techniques

#### **BREAST PATHOLOGY**

Following is a detailed description of SUSIE's seven (7) interchangeable breast inserts:

- Right Breast #1: Normal
- Right Breast #2: Four discreet nodes of sizes 8 mm, 10 mm, 16 mm, and 20 mm.

- Left Breast #1: Six discreet nodes on one side and a somewhat larger node on the other side of the breast. This breast represents (in a slightly exaggerated form) various stages of fibrocystic disease (chronic mastitis) which is due to an endocrine imbalance and may be found in many normal women.
- Left Breast #2: There is a solitary tumor in this breast. It is well circumscribed and has a stalk. The tumor can be moved and it is not adherent to the breast tissue. It is benign and usually occurs in younger women.
- Left Breast # This breast shows a comparatively rare but palpable tumor: a giant sarcoma (or giant mammary myxoma) of which the wildly growing masses can be easily felt.
- Left Breast #4: This form of breast cancer (scirrhus carcinoma) is one of the more commonly encountered malignant tumors of the breast. When palpating, note the infiltrating nature of the growth. It has no well-defined borders and cannot be moved within the breast.
- Left Breast #5: This breast shows a retracted nipple, and on careful palpation, a mass can be felt immediately under the nipple. The breast represents a carcinoma in one of the milk ducts.

#### GYNECOLOGY PACKAGE

The gynecologic package allows the practice of various gynecologic procedures such as vaginal douching, speculum insertion, pap smear, bi-manual pelvic examination, dilatation and curettage exercises, placement and removal of an intrauterine device (IUD), palpation of normal and 20-week-pregnant uteri, and inspection of normal and abnormal cervices.



| Gynecology Package  | QTY |
|---|-----|
| Normal uterine assembly (installed)                           | 1   |
| Seven week pregnant uteri with interchangeable cervix         | 1   |
| Twelve week pregnant uteri with interchangeable cervix        | 1   |
| Twenty week pregnant uterus                                   | 1   |
| Normal patent cervix  | 4   |
| Parous normal cervix  | 1   |
| Cervix with proliferation of columnar epithelium (ectropion)  | 1   |
| Cervix with inclusion (Nabothian) cyst and endocervical polyp | 1   |
| Cervix with lesion (cancer)                                   | 1   |
| Flashlight  | 1   |

#### INSTRUCTIONS FOR USE

To interchange the uterus and/or the cervix insert:

1. Gently lift the abdominal skin cover



- 2. Unscrew the large grey ring to unfasten the uterus from the cervix
- 3. Unscrew the second smaller ring to unfasten the cervix
- 4. Remove the cervix through the vagina

#### URINARY CATHETERIZATION

SUSIE features an internal bladder used for catheterization exercises.

| Bladder reservoir capacity | 240 mL         |
|----------------------------|----------------|
| Urinary Catheter           | 18 Fr catheter |

Verify the simulator's serial number to determine which filling procedure applies.

#### FILLING THE BLADDER (S1004055 OR ABOVE)

To fill the bladder with fluid to perform a catheterization exercise:

- 1. Locate the fill kit.
- 2. Insert the bladder fill adapter into the urethra.



3. Connect the fill syringe to the urethra adapter.



- 4. Fill the bladder with a maximum volume of 240 mL.
- 5. Remove the urethra adapter and lubricate the catheter.

# FILLING THE BLADDER (S1004053 OR BELOW)

To fill the bladder with fluid to perform a catheterization exercise:

- 1. Locate the fill syringe
- 2. Fill the syringe with the desired fluid (water or simulated urine)

- 3. Connect the fill syringe to the urinary port in the simulator's abdomen shown below.
- 4. Insert up to 240 mL of fluid.



5. Remove the fill syringe and lubricate the catheter.

#### INTERCHANGEABLE GENITALIA

The simulator features interchangeable male and female genitalia.

- To install the male genitalia:
- 1. Remove the female catheter adapter.



2. Insert the male genitalia urethra tube into the catheter port. Ensure the connector is secured to prevent leaks.



#### INSTRUCTIONS FOR USE

Catheterize the simulator using an 18 Fr catheter lubricated with silicone oil. At the end of the exercise, drain the fluid from the bladder reservoir to prevent mold.

Install the female genitalia reducer adapter to prevent leaks around the catheter.





#### **BOWEL SOUNDS**

Use the bowel sound controls to change the bowel sound types and adjust the volume levels. Auscultate the bowel sounds using a real stethoscope.

# INTRAMUSCULAR INJECTION SITES

Intramuscular injection sites are located on both deltoids and quadriceps for injection technique and placement exercises.

#### STREAMING AUDIO

Use the streaming voice to speak as the simulator's voice and engage the provider in a realistic conversation.

#### INSTRUCTIONS FOR USE

Ensure that the headset and microphone is connected to the PC before starting the UNI software. The headset minimizes echo and environmental noise to improve audio quality.



Click the "talk" icon and speak in to the headset to talk as the simulator's voice.



To listen to the provider's response, click "Listen".



Reference the UNI software User Guide for information on additional streaming voice features and functions.

# Appendix

## More about scenarios

#### THINKING IN TERMS OF PALETTE ITEMS

As described previously, palette items represent complete or partial groups of settings that have been stored as a single item. Applying partial states will hold constant all settings that are left unspecified.

Not only does it take time to customize the palette, but a very large palette becomes difficult to navigate. So, it is desirable to minimize the number of Palette Items in each Profile. To accomplish this, an experienced facilitator tries to create items that are as generally applicable as possible and can therefore be applied to a wide range of scenarios. The key is to include only in your palette items the settings that are directly related to the physiological event represented by that palette item.

#### SMART SCENARIOS

After reading the Details, Palette, and Scenarios sections of this guide, it should be clear how to build a scenario. You may have already tried building your own or modifying some of the factory presets. The following four guidelines will refine your ability to build the best possible scenarios.

1. How will the scenario begin?

The first thing to consider is the initial condition of the patient. Create a Palette Item to describe this condition. Make sure that this first step in the scenario is a complete state. That is, indicate some selection for each available setting on the Status/Details panel. Remember that only the settings you specify will cause a change in the simulator, and all other settings will remain constant. Therefore, by starting with a complete state, the simulator's condition will always be the same when the scenario starts, regardless of what she was doing previously.

Likewise, the "transition duration" of the first step in the scenario should be zero, indicating that changes are applied immediately.

There is one point that can cause confusion and warrants further explanation. It UNIs an extension of the above discussion of partial states. The issue is best illustrated through the following example:

Suppose that you are creating a Palette Item to start your scenario. In this case, you have decided that the patient will be apneic. The question is, "How should the lung sounds be set?"

Most people's first inclination is to set the lung sounds to "none." This is incorrect, despite apnea. Obviously, no lung sounds should be heard during apnea, but since you have already set respiratory rate to zero, none will be. (Sounds are synchronized to the breathing cycle.)

What you are really setting here when you choose a lung sound is the condition of the lungs, given respiratory drive. That is, if the patient's respiratory rate were changed from zero, what sound would be heard? Assuming that the lungs themselves are normal in this scenario, you would choose "normal" for the lung sound setting.

Then, as the scenario progresses, if the patient starts breathing, there will be no need to set the lung sound again. It will already be set. The same principle applies to the heart sound and other settings.

2. Include notes to guide the facilitator during the simulation.

It is common for scenario designers, especially those who act as facilitators, to neglect the importance of notes in the scenario. They think that they will remember the learning objectives, patient history, and other details at the time they are ready to conduct the simulation. They usually do not, especially when revisiting a scenario months after creating it.

When you add "Wait" and "Wait Indefinitely" steps to a scenario, you have an opportunity to edit the item description. Use this description field to hold notes to the facilitator. Typically, scenario designers write notes in that space to indicate what the provider(s) or facilitator should be doing at that point.

Further, when saving the scenario, you may edit the scenario description. This is the best place to put patient history and any other longer notes and instructions.

3. Assume that providers will do the right thing.

Usually a scenario should be created with the assumption that the providers will perform correctly. As long as they do, the scenario can be allowed to continue.

Naturally, preparation must be made for what might happen to the simulator when providers deviate from expectations. The consequences of such deviations can sometimes be included in the scenario, punctuated by "Wait Indefinitely" items. In other cases, the simulation will require more direct control by the facilitator via either the Palette or Status/Details panel.

4. Choose auto-response settings based on the scenario content and the objectives.

As seen, auto-responses can be used to free the facilitators' attention. They also enhance realism by presenting instant reactions to the care providers. On the other hand, sometimes it is not possible or desirable to determine the responses before the simulation begins. Different environments and applications call for different settings.

Some teaching practices are best done with the auto-response settings in Prompt mode. Responses must be triggered by a vigilant facilitator. Though it is slower and requires more attention, the benefit of Prompt over other modes is that the simulation can be allowed to go in any direction, and it will be possible to choose the response on a case-by-case basis.

Other learning exercises require a higher degree of automation. For such applications, most facilitators choose Auto mode for the auto-response settings. The key issue is standardized timing of symptom presentation. A consistent, repeatable simulation is essential for fair assessment of that care provider in relation to others and for the broader interpretation of results in the context of training validation studies.

When in doubt, it is best to choose Prompt mode, in which the facilitator will be given direct control of the responses as events are detected

## Factory Preset Scenarios Flowcharts

#### MANUAL MODE

|     | Scenario Name                                | Туре        | Linear or Branching |
|-----|--|-------------|---------------------|
| 1.  | Bradycardia                                  | Adult ALS   | Branching           |
| 2.  | Chronic Liver Failure                        | Systemic    | Linear              |
| 3.  | Chronic Obstructive Pulmonary Disease (COPD) | Respiratory | Branching           |
| 4.  | Closed Head Injury                           | Neural      | Branching           |
| 5.  | Congestive Heart Failure (CHF)               | Cardiac     | Branching           |
| 6.  | Ischemic Stroke                              | Cardiac     | Linear              |
| 7.  | Pancreatis                                   | Systemic    | Branching           |
| 8.  | Pulseless Arrest                             | Adult ALS   | Branching           |
| 9.  | Spinal Cord Injury (SCI) with paralysis      | Neural      | Branching           |
| 10. | Acute Coronary Syndrome STEMI                | Cardiac     | Branching           |
| 11. | Tachycardia – pulse                          | Adult ALS   | Branching           |





#### Susie<sup>®</sup> S2000 Chronic Liver Failure Systemic

Patient reports to doctor complaints of increasing weakness, poor appetite, and increasing abdominal distention that is making it harder to breathe. She has been producing dark-colored urine and notices a yellow discoloration of her eyes. Mrs. Gonzalez is a known alcoholic who has been hospitalized twice in the past few months for vomiting blood. She says that she has been unable to cut down on her drinking. She has a PMH of alcoholism for the past 20 years and associated complications including gastritis, alcoholic hepatitis, and aspiration pneumonia. Mrs. Gonzalez takes no medications and has no known allergies.







- Perform a focused neurological assessment of a patient with closed head injury.
- Perform serial neurological checks as ordered and record on the appropriate form.
- Perform a complete pain assessment and reassessment.
- Recognize agitation in a closed head injured patient and provide appropriate relief.
  Report abnormal neurological findings to the physician.
- Take verbal physician's orders and provide appropriate read-back of the orders.







#### Susie<sup>®</sup> S2000 Ischemic Stroke Cardiac

This 66 year old female was at home watching TV when she developed an onset of slurred speech. She was transported to the Emergency Department by EMS. A head CT scan confirmed she was suffering an acute ischemic stroke.









Susie<sup>®</sup> S2000

#### **SCI with Paralysis**

Neural

(Spinal Cord Injury). With this scenario, care provider may:

- Perform post-operative assessment of a client with spinal stabilization.
- Perform neurological assessment of a client with spinal cord injury resulting in paralysis.
- Perform complete pain assessment and reassessment.
- Administer medication according to physician orders via multi-med line.
- Evaluate responses to opioid reaction after administering medication as ordered.
- Perform administration of narcotics via a PCA pump.







#### AUTOMATIC MODE

| Scenario Name   | Туре        | Linear or Branching |
|-----------------|-------------|---------------------|
| Bradycardia     | Adult ALS   | Branching           |
| Pulmonary Edema | Systemic    | Branching           |
| Tamponade       | Respiratory | Branching           |



#### Susie<sup>®</sup> S2000 Bradycardia Adult ALS (Automatic Mode)

(Karen). An in-hospital patient is diagnosed with Bradycardia and requires immediate attention . Note: for this scenario to function as intended the instructor should enable automatic pacing capture in the 'Setup -> Auto-Responses' menu.



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#### Susie<sup>®</sup> S2000 Pulmonary Edema Respiratory (Automatic Mode)

The patient is found complaining of chest discomfort and shortness of breath. She is weak, lightheaded, and diaphoretic.







#### Susie<sup>®</sup> S2000 **Tamponade**

Trauma (Automatic Mode)

(Maria). The patient was found injured in a high speed collision after drag-racing on the expressway. She lost control of vehicle and crashed into a highway divider. BAC: 0.10.



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## Troubleshooting

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

| Symptom   | Possible Cause  | Solution   |
|---|---|--|
| Communication never gets established or is lost   | Battery connectors in the simulator are reversed  | Make sure to connect red wire to red terminal, and black to black  |
| (blinking communication<br>indicator is consistently red)   | Battery is discharged   | Make sure battery is charged.  |
|   | Computer is too far away from simulator   | Get simulator closer to computer   |
|   | Trying to communicate with a different simulator  | Make sure to select the right simulator when opening the software.   |
|   |   | In a multiple simulator environment, make sure to enter the right Serial Number  |
|   | Starting more than one simulator with its own tablet  | Select different channels for each of the<br>simulators, and then turn them on one at a<br>time, meaning: Wait until a link has been<br>established between the tablet and<br>the simulator (the yellow window goes away).   |
|   |   | Only after that, start running the GaumardUI software in the second tablet, and so on for the rest of the simulators. To do so, go to menu Setup $\rightarrow$ Options $\rightarrow$ Environment $\rightarrow$ Select "Auto change to channel: #" (# = number from $1 - 11$ ). |
|   | All others  | Close the GaumardUI software and unplug the RF module for at least 5 seconds, then plug it back in.  |
|   |   | Disconnect one terminal from the battery and reconnect after 5 seconds.  |
|   |   | Restart the software and wait for initialization   |
| Simulator doesn't run for the time specified on the manual  | Battery not charged properly  | Make sure that LED indicator on battery<br>charger goes through the sequence described<br>in its label, usually red or orange after plugging<br>it, and then green when charge is completed.   |
|   |   | If LED does not go through label's indications, then:  |
|   |   | Check plug connection making sure it is all the way in.  |
|   |   | Make sure you are using the appropriate charger, labeled with its simulator name   |
| Simulator doesn't respond<br>to any command even that<br>blinking communication<br>indicator is consistently<br>green | The computer is properly<br>communicating with a simulator, but<br>not necessarily the one you intend to<br>control | If you have more than one simulator in your facility, make sure that your computer is properly set-up to control the simulator that you wish to control. Go to Options on the Setup pull-down menu and check the Environment preferences                                       |
| Commands are taking<br>longer than usual to take<br>effect or simulator is not<br>reporting every action              | Distance between computer and simulator is reaching its limit <i>or</i>   | Get simulator closer to computer or move away from obstructions  |

| Symptom  | Possible Cause  | Solution   |
|--|---|--|
| (blinking communication<br>indicator is consistently                           | there are too many obstructions between (walls, etc)  |  |
| yenow)   | There's too much RF interference<br>either from another Gaumard<br>tetherless simulator in the vicinity or<br>an RF radiator. | Try changing the RF channel by going to the menu for Setup $\rightarrow$ Options $\rightarrow$ Environment $\rightarrow$ Select "Auto change to channel: #" (# = number from 1 – 11).  |
| GaumardUI has set the<br>power mode to STAND-BY<br>automatically               | The battery on the simulator is depleted  | Plug charger for all others including  |
| "RF module not found"  | RF module not connected   | Connect the RF module to any USB port.   |
| GaumardUI is started   | RF module not identify by the computer  | Close the software and try disconnecting the RF module for at least five seconds, then plug it back in and restart the software  |
| Chest compressions are not<br>properly detected or not<br>detected at all      | Is the communication indicator panel consistently yellow?   | See solution above in section making<br>reference to "blinking communication indicator<br>is consistently yellow"  |
|  | The current heart rhythm is healthy   | Set the heart rhythm to an unhealthy heart rhythm  |
|  | All others  | See "Calibration Wizard" section inside User's Manual  |
| Artificial ventilations are not<br>properly detected or not<br>detected at all | Is the communication indicator panel consistently yellow?   | See solution above in section making<br>reference to "blinking communication indicator<br>is consistently yellow"  |
|  | Ventilations are only detected when<br>the respiratory rate is set to 0 per<br>minute (0 / min).                              | Set respiration rate to zero   |
|  | All others  | See "Calibration Wizard" section inside User's Manual  |
| Simulator's chest does not<br>rise with artificial ventilation<br>(e.g. BVM)   | Simulator not running   | In some simulators, the trachea is disconnected from the lungs when they are not on.   |
|  | Disable lung/s  | Enable the lungs from "Status/Detail" pnel on the GaumardUI software   |
|  | Punched cricothyrotomy tape   | Make sure that the tape covering the cricothyrotomy site is completely sealed  |
| Low chest rise (or no chest rise at all) while breathing                       | Wrong settings or disabled lungs  | Make sure lungs are enabled and both<br>respiration rate and inspiration percent are<br>different from "0". Try changing the respiration<br>rate to a different value, and if still nothing<br>happens, try turning the simulator off and<br>restarting everything to make sure the internal<br>air compressor gets its initial settings |
|  | Low air volume<br>(SUSIE <sup>®</sup> only)   | Set Respiration Rate to 13, and Inspiratory<br>Time to 33%. Allow it to run at least 5 minutes<br>and then using a small screwdriver, turn slowly<br>clockwise a black screw located in SUSIE <sup>®</sup> 's<br>lower back until desired chest rise   |

| Symptom  | Possible Cause   | Solution   |
|--|--|--|
| Loss of brachial pulse   | Brachial pulses disabled   | Make sure to enable brachial pulse on<br>"Status/Details" panel  |
| Pre-built scenarios don't show up  |  | Select "Quick Start Scenarios" when starting the software.   |
|  |  | Should user forget to do so, there's no need to<br>shut down the software and open it again in<br>order to load the pre-built scenarios. Go to<br>"File/Profile" menu and then select "Modeled<br>Scenarios"             |
| A sound is absent or is not<br>heard at desired volume<br>level  | Volume not set to user's criterion.  | Every sound has a volume control. Play with<br>the volume control to get it to the desired level.  |
| Cyanosis intensity is too<br>much or too little  | Cyanosis intensity not set to user's criterion.                                  | Set Cyanosis level to a desired level by playing with the "Set Max cyanosis level" control.  |
| Pulse oximeter feature is<br>not functioning correctly (if<br>Oxygen Saturation feature<br>is factory installed) | Using a different oximeter / sensor<br>for which the simulator was<br>calibrated | The simulator must be calibrated with the oximeter instrument that is going to be used (including the Pulse Oximeter Sensor). Oximeter sensors <i>cannot</i> be swapped even with oximeters of the same brand and model. |
|  |  | An oximeter that includes carbon monoxide<br>and/or methemoglobin sensing is being used.<br>These will not work with SUSIE.  |
|  |  | Oximeter has been placed on the Drug<br>Recognition arm. This arm does not have the<br>Oxygen Saturation feature.  |
|  | Pulse Oximeter Sensor not properly placed  | Make sure to slide the pulse oximeter probe all<br>the way into the simulator's finger. Ensure the<br>emitter part (the red light) of the probe is on<br>the nail side of the finger.                                    |
|  |  | If it is believed that the probe is properly placed, it means that it was not properly placed when calibration was performed and recalibration is necessary. See $O_2Sat$ calibration section for more info.             |
|  | Offset value within ± 2  | A $\pm 2$ discrepancy between value set and<br>oximeter reading for O <sub>2</sub> Sat values above 80%,<br>and $\pm 3$ below 80%, should be expected.   |
|  | Incorrect readings after calibration   | While calibrating, wait 5-10 seconds for values to stabilize on the oximeter. Then click next to calibrate the next value.   |
|  |  | If simulator is equipped with bilateral $O_2Sat$ arms, select the left arm from the calibration menu and place the oximeter on the left finger.  |
| Drug ID is not being read  | Syringe has not been programmed  | Program syringe as per manual's instructions   |

| Symptom                               | Possible Cause                                 | Solution   |
|---------------------------------------|--|--|
|                                       | Syringe is not in the field of the RFID reader | This could happen when injecting the cephalic vein close to the hand and having the syringe sideways to the plane of the forearm.  |
| Drug amount registered is not correct | Wrong calibration                              | Calibrate the drug arm as per calibration instructions   |
|                                       | Injecting too fast                             | Maximum injection rate is 9999 ml/hr. This rate won't be exceeded when injecting into the veins using a 22 g needle.   |
|                                       | Not reading the syringe ID                     | If RFID tag on syringe is not read, the system<br>tends to read fewer amounts than actually<br>injected. This could happen when infusing the<br>drug thru the side port on the arm. When doing<br>so, place a tagged syringe on the syringe holder.<br>See troubleshooting section "Drug ID is not being<br>read" too. |
|                                       | Fluid reservoir is full                        | The maximum amount of fluid injected properly<br>read before purging the internal reservoir is 50 cc.<br>Make sure to purge the reservoir or permanently<br>connect a purging line (see instructions)  |

## **Wireless Network**

UNI generates the vital signs information displayed on the virtual monitor PC. The information is transmitted through a wireless ad-hoc connection between the two computers in real time.

The wireless settings are configured at the factory, so no additional configuration is required.

Use the "Create an ad-hoc Wireless network" tool to configure the wireless adhoc link between the two computers. Then, configure the connection between UNI and the Gaumard Monitors software.

#### UNI NETWORK CONFIGURATION

Complete the next steps using the "Controller - Create Ad-Hoc Wireless Network" tool built in to UNI software.

1. From the menu bar, go to Help > "Create ad-hoc Wireless Network"

The "Controller - Create Ad-hoc Wireless Network" window is displayed

 Select the "Wireless Network Adapter". If the wireless adapter is not listed, first enable the adapter using the Windows<sup>®</sup> network menu and then return to this window.

| N                                  |       |
|------------------------------------|-------|
| Clear previous network settings: [ | Clear |
| Create Ad-Hoc Wireless Network     |       |
| 1. Select Wireless Network Adapter | ?     |
| 2. Wireless Network Name ?         |       |
| Apply Wireless Network Setti       | ngs   |
|                                    |       |
| Set Wireless Network Dynamic       |       |

 Enter a wireless network name (case sensitive). Use the same wireless network name to configure the Gaumard Monitors PC. "GaumardNet" is the required name for Windows<sup>®</sup> 7 computers.

| 2. WITCIESS NELWORK NUTTE |
|---------------------------|
|---------------------------|

GaumardNet

5

#### **Apply Wireless Network Settings**

4. Click "Set Dynamic IP".to set the wireless network dynamic.

| et Wireless | Network D | ynamic |
|-------------|-----------|--------|
|             |           |        |

Set Dynamic IP

5. Click "Apply Wireless Network Settings" to save the settings.

| Se | et Wireless Network Dynamic |  |
|----|-----------------------------|--|
|    | Set Dynamic IP              |  |
| 6. | Restart the computer.       |  |

| Clear previous network settings: Clear   |         |
|--|---------|
| Create Ad-Hoc Wireless Network   |         |
| 1. Select Wireless Network Adapter ?   |         |
| 2. Wireless Network Name ?   | 100     |
| GaumardNet   |         |
| Apply Wireless Network Settings  |         |
| Apply the new network settings and create the ad-hoc wireless network Dynamic. | etwork. |
| Set Dynamic IP   |         |

#### GAUMARD MONITORS NETWORK CONFIGURATION

After the UNI control computer is configured, complete the next steps using the "Create an ad-hoc network tool" included in Gaumard Monitors software.

- 1. On the virtual monitor computer, click the Gaumard Monitors icon to start the vital signs software.
- 2. Click the V menu near the top left corner and select "Create Ad-Hoc Network".

| V                         | 4005   | Hal           |   |  |  |
|---------------------------|--------|---------------|---|--|--|
| Monitor Selection         |        |               |   |  |  |
| Com                       | m setu | ıp            | ] |  |  |
| Crea                      | te Ad- | Hoc Network 🖓 |   |  |  |
| Perfo                     | ormane | ce            |   |  |  |
| Keyb                      | oard   |               |   |  |  |
| Toggle Cursor             |        |               |   |  |  |
| Remote Access Via Network |        |               |   |  |  |
| Check for Updates         |        |               |   |  |  |
| Help                      |        |               |   |  |  |
| About                     |        |               |   |  |  |
| Exit                      |        |               |   |  |  |
|                           |        |               |   |  |  |

The "Virtual Monitor - Create ad-hoc Wireless Network" window is displayed.

3. Select "Wireless Network Adapter". If the wireless adapter is not listed, first enable the adapter using the Windows<sup>®</sup> network menu and then return to this window.

| Clear previous network settings: Clear |
|--|
| Create Ad-Hoc Wireless Network         |
| 1. Select Wireless Network Adapter ?   |
| 2. Wireless Network Name ?             |
| GaumardNet                             |
| Apply Wireless Network Settings        |
| Set Wireless Network Dynamic           |
| Set Dynamic IP                         |
| Set Dynamic IP                         |

 Enter a wireless network name (case sensitive). Use the same name entered in the controller computer. "GaumardNet" is the required name for Windows<sup>®</sup> 7 computers.

| 2. Wireless Network Name | ?                          |
|--------------------------|----------------------------|
| GaumardNet               |                            |
| Apply Wireless Netw      | o <mark>rk Settings</mark> |

5. Click "Set Dynamic IP".to set the wireless network dynamic.

Set Wireless Network Dynamic

Set Dynamic IP

6. Click "Apply Wireless Network Settings" to save the settings.

| Gaumaro   | Net                  |                           |         |
|-----------|----------------------|---------------------------|---------|
| Appl      | / Wireless Ne        | etwork Settings           |         |
| Apply the | new network settings | and create the ad-hoc win | eless r |
| er wire   | IESS IVELWOIT        | K Dynamic                 | _       |

7. Restart the computer.

## CONFIGURE THE VITAL SIGNS BROADCAST

After the wireless ad-hoc link is established between both computers, complete next steps to configure the transmission of the vital signs information.

> 1. Verify that both computers are connected to the GaumardNet network using Windows® wireless connection menu. If the computers are not connected, select the "GaumardNet" network and click "Connect" manually.



- 2. Start the UNI control software.
- 3. On the UNI menu bar, click Monitors> Configuration.

The "HAL Virtual Monitor Setup" window is displayed on the UNI menu bar, click Monitors> Configuration.

The "HAL Virtual Monitor Setup" window is displayed.

| Conference and her   | and an about the second                                  |  |                          |                     |   |
|--|--|--|--------------------------|---------------------|---|
| Configure and br   | oadcast the simul  | ator's vital signs ove                   | er a wireie              | ss network.         |   |
| Select the numbe<br>simulator's vital s<br>monitor connect | er of Gaumard Mo<br>igns. Also, enter a<br>ion instance. | nitor computers the<br>name and descript | at display<br>ion for ea | this<br>ch <b>1</b> |   |
| Monitors 1   |  |  | no                       | t connected         | ł |
| All sensors alw  | ays ON   |  |                          |                     |   |
| Network Status:<br>Controller Name:                        | connected<br>GMRD003-PC                                  | Network Name:<br>IP Type:                | Gaumar<br>automa         | dNet<br>tic         |   |
| Adapter:   | Wireless Network   | Connection 2                             | •                        | < refresh           | ? |
| IP:  | 192.168.55.145   | - Port:                                  | 8001                     | < find avail.       | ? |
|  |  | Connect                                  |                          |                     |   |
|  |  | connect                                  |                          |                     |   |

- 4. Set the adapter to "Wireless network connection"
- 5. Verify the network status and network name, then click "Connect" to begin transmitting the vital signs information.
- 6. Write down the "Controller Name" and "Port number".
- 7. Start the Gaumard Monitors software on the virtual monitor PC.
- 8. Click the "V" menu near the top left corner, and then select "Comm Setup".

The "TCP Comm Setup" window is displayed.

| Wireless Communic                     | cation Setup                           |   | ×                               |
|---------------------------------------|--|---|---------------------------------|
| If the communicat<br>address and port | tion has not been<br>number selected o | established, please e<br>n the controlling co | enter the name or IP<br>mputer. |
| Noelle                                |  |   |                                 |
| Network Status:                       | Connected                              |   | mit consected                   |
| Network Name:                         |  |   |                                 |
| IP Type:                              | Automatic                              | Port: 8001                                    |                                 |
| Controller Name:                      | GMRD003-PC                             |   |                                 |
| Show IP                               |  |   | Connect                         |

**9.** Click "Connect" to accept the incoming connection.

| If the communica<br>address and port | tion has not been on<br>number selected o | established, please ente<br>in the controlling comp | er the name or IP<br>outer. |
|--------------------------------------|---|---|-----------------------------|
| Noelle                               |   |   |                             |
| Network Status:<br>Network Name:     | Connected                                 |   | connected                   |
| IP Туре:                             | Automatic                                 | Port: 8001  | 1                           |
| Controller Name:                     | GMRD003-PC                                |   |                             |
| Show IP                              |   |   | Stop                        |

To connect both computers using a local internet network, follow the steps below:

1. Verify that both computers have applied "Set Wireless Network

Dynamic". Refer to UNI and Gaumard Monitors network configuration sections for instructions.

- 2. Disconnect both computers to the GaumardNet network and connect them to the local network manually using Windows® wireless connection menu.
- 3. Repeat the same steps listed above to connect the UNI software to the Gaumard Monitors software.

| Currently connected to:               |          | ÷7   |
|---------------------------------------|----------|------|
| <b>gaumard.com</b><br>Internet access |          |      |
| Wireless Network Connection           | 2        | ^    |
| simcenter C                           | onnected | aul  |
| GaumardNet                            |          | ٩.   |
| Gaumard GuestNet                      |          | al l |
| Other Network                         |          | all  |
|                                       |          |      |
|                                       |          |      |

4. Repeat the same steps listed above to connect the UNI software to the Gaumard Monitors software.

| 💡 Virtual Monito   | or Setup   |  |  | - ×               |  |  |
|--|--|--|--|-------------------|--|--|
| Configure and bro<br>Select the numbe  | adcast the simula<br>r of Gaumard Mor  | tor's vital signs ov<br>hitor computers the                      | er a wireless network<br>at display this               | ι.                |  |  |
| simulator's vital si<br>monitor connection   | gns. Also, enter a i<br>on instance.   | name and descript  | ion for each   | 1 🚊               |  |  |
| Monitors 1   | Monitors 1 connected   |  |  |                   |  |  |
| All sensors alwa   | ys ON  |  |  |                   |  |  |
| Network Status:<br>Controller Name:  | connected<br>GMRD003-PC  | Network Name:<br>IP Type:  | simcenter<br>automatic                                 |                   |  |  |
| Adapter:   |  | Connection 2   | < refresh  | ?                 |  |  |
| IP:  | 192.168.55.145   | - Port:  | 8001 < find avail.                                     | ?                 |  |  |
|  |  |  |  |                   |  |  |
| [  |  | Stop   |  |                   |  |  |
| Connected to:  | Gaumard_Trainin  | Stop   | 192.168.55.128   | <br>•             |  |  |
| Connected to:  | Gaumard_Trainin  | Stop   | 192.168.55.128   |                   |  |  |
| Connected to:  | Gaumard_Trainin  | Stop   | 192.168.55.128   | ×                 |  |  |
| Connected to:<br>Wireless Commun<br>If the communic<br>address and por   | Gaumard_Trainin<br>ication Setup<br>ation has not bee<br>t number selected   | Stop<br>n established, plea<br>l on the controlling              | 192.168.55.128<br>ise enter the name of computer.      | x<br>pr IP        |  |  |
| Connected to:<br>Wireless Commun<br>If the communic<br>address and por<br>Noelle   | Gaumard_Trainin<br>lication Setup<br>ation has not bee<br>t number selected  | Stop<br>n established, plea<br>d on the controlling              | 192.168.55.128<br>se enter the name of<br>g computer.  | ×<br>pr IP        |  |  |
| Connected to:<br>Wireless Communic<br>address and por<br><b>Noelle</b><br>Network Status:  | Gaumard_Trainin<br>ication Setup<br>ation has not bee<br>t number selected<br>Connected                            | Stop<br>n established, plea<br>d on the controlling              | 192.168.55.128<br>use enter the name of<br>g computer. | ×<br>or IP        |  |  |
| Connected to:<br>Wireless Commun<br>If the communic<br>address and por<br><b>Noelle</b><br>Network Status:<br>Network Name:                                | Gaumard_Trainin<br>lication Setup<br>ation has not bee<br>t number selected<br>Connected                           | Stop<br>n established, plea<br>l on the controlling              | 192.168.55.128<br>use enter the name of<br>g computer. | x<br>or IP<br>ted |  |  |
| Connected to:<br>Wireless Commun<br>If the communic<br>address and por<br>Noelle<br>Network Status:<br>Network Name:<br>IP Type:                           | Gaumard_Trainin<br>ication Setup<br>ation has not bee<br>r number selected<br>Connected<br>Automatic               | Stop<br>n established, plea<br>I on the controlling<br>Port: 800 | 192.168.55.128<br>ise enter the name of<br>g computer. | x<br>or IP        |  |  |
| Connected to:<br>Wireless Commun<br>If the communic<br>address and por<br><b>Noelle</b><br>Network Status:<br>Network Name:<br>IP Type:<br>Controller Name | Gaumard_Trainin<br>ication Setup<br>ation has not bee<br>r number selected<br>Connected<br>Automatic<br>GMRD003-PC | Stop<br>n established, plea<br>l on the controlling<br>Port: 800 | 192.168.55.128<br>use enter the name of<br>g computer. | x<br>or IP<br>ted |  |  |

# **Spare Parts List**

Contact Gaumard Scientific for a complete list of consumables and replacement parts and their prices

| Item ID         | Name                              | Туре | Description   |
|-----------------|-----------------------------------|------|---|
| S2000.001       | A/C Virtual Monitor               | R    | A/C Powered 17" Touch Screen monitor  |
| S2000.002       | D/C Virtual Monitor               | R    | D/C Powered 12" Touch Screen Mobile Monitor with stylus   |
| S2000.009       | Power Package                     | R    | 100-240 V AC battery charger with rechargeable battery  |
| S2000.010       | Battery                           | С    | Rechargeable battery  |
| S2000.011       | Battery Charger                   | R    | 100-240 V AC battery charger with label   |
| S2000.024L.L    | Lower Left Arm                    | С    | Arm with Osat index finger and bleeding middle finger, light color  |
| S2000.024L.R2.L | Lower Left Arm<br>Revision 2      | С    | Osat index finger, bleeding middle finger and microphone, light   |
| S2000.024R.L    | Lower Right Arm                   | С    | Lower right IV arm with Osat index finger   |
| S2000.024R.R2.L | Lower Right Arm<br>Revision 2     | С    | Lower right IV arm with Osat index finger and microphone  |
| S2000.027L.L    | Lower Left Leg                    | R    | Lower leg assembly, includes pedal and popliteal pulse sites  |
| S2000.027R.L    | Lower Right Leg                   | R    | Lower right leg assembly, includes pedal and popliteal pulse sites  |
| S2000.047       | Bleeding Finger<br>Filling Kit    | R    | Includes 6cc syringe with filling tube  |
| S2000.048       | Adult IV Filling Kit              | R    | Fluid dispensing syringe with filling tube for S2000  |
| S2000.054L.L    | Automatic BP Upper<br>LEFT Arm    | М    | Light color upper left arm assembly with automatic BP module  |
| S2000.054R.L    | Automatic BP Upper<br>RIGHT Arm   | М    | Light color upper right arm assembly with automatic BP module   |
| S2000.055       | Decubitus Ulcers                  | R    |   |
| S2000.056       | GYN Package                       | R    | 3 normal patent cervices, 4 abnormal cervices, 1 uterine assembly with<br>shortened round ligaments and Fallopian tubes, 7-9-week pregnant<br>uterus with Fallopian tubes, 10-12-week pregnant uterus with Fallopian<br>tubes, 20-week pregnant uterus, 1 talcum powder, 1 small flashlight |
| S2000.057       | Breast Palpation Kit              | R    | Set of 7 breasts  |
| S2000.060       | Simulator Transport<br>Case       | А    | Soft storage and transport case with wheels   |
| S2000.073.L     | Active Eyes                       | М    | Replacement active eyes assembly for light skin simulator   |
| S2000.200       | Audio & Video<br>Recording System | А    |   |
| S2000.204       | Tablet PC                         | R    | Wireless tablet PC with stylus control  |
| S2000.205       | Bump Case                         | R    | Bump case for tablet PC   |

| Item ID         | Name                                 | Туре | Description   |
|-----------------|--------------------------------------|------|---|
| S2000.206       | RF Module                            | R    | Radio Frequency Module with USB connector                                       |
| S2000.224L.L    | Lower Left Arm<br>Reveining          | М    | Arm with Osat index finger and bleeding middle finger reveining                 |
| S2000.224L.R2.L | Lower Left Arm Rev<br>2 Reveining    | Μ    | Arm with index finger, bleeding middle finger and mic reveining                 |
| S2000.224R.L    | Lower Right Arm<br>Reveining         | Μ    | Lower right IV arm with Osat index finger reveining                             |
| S2000.224R.R2.L | Lower Right Arm<br>Rev 2 Reveining   | Μ    | Lower right IV arm with Osat index finger and microphone reveining              |
| S2000.400R.L    | Automatic Drug<br>Recognition System | A    | Automatic Drug Recognition light color right arm. Includes physiologic modeling |
| S2000.400R.U.D  | Automatic Drug<br>Recognition System | U    | Automatic Drug Recognition dark color right arm UPGRADE.                        |
| S2000.401R.L    | Automatic Drug<br>Recognition Arm    | R    | Automatic drug recognition right arm replacement                                |
| S2000.401R.U.L  | Automatic Drug<br>Recognition Arm    | U    | Automatic drug recognition right arm UPGRADE                                    |
| S2000.500       | Automatic<br>Physiologic control     | A    |   |
| S2000.EXW       | Two Year Extended<br>Warranty        | A    | Extended warranty for Years Two AND Three                                       |
| S2000.INST      | In-Service Training                  | А    | Day of in-service training and installation                                     |

C=Consumables; R=Replacements; A=Accessories; U=Upgrades; M=Replace in Miami Factory ONLY

## 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:

- 1. Damage resulting from accident, misuse, abuse, neglect, or unintended use of the Gaumard product;
- 2. 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
- 3. 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:

- 1. 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.
- 3. 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**

On the web www.Gaumard.com

Technical Support support@gaumard.com

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

Before contacting Tech Support you must:

- 1. Have the simulator's Serial Number (located in the left leg under the IM site)
- 2. Be next to the simulator if troubleshooting is needed

**Gaumard Scientific** 

14700 SW 136 Street

Miami, FL 33196-5691 USA

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

Always dispose of this product and its components in compliance with local laws and regulations.



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