S555 NOELLE™
Maternal and Neonatal Simulation System
With Maternal/Neonatal/Perinatal Monitors

Gaumard® Scientific Company, Inc.
14700 SW 136th Street
Miami, FL 33196
e-mail: sima@gaumard.com

All Rights Reserved
The NOELLE simulation system is protected by patents, including US 6,503,087 and 6,758,676.
PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO STARTING TRAINING EXERCISES ON YOUR NEW SIMULATOR.

HANDLE YOUR SIMULATOR IN THE SAME MANNER AS YOU WOULD HANDLE YOUR PATIENT – WITH CARE AND CONSIDERATION.

SHOULD YOU HAVE ANY QUESTIONS AFTER READING THIS INSTRUCTION MANUAL, CALL OR E-MAIL OUR CUSTOMER SERVICE DEPARTMENT.

800-882-6655 USA Toll Free
305-971-3790 Worldwide
305-667-6085 Fax
e-mail: sima@gaumard.com
TABLE OF CONTENTS

Section 1 – Rapid Assembly and Checkout
  Introduction
  Contents
  Assembly and checkout
  Birthing Controller
  Virtual Monitoring Package

Section 2 – NOELLE Patient Care
  Bandaging
  Eyes
  Teeth and tongue
  Hygienic care
  Injection sites
  Range of movement
  Ears, nose and airway
  Injection training arm and hand
  CPR
  Airway management

Section 3 – NOELLE Obstetric Care
  Overview
  Automatic Birthing System
  Dilating Cervix
  Fetal Palpation using the Articulating Fetus
  Normal Labor and Delivery
  Vacuum Augmentation
  Shoulder Dystocia
  Cesarean Delivery
  Prolapse of the Umbilical Cord
  Placenta Previa
  Version
  Breech Birth
  Delivery of the Placenta
  Postpartum Activity
    Fundal Massage
    Episotomy Repair

Section 4 – NOELLE Neonatal Care
  Introduction
  Airway management
  Umbilicus

Section 5 – NOELLE care and maintenance

Section 6 – References

Section 7 – Limited Warranty

Section 8 – Technical Support

Section 9 – Common Spare Parts List for NOELLE 555

Section 10 - Setup and HELP files
Section 1 – Rapid Assembly and Checkout

Introduction – The NOELLE 555 Maternal and Neonatal teaching provides capabilities in ALS, obstetrics, and neonatal resuscitation protocols and is supplied with virtual maternal and neonatal vital signs monitors as well as a virtual FHR/UA (fetal) monitor. These monitors are driven by a wireless student terminal which is included. This student terminal includes a wireless adaptor so you can communicate using a cabled or wireless Ethernet link. The Instructor controls the monitors through a wireless computer. Also included are the operating software for the virtual monitors, the operating system for your computer, technical tips for nine scenarios, and an extensive OB training guide.

Contents – The NOELLE 555 includes the following:

One  Student terminal with wireless adaptor
Two  Touch screen monitors
One  Software monitoring package, preinstalled on the student terminal
One  Software control package for wireless Instructor terminal
Optional  Instructor wireless laptop
One  Intubatable full body NOELLE with IV arm
One  Abdomen cover with speaker attached
One  Automatic birthing system with mounting flange
One  Birthing controller with fetal heart tones and power supply
Two  Mechanical adaptors
One  Elevating “cushion” for Leopold Maneuvers
Three  Dilating cervices
Two  Placentas; one with detachable fragments
Three  Vulvas – fully dilated
Three  Vulva for postpartum repair of episiotomies
Three  Umbilical cords
Two  Umbilical clamps
One  Postpartum perineal insert
One  48 hour postpartum uterine assembly
One  Silicone lubricant
One  Articulating 28 week birthing fetus with patent mouth and nose
One  Full term PEDI Blue with intubatable airway and umbilicus
One  PEDI Blue monitor
One  Carrying bag for PEDI Blue and monitor
One  Instructions for use
One  NOELLE Training Guide with both basic and advanced scenarios
One  NOELLE Teaching Tips
Assembly and checkout

NOELLE™ is shipped partially assembled. The preterm fetus and full term neonate are fully assembled.

Place NOELLE on a flat surface. Remove the abdominal cover, remove the fetus, elevating pillow and other materials packed within the abdomen. Note that the automatic birthing mechanism secures the upper and lower torsos using four (4) tee-nuts. Also note that the speaker in the abdominal cover is connected to the birthing mechanism providing the fetal tones. Now connect NOELLE’s legs as outlined below.

NOELLE’s birthing mechanism is secured to the upper and lower torsos with four (4) tee-nuts. Removing these tee-nuts provides a rapid means of disassembly.
To attach the legs, remove the wingnuts, washers and springs from both hips
Remove IM site from each leg and slide bolt through hole. Reach through the IM site and attach the first washer, then spring, the second washer and finally the wingnut. Tighten nut until the spring is compressed slightly.

**Birthing Controller**

The birthing controller is powered by 100-240 VAC and 50-60 Hertz. Connect the power cord provided to the Birthing Controller. In certain countries, the customer may have to supply an electrical wall adapter to connect between NOELLE’s power cord to your wall outlet. The Birthing controller has four (4) switches:

- Fetal heart rate
- Birthing speed
- Pause/Resume
- On/Off

The Birthing Controller operates 100-240VAC and regulates the speed of delivery as well as fetal heart rate. Delivery can be paused at any point to extend delivery time or to simulate certain complications.
To begin, observe the movement of the automatic birthing mechanism without the fetus in place. This “test run” will be done without the “tummy cover” in place. Choose a fetal heart rate of say 140, and a delivery speed of “1” which is the fastest birthing speed. Select “On” and press “Resume”. A small motor located in the birthing mechanism will start which provides internal rotation, movement down the birth canal, and finally external rotation so that the fetal shoulders may align with the long axis of the vulval insert. Observe that the motor will stop from time to time in order to more realistically simulate the birthing process. Note that the fetal heart tones may be heard during delivery.

Select “Pause” at any time and the mechanism will stop. Select “Resume” when ready. Note that two adapters are attached to the birthing mechanism. Select one adapter and the fetus will be birthed to about the shoulders; select two adapters and the entire head and upper torso will be birthed before the mechanism stops.

Allow the birthing mechanism to reach the limit of its travel where it will stop. Select “Pause” and the mechanism will return to its original position. Now select a different delivery speed, a different fetal heart rate, and select “Resume” to begin another birthing process.

**Virtual Monitoring Package**

Includes a wireless student terminal with two touch-screen LCD displays and operating software. One display is the virtual maternal monitor, the other is the virtual fetal monitor. Both are controlled by the optional Instructor’s terminal using either cables or wireless Ethernet link. After the fetus delivers, the fetal monitor is changed to a neonatal monitor by the student using the touch screen display.

The fetal monitor patterns include programmable baseline rate and variability; early late and variable decelerations; spontaneous and uniform accelerations.

The maternal monitor traces include ECG lead II; invasive blood pressure; respiration and exhaled CO2 as well as alarms.

The neonatal monitor traces include ECG lead II; invasive blood pressure; respiration and exhaled CO2 as well as alarms.

An extensive software Set-up and HELP file which is appended to this instruction and can be accessed from the Instructor’s software package.
Instructor’s laptop communicates wirelessly with the tower computer located between the monitor supports. It controls the fetal monitor on the left and the maternal monitor on the right. For example, the maternal monitor now shows classic pregnancy induced hypertension (PIH) and the fetal monitor exhibits a low fetal baseline heart rate with variable decelerations. The student must quickly recognize these dilemmas and call for HELP!

Following delivery the Instructor has selected maternal vitals signs consistent with postpartum hemorrhage (PPH); while neonatal resuscitation has begun on a PEDI Blue neonate. Again, students must recognize these problems and summon HELP stat for both the obstetric and neonatal teams.
Section 2 – NOELLE Patient Care

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

**Eyes/Ophthalmologic Exercises** – The head has separately inset and removable eyes, permitting:

- Administration of orbital medicines, including drops/ointments into the conjunctival sac.
- Removal of foreign bodies
- Eye irrigation

**Teeth and tongue** – Noelle is supplied with fixed upper and lower dentures. The tongue may be moved gently from side to side.

**Hygienic Care** – NOELLE’s head is supplied with a wig for instruction in combing, shampooing and head draping. Bathing exercises may also be practiced.

**Injection Sites** – Sites on the upper left and right arms and legs permit IM injections. An IV training arm provides an extensive venous network to start IVs or infuse fluids.

**Range of Movement** – NOELLE’s head and jaw articulate. The legs and arm articulate in the normal fashion.

**Ear, Nose and Airway** – The ear cavity may be filled with about 10 mL of fluid. The nose is patent permitting feeding exercises or passage of a nasal/tracheal catheter. The airway contains nominal landmarks permitting either BVM or intubation exercises. The trachea extends to the bronchi and lungs. Lungs expand normally permitting realistic chest rise.

**Injection Training Arm and Hand** – IV, IM or subQ exercises can be performed. Always use needle sets sized #22 or thinner to extend the life of the veins and skin. Always use clean water in the veins and drain after use.
CPR – Since NOELLE contains a realistic airway we do not recommend mouth to mouth ventilation since the airway would be difficult to clean afterward. Instead use a normal size adult BVM which will seal around the mouth and nose. The ribs have normal anatomic landmarks and the lungs permit an adequate chest rise. NOELLE has three tubes extending from beneath her left arm. One has a squeeze bulb used to pulse the bilateral carotids. Another tube has a blue marking which may be used to monitor airway ventilation. A third tube has a red marking used to measure the depth of cardiac compression. These two tubes may be connected to an optional CPR monitor supplied by Gaumard Scientific. Contact Customer Service for details.

Squeeze bulb is used to generate carotid pulses
Tubes labeled with red and blue markers are used with the optional monitor shown to teach and test airway ventilation and chest compression.

The more advanced CPR Link shown above may be used with your computer to record ventilation and compression waveforms.
Airway Management – Most airway management techniques can be practiced on NOELLE including BVM, nasal/oral intubation, and suctioning. For intubation we suggest a Miller 3 or MAC 4 blade as well as a Fr 7 or 7.5 ETT. Use the Sellick maneuver if needed to bring the vocal folds into view. **Remember to lubricate the distal end of any airway device before inserting it into NOELLE.**

BVM using mask with wide seal to assure an easily seen chest rise

Lubricate the distal tip of the ETT prior to intubation
Section 3 - NOELLE™ Obstetric Care

Overview

NOELLE is supplied with a detailed Instructor and Student guide describing what students really need to know as well as quizzes and nine scenarios. Extra copies of the Instructor and/or Student Guides are available from Gaumard Scientific.

The NOELLE birthing mechanism offers the ability to demonstrate a variety of obstetric techniques including:

- Fetal palpation
- Vaginal delivery
- Shoulder dystocia
- Cesarean section delivery
- Complete, frank and footling breech deliveries
- External version
- Cord prolapse
- Placenta previa
Vacuum delivery

**Automatic Birthing Mechanism**

NOELLE is supplied with an electromechanical system to automatically deliver the fetus. The system provides for internal rotation, linear motion to “crowning”, and a second rotation to present the fetal shoulders parallel to the longitudinal axis of the vulva. Placing the fetus in the right occipital anterior (ROA) position will result in a “nose down” crowning followed by shoulder rotation. Placing the fetus in the left occipital posterior (LOP) position will result in a “nose up” presentation which may require some assistance on the part of the student or Instructor. Breech deliveries may also be performed as detailed later in these Instructions.

**Dilating Cervix**

As the fetus proceeds down the birth canal it pushes against a simulated uterus/cervix. It looks like a disc with a small hole in the center and is attached to the entrance of the birth canal using three (3) metal snaps. The device is designed to permit considerable distension. During delivery the presenting part dilates and swells the cervix and swells as the fetus moves down the birth canal. At crowning the head passes through the cervix and through the vulval insert. Students can measure birth descent and cervical dilation which may be used to plot the progress of labor.

**Leopold maneuvers using the articulating fetus**

To perform Leopold Maneuvers, retract the birthing mechanism fully and remove the *articulating birthing baby*. Place the elevating cushion within the birthing torso. Route the inflation bulb outside NOELLE through any space provided on the left side. Place the birthing baby in the elevating cushion in the vertex, breech, or transverse positions. Install the “tummy cover”. Inflate the elevating cushion until the fetus is felt within the abdomen.
Place elevating pillow within simulator

Place fetus onto elevating pillow and lift fetus anteriorly using squeeze bulb.
Snap abdominal cover into place.

Lift fetus anteriorly using squeeze bulb.
Conduct the four Leopold Maneuvers.

Normal Labor and Delivery

To conduct a delivery, remove the “tummy cover” and place the articulating birthing baby on the birthing mechanism. **Lubricate the fetal head and shoulders, plus the inside of the vulva using water based silicone.** Attach the umbilical cord to the baby, route the cord so it does not bind in the mechanism and attach the placenta to the pelvic cavity using the Velcro® fastener. Note that the fetus has a receptacle at the rectum into which the matching pin located on the birthing mechanism is inserted.

Position the baby so that its head faces toward the left side of the simulator. This is the ROA or *right occipital anterior* position. Note: any other position may be chosen; however, take care that the fetal shoulders are aligned with the long axis of the vulval insert. **Caution: if the fetal shoulders are NOT aligned with the vulva, binding may occur.**
Remember to lubricate the inside of the vulva

Also lubricate the inside of the dilating cervix.
Now thoroughly lubricate the fetal head and shoulders.

Attach the umbilicus to the placenta.
Attach placenta to one of three positions on the abdominal wall. Orienting the Velcro patches in parallel causes the placenta to be retained; orienting them at right angles causes the placenta to release with modest traction.

Attach umbilicus to fetus.
Position the fetal arms and legs as shown

Umbilical cord can be wrapped once around the fetal neck
Attach fetus to birthing mechanism using one or two birthing adapters

Turn on the monitor and select a fetal heart rate from 60 to 200 beats per minute. You may adjust the heart rate at any time during delivery to simulate episodes of bradycardia or tachycardia. Now select one of four delivery speeds. Speed “1” is the fastest and can be used to demonstrate a precipitous delivery. Speed “4” requires about 25 minutes to complete. You may lengthen delivery time in any of the four speeds by pressing the PAUSE and then RESUME button.
The first few centimeters of movement normally take about half the total delivery time. Note that the baby rotates internally as it moves forward and that the baby turns after the head is delivered and before the shoulders are delivered. The student or instructor may help the fetal head and shoulders through the vulva as in real life. Once the shoulders are delivered, the student can remove the baby from the mother in the normal manner.

The birthing cycle can be paused at any point and then resumed. The sound produced by the small motor is an excellent indicator whether the fetal movement is being slowed by undue friction. In the event the birthing baby binds in the birth canal, the mechanism will pause and back up. It will automatically try a second time. If this occurs, remove the abdominal cover and determine the cause. In most cases, binding can be prevented by thoroughly lubricating the fetus, the dilating cervix and the vulva.

During delivery, fetal heart tones can be heard by placing the bell of a conventional stethoscope on the abdomen. Move it around until the tones are clearly heard. Tones are supplied via a small speaker which can be located in three areas depending upon the fetal lie. The amplitude of the fetal heart tones is set at Gaumard. To adjust the amplitude, look for a small hole on the bottom of the Birthing Controller. Insert a small screwdriver, engage the adjusting screw and turn clockwise or counter clockwise.
Cervix dilates as fetal head moves down birth canal

Fetal head at crowning
Mouth and nose suctioning can be simulated.

External fetal rotation aligns shoulders with the longitudinal axis of the vulva
Vacuum-assisted Delivery

Vacuum-assisted delivery is a technique for the management of arrest during the second stage of labor. Criteria for successful delivery include: (1) cervical dilation is complete; (2) cephalic presentation is confirmed; (3) the fetal head is no more than 1/5 palpable above the pubic bone; (4) effective uterine contractions continue; (5) maternal expulsive efforts continue.

Vacuum-assisted delivery may be practiced with the NOELLE simulator using a vacuum cup supplied by a number of suppliers.
Lubricate the fetus supplied with NOELLE and place it onto the delivery system in the normal ROA position. **Note: NOELLE models supplied since Jan 2005 include a soft scalp you may place over the skull providing a better vacuum seal between the fetal head and the vacuum cup.** Activate the delivery mechanism and the fetus will move down the birth canal. Select “Pause” as soon as the cervix is fully dilated. This is before crowning and “pausing” will stop the delivery mechanism. Insert a lubricated vacuum cup into the vagina and place the cup onto the flexion point of the skull located between the fontanelles. Use the manual vacuum pump supplied with such devices to cause the attachment of the cup to the skull. Wait a few minutes for the “chignon” to form.

![Vacuum assist device attached to fetal scalp between fontanelles](image)

Await the next contraction that may be simulated by asking NOELLE to bear down, and having the student apply steady traction perpendicular to the plane of the cup. Select the “Resume” key, then the “Pause” key again to move the fetus slightly down the birth canal. Some vacuum-assisted delivery devices are equipped with a means for measuring the amount of traction which may be on the order of about 15 pounds. The student must stop traction when the simulated contraction ceases. Repeat this procedure of waiting for the simulated contraction and providing traction during the contraction **if and only if** the fetus is moving down the birth canal with each contraction. The student may also assess the potential need for an episiotomy to facilitate delivery. **In the event delivery progress is not being made, NOELLE must be immediately referred as a potential “C” section candidate.**
Shoulder Dystocia

Shoulder dystocia is a dangerous conditions defined in the NOELLE Guide as the “arrest of delivery of the fetal body after the successful delivery of the fetal head”. It may be characterized by the so-called “turtle-sign” wherein the fetal head moves forward and then retracts. During dystocia, the fetal shoulders become wedged behind the symphysis. NOELLE may be used to practice the resolution of dystocia using episiotomy techniques, the McRobert’s maneuver, suprapubic pressure, posterior arm sweep or elbow-knee delivery.

The McRoberts maneuver causes pelvic tilt that may release the fetal shoulder from behind the pubic bone

Suprapubic pressure may also release the fetal shoulder
To demonstrate shoulder dystocia, place the fetal baby in the **ROA position**. Locate a small squeeze bulb at the lower left side of NOELLE and note it is attached to an inflatable bag near the dilating cervix. Inflate the bag using the manual squeeze bulb noting that the fetal head and shoulders will rise toward the symphysis. Note that the fetal head is palpable beneath the stomach cover. Activate the delivery mechanism moving the fetus down the birth canal until the fetal head is delivered. Simulate dystocia by pausing the delivery mechanism. Students must use the various maneuvers attempting to deliver the baby. If the fetus can not be delivered the Instructor can press the “Resume” key which will cause the fetus to resume it movement down the birth canal and the students should try again. **Note: NOELLE models produced after March 10, 2005 incorporate a “fifth speed” on the controller which delivers the fetus and produces the turtle sign”. This is followed be a three (3) minute pause during which time the students must attempt to deliver the baby. When time expires the mechanism resumes delivery and the students must start over.

Manual squeeze bulb expands inflatable bag beneath fetus lifting it anteriorly, simulating locking the shoulder behind pubic bone.

**Note: do not place the fetus onto the delivery mechanism in the LOA position it will attempt to birth with its shoulders at right angles to the axis of the vulva causing undo stress on the delivery mechanism. At any time the Instructor may completely retract the delivery mechanism by toggling the power switch first to the “off “ position and then to the “on” position.**
Cesarean Delivery

Cesarean birth is the delivery of the fetus through an abdominal and uterine incision. A Cesarean delivery, also called a C-section may be performed as a result of breech presentation, pre-term or dysfunctional labor, fetal distress, prolapsed umbilical cord, placenta previa, abruption placenta, or a variety of other abnormalities. Demonstrate a C-section using NOELLE by removing the metal snaps just above the pubic bone and birthing the baby between the stomach cover and the pubic bone. An optional abdominal cover is available if the Instructor wishes to demonstrate midline or “bikini” incisions.

Delivery mechanism fully retracted and inflatable cushion inserted

NOELLE “C” section delivery using optional abdominal cover with “bikini” incision. Specify P/N S560.029
Prolapse of the Umbilical Cord

Prolapse of the umbilical cord is a dangerous complication which involves the presence of the umbilical cord in the birth canal in front of the presenting part. This condition may occur as a result of breech presentation, transverse lies, a small fetus, an overly long cord, a placenta placed low in the uterus, or other abnormalities.

If the cord is observed in the birth canal ahead of the presenting part, gloved fingers should be inserted and the presenting part lifted off the cord to relieve pressure on the cord. This procedure must be maintained until the prolapse has been solved, either by a termination to the compression of the cord, or until delivery of the fetus by C-section.

Placenta Previa

Placenta previa is a condition in which the placenta is located in the lower half of the uterus, located near or covering the cervical os. There are three types of placenta previa: total, partial and marginal. Total placenta previa is when the placenta completely covers the cervical os. Partial placenta previa is when the cervical os is partially covered by the placenta. Marginal placenta previa is when the edge of the placenta extends to the internal os, where the uterus opens into the vaginal canal.

To simulate placenta previa with NOELLE, place the placenta in the desired position to simulate the condition, with the maternal side against the uterine wall or the cervical os. Then place the fetus within the uterine cavity with the presenting part closest to the placenta.
Total placenta previa in which the placenta completely covers the well effaced cervical os

External Version

Version may be attempted to rotate the fetus from a breech position into one permitting normal vertex presentation. To practice “version” remove the abdominal cover and the fetus, retract the delivery mechanism fully and insert the inflatable cushion. Next, remove the foam in the abdominal cover. Thoroughly lubricate the inside surface of the abdominal cover, the fetus, and the inflatable cushion.

Place the lubricated fetus onto the lubricated inflatable cushion and snap the lubricated abdominal cover into place. Inflate the cushion lifting the fetus anteriorly. Inflate the cushion at the base of the pelvic cavity to position fetus.
Confirm the breech position and attempt to manually turn the fetus within the uterus by transabdominal manipulation

**Breech Birth**

Breech birth occurs when either the buttocks or lower extremities of the fetus are the presenting part. There are three types of breech birth: frank, complete and incomplete or footling. Frank breech occurs when the buttocks are the presenting part and the legs of the fetus are extended up toward the baby’s head. Complete breech occurs when the buttocks are the presenting part and the baby’s legs are flexed along the lower torso. Footling or incomplete breech occurs when one of both of the legs are the presenting part.

There are many differences in labor between the breech presentation and the vertex presentation. With the descent, the posterior hip encounters the pelvic floor and internal rotation takes place, allowing the anterior hip to move beneath the pubic arch. The anterior hip then delivers, followed by the posterior hip, the legs and the feet. External rotation allows the shoulders to move into the maternal pelvic and internal rotation allows the shoulders to deliver. Downward traction allows the delivery of the anterior shoulder, with a finger inserted into the birth canal to free the arm. Upward traction allows the posterior shoulder to deliver and the posterior arm is freed in the same manner. After the delivery of the shoulders, the fetal head delivers in a flexed or heads up position.

Although it is possible for a vaginal delivery of breech presentations, once a breech presentation has been confirmed, a Cesarean is often performed to lower the risk of infant mortality due to cord prolapse or birth asphyxia.
To simulate breech presentations with the NOELLE, retract the birthing mechanism fully, remove the cover in the fetal head, insert the birthing mechanism into the fetal head using either one or two adapters and place the fetal legs in either an extended position to simulate “footling” delivery or retract the legs for a “frank” delivery.
One way of not losing the plug is to insert it into the rectum. Also remember to lubricate the lower torso and legs of the fetus.

Attach the fetal head to the birthing mechanism using one or two adapters.
Assisting a frank delivery

The Pinard or leg-flip maneuver frees one leg then another. The fetal arms may also require a similar maneuver during delivery.
The fetal arms are delivered and the fetus rotated anteriorly to birth the head.

Delivery of the Placenta

The placenta supplied with NOELLE may be positioned so that it births spontaneously or requires either modest cord traction or manual removal. In addition, note that the placenta is designed with two removable placental fragments. These fragments are attached to the body of the placenta with Velcro. You may reverse one or both fragments causing one or both to birth with the placenta or remain affixed to the uterine wall.

Students must carefully inspect the birthed placenta to make sure it is complete and that no fragments remain internally. If retained fragments are noted the student must retrieve them using a gloved hand under appropriate sterile conditions.
Postpartum Activity

Fundal Massage

After delivery the uterus normally contracts reducing postpartum bleeding. Under certain conditions contraction does not occur and extensive bleeding may continue. If this condition is not recognized and treated in a timely manner the new mother may go into shock and die. Inadequate uterine contraction may present as a “boggy” or soft uterus assessed through abdominal palpation. Uterine contraction may be augmented using certain drugs and/or uterine massage.

To simulate pharmacologic intervention, access NOELLE’s bilateral injection sites. To practice uterine massage, remove NOELLE’s fully dilated vulval insert and snap the postpartum perineal insert into place. Attach the large postpartum uterine assembly to the distal end of the vagina using the locking ring assembly. Note that the postpartum uterine assembly consists of a thin outer uterine skin and a smaller, harder inner uterus.

Use the squeeze bulb attached to the postpartum uterine assembly to inflate the space between the two uteri expanding the soft external skin sufficient to simulate a “boggy” uterine condition. Bimanual massage will cause air to leak from the thumb screw in the squeeze bulb causing the outer skin to contract. When sufficient air is released the student will begin to feel the harder inner uterus which simulates the well contracted postpartum state.

Remove the vulva and cervix, and insert the uterine assembly
Retract the delivery mechanism, place the elevating cushion, and insert the uterine assembly from the side shown.

Snap the uterine assembly into place and use the squeeze bulb to produce the uterine tone desired. Lift the uterus anteriorly using the elevating pillow. The white Velcro patch on the fundus may be used to position the uterus at various orientations within the abdominal cavity.
Use bimanual massage to shrink the “boggy” uterus into a smaller and firm condition.

Episotomy Repair

Remove the fully dilated vulva used during delivery and select one of the three episotomy repair modules. Snap a repair module into place. Use a “000” size suture and small curved needle to repair the surgical incision or repair.

Episotomy repair modules snap into birth canal
“000” sized sutures are recommended to extend the life of the repair modules
Section 4 - NOELLE™ Neonatal Care

The full size neonate supplied with the NOELLE S555 is a resuscitation baby having a patent umbilicus and the ability to change color with airway ventilation:

- Realistic airway with tongue, vocal folds, trachea, and esophagus
- Articulating head, neck, jaw, arms and legs
- Heart, lungs, ribs, stomach and liver
- Perform BVM or CPR
- Conduct oral or nasal intubation plus suctioning
- Cricoid prominence permits the Sellick maneuver
- Bilateral lung expansion with realistic chest rise
- Patent umbilicus

Airway Management – Be sure to treat the simulator as you would treat a real newborn with care and consideration. Before inserting ET, NP, or OP tubes always lubricate the distal end of the tube. Failure to do so will damage the tiny airway. When intubating we suggest a Miller 1 blade and an uncuffed 2.5 mm ETT with appropriate stylet.

Practice BVM techniques using an “infant” sized mask having a thick seal
Intubate using a Miller 1 blade and well lubricated 2.5 ETT with stiffening stylet.

**Color Change**

The neonate has devices in its forearms and lower legs to cause the skin to turn from a normal healthy color to a blue color indicative of peripheral cyanosis. It also has devices in the cheeks which cause the skin to turn from a normal color to an ominous blue color indicative of central cyanosis. These devices are controlled by a monitor that starts the neonatal simulator in one of three selectable states: central, peripheral, or healthy. The monitor observes ventilations and compressions performed on the neonate and determines whether they meet or exceed conventional standards. If acceptable, the monitor causes the skin to turn to a more healthy color; if inadequate or non-existent, the monitor causes the skin to turn toward an ominous blue color.

The rate of improvement and deterioration is selectable and is defined as the time between each of the three selectable states. The monitor also has a “coach” and “test” mode. In “coach” the student will hear sounds indicating that it is the correct time for ventilations and compressions. In “test” the sounds are silenced. The monitor also features a visual display to see whether the rescue efforts are judged as being too high, too low, or just right.
To get started attach the red chest compression and blue airway ventilation tubes to the monitor. Attach both the cable from the neonate and the power supply to the monitor. Switch the monitor on and observe the color of the neonate. Perform BVM or CPR in the normal manner. The condition of the neonate will progressively worsen if appropriate treatment is not received.

**Umbilicus**

The umbilicus remains patent for several hours after birth and may be used to infuse medications in a critically ill neonate. The neonate supplied with NOELLE has a patent umbilicus for use in such training.

The umbilicus is connected to an internal reservoir that can be filled with fluid using the syringe provided. Students can insert a lubricated standard umbilical catheter, verify catheter placement by removal of fluid, and add medications as needed for the training exercise. Both the filling and drainage tube are located on the right side of the neonate.

*Generate palpable umbilical pulses using manual squeeze bulb*
Lubricate distal tip before inserting umbilical catheter

Section 5 – NOELLE Care and Maintenance

Treat NOELLE, the birthing fetus, and full term neonate with care, as you would in a delivery environment.

After use, clean the simulators with a mild detergent or with soap and water. Remove all traces of any lubricant. Do not clean with harsh abrasives. Dry thoroughly.

* Store the simulators in a cool area in the packing carton provided.
* Do not stack or store heavy materials on top of the carton.
* Indelible marks made with ballpoint pens, ink or marker cannot be removed.
* Do not wrap the simulator in newsprint.
* Do not use povidone iodine on the simulator.
* Replacement parts are available from Gaumard Scientific or from your Distributor.
Section 6 – References

NOELLE™ Training Guide with basic and advanced interactive scenarios. Gaumard Scientific Company, Inc. Published 2003. (Instructor and Student Guides available.)


Managing Complications in Pregnancy and Childbirth WHO/RHR/00.7

Myles Textbook for Midwives. Edited by Bennett and Brown

Section 7 – Limited Warranty

Gaumard® Scientific Company (Gaumard) warrants that if the accompanying product proves to be defective in material or workmanship within one (1) year from the date of the original purchase, Gaumard will, at Gaumard’s option, either repair or replace same without charge. This limited warranty may be enforced only by the first consumer user. All subsequent purchasers acquire the product “as is” without this limited warranty.

This warranty covers all defects in material or workmanship, except:

1. Damage resulting from accident, misuse, neglect, or from other than normal and ordinary use of the product.
2. Damage resulting from failure to clean or use the product in accordance with the instructions.
3. Damage resulting from repair or attempted repair by anyone other than Gaumard.

When repair is indicated, the user must:

1. Contact Gaumard and request service authorization.
2. At the customer’s expense, ship the product with a copy of the bill of sale to Gaumard.

Gaumard disclaims liability for incidental and consequential damages for breach of any express or implied warranty, including any implied warranty of merchantability with respect to this product. This writing constitutes the entire agreement of the parties with respect to the subject matter hereof, no waiver or amendment shall be valid unless in writing signed by Gaumard.
Section 8 – Technical Support

Contact us if you have any questions or if your system requires repair.

Toll Free USA 800-882-6655
Worldwide 305-971-3790
Fax 305-667-6085
e-mail sima@gaumard.com

Office hours 8:30 a.m. – 4:30 p.m. ET, Monday-Friday

Internet catalog www.gaumard.com

Gaumard® Scientific Company, Inc.
14700 SW 136 Street
Miami, FL 33196-5691
## Section 9 – Common Spare Parts List for NOELLE™ S555

### NOELLE

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Price (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>550.008</td>
<td>Stomach cover</td>
<td>50.00</td>
</tr>
<tr>
<td>550.009</td>
<td>Speaker with cable assembly</td>
<td>25.00</td>
</tr>
<tr>
<td>550.010</td>
<td>NOELLE Controller</td>
<td>245.00</td>
</tr>
<tr>
<td>550.011</td>
<td>Power supply 100/240VAC; 4 Amps</td>
<td>75.00</td>
</tr>
<tr>
<td>550.012</td>
<td>Automatic Birthing Mechanism</td>
<td>695.00</td>
</tr>
<tr>
<td>550.013</td>
<td>same as 550.012 but an exchange</td>
<td>395.00</td>
</tr>
<tr>
<td>550.014</td>
<td>Four (4) tee nuts to mount Birthing Mechanism</td>
<td>4.00</td>
</tr>
<tr>
<td>550.015</td>
<td>Dilating cervices (set of 4)</td>
<td>80.00</td>
</tr>
<tr>
<td>550.016</td>
<td>Replaceable vulval inserts (set of 4)</td>
<td>80.00</td>
</tr>
<tr>
<td>550.018</td>
<td>Elevating pillow for Leopold maneuvers</td>
<td>75.00</td>
</tr>
<tr>
<td>550.019</td>
<td>Placenta with Velcro retainers</td>
<td>25.00</td>
</tr>
<tr>
<td>550.020</td>
<td>Umbilical cords and clamps (set of 4)</td>
<td>50.00</td>
</tr>
<tr>
<td>550.030</td>
<td>Postpartum perineal insert</td>
<td>50.00</td>
</tr>
<tr>
<td>550.031</td>
<td>48 hour postpartum uterine activity</td>
<td>75.00</td>
</tr>
<tr>
<td>550.032</td>
<td>Episiotomy trainer (set of 3)</td>
<td>115.00</td>
</tr>
<tr>
<td>550.033</td>
<td>Water based silicone lubricant</td>
<td>5.00</td>
</tr>
<tr>
<td>560.029</td>
<td>Stomach cover for “C” section</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Articulating Fetus**

550.017  Articulating baby  225.00

**Neonate**

550.320.101  Resuscitation baby  900.00
550.320.102  Controller and power supply  600.00

**Virtual Monitoring Package**

555.00.01  Instructor software  2500.00
555.00.02  Monitor software  2500.00
555.00.03  Tower computer with wireless adaptor  1000.00
555.00.04  Touch screen monitor (each)  1000.00
555.00.05  Optional Instructor wireless laptop  3000.00
Section 10 - Setup and HELP files

SETTING UP YOUR NOELLE™ 555 SYSTEM

- Position the two touch sensitive monitors on pedestals, and the student terminal nearby

- Connect both monitors and the computer (student terminal) to a power outlet (100/240 VAC 50/60 Hz)
- Before turning on the student terminal connect the main and secondary monitors to the back of the student terminal as shown:

(Main Monitor)     (Secondary Monitor)

- Choose which monitor will display maternal vital signs; this monitor will be the “main monitor”. Connect the DVI to VGA adaptor as shown to this monitor.

- Each monitor is supplied with a USB connector that must be connected as shown:
- Each monitor has an audio jack that must be connected as shown:

- Connect the wireless antenna supplied with the NOELLE 555 as shown:

- Connect the Mouse and Keyboard as shown:

  (Mouse)       (Keyboard)
You are now ready to turn on the computer (student terminal)!

- Turn on the student terminal and both monitors, WINDOWS® starts automatically. Locate the icon labeled “NOELLE 555 Monitors” on the main monitor and double click to initialize the software.

- Connect the Instructor’s computer to a power outlet and turn on the computer. If Gaumard supplied the computer locate the icon labeled “NOELLE 555 Controls” and double click to initialize the software. If the optional computer was not supplied, load the “NOELLE 555 Setup” CD into your computer and follow the auto-run instructions.

- Now that both computers are up and running we need to make them communicate with each other.

- On the “NOELLE 555 Controls” (Instructor’s terminal), go to “menu” and click “Controller Setting”, the following window will appear:

![Controller Settings Window]

- On the “NOELLE 555 Monitors” (Student’s terminal), click on the “arrow” button located on the upper left corner.
Now click on “Comm Setup…” and the following window will appear:

- Use the keyboard on the student terminal to copy the “Controller IP” found on the Instructor terminal to the “Controller IP” on the student terminal. Be sure to include decimal points.

- Make sure that the Instructor and Student terminals are using the same “Port” number (the default number is 8001 for both).

- Now press the connect button on both screens. Wait a few seconds to allow the connection to be established.

- Once the connection is established close both communication windows using the “Hide” button.
- The Maternal Vital Signs can be turned on all at once by using the “ALL ON” button at the lower right corner. Alternatively, the ECG, respiration, etc can be switched on individually. To switch from the Perinatal Monitor to Neonatal Vital Signs press the button located on the lower left corner of the Perinatal Monitor.

- The instructor can now select the desired parameters for both the Maternal Vital Signs and Perinatal Monitor/Neonatal Vital Signs. Press “Update Maternal Vitals” to update the maternal vital signs. Press “Update Perinatal Monitor” to update the Perinatal Monitor. Press “Update Neonatal Vitals” to update the neonatal vital signs.
NOELLE 555 with Maternal/Neonatal/Perinatal Monitors HELP

Introduction

NOELLE monitors can be used as a general teaching aid or in conjunction with the labor and delivery scenarios provided in the NOELLE Training Guide. It allows you to generate realistic electronic fetal monitor (EFM) traces and display simulated maternal and neonatal vital signs. Review the enclosed Software License Agreement before proceeding.

NOELLE monitors run on two software packages using two computers connected by a network, either through cabled or wireless Ethernet link.
**NOELLE 555 Controls**

Allows the instructor to communicate with the Maternal/Neonatal/Fetal Monitors in order to simulate a wide range of scenarios. The user has 9 preconfigured Scenarios explained in the NOELLE Training Guide. It also allows the user to create new cases and save them for future use. The user can also change any parameter from the Maternal Vitals, Neonatal Vitals or Fetal Monitor while a scenario is under way.

**Menu options :**

**Menu**

**Controller Settings :** this option will open a window that shows the current communication settings.

**Controller Settings**

- Controller IP: 192.168.1.244
- Port: 8001
- Connected to:

- Controller IP : displays the instructor computer IP number.
- Connected to : displays the computer's IP to which the controller connected too (computer with Monitors)
- Port : current port for connection (both computers must use the same port number)
- Connect/Stop button : click to begin or end communication
- connected (green) / not connected (red) / waiting (yellow) : displays connection status
- Hide button: closes the Controller Settings
Monitors Off / Monitors On: this button either initializes or stops the Vital signs and Perinatal Monitor on the "Labor Monitor"

Save: is used to save into a file all the current settings in the Monitor Controls for future use, or to create your own scenarios.

Open: is used to open all the previous cases you have created.

### Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>EFM Phase 1</th>
<th>EFM Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice</td>
<td>Stage 1, Latent Phase</td>
<td>Stage 1, Active Phase</td>
</tr>
<tr>
<td>Beth</td>
<td></td>
<td>Stage 1, Transition Phase</td>
</tr>
<tr>
<td>Cynthia</td>
<td></td>
<td>Stage 2</td>
</tr>
<tr>
<td>Donna</td>
<td></td>
<td>Stage 3 (a)</td>
</tr>
<tr>
<td>Elaine</td>
<td></td>
<td>Stage 3 (b)</td>
</tr>
<tr>
<td>Francine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irene</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Scenario menu allows you to display the EFM and/or vital signs data associated with each of nine preprogrammed labor and delivery scenarios. At the same time the user is allowed to change parameters using the Traces tab and/or the Vitals tab. The details of these scenarios are presented in the NOELLE Training Guide. Check the Quick Reference card for a summary of the scenarios.

Help: opens the help file

About: displays the current NOELLE 555 software version
Maternal/Neonatal Monitoring Controls

Both monitoring controllers for Maternal and Neonatal Vital signs are identical.

**Sensors**: There are seven sensors the user can turn on or off depending what wants to be displayed. Each sensor has a On - Off button that only allows one to be selected at a time.

- ECG : Electrocardiogram signal
- IBP : Invasive Blood Pressure (radial)
- Resp monitor : Respiration rate
- NIBP : Non Invasive Blood Pressure
- Capnography sensor : Oxygen saturation
- SpO2 : Carbon Dioxide saturation
- Thermometer : Temperature

**Vitals**: There are nine different options the user can modify:
- Rhythm : The user can select a specific rhythm from the drop down list, then a second drop down menu will appear where the user can select from this drop down menu one of the many rhythm abnormalities and in some cases a small text box will appear next to it, to specify how many of this abnormalities should occur within a period of time.
- HR : Heart Rate
- BP : Blood Pressure
- RR : Respiration Rate
- Inspiration % : The inspiration percentage at one single breathing cycle
- OSat % : Oxygen saturation in the blood
- Temperature : Body temperature
- EtCO2 : End Tidal Carbon Dioxide
- Obstructed Airway : If checked it simulates an obstruction in the patient's airway

*Update Maternal/Neonatal Vitals*: Updates the current settings on the Labor Monitor

**Perinatal Monitoring Controls**

The Perinatal Monitor controls allow the user to change the UA and FHR traces. The controls are easy to use, there are drop down menus with preconfigured values, check boxes and one scroll bar.

**UA**: Controls for Uterine Activity
- Leads - On/Off : Turn on or off the signal for the UA on the Labor Monitor
- Contraction Interval : time interval between contraction peaks (min)
- Contraction Duration : time interval of each contraction (sec)
- Contraction Intensity : intensity of each contraction (mmHg)
- UA Coupling: second contraction immediately after a normal contraction
  - % Probability : the probability a UA coupling occurs with each normal contraction
  - % Size : the size of the second contraction with respect to the first normal contraction

**FHR**: Controls for Fetal Heart Rate
- Leads - On/Off : Turn on or off the signal for the FHR on the Labor Monitor
- FHR Variability : the variability of the FHR baseline
- Accel/Deccel Intensity : the intensity each acceleration or deceleration in the FHR
- Baseline FHR (bpm) : the average FHR at which the neonate is currently at
- Spontaneous Accels: random accelerations on the FHR
- Spontaneous Prolonged: random prolonged acceleration on the FHR
- Periodic Changes: accelerations or decelerations that are in correlation with the UA
- Prolonged Decels: prolonged deceleration that is in correlation with each UA
- Mild Variable Decels: random mild variable decelerations
- Severe Variable Decels: random severe variable decelerations
- Decel shape: used to change the severe variable decelerations from a "U" shape to a "V" shape.

**NOELLE 555 Monitors**

Although the monitors are controlled by the Instructor, the touch screen feature allows the student to access pull down menus to set for example:

- alarms and their control limits
- whether the perinatal monitor or neonatal monitor is desired

Menu

The menu for the Vital Signs is a button labelled "V" at the upper left corner of the screen. Once it is clicked a drop down menu will appear with several options:

Comm Setup...: opens the communication settings for the Labor Monitor
- Controller IP : displays the Instructor’s computer IP number.
- Port : current connection port (both computers must be using the same port number)
- Connect/Stop button : click to start or stop communication
- connected (green) / not connected (red) / connecting (yellow) : label to display connection status
- Hide button : closes the Communication Settings

Performance... : opens a window that displays the CPU usage and the Refresh rate of the Vital Signs

![Performance Monitor](image)

Toggle Cursor : hides or shows the mouse cursor

Help... : opens the help files

Close... : closes Labor Monitor
The Vital Signs monitor includes four waveforms with numeric values.

From top to bottom the traces are:
- ECG : Electrocardiogram
- IBP : Invasive Blood Pressure (radial)
- Resp : Respiration cycle
- CO2 : Carbon Dioxide

At the top left of each trace is an identification label. At the right side is a number representing its current value. Also at the far right of each trace is a label that once clicked will show a drop down menu with customizable trace options.

Example Traces Menu : ECG - Menu
Each menu will have several options, and some of these options will expand into other options allowing the user to customize the trace in many different aspects.

The vital signs monitors also include four numeric’s at the bottom which are:

- **Temp** : Temperature (it will be refreshed every minute)
- **NIBP** : Non-Invasive Blood Pressure (it will be refreshed every minute)
- **RR** : Respiration rate (works in correlation with the "CO2" trace)
- **SpO2** : Oxygen saturation in blood

<table>
<thead>
<tr>
<th>Temp. (1 min)</th>
<th>NIBP (1 min)</th>
<th>RR</th>
<th>SpO2</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.4 °C</td>
<td>122/81</td>
<td>13 b/m</td>
<td>97 %</td>
</tr>
</tbody>
</table>

Temp, NIBP, RR and O2Sat each have drop down menus with customizable options.

**All ON / All Off button:** this button located on the bottom-right corner of the monitor turns ON or OFF all the vitals at once.
Quick Reference for the Nine Scenarios Appearing in the NOELLE Guide

Alice - Normal Labor
  Stage 1, Active Phase
  Stage 1, Transition Phase
  Stage 2
  Stage 3

Beth - Variations on Normal Labor
  Stage 2
  Stage 3 (a) .................. neonate in crisis
  Stage 3 (b) .................. neonate stabilized

Cynthia - Shoulder Dystocia
  Stage 1, Active Phase
  Stage 1, Transition Phase
  Stage 2
  Stage 3 (a) .................. neonate in crisis
  Stage 3 (b) .................. neonate stabilized

Donna - Breech
  Stage 1, Transition Phase
  Stage 2
  Stage 3

Elaine - Preeclampsia
  Stage 1, Latent Phase
  Stage 1, Active Phase
  Stage 1, Transition
  Stage 2
  Stage 3 (a) .................. neonate in crisis
  Stage 3 (b) .................. neonate stabilized

Francine - Cesarean Delivery
  Stage 1, Latent Phase
  Operative .................. mother nauseated, neonate tachypneic
  Post-operative .............. mother sedated, neonate stabilized

Gloria - Cord Prolapse
  Stage 2
  Stage 3

Helen - Hemorrhage
  Stage 1, Active Phase
  Stage 1, Transition Phase
  Stage 2
  Stage 3 (a) .................. mother hemorrhaging, neonate in crisis
  Stage 3 (b) .................. mother stabilized, neonate condition improved
  Stage 3 (c) .................. neonate stabilized

Irene - Preterm Labor
  Stage 1, Latent Phase (a)
  Stage 1, Latent Phase (b) .......... contractions suppressed
  Stage 1, Active Phase .......... 72 hours later, breakthrough contractions
  Stage 1, Transition Phase
  Stage 2
  Stage 3 (a) .................. neonate in crisis
  Stage 3 (b) .................. neonate condition improved
Software License

This is a legal agreement between you, the end user, and Gaumard® Scientific Company, Inc. ("Gaumard"). This software is protected by copyright laws and remains the sole property of Gaumard. By installing the NOELLE Perinatal Monitor and Vital Signs (the "Software") media, you agree to be bound by the terms of this agreement. If you do not agree to the terms of this agreement, promptly return the uninstalled media and accompanying items to Gaumard at the address indicated below.

1. Grant of License. Gaumard hereby grants to you (an individual or institution) the right to install and activate the Software on one computer. One copy of the media may be made for backup purposes. You may not network this Software, or allow multiple users unless you purchased a multi-user site license. Sharing this Software with other individuals is in violation of this license.

2. Copyright. The Software is owned by Gaumard and protected by United States copyright laws and international treaty provisions. Therefore, you must treat this Software like any other copyrighted material. You may not make this Software or copies thereof available in any manner or form or use, copy or transfer the Software, in whole or in part, except as provided herein.

3. Other Restrictions. You may not rent or lease this Software to any other party. You may not alter, merge, modify, adapt, reverse engineer, decompile or disassemble the software, or disclose the contents of this Software to any other party.

4. Electronic Transmission of Software. If you received the Software by electronic transmission or by Internet delivery, by installation of the Software, you acknowledge that you have read and understand this license agreement and agree to be bound by its terms and conditions.

5. Term of Agreement. The term of this Agreement and the license granted to you pursuant hereto shall commence upon installation of this Software. This Agreement and the license granted herein may otherwise be terminated by Gaumard in the event that you are in breach of any provision of this Agreement. In the event of termination, you agree to immediately return this Software, accompanying items, and any copies thereof to Gaumard.

6. LIMITED WARRANTY
   (A) THE CD-ROM MEDIA (THE "MEDIA") WHICH CONTAINS THIS SOFTWARE IS WARRANTED, FOR A PERIOD OF 30 DAYS FROM THE DATE OF PURCHASE, TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP. ELECTRONIC TRANSMISSION IS WARRANTED TO BE FREE FROM DEFECTS AT THE MOMENT OF TRANSMISSION. YOUR SOLE AND EXCLUSIVE REMEDY, AND GAUMARD'S SOLE LIABILITY, IS TO REPLACE THE DEFECTIVE MEDIA OR TO REPEAT THE ELECTRONIC TRANSMISSION PROVIDED THAT YOU NOTIFY GAUMARD IN WRITING OF SUCH DEFECT OR DEFECTIVE TRANSMISSION AND RETURN THE DEFECTIVE MEDIA, IF ANY, DURING THE 30-DAY WARRANTY PERIOD.

   (B) EXCEPT AND TO THE EXTENT EXPRESSLY PROVIDED IN PARAGRAPH (A), THE SOFTWARE AND ACCOMPANYING WRITTEN MATERIALS ARE PROVIDED ON AN "AS IS" BASIS, WITHOUT ANY WARRANTIES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY GAUMARD, ITS DEALERS, DISTRIBUTORS, AGENTS OR EMPLOYEES SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY, AND YOU MAY NOT RELY ON ANY SUCH INFORMATION OR ADVICE. GAUMARD DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF USE, OF THE SOFTWARE OR WRITTEN MATERIALS IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY, CURRENTNESS, OR OTHERWISE, AND THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE OF THE SOFTWARE IS ASSUMED BY YOU. IF THE SOFTWARE OR WRITTEN MATERIALS ARE DEFECTIVE, YOU AND NOT GAUMARD OR ITS DEALERS, DISTRIBUTORS, AGENTS, OR EMPLOYEES, ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION OTHER THAN EXPRESSLY DESCRIBED ABOVE.

   (C) NEITHER GAUMARD NOR ANYONE ELSE WHO HAS BEEN INVOLVED IN THE CREATION, PRODUCTION OR DELIVERY OF THIS PRODUCT SHALL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, AND THE LIKE) ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT OR RELATED TO THIS AGREEMENT.
EVEN IF GAUMARD HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. GAUMARD SHALL NOT BE LIABLE TO YOU FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOST PROFITS ARISING OUT OF OR RELATED TO THIS AGREEMENT OR YOUR USE OF THE SOFTWARE AND/OR THE RELATED DOCUMENTATION, EVEN IF GAUMARD HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL GAUMARD'S LIABILITY HERE UNDER, IF ANY, EXCEED THE PURCHASE PRICE PAID BY YOU FOR THE SOFTWARE.

ALL RIGHTS NOT EXPRESSLY GRANTED IN THIS LICENSE AGREEMENT ARE RESERVED BY GAUMARD.

ACKNOWLEDGMENT
BY INSTALLATION OF THIS SOFTWARE, YOU ACKNOWLEDGE THAT YOU HAVE READ AND UNDERSTAND THE FORE GOING AND THAT YOU AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. YOU ALSO AGREE THAT THIS AGREEMENT IS THE COMPLETE AND EXCLUSIVE STATEMENT OF AGREEMENT BETWEEN THE PARTIES AND SUPERSEDES ALL PROPOSED OR PRIOR AGREEMENTS, ORAL OR WRITTEN, AND ANY OTHER COMMUNICATIONS BETWEEN THE PARTIES RELATING TO THE LICENSE DESCRIBED HEREIN.

Questions? It’s easy to reach us.

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

Phone:
toll-free in USA: (800) 882-6655
worldwide: (305) 971-3790

Fax:
(305) 667-6085

Post:
Gaumard Scientific Company, Inc.
14700 SW 136 Street
Miami, FL 33196-5691

Website:
www.gaumard.com

Office hours: Monday-Friday, 8:30-4:30 EST (GMT-5)